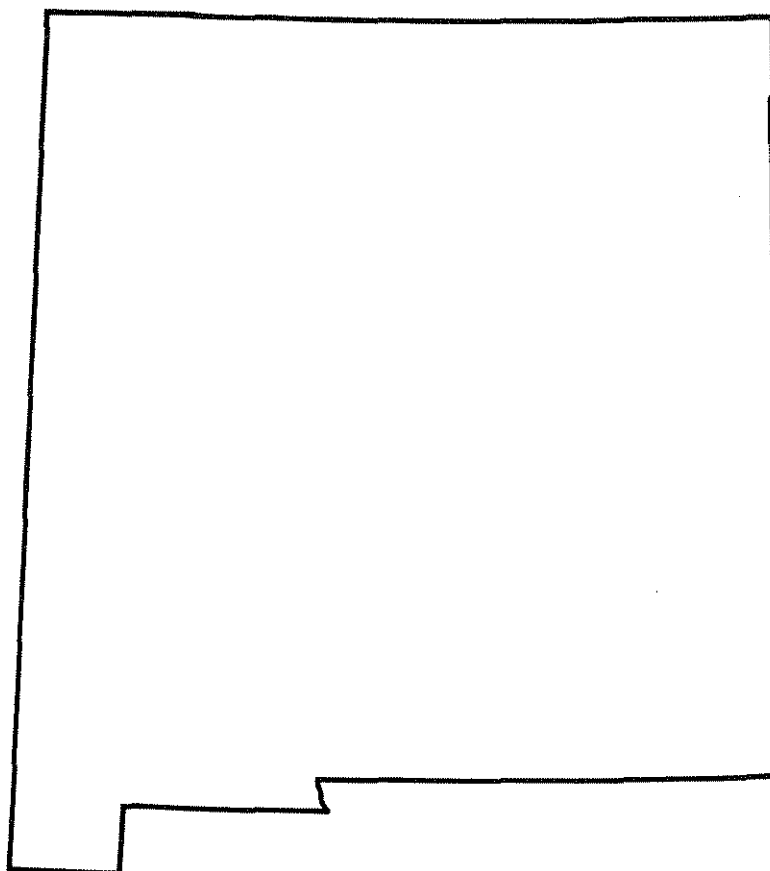




# Water Resources Data New Mexico Water Year 1996

by David Ortiz and K.M. Lange



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-95-1  
Prepared in cooperation with the State of New Mexico  
and with other agencies

U.S. DEPARTMENT OF THE INTERIOR

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1997

# PREFACE

This annual hydrologic data report of New Mexico is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and water quality provide the hydrologic information needed by Federal, State, and local agencies and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for New Mexico are contained in this volume.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines.

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## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge stations (gaging stations) in New Mexico have been discontinued. Daily streamflow records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (\*) after the station number are currently operated as crest-stage partial-record stations. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report.

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
ARKANSAS RIVER BASIN			
Bennett Spring near Capulin, NM	07153410		1977-81
Dry Cimarron River near Guy, NM	07153500	545	1942-73
Dry Cimarron River near Folsom, NM	07154000	895	1927-33
Canadian River near Hebron, NM	07199000	229	1946-86
Chicorica Creek below Lake Maloya, NM	07199500	26	1945-51
Chicorica Creek near Yankee, NM	07199600	32.5	1975-79, 1984-87
Vermejo River at Vermejo Park, NM	07202400	36.7	1985-93
Vermejo River near Maxwell, NM	07203525	486	1983-94
East Fork Chicorica Creek near Yankee, NM	07199650	23.9	1984-87
Chicorica Creek below East Fork near Raton, NM	07200000	71	1945-51
Chicorica Creek near Raton, NM	07200500	87	1910-14, 1984-87
Una de Gato Creek near Raton, NM	07201400	80	1910-13
Una de Gato Creek below Throttle Dam near Raton, NM	07201420	49.5	1975-83
Una de Gato Creek near Hebron, NM	07201500	224	1946-50
Chicorica Creek near Hebron, NM	07202000	381	1945-52, 1983-87
Vermejo River near Colfax, NM	07203500	--	1945-50
McEvoy Creek near Eagle Nest, NM	07206200	1.95	1961-68
Tolby Creek near Eagle Nest, NM	07206300	8.5	1961-68
Clear Creek near Ute Park, NM	07206400*	7.44	1961-68
Cimarron Creek at Ute Park, NM	07206500	260	1907-50
Rayado Creek below Abreu's Ranch, near Cimarron, NM	07209000	75	1912-13
Rayado Creek near Miami, NM	07209500	76	1939-55
Rayado Creek near Springer, NM	07210000	--	1907-09
Uracca Creek near Cimarron, NM	07210500	6.3	1912-15
East Fork Ocate Creek at Ocate, NM	07212000	35	1914-28
Ocate Creek near Ocate, NM	07212500	--	1914
Colmor intake canal near Ocate, NM	07213000	--	1933-51
Sweetwater Creek near Colmor, NM	07213500	--	1914
Canadian River near Roy, NM	07214000	4,066	1936-65
Mora River near Holman, NM	07214500	57	1953-74
Vigil Canyon near Holman, NM	07214600	2.8	1956-63
Agua Fria Creek near Holman, NM	07214700	9.2	1956-63
Rio la Casa near Cleveland, NM	07214800	23	1956-70
La Cueva Canal at La Cueva, NM	07215000	--	1906-11
Cebolla River near Golondrinas, NM	07215600	64	1956-63
Mora River at Weber, NM	07216000	--	1903-04
Coyote Creek below Black Lake, NM	07217000	48	1952-63

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
ARKANSAS RIVER BASIN -- Continued			
Coyote Creek above Guadalupita, NM	07217100	71	1956-74
Coyote Creek at Guadalupita, NM	07217500	90	1920-23
Mora River near Watrous, NM	07218100	521	1956-63, 1956-73
Sapello River at Sapello, NM	07218500	--	1903-04
Sapello canal at Sapello, NM	07218600	--	1956-70
Manuelitas Creek near Rociada, NM	07218700	52	1956-63
Sapello River at Sapello, NM	07220000	132	1915-21
Lake Isabel feeder canal near Sapello, NM	07220100	--	1956-75
Sapello River at Los Alamos, NM	07220500	144	1905-11
Sapello River near Watrous, NM	07220600	213	1956-63
Canadian River near Bell Ranch, NM	07222000	6,200	1915-17, 1927-39
Bell Ranch Canal near Conchas Dam, NM	07223000	--	1942-84
Canchos Canal below Conchas Dam, NM	07223300	--	1961-82, 1984-92
Canadian River below Conchas Dam, NM	07224500	7,417	1936-38, 1942-72
Pajarito Creek near Hanley, NM	07225100	310	1911-12
Pajarito Creek near Vigil Creek, near Hanley, NM	07225200	350	1912-13
Ute Creek near Bueyeros, NM	07226000	620	1949-54
Canadian River above New Mexico-Texas State line	07227140	12,616	1969-73
Tramperos Creek near Stead, NM	07227200*	556	1966-73
BRAZOS RIVER BASIN			
Running Water Draw near Clovis, NM	08080600*	109	1956-64
RIO GRANDE BASIN			
Latir Creek Outflow Lake #9 near Amalia, NM	08254400		1987-88
Latir Creek Outflow Lake #2 near Amalia, NM	08254425		1986-88
Costilla Creek near Amalia, NM	08254500	152	1949-59, 1961-81
Ute Creek near Amalia, NM	08255000	12	1949-59
Acequia Madre at Costilla, NM	08256000	--	1944-92
Mesa ditch near Garcia, CO	08256500	--	1944-65, 1969-83
Middle ditch at Garcia, CO	08257000	--	1944-56
Cerro Canal at Costilla, NM	08258000	--	1944-92
Association ditch at Costilla, NM	08258500	--	1955-71
Cerro Canal below Association Ditch at Costilla, NM	08258600	--	1972-92
Cerro Canal near Jaroso, CO	08259000	--	1944-72
Cerro Canal at State line near Jaroso, CO	08259600	--	1973-92
Penasquito ditch at Costilla, NM	08260000	--	1955-61
Costilla Creek below diversion dam, at Costilla, NM	08260500	197	1952-86
Alire ditch at Garcia, CO	08261500	--	1944-59
Costilla Creek near Jaroso, CO (near Mouth, NM)	08262500	290	1912-13, 1948-61
Latir Creek near Cerro, NM	08263000	10	1937-70



Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
RIO GRANDE BASIN -- Continued			
Red River near Red River, NM	08264000	19.1	1940-64
Red River below Zwergle Damsite, near Red River, NM	08264500	25.7	1963-73
Red River below Questa, NM	08266500	180	1910-22
Red River at mouth, near Questa, NM	08267000	190	1950-78
Rio Hondo at Valdez, NM	08268000	38	1916-34
Rio Hondo at Damsite at Valdez, NM	08268200	40.3	1963-66
Arroyo Hondo at Arroyo Hondo, NM	08268500	65.6	1912-28, 1932-85
Acequia Madre at Taos, NM	08269500	--	1940-41
North channel of Rio Pueblo de Taos at Taos, NM	08270000	80	1936-41
Rio Pueblo de Taos at Taos, NM	08270500	80	1936-41
Tenorio ditch near Arroyo Seco, NM	08271500	--	1935-50
Rio Lucero diversions near Arroyo Seco, NM	08272000	--	1932-33
Indian ditch near Arroyo Seco, NM	08272500	--	1934-50
Seco ditch near Arroyo Seco, NM	08273000	--	1934-50
Juan Manuel ditch near Arroyo Seco, NM	08273500	--	1935-50
Prado ditch near Arroyo Seco, NM	08274000	--	1934-50
Rio Lucero below diversions, near Arroyo Seco, NM	08274500	25	1934-41
Rio Fernando de Taos near Taos, NM	08275000	71.7	1912-17, 1927-28, 1962-80
Rio Pueblo de Taos near Ranchito, NM	08275300	199	1957-80
Rio Chiquito near Talpa, NM	08275600	37.0	1957-80
Rio Pueblo de Taos at Los Cordovas, NM	08276000	359	1910-65
Carson Reservoir near Carson, NM	08277000	190	1940-60
Picuris ditch near Penasco, NM	08277500	--	1936-41
Pueblo Creek near Penasco, NM	08278000	--	1936-41
Alcalde ditch at Chamita, NM	08280000	--	1936-41
San Rafael ditch at Alcalde, NM	08280500	--	1936-41
Acequia Madre at Alcalde, NM	08281000	--	1936-41
Rio Grande above San Juan Pueblo, NM	08281100	10,530	1963-87
Rio Chama near Chama, NM	08281500	--	1912-16
Rio Brazos near Brazos, NM	08282000	--	1913-17
Chavez Creek near Brazos, NM	08282500	--	1914-15
Rio Brazos at Brazos, NM	08283000	--	1912-13
Rio Chama at Park View, NM	08283500	405	1912-15, 1916, 1924-55
Rito de Tierra Amarilla at Tierra Amarilla, NM	08284000	49.7	1914-15
Willow Creek near Park View, NM	08284500	193	1936-71
Rio Nutrias near Cebolla, NM	08286000	--	1914-15
Canjilon Creek near Canjilon, NM	08286600		1911-12, 1913
Rio Chama at Abiquiu, NM	08287100	--	1895-97
Rio Chama near Abiquiu, NM	08287500	2,284	1941-67
El Rito Creek near El Rito, NM	08288000	50.5	1931-51

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
RIO GRANDE BASIN -- Continued			
Rio Vallecitos at Vallecitos, NM	08288500	--	1911-14
Santa Clara ditch near Espanola, NM	08290500	--	1936-41
Santa Cruz River at Riverside, NM	08291500	188	1942-51
Santa Clara Creek near Espanola, NM	08292000	34.5	1936-41, 1949-50, 1984-94
Hill Acequia at head, near Espanola, NM	08292500	--	1940-41
Hill Acequia near Espanola, NM	08293000	--	1940
Guachupangue ditch near Espanola, NM	08293500	--	1936-41
San Ildefonso ditch near Espanola, NM	08294000	--	1940-41
Rio Nambe at Nambe Falls, NM	08294300	25.1	1963-78
Nambe Canal near Nambe, NM	08294500	--	1932-51
Rio Nambe near Nambe, NM	08295000*	38.2	1932-51
Rio En Medio near Santa Fe, NM	08295200	.63	1963-73
Llano Frio ditch near Nambe, NM	08295500	--	1936-50
Llano ditch near Nambe, NM	08296000	--	1936-50
Mioses Pena ditch near Nambe, NM	08296500	--	1936-38
Mocha ditch at Nambe, NM	08297000	--	1936-50
Comunidad ditch at Nambe, NM	08297500	--	1936-50
Ortiz ditch at Nambe, NM	08298000	--	1936-50
Canyon ditch near Nambe, NM	08298500	--	1936-50
Acequia Rincon near Nambe, NM	08299000	--	1936-50
Las Joyas ditch near Nambe, NM	08299500	--	1936-50
Trujillo ditch near Nambe, NM	08300000	--	1936-45
Barranco Alto ditch near Nambe, NM	08300500	--	1936-50
Pojoaque River at Pojoaque Bridge, near Nambe, NM	08301000	--	1936-41
Jacona ditch near Nambe, NM	08301500	--	1936-39
Jacona ditch near San Ildefonso, NM	08302000	--	1940-48
North Fork Tesuque Creek near Santa Fe, NM	08302200	1.60	1962-73
Middle Fork Tesuque Creek near Santa Fe, NM	08302300	.43	1961-73
South Fork Tesuque Creek near Santa Fe, NM	08302400	.47	1962-73
Tesuque Creek above diversions near Santa Fe, NM	08302500	11.7	1936-52
Cajon Grande ditch near Santa Fe, NM	08303000	--	1936-41
De La Cruz ditch near Santa Fe, NM	08303500	--	1936-41
Acequia Madre near Santa Fe, NM	08304000	--	1936-41
Acequia Madre at head, near Santa Fe, NM	08304050	--	1936-41
Little Tesuque Creek near Santa Fe, NM	08304100	.64	1962-73
Little Tesuque Creek tributary No. 4 near Santa Fe, NM	08304200	.69	1964-73
Little Tesuque Creek tributary No. 3 near Santa Fe, NM	08304300	.65	1963-73
Little Tesuque Creek tributary No. 2 near Santa Fe, NM	08304400	.45	1962-73
Little Tesuque Creek near Santa Fe, NM	08305000	7.06	1936-41
Rio Tesuque at Tesuque, near Santa Fe, NM	08305500	--	1938-41
Acequia Medio near Santa Fe, NM	08306000	--	1936-46
Acequia Medio at waste, near Santa Fe, NM	08306500	--	1936-38

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

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Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
RIO GRANDE BASIN -- Continued			
Hubbard ditch near Santa Fe, NM	08307500	--	1938-41
Mitchell ditch near Santa Fe, NM	08308000	--	1936-51
Post ditch near Tesuque Pueblo, NM	08308500	--	1936-41
Qwiyo ditch near Tesuque Pueblo, NM	08309000	--	1936-41
Corral ditch near Tesuque Pueblo, NM	08309500	--	1936-41
Acequia Indios near San Ildefonso, NM	08310000	--	1936-41
Acequia de la Otra Banda near San Ildefonso, NM	08310500	--	1936-41
El Rancho ditch near San Ildefonso, NM	08311000	--	1936-41
San Antonio ditch near San Ildefonso, NM	08311500	--	1936-41
Well ditch at San Ildefonso, NM	08312000	--	1937, 1938-51
Ortiz ditch at San Ildefonso, NM	08312500	--	1936-41
Pojoaque River near San Ildefonso Pueblo, NM	08312600	184	1972-79
Los Alamos Canyon near Los Alamos, NM	08313042	9.1	1970-71 1991-95
Rito de los Frijoles near Los Alamos, NM	08313300	8.9	1959-63
Rio Grande at Cochiti, NM	08314500	14,600	1924-70
Santa Fe River at Monument Rock, near Santa Fe, NM	08315000	14	1910
Galisteo Creek above Galisteo Reservoir, NM	08317850	567	1970-76
Galisteo Creek at Domingo, NM	08318000	640	1941-71
San Felipe east side acequia near Domingo, NM	08318500	--	1936-41
Rito San Antonio near Los Alamos, NM	08319500	--	1949-50
Redondo Creek near Jemez Springs, NM	08319945	12.1	1982-85
Sulfur Creek near Jemez Springs, NM	08319950	38.0	1982-85
Jemez River near Jemez Springs, NM	08320000	--	1949-50
East Fork Jemez River near Los Alamos, NM	08320500	--	1949-50
East Fork Jemez River near Jemez Springs, NM	08321000	--	1949-50
Jemez River below East Fork, near Jemez Springs, NM	08321500	173	1951-90
Rio Las Vacas near Cuba, NM	08322000	--	1939-41
Rio Cebolla near Jemez Springs, NM	08322500	--	1939
Rio Guadalupe near Jemez Springs, NM	08323500	230	1938-42, 1949-50
Jemez east side ditch near Jemez, NM	08324500	--	1936-41
Jemez west side ditch near Jemez, NM	08325000	--	1936-41
Antonio Pecos ditch near Jemez, NM	08325500	--	1936-41
San Ysidro ditch near San Ysidro, NM	08326000	--	1936-41
Jemez River at San Ysidro, NM	08326500	854	1937-41
Zia ditch near San Ysidro, NM	08327000	--	1936-41
Zia Reservoir near San Ysidro, NM	08327500	2.4	1954-60
Jemez River above Jemez Canyon Dam, NM	08328000	961	1953-58
Piedra Lisa Arroyo near Bernalillo, NM	08329100	4.1	1955-74
Rio Grande near Bernalillo, NM	08329500	17,300	1941-69
Grant Line Arroyo at Albuquerque, NM	08329865	0.052	1987-91
Rio Grande near Alameda, NM	08329928	17,263	1989-95
Rio Grande at Rio Bravo Bridge near Albuquerque, NM	08330150	17,500	1991-95
Tijeras Arroyo at Albuquerque, NM	08330500*	75.3	1921-22, 1943-49

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
RIO GRANDE BASIN -- Continued			
Tijeras Arroyo above Four Hills Bridge at Albuquerque, NM	08330505	77.0	1989-91
Tijeras Arroyo at Kirtland Air Force Base, NM	08330560	80.6	1987-88
Arroyo Del Coyote near Albuquerque, NM	08330565	35	1989-95
Arroyo Del Coyote at Mouth near Albuquerque, NM	08330567	39	1989-95
Tijeras Arroyo below Arroyo Del Coyote near Albuquerque, NM	08330569	121	1989-95
Tijeras Arroyo at Montessa Park near Albuquerque, NM	08330580	122	1987-95
Tijeras Arroyo below South Diversion Channel Inlet near Albuquerque, NM	08330800	--	1974-88
Rio Grande near Isleta, NM	08331000	17,900	1925-29, 1936-38
North Pajarito Arroyo at Albuquerque, NM	08331130	.58	1979-87
North Pajarito Arroyo at Albuquerque, NM	08331140	.81	1979-83
Rio Grande near Belen, NM	08331500	18,230	1941-57
Rio Grande near Bernardo, NM	08332000	19,230	1936-39, 1941-64
Lower San Juan Riverside drain near Bernardo, NM	08332030	--	1954-75
La Jara Creek near La Jara, NM	08332500	--	1932-33
Rio Puerco near Cabezón, NM	08333000	360	1943-51
Rio Puerco at Cabezón, NM	08333500	397	1944-51
Papers Wash near Star Lake Trading Post, NM	08334300	20.3	1978-82
Arroyo Chico near Guadalupe, NM	08340500	1,390	1943-86
Rio Puerco near Guadalupe, NM	08341000	1,860	1943
Bluewater Creek near Bluewater, NM	08342000	209	1912-19, 1927-72
San Mateo Creek near San Mateo, NM	08342600	75.6	1977-82
Arroyo del Puerto near San Mateo, NM	08342700	96.8	1980-82
Rio San Jose at Grants	08343000	1,020	1949-66, 1968-94
Grants Canyon at Grants	08343100	13	1961-95
McCartys south side ditch near San Fidel, NM	08344000	--	1940-42, 1950-51
McCartys north side ditch near San Fidel, NM	08344500	--	1940-42, 1950-51
Acomita Reservoir outlet near San Fidel, NM	08345000	--	1938-41
Rio San Jose near San Fidel, NM	08345500	2,310	1936-42, 1950-51
Seama-Paraje ditch near Casa Blanca, NM	08346000	--	1937-41
Casa Blanca ditch at Casa Blanca, NM	08346500	--	1937-41
New Laguna ditch wasteway near Casa Blanca, NM	08347000	--	1937-41
New Laguna ditch near New Laguna, NM	08347500	--	1937-41
Rio San Jose near Casa Blanca, NM	08348000	--	1936-41
Encinal Creek near Casa Blanca, NM	08348500*	6.19	1937-39
Laguna ditch at New Laguna, NM	08349000	--	1936-41
Paguate Creek near Laguna, NM	08349500	--	1937-41
Rio Paguate below Jackpile Mine near Laguna, NM	08349800	107	1976-93
Paguate Reservoir outlet near Laguna, NM	08350000	--	1940-41
Rio San Jose near Laguna, NM	08350500	3,040	1937-41, 1973-76

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
RIO GRANDE BASIN -- Continued			
Mesita ditch near Laguna, NM	08351000	--	1936-41
Rio San Jose at Correo, NM	08351500	3,660	1943-94
Rio Puerco at Rio Puerco, NM	08352500	6,590	1909-12, 1934-76
Alamo Creek near Alamo, NM	08353130	22.4	1983-85
Rio Salado near Alamo, NM	08353150	540	1983-85
Rio Salado near San Acacia, NM	08354000	1,380	1947-84
Rio Grande at San Acacia, NM	08355000	26,770	1936-64
Nogal Arroyo Floodway near Socorro, NM	08355200	--	1969-77
Arroyo de la Matanza near Socorro, NM	08355300	46.0	1969-77
Rio Grande at San Antonio, NM	08355500	27,400	1951-57
Socorro Main Canal South near San Antonio, NM	08356000	--	1937-38, 1948-71
San Antonio Riverside Drain near San Antonio, NM	08356500	--	1948-71
Elmendorf Interior Drain near San Antonio, NM	08357000	--	1936-38, 1948-71
San Antonio Riverside Drain near San Marcial, NM	08357500	--	1948-71
Rio Grande Conveyance Channel below heading, near San Marcial, NM	08358000	--	1953-57
Rio Grande at San Marcial, NM	08358500	27,700	1895-1964
Milligan Gulch near San Marcial, NM	08358550	413	1968-78
Rio Grande Conveyance Channel at mouth of Nogal Canyon, near Truth or Consequences, NM	08359000	--	1953-57
Rio Grande at the narrows, in Elephant Butte Reservoir, NM	08359500	28,500	1951-57
Alamosa Creek near Monticello, NM	08360000*	403	1931-42
Las Cruces Arroyo near Las Cruces, NM	08363600	13.5	1958-66
Tortugas Arroyo near Las Cruces, NM	08363700	20.7	1962-74
Rio Grande at Vinton Bridge near Anthony, TX	08363840	28,680	1970-74
Pecos River near Cowles, NM	08378000	189	1910-19
Pecos River near San Jose, NM	08379000	539	1939-40
Tecolote Creek below Wright Canyon near El Porvenir, NM	08379187	5.42	1987-92
Tecolote Creek near San Pablo, NM	08379200	83	1960-65
South Fork Gallinas Creek near El Porvenir, NM	08380000	25	1911-20
Gallinas Creek at Montezuma, NM	08381000	87	1903, 1904-66
Storrie feeder canal near Las Vegas, NM	08381500	--	1949-52
Gallinas River near Lourdes, NM	08382000	313	1951-63
Pecos River near Colonias, NM	08382700	2,340	1970-74
Los Esteros Creek Tributary above Santa Rosa Lake, NM	08382760	13.7	1973-90
Pecos River above Los Esteros Dam Site, near Santa Rosa, NM	08382800	2,430	1965-77
Pecos River at Santa Rosa, NM	08383000	2,650	1928-92
Pecos River near Fort Sumner, NM	08385500	5,300	1904-10, 1912-13, 1921-23
Pecos River below Fort Sumner, NM	08385520	5,600	1957-58, 1962-70
Pecos River below Yeso Arroyo, near Fort Sumner, NM	08385620	7,000	1965-68

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
RIO GRANDE BASIN -- Continued			
Pecos River above Huggins Creek, near Roswell, NM	08385640	7,800	1965-68
F. Herrera ditch S. at Hollywood, NM	08386900		1973-84
Rio Ruidoso near Glencoe, NM	08387500	--	1910-11
Eagle Creek near Alto, NM	08387800	15.7	1969-80
Rio Ruidoso at Hondo, NM	08388000	290	1930-55
Rio Bonito at Angus, NM	08388500	45.5	1930-31
Rio Bonito at Hondo, NM	08389500	295	1930-55
Rio Hondo at Hondo, NM	08390000	--	1930-31
Rio Hondo at Picacho, NM	08390100	715	1908-9, 1956-62
Rio Hondo at Hondo Reservoir site, near Roswell, NM	08392500	970	1903-5
Rio Hondo below reservoir outlet, near Roswell, NM	08393000	--	1908
Taylor-Moore ditch near Roswell, NM	08393100	--	1905
Rocky Arroyo above Two Rivers Reservoir near Roswell, NM	08393200	31	1963-80
Rocky Arroyo below Rocky Dam, near Roswell, NM	08393300	65	1963-80
Rio Hondo at Roswell, NM	08393500	--	1903-6
North Spring River at Roswell, NM	08393600	19.5	1958-77
Pecos River near Roswell, NM	08394000	--	1903-6
Pecos River near Hagerman, NM	08394100	13,360	1968-90
Rio Felix at old highway bridge near Hagerman, NM	08394500	932	1939-87
Rio Felix near Hagerman, NM	08395000	934	1932-39
Cottonwood Creek near Lake Arthur, NM	08396000	199	1932-65
Rio Penasco at Elk, NM	08397450	--	1910-11
Rio Penasco near Elk, NM	08397500	--	1911
Rio Penasco near Dunken, NM	08397600*	583	1956-62
Pecos River below McMillan Dam, NM	08401000	16,990	1906-09, 1910-11, 1939-40, 1946-88
Pecos River above Seven Rivers near Lakewood, NM	08401100	17,000	1974-87
Pecos River below Avalon Dam, NM	08404500	--	1940
Pecos River at Carlsbad, NM	08405000	18,100	1903-09, 1907-08, 1914-15, 1920-69
Rattlesnake Springs near White City, NM	08405300	--	1961-62
Black River at Malaga, NM	08406000	360	1939-40
MIMBRES RIVER BASIN			
Mimbres River at McKnight Dam Site, near Mimbres, NM	08476300	97.3	1963-72
Bear Canyon near Mimbres, NM	08476500	14.5	1937-55
Mimbres River near Mimbres, NM	08477000	152	1921-76
Mimbres River near Faywood, NM	08477500	440	1909-11, 1912-14, 1916-17, 1920-21, 1927-55, 1963-68
Mimbres River near Spalding, NM	08477530	472	1963-68
San Vicente Arroyo at Silver City, NM	08477600	26.5	1953-65

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
MIMBRES RIVER BASIN -- Continued			
Rio de Arena near Hurley, NM	08477700	16	1913-14
Stevens Creek near Fort Bayard, NM	08478004	--	1907-12, 1912-14
Cameron Creek at Fort Bayard, NM	08478008	--	1911-13
Cameron Creek near Hurley, NM	08478012	46	1913-14
Whitewater Creek at Hurley, NM	08478016	35	1913-14
Wamel Canal at head, near Deming, NM	08478300	--	1963-68
Mimbres River below Wamel heading near Deming, NM	08478400	1,101	1963-68
TULAROSA VALLEY			
Three Rivers near Three Rivers, NM	08480600	6.9	1956-58
Indian Creek near Three Rivers, NM	08480700*	6.8	1956-58
Indian Creek flume near Three Rivers, NM	08480800	--	1956-58
Indian Creek at Mouth, near Three Rivers, NM	08480900	10.9	1956-58
Rio Tularosa at Mescalero, NM	08481300	--	1910-11
Rio Tularosa near Tularosa, NM	08482000	--	1938-47
Rio La Luz near La Luz, NM	08483000	30	1911-12
Rio Fresnoal near Mountain Park, NM	08484000	44	1911-12
Rio La Luz at La Luz, NM	08484500	74	1910-13
Alamogordo-La Luz ditch at La Luz, NM	08485000	--	1934-49
Alamo Creek at Woods Ranch, near Alamogordo, NM	08485500	--	1931-37
Alamogordo water supply near Alamogordo, NM	08486000	--	1932-51
Tularosa Valley tributary near White Sands, NM	08486250	17.2	1965-74
Tularosa Valley tributary at White Sands, NM	08486260	21.0	1965-74
SALT BASIN			
Sacramento River near Sunspot, NM	08492900	12.8	1984-89
SAN JUAN BASIN			
San Juan River at Rosa, NM	09350500	1,990	1895-99, 1910-65
Los Pinos River at Ignacio, CO	09354000		1910-61
Martinez ditch near Archuleta, NM	09355200	--	1955-57
Citizens ditch near Turley, NM	09356000	--	1938, 1951-58
San Juan River near Blanco, NM	09356500	3,560	1907-09, 1910, 1927-55
Canon Largo near Blanco, NM	09356565	1,700	1977-81
San Juan River at Bloomfield, NM	09357000	5,410	1909, 1910-11, 1927-31, 1955-63
San Juan River at Hammond Bridge near Bloomfield, NM	09357100	5,540	1978-81
Gallegos Canyon near Farmington, NM	09357250	290	1978-81
Animas River at Aztec, NM	09364000	1,270	1904, 1907-15
Shumway Arroyo near Fruitland, NM	09367555	62.8	1975-82
Chaco Wash near Star Lake Trading Post, NM	09367660	59.0	1978-82
Chaco Wash at East Boundary at Chaco Canyon National Monument, NM	09367676	364	1980-82

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
SAN JUAN BASIN -- Continued			
Fajada Wash at Chaco Canyon National Monument, NM	09367678	199	1980-83
Gallo Wash at Chaco National Monument, NM	09367682	36.2	1978-81
Chaco Wash near Pueblo Bonito at bridge at Chaco Canyon National Monument, NM	09367683	619	1980-83
Ah-shi-sle-pah Wash near Kimbeto, NM	09367685	8.2	1977-84
Kim-me-ni-oli Wash near Crownpoint, NM	09367687	228	1982-83
Kim-me-ni-oli Wash near Lake Valley, NM	09367689	400	1982-83
De-na-zin Wash near Bisti Trading Post, NM	09367710	184	1975-82
Black Springs Wash near Mexican Springs, NM	09367900*	7.55	1979-82
Hunter Wash at Bisti Trading Post, NM	09367930*	45.6	1975-82
Teec-ni-di-tso Wash near Burnham Trading Post, NM	09367934	7.2	1978-82
Burnham Wash near Burnham, NM	09367936	8.6	1978-82
Chaco River near Burnham, NM	09367938	3,640	1978-82
Chaco River near Waterflow, NM	09367950	4,350	1975-94
LITTLE COLORADO RIVER BASIN			
Largo Creek near Mangas, NM	09386050	63	1959-66
Zuni River at Black Rock, NM	09387000	828	1910-30
Zuni River at New Mexico-Arizona State line	09387300	1,314	1985-87, 1987-89, 1990-94
Puerco River near Church Rock, NM	09395350	193	1978-82, 1989-91
Puerco River at Gallup, NM	09395500*	558	1940-46, 1977-82
Puerco River near Manuelito, NM	09395630	990	1989-93
Whitewater Arroyo near Cheechilgeetho, NM	09395700	78.5	1964-67
GILA RIVER BASIN			
Gila River near Silver City, NM	09430000	1,600	1912-19
Sapello Creek below Lake Roberts, near Silver City, NM	09430150	78	1964-71
Gila River near Cliff, NM	09431000	2,435	1942-51
Trout Creek near Luna, NM	09442653	27.1	1968-86
San Francisco River near Alma, NM	09443000	1,546	1904-07, 1909-10, 1912-14, 1964-86
Whitewater Creek near Mogollon, NM	09443500	34	1909-23



## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following stations were discontinued as continuous-record surface-water-quality stations prior to the 1990 water year. Records of (c) chemical, (m) microbiological, (s) sediment, or (t) daily water temperature were collected and published for the record shown for each station.

An inventory of chemical data analyzed prior to 1962 can be found in U.S. Geological Survey Water-Supply Paper 1786, "Inventory of Published and Unpublished Chemical Analyses of Surface Water in the Continental United States and Puerto Rico, 1961."

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
Dry Cimarron River near Guy, NM	07153500	545	c,s,t	1964-74
Canadian River near Hebron, NM	07199000	229	c	1966-81
Chicorica Creek near Yankee, NM	07199600	32.5		1975-79
Una de Gato Creek below Throttle Dam near Raton, NM	07201420	49.5	c,s	1975-84
Chicorica Creek near Hebron, NM	07202000	381	c	1975-81
Vermejo River near Dawson, NM	07203000	301	c,s	1964-84
Cimarron River below Eagle Nest Dam, NM	07206000	167	c,s	1975-84
Ponil Creek near Cimarron, NM	07207500	171	c	1981-95
Rayado Creek at Sauble Ranch, near Cimarron, NM	07208500	85	c	1981-95
Canadian River near Taylor Springs, NM	07211500	2,850	b,c,s	1966-75
Mora River at La Cueva, NM	07215500	173	c	1981-95
Conchas Canal below Conchas Dam, NM	07223300	--	c	1964-77
Plaza Largo canal below Barranca Creek near Tucumcari, NM	07227073	602	c	1965-66
Revuerto Creek below Plaza Largo Creek near Tucumcari, NM	07227080	672	c	1965-66
Canadian River near Glenrio, NM	07227125	--	c,s,t	1965-66
Rio Grande above Culebra Creek near Lobatos, CO	08249200		b,c,t	1962-69
Costilla Creek near Costilla, NM	08255500	195	c,s	1966-76
Rio Grande near Cerro, NM	08263500	8,440	c,m,s	1977; 1979-87
Rio Grande above Red River near Cerro, NM	08263510	--	c,m,s	1979-81
Red River near Red River, NM	08264000	19.1	s	1963
Red River below Zwergle Damsite near Red River, NM	08264500	28.9	c,m,s	1962-65; 1979-82
Red River at MolyCorp Mine near Red River, NM	08264970	78.3	c,m,s	1979-82
Red River near Questa, NM	08265000	113	c,m,s	1979-87
Cabresto Creek near Questa, NM	08266000	36.7	c,m,s	1979-82
Red River below Questa, NM	08266500	160	c,m,s	1979-87
Red River above State Fish Hatchery near Questa, NM	08266790	175	c,m,s	1979-87, 1994
Red River at Fish Hatchery near Questa, NM	08266800	185	c,k,s,t	1966-77
Red River below Fish Hatchery, near Questa, NM	08266820	185	c,m,s	1978-87
Red River at mouth, near Questa, NM	08267000	190	c,m,s	1966-68; 1979-85
Rio Grande above Rio Hondo at Dunn Bridge, NM	08267400	8,690	c,m,s	1979-87
Rio Hondo at Damsite at Valdez, NM	08268200	40.3	s	1962-65
Arroyo Hondo at Arroyo Hondo, NM	08268500	65.6	c,m,s	1979-82
Rio Grande del Rancho near Talpa, NM	08275500	83	s	1962-65
Rio Grande above San Juan Pueblo, NM	08281100	10,550	c,m,s	1987-88
Willow Creek above Azotea Creek near Park View, NM	08284150	42	c,s	1973
Azotea Tunnel at Outlet near Chama, NM	08284160	--	c,s	1974-75
Willow Creek above Heron Reservoir near Park View, NM	08284200	112	c,s	1973-74
Horse Lake Creek above Heron Reservoir near Los Ojos, NM	08284300	45	c,s	1973

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS -- Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
Willow Creek near Park View, NM	08284500	193	c,s	1962-65
Rio Chama below Heron Dam, NM	08284540	--	c,s	1973-74
El Vado Reservoir near Tierra Amarilla, NM	08285000	873	c	1973
Rio Chama Seep below El Vado Dam, NM	08285100	873	c	1973-74
Rio Chama below El Vado Dam, NM	08285500	877	c,s	1974
Rio Chama above Abiquiu Reservoir, NM	08286500	1,600	c,k,s,t	1963-85
Rio Chama below Abiquiu Dam, NM	08287000	2,147	c,k,s,t	1963-85
Rio Ojo Caliente at La Madera, NM	08289000	419	c	1976-77
Rio Grande at Santa Clara, NM	08291600		c,m,s	1987-94
Rio Nambe at Nambe Falls, near Nambe, NM	08294300	25.1	s	1962-65
Rito de los Frijoles in Bandelier National Monument, NM	08313350	18.1	b,c,m,s,t	1977-82
Rio Grande below Cochiti Dam, NM	08317400	14,900	c,s,t	1974-84; 1985-88
Galisteo Creek below Galisteo Dam, NM	08317950	597	c,k,s,t	1971-78
Galisteo Creek at Domingo, NM	08318000	640	c,s,t	1962-71
Jemez River below East Fork near Jemez Springs, NM	08321500	173	c,s	1963-67
Jemez River below Jemez Canyon Dam, NM	08329000	1,038	c,s	1966-88
Piedra Lisa Arroyo near Bernalillo, NM	08329100	4.1	c,s	1962-74
Rio Grande near Bernalillo, NM	08329500	17,300	c,s,t	1962-69
Campus Wash at Albuquerque, NM	08329700	3.80	c,m,s	1991-94
Tijeras Arroyo near Albuquerque, NM	08330600	133	c	1979
Rio Grande Conveyance Channel near Bernardo, NM	08331990	--	c,k,s,t	1962-75
Rio Grande near Bernardo, NM	08332000	19,230	c,s,t	1962-64
Bernardo Interior Drain near Bernardo, NM	08332050	--	c,s,t	1965-68
San Pablo Creek near Cuba, NM	08332700	12.8	c,s	1982
Papers Wash near Star Lake Trading Post, NM	08334300		c,m,s	1978-82
Arroyo Chico near Guadalupe, NM	08340500	1,390	c,s	1978-86
Bluewater Lake near Bluewater, NM	08341400	201	c	1966-69
Rio San Jose at Grants, NM	08343000	1,020	c,s	1980
Rio Paguete below Jackpile Mine near Luguna, NM	08349800	107	c	1977-93
Rio Salado near San Acacia, NM	08354000	1,380	c,s	1962-84
Socorro Main Canal North at San Acacia, NM	08354500	--	s	1985
Rio Grande Conveyance Channel at San Marcial, NM	08358300	--	c,m,s,t	1954-94
Rio Grande below Elephant Butte Dam, NM	08361000	29,450		1975-82
Rio Grande below Caballo Dam, NM	08362500	30,700	c	1966-68
Rio Grande at Leasburg Dam, NM	08363500		b,c,m	1975-79
Tortugas Arroyo at Las Cruces, NM	08363700	20.7	c,s	1963-74
Rio Grande at Vinton Bridge near Anthony, TX	08363840	28,680	b,c,m,s	1975-78
Rio Grande below Old Fort Quintman, TX	08370500	31,990	c,m,s	1930-93
Pecos River near Pecos, NM	08378500	189	c	1970-73
Pecos River near Anton Chico, NM	08379500	1,050	b,c,m,s	1967-77
Gallinas Creek near Montezuma, NM	08380500	84	c	1964-67
Pecos River below Sumner Dam, NM	08384500	4,390	b,c,m,s,t	1962-66; 1972-87
Rio Hondo at Diamond A Ranch near Roswell, NM	08390500	947	c,s	1962

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
Hagerman Canal at Dexter, NM	08393800	--	c	1964-67
Rio Penasco at Dayton, NM	08398500	1,060	s	1962-72
Pecos River (Kaiser Channel) near Lakewood, NM	08399500		c	1968-70; 1978-79
Lake McMillan near Lakewood, NM	08400500	16,990	c	1962-67; 1978-79
Pecos River below McMillan Dam, NM	08401000	16,990	c	1962-66; 1978-79
Pecos River at Ford Crossing above Major Johnson Springs, NM	08401300	16,990	c	1962-67
Pecos River at Damsite 3 near Carlsbad, NM	08402000	17,980	c,t	1962-67
Pecos River at Carlsbad, NM	08405000	18,100	c,k,t	1962-87
Pecos River below Sixmile Dam near Carlsbad, NM	08405260	18,650	b,c,m,s	1975-77
Black River at Harkey Crossing near Malaga, NM	08405400	343	c	1947-66
Pecos River below Red Bluff Dam, near Oria, TX	08410100		c,t	1962-63
Mimbres River at McKnight Damsite near Mimbres, NM	08476300	97.3	c,s	1967-72
Mimbres River at Mimbres, NM	08477110	184	b,c,m,s	1978-86
Tularosa Creek near Bent, NM	08481500	120	c	1963-95
Rio Blanco near Pagosa Springs, CO	09343000	58	s	1962-65
Rio Blanco at U.S. Highway 84 near Pagosa Springs, NM	09343400	--	c,s	1972-74
Navajo River above Chromo, CO	09344300	96.4	s	1962-65
Navajo River below Oso Diverson Dam near Chromo, CO	09344450	--	c,s	1972-75
Navajo River at Edith, CO	09346000	172	b,c,s	1969-74
San Juan River near Carracas, CO	09346400	1,230	b,c,s	1969-73
Piedra River near Arboles, CO	09349800	629	b,c,s	1969-73
Los Pinos River at La Boca, CO	09354500	510	b,c,s	1969-73
Canon Largo near Blanco, NM	09356565	1,700	c,m,s	1978-81
San Juan River at Bloomfield, NM	09357000	5,410	s,t	1962-64
San Juan River at Hammond Bridge near Bloomfield, NM	09357100	5,540	b,c,m,s	1978-81
Gallegos Canyon near Farmington, NM	09357250	290	c,m,s	1978-81
San Juan River above Animas River at Farmington, NM	09357300	5,800	c	1966-79
San Juan River at Farmington, NM	09365000	7,240	c,s,t	1962-82
La Plata River at Colorado-New Mexico State line	09366500	331	b,c,m,s	1970-73
La Plata River near Farmington, NM	09367500	583	c,s	1970-73, 1978-81
Shumway Arroyo near Fruitland, NM	09367555	62.8	b,c,m,s	1976; 1978-82
Shumway Arroyo near Waterflow, NM	09367561	73.8	b,c,m,s	1974-84; 1986
Chaco Wash near Star Lake Trading Post, NM	09367660	59	c,s	1978-82
Chaco Wash at East Boundary at Chaco Canyon National Monument, NM	09367676	364	c,s	1981-82
Fajada Wash at Chaco Canyon National Monument, NM	09367678	199	c,s	1981-84
Chaco Wash at Chaco Canyon National Monument, NM	09367680	578	c,s	1976-84
Gallo Wash at Chaco Canyon National Monument, NM	09367682	36.2	c,s	1979
Chaco Wash near PB at bridge at Chaco Canyon National Monument, NM	09367683	619	c,s	1981-84
Ah-shi-sle-pah Wash near Kimbeto, NM	09367685	8.21	c,s	1977-83
Kim-me-ni-oli Wash near Crownpoint, NM	09367687	228	b,c,s	1981-83
Kim-me-ni-oli Wash near Lake Valley, NM	09367689	400	b,c,s	1981-83

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS -- Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
San Juan River near Fruitland, NM	09367540	8,010	c	1978-95
De-na-zin Wash near Bisti Trading Post, NM	09367710	184	c,s	1975-82
Black Springs Wash near Mexican Springs, NM	09367900	7.05	c,s	1981-82
Hunter Wash at Bisti Trading Post, NM	09367930	45.6	c,s	1975-82
Teec-ni-di-tso Wash near Burnham, NM	09367934	7.2	c,m,s,t	1978-82
Burnham Wash near Burnham, NM	09367936	8.6	c,m,s,t	1978-82
Chaco River near Burnham, NM	09367938	3,640	c,m,s,t	1978-82
Chaco River near Waterflow, NM	09367950	4,350	c,s	1976-89
San Juan River near Bluff, UT	09379500	23,000	c,s,t	1962-68
Fuerco River near Church Rock, NM	09395350	193	c,s	1979
Foster Canyon near Continental Divide, NM	09395381	16.8	c	1988
Fuerco River at Gallup, NM	09395500	558	c,k,s,t	1975-77; 1979-84
Fuerco River near Manuelito, NM	09395630	990	c,s	1989-93
Gila River near Gila, NM	09430500	1,864	c,s,t	1963-67
Mangas Creek below Mangas Springs, NM	09431100		c,m,s	1970-86
Sunset Canal above New Mexico-Arizona State line	09433500	--	b,c,s	1969-72
New Model Canal above New Mexico-Arizona State line	09436500	--	b,c,s	1969-72
Gila River at New Mexico-Arizona State line	09438000	3,349	b,c,s	1968-73
San Francisco River near Glenwood, NM	09444000	1,653	b,c,s	1963-85
San Francisco River at Clifton, AZ	09445000	2,766	s	1963-67
Dry Beaver Creek near Rimrock, AZ	09505350	139	s	1964-65

## WATER-RESOURCES DATA - NEW MEXICO, 1996

### INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with Federal, State, and local agencies, obtains a large quantity of data pertaining to the water resources of New Mexico each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - New Mexico."

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 172 gaging stations and contents for 26 lakes and reservoirs; water quality for 51 gaging stations, 19 wells, and 43 partial-record stations and miscellaneous sites, and water levels at 126 observation wells. Also included are 82 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 Federal, State, and local agencies in New Mexico.

Data on stream discharge and stage, and on lake or reservoir contents and stage 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, then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperature, 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 generally are available in the libraries of the principal cities of the United States or may be purchased from U.S. Geological Survey, Books and Open-File Reports, Federal Center, Box 25425, Denver, Colorado 80225.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports for each State. Water-quality records for water years 1964 through 1974 were similarly released in separate reports. Beginning with water year 1975, data for streamflow, water quality, and groundwater were combined in reports published annually for each State. These reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NM-93-1." These Water-Data Reports are for sale by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22162.

### COOPERATION

The U.S. Geological Survey and State and local agencies have had joint-funding agreements for the collection of streamflow records since 1930 and for water-quality records since 1940. Organizations that assisted in collecting the data in this report through joint-funding agreements with the Survey are:

New Mexico State Engineer Office, T.C. Turney, State Engineer.

New Mexico Interstate Stream Commission, T.C. Turney, Secretary.

Pecos River Commission, Hector Villa III, Federal representative and Chairman;  
Colin R. McMillan, Commissioner for New Mexico;  
Brad Newton, Commissioner for Texas.

New Mexico State Highway and Transportation Department, Pete K. Rahn, Secretary.

Canadian River Municipal Water Authority, John C. Williams, General Manager.

Costilla Creek Compact Commission, T.C. Turney, Commissioner for New Mexico;  
Hal Simpson, Commissioner for Colorado.

Albuquerque Metropolitan Arroyo Flood Control Authority, L.A. Blair, Executive Engineer.

City of Albuquerque, Martin Chavez, Mayor.

Rio San Jose Flood Control District, Alex Gonzales, Chairman.

City of Santa Rosa, Joe D. Trujillo Jr., Mayor.

City of Raton, Joe Apache, Mayor.

Village of Ruidoso, Gary M. Jackson, Manager.

Financial assistance for the collection of water-resources data published in this report was provided by the Corps of Engineers, U.S. Army, for 24 gaging stations; by the Bureau of Reclamation, U.S. Department of Interior, for 14 gaging stations; by the Bureau of Indian Affairs, U.S. Department of Interior, for 7 gaging stations; and by the Bureau of Land Management, U.S. Department of Interior, for 2 gaging stations.

Assistance in the form of services was provided by the Carlsbad Irrigation District.

Some data have been collected by contractors in accordance with U.S. Geological Survey specifications and under Geological Survey quality control. Organizations that provided data are recognized in the station description.

## WATER RESOURCES DATA - NEW MEXICO, 1996

## SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

Perennial streams in New Mexico generally are in mountainous regions in the north-central, south-central, and southwestern parts of the State. Other perennial streams include the San Juan and Animas Rivers in northwestern New Mexico, which originate in the San Juan Mountains of southwestern Colorado. When flow is not regulated by releases from dams, several reaches of the Pecos River south of Santa Rosa have perennial flow that is maintained by relatively large spring runoff. Large discharges in perennial streams normally are the result of spring snowmelt in the mountains, which may last several months.

Ephemeral streams are present in the remainder of the State. Some of these streams, such as the Rio Puerco, have deeply incised channels, whereas others, especially those on the eastern plains, are swale without any well-defined channel. Large discharges in ephemeral streams generally are caused by intense, short-duration thunderstorms (normally occurring from mid-June to mid-October); the runoff usually lasts for only a few hours.

Water was plentiful in most areas of New Mexico at the beginning of water year 1996 but not for the remainder of the water year. Streamflow recorded at index gaging stations throughout the State in October generally was near or above normal, with the exception of the Pecos River in which flows were only 56 percent of normal. Precipitation totals indicated that the "good times" for water in New Mexico were about to end. In contrast to normal monthly precipitation, which is about 1 inch at most recording sites, most sites recorded no precipitation in October. Precipitation total improved slightly by the end of November, but the pattern was set for an unusually small amount of precipitation. Deceptively, streamflow recorded at the various index gaging stations around the State remained near or above normal at the close of calendar year 1996. The disparity between normal flows and below-normal precipitation was noted in a water-supply forecast published in early January.

The forecast predicted well below normal streamflows throughout the State for March through July, based on the snowpack and precipitation conditions, and assumed that precipitation would rebound to near-normal levels in the coming months. By March precipitation had not rebounded; precipitation was still less than normal for most recording sites throughout the State. For example, precipitation at Albuquerque, Carlsbad, Gallup, and Deming was 0.27, 0.35, 0.16, and 0.40 inch below normal, respectively, for the month of March. By March, reduced streamflows had proven the January streamflow forecast to be correct. Dry conditions reduced streamflows had proven the January streamflow forecast to be correct. Dry conditions continued through the summer, but streamflows increased to near normal at most stations by August and precipitation amounts were back to near and above normal at some sites. At the end of water year 1996 precipitation amounts varied greatly throughout the State. Precipitation recorded at Clayton, Las Cruces, Gallup, and Albuquerque was well above normal. In contrast, precipitation recorded at Carlsbad, Tucumcari, Grants, and Deming was well below normal.

The quantity of water stored in New Mexico's reservoirs often does not represent natural hydrologic conditions because operators of those reservoirs need to meet such demands as irrigation, flood control, legal compacts and recreation. For example, during periods of heavy storm activity reservoir operators could reduce the amount of water in storage. With this in mind a review of water storage during water year 1996 indicates various trends. Brantley and Cochiti Reservoirs varied only slightly in the amount of water stored; storage at Brantley ranged from 4 to 2 percent of capacity and at Cochiti ranged from 12 to 11 percent of capacity. Storage in other reservoirs, however, did reflect the reduction in water available during water year 1996: in El Vado Reservoir, for example the quantity of water stored was 74 percent of capacity in September and rapidly declined to 47 percent of capacity in February as precipitation amounts continued to be below normal. Water storage in Navajo and Abiquiu

Reservoirs decreased steadily during the water year. Water storage in Navajo Reservoir was 89 percent of capacity in October and ended with 71 percent of capacity in September. Similarly, water storage in Abiquiu Reservoir was 22 percent of capacity at the beginning of water year 1996 but only 12 percent of capacity at the end of water year 1996. Storage in Ute, Conchas, Eagle Nest, Elephant Butte-Caballo, and Summer-Santa Rosa Reservoirs increased and decreased at various times during water year 1996 in response to the previously mentioned water demands. Reservoir storage in most of the State's reservoirs at the end of water year 1996 generally was at lower levels than those recorded at the beginning of the water year. Specifically, the combined storage of 13 major reservoirs in the State decreased by 1,159,000 acre-feet during water year 1996, totaling 4,064,000 acre-feet by September 30, 1996. The total combined capacity of these 13 reservoirs is 8,530,000 acre-feet.

Streamflow in New Mexico has been normal or greater than normal since 1979. Continuing this trend, streamflows recorded at most index gaging stations were above normal at the beginning of water year 1996. Two exceptions were streamflow at the Gila River near Gila (station 09430500), which was 86 percent of normal, and at the Delaware River near Red Bluff (station 08408500) which was 79 percent of normal. By the spring and summer seasons, drought conditions had a marked effect on streams throughout the State, and by July streamflow at most index gaging stations was well below normal. The Rio Grande below Taos Junction Bridge, near Taos (station 08276500) was 48 percent of normal, the Animas River at Durango, CO (station 09361500) was 52 percent of normal, and the Delaware River near Red Bluff (station 08408500) was 2 percent of normal. By the end of water year 1996, streamflow had rebounded to normal levels in the Pecos, Gila, and Delaware Rivers, but was still well below normal in the Rio Grande and Animas River.

## WATER RESOURCES DATA - NEW MEXICO, 1996

Discharges for water year 1996 at four index streamflow-gaging stations compared with median annual discharge for water years 1986-95 at the same stations are listed below:

Station number	Station name	Median annual	Annual mean	1996 discharge as a percentage of median
		discharge in acre-ft water years 1986-95	discharge in acre-ft water year 1996	
08276500	Rio Grande below Taos Junction Bridge	541,000	306,100	57
08378500	Pecos River near Pecos	74,700	33,580	45
08408500	Delaware River near Red Bluff	4,220	5,790	137
09430500	Gila River near Gila	132,900	63,150	48

Surface-Water Quality

Specific conductance in water at selected streamflow-gaging stations were near normal throughout the State during the water year. Median values of specific conductance for water year 1996 at selected daily stations and median values of specific conductance for water years 1986-95 at the same stations are listed below:

Station number	Station name	Median specific conductance, in microsiemens per centimeter at 25 °Celsius	1996 median as a percentage of 1986-95 median
		water years 1986-95	water year 1996
08313000	Rio Grande at Otowi Bridge	320	345
08330000	Rio Grande at Albuquerque	384	385
08354900	Rio Grande FW at San Acacia	558	631
08358400	Rio Grande FW at San Marcial	539	626

Suspended-sediment loads for water year 1996 at three index stations and median suspended-sediment loads for water years 1986-95 at the same stations are listed below:

Station number	Station name	Median suspended- sediment load for water years 1986-95 in tons	Suspended-sediment load for water year 1996, in tons	1996 load as a percentage of 1986-95 median
08313000	Rio Grande at Otowi	1,471,800	399,248	27
08330000	Rio Grande at Albuquerque	398,100	391,454	98
08358400	Rio Grande Floodway at San Marcial	2,841,300	1,488,050	52

## WATER RESOURCES DATA - NEW MEXICO, 1996

Ground-Water Levels

Ground-water levels are measured periodically in a network of about 6,000 observation wells in order to record changes in ground-water storage. Water levels in about 1,200 wells are measured annually and the remaining 4,800 wells are scheduled for measurement at 5-year intervals, so that wells in different areas are measured each year (fig. 1). The areas of water-level measurements are in eight of the nine major surface-water drainage basins; most are in areas where ground water is used in large quantities for irrigation, municipal, or industrial purposes. Twenty-one selected wells in various parts of the State are equipped with continuous water-level recorders.

Hydrographs of water levels in wells (fig. 2) in the four quadrants of the State illustrate the water-level trends for the last 20 years. A decrease in ground-water withdrawals for agriculture and mining operations may be responsible for the general rise in water levels in the well in Cibola County since 1979. The decrease in the water level in the Cibola County well since last year may be a result of recent withdrawals for industrial use. The wells in Luna, Union, and Chaves Counties are in areas of intensive irrigation. The water level in the Luna County well (Mimbres Valley) decreased from water year 1991, but continued to be higher than average for the past 20 years. The water level in the well in Union County continued to decline, which is typical of wells on the High Plains of northeastern New Mexico. The water level in the recorder well in Chaves County has yearly fluctuations that are typical of water levels in wells in the Roswell artesian basin. The water levels in the vicinity of this well have also risen since the mid-1970's, probably resulting from both a decrease in withdrawals for irrigation and an increase in recharge to the aquifer.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins--the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a side range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives: (1) Provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites. (2) Provide the mechanism to evaluate the effectiveness of the significant reduction in SO<sub>2</sub> emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred. (3) Provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO<sub>2</sub> and NO<sub>x</sub> scheduled to begin in 2000.

Data from the network as well as information about individual sites, are available through the world wide web at:

<http://nadp.nrel.colostate.edu/NADP>

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies.

Additional information about the NAWQA Program is available through the world wide web at:

[http://www.rvares.er.usgs.gov/nawqa\\_home.html](http://www.rvares.er.usgs.gov/nawqa_home.html)



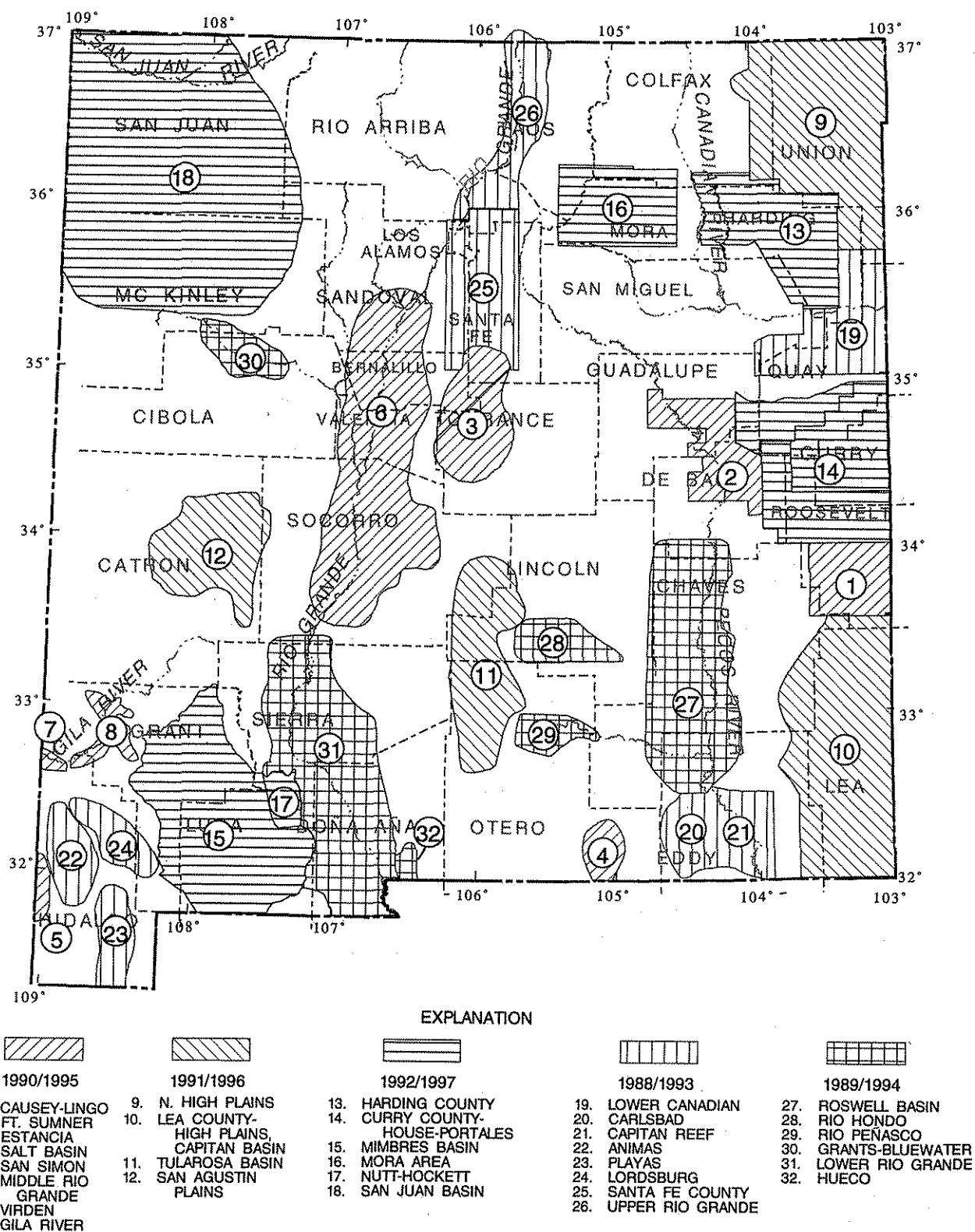


Figure 1.--Areas of 5-year ground-water-level monitoring and years measured or scheduled for measurement.

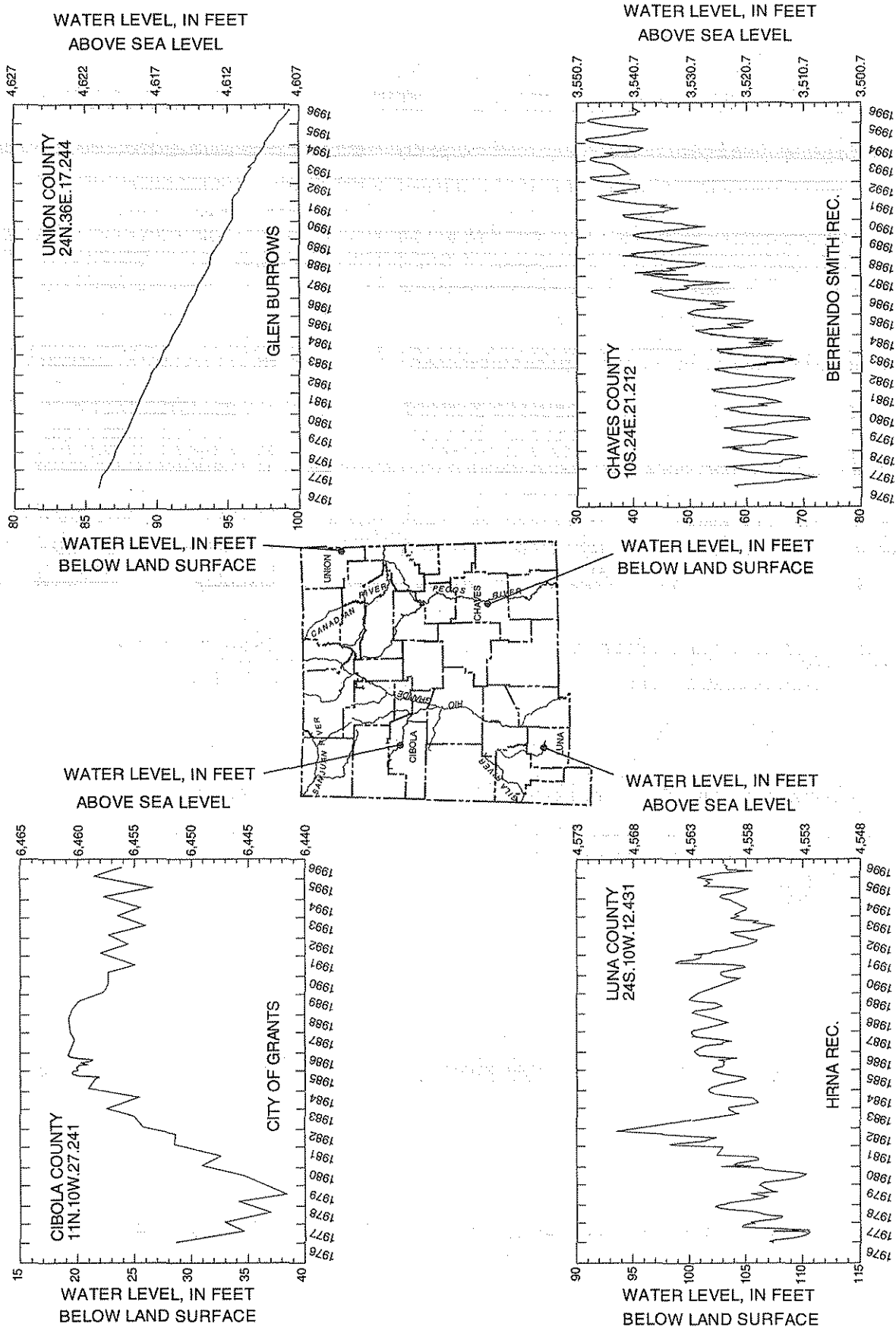


Figure 2.--Ground-water-level trends for the last 20 years or period of record.

## WATER RESOURCES DATA - NEW MEXICO, 1996

Tritium network is a network of stations that 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. Included in the tritium network for New Mexico is a precipitation station that is located 1206 Field Drive NE, Albuquerque NM (Lat 35°05'35", long 106°32'40").

## EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1996 water year, which began October 1, 1995, and ended September 30, 1996. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 5 and 6. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether stream site or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream-order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and for surface-water stations where only miscellaneous measurements are made.

## Downstream-Order System

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 mainstream station are listed before that station. A station on a tributary that enters between two mainstream 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 this 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.

The station-identification number is assigned according to downstream order. 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 eight-digit number for each station, such as 08313000, which appears just to the left of the station name, includes the two-digit part number "08" plus the six-digit downstream-order number "313000." The part number designates the major river basin. 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).

## Latitude-Longitude System

The identification numbers for wells, springs, and miscellaneous sites are assigned according to 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 six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 3 below.

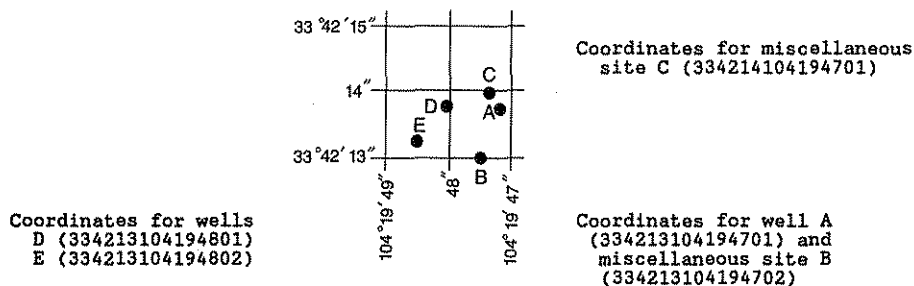


Figure 3.--System for numbering wells, springs, and miscellaneous sites.

## WATER RESOURCES DATA - NEW MEXICO, 1996

## Local Well Numbers

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 will locate a well or spring to the nearest 10-acre tract, and 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. On the Navajo Reservation, where public land surveys have not been made, the local identifier is based on a different system of letters and numbers. In the example NR032.0156x0736, the first two letters indicate that the well is on 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 032, 1.56 miles west and 7.36 miles south of the northeast corner.

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by the table title "Crest-stage partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all partial-record stations for which data are given in this report is shown in figure 7.

Data Collection and Computation

The data obtained at a complete-record gaging station 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. Continuous 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 methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, 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 it is necessary to define extremes of discharge outside the range of the current meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. 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 the personnel making the measurements are applied to the gage heights before discharges are determined from the curves or tables. This shifting-control method is also used if the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control. 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 of observations, and comparable records of discharge for other stations in the same or nearby basins for comparable periods of time.

In computing records of lake or reservoir contents, it is necessary to have curves or tables available from surveys. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes in contents are determined.

If the stage-capacity curve changes because of deposition of sediment in a lake or reservoir, periodic resurveys of the reservoir may be 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 from operator's logs, prior and subsequent records, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data presentation" (REMARKS paragraph) and "Identifying estimated daily discharge."

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

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The records published for each gaging station consist of two parts: the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

**LOCATION.**--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River mileage measurement," Bulletin 14, revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

**DRAINAGE AREA.**--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies.

**PERIOD OF RECORD.**--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

**REVISED RECORDS.**--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted 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 most recently revised figure was first published is given.

**GAGE.**--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

**REMARKS.**--All periods of estimated daily-discharge record are identified by date in this paragraph of the station description for water-discharge records. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station, and possibly to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

**COOPERATION.**--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

**AVERAGE DISCHARGE.**--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development.

**EXTREMES FOR PERIOD OF RECORD.**--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

**EXTREMES FOR CURRENT YEAR.**--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

**REVISIONS.**--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or possibly future station manuscript published to document the revision in a "Revised records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream locations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

#### Data table of daily mean values

The daily table of discharge records for streamgaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively for each month. Discharge for the month also is usually 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 or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations, monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

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Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS \_\_\_\_\_, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS \_\_\_\_\_," will consist of all of the station record within the specified water year, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below,) except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The data or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations, the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 328,000 gallons or 1,233 cubic meters.

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

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time for the designated period.

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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, indefinite stage relations, or any other unusual conditions 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 (miscellaneous sites). 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.

## Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified by listing the dates of the estimated record in the REMARKS paragraph of the station description.

## Accuracy of the Records

The accuracy of streamflow records 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 measurements of stage, measurements of discharge, and interpretations of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true value; "good" within 10 percent; and "fair" within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values of less than 1 ft<sup>3</sup>/s; to the nearest tenth between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to three significant figures above 1,000 ft<sup>3</sup>/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

## 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. Most gaging-station records are also 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.

Records of Surface-Water Quality

Surface-water quality samples usually are collected at or near gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

## Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing- or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records of surface-water quality appear in this report are shown in figure 6.



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## Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

## On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references appear on the list of publications following this section. Detailed information on collecting, treating, and shipping samples may also be obtained from the Geological Survey District office.

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. All samples obtained for the National Stream-Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors that must be evaluated by the collector.

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 whose address is given on the back of the title page of this report.

## Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the 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 changes; 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. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

## 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 be collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration are 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 has been computed by the subdivided-day method. For periods when no samples are collected, daily discharges of suspended sediment are 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 are 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 suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

## Laboratory Measurements

Historical and current (1992) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

Microbiological data on coliform and streptococcal bacteria appear in this report. Methods for the collection and analysis of aquatic biological and aquatic microbiological samples are described by Slack and others (1973). (See reference.)

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.



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## Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily, are presented first. Tables of daily values of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge-gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See "Data presentation" under "Records of stage and water discharge"; same comments apply.

DRAINAGE AREA.--See "Data presentation" under "Records of stage and water discharge"; same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, temperature recorder, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and the current year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

## Remark Codes

The following remark codes may appear with the water-quality data in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
e	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

## Dissolved Trace-Element Concentrations

\*NOTE.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (ug/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the ug/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

## Change in National Trends Network Procedures

\*NOTE.--Sample handling procedures at all National Trends Network stations were changed substantially on January 1, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

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Records of Ground-Water Levels

Only water-level data from a national network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in New Mexico are shown in figure 8.

Data Collection and Computation

Measurements of water levels are made in many types of wells, under varying conditions of access and at different temperatures, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used are those that will ensure consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the township-range location of the well.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. 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 elevation 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.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

**LOCATION.**--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic unit number; the distance and direction from a geographic point of reference; and the owner's name.

**AQUIFER.**--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

**WELL CHARACTERISTICS.**--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

**INSTRUMENTATION.**--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

**DATUM.**--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base, and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

**REMARKS.**--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

**PERIOD OF RECORD.**--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

**EXTREMES FOR PERIOD OF RECORD.**--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. For wells equipped with recorders, only abbreviated tables are published; generally, only water-level lows are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that for many sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

## WATER RESOURCES DATA - NEW MEXICO, 1996

## Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed on a following page. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

## Data Presentation

The records of ground-water quality are published in a section, "QUALITY OF GROUND WATER" immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by county, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

\* Station Header File - Contains descriptive information on more than 40,000 sites throughout the United States and its territories where the Geological Survey collects or has collected data.

\* Daily Values File - Contains more than 220 million daily values of stream flow, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.

\* Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.

\* Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.

\* Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey  
National Water Data Exchange  
421 USGS National Center  
Reston, Virginia 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District office. (See address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver Colorado 80225.

## Parameter Codes

The five-digit codes shown in parentheses in the column headings of the tables in this report are parameter codes that uniquely identify a specific constituent. These are standard codes used to identify the data stored in the files of WATSTORE. These codes are identical to those used in the U.S. Environmental Protection Agency (EPA) data system, STORET. The EPA assigns and approves all requests for new codes.

## WATER RESOURCES DATA - NEW MEXICO, 1996

## 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 an organic, phosphate-rich compound important in the transfer of energy in organisms. 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 multicelled 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 diseases, while 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 all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C + or - 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 intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C + or - 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

**Fecal streptococcal bacteria** are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, coccal 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 + or - 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

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

**Dry mass** refers to the mass of residue present after drying in an oven at 105 °C for zooplankton and 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 the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash 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 2,445 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.

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Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green 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 [(ft<sup>3</sup>/s)/mi<sup>2</sup>] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT<sup>3</sup>/S, ft<sup>3</sup>/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 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.

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1 - March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

Discharge-weighted average: See Weighted average.

Dissolved refers to that material in a representative water sample which passes through a 0.45-um 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.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

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

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

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

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 computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO<sub>3</sub>).

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.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

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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 substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

MBAS qualifier MBAS determinations made from 1970 through August 29, 1993, at the National Water Quality Laboratory in Denver (Analyzing Agency Code 80020) are biased high. These data can be corrected based on the following equation if concentrations of nitrate plus nitrite, dissolved, as N, and dissolved chloride, determined concurrently with the MBAS data are available:

$$MBASCOR = M - [(0.0088)N + (0.00019)C] \quad \text{in which}$$

MBASCOR = corrected MBAS concentration, in mg/L,

M = reported MBAS concentration, in mg/L,

N = nitrate plus nitrite, dissolved, as N, concentration, in mg/L, and

C = dissolved chloride concentration, in mg/L.

The updated method reporting limit is 0.02 mg/L. The former reporting limit was 0.01 mg/L. A reporting limit of 0.02 mg/L should be applied to any corrected MBAS data from 1970 through August 29, 1993. The laboratory will automatically correct MBAS results after August 29, 1993.

Uncorrected MBAS data for New Mexico that were collected during the 1993 water year were corrected by applying the above equation. The water-quality data files were updated with the corrected values and retrieved for publication in the 1993 edition of the annual data report. The corrected values, if greater than the updated reporting limit of 0.02 mg/L were qualified as estimated values.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element sorbed per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, ug/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 represents 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 dry 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.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meters (m<sup>2</sup>), 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:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
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 are 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.

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Pesticides are chemical compounds used to control the growth of undesirable organisms. 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 ( $1 \times 10^{-12}$ ) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields  $3.7 \times 10^{10}$  radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

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

Phytoplankton are 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 per milliliter (cells/mL) of sample.

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

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

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

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

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

Milligrams of oxygen per area or volume per unit time [mg O/(m<sup>2</sup>.time)] for periphyton and macrophytes and [mg O/(m<sup>3</sup>.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 is 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 was 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.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

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).

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

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.



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Suspended-sediment load is a general term referring to material in suspension. It is not synonymous with either discharge or concentration.

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.

Total sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total sediment discharge.

Sodium-adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range, in respect to sodium hazard, from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance 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 microsiemens 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 microsiemens). 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 lives.

Natural substrate refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lives.

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 multiplate 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 (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

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-um 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-um 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.



## WATER RESOURCES DATA - NEW MEXICO, 1996

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

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature, whether on a chart, tape, or any other medium.

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 the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/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 of the constituent present 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 determined all of the constituent in the sample.) Total concentrations occasionally are reported as less than the corresponding dissolved concentrations for a chemical constituent due to decreased analytical sensitivity of the analytical methods used for the digested solutions. Digested solutions often contain higher concentrations of substances that interfere with analytical sensitivity through complex matrix effects.

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

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. Total recoverable concentrations occasionally are reported as less than the corresponding dissolved concentrations for a chemical constituent due to decreased analytical sensitivity of the analytical methods used for the digested solutions. Digested solutions often contain higher concentrations of substances that interfere with analytical sensitivity through complex matrix effects.

Water year in Geological Survey reports dealing with surface water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980 is called the "1980 water year."

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.

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

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

## PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting 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) pertains to 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 Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

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- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
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- 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.
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- 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.
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- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
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- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 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.
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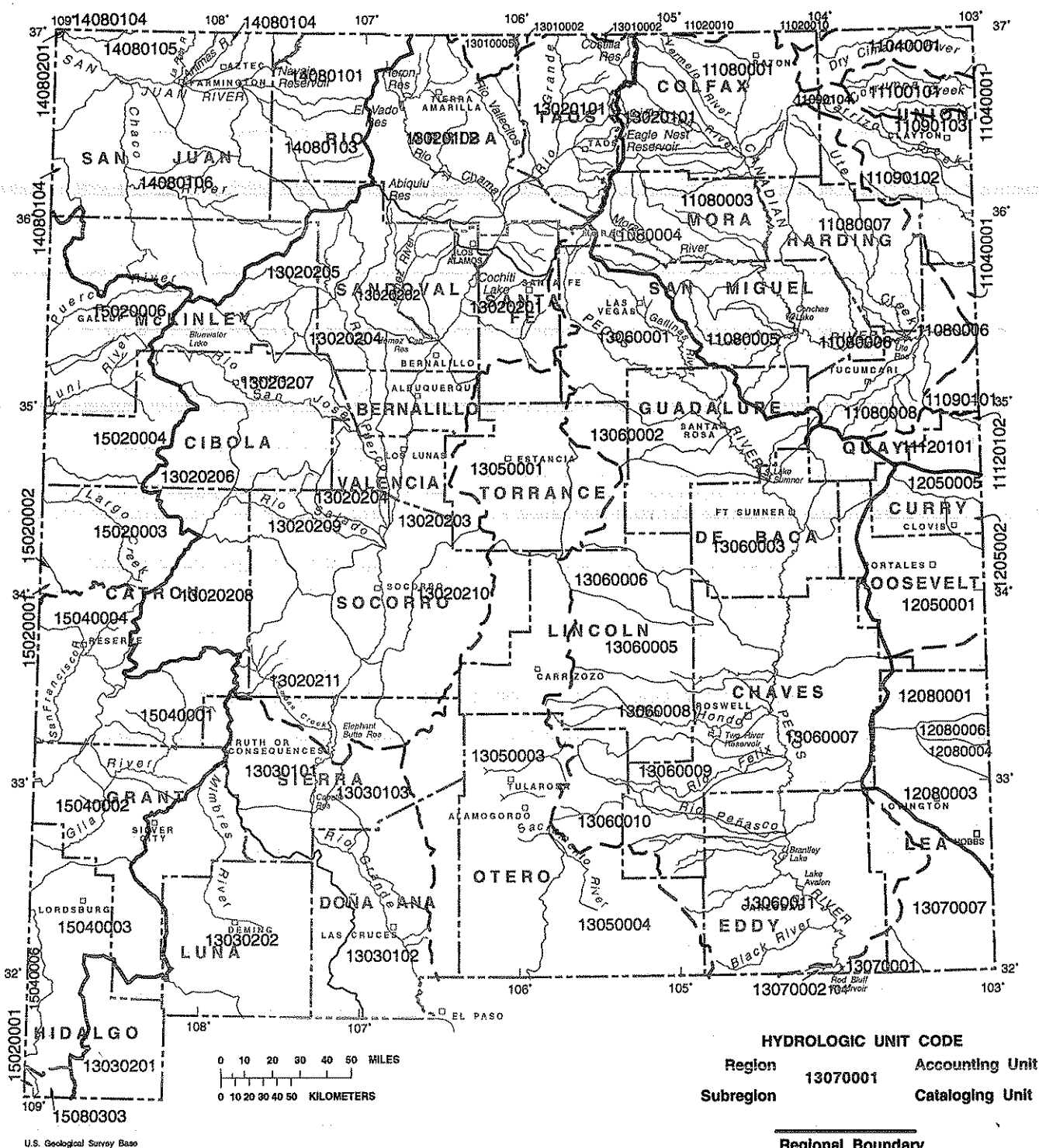
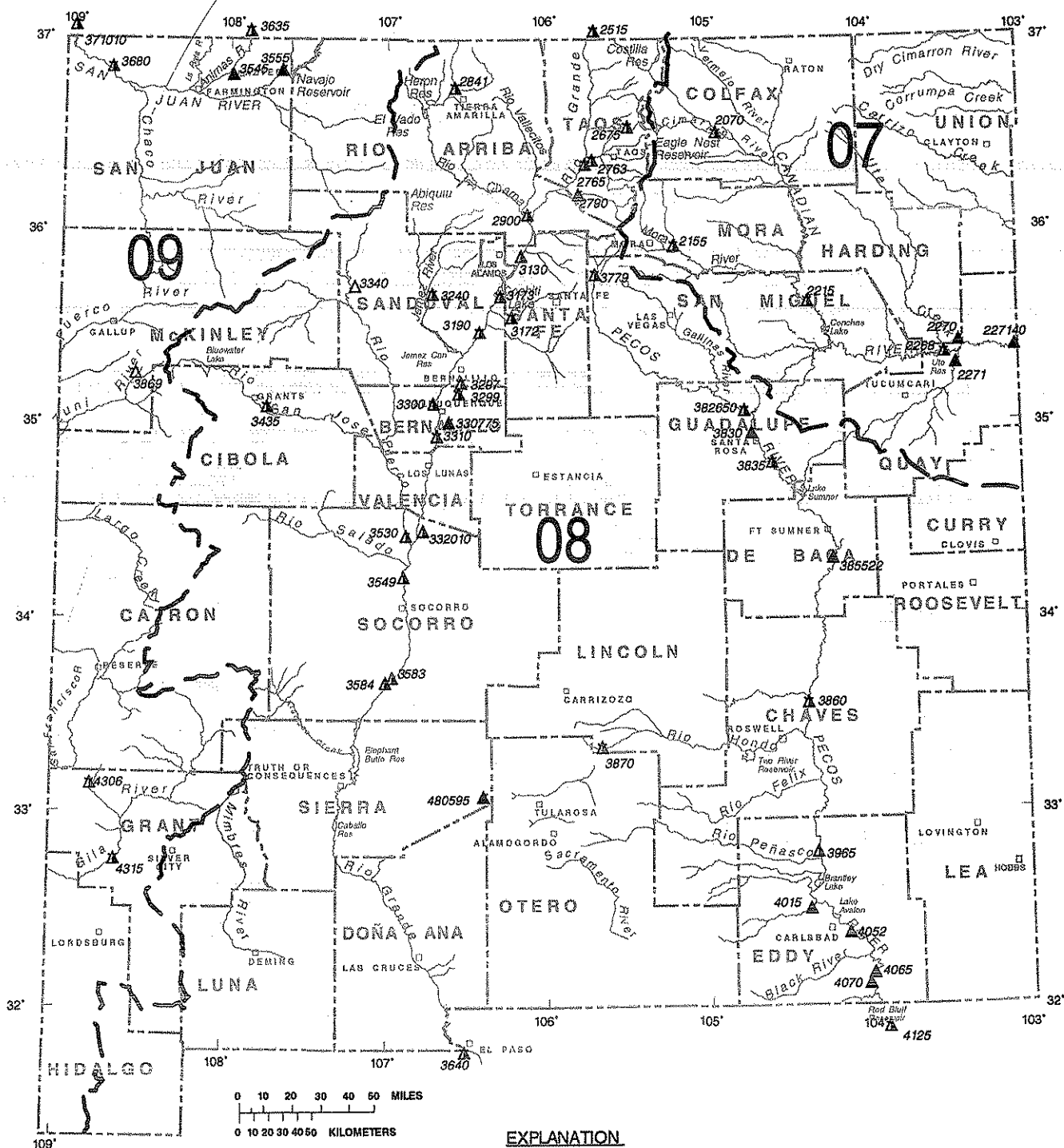


Figure 4.--Location of hydrologic units.

**EXPLANATION**

- 401450 ▲ GAGING STATION AND NUMBER--  
Number by symbol is abbreviated  
station number. Complete national  
station number is: 08 401450  
Basin number + station number

Figure 5.--Location of surface-water gaging stations.



EXPLANATION

BASIN AND STATION NUMBER

### STATION AND SAMPLING FREQUENCY

U.S. Geological Survey 6030

- 07 LOWER MISSISSIPPI RIVER BASIN NUMBER  
08 WESTERN GULF OF MEXICO BASIN NUMBER  
09 COLORADO RIVER BASIN NUMBER

- |   |  |  |
|---|--|--|
| CHEMICAL QUALITY:                           | <input type="checkbox"/> Daily   | <input type="checkbox"/> Other than daily  |
| SUSPENDED SEDIMENT:                         | <input type="checkbox"/> Daily   | <input type="checkbox"/> Other than daily  |
| CHEMICAL QUALITY AND<br>SUSPENDED SEDIMENT: | <input type="checkbox"/> Both daily  | <input type="checkbox"/> Both other than daily   |
|   | <input type="checkbox"/> Daily chemical<br>quality and other<br>than daily<br>suspended sediment | <input type="checkbox"/> Daily suspended<br>sediment and<br>other than daily<br>chemical quality |

330775 **▲ STATION AND NUMBER**--Number by symbol is abbreviated station number. Complete national station number is: 08 330775

Basin number + station number

Figure 6.--Location of surface-water-quality stations.



## HYDROLOGIC-DATA STATION RECORDS

## LOWER MISSISSIPPI RIVER BASIN

## ARKANSAS RIVER BASIN

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 northeast of Raton, and at mile 21.5.

DRAINAGE AREA.--20.8 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1975 to September 1987 (monthend contents only), October 1987 to current year.

GAGE.--Water-stage recorder. Elevation 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. Reservoir enlarged in 1916; capacity, 1,130 acre-ft, spillway elevation, 7,479.0 ft. Reservoir enlarged again in 1948; capacity, 3,690 acre-ft, spillway elevation, 7,511.0 ft. Elevation of lowest outlet, 7,439.0 ft. 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 for municipal supply for City of Raton and releases to Vermejo Conservancy District.

COOPERATION.--Diversion, spillage and release data provided by City of Raton.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,970 acre-ft, May 31, 1975, elevation, 7,510.79 ft; maximum elevation observed, 7,513.01 ft, May 29, 1995; minimum observed, 911 acre-ft, Feb. 28, 1979, elevation, 7,479.85 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,730 acre-ft, Apr. 17-18, elevation, 7,511.34 ft; minimum contents, 3,420 acre-ft, Aug. 10-16, elevation 7,506.43.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3700	3700	3700	3700	3700	3700	3710	3710	3600	3650	3520	3460
2	3700	3700	3700	3690	3700	3700	3710	3710	3600	3650	3510	3460
3	3700	3700	3700	3700	3700	3700	3710	3700	3600	3650	3500	3450
4	3700	3700	3700	3700	3700	3700	3710	3700	3600	3650	3480	3450
5	3690	3700	3700	3700	3700	3700	3710	3690	3590	3650	3460	3440
6	3690	3700	3700	3690	e3700	3690	3710	3690	3580	3650	3450	3440
7	3700	3700	3700	3700	e3700	3700	3720	3680	3580	3650	3440	3440
8	3700	3700	3700	3700	e3700	3700	3710	3680	3570	3650	3430	3440
9	3700	3700	3700	3700	e3700	3700	3710	3680	3560	3510	3430	3440
10	3700	3700	3700	3700	e3700	3700	3720	3670	3560	3510	3420	3440
11	3700	3700	3700	3700	e3700	3700	3710	3670	3560	3520	3420	3440
12	3700	3700	3700	3700	e3700	3700	3710	3660	3550	3510	3420	3440
13	3700	3700	3700	3700	e3700	3700	3710	3650	3540	3500	3420	3440
14	3700	3700	3700	3700	e3700	3700	3700	3650	3560	3500	3420	3450
15	3700	3700	3700	3700	e3700	3700	3710	3640	3580	3500	3420	3450
16	3710	3700	3700	3700	e3700	3700	3720	3630	3650	3490	3420	3460
17	3710	3690	3700	3700	e3700	3700	3730	3620	3650	3490	3430	3460
18	3710	3700	3690	3700	e3700	3700	3730	3610	3650	3480	3430	3460
19	3700	3700	3690	3700	e3700	3700	3720	3600	3650	3480	3430	3460
20	3700	3690	3690	3700	e3700	3700	3710	3600	3650	3490	3430	3460
21	3700	3700	3700	3700	e3710	3700	3710	3580	3650	3500	3430	3460
22	3700	3700	3700	3700	3710	3710	3710	3570	3650	3490	3460	3470
23	3690	3700	3690	3700	3700	3710	3720	3560	3650	3500	3470	3470
24	3700	3700	3700	3700	3700	3700	3720	3560	3650	3490	3470	3470
25	3700	3700	3700	3700	3700	3710	3720	3580	3650	3490	3470	3460
26	3700	3700	3700	3700	3700	3700	3710	3590	3650	3510	3470	3450
27	3700	3690	3690	3700	3700	3700	3720	3600	3650	3520	3470	3450
28	3700	3690	3700	3700	3700	3710	3700	3600	3650	3530	3480	3450
29	3700	3700	3690	3700	3700	3710	3700	3600	3650	3520	3470	3450
30	3700	3700	3690	3700	---	3710	3710	3600	3650	3520	3470	3450
31	3700	---	3700	3700	---	3710	---	3600	---	3520	3470	---
MAX	3710	3700	3700	3700	3710	3710	3730	3710	3650	3650	3520	3470
MIN	3690	3690	3690	3690	3700	3690	3700	3560	3540	3480	3420	3440
(†)	7511.07	7511.10	7511.09	7511.08	7511.10	7511.17	7511.20	7510.24	7510.65	7509.60	7509.17	7509.00
(††)	0	0	0	0	0	+10	0	-110	+50	-130	-50	-20
(†††)	0	0	0	0	0	0	0	265	215	198	196	0
(††††)	0	0	0	0	0	0	0	0	0	0	0	0

e Estimated

CAL YR 1995 MAX 3930 MIN 3210 (††) -340 (†††) 874 (††††) 0  
WTR YR 1996 MAX 3730 MIN 3420 (††) -250 (†††) 0 (††††) 0

(†) ELEVATION, IN FEET, AT END OF MONTH

(††) CHANGE IN CONTENTS, IN ACRE-FEET

(†††) DIVERSION FROM LAKE MALOYA, IN ACRE-FEET

(††††) RELEASE, IN ACRE-FEET, TO VERMEJO CONSERVANCY DISTRICT

## ARKANSAS RIVER BASIN

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 northeast of Raton, and at mile 19.2.

DRAINAGE AREA.--29.4 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1975 to September 1996 (discontinued).

GAGE.--Nonrecording gage. Elevation 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, spillway elevation, 7,078.0 ft. Reservoir rehabilitated in 1941; capacity, 71 acre-ft, spillway elevation, 7,089.6 ft. Elevation of lowest outlet, 7,064.1 ft. No dead storage. Water is for municipal use of City of Raton.

COOPERATION.--Monthend elevations and contents provided by City of Raton.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 100 acre-ft, January 31, 1994, elevation, 7,090 ft; minimum observed, 0 acre-ft, Aug., Sept. 1989, lake drained.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30, 1995.....		63	0
Oct. 31.....		63	0
Nov. 30.....		63	0
Dec. 31.....		63	0
CAL YR 1995.....			+ 63
Jan. 31, 1996.....	7,089.6	63	0
Feb. 28.....	7,089.6	63	0
Mar. 31.....	7,089.6	63	0
Apr. 30.....	7,089.6	63	0
May 31.....	7,089.6	63	0
June 30.....	7,089.6	63	0
July 31.....	7,089.6	63	0
Aug. 31.....	7,089.6	63	0
Sept. 30.....	7,089.6	63	0
WTR YR 1996.....	-	-	0

## ARKANSAS RIVER BASIN

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 upstream from concrete drop structure, 300 ft upstream from Crow Creek, and 7.5 mi 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. Elevation of gage is 6,110 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 1975, at site about 200 ft upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Eagle Tail ditch diverts water from Chicorica Creek for use near Maxwell. No diversions upstream from station. Several observations of water temperature were made during the year. No flow at times most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	5.4	4.6	e4.0	e4.2	3.7	1.1	1.6	3.1	9.8	33	7.7
2	3.4	5.2	4.7	e3.7	e3.9	3.0	1.1	1.1	5.2	3.9	32	4.2
3	3.4	5.1	4.1	e3.3	e3.7	2.7	.92	1.5	3.7	1.5	4.8	3.7
4	3.7	4.9	3.6	e3.0	e3.6	2.2	.95	2.4	2.8	.75	2.6	3.2
5	3.0	4.8	3.6	e3.5	e3.9	2.0	1.1	1.8	1.4	.54	3.2	3.0
6	4.3	4.9	3.4	e3.2	e3.7	2.2	1.3	2.2	.88	.41	2.8	2.8
7	4.2	4.8	3.1	e3.2	e3.6	1.9	2.2	2.1	.85	.27	1.1	3.8
8	3.7	4.6	2.8	e3.4	e3.6	2.3	1.7	1.6	.64	1.1	.24	5.8
9	3.2	4.6	1.9	e3.9	e4.2	2.2	1.6	1.3	.30	9.8	10	3.9
10	2.9	4.7	2.6	e4.5	e4.6	2.3	1.2	1.3	.15	12	40	2.1
11	2.7	4.9	3.3	e4.1	e4.3	2.0	1.0	1.6	.07	16	27	3.5
12	2.5	5.4	4.2	e4.8	e4.2	1.8	.63	1.0	.00	11	5.1	2.8
13	2.3	5.5	3.4	e4.5	e4.6	1.6	.21	1.0	.00	3.1	3.2	3.4
14	2.7	5.3	3.4	e5.4	e4.2	1.4	.19	1.2	.00	7.7	1.4	12
15	3.8	5.4	4.1	e4.5	e4.0	1.3	.05	1.0	.00	.67	.62	8.4
16	5.0	5.4	4.6	e4.1	e3.8	1.2	2.2	.63	2.5	.27	.82	12
17	5.0	5.7	5.0	e3.8	e4.2	1.6	1.9	.66	2.6	.07	1.0	2.6
18	4.7	5.9	7.1	e3.4	e4.8	2.2	1.4	.40	1.5	.03	.70	1.4
19	4.4	5.7	4.6	e3.5	e4.6	2.3	2.4	.08	1.0	.76	.92	1.2
20	3.8	5.2	4.0	e3.5	e4.3	2.7	3.0	.00	.44	6.8	1.1	2.0
21	5.1	4.9	3.5	e3.5	e4.7	2.8	3.9	.00	.19	12	1.1	1.1
22	4.0	4.7	2.9	e3.9	4.8	2.6	3.5	.00	.06	25	1.2	.78
23	4.0	4.7	e3.0	e3.8	4.8	2.1	2.8	.00	.01	8.1	15	.64
24	4.0	5.0	e2.8	e3.8	4.0	2.0	2.4	.00	.00	3.4	34	7.0
25	5.6	6.0	e2.6	e4.1	3.7	1.1	1.2	.26	.00	2.4	17	13
26	4.8	4.9	e3.0	e4.5	3.5	.78	.77	8.0	11	1.5	4.4	2.6
27	4.5	5.0	e3.4	e4.0	4.0	1.0	.65	8.2	17	25	3.1	4.1
28	4.5	5.0	e3.2	e3.9	4.1	.96	1.2	14	14	8.8	17	3.1
29	4.9	5.0	e3.5	e3.6	3.8	.93	1.1	13	13	2.2	21	2.5
30	5.2	4.8	e3.8	e4.0	---	.86	.65	3.9	12	12	7.7	1.9
31	5.6	---	e3.6	e4.6	---	.80	---	3.2	---	41	17	---
TOTAL	123.4	153.4	113.4	121.0	119.4	58.53	44.32	75.03	94.39	227.87	310.10	126.22
MEAN	3.98	5.11	3.66	3.90	4.12	1.89	1.48	2.42	3.15	7.35	10.0	4.21
MAX	5.6	6.0	7.1	5.4	4.8	3.7	3.9	14	17	41	40	13
MIN	2.3	4.6	1.9	3.0	3.5	.78	.05	.00	.00	.03	.24	.64
AC-FT	245	304	225	240	237	116	88	149	187	452	615	250

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1996, BY WATER YEAR (WY)

	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
MEAN	1.95	2.33	2.08	1.99	2.86	5.28	10.3	20.2	10.9	6.79	10.4	4.37										
MAX	7.06	5.14	6.12	7.22	13.5	24.6	68.7	91.0	46.9	32.0	43.9	12.8										
(WY)	1985	1947	1994	1993	1993	1983	1984	1993	1949	1949	1981	1989										
MIN	.000	.000	.000	.000	.000	.000	.000	.032	.000	.097	.039	.000										
(WY)	1976	1946	1946	1946	1981	1986	1978	1950	1946	1945	1980	1946										

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1945 - 1996

ANNUAL TOTAL	2079.38	1567.06	
ANNUAL MEAN	5.70	4.28	6.98
HIGHEST ANNUAL MEAN			17.8
LOWEST ANNUAL MEAN			1.51
HIGHEST DAILY MEAN	106	41	a217
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.05	.00
INSTANTANEOUS PEAK FLOW		104	375
INSTANTANEOUS PEAK STAGE		3.11	5.15
ANNUAL RUNOFF (AC-FT)	4120	3110	5060
10 PERCENT EXCEEDS	14	7.8	16
50 PERCENT EXCEEDS	2.7	3.4	1.5
90 PERCENT EXCEEDS	.02	.65	.00

e Estimated

a-From rating curve extended above 85 ft<sup>3</sup>/s.

## 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 north of Dawson, 2.3 mi upstream from Rail Canyon, and at mile 28.2.

DRAINAGE AREA.--301 mi<sup>2</sup>.

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(F), 1944-46(M).

GAGE.--Water-stage recorder. Elevation of gage is 6,360 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1311 or 1731 for history of changes prior to Sept. 24, 1953.

REMARKS.--Records fair except for estimated daily discharges which are poor. Diversions for irrigation of small acreage and mountain meadows upstream from station. Several observations of water temperature were made during year. U. S. Weather Service Satellite Telemeter at gage. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred Aug. 2, 1921, when discharge probably exceeded 10,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e18	12	14	e11	e9.0	12	8.8	17	7.4	27	22	e55
2	e17	14	14	e12	e8.0	14	8.8	17	8.3	17	13	e27
3	e17	13	13	e10	6.8	16	11	14	7.4	9.5	9.8	e20
4	e16	13	12	e9.0	7.5	13	e12	13	4.6	7.0	7.7	e18
5	e16	14	11	e11	8.5	12	16	14	4.0	8.4	5.5	e15
6	e15	13	10	e12	e9.0	12	14	15	3.2	10	3.2	e15
7	e14	12	9.5	e11	e10	16	12	15	2.8	5.8	7.3	e14
8	e14	11	11	e10	e12	13	14	15	2.6	40	28	e14
9	e14	10	33	e11	e12	18	13	14	4.0	57	6.7	e13
10	e14	11	32	e10	21	14	15	13	4.1	71	6.2	e13
11	e14	14	51	e12	24	12	18	15	2.2	43	4.6	12
12	14	11	22	e11	18	11	18	15	2.3	22	2.8	11
13	13	14	10	e9.0	18	11	16	14	3.3	16	1.6	27
14	13	12	9.9	e12	18	11	19	15	6.2	14	1.2	34
15	14	13	12	e15	13	11	16	13	46	12	3.1	23
16	13	12	14	19	12	12	15	13	35	15	37	18
17	13	12	9.2	13	12	12	14	12	30	8.6	26	13
18	12	12	e19	e12	8.8	12	15	12	11	7.1	7.2	13
19	12	12	e15	7.9	9.6	12	15	12	6.1	8.3	5.0	13
20	12	12	e14	e9.0	7.9	10	16	10	3.9	11	3.5	11
21	13	11	e17	e10	9.3	9.2	17	8.9	2.8	25	2.1	9.8
22	13	11	e17	e11	8.3	8.6	15	9.6	3.9	15	4.3	9.1
23	13	12	e19	e9.0	8.6	9.0	13	8.2	6.9	6.1	39	7.8
24	12	12	e16	e9.0	10	9.9	13	7.6	6.4	4.7	50	7.4
25	13	12	e14	e10	9.1	12	15	13	3.0	7.1	28	7.4
26	13	11	e12	e11	10	7.8	17	19	3.6	30	95	7.1
27	13	11	e13	e11	11	12	18	19	51	87	28	9.2
28	12	13	e16	12	6.0	9.0	20	15	19	23	77	12
29	13	11	e15	e12	8.2	8.4	22	12	21	17	106	8.3
30	13	14	e15	13	---	9.2	17	11	13	53	e550	7.8
31	13	---	e13	e11	---	8.8	---	8.6	---	30	e160	---
TOTAL	426	365	502.6	345.9	325.6	357.9	453.6	409.9	325.0	707.6	1340.8	464.9
MEAN	13.7	12.2	16.2	11.2	11.2	11.5	15.1	13.2	10.8	22.8	43.3	15.5
MAX	18	14	51	19	24	18	22	19	51	87	550	55
MIN	12	10	9.2	7.9	6.0	7.8	8.8	7.6	2.2	4.7	1.2	7.1
AC-FT	845	724	997	686	646	710	900	813	645	1400	2660	922

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1996, BY WATER YEAR (WY)

	MEAN	8.84	6.85	5.65	5.42	6.35	6.73	21.3	49.5	35.9	29.6	40.5	17.3
MAX	51.6	30.5	25.5	15.5	16.7	34.8	370	372	179	138	147	78.4	
(WY)	1942	1942	1995	1921	1920	1987	1942	1941	1965	1919	1955	1942	
MIN	.15	.040	.59	.65	1.20	.80	1.21	.96	.65	1.85	4.50	.37	
(WY)	1952	1952	1952	1975	1952	1951	1955	1967	1946	1963	1951	1951	

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1916 - 1996

ANNUAL TOTAL	12178.96	6024.8	
ANNUAL MEAN	33.4	16.5	
HIGHEST ANNUAL MEAN			19.1
LOWEST ANNUAL MEAN			89.0
HIGHEST DAILY MEAN	504	May 29	2340
LOWEST DAILY MEAN	.86	Feb 11	.00
ANNUAL SEVEN-DAY MINIMUM	5.5	Feb 6	.00
INSTANTANEOUS PEAK FLOW			3780
INSTANTANEOUS PEAK STAGE			9.55
INSTANTANEOUS LOW FLOW			.99
ANNUAL RUNOFF (AC-FT)	24160	11950	13830
10 PERCENT EXCEEDS	76	22	45
50 PERCENT EXCEEDS	17	12	7.8
90 PERCENT EXCEEDS	7.7	6.9	1.8

e Estimated

a-From rating curve extended above 400 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.

## ARKANSAS RIVER BASIN

07203505 VERMEJO DITCH NEAR COLFAX, NM

LOCATION.--Lat 36°34'18", long 104°41'53", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on right bank 2.0 mi southeast of Colfax, and 4.9 mi downstream from head.

PERIOD OF RECORD.--December 1980 to September 1996 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 6,160 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 19, 1985 at site 0.8 mi downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges which are poor. Vermejo ditch diverts water from Vermejo River for use on the Vermejo Project. Three small diversions from Vermejo ditch upstream from gage. Several observations of water temperature were made during the year. No flow at times most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e17	12	13	e11	e8.5	8.3	6.6	11	5.8	15	e21	e51
2	e16	12	12	e11	e7.5	7.9	6.5	10	5.8	13	11	e22
3	e16	13	12	e9.0	e6.0	8.7	6.8	9.7	5.7	8.2	e9.5	e17
4	e15	13	12	e9.0	e7.0	9.0	9.5	9.4	4.9	6.1	7.5	e17
5	e15	12	e11	e10	e8.0	8.5	11	10	4.1	5.4	e5.2	e14
6	e14	13	e9.0	e11	e8.5	8.1	9.5	10	e3.0	6.8	e3.0	e14
7	e13	12	e8.0	e10	e9.5	6.7	8.6	10	e2.5	e5.5	e7.0	e13
8	e13	12	e9.0	e9.0	e11	8.6	8.9	10	e2.0	22	e25	e13
9	e12	11	e27	e10	e12	8.6	8.6	9.8	3.2	53	e6.5	e12
10	e13	11	e25	e9.0	e19	9.4	8.7	9.6	3.9	66	e6.0	e12
11	e13	13	e48	e11	e21	8.9	10	9.7	e2.0	e40	e4.3	e11
12	e13	12	e19	e10	e16	7.6	11	10	e2.0	20	e2.5	e10
13	13	14	e9.0	e8.5	e16	7.6	10	9.8	3.0	e15	e.00	e22
14	12	13	e8.5	e12	e15	7.7	11	9.2	3.6	e13	e.00	e27
15	13	13	e11	e14	e12	7.9	11	8.8	24	e11	e2.1	e19
16	13	13	e13	e18	e11	8.1	9.5	8.2	18	e14	e35	e16
17	12	12	e8.5	e12	e11	8.2	9.2	8.0	24	e8.0	e22	e12
18	12	12	e18	e11	e8.0	8.0	8.6	7.5	10	e7.0	e6.8	e12
19	11	13	e14	e7.5	e9.5	6.8	8.6	7.5	e6.0	e8.0	e4.7	e12
20	12	13	e13	e8.0	e7.5	6.8	9.4	7.3	e3.7	e10	e3.0	e10
21	12	12	e16	e9.5	e9.0	6.4	10	7.0	e2.5	e24	e1.5	e9.5
22	12	12	e16	e11	8.1	6.3	10	6.6	3.7	e14	e3.7	e8.2
23	12	13	e17	e8.5	8.0	6.0	8.9	6.7	4.2	e5.6	e32	e7.0
24	11	13	e14	e8.5	7.3	6.5	8.4	6.0	5.0	e4.0	e45	e6.5
25	11	13	e13	e9.0	7.4	7.2	8.8	8.1	e2.8	4.4	e25	e6.5
26	12	12	e11	e10	7.6	6.2	9.4	10	3.5	16	e90	e6.6
27	12	12	e13	e10	e8.0	6.2	9.8	11	35	67	e25	e8.7
28	11	12	e15	e11	e5.5	7.0	11	9.3	17	e19	e37	9.3
29	12	9.4	e14	e11	e8.0	6.6	12	7.9	15	14	e46	e5.5
30	12	13	e14	e12	---	6.6	11	7.3	11	42	127	e4.7
31	11	---	e12	e10	---	6.8	---	6.7	---	24	100	---
TOTAL	396	370.4	455.0	321.5	292.9	233.2	282.3	272.1	236.9	581.0	714.30	408.5
MEAN	12.8	12.3	14.7	10.4	10.1	7.52	9.41	8.78	7.90	18.7	23.0	13.6
MAX	17	14	48	18	21	9.4	12	11	35	67	127	51
MIN	11	9.4	8.0	7.5	5.5	6.0	6.5	6.0	2.0	4.0	.00	4.7
AC-FT	785	735	902	638	581	463	560	540	470	1150	1420	810

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1996, BY WATER YEAR (WY)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	9.52	8.50	6.01	4.91	5.20	9.04	20.7	30.4	27.3	24.0	28.3	17.4				
MAX	17.3	16.3	14.7	10.4	10.1	48.6	111	62.0	77.2	52.8	51.3	40.5				
(WY)	1987	1992	1996	1996	1996	1987	1987	1985	1983	1986	1981	1991				
MIN	4.91	3.31	.61	.86	1.35	2.21	2.33	4.08	.97	6.09	11.7	1.60				
(WY)	1990	1985	1988	1988	1988	1981	1981	1981	1981	1989	1989	1993				

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1981 - 1996
ANNUAL TOTAL	7779.80	4564.10	
ANNUAL MEAN	21.3	12.5	16.2
HIGHEST ANNUAL MEAN			26.9
LOWEST ANNUAL MEAN			8.48
HIGHEST DAILY MEAN	195	127	229
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	2.7	.00
ANNUAL RUNOFF (AC-FT)	15430	9050	11760
10 PERCENT EXCEEDS	49	19	40
50 PERCENT EXCEEDS	12	10	8.8
90 PERCENT EXCEEDS	5.6	5.6	1.9

e Estimated

## ARKANSAS RIVER BASIN

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 upstream from U.S. Highway 64, 250 ft northwest of intersection of U.S. Highway 64 and State Highway 38, about 1,000 ft upstream from high-water line of Eagle Nest Lake at Eagle Nest.

DRAINAGE AREA.--73.8 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1928 to October 1955 and June 1964 to current year (seasonal 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 above 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 downstream at datum 1.41 ft lower.

REMARKS.--Records good. Diversions for irrigation of about 1,200 acres upstream from station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 240 ft<sup>3</sup>/s, Sept. 1, 1946, gage height, 3.10 ft, site and datum then in use; maximum gage height, 3.55 ft, May 12, 1973; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 6.8 ft<sup>3</sup>/s, at 1045 hours, Apr. 3, gage height, 1.78 ft; minimum daily discharge, .06 ft<sup>3</sup>/s, Aug. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	---	---	---	---	---	5.2	3.0	.44	.41	.17	.29
2	4.1	---	---	---	---	---	6.0	2.8	.43	.29	.22	.37
3	3.7	---	---	---	---	---	6.1	2.7	.42	.20	.21	.41
4	3.3	---	---	---	---	---	5.7	2.6	.37	.17	.23	.33
5	3.2	---	---	---	---	---	5.2	2.4	.35	.17	.13	.30
6	3.4	---	---	---	---	---	4.6	2.3	.34	.17	.08	.27
7	---	---	---	---	---	---	4.5	1.9	.34	.28	.09	.29
8	---	---	---	---	---	---	4.2	1.8	.34	.27	.10	.28
9	---	---	---	---	---	---	3.5	1.7	.33	.41	.11	.26
10	---	---	---	---	---	---	3.6	1.6	.32	.72	.10	.26
11	---	---	---	---	---	---	3.6	1.5	.32	.62	.07	.27
12	---	---	---	---	---	---	3.4	1.4	.39	.42	.07	.34
13	---	---	---	---	---	---	3.6	1.3	.40	.43	.07	.42
14	---	---	---	---	---	---	3.3	1.3	.63	.36	.07	.48
15	---	---	---	---	---	---	3.5	1.1	1.1	.26	.06	.52
16	---	---	---	---	---	---	3.9	1.1	.75	.23	.10	.43
17	---	---	---	---	---	---	3.5	1.0	.60	.23	.10	.41
18	---	---	---	---	---	---	1.7	1.0	.47	.23	.09	.48
19	---	---	---	---	---	---	1.6	.91	.38	.20	.10	.47
20	---	---	---	---	---	---	1.6	.84	.34	.18	.12	.47
21	---	---	---	---	---	---	1.6	.86	.34	.15	.13	.43
22	---	---	---	---	---	---	1.6	.82	.42	.18	.24	.36
23	---	---	---	---	---	---	1.6	.76	.36	.17	.31	.36
24	---	---	---	---	---	---	1.6	.79	.27	.15	.30	.53
25	---	---	---	---	---	---	1.6	.83	.27	.15	.31	.64
26	---	---	---	---	---	---	1.5	.90	.27	.15	.36	.73
27	---	---	---	---	---	4.6	1.4	.86	.81	.13	.29	.84
28	---	---	---	---	---	4.6	1.3	.55	.52	.14	.32	.77
29	---	---	---	---	---	4.7	1.4	.51	.38	.93	.62	1.0
30	---	---	---	---	---	4.6	2.0	.49	.53	.30	.61	.95
31	---	---	---	---	---	4.7	---	.46	---	.22	.34	---
TOTAL	---	---	---	---	---	---	93.9	42.08	13.23	8.92	6.12	13.96
MEAN	---	---	---	---	---	---	3.13	1.36	.44	.29	.20	.47
MAX	---	---	---	---	---	---	6.1	3.0	1.1	.93	.62	1.0
MIN	---	---	---	---	---	---	1.3	.46	.27	.13	.06	.26
AC-FT	---	---	---	---	---	---	186	83	26	18	12	28

## ARKANSAS RIVER BASIN

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 downstream from Schoolhouse Draw, 0.4 mi upstream from high-water line of Eagle Nest Lake, 0.5 mi east of U.S. Highway 64, and 4.7 mi south of Eagle Nest.

DRAINAGE AREA.--56 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1928 to September 1955 and June 1964 to current year (seasonal 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. Elevation of gage is 8,200 ft above National Geodetic Vertical Datum of 1929, 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 downstream at different datums.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,000 acres upstream from station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 505 ft<sup>3</sup>/s, June 16, 1965, gage height, 5.63 ft, March 19, 1994, from rating curve extended above 110 ft<sup>3</sup>/s, no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 21 ft<sup>3</sup>/s, at 0300 hours, Apr. 3, gage height, 3.26 ft; minimum daily discharge 0.61 ft<sup>3</sup>/s, Aug. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	---	---	---	---	---	17	7.0	e1.7	3.0	2.4	1.9
2	6.2	---	---	---	---	---	19	6.6	e1.6	2.0	1.4	2.0
3	5.8	---	---	---	---	---	19	6.4	e1.6	1.5	1.1	2.4
4	5.4	---	---	---	---	---	14	6.0	e1.5	1.3	1.1	1.8
5	5.3	---	---	---	---	---	10	5.2	e1.3	1.2	.85	1.8
6	5.4	---	---	---	---	---	8.2	4.7	e1.3	1.3	.72	2.2
7	---	---	---	---	---	---	8.4	4.7	e1.3	1.9	.68	1.8
8	---	---	---	---	---	---	8.5	4.5	e1.3	1.7	.88	1.6
9	---	---	---	---	---	---	9.4	e4.4	e1.3	2.2	1.0	1.4
10	---	---	---	---	---	---	10	e4.2	e1.3	2.7	1.1	1.3
11	---	---	---	---	---	---	9.3	e3.9	e1.5	2.7	.87	1.5
12	---	---	---	---	---	---	8.7	e3.7	e1.9	2.2	.62	1.7
13	---	---	---	---	---	---	9.2	e3.5	e1.9	4.4	.61	2.3
14	---	---	---	---	---	---	8.6	e3.2	3.4	6.0	.64	2.5
15	---	---	---	---	---	---	10	e3.2	5.6	3.4	.65	4.7
16	---	---	---	---	---	---	11	e3.0	2.8	3.0	.85	2.7
17	---	---	---	---	---	---	12	e2.8	2.0	2.2	2.6	2.6
18	---	---	---	---	---	---	10	e2.7	1.6	1.8	1.5	4.4
19	---	---	---	---	---	---	9.5	e2.6	1.3	1.5	1.2	4.2
20	---	---	---	---	---	---	9.0	e2.4	.98	1.3	2.0	3.0
21	---	---	---	---	---	---	8.5	e2.3	1.1	1.1	3.3	2.5
22	---	---	---	---	---	---	8.1	e2.2	1.5	1.1	3.0	2.4
23	---	---	---	---	---	---	8.0	e2.2	1.8	1.1	4.5	2.3
24	---	---	---	---	---	---	8.5	e2.3	1.2	1.0	3.8	2.2
25	---	---	---	---	---	---	8.4	e2.4	.97	2.0	3.3	2.5
26	---	---	---	---	---	---	8.4	e2.5	1.5	2.0	4.0	2.7
27	---	---	---	---	---	---	8.3	e2.4	7.1	1.3	2.7	2.9
28	---	---	---	---	---	e9.0	8.2	e2.3	4.3	2.0	2.5	2.5
29	---	---	---	---	---	---	11	e2.1	2.4	1.7	2.6	2.4
30	---	---	---	---	---	12	7.4	e1.8	2.8	1.9	2.5	2.3
31	---	---	---	---	---	15	---	e1.7	---	5.0	2.0	---
TOTAL	---	---	---	---	---	---	302.1	108.9	61.85	67.5	56.97	72.5
MEAN	---	---	---	---	---	---	10.1	3.51	2.06	2.18	1.84	2.42
MAX	---	---	---	---	---	---	19	7.0	7.1	6.0	4.5	4.7
MIN	---	---	---	---	---	---	7.4	1.7	.97	1.0	.61	1.3
AC-FT	---	---	---	---	---	---	599	216	123	134	113	144

e Estimated

## ARKANSAS RIVER BASIN

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 downstream from concrete box culvert on U.S. Highway 64, and 2.6 mi southwest of Eagle Nest.

DRAINAGE AREA.--10.5 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1928 to September 1955 (seasonal records in water years 1929-31, 1933-55), July 1958 to current year (seasonal 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 above National Geodetic Vertical Datum of 1929. Prior to May 18, 1928, nonrecording gage at site 88 ft upstream at datum 0.98 ft higher. May 18, 1928 to Sept. 11, 1938, water-stage recorder at site 88 ft pstream at datum 0.43 ft higher.

REMARKS.--Records good. Diversions for irrigation of about 300 acres upstream from station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years (water years 1932, 1959-75), 2.51 ft<sup>3</sup>/s, 1,820 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (1930-55 and SINCE 1957).--Maximum discharge, 128 ft<sup>3</sup>/s, Aug. 5, 1969, gage height, 2.86 ft, from rating curve extended above 32 ft<sup>3</sup>/s; maximum gage height recorded, 3.38 ft, Apr. 2, 1937 (ice jam), site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 8.6 ft<sup>3</sup>/s, at 1000 hours, Apr. 29, gage height 1.68 ft; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	---	---	---	---	---	3.7	5.7	1.7	.80	.07	1.3
2	3.2	---	---	---	---	---	4.0	5.0	1.7	.31	.11	1.2
3	3.1	---	---	---	---	---	4.1	5.0	.96	.14	.06	1.2
4	2.9	---	---	---	---	---	3.8	4.9	.09	.09	.02	1.2
5	2.9	---	---	---	---	---	3.5	4.8	.06	.09	.02	1.1
6	3.0	---	---	---	---	---	3.0	4.6	.02	.09	.00	1.1
7	---	---	---	---	---	---	2.6	4.4	.01	.09	.00	1.1
8	---	---	---	---	---	---	2.8	4.2	.01	.14	.00	1.2
9	---	---	---	---	---	---	3.0	4.1	.00	.56	.00	1.4
10	---	---	---	---	---	---	2.8	3.9	.00	.94	.00	1.4
11	---	---	---	---	---	---	2.9	3.9	.00	.72	.00	1.4
12	---	---	---	---	---	---	2.9	3.8	.01	.74	.00	1.5
13	---	---	---	---	---	---	3.1	3.6	.01	1.0	.00	1.3
14	---	---	---	---	---	---	2.6	3.6	.09	1.1	.00	1.7
15	---	---	---	---	---	---	2.5	3.6	.38	.93	.00	1.9
16	---	---	---	---	---	---	2.5	3.5	.10	.84	e.12	1.6
17	---	---	---	---	---	---	2.6	3.2	.04	1.0	.33	1.5
18	---	---	---	---	---	---	2.9	3.1	.02	.93	.42	1.7
19	---	---	---	---	---	---	2.9	2.9	.00	.63	.35	1.6
20	---	---	---	---	---	---	2.8	2.6	.00	.27	1.2	1.5
21	---	---	---	---	---	---	2.6	2.5	.00	.19	1.4	1.3
22	---	---	---	---	---	---	2.4	2.4	.03	.13	2.1	1.4
23	---	---	---	---	---	---	3.2	2.3	.04	.10	2.3	1.4
24	---	---	---	---	---	---	5.0	2.3	.04	.08	2.0	1.4
25	---	---	---	---	---	---	6.2	2.3	.03	.08	1.6	1.4
26	---	---	---	---	---	---	7.5	1.9	.02	.09	1.4	1.7
27	---	---	---	---	---	---	3.4	8.0	1.8	.56	.07	1.6
28	---	---	---	---	---	---	3.1	8.2	2.0	.39	.06	1.4
29	---	---	---	---	---	---	3.2	7.3	1.6	.34	.08	1.4
30	---	---	---	---	---	---	3.3	6.4	1.7	.92	.11	1.3
31	---	---	---	---	---	---	3.4	---	1.7	---	1.4	---
TOTAL	---	---	---	---	---	---	117.8	102.9	7.57	12.50	21.20	42.2
MEAN	---	---	---	---	---	---	3.93	3.32	.25	.40	.68	1.41
MAX	---	---	---	---	---	---	8.2	5.7	1.7	1.1	2.3	1.9
MIN	---	---	---	---	---	---	2.4	1.6	.00	.06	.00	1.1
AC-FT	---	---	---	---	---	---	234	204	15	25	42	84

e Estimated



## ARKANSAS RIVER BASIN

## 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 southeast of Eagle Nest, 6.7 mi west of Ute Park, and at mile 48.7.

DRAINAGE AREA.--167 mi<sup>2</sup>.

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 June 1987, (nonrecording gage read several times a month at random intervals), July 1987 to current year. Prior to January 1972 published as Eagle Nest Reservoir.

REVISED RECORDS.--WSP 1281: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,056.8 ft above Geodetic Vertical Datum of 1929. Prior to October 1964 gage heights were raised by addition of 8,000 ft 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 between gage heights 35.0 ft, sill of outlet gate, and 137.0 ft, 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 upstream from reservoir.

COOPERATION.--Supplemental gage readings provided by Cimarron River watermaster.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents 81,360 acre-ft, May 21-29, 1994, gage height, 137.86 ft; minimum observed, 635 acre-ft, Dec. 14, 1954, gage height, 61.33 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 72,280 acre-ft, Apr. 10, gage height, 134.11 ft; minimum, 55,740 acre-ft, Sept. 30 gage height, 126.38 ft.

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

(Based on data provided by New Mexico State Engineer Office in 1950)

125	53,050	135	74,350
130	63,170	140	86,590

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70680	69260	69190	e69460	e70260	71160	72050	70820	65830	63190	58790	56600
2	70710	69310	69190	e69450	e70280	71230	72100	70640	65740	63090	58710	56580
3	70590	69130	e69210	e69460	e70290	71440	72050	70590	65630	63030	58650	56580
4	70460	69310	e69200	e69470	e70300	71390	72080	70300	65560	62920	58570	56550
5	70410	69240	69210	69480	70300	71370	72050	70160	65520	62880	58370	56540
6	70640	69190	69210	e69560	70440	e71450	72120	69980	65410	62790	58230	56480
7	70660	69130	e69190	e69580	70440	e71450	72170	69730	65280	62670	58010	56400
8	70520	69280	e69190	e69610	70410	71440	72170	69600	65280	62560	57840	56400
9	70570	69240	e69150	69600	70480	71570	72190	69460	65150	62460	57700	56380
10	70500	69150	69130	69620	70480	71690	72280	69240	64980	62500	57600	56320
11	70500	68990	69170	69640	70530	71690	72120	69130	64920	62500	57460	56280
12	70590	69060	69150	69620	70550	71730	72150	69060	64850	62480	57340	56260
13	70520	69150	69240	69640	70550	71780	72080	68660	64760	62500	57240	56220
14	70410	69190	69150	69660	70590	71760	72080	68550	64760	62520	57050	56180
15	70390	69150	69130	69730	70680	71870	72050	68460	64680	62480	56970	56180
16	70390	69240	69130	69780	70710	71960	72050	68320	64610	62390	56930	56120
17	70300	69170	69130	69840	70890	71910	71940	68050	64680	62180	56870	56080
18	70320	69170	e69120	e69880	70750	71940	71980	68140	64480	61990	56770	56100
19	70120	69170	e69140	69890	70910	71960	71690	67810	64380	61760	56730	56000
20	70000	69150	e69170	e69910	71000	72030	71620	67610	64330	61530	56730	55920
21	70050	69280	e69200	e69900	71160	72100	71480	67320	64140	61320	56670	55920
22	69840	69170	e69220	69910	71000	72150	71440	67170	64050	61060	56670	55860
23	69710	69150	e69240	e69960	70940	72100	71460	66900	63990	60840	56660	55900
24	69710	69190	e69260	e69990	70980	71940	71410	66790	63840	60550	56690	55880
25	69600	69030	e69280	69930	71100	71870	71280	66750	63690	60360	56690	55800
26	69550	69150	e69310	e70020	70980	71940	71230	66550	63580	60090	56660	55820
27	69550	69150	e69340	e70080	71030	72030	71230	66400	63520	59840	56630	55760
28	69400	69120	e69360	70000	e71120	72030	70960	66290	63430	59560	56670	55760
29	69420	69150	e69380	70120	71140	71980	70980	66130	63340	59310	56690	55760
30	69420	69190	e69410	70180	---	71960	70910	66070	63300	59080	56670	55740
31	69420	---	69420	70210	---	71980	---	65850	---	58900	56660	---
MAX	70710	69310	69420	70210	71160	72150	72280	70820	65830	63190	58790	56600
MIN	69400	68990	69120	69450	70260	71160	70910	65850	63300	58900	56630	55740
(†)	8132.85	8132.75	8132.85	8133.20	8133.61	8133.98	8133.51	8131.24	8130.06	8127.95	8126.84	8126.38
(††)	-1420	-230	+230	+790	+930	+840	-1070	-5060	-2550	-4400	-2240	-920

CAL YR 1995 MAX 79600 MIN 68990 (†) -2170  
WTR YR 1996 MAX 72280 MIN 55740 (††) -15100

(†) GAGE HEIGHT, IN FEET, AT END OF MONTH

(††) CHANGE IN CONTENTS, IN ACRE-FEET

e Estimated



## 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 downstream from Turkey Creek Canyon, 3.6 mi west of Cimarron, and at mile 31.6.  
DRAINAGE AREA.--294 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1281: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Nov. 6, 1963. Datum of gage is 6,599.58 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow regulated by Eagle Nest Lake (station 07205500). Diversions upstream from station for irrigation of about 3,500 acres, part of which is downstream from station. Philmont ditch (formerly known as Cimarroncito ditch) diverts from left bank 1.5 mi upstream from station, siphons under river 0.9 mi upstream and bypasses station for off-channel storage and irrigation downstream; Raton diversion pipeline 300 ft upstream from station for City of Raton Water Supply started June, 1983. See tabulation below for monthly diversions. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

[illegible]

(†) DIVERSION, IN ACRE-FEET, BY PHILMONT DITCH, DATA PROVIDED BY CIMARRON RIVER WATERMASTER  
(††) DIVERSION, IN ACRE-FEET, RATON DIVERSION, DATA PROVIDED BY CIMARRON RIVER WATERMASTER

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1996, BY WATER YEAR (WY)

MEAN	18.0	10.4	5.04	4.20	5.22	13.3	36.6	67.0	50.5	38.1	27.1	18.2		
MAX	44.9	26.7	18.5	18.5	43.7	149	237	329	158	79.5	81.0	50.4		
(WY)	1976	1982	1995	1992	1992	1987	1994	1994	1994	1995	1995	1968		
MIN	.14	1.80	1.32	1.13	1.17	1.65	2.70	23.5	8.55	6.13	1.95	.12		
(WY)	1957	1993	1957	1957	1988	1955	1955	1957	1956	1956	1954	1956		
SUMMARY STATISTICS			FOR 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1950 - 1996					
ANNUAL TOTAL			21539.0			9167.6								
ANNUAL MEAN			59.0			25.0			24.4					
HIGHEST ANNUAL MEAN									80.7					
LOWEST ANNUAL MEAN									9.09					
HIGHEST DAILY MEAN			392			May 29			121			Jul 30		
LOWEST DAILY MEAN			2.8			Dec 31			2.8			Dec 31		
ANNUAL SEVEN-DAY MINIMUM			3.3			Dec 25			3.2			Dec 28		
INSTANTANEOUS PEAK FLOW									125			Jul 31		
INSTANTANEOUS PEAK STAGE									2.07			Jul 31		
INSTANTANEOUS LOW FLOW												b15500		
ANNUAL RUNOFF (AC-FT)			42720			18180			17660					
10 PERCENT EXCEEDS			110			66			56					
50 PERCENT EXCEEDS			46			14			14					
90 PERCENT EXCEEDS			5.5			3.8			2.8					

a-From floodmarks.

b-From rating curve extended above 800 ft/s on basis of slope-area measurements at gage heights 4.88 ft and 12.42 ft.

## ARKANSAS RIVER BASIN

07207000 CIMARRON RIVER NEAR CIMARRON, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979, 1981 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
DEC 1995												
14...	0930	4.0	454	8.3	2.0	2.0	598	10.4	96	180	28	54
FEB 1996												
15...	0915	4.0	396	8.5	1.0	1.5	600	11.1	101	--	--	--
MAY												
10...	0945	84	307	8.2	18.0	10.5	605	9.0	102	130	--	40

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)
DEC 1995	10	18	0.6	1.4	178	1	147	153	54	7.0	0.40	10
FEB 1996	--	--	--	--	--	--	--	--	--	--	--	--
MAY 10...	8.1	12	0.5	1.7	--	--	--	139	15	5.9	0.40	2.3

[illegible]

DATE	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)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
DEC 1995											
14...	1	74	<1.0	30	<1.0	<1.0	<1.0	2.0	12	<1.0	7.0
FEB 1996											
15...	--	--	--	--	--	--	--	--	--	--	--
MAY											
10...	--	--	--	20	--	--	--	--	36	--	--

[illegible]



## 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 upstream from State Highway 21, 4.0 mi downstream from Bonito Creek, and 9.8 mi southwest of Cimarron.

DRAINAGE AREA.--65 mi<sup>2</sup>.

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. GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1976. Elevation of gage is 6,720 ft above National Geodetic Vertical Datum of 1929, 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 downstream at datum 2.79 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversion upstream from station. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	6.2	6.5	e4.5	5.6	8.8	11	12	3.7	7.5	5.1	5.4
2	9.6	6.8	6.1	e4.7	e5.8	8.6	12	12	3.6	5.0	5.1	4.5
3	9.4	6.2	5.7	e5.1	e5.7	7.3	13	12	3.5	4.2	4.6	5.7
4	8.3	6.0	5.5	e5.0	e6.1	5.9	12	11	3.4	3.8	3.3	4.0
5	8.0	6.4	5.7	e5.0	e6.0	5.6	11	11	3.1	4.5	2.8	3.7
6	8.0	6.2	5.6	e5.3	6.3	5.2	9.8	11	2.9	4.0	2.5	3.8
7	7.9	6.2	5.6	e5.5	5.9	9.7	11	10	3.0	5.2	2.5	3.9
8	7.7	6.2	5.7	e5.6	5.7	6.4	10	9.8	2.9	5.2	3.3	3.6
9	7.2	6.2	e5.6	e5.7	6.0	8.3	11	8.9	2.8	6.1	3.7	3.4
10	7.0	7.2	5.5	e5.4	6.3	6.8	12	8.9	3.0	7.5	3.5	3.3
11	7.0	5.6	5.3	e5.5	6.5	7.2	12	8.8	2.9	9.0	3.1	3.9
12	6.7	6.8	4.9	e5.3	6.0	7.5	12	8.3	2.8	7.4	2.5	3.8
13	6.7	6.7	4.9	5.6	5.7	8.3	12	8.0	3.1	11	2.4	6.4
14	6.7	6.5	4.8	5.6	6.2	8.9	9.8	7.6	4.5	8.3	2.6	4.6
15	6.4	6.2	4.2	6.4	6.7	8.7	12	7.0	5.3	6.8	3.6	7.4
16	6.4	6.2	4.2	5.5	7.5	8.0	14	6.6	3.9	5.7	3.6	5.0
17	6.4	5.9	e4.2	e5.3	7.2	7.8	13	6.3	3.7	4.8	3.9	4.4
18	6.3	5.7	e4.0	7.0	7.4	7.4	12	6.0	2.9	4.4	3.0	7.8
19	6.1	5.5	e3.8	7.0	6.9	7.2	12	5.6	2.4	4.0	2.5	7.2
20	6.1	5.5	e3.5	7.7	7.6	7.6	12	5.4	2.2	3.8	3.0	5.2
21	6.1	5.6	e3.7	9.1	9.1	7.8	12	5.3	2.1	4.0	4.4	4.5
22	6.4	5.6	e4.1	6.5	9.2	8.8	12	5.2	2.9	5.9	4.4	4.1
23	6.1	5.3	e4.0	8.4	7.6	9.4	11	4.8	3.7	4.8	15	3.8
24	6.5	5.0	e4.1	8.7	6.8	9.3	12	4.7	2.7	4.0	11	3.7
25	6.5	5.1	e3.7	9.6	7.2	8.7	12	5.2	2.6	4.0	8.5	3.7
26	6.2	5.5	e3.9	e7.6	6.0	8.8	13	5.0	4.0	4.2	7.5	4.0
27	6.1	4.2	e3.8	e6.8	5.2	9.0	13	4.5	13	4.0	6.0	4.4
28	6.1	3.4	e4.1	e6.5	6.0	8.9	14	4.1	8.1	4.7	7.5	4.1
29	6.4	6.5	e4.2	e5.7	9.4	9.4	13	3.9	5.6	4.1	5.3	3.8
30	6.2	6.9	e4.6	5.1	---	9.5	13	4.6	6.8	4.7	4.8	3.6
31	6.1	---	e4.9	6.2	---	10	---	4.2	---	7.9	4.9	---
TOTAL	216.6	177.3	146.4	192.9	193.6	250.8	358.6	227.7	117.1	170.5	145.9	136.7
MEAN	6.99	5.91	4.72	6.22	6.68	8.09	12.0	7.35	3.90	5.50	4.71	4.56
MAX	10	7.2	6.5	9.6	9.4	10	14	12	13	11	15	7.8
MIN	6.1	3.4	3.5	4.5	5.2	5.2	9.8	3.9	2.1	3.8	2.4	3.3
AC-FT	430	352	290	383	384	497	711	452	232	338	289	271

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1996, BY WATER YEAR (WY)

	MEAN	5.85	4.98	3.94	3.61	4.04	7.67	31.1	52.1	23.0	10.3	11.5	7.28
MAX	30.4	20.0	12.4	8.01	8.68	23.7	144	287	231	54.7	71.5	33.0	
(WY)	1942	1942	1987	1942	1987	1939	1987	1941	1965	1969	1965	1991	
MIN	1.23	1.40	1.27	1.58	1.95	2.98	5.20	3.65	1.79	1.42	2.10	.88	
(WY)	1957	1957	1957	1957	1951	1951	1956	1967	1956	1956	1956	1956	

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1912 - 1996
ANNUAL TOTAL	10187.4	2334.1	
ANNUAL MEAN	27.9	6.38	13.8
HIGHEST ANNUAL MEAN			41.6
LOWEST ANNUAL MEAN			2.83
HIGHEST DAILY MEAN	357	15	2000
LOWEST DAILY MEAN	2.5	2.1	.40
ANNUAL SEVEN-DAY MINIMUM	3.8	2.7	.67
INSTANTANEOUS PEAK FLOW		28	b9000
INSTANTANEOUS PEAK STAGE		2.76	a11.50
INSTANTANEOUS LOW FLOW		.76	c.03
ANNUAL RUNOFF (AC-FT)	20210	4630	9990
10 PERCENT EXCEEDS	79	11	30
50 PERCENT EXCEEDS	12	5.9	5.4
90 PERCENT EXCEEDS	5.0	3.6	2.6

e Estimated

a-From floodmarks.

b-From rating curve extended above 70 ft/s on basis of field estimate of peak flow.

c-Also may have been less during periods of ice effect.

## ARKANSAS RIVER BASIN

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 in Springer, 400 ft downstream from bridge on State Highway 21, 0.3 mi upstream from Salado Creek, and at mile 8.2.

DRAINAGE AREA.--1,032 mi<sup>2</sup>.

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. Elevation of gage is 5,770 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1311 or 1731 for history of changes prior to July 17, 1942.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow partly regulated by Eagle Nest Lake (station 07205500). Diversions for irrigation of about 23,000 acres upstream from station and a few hundred acres between station and mouth. Several observations of water temperature were made during the year. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 22 ft, Sept. 29, 1904 (backwater from debris on railroad bridge). Another major flood occurred June 11, 1913. Maximum discharge of these floods probably extended 10,000 ft<sup>3</sup>/s, but probably were less than the 1965 flood.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	43	39	e25	e14	11	18	3.8	4.2	2.7	1.7	14
2	43	39	36	e23	e10	11	18	3.0	3.1	1.6	.79	9.3
3	41	36	33	e20	e8.0	11	20	3.8	2.8	.85	.53	7.4
4	38	39	31	e24	e9.6	11	22	2.9	2.5	.52	.30	6.0
5	36	37	30	e31	e10	12	21	4.3	2.2	.86	.14	5.1
6	36	40	30	e28	e12	12	19	3.5	1.7	.61	.05	4.9
7	37	38	29	e26	e14	12	12	4.6	1.4	.51	.02	22
8	35	37	29	e28	15	12	11	3.8	1.2	1.1	.07	22
9	34	32	29	e33	13	14	9.5	2.8	1.2	5.9	.86	9.8
10	31	30	27	e33	13	13	5.5	2.8	.88	5.6	.35	6.6
11	24	31	31	e31	13	13	4.1	3.1	1.4	8.9	.08	7.4
12	21	31	29	e30	12	12	4.2	3.1	1.2	4.3	.17	6.0
13	20	28	28	e33	12	11	4.0	2.8	1.2	3.7	.50	7.0
14	20	30	27	e28	12	12	5.4	3.4	1.2	5.3	.17	6.7
15	22	28	29	e26	12	14	10	3.4	1.5	7.5	.35	13
16	25	27	28	28	12	17	4.2	4.2	2.0	5.9	.30	8.9
17	28	26	29	30	12	17	3.1	3.4	1.4	4.2	.07	5.8
18	23	26	e22	e21	12	17	2.9	2.8	1.1	2.7	.06	4.9
19	26	32	e20	e18	12	15	2.4	2.5	.69	1.8	.35	4.7
20	26	31	e22	e19	12	15	4.7	2.2	.44	1.3	2.9	4.4
21	28	31	e20	e19	11	15	7.8	1.9	.26	1.7	8.5	4.0
22	30	30	e20	e20	11	14	3.7	2.2	.27	8.1	7.5	3.5
23	35	31	e17	e19	11	13	3.2	1.9	.30	6.5	6.2	3.0
24	32	31	e20	e15	11	13	3.2	2.5	.13	2.7	18	2.6
25	35	31	e18	e13	11	14	2.9	5.5	.42	2.7	8.6	2.4
26	46	31	e22	e14	12	13	3.6	8.7	1.0	4.4	8.4	3.3
27	49	e28	e25	e15	12	13	3.5	8.7	6.1	8.7	252	3.8
28	49	e26	e21	e16	11	13	2.8	5.0	5.6	4.8	37	3.6
29	54	e31	e23	e16	11	14	2.8	3.8	3.5	3.2	22	3.0
30	57	36	e28	e23	---	18	3.4	3.1	5.0	2.8	233	2.6
31	53	---	e23	e17	---	18	---	3.8	---	1.9	33	---
TOTAL	1080	967	815	722	340.6	420	237.9	113.3	55.89	113.35	643.96	207.7
MEAN	34.8	32.2	26.3	23.3	11.7	13.5	7.93	3.65	1.86	3.66	20.8	6.92
MAX	57	43	39	33	15	18	22	8.7	6.1	8.9	252	22
MIN	20	26	17	13	8.0	11	2.4	1.9	.13	.51	.02	2.4
AC-FT	2140	1920	1620	1430	676	833	472	225	111	225	1280	412
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1996, BY WATER YEAR (WY)												
MEAN	8.81	8.46	7.64	7.78	8.15	10.9	33.9	85.2	44.4	12.2	17.5	12.9
MAX	98.0	68.3	59.0	62.3	63.8	242	506	928	699	146	154	118
(WY)	1942	1942	1987	1987	1992	1987	1987	1941	1965	1965	1991	1942
MIN	.039	.23	.28	.33	.33	.35	.50	.73	1.01	.39	.17	.007
(WY)	1957	1957	1957	1957	1957	1957	1957	1956	1925	1974	1978	1956
SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1908 - 1996												
ANNUAL TOTAL				36484.9			5716.70					
ANNUAL MEAN				100			15.6			21.7		
HIGHEST ANNUAL MEAN										139		
LOWEST ANNUAL MEAN										.90		
HIGHEST DAILY MEAN				2260			May 30					
LOWEST DAILY MEAN				3.6			Aug 10			10500		
ANNUAL SEVEN-DAY MINIMUM				8.4			Apr 4					
INSTANTANEOUS PEAK FLOW							252			Aug 27		
INSTANTANEOUS PEAK STAGE							.02			Aug 7		
ANNUAL RUNOFF (AC-FT)				72370			11340			15730		
10 PERCENT EXCEEDS				241			32			29		
50 PERCENT EXCEEDS				33			12			4.0		
90 PERCENT EXCEEDS				14			1.2			1.2		

e - Estimated

a - From floodmarks.

b - From rating curve extended above 1,800 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow.

## ARKANSAS RIVER BASIN

## 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 south of Taylor Springs, 2.3 mi downstream from Cimarron River, 2.4 mi upstream from Chico Creek, 7.1 mi southeast of Springer, and at mile 847.9.

DRAINAGE AREA.--2,850 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1940 to September 1958, and 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. Elevation of gage is 5,640 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 10, 1964, water-stage recorder at site 1.7 mi downstream at different datum; operated as crest-stage gage at that site and datum during water years 1959-64.

REMARKS.--Records good except for estimated daily discharges which are poor. Diversions for irrigation of about 30,000 acres upstream from station. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station. No flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood prior to 1965 occurred Sept. 29, 1904, discharge published as 91,100 ft<sup>3</sup>/s in WSP 842, 847.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	67	e57	e54	e31	25	35	11	14	18	60	121
2	68	64	e54	e50	e33	25	33	11	9.7	11	100	81
3	65	59	e51	e53	e36	25	33	11	8.8	8.3	37	58
4	62	57	e49	e59	e34	24	38	11	7.5	6.2	27	47
5	58	58	e50	e54	e32	24	37	10	6.6	4.8	20	35
6	57	60	e51	e46	e35	24	34	11	4.7	9.2	15	29
7	58	62	e51	e46	e35	24	31	11	4.3	4.3	11	168
8	57	60	e51	e47	e32	26	27	11	3.6	3.8	10	104
9	57	57	e50	e54	e31	28	25	9.6	2.7	121	18	55
10	54	56	e49	e52	e30	28	21	8.9	2.8	347	18	38
11	48	54	e51	e49	e30	27	20	9.3	2.7	48	15	50
12	45	55	e48	e50	e29	25	18	9.3	3.6	29	8.9	37
13	43	53	e47	e54	e29	23	20	9.2	4.1	21	6.0	59
14	42	49	e46	e45	e29	23	19	9.6	5.4	21	4.5	80
15	42	48	e48	e43	e30	26	21	8.9	4.9	24	4.5	63
16	48	48	e48	e41	e30	30	21	9.0	21	21	9.1	50
17	53	48	e48	e44	e30	35	17	8.7	19	15	12	39
18	52	48	e49	e41	e30	35	14	7.9	6.3	11	24	32
19	50	52	e45	e39	e29	32	12	6.5	4.7	9.6	13	31
20	48	53	e49	e37	e27	35	11	5.2	3.1	7.5	30	29
21	51	52	e50	e37	24	35	16	4.9	2.0	6.5	21	27
22	58	51	e45	e37	23	34	15	4.7	1.7	16	23	24
23	61	51	e46	e37	23	28	12	4.4	2.0	29	35	22
24	60	51	e44	e33	23	26	12	3.8	1.7	16	153	22
25	57	50	e49	e35	23	25	11	59	1.1	15	61	20
26	55	51	e57	e36	23	28	12	104	22	22	48	20
27	62	50	e50	e35	23	27	12	49	30	212	345	25
28	66	52	e52	e39	22	30	11	28	27	144	142	24
29	66	e50	e52	e35	22	28	11	18	35	71	159	22
30	73	e54	e53	e42	---	31	11	16	25	58	679	19
31	74	---	e53	e37	---	37	---	16	---	161	246	---
TOTAL	1762	1620	1543	1361	828	873	610	496.9	287.0	1491.2	2355.0	1431
MEAN	56.8	54.0	49.8	43.9	28.6	28.2	20.3	16.0	9.57	48.1	76.0	47.7
MAX	74	67	57	59	36	37	38	104	35	347	679	168
MIN	42	48	44	33	22	23	11	3.8	1.1	3.8	4.5	19
AC-FT	3490	3210	3060	2700	1640	1730	1210	986	569	2960	4670	2840
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)												
MEAN	39.2	23.3	20.7	21.2	25.4	27.8	128	244	145	93.8	119	80.5
MAX	451	192	105	121	186	337	2853	2174	2313	509	563	1354
(WY)	1942	1942	1943	1943	1948	1987	1942	1941	1965	1947	1981	1942
MIN	.000	.93	1.06	1.23	1.04	1.97	1.40	3.58	2.67	1.55	4.72	.000
(WY)	1957	1957	1957	1957	1957	1957	1954	1976	1964	1974	1975	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1940 - 1996
ANNUAL TOTAL	73310	14658.1	
ANNUAL MEAN	201	40.0	81.6
HIGHEST ANNUAL MEAN			564
LOWEST ANNUAL MEAN			7.60
HIGHEST DAILY MEAN	8770	May 30	679 Aug 30
LOWEST DAILY MEAN	23	Apr 7	1.1 Jun 25
ANNUAL SEVEN-DAY MINIMUM	27	Apr 3	2.3 Jun 19
INSTANTANEOUS PEAK FLOW			2280 Aug 30
INSTANTANEOUS PEAK STAGE			5.22 Aug 30
INSTANTANEOUS LOW FLOW			.96 Jun 25
ANNUAL RUNOFF (AC-FT)	145400	29070	59090
10 PERCENT EXCEEDS	427	60	128
50 PERCENT EXCEEDS	55	32	15
90 PERCENT EXCEEDS	36	8.2	2.8

e Estimated

a-From floodmarks.

b-From rating curve extended above 7,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.



## ARKANSAS RIVER BASIN

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 upstream from bridge on State Highway 518 at La Cueva, 0.3 mi downstream from La Cueva damsite, and at mile 86.8.

DRAINAGE AREA.--173 mi<sup>2</sup>.

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. Elevation of gage is 7,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. Mar. 10, 1915 to June 4, 1921 water-stage recorder at site 2.8 mi upstream at different datum.

July 6, 1921 to Jan. 5, 1929, nonrecording gage or water-stage recorder at site 0.7 mi downstream at datum about 14 ft lower and Jan. 6, 1929 to Apr. 1, 1972, water-stage recorder at site 0.7 mi downstream at datum about 15 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 7,000 acres, part of which are downstream from 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. No flow at times.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	13	2.8	2.9	e10	9.4	8.4	3.7	5.7	9.1	13	12
2	32	12	2.7	3.0	e9.8	8.5	4.9	3.6	5.3	6.9	15	12
3	30	12	2.7	3.0	e10	8.3	3.2	4.1	5.3	7.5	14	12
4	29	12	2.5	e3.5	e9.8	4.9	3.6	4.1	5.4	7.6	12	12
5	30	12	2.7	e3.2	e10	2.3	3.9	4.4	5.1	7.3	11	12
6	31	10	2.7	e3.0	e9.8	2.4	3.3	4.2	5.2	7.5	11	11
7	31	8.9	2.6	e2.8	e9.6	7.7	2.9	4.0	5.8	8.5	14	11
8	30	8.6	2.5	e3.0	9.8	13	2.5	4.0	5.5	16	15	11
9	29	8.6	2.4	e2.8	8.9	13	3.5	4.1	5.6	22	15	11
10	29	7.1	2.4	e3.0	9.0	13	4.8	4.8	6.3	33	13	11
11	25	5.4	2.4	e2.6	8.9	13	4.9	3.5	5.4	19	11	11
12	19	5.9	2.4	e2.5	8.7	12	5.2	3.3	5.6	31	11	15
13	18	4.5	2.4	e2.4	8.6	13	4.6	3.6	5.6	18	11	17
14	17	12	2.3	e2.3	8.6	13	4.3	4.0	6.7	11	9.7	14
15	18	15	2.3	e2.4	8.7	14	3.8	4.2	6.3	10	9.2	13
16	19	9.3	2.6	e2.3	8.6	14	3.9	4.4	5.5	12	10	12
17	18	3.5	3.1	e2.2	8.8	12	4.5	4.0	6.2	13	9.4	11
18	18	3.2	2.9	1.8	8.6	11	6.0	4.4	5.9	13	10	12
19	17	3.1	2.8	e1.7	8.6	8.8	4.6	4.3	5.5	12	9.2	11
20	17	9.9	2.8	e1.5	8.6	6.3	2.9	4.3	5.2	12	9.3	9.9
21	17	9.0	2.8	e1.6	8.6	6.5	2.9	4.7	5.4	12	9.2	9.7
22	17	3.0	2.6	2.4	8.9	6.5	2.9	4.8	5.7	13	9.1	9.5
23	16	2.9	2.5	2.0	8.8	6.3	4.9	4.2	5.7	14	11	9.6
24	14	2.7	2.4	6.0	8.9	6.4	5.6	4.5	5.3	14	11	10
25	14	2.7	e2.3	15	9.0	6.4	3.8	4.6	5.6	15	11	10
26	14	2.8	e2.5	18	8.9	6.0	3.6	5.2	6.5	15	14	11
27	13	19	e2.4	19	8.8	6.2	3.6	4.6	23	15	27	11
28	13	6.5	e2.4	18	8.7	6.2	3.4	5.3	11	15	38	10
29	13	3.7	e2.5	12	10	6.1	3.7	5.5	13	15	17	10
30	13	2.9	2.5	e11	---	8.2	3.6	5.6	18	15	15	9.9
31	13	---	2.4	e10	---	10	---	5.8	---	14	13	---
TOTAL	648	231.2	79.3	166.9	264.0	274.4	123.7	135.8	212.3	433.4	408.1	341.6
MEAN	20.9	7.71	2.56	5.38	9.10	8.85	4.12	4.38	7.08	14.0	13.2	11.4
MAX	34	19	3.1	19	10	14	8.4	5.8	23	33	38	17
MIN	13	2.7	2.3	1.5	8.6	2.3	2.5	3.3	5.1	6.9	9.1	9.5
AC-FT	1290	459	157	331	524	544	245	269	421	860	809	678
(†)	3371	1733	873	677	246	269	197	89	291	1793	671	682

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 1996, BY WATER YEAR (WY)

	MEAN	17.5	11.4	8.81	8.12	7.85	11.1	34.1	78.9	65.7	34.6	44.1	28.9
MAX	87.6	60.7	39.4	21.9	25.5	51.2	244	555	314	142	182	111	111
(WY)	1942	1942	1907	1907	1907	1987	1942	1941	1941	1911	1961	1991	1991
MIN	64	.38	.55	.000	.52	1.05	2.05	1.53	1.11	3.02	1.43	.46	.46
(WY)	1957	1957	1957	1908	1957	1957	1933	1967	1956	1934	1956	1956	1956

SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1906 - 1996
ANNUAL TOTAL	18341.2	3318.7	
ANNUAL MEAN	50.2	9.07	29.2
HIGHEST ANNUAL MEAN			113
LOWEST ANNUAL MEAN			3.12
HIGHEST DAILY MEAN	769	Jun 19	1060
LOWEST DAILY MEAN	2.3	Dec 14	.00
ANNUAL SEVEN-DAY MINIMUM	2.4	Dec 9	.00
INSTANTANEOUS PEAK FLOW			143
INSTANTANEOUS PEAK STAGE			2.97
ANNUAL RUNOFF (AC-FT)	36380	6580	a1530
10 PERCENT EXCEEDS	149	17	b7.58
50 PERCENT EXCEEDS	21	8.6	21170
90 PERCENT EXCEEDS	3.1	2.6	75
e Estimated			1.6

a-From rating curve extended above 400 ft<sup>3</sup>/s.

b-Site and datum then in use.

CAL YR 1995 (†) 9820 WRT YR 1996 (†) 10590

(†) 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 upstream from bridge on State Highway 161, 1.2 mi east of Golondrin, 1.9 mi upstream from Coyote Creek, 4.7 mi downstream from Rito Cebolla, and at mile 75.8.

DRAINAGE AREA.--267 mi<sup>2</sup>.

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 September 1986, March 1988 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. Elevation of gage is 6,750 ft above National Geodetic Vertical Datum of 1929, from topographic map. Mar. 10, 1915 to June 4, 1921, water-stage recorder at site 2.8 mi upstream at different datum. July 6, 1921 to Jan. 5, 1929, nonrecording gage or water-stage recorder at site 0.7 mi downstream at datum about 14 ft lower and Jan. 6, 1929 to Apr. 1, 1972, water-stage recorder at site 0.7 mi downstream at datum about 15 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 12,000 acres upstream from 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. National Weather Service satellite telemeter at station. No flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 25,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	13	8.0	6.9	e10	9.9	4.9	3.2	.17	13	8.2	20
2	36	13	6.6	6.6	e12	10	1.4	3.1	.26	4.1	6.4	19
3	35	11	6.0	6.9	e13	9.9	1.4	2.8	.21	5.2	8.8	18
4	33	10	5.8	7.5	14	9.7	1.1	4.0	.21	8.3	6.5	15
5	31	11	7.1	8.0	16	e10	1.7	2.8	.18	6.6	5.6	15
6	31	11	6.7	7.4	16	e11	4.6	2.5	.16	7.6	3.8	15
7	31	9.2	6.2	6.1	15	e12	2.7	2.2	.12	9.8	4.7	16
8	31	8.7	6.1	6.7	15	e13	3.6	2.1	.12	58	15	15
9	31	8.3	5.8	7.5	12	e15	4.0	1.6	.11	65	14	15
10	30	7.1	5.8	7.4	11	e14	3.8	2.3	.41	123	18	14
11	29	7.0	6.1	7.4	11	e12	2.5	2.1	.59	76	13	13
12	21	8.4	6.0	7.3	11	e13	1.7	2.5	1.1	62	11	18
13	22	9.7	5.5	7.2	11	e14	2.4	2.4	1.7	99	11	27
14	21	6.2	5.6	7.1	11	e12	2.4	1.9	1.7	32	11	19
15	20	11	5.0	6.2	9.4	e13	2.4	2.0	1.8	20	9.5	19
16	20	12	5.1	6.1	9.6	e12	1.6	1.7	1.9	15	11	16
17	18	8.5	7.6	7.5	10	e11	1.0	1.3	1.8	16	12	15
18	18	5.7	9.2	7.3	10	e10	1.6	1.4	1.8	16	9.6	16
19	19	5.4	7.2	5.5	10	e9.6	1.7	.85	1.7	14	8.8	14
20	16	5.3	7.2	5.4	10	e9.4	1.8	.59	1.8	14	7.7	13
21	13	12	6.7	5.6	10	9.0	2.1	.59	3.7	12	7.3	13
22	13	14	6.8	5.2	10	8.0	2.2	.56	4.7	9.6	7.8	12
23	14	6.8	5.7	5.2	10	8.6	2.5	.51	5.5	9.0	13	12
24	13	5.4	5.6	4.9	10	8.5	2.8	.58	3.4	7.3	22	13
25	13	5.3	6.5	9.9	10	10	3.0	.36	4.3	12	35	12
26	13	5.1	7.5	11	10	10	3.0	.36	4.7	11	23	13
27	14	4.8	7.3	e14	10	9.7	3.3	.32	19	11	64	14
28	13	23	8.1	e13	9.9	7.8	3.3	.24	7.5	10	118	13
29	14	10	6.8	e12	10	7.2	4.4	.16	4.3	10	28	13
30	14	8.9	7.0	e13	---	5.7	3.4	.16	12	10	74	13
31	12	---	7.1	e11	---	6.6	---	.17	---	9.8	38	---
TOTAL	676	276.8	203.7	242.8	326.9	321.6	78.3	47.35	86.94	776.3	625.7	460
MEAN	21.8	9.23	6.57	7.83	11.3	10.4	2.61	1.53	2.90	25.0	20.2	15.3
MAX	37	23	9.2	14	16	15	4.9	4.0	19	123	118	27
MIN	12	4.8	5.0	4.9	9.4	5.7	1.0	.16	.11	4.1	3.8	12
AC-FT	1340	549	404	462	648	638	155	94	172	1540	1240	912

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1996, BY WATER YEAR (WY)

	MEAN	22.1	14.7	12.1	12.1	11.6	12.9	44.7	92.6	74.3	41.1	56.3	34.5
MAX	119	86.8	38.9	29.7	27.2	68.8	361	661	377	321	307	153	
(WY)	1942	1942	1942	1942	1919	1985	1942	1941	1941	1919	1961	1991	
MIN	.21	.40	.52	.65	.55	.58	.25	1.01	.030	1.63	.000	.27	
(WY)	1957	1957	1957	1957	1957	1957	1955	1971	1934	1934	1934	1956	

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR

	ANNUAL TOTAL	22670.7	FOR 1996 WATER YEAR	4122.39	WATER YEARS 1915 - 1996	
ANNUAL MEAN		62.1		11.3		35.0
HIGHEST ANNUAL MEAN						144
LOWEST ANNUAL MEAN						3.42
HIGHEST DAILY MEAN		1150	Jun 19	123	Jul 10	1750
LOWEST DAILY MEAN		1.4	Apr 19	.11	Jun 9	.00
ANNUAL SEVEN-DAY MINIMUM		5.3	Mar 19	.16	Jun 3	.00
INSTANTANEOUS PEAK FLOW				421	Aug 30	a14000
INSTANTANEOUS PEAK STAGE				2.84	Aug 30	b14.40
ANNUAL RUNOFF (AC-FT)		44970		8180		25360
10 PERCENT EXCEEDS		168		19		90
50 PERCENT EXCEEDS		23		8.9		14
90 PERCENT EXCEEDS		6.8		1.7		2.0

a-Estimated

a-From rating curve extended above 660 ft<sup>3</sup>/s on basis of slope-area measurements of peak flow.

b-Site and datum then in use.

## ARKANSAS RIVER BASIN

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 downstream from Coyote Creek damsite, 2.3 mi northeast of Golondrin, and at mile 2.7.

DRAINAGE AREA.--215 mi<sup>2</sup>.

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. Elevation of gage is 6,780 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 26, 1938, at site 0.4 mi downstream at different datum (nonrecording gage prior to Apr. 20, 1929). Apr. 26, 1938 to Sept. 25, 1946, at site 139 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions (including off-channel storage) for irrigation of about 4,000 acres upstream from station. Several observations of water temperature were made during the year. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	10	16	e15	7.9	9.0	8.8	2.8	3.2	2.9	3.9	9.9
2	15	12	15	e14	8.8	8.8	7.5	2.8	3.2	2.5	3.4	8.5
3	15	9.8	14	e12	12	8.6	7.3	2.8	2.9	2.3	2.8	8.0
4	13	9.4	14	e11	16	8.1	7.0	2.6	2.8	2.2	2.6	7.4
5	15	9.8	13	e12	10	8.0	7.0	2.6	2.8	2.1	2.3	6.9
6	15	8.9	13	e14	10	7.0	8.4	2.5	2.9	2.0	2.0	16
7	16	8.9	13	e12	9.0	6.4	7.6	2.3	2.9	1.8	2.6	9.6
8	16	9.1	14	e15	9.1	6.1	7.2	2.3	e2.3	1.9	2.4	7.4
9	15	9.0	14	e13	9.3	6.5	6.9	2.3	e2.7	6.0	2.6	7.2
10	16	9.6	14	e14	8.9	7.0	6.2	2.4	e1.9	12	3.5	6.8
11	18	9.7	14	16	9.1	7.1	5.8	2.4	e1.7	10	2.4	6.8
12	16	9.8	14	17	10	6.5	5.7	2.4	e1.8	9.9	2.0	7.6
13	15	8.9	13	17	12	6.1	6.2	2.5	e1.7	9.6	2.0	8.5
14	14	8.8	13	15	13	6.0	6.3	2.5	e2.1	8.4	1.9	8.5
15	13	9.2	13	16	12	7.1	6.3	2.6	e1.6	7.6	6.7	8.7
16	14	9.2	14	14	13	7.9	5.9	2.8	e1.8	7.3	29	8.7
17	14	9.9	15	15	13	8.6	5.6	2.8	e1.6	7.0	13	8.7
18	15	9.9	16	14	13	8.6	5.5	2.8	e2.2	7.4	8.1	9.7
19	14	9.5	14	13	16	7.5	5.2	2.8	e1.8	6.4	6.3	10
20	14	9.5	13	11	15	7.2	4.8	2.8	1.9	6.0	5.6	10
21	11	10	13	13	15	6.0	4.7	2.9	1.9	4.4	5.2	8.8
22	10	10	15	12	15	5.6	4.6	2.8	1.9	3.7	5.1	7.6
23	9.4	10	14	10	14	5.5	4.4	2.7	2.0	3.5	7.6	6.9
24	11	9.0	16	11	11	5.3	4.0	2.6	2.0	3.3	8.4	6.4
25	9.2	6.1	e17	15	9.3	5.0	3.9	2.7	1.5	3.6	6.3	6.3
26	9.2	5.4	e14	11	9.1	7.1	3.6	2.8	1.3	8.0	6.1	6.9
27	9.6	5.0	e15	14	9.8	8.0	3.5	3.0	4.0	7.6	19	6.4
28	9.4	9.7	e17	14	10	8.9	3.5	3.1	2.6	5.9	9.8	6.2
29	11	8.5	e13	12	11	9.4	3.1	3.0	2.9	4.4	8.3	6.4
30	12	15	e12	9.9	---	9.9	3.0	3.0	2.8	3.3	20	6.3
31	11	---	e14	9.3	---	9.9	---	3.2	---	3.6	21	---
TOTAL	408.8	279.6	439	411.2	331.3	228.7	169.5	83.6	68.7	166.6	221.9	243.1
MEAN	13.2	9.32	14.2	13.3	11.4	7.38	5.65	2.70	2.29	5.37	7.16	8.10
MAX	18	15	17	17	16	9.9	8.8	3.2	4.0	12	29	16
MIN	9.2	5.0	12	9.3	7.9	5.0	3.0	2.3	1.3	1.8	1.9	6.2
AC-FT	811	555	871	816	657	454	336	166	136	330	440	482

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1996, BY WATER YEAR (WY)

	MEAN	9.22	8.96	7.99	7.52	7.92	9.63	20.8	31.1	16.2	9.42	16.7	11.9
MAX	80.4	53.9	24.2	19.7	19.4	77.6	195	219	181	67.0	150	150	150
(WY)	1942	1942	1942	1992	1985	1987	1987	1941	1995	1941	1991	1991	1991
MIN	.72	1.71	1.59	1.64	1.12	1.02	.32	.53	.23	.83	.78	.65	.65
(WY)	1957	1935	1955	1957	1955	1967	1978	1967	1940	1963	1956	1956	1956

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1930 - 1996

ANNUAL TOTAL	11290.5	3052.0	
ANNUAL MEAN	30.9	8.34	13.1
HIGHEST ANNUAL MEAN			52.9
LOWEST ANNUAL MEAN			2.33
HIGHEST DAILY MEAN	640	29	1290
LOWEST DAILY MEAN	1.8	1.3	.00
ANNUAL SEVEN-DAY MINIMUM	2.1	1.8	.10
INSTANTANEOUS PEAK FLOW		210	a4050
INSTANTANEOUS PEAK STAGE		4.35	b10.10
ANNUAL RUNOFF (AC-FT)	22390	6050	9520
10 PERCENT EXCEEDS	55	15	24
50 PERCENT EXCEEDS	14	8.4	5.6
90 PERCENT EXCEEDS	5.1	2.4	1.2

e Estimated

a-From rating curve extended above 250 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 5.54 ft, 7.74 ft and 9.60 ft.

b-Site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 30,000 ft<sup>3</sup>/s.

a-From rating curve extended above 2,800 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 10.09 ft and 12.79 ft.



## ARKANSAS RIVER BASIN

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

## WATER-QUALITY RECORDS

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
DEC 1995											
13...	0930	69	1450	8.3	17.0	3.0	644	11.1	98	<10	K1
FEB 1996											
14...	1015	73	1240	8.4	15.0	6.0	647	10.4	99	<10	<1
MAY											
09...	0915	4.0	1720	8.1	22.5	18.5	648	6.8	86	17	55
AUG											
21...	0845	35	702	8.2	21.5	23.0	653	6.5	89	19	--

DATE	STREP-TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L AS CA) (00904)	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 WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)
DEC 1995 13...	K7	590	390	120	70	110	2	2.6	236	0	193
FEB 1996 14...	<1	490	310	100	59	87	2	2.3	211	8	186
MAY 09...	680	650	470	120	86	150	3	4.2	219	0	180
AUG 21...	--	220	120	52	23	42	1	3.5	123	3	106

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L AS N) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
DEC 1995 13...	195	570	22	0.50	8.9	1020	<0.010	<0.050	<0.015	--	<0.20
FEB 1996 14...	185	460	18	0.40	8.7	847	--	--	--	--	--
MAY 09...	180	720	31	0.60	7.2	1230	<0.010	<0.050	0.020	0.28	0.40
AUG 21...	108	200	7.8	0.30	6.9	400	<0.010	0.100	<0.015	--	<0.20

DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	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)
DEC 1995 13...	<0.20	<0.010	<0.010	<0.010	4.2	5.0	<1.0	<1	62	<1.0	90
FEB 1996 14...	--	--	--	--	2.1	--	--	--	--	--	70
MAY 09...	0.30	0.020	<0.010	<0.010	4.7	5.0	<1.0	<1	74	<1.0	130
AUG 21...	0.20	<0.010	<0.010	0.010	7.7	--	--	--	--	--	58

## ARKANSAS RIVER BASIN

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
DEC 1995											
13...	<1.0	2.0	<1.0	7.0	<3.0	<1.0	7.0	--	3.0	4.0	1
FEB 1996											
14...	--	--	--	--	<3.0	--	--	--	--	--	--
MAY											
09...	<1.0	1.0	<1.0	5.0	<3.0	<1.0	22	<0.10	5.0	5.0	<1
AUG											
21...	--	--	--	--	9.0	--	--	--	--	--	--

DATE	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)	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, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)
DEC 1995											
13...	1	<1.0	7.0	2.0	3.8	320	430	4	<1	6	<5
FEB 1996											
14...	--	--	--	--	--	--	--	--	--	--	--
MAY											
09...	1	<1.0	4.0	--	--	--	--	--	--	--	--
AUG											
21...	--	--	--	--	--	--	--	--	--	--	--

DATE	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)
DEC 1995										
13...	7	540	<10	560	<0.01	20	5.0	--	--	72
FEB 1996										
14...	--	--	--	--	--	--	--	43	8.5	89
MAY										
09...	--	--	--	--	--	--	5.0	81	0.87	65
AUG										
21...	--	--	--	--	--	--	--	183	17	97

## ARKANSAS RIVER BASIN

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 northeast of Variadero, 14 mi west of Conchas Dam, and at mile 15.0.

DRAINAGE AREA.--523 mi<sup>2</sup>, of which 130 mi<sup>2</sup> is probably noncontributing.

PERIOD OF RECORD.--October 1936 to September 1996 (discontinued).

REVISED RECORDS.--WSP 1281: 1937-39, 1941-47.

GAGE.--Water-stage recorder. Elevation of gage is 4,390 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 30, 1942, at site 1.5 mi upstream at different datum. Mar. 30, 1942 to May 18, 1950, at present site at datum 0.5 ft higher.

REMARKS.--Records fair except for estimated daily discharge which are poor. Diversions for irrigation of about 300 acres upstream from station. Several observations of water temperature were made during the year. No flow many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.00	.04	.03	.03	.03	.03	.00	e.00	88	77	68
2	.03	.00	.04	.03	.03	.03	.03	.00	e.00	8.3	27	28
3	.03	.00	.04	.03	.03	.03	.03	.00	e.00	2.8	9.2	14
4	.03	.02	.04	.03	.03	.03	.03	.00	e.00	1.7	4.0	9.3
5	.03	.02	.03	.03	.03	.03	.03	.00	e.00	1.5	2.1	16
6	.03	.02	.02	.03	.03	.03	.03	.00	.00	1.4	1.3	10
7	.03	.01	.02	.03	.03	.03	.03	.00	.00	1.4	.85	13
8	.03	.01	.02	.03	.03	.04	.03	.00	.00	1.4	.77	35
9	.03	.01	.02	.03	.03	.04	.03	e.00	.00	231	199	17
10	.02	.01	.02	.03	.03	.04	.03	e.00	.00	1820	42	7.5
11	.01	.00	.02	.03	.03	.04	.02	e.00	.00	69	12	18
12	.01	.00	.03	.03	.03	.04	.00	e.00	.00	30	4.5	330
13	.00	.00	.02	.03	.03	.03	.00	e.00	.00	12	2.4	89
14	.00	.00	.02	.03	.03	.04	.00	e.00	.00	261	1.5	60
15	.00	.01	.02	.03	.03	.04	.00	e.00	.00	47	.93	86
16	.00	.02	.03	.02	.03	.04	.00	e.00	.00	18	.61	26
17	.00	.02	.04	.03	.03	.03	.00	e.00	.00	7.6	.46	10
18	.00	.02	.05	.02	.03	.03	.00	e.00	.00	5.5	.35	6.0
19	.00	.03	.03	.03	.03	.04	.00	e.00	.00	7.9	.54	4.4
20	.00	.04	.03	.03	.03	.04	.00	e.00	.00	19	.39	3.4
21	.00	.04	.03	.03	.03	.04	.00	e.00	.00	8.8	.23	2.7
22	.00	.04	.03	.03	.03	.04	.00	e.00	.00	4.1	.18	2.3
23	.00	.03	.03	.03	.03	.04	.00	e.00	.00	8.3	5.8	1.9
24	.00	.03	.03	.03	.03	.03	.00	e.00	.00	25	88	1.6
25	.00	.03	.03	.03	.03	.03	.00	e.00	.00	5.8	20	1.5
26	.00	.04	.03	.02	.03	.03	.00	e.00	.00	2.0	77	1.3
27	.00	.04	.03	.02	.03	.03	.00	e.00	.00	145	31	1.2
28	.00	.04	.03	.02	.03	.03	.00	e.00	1.3	35	1340	1.1
29	.00	.04	.03	.02	.03	.03	.00	e.00	357	10	97	1.1
30	.00	.04	.03	.02	---	.03	.00	e.00	149	189	37	1.0
31	.00	---	.03	.02	---	.04	---	e.00	---	21	53	---
TOTAL	0.32	0.61	0.91	0.85	0.87	1.07	0.32	0.00	507.30	3088.5	2136.11	866.3
MEAN	.010	.020	.029	.027	.030	.035	.011	.000	16.9	99.6	68.9	28.9
MAX	.04	.04	.05	.03	.03	.04	.03	.00	357	1820	1340	330
MIN	.00	.00	.02	.02	.03	.03	.00	.00	.00	1.4	.18	1.0
AC-FT	.6	1.2	1.8	1.7	1.7	2.1	.6	.00	1010	6130	4240	1720

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1996, BY WATER YEAR (WY)

	MEAN	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	8.27	1.61	.85	.70	.74	1.23	2.88	11.7	25.2	30.9	33.5	37.9
MAX	90.5	31.6	11.0	8.65	8.26	22.0	63.8	302	503	144	154	549
(WY)	1942	1987	1943	1943	1987	1987	1942	1941	1937	1972	1977	1941
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.16	.000
(WY)	1937	1937	1937	1937	1953	1949	1938	1938	1945	1980	1980	1948

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1937 - 1996
ANNUAL TOTAL	3803.47	6603.16	
ANNUAL MEAN	10.4	18.0	13.0
HIGHEST ANNUAL MEAN			108
LOWEST ANNUAL MEAN			.18
HIGHEST DAILY MEAN	1640	1820	11700
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		5620	b44000
INSTANTANEOUS PEAK STAGE		8.52	a19.96
ANNUAL RUNOFF (AC-FT)	7540	13100	9420
10 PERCENT EXCEEDS	.61	18	8.8
50 PERCENT EXCEEDS	.02	.03	.10
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-Present datum.

b-From rating curve extended above 760 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 12.5 ft and 19.96, present datum.





## ARKANSAS RIVER BASIN

07226500 UTE CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°26'18", long 103°31'31", in NW¼sec.15, T.14 N., R.32 E., Harding County, Hydrologic Unit 11090007, on right bank 1.9 mi downstream from Alamosa Creek, 4.5 mi upstream from State Road 155, 4.7 mi upstream from high-water line of Ute Reservoir, 8.2 mi northwest of Logan, and at mile 10.0.

DRAINAGE AREA.--2,060 mi<sup>2</sup>, of which 617 mi<sup>2</sup> is probably noncontributing.

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

REVISED RECORDS.--WSP 1281: 1942-48, 1950, 1951(P), WDR NM-81-1: 1965(P), 1967-68(M), 1969(P), 1971(M), 1972, 1975(M), 1977, 1979. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Elevation of gage is 3,820 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 2121 for history of changes prior to Oct. 1, 1964.

REMARKS.--Records fair except for estimated daily discharges which are poor. Diversions for irrigation of a few hundred acres upstream from station. No flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1, 1914, reached a stage of 22.95 ft site and datum then in use. Another major flood reached a stage of 16.0 ft, 1942 datum, sometime in 1941, from information furnished by Bureau of Reclamation; discharge, about 70,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY 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	e2.6	e3.3	e2.0
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.3	e1.0
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.53	e.57
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.33	e.57
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.42
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	124
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.19	28
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.33	e12
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	e80	.02	e9.0
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	e1.8	25	e8.0
12	.00	.00	.00	.00	.00	.00	.00	.00	e8.5	e.00	30	e1.0
13	.00	.00	.00	.00	.00	.00	.00	.00	e7.9	e.00	11	e2.0
14	.00	.00	.00	.00	.00	.00	.00	.00	e11	.00	3.2	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	18	e3.0
16	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	15	e2.0
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	25	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.7	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	106	e3.0
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	32	e2.0
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	20	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	e63	.00	73	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.53	.00	210	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	275	1180	e5.0
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e112	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	50	.00	e16	.00
30	.00	.00	.00	.00	---	.00	.00	e8.0	e41	e157	e5.9	.00
31	.00	---	.00	.00	---	.00	---	e6.0	---	e6.7	e2.8	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	181.93	523.10	1937.69	205.56
MEAN	.000	.000	.000	.000	.000	.000	.000	.45	6.06	16.9	62.5	6.85
MAX	.00	.00	.00	.00	.00	.00	.00	8.0	63	275	1180	124
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	28	361	1040	3840	408
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1996, BY WATER YEAR (WY)												
MEAN	10.4	3.43	1.90	2.62	2.17	1.83	10.9	38.3	28.9	53.9	72.5	30.4
MAX	139	92.5	39.9	39.7	26.3	23.7	459	351	191	317	520	261
(WY)	1955	1979	1943	1942	1942	1948	1942	1955	1965	1950	1981	1969
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.027	.000
(WY)	1945	1946	1946	1946	1946	1946	1943	1945	1953	1946	1983	1948
SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1942 - 1996												
ANNUAL TOTAL				1453.11			2862.28					
ANNUAL MEAN				3.98			7.82			20.5		
HIGHEST ANNUAL MEAN										57.2		1958
LOWEST ANNUAL MEAN										.084		1974
HIGHEST DAILY MEAN				652	Jul 2		1180	Aug 27		7420	May 28	1946
LOWEST DAILY MEAN				.00	Jan 1		.00	Oct 1		.00	Jul 17	1942
ANNUAL SEVEN-DAY MINIMUM				.00	Jan 1		.00	Oct 1		.00	Mar 18	1943
INSTANTANEOUS PEAK FLOW							4360	Aug 27		a24500	May 28	1946
INSTANTANEOUS PEAK STAGE							5.20	Aug 27		b9.94	Aug 11	1981
ANNUAL RUNOFF (AC-FT)				2880			5680			14870		
10 PERCENT EXCEEDS				.00			5.3			19		
50 PERCENT EXCEEDS				.00			.00			.00		
90 PERCENT EXCEEDS				.00			.00			.00		

e Estimated

a-From rating curve extended above 7,700 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 5.2 ft and 7.2 ft.

b-Site and datum then in use.

## ARKANSAS RIVER BASIN

## 07226800 UTE RESERVOIR NEAR LOGAN, NM

LOCATION.--Lat 35°20'35", long 103°26'37", in NW¼ sec.21, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080006, on face of Ute Dam on Canadian River, 2.5 mi southwest of Logan, 3.5 mi downstream from Ute Creek, and at mile 673.1.

DRAINAGE AREA.--11,110 mi<sup>2</sup>, of which 1,110 mi<sup>2</sup> 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 an earthfill dam 132 ft high above streambed, 2,050 ft long; an earthen dike section on north bank of Canadian River 3,640 ft long with a maximum height of 38 ft; a concrete labyrinth spillway section with an equivalent weir length of 3,360 ft is located upstream of an 840 ft long ogee section between the main embankment and dike. Original construction completed in May 1963, storage began Dec. 13, 1962; modification project to construct labyrinth spillway and increase height of dam and dike completed April 1984. Capacity, 244,960 acre-ft at elevation 3,787.0 ft, crest of labyrinth spillway from capacity table dated November 1992. Original capacity at elevation 3,787.0 ft was 272,770 acre-ft. Top of dam is at elevation 3,812.0 ft. Dead storage, 10,780 acre-ft at elevation 3,725.0 ft, sill of outlet intake tower; inactive pool of 25,070 acre-ft between elevations 3,725.0 and 3,741.6 ft, maintained for sediment control and fish and wildlife. Figures given herein represent total contents. Reservoir storage is for municipal and industrial uses, recreational purposes, sediment control and some incidental flood control. Diversions upstream from station for irrigation about 90,000 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 250,000 acre-ft, May 20, 21, 1987, elevation, 3,787.40 ft; minimum since reservoir first filled in September 1965, 31,320 acre-ft, June 6, 1984, elevation, 3,739.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 194,230 acre-ft, July 31, elevation, 3,780.16 ft; minimum, 170,440 acre-ft, June 11, elevation, 3,776.50 ft.

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

(Based on survey by U. S. Bureau of Reclamation and New Mexico Interstate Stream Commission 1992)

3,744	41,030	3,780	193,100
3,760	88,760	3,788	253,100

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185280	178850	178340	178530	179050	176930	176870	174190	171380	173750	194100	193140
2	184110	178590	178270	178400	178990	176930	176930	174190	171380	173750	193140	193760
3	183910	178460	178210	178590	178920	177000	176360	174190	171130	173750	192800	192340
4	182930	178590	178150	178460	178860	177120	176230	174190	171250	173750	192800	192070
5	182020	178910	178020	178460	178790	177630	176170	173940	171250	174700	192670	191470
6	181370	178660	178080	178530	178720	176680	176230	174130	170880	174510	192540	191000
7	180650	178460	178400	178660	178660	177060	176300	174060	170820	174510	192140	191730
8	180060	178780	177960	178340	178590	177060	176360	173810	170760	174450	192200	191470
9	179740	178910	177960	178210	178530	177120	176230	173750	170440	174700	192400	191000
10	179740	178460	178150	178340	178460	177120	176360	173490	170570	180130	192200	190600
11	179740	178340	177960	178270	178390	177120	176110	173490	170440	187930	192140	190130
12	179610	178590	178020	178340	178330	177120	176110	173490	171130	190000	191870	189600
13	179480	178460	178080	178340	178260	177320	175790	173370	171440	191070	191200	189330
14	179680	178590	177960	178340	178200	177060	175530	173550	171810	192740	190530	188930
15	179610	178460	177960	178460	178130	177190	175720	173240	171810	193140	190060	188660
16	179360	178590	177890	178400	178060	177060	175850	173240	171810	193270	189800	188200
17	179480	178590	178080	178270	177990	177000	175530	172930	171630	193210	189460	187600
18	179480	178660	178270	178270	177930	176930	175660	172870	171690	193070	188800	186990
19	180580	178400	178210	178400	177870	176870	175280	172690	171440	192400	188860	186460
20	181300	178590	178400	178400	177510	177060	175280	172310	171380	192000	188600	185680
21	185550	178660	178270	178460	177760	177060	175150	172120	171070	191340	188000	185410
22	185550	178460	178400	178400	177510	177000	175020	172190	170510	190870	187460	184820
23	179290	178400	178270	178590	177760	177320	175090	171810	170820	190330	187130	183520
24	178970	178460	178400	178400	177190	176680	175090	171440	170510	190130	186790	183000
25	178970	178590	178460	177960	177250	176620	174770	171630	170880	189530	186720	182280
26	180650	178400	178460	178210	177250	176740	175020	171690	172250	189460	187460	181300
27	180650	178210	178460	178270	177120	176740	174640	171380	172560	190730	190940	180910
28	178850	180130	178400	178270	176810	176740	174320	171250	172560	192200	192340	180650
29	178910	178210	178400	178400	176810	176420	174570	171190	172830	192940	192610	180650
30	178720	178210	178590	178020	---	176550	174190	171440	173680	193760	192800	180710
31	178850	---	178460	179120	---	176550	---	171630	---	194230	193010	---
MAX	185550	180130	178590	179120	179050	177630	176930	174190	173680	194230	194100	193760
MIN	178720	178210	177890	177960	176810	176420	174190	171190	170440	173750	186720	180650
(†)	3777.83	3777.73	3777.77	3777.86	3777.51	3777.47	3777.10	3776.69	3777.02	3780.16	3779.98	3778.12
(††)	-6300	-640	+250	+660	-2310	-260	-236	-2560	+2050	+20550	-1220	-12300
CAL YR 1995	MAX 215060	MIN 172120	(††) +2230									
WTR YR 1996	MAX 194230	MIN 170440	(††) -4440									

(†) ELEVATION, IN FEET, AT END OF MONTH  
(††) CHANGE IN CONTENTS, IN ACRE-FEET

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## ARKANSAS RIVER BASIN

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

## WATER-QUALITY RECORDS

07226560 - UTE RE AT SITE B, 0.6 MILES AB UTE DAM, NM (LAT 35°20'32" LONG 103°27'16")

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
MAY 1996 08...	196	330	47	0.70	4.9	730	<0.010	<0.050	0.030	0.27	0.40

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)
MAY 1996 08...	0.30	<0.010	<0.010	<0.010	4.8	5.0	<1.0	1	238	<1.0	170

DATE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
MAY 1996 08...	<1.0	<1.0	<1.0	4.0	<3.0	<1.0	<1.0	<0.10	5.0	2.0	<1

DATE	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)	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,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)
MAY 1996 08...	<1	<1.0	3.0	2.0	32	1200	600	6	<10	9

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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY 1996 08...	10	20	9300	<100	400	<0.10	40	6.0	27	78

## ARKANSAS RIVER BASIN

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 1,110 ft upstream from bridge on U.S. Highway 54, 0.7 mi south of Logan, 1.4 mi upstream from Chicago, Rock Island & Pacific Railroad Co. bridge, 2.0 mi downstream from Ute Dam, 4.3 mi upstream from Revuelto Creek, and at mile 672.0.

DRAINAGE AREA.--11,141 mi<sup>2</sup>, of which 1,110 mi<sup>2</sup> is probably noncontributing.

## WATER-DISCHARGE RECORDS

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 3,667.1 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1987 same site at datum 1.0 ft higher. See WSP 1311 or 1731 for history of changes prior to Oct. 1, 1934.

REMARKS.--Water-discharge records good except for estimated discharges, which are poor. Flow regulated by Conchas Lake, 45 mi upstream (station 07223500) and Ute Reservoir, 2 mi upstream (station 07226800). Diversions for irrigation of about 90,000 acres upstream from station. Several observations of water temperature were made during the year. No flow at times prior to completion of Ute Dam.

AVERAGE DISCHARGE.--15 years (water years 1909, 1912-13, 1927-38), 392 ft<sup>3</sup>/s, 284,000 acre-ft/yr, prior to completion of Conchas dam. 24 years (water years 1939-62), 257 ft<sup>3</sup>/s, 186,200 acre-ft/yr, prior to completion of Ute Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 278,000 ft<sup>3</sup>/s, Sept. 30, 1904, gage height, about 36.5 ft, site and datum used in 1909, from rating curve extended above 14,000 ft<sup>3</sup>/s, from Ninth Biennial Report of New Mexico State Engineer.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	3.6	e3.2	3.4	5.4	3.6	3.5	3.2	3.3	3.8	249	5.6
2	5.6	3.6	e3.2	3.4	4.0	3.7	3.3	3.2	3.2	3.4	249	5.4
3	6.7	3.6	e3.2	3.5	3.9	3.7	3.4	3.3	3.3	3.7	214	121
4	7.8	3.6	e3.2	3.5	3.9	3.6	3.3	3.4	3.6	3.5	11	244
5	9.2	3.6	e3.2	3.5	3.9	3.5	3.4	3.5	3.1	3.4	6.7	248
6	11	3.7	3.4	3.5	4.0	3.6	3.6	3.6	3.0	3.3	5.6	250
7	12	e3.7	3.4	3.5	4.0	3.6	4.4	3.7	3.0	3.3	4.8	250
8	14	e3.7	3.4	3.6	4.0	3.6	3.4	3.4	3.0	3.2	4.5	251
9	10	e3.7	3.4	3.6	4.0	3.6	3.3	3.4	3.2	3.6	53	252
10	8.0	e3.7	3.3	3.5	4.0	3.6	3.2	3.5	3.0	12	241	253
11	6.0	e3.6	3.4	3.5	3.8	3.6	3.3	3.5	3.1	4.5	249	253
12	4.9	e3.6	3.4	3.5	3.8	3.6	3.2	3.5	3.3	3.9	251	254
13	4.5	e3.6	3.3	3.6	3.8	3.6	3.2	3.6	4.3	3.9	252	252
14	4.1	e3.6	3.3	3.6	3.8	3.5	3.0	3.5	3.2	4.0	253	251
15	3.9	e3.6	3.5	3.6	3.7	3.6	3.2	3.5	3.0	3.7	254	251
16	3.8	e3.5	3.5	3.6	3.6	3.6	3.3	3.3	2.8	3.5	256	251
17	3.8	e3.5	3.8	3.6	3.7	3.6	3.3	3.2	2.8	3.3	256	250
18	3.6	e3.5	3.8	3.8	3.6	3.6	8.7	3.3	2.8	46	257	249
19	3.5	e3.5	3.5	3.7	3.5	3.5	4.5	3.3	2.8	238	269	248
20	3.5	e3.5	3.4	3.7	3.5	3.5	3.6	3.2	2.6	247	257	246
21	3.6	e3.5	3.4	3.7	3.5	3.5	3.4	3.1	2.6	250	258	246
22	3.6	e3.4	3.4	3.7	3.4	3.5	3.4	3.1	2.9	255	258	244
23	3.6	e3.4	3.4	3.8	3.4	5.0	3.3	3.0	2.7	252	258	243
24	3.4	e3.4	3.4	3.8	3.5	4.4	3.2	3.0	3.0	252	258	242
25	3.5	e3.4	3.4	3.8	3.5	3.9	3.3	3.4	10	251	257	240
26	3.6	e3.4	3.3	3.7	3.4	3.7	3.2	3.5	6.2	251	187	238
27	3.6	e3.3	3.3	3.8	3.5	3.5	3.3	3.2	5.2	251	13	236
28	3.6	e3.3	3.4	3.8	3.6	3.4	3.2	3.2	4.9	249	8.4	109
29	3.6	e3.3	3.4	3.9	3.6	3.4	3.2	3.2	4.5	253	7.1	7.3
30	3.6	e3.3	3.4	3.9	---	3.3	3.2	3.3	4.6	250	6.3	5.6
31	3.6	---	3.4	3.9	---	3.4	---	3.4	---	249	6.1	---
TOTAL	169.7	105.7	105.0	113.0	109.3	112.8	106.8	103.5	109.0	3364.0	5109.5	6195.9
MEAN	5.47	3.52	3.39	3.65	3.77	3.64	3.56	3.34	3.63	109	165	207
MAX	14	3.7	3.8	3.9	5.4	5.0	8.7	3.7	10	255	269	254
MIN	3.4	3.3	3.2	3.4	3.4	3.3	3.0	3.0	2.6	3.2	4.5	5.4
AC-FT	337	210	208	224	217	224	212	205	216	6670	10130	12290

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

MEAN	31.3	26.4	6.93	7.57	9.46	3.16	17.0	35.8	58.3	84.7	96.4	107
MAX	325	287	84.1	62.7	174	11.4	239	767	575	608	720	838
(WY)	1966	1983	1983	1992	1980	1983	1987	1987	1969	1982	1981	1969
MIN	1.30	1.19	1.24	.86	1.13	.63	.26	.64	.62	.65	1.19	1.36
(WY)	1964	1984	1984	1963	1987	1963	1963	1963	1963	1963	1963	1983

## SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1963 - 1996
ANNUAL TOTAL	36568.9	15704.2	
ANNUAL MEAN	100	42.9	40.5
HIGHEST ANNUAL MEAN			145
LOWEST ANNUAL MEAN			1.62
HIGHEST DAILY MEAN	376	Sep 21	269
LOWEST DAILY MEAN	2.7	May 23	2.6
ANNUAL SEVEN-DAY MINIMUM	2.9	Jun 2	2.7
INSTANTANEOUS PEAK FLOW			457
INSTANTANEOUS PEAK STAGE			4.63
ANNUAL RUNOFF (AC-FT)	72530	31150	29310
10 PERCENT EXCEEDS	322	249	38
50 PERCENT EXCEEDS	3.4	3.6	2.6
90 PERCENT EXCEEDS	3.1	3.2	1.6

e Estimated

a-From rating curve extended above 75,000

b-From floodmarks.

## ARKANSAS RIVER BASIN

07227000 CANADIAN RIVER AT LOGAN, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-62, 1992 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
NOV 1995												
20...	1545	3.1	9360	7.9	15.0	11.5	675	10.5	113	630	130	74
FEB 1996												
20...	1430	3.5	8510	8.0	25.5	14.5	662	10.7	125	--	--	--
MAY												
07...	1430	3.7	8900	7.9	25.5	30.5	665	8.2	130	560	120	63
AUG												
22...	1000	260	1230	8.0	23.0	21.5	673	8.3	107	300	54	41

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 1995											
20...	1800	31	9.4	313	490	2500	0.90	11	5200	360	<10
FEB 1996											
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	1700	31	8.9	322	510	2600	1.2	9.8	5210	380	29
AUG											
22...	140	3	6.7	197	330	62	0.60	6.6	759	185	<3.0

## ARKANSAS RIVER BASIN

07227100 REVUELTO CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°20'29", long 103°23'37", in SW¼ sec.24, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080008, on right bank 0.3 mi upstream from bridge on State Highway 469, 1.9 mi southeast of Logan, and at mile 2.3.

DRAINAGE AREA.--786 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 3,660 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 16, 1981, at site 320 ft upstream at datum 0.56 ft higher.

REMARKS.--Water-discharge records good except for estimated discharges, which are poor. Low flows supplemented by surface and ground-water return from irrigation in vicinity of Tucumcari. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD (1941-47).--Maximum discharge determined, about 13,400 ft<sup>3</sup>/s, Sept. 18, 1946, gage height, 9.04 ft, at site 180 ft downstream at different datum, from unpublished records collected by Bureau of Reclamation. A peak of 26,100 ft<sup>3</sup>/s, date unknown, gage height, 12.9 ft at former site and datum, was measured by slope-area method in May 1957.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	36	2.6	2.7	e4.2	.36	11	14	11	126	4.2	68
2	65	33	2.4	1.9	e4.2	.99	18	12	8.1	89	.55	47
3	40	37	1.8	1.6	e4.4	2.6	19	9.9	9.8	178	.39	227
4	11	45	1.8	2.8	e4.3	.99	16	7.6	25	70	.10	66
5	22	34	1.6	2.1	e4.0	.53	17	6.4	23	25	.06	27
6	8.5	17	1.7	1.4	e4.1	.70	28	18	8.2	7.4	.06	17
7	6.9	14	1.8	2.0	4.0	1.0	19	17	5.5	5.1	.04	188
8	7.2	30	1.8	1.9	3.5	.66	16	14	6.5	5.1	.04	98
9	9.4	11	1.4	e5.2	3.0	.65	14	13	5.5	8.3	.01	115
10	11	7.2	1.7	e5.0	2.8	1.0	14	11	27	3750	3.1	70
11	10	5.1	2.8	e5.1	1.7	.98	6.6	17	17	1200	.02	78
12	8.4	30	2.5	e5.2	2.0	.44	4.7	36	89	575	.01	27
13	4.6	9.0	1.5	e5.3	2.1	.23	5.2	30	758	821	.03	50
14	8.8	20	.90	e4.9	1.9	.19	4.5	46	469	278	.05	30
15	13	13	1.3	e4.4	1.6	.19	8.0	21	446	112	.04	53
16	12	4.8	1.7	e4.8	1.4	.18	20	15	285	36	77	46
17	8.9	3.3	4.7	e4.5	1.4	.22	15	11	103	5.5	59	42
18	9.6	2.5	21	e4.3	1.5	.21	9.4	18	50	.94	9.3	36
19	16	2.5	92	e4.6	1.3	.18	7.1	9.8	23	.16	89	12
20	41	2.5	36	e4.9	1.0	.18	7.5	3.1	23	.07	286	16
21	21	2.7	14	e4.7	.77	.19	6.8	3.7	7.4	.02	695	15
22	14	2.7	8.0	e4.6	.44	.18	6.6	4.6	1.4	2.2	106	5.6
23	13	2.6	5.6	e4.4	.33	.81	9.2	2.4	57	2.0	5.5	23
24	16	2.4	4.7	e4.5	.33	42	6.8	1.5	61	.28	60	13
25	18	2.0	5.0	e4.3	.33	24	8.7	3.6	377	.08	436	43
26	25	1.8	5.9	e4.3	.37	42	22	53	3170	.21	567	4.3
27	23	1.4	5.5	e4.3	.29	38	17	18	1630	224	696	1.2
28	27	1.3	4.7	e4.4	.29	34	12	10	629	358	379	3.4
29	41	1.9	4.2	e4.4	.32	10	16	7.3	623	130	74	9.0
30	43	2.4	2.6	e4.3	---	15	19	9.3	249	488	4.5	3.2
31	39	---	3.0	e4.3	---	10	---	12	---	121	30	---
TOTAL	601.0	378.1	246.20	123.1	57.87	228.66	384.1	455.2	9197.4	8618.36	3582.00	1433.7
MEAN	19.4	12.6	7.94	3.97	2.00	7.38	12.8	14.7	307	278	116	47.8
MAX	65	45	92	5.3	4.4	42	28	53	3170	3750	696	227
MIN	4.6	1.3	.90	1.4	.29	.18	4.5	1.5	1.4	.02	.01	1.2
AC-FT	1190	750	488	244	115	454	762	903	18240	17090	7100	2840

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1996, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1959	34.7	320	1961	.000	1965
1960	9.18	34.1	1962	.056	1978
1961	9.86	129	1960	.001	1976
1962	5.58	27.9	1990	.000	1965
1963	7.39	42.5	1983	.000	1965
1964	6.44	52.1	1985	.003	1980
1965	23.9	346	1970	.32	1981
1966	46.0	203	1991	.085	1976
1967	75.9	492	1960	.89	1990
1968	122	1203	1960	.42	1983
1969	123	575	1981	.93	1978
1970	73.7	515	1969	1.72	1978

## SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1959 - 1996
ANNUAL TOTAL	14529.80	25305.69	
ANNUAL MEAN	39.8	69.1	44.6
HIGHEST ANNUAL MEAN			204
LOWEST ANNUAL MEAN			4.72
HIGHEST DAILY MEAN	1010	3750	13800
LOWEST DAILY MEAN	.02	.01	.00
ANNUAL SEVEN-DAY MINIMUM	.08	.10	.00
INSTANTANEOUS PEAK FLOW		9140	a26700
INSTANTANEOUS PEAK STAGE		9.06	14.30
ANNUAL RUNOFF (AC-FT)	28820	50190	32320
10 PERCENT EXCEEDS	103	90	60
50 PERCENT EXCEEDS	8.5	7.3	5.1
90 PERCENT EXCEEDS	.74	.42	.00

e Estimated

a-From slope-area measurement of peak flow.



## ARKANSAS RIVER BASIN

07227100 REVUELTO CREEK NEAR LOGAN, NM -- Continued

## WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
NOV 1995												
20...	1415	2.5	1870	8.3	15.0	15.0	675	8.7	98	360	71	44
FEB 1996												
20...	1245	1.0	3060	8.3	17.5	23.0	661	8.5	116	--	--	--
MAY												
07...	1300	17	1620	8.2	31.0	30.0	666	6.8	104	400	73	54
AUG												
22...	0845	120	546	8.4	30.0	20.5	673	7.8	99	66	17	5.6

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 1995											
20...	270	6	4.7	1.1	450	180	0.50	9.0	1030	280	<3.0
FEB 1996											
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	200	4	7.4	221	520	74	0.80	7.2	1070	250	<3.0
AUG											
22...	65	3	2.4	133	79	9.3	0.40	8.3	267	139	<3.0

## ARKANSAS RIVER BASIN

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM

## WATER-QUALITY RECORDS

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 upstream from New Mexico-Texas State line, 5.5 mi downstream from Rana Canyon, and 14.7 mi north of Glenrio.

PERIOD OF RECORD.--Water years 1969-73, 1975-86, 1992 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
NOV 1995												
21...	0945	13	12500	8.2	10.5	7.0	678	10.2	99	690	140	83
FEB 1996												
21...	1130	9.2	10300	8.3	21.0	10.0	667	9.9	104	--	--	--
MAY												
07...	0945	11	8150	8.2	20.0	17.5	670	8.5	104	580	110	73
AUG												
21...	1445	1020	866	8.2	33.5	25.5	674	6.1	85	110	24	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)	ALKA- LINEITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 1995											
21...	1700	28	9.4	258	480	2500	0.50	12	5080	370	10
FEB 1996											
21...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	1500	27	9.5	234	550	2300	0.80	9.2	4690	390	<15
AUG											
21...	130	6	3.9	189	150	69	0.50	8.7	511	200	<3.0

WESTERN GULF OF MEXICO BASINS  
RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, CO

LOCATION.--Lat 37°04'43", Long 105°45'23", in NE¼NW¼ sec.27, T.33 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank at highway bridge, 5.7 mi north of Colorado-New Mexico State line, 8 mi downstream from Culebra Creek, 11 mi east of Lobatos, and 14 mi east of Antonito.

DRAINAGE AREA.--7,700 mi<sup>2</sup>, approximately, includes 2,940 mi<sup>2</sup> 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" 1902-4. Statistical summary computed for 1931 to current year.

REVISED RECORDS.--WSP 1312: 1919 (monthly runoff). WSP 210: Drainage area. WDR CO-78-1: 1976.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 7,427.63 ft above sea level. Prior to 1910, nonrecording gages at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 30-31, Nov. 16-17, and Nov. 25 to Mar. 2. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, groundwater withdraw.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135	181	200	e350	e385	504	242	219	75	56	15	35
2	178	190	212	e325	e390	492	224	194	67	47	15	34
3	217	187	229	e325	e375	493	227	180	66	44	15	35
4	211	187	254	e335	e385	510	226	154	66	39	15	38
5	165	191	265	e335	e395	516	217	154	62	34	25	39
6	138	200	266	e340	e410	516	230	161	54	28	32	36
7	128	199	272	e345	e415	522	207	180	54	28	31	30
8	120	206	284	e350	e435	508	186	188	58	30	27	28
9	114	212	282	e355	e445	503	186	169	61	40	31	33
10	113	225	e260	e355	e470	507	203	154	59	39	32	32
11	118	219	e265	e355	e485	512	257	156	51	31	31	34
12	115	212	e260	e360	e480	505	260	161	48	29	32	31
13	109	213	e270	e355	e475	488	262	154	48	35	33	42
14	105	223	294	e360	e520	480	261	206	54	39	32	44
15	103	233	319	e370	e530	460	240	205	71	37	29	38
16	112	241	e290	e380	519	430	201	181	80	31	27	38
17	126	244	e220	e365	526	397	174	169	73	31	29	39
18	141	240	e190	e330	554	371	169	182	77	27	29	36
19	150	231	e195	e335	563	330	157	206	77	25	28	31
20	145	230	e205	e350	585	320	144	180	73	31	30	27
21	145	228	e210	e350	583	310	146	180	66	27	38	30
22	157	229	e200	e365	607	310	152	203	66	24	44	29
23	146	230	e200	e350	609	328	134	177	65	21	52	28
24	140	226	e225	e340	589	322	122	131	55	19	50	28
25	142	228	e255	e330	547	323	105	115	50	18	48	30
26	148	232	e295	e315	543	297	107	117	52	21	33	35
27	149	224	e280	e330	528	282	207	111	53	18	31	36
28	145	222	e295	e360	504	268	270	117	53	17	33	35
29	153	216	e315	e355	462	246	356	108	52	16	34	38
30	163	e206	e325	e370	---	245	278	96	56	16	38	38
31	170	---	e345	e395	---	248	---	82	---	15	36	---

TOTAL	4401	6505	7977	10835	14314	12543	6150	4990	1842	913	975	1027
MEAN	142	217	257	350	494	405	205	161	61.4	29.5	31.5	34.2
MAX	217	244	345	395	609	522	356	219	80	56	52	44
MIN	103	181	190	315	375	245	105	82	48	15	15	27
AC-FT	8730	12900	15820	21490	28390	24880	12200	9900	3650	1810	1930	2040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1996, BY WATER YEAR (WY)												
MEAN	175	314	284	260	312	416	534	1128	1243	444	154	119
MAX	1401	1199	763	521	595	884	2326	4958	4470	2754	842	779
(WY)	1942	1942	1942	1986	1986	1987	1985	1987	1941	1995	1957	1982
MIN	12.9	59.6	61.7	75.7	102	66.0	32.3	42.9	19.8	1.28	3.21	1.91
(WY)	1957	1955	1964	1957	1957	1957	1935	1963	1977	1951	1956	1956

SUMMARY STATISTICS												
ANNUAL TOTAL				268181			72472					
ANNUAL MEAN				735			198					
HIGHEST ANNUAL MEAN									a449			
LOWEST ANNUAL MEAN									1264			1987
HIGHEST DAILY MEAN				6240	Jul 5		609	Feb 23	b9110		Jun 22	1949
LOWEST DAILY MEAN				103	Oct 15		c15	Jul 31	d.00		Jul 16	1950
ANNUAL SEVEN-DAY MINIMUM				111	Oct 10		15	Jul 29	.00		Jul 16	1950
INSTANTANEOUS PEAK FLOW							650	Feb 20	f11600		May 8	1952
INSTANTANEOUS PEAK STAGE							g2.03	Feb 20	8.76		May 8	1952
ANNUAL RUNOFF (AC-FT)				531900			143700			324900		
10 PERCENT EXCEEDS				1770			438			961		
50 PERCENT EXCEEDS				360			180			240		
90 PERCENT EXCEEDS				135			30			39		

e-Estimated.  
a-Average discharge for 31 years (water years 1900-30), 846 ft<sup>3</sup>/s; 612900 acre-ft/yr, includes period of extensive development for irrigation.

b-Maximum daily discharge for period of record, 13100 ft<sup>3</sup>/s, Jun 8, 1905.

c-Also occurred Aug 1-4.

d-No flow at times in 1950-51, 1956.

f-Maximum discharge and stage for period of record, 13200 ft<sup>3</sup>/s, Jun 8, 1905, gage height, 9.1 ft, from rating curve extended above 8000 ft<sup>3</sup>/s.

g-Maximum gage height, 3.63 ft, Feb 14, backwater from ice.

## RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

## WATER-QUALITY RECORDS

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

REMARKS.--Replaces station 08249200 Rio Grande above Culebra Creek, near Lobatos, Colo., which was discontinued July 1969. This station operated by the Colorado District.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
OCT 1995 17...	1200	495	8.7	13.0	13.0	583	9.1	114	140	0
JUL 1996 16...	1000	457	8.5	19.5	19.0	584	7.1	101	130	0
DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CaCO3 (39086)	ALKA- LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1995 17...	41	8.4	45	2	6.0	179	5	156	161	73
JUL 1996 16...	38	8.5	48	2	6.7	184	6	162	179	46
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, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 1995 17...	13	0.70	23	314	303	<0.010	<0.050	<0.015	--	0.40
JUL 1996 16...	11	0.90	23	298	279	<0.010	0.070	0.030	0.47	0.90
DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SEDI- MENT, SUS- PENDEd (MG/L) (80154)	
OCT 1995 17...	0.30	0.030	0.030	0.040	--	--	68	19		26
JUL 1996 16...	0.50	0.090	0.030	0.030	12	7.0	39	42		28

RIO GRANDE BASIN  
08251500 RIO GRANDE NEAR LOBATOS, CO--Continued  
WATER-QUALITY RECORDS  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER, DISS, REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	LINDANE DIS- SOLVED (UG/L) (39341)	
OCT 1995 17...	1200	--	--	--	--	--	--	--	--	--	--	--	
JUL 1996 16...	1000	<0.007	<0.002	<0.005	<0.018	<0.002	<0.004	<0.003	<0.002	<0.006	<0.004	<0.004	
DATE		DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ACETO- CHLOR, WATER, FLTRD REC (UG/L) (49260)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
OCT 1995 17...	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 1996 16...	<0.001	<0.002	<0.005	<0.004	<0.002	0.005	<0.002	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004
DATE		PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	PEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)
OCT 1995 17...	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 1996 16...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	
DATE		FRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)
OCT 1995 17...	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 1996 16...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	E0.002	<0.004	<0.003	<0.013	<0.001	<0.005	

## RIO GRANDE BASIN

## 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 upstream from normal high-water line of Costilla Reservoir, 2.1 mi northeast of Costilla Dam, 16 mi southeast of Costilla, and at mile 36.9.

DRAINAGE AREA.--25.1 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1937 to current year (seasonal 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. Elevation of gage is 9,430 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1923 for history of changes prior to Sept. 17, 1965.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow may be augmented by transbasin diversions or irrigation returns from about 1,300 acres irrigated from Casias Creek (station 08253000). Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 3,870 ft<sup>3</sup>/s, July 22, 1954, gage height, about 4.8 ft, 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.--Maximum discharge during period of seasonal operation, 25 ft<sup>3</sup>/s, at 1345 hours Apr. 29, gage height 3.40 ft; minimum daily discharge 1.5 ft<sup>3</sup>/s, Aug. 12, 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	---	---	---	---	---	e11	13	5.0	4.4	1.9	2.1
2	7.0	---	---	---	---	---	e11	13	4.8	3.4	2.7	2.4
3	6.8	---	---	---	---	---	e10	14	4.5	3.0	3.1	2.5
4	---	---	---	---	---	---	e10	15	4.2	2.8	2.4	2.1
5	---	---	---	---	---	---	e10	16	4.0	2.8	1.8	2.0
6	---	---	---	---	---	---	e12	17	3.8	2.4	1.6	2.5
7	---	---	---	---	---	---	e10	17	3.7	2.5	1.7	2.7
8	---	---	---	---	---	---	11	16	3.4	3.5	2.3	2.3
9	---	---	---	---	---	---	12	16	3.8	6.0	2.3	2.0
10	---	---	---	---	---	---	10	15	3.9	3.9	2.0	2.2
11	---	---	---	---	---	---	8.9	14	3.6	3.1	1.7	2.1
12	---	---	---	---	---	---	9.0	14	3.4	3.6	1.5	2.4
13	---	---	---	---	---	---	7.5	14	4.7	3.6	1.5	3.1
14	---	---	---	---	---	---	6.3	14	5.9	3.3	1.6	3.0
15	---	---	---	---	---	---	13	13	8.0	3.6	1.7	3.4
16	---	---	---	---	---	---	12	12	4.6	2.6	1.9	3.0
17	---	---	---	---	---	---	11	12	3.7	2.6	2.1	2.4
18	---	---	---	---	---	---	10	11	3.3	2.5	2.3	3.3
19	---	---	---	---	---	---	9.8	10	2.9	2.2	1.9	3.0
20	---	---	---	---	---	---	9.2	9.7	2.7	2.0	2.1	2.6
21	---	---	---	---	---	---	9.5	9.2	2.9	2.0	2.1	2.3
22	---	---	---	---	---	---	9.2	8.5	4.7	2.1	3.5	2.2
23	---	---	---	---	---	---	10	8.0	4.0	1.9	4.1	2.1
24	---	---	---	---	---	---	13	7.7	2.7	1.8	3.8	2.2
25	---	---	---	---	---	---	14	7.7	2.9	2.0	4.8	2.1
26	---	---	---	---	---	---	15	7.8	3.1	2.0	3.9	2.5
27	---	---	---	---	---	---	e9.6	16	7.6	5.8	3.4	2.4
28	---	---	---	---	---	---	e9.8	15	6.7	3.5	4.7	2.4
29	---	---	---	---	---	---	e9.9	14	6.0	3.0	3.1	2.3
30	---	---	---	---	---	---	e10	12	5.6	4.6	2.8	2.2
31	---	---	---	---	---	---	e10	---	5.3	---	2.2	---
TOTAL	21.4	---	---	---	---	49.3	331.4	355.8	121.1	89.0	78.2	73.8
MEAN	7.13	---	---	---	---	9.86	11.0	11.5	4.04	2.87	2.52	2.46
MAX	7.6	---	---	---	---	10	16	17	8.0	6.0	4.8	3.4
MIN	6.8	---	---	---	---	9.6	6.3	5.3	2.7	1.8	1.5	2.0
AC-FT	42	---	---	---	---	98	657	706	240	177	155	146

e Estimated

## RIO GRANDE BASIN

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 downstream from road crossing, 900 ft upstream from normal high-water line of Costilla Reservoir, 1.8 mi northeast of Costilla Dam, and 16 mi southeast of Costilla.

DRAINAGE AREA.--16.6 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1937 to current year (seasonal 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.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 9,400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 18, 1940, water-stage recorder and wooden control 100 ft downstream at datum 1.56 ft lower.

REMARKS.--Records fair. Diversion 3.5 mi upstream for irrigation of about 1,300 acres, part of which is in Costilla Creek basin. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft<sup>3</sup>/s, July 20, 1971, gage height, 2.07 ft, from rating curve extended above 85 ft<sup>3</sup>/s; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 27 ft<sup>3</sup>/s, at 2300 hours July 8, gage height 0.90 ft; minimum daily discharge 4.0 ft<sup>3</sup>/s, Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	---	---	---	---	---	9.5	11	9.0	9.1	5.0	4.6
2	10	---	---	---	---	---	7.8	11	8.9	8.2	6.1	5.0
3	9.8	---	---	---	---	---	6.6	13	9.0	8.0	6.3	5.0
4	---	---	---	---	---	---	5.6	14	8.9	8.3	5.4	4.4
5	---	---	---	---	---	---	5.7	15	8.8	7.8	4.8	4.3
6	---	---	---	---	---	---	6.0	15	8.3	7.3	4.5	4.6
7	---	---	---	---	---	---	7.7	16	8.5	7.3	4.6	4.7
8	---	---	---	---	---	---	7.8	17	8.5	10	5.8	4.4
9	---	---	---	---	---	---	9.3	16	8.7	13	5.4	4.1
10	---	---	---	---	---	---	8.2	16	8.6	9.4	4.9	4.2
11	---	---	---	---	---	---	8.0	15	8.9	9.0	4.6	4.0
12	---	---	---	---	---	---	8.0	17	8.3	9.8	4.3	4.4
13	---	---	---	---	---	---	6.5	17	10	9.3	4.2	5.3
14	---	---	---	---	---	---	7.6	17	11	8.5	4.1	5.0
15	---	---	---	---	---	---	7.8	17	14	9.7	4.2	5.2
16	---	---	---	---	---	---	8.0	17	10	7.6	4.3	4.6
17	---	---	---	---	---	---	8.0	17	9.6	7.6	4.2	4.5
18	---	---	---	---	---	---	7.0	16	8.9	7.2	4.5	5.3
19	---	---	---	---	---	---	6.1	16	8.7	6.6	4.2	4.9
20	---	---	---	---	---	---	5.9	16	8.3	6.2	4.2	4.5
21	---	---	---	---	---	---	5.7	16	9.3	6.1	4.3	4.3
22	---	---	---	---	---	---	5.7	16	12	6.0	5.8	4.3
23	---	---	---	---	---	---	6.4	15	9.7	5.8	6.0	4.1
24	---	---	---	---	---	---	8.0	14	8.7	5.6	7.4	4.1
25	---	---	---	---	---	---	9.4	13	9.1	5.7	7.2	4.1
26	---	---	---	---	---	---	10	13	8.7	5.4	5.8	5.0
27	---	---	---	---	---	9.6	11	12	14	5.6	6.2	4.6
28	---	---	---	---	---	9.1	9.7	11	9.5	6.4	6.7	4.6
29	---	---	---	---	---	9.0	10	10	8.5	6.4	5.7	4.6
30	---	---	---	---	---	6.5	9.0	10	10	5.8	5.0	4.4
31	---	---	---	---	---	8.0	---	9.3	---	5.6	4.7	---
TOTAL	30.8	---	---	---	---	42.2	232.0	448.3	284.4	234.3	160.4	137.3
MEAN	10.3	---	---	---	---	8.44	7.73	14.5	9.48	7.56	5.17	4.58
MAX	11	---	---	---	---	9.6	11	17	14	13	7.4	5.5
MIN	9.8	---	---	---	---	6.5	5.6	9.3	8.3	5.4	4.1	4.0
AC-FT	61	---	---	---	---	84	460	889	564	465	318	272

## RIO GRANDE BASIN

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 upstream from road crossing, 1,300 ft upstream from normal high-water line of Costilla Reservoir, 0.6 mi north of Costilla Dam, and 16 mi southeast of Costilla.

DRAINAGE AREA.--2.15 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1937 to current year (seasonal 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. Elevation of gage is 9,490 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 27, 1940, water-stage recorder and wooden control at datum 0.99 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are fair. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20 ft<sup>3</sup>/s, June 29, 1995; maximum gage height, 1.73 ft, Aug. 11, 1941; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 2.8 ft<sup>3</sup>/s, at 2045 hours Aug. 27, gage height 0.55; minimum daily 0.58 ft<sup>3</sup>/s, Mar. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	---	---	---	---	---	e.73	.90	e1.7	.93	.62	.73
2	1.8	---	---	---	---	---	.73	.95	e1.8	.91	e.70	.85
3	1.6	---	---	---	---	---	.68	.99	1.7	.90	e.70	.77
4	---	---	---	---	---	---	e.64	1.0	1.6	.95	e.66	.69
5	---	---	---	---	---	---	e.64	1.1	1.5	.88	e.63	.70
6	---	---	---	---	---	---	e.64	1.1	1.5	.88	.63	.72
7	---	---	---	---	---	---	e.70	1.1	1.5	.91	.65	.71
8	---	---	---	---	---	---	e.76	1.1	1.4	1.1	.71	.69
9	---	---	---	---	---	---	.97	1.1	1.4	1.1	.69	.69
10	---	---	---	---	---	---	.90	1.1	1.4	.94	.66	.68
11	---	---	---	---	---	---	.88	1.1	1.3	.93	.62	.70
12	---	---	---	---	---	---	.92	1.2	1.3	1.1	.62	.78
13	---	---	---	---	---	---	e.80	1.4	1.4	1.0	.62	.87
14	---	---	---	---	---	---	e.80	1.4	1.4	.94	.61	.82
15	---	---	---	---	---	---	e.90	1.5	1.5	.93	.66	.83
16	---	---	---	---	---	---	e.90	1.5	1.2	.90	.63	.73
17	---	---	---	---	---	---	.96	1.5	1.1	.89	.68	.75
18	---	---	---	---	---	---	.90	1.5	1.1	.86	.66	.82
19	---	---	---	---	---	---	.79	1.5	1.1	.82	.63	.75
20	---	---	---	---	---	---	.85	1.5	1.0	.81	.62	.72
21	---	---	---	---	---	---	.79	1.5	e1.0	.81	.71	.70
22	---	---	---	---	---	---	.79	1.4	e1.3	.80	.81	.70
23	---	---	---	---	---	---	.82	1.6	e1.1	.77	.89	e.70
24	---	---	---	---	---	---	.89	1.7	e1.0	.74	.96	e.71
25	---	---	---	---	---	---	.99	1.8	e1.0	.72	.77	e.72
26	---	---	---	---	---	---	1.0	1.8	.96	.68	.71	e.73
27	---	---	---	---	---	e.61	1.0	1.8	1.3	.69	1.1	.73
28	---	---	---	---	---	e.61	.85	1.7	.92	.77	.93	.72
29	---	---	---	---	---	e.58	e.80	e1.7	e.92	.73	1.0	.70
30	---	---	---	---	---	e.60	.91	1.7	e1.0	.67	.84	.70
31	---	---	---	---	---	e.65	---	1.7	---	.65	.76	---
TOTAL	5.3	---	---	---	---	3.05	24.93	42.94	38.40	26.71	22.48	22.11
MEAN	1.77	---	---	---	---	.61	.83	1.39	1.28	.86	.73	.74
MAX	1.9	---	---	---	---	.65	1.0	1.8	1.8	1.1	1.1	.87
MIN	1.6	---	---	---	---	.58	.64	.90	.92	.65	.61	.68
AC-FT	11	---	---	---	---	6.0	49	65	76	53	45	44

e Estimated



## RIO GRANDE BASIN

## 08253900 COSTILLA RESERVOIR NEAR COSTILLA, NM

LOCATION.--Lat 36°52'36", long 105°16'45", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on face of Costilla Dam on Costilla Creek, 16 mi southeast of Costilla, and at mile 34.8.

DRAINAGE AREA.--54.6 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1922 to September 1965 (monthend contents only), October 1965 to September 1983, April 1990 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.--Water-stage recorder with satellite telemeter. Elevation of gage is 9,300 above National Geodetic Vertical datum of 1929, from topographic map.

REMARKS.--Records good except for estimated periods which are poor. Reservoir is formed by earthfill dam faced with rock. Storage began in 1920. Diversions for irrigation of about 1,300 acres above Reservoir. Reservoir is used for irrigation. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 16,500 acre-ft June 1-4, 1994, June 19-22, 1995, gage height, 107.61 ft; 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, 13,300 acre-ft, Apr. 27-30, gage-height, 99.89 ft, Apr. 29; minimum contents, 1,020 acre-ft, Sept. 23-25, gage height, 44.10 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8790	9200	9910	10500	11000	e11500	e12300	13200	10200	6800	4440	1530
2	8760	e9230	9940	10500	11000	e11600	e12300	13200	10200	6690	4360	1450
3	8520	e9260	9950	10500	11100	e11600	e12400	13200	9950	6620	4350	1390
4	8420	e9290	9970	10500	11100	e11600	e12400	13200	9720	6540	4270	1350
5	8460	e9310	9990	10600	11100	e11600	e12500	13200	9500	6510	4050	1310
6	8490	e9340	10000	10600	11100	e11600	12500	13100	9290	6520	3830	1310
7	8520	e9370	10000	10600	11100	e11700	12500	13000	9210	6490	3640	1310
8	8560	e9400	10100	10600	11100	e11700	12600	12900	9220	6430	3460	1280
9	8590	e9420	10100	10600	11200	e11700	12600	12700	9170	6380	3390	1230
10	8630	e9440	10100	10600	11200	e11700	12700	12700	8950	6320	3380	1180
11	8660	e9460	10100	10700	11200	e11800	12700	12800	8750	6270	3340	e1140
12	8690	e9480	10100	10700	11200	e11800	12700	12800	8570	6250	3170	e1110
13	8720	e9500	10100	10700	11200	e11800	12800	12600	8410	6260	3020	e1110
14	8750	e9530	10200	10700	e11200	e11800	12800	12400	8360	6250	2860	e1110
15	8780	e9550	10200	10700	e11200	e11800	12800	12200	8390	6180	2710	e1080
16	8800	9580	10200	10700	e11300	e11900	e12800	12000	8340	6100	2650	e1060
17	8840	9600	10200	10800	e11300	e11900	e12900	12000	8140	6030	2660	e1050
18	8860	9630	10200	10800	e11300	e11900	e12900	12000	7960	5950	2620	e1040
19	8880	9650	10300	10800	e11300	e11900	13000	11900	7780	5920	2460	e1030
20	8910	9680	10300	10800	e11300	e11900	13000	11800	7620	5920	2300	e1030
21	8930	9700	10300	10800	e11300	e12000	13000	11600	7580	5880	2130	e1030
22	8960	9730	10300	10900	e11400	e12000	13100	11500	7600	5760	2000	e1030
23	8980	9750	10300	10900	e11400	e12000	13100	11300	7550	5630	1960	e1020
24	9010	9770	10300	10900	e11400	e12000	13200	11200	7370	5500	1970	e1020
25	9030	9790	10400	10900	e11400	e12100	13200	11200	7210	5370	1950	e1020
26	9060	9810	10400	10900	e11400	e12100	13200	11200	7060	5300	1840	1030
27	9080	9830	10400	10900	e11500	e12100	13300	11000	6950	5300	1750	1030
28	9110	9840	10400	11000	e11500	e12100	13300	10800	6900	5250	1660	1030
29	9140	9860	10400	11000	e11500	e12200	13300	10500	6910	5040	1590	1040
30	9170	9890	10400	11000	---	e12200	13300	10300	6900	4840	1550	1050
31	9190	---	10500	11000	---	e12200	---	10200	---	4640	1550	---
MAX	9190	9890	10500	11000	11500	12200	13300	13200	10200	6800	4440	1530
MIN	8420	9200	9910	10500	11000	11500	12300	10200	6900	4640	1550	1020
(†)	87.71	89.97	91.79	93.37	---	---	99.68	91.03	79.70	70.09	51.05	44.74
(††)	+440	+700	+610	+500	+500	+700	+1100	-3100	-3300	-2260	-3090	-500

CAL YR 1995 MAX 16500 MIN 6360 AC-FT (††) +4140  
WTR YR 1996 MAX 13300 MIN 1020 AC-FT (††) -7700

e Estimated

(†) GAGE HEIGHT, IN FEET, AT END OF MONTH  
(††) CHANGE IN CONTENTS, IN ACRE-FEET

## RIO GRANDE BASIN

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 right bank approximately 1,000 ft downstream from Costilla Dam, 16 mi southeast of Costilla, and at mile 34.5.

DRAINAGE AREA.--54.6 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1937 to current year (seasonal records 1937-44, 1947-49, 1988-95). 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. Elevation of gage is 9,290 ft above National Geodetic Vertical Datum of 1929, from topogro ft upstream at different datum.

REMARKS.--Records good. Flow regulated by Costilla Reservoir (station 08253900). Diversions for irrigation of about 1,300 acres upstream from reservoir. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years (water years 1945-47, 1950-87), 18.6 ft<sup>3</sup>/s, 13,480 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 366 ft<sup>3</sup>/s, July 29, 1994, gage height, 3.57 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge during period of seasonal operation, 145 ft<sup>3</sup>/s, Oct. 3; minimum daily, 0.12 ft<sup>3</sup>/s, April 18-21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	---	---	---	---	---	.17	46	15	64	110	20
2	33	---	---	---	---	---	.18	46	47	58	57	43
3	145	---	---	---	---	---	.15	20	139	54	14	34
4	65	---	---	---	---	---	.13	2.0	138	52	47	29
5	---	---	---	---	---	---	.13	28	134	25	124	29
6	---	---	---	---	---	---	.16	93	130	10	117	16
7	---	---	---	---	---	---	.17	90	51	23	110	6.4
8	---	---	---	---	---	---	.18	88	8.8	50	105	19
9	---	---	---	---	---	---	.17	87	41	43	46	33
10	---	---	---	---	---	---	.17	29	129	40	7.8	30
11	---	---	---	---	---	---	.17	2.0	119	40	30	28
12	---	---	---	---	---	---	.17	44	111	20	87	24
13	---	---	---	---	---	---	.28	133	105	8.5	85	15
14	---	---	---	---	---	---	.16	130	49	19	84	7.5
15	---	---	---	---	---	---	.16	126	12	48	84	13
16	---	---	---	---	---	---	.14	122	41	47	36	21
17	---	---	---	---	---	---	.13	66	124	45	5.1	18
18	---	---	---	---	---	---	.12	21	113	45	28	18
19	---	---	---	---	---	---	.12	40	104	24	86	17
20	---	---	---	---	---	---	.12	109	93	9.2	90	12
21	---	---	---	---	---	---	.12	114	36	28	88	7.4
22	---	---	---	---	---	---	.79	113	9.6	70	82	7.4
23	---	---	---	---	---	---	1.8	113	36	73	38	7.4
24	---	---	---	---	---	---	1.9	57	108	72	7.3	6.9
25	---	---	---	---	---	---	1.9	18	96	71	26	6.4
26	---	---	---	---	---	---	1.9	48	93	43	66	6.3
27	---	---	---	---	---	---	.20	1.9	132	82	7.2	6.2
28	---	---	---	---	---	---	.18	1.9	135	34	58	6.2
29	---	---	---	---	---	---	.15	17	135	9.6	125	56
30	---	---	---	---	---	---	.13	46	132	25	116	27
31	---	---	---	---	---	---	.14	---	62	---	111	8.5
TOTAL	244.7	---	---	---	---	0.80	78.39	2381.0	2233.0	1479.9	1871.7	496.8
MEAN	61.2	---	---	---	---	.16	2.61	76.8	74.4	47.7	60.4	16.6
MAX	145	---	---	---	---	.20	46	135	139	125	124	43
MIN	1.7	---	---	---	---	.13	.12	2.0	8.8	7.2	5.1	3.6
AC-FT	485	---	---	---	---	1.6	155	4720	4430	2940	3710	985



## RIO GRANDE BASIN

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 downstream from old State Highway 3, 0.5 mi upstream from New Mexico-Colorado State line, 0.9 mi south of Garcia, and at mile 13.3.

DRAINAGE AREA.--200 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--June 1944 to current year (seasonal records).

GAGE.--Water-stage recorder. Concrete control since Oct. 9, 1956. Elevation of gage is 7,760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 20, 1950, at site 0.4 mi downstream at different datum.

REMARKS.--Records good. Flow partly regulated by Costilla Reservoir (station 08253900) 22 mi upstream. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 444 ft<sup>3</sup>/s, June 1, 1983, gage height, 4.91 ft; no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably reached a discharge of 1,000 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 127 ft<sup>3</sup>/s, at 1600 hours Oct. 3, gage height, 3.69 ft; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	---	---	---	---	---	18	1.2	.00	.00	.00	.00
2	10	---	---	---	---	---	23	.56	2.0	.00	.00	.00
3	92	---	---	---	---	---	22	.78	1.4	.00	.00	.00
4	100	---	---	---	---	---	15	.48	.00	.00	.00	.00
5	19	---	---	---	---	---	7.2	.22	.00	3.0	.67	.00
6	3.0	---	---	---	---	---	5.3	2.4	.00	.00	.00	.00
7	3.0	---	---	---	---	---	8.1	.19	.00	.00	.00	.00
8	2.7	---	---	---	---	---	7.1	.00	3.7	.00	.00	.00
9	2.7	---	---	---	---	---	1.4	.00	.00	.38	.00	.00
10	2.5	---	---	---	---	---	1.2	.44	.00	.00	.00	.00
11	2.5	---	---	---	---	---	1.0	1.3	.00	.00	.00	.00
12	2.8	---	---	---	---	---	.89	4.6	2.6	.00	.00	.00
13	2.8	---	---	---	---	---	.92	.31	.00	.00	.00	.00
14	2.8	---	---	---	---	---	.88	.00	.00	.00	.00	.00
15	2.6	---	---	---	---	---	.85	.00	.00	.00	.00	.00
16	2.6	---	---	---	---	---	.81	.00	.00	.00	.00	.00
17	2.6	---	---	---	---	---	4.9	.00	.00	.00	.00	.00
18	---	---	---	---	---	---	3.5	.00	.00	.00	.00	.00
19	---	---	---	---	---	---	1.9	.00	.00	.00	.00	.00
20	---	---	---	---	---	---	1.7	.00	.00	.00	.00	.00
21	---	---	---	---	---	---	1.7	.00	.00	.00	.00	.00
22	---	---	---	---	---	---	1.7	.00	.00	.00	.00	.00
23	---	---	---	---	---	---	1.3	.00	.00	.00	.00	.00
24	---	---	---	---	---	---	.92	.00	.00	.00	.00	.00
25	---	---	---	---	---	---	4.1	.00	.00	.00	.00	.00
26	---	---	---	---	---	---	3.1	1.0	.00	13	.00	.00
27	---	---	---	---	---	---	1.1	.36	7.7	6.5	.00	.33
28	---	---	---	---	---	---	.41	.00	2.5	.00	1.3	1.2
29	---	---	---	---	---	---	.31	.00	.00	.00	.00	1.3
30	---	---	---	---	---	---	16	2.4	.00	.00	.00	1.3
31	---	---	---	---	---	---	16	.00	.00	.00	.00	---
TOTAL	---	---	---	---	---	---	142.69	13.84	19.90	22.88	1.97	4.13
MEAN	---	---	---	---	---	---	4.76	.45	.66	.74	.064	.14
MAX	---	---	---	---	---	---	23	4.6	7.7	13	1.3	1.3
MIN	---	---	---	---	---	---	.31	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	283	27	39	45	3.9	8.2

## RIO GRANDE BASIN

08263500 RIO GRANDE NEAR CERRO, NM

LOCATION.--Lat 36°44'24", long 105°40'59", in NW¼ sec.20, T.29 N., R.12 E., Taos County, Hydrologic Unit 13020101, on left bank 4 mi southwest of Cerro, 5.5 mi northwest of Questa, 7.4 mi upstream from Red River, and at mile 1,693.1.

DRAINAGE AREA.--8,440 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--May 1948 to September 1994, October 1995 to current year.

REVISED RECORDS.--WDR NM-80-1: 1978(M).

GAGE.--Water-stage recorder. Elevation of gage is 7,110 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 620,000 acres in Colorado and 7,000 acres in New Mexico. Several observations of water temperature were made during year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e178	231	267	381	463	527	300	322	e146	e101	e64	e76
2	e181	239	259	395	453	576	283	258	e137	e101	e63	e76
3	e201	250	266	372	455	580	267	231	e133	e98	e58	77
4	e237	250	284	373	443	590	274	216	e130	e96	e66	76
5	e242	247	304	391	449	596	272	196	e125	e94	e60	78
6	e217	251	313	391	469	608	265	195	e127	e96	60	81
7	e187	257	314	402	483	604	280	199	e121	e86	67	81
8	e174	257	318	406	488	609	250	216	e116	e86	73	78
9	e170	262	332	411	514	598	227	227	e119	91	73	74
10	e164	265	323	425	524	601	227	218	e121	92	69	73
11	e161	283	301	425	554	603	242	200	e121	e94	73	76
12	e163	269	306	425	575	607	315	208	e121	e94	73	76
13	e164	265	302	435	571	589	312	206	e116	e93	73	79
14	e160	270	311	433	565	574	316	197	e114	e88	74	77
15	e156	279	337	440	620	566	317	261	e118	e86	74	91
16	e155	288	354	451	635	539	287	258	e122	e89	74	85
17	e157	297	325	472	624	501	238	229	e124	e88	71	83
18	168	299	265	448	645	465	204	214	e123	e84	70	80
19	183	296	233	407	681	431	198	221	e117	e83	71	81
20	195	287	242	410	655	394	196	248	120	e78	72	76
21	190	284	251	427	681	383	191	221	115	e74	73	72
22	189	283	253	427	675	373	191	221	113	e74	77	69
23	e194	286	242	444	710	364	191	238	109	e72	e79	69
24	e192	285	244	428	701	372	191	220	108	e70	e82	68
25	e186	281	266	414	667	379	188	e200	104	e76	e80	68
26	e194	282	294	394	622	376	184	e178	97	e71	e81	66
27	e209	281	330	458	605	351	183	e173	e102	e70	e77	67
28	207	278	317	394	577	334	248	e170	e102	e70	e74	69
29	202	264	335	427	559	313	335	e166	e96	e69	e76	72
30	213	268	352	421	---	297	431	e162	e98	e69	e76	72
31	223	---	361	437	---	300	---	e155	---	e67	e76	---
TOTAL	5812	8134	9201	12964	16663	15000	7603	6624	3515	2600	2229	2266
MEAN	187	271	297	418	575	484	253	214	117	83.9	71.9	75.5
MAX	242	299	361	472	710	609	431	322	146	101	82	91
MIN	155	231	233	372	443	297	183	155	96	67	58	66
AC-FT	11530	16130	18250	25710	33050	29750	15080	13140	6970	5160	4420	4490

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1996, BY WATER YEAR (WY)

	199	355	301	292	353	471	555	956	1130	463	230	173
MEAN	199	355	301	292	353	471	555	956	1130	463	230	173
MAX	720	1073	774	566	657	1010	2335	4577	4400	2181	957	804
(WY)	1970	1987	1987	1987	1987	1987	1987	1987	1949	1986	1957	1982
MIN	52.7	88.1	100	116	140	110	107	84.1	58.1	51.5	48.1	44.8
(WY)	1957	1957	1964	1957	1957	1957	1955	1963	1977	1951	1956	1956

## SUMMARY STATISTICS

## FOR 1996 WATER YEAR

## WATER YEARS 1949 - 1996

ANNUAL TOTAL	92611	
ANNUAL MEAN	253	456
HIGHEST ANNUAL MEAN		1275
LOWEST ANNUAL MEAN		112
HIGHEST DAILY MEAN	710	9440
LOWEST DAILY MEAN	58	40
ANNUAL SEVEN-DAY MINIMUM	63	42
INSTANTANEOUS PEAK FLOW	740	9740
INSTANTANEOUS PEAK STAGE	5.14	15.78
INSTANTANEOUS LOW FLOW		40
ANNUAL RUNOFF (AC-FT)	183700	330500
10 PERCENT EXCEEDS	517	969
50 PERCENT EXCEEDS	225	270
90 PERCENT EXCEEDS	73	81

e Estimated

## RIO GRANDE BASIN

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 upstream from Cabresto Creek, 1.5 mi east of Questa, and at mile 9.0.

DRAINAGE AREA.--113 mi<sup>2</sup>.

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

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 above National Geodetic Vertical Datum of 1929. See WSP 1923 for history of changes prior to Oct. 4, 1938.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions for irrigation of a few hundred acres upstream from station. Figures of discharge do not include flow in South ditch which diverts from left bank 1,500 ft upstream and bypasses gage for irrigation and stock water downstream. January 1966 to December 1991 surface and ground-water diversions by Molybdenum Corp. of America (Molycorp) refinery 5.5 mi upstream bypass gage in tailings pipelines on left bank and discharge into settling pond 3 mi 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). Several observations of water temperature were made during year.

AVERAGE DISCHARGE.--52 years (water years 1913-25, 1927-65), 55.9 ft<sup>3</sup>/s, 40,500 acre-ft/yr, prior to extensive upstream diversions by Molycorp.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	28	25	21	23	22	23	36	33	27	19	19
2	40	29	25	20	23	22	24	36	32	26	18	19
3	38	27	25	e19	22	21	24	38	31	24	19	20
4	37	28	25	e21	21	22	24	39	31	24	20	20
5	36	28	25	22	25	22	24	41	30	23	19	20
6	35	27	25	22	24	21	23	44	29	22	18	19
7	35	28	25	21	23	e19	24	47	28	22	18	20
8	34	28	25	22	23	21	24	48	28	24	18	20
9	34	28	24	e23	23	21	25	48	27	30	18	19
10	33	29	23	24	23	22	26	49	27	27	18	17
11	33	26	23	23	23	22	28	49	27	25	17	17
12	32	28	24	24	23	22	27	51	26	28	16	19
13	32	28	24	24	22	22	28	52	26	28	16	21
14	31	28	24	24	22	22	27	54	28	25	16	23
15	30	27	23	23	23	22	27	54	35	24	16	23
16	29	28	23	24	23	22	28	54	32	23	15	22
17	30	27	24	24	23	21	29	55	29	26	15	22
18	29	27	24	22	23	21	29	53	27	25	15	24
19	29	27	19	e21	22	20	29	52	26	24	15	23
20	29	26	e20	e22	23	20	29	51	23	23	16	22
21	28	26	e18	e21	23	21	29	49	23	23	20	21
22	28	26	e20	e20	23	21	28	47	25	22	21	21
23	26	27	e19	e20	22	21	28	45	25	21	23	20
24	26	26	e18	e19	21	21	31	44	23	21	24	18
25	28	26	e17	e19	22	20	33	42	23	21	23	16
26	28	26	16	e20	22	20	35	41	23	21	22	18
27	28	25	16	e22	20	20	38	39	30	21	22	19
28	28	23	e16	e24	20	21	38	37	29	21	24	19
29	28	24	e17	24	22	22	36	36	27	21	22	19
30	29	25	19	24	---	22	36	35	28	20	22	19
31	28	---	20	24	---	22	---	34	---	19	21	---
TOTAL	973	806	671	683	652	658	854	1400	831	731	586	599
MEAN	31.4	26.9	21.6	22.0	22.5	21.2	28.5	45.2	27.7	23.6	18.9	20.0
MAX	42	29	25	24	25	22	38	55	35	30	24	24
MIN	26	23	16	19	20	19	23	34	23	19	15	16
AC-FT	1930	1600	1330	1350	1290	1310	1690	2780	1650	1450	1160	1190

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	23.3	17.2	12.3	12.2	12.8	15.9	37.5	116	139	64.5	39.7	29.1																			
MAX	38.1	32.8	25.3	25.2	22.8	40.0	84.1	267	405	172	70.6	62.2																			
(WY)	1986	1987	1994	1994	1988	1989	1985	1979	1979	1979	1966	1991																			
MIN	7.93	8.09	3.88	3.91	4.81	5.11	9.73	17.5	22.7	14.6	11.8	8.81																			
(WY)	1973	1977	1975	1973	1977	1977	1971	1971	1977	1971	1972	1978																			

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1966 - 1996
ANNUAL TOTAL	27019	9444	
ANNUAL MEAN	74.0	25.8	43.4
HIGHEST ANNUAL MEAN			87.6
LOWEST ANNUAL MEAN			11.8
HIGHEST DAILY MEAN	359	55	557
LOWEST DAILY MEAN	16	15	2.5
ANNUAL SEVEN-DAY MINIMUM	17	15	3.1
INSTANTANEOUS PEAK FLOW		57	a886
INSTANTANEOUS PEAK STAGE		2.28	5.80
INSTANTANEOUS LOW FLOW		11	.60
ANNUAL RUNOFF (AC-FT)	53590	18730	31420
10 PERCENT EXCEEDS	209	36	109
50 PERCENT EXCEEDS	37	24	22
90 PERCENT EXCEEDS	19	19	7.8

e Estimated

a-From rating curve extended above 450 ft<sup>3</sup>/s.



## RIO GRANDE BASIN

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM

LOCATION.--Lat 36°40'54", long 105°39'21", in NW1/4 sec.10, T.28 N., R.12 E., Taos County, Hydrologic Unit 13020101, on right bank 0.3 mi downstream from State Fish Hatchery, 3.5 mi upstream from mouth, and 3.7 mi southwest of Questa.

DRAINAGE AREA.--185 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1969 to July 1978 (discharge measurements only), August 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,070 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 16, 1979, at site about 250 ft upstream at datum 5.55 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 3,000 acres upstream from station. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	60	54	50	e50	47	47	50	51	63	46	e48
2	71	61	55	47	e48	47	49	51	51	59	44	e46
3	69	60	56	44	e45	49	50	51	49	57	40	e46
4	67	60	55	e48	e46	50	49	52	48	54	50	e48
5	66	60	55	e50	e47	50	49	53	48	48	46	e48
6	65	61	55	e50	e48	51	47	53	47	52	41	e48
7	63	61	54	e51	e50	44	47	54	45	52	40	e46
8	63	60	54	e51	e50	46	47	56	45	50	41	e45
9	63	60	55	e51	e51	46	48	58	46	60	41	e44
10	63	60	53	e52	e51	47	51	60	48	60	41	e44
11	62	57	53	e52	e52	46	52	62	49	58	39	e43
12	62	59	55	53	e52	46	52	63	49	61	36	e44
13	62	60	55	53	e51	46	53	63	48	61	36	47
14	62	60	55	53	e50	47	51	66	50	58	39	49
15	61	60	54	53	48	52	50	67	58	55	36	49
16	60	60	55	52	48	52	49	67	57	54	36	48
17	59	60	56	54	48	52	50	69	54	56	36	47
18	59	59	56	51	48	51	50	70	53	56	36	50
19	59	60	49	52	49	46	51	70	51	54	37	50
20	59	60	50	52	50	47	50	70	50	46	39	48
21	59	59	49	53	50	49	50	66	49	43	45	47
22	60	59	51	53	50	52	49	65	50	40	48	45
23	58	59	46	54	49	52	48	61	52	39	50	44
24	57	58	37	e52	46	52	46	61	50	39	e54	42
25	59	56	39	e52	49	51	48	61	47	42	e48	39
26	59	58	41	e51	48	51	51	61	48	48	e47	42
27	59	56	42	e51	43	51	53	60	57	49	e48	44
28	59	53	43	e51	46	51	51	56	62	47	e51	42
29	58	53	48	e50	47	49	48	55	61	47	e52	42
30	58	54	48	e51	---	48	51	52	63	49	e50	42
31	59	---	50	e51	---	47	---	51	---	47	e49	---
TOTAL	1914	1763	1578	1588	1410	1515	1487	1854	1536	1604	1342	1367
MEAN	61.7	58.8	50.9	51.2	48.6	48.9	49.6	59.8	51.2	51.7	43.3	45.6
MAX	74	61	56	54	52	52	53	70	63	63	54	50
MIN	57	53	37	44	43	44	46	50	45	39	36	39
AC-FT	3800	3500	3130	3150	2800	3010	2950	3680	3050	3180	2660	2710

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1996, BY WATER YEAR (WY)

	54.8	48.5	44.0	44.4	44.9	49.0	81.6	204	226	110	71.6	62.1
MEAN	54.8	48.5	44.0	44.4	44.9	49.0	81.6	204	226	110	71.6	62.1
MAX	71.0	59.2	51.0	55.3	57.9	72.0	144	374	520	227	95.3	86.9
(WY)	1986	1992	1987	1992	1992	1989	1985	1994	1979	1995	1993	1986
MIN	29.0	33.0	28.2	31.4	31.5	35.1	39.7	50.5	51.2	43.1	42.1	31.2
(WY)	1979	1979	1979	1979	1981	1981	1981	1981	1996	1981	1981	1978

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1978 - 1996

ANNUAL TOTAL	43486	18958	
ANNUAL MEAN	119	51.8	87.0
HIGHEST ANNUAL MEAN			129
LOWEST ANNUAL MEAN			41.9
HIGHEST DAILY MEAN	550	74	676
LOWEST DAILY MEAN	36	36	26
ANNUAL SEVEN-DAY MINIMUM	41	36	26
INSTANTANEOUS PEAK FLOW		107	755
INSTANTANEOUS PEAK STAGE		2.29	a5.30
INSTANTANEOUS LOW FLOW		30	21
ANNUAL RUNOFF (AC-FT)	86250	37600	63010
10 PERCENT EXCEEDS	317	61	171
50 PERCENT EXCEEDS	66	51	55
90 PERCENT EXCEEDS	46	44	38

e Estimated

a-Site and datum then in use.





## RIO GRANDE BASIN

08267500 RIO HONDO NEAR VALDEZ, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD to current year.--Water years 1963, 1986 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	
NOV 1995										
30...	1520	14	150	7.7	8.0	2.5	576	9.3	90	
MAR 1996										
29...	1210	12	183	8.6	6.0	3.0	567	10.8	108	
JUN										
17...	1625	19	140	8.5	19.5	11.5	580	8.5	103	
AUG										
20...	0630	12	198	8.4	11.0	9.5	583	8.4	96	
DATE		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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
NOV 1995										
30...	--	--	--	--	--	--	--	--	--	--
MAR 1996										
29...	--	--	--	--	--	--	--	--	--	--
JUN										
17...	--	--	--	--	--	--	--	--	--	--
AUG										
20...	0.210	0.010	0.220	0.030	<0.20	<0.20	<0.010	<0.010	0.010	

## RIO GRANDE BASIN

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 downstream from Arroyo Hondo, 400 ft downstream from bridge on county road, 2.2 mi west of Arroyo Hondo, 11.6 mi northwest of Taos, and at mile 1,677.4.

DRAINAGE AREA.--8,760 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--February 1963 to September 1996 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 6,470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Diversions upstream from station for irrigation of about 620,000 acres in Colorado and 15,000 acres in New Mexico. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	343	381	402	516	607	613	434	493	265	240	182	200
2	348	396	394	533	599	700	415	410	253	237	179	199
3	386	402	398	504	576	727	389	367	246	233	172	198
4	455	407	419	531	547	722	399	348	240	224	194	197
5	465	399	440	530	581	733	398	326	236	213	180	197
6	417	403	464	536	606	744	386	310	239	213	169	199
7	360	410	463	538	624	734	401	318	229	209	169	202
8	335	409	463	542	628	740	380	340	223	215	192	200
9	327	417	479	555	643	737	350	356	225	216	191	197
10	316	418	478	565	664	733	350	354	233	226	187	191
11	309	435	451	567	687	736	364	337	238	221	182	196
12	313	424	453	569	712	743	431	330	237	225	183	197
13	315	419	457	577	709	727	454	361	231	221	179	241
14	308	414	457	581	707	711	448	337	227	210	184	215
15	300	428	489	575	752	711	453	400	235	210	181	219
16	298	437	506	591	760	683	427	427	244	217	181	220
17	301	449	494	624	766	642	372	400	254	220	180	212
18	320	455	444	593	789	604	333	381	252	211	175	217
19	340	452	344	556	811	567	316	376	239	208	181	214
20	357	442	372	539	800	529	314	413	245	200	182	212
21	358	436	387	550	826	519	297	402	240	191	197	206
22	353	433	365	583	812	514	296	378	241	191	223	201
23	350	435	386	569	838	503	299	404	236	189	221	201
24	355	433	329	523	841	508	291	386	233	183	220	200
25	351	429	382	557	815	516	268	351	229	201	228	198
26	351	429	407	528	769	513	249	313	228	193	216	200
27	357	426	461	511	744	493	246	309	238	188	218	201
28	360	417	464	533	726	477	313	303	242	188	208	203
29	353	397	478	561	669	460	456	297	235	191	200	204
30	355	405	491	570	---	439	558	294	238	192	201	205
31	370	---	519	570	---	429	---	281	---	186	200	---
TOTAL	10826	12637	13536	17177	20608	19207	11087	11102	7151	6462	5955	6142
MEAN	349	421	437	554	711	620	370	358	238	208	192	205
MAX	465	455	519	624	841	744	558	493	265	240	228	241
MIN	298	381	329	504	547	429	246	281	223	183	169	191
AC-FT	21470	25070	26850	34070	40880	38100	21990	22020	14180	12820	11810	12180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

	MEAN	361	520	436	433	499	666	784	1326	1569	753	391	329
MAX	905	1200	832	640	758	1077	2620	5542	5013	3321	941	988	
(WY)	1970	1987	1987	1986	1987	1987	1985	1987	1985	1995	1968	1982	
MIN	155	220	210	260	292	369	220	203	168	158	168	158	
(WY)	1978	1978	1964	1977	1964	1964	1967	1977	1977	1963	1977	1974	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1963 - 1996

ANNUAL TOTAL	382271	141890	
ANNUAL MEAN	1047	388	682
HIGHEST ANNUAL MEAN			1522
LOWEST ANNUAL MEAN			233
HIGHEST DAILY MEAN	6650	Jul 5	841
LOWEST DAILY MEAN	298	Oct 16	169
ANNUAL SEVEN-DAY MINIMUM	306	Oct 11	178
INSTANTANEOUS PEAK FLOW			875
INSTANTANEOUS PEAK STAGE			2.56
INSTANTANEOUS LOW FLOW			164
ANNUAL RUNOFF (AC-FT)	758200	281400	494400
10 PERCENT EXCEEDS	2480		1300
50 PERCENT EXCEEDS	579		366
90 PERCENT EXCEEDS	357		197

## RIO GRANDE BASIN

08269000 RIO PUEBLO DE TAOS NEAR TAOS, NM

LOCATION.--Lat 36°26'22", long 105°30'11", in SW¼ sec.36, T.26 N., R.13 E., Taos County, Hydrologic Unit 13020101, in Taos Pueblo Grant, on right bank 2.3 mi east of Taos Pueblo, 4.5 mi northeast of Taos, 5.8 mi upstream from Rio Lucero, and at mile 15.1.

DRAINAGE AREA.--66.6 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 1312: 1911-12, 1914. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Nov. 20, 1962. Elevation of gage is 7,380 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1923 for history of changes prior to Nov. 20, 1962.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversions upstream from station. Several observations of water temperature were made during the year. Satellite telemeter at station

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	11	9.6	e9.0	e10	9.8	16	31	14	12	6.5	7.4
2	16	12	10	e7.2	e10	9.3	18	32	14	10	6.2	6.8
3	16	11	9.4	e7.5	e9.8	10	19	35	13	9.2	6.0	6.5
4	15	12	9.5	e8.0	e9.8	9.2	17	38	13	8.8	5.9	6.3
5	15	12	9.7	e9.0	e10	9.0	15	40	12	9.5	5.6	6.0
6	e15	12	9.4	e9.0	e10	8.3	14	42	12	8.7	5.4	6.0
7	e15	12	9.3	e8.0	e9.8	8.9	15	43	12	9.6	6.0	6.3
8	e15	11	9.3	e8.0	e9.4	11	15	43	12	8.6	8.9	6.0
9	e14	11	8.3	e8.0	e9.0	10	19	42	11	9.7	6.7	5.7
10	e14	12	8.1	e8.0	e9.0	10	24	42	12	9.0	6.2	5.8
11	e14	10	9.0	e8.0	e9.4	12	24	41	11	8.5	5.9	6.4
12	e14	11	10	8.9	e9.4	13	23	e40	11	8.7	5.6	6.2
13	e14	11	10	8.9	e9.6	12	24	e39	10	9.2	5.4	7.4
14	e13	11	9.4	8.8	e9.8	12	21	e38	12	8.5	5.3	7.8
15	e13	11	9.2	8.6	e9.6	12	19	38	16	7.9	5.6	9.4
16	e13	11	8.7	8.6	9.8	12	19	36	13	7.5	5.4	7.4
17	e13	11	9.7	8.7	9.9	11	20	35	11	7.6	5.4	6.9
18	e13	10	9.1	8.4	10	10	21	33	10	7.5	5.5	9.0
19	12	10	6.8	e7.2	9.7	10	21	31	9.2	7.0	5.1	8.7
20	12	10	9.0	e8.0	10	10	21	29	8.8	6.7	5.3	7.4
21	12	10	9.1	e7.0	11	11	19	27	8.8	6.4	6.7	6.9
22	12	11	9.2	e8.0	11	12	19	26	10	6.5	7.8	6.6
23	11	10	9.3	e6.8	9.9	12	19	24	9.9	6.4	9.9	6.4
24	10	9.5	e8.0	e7.5	9.0	12	21	22	8.6	6.5	8.6	6.5
25	11	9.7	e7.5	e8.0	9.8	11	28	21	8.4	7.5	7.8	6.7
26	11	10	e6.8	e8.0	8.9	11	35	20	8.6	7.1	6.9	7.2
27	11	8.8	e7.0	e7.0	7.8	11	40	20	17	6.5	6.6	7.8
28	11	8.3	e7.8	e7.0	9.2	12	42	17	12	6.7	8.7	7.0
29	11	8.8	e8.2	e8.0	9.6	13	36	16	10	6.6	7.8	6.8
30	11	9.4	e8.2	e9.0	---	13	32	15	11	7.3	10	6.6
31	11	---	e9.0	e10	---	14	---	15	---	7.3	8.2	---
TOTAL	405	317.5	273.6	252.1	280.2	341.5	676	971	341.3	249.0	206.9	207.9
MEAN	13.1	10.6	8.83	8.13	9.66	11.0	22.5	31.3	11.4	8.03	6.67	6.93
MAX	17	12	10	10	11	14	42	43	17	12	10	9.4
MIN	10	8.3	6.8	6.8	7.8	8.3	14	15	8.4	6.4	5.1	5.7
AC-FT	803	630	543	500	556	677	1340	1930	677	494	410	412

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1996, BY WATER YEAR (WY)

	9.94	9.13	7.98	6.99	7.59	13.6	51.3	121	76.1	23.7	15.6	11.7
MEAN	9.94	9.13	7.98	6.99	7.59	13.6	51.3	121	76.1	23.7	15.6	11.7
MAX	19.1	17.5	12.5	11.1	13.3	39.7	155	356	268	75.4	32.2	32.4
(WY)	1942	1942	1992	1984	1995	1989	1942	1941	1979	1995	1991	1982
MIN	4.84	4.80	4.05	3.39	3.64	5.58	13.1	11.3	8.64	4.60	4.45	4.17
(WY)	1965	1982	1964	1964	1964	1964	1971	1972	1972	1972	1972	1972

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1913 - 1996
ANNUAL TOTAL	20733.3	4522.0	
ANNUAL MEAN	56.8	12.4	30.5
HIGHEST ANNUAL MEAN			72.3
LOWEST ANNUAL MEAN			7.74
HIGHEST DAILY MEAN	300	May 22	926
LOWEST DAILY MEAN	6.8	Dec 19	2.0
ANNUAL SEVEN-DAY MINIMUM	7.3	Jan 26	2.8
INSTANTANEOUS PEAK FLOW			a1050
INSTANTANEOUS PEAK STAGE			b3.90
INSTANTANEOUS LOW FLOW			.69
ANNUAL RUNOFF (AC-FT)	41120	8970	22110
10 PERCENT EXCEEDS	201	21	72
50 PERCENT EXCEEDS	20	9.8	11
90 PERCENT EXCEEDS	8.2	6.6	5.8

e Estimated

a-From rating curve extended above 370 ft<sup>3</sup>/s.

b-From floodmark, site and datum then in use.

## RIO GRANDE BASIN

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 upstream from diversion dam for Tenorio and Indian ditches, 2.2 mi east of Arroyo Seco, 7.4 mi northeast of Taos, and at mile 8.1.

DRAINAGE AREA.--16.6 mi<sup>2</sup>.

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 above National Geodetic Vertical Datum of 1929. See WSP 1923 for history of changes prior to Nov. 21, 1962.

REMARKS.--Records good except for estimated daily discharges, which are poor. No diversion upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	9.5	7.8	5.9	6.2	e6.1	8.8	14	15	12	8.2	8.4
2	15	9.6	7.7	5.8	6.1	e6.1	9.6	15	14	12	8.0	8.3
3	15	8.8	7.4	e5.8	e6.0	e6.2	9.4	17	14	11	9.0	8.4
4	14	8.9	7.5	e5.8	e6.0	6.3	8.8	20	14	11	8.4	7.7
5	14	8.8	7.4	e6.0	e6.1	5.9	8.1	22	13	11	7.8	7.4
6	14	9.2	7.1	e6.0	6.3	5.9	8.0	25	13	11	7.6	7.8
7	13	9.0	6.9	e6.2	6.1	6.2	8.3	28	13	11	8.3	7.4
8	13	8.8	6.8	e6.0	6.1	6.2	9.1	29	12	12	8.3	7.2
9	13	8.7	7.5	e6.4	6.2	6.1	11	29	12	12	7.9	7.0
10	13	8.4	6.3	e6.4	6.3	6.4	13	30	12	12	7.5	7.3
11	12	8.3	6.8	e6.4	6.3	6.9	12	31	12	12	7.3	7.3
12	12	9.0	7.5	6.4	6.4	7.2	11	34	12	12	7.1	7.3
13	12	8.4	6.8	6.4	6.4	7.1	11	37	12	12	7.1	8.3
14	12	8.4	6.7	6.3	6.6	7.2	10	38	12	11	7.0	9.6
15	11	8.2	6.5	6.3	6.8	7.2	9.8	37	14	9.8	6.8	11
16	11	8.1	6.7	6.3	6.9	7.1	9.6	37	12	9.8	6.6	9.8
17	11	8.0	6.4	6.4	7.0	6.9	10	38	12	10	6.6	9.6
18	11	7.9	6.3	6.4	7.0	6.8	9.8	37	11	10	6.5	11
19	11	7.9	6.5	6.5	6.9	6.9	9.5	35	11	9.5	6.5	11
20	11	7.8	6.6	6.3	6.9	7.0	9.2	34	11	9.1	6.7	10
21	11	7.8	6.7	6.3	6.9	7.1	8.7	31	11	9.0	7.4	10
22	10	7.7	7.1	6.3	6.6	7.7	8.4	29	12	8.8	8.8	9.7
23	9.5	7.6	6.9	6.3	6.4	7.9	8.8	27	11	8.7	9.8	9.4
24	10	7.3	e6.0	6.2	6.7	7.7	10	24	10	9.1	10	9.3
25	10	7.8	e5.4	6.2	6.3	7.3	12	23	10	9.5	9.0	9.2
26	9.9	7.6	e5.0	6.2	5.7	7.0	14	22	11	8.9	8.3	9.8
27	9.8	6.8	e5.2	e6.0	e5.5	6.9	16	20	17	8.7	8.7	9.3
28	9.7	6.5	e5.2	e6.0	e6.0	7.1	16	18	14	8.7	9.5	9.2
29	9.6	7.2	e5.2	6.2	e6.0	7.3	14	17	12	8.7	8.7	9.4
30	9.4	7.9	e5.4	6.1	---	7.6	14	16	12	8.6	9.4	9.2
31	9.4	---	5.9	6.1	---	8.0	---	16	---	8.5	8.5	---
TOTAL	362.3	245.9	203.2	191.9	184.7	213.3	317.9	830	371	317.4	247.3	266.3
MEAN	11.7	8.20	6.55	6.19	6.37	6.88	10.6	26.8	12.4	10.2	7.98	8.88
MAX	16	9.6	7.8	6.5	7.0	8.0	16	38	17	12	10	11
MIN	9.4	6.5	5.0	5.8	5.5	5.9	8.0	14	10	8.5	6.5	7.0
AC-FT	719	488	403	381	366	423	631	1650	736	630	491	528

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1996, BY WATER YEAR (WY)

	MEAN	11.7	9.12	7.28	6.08	6.08	9.20	22.6	59.4	72.0	30.8	18.5	13.9
MAX	27.8	22.0	14.8	10.0	9.92	21.2	47.5	156	178	101	37.5	34.5	
(WY)	1942	1942	1991	1942	1991	1989	1937	1941	1941	1995	1967	1982	
MIN	6.29	5.37	4.26	3.51	3.47	4.11	8.77	14.5	12.4	7.86	6.55	6.74	
(WY)	1979	1977	1951	1951	1964	1977	1977	1972	1996	1972	1972	1972	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1913 - 1996

ANNUAL TOTAL	12942.5	3751.2	
ANNUAL MEAN	35.5	10.2	22.5
HIGHEST ANNUAL MEAN			46.7
LOWEST ANNUAL MEAN			9.91
HIGHEST DAILY MEAN	207	Jun 20	246
LOWEST DAILY MEAN	5.0	Dec 26	2.0
ANNUAL SEVEN-DAY MINIMUM	5.3	Dec 25	2.7
INSTANTANEOUS PEAK FLOW			310
INSTANTANEOUS PEAK STAGE			3.17
INSTANTANEOUS LOW FLOW			1.4
ANNUAL RUNOFF (AC-FT)	25670	7440	16330
10 PERCENT EXCEEDS	120	15	54
50 PERCENT EXCEEDS	16	8.6	11
90 PERCENT EXCEEDS	6.8	6.2	5.5
e Estimated			

## RIO GRANDE BASIN

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 downstream from Rito de la olla (locally known as Pot Creek), 3.2 mi south of Talpa, 4.3 mi upstream from Rio Chiquito, and at mile 6.9.

DRAINAGE AREA.--83 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1952 to September 1982, October 1983 to September 1985 (annual maximum only), October 1985 to current year. Prior to October 1955, published as "Rio Grande del Rancho nr Taos" and October 1955 to September 1960 as Rio Grande de Ranchos nr Talpa."

GAGE.--Water-stage recorder. Elevation of gage is 7,240 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 11, 1952, nonrecording gage at site 1,035 ft downstream at lower datum. Nov. 11, 1952 to Nov. 5, 1968, water-stage recorder at site 1,000 ft downstream at lower datum. Nov. 6, 1968 to Aug. 28, 1980, water-stage recorder at present site on left bank at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Minor diversions for irrigation above station. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	6.8	6.8	6.9	6.0	6.0	9.7	20	8.7	6.7	4.0	5.0
2	9.2	7.0	6.7	7.2	6.1	6.0	11	20	8.1	5.9	3.5	4.6
3	8.9	7.0	6.7	7.4	5.6	6.3	12	21	7.6	5.2	4.0	4.7
4	8.6	7.0	6.9	7.8	5.7	7.0	12	23	7.2	5.3	3.8	4.2
5	8.5	7.1	7.0	7.2	6.6	7.0	11	25	6.8	5.9	3.4	3.7
6	8.4	7.0	7.0	7.0	6.4	6.8	10	26	6.4	4.6	3.0	4.1
7	8.4	7.0	7.0	7.2	6.2	6.1	11	26	6.3	4.4	2.9	4.0
8	8.2	7.2	7.0	7.6	6.1	6.8	11	27	5.9	4.6	3.2	3.6
9	8.1	7.2	6.7	7.5	6.0	7.0	12	28	5.6	6.4	3.1	3.4
10	8.0	7.6	6.7	7.3	5.9	7.3	14	28	5.5	6.4	3.3	3.2
11	7.7	6.8	6.6	7.1	5.9	7.3	15	27	5.3	5.4	2.9	3.2
12	7.5	6.9	6.9	6.9	5.8	7.3	14	27	5.2	4.9	2.6	3.3
13	7.5	7.0	6.8	6.9	5.8	7.3	15	27	5.2	5.7	2.3	4.2
14	7.5	7.0	6.8	6.8	6.0	7.5	13	26	6.2	6.4	2.2	4.7
15	7.4	7.0	7.0	6.8	5.9	7.8	12	26	6.5	5.3	2.3	6.9
16	7.3	7.0	6.6	6.8	5.9	7.8	12	25	5.7	4.8	2.2	6.6
17	7.0	7.0	6.9	7.2	6.1	7.7	13	23	5.1	4.5	2.9	6.1
18	7.0	7.0	7.1	6.7	6.3	7.0	14	22	4.7	4.7	3.4	7.8
19	6.8	6.9	6.5	6.3	6.2	6.7	15	21	4.4	4.2	2.7	9.3
20	6.7	6.9	7.0	6.8	6.3	7.0	15	19	4.1	3.8	2.5	8.3
21	6.7	7.2	6.5	6.1	6.5	7.5	14	18	4.0	3.5	3.4	7.6
22	6.7	7.2	7.4	7.0	6.5	7.7	13	17	4.3	3.2	3.9	6.8
23	6.6	7.0	7.1	6.7	6.5	8.0	13	15	4.8	3.1	5.7	5.7
24	6.5	6.9	6.3	6.5	6.2	8.0	14	14	4.2	3.1	7.2	5.1
25	6.7	6.8	6.3	7.1	6.4	8.0	16	13	3.9	3.2	7.1	4.9
26	7.0	7.0	7.1	6.9	6.8	8.2	20	13	4.2	3.1	6.3	5.6
27	7.0	6.9	7.6	7.0	6.2	8.1	22	12	10	3.1	5.7	6.0
28	7.0	6.4	7.6	6.9	5.7	8.5	24	11	8.7	3.2	5.9	5.7
29	6.9	6.4	7.6	6.6	6.4	8.9	22	11	6.8	3.6	6.6	5.1
30	6.8	6.7	7.2	6.3	---	9.0	21	9.6	6.7	4.5	7.3	4.6
31	6.8	---	6.9	6.0	---	9.1	---	9.2	---	4.4	6.1	---
TOTAL	233.2	208.9	214.3	214.5	178.0	230.7	430.7	629.8	178.1	143.1	125.4	158.0
MEAN	7.52	6.96	6.91	6.92	6.14	7.44	14.4	20.3	5.94	4.62	4.05	5.27
MAX	9.8	7.6	7.6	7.8	6.8	9.1	24	28	10	6.7	7.3	9.3
MIN	6.5	6.4	6.3	6.0	5.6	6.0	9.7	9.2	3.9	3.1	2.2	3.2
AC-FT	463	414	425	425	353	458	854	1250	353	284	249	313

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1996, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1953	7.38	14.2	1958	2.12	1957
1954	6.70	13.9	1959	2.95	1957
1955	5.82	10.4	1958	2.97	1957
1956	5.31	9.19	1958	2.06	1955
1957	5.62	9.31	1989	2.65	1955
1958	9.41	22.9	1994	4.65	1955
1959	32.1	264	1962	9.61	1981
1960	92.6	174	1994	12.9	1981
1961	52.9	41.9	1995	5.94	1996
1962	14.6	35.7	1986	3.14	1956
1963	12.4	24.9	1957	2.33	1972
1964	8.95	1.56	1957		

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1953 - 1996

ANNUAL TOTAL	12892.0	2944.7	
ANNUAL MEAN	35.3	8.05	21.2
HIGHEST ANNUAL MEAN			44.0
LOWEST ANNUAL MEAN			5.96
HIGHEST DAILY MEAN	275	28	590
LOWEST DAILY MEAN	5.5	2.2	.60
ANNUAL SEVEN-DAY MINIMUM	5.7	2.5	1.2
INSTANTANEOUS PEAK FLOW		29	644
INSTANTANEOUS PEAK STAGE		1.10	4.16
INSTANTANEOUS LOW FLOW		2.1	.20
ANNUAL RUNOFF (AC-FT)	25570	5840	15370
10 PERCENT EXCEEDS	138	14	50
50 PERCENT EXCEEDS	11	6.8	8.0
90 PERCENT EXCEEDS	6.6	3.9	4.0

## RIO GRANDE BASIN

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 southwest of Los Cordovas, 2.5 mi downstream from Rio Grande del Rancho, and at mile 5.1.

DRAINAGE AREA.--380 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1732: 1957(M). WSP 1923: 1957(P), 1958. WDR NM-81-1: 1979(P).

GAGE.--Water-stage recorder. Elevation of gage is 6,650 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 4, 1984 at site 700 ft downstream at same datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 12,000 acres upstream from station, of which about 1,700 acres are irrigated by water from Rio Hondo. Several observations of water temperature were made during the year. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	42	40	43	53	48	42	24	7.3	9.0	7.2	8.1
2	50	43	40	41	49	46	42	24	7.5	8.7	6.8	7.9
3	48	41	40	46	43	44	46	25	7.7	7.7	6.7	7.6
4	45	43	39	45	44	47	49	23	7.2	7.2	6.3	7.0
5	45	45	39	46	55	45	47	23	7.3	6.8	6.1	6.4
6	46	42	39	45	64	46	41	19	6.9	7.0	6.0	6.4
7	46	43	37	43	55	45	39	21	6.9	6.6	24	6.5
8	46	43	37	45	54	55	39	21	6.1	7.1	6.5	7.2
9	40	44	35	45	52	68	33	20	6.1	8.7	6.7	7.3
10	42	45	34	44	52	62	34	19	6.4	8.8	6.1	6.8
11	41	47	33	44	50	58	40	17	6.3	7.7	6.0	7.1
12	44	45	36	46	50	55	39	17	6.1	7.7	5.2	7.9
13	40	45	40	46	51	51	41	17	6.1	9.3	5.2	8.5
14	38	44	39	48	50	50	41	18	6.6	8.2	5.4	8.9
15	40	43	42	46	50	59	36	19	7.0	7.5	5.2	9.8
16	39	40	40	46	51	62	32	17	6.8	6.8	5.4	9.6
17	37	41	41	56	50	53	29	15	6.5	9.2	32	9.7
18	35	41	44	47	50	49	30	14	5.8	9.6	7.5	11
19	36	39	39	41	49	45	31	12	5.6	8.0	5.2	11
20	36	37	40	49	49	45	32	11	5.1	7.6	5.1	9.8
21	36	37	40	40	51	48	32	10	5.1	7.4	6.6	9.4
22	36	37	41	48	52	49	28	10	5.5	7.3	e6.8	9.6
23	35	35	42	43	45	47	23	9.2	5.7	6.8	e6.9	9.1
24	36	37	35	41	39	47	21	9.0	5.1	6.7	e7.0	9.7
25	40	38	45	44	48	45	22	8.7	5.3	6.6	e7.2	9.7
26	43	37	40	45	46	45	26	8.7	12	6.4	e7.5	10
27	43	38	39	61	40	44	30	9.7	16	6.2	e7.7	10
28	43	37	40	45	43	43	30	9.1	11	6.9	7.9	10
29	43	34	43	46	48	43	27	8.3	9.1	7.4	9.4	9.9
30	41	37	41	49	---	43	25	7.7	9.1	8.3	9.5	9.0
31	41	---	44	53	---	40	---	7.6	---	7.8	8.2	---
TOTAL	1285	1220	1224	1427	1433	1527	1027	474.0	215.2	237.0	249.3	260.9
MEAN	41.5	40.7	39.5	46.0	49.4	49.3	34.2	15.3	7.17	7.65	8.04	8.70
MAX	54	47	45	61	64	68	49	25	16	9.6	32	11
MIN	35	34	33	40	39	40	21	7.6	5.1	6.2	5.1	6.4
AC-FT	2550	2420	2430	2830	2840	3030	2040	940	427	470	494	517

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1996, BY WATER YEAR (WY)

	MEAN	27.1	33.3	34.2	32.9	38.4	49.8	117	257	145	31.2	25.0	23.8
MAX	74.9	71.9	56.8	48.4	60.3	113	440	1063	708	169	97.9	67.5	67.5
(WY)	1958	1958	1987	1995	1987	1995	1994	1994	1979	1995	1957	1993	1993
MIN	7.88	14.3	13.5	14.0	21.5	23.9	8.32	5.71	4.69	3.89	4.28	4.26	4.26
(WY)	1964	1973	1973	1973	1973	1971	1972	1972	1971	1972	1972	1972	1972

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1957 - 1996

ANNUAL TOTAL	50589	10579.4	67.4
ANNUAL MEAN	139	28.9	193
HIGHEST ANNUAL MEAN			14.5
LOWEST ANNUAL MEAN			1940
HIGHEST DAILY MEAN	690	May 31	68
LOWEST DAILY MEAN	18	Aug 7	5.1
ANNUAL SEVEN-DAY MINIMUM	22	Aug 5	5.3
INSTANTANEOUS PEAK FLOW			741
INSTANTANEOUS PEAK STAGE			7.62
INSTANTANEOUS LOW FLOW			4.3
ANNUAL RUNOFF (AC-FT)	100300	20980	48800
10 PERCENT EXCEEDS	496	49	135
50 PERCENT EXCEEDS	51	36	32
90 PERCENT EXCEEDS	33	6.6	9.7

e Estimated

a-From rating curve extended above 900 ft<sup>3</sup>/s.

## RIO GRANDE BASIN

08276300 RIO PUEBLO DE TAOS BELOW LOS CORDOVAS, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD 1986 to current year.--Water years 1981, 1986 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	
NOV 1995												
30...	0900	36	488	8.0	-3.0	0.5	601	12.1	107	<10	--	
FEB 1996												
01...	0900	45	454	8.6	2.5	2.5	588	10.4	99	<10	--	
APR												
12...	0845	45	388	8.4	4.0	5.5	597	10.8	110	12	--	
AUG												
20...	0815	5.0	647	8.3	15.5	15.5	606	8.3	105	22	87	
DATE		STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)
NOV 1995												
30...	--	210	21	64	13	17	0.5	1.2	235	0	193	
FEB 1996												
01...	--	200	24	61	12	16	0.5	1.5	198	9	177	
APR												
12...	--	180	23	55	11	12	0.4	1.1	186	4	159	
AUG												
20...	4700	250	26	73	17	27	0.7	1.7	276	0	226	
DATE		ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, 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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)
NOV 1995												
30...	168	49	7.7	0.40	14	283	0.200	0.020	0.220	0.080	--	
FEB 1996												
01...	188	47	7.5	0.50	13	266	--	<0.010	0.210	0.180	0.12	
APR												
12...	162	42	5.3	0.30	11	234	--	<0.010	0.100	<0.015	--	
AUG												
20...	211	76	10	0.70	19	361	0.130	0.010	0.140	0.040	--	
DATE		NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1995												
30...	0.20	<0.20	0.050	0.030	0.030	1.7	40	13	21	2.0	66	
FEB 1996												
01...	0.40	0.30	0.030	0.020	0.020	3.0	10	57	14	1.7	75	
APR												
12...	0.20	<0.20	0.020	0.010	<0.010	3.3	20	17	20	2.4	75	
AUG												
20...	0.30	<0.20	0.040	<0.010	0.020	7.0	83	10	264	3.6	84	





## RIO GRANDE BASIN

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

## WATER-QUALITY RECORDS

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV 1995												
29...	1030	445	374	8.1	-5.0	3.5	--	616	11.1	104	12	<7
JAN 1996												
31...	0945	640	306	8.4	3.0	4.0	--	606	10.7	103	<10	<4
APR												
11...	1015	418	382	8.6	12.0	12.0	2.5	608	9.4	110	14	K4
JUL												
16...	1415	234	334	8.2	28.0	23.0	--	612	7.1	104	--	--
AUG												
20...	1145	196	327	8.5	25.5	20.5	9.7	619	8.1	112	17	--

DATE	STREP-TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	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 WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)
NOV 1995												
29...	24	130	0	37	8.3	31	1	3.7	147	4	126	132
JAN 1996												
31...	41	98	0	29	6.3	22	1	3.9	117	3	101	108
APR												
11...	50	130	7	38	7.9	28	1	4.1	135	6	120	124
JUL												
16...	--	110	9	30	7.4	22	0.9	3.3	118	0	96	106
AUG												
20...	--	100	0	29	7.2	28	1	3.5	121	3	104	109

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, 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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
NOV 1995												
29...	54	9.5	0.60	25	--	246	--	<0.010	0.170	<0.015	0.30	<0.20
JAN 1996												
31...	34	7.4	0.50	29	--	195	--	<0.010	0.490	0.020	<0.20	<0.20
APR												
11...	59	8.4	0.80	22	--	241	--	<0.010	<0.050	<0.015	0.40	<0.20
JUL												
16...	48	7.4	0.80	28	224	206	0.290	0.010	0.300	0.030	0.60	<0.20
AUG												
20...	43	8.8	0.80	31	--	214	0.060	0.010	0.070	0.020	<0.20	<0.20

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	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)
NOV 1995											
29...	<0.010	<0.010	<0.010	2.3	--	<0.010	27	<1.0	2	32	<1.0
JAN 1996											
31...	0.040	0.030	0.030	2.7	--	--	--	--	--	--	--
APR											
11...	0.040	<0.010	<0.010	4.1	--	<0.010	27	<1.0	2	33	<1.0
JUL											
16...	0.110	0.050	0.050	5.7	1.9	--	--	--	--	--	--
AUG											
20...	0.010	<0.010	0.020	3.6	--	<0.010	--	--	--	--	--

## RIO GRANDE BASIN

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

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BORON, DIS- SOLVED (UG/B AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
NOV 1995											
29...	60	<1.0	<1.0	<1.0	2.0	21	<1.0	8.0	<0.10	8.0	2.0
JAN 1996											
31...	20	--	--	--	--	17	--	--	--	--	--
AFR											
11...	70	<1.0	1.0	<1.0	2.0	8.0	<1.0	6.0	<0.10	8.0	2.0
JUL											
16...	--	--	--	--	--	13	--	10	--	--	--
AUG											
20...	58	--	--	--	--	10	--	--	--	--	--

[illegible]

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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1995											
29...	<5	19	2500	10	2300	0.02	220	3.0	4	4.8	87
JAN 1996											
31...	--	--	--	--	--	--	--	--	10	17	66
APR											
11...	--	--	--	--	--	--	--	3.0	15	17	60.
JUL											
16...	--	--	--	--	--	--	--	--	86	54	--
AUG											
20...	--	--	--	--	--	--	--	--	67	35	87

RIO GRANDE BASIN

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

## WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS. WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

[illegible]

DATE	DI- ELDRIN DIS SOLVED	METO- LACHLOR WATER DISSOLV	MALA- THION, DIS SOLVED	PARA- THION, DIS SOLVED	DI- AZINON, DIS SOLVED	ATRA- ZINE, WATER, DISS, REC	ALA- CHLOR, WATER, DISS, REC	ACETO- CHLOR, WATER, FLTRD REC	METRI- BUZIN SENCOR WATER DISSOLV	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC
	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
	(39381)	(39415)	(39532)	(39542)	(39572)	(39632)	(46342)	(49260)	(82630)	(82660)	(82661)	(82663)

[illegible]

	PHORATE	TER-BACIL WATER	LIN-URON WATER	METHYL PARA-THION	EPTC WATER	PFB-ULATE WATER	TBU-TUWRON FILTDR	MOL-INATE WATER	ETHO-PROP WATER	BEN-FLUR- ALIN	CARBO-FURAN WATER	TER-BUFOS WATER
	FILTDR	FILTDR	FILTDR	WAT FLT	FILTDR	FILTDR	FILTDR	FILTDR	FILTDR	WAT FLD	FILTDR	FILTDR
	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
DATE	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC
	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
	(82664)	(82665)	(82666)	(82667)	(82668)	(82669)	(82670)	(82671)	(82672)	(82673)	(82674)	(82675)

[illegible][illegible][illegible]

## RIO GRANDE BASIN

08277470 RIO PUEBLO NEAR PENASCO, NM

LOCATION.--Lat 36°10'14", long 105°36'36", in SE¼NE¼ sec.1, T.22 N., R.12 E., Taos County, Hydrologic Unit 13020101, on left bank 10 ft downstream from bridge on private road, 0.5 mi upstream from junction of State Highways 518 and 75, 1.0 mi downstream from Osha Canyon and 6.0 mi east of Penasco.

DRAINAGE AREA.--101 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7,760 ft above National Geodetic Vertical Datum of 1929 from, topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several observations of water temperature where made during year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	14	e8.8	e8.0	e12	e11	21	57	6.7	8.7	5.3	8.6
2	18	15	e9.6	e8.0	e11	e10	26	55	5.8	6.4	8.6	7.7
3	16	13	e10	e8.0	e10	e9.9	28	57	5.4	5.2	13	7.4
4	16	14	e11	e9.0	e9.0	e10	26	59	5.2	4.6	6.5	7.4
5	15	14	e11	e9.0	e10	e10	23	55	4.8	4.6	5.1	7.4
6	15	14	e12	e9.0	e11	e13	20	52	4.4	4.8	4.7	7.7
7	15	14	e12	e10	e12	14	22	52	4.4	4.8	4.4	6.9
8	15	15	e11	e10	e13	17	24	51	4.4	6.2	4.8	5.8
9	14	15	e12	e10	14	16	31	49	4.3	8.5	4.5	5.3
10	14	15	e12	e10	14	16	38	47	3.9	18	5.2	5.4
11	14	12	e12	e9.8	14	16	36	44	4.0	11	4.8	6.0
12	14	15	e11	e9.7	14	16	34	42	4.0	11	4.5	6.0
13	14	15	e12	e9.6	13	16	37	40	4.0	16	4.5	9.3
14	13	15	13	e9.5	14	16	30	38	6.1	14	4.6	8.9
15	13	14	12	e9.4	15	16	31	36	5.2	11	5.0	11
16	14	14	12	e9.4	15	16	31	33	4.3	10	4.8	8.7
17	14	14	13	e9.3	15	15	34	31	4.1	9.1	4.9	7.4
18	14	13	12	e9.4	15	14	37	25	3.8	8.4	5.6	13
19	13	13	12	e9.6	15	14	40	20	3.7	8.5	5.6	14
20	13	13	e11	e10	16	15	38	18	3.4	7.3	5.0	9.8
21	13	13	e10	e9.0	18	16	35	17	3.3	6.8	5.4	8.7
22	14	14	e9.6	e10	17	16	34	15	3.7	6.6	5.5	8.0
23	12	14	e8.8	e10	15	16	35	13	4.1	5.8	5.7	7.6
24	13	12	e8.0	e9.0	17	15	42	13	3.8	5.4	6.1	7.8
25	13	e11	e8.0	e9.0	15	16	52	12	3.9	5.7	7.2	7.6
26	13	e9.6	e7.8	e9.0	14	15	65	12	4.4	5.3	8.5	9.0
27	14	e8.4	e7.7	e10	13	16	75	12	23	5.7	8.8	9.7
28	13	e6.7	e7.6	e10	e13	16	79	9.3	11	6.1	8.8	8.4
29	14	e7.5	e7.7	e11	e11	18	68	8.1	8.5	8.3	8.8	8.2
30	13	e8.0	e8.2	e12	---	18	60	7.8	8.2	6.4	8.8	7.9
31	13	---	e8.8	e12	---	19	---	7.5	---	5.2	9.0	---
TOTAL	439	385.2	321.6	297.7	395.0	461.9	1152	987.7	165.8	245.4	194.0	246.6
MEAN	14.2	12.8	10.4	9.60	13.6	14.9	38.4	31.9	5.53	7.92	6.26	8.22
MAX	20	15	13	12	18	19	79	59	23	18	13	14
MIN	12	6.7	7.6	8.0	9.0	9.9	20	7.5	3.3	4.6	4.4	5.3
AC-FT	871	764	638	590	783	916	2280	1960	329	487	385	489

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	14.4	14.5	11.7	11.0	13.5	26.6	125	354	203	74.6	19.1	19.4
MAX	17.5	17.4	15.2	14.6	16.8	32.6	242	924	608	290	35.9	33.3
(WY)	1995	1995	1992	1992	1992	1994	1994	1994	1995	1995	1993	1993
MIN	12.1	12.5	10.0	9.60	11.2	14.9	38.4	31.9	5.53	7.92	6.26	8.22
(WY)	1993	1993	1993	1996	1993	1996	1996	1996	1996	1996	1996	1996

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1992 - 1996

ANNUAL TOTAL	41093.4	5291.9	
ANNUAL MEAN	113	14.5	
HIGHEST ANNUAL MEAN			76.1
LOWEST ANNUAL MEAN			124
HIGHEST DAILY MEAN	1440	Jun 30	1720
LOWEST DAILY MEAN	6.7	Nov 28	3.3
ANNUAL SEVEN-DAY MINIMUM	7.9	Dec 24	3.7
INSTANTANEOUS PEAK FLOW			90
INSTANTANEOUS PEAK STAGE			3.70
INSTANTANEOUS LOW FLOW			3.1
ANNUAL RUNOFF (AC-FT)	81510	10500	55120
10 PERCENT EXCEEDS	405	31	220
50 PERCENT EXCEEDS	19	11	16
90 PERCENT EXCEEDS	10	5.1	9.3

e Estimated

## RIO GRANDE BASIN

08278500 RIO SANTA BARBARA NR PENASCO, NM

LOCATION.--Lat 36°06'13", long 105°37'14", Taos County, Hydrologic Unit 13020101, in Santa Barbara Grant, on right bank at bridge on U.S. Forest Service Road 116, 1.4 mi below Santa Barbara Campground and 6.5 mi southeast of Penasco

DRAINAGE AREA.--38 mi<sup>2</sup> (approximately).

PERIOD OF RECORD.--November 1991 to current year. October 1952 to December 1957 published as Rio Santa Barbara nr Llano, NM (08278500).

GAGE.--Water-stage recorder. Elevation of gage is 8,640 ft above National Geodetic Vertical Datum, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	15	e9.0	e6.0	e9.0	e7.0	14	69	34	28	19	19
2	24	15	12	e6.0	e8.0	e7.0	17	e72	33	25	19	19
3	22	14	11	e6.0	e8.0	e7.0	18	e74	31	23	25	19
4	21	15	11	e6.0	e8.0	6.7	15	e75	30	22	19	18
5	21	14	10	e6.0	e8.0	6.1	14	e78	28	21	18	18
6	20	14	10	e6.0	e8.0	6.4	17	e78	27	20	17	18
7	20	14	9.9	e7.0	e8.0	e7.0	17	e76	26	22	17	17
8	20	12	9.3	e8.0	e8.0	7.1	22	e75	25	24	17	17
9	19	13	e6.8	e8.0	e8.0	8.3	30	78	23	30	18	16
10	19	15	e6.8	e8.0	7.1	8.5	28	78	22	46	18	16
11	19	14	e6.8	e7.0	7.1	8.3	27	77	21	33	16	16
12	19	13	e6.8	e7.0	7.0	8.1	30	78	21	32	15	16
13	18	13	8.8	e7.0	7.1	8.4	24	79	23	35	15	16
14	18	13	8.7	e8.0	7.3	8.4	24	78	37	33	15	18
15	18	12	8.8	e8.0	7.5	8.1	26	77	30	32	15	21
16	18	12	e6.5	e8.0	7.7	7.9	28	76	29	31	14	17
17	17	12	e6.5	e8.0	7.5	e8.0	29	76	28	31	14	17
18	16	12	8.7	e8.0	7.7	e8.0	30	73	27	30	16	22
19	16	12	e6.0	e6.0	7.3	e8.0	27	69	20	29	13	21
20	16	12	e6.0	e8.0	7.7	e8.0	27	66	15	27	14	18
21	16	12	e6.0	e6.0	8.2	e8.0	29	63	14	26	16	17
22	16	10	e6.0	e7.0	7.6	9.0	39	60	16	25	21	17
23	14	e7.9	e5.0	e7.0	6.7	9.0	50	56	15	24	26	16
24	16	e7.9	e5.0	e7.0	8.6	8.6	56	53	13	23	23	16
25	16	e7.9	e5.0	e7.0	6.9	8.5	52	51	13	23	20	16
26	15	e7.2	e5.0	e7.0	6.3	9.1	48	49	16	22	20	18
27	15	e7.2	e5.0	e8.0	e7.0	11	51	46	44	25	23	17
28	15	e7.2	e6.0	e8.0	e7.0	9.3	56	43	27	26	21	16
29	15	e7.4	e7.0	e8.0	e7.0	9.9	61	40	29	27	20	16
30	15	e8.0	e7.0	e9.0	---	10	65	39	29	22	21	16
31	15	---	e7.0	e9.0	---	12	---	36	---	21	20	---
TOTAL	555	348.7	233.4	225.0	219.3	256.7	971	2038	746	838	565	524
MEAN	17.9	11.6	7.53	7.26	7.56	8.28	32.4	65.7	24.9	27.0	18.2	17.5
MAX	26	15	12	9.0	9.0	12	65	79	44	46	26	22
MIN	14	7.2	5.0	6.0	6.3	6.1	14	36	13	20	13	16
AC-FT	1100	692	463	446	435	509	1930	4040	1480	1660	1120	1040

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1996, BY WATER YEAR (WY)

	MEAN	13.5	11.1	8.15	6.86	6.89	10.9	38.3	104	116	36.7	38.6	25.3
MAX	17.9	17.1	13.6	9.24	9.11	17.5	75.3	199	211	62.1	129	66.5	
(WY)	1996	1992	1992	1953	1992	1992	1992	1994	1995	1957	1957	1957	
MIN	4.95	5.13	4.18	4.10	3.93	6.46	18.6	35.6	17.0	8.13	8.11	4.50	
(WY)	1957	1957	1957	1954	1957	1957	1956	1956	1956	1956	1956	1956	

## SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1953 - 1996

ANNUAL TOTAL	15233.5	7520.1	
ANNUAL MEAN	41.7	20.5	33.5
HIGHEST ANNUAL MEAN			50.5
LOWEST ANNUAL MEAN			12.0
HIGHEST DAILY MEAN	495	Jun 18	499
LOWEST DAILY MEAN	5.0	Dec 23	3.0
ANNUAL SEVEN-DAY MINIMUM	5.3	Dec 21	3.1
INSTANTANEOUS PEAK FLOW		87	838
INSTANTANEOUS PEAK STAGE		4.31	6.21
INSTANTANEOUS LOW FLOW		2.4	2.4
ANNUAL RUNOFF (AC-FT)	30220	14920	24240
10 PERCENT EXCEEDS	100	45	95
50 PERCENT EXCEEDS	20	16	15
90 PERCENT EXCEEDS	7.4	7.0	6.0

e Estimated

## RIO GRANDE BASIN

08279000. EMBUDO CREEK AT DIXON, NM

LOCATION.--Lat 36°12'39", long 105°54'47", in NE¼SE¼ sec.19, T.23 N., R.10 E., Rio Arriba County, Hydrologic Unit 13020101, on right bank 750 ft upstream from State Highway 68, 0.5 mi upstream from mouth, 0.5 mi east of Embudo Post Office, and 1.7 mi northwest of Dixon.

DRAINAGE AREA.--305 mi<sup>2</sup>.

## WATER-DISCHARGE RECORD

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

REVISED RECORDS.--WSP 1512: 1931-32, 1941, 1947 (M). Also see PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 5,858.60 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 30, 1938, at site about 1 mi upstream at different datum. Nov. 30, 1938 to Aug. 1, 1941, at site about 0.9 mi upstream at datum about 59.9 ft higher. Aug. 2, 1941 to Sept. 1, 1971, at site 750 ft downstream at datum 9.10 ft lower. April 1956 to Sept. 21, 1962, crest-stage gage.

REMARKS.--Water-discharge records good. Diversions upstream from station for irrigation of about 6,600 acres, a small part of which are downstream from gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	34	39	39	38	32	34	45	8.7	9.0	5.5	15
2	51	37	37	36	36	32	37	45	8.4	9.9	9.2	12
3	47	39	37	30	27	34	43	42	8.4	8.9	15	11
4	45	40	39	38	30	37	45	45	7.8	7.3	12	12
5	44	43	39	40	38	36	37	41	8.0	7.2	7.2	12
6	43	45	38	37	40	35	32	36	7.8	7.1	5.3	12
7	44	43	38	33	39	26	34	36	7.7	21	5.1	12
8	45	42	39	35	38	36	34	33	7.2	18	5.2	10
9	43	43	33	36	38	38	34	30	6.5	21	5.7	10
10	43	43	31	37	40	39	45	29	6.2	33	5.8	9.2
11	41	38	33	36	40	40	49	33	6.5	33	5.1	8.1
12	40	43	35	36	38	39	48	34	6.6	23	4.9	9.0
13	35	42	40	37	36	38	55	32	6.8	28	4.8	11
14	33	40	40	37	36	38	46	30	6.8	23	4.4	15
15	32	41	39	36	38	41	40	33	6.8	17	4.6	21
16	34	41	34	35	38	40	36	35	6.3	13	4.8	18
17	36	42	36	44	38	39	35	35	6.2	13	4.7	15
18	38	40	36	36	39	34	35	42	5.8	11	4.7	23
19	38	38	34	26	37	33	41	30	5.9	10	6.9	38
20	36	39	32	38	39	33	40	27	5.7	8.7	6.0	31
21	36	38	29	29	42	36	36	25	5.3	8.2	5.4	30
22	35	37	35	42	42	37	33	22	5.3	6.9	15	29
23	36	36	30	36	38	35	28	19	4.8	6.1	18	28
24	34	35	26	28	33	35	31	18	4.7	4.6	20	26
25	34	34	27	35	39	33	41	17	4.7	4.0	19	25
26	33	36	27	34	36	34	48	16	4.9	4.4	16	23
27	33	34	29	29	29	34	54	15	5.8	5.5	24	27
28	33	31	30	41	31	35	66	14	10	7.9	21	29
29	33	30	39	36	35	34	59	13	7.5	7.0	16	27
30	33	37	36	37	---	36	51	10	7.0	7.1	14	24
31	34	---	42	40	---	34	---	9.6	---	6.2	16	---
TOTAL	1200	1161	1079	1109	1068	1103	1247	891.6	200.1	390.0	311.3	572.3
MEAN	38.7	38.7	34.8	35.8	36.8	35.6	41.6	28.8	6.67	12.6	10.0	19.1
MAX	58	45	42	44	42	41	66	45	10	33	24	38
MIN	32	30	26	26	27	26	28	9.6	4.7	4.0	4.4	8.1
AC-FT	2380	2300	2140	2200	2120	2190	2470	1770	397	774	617	1140

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1996, BY WATER YEAR (WY)

	MEAN	38.1	35.7	31.4	28.9	30.7	46.7	145	312	201	50.4	49.0	41.9
MAX	116	95.5	54.3	42.2	72.7	129	505	1231	813	204	222	190	190
(WY)	1942	1942	1942	1985	1932	1989	1942	1941	1941	1937	1991	1929	1929
MIN	3.09	4.18	9.75	12.0	15.0	15.5	13.3	8.94	5.49	.86	2.71	2.79	2.79
(WY)	1951	1951	1951	1951	1951	1951	1972	1972	1950	1951	1950	1950	1950

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1924 - 1996

ANNUAL TOTAL	46164	10332.3											
ANNUAL MEAN	126	28.2											
HIGHEST ANNUAL MEAN										84.6			
LOWEST ANNUAL MEAN										235			1941
HIGHEST DAILY MEAN	881	Jun 18				66	Apr 28			2590	May 14		1941
LOWEST DAILY MEAN	17	Aug 7				4.0	Jul 25			.20	Jun 27		1950
ANNUAL SEVEN-DAY MINIMUM	18	Aug 5				4.7	Aug 12			.60	Jul 16		1951
INSTANTANEOUS PEAK FLOW						212	Jul 7			4200	Aug 29		1977
INSTANTANEOUS PEAK STAGE						3.03	Jul 7			7.60	Aug 4		1967
INSTANTANEOUS LOW FLOW						4.2	Jun 21			.06	Jun 26		1950
ANNUAL RUNOFF (AC-FT)	91570	20490								61300			
10 PERCENT EXCEEDS	450	42											
50 PERCENT EXCEEDS	46	34								35			
90 PERCENT EXCEEDS	30	6.5								13			

## RIO GRANDE BASIN

08279000 EMBUDO CREEK AT DIXON, NM --Continued

## WATER-QUALITY RECORDS

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
DEC 1995									
01...	1106	37	420	8.0	10.5	4.0	617	10.1	95
MAR 1996									
29...	1445	34	332	8.5	10.5	11.5	607	9.0	104
JUN									
17...	1100	6.2	444	8.4	23.5	17.5	618	8.9	115
SEP									
09...	1045	10	458	8.4	22.5	16.0	620	9.5	119





**RIO GRANDE BASIN**

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 downstream from Rito de Tierra Amarilla, 3.1 southwest of La Fuente, 6.7 mi upstream from flow line of El Vado Reservoir, and at mile 91.4.

**DRAINAGE AREA.**--480 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Concrete control since Nov. 9, 1965. Elevation of gage is 7,083 ft above National Geodetic Vertical Datum of 1929, from river profile map.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 10,300 acres upstream from station (1962 determination). Several observations of water temperature were made during the year. Bureau of Reclamation satellite telemeter in gage.

EXTREMES OUTSIDE PERIOD OF RECORDS.--A discharge of about 9,000 ft<sup>3</sup>/s occurred Apr. 16, 1937, based on flow of Rio Chama at Los Ojos (Park View) with allowance for tributary inflow. A peak on May 21 or 22, 1926, may have exceeded 10,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	75	68	e35	e33	e47	171	1420	125	79	18	25
2	114	92	67	e36	e32	e49	238	1490	118	69	20	23
3	101	79	66	e35	e31	e50	237	1530	115	53	25	21
4	94	71	65	e37	e34	e51	257	1510	113	43	26	20
5	89	78	64	e36	e35	e52	210	1410	104	37	23	19
6	87	78	69	e37	e35	e58	193	1330	96	36	20	20
7	87	77	70	e36	e37	e66	231	1200	88	38	19	20
8	87	76	76	e35	e38	e74	284	1050	77	41	18	19
9	84	75	59	e36	e39	81	419	942	73	91	20	16
10	81	84	62	e35	e38	89	670	826	65	87	20	16
11	81	67	72	e36	e37	94	573	742	52	81	19	17
12	78	68	67	e37	e37	102	624	740	48	78	17	17
13	75	86	78	e38	e38	101	739	699	48	93	18	19
14	72	85	70	e36	e39	92	414	636	51	96	16	25
15	72	83	64	e36	e40	93	389	610	77	67	14	38
16	72	83	58	e37	e41	87	412	563	77	57	13	38
17	72	80	70	e37	e42	88	457	560	59	61	14	33
18	71	70	61	e36	e43	83	373	522	50	90	15	44
19	70	72	64	e36	e44	83	331	465	42	76	15	55
20	70	79	52	e37	e46	87	352	447	37	51	14	49
21	69	77	e58	e38	e48	96	294	394	35	41	15	45
22	68	76	e54	e39	e47	114	319	346	43	35	20	42
23	65	76	e50	e40	e46	123	476	302	45	30	31	40
24	67	71	e46	e38	e45	117	1090	267	34	25	30	36
25	72	69	e44	e37	e48	100	1760	238	34	25	33	32
26	71	73	e40	e36	e49	100	2200	219	40	24	33	30
27	70	69	e39	e33	e48	101	2380	195	59	22	31	29
28	71	58	e38	e34	e45	119	2060	183	84	21	34	28
29	71	65	e37	e36	e46	142	1060	168	80	23	31	30
30	72	75	e36	e37	---	135	1030	149	64	24	31	30
31	70	---	e35	e35	---	140	---	135	---	20	28	---
TOTAL	2462	2267	1799	1127	1181	2814	20243	21288	2033	1614	681	876
MEAN	79.4	75.6	58.0	36.4	40.7	90.8	675	687	67.8	52.1	22.0	29.2
MAX	139	92	78	40	49	142	2380	1530	125	96	34	55
MIN	65	58	35	33	31	47	171	135	34	20	13	16
AC-FT	4880	4500	3570	2240	2340	5580	40150	42220	4030	3200	1350	1740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1996, BY WATER YEAR (WY)

STATISTICS OF RAINFALL DATA FOR WATER YEARS 1950		1950, 51 WATER YEAR (WY)										
MEAN	93.2	84.8	60.0	55.4	70.7	184	852	1832	785	136	97.5	78.8
MAX	562	422	131	103	174	523	1846	4195	3200	571	352	320
(WY)	1987	1987	1987	1987	1962	1995	1962	1985	1995	1957	1957	1962
MIN	9.82	24.8	25.9	15.8	26.3	49.9	244	123	19.1	9.23	9.00	7.96
(WY)	1957	1957	1964	1963	1964	1964	1964	1977	1977	1956	1972	1956

### SUMMARY STATISTICS

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1956 - 1996	
ANNUAL TOTAL	247916		58385			
ANNUAL MEAN	679		160		362	
HIGHEST ANNUAL MEAN					723	
LOWEST ANNUAL MEAN					63.0	
HIGHEST DAILY MEAN	5090	Jun 6	2380	Apr 27	7720	May 10 1985
LOWEST DAILY MEAN	35	Dec 31	13	Aug 16	4.4	Sep 19 1956
ANNUAL SEVEN-DAY MINIMUM	38	Dec 25	14	Aug 15	5.6	Sep 18 1956
INSTANTANEOUS PEAK FLOW			3310	Apr 27	11200	May 28 1979
INSTANTANEOUS PEAK STAGE			5.24	Apr 27	6.46	May 14 1984
INSTANTANEOUS LOW FLOW			13	Aug 16	4.0	Sep 19 1956
ANNUAL RUNOFF (AC-FT)	491700		115800		262300	
10 PERCENT EXCEEDS	2540		399		1050	
50 PERCENT EXCEEDS	127		64		80	
90 PERCENT EXCEEDS	50		24		30	

e Estimated

a-From rating curve extended above 5,400 ft<sup>3</sup>/s,

## RIO GRANDE BASIN

08284100 RIO CHAMA NEAR LA PUENTE, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974, 1986 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)
NOV 1995										
30...	1330	E73	191	7.3	9.5	1.5	585	11.3	105	75
FEB 1996										
01...	1345	E47	158	7.8	1.5	0.0	573	11.1	101	65
APR										
09...	1030	419	117	8.2	12.0	5.0	588	10.5	107	49
SEP										
05...	1030	19	262	8.0	19.5	16.0	586	7.6	101	110

DATE	HARD-NESS NONCARE DISSOLV FLD. AS CAC03 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)
NOV 1995										
30...	--	23	4.3	6.4	0.3	1.6	--	--	--	75
FEB 1996										
01...	--	20	3.6	5.6	0.3	1.5	--	--	--	67
APR										
09...	2	15	2.7	3.6	0.2	1.5	57	0	46	51
SEP										
05...	--	34	6.1	8.8	0.4	2.1	--	--	--	110

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1995										
30...	14	1.7	0.10	22	118	20	23	11	--	97
FEB 1996										
01...	12	1.5	0.10	20	104	<10	14	2	--	97
APR										
09...	8.2	1.1	<0.10	14	74	<10	94	59	67	97
SEP										
05...	23	1.8	0.10	20	162	26	51	12	0.62	49

## RIO GRANDE BASIN

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 upstream from Azotea Creek, and 6.2 mi 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 above 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 provided by Bureau of Reclamation.

AVERAGE DISCHARGE.--26 years, 128 ft<sup>3</sup>/s, 92,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft<sup>3</sup>/s, May 17, 1978, gage height, 7.85 ft; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 831 ft<sup>3</sup>/s, May 17; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	174	364	180	84	3.0	.00
2	.00	.00	.00	.00	.00	.00	214	379	167	56	3.0	.00
3	.00	.00	.00	.00	.00	.00	169	475	167	42	5.0	.00
4	.00	.00	.00	.00	.00	.00	148	525	166	29	3.5	.00
5	.00	.00	.00	.00	.00	.00	128	571	171	24	3.0	.00
6	.00	.00	.00	.00	.00	.00	133	611	170	19	2.5	.00
7	.00	.00	.00	.00	.00	.00	160	614	167	28	1.5	.00
8	.00	.00	.00	.00	.00	.00	210	537	151	44	1.0	.00
9	.00	.00	.00	.00	.00	.00	350	540	123	188	1.0	.00
10	.00	.00	.00	.00	.00	.00	374	617	102	109	1.0	.00
11	.00	.00	.00	.00	.00	.00	385	559	91	113	1.0	.00
12	.00	.00	.00	.00	.00	.00	291	599	86	72	.00	.00
13	.00	.00	.00	.00	.00	.00	299	654	95	71	.00	.00
14	.00	.00	.00	.00	.00	.00	207	663	95	49	.00	.00
15	.00	.00	.00	.00	.00	.00	175	761	124	76	.50	.00
16	.00	.00	.00	.00	.00	.00	188	769	93	46	.50	.00
17	.00	.00	.00	.00	.00	.00	199	831	76	59	.50	.00
18	.00	.00	.00	.00	.00	.00	160	780	66	61	1.5	.00
19	.00	.00	.00	.00	.00	.00	158	782	58	46	2.5	34
20	.00	.00	.00	.00	.00	.00	161	730	44	25	1.5	31
21	.00	.00	.00	.00	.00	22	142	563	37	16	1.0	21
22	.00	.00	.00	.00	.00	82	128	544	48	15	.00	9.6
23	.00	.00	.00	.00	.00	91	203	475	42	7.1	.00	4.0
24	.00	.00	.00	.00	.00	65	348	383	26	4.0	.00	2.0
25	.00	.00	.00	.00	.00	41	491	266	25	3.0	.00	1.0
26	.00	.00	.00	.00	.00	36	624	222	18	4.0	.00	1.0
27	.00	.00	.00	.00	.00	54	670	167	88	3.0	.00	.50
28	.00	.00	.00	.00	.00	73	620	128	124	4.0	.00	.00
29	.00	.00	.00	.00	.00	84	404	101	84	5.5	.00	.00
30	.00	.00	.00	.00	---	62	341	141	49	11	.00	.00
31	.00	---	.00	.00	---	94	---	159	---	4.5	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	704.00	8254	15510	2933	1318.1	33.50	104.10
MEAN	.000	.000	.000	.000	.000	22.7	275	500	97.8	42.5	1.08	3.47
MAX	.00	.00	.00	.00	.00	94	670	831	180	188	5.0	34
MIN	.00	.00	.00	.00	.00	.00	128	101	18	3.0	.00	.00
AC-FT	.00	.00	.00	.00	.00	1400	16370	30760	5820	2610	66	206

CAL YR 1995 TOTAL 43493.00 MEAN 119 MAX 981 MIN .00 AC-FT 86270  
WTR YR 1996 TOTAL 28856.70 MEAN 78.8 MAX 831 MIN .00 AC-FT 57240

## 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 downstream from bridge, 0.2 mi downstream from Iron Spring Creek, 3.3 mi west of Los Ojos, and at mile 9.7.

DRAINAGE AREA.--112 mi<sup>2</sup>.

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 above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 1, 1971, at site 900 ft 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 provided by Bureau of Reclamation.

AVERAGE DISCHARGE.--8 years (water years 1963-70), 10.5 ft<sup>3</sup>/s, 7,610 acre-ft/yr, prior to completion of Azotea tunnel. 26 years (water years 1971-96), 141 ft<sup>3</sup>/s, 102,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,610 ft<sup>3</sup>/s, Mar. 12, 1985, gage height, 6.65 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 814 ft<sup>3</sup>/s, May 17-19; no flow Mar. 1-20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	.50	.20	.11	.12	.00	150	363	191	90	4.0	2.0
2	1.9	.50	.20	.11	.12	.00	261	373	176	60	3.0	2.0
3	1.8	.50	.20	.11	.12	.00	201	475	162	49	3.0	2.0
4	.96	.50	.20	.11	.15	.00	168	532	176	38	3.0	2.0
5	.76	.50	.20	.11	.12	.00	141	572	176	30	3.5	1.5
6	.40	.50	.20	.11	.11	.00	148	582	180	25	3.0	1.5
7	.34	.50	.20	.11	.12	.00	173	532	176	24	2.0	1.5
8	.30	.50	.20	.11	.11	.00	217	570	127	55	1.0	1.0
9	.27	.50	.20	.11	.12	.00	349	599	113	246	1.5	1.0
10	.24	.50	.20	.11	.12	.00	378	572	109	120	.50	.50
11	.24	.50	.20	.11	.12	.00	378	615	110	137	4.5	.50
12	.24	.50	.20	.11	.19	.00	288	654	92	87	2.5	.50
13	.23	.50	.20	.11	.29	.00	300	711	105	89	1.5	.50
14	.21	.50	.20	.11	.80	.00	220	696	94	71	1.0	1.5
15	1.1	.50	.20	.11	1.4	.00	189	751	128	76	1.0	3.0
16	1.5	.50	.20	.11	1.2	.00	189	736	101	57	1.0	3.0
17	1.3	.50	.20	.11	1.6	.00	221	814	82	68	1.0	3.0
18	1.2	.50	.20	.11	2.3	.00	176	814	73	73	2.0	4.5
19	.80	.50	.20	.11	2.0	.00	159	814	65	57	2.5	48
20	.56	.50	.20	.11	3.2	.00	160	734	50	36	2.0	36
21	.38	.50	.20	.11	5.4	5.6	135	476	40	23	2.0	25
22	.36	.50	.20	.11	7.0	95	135	504	43	22	5.6	5.0
23	.34	.50	.20	.11	3.7	117	239	464	51	9.6	13	8.6
24	.36	.50	.20	.11	3.7	89	338	375	29	5.6	4.0	5.0
25	.59	.50	.20	.11	4.1	59	469	277	24	4.0	6.6	3.5
26	.59	.50	.20	.11	2.8	46	538	233	21	3.5	4.0	2.0
27	.59	.50	.20	.11	1.8	48	655	188	91	3.5	4.5	2.0
28	.56	.50	.20	.11	1.5	86	635	140	131	4.5	10	1.0
29	.52	.50	.20	.11	1.4	75	416	106	100	5.0	4.5	1.0
30	.72	.50	.20	.11	---	76	362	137	60	7.6	3.5	1.0
31	.59	---	.20	.11	---	95	---	162	---	5.6	2.5	---
TOTAL	21.95	15.00	6.20	3.41	45.71	791.60	8388	15571	3076	1581.9	103.70	169.60
MEAN	.71	.50	.20	.11	1.58	25.5	280	502	103	51.0	3.35	5.65
MAX	2.0	.50	.20	.11	7.0	117	655	814	191	246	13	48
MIN	.21	.50	.20	.11	.11	.00	135	106	21	3.5	.50	.50
AC-FT	44	30	12	6.8	91	1570	16640	30890	6100	3140	206	336

CAL YR 1995 TOTAL 53653.24 MEAN 147 MAX 1060 MIN .00 AC-FT 106400  
WTR YR 1996 TOTAL 29774.07 MEAN 81.3 MAX 814 MIN .00 AC-FT 59060

## RIO GRANDE BASIN

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 northwest of Heron Dam, 7.8 mi downstream from Horse Lake, and 9.9 mi west of Los Ojos.

DRAINAGE AREA.--45 mi<sup>2</sup>, 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 above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to July 1, 1971, at site 1,100 ft upstream at higher datums.

REMARKS.--Diversion upstream from station for irrigation of meadows and for off-channel stock tanks.

COOPERATION.--Records provided by Bureau of Reclamation.

AVERAGE DISCHARGE--11 years (water years 1963-73), 1.10 ft<sup>3</sup>/s, 797 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,960 ft<sup>3</sup>/s, July 30, 1968, gage height, 4.9 ft, site and datum then in use, from rating curve extended above 37 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 3.20 ft and 4.9 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3.2 ft<sup>3</sup>/s, Apr. 19, no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	2.5	.00	.00	.00	.00	.00
2	---	---	---	---	---	---	2.5	.00	.00	.00	.00	.00
3	---	---	---	---	---	---	2.4	.00	.00	.00	.00	.00
4	---	---	---	---	---	---	2.3	.00	.00	.00	.00	.00
5	---	---	---	---	---	---	2.2	.00	.00	.00	.00	.00
6	---	---	---	---	---	---	2.3	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	2.5	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	2.5	.00	.00	.00	.00	.00
9	---	---	---	---	---	---	2.6	.00	.00	.00	.00	.00
10	---	---	---	---	---	---	2.7	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	2.7	.00	.00	.00	.00	.00
12	---	---	---	---	---	1.3	2.9	.00	.00	.00	.00	.00
13	---	---	---	---	---	1.5	2.6	.00	.00	.00	.00	.00
14	---	---	---	---	---	1.7	.50	.00	.00	.00	.00	.00
15	---	---	---	---	---	2.0	2.8	.00	.00	.00	.00	.00
16	---	---	---	---	---	2.1	2.9	.00	.00	.00	.00	.00
17	---	---	---	---	---	2.3	3.0	.00	.00	.00	.00	.00
18	---	---	---	---	---	2.5	3.1	.00	.00	.00	.00	.00
19	---	---	---	---	---	2.6	3.2	.00	.00	.00	.00	.00
20	---	---	---	---	---	2.7	2.5	.00	.00	.00	.00	.00
21	---	---	---	---	---	2.8	2.0	.00	.00	.00	.00	.00
22	---	---	---	---	---	2.9	1.0	.00	.00	.00	.00	.00
23	---	---	---	---	---	2.9	1.0	.00	.00	.00	.00	.00
24	---	---	---	---	---	2.9	.50	.00	.00	.00	.00	.00
25	---	---	---	---	---	2.9	.50	.00	.00	.00	.00	.00
26	---	---	---	---	---	3.0	.50	.00	.00	.00	.00	.00
27	---	---	---	---	---	3.0	.00	.00	.00	.00	.00	.00
28	---	---	---	---	---	2.8	.00	.00	.00	.00	.00	.00
29	---	---	---	---	---	2.0	.00	.00	.00	.00	.00	.00
30	---	---	---	---	---	1.9	.00	.00	.00	.00	.00	.00
31	---	---	---	---	---	2.4	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	56.20	0.00	0.00	0.00	0.00	0.00
MEAN	---	---	---	---	---	---	1.87	.000	.000	.000	.000	.000
MAX	---	---	---	---	---	---	3.2	.00	.00	.00	.00	.00
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	111	.00	.00	.00	.00	.00

## 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 upstream from Rio Chama, 5.1 mi northeast of El Vado Dam, and 8.7 mi southwest of Los Ojos.

DRAINAGE AREA.--193 mi<sup>2</sup>.

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 at elevation 7,186.1 ft, low point on crest of uncontrolled spillway, including 1,340 acre-ft of dead storage at elevation 7,003.0 ft, 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 provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 401,800 acre-ft, July 28, 1982, elevation, 7,186.19 ft; no storage prior to Oct. 21, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 388,690 acre-ft, Oct. 1, elevation, 7,183.94 ft; minimum, 335,150 acre-ft, Sept. 30, elevation, 7,174.32 ft.

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

(Based on survey by Bureau of Reclamation in 1986)

7,170	312,600
7,180	366,200
7,190	424,700

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	388690	386200	377590	376680	373840	373670	361760	337710	366510	363320	346540	342590
2	388580	386150	377590	376570	373900	373670	361260	338350	366790	362880	346050	342540
3	388460	386090	377540	376570	373900	373610	360650	339420	367010	362490	345620	342430
4	388230	386090	377480	376510	373900	373780	359930	340280	367290	361980	345080	342320
5	388110	386030	377420	376450	373840	373780	359210	341350	367580	361210	344370	342270
6	388170	385970	377420	376400	373840	373840	358430	342480	367800	360650	343890	342160
7	388050	385910	377420	376400	373840	373840	357820	343620	368190	359930	343560	342050
8	387940	385910	377310	376400	373840	373840	357270	344750	368420	359480	343450	342000
9	387820	385740	377250	376340	373840	373840	356940	345940	368640	359260	343830	341890
10	387710	385680	377190	376340	373840	373780	356660	346810	368810	358880	343780	341780
11	387710	385630	377250	376340	373840	373780	356110	347730	368980	358490	343720	341780
12	387710	385570	377190	376230	373840	373900	355510	349200	369090	358270	343670	341680
13	387590	385390	377190	376050	373780	373840	355010	350620	369260	357820	343560	341570
14	387530	385050	377140	375880	373780	373840	354350	352050	369430	357330	343510	341780
15	387480	384650	377080	375710	373780	373900	353690	353420	369660	356830	343350	341730
16	387420	384130	377080	375660	373780	373900	353030	354900	369830	356220	343240	341510
17	387300	383670	377020	375830	373780	373840	352370	356390	369880	355730	343180	341080
18	387240	383210	377020	375600	373780	373780	351660	357930	369830	355400	343130	340650
19	387190	382750	377020	375540	373730	373220	350840	359320	369320	354960	343080	340280
20	387010	382290	377020	375370	373780	372250	350080	360710	368760	354300	343020	339900
21	386950	381770	377020	375260	373780	371240	349310	361820	368080	353640	342970	339470
22	386780	381310	376910	375090	373780	370390	348120	362880	367630	353030	342970	338940
23	386670	380850	376850	374920	373730	369430	346700	363600	367010	352320	343080	338620
24	386610	380340	376790	374750	373730	368590	345290	364270	366340	351660	343180	338130
25	386550	379820	376790	374630	373670	367690	344050	364660	365730	350900	343350	337600
26	386610	379250	376740	374410	373610	366790	342650	365000	365280	350190	343290	337010
27	386430	378850	376740	374180	373610	366170	341300	365280	364890	349370	343290	336420
28	386320	378390	376740	374070	373730	365050	339690	365450	364660	348660	343240	336050
29	386260	377820	376680	374010	373780	364380	337600	365610	364380	348280	342970	335630
30	386260	377540	376680	373840	---	363550	337120	365840	363880	347730	342810	335150
31	386200	---	376680	373840	---	362760	---	366060	---	347030	342700	---
MAX	388690	386200	377590	376680	373900	373900	361760	366060	369880	363320	346540	342590
MIN	386200	377540	376680	373840	373610	362760	337120	337710	363880	347030	342700	335150
(†)	7183.51	7182.01	7181.84	7181.35	7181.34	7179.38	7174.68	7179.87	7179.57	7176.52	7175.72	7174.31
(††)	-2550	-8660	-860	-2840	-60	-11020	-25640	+28940	-2180	-16850	-4330	-7550
CAL YR 1995	MAX 400330	MIN 325330	(††) -12880									
WTR YR 1996	MAX 388690	MIN 335150	(††) -53600									

(†) ELEVATION, IN FEET, AT END OF MONTH

(††) CHANGE IN CONTENTS, IN ACRE-FEET

## RIO GRANDE BASIN

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 upstream from Rio Chama, 5.1 mi northeast of El Vado Dam, and 8.7 mi southwest of Los Ojos.

DRAINAGE AREA.--193 mi<sup>2</sup>.

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). Outlet conduits are 14-in. and 120-in. in diameter.

COOPERATION.--Records provided by Bureau of Reclamation.

AVERAGE DISCHARGE.--26 years, 125 ft<sup>3</sup>/s, 90,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,780 ft<sup>3</sup>/s, Dec. 18, 19, 1982; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,400 ft<sup>3</sup>/s, Apr. 26-29; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	41	.00	500	.00	.00	346	266	.00
2	.00	.00	.00	.00	18	.00	500	.00	.00	346	198	.00
3	.00	.00	.00	.00	.00	.00	500	.00	.00	346	198	.00
4	.00	.00	.00	.00	.00	.00	500	.00	.00	346	198	.00
5	.00	.00	.00	.00	.00	.00	500	.00	.00	346	198	.00
6	.00	.00	.00	.00	.00	.00	500	.00	.00	346	198	.00
7	.00	.00	.00	.00	.00	.00	500	.00	.00	346	80	.00
8	.00	.00	.00	.00	.00	.00	500	.00	.00	346	.00	.00
9	.00	.00	.00	.00	.00	.00	500	.00	.00	344	.00	.00
10	.00	.00	.00	.00	.00	.00	500	.00	.00	344	.00	.00
11	.00	.00	.00	.00	.00	.00	500	.00	.00	344	.00	.00
12	.00	.00	.00	25	.00	.00	500	.00	.00	344	.00	.00
13	.00	131	.00	41	.00	.00	500	.00	.00	344	.00	.00
14	.00	243	.00	41	.00	.00	500	.00	.00	344	.00	.00
15	.00	212	.00	41	.00	.00	500	.00	.00	343	.00	.00
16	.00	243	.00	41	.00	.00	500	.00	.00	343	.00	132
17	.00	243	.00	41	.00	.00	500	.00	.00	343	.00	237
18	.00	243	.00	41	.00	.00	500	.00	172	343	.00	237
19	.00	243	.00	41	.00	309	500	.00	344	343	.00	237
20	.00	243	.00	41	.00	500	500	.00	346	343	.00	237
21	.00	242	.00	41	.00	500	500	.00	346	343	.00	237
22	.00	242	.00	41	.00	500	728	.00	346	343	.00	237
23	.00	243	.00	41	.00	500	900	.00	346	343	.00	237
24	.00	242	.00	41	.00	500	900	.00	346	343	.00	237
25	.00	242	.00	41	.00	500	1190	.00	346	343	.00	237
26	.00	242	.00	41	.00	500	1400	.00	346	343	.00	237
27	.00	241	.00	41	.00	500	1400	.00	346	343	46	237
28	.00	263	.00	41	.00	500	1400	.00	346	343	79	237
29	.00	233	.00	41	.00	500	1400	.00	346	343	79	237
30	.00	78	.00	41	.00	500	554	.00	346	343	33	237
31	.00	---	.00	41	.00	500	---	.00	---	343	.00	---
TOTAL	0.00	4069.00	0.00	804.00	59.00	6309.00	20372	0.00	4322.00	10663	1573.00	3450.00
MEAN	.000	136	.000	25.9	2.03	204	679	.000	144	344	50.7	115
MAX	.00	263	.00	41	41	500	1400	.00	346	346	266	237
MIN	.00	.00	.00	.00	.00	.00	500	.00	.00	343	.00	.00
AC-FT	.00	8070	.00	1590	117	12510	40410	.00	8570	21150	3120	6840

CAL YR 1995 TOTAL 62629.00 MEAN 172 MAX 1530 MIN .00 AC-FT 124200  
WTR YR 1996 TOTAL 51621.00 MEAN 141 MAX 1400 MIN .00 AC-FT 102400



## RIO GRANDE BASIN

## 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 southwest of Tierra Amarilla, and at mile 77.7.

DRAINAGE AREA.--873 mi<sup>2</sup>, of which about 100 mi<sup>2</sup> 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 hours.

GAGE.--Water-stage recorder. Prior to October 1967, nonrecording gage only below gage height 6,879.3 ft. Datum of gage is 8.21 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by rockfill dam, steel faced. Storage began in January 1935. Capacity 186,250 acre-ft between gage heights 6,759.0 ft and 6,902.0 ft, top of spillway gate. Dead storage, 1,480 acre-ft below 6,775.0 ft, sill of outlet works. Figures given herein represent total contents. Reservoir is used to impound water for irrigation by Middle Rio Grande Conservancy District and, since December 1972, for storage of contract water from San Juan-Chama Project. Rehabilitation of outlet works, completed in December 1966, increased valve-controlled release from about 1,750 ft<sup>3</sup>/s to about 6,000 ft<sup>3</sup>/s.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 204,900 acre-ft, of which 7,400 acre-ft was uncontrolled storage, June 4, 5, 1948, gage height, 6,904.2 ft; no storage at times prior to December 1966.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 159,920 acre-ft, May 7, elevation, 6,893.27 ft; minimum, 45,160 acre-ft, Sept. 30, elevation 6,837.15.

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

(Based on survey by Bureau of Reclamation in 1987)

6,845	56,100	6,875	111,000
6,850	63,730	6,885	135,900
6,860	80,510	6,895	164,400
6,865	89,870	6,900	179,800

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138130	125680	117430	106260	96500	87900	94600	150400	138210	107600	97290	60010
2	138020	125150	117100	105860	96200	87590	95660	152410	136790	107980	96130	59100
3	137810	124590	116740	105420	95790	87270	96730	154380	135410	108110	94650	58030
4	137620	124090	116360	105070	95400	86940	97740	156430	133960	108070	93510	57060
5	137350	123520	116050	104650	95070	86660	98580	158140	132620	107930	92810	56020
6	137090	122990	115690	104260	94710	86370	99410	159440	131000	107800	92160	55160
7	136870	122420	115360	103890	94340	86050	100320	159920	129300	107660	91230	53580
8	136660	121900	115000	103470	94020	85750	101230	159770	127680	107530	90180	52050
9	136440	121310	114650	103100	93720	85450	102460	159230	125980	107750	88800	51250
10	136230	120810	114230	102740	93450	85190	104280	158430	124240	108160	86910	50600
11	135990	120270	113870	102350	93230	84870	105970	157460	122540	108540	85430	49980
12	135810	119690	113520	102000	92990	84630	107750	156550	120840	108880	84360	49350
13	135570	119390	113200	101750	92710	84420	109760	155610	119150	109310	83290	48690
14	135330	119270	112890	101450	92450	84230	111180	155290	117720	109700	82240	48110
15	135090	119200	112520	101190	92200	84050	112520	155610	116260	110010	81190	47500
16	134880	119100	112170	100890	91860	83860	113690	155840	114840	110520	79790	47150
17	134670	118960	111850	100790	91620	83640	114960	155400	113380	110720	77960	47010
18	134400	118860	111550	100490	91380	83440	116100	154560	112150	111250	76410	46890
19	134140	118740	111180	100190	91130	83730	116860	153600	111300	111000	75570	46770
20	133380	118620	110950	99940	90790	84510	117680	153050	110330	109900	74390	46610
21	132330	118500	110450	99650	90580	85300	118370	153220	109560	109150	73320	46470
22	131320	118420	110080	99350	90400	86150	119150	153140	108970	108250	72340	46290
23	130200	118420	109700	99060	90150	86980	120490	152210	108450	106860	71110	46150
24	129270	118350	109260	98740	89780	87820	123020	151000	107570	105490	69330	46000
25	128990	118330	108900	98450	89480	88610	127120	149400	106730	104100	68000	45830
26	128660	118250	108470	98140	89210	89390	132020	147750	105990	102740	67050	45660
27	128350	118280	108090	97830	88840	90180	137410	145870	105660	101360	66070	45490
28	127860	118230	107690	97560	88530	90990	142350	144340	106390	100030	65230	45400
29	127230	118110	107330	97250	88230	91940	146120	142840	106770	99140	64440	45280
30	126670	117840	106950	96980	---	92810	148460	141330	107170	98600	63180	45160
31	126160	---	106610	96730	---	93680	---	139720	---	98030	61400	---
MAX	138130	125680	117430	106260	96500	93680	148460	159920	138210	111250	97290	60010
MIN	126160	117840	106610	96730	88230	83440	94600	139720	105660	98030	61400	45160
(†)	6881.25	6877.89	6873.04	6868.42	6864.15	6866.92	6889.58	6886.43	6873.29	6869.05	6848.51	6837.15
(††)	-12020	-8320	-11230	-9880	-8500	-5450	+54780	-8740	-32550	-9140	-36630	-16240

CAL YR 1995 MAX 171490 MIN 69950 (††) +27180  
WTR YR 1996 MAX 159920 MIN 45160 (††) -93020

(†) ELEVATION, IN FEET, AT END OF MONTH  
(††) CHANGE IN CONTENTS, IN ACRE-FEET

## RIO GRANDE BASIN

## 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 downstream from El Vado Dam, 2.8 mi upstream from Rio Nuevas, 13 mi southwest of Tierra Amarilla, and at mile 76.2.

DRAINAGE AREA.--877 mi<sup>2</sup>, of which about 100 mi<sup>2</sup> 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. WDR-NM-90: 1989.

GAGE.--Water-stage recorder. Datum of gage is 6,696.12 ft above National Geodetic Vertical Datum of 1929. Prior to October 1935, at site 1.5 mi upstream at different datum. October 1935 to September 1938 at site 1.1 mi upstream at datum 30.34 ft 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 upstream from station. Several observations of water temperature were made during the year. Satellite telemeter at station.

AVERAGE DISCHARGE.--5 years (water years 1914-15, 1921-23), 448 ft<sup>3</sup>/s, 324,600 acre-ft/yr, prior to completion of El Vado Dam. 35 years (water years 1936-70), 373 ft<sup>3</sup>/s, 270,200 acre-ft/yr, prior to release of transmountain water.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft<sup>3</sup>/s, May 22, 1920, gage height, 12 ft, site and datum then in use, from rating curve extended above 3,500 ft<sup>3</sup>/s; no flow Mar. 25, 26, 31, 1955. Maximum discharge since construction of El Vado Dam in 1935, 6,610 ft<sup>3</sup>/s, May 7, 1985, gage height, 7.08 ft.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187	349	253	245	260	229	186	200	877	218	656	743
2	190	348	253	257	258	229	188	200	856	218	885	557
3	190	349	253	258	256	229	190	200	854	349	1030	557
4	190	348	253	256	255	229	232	200	854	431	790	561
5	190	348	253	256	255	228	257	200	852	432	594	563
6	190	347	252	256	255	228	260	463	895	433	595	561
7	190	346	252	255	254	228	264	815	952	434	597	839
8	192	343	252	253	254	228	264	1010	950	435	595	820
9	193	343	252	253	231	227	264	1120	949	302	820	427
10	194	343	252	252	210	228	215	1150	946	229	1030	342
11	189	343	252	252	210	228	194	1150	945	229	751	337
12	190	343	252	252	222	225	191	1150	943	230	579	333
13	190	343	252	252	229	199	194	1110	943	233	578	344
14	190	343	252	252	228	186	195	681	884	235	577	343
15	191	343	252	252	228	186	199	448	830	236	576	342
16	189	343	252	252	228	186	329	448	830	237	799	341
17	188	343	252	253	229	186	278	847	829	236	995	343
18	195	343	252	259	228	184	311	953	827	232	800	343
19	197	343	252	260	228	179	402	959	827	607	563	342
20	491	346	252	260	298	179	428	673	828	928	563	343
21	572	347	250	260	218	179	428	320	744	718	561	343
22	570	315	250	260	214	179	586	396	698	864	562	344
23	566	298	249	260	226	179	639	759	696	1050	786	345
24	470	298	249	260	233	179	545	963	740	1050	983	344
25	229	298	249	260	233	179	422	1010	822	1040	751	337
26	229	298	248	259	232	179	422	1140	770	1040	560	331
27	229	298	248	260	233	182	428	1130	417	1040	559	319
28	323	298	248	259	233	183	390	1000	218	1040	558	307
29	349	305	248	258	230	185	274	956	218	794	559	306
30	349	276	248	258	---	186	200	956	218	642	751	296
31	349	---	248	260	---	186	---	952	---	653	972	---
TOTAL	8351	9928	7780	7939	6868	6217	9375	23559	23212	16815	21975	12653
MEAN	269	331	251	256	237	201	312	760	774	542	709	422
MAX	572	349	253	260	298	229	639	1150	952	1050	1030	839
MIN	187	276	248	245	210	179	186	200	218	218	558	296
AC-FT	16560	19690	15430	15750	13620	12330	18600	46730	46040	33350	43590	25100

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

	193	188	303	159	172	309	908	1703	907	395	350	291
MEAN	193	188	303	159	172	309	908	1703	907	395	350	291
MAX	607	646	1272	435	522	962	1887	3412	2342	707	709	692
(WY)	1987	1987	1976	1987	1986	1985	1986	1985	1995	1992	1996	1976
MIN	36.7	43.9	63.2	23.9	17.1	27.8	33.2	262	186	126	54.4	50.6
(WY)	1979	1977	1971	1978	1976	1973	1972	1976	1976	1985	1971	1972

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1971 - 1996
ANNUAL TOTAL	271869	154672	
ANNUAL MEAN	745	423	491
HIGHEST ANNUAL MEAN			754
LOWEST ANNUAL MEAN			194
HIGHEST DAILY MEAN	4750	May 23	5790
LOWEST DAILY MEAN	168	Jul 31	11
ANNUAL SEVEN-DAY MINIMUM	179	Jan 2	16
ANNUAL RUNOFF (AC-FT)	539300	306800	355900
10 PERCENT EXCEEDS	1920	888	1180
50 PERCENT EXCEEDS	343	298	228
90 PERCENT EXCEEDS	186	192	44

## RIO GRANDE BASIN

## 08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, NM

LOCATION.--Lat 36°19'06", long 106°35'50", Rio Arriba County, Hydrologic Unit 13020102, on left bank 40 ft downstream from site of former bridge, 7.7 mi downstream from Rio Gallina, 9 mi northwest of Youngsville, 15.6 mi upstream from Abiquiu Dam, 30.3 mi downstream from El Vado Dam, and at mile 47.4.

DRAINAGE AREA.--1,600 mi<sup>2</sup>, of which about 100 mi<sup>2</sup> is probably noncontributing.

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

GAGE.--Water-stage recorder. Elevation of gage is 6,280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for daily discharges, which are fair. Flow regulated by El Vado Reservoir (08285000). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions for irrigation of about 15,000 acres upstream from station. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 358 ft<sup>3</sup>/s, 259,400 acre-ft/yr, prior to release of transmountain water.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred on Sept. 29, 1904, Oct. 4 or 5, 1911, and May 22, 1920.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	341	246	239	255	236	184	e197	972	207	648	922
2	178	344	244	232	271	236	184	e196	889	200	786	555
3	173	341	239	244	248	236	184	e198	881	192	1040	546
4	173	344	237	246	243	236	184	e196	880	401	1010	545
5	169	343	236	244	259	236	236	e192	881	409	594	542
6	169	344	236	244	253	238	252	e441	887	409	583	536
7	169	341	236	245	252	241	252	e670	992	423	579	646
8	169	341	236	244	256	241	252	1000	990	432	574	942
9	169	341	236	245	265	240	255	1190	990	523	608	550
10	169	342	236	244	229	239	258	1300	990	215	1050	355
11	169	336	236	244	219	239	188	1310	986	194	980	348
12	162	334	236	241	214	239	183	1310	983	400	588	334
13	163	334	236	241	228	236	182	1300	987	408	583	337
14	160	334	247	241	232	197	182	1090	981	245	579	347
15	160	334	249	241	229	193	182	471	904	201	575	365
16	159	335	239	241	227	193	184	461	869	198	602	341
17	158	338	239	251	229	190	217	604	860	234	1020	338
18	158	338	247	244	225	189	e236	1010	857	258	1030	338
19	159	338	247	254	224	182	e377	1020	846	215	578	338
20	252	338	239	256	225	180	e375	1000	845	915	564	334
21	563	338	236	255	297	179	e380	332	822	878	563	332
22	569	333	236	256	231	178	e535	308	709	671	556	331
23	569	291	236	251	227	180	e510	497	703	1060	596	331
24	569	288	235	242	232	180	e514	967	700	1070	1030	330
25	313	287	234	259	239	179	e377	996	777	1080	1070	327
26	220	286	237	246	239	177	e373	1130	859	1090	756	322
27	218	284	236	242	239	177	e377	1280	698	1090	566	318
28	239	284	255	275	239	177	e320	1180	246	1110	561	300
29	338	284	235	268	236	179	e267	1020	200	1020	555	296
30	341	294	233	257	---	184	e196	1020	214	662	575	296
31	341	---	255	253	---	184	---	1020	---	653	971	---
TOTAL	7699	9750	7425	7685	6962	6391	8396	24906	24398	17063	22370	12742
MEAN	248	325	240	248	240	206	280	803	813	550	722	425
MAX	569	344	255	275	297	241	535	1310	992	1110	1070	942
MIN	158	284	233	232	214	177	182	192	200	192	555	296
AC-FT	15270	19340	14730	15240	13810	12680	16650	49400	48390	33840	44370	25270

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	202	194	310	166	197	356	969	1820	959	406	368	297														
MAX	625	676	1273	431	495	1050	1985	3741	2619	707	722	724														
(WY)	1987	1987	1976	1987	1987	1985	1985	1984	1995	1992	1996	1976														
MIN	40.1	48.4	74.0	29.1	29.7	44.1	106	259	185	132	86.1	77.9														
(WY)	1979	1977	1971	1978	1976	1977	1977	1972	1976	1985	1979	1972														

## SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1971 - 1996
ANNUAL TOTAL	304847	155787	
ANNUAL MEAN	835	426	522
HIGHEST ANNUAL MEAN			823
LOWEST ANNUAL MEAN			204
HIGHEST DAILY MEAN	4490	May 24	1310
LOWEST DAILY MEAN	158	Oct 17	158
ANNUAL SEVEN-DAY MINIMUM	160	Oct 13	160
INSTANTANEOUS PEAK FLOW			2350
INSTANTANEOUS PEAK STAGE			5.64
INSTANTANEOUS LOW FLOW			98
ANNUAL RUNOFF (AC-FT)	604700	309000	378000
10 PERCENT EXCEEDS	2340	986	1260
50 PERCENT EXCEEDS	341	279	240
90 PERCENT EXCEEDS	178	184	57

e Estimated

## 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 northwest of Abiquiu, and at mile 32.1.

DRAINAGE AREA.--2,146 mi<sup>2</sup>, of which about 100 mi<sup>2</sup> 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 U.S. Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam, completed Feb. 5, 1963. Capacity, 1,198,500 acre-ft between elevations 6,060 ft, invert of outlet tunnel, and 6,350 ft, crest of spillway, based on capacity table from survey 1990. No dead storage. Reservoir is used for flood control and, since March 1976, for recreation. A desilting pool of about 2,000 acre-ft was maintained from May 1968 to 1974, when it was increased to 4,000 acre-ft and continued until December 1975. U.S. Army Corps of Engineers satellite telemeter at station.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 382,720 acre-ft, June 11, 1985, elevation, 6,256.22 ft; no storage at times prior to May 1968 and Jan. 11 to Mar. 25, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 267,150 acre-ft, Oct. 1, elevation, 6,237.35 ft; minimum, 145,510 acre-ft, Sept. 30, elevation, 6,208.69 ft.

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

(Based on survey by U.S. Army Corps of Engineers in 1990)

6,200	115,360	6,240	280,470
6,220	189,310	6,250	333,840
6,230	232,160	6,260	392,280

RESERVOIR STORAGE (ACRE-Feet), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267150	243130	228320	218570	209060	201380	185790	180980	173670	166230	158240	156650
2	266250	242340	227970	218400	208810	201050	185830	182660	173390	166340	157940	156500
3	265510	241590	227650	217960	208510	200750	185750	180620	173080	165960	158010	156240
4	264570	240990	227390	217700	208210	200460	185590	180420	172760	165610	158010	155480
5	263680	240380	226990	217440	208090	200090	185510	179660	172490	165530	157600	154650
6	262790	239690	226670	217180	207920	199880	185470	178980	172100	165530	156920	153900
7	261950	238950	226410	216920	207660	199670	185430	178660	171700	165230	156580	153680
8	261070	238440	226180	216660	207450	199420	185470	178820	171310	164760	155860	153680
9	260230	237790	225870	216360	207150	199120	185550	179300	170920	165230	155260	153040
10	259400	237010	225610	216180	206900	198870	185550	179820	170370	165840	155370	151890
11	258470	236270	225300	215970	206600	198620	185510	180380	169790	165490	155560	150700
12	257300	235540	224940	215660	206350	198250	185590	180900	169210	165420	155260	149990
13	256180	234900	224680	215320	206100	197660	185590	181550	168660	165460	154650	149620
14	255110	234210	224410	215020	205840	197080	185510	181750	168240	164800	154020	149920
15	253990	233570	224060	214670	205590	196420	185260	181300	167850	163880	153420	150400
16	253030	232890	223700	214330	205590	195710	185060	180700	167500	163230	152970	150700
17	252120	232290	223350	214030	205040	195040	184940	180420	167270	162850	152930	150480
18	251060	231800	223000	213640	204750	194260	184780	180100	167000	162510	153080	150140
19	249970	231300	222650	213210	204450	193510	184410	179540	166650	162160	152710	149880
20	249390	231030	222290	212870	204240	192770	183850	178820	166340	162390	152030	149700
21	248970	230850	221900	212520	204030	191980	183200	177670	166000	162130	151550	149290
22	248590	230620	221500	212220	203740	191240	182670	176360	165530	161630	151660	148810
23	248300	230440	221060	211750	203440	190460	182350	175400	165150	161400	152740	148480
24	248110	230210	220630	211320	203100	189630	181990	174970	164800	161210	154090	148190
25	247540	229940	220230	211020	202810	188860	181910	174460	164570	160910	155290	148080
26	246790	229670	219930	210680	202470	188200	181910	174260	164690	160600	156090	147710
27	246040	229450	219660	210340	202180	187630	181870	174220	165270	160410	156730	147080
28	245280	229130	219450	210000	201930	187180	181830	174180	165800	160370	156990	146680
29	244770	228860	219270	209740	201680	186730	181830	174020	165800	160030	156920	146310
30	244250	228640	219050	209700	---	186280	181430	173870	165720	159540	156580	145510
31	243650	---	218790	209280	---	185870	---	173750	---	158960	156580	---
MAX	267150	243130	228320	218570	209060	201380	185830	182660	173670	166340	158240	156650
MIN	243650	228640	218790	209280	201680	185870	181430	173750	164570	158960	151550	145510
(†)	6232.49	6229.22	6226.99	6224.78	6222.98	6219.16	6218.06	6216.13	6214.07	6212.30	6211.67	6208.69
(††)	-24440	-15010	-9850	-9510	-7600	-15810	-4440	-7680	-8030	-6760	-2380	-11070

CAL YR 1995 MAX 305940 MIN 156950 (††) +61570  
WTR YR 1996 MAX 267150 MIN 145510 (††) -122580

(†) ELEVATION, IN FEET, AT END OF MONTH  
(††) CHANGE IN CONTENTS, IN ACRE FEET

## RIO GRANDE BASIN

08287000 RIO CHAMA BELOW ABIQUIU DAM, NM

LOCATION.--Lat 36°14'12", long 106°24'59", in SE¼SE¼ sec.8, T.23 N., R.5 E., Rio Arriba County, Hydrologic Unit 13020102, on right bank 0.8 mi downstream from Abiquiu Dam, 5.9 mi northwest of Abiquiu, and at mile 31.3.

DRAINAGE AREA.--2,147 mi<sup>2</sup>, of which about 100 mi<sup>2</sup> is probably noncontributing.

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

REVISED RECORDS.--WDR-NM-90: 1989.

GAGE.--Water-stage recorder. Concrete control since Jan. 25, 1966. Elevation of gage is 6,040 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 25, 1966, at datum 1.60 ft lower.

REMARKS.--Records good. Flow controlled by El Vado Reservoir (station 08285000) 46.4 mi upstream and Abiquiu Reservoir (station 08286900) 0.8 mi upstream since February 1963. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 54.5 mi upstream. Diversions for irrigation of about 17,600 acres upstream from station. U.S. Army Corps of Engineers satellite telemeter at station. Several observations of water temperature taken during year.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 384 ft<sup>3</sup>/s, 278,200 acre-ft/yr, prior to release of transmountain water.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	625	672	450	417	408	407	263	441	989	281	952	740
2	607	713	450	408	408	408	177	357	993	314	946	687
3	552	712	450	409	407	408	262	321	992	420	946	776
4	559	706	450	424	403	408	282	401	992	570	886	884
5	603	706	450	412	409	399	309	531	1010	427	842	906
6	613	706	448	412	408	396	295	653	1050	394	847	893
7	584	706	415	412	408	398	297	792	1120	612	924	749
8	584	718	426	416	408	398	297	863	1120	697	921	825
9	584	718	429	411	408	398	297	884	1160	419	859	902
10	601	714	429	403	408	398	292	946	1240	270	825	947
11	672	710	457	419	403	411	267	995	1260	401	761	895
12	716	706	466	423	403	455	245	1070	1210	518	804	746
13	735	707	432	443	403	508	244	922	1200	443	885	544
14	746	708	429	466	403	499	226	819	1110	629	909	310
15	745	706	473	469	403	563	248	838	1030	715	880	208
16	649	706	482	469	403	568	350	765	998	608	866	304
17	625	717	482	469	403	570	344	703	948	531	856	456
18	689	716	482	469	400	570	410	998	928	532	788	513
19	710	598	482	468	400	570	513	1480	925	548	839	485
20	690	463	482	464	403	570	700	1240	923	695	929	447
21	679	449	482	464	403	579	740	990	921	958	858	567
22	679	450	482	462	404	592	757	998	920	1080	680	593
23	675	450	482	461	398	582	775	1010	914	1090	266	495
24	676	450	482	464	398	579	729	1050	821	1110	234	429
25	648	450	482	464	400	579	493	1090	901	1160	523	441
26	625	449	455	459	400	560	419	1150	806	1200	406	484
27	631	445	424	459	400	454	456	1190	397	1150	231	513
28	619	445	424	459	403	413	454	1070	245	1090	440	548
29	619	455	428	443	403	418	413	1010	245	1070	655	570
30	625	455	429	408	---	418	438	1000	243	966	774	608
31	636	---	429	408	---	418	---	989	---	909	822	---
TOTAL	20001	18306	14063	13634	11708	14894	11992	27566	27611	21807	23354	18465
MEAN	645	610	454	440	404	480	400	889	920	703	753	615
MAX	746	718	482	469	409	592	775	1480	1260	1200	952	947
MIN	552	445	415	403	398	396	177	321	243	270	231	208
AC-FT	39670	36310	27890	27040	23220	29540	23790	54680	54770	43250	46320	36630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

	MEAN	319	327	195	256	438	920	1206	1100	657	469	406
MAX	1261	1181	1308	860	1708	1668	1894	2055	2418	1488	1084	1199
(WY)	1988	1980	1976	1986	1987	1987	1985	1983	1984	1973	1973	1987
MIN	44.9	45.8	43.9	35.7	38.0	52.4	111	242	184	201	98.4	64.4
(WY)	1979	1990	1975	1978	1978	1977	1977	1972	1976	1972	1979	1972

SUMMARY STATISTICS

FOR 1995 CALENDAR YEAR

FOR 1996 WATER YEAR

WATER YEARS 1971 - 1996

ANNUAL TOTAL	285400	223401	
ANNUAL MEAN	782	610	549
HIGHEST ANNUAL MEAN			872
LOWEST ANNUAL MEAN			213
HIGHEST DAILY MEAN	1810	1480	2660
LOWEST DAILY MEAN	95	177	10
ANNUAL SEVEN-DAY MINIMUM	147	260	21
ANNUAL RUNOFF (AC-FT)	566100	443100	397800
10 PERCENT EXCEEDS	1770	992	1620
50 PERCENT EXCEEDS	611	531	318
90 PERCENT EXCEEDS	181	398	52

a-From slope-area measurement of peak flow.

## RIO GRANDE BASIN

08290000 RIO CHAMA NEAR CHAMITA, NM

LOCATION.--Lat 36°04'26", long 106°06'40", in ~~NEW~~ sec. 8, T. 21 N., R. 8 E., Rio Arriba County, Hydrologic Unit 13020102, in San Juan Pueblo Grant, near left downstream corner of bridge on U.S. Highway 285, 0.5 mi west of Chamita, 2.5 mi northwest of San Juan Pueblo, and at mile 2.8.

DRAINAGE AREA.--3,144 mi<sup>2</sup>, of which about 100 mi<sup>2</sup> is probably noncontributing.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "Chama River near Chamita" prior to 1928, and "Chama River at Chamita" 1929-30.

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 above National Geodetic Vertical Datum of 1929. Prior to Oct. 4, 1933, at railroad bridge 2.3 mi downstream at different datums. Oct. 4, 1933 to Mar. 1, 1942, at site 50 ft downstream at datum 0.22 ft higher. Mar. 2, 1942 to Dec. 31, 1963, at site 200 ft downstream, present datum.

REMARKS.--Records good. Diversions upstream from station for irrigation of about 27,600 acres. Chamita ditch (station 08289500), on left bank, and Hernandez ditch (station 08289800), on right bank, bypass gage for irrigation of several hundred acres downstream from station. Flow regulated by El Vado Reservoir (station 08285000) 74.9 mi upstream since January 1935 and Abiquiu Reservoir (station 08286900), 29.3 mi upstream since February 1963. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 83.0 mi upstream. U.S. Army Corps of Engineers Satellite telemeter at station. No flow at times some years.

AVERAGE DISCHARGE.--58 years (water years 1913-70), 541 ft<sup>3</sup>/s, 392,000 acre-ft/yr, prior to release of transmountain water.

EXTREMES OUTSIDE PERIOD OF RECORD.--The floods of Sept. 29, 1904, and Oct. 4 or 5, 1911, probably exceeded 15,000 ft<sup>3</sup>/s. Another major flood occurred in 1884, from newspaper accounts.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	705	668	505	493	531	488	540	533	859	201	877	721
2	708	725	505	482	509	477	276	454	858	300	885	622
3	640	729	510	475	496	482	376	373	867	280	881	644
4	596	729	518	484	488	473	427	370	865	505	858	785
5	628	728	526	485	497	473	517	490	866	450	797	844
6	674	729	529	484	505	472	470	619	906	300	752	817
7	645	722	504	478	516	472	469	767	999	537	825	700
8	648	715	486	481	507	457	485	876	998	794	870	660
9	655	721	494	483	511	459	514	899	1040	701	792	771
10	655	722	500	491	511	456	547	938	1100	417	763	837
11	676	725	495	529	531	457	519	989	1180	268	700	883
12	757	729	533	519	533	484	452	960	1130	590	672	730
13	775	729	490	514	526	537	436	974	1140	521	762	605
14	785	729	490	576	509	569	376	837	1140	497	812	401
15	778	731	528	591	509	641	290	776	1010	667	836	179
16	723	720	601	584	514	657	410	762	990	615	786	156
17	667	723	598	577	514	652	414	671	930	477	783	378
18	683	723	558	600	521	687	495	742	901	512	719	442
19	743	687	548	598	519	696	524	1100	888	450	678	504
20	720	499	545	579	499	691	730	1230	874	527	870	368
21	720	469	542	574	517	719	798	882	896	742	783	463
22	723	463	545	575	512	747	800	853	911	994	1070	516
23	700	462	540	568	503	691	837	862	921	1040	525	514
24	692	452	536	563	489	692	904	880	814	1080	254	388
25	682	450	535	571	491	716	798	923	868	1100	412	399
26	651	450	538	553	489	675	614	980	902	1140	479	424
27	643	450	478	549	490	578	650	1080	622	1120	210	459
28	629	478	479	555	481	474	632	1010	286	1040	216	478
29	635	512	494	546	486	509	542	891	242	1030	553	529
30	633	519	481	519	---	533	444	890	218	975	673	551
31	658	---	481	528	---	550	---	852	---	801	756	---
TOTAL	21227	18888	16112	16604	14704	17664	16286	25463	26221	20671	21849	16768
MEAN	685	630	520	536	507	570	543	821	874	667	705	559
MAX	785	731	601	600	533	747	904	1230	1180	1140	1070	883
MIN	596	450	478	475	481	456	276	370	218	201	210	156
AC-FT	42100	37460	31960	32930	29170	35040	32300	50510	52010	41000	43340	33260
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)												
MEAN	296	343	357	235	296	503	1180	1563	1097	616	449	395
MAX	1273	1224	1291	876	1677	1705	2534	2741	2346	1477	1020	1164
(WY)	1988	1980	1976	1986	1987	1987	1985	1983	1984	1983	1973	1987
MIN	37.3	60.6	77.3	63.5	66.6	85.1	120	204	117	170	95.5	83.1
(WY)	1979	1990	1975	1975	1978	1977	1977	1972	1976	1972	1979	1974
SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1971 - 1996												
ANNUAL TOTAL				351287				232457				612
ANNUAL MEAN				962				635				923
HIGHEST ANNUAL MEAN												1987
LOWEST ANNUAL MEAN												1972
HIGHEST DAILY MEAN				2910	May 22				1230	May 20		
LOWEST DAILY MEAN				168	Feb 23				156	Sep 16		
ANNUAL SEVEN-DAY MINIMUM				194	Feb 5				290	Jun 28		
INSTANTANEOUS PEAK FLOW									2280	Aug 22		
INSTANTANEOUS PEAK STAGE									6.49	Aug 22		
INSTANTANEOUS LOW FLOW									83	Aug 27		
ANNUAL RUNOFF (AC-FT)				696800				461100				443000
10 PERCENT EXCEEDS				2370				901				1730
50 PERCENT EXCEEDS				669				581				344
90 PERCENT EXCEEDS				244				450				76

a-From rating survey extended above 2300 ft<sup>3</sup>/s.

b-From floodmarks of slope-area measurement of peak flow.

RIO GRANDE BASIN  
08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (MG/L) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV 1995											
28...	1000	462	306	7.8	-2.5	4.0	623	10.7	100	12	<1
JAN 1996											
30...	0945	490	297	8.3	-3.0	1.5	620	11.3	99	<10	<7
APR											
09...	1300	554	297	8.1	18.0	13.5	623	8.5	100	63	730
JUL											
17...	0815	477	318	8.0	16.5	16.5	621	7.9	100	--	--
AUG											
19...	1145	674	363	8.3	24.0	18.0	625	8.2	106	21	70

DATE	STREP-TOCOCCHI, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	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 WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)
NOV 1995											
28...	22	120	28	35	7.4	16	0.6	1.8	110	0	90
JAN 1996											
30...	<14	120	33	35	6.9	14	0.6	2.0	101	0	82
APR											
09...	1000	110	21	32	6.8	17	0.7	2.4	106	0	87
JUL											
17...	--	110	23	34	6.6	15	0.6	1.8	108	0	88
AUG											
19...	880	--	--	--	--	--	--	--	104	3	91

DATE	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, 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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
NOV 1995											
28...	97	53	3.7	0.20	15	--	186	--	<0.010	<0.050	<0.015
JAN 1996											
30...	90	54	3.4	0.20	14	--	179	--	<0.010	<0.050	<0.015
APR											
09...	109	49	5.9	0.20	14	--	180	--	<0.010	<0.050	0.020
JUL											
17...	105	60	3.3	0.20	13	203	187	--	<0.010	0.070	0.030
AUG											
19...	--	--	--	--	--	--	--	0.310	0.020	0.330	0.040

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SE) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
NOV 1995											
28...	--	<0.20	<0.20	0.010	<0.010	<0.010	4.4	--	4.0	<1.0	1
JAN 1996											
30...	--	<0.20	<0.20	0.020	<0.010	0.010	3.2	--	5.0	<1.0	2
APR											
09...	--	1.0	<0.20	0.290	0.010	<0.010	19	--	6.0	<1.0	2
JUL											
17...	--	0.40	<0.20	0.200	<0.010	0.020	5.9	3.2	--	--	--
AUG											
19...	0.16	<0.20	0.20	0.060	0.040	0.040	4.0	--	11	<1.0	2



## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- TOTAL (UG/L AS SE) (01147)	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	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)
NOV 1995										
28...	<1.0	2.0	<1	<1	<1.0	5.0	1.0	35	44	38
JAN 1996										
30...	<1.0	1.0	<1	<1	<1.0	12	1.0	37	49	23
APR										
09...	1.0	1.0	<1	<1	<1.0	2.0	2.0	875	1310	87
JUL										
17...	--	--	--	--	--	--	--	536	690	--
AUG										
19...	1.0	2.0	<1	<1	<1.0	<1.0	<1.0	113	206	55

[illegible]

## RIO GRANDE BASIN

08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DI-ELDRIN DIS SOLVED (UG/L)	METO-LACHLOR WATER DISSOLV (UG/L)	MALA-THION, DIS SOLVED (UG/L)	PARA-THION, DIS SOLVED (UG/L)	DI-AZINON, DIS SOLVED (UG/L)	ATRA-ZINE, WATER, DISS, REC (UG/L)	ALA-CHLOR, WATER, DISS, REC (UG/L)	ACETO-CHLOR, WATER, FLTRD REC (UG/L)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U, REC GF, REC (UG/L)	TRI-FLUR-ALIN WAT FLT 0.7 U, REC GF, REC (UG/L)	ETHAL-FLUR-ALIN WAT FLT 0.7 U, REC GF, REC (UG/L)
	(39381)	(39415)	(39532)	(39542)	(39572)	(39632)	(46342)	(49260)	(82630)	(82660)	(82661)	(82663)

[illegible]

	PHORATE	TER- BACIL	LIN- URON	METHYL PARA-	EPTC	FEB- ULATE	TEBU- THIURON	MOL- INATE	ETHO- PROP	BEN- FLUR-	CARBO- FURAN	TER- BUFOS
	WATER	WATER	WATER	THION	WATER	WATER	WATER	WATER	WATER	ALIN	WATER	WATER
	FLT RD	FLT RD	FLT RD	WAT FLT	FLT RD	FILT RD	FLT RD	FLT RD	FLT RD	WAT FLD	FLT RD	FLT RD
	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
DATE	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC	GF, REC
	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
	(82664)	(82665)	(82666)	(82667)	(82668)	(82669)	(82670)	(82671)	(82672)	(82673)	(82674)	(82675)

[illegible][illegible][illegible]

## RIO GRANDE BASIN

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 downstream from bridge on State Highway 503, 200 ft downstream from confluence of Rio Medio and Rio Frijoles, 0.6 mi northwest of Cundiyo, 1.8 mi upstream from Santa Cruz Dam, and at mile 11.9.

DRAINAGE AREA.--86 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only from 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. Elevation of gage is 6,460 ft above National Geodetic Vertical Datum of 1929, from topographic map. Sept. 1, 1930 to Aug. 12, 1932, water-stage recorder at site about 1 mi downstream at different datum. Aug. 13, 1932 to Oct. 29, 1934, water-stage recorder at site 35 ft upstream at datum 0.42 ft higher. Oct. 30, 1934 to Jan. 2, 1954, water-stage recorder at present site at datum 0.64 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,000 acres upstream from station. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	11	12	e7.0	8.5	9.2	13	20	11	27	7.7	6.9
2	16	12	11	e7.0	8.3	9.9	15	22	10	20	7.7	6.7
3	15	9.9	11	e6.0	e7.0	9.3	17	22	10	16	7.6	7.0
4	14	11	9.8	e7.0	e7.0	8.7	16	23	10	14	7.3	7.7
5	13	11	9.6	e7.0	e8.0	8.7	14	23	10	13	7.2	7.0
6	13	11	9.6	e7.0	8.5	8.2	12	25	8.0	12	5.4	8.2
7	13	11	9.2	e7.0	8.7	8.5	12	26	8.6	12	4.5	8.3
8	13	10	9.1	e7.0	8.5	9.3	12	27	8.8	12	5.8	8.0
9	13	11	8.0	e7.0	8.7	9.0	17	26	9.4	20	6.7	6.5
10	12	11	e7.0	e7.0	9.2	9.1	17	26	8.3	20	7.3	5.5
11	12	6.5	e7.0	e7.0	9.1	9.9	14	26	8.6	17	6.3	7.1
12	12	12	e7.0	e8.0	8.9	10	14	26	9.2	14	5.4	7.8
13	12	11	e7.0	8.9	9.1	10	15	25	9.1	16	4.9	9.3
14	12	11	e8.0	8.6	9.5	10	12	25	22	14	5.3	10
15	12	10	8.5	9.9	9.6	10	11	25	14	12	6.1	16
16	11	10	8.7	9.4	9.6	9.9	12	24	11	14	5.9	13
17	10	10	8.4	8.7	9.5	5.6	11					
18	11	9.4	8.5	7.9	9.8	8.8	14	22	8.7	12	5.8	15
19	11	8.7	7.1	e8.0	9.4	8.8	15	20	8.5	12	5.3	18
20	11	8.9	e7.0	8.9	9.9	9.8	16	18	8.6	9.6	3.2	13
21	11	8.9	e7.0	e8.0	10	10	14	18	8.1	8.1	6.1	11
22	11	9.0	e7.0	8.9	10	11	13	17	8.0	8.8	8.0	10
23	8.8	9.5	e7.0	e9.0	8.7	12	15	15	8.7	7.4	11	9.4
24	11	7.4	e6.0	e8.0	8.3	11	18	15	7.1	6.7	10	8.8
25	12	8.7	e6.0	e8.0	9.4	10	20	14	6.9	6.6	11	8.8
26	12	9.8	e7.0	e8.0	8.2	10	24	14	7.1	7.5	9.8	10
27	11	7.0	e8.0	e8.0	5.9	10	28	14	35	8.1	12	10
28	11	4.4	e8.0	e8.0	8.3	11	27	13	20	8.3	19	8.9
29	11	9.3	e8.0	e8.0	8.8	12	22	13	23	7.7	13	8.8
30	11	12	e8.0	e8.0	---	11	20	12	25	8.3	10	8.7
31	11	---	e8.0	8.5	---	12	---	12	---	8.4	8.7	---
TOTAL	374.8	292.4	253.5	244.7	254.4	306.7	482	632	351.4	386.5	239.6	286.4
MEAN	12.1	9.75	8.18	7.89	8.77	9.89	16.1	20.4	11.7	12.5	7.73	9.55
MAX	18	12	12	9.9	10	12	28	27	35	27	19	18
MIN	8.8	4.4	6.0	6.0	5.9	8.2	11	12	6.9	6.6	3.2	5.5
AC-FT	743	580	503	485	505	608	956	1250	697	767	475	568

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1996, BY WATER YEAR (WY)

	MEAN	15.5	12.2	10.4	9.44	10.2	20.0	51.5	98.4	76.6	28.4	25.4	19.4
MAX	61.3	43.4	25.2	19.5	23.9	51.1	205	329	293	115	109	78.6	
(WY)	1942	1942	1987	1987	1995	1985	1942	1941	1979	1986	1991	1988	
MIN	3.88	4.69	3.82	4.75	5.44	6.97	13.2	15.9	7.05	5.64	4.57	2.47	
(WY)	1957	1957	1951	1951	1981	1981	1951	1950	1956	1956	1956	1956	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1933 - 1996

ANNUAL TOTAL	15963.7	4104.4	
ANNUAL MEAN	43.7	11.2	31.5
HIGHEST ANNUAL MEAN			75.2
LOWEST ANNUAL MEAN			8.93
HIGHEST DAILY MEAN	233	Jun 20	623
LOWEST DAILY MEAN	4.4	Nov 28	1.1
ANNUAL SEVEN-DAY MINIMUM	6.7	Dec 20	2.2
INSTANTANEOUS PEAK FLOW			76
INSTANTANEOUS PEAK STAGE			2.21
INSTANTANEOUS LOW FLOW			3.2
ANNUAL RUNOFF (AC-FT)	31660	8140	22830
10 PERCENT EXCEEDS	135	18	77
50 PERCENT EXCEEDS	21	9.8	15
90 PERCENT EXCEEDS	9.4	7.0	7.5
e Estimated			

## RIO GRANDE BASIN

## 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, on Nambé Indian Reservation, 300 ft upstream from Nambé Falls, 2.6 mi upstream from Rio En Medio, 4.4 mi southeast of Nambé Pueblo, and 5.4 mi southeast of Nambé.

DRAINAGE AREA.--34.1 mi<sup>2</sup>.

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 at elevation 6,826.6 ft, crest of ogee weir spillway, including 237 acre-ft of storage in a permanent pool between elevation 6,760.9 ft, invert of outlet conduits, and 6,780.0 ft. Dead storage 121 acre-ft below elevation 6,760.9 ft. Outlet conduits are one 6-in and two 12-in diameter pipes. Reservoir is used for storage of irrigation water and for recreation. Figures given herein represent total storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,060 acre-ft June 9, 1979, elevation, 6,827.24 ft; no storage prior to Feb. 23, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,940 acre-ft, Mar. 25, elevation 6,825.18 ft; minimum, 429 acre-ft, Sept. 12, elevation 6,178.75 ft.

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

(Based on survey by Bureau of Reclamation in 1976)

6,801	870	6,820	1,660
6,810	1,201	6,825	1,930
6,815	1,420	6,830	2,230

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1240	1230	1300	1480	1650	1810	1880	1470	940	782	1050	456
2	1250	1220	1300	1490	1660	1810	1870	1480	940	796	1050	450
3	1260	1220	1310	1490	1660	1820	1870	1490	937	806	1050	445
4	1270	1220	1310	1500	1670	1820	e1860	1500	936	817	1040	441
5	1280	1220	1320	1500	1670	1830	e1840	1500	928	830	1040	440
6	1280	1210	1330	1510	1680	1840	1820	1520	898	837	1030	442
7	1290	1210	1340	1510	1680	1840	1800	1520	866	845	1020	441
8	1290	1210	1340	1520	1690	1840	1780	1530	834	853	1010	439
9	1310	1200	1350	1520	1690	1850	1760	1500	802	881	973	436
10	1320	1190	1350	1530	1700	1860	1740	1480	e788	e905	906	433
11	1330	1190	1360	1530	1700	1860	1720	1450	e758	931	837	430
12	1340	1180	1370	1540	1710	1870	1710	1410	707	948	769	429
13	1340	1180	1370	1550	1720	1870	1690	1360	698	963	701	430
14	1340	1170	1380	1550	1720	e1870	1670	1320	706	981	633	434
15	1340	1180	1380	1560	1730	e1880	1650	1280	704	985	565	445
16	1330	1190	1390	1560	1730	1890	1630	1270	698	e1000	e550	e450
17	1320	1200	1400	1570	1740	1900	1610	1270	695	1020	e535	456
18	1310	1210	1400	1580	1740	1900	1590	1270	696	1040	e520	470
19	1300	1210	1410	1580	1750	1900	1570	1260	697	1050	505	481
20	1300	1220	1410	1590	1760	1910	1540	1260	695	1050	496	489
21	1290	1230	1420	1590	1760	1910	1500	1250	695	1060	489	495
22	1280	1240	1420	1600	1770	e1920	1410	1230	695	1070	481	500
23	1270	1240	1430	1600	1770	e1930	1410	1230	696	1070	478	504
24	1260	1250	1430	1610	1780	1930	1410	1130	695	1070	474	511
25	1250	1260	1430	1610	1790	1940	1430	1100	694	1080	470	523
26	1250	1270	1440	1620	1790	1930	1440	1070	693	1080	464	532
27	1240	1270	1450	1620	1790	1920	1450	1030	716	1070	465	534
28	1230	1270	1450	1630	1800	1920	1460	993	729	1060	468	536
29	1230	1280	1460	1630	1800	1910	1460	956	748	1050	467	538
30	1240	1290	1470	1640	---	1900	1470	938	765	1050	465	539
31	1230	---	1470	1640	---	1890	---	940	---	1050	461	---
MAX	1340	1290	1470	1640	1800	1940	1880	1530	940	1080	1050	539
MIN	1230	1170	1300	1480	1650	1810	1410	938	693	782	461	429
(†)	6810.76	6812.05	6816.13	6819.63	6822.71	6824.26	6815.99	6803.12	6797.57	6806.28	6785.32	6788.91
(††)	0	+60	+180	+170	+160	+90	-420	-530	-175	+285	-589	+78

CAL YR 1995 MAX 2040 MIN 1120 (††) -300  
WTR YR 1996 MAX 1940 MIN 429 (††) -691

e Estimated

(†) ELEVATION, IN FEET, AT END OF MONTH

(††) CHANGE IN CONTENTS, IN ACRE-FEET

## RIO GRANDE BASIN

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, on Nambe Indian Reservation, in outlet conduits of Nambe Falls Dam, 300 ft upstream from Nambe Falls, 2.6 mi upstream from Rio En Medio, 4.4 mi southeast of Nambe Pueblo and 5.4 mi southeast of Nambe.

DRAINAGE AREA.--34.1 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1979 to current year.

GAGE.--Totalizing flowmeters in each of three outlet conduits in Nambe Falls Dam.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Nambe Falls Reservoir (station 08294200). Outlet conduits are one 6-in. and two 12-in. diameter pipes. During periods of spill at Nambe Falls Dam, record computed at site 1,100 ft downstream, site of discontinued station 08294300, Rio Nambe at Nambe Falls.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	8.4	1.1	1.1	1.0	.98	8.7	4.5	4.5	4.1	5.9	11
2	2.5	8.4	1.1	1.0	1.0	1.0	8.6	4.4	4.4	4.1	5.9	11
3	2.5	7.4	1.1	1.1	1.0	1.0	8.7	4.4	4.5	4.1	5.9	11
4	2.5	6.7	1.1	1.1	.99	1.0	8.3	4.3	4.5	4.0	5.9	9.1
5	2.5	6.8	1.1	1.1	1.0	1.0	14	4.2	7.6	4.0	5.8	7.4
6	2.6	6.8	1.0	1.1	1.0	1.0	16	4.3	20	4.0	7.3	7.4
7	2.6	7.3	1.0	1.1	1.1	1.0	16	4.3	20	4.1	10	7.4
8	2.6	7.9	1.0	1.1	1.1	1.0	16	7.6	20	4.1	10	7.5
9	1.4	7.9	.99	1.1	1.1	1.1	16	21	20	4.3	21	7.4
10	.62	7.8	1.0	1.0	1.1	1.0	16	21	20	4.9	32	7.4
11	.68	7.8	1.0	.98	1.1	1.0	16	21	20	5.7	35	7.5
12	.70	7.8	1.0	.97	1.1	1.1	16	21	20	5.7	36	7.5
13	2.3	7.9	1.0	.98	1.1	1.0	16	21	10	5.6	37	7.7
14	6.2	7.8	1.0	.98	1.1	1.1	16	21	9.1	5.6	36	7.7
15	9.9	4.2	1.0	.99	1.1	1.1	16	21	9.1	5.4	37	7.7
16	9.8	1.1	1.0	.98	1.1	1.1	16	21	9.0	5.3	18	7.6
17	9.8	1.1	1.0	1.0	1.1	1.1	16	21	6.2	5.3	10	7.6
18	9.9	1.1	1.0	1.0	1.1	1.0	16	21	4.4	5.3	10	7.7
19	9.9	1.1	1.0	.96	1.1	1.0	16	21	4.3	5.3	10	7.6
20	10	1.1	1.0	.97	1.1	1.0	20	21	4.2	5.2	10	7.6
21	9.9	1.1	1.0	.97	1.1	1.1	28	21	4.1	5.1	10	7.7
22	10	1.1	1.0	.98	1.1	1.1	29	24	4.1	5.1	10	7.7
23	9.9	1.1	1.0	.97	1.0	1.1	29	32	4.1	5.1	10	7.7
24	9.9	1.1	1.0	.95	.99	1.1	14	31	4.1	5.1	11	5.3
25	10	1.1	1.0	.97	1.0	1.1	3.2	24	4.1	5.1	11	3.7
26	9.9	1.1	1.0	.96	1.0	4.2	3.2	24	4.1	7.3	11	5.5
27	10	1.1	1.0	.95	.98	9.1	3.7	24	4.1	9.8	11	7.5
28	8.6	1.1	1.0	.97	.97	9.2	4.3	24	4.1	9.9	11	7.4
29	4.5	1.1	1.1	.98	.99	9.0	4.4	24	4.2	7.7	11	7.4
30	4.5	1.1	1.1	.99	---	8.7	4.4	14	4.0	5.9	11	7.4
31	6.5	---	1.1	1.0	---	8.7	---	4.5	---	5.9	11	---
TOTAL	188.00	127.4	31.79	31.30	30.52	74.98	415.5	536.5	262.8	168.1	466.7	230.1
MEAN	6.06	4.25	1.03	1.01	1.05	2.42	13.8	17.3	8.76	5.42	15.1	7.67
MAX	10	8.4	1.1	1.1	1.1	9.2	29	32	20	9.9	37	11
MIN	.62	1.1	.99	.95	.97	.98	3.2	4.2	4.0	4.0	5.8	3.7
AC-FT	373	253	63	62	61	149	824	1060	521	333	926	456

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1996, BY WATER YEAR (WY)

	7.49	4.79	2.65	2.32	3.08	6.04	17.2	41.1	50.6	23.4	17.0	11.6
MEAN	7.49	4.79	2.65	2.32	3.08	6.04	17.2	41.1	50.6	23.4	17.0	11.6
MAX	19.5	11.9	8.70	5.29	7.68	17.4	42.3	85.4	125	48.4	51.9	45.4
(WY)	1989	1987	1987	1992	1995	1985	1985	1985	1979	1983	1983	1988
MIN	2.83	1.30	.45	.45	.45	.49	1.60	9.89	8.76	5.42	2.86	1.47
(WY)	1991	1980	1980	1980	1980	1979	1981	1981	1996	1996	1989	1994

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1979 - 1996

ANNUAL TOTAL	5265.99	2563.69	
ANNUAL MEAN	14.4	7.00	15.1
HIGHEST ANNUAL MEAN			25.7
LOWEST ANNUAL MEAN			5.42
HIGHEST DAILY MEAN	75	Jun 18	236
LOWEST DAILY MEAN	.62	Oct 10	.00
ANNUAL SEVEN-DAY MINIMUM	1.0	Dec 6	.21
INSTANTANEOUS PEAK FLOW			48
INSTANTANEOUS PEAK STAGE			1.23
INSTANTANEOUS LOW FLOW			.48
ANNUAL RUNOFF (AC-FT)	10450	5090	10920
10 PERCENT EXCEEDS	36	20	44
50 PERCENT EXCEEDS	8.7	4.5	8.1
90 PERCENT EXCEEDS	1.1	1.0	.51

e Estimated

a-At site 1,100 ft downstream (maximum release and spill computed at Nambe Falls Dam, 250 ft<sup>3</sup>/s, June 9, 1979).

## RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM

LOCATION.--Lat 35°52'29", long 106°08'30", in SW¼ sec.18, T.19 N., R.8 E., Santa Fe County, Hydrologic Unit 13020101, on San Ildefonso Pueblo Grant, near right bank on downstream end of pier of former railway bridge, 400 ft downstream from bridge on State Highway 502, 1.8 mi southwest of San Ildefonso Pueblo, 2.5 mi downstream from Pojoaque River, 6.8 mi west of Pojoaque, and at mile 1,614.2.

DRAINAGE AREA.--14,300 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> 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). WDR-NM-90: 1989.

GAGE.--Water-stage recorder. Datum of gage is 5,488.48 ft above 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 upstream from station for irrigation of about 620,000 acres in Colorado and 75,000 acres in New Mexico. Gage-height telemeter and U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--71 years (water years 1895-1914, 1916, 1920-70), 1,530 ft<sup>3</sup>/s, 1,108,000 acre-ft/yr. Prior to release of transmountain water.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1160	1240	1010	1110	1190	1240	949	1050	1130	394	979	955
2	1130	1340	1000	1130	1230	1210	697	887	1130	423	1020	799
3	1050	1360	991	1080	1170	1290	699	738	1110	393	1100	796
4	1030	1370	998	1080	1130	1300	748	670	1120	577	1060	981
5	1140	1380	1030	1140	1130	1310	852	746	1100	628	946	1050
6	1220	1380	1050	1130	1200	1310	822	873	1130	358	871	1080
7	1140	1390	1060	1110	1210	1330	769	959	1210	420	907	962
8	1090	1380	1020	1120	1230	1310	766	1140	1230	1010	993	796
9	1060	1380	1030	1130	1230	1330	782	1160	1220	1100	940	940
10	1030	1400	1030	1130	1250	1340	797	1170	1280	736	890	1010
11	1010	1400	1030	1160	1270	1330	806	1220	1400	448	769	1080
12	1140	1400	1060	1160	1280	1360	774	1230	1360	666	690	938
13	1170	1400	1060	1160	1310	1430	839	1270	1300	836	792	830
14	1180	1400	1030	1220	1300	1450	825	1090	1360	635	886	665
15	1160	1400	1070	1240	1300	1470	717	1060	1290	870	935	420
16	1120	1410	1130	1240	1360	1540	757	1110	1270	896	892	330
17	1020	1410	1150	1300	1370	1500	783	1050	1190	661	897	496
18	986	1430	1150	1310	1360	1450	813	1030	1140	687	855	631
19	1140	1430	1090	1250	1370	1390	825	1450	1100	554	750	832
20	1150	1150	991	1220	1410	1350	1030	1750	1060	561	946	619
21	1170	1070	1000	1190	1390	1310	1150	1360	1030	773	926	655
22	1180	1060	1010	1210	1420	1310	1100	1330	1070	1090	1110	777
23	1180	1040	1010	1240	1420	1310	1130	1300	1070	1080	991	753
24	1160	1030	988	1200	1420	1310	1220	1310	969	1110	529	557
25	1180	1030	923	1170	1420	1310	1160	1400	929	1150	519	530
26	1140	1030	984	1210	1400	1300	854	1390	1140	1250	785	552
27	1140	1030	972	1130	1340	1230	870	1450	983	1260	442	615
28	1160	1010	1010	1160	1310	1080	877	1420	1430	1170	330	632
29	1140	1000	1050	1190	1290	1030	864	1250	400	1170	700	716
30	1160	1000	1060	1170	---	1020	887	1220	503	1150	841	736
31	1190	---	1070	1170	---	991	---	1160	---	927	978	---
TOTAL	34926	37750	32057	36460	37710	40441	26162	36243	33654	24983	26269	22733
MEAN	1127	1258	1034	1176	1300	1305	872	1169	1122	806	847	758
MAX	1220	1430	1150	1310	1420	1540	1220	1750	1430	1260	1110	1080
MIN	986	1000	923	1080	1130	991	697	670	400	358	330	330
AC-FT	69280	74880	63590	72320	74800	80210	51890	71890	66750	49550	52100	45090

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	782	1016	971	825	957	1427	2400	3774	3382	1620	943	845														
MAX	1554	2034	1959	1757	2641	3127	6412	8390	7914	4548	1612	1547														
(WY)	1988	1987	1976	1986	1987	1987	1985	1985	1979	1995	1973	1982														
MIN	361	401	450	436	499	612	489	433	470	394	391	263														
(WY)	1975	1978	1975	1977	1978	1977	1977	1972	1972	1972	1972	1974														

## SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1971 - 1996
ANNUAL TOTAL	842369	389388	
ANNUAL MEAN	2308	1064	1579
HIGHEST ANNUAL MEAN			2764
LOWEST ANNUAL MEAN			602
HIGHEST DAILY MEAN	8650	1750	12000
LOWEST DAILY MEAN	702	330	195
ANNUAL SEVEN-DAY MINIMUM	816	456	229
INSTANTANEOUS PEAK FLOW		3790	24400
INSTANTANEOUS PEAK STAGE		5.78	14.50
INSTANTANEOUS LOW FLOW		265	195
ANNUAL RUNOFF (AC-FT)	1671000	772400	1144000
10 PERCENT EXCEEDS	5950	1380	3740
50 PERCENT EXCEEDS	1210	1100	995
90 PERCENT EXCEEDS	973	700	481

a-Present site and datum.

## 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.

SUSPENDED-SEDIMENT DISCHARGE: October 1947 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,310 microsiemens, Aug. 5, 1963; minimum daily, 88 microsiemens, May 12, 1984.

SEDIMENT CONCENTRATION: Maximum daily mean, 43,500 mg/L, Aug. 21, 1955; minimum daily mean, 11 mg/L, July 27, 1963 and Feb. 7, 1974.

SEDIMENT LOAD: Maximum daily, 386,000 tons, July 6, 1995; minimum daily, 3 tons, July 27, 1963.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 450 microsiemens, Aug. 23; minimum daily, 297 microsiemens, Feb. 28.

SEDIMENT CONCENTRATION: Maximum daily mean, 22,200 mg/L, Aug. 23; minimum daily mean, 41 mg/L, Nov. 29.

SEDIMENT LOAD: Maximum daily, 54,400 tons, Aug. 23; minimum daily, 110 tons, Nov. 29.

REMARKS.--Once daily specific conductance values were determined in the laboratory from daily suspended sediment samples collected by the field observer.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)		
NOV 1995													
27...	1315	1040	362	8.2	9.0	7.0	7.0	621	10.9	111	<10	<11	
JAN 1996													
29...	1200	1180	319	8.3	4.5	1.5	3.8	625	11.7	102	10	<2	
APR													
10...	0845	750	347	8.2	6.5	12.0	24	625	8.2	93	15	73	
JUL													
17...	1030	688	338	7.9	24.0	21.0	--	625	7.5	103	--	--	
AUG													
28...	0845	359	384	8.2	16.5	19.0	180	630	7.4	97	33	2100	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)
NOV 1995													
27...	54	130	17	38	7.7	24	0.9	2.7	134	0	110	122	
JAN 1996													
29...	<16	110	12	34	6.6	20	0.8	2.9	122	0	100	110	
APR													
10...	170	120	15	38	7.2	22	0.9	2.8	133	0	109	115	
JUL													
17...	--	120	22	37	7.1	18	0.7	2.3	122	0	100	127	
AUG													
28...	2600	140	12	43	7.1	23	0.9	3.3	136	8	123	126	

## RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (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 <sub>2</sub> ) (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, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
NOV 1995												
27...	52	7.3	0.40	19	--	217	--	<0.010	0.050	<0.015	0.20	<0.20
JAN 1996												
29...	41	6.5	0.40	22	--	195	--	<0.010	0.290	<0.015	0.20	<0.20
APR												
10...	52	6.8	0.50	18	--	213	--	<0.010	<0.050	<0.015	0.40	<0.20
JUL												
17...	57	4.6	0.40	18	219	205	0.110	0.010	0.120	0.020	0.50	<0.20
AUG												
28...	57	6.9	0.40	21	--	238	0.290	0.010	0.300	0.020	0.30	<0.20

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)
NOV 1995											
27...	0.020	<0.010	<0.010	3.3	--	<0.010	11	<1.0	2	54	<1.0
JAN 1996											
29...	0.030	<0.010	0.020	2.7	--	<0.010	--	--	--	--	--
APR											
10...	0.080	0.020	<0.010	5.4	--	<0.010	--	--	--	--	--
JUL											
17...	0.110	0.020	0.030	7.1	3.2	--	--	--	--	--	--
AUG											
28...	0.060	0.030	0.050	9.6	--	<0.010	6.0	<1.0	2	106	<1.0

DATE	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)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
NOV 1995											
27...	50	<1.0	<1.0	<1.0	2.0	9.0	<1.0	7.0	--	4.0	2.0
JAN 1996											
29...	30	--	--	--	--	5.0	--	--	--	--	--
APR											
10...	50	--	--	--	--	8.0	--	--	--	--	--
JUL											
17...	--	--	--	--	--	9.0	--	4.0	--	--	--
AUG											
28...	51	<1.0	<1.0	<1.0	2.0	<3.0	<1.0	<1.0	<0.10	6.0	2.0

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01147)	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)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, NH <sub>4</sub> TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN, NH <sub>4</sub> + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	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)
NOV 1995											
27...	<1	<1	<1.0	8.0	4.0	32	460	490	3	<1	<1
JAN 1996											
29...	--	--	--	--	--	--	--	--	--	--	--
APR											
10...	--	--	--	--	--	--	--	--	--	--	--
JUL											
17...	--	--	--	--	--	--	--	--	--	--	--
AUG											
28...	<1	<1	<1.0	1.0	--	--	--	--	--	--	--



## RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	
NOV 1995												
27...	<5	1	370	<10	170	<0.01	4	3.0	41	115	42	
JAN 1996												
29...	--	--	--	--	--	--	--	--	38	121	34	
APR												
10...	--	--	--	--	--	--	--	--	77	156	83	
JUL												
17...	--	--	--	--	--	--	--	--	3100	5760	--	
AUG												
28...	--	--	--	--	--	--	--	3.0	502	487	85	
DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER, DISS, REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)	CHLOR- PYRIFOS TOTAL RECOVER (UG/L) (38932)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)
NOV 1995												
27...	1315	--	--	--	--	--	--	--	--	--	--	--
JAN 1996												
29...	1200	--	--	--	--	--	--	--	--	--	--	--
APR												
10...	0845	--	--	--	--	--	--	--	--	--	--	--
JUL												
17...	1030	<0.007	<0.002	<0.005	<0.018	<0.002	<0.004	<0.003	<0.002	<0.006	--	<0.004
AUG												
28...	0845	--	--	--	--	--	--	--	--	--	<0.010	--
DATE	DISUL- FOTON UNFILT RECOVER (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)	PER- THANE TOTAL (UG/L) (39034)	DEF TOTAL (UG/L) (39040)	PCNS UNFILT RECOVER (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	LINDANE TOTAL (UG/L) (39340)	LINDANE DIS- SOLVED (UG/L) (39341)	CHLOR- DANE, TECH- NICAL TOTAL (UG/L) (39350)	P,P'- DDD UNFILT RECOVER (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	P,P'- DDT UNFILT RECOVER (UG/L) (39370)
NOV 1995												
27...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1996												
29...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
17...	--	--	--	--	--	--	--	<0.004	--	--	--	--
AUG												
28...	<0.010	<0.010	<0.100	<0.010	<0.100	<0.010	<0.010	--	<0.100	<0.010	<0.010	<0.010
DATE	DI- ELDRIN TOTAL (UG/L) (39380)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	ENDO- SULFAN, I TOTAL (UG/L) (39388)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	TOX- APHENE, TOTAL (UG/L) (39400)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	PCB, TOTAL (UG/L) (39516)	MALA- THION, TOTAL (UG/L) (39530)
NOV 1995												
27...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1996												
29...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
10...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
17...	--	<0.001	--	--	--	--	--	<0.002	--	--	--	--
AUG												
28...	<0.010	--	<0.010	<0.010	<0.010	<1.00	<0.010	--	<0.010	<0.010	<0.100	<0.010

## RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	MALATHION, DIS-SOLVED (UG/L) (39532)	PARATHION, TOTAL (UG/L) (39540)	PARATHION, DIS-SOLVED (UG/L) (39542)	DI-AZINON, TOTAL (UG/L) (39570)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	METHYL PARATHION, TOTAL (UG/L) (39600)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEK, TOTAL (UG/L) (39760)
NOV 1995											
27...	--	--	--	--	--	--	--	--	--	--	--
JAN 1996											
29...	--	--	--	--	--	--	--	--	--	--	--
APR											
10...	--	--	--	--	--	--	--	<0.010	<0.010	--	<0.010
JUL											
17...	<0.005	--	<0.004	--	<0.002	--	<0.001	--	--	--	--
AUG											
28...	--	<0.010	--	<0.010	--	<0.010	--	--	--	<0.010	--

DATE	TOTAL TRI- THION (UG/L)	ALA- CHLOR, WATER, DISS, REC, (UG/L)	ACETO- CHLOR, WATER, FLTRD REC (UG/L)	2, 4-DP TOTAL (UG/L)	FONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L)	METRI- BUZIN SENSOR WATER DISSOLV (UG/L)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L)
NOV 1995											
27...	--	--	--	--	--	--	--	--	--	--	--
JAN 1996											
29...	--	--	--	--	--	--	--	--	--	--	--
APR											
10...	--	--	--	<0.010	--	--	--	--	--	--	--
JUL											
17...	--	<0.002	<0.002	--	--	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007
AUG											
28...	<0.010	--	--	--	<0.010	--	--	--	--	--	--

[illegible][illegible]

## RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NM -- Continued

## WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	339	362	342	324	312	361	420	349	---	---	359
2	---	330	365	331	317	313	390	358	342	---	---	364
3	---	337	353	---	314	314	404	340	340	---	---	364
4	---	340	350	326	309	316	380	336	346	---	---	360
5	---	338	352	---	312	324	366	338	343	---	---	359
6	---	340	356	---	313	322	366	341	336	---	355	359
7	---	336	358	---	310	319	378	347	333	---	348	362
8	---	336	357	328	320	316	372	343	334	---	351	366
9	---	339	349	324	314	318	362	346	329	---	353	361
10	---	341	345	327	309	320	358	345	328	---	348	360
11	325	341	347	327	309	323	349	344	323	---	351	357
12	320	343	345	321	306	327	354	346	325	---	355	363
13	322	340	344	322	303	330	367	344	324	---	355	365
14	322	336	345	320	306	327	383	350	323	---	360	364
15	324	330	343	317	307	324	396	363	326	---	357	376
16	332	335	344	318	308	326	367	362	328	343	359	414
17	341	335	346	316	311	326	355	371	326	351	360	398
18	342	337	350	318	306	325	342	374	---	352	363	372
19	336	341	346	314	310	329	338	354	326	359	364	365
20	338	344	337	313	309	342	333	342	326	353	360	370
21	345	360	335	314	308	349	335	345	328	340	359	372
22	347	337	337	309	306	351	342	350	330	331	357	363
23	346	357	342	319	311	356	351	358	328	---	450	364
24	342	355	339	314	301	357	351	354	331	---	378	372
25	338	354	344	316	298	356	345	351	330	---	393	374
26	346	355	346	319	301	359	356	360	---	---	377	374
27	341	356	354	314	300	366	351	353	---	---	380	373
28	340	360	354	320	297	367	344	347	---	---	395	370
29	339	358	359	321	305	363	343	347	---	---	377	368
30	339	358	350	324	---	360	365	348	---	---	368	367
31	340	---	345	326	---	362	---	352	---	---	366	---
MEAN	---	344	348	---	308	335	360	353	---	---	---	368
MAX	---	360	365	---	324	367	404	420	---	---	---	414
MIN	---	330	335	---	297	312	333	336	---	---	---	357



## RIO GRANDE BASIN

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 downstream from Monument headquarters, 6.5 mi south of Los Alamos, 18.5 mi northwest of Santa Fe, and at mile 2.0.

DRAINAGE AREA.--18.1 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1963 to September 1969, July 1977 to September 1982, May 1993 to September 1996 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,035 ft, from topographic map. Prior to Oct. 3, 1979, at site upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. One small diversion from left bank about 1.0 mi 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	.76	.86	e.90	e.80	1.3	.98	.70	.28	1.0	.97	.72
2	.77	.76	.86	e.90	e.70	1.2	.98	.66	.27	1.0	.76	.98
3	.76	.76	.86	.86	e.70	1.1	.96	.65	.29	.81	.78	1.5
4	.74	.81	.86	e.80	e.80	1.0	.97	.61	.33	.62	.82	1.0
5	.73	.87	.86	.98	e.80	1.0	1.0	.58	.27	.65	.61	.85
6	.77	.86	.86	.97	e.90	1.0	1.0	.58	.23	.79	.53	.81
7	.78	.82	.86	.95	1.0	1.0	1.0	.57	.23	.51	.53	.80
8	.76	.81	.87	e.99	1.0	1.0	.98	.58	.23	.60	.59	.75
9	.76	.81	.95	.97	1.0	1.0	.96	.58	.25	1.0	.64	.80
10	.76	.81	.94	.96	1.0	1.0	.94	.56	.27	.93	.63	.83
11	.75	.81	.90	.94	.98	.99	.94	.54	.24	.97	.50	.70
12	.73	.83	.91	.94	.98	.98	.94	.52	.25	.85	.45	.88
13	.71	.81	.89	.93	.98	.97	.96	.50	.31	.93	.44	1.0
14	.75	.81	.87	.94	.99	.98	.99	.49	.56	.84	.41	1.2
15	.76	.81	.87	.92	.99	1.0	.98	.45	.54	.73	.42	1.4
16	.76	.81	.92	.93	.98	1.0	.97	.45	.40	.69	.50	1.1
17	.76	.81	.96	e.80	.99	1.0	.92	.42	.35	.76	.49	.95
18	.76	.81	.98	e.90	1.0	.98	.84	.41	.33	.81	.52	1.0
19	.76	.81	.90	e.80	1.0	.98	.83	.38	.26	.70	.45	1.0
20	.76	.81	.95	e.80	1.1	1.0	.83	.36	.22	.62	.48	.88
21	.80	.81	1.0	e.80	1.1	1.0	.83	.36	.21	.56	.53	.80
22	.87	.81	.85	e.80	1.0	1.0	.81	.36	.29	.52	1.1	.76
23	1.1	.81	e.80	e.80	1.0	.99	.79	.35	.36	.49	1.6	.72
24	.94	.81	e.80	e.70	.98	.99	.78	.36	.25	.46	1.4	.72
25	.76	.81	e.80	e.70	.98	1.0	.74	.37	.24	.51	1.1	.74
26	.76	.82	.82	e.80	.98	1.0	.71	.42	.32	.55	1.1	.69
27	.76	.81	e.80	e.80	.98	1.0	.70	.45	1.2	.58	1.0	.69
28	.76	.84	e.80	e.80	.92	1.0	.69	.38	.64	.71	.89	.69
29	.74	.89	e.80	e.70	1.1	.99	.70	.33	1.0	.84	.80	.68
30	.72	.91	e.80	e.70	---	1.0	.73	.32	.70	.74	.82	.63
31	.75	---	e.90	e.80	---	.98	---	.30	---	1.1	.74	---
TOTAL	24.11	24.51	27.10	26.58	27.73	31.43	26.45	14.59	11.32	22.87	22.60	26.27
MEAN	.78	.82	.87	.86	.96	1.01	.88	.47	.38	.74	.73	.88
MAX	1.1	.91	1.0	.99	1.1	1.3	1.0	.70	1.2	1.1	1.6	1.5
MIN	.71	.76	.80	.70	.70	.97	.69	.30	.21	.46	.41	.63
AC-FT	48	49	54	53	55	62	52	29	22	45	45	52

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	1.32	1.71	1.43	1.27	1.49	3.19	5.80	3.82	1.56	1.22	1.40	1.45		
MAX	2.53	5.04	3.10	2.35	2.53	7.29	16.6	11.0	3.98	4.40	3.97	3.75		
(WY)	1986	1987	1987	1995	1995	1987	1985	1985	1986	1986	1991	1991		
MIN	.74	.82	.78	.75	.60	1.01	.88	.47	.38	.58	.63	.59		
(WY)	1993	1996	1990	1990	1990	1996	1996	1996	1996	1990	1984	1984		

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1983 - 1996

ANNUAL TOTAL	672.17	285.56	
ANNUAL MEAN	1.84	.78	2.10
HIGHEST ANNUAL MEAN			4.49
LOWEST ANNUAL MEAN			.78
HIGHEST DAILY MEAN	5.1 May 1	1.6 Aug 23	33 Apr 29 1985
LOWEST DAILY MEAN	.67 Aug 9	.21 Jun 21	.15 Jul 9 1989
ANNUAL SEVEN-DAY MINIMUM	.71 Jul 25	.24 Jun 6	.18 Jul 5 1989
INSTANTANEOUS PEAK FLOW		9.4 Jun 29	b3030 Jul 21 1978
INSTANTANEOUS PEAK STAGE		2.19 Jun 29	a6.34 Jul 21 1978
INSTANTANEOUS LOW FLOW		.17 Jun 20	
ANNUAL RUNOFF (AC-FT)	1330	566	1520
10 PERCENT EXCEEDS	3.5	1.0	4.0
50 PERCENT EXCEEDS	1.4	.81	1.3
90 PERCENT EXCEEDS	.76	.41	.69

e Estimated

a-Site and datum then in use.

b-From rating curve extended above 20 ft<sup>3</sup>/s, on basis of slope-area measurements at gage height 3.88, 5.02 ft and 6.34. Maximum discharge prior to the forest fire of June 1977 was 19 ft<sup>3</sup>/s, June 18, 1965, gage height 1.49 ft; site and datum then in use, from rating curve extended above 7.6 ft<sup>3</sup>/s, on basis of theoretical rating.

## RIO GRANDE BASIN

08315500 MCCLURE RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'18", long 105°50'06", in NE4SW4, sec.24, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, at McClure Dam on Santa Fe River, 2.1 mi upstream from Nichols Reservoir, 5.8 mi east of Santa Fe, and at mile 37.1.

DRAINAGE AREA.--17.4 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1929, July to October 1930, April 1931 to June 1946, September 1947 to current year. Prior to October 1947, published in WSP 1312. Prior to October 1965, monthend contents only. Prior to January 1980 at site on outlet tower.

GAGE.--Water-stage recorder. Elevation of gage is 7,790 ft above National Geodetic Vertical Datum of 1929, 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 lower.

REMARKS.--Reservoir is formed by earthfill dam, completed in 1926, capacity, 561 acre-ft, raised 3 ft in 1935, capacity, 650 acre-ft, and raised 36.5 ft more in 1947, capacity, 2,615 acre-ft at gage height 96.6 ft, 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. Radial gates were removed during 1972, capacity, 2,615 acre-ft. In 1995, modifications to the dam and spillway increased capacity to 3,257 acre-ft. Only the storage of Rio Grande water in excess of 1,061 acre-ft is subject to terms of the Rio Grande Compact. No dead storage. Water is for municipal use of City of Santa Fe.

COOPERATION.--Capacity table and supplementary gage readings, provided by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,140 acre-ft, June 25, 1960, gage height, 103.7 ft; no contents Jan. 25 to May 8, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 2,250 acre-ft; Oct. 1, elevation, 7,872.00 ft; minimum, 485 acre-ft, July 6, gage height, 7834.34

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

(Based on survey by Public Service Co. of New Mexico in 1995)

7,834	476	7,864	1740
7,844	780	7,874	2380
7,854	1200	7,884	3120

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2250	1970	1900	1910	1910	e1920	1920	1650	e700	494	699	542
2	2230	1970	1900	1900	e1910	e1920	1930	1640	e696	492	693	539
3	2210	1960	1900	1900	e1910	e1920	1930	1610	687	489	687	537
4	2190	1960	1900	1900	e1910	e1920	1920	1570	e680	487	680	533
5	2170	1950	1900	1900	e1910	e1920	1920	1530	e660	487	674	530
6	2150	1940	1900	1900	e1910	e1920	1920	1490	e640	485	667	531
7	2130	1940	1900	1900	e1910	e1920	1920	1450	e620	488	661	530
8	2110	1930	1900	1900	e1910	e1920	1920	1410	e605	496	656	506
9	2090	1930	1900	e1910	e1910	e1920	1920	1380	e595	539	650	523
10	2080	1930	1900	1910	e1920	e1920	1910	1340	587	577	645	520
11	2080	1920	1900	1910	e1920	e1920	1910	1310	e583	605	638	516
12	2070	1910	1900	1910	e1920	e1920	1910	1270	e578	627	630	513
13	2070	1910	1900	1900	e1920	e1920	1910	1230	e575	644	623	511
14	2060	1900	1900	1900	e1920	e1920	1910	1200	e572	657	616	514
15	2050	1900	1900	1910	e1920	e1920	1900	1160	e568	670	611	518
16	2050	1900	1900	1910	e1920	e1920	1890	1120	e564	683	602	523
17	2050	1900	1900	1910	e1920	e1920	1870	1090	e560	697	593	527
18	2040	1900	1900	1910	e1920	e1920	1860	1050	556	704	587	536
19	2040	1900	1900	1910	e1920	e1920	1840	1020	e546	712	581	544
20	2030	1900	1900	1910	e1920	e1920	1820	979	e536	715	573	551
21	2030	1900	1900	1910	e1920	e1920	1810	944	524	718	566	556
22	2020	1900	1900	1910	e1920	e1920	1790	910	517	720	560	560
23	2020	1900	1900	1910	e1920	e1920	1770	890	509	722	558	563
24	2010	1900	1900	e1910	1920	e1920	1760	e860	502	722	556	565
25	2000	1900	1900	e1910	1920	e1920	1740	e810	496	722	555	566
26	2000	1900	1900	e1910	1920	e1920	1730	e780	491	719	551	569
27	1990	1900	1900	e1910	1920	1920	1710	748	492	716	547	569
28	1990	1900	1900	1910	1920	1920	1700	e740	490	713	545	570
29	1980	1900	1900	1910	1920	1920	1680	e730	494	710	546	569
30	1980	1900	1900	1910	---	1920	1670	e720	496	708	546	569
31	1970	---	1900	1910	---	1930	---	e710	---	704	544	---
MAX	2250	1970	1900	1910	1920	1930	1930	1650	700	722	699	570
MIN	1970	1900	1900	1900	1910	1920	1670	710	490	485	544	506
(†)	7867.80	7866.61	7866.69	7866.78	7866.97	7867.04	7862.85	7841.97	7834.74	7841.79	7836.54	7837.43
(††)	-300	-70	0	+10	+10	+10	-260	-960	-214	+208	-160	+25
CAL YR 1995	MAX 3280	MIN 1720	(††)	+20								
WTR YR 1996	MAX 2250	MIN 485	(††)	-1701								

e Estimated

(†) GAGE HEIGHT, IN FEET, AT END OF MONTH (OCT TO DEC), ELEVATION IN FEET, AT END OF MONTH (JAN-SEPT).

(††) CHANGE IN CONTENTS, IN ACRE-FEET

## RIO GRANDE BASIN

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 downstream from McClure Dam, 5.3 mi east of Santa Fe, and at mile 36.6.

DRAINAGE AREA.--18.2 mi<sup>2</sup>.

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. Elevation of gage is 7,720 ft above National Geodetic Vertical Datum of 1929, 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 1947, and again in 1989. Several observations of water temperature were made during year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 1,000 ft<sup>3</sup>/s occurred Aug. 19, 1872, and Sept. 29 or 30, 1904. Without regulation the flood of Sept. 23, 1929, might have exceeded 1,500 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	3.8	1.1	1.0	1.1	1.0	1.2	11	6.2	5.2	5.9	4.9
2	11	3.8	1.1	1.0	1.1	1.1	1.2	11	6.1	5.2	5.9	4.9
3	11	3.8	1.0	1.0	1.1	1.1	1.2	18	6.1	5.2	5.9	4.9
4	11	3.8	1.1	1.0	1.1	1.1	1.7	24	5.9	5.2	5.7	4.9
5	11	3.8	1.1	1.0	1.1	1.1	2.5	23	5.9	5.2	5.7	4.9
6	11	3.8	1.1	1.0	1.1	1.1	2.6	23	5.9	5.2	5.4	4.9
7	11	3.8	1.0	1.0	1.1	1.1	2.6	23	5.9	5.2	5.4	4.8
8	11	3.8	1.0	1.0	1.1	1.1	2.6	22	5.9	5.2	5.4	4.7
9	11	3.8	1.0	1.0	1.1	1.1	2.6	22	5.9	6.2	5.4	4.7
10	8.4	3.8	1.0	1.0	1.1	1.1	2.6	22	5.9	6.2	5.4	4.7
11	4.2	3.8	1.0	1.0	1.1	1.1	2.6	22	5.9	6.0	5.4	4.7
12	4.2	3.8	1.0	1.0	1.1	1.1	2.6	22	5.8	5.9	5.4	4.8
13	4.1	3.8	1.0	1.0	1.1	1.1	2.6	22	5.7	5.9	5.4	4.9
14	4.0	3.8	1.0	1.0	1.1	1.1	2.6	21	5.7	5.9	5.4	4.9
15	4.0	3.8	1.0	1.0	1.1	1.1	4.3	21	5.7	5.9	5.4	4.9
16	4.0	2.5	1.0	1.0	1.1	1.1	8.0	21	5.5	5.9	5.2	4.9
17	4.0	1.1	1.0	1.1	1.1	1.1	8.8	21	5.4	5.9	5.2	4.9
18	4.0	1.1	1.0	1.1	1.1	1.2	10	21	5.3	5.9	5.2	5.0
19	4.0	1.1	1.0	1.1	1.1	1.2	10	20	5.2	5.9	5.2	4.9
20	4.0	1.1	1.0	1.0	1.1	1.2	10	20	5.2	5.9	5.2	4.9
21	4.0	1.1	1.0	1.0	1.1	1.2	10	20	5.2	5.9	5.2	5.0
22	4.0	1.1	1.0	1.0	1.1	1.2	11	19	5.2	5.9	5.2	5.0
23	3.9	1.1	1.0	1.0	1.1	1.2	11	19	5.2	5.9	5.2	5.1
24	3.8	1.1	1.1	1.0	1.0	1.2	11	19	5.1	5.9	5.2	5.2
25	3.8	1.1	1.1	1.0	1.0	1.2	11	19	5.0	5.9	5.2	5.2
26	3.8	1.1	1.1	1.0	1.0	1.2	11	18	4.9	5.9	5.2	5.2
27	3.8	1.1	1.0	1.1	1.0	1.2	11	13	5.2	5.9	5.2	5.2
28	3.8	1.1	1.0	1.1	1.0	1.2	11	6.2	5.2	5.9	5.2	5.2
29	3.8	1.1	1.0	1.1	1.0	1.2	11	6.2	5.2	5.9	5.2	5.2
30	3.8	1.1	1.0	1.1	---	1.2	11	6.2	5.2	5.9	5.2	5.2
31	3.8	---	1.0	1.1	---	1.2	---	6.2	---	5.9	4.9	---
TOTAL	190.2	74.9	31.8	31.8	31.3	35.4	191.3	561.8	166.5	178.0	166.0	148.6
MEAN	6.14	2.50	1.03	1.03	1.08	1.14	6.38	18.1	5.55	5.74	5.35	4.95
MAX	11	3.8	1.1	1.1	1.1	1.2	11	24	6.2	6.2	5.9	5.2
MIN	3.8	1.1	1.0	1.0	1.0	1.0	1.2	6.2	4.9	5.2	4.9	4.7
AC-FT	377	149	63	63	62	70	379	1110	330	353	329	295

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1996, BY WATER YEAR (WY)

MEAN	4.68	3.02	2.58	2.40	2.71	4.91	12.6	23.4	17.6	9.38	8.48	6.71
MAX	22.6	13.5	7.19	6.87	14.2	30.0	68.5	92.9	75.2	56.2	74.0	36.0
(WY)	1942	1942	1959	1970	1916	1916	1915	1941	1921	1919	1921	1929
MIN	.58	.26	.28	.50	.37	.34	.23	.53	.70	1.06	.81	.90
(WY)	1957	1972	1944	1990	1927	1972	1981	1955	1955	1981	1951	1959

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1913 - 1996
ANNUAL TOTAL	4029.43	1807.6	
ANNUAL MEAN	11.0	4.94	8.21
HIGHEST ANNUAL MEAN			26.2
LOWEST ANNUAL MEAN			1.88
HIGHEST DAILY MEAN	94 Jun 18	24 May 4	378 Sep 23 1929
LOWEST DAILY MEAN	.50 Apr 28	1.0 Dec 3	.10 Feb 7 1927
ANNUAL SEVEN-DAY MINIMUM	.54 Apr 28	1.0 Dec 7	.17 Nov 4 1971
INSTANTANEOUS PEAK FLOW		27 May 3	b1500 Aug 14 1921
INSTANTANEOUS PEAK STAGE		2.25 May 3	a5.17 Aug 14 1921
INSTANTANEOUS LOW FLOW		1.0 Nov 24	.05 Apr 7 1981
ANNUAL RUNOFF (AC-FT)	7990	3590	5950
10 PERCENT EXCEEDS	38	11	19
50 PERCENT EXCEEDS	4.1	4.0	4.2
90 PERCENT EXCEEDS	1.0	1.0	1.0

a-Site and datum then in use.

b-From rating curve extended above 150 ft<sup>3</sup>/s.

## RIO GRANDE BASIN

08316500 NICHOLS RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'24", long 105°52'46", in SE¼NE¼ sec.21, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, at Nichols Dam on Santa Fe River, 0.6 mi east of Twomile Reservoir, 3.3 mi east of Santa Fe, and at mile 34.4.

DRAINAGE AREA.--22.8 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1943 to September 1965 (monthend contents only), October 1965 to current year. Prior to January 1980 at site on outlet tower.

GAGE.--Water-stage recorder. Datum of gage is 7,313.2 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam. No contents prior to Mar. 16, 1943. Capacity, 685 acre-ft between gage heights 121.2 ft, bottom of lower operational gate and 167.0 ft, crest of spillway. Dead storage, 14 acre-ft. Water is for municipal use of City of Santa Fe.

COOPERATION.--Survey to compute capacity table and supplementary gage readings, provided by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 836 acre-ft, June 8, 1952, gage height, 171.8 ft; minimum, 16 acre-ft, Feb. 11 to Mar. 10, 1944, Feb. 1-19, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 591 acre-ft, Nov. 17; maximum gage height, 163.72 ft; minimum, 233 acre-ft, Apr. 16, gage height, 147.02

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

(Based on survey by Public Service Co. of New Mexico in 1943)

133	74	150	279
135	89	160	491
140	139	170	776

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	514	524	569	549	553	519	343	248	462	368	501	474
2	526	528	570	548	554	520	336	254	454	376	501	472
3	535	533	571	548	556	522	327	272	454	383	501	469
4	545	538	573	550	554	523	331	284	e448	380	498	467
5	555	543	574	551	549	525	329	305	e442	376	493	465
6	563	547	574	548	543	522	319	322	e436	372	480	463
7	573	552	573	545	538	514	313	340	e428	369	481	468
8	583	557	574	546	533	508	299	355	e420	378	484	476
9	589	562	575	548	535	509	284	e367	e414	399	481	483
10	585	568	574	548	535	507	273	e380	410	418	478	479
11	578	574	573	543	529	498	265	e392	e406	427	482	476
12	574	581	570	542	524	489	254	e404	e400	440	482	479
13	567	587	568	543	522	482	250	e416	e397	452	474	489
14	561	589	565	543	516	476	242	426	e393	463	466	499
15	558	588	566	544	510	477	238	436	e390	474	458	508
16	553	589	567	542	508	478	233	446	e385	479	445	509
17	549	591	567	e543	510	477	237	454	382	488	433	509
18	544	588	564	535	511	469	240	457	375	499	418	509
19	540	582	561	536	513	459	243	465	e371	501	416	519
20	533	576	561	537	515	450	249	472	367	498	413	529
21	524	571	562	539	517	441	254	478	e359	495	413	539
22	519	570	561	e540	518	430	256	484	350	496	424	545
23	516	570	560	e541	520	418	255	490	343	497	434	543
24	512	571	559	542	521	405	253	501	333	493	440	541
25	514	572	557	e542	519	393	250	521	330	491	445	539
26	516	573	557	544	515	381	248	534	327	501	452	540
27	514	573	556	546	516	370	241	528	336	506	461	549
28	513	570	552	547	517	363	243	511	346	510	470	558
29	515	570	548	549	518	364	253	493	356	507	474	561
30	517	569	550	550	---	363	254	478	360	505	480	559
31	519	---	550	552	---	353	---	468	---	503	478	---
MAX	589	591	575	552	556	525	343	534	462	510	501	561
MIN	512	524	548	535	508	353	233	248	327	368	413	463
(†)	161.06	162.88	162.19	162.28	161.00	153.86	148.35	159.03	154.22	160.45	159.45	162.53
(††)	+19	+50	-19	+2	-34	-165	-99	+214	-108	+143	-25	+81

CAL YR 1995 MAX 699 MIN 198 (††) -50  
WTR YR 1996 MAX 591 MIN 233 (††) +59

e Estimated

(†) GAGE HEIGHT, IN FEET, AT END OF MONTH  
(††) CHANGE IN CONTENTS, IN ACRE-FEET





## RIO GRANDE BASIN

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-75, 1979, 1981 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (MG/L) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)
OCT 1995											
12...	1215	5.6	678	8.9	24.0	15.0	625	8.4	102	--	130
APR 1996											
17...	0930	9.1	656	8.4	18.0	9.5	618	9.3	101	--	--
JUN											
13...	1000	4.6	594	8.8	24.0	20.5	654	9.7	126	--	--
AUG											
27...	1045	17	664	8.3	21.5	20.0	628	7.4	99	15	160

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CAC03 (MG/L) (00904)	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 WATER DIS IT FIELD HCO3 (MG/L AS) (00453)	CAR-BONATE WATER DIS IT FIELD CO3 (MG/L AS) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CAC03) (39086)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 1995											
12...	0	41	6.6	90	3	12	240	17	226	237	37
APR 1996											
17...	--	--	--	--	--	--	--	--	--	--	--
JUN											
13...	--	--	--	--	--	--	--	--	--	--	--
AUG											
27...	0	51	8.4	72	2	9.9	255	0	208	215	59

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, 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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)
OCT 1995										
12...	52	0.50	21	419	409	1.69	0.010	1.70	<0.015	--
APR 1996										
17...	--	--	--	--	--	--	--	--	--	--
JUN										
13...	--	--	--	--	--	--	--	--	--	--
AUG										
27...	46	0.50	22	--	400	0.470	0.050	0.520	0.180	0.42

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
OCT 1995										
12...	0.90	0.60	2.50	2.30	2.20	--	--	--	--	--
APR 1996										
17...	--	--	--	--	--	--	--	--	--	--
JUN										
13...	--	--	--	--	--	--	--	--	--	--
AUG										
27...	0.60	0.60	1.10	1.00	1.10	7.8	6.0	<1.0	7	111

## RIO GRANDE BASIN

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
OCT 1995										
12...	--	--	--	--	--	--	8.0	--	11	--
APR 1996										
17...	--	--	--	--	--	--	--	--	--	--
JUN										
13...	--	--	--	--	--	--	--	--	--	--
AUG										
27...	<1.0	189	<1.0	2.0	2.0	3.0	3.0	<1.0	19	<0.10

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01147)	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	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 1995										
12...	--	--	--	--	--	--	--	172	2.6	--
APR 1996										
17...	--	--	--	--	--	--	--	--	--	--
JUN										
13...	--	--	--	--	--	--	--	--	--	--
AUG										
27...	10	6.0	<1	<1	<1.0	19	15	1390	64	3

## RIO GRANDE BASIN

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM

LOCATION.--Lat 35°37'01", long 106°18'58", in NW¼ 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 northeast of Cochiti Pueblo, and at mile 1,588.1.

DRAINAGE AREA.--14,900 mi<sup>2</sup> approximately, including 2,940 mi<sup>2</sup>, in closed basin in San Luis Valley, CO.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 15, 1975, at site 1.3 mi 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, based on capacity table effective Jan. 1, 1992, 502,330 acre-ft between elevations 5,247.0 ft and 5,450.0 ft, crest of service spillway. Dead storage 560 acre-ft below elevation 5,255.0 ft, invert of outlet structure. Lake was created primarily for flood and sediment control. A 50,000-acre-ft permanent pool is authorized for recreational purposes. U.S. Army Corps of Engineers satellite telemeter at station.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 301,000 acre-ft, July 3, 1986, elevation, 5,417.32 ft; no storage prior to Nov. 12, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 59,570 acre-ft, July 10, elevation, 5,342.36 ft; minimum, 54,670 acre-ft, Oct. 12, elevation, 5,338.99 ft.

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

(Based on survey by Corps of Engineers in 1992)

5,325	39,108	5,365	103,870
5,335	49,770	5,375	130,480
5,345	63,520	5,385	161,300
5,355	81,310	5,395	196,280

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55190	55310	55450	56960	57940	58280	57640	57480	57520	57860	57310	56840
2	55030	55560	55400	56960	57900	57900	57550	57550	57450	57750	57310	56950
3	54970	55660	55310	56770	57860	57610	57410	57310	57370	57900	57420	56840
4	54830	55470	55230	56630	57690	57620	57340	56890	57280	58250	57480	56770
5	54850	55510	55310	56850	57730	57800	57410	56500	57170	58520	57420	56860
6	55010	55530	55530	57060	57970	57820	57590	56350	57060	58380	57200	57000
7	55110	55420	55620	57200	58130	57850	57650	56280	56920	57870	56920	57000
8	55050	55410	55620	57190	58140	57820	57710	56450	56840	58130	56950	56570
9	54970	55480	55510	56940	58130	57820	57730	56700	56740	58520	57230	56390
10	54860	55550	55420	56710	58130	57790	57730	56910	56700	59570	57370	56490
11	54710	55590	55370	56530	58130	57790	57710	57200	56840	58150	57370	56770
12	54670	55620	55380	56640	58150	57760	57680	57540	56990	57960	57170	57030
13	54780	55530	55450	56680	58130	57820	57710	57900	57120	58080	57060	57260
14	54890	55560	55420	56770	57940	57930	57830	58070	57420	57710	57060	57330
15	55010	55560	55400	56940	57940	57900	57800	58070	57540	57580	57210	57230
16	55110	55590	55560	57100	58140	57990	57330	58040	57490	57760	57310	56890
17	55000	55590	55670	57240	58300	57870	57060	57960	57410	57820	57280	56560
18	54820	55510	55730	57270	58510	57680	56820	57760	57260	57760	57240	56590
19	54780	55480	55730	57240	58720	57510	56570	57790	57100	57690	57120	56980
20	54920	55510	55810	57160	58780	57540	56410	57800	57070	57450	56980	57060
21	55080	55370	56000	57100	58510	57540	56540	57310	56950	57330	56980	56860
22	54940	55350	56220	57060	58170	57540	56670	57340	56950	57370	57350	56840
23	54870	55410	56360	57240	57990	57540	56810	57240	57000	57260	57610	56950
24	54970	55450	56500	57480	57970	57480	57060	57200	56940	57170	56920	56950
25	55040	55490	56500	57680	57960	57510	57510	57260	56740	57170	56480	56770
26	54940	55410	56590	57860	57860	57590	57620	57310	57090	57300	57130	56630
27	54890	55300	56710	57940	57790	57510	57510	57590	57710	57480	57610	56560
28	54970	55310	56750	58030	57870	57450	57420	57790	58180	57490	57090	56530
29	54960	55340	56880	58110	58390	57340	57370	57680	58140	57480	56600	56500
30	54850	55420	56910	58140	---	57450	57410	57560	57900	57450	56480	56560
31	54830	---	56910	58110	---	57590	---	57590	---	57420	56640	---
MAX	55190	55660	56910	58140	58780	58280	57830	58070	58180	59570	57610	57330
MIN	54670	55300	55230	56530	57690	57340	56410	56280	56700	57170	56480	56390
(†)	5338.97	5339.40	5340.47	5341.33	5341.53	5340.96	5340.83	5340.96	5341.18	5340.84	5340.28	5340.22
(††)	-500	+590	+1490	+1200	+280	-800	-180	+180	+310	-480	-780	-80

CAL YR 1995 MAX 131810 MIN 53970 (††) -2300

WTR YR 1996 MAX 59570 MIN 54670 (††) +1230

(†) ELEVATION, IN FEET, AT END OF MONTH.

(††) CHANGE IN CONTENTS, IN ACRE-FEET.

[illegible]

## RIO GRANDE BASIN

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM -- Continued

## WATER-QUALITY RECORDS

COCHITI LAKE AT SITE A (Lat 35°38'11", Long 106°19'05")

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)
MAY 1996 03...	0.050	0.110	0.60	<0.20	0.180	0.030	0.020	3.6	12	<1.0	2	59
DATE	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)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
MAY 1996 03...	<1.0	50	<1.0	<1.0	<1.0	2.0	5.0	<1.0	49	<0.10	4.0	2.0
DATE	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	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 CR) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)
MAY 1996 03...	<1	<1	<1.0	<1.0	<2.0	48	640	870	8	<10	30	<5
DATE	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)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS. (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS. (UG/L) (75990)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAY 1996 03...	29	32000	<100	1200	<0.10	110	0.07	0.020	1.8	0.0	41	60

## RIO GRANDE BASIN

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM -- Continued

## WATER-QUALITY RECORDS

COCHITI LAKE AT SITE A (Lat 35°38'11", Long 106°19'05")

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER, DISS, REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	LINDANE DIS- SOLVED (UG/L) (39341)	
JUL 1996 18...	0930	<0.007	<0.002	<0.005	E0.012	<0.002	<0.004	<0.003	<0.002	<0.006	<0.004	<0.004	
DATE		DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ACETO- CHLOR, WATER, FLTRD REC (UG/L) (49260)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
JUL 1996 18...	<0.001	<0.002	<0.005	<0.004	<0.002	E0.003	<0.002	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004
DATE		PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	PEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)
JUL 1996 18...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	
DATE		PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)
JUL 1996 18...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005	

## RIO GRANDE BASIN

08317400 RIO GRANDE BELOW COCHITI DAM, NM

LOCATION.--Lat 35°37'05", long 106°19'24", in SW¼ sec.17, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, on right bank 320 ft upstream from bridge on State Highway 22, 700 ft downstream from Cochiti Dam, 1.4 mi northeast of Cochiti Pueblo, and at mile 1.587.6.

DRAINAGE AREA.--14,900 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> in closed basin in San Luis Valley, CO.

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

GAGE.--Water-stage recorder. Datum of gage is 5,226.08 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 14, 1973, at site 2.4 mi downstream at elevation 5,210 ft, from topographic map. Nov. 14, 1973, to Jan. 8, 1976, at site 320 ft downstream at datum 1.79 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are fair. 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 upstream from station for irrigation of about 620,000 acres in Colorado and about 81,000 acres 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 downstream from station; see tabulation below for monthly and yearly diversion. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 15, 1941, reached a discharge of 23,400 ft<sup>3</sup>/s at a nearby site upstream from mouth of Santa Fe River. The flood of May 23, 1920, probably exceeded 23,400 ft<sup>3</sup>/s, and is likely the highest since 1905.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	940	1030	1320	1240	1310	734	716	911	603	816	650
2	1070	1140	1030	1350	1220	1400	650	720	911	524	816	650
3	966	1290	1030	1420	1210	1420	588	719	931	352	816	660
4	952	1440	1030	1380	1210	1280	588	723	995	327	816	699
5	e930	1390	1030	1270	1130	1160	588	731	944	460	809	720
6	e930	1370	1030	1230	1080	1170	588	746	954	528	806	726
7	962	1390	1080	1240	1130	1110	588	767	1000	613	798	784
8	981	1380	1220	1240	1210	1060	588	788	1030	675	761	808
9	973	1380	1320	1260	1220	1080	588	823	1030	699	688	777
10	931	1380	1320	1260	1230	1090	619	844	1040	1140	688	722
11	901	1390	1310	1180	1210	1090	623	826	1050	1110	688	697
12	896	1400	1300	1130	1250	1100	605	826	1050	632	688	688
13	889	1400	1300	1140	1300	1100	605	824	1050	654	670	640
14	884	1400	1300	1140	1310	1110	605	816	1090	716	656	605
15	879	1400	1300	1140	1290	1170	624	844	1100	690	681	553
16	879	1400	1290	1140	1250	1240	783	873	1070	611	701	487
17	879	1370	1330	1200	1200	1250	744	879	1050	657	710	508
18	879	1370	1360	1240	1210	1250	707	879	1030	582	699	492
19	879	1350	1340	1250	1230	1180	734	983	967	541	697	456
20	879	1230	1210	1230	1340	1090	800	1410	912	560	714	530
21	885	1140	1140	1210	1500	1050	802	1350	899	614	731	587
22	1010	1130	1130	1190	1530	1050	795	1070	879	774	779	596
23	945	1070	1140	1130	1440	1060	795	1040	870	e890	885	554
24	869	1030	1150	1090	1370	1120	783	1040	875	e900	819	520
25	910	1030	1140	1090	1380	1010	723	1050	878	917	676	490
26	965	1030	1150	1110	1380	984	681	1040	819	918	489	447
27	914	1030	1180	1110	1340	1030	704	1030	696	933	361	433
28	868	1030	1180	1100	1250	921	697	1040	589	941	533	460
29	929	1030	1200	1120	1020	857	697	1050	579	955	650	479
30	945	1030	1260	1150	---	752	705	1000	596	942	650	493
31	902	---	1290	1210	---	697	---	912	---	855	650	---

TOTAL	28791	37360	37120	37270	36680	34191	20331	28359	27795	22313	21941	17911
MEAN	929	1245	1197	1202	1265	1103	678	915	926	720	708	597
MAX	1110	1440	1360	1420	1530	1420	802	1410	1100	1140	885	808
MIN	868	940	1030	1090	1020	697	588	716	579	327	361	433
AC-FT	57110	74100	73630	73930	72750	67820	40330	56250	55130	44260	43520	35530
(†)	7960	0	0	0	0	5840	7990	8760	7240	6590	7490	6720
(††)	4370	0	0	0	0	3900	4200	5020	4290	3770	4310	4070

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

MEAN	550	907	942	850	1006	1281	2132	3242	3080	1766	873	672
MAX	1192	1878	1787	2245	3639	2868	6320	6101	6205	5643	3683	1635
(WY)	1987	1987	1987	1986	1986	1986	1985	1984	1983	1979	1986	1986
MIN	214	331	461	428	493	438	281	353	392	293	254	121
(WY)	1975	1990	1978	1977	1978	1977	1977	1972	1972	1972	1972	1974

## SUMMARY STATISTICS FOR 1995 CALENDAR YEAR

ANNUAL TOTAL	816185	350062	1442	1986
ANNUAL MEAN	2236	956	2355	1977
HIGHEST ANNUAL MEAN			452	
LOWEST ANNUAL MEAN			8290	May 7 1985
HIGHEST DAILY MEAN	6410	May 24		
LOWEST DAILY MEAN	779	Jan 8		
ANNUAL SEVEN-DAY MINIMUM	876	Jan 2		
INSTANTANEOUS PEAK FLOW				
INSTANTANEOUS PEAK STAGE				
INSTANTANEOUS LOW FLOW				
ANNUAL RUNOFF (AC-FT)	1619000	694300	1045000	
10 PERCENT EXCEEDS	5490	1320	3760	
50 PERCENT EXCEEDS	1300	958	864	
90 PERCENT EXCEEDS	915	596	360	

e Estimated

a-Site and datum then in use.

b-From rating curve extended above 2,600 ft 3/s.

c-Aug. 3-5, 1977, Aug. 27, 28, 1978, result of regulation.

(†) DIVERSION, IN ACRE-FEET, BY COCHITI EASTSIDE MAIN CANAL AT HEAD

(††) DIVERSION, IN ACRE-FEET, BY SILI MAIN CANAL AT HEAD



## RIO GRANDE BASIN

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 northwest of Cerrillos, and at mile 11.8.

DRAINAGE AREA.--596 mi².

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

GAGE.--Water-stage recorder above elevation 5,500.3 ft, nonrecording below. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by an earthfill dam, completed Oct. 11, 1970. Capacity, based on capacity table effective January 1972, 88,990 acre-ft between elevations 5,496.0 ft, sill of ungated outlet conduit, and 5,608.0 ft, crest of uncontrolled spillway. No dead storage. Reservoir is used for flood control. U.S. Army Corps of Engineers satellite telemeter at station.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,510 acre-ft, July 26, 1971, elevation, 5,517.00; no storage most of time.

EXTREMES FOR CURRENT YEAR.--No storage all year.

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

(Based on survey by U.S. Army Corps of Engineers in 1972)

5,500	0	5,504	41
5,501	2	5,505	69
5,502	9	5,506	109
5,503	21	5,508	244

## RIO GRANDE BASIN

08317950 GALISTEO CREEK BELOW GALISTEO DAM, NM

LOCATION.--Lat 35°27'53", long 106°12'49", in NEVADA sec.8, T.14 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, on right bank 0.4 mi downstream from Galisteo Dam, 5.3 mi northwest of Cerrillos, and at mile 11.4.

DRAINAGE AREA.--597 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Elevation of gage is 5,450 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 21, 1981, at site 1,200 ft downstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Galisteo Reservoir 0.4 mi upstream. Diversions for irrigation of about 50 acres upstream from station. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station. No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.6	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	.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	.65
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.18
6	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00	.00	3.9
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	225	321	.60
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	154	247	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	225	1.7	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	143	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	42	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.3	.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	4.5	.00	34
15	.00	.00	.00	.00	.00	.00	.00	.00	22	1.5	.00	36
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.1	8.5	2.3
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.3	40	2.5
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.8	1.6	.88
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	183	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	95	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	121	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	335	.00	87	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	23	.00	177	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	137	.00	16	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	343	.00	1.8	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	121	4.4	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	34	30	14	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.35	.00
TOTAL	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	1015.00	854.75	1326.35	81.05
MEAN	.000	.000	.000	.000	.002	.000	.000	.000	33.8	27.6	42.8	2.70
MAX	.00	.00	.00	.00	.06	.00	.00	.00	343	225	321	36
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.1	.00	.00	.00	2010	1700	2630	161

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1996, BY WATER YEAR (WY)

	4.42	1.61	1.46	1.53	2.12	2.77	2.92	3.26	6.61	21.5	16.5	10.1
MEAN												
MAX	28.9	7.70	6.55	6.25	11.6	19.8	23.8	31.7	33.8	110	55.7	52.4
(WY)	1982	1995	1987	1993	1993	1993	1973	1985	1996	1971	1991	1972
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.15	.000
(WY)	1980	1980	1980	1981	1981	1981	1981	1971	1971	1987	1987	1979

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1970 - 1996

ANNUAL TOTAL	924.90	3277.21	
ANNUAL MEAN	2.53	8.95	6.15
HIGHEST ANNUAL MEAN			12.8
LOWEST ANNUAL MEAN			1.28
HIGHEST DAILY MEAN	125	343	1170
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		3170	a3170
INSTANTANEOUS PEAK STAGE		5.45	7.33
ANNUAL RUNOFF (AC-FT)	1830	6500	4450
10 PERCENT EXCEEDS	2.6	2.5	7.7
50 PERCENT EXCEEDS	.00	.00	.49
90 PERCENT EXCEEDS	.00	.00	.00

a-From rating curve extended above 1,400 ft<sup>3</sup>/s.

## RIO GRANDE BASIN

08319000 RIO GRANDE AT SAN FELIPE, NM

LOCATION.--Lat 35°26'39", long 106°26'23", in SWANWA sec.17, T.14 N., R.5 E., Sandoval County, Hydrologic Unit 13020201, in San Felipe Grant, on right bank 200 ft downstream from Tonque Arroyo, 1,700 ft upstream from steel highway bridge, 0.8 mi upstream from San Felipe Pueblo, 11 mi northeast of Bernalillo, and at mile 1,572.7.  
DRAINAGE AREA.--16,100 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> 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 above National Geodetic Vertical Datum of 1929. Prior to Sept. 27, 1957, at site 1,800 ft downstream at datum 5.35 ft lower, except period May 16, 1945, to Sept. 30, 1946, when it was 5.94 ft lower than present datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 17 mi 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 upstream from station, some of which is irrigated downstream by Cochiti Eastside Main Canal and San Felipe eastside acequia, which bypass station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in 1874, 1884, and 1904.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	968	997	1060	e1180	1270	870	816	985	796	975	822
2	1150	1100	1040	1070	e1170	1390	840	825	988	760	974	815
3	1050	1160	1040	1140	e1160	1410	720	825	982	558	959	810
4	1030	1340	1040	1140	1180	1330	722	806	1050	483	958	836
5	1010	1300	1000	1040	1150	1170	717	804	986	530	969	866
6	1010	1250	913	1000	1120	1220	698	809	995	637	944	829
7	1050	1350	991	1030	1110	1210	714	830	1030	861	934	848
8	1090	1300	1010	1090	1200	1190	720	848	1080	1010	1170	913
9	1060	1260	1060	1250	1210	1190	714	869	1080	1140	833	880
10	1010	1270	1070	1270	1220	1210	726	925	1080	1170	825	815
11	999	1260	1060	1190	1200	1220	742	890	1080	1530	829	784
12	1010	1290	1030	1130	1230	1220	701	893	1080	991	811	787
13	1010	1340	1040	1150	1290	1220	695	892	1080	897	798	752
14	1020	1290	1040	1160	1320	1230	696	879	1130	1000	792	718
15	1030	1280	1030	e1120	1280	1260	707	907	1130	989	813	687
16	1000	1290	1030	e1130	1260	1340	822	939	1110	839	830	582
17	1010	1290	1050	e1170	1190	1400	871	951	1100	929	941	561
18	997	1350	1080	1260	1220	1400	812	958	1060	854	880	588
19	1000	1330	1080	e1190	1220	1360	826	993	1030	753	859	518
20	997	1210	989	1280	1290	1270	911	1340	952	772	867	572
21	995	1120	893	1250	1460	1200	920	1490	939	811	902	669
22	1060	1060	893	e1170	1530	1200	921	1140	880	938	1010	665
23	1100	1010	902	1220	1450	1190	913	1110	902	1090	1070	647
24	982	1000	925	1160	1370	1220	913	1110	927	1080	1210	582
25	1040	1000	929	1140	1380	1180	872	1120	1020	1090	902	568
26	1080	1050	932	1150	1380	1090	776	1120	953	1100	905	550
27	1070	1070	941	1130	1350	1170	815	1130	867	1130	591	529
28	989	995	962	1110	1250	1100	800	1120	854	1130	729	468
29	1030	992	975	1140	1030	985	793	1120	914	1130	861	518
30	1110	973	1020	1180	---	931	800	1100	846	1130	870	576
31	1040	---	1060	1220	---	852	---	994	---	1060	837	---
TOTAL	32169	35498	31022	35740	36400	37628	23747	30553	30110	29188	27848	20755
MEAN	1038	1183	1001	1153	1255	1214	792	986	1004	942	898	692
MAX	1150	1350	1080	1280	1530	1410	921	1490	1130	1530	1210	913
MIN	982	968	893	1000	1030	852	695	804	846	483	591	468
AC-FT	63810	70410	61530	70890	72200	74640	47100	60600	59720	57890	55240	41170
(†)	3780	0	0	0	0	2960	3750	3800	3310	3020	3130	3490
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1996, BY WATER YEAR (WY)												
MEAN	670	945	1021	923	1080	1409	2336	3433	3337	2011	1051	821
MAX	1370	2072	1969	2163	3695	3054	6126	6160	6534	5979	3667	1781
(WY)	1987	1987	1987	1986	1986	1986	1985	1985	1983	1979	1986	1986
MIN	289	389	500	462	552	546	378	521	746	565	596	206
(WY)	1975	1990	1978	1977	1977	1977	1977	1977	1989	1974	1978	1974
SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1974 - 1996												
ANNUAL TOTAL	839203			370658			1150000					
ANNUAL MEAN	2299			1013			a1587					
HIGHEST ANNUAL MEAN							2493					
LOWEST ANNUAL MEAN							547					
HIGHEST DAILY MEAN				6550	May 25	1530	Feb 22	8100	May 7	1985		
LOWEST DAILY MEAN				871	Sep 6	468	Sep 28	67	Aug 28	1978		
ANNUAL SEVEN-DAY MINIMUM				916	Dec 21	542	Sep 24	135	Aug 23	1978		
INSTANTANEOUS PEAK FLOW							3000	Jul 8	b273000	May 26	1937	
INSTANTANEOUS PEAK STAGE							5.79	Jul 8	c11.13	Jun 26	1937	
INSTANTANEOUS LOW FLOW							175	Sep 28	32	Jul 7	1934	
ANNUAL RUNOFF (AC-FT)	1665000			735200								
10 PERCENT EXCEEDS	5730			1270			3930					
50 PERCENT EXCEEDS	1180			1020			995					
90 PERCENT EXCEEDS	979			749			460					

e Estimated

a-Average discharge for 48 years (water year 1926-1973), 1,374 ft<sup>3</sup>/s, 995,500 acre-ft/yr, prior to closure of Cochiti.

b-From rating curve extended above 15,000 ft<sup>3</sup>/s.

c-Site and datum then in use.

(†) MONTHLY DIVERSIONS, IN ACRE-FEET, OF COCHITI EASTSIDE CANAL, RECORDS OF THE FLOW FURNISHED BY MIDDLE RIO GRANDE CONSERVANCY DISTRICT.

RIO GRANDE BASIN  
08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT 1995											
02...	0930	1220	361	7.6	--	15.0	635	8.1	97	--	--
24...	1000	977	343	8.0	9.0	10.0	638	8.6	91	11	22
FEB 1996											
12...	1015	1210	341	8.0	--	3.0	641	11.6	103	--	--
12...	1045	1210	336	8.3	7.0	3.5	641	11.8	106	<10	K7
MAY											
19...	0830	965	360	7.6	--	14.0	631	7.6	89	--	--
21...	1030	1520	366	8.2	23.0	16.5	635	8.0	99	26	46
AUG											
26...	0945	1100	357	8.2	--	19.0	637	6.8	88	--	--
27...	0845	592	379	8.1	19.5	20.0	636	6.8	90	14	--

DATE	STREP-TOCOCCHI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER WH IT FIELD (MG/L AS HCO3) (00450)	BICAR-BONATE WATER WH IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER WH IT FIELD (MG/L AS CO3) (00447)
OCT 1995											
02...	--	130	--	39	7.2	20	0.8	2.8	135	--	0
24...	540	130	19	39	7.4	19	0.7	2.6	--	133	--
FEB 1996											
12...	--	130	18	39	7.6	21	0.8	2.8	135	135	0
12...	200	--	--	--	--	--	--	--	--	143	--
MAY											
19...	--	130	--	39	7.6	23	0.9	2.9	143	--	0
21...	540	120	15	38	7.2	21	0.8	2.9	--	134	--
AUG											
26...	--	130	44	41	7.1	21	0.8	2.9	--	107	--
27...	--	140	24	43	7.7	21	0.8	3.0	--	140	--

DATE	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT WH TOT IT FIELD (MG/L AS CACO3) (00419)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1995											
02...	--	111	--	113	51	5.4	--	--	209	192	27
24...	0	--	109	115	51	5.4	0.30	17	--	208	--
FEB 1996											
12...	0	111	111	117	43	6.5	--	--	226	186	12
12...	0	--	117	--	--	--	--	--	--	--	--
MAY											
19...	--	117	--	120	56	6.8	--	--	204	206	17
21...	0	--	110	116	56	6.4	0.40	17	--	215	--
AUG											
26...	0	--	88	124	73	4.5	--	--	224	202	8530
27...	0	--	114	117	66	5.1	0.30	18	--	234	--

## RIO GRANDE BASIN

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 1995											
02...	--	--	--	--	--	--	--	--	--	--	--
24...	--	<0.010	0.070	<0.015	--	0.20	<0.20	0.030	<0.010	0.010	3.8
FEB 1996											
12...	--	--	--	--	--	--	--	--	--	--	--
12...	0.280	0.010	0.290	0.020	--	0.20	<0.20	0.020	<0.010	0.010	3.9
MAY											
19...	--	--	--	--	--	--	--	--	--	--	--
21...	--	<0.010	0.070	0.020	0.28	0.30	0.30	0.030	0.020	0.020	4.0
AUG											
26...	--	--	--	--	--	--	--	--	--	--	--
27...	--	<0.010	0.130	<0.015	--	0.30	<0.20	0.050	0.030	0.030	7.7

DATE	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, 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)
OCT 1995											
02...	<0.010	800	2.0	<1.0	2	2	73	<1.0	--	<1.0	1.0
24...	--	--	5.0	<1.0	--	2	74	<1.0	40	<1.0	<1.0
FEB 1996											
12...	<0.010	190	19	<1.0	2	2	59	<1.0	--	<1.0	1.0
12...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	<0.010	340	18	<1.0	2	1	68	<1.0	--	<1.0	1.0
21...	--	--	--	--	--	--	--	--	60	--	--
AUG											
26...	<0.010	75000	4.0	<1.0	3	2	78	<1.0	--	<1.0	<1.0
27...	--	--	6.0	<1.0	--	2	96	<1.0	45	<1.0	<1.0

DATE	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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)
OCT 1995											
02...	<1.0	1.0	--	<1.0	7.0	--	4.0	<1.0	--	--	<1
24...	<1.0	2.0	<3.0	<1.0	7.0	<0.10	4.0	1.0	<1	<1	--
FEB 1996											
12...	<1.0	1.0	--	<1.0	14	--	4.0	2.0	--	--	<1
12...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	<1.0	1.0	--	<1.0	12	--	4.0	2.0	--	--	<1
21...	--	--	4.0	--	--	--	--	--	--	--	--
AUG											
26...	<1.0	1.0	--	<1.0	<1.0	--	3.0	2.0	--	--	<1
27...	<1.0	1.0	<3.0	<1.0	10	<0.10	4.0	2.0	<1	<1	--

## RIO GRANDE BASIN

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)
OCT 1995										
02...	<0.20	<1.0	--	--	--	--	--	--	--	--
24...	<1.0	1.0	<2.0	21	380	370	3	<1	6	<5
FEB 1996										
12...	<0.20	2.0	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
MAY										
19...	<0.20	3.0	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
AUG										
26...	<0.20	6.0	--	--	--	--	--	--	--	--
27...	<1.0	<1.0	--	--	--	--	--	--	--	--

DATE	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995										
02...	--	--	--	--	--	--	2.0	60	198	77
24...	9	9200	<10	40	<0.01	400	3.0	19	50	94
FEB 1996										
12...	--	--	--	--	--	--	3.0	--	--	--
12...	--	--	--	--	--	--	--	16	52	68
MAY										
19...	--	--	--	--	--	--	2.0	40	104	70
21...	--	--	--	--	--	--	--	77	315	52
AUG										
26...	--	--	--	--	--	--	2.0	9870	29300	95
27...	--	--	--	--	--	--	2.0	339	542	55

## CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	CHLOR- PYRIFOS TOTAL RECOVER (UG/L) (38932)	DISUL- FOTON UNFILT RECOVER (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)	PER- THANE TOTAL (UG/L) (39034)	DEF TOTAL (UG/L) (39040)	PCNS UNFILT RECOVER (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TECH- NICAL TOTAL (UG/L) (39350)	P,P'- DDD UNFILT RECOVER (UG/L) (39360)
OCT 1995											
02...	0930	--	--	--	--	--	--	--	--	--	--
24...	1000	--	--	--	--	--	--	--	--	--	--
FEB 1996											
12...	1015	--	--	--	--	--	--	--	--	--	--
12...	1045	--	--	--	--	--	--	--	--	--	--
MAY											
19...	0830	--	--	--	--	--	--	--	--	--	--
21...	1030	--	--	--	--	--	--	--	--	--	--
AUG											
26...	0945	--	--	--	--	--	--	--	--	--	--
27...	0845	<0.010	<0.010	<0.010	<0.100	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010

## RIO GRANDE BASIN

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DDE, TOTAL (UG/L) (39365)	P,P'- DDT UNFILT RECOVER (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, I TOTAL (UG/L) (39388)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	TOX- APHENE, TOTAL (UG/L) (39400)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	PCB, TOTAL (UG/L) (39516)
OCT 1995											
02...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
FEB 1996											
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
AUG											
26...	--	--	--	--	--	--	--	--	--	--	--
27...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<1.00	<0.010	<0.010	<0.010	<0.100

DATE	MALA- THION, TOTAL (UG/L) (39530)	PARA- THION, TOTAL (UG/L) (39540)	DI- AZINON, TOTAL (UG/L) (39570)	METHYL PARA- THION, TOTAL (UG/L) (39600)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)	TOTAL TRI- THION TOTAL (UG/L) (39786)	2, 4-DP TOTAL (UG/L) (82183)	FONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L) (82614)
OCT 1995											
02...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
FEB 1996											
12...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
MAY											
19...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	<0.010	<0.010	--	<0.010	--	<0.010	--
AUG											
26...	--	--	--	--	--	--	--	--	--	--	--
27...	<0.010	<0.010	<0.010	<0.010	--	--	<0.010	--	<0.010	--	<0.010

## RIO GRANDE BASIN

08323000 RIO GUADALUPE AT BOX CANYON, NEAR JEMEZ, NM

LOCATION.--Lat 35°43'52", long 106°45'44", Sandoval County, Hydrologic Unit 13020202, in Canon de San Diego Grant, on left bank at downstream end of Guadalupe Box Canyon, 4.8 mi upstream from mouth, 5 mi southwest of Jemez Springs, and 7 mi north of Jemez.

DRAINAGE AREA.--235 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1938 to September 1942, August 1949 to September 1950 (monthly discharge only for November, December 1938 and August 1949 published in WSP 1312), May 1951 to September 1957 (irrigation seasons only), May 1958 to September 1976, July 1981 to September 1996 (discontinued). Prior to 1951 published as "08323500 Rio Guadalupe near Jemez Springs."

REVISED RECORDS.--WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,015 ft above National Geodetic Vertical Datum of 1929 (plane-table survey by Topographic Division, U.S. Geological Survey, 1952). Prior to 1951, at site 2.4 mi downstream at lower datums.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated to some extent since October 1958 by San Gregorio Reservoir on Clear Creek, 24 mi upstream (capacity, 345 acre-ft), and by transmountain diversion into Rio Puerco basin for irrigation of about 300 acres in vicinity of Cuba. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	14	11	11	11	11	17	e16	7.5	13	8.8	13
2	22	16	11	9.6	11	12	18	e16	7.2	13	8.8	12
3	20	17	11	e10	12	12	19	e16	7.1	12	8.7	11
4	19	18	11	e11	e13	14	19	e16	7.3	11	10	9.9
5	19	19	12	e11	e13	13	19	e16	7.1	10	9.8	9.3
6	19	18	11	e11	12	13	18	e15	6.9	9.2	8.8	9.1
7	19	18	11	e10	13	11	18	e15	6.8	9.8	8.0	8.8
8	19	17	12	e10	13	12	20	e14	7.3	11	8.4	8.2
9	19	16	10	e10	13	14	e24	e14	7.7	17	8.8	7.8
10	19	16	11	e10	14	14	e27	e15	7.2	19	8.3	8.1
11	19	15	10	10	15	15	e28	e15	7.1	18	8.0	7.8
12	19	15	11	10	17	18	e29	e14	7.0	14	7.7	8.2
13	18	15	12	e10	16	12	e26	13	7.1	13	7.3	8.8
14	18	14	12	e10	17	11	e23	12	8.5	13	7.2	13
15	18	14	11	e10	17	12	e23	12	9.1	13	7.1	14
16	18	22	11	e10	17	11	e23	11	9.8	12	7.2	16
17	18	17	13	e10	16	10	e22	11	8.9	12	11	14
18	18	16	12	e11	16	9.7	e22	10	8.1	11	9.5	15
19	18	15	11	e10	16	9.6	e21	9.4	7.3	10	8.8	15
20	18	14	11	e9.0	17	9.7	e20	8.7	6.6	10	8.9	16
21	18	14	e11	e9.0	18	11	e20	8.7	6.4	9.2	13	14
22	18	14	e12	e11	17	13	e20	8.4	6.6	8.5	13	11
23	17	14	e12	e10	15	16	e20	8.1	6.8	8.1	14	10
24	23	13	e13	e9.0	13	16	e23	7.9	6.6	7.8	21	9.8
25	27	13	e14	e10	14	15	e28	7.9	6.5	7.7	26	9.7
26	19	13	e15	e11	13	15	e28	7.9	9.1	7.6	20	7.1
27	16	12	e14	e12	11	14	e25	8.2	10	7.7	18	6.3
28	15	11	e13	e10	12	14	e20	8.5	13	8.2	22	6.1
29	15	11	e12	e11	13	16	e17	8.2	12	9.4	24	6.0
30	15	11	e13	e12	---	17	e17	7.8	13	9.0	17	5.6
31	14	---	11	e12	---	18	---	7.7	---	8.8	14	---
TOTAL	580	452	365	320.6	415	409.0	654	358.4	241.6	343.0	373.1	310.6
MEAN	18.7	15.1	11.8	10.3	14.3	13.2	21.8	11.6	8.05	11.1	12.0	10.4
MAX	27	22	15	12	18	18	29	16	13	19	26	16
MIN	14	11	10	9.0	11	9.6	17	7.7	6.4	7.6	7.1	5.6
AC-FT	1150	897	724	636	823	811	1300	711	479	680	740	616

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996, BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	18.5	18.9	16.0	14.7	18.6	59.2	180	204	62.3	20.8	21.5	18.6			
MAX	57.6	56.8	31.8	27.0	33.9	129	421	471	196	37.4	40.6	47.8			
(WY)	1987	1987	1987	1992	1995	1995	1992	1985	1995	1995	1988	1988			
MIN	10.5	8.11	7.54	7.79	7.66	13.2	21.8	11.6	8.05	9.88	11.9	8.81			
(WY)	1988	1990	1990	1990	1990	1996	1996	1996	1996	1994	1994	1989			

SUMMARY STATISTICS				FOR 1995 CALENDAR YEAR				FOR 1996 WATER YEAR				WATER YEARS 1982 - 1996			
ANNUAL TOTAL				28842.9				4822.3							
ANNUAL MEAN				79.0				13.2				54.5			
HIGHEST ANNUAL MEAN												101			1985
LOWEST ANNUAL MEAN												13.2			1996
HIGHEST DAILY MEAN				426	May 17		29	Apr 12		950		Apr 14			1992
LOWEST DAILY MEAN				9.9	Jan 6		5.6	Sep 30				4.0			Jan 3 1982
ANNUAL SEVEN-DAY MINIMUM				11	Dec 6		6.7	Jun 19				5.5			Jan 11 1990
INSTANTANEOUS PEAK FLOW							45	Aug 25		b3190		May 13			1941
INSTANTANEOUS PEAK STAGE							4.24	Aug 25				a8.40			May 13 1941
INSTANTANEOUS LOW FLOW							2.1	Jan 25				1.9			Jan 14 1994
ANNUAL RUNOFF (AC-FT)				57210			9570			39500					
10 PERCENT EXCEEDS				237			19			150					
50 PERCENT EXCEEDS				23			12			19					
90 PERCENT EXCEEDS				12			7.8			9.7					

e Estimated

a-From floodmarks, site and datum in use June 1941 to September 1942.

b-From rating curve extended above 1,000 ft<sup>3</sup>/s.



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 downstream from Rio Guadalupe. 3.5 mi north of Jemez, and at mile 29.5.

WATER-DISCHARGE RECORDS

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 ft above National Geodetic Vertical Datum of 1929 (plane-table survey by Topographic Division, U.S. Geological Survey, 1952). June 22, 1936, to Mar. 11, 1937, at site 60 ft upstream at datum 0.50 ft higher. Mar. 12, 1937, to July 8, 1938, at present site at datum 0.7 ft higher. July 9, 1938, to May 6, 1941, at site 60 ft upstream at datum 0.70 ft higher.

REMARKS.--Water-discharge records good except for estimated daily discharges which are fair. Diversion for irrigation of about 300 acres upstream from station. Several observations of water temperature were made during the year. U. S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1890 occurred between May 6 and 15, 1941, after gage was destroyed (discharge probably exceeded 6,000 ft<sup>3</sup>/s). from information by local residents.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	34	25	27	24	24	27	20	11	15	12	18
2	32	34	26	24	24	25	27	18	9.9	19	13	16
3	31	34	26	23	22	26	29	18	10	18	12	16
4	30	35	27	25	20	27	29	18	10	18	11	14
5	29	35	28	25	25	24	28	18	9.3	16	7.8	14
6	28	35	28	24	23	24	27	17	9.3	17	7.4	14
7	32	35	28	23	24	20	27	16	9.2	17	19	17
8	31	34	29	23	25	24	29	16	7.9	14	15	16
9	31	33	26	23	26	28	28	15	7.4	37	15	14
10	29	32	29	23	26	30	35	16	8.5	37	14	14
11	28	31	28	22	28	31	37	16	8.0	43	12	15
12	29	30	28	22	29	34	37	15	9.8	29	10	17
13	30	30	31	23	29	31	40	15	10	29	10	19
14	30	29	31	23	30	28	34	14	11	28	10	24
15	31	28	30	23	31	27	33	12	12	22	12	27
16	30	31	29	24	32	25	33	11	12	19	11	26
17	29	29	33	25	32	25	32	11	11	19	19	23
18	29	28	31	22	35	24	31	10	9.3	17	13	24
19	29	26	27	19	35	23	28	11	8.9	16	10	26
20	28	25	29	22	37	23	28	10	8.0	16	10	27
21	29	25	23	18	38	23	28	11	8.1	12	22	24
22	31	24	24	24	42	25	28	10	7.6	9.6	25	20
23	33	23	23	22	35	27	31	11	7.2	8.7	70	19
24	35	22	26	20	31	27	39	11	7.6	9.4	35	19
25	40	21	27	21	32	26	39	12	8.2	11	35	19
26	35	21	11	12	11	30	18					
27	34	20	24	23	25	24	32	11	16	12	24	17
28	33	16	23	24	26	25	30	11	20	13	28	16
29	34	19	27	21	26	26	26	11	20	13	29	15
30	34	23	26	22	---	27	21	11	15	13	23	15
31	34	---	26	23	---	27	---	11	---	12	20	---
TOTAL	975	842	847	704	842	805	928	418	314.2	570.7	584.2	563
MEAN	31.5	28.1	27.3	22.7	29.0	26.0	30.9	13.5	10.5	18.4	18.8	18.8
MAX	40	35	33	27	42	34	40	20	20	43	70	27
MIN	28	16	23	18	20	20	21	10	7.2	8.7	7.4	14
AC-FT	1930	1670	1680	1400	1670	1600	1840	829	623	1130	1160	1120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996, BY WATER YEAR (WY)

STATISTICS OF DOMESTIC TRAFFIC FOR AIRLINES YEAR 1954				1956, BY AIRLINE YEAR (WY)								
	1954	1955	1956	1956	1957	1958	1959					
MEAN	36.0	38.0	29.3	28.6	36.0	88.2	271	241	68.6	33.0	45.8	34.4
MAX	109	128	58.2	50.6	77.1	301	961	1118	274	78.5	121	95.8
(WY)	1987	1987	1987	1995	1995	1995	1958	1973	1979	1986	1957	1991
MIN	14.5	18.4	17.0	16.6	19.9	26.0	30.9	13.5	10.5	14.5	15.8	11.1
(WY)	1957	1957	1957	1977	1955	1996	1996	1996	1996	1972	1956	1956

## SUMMARY STATISTICS

[illegible]

Estimated

a-From rating curve extended above 2,200 ft<sup>3</sup>/s on basis of contracted-opening measurement of peak flow.

b- Present datum.

## RIO GRANDE BASIN

08324000 JEMEZ RIVER NEAR JEMEZ, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
NOV 1995											
09...	0915	33	535	8.1	10.0	6.0	620	10.1	100	130	0
JAN 1996											
24...	1000	36	641	8.3	-1.5	0.0	623	11.8	99	160	--
APR											
19...	1015	29	432	8.2	10.0	7.5	621	10.2	105	120	--
AUG											
28...	1345	25	460	8.4	29.5	23.0	626	7.4	106	110	--

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
NOV 1995											
09...	44	5.2	54	2	8.8	196	0	161	93	9.2	62
JAN 1996											
24...	54	6.0	70	2	11	--	--	--	197	11	83
APR											
19...	40	4.1	40	2	6.2	--	--	--	145	7.9	46
AUG											
28...	37	4.2	44	2	7.7	--	--	--	139	9.6	54

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)
NOV 1995										
09...	0.80	42	323	5.0	<1.0	10	82	<1.0	510	<1.0
JAN 1996										
24...	1.0	46	401	--	--	--	--	--	690	--
APR										
19...	0.70	30	262	--	--	--	--	--	370	--
AUG										
28...	0.80	37	278	13	<1.0	45	78	<1.0	436	<1.0

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
NOV 1995										
09...	<1.0	<1.0	1.0	29	<1.0	14	<0.10	4.0	1.0	<1
JAN 1996										
24...	--	--	--	50	--	--	--	--	--	--
APR										
19...	--	--	--	36	--	--	--	--	--	--
AUG										
28...	1.0	<1.0	<1.0	39	<1.0	16	<0.10	4.0	2.0	<1

## RIO GRANDE BASIN

08324000 JEMEZ RIVER NEAR JEMEZ, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1995										
09...	<1	<1.0	3.0	2.2	0.370	1.1	0.0	11	0.98	67
JAN 1996										
24...	--	--	--	--	--	--	--	--	--	--
APR										
19...	--	--	--	--	--	--	--	--	--	--
AUG										
28...	<1	<1.0	2.0	--	--	1.0	--	--	--	--

## RIO GRANDE BASIN

08328500 JEMEZ CANYON RESERVOIR NEAR BERNALILLO, NM

LOCATION.--Lat 35°23'40", long 106°32'50", in SW/4SW/4 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 upstream from mouth, and 6 mi north of Bernalillo.

DRAINAGE AREA.--1,034 mi<sup>2</sup>.

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 U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam, completed October 19, 1953. Capacity, 172,800 acre-ft, from capacity table adapted January 1, 1992, between elevations 5,125.0 ft, sill of outlet gates, and 5,252.3 ft, operating deck of spillway. Maximum controlled capacity, 102,700 acre-ft at elevation 5,232.0 ft (floor of spillway, which is located about 0.8 mi south of dam). Capacity by original survey was 189,100 acre-ft. Original plan for reservoir operation was to desilt all flow above 30 ft/s by storage for one day before releasing to Rio Grande, and for possible detention during flood stage on Rio Grande. U.S. Army Corps of Engineers satellite telemeter at station.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 72,110 acre-ft, June 1, 1987, elevation, 5,220.24 ft; no storage most of time prior to March 1979.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 23,700 acre-ft, Oct. 2, 3, elevation, 5,193.90 ft; minimum contents, 18,110 acre-ft, Sept. 30, elevation, 5,189.34 ft.

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

(Based on survey by U.S. Army Corps of Engineers in 1992)

5,193.0	22,540	5,208.0	44,810
5,198.0	29,260	5,213.0	54,080
5,203.0	36,560	5,218.0	64,720

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23690	22800	22470	22560	22330	22090	21810	22180	20980	20120	19620	18880
2	23700	22830	22470	22620	22380	22120	21810	22170	20960	20120	19540	18810
3	23700	22810	22470	22610	22400	22170	21800	22170	20930	20100	19510	18760
4	23660	22840	22470	22570	22370	22170	21770	22120	20880	20070	19460	18720
5	23580	22860	22470	22560	22380	22060	21800	22090	20850	20020	19400	18640
6	23580	22890	22470	22500	22380	21940	21830	22070	20790	19970	19370	18580
7	23570	22780	22470	22470	22350	21870	21860	22020	20710	19990	19500	18510
8	23560	22670	22460	22410	22330	21860	21880	21990	20700	20160	19640	18450
9	23550	22670	22460	22350	22310	21910	21890	21960	20650	20830	19600	18370
10	23530	22710	22460	22310	22300	21990	21910	21920	20600	20770	19560	18320
11	23520	22710	22460	22230	22250	22010	21920	21890	20550	20370	19510	18230
12	23510	22740	22460	22180	22230	21990	21960	21870	20530	20230	19470	18150
13	23480	22720	22450	22180	22220	21920	22020	21830	20480	20240	19420	18110
14	23470	22690	22460	22180	22220	21840	22030	21800	20490	20240	19370	18300
15	23460	22660	22460	22180	22180	21820	22080	21760	20470	20260	19320	18390
16	23430	22650	22480	22140	22190	21830	22090	21720	20430	20340	19260	18340
17	23440	22650	22470	22140	22190	21800	22130	21670	20410	20350	19210	18340
18	23430	22640	22500	22110	22180	21800	22120	21650	20370	20540	19190	18390
19	23380	22620	22510	22120	22190	21780	22120	21570	20350	20530	19130	18370
20	23350	22570	22510	22170	22230	21720	22130	21510	20320	20480	19090	18340
21	23330	22560	22510	22190	22220	21710	22140	21470	20250	20420	19050	18340
22	23310	22560	22470	22230	22190	21730	22120	21450	20230	20370	19150	18330
23	23250	22590	22450	22270	22160	21770	22170	21390	20200	20310	19420	18310
24	23250	22590	22400	22320	22110	21760	22180	21320	20160	20220	19620	18270
25	23240	22590	22360	22300	22070	21750	22190	21280	20100	20170	19600	18230
26	23120	22550	22280	22260	22020	21770	22210	21230	20100	20110	19680	18220
27	23010	22510	22260	22220	22010	21800	22210	21190	20140	20050	19270	18180
28	23020	22480	22300	22230	22010	21800	22190	21140	20120	19990	19020	18160
29	23020	22470	22360	22250	22030	21800	22210	21100	20120	19940	19020	18120
30	23020	22470	22380	22250	---	21820	22190	21080	20100	19890	19010	18110
31	22890	---	22470	22280	---	21810	---	21040	---	19830	18940	---
MAX	23700	22890	22510	22620	22400	22170	22210	22180	20980	20830	19680	18880
MIN	22890	22470	22260	22110	22010	21710	21770	21040	20100	19830	18940	18110
(†)	5193.28	5192.95	5192.95	5192.80	5192.42	5192.73	5191.80	5191.02	5191.02	5190.80	5190.05	5189.34
(††)	-800	-420	0	-190	-250	-220	+380	-1150	-940	-270	-890	-830

CAL YR 1995 MAX 30700 MIN 21530 (††) +860  
WTR YR 1996 MAX 23700 MIN 18110 (††) -5580

(†) ELEVATION, IN FEET, AT END OF MONTH.  
(††) CHANGE IN CONTENTS, IN ACRE-FEET.



## RIO GRANDE BASIN

08329700 CAMPUS WASH AT ALBUQUERQUE, NM

LOCATION.--Lat 35°05'40", long 106°37'22", in SE¼ sec.16, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 100 ft west of southwest corner of University of New Mexico North Golf Course, 200 ft downstream from Barelbas Stormwater Pumping Station outfall, 600 ft downstream from Tucker Road bridge, and 1,500 ft northeast of intersection of Lomas and University Boulevards. in Albuquerque.

DRAINAGE AREA.--3.80 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1982 to current year (seasonal records).

GAGE.--Water-stage recorder and concrete-lined channel. Elevation of gage is 5,140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records poor. Recording rain gage at station. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft<sup>3</sup>/s, July 14, 1990, gage height, 4.50 ft, from rating curve developed by step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 593 ft<sup>3</sup>/s, at 2335 hours Aug. 25, gage height, 2.95 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.03	.01	---	---	---	---	.00	.39	.00	.00	.00	.00
3	.00	.00	---	---	---	---	.00	.00	.00	.00	---	.00
4	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.02	.00
6	.00	.01	---	---	---	---	.00	.00	.00	.00	.00	.45
7	.00	.00	---	---	---	---	.00	.00	.00	3.6	1.2	.00
8	.00	.00	---	---	---	---	.00	.00	.00	.02	.86	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.81	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	9.1	.00	.09
11	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	---
13	.00	.00	---	---	---	.00	.00	.00	.00	.00	.01	.00
14	.00	.00	---	---	---	.00	.00	.00	.71	.00	.00	---
15	.69	.00	---	---	---	.00	.00	.00	.00	.00	.08	---
16	.00	.01	---	---	---	.00	.00	.00	.00	4.5	.00	---
17	.00	.00	---	---	---	.00	.00	.00	.00	3.5	.00	---
18	.00	.00	---	---	---	.00	.00	.00	.00	5.2	.00	---
19	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	---
20	.00	---	---	---	---	.00	.00	.00	.00	.00	1.7	.00
21	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	.00	---	---	---	---	.00	.00	.00	.00	.00	4.8	.00
23	.00	---	---	---	---	.00	.00	.00	.00	---	7.7	.00
24	.00	---	---	---	---	.00	.00	.01	.00	---	.04	.00
25	.00	---	---	---	---	.00	.00	.05	.00	.00	11	.00
26	.00	---	---	---	---	.00	.00	.14	32	.00	18	.36
27	.00	---	---	---	---	.00	.00	.00	11	.00	.00	.00
28	.00	---	---	---	---	.00	.00	.00	13	.00	.00	1.0
29	.00	---	---	---	---	.00	.00	.00	.00	.00	9.8	.00
30	.00	---	---	---	---	.00	.00	.00	2.8	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.72	---	---	---	---	---	0.00	0.59	59.51	---	---	---
MEAN	.023	---	---	---	---	---	.000	.019	1.98	---	---	---
MAX	.69	---	---	---	---	---	.00	.39	32	---	---	---
MIN	.00	---	---	---	---	---	.00	.00	.00	---	---	---
AC-FT	1.4	---	---	---	---	---	.00	1.2	118	---	---	---
(†)	0.01	0.05	0.11	0.25	0.03	0.00	0.01	0.09	1.68	1.19	2.24	0.11

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329835 NORTH FLOODWAY CHANNEL AT ALBUQUERQUE, NM

LOCATION.--Lat 35°07'03", long 106°36'42", in SE¼ sec.3, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank of concrete-lined drainage channel, 300 ft downstream (north) of bridge on Candelaria Boulevard, NE, and 3,000 ft downstream from confluence of Campus Wash and Embudo Arroyo in Albuquerque.

DRAINAGE AREA.--40.0 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1982 to current year (seasonal records).

GAGE.--Water-stage recorder and concrete-lined channel. Elevation of gage is 5,110 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,250 ft<sup>3</sup>/s, July 9, 1988, gage height, 12.10 ft, from floodmarks from step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 4,200 ft<sup>3</sup>/s, at 2400 hours Aug. 25, gage height, 9.13 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	---	---	---	---	---	---	.00	.00	.00	.00	e10	.00
4	---	---	---	---	---	---	.00	.00	.00	.00	e.00	.00
5	---	---	---	---	---	---	.00	.00	.00	.00	e3	.00
6	---	---	---	---	---	---	.00	.00	.00	.00	e.00	e5.0
7	---	---	---	---	---	---	.00	.00	.00	13	e50	e.00
8	---	---	---	---	---	---	.00	.00	.00	4.2	e5	.00
9	---	---	---	---	---	---	.00	.00	.00	33	.00	.00
10	---	---	---	---	---	---	.00	.00	.00	89	.00	.00
11	---	---	---	---	---	---	.00	.00	.00	19	.00	.00
12	---	---	---	---	---	.00	.00	.00	.40	.44	.00	e5.0
13	---	---	---	---	---	.00	.00	.00	1.1	.00	.00	.00
14	---	---	---	---	---	.00	.00	.00	30	.00	.78	228
15	---	---	---	---	---	.00	.00	.00	.94	8.9	.00	15
16	---	---	---	---	---	.00	.00	.00	.00	17	.00	6.8
17	---	---	---	---	---	.00	.00	.00	.00	34	.00	81
18	---	---	---	---	---	.00	.00	.00	.00	28	.00	79
19	---	---	---	---	---	.00	.00	.00	.00	4.1	.00	2.4
20	---	---	---	---	---	.00	.00	.00	.00	4.0	21	.00
21	---	---	---	---	---	.00	.00	.00	.00	3.1	2.4	.00
22	---	---	---	---	---	.00	.00	.00	.00	2.3	70	.00
23	---	---	---	---	---	.00	.00	.00	.00	2.0	e100	.00
24	---	---	---	---	---	.00	.00	.00	.00	.28	e5.0	.00
25	---	---	---	---	---	.00	.00	.00	.00	.04	e10	.28
26	---	---	---	---	---	.00	.00	16	268	.00	e400	16
27	---	---	---	---	---	.00	.00	.00	83	.00	e20	.00
28	---	---	---	---	---	.00	.00	.00	113	.00	e.00	2.0
29	---	---	---	---	---	.00	.00	.00	.27	.00	e150	.00
30	---	---	---	---	---	.00	.00	.00	8.6	.00	.00	.00
31	---	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	0.00	16.00	505.31	262.36	847.18	440.48
MEAN	---	---	---	---	---	---	.000	.52	16.8	8.46	27.3	14.7
MAX	---	---	---	---	---	---	.00	16	268	89	400	228
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	.00	32	1000	520	1680	874

e Estimated

## RIO GRANDE BASIN

08329838 SOUTH FORK HAHN ARROYO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°07'16", long 106°34'04", in NE¼SE¼ sec. 1, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank 300 ft above Louisiana Boulevard, 900 ft south of Comanche Rd, and 1,700 ft north of Candelaria Rd, in Albuquerque.

DRAINAGE AREA.--2.03 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1978 to December 1983, June 1992 to current year (seasonal record).

GAGE.--Water-stage recorder and concrete lined channel. Elevation of gage is 5,300 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to 1983 at site 300 ft downstream on Louisiana Boulevard bridge, at different datum.

REMARKS.--Records good. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 574 ft<sup>3</sup>/s, May 11, 1994, gage height, 4.42 ft, from step-backwater analysis of concrete lined stream channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 526 ft<sup>3</sup>/s, at 1705 hours, June 28, gage height, 4.21 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.41	---	---	---	---	.00	.00	.00	.16	---	---
2	.25	.81	---	---	---	---	.00	.00	.04	.27	---	---
3	.27	.15	---	---	---	---	.00	.00	.05	.15	---	---
4	.26	.05	---	---	---	---	.00	.04	.08	.15	---	.11
5	.37	.04	---	---	---	---	.00	.00	.11	.10	---	.15
6	.29	.00	---	---	---	---	.00	.04	.07	.06	.02	1.1
7	.01	.00	---	---	---	---	.00	.03	.08	.67	.01	.07
8	.06	.00	---	---	---	---	.00	.03	.04	.93	.33	.05
9	.34	.00	---	---	---	---	.00	.24	.05	3.1	.10	.12
10	.21	.15	---	---	---	---	.00	.04	.06	1.0	.11	.10
11	.22	.05	---	---	---	---	.04	.00	.08	.25	.02	.09
12	.30	.05	---	---	---	.00	.03	.01	.10	.00	.03	.94
13	.19	.00	---	---	---	.00	.03	.03	.06	---	.00	.14
14	.04	.00	---	---	---	.00	.06	.04	3.2	---	.03	11
15	.07	.00	---	---	---	.00	.00	.48	.04	---	.04	.41
16	.07	.00	---	---	---	.00	.00	.05	.06	---	.05	.18
17	.11	.13	---	---	---	.00	.00	.13	.08	---	.00	4.1
18	.00	.07	---	---	---	.04	.01	.02	.06	---	.00	3.4
19	.00	.03	---	---	---	.04	.00	.01	.06	---	.05	.32
20	.13	.00	---	---	---	.06	.00	.05	.05	---	2.7	.12
21	.01	.00	---	---	---	.06	.00	.18	.06	---	.44	.04
22	.29	.00	---	---	---	.10	.02	.09	.00	---	6.3	.07
23	.00	.00	---	---	---	.00	.04	.03	.11	---	5.9	.16
24	.00	.15	---	---	---	.07	.03	.04	.09	---	1.8	.16
25	.00	.06	---	---	---	.08	.01	.00	.12	---	11	.08
26	.03	.11	---	---	---	.09	.02	1.1	22	---	7.2	.98
27	.16	.00	---	---	---	.09	.00	.04	3.5	---	.18	.08
28	.04	.00	---	---	---	.07	.00	.14	12	---	---	.01
29	.13	---	---	---	---	.00	.00	.06	.90	---	---	.00
30	.00	---	---	---	---	.14	.00	.04	.61	---	---	.15
31	.00	---	---	---	---	.00	---	.05	---	---	---	---
TOTAL	3.91	---	---	---	---	---	0.29	3.01	43.76	---	---	---
MEAN	.13	---	---	---	---	---	.010	.097	1.46	---	---	---
MAX	.37	---	---	---	---	---	.06	1.1	22	---	---	---
MIN	.00	---	---	---	---	---	.00	.00	.00	---	---	---
AC-FT	7.6	---	---	---	---	---	.6	6.0	.87	---	---	---
(†)	0.07	0.31	0.05	0.22	0.11	0.21	0.15	0.00	2.12	0.04	2.50	1.55

(†) Total rainfall accumulation in inches.



## RIO GRANDE BASIN

08329839 NORTH FORK HAHN ARROYO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°07'33", long 106°34'04", in NE¼SE¼ sec. 1, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 200 ft above Louisiana Boulevard, 1,150 ft north of Comanche Rd, and 1,450 ft south of Montgomery Boulevard, in Albuquerque.

DRAINAGE AREA.--1.51 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1979 to December 1983, June 1992 to current year (seasonal records).

GAGE.--Water-stage recorder and concrete lined channel. Elevation of gage is 5,290 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to 1983 at site 200 ft downstream on Louisiana Boulevard bridge, at different datum.

REMARKS.--Records fair. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 439 ft<sup>3</sup>/s, Aug. 14, 1980, gage height, 1.94 ft, from step-backwater analysis of concrete lined stream channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, .30 ft<sup>3</sup>/s, at 1700 hours, June 28, gage height, 1.68 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	.00	.00	.00	---	---
2	.00	.00	---	---	---	---	.00	.00	.00	.00	---	---
3	.00	.00	---	---	---	---	.00	.00	.00	.00	---	---
4	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
5	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
6	.00	---	---	---	---	---	.00	.00	.00	.00	---	.01
7	.00	---	---	---	---	---	.00	.00	.00	.01	---	.04
8	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
13	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.11
15	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.06
16	.00	---	---	---	---	.00	.00	.00	.00	.01	.00	.01
17	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.10
18	.00	---	---	---	---	.00	.00	.00	.00	---	.00	.05
19	.00	---	---	---	---	.00	.00	.00	.00	---	.00	.00
20	.00	---	---	---	---	.00	.00	.00	.00	---	.02	.00
21	.00	---	---	---	---	.00	.00	.00	.00	---	.05	.00
22	.00	---	---	---	---	.00	.00	.00	.00	---	.13	.00
23	.00	---	---	---	---	.00	.00	.00	.00	---	.10	.00
24	.00	---	---	---	---	.00	.00	.00	.00	---	.07	.00
25	.00	---	---	---	---	.00	.00	.00	.00	---	.11	.00
26	.00	---	---	---	---	.00	.00	.00	.29	---	.12	.00
27	.00	---	---	---	---	.00	.00	.00	.01	---	.04	.00
28	.00	---	---	---	---	.00	.00	.00	.20	---	---	.00
29	.00	---	---	---	---	.00	.00	.00	.00	---	---	.00
30	.00	---	---	---	---	.00	.00	.00	.00	---	---	.00
31	.00	---	---	---	---	.00	---	.00	---	---	---	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	0.50	---	---	---
MEAN	.000	---	---	---	---	---	.000	.000	.017	---	---	---
MAX	.00	---	---	---	---	---	.00	.00	.29	---	---	---
MIN	.00	---	---	---	---	---	.00	.00	.00	---	---	---
AC-FT	.00	---	---	---	---	---	.00	.00	1.0	---	---	---
(†)	0.02	0.18	0.16	0.24	0.11	0.11	0.19	0.27	2.39	0.79	2.12	1.88

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329840 HAHN ARROYO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°07'33", long 106°35'23", in SE¼NE¼ sec.2, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, 860 ft below San Mateo Boulevard Bridge on right bank, 750 ft north of Comanche Road, and 2,050 ft south of Montgomery Boulevard in Albuquerque.

DRAINAGE AREA.--4.23 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1978 to current year (seasonal records).

GAGE.--Water-stage recorder and concrete-lined channel. Elevation of gage is 5,400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to 1992 at site on downstream side of San Mateo Boulevard Bridge, at different datum.

REMARKS.--Records fair. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment. Recording rain gage at station. Development within basin is predominantly residential, but there are some commercial areas. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft<sup>3</sup>/s, Aug. 14, 1980, gage height, 2.54 ft, from rating curve extended above 10 ft<sup>3</sup>/s on basis of step-forward analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 420 ft<sup>3</sup>/s, at 1700 hours June 28, gage height, 1.74 ft, from rating curve extended above 10 ft<sup>3</sup>/s on basis of step-forward analysis of channel; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.79	---	---	---	---	.00	.29	.77	2.9	---	.42
2	.00	.97	---	---	---	---	.00	.26	.00	3.9	---	.37
3	.00	.13	---	---	---	---	.00	.00	.00	.87	---	.52
4	.00	.03	---	---	---	---	.00	.00	.00	.41	1.3	1.5
5	.00	.00	---	---	---	---	.00	.00	.00	.37	.85	1.1
6	.00	.00	---	---	---	---	.57	.00	.00	.24	.36	4.2
7	.00	.00	---	---	---	---	.05	.00	.00	2.4	.88	2.9
8	.00	.00	---	---	---	---	.00	.00	.00	2.4	3.1	1.1
9	.08	.00	---	---	---	---	.00	.00	.00	8.2	1.7	1.0
10	.00	.88	---	---	---	---	.00	.00	.00	4.4	.99	.51
11	.00	.56	---	---	---	---	.65	.00	2.9	1.5	1.4	.00
12	.00	.00	---	---	---	---	.56	.00	3.1	.64	1.0	---
13	.00	.00	---	---	---	.00	.53	.00	4.1	.02	.50	.82
14	.00	.00	---	---	---	.00	.78	.00	8.2	.15	.40	18
15	.00	.00	---	---	---	.00	.00	.00	.27	.90	1.0	1.6
16	.00	.00	---	---	---	.01	.60	.00	.55	3.9	.65	.71
17	.00	.00	---	---	---	.01	.00	.00	.40	.62	.39	7.9
18	.00	.00	---	---	---	.04	.00	.00	.23	2.7	.23	10
19	.00	.00	---	---	---	.06	.00	.00	.35	.72	.81	1.4
20	.09	.00	---	---	---	.26	.54	.00	.42	.16	4.3	.41
21	.00	.00	---	---	---	.06	.49	.00	.82	.15	2.3	.27
22	.00	.00	---	---	---	.32	.87	.00	.32	.45	14	.27
23	.13	.00	---	---	---	.14	.81	.00	1.0	.00	13	.61
24	.00	.00	---	---	---	.42	.00	.00	1.2	---	5.5	.52
25	.00	.00	---	---	---	.76	.00	.00	.47	---	11	.59
26	.00	.03	---	---	---	.00	.00	4.1	30	---	15	3.1
27	.00	.00	---	---	---	.00	.39	.87	9.2	---	.00	.29
28	.00	.00	---	---	---	.00	.74	1.3	15	---	.58	.05
29	.00	---	---	---	---	.00	.00	1.6	3.8	---	8.3	.06
30	.00	---	---	---	---	.00	.54	.86	2.8	---	1.1	.40
31	.01	---	---	---	---	.00	---	1.5	---	---	.47	---
TOTAL	0.31	---	---	---	---	---	8.12	10.78	85.90	---	---	---
MEAN	.010	---	---	---	---	---	.27	.35	2.86	---	---	---
MAX	.13	---	---	---	---	---	.87	4.1	30	---	---	---
MIN	.00	---	---	---	---	---	.00	.00	.00	---	---	---
AC-FT	.6	---	---	---	---	---	.16	.21	170	---	---	---
(†)	0.00	0.11	0.10	0.28	0.19	0.02	0.00	0.04	1.94	0.80	1.56	2.12

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329860 GRANT LINE ARROYO AT VILLA DEL OSO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°08'04", long 106°34'16", in SE¼SE¼ sec.36, T.11 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank of rock-lined channel, and 60 ft west of northwest corner of apartment parking lot at 4215 Louisiana Boulevard NE in Albuquerque.

DRAINAGE AREA.--0.052 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1976 to current year (seasonal records).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5,300 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Recording rain gage at station. Development within basin is predominantly residential. See tabulation below for monthly precipitation in inches. No flow most of time.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13 ft<sup>3</sup>/s, Aug. 13, 1993, gage height, 1.76 ft, from rating curve extended above 5.0 ft<sup>3</sup>/s on basis of slope-area measurements at gage height 2.08; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 14 ft<sup>3</sup>/s, at 1935 hours Sept. 17, gage height, 1.78 ft. No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	.01	---	---	---	---	.00	.00	.00	.01	.00	.00
3	.00	.00	---	---	---	---	.00	.00	.00	.00	---	.00
4	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.01
7	.00	.00	---	---	---	---	.00	.00	.00	.01	.00	.00
8	.00	.00	---	---	---	---	.00	.00	.00	.01	.01	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.01	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	.02	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.01
13	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.31
15	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.20
18	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.11
19	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	---	---	---	.00	.00	.00	.00	.00	.01	.00
21	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	---	---	---	.00	.00	.00	.00	.00	.16	.00
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	.10	.00
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	.13	.00
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	.15	.00
26	.00	.00	---	---	---	.00	.00	.00	.23	.00	.18	.01
27	.00	.00	---	---	---	.00	.00	.00	.04	.00	.00	.00
28	.00	.00	---	---	---	.00	.00	.00	.02	.00	---	.00
29	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	0.29	0.06	---	0.65
MEAN	.000	---	---	---	---	---	.000	.000	.010	.002	---	.022
MAX	.00	---	---	---	---	---	.00	.00	.23	.02	---	.31
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
AC-FT	.00	---	---	---	---	---	.00	.00	.6	.1	---	1.3
(†)	---	---	---	---	---	0.00	0.00	0.00	0.14	0.47	1.35	1.23

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329872 PINO ARROYO AT VENTURA BOULEVARD AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°08'40", Long 106°32'50", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on left bank in Tanoan Country Club, and 30 ft upstream from Ventura Boulevard in Albuquerque.

DRAINAGE AREA.--5.40 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1990 to current year (seasonal records).

GAGE.--Water-stage recorder. Elevation of gage is 5,490 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 126 ft<sup>3</sup>/s, July 23, 1992, gage height, 1.98 ft, from rating curve extended above 12 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; no flow part of many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 53 ft<sup>3</sup>/s, at 1645 hours Sept. 14, gage height, 1.50 ft, from rating curve extended above 12 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; no flow part of many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.00	---	---	---	---	.44	.40	.73	---	.44	.20
2	.02	.01	---	---	---	---	.41	.30	.62	---	.33	.26
3	.02	.00	---	---	---	---	.42	.20	.71	---	.76	.27
4	.01	.00	---	---	---	---	.40	.17	.75	---	.30	.34
5	.01	.00	---	---	---	---	.68	.21	.95	---	.34	.27
6	.03	.00	---	---	---	---	.52	.23	.40	---	.27	.23
7	.02	.00	---	---	---	---	.58	.24	.40	---	.32	.23
8	.00	.04	---	---	---	---	.46	.28	.39	---	.61	.22
9	.03	.02	---	---	---	---	.17	.45	.41	---	.39	.24
10	.01	.01	---	---	---	---	.16	.35	.49	---	.26	.37
11	.01	.00	---	---	---	---	.19	.39	.67	---	.21	.27
12	.01	.01	---	---	---	---	.16	.34	.56	---	.24	.45
13	.01	.02	---	---	---	.13	.27	.28	.53	---	.25	.17
14	.01	.02	---	---	---	.60	.21	.23	1.3	---	.22	4.7
15	.01	.01	---	---	---	.64	.20	.26	.64	---	.22	6.1
16	.03	1.6	---	---	---	.23	.31	.33	.53	---	.33	1.5
17	.04	.18	---	---	---	.21	.44	.32	.43	---	.25	1.6
18	.05	.01	---	---	---	.23	.81	.42	.52	---	.20	2.1
19	.03	.00	---	---	---	.19	.84	.49	.50	---	.15	.26
20	.01	.02	---	---	---	.34	.73	.43	.40	---	.15	---
21	.00	.02	---	---	---	.34	.40	.36	---	---	.36	---
22	.00	.07	---	---	---	.24	.40	.52	---	---	3.0	---
23	.03	.00	---	---	---	.26	.40	.43	---	---	2.8	---
24	.03	.01	---	---	---	.27	.40	.33	---	---	.39	---
25	.04	.01	---	---	---	.25	.40	.40	---	---	.17	.07
26	.02	.01	---	---	---	.23	.40	.35	---	---	.20	.40
27	.02	.01	---	---	---	.17	.40	.32	---	---	.16	.18
28	.00	.03	---	---	---	.21	.40	.40	---	---	.35	.18
29	.01	---	---	---	---	.33	.40	.38	---	---	1.2	.14
30	.01	---	---	---	---	.33	.40	.55	---	---	.22	.18
31	.01	---	---	---	---	.35	---	.63	---	---	.30	---
TOTAL	0.55	---	---	---	---	---	12.40	10.99	---	---	15.39	---
MEAN	.018	---	---	---	---	---	.41	.35	---	---	.50	---
MAX	.05	---	---	---	---	---	.84	.63	---	---	3.0	---
MIN	.00	---	---	---	---	---	.16	.17	---	---	.15	---
AC-FT	1.1	---	---	---	---	---	.25	.22	---	---	.31	---

## RIO GRANDE BASIN

08329873 HOFFMANTOWN CHURCH OUTLET NO. 1 AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°08'50", long 106°33'00", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on right bank at drainage outlet of east parking lot of Hoffmantown Baptist Church, at northern boundary of Albuquerque Academy and 0.1 mi downstream from Ventura Boulevard. in Albuquerque.

DRAINAGE AREA.--.00859 mi<sup>2</sup>

PERIOD OF RECORD.--August 1990 to current year (seasonal records).

GAGE.--Water-stage recorder and Palmer-Bowlus flume. Elevation of gage is 5,490 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18 ft<sup>3</sup>/s, Aug. 1, 1993, gage height, 1.86 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 0.13 ft<sup>3</sup>/s, at 2400 hours June 26, gage height, 1.42 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	.00	.00	.03	.00	.04
2	.00	.00	---	---	---	---	.00	.00	.00	.02	.00	.03
3	.00	.00	---	---	---	---	.00	.00	.00	.01	.00	.01
4	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.01
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.01
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.01
7	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.02	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	.02	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.03	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.01	.00	.02
13	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.01
14	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.04
15	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.07
16	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.06
17	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.05
18	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.08
19	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.09
20	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.08
21	.00	.00	---	---	---	.00	.00	.00	.00	.00	.01	.06
22	.00	.00	---	---	---	.00	.00	.00	.00	.00	.05	.05
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	.08	.04
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	.08	.03
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	.07	.03
26	.00	.00	---	---	---	.00	.00	.00	.03	.00	.09	.03
27	.00	.00	---	---	---	.00	.00	.00	.09	.00	.08	.03
28	.00	.00	---	---	---	.00	.00	.00	.08	.00	.07	.01
29	.00	---	---	---	---	.00	.00	.00	.06	.00	.07	.01
30	.00	---	---	---	---	.00	.00	.00	.04	.00	.06	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.05	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	0.30	0.14	0.71	0.90
MEAN	.000	---	---	---	---	---	.000	.000	.010	.005	.023	.030
MAX	.00	---	---	---	---	---	.00	.00	.09	.03	.09	.09
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.00	---	---	---	---	---	.00	.00	.6	.3	1.4	1.8

## RIO GRANDE BASIN

08329874 HOFFMANTOWN CHURCH OUTLET NO. 2 AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°08'50", long 106°33'10", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on right bank at drainage outlet of west parking lot of Hoffmantown Baptist Church, and at northern boundary of Albuquerque Academy and 0.3 mi south of Harper Boulevard. in Albuquerque.

DRAINAGE AREA.--.0413 mi<sup>2</sup>

PERIOD OF RECORD.--August 1990 to current year (seasonal records).

GAGE.--Water-stage recorder and concrete-lined channel. Elevation of gage is 5,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46 ft<sup>3</sup>/s, Aug. 1, 1993, gage height, 3.18 ft, from rating curve extended above 7.0 ft<sup>3</sup>/s on basis of theoreteral rating for open box culvert; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 38 ft<sup>3</sup>/s, at 1135 hours June 26, gage height, 3.02 ft, from rating curve extended above 7.0 ft<sup>3</sup>/s on basis of theoreteral rating for open box culvert; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	---	---	---	---	.00	.00	.00	.00	.10	.00
4	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	---	---	---	---	.00	.00	.00	.10	.02	.00
8	.00	.00	---	---	---	---	.00	.00	.00	.23	.00	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.35	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	.34	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.19	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.10	.00	.23
13	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.12
14	.00	.00	---	---	---	.00	.00	.00	.13	.00	.00	.80
15	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.12
16	.00	.00	---	---	---	.00	.00	.00	.00	.09	.00	.00
17	.00	.00	---	---	---	.00	.00	.00	.00	.19	.00	.30
18	.00	.00	---	---	---	.00	.00	.00	.00	.27	.00	.45
19	.00	.00	---	---	---	.00	.00	.00	.00	.19	.00	.13
20	.00	.00	---	---	---	.00	.00	.00	.00	.03	.26	.00
21	.00	.00	---	---	---	.00	.00	.00	.00	.00	.07	.00
22	.00	.00	---	---	---	.00	.00	.00	.00	.00	.40	.00
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	.33	.00
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	.20	.00
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	.15	.00
26	.00	.00	---	---	---	.00	.00	.00	1.1	.00	.34	.21
27	.00	.00	---	---	---	.00	.00	.00	.35	.00	---	.00
28	.00	.00	---	---	---	.00	.00	.00	.45	.00	---	.00
29	.00	---	---	---	---	.00	.00	.00	.21	.00	---	.00
30	.00	---	---	---	---	.00	.00	.00	.12	.00	---	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	---	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	2.36	2.08	---	2.36
MEAN	.000	---	---	---	---	---	.000	.000	.079	.067	---	.079
MAX	.00	---	---	---	---	---	.00	.00	1.1	.35	---	.80
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
AC-FT	.00	---	---	---	---	---	.00	.00	4.7	4.1	---	4.7
(†)	0.00	0.12	0.13	0.31	0.19	0.06	0.00	0.01	2.49	0.86	2.87	2.01

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329875 CHERRY HILLS ARROYO NO. 1 AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°08'50", long 106°33'10", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on left bank, on grounds of the Albuquerque Academy, and 300 ft downstream from Harper Road in Albuquerque.

DRAINAGE AREA.--.0147 mi<sup>2</sup>

PERIOD OF RECORD.--August 1990 to current year (seasonal records).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17 ft<sup>3</sup>/s, Aug. 2, 1994, gage height, 3.99 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 9.5 ft<sup>3</sup>/s, at 1255 hours June 26, gage height, 3.35 ft; no flow most of the time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	---	---	---	---	.00	.00	.00	.00	.01	.00
4	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	---	---	---	---	.00	.00	.00	.01	.00	.00
8	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.02	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	.04	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.18
15	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.06
18	.00	.00	---	---	---	.00	.00	.00	.00	.01	.00	.03
19	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	---	---	---	.00	.00	.00	.00	.00	.05	.00
21	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	---	---	---	.00	.00	.00	.00	.00	.06	.00
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	.06	.00
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	.01	.00
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	.03	.00
26	.00	.00	---	---	---	.00	.00	.00	.27	.00	---	.00
27	.00	.00	---	---	---	.00	.00	.00	---	.00	---	.00
28	.00	.00	---	---	---	.00	.00	.00	---	.00	---	.00
29	.00	---	---	---	---	.00	.00	.00	.00	.00	---	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	---	0.08	---	0.27
MEAN	.000	---	---	---	---	---	.000	.000	---	.003	---	.009
MAX	.00	---	---	---	---	---	.00	.00	---	.04	---	.18
MIN	.00	---	---	---	---	---	.00	.00	---	.00	---	.00
AC-FT	.00	---	---	---	---	---	.00	.00	---	.2	---	.5

## RIO GRANDE BASIN

08329876 CHERRY HILLS ARROYO NO. 2 AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°08'50", long 106°33'20", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on right bank, on grounds of the Albuquerque Academy, and 390 ft downstream from Harper Road in Albuquerque.

DRAINAGE AREA.--.0796 mi<sup>2</sup>

PERIOD OF RECORD.--August 1990 to current year (seasonal records).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21 ft<sup>3</sup>/s, Sept. 22, 1990, gage height, 1.85 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 8.9 ft<sup>3</sup>/s, at 1130 hours June 26, gage height, 1.07 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	.02	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	---	---	---	.00	.00	.00	---	.00	.00	.11
15	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.03
19	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	---	---	---	.00	.00	.00	.20	.00	.00	.00
27	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	---	---	---	.00	.00	.00	.03	.00	.00	.00
29	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	---	0.02	0.00	0.14
MEAN	.000	---	---	---	---	---	.000	.000	---	.001	.000	.005
MAX	.00	---	---	---	---	---	.00	.00	---	.02	.00	.11
MIN	.00	---	---	---	---	---	.00	.00	---	.00	.00	.00
AC-FT	.00	---	---	---	---	---	.00	.00	---	.04	.00	.3



## RIO GRANDE BASIN

08329877 PINO ARROYO AT WYOMING BOULEVARD AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°09'25", long 106°33'29", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on the grounds of the Albuquerque Academy, on left bank, and 560 ft upstream from Wyoming Boulevard in Albuquerque.

DRAINAGE AREA.--5.80 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1990 to current year (seasonal records).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5,540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120 ft<sup>3</sup>/s, Aug. 28, 1994, gage height, 2.14 ft, from floodmarks; no flow part of many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 104 ft<sup>3</sup>/s, at 1735 hours June 28, gage height, 1.78 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	2.0
15	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	---	---	---	.00	.00	.00	.84	.00	.00	.00
27	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	---	---	---	.00	.00	.00	1.0	.00	.00	.00
29	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	1.84	0.00	0.00	2.00
MEAN	.000	---	---	---	---	---	.000	.000	.061	.000	.000	.067
MAX	.00	---	---	---	---	---	.00	.00	1.0	.00	.00	2.0
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.00	---	---	---	---	---	.00	.00	3.6	.00	.00	4.0

## RIO GRANDE BASIN

08329880 ACADEMY ACRES DRAIN AT ALBUQUERQUE, NM

LOCATION.--Lat 35°09'02", long 106°34'18", in NE¼ sec.25, T.11 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank of concrete-lined channel, 250 ft north of intersection of Esther Avenue and Burlison Drive, and 0.4 mi north of Academy Road in Albuquerque.

DRAINAGE AREA.--0.124 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1976 to current year (seasonal records).

GAGE.--Water-stage recorder and V-notch weir. Elevation of gage is 5,310 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. Recording rain gage at station. The basin is primarily urban residential. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment. See tabulation below for monthly precipitation in inches. No flow most of time.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103 ft<sup>3</sup>/s, Aug. 3, 1978, gage height, 4.09 ft, from rating curve extended above 10 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; no flow most time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 22 ft<sup>3</sup>/s, at 1145 hours June 26, gage height, 2.92 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.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
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	---	---	---	---	.00	.00	.00	.05	.11	.00
8	.00	.00	---	---	---	---	.00	.00	.00	.01	.01	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.10	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	.16	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.03
13	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	.00	---	---	---	---	.00	.00	.01	.00	.00	.73
15	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.34
18	.00	.00	---	---	---	.00	.00	.00	.00	.01	.00	.14
19	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	---	---	---	.00	.00	.00	.00	.00	.01	.00
21	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	---	---	---	.00	.00	.00	.00	.00	.31	.00
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	.17	.00
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	.13	.00
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	.19	.00
26	.00	.00	---	---	---	.00	.00	.00	1.1	.00	.28	.01
27	.00	.00	---	---	---	.00	.00	.00	.14	.00	.00	.00
28	.00	.00	---	---	---	.00	.00	.00	.06	.00	---	.00
29	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	1.31	0.33	---	1.25
MEAN	.000	---	---	---	---	---	.000	.000	.044	.011	---	.042
MAX	.00	---	---	---	---	---	.00	.00	1.1	.16	---	.73
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
AC-FT	.00	---	---	---	---	---	.00	.00	2.6	.7	---	2.5
(†)	0.01	0.15	0.12	0.34	0.09	0.02	0.00	0.01	1.99	0.98	2.81	2.17

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

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 upstream from Edith Boulevard, 1.1 mi upstream from mouth, and 1.2 mi northeast of Alameda.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1968 to current year (no winter records in water years 1969-89).

GAGE.--Water-stage recorder and concrete-lined channel. Elevation of gage is 5,015 ft above National Geodetic Vertical Datum of 1929, from U.S. Army Corps of Engineers plan and profile map.

REMARKS.--Records poor except for estimated daily discharges, which are poor. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment. Floodway channel intercepts flow of numerous arroyos in northeast Albuquerque and discharges into the Rio Grande at a point 1.6 mi north of Alameda. No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	58	e.00	e.00	.00	.00	.00	e.00	e.00	.00
2	.00	17	.00	.00	e.00	e.00	.00	e.00	.00	e.00	e.00	.00
3	e.00	.00	.00	.00	e.00	e.00	.00	e.00	.00	e.00	e15	.00
4	e.00	.00	.00	e.00	e.00	e.00	e.00	e.00	.00	e.00	e.00	.00
5	e.00	.00	.00	.00	e.00	e.00	.00	e.00	e.00	e.00	e.00	e.00
6	e.00	.00	.00	e.00	e.00	e.00	.00	e.00	e.00	e.00	e.00	e.00
7	e.00	.00	11	.00	e.00	e.00	.00	e.00	.00	e18	e100	e.00
8	e.00	.00	11	e.00	e.00	e.00	.00	e.00	e.00	e.00	e.00	.00
9	e.00	.00	.00	e.00	e.00	e.00	.00	e.00	e.00	e40	e.00	.00
10	e.00	.00	.00	e.00	e.00	e.00	e.00	e.00	e.00	e166	e20	.00
11	e.00	.00	.00	e.00	.00	e.00	e.00	e.00	e.00	e30	46	e.00
12	e.00	.00	.00	e.00	.00	e.00	.00	e.00	e.00	e.00	e.00	e.00
13	e.00	.00	.00	e.00	.00	e.00	.00	e.00	e.00	e.00	.00	e.00
14	e.00	.00	.00	e.00	.00	e.00	.00	e.00	e.00	e.00	.00	e.00
15	e.00	.00	.00	e.00	.00	e.00	.00	e.00	e40	e.00	.00	e300
16	e.00	.00	.00	e.00	.00	e.00	.00	e.00	e.00	e10	.00	e20
17	e.00	.00	.00	e.00	.00	e.00	.00	e.00	e.00	e40	e.00	e213
18	e.00	.00	.00	e.00	.00	e.00	.00	e.00	e.00	e30	15	e.00
19	e.00	.00	.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00
20	e.00	e.00	.00	e.00	e.00	e.00	.00	e.00	e.00	e.00	e50	e.00
21	e.00	e.00	.00	e.00	82	e.00	.00	e.00	e.00	e.00	25	e.00
22	e.00	e.00	e.00	e.00	.00	e.00	.00	e.00	e.00	e.00	91	e.00
23	e.00	e.00	e.00	e.00	.00	e.00	.00	e.00	e.00	e.00	e120	e.00
24	e.00	e.00	e.00	e.00	.00	e.00	.00	e.00	e.00	e.00	6.5	e.00
25	e.00	e.00	e.00	e.00	.00	e.00	.00	e.00	e.00	e.00	.00	e.00
26	e.00	e.00	e.00	e.00	.00	e.00	.00	e.00	e350	e.00	e700	e20
27	e.00	e.00	e.00	e.00	e.00	.00	.00	e.00	186	e.00	105	e.00
28	e.00	e.00	e.00	e.00	e.00	.00	.00	e.00	222	e.00	.00	e.00
29	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e20	e.00	e220	e.00
30	e.00	e.00	.00	e.00	---	e.00	e.00	.00	e10	e.00	e.00	e.00
31	.00	---	.00	e.00	---	.00	---	.00	---	e.00	.00	---
TOTAL	0.00	17.00	22.00	58.00	82.00	0.00	0.00	0.00	828.00	354.00	1513.50	553.00
MEAN	.000	.57	.71	1.87	2.83	.000	.000	.000	27.6	11.4	48.8	18.4
MAX	.00	17	11	58	82	.00	.00	.00	350	166	700	300
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	34	44	115	163	.00	.00	.00	1640	702	3000	1100

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	10.3	6.27	4.56	7.34	3.23	4.34	5.27	8.03	7.42	19.6	24.4	13.2																	
MAX	38.1	24.5	28.5	39.9	19.7	14.0	28.4	41.2	36.1	75.0	53.4	40.1																	
(WY)	1985	1995	1994	1995	1993	1973	1988	1994	1988	1991	1994	1991																	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.78	.82	.73																	
(WY)	1976	1970	1973	1969	1969	1969	1978	1974	1975	1980	1989	1968																	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1968 - 1996

ANNUAL TOTAL	3380.04	3427.50	
ANNUAL MEAN	9.26	9.36	10.4
HIGHEST ANNUAL MEAN			21.6
LOWEST ANNUAL MEAN			3.12
HIGHEST DAILY MEAN	800	Jan 6	1060
LOWEST DAILY MEAN	.00	Jan 1	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 9	.00
INSTANTANEOUS PEAK FLOW			7700
INSTANTANEOUS PEAK STAGE			8.20
ANNUAL RUNOFF (AC-FT)	6700		7520
10 PERCENT EXCEEDS	12		20
50 PERCENT EXCEEDS	.00		.00
90 PERCENT EXCEEDS	.00		.00

e Estimated

a-From rating curve extended above 2,900 ft<sup>3</sup>/s.

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982-83, 1991 to current year.

REMARKS.--Selected composite samples were collected with an automatic peristaltic pump sampler that was activated whenever the flow stage exceeded 1.5 feet. Samples were pumped into a refrigerated chamber, manually retrieved within 12 hours, and expeditiously processed for delivery to the analytical laboratories. An automatic water-quality minimonitor recorder was used to obtain maximum, minimum, and mean daily values of water temperature and specific conductance of flow in the channel.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
JUN 1996					
26...	1240	1610	380	136	591
26...	1255	1690	348	2840	13000
26...	1310	1480	331	2480	9910
26...	1325	800	315	1540	3330
26...	1340	505	320	1430	1950
26...	1355	300	304	1240	1000
26...	1415	252	276	910	619
26...	1435	252	271	784	533
26...	1450	252	262	668	455
JUL					
10...	2030	848	220	3810	8720
10...	2045	860	225	3330	7730
10...	2100	1610	192	182	791
10...	2115	1730	186	1200	5610
10...	2130	1580	189	1010	4310
10...	2145	1400	200	996	3760
10...	2200	1180	205	949	3020
10...	2215	836	218	756	1710
10...	2240	710	216	727	1390
SEP					
17...	1955	680	168	557	1020
17...	2010	1530	192	887	3660
17...	2025	2130	175	1050	6040
17...	2040	1950	191	1010	5320
17...	2055	1860	197	1300	6530
17...	2110	1450	181	876	3430
17...	2125	1140	176	605	1860
17...	2140	1000	184	527	1420

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
FROM AUTOMATIC WATER-QUALITY MINIMONITOR RECORDER

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				MARCH			APRIL			MAY		
1	202	183	195	---	---	---	---	---	---	---	---	---
2	221	201	211	---	---	---	---	---	---	---	---	---
3	228	213	220	---	---	---	---	---	---	---	---	---
4	551	218	318	---	---	---	---	---	---	897	572	699
5	554	454	483	---	---	---	---	---	---	>999	769	887
6	---	---	---	---	---	---	---	---	---	870	702	781
7	---	---	---	---	---	---	---	---	---	894	670	776
8	---	---	---	---	---	---	---	---	---	929	766	851
9	---	---	---	---	---	---	---	---	---	958	766	835
10	---	---	---	---	---	---	---	---	---	976	610	726
11	---	---	---	---	---	---	---	---	---	759	608	690
12	---	---	---	---	---	---	---	---	---	753	641	706
13	---	---	---	---	---	---	---	---	---	922	738	815
14	---	---	---	---	---	---	---	---	---	>999	858	945
15	---	---	---	---	---	---	---	---	---	>999	790	928
16	---	---	---	---	---	---	---	---	---	>999	730	854
17	---	---	---	---	---	---	---	---	---	>999	882	975
18	---	---	---	---	---	---	---	---	---	>999	887	977
19	---	---	---	---	---	---	---	---	---	>999	>999	>999
20	---	---	---	---	---	---	---	---	---	>999	>999	>999
21	---	---	---	---	---	---	---	---	---	>999	>999	>999
22	---	---	---	---	---	---	---	---	---	>999	>999	>999
23	---	---	---	---	---	---	---	---	---	>999	>999	>999
24	---	---	---	---	---	---	---	---	---	>999	965	>999
25	---	---	---	---	---	---	---	---	---	>999	858	999
26	---	---	---	---	---	---	---	---	---	>999	607	826
27	---	---	---	---	---	---	---	---	---	726	638	687
28	---	---	---	---	---	---	---	---	---	>999	719	798
29	---	---	---	---	---	---	---	---	---	>999	881	960
30	---	---	---	---	---	---	---	---	---	>999	754	907
31	---	---	---	---	---	---	---	---	---	928	646	806
MONTH DAY	554 MAX	183 MIN	285 MEAN	---	---	---	---	---	---	>999 MAX	572 MIN	872 MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	783	661	720	266	131	194	>999	895	962	234	201	218
2	>999	764	953	368	129	312	>999	>999	>999	262	231	248
3	903	692	823	367	129	239	>999	531	955	303	260	285
4	840	644	745	510	367	461	531	449	475	335	302	321
5	830	588	725	831	477	625	550	449	499	361	333	347
6	772	636	702	>999	778	875	607	526	565	391	188	373
7	>999	735	947	>999	132	890	628	314	553	212	187	203
8	>999	>999	>999	246	119	207	314	282	292	230	210	220
9	>999	>999	>999	313	88	168	313	291	304	245	226	235
10	>999	>999	>999	278	72	171	424	303	363	268	242	255
11	>999	>999	>999	172	80	134	495	419	460	301	264	285
12	>999	>999	>999	271	172	220	647	442	542	330	273	299
13	>999	>999	>999	371	271	332	626	555	584	329	271	290
14	>999	325	627	423	325	387	981	535	704	272	78	140
15	518	335	408	455	158	370	>999	915	983	107	70	90
16	665	456	543	274	142	218	>999	485	933	131	103	115
17	614	559	590	389	102	201	>999	610	867	173	52	134
18	688	608	651	331	113	202	>999	>999	>999	97	56	74
19	851	688	738	610	237	422	>999	>999	>999	130	62	103
20	938	763	809	701	481	629	>999	>999	>999	178	126	151
21	>999	811	952	>999	681	895	>999	845	912	195	175	184
22	>999	>999	>999	>999	833	948	894	57	256	229	189	212
23	>999	872	954	>933	720	865	174	67	101	255	226	241
24	>999	848	951	>999	761	938	172	88	131	273	254	264
25	>999	999	>999	>999	906	982	211	73	159	287	263	277
26	>999	68	570	>999	971	996	150	53	76	277	166	193
27	152	72	109	>999	970	991	338	141	228	235	171	190
28	149	64	111	>999	883	978	664	315	486	203	179	187
29	202	106	155	981	252	719	657	59	128	202	191	195
30	226	85	169	746	433	659	156	89	133	732	194	339
31	---	---	---	964	739	860	201	156	179	---	---	---
MONTH YEAR	>999 <999	64 52	731 570	>999	72	551	>999	53	543	732	52	222

&gt; Actual value is known to be greater than the value shown

RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG. C) WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
FROM AUTOMATIC WATER-QUALITY MINIMONITOR RECORDER

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				MARCH			APRIL			MAY		
1	23.8	11.2	16.8	---	---	---	---	---	---	---	---	---
2	25.0	11.3	16.9	---	---	---	---	---	---	---	---	---
3	23.1	10.2	15.9	---	---	---	---	---	---	---	---	---
4	19.9	6.5	13.0	---	---	---	---	---	---	35.0	8.4	17.4
5	16.5	4.4	12.1	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	30.8	7.0	16.9
7	---	---	---	---	---	---	---	---	---	27.8	8.2	15.9
8	---	---	---	---	---	---	---	---	---	28.1	6.0	16.7
9	---	---	---	---	---	---	---	---	---	29.2	9.8	18.0
10	---	---	---	---	---	---	---	---	---	35.0	6.8	18.5
11	---	---	---	---	---	---	---	---	---	27.5	6.8	16.2
12	---	---	---	---	---	---	---	---	---	32.5	5.3	17.8
13	---	---	---	---	---	---	---	---	---	26.1	7.2	16.1
14	---	---	---	---	---	---	---	---	---	27.5	7.5	17.1
15	---	---	---	---	---	---	---	---	---	29.4	6.8	18.9
16	---	---	---	---	---	---	---	---	---	34.9	13.0	22.1
17	---	---	---	---	---	---	---	---	---	29.4	7.9	18.7
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	28.8	13.3	22.2
20	---	---	---	---	---	---	---	---	---	29.7	8.6	17.7
21	---	---	---	---	---	---	---	---	---	29.0	10.0	17.4
22	---	---	---	---	---	---	---	---	---	31.5	12.5	19.7
23	---	---	---	---	---	---	---	---	---	30.0	6.3	19.2
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	29.6	13.7	19.1
29	---	---	---	---	---	---	---	---	---	29.0	9.8	18.6
30	---	---	---	---	---	---	---	---	---	30.0	11.2	18.8
31	---	---	---	---	---	---	---	---	---	27.0	10.3	18.5
MONTH DAY	25.0 MAX	4.4 MIN	14.9 MEAN	---	---	---	---	---	---	35.0 MAX	5.3 MIN	18.2 MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	30.0	11.8	19.7	31.7	23.1	29.6	---	---	---	---	---	---
2	29.1	11.4	20.1	29.3	22.1	27.8	---	---	---	---	---	---
3	33.6	10.4	20.7	---	---	---	---	---	---	---	---	---
4	34.0	10.4	23.0	---	---	---	---	---	---	---	---	---
5	33.3	15.7	23.2	30.1	20.4	28.5	---	---	---	---	---	---
6	30.0	12.1	21.1	38.4	17.8	24.4	---	---	---	---	---	---
7	28.7	11.0	21.9	36.9	18.7	26.8	---	---	---	---	---	---
8	30.0	13.7	21.2	30.4	14.1	25.3	---	---	---	---	---	---
9	28.1	13.0	22.4	32.2	20.2	25.4	---	---	---	---	---	---
10	28.1	11.4	21.5	---	---	---	---	---	---	---	---	---
11	27.8	14.1	23.2	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	20.9	14.8	16.2
13	---	---	---	---	---	---	---	---	---	19.9	12.0	17.9
14	26.8	15.0	20.9	---	---	---	---	---	---	19.9	12.0	16.9
15	32.5	12.5	22.2	---	---	---	---	---	---	24.0	14.2	17.5
16	35.0	10.8	21.0	---	---	---	---	---	---	24.4	10.9	17.4
17	---	---	---	---	---	---	---	---	---	25.0	10.7	18.3
18	---	---	---	---	---	---	---	---	---	16.4	14.0	15.5
19	---	---	---	---	---	---	---	---	---	22.4	9.3	15.5
20	---	---	---	38.5	17.5	25.1	---	---	---	22.4	10.9	15.7
21	---	---	---	32.6	15.0	24.9	---	---	---	24.3	10.6	16.5
22	---	---	---	27.5	20.7	26.4	---	---	---	20.6	12.0	16.5
23	---	---	---	34.7	17.6	26.3	---	---	---	23.1	10.7	18.4
24	---	---	---	34.6	17.0	22.2	---	---	---	20.9	14.7	18.0
25	27.8	18.9	23.9	32.8	18.7	23.8	---	---	---	21.3	12.7	16.7
26	24.4	19.6	22.7	32.5	13.5	22.4	---	---	---	20.0	14.0	16.6
27	---	---	---	32.0	17.7	22.7	---	---	---	18.2	11.6	14.2
28	---	---	---	29.7	13.7	23.8	---	---	---	18.6	7.0	14.3
29	---	---	---	32.5	15.1	26.3	---	---	---	19.8	7.6	13.7
30	---	---	---	---	---	---	---	---	---	18.9	12.2	16.6
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH YEAR	35.0 38.5	10.4 4.4	21.8 19.9	38.5	13.5	25.4	---	---	---	25.0	7.0	16.4

## RIO GRANDE BASIN

08329914 NORTH CAMINO ARROYO TRIBUTARY AT ALBUQUERQUE, NM

LOCATION.--Lat 35°11'47", long 106°33'57", Bernalillo County, Hydrologic Unit 13020203, in Elena Gallegos Grant, on left bank in right-of-way for extension of Wyoming Boulevard, 150 ft south of Venice Avenue, 15 ft north of Beverly Hills Avenue, and 1.5 mi north of intersection of Paseo del Norte and Wyoming Boulevard in Albuquerque.

DRAINAGE AREA.--0.06 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1979 to current year (seasonal records).

GAGE.--Water-stage recorder. Elevation of gage is 5,360 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Recording rain gage at station. The basin is totally undeveloped. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 134 ft<sup>3</sup>/s, July 7, 1981, gage height, 2.10 ft, from slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 80 ft<sup>3</sup>/s, at 0005 hours July 18, gage height, 1.72 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.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	.00
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	---	---	---	---	.00	.00	.00	6.2	.20	.00
8	.00	.00	---	---	---	---	.00	.00	.00	1.7	2.2	.00
9	.00	.00	---	---	---	---	.00	.00	.00	6.6	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	9.8	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.55	.00	.00
12	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	4.3
13	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	---	---	---	.00	.00	.00	1.7	.00	.00	30
15	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	.00	.00	.00	.00	1.9	.00	12
18	.00	.00	---	---	---	.00	.00	.00	.00	9.5	.00	28
19	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	11
20	.00	.00	---	---	---	.00	.00	.00	.00	.00	3.8	.00
21	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	---	---	---	.00	.00	.00	.00	.00	11	.00
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	18	.00
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	4.8	.00
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	1.8	.00
26	.00	.00	---	---	---	.00	.00	.00	16	.00	10	3.7
27	.00	.00	---	---	---	.00	.00	.00	11	.00	.00	.00
28	.00	.00	---	---	---	.00	.00	.00	9.7	.00	---	.00
29	.00	.00	---	---	---	.00	.00	.00	.00	1.9	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	38.40	38.15	---	89.00
MEAN	.000	---	---	---	---	---	.000	.000	1.28	1.23	---	2.97
MAX	.00	---	---	---	---	---	.00	.00	16	9.8	---	30
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
AC-FT	.00	---	---	---	---	---	.00	.00	76	76	---	177
(†)	0.01	0.20	0.23	0.30	0.48	0.13	0.01	0.00	3.31	2.85	1.32	3.77

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329935 ARROYO 19A AT ALBUQUERQUE, NM

LOCATION.--Lat 35°09'24", long 106°43'37", in NE1/4 sec.28, T.11 N., R.2 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 900 ft upstream from culvert under 81st Street, 1,200 ft south of city water tank, and 0.6 mi south of intersection of 81st Street and Atrisco Drive at Albuquerque.

DRAINAGE AREA.--1.50 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1977 to current year (seasonal records).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,330 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 19, 1986 at site 450 ft downstream at different datum.

REMARKS.--Records good. Recording rain gage at station. The basin drains undeveloped semidesert terrain above the escarpment west of Albuquerque. See tabulation below for monthly precipitation in inches. No flow most of time.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100 ft<sup>3</sup>/s, Oct. 2, 1981, gage height, 4.03 ft, site and datum then in use, from slope-area measurement of peak flow; no flow most time.

EXTREMES FOR CURRENT YEAR.--No flow during water year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
26	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
27	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	0.00	0.00	---	0.00
MEAN	.000	---	---	---	---	---	.000	.000	.000	.000	---	.000
MAX	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
AC-FT	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
(†)	0.00	0.10	0.04	0.27	0.07	0.05	0.00	0.05	1.27	0.70	1.07	1.47

(†) Total rainfall accumulation in inches.



## RIO GRANDE BASIN

08329936 TAYLOR RANCH DRAIN AT ALBUQUERQUE, NM

LOCATION.--Lat 35°08'56", Long 106°42'03", in SE¼SW¼ sec.26, T.11 N., R.2 E., Bernalillo County, Hydrologic Unit 13020203, on left bank of drainage outlet for Taylor Ranch subdivision, 120 ft west of intersection of Calle Nuestra and Cabrillo Circle, and 1,850 ft southwest of intersection of Montano Road and Valle Vista Drive in Albuquerque.

DRAINAGE AREA.--0.132 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1978 to current year (seasonal records).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Recording rain gage at station. The basin is primarily urban residential. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43 ft<sup>3</sup>/s, Sept. 8, 1980, gage height, 3.26 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 14 ft<sup>3</sup>/s, Sept. 14, at 1555 hours gage height, 2.09 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	---	---	---	---	.00	.00	.00	.00	.01	.00
4	.00	.00	---	---	---	---	.00	.00	.00	.00	.01	.00
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	---	---	---	---	.00	.00	.00	.06	.29	.00
8	.00	.00	---	---	---	---	.00	.00	.00	.00	.02	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.09	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.09
14	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.45
15	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	.00	.00	.00	.00	.16	.00	.17
18	.00	.00	---	---	---	.00	.00	.00	.00	.11	.00	.09
19	.00	.01	---	---	---	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	.01	.00
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
26	.00	.00	---	---	---	.00	.00	.00	.36	.00	---	.00
27	.00	.00	---	---	---	.00	.00	.00	.15	.00	.00	.00
28	.00	.00	---	---	---	.00	.00	.00	.04	.00	.00	.00
29	.00	.01	---	---	---	.00	.00	.00	.00	.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	0.55	0.42	---	0.80
MEAN	.000	---	---	---	---	---	.000	.000	.018	.014	---	.027
MAX	.00	---	---	---	---	---	.00	.00	.36	.16	---	.45
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
AC-FT	.00	---	---	---	---	---	.00	.00	1.1	.8	---	1.6
(†)	0.02	0.11	0.05	0.36	0.16	0.05	0.01	0.07	1.97	1.11	1.51	2.35

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329938 LADERA ARROYO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°06'59", long 106°43'59", in Town of Atrisco Land Grant, Bernalillo County, Hydrologic Unit 13020203, on left bank, 0.25 mi northwest of City of Albuquerque water storage tank, on dirt road extension of Ouray Road, and 2.3 mi west of North Coors Road in Albuquerque.

DRAINAGE AREA.--0.34 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1981 to current year (seasonal records).

GAGE.--Water-stage recorder. Elevation of gage is 5,220 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 5, 1986 at site 0.2 mi downstream at different datum.

REMARKS.--Records good. Recording rain gage at station. The basin is undeveloped semidesert terrain, part of which, is above the escarpment west of Albuquerque. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 182 ft<sup>3</sup>/s, Aug. 27, 1993, gage height, 4.11 ft, from step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 1.3 ft<sup>3</sup>/s, Sept. 14, at 1655 hours, gage height, 2.14 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	---	---	---	---	.00	.00	.00	.00	---	.00
4	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	---	---	---	---	.00	.00	.00	.00	---	.00
8	.00	.00	---	---	---	---	.00	.00	.00	.00	---	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.02
15	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.01
18	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
19	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
21	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
26	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
27	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
29	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
30	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	---	---	---	---	0.00	0.00	0.00	---	---	0.03
MEAN	.000	.000	---	---	---	---	.000	.000	.000	---	---	.001
MAX	.00	.00	---	---	---	---	.00	.00	.00	---	---	.02
MIN	.00	.00	---	---	---	---	.00	.00	.00	---	---	.00
AC-FT	.00	.00	---	---	---	---	.00	.00	.00	---	---	.06
(†)	0.00	0.05	0.07	0.24	0.12	0.05	0.00	0.32	1.58	0.89	0.78	0.60

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08330000 RIO GRANDE AT ALBUQUERQUE, NM

LOCATION.--Lat 35°05'21", long 106°40'48", Bernalillo County, Hydrologic Unit 13020203, in Atrisco Grant, on downstream side of Central Ave. Bridge in Albuquerque, and at mile 1,540.0.

DRAINAGE AREA.--17,440 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> 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 gage is 4,946.16 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 18, 1947, at various sites at datum about 2.00 ft higher; Sept. 15, 1982, to Sept. 20, 1983, at site 1.0 mi upstream at different datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 50 mi 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 upstream from station for irrigation of about 718,000 acres, several hundred of which are downstream from station. National Weather Service gage-height telemeter, and U.S. Army Corps of Engineers satellite telemeter at station.

COOPERATION.--Records for Albuquerque Riverside drain and Arenal, Armijo, and Atrisco canals provided by Middle Rio Grande Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	700	1140	1080	1190	1380	1170	482	398	681	801	523	e465
2	776	1060	1120	1150	1410	1460	504	415	672	468	459	e460
3	731	1120	1120	1190	1380	1550	445	436	669	432	454	e455
4	648	e1140	1130	1270	1390	1540	e425	449	670	304	490	466
5	618	1350	1120	1210	1410	1390	e410	433	683	224	503	454
6	636	1240	1040	1120	1330	1380	420	440	623	174	460	533
7	685	1330	1030	1140	1310	1410	416	435	614	181	429	468
8	711	1410	1070	1180	1380	1320	396	427	681	657	682	502
9	701	1310	1090	1300	1450	1260	377	440	706	823	688	515
10	652	1280	1130	1380	1480	1270	e385	457	706	719	511	468
11	598	1280	1130	1350	1460	1210	e400	465	684	1450	473	422
12	609	1300	1110	1280	1460	1140	426	445	700	1050	427	428
13	630	1360	1100	1240	1510	1120	397	447	690	545	386	464
14	638	1380	1090	1260	1560	1140	403	435	716	490	360	627
15	656	1390	1090	1260	1520	1150	417	440	797	494	315	812
16	672	1390	1090	1270	1510	1250	443	450	735	437	289	450
17	668	1380	1110	1290	1460	1300	577	474	750	423	303	368
18	671	1390	1170	1340	1440	1370	620	470	713	575	444	471
19	660	1450	1190	1350	1440	1300	547	459	637	414	403	439
20	654	1350	1170	1380	1450	1140	533	571	558	330	386	308
21	651	1280	1030	1340	1600	986	620	1020	500	298	417	339
22	651	1240	e1020	1330	1770	886	597	954	484	314	546	407
23	812	1150	1010	1260	1770	873	568	723	487	411	686	419
24	789	1140	1030	1190	1700	872	555	717	484	486	1040	357
25	731	1160	1040	1170	1660	947	551	710	477	513	834	305
26	758	1150	1040	1200	1650	724	503	742	793	556	1230	285
27	858	1210	1050	1260	1630	730	438	772	1480	548	649	281
28	713	1160	1060	1250	1540	747	431	759	1200	579	525	283
29	665	1120	1070	1250	1420	634	418	780	1070	590	520	306
30	761	1090	1080	1290	---	617	404	785	1010	585	631	331
31	848	---	1130	1340	---	529	---	750	---	614	e475	---
TOTAL	21551	37750	33740	39030	43470	34415	14108	17698	21670	16485	16538	12888
MEAN	695	1258	1088	1259	1499	1110	470	571	722	532	533	430
MAX	858	1450	1190	1380	1770	1550	620	1020	1480	1450	1230	812
MIN	598	1060	1010	1120	1310	529	377	398	477	174	289	281
AC-FT	42750	74880	66920	77420	86220	68260	27980	35100	42980	32700	32800	25560
(†)	14410	986	859	756	780	10040	15180	16320	16100	16030	18690	17870
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1996, BY WATER YEAR (WY)												
MEAN	422	977	1069	972	1099	1347	2228	3332	3030	1653	782	571
MAX	1291	2302	2276	2159	3562	2790	6343	6203	6113	5439	3452	1554
(WY)	1987	1987	1987	1986	1986	1986	1985	1980	1983	1979	1986	1986
MIN	38.4	145	480	486	590	480	137	148	336	287	278	51.4
(WY)	1978	1990	1975	1977	1978	1977	1977	1977	1989	1974	1978	1974
SUMMARY STATISTICS												
				FOR 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1974 - 1996		
ANNUAL TOTAL				796288			309343					
ANNUAL MEAN				2182			845			a1457		
HIGHEST ANNUAL MEAN										2486		
LOWEST ANNUAL MEAN										356		
HIGHEST DAILY MEAN				6370			May 25			8650		
LOWEST DAILY MEAN				453			Sep 6			.00		
ANNUAL SEVEN-DAY MINIMUM				535			Sep 19			.00		
INSTANTANEOUS PEAK FLOW							307			Sep 24		
INSTANTANEOUS PEAK STAGE							2690			Jun 27		
INSTANTANEOUS LOW FLOW							4.48			Jun 27		
ANNUAL RUNOFF (AC-FT)				1579000			613600			1056000		
10 PERCENT EXCEEDS				5390			1380			3730		
50 PERCENT EXCEEDS				1170			721			855		
90 PERCENT EXCEEDS				651			415			274		

a Estimated

a-Average discharge for 33 years (water year 1942-74), 1,440 ft<sup>3</sup>/s, 1,043,000 acre-ft, prior to closure of Cochiti Dam.

b-From rating curve extended above 13,900 ft<sup>3</sup>/s.

(†) COMBINED FLOW, IN ACRE-FEET, OF ALBUQUERQUE RIVERSIDE DRAIN, AND ARENAL, ARMIJO AND ATRISCO CANALS. THIS FLOW, WHICH BYPASSES RIVER GAGE, CAN BE ADDED TO RIVER RECORDS TO GET THE ENTIRE FLOW IN VALLEY CROSS SECTION.

## RIO GRANDE BASIN

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 TEMPERATURE: October 1969 to current year.

SUSPENDED-SEDIMENT DISCHARGE: May 1969 to September 1969 (partial-record station), October 1969 to current year.

REMARKS.--Daily sediment total-loads were calculated for one day of nearly every month. Daily total-load values were determined using equation from double-mass relationship plot for period of record. Once-daily temperature readings were made by U.S. Geological Survey, and once-daily specific conductance values were determined in the laboratory from daily suspended sediment samples.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,840 microsiemens, Oct. 12, 1974; minimum daily, 115 microsiemens, Aug. 14, 1980.

WATER TEMPERATURE: Maximum daily, 34.0 °C, July 12, 1970; minimum daily, 0.0 °C on many days during winter periods.

SEDIMENT CONCENTRATION: Maximum daily mean, 45,500 mg/L, July 21, 1971; minimum daily mean, no flow on many days in 1971, 1972, and 1977.

SEDIMENT LOAD: Maximum daily, 275,000 tons, July 27, 1971; minimum daily, 0 ton on many days in 1971, 1972, and 1977.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, undetermined; minimum daily, undetermined.

WATER TEMPERATURE: Maximum daily, undetermined; minimum daily, undetermined.

SEDIMENT CONCENTRATION: Maximum daily mean, 12,300 mg/L, July 8; minimum daily mean, 21 mg/L, Apr. 2, 30.

SEDIMENT LOAD: Maximum daily, 27,600 tons, June 30; minimum daily, 22 tons, Apr. 30.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	STREAM WIDTH (FT) (000004)	STREAM DEPTH, MEAN (FT) (000064)	STREAM VELOC- ITY, MEAN (F/S) (000055)	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, SUSP. + BED MA- TERIAL (T/DAY) (80156)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)
OCT 1995										
06...	1215	660	254	1.2	2.10	14.5	60	107	175	--
NOV										
03...	0840	1120	297	1.6	2.34	11.0	153	463	721	--
DEC										
05...	1115	1130	206	2.2	2.49	--	102	311	491	--
JAN 1996										
19...	1000	1310	--	--	--	2.0	179	633	975	--
FEB										
13...	0815	1520	322	1.9	2.53	5.0	147	603	930	--
MAR										
08...	1115	1290	318	1.7	2.46	7.0	158	550	851	--
APR										
05...	0920	437	129	1.7	1.95	8.5	920	1090	1650	100
MAY										
03...	1027	471	119	2.0	1.99	15.5	367	467	727	--
JUN										
20...	0927	572	266	1.2	1.78	19.0	86	133	216	--
JUL										
08...	1000	267	183	0.93	1.55	22.0	786	567	877	--
AUG										
01...	0820	528	260	1.2	1.76	21.0	901	1280	1920	--
SEP										
06...	0930	593	258	1.3	1.81	20.0	382	612	944	--

## RIO GRANDE BASIN

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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 .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)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)
OCT 1995										
06...	--	--	--	--	63	66	94	100	--	0
NOV										
03...	--	--	--	--	68	71	86	100	--	2
DEC										
05...	--	--	--	--	34	43	67	--	--	--
JAN 1996										
19...	--	--	--	--	19	24	56	99	100	0
FEB										
13...	--	--	--	--	23	29	61	100	--	2
MAR										
08...	--	--	--	--	40	44	70	100	--	0
APR										
05...	--	--	--	--	3	4	9	54	90	0
MAY										
03...	--	--	--	--	9	10	13	74	100	1
JUN										
20...	--	--	--	--	64	66	83	100	--	--
JUL										
08...	42	56	66	86	97	98	99	100	--	--
AUG										
01...	54	68	68	80	90	91	95	100	--	--
SEP										
06...	--	--	--	--	89	91	98	100	--	--

DATE	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
OCT 1995									
06...	1	11	61	89	96	98	99	100	--
NOV									
03...	7	21	71	94	96	97	98	100	--
DEC									
05...	0	6	49	86	97	100	--	--	--
JAN 1996									
19...	2	5	63	94	99	100	--	--	--
FEB									
13...	5	21	73	94	98	99	99	100	--
MAR									
08...	5	20	70	95	99	100	--	--	--
APR									
05...	1	12	56	87	92	93	94	94	100
MAY									
03...	4	15	61	92	98	100	--	--	--
JUN									
20...	0	12	60	82	88	90	92	98	100
JUL									
08...	0	1	10	46	72	82	87	91	100
AUG									
01...	0	7	63	94	99	100	--	--	--
SEP									
06...	0	8	54	92	99	100	--	--	--



## RIO GRANDE BASIN

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS  
SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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	145	274	279	855	126	366	140	450	146	544	171	542
2	149	319	202	573	114	344	141	439	157	601	169	666
3	131	259	151	454	99	301	142	456	149	554	168	701
4	114	199	161	496	86	263	142	488	138	519	166	692
5	112	187	177	646	73	221	143	468	130	495	165	619
6	108	186	192	641	65	182	144	436	142	508	163	607
7	104	193	188	677	74	207	144	445	156	551	164	625
8	100	192	246	933	86	248	145	462	153	572	176	626
9	96	183	675	2380	93	273	148	519	148	579	200	678
10	89	157	613	2120	100	304	153	569	140	559	228	782
11	77	124	483	1680	105	320	175	639	133	524	285	922
12	138	229	381	1330	97	290	199	685	132	518	591	1810
13	236	401	306	1120	88	262	176	586	163	666	935	2830
14	202	349	267	993	86	253	147	497	197	833	379	1160
15	159	282	236	886	87	255	123	418	192	791	147	455
16	127	230	208	783	99	294	102	352	181	737	133	450
17	112	202	184	685	116	347	94	329	161	637	135	475
18	107	194	162	609	130	411	129	466	143	557	137	508
19	123	220	143	558	132	423	166	608	126	492	146	509
20	146	258	130	474	132	417	136	508	117	458	176	538
21	178	313	146	504	133	371	104	379	157	682	447	1170
22	218	383	130	434	134	369	81	291	256	1230	889	2130
23	243	532	136	424	134	367	68	230	618	2940	532	1250
24	181	389	147	451	135	376	59	189	420	1940	274	647
25	142	281	158	495	136	382	61	191	220	991	150	384
26	176	361	170	528	136	382	65	211	127	565	114	223
27	214	498	172	559	137	387	75	256	113	497	96	189
28	204	393	130	408	138	394	87	295	116	483	105	212
29	189	339	103	310	138	399	101	341	166	637	112	193
30	186	385	113	332	139	403	116	404	---	---	97	162
31	238	544	---	---	139	426	132	474	---	---	82	118
TOTAL	---	9056	---	23338	---	10237	---	13081	---	21660	---	22873

## SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	57	75	79	86	140	258	7540	16500	292	413	400	502
2	21	29	104	116	126	229	2460	3100	262	324	310	385
3	111	129	113	133	116	209	987	1150	241	295	250	307
4	103	118	99	119	117	212	1460	1180	221	293	234	287
5	82	91	83	97	115	212	2540	1500	201	272	667	828
6	89	101	72	86	112	189	4410	2080	172	214	1530	2220
7	100	112	73	86	110	182	7650	3700	153	178	1180	1490
8	106	113	77	88	107	197	12300	23000	164	305	814	1100
9	94	95	90	107	105	200	11800	25800	178	328	553	772
10	84	87	90	112	102	195	9530	18800	194	267	328	416
11	89	96	89	112	102	187	5450	21000	211	269	223	254
12	93	108	87	105	105	198	2960	8720	226	260	329	383
13	84	91	88	107	142	264	1610	2410	213	222	524	650
14	75	82	101	119	193	375	872	1140	195	190	834	1520
15	74	83	115	136	220	472	487	652	184	156	1330	2770
16	114	137	115	139	245	486	347	412	224	175	1740	2120
17	151	234	124	158	297	602	274	313	598	495	951	950
18	76	129	133	169	501	953	255	397	1670	2070	459	595
19	75	110	123	152	873	1490	245	273	3220	3520	243	295
20	89	129	118	183	909	1410	245	219	1480	1550	204	169
21	107	179	134	372	108	147	248	200	631	706	181	165
22	121	194	152	390	83	109	251	213	1030	1540	161	177
23	100	154	151	294	83	109	261	291	1890	3540	144	164
24	83	124	147	284	93	120	271	356	1730	4850	139	134
25	87	130	149	285	216	279	274	379	1430	3230	137	113
26	95	128	151	303	576	1410	275	413	1180	3960	135	104
27	93	110	154	320	1970	7110	277	410	975	1720	135	102
28	90	104	157	321	6260	20800	278	435	805	1140	136	104
29	67	76	159	334	8770	24900	282	449	663	930	140	116
30	21	22	157	334	10300	27600	301	476	546	941	150	134
31	---	---	154	312	---	---	318	528	473	601	---	---
TOTAL	---	3370	---	5959	---	91104	---	136496	---	34954	---	19326
TOTAL LOAD FOR YEAR:		391454	TONS.									

## RIO GRANDE BASIN

08330540 TRAMWAY FLOODWAY CHANNEL AT ALBUQUERQUE, NM

LOCATION.--Lat 35°04'43", long 106°29'51", Bernalillo County, Hydrologic Unit 13020203, on right bank 300 ft downstream from Copper Boulevard Bridge, near corner of Tramway and Copper Boulevards NE in Albuquerque.

DRAINAGE AREA.--1.60 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1987 to current year (seasonal record).

GAGE.--Water-stage recorder and concrete-lined channel. Elevation of gage is 5,760 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,250 ft<sup>3</sup>/s, July 9, 1988, gage height, 7.62 ft, from floodmarks, from step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 164 ft<sup>3</sup>/s, at 1750 hours Aug. 23, gage height 1.28 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
4	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
5	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
6	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	.00	.00	.00	e.30	.00	.00
8	---	---	---	---	---	---	.00	.00	.00	e.00	.00	.00
9	---	---	---	---	---	---	.00	.00	.00	e1.0	.00	.00
10	---	---	---	---	---	---	.00	.00	.00	e2.0	.00	.00
11	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
12	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
13	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
14	---	---	---	---	---	.00	.00	.00	.02	.00	1.0	4.6
15	---	---	---	---	---	.00	.00	.00	.00	e.10	.35	.02
16	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
17	---	---	---	---	---	.00	.00	.00	.00	.00	.00	e2.0
18	---	---	---	---	---	.00	.00	.00	.00	.00	.00	e2.0
19	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
20	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
21	---	---	---	---	---	.00	.00	.00	.00	.00	.40	.00
22	---	---	---	---	---	.00	.00	.00	.00	.00	.15	.00
23	---	---	---	---	---	.00	.00	.00	.00	.00	9.2	.00
24	---	---	---	---	---	.00	.00	.00	.00	.00	e.10	.00
25	---	---	---	---	---	.00	.00	.00	.00	.00	e1.0	.00
26	---	---	---	---	---	.00	.00	.50	.00	.00	e2.0	.06
27	---	---	---	---	---	.00	.00	.00	e1.0	.00	.00	.00
28	---	---	---	---	---	.00	.00	.00	e2.0	.00	e.50	.00
29	---	---	---	---	---	.00	.00	.00	.00	.00	e.10	.00
30	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	---	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	0.00	0.50	3.02	3.40	14.80	8.68
MEAN	---	---	---	---	---	---	.000	.016	.10	.11	.48	.29
MAX	---	---	---	---	---	---	.00	.50	2.0	2.0	9.2	4.6
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	.00	1.0	6.0	6.7	29	17

e Estimated



## RIO GRANDE BASIN

08330600 TIJERAS ARROYO NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'09", long 106°38'57", in SW¼SW¼ sec.17, T.9 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank 800 ft upstream from bridge on Broadway Boulevard SE, 0.2 mi downstream from bridge on Interstate Highway 25, and 3.0 mi south of Albuquerque.

DRAINAGE AREA.--128 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1951 to September 1968 (annual maximum only), August 1974 to current year (seasonal records).

GAGE.--Water-stage recorder. Elevation of gage is 5,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 10, 1988, at site 1,700 ft downstream at different datum.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,930 ft<sup>3</sup>/s, July 9, 1988, gage height, 9.6 ft, from floodmarks, from slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 985 ft<sup>3</sup>/s, at 0638 hours July 9, gage height, 6.60 ft from rating curve extended above 10 cfs on basis of step-backwater analysis of channel; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
4	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
5	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
6	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	.00	.00	.00	e.00	.00	.00
8	---	---	---	---	---	---	.00	.00	.00	e1.5	.00	.00
9	---	---	---	---	---	---	.00	.00	.00	e40	.00	.00
10	---	---	---	---	---	---	.00	.00	.00	e15	.00	.00
11	---	---	---	---	---	---	.00	.00	.00	e35	.00	.00
12	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
13	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	---	---	---	---	---	.00	.00	.00	.00	.00	.00	16
15	---	---	---	---	---	.00	.00	.00	.00	.05	.00	.00
16	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
17	---	---	---	---	---	.00	.00	.00	.00	.00	.00	3.5
18	---	---	---	---	---	.00	.00	.00	.00	.00	.00	6.5
19	---	---	---	---	---	.00	.00	.00	.00	.00	.00	e3.0
20	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
21	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	---	---	---	---	---	.00	.00	.00	.00	.00	.29	.00
23	---	---	---	---	---	.00	.00	.00	.00	.00	e3.0	.00
24	---	---	---	---	---	.00	.00	.00	.00	.00	e2.2	.00
25	---	---	---	---	---	.00	.00	.00	.00	.00	e.00	.00
26	---	---	---	---	---	.00	.00	.00	1.3	.00	e14	.00
27	---	---	---	---	---	.00	.00	.00	1.2	.00	.06	.00
28	---	---	---	---	---	.00	.00	.00	40	.00	.00	.00
29	---	---	---	---	---	.00	.00	.00	e5.0	.00	7.7	.00
30	---	---	---	---	---	.00	.00	.00	19	.00	.00	.00
31	---	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	0.00	0.00	66.50	91.55	27.25	29.00
MEAN	---	---	---	---	---	---	.000	.000	2.22	2.95	.88	.97
MAX	---	---	---	---	---	---	.00	.00	40	40	14	16
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	.00	.00	132	182	54	58

e Estimated

## RIO GRANDE BASIN

08330775 SOUTH DIVERSION CHANNEL ABOVE TIJERAS ARROYO NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'09", long 106°39'02", Bernalillo County, Hydrologic Unit 13020203, on right bank 600 ft upstream from confluence with Tijeras Arroyo, and 2.5 mi south of Albuquerque.

DRAINAGE AREA.--11.0 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1988 to current year.

GAGE.--Water stage recorder and concrete control. Elevation of gage is 4,930 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,960 ft<sup>3</sup>/s, July 14, 1990, gage height, 6.30 ft from floodmarks, from rating curve extended above 30 cfs on basis of step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 589 ft<sup>3</sup>/s, at 2055 hours June 26, gage height, 3.13 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.28	.00	.00	.00	e.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	e1.7	.00
5	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	e2.2	.00
6	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	e2.5	.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	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	30
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e7.3
16	.00	.00	.50	.00	.00	.00	.00	.00	.00	.00	.00	e.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	1.6
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.6	.00	3.5
19	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e1.1
20	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00
21	.00	.00	.50	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e7.4	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	e.00	.00	37	.00	e41	.00
27	.00	.00	.00	.00	.00	.00	e.00	.00	35	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	e.00	.00	e15	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	e.00	.00	e5.5	.00	11	.00
30	.00	.00	.00	.00	---	.00	e.00	.00	e1.7	.00	e6.9	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
MEAN	.000	.000	.032	.009	.000	.000	.000	.000	3.14	.23	2.26	1.45
MAX	.01	.00	.50	.28	.00	.00	.00	.00	37	4.6	41	30
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.02	.00	2.0	.6	.00	.00	.00	.00	187	14	139	86

CAL YR 1995 MEAN .30 MAX 25 MIN .00 AC-FT 216  
WTR YR 1996 MEAN .59 MAX 41 MIN .00 AC-FT 429

e Estimated

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM

LOCATION.--Lat 34°55'14", long 106°40'44", in NESE4SW4 sec. 13, T.8 N., R.2 E., Valencia County, Hydrologic Unit 13020203, in Isleta Pueblo Grant, on right bank 0.5 mi upstream from Isleta Diversion Dam, 1.0 mi west from State Highway 47, 1.2 mi from Isleta Pueblo, and at mile 1527.7.

DRAINAGE AREA.--18,100 mi<sup>2</sup> (estimated), including 2,940 mi<sup>2</sup> in closed basin in San Luis valley, Co.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,890 ft above National Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge recorder good except for estimated daily discharges, which are poor. Flow completely regulated since November 1993 by (Cochiti Dam station 08317300) 11 mi upstream. Possible regulation by operation of regulated on Rio Chama and by flood and silt-detention reservoirs on Galisteo Creek and Jemez River (stations 08285000, 08286900, 083179000, 08328500). Diversion upstream from station for irrigation of about 752,000 acres.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	915	1110	1090	1190	1290	1240	728	546	1680	1940	1920	1940
2	976	1070	1100	1190	1320	1320	708	556	1630	1650	1810	1900
3	974	1060	1130	1200	1300	1390	703	556	1630	1550	1800	1880
4	935	1070	1140	1270	1290	1390	698	553	1630	1500	1880	1890
5	922	1060	1130	1270	1280	1350	655	541	1700	1400	1930	1920
6	922	1040	1110	1240	1240	1300	615	533	1620	1350	1920	2030
7	947	1080	1070	1220	1180	1340	590	538	1610	1350	1860	2040
8	963	1110	1110	1250	1180	1330	564	533	1660	1580	2000	1990
9	968	1110	1120	1290	1230	1310	550	533	1720	1840	2240	2080
10	963	1100	1150	1360	1220	1320	543	553	1750	2230	1910	2010
11	934	1080	1150	1370	1230	1340	536	556	1760	2580	1830	1910
12	928	1060	1140	1320	1210	1330	576	555	1800	2580	1770	1840
13	938	1050	1130	1260	1250	1330	541	559	1770	1930	1690	1940
14	926	1000	1140	1260	1330	1340	532	555	1820	1740	1640	1980
15	930	1060	1170	1260	1400	1350	540	556	1970	1810	1590	2520
16	930	1020	1180	1260	1360	1370	545	561	1930	1810	1550	2090
17	940	1020	1190	1270	1320	1400	574	590	1860	1750	1540	1930
18	949	1010	1210	1290	1270	1430	643	580	1880	1870	1630	2070
19	947	1010	1230	1310	1280	1410	590	564	1870	1740	1720	2120
20	939	995	1220	1290	1290	1390	574	596	1880	1580	1690	1920
21	943	1060	1160	1280	1340	1340	641	1910	1720	1540	1710	1910
22	946	1170	1100	1280	1450	1300	647	2090	1670	1560	1860	2090
23	978	1120	1090	1280	1460	1280	642	1780	1680	1600	2190	2090
24	1020	1080	1100	1260	1420	1280	641	1750	1680	1730	2450	2050
25	968	1080	1110	1240	1390	1310	623	1750	1630	1730	2430	1840
26	1010	1080	1110	1240	1390	1260	616	1800	1750	1780	2980	1730
27	1050	1120	1120	1240	1400	1160	551	1870	2980	1840	2300	1700
28	1030	1150	1110	1260	1400	1010	546	1870	2500	1910	2080	1710
29	972	1110	1110	1250	1360	946	544	1850	2420	1960	2160	1690
30	993	1100	1120	1250	---	858	548	1820	2190	1960	2330	1710
31	1050	---	1140	1270	---	810	---	1780	---	1960	2050	---
TOTAL	29806	32185	35180	39220	38080	39534	18004	31384	55390	55350	60460	58520
MEAN	961	1073	1135	1265	1313	1275	600	1012	1846	1785	1950	1951
MAX	1050	1170	1230	1370	1460	1430	728	2090	2980	2580	2980	2520
MIN	915	995	1070	1190	1180	810	532	533	1610	1350	1540	1690
AC-FT	59120	63840	69780	77790	75530	78420	35710	62250	109900	109800	119900	116100

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996	1995	1996
MEAN	961	1073	1135	1265	1313	1275	600	1012	1846	1785	1950	978
MAX	961	1073	1135	1265	1313	1275	600	1012	1846	1785	1950	1951
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996
MIN	961	1073	1135	1265	1313	1275	600	1012	1846	1785	1950	6.10
(WY)	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996	1995

## SUMMARY STATISTICS

## FOR 1996 WATER YEAR

## WATER YEARS 1995 - 1996

ANNUAL TOTAL	493113		
ANNUAL MEAN	1347		
HIGHEST ANNUAL MEAN		1347	1996
LOWEST ANNUAL MEAN		1347	1996
HIGHEST DAILY MEAN	2980	Jun 27	1996
LOWEST DAILY MEAN	532	Apr 14	1995
ANNUAL SEVEN-DAY MINIMUM	541	May 4	1995
INSTANTANEOUS PEAK FLOW	3200	Aug 26	1996
INSTANTANEOUS PEAK STAGE	8.51	Aug 26	1996
INSTANTANEOUS LOW FLOW	315	Jul 6	1996
ANNUAL RUNOFF (AC-FT)	978100		
10 PERCENT EXCEEDS	1950		
50 PERCENT EXCEEDS	1280		
90 PERCENT EXCEEDS	594		

RIO GRANDE BASIN  
08331000 RIO GRANDE AT ISLETA, NM

WATER-QUALITY RECORDS

LOCATION.--Lat 34°55'14", long 106°40'44", in NE¼SW¼ sec. 13, T.8 N., R.2 E., Valencia County, Hydrologic Unit 13020203, in Isleta Pueblo Grant, on right bank 0.5 mi upstream from Isleta Diversion Dam, 1.0 mi west from State Highway 47, 1.2 mi from Isleta Pueblo, and at mile 1527.7.

DRAINAGE AREA.--18,100 mi<sup>2</sup> (estimated).

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Water-discharge measurements were made at the time water-quality samples were collected. Samples collected upstream of bridge during periods of low flow.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 1995												
03...	1400	957	401	7.5	--	19.0	--	640	7.4	96	--	--
26...	1045	1000	401	8.0	14.5	13.0	--	635	8.0	91	--	--
NOV												
20...	1100	1250	389	8.0	10.5	9.5	--	643	8.6	89	--	--
JAN 1996												
10...	1045	1300	415	8.1	4.5	5.0	--	638	9.8	92	<10	270
FEB												
14...	0940	1310	394	7.9	--	7.0	--	639	9.4	93	--	--
27...	1030	1450	386	7.4	5.5	6.0	--	635	9.8	95	--	--
MAR												
13...	0915	1310	396	8.0	12.0	10.0	--	632	8.6	92	80	87
APR												
09...	1000	534	446	7.8	20.0	14.5	--	639	7.7	90	--	--
MAY												
20...	1400	562	438	7.9	--	22.0	--	638	7.4	102	--	--
21...	1545	980	435	7.9	29.0	25.0	--	633	7.4	109	23	330
JUN												
11...	0900	790	440	7.5	24.5	20.5	--	637	7.1	95	--	--
JUL												
09...	0930	840	578	7.3	22.0	22.0	--	638	6.2	85	--	--
22...	0830	429	495	8.1	24.5	22.0	--	639	7.1	98	--	--
AUG												
15...	0945	463	491	8.1	22.0	21.0	--	640	6.6	89	--	--
27...	1300	1010	411	8.0	--	23.5	--	643	6.5	91	--	--
SEP												
11...	0930	602	480	8.1	21.5	20.0	71	639	7.0	92	25	K1000

DATE	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER WH IT FIELD HCO3 (MG/L AS HCO3) (00450)	BICAR- BONATE WATER DIS IT FIELD HCO3 (MG/L AS HCO3) (00453)	CAR- BONATE WATER WH IT FIELD CO3 (MG/L AS CO3) (00447)	CAR- BONATE WATER DIS IT FIELD CO3 (MG/L AS CO3) (00452)
OCT 1995												
03...	--	130	--	42	7.2	28	1	3.9	147	--	0	--
26...	--	130	12	40	7.0	27	1	3.8	--	142	--	0
NOV												
20...	--	130	15	41	7.3	26	1	3.4	--	143	--	0
JAN 1996												
10...	380	130	18	41	7.4	28	1	3.4	--	140	--	0
FEB												
14...	--	130	17	41	7.4	29	1	3.6	144	141	0	0
27...	--	130	7	39	7.2	26	1	3.5	--	146	--	0
MAR												
13...	220	130	15	40	7.1	32	1	4.0	--	139	--	0
APR												
09...	--	130	12	41	7.2	37	1	4.8	--	146	--	0
MAY												
20...	--	140	--	42	7.5	33	1	4.6	155	--	0	--
21...	380	120	0	37	6.7	29	1	3.8	--	146	--	0
JUN												
11...	--	140	28	44	7.9	33	1	4.5	--	139	--	0
JUL												
09...	--	220	130	71	11	29	0.8	4.7	--	107	--	0
22...	--	150	22	47	7.4	40	1	5.2	--	154	--	0
AUG												
15...	--	140	21	45	7.5	37	1	4.7	--	149	--	0
27...	--	140	44	45	7.0	29	1	4.1	--	118	--	0
SEP												
11...	400	140	28	45	7.5	39	1	4.9	--	141	--	0

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT 1995												
03...	120	--	119	57	11	--	--	244	221	60	--	--
26...	--	116	118	56	13	0.50	20	256	244	--	1.36	0.040
NOV												
20...	--	117	120	56	11	0.40	19	230	238	--	0.610	0.010
JAN 1996												
10...	--	115	125	56	14	0.60	21	261	245	--	--	<0.010
FEB												
14...	118	115	120	51	13	--	--	256	216	38	--	--
27...	--	119	123	54	14	0.50	22	255	242	--	--	<0.010
MAR												
13...	--	114	126	51	14	0.60	23	247	243	--	0.560	0.020
APR												
09...	--	120	128	61	20	0.60	24	285	274	--	1.16	0.040
MAY												
20...	127	--	126	63	15	--	--	238	241	40	--	--
21...	--	120	125	63	14	0.50	18	285	246	--	0.320	0.020
JUN												
11...	--	114	121	69	16	0.60	21	280	270	--	--	<0.010
JUL												
09...	--	87	112	160	13	0.50	19	391	368	--	1.47	0.030
22...	--	127	119	70	23	0.70	25	308	304	--	1.77	0.030
AUG												
15...	--	122	126	72	22	0.60	23	315	295	--	1.87	0.030
27...	--	97	123	74	13	--	--	248	230	2330	--	--
SEP												
11...	--	116	123	75	22	0.60	24	302	298	--	1.99	0.010

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 1995											
03...	--	--	--	--	--	--	--	--	--	--	<0.010
26...	1.40	0.150	0.25	0.50	0.40	0.290	0.220	0.230	--	--	--
NOV											
20...	0.620	0.080	0.12	0.50	0.20	0.240	0.150	0.120	--	--	--
JAN 1996											
10...	0.860	0.140	0.16	0.60	0.30	0.230	0.160	0.150	5.3	--	<0.010
FEB											
14...	--	--	--	--	--	--	--	--	--	--	<0.010
27...	0.390	0.030	--	0.40	<0.20	0.220	0.170	0.170	--	--	--
MAR											
13...	0.580	0.050	0.25	0.50	0.30	0.330	0.260	0.230	8.3	--	<0.010
APR											
09...	1.20	0.070	0.23	1.1	0.30	0.790	0.450	0.460	--	--	--
MAY											
20...	--	--	--	--	--	--	--	--	--	--	<0.010
21...	0.340	0.130	0.27	1.2	0.40	0.470	0.260	0.220	11	--	<0.010
JUN											
11...	1.10	0.030	0.27	0.50	0.30	0.370	0.240	0.250	--	--	--
JUL											
09...	1.50	0.070	0.13	7.5	0.20	3.30	0.110	0.140	--	--	--
22...	1.80	0.060	0.24	0.70	0.30	0.620	0.450	0.460	6.5	2.8	--
AUG											
15...	1.90	0.100	0.20	0.60	0.30	0.440	0.340	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	<0.010
SEP											
11...	2.00	0.030	0.27	0.60	0.30	0.420	0.290	--	4.9	--	<0.010

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, 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)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
OCT 1995											
03...	1600	4.0	<1.0	3	3	68	<1.0	--	<1.0	2.0	<1.0
26...	--	--	--	--	--	--	--	--	--	--	--
NOV											
20...	--	28	<1.0	--	3	69	<1.0	--	<1.0	2.0	<1.0
JAN 1996											
10...	--	--	--	--	--	--	--	70	--	--	--
FEB											
14...	360	20	<1.0	3	3	67	<1.0	--	<1.0	1.0	<1.0
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	--	--	--	--	--	--	--	60	--	--	--
APR											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
20...	730	3.0	<1.0	3	3	64	<1.0	--	<1.0	<1.0	<1.0
21...	--	--	--	--	--	--	--	80	--	--	--
JUN											
11...	--	--	--	--	--	--	--	--	--	--	--
JUL											
09...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
AUG											
15...	--	--	--	--	--	--	--	--	--	--	--
27...	31000	3.0	<1.0	3	3	88	<1.0	--	<1.0	<1.0	<1.0
SEP											
11...	--	18	<1.0	--	4	89	<1.0	102	<1.0	<1.0	<1.0

DATE	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 TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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)
OCT 1995											
03...	1.0	--	<1.0	7.0	--	6.0	1.0	--	--	<1	<0.20
26...	--	18	--	18	--	--	--	--	--	--	--
NOV											
20...	2.0	16	<1.0	16	<0.10	5.0	<1.0	<1	<1	--	<1.0
JAN 1996											
10...	--	7.0	--	18	--	--	--	--	--	--	--
FEB											
14...	2.0	--	<1.0	18	--	5.0	1.0	--	--	<1	<0.20
27...	--	8.0	--	16	--	--	--	--	--	--	--
MAR											
13...	--	16	--	12	--	--	--	--	--	--	--
APR											
09...	--	31	--	21	--	--	--	--	--	--	--
MAY											
20...	2.0	--	<1.0	6.0	--	9.0	2.0	--	--	<1	<0.20
21...	--	4.0	--	4.0	--	--	--	--	--	--	--
JUN											
11...	--	8.0	--	7.0	--	--	--	--	--	--	--
JUL											
09...	--	16	--	<1.0	--	--	--	--	--	--	--
22...	--	12	--	12	--	--	--	--	--	--	--
AUG											
15...	--	15	--	12	--	--	--	--	--	--	--
27...	1.0	--	3.0	<1.0	--	5.0	2.0	--	--	<1	<0.20
SEP											
11...	1.0	13	<1.0	5.0	<0.10	9.0	1.0	<1	<1	--	<1.0

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)
OCT 1995											
03...	2.0	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
NOV											
20...	6.0	--	--	--	--	--	--	--	--	--	--
JAN 1996											
10...	--	<2.0	4.0	300	480	3	<1	5	<5	6	480
FEB											
14...	2.0	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	--	--	--	--	--	--	--	--	--	--	--
APR											
09...	--	--	--	--	--	--	--	--	--	--	--
MAY											
20...	4.0	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
JUN											
11...	--	--	--	--	--	--	--	--	--	--	--
JUL											
09...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
AUG											
15...	--	--	--	--	--	--	--	--	--	--	--
27...	<1.0	--	--	--	--	--	--	--	--	--	--
SEP											
11...	14	--	--	--	--	--	--	--	--	--	--

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)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. X FINER THAN .062 MM (70331)
OCT 1995											
03...	--	--	--	--	--	--	2.0	--	116	300	80
26...	--	--	--	--	--	--	--	--	96	259	55
NOV											
20...	--	--	--	--	--	--	2.0	--	133	449	87
JAN 1996											
10...	<10	260	<0.01	20	0.04	0.020	2.0	0.1	82	288	50
FEB											
14...	--	--	--	--	--	--	3.0	--	65	230	63
27...	--	--	--	--	--	--	--	--	196	767	16
MAR											
13...	--	--	--	--	--	--	--	--	81	286	49
APR											
09...	--	--	--	--	--	--	--	--	51	74	53
MAY											
20...	--	--	--	--	--	--	3.0	--	70	106	69
21...	--	--	--	--	--	--	--	--	512	1350	34
JUN											
11...	--	--	--	--	--	--	--	--	101	215	32
JUL											
09...	--	--	--	--	--	--	--	--	7750	17600	99
22...	--	--	--	--	--	--	--	--	171	198	90
AUG											
15...	--	--	--	--	--	--	--	--	171	214	86
27...	--	--	--	--	--	--	2.0	--	2640	7210	96
SEP											
11...	--	--	--	--	--	--	2.0	--	198	322	90

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P, P' DDE DISSOLV (UG/L) (34653)	CHLOR- PYRIFOS TOTAL RECOVER (UG/L) (38932)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)
OCT 1995												
03...	1400	--	--	--	--	--	--	--	--	--	--	--
26...	1045	--	--	--	--	--	--	--	--	--	--	--
NOV												
20...	1100	<0.007	<0.002	<0.005	<0.02	<0.002	<0.004	<0.003	<0.002	<0.006	--	0.006
JAN 1996												
10...	1045	--	--	--	--	--	--	--	--	--	--	--
FEB												
14...	0940	--	--	--	--	--	--	--	--	--	--	--
27...	1030	--	--	--	--	--	--	--	--	--	--	--
MAR												
13...	0915	<0.007	<0.002	<0.005	E0.007	<0.002	<0.004	<0.003	<0.002	<0.006	--	<0.004
APR												
09...	1000	<0.007	<0.002	0.014	<0.018	<0.002	<0.004	<0.003	<0.002	<0.006	--	0.008
MAY												
20...	1400	--	--	--	--	--	--	--	--	--	--	--
21...	1545	<0.007	<0.002	0.005	E0.007	<0.002	<0.004	<0.003	<0.002	<0.006	--	<0.004
JUN												
11...	0900	<0.007	<0.002	0.019	E0.006	<0.002	<0.004	<0.003	<0.002	<0.006	--	<0.004
JUL												
09...	0930	<0.007	<0.002	0.009	0.038	<0.002	<0.004	<0.003	<0.002	<0.006	--	<0.004
22...	0830	<0.007	<0.002	0.008	E0.010	<0.002	<0.004	<0.003	<0.002	<0.006	--	<0.004
AUG												
15...	0945	<0.007	<0.002	0.026	0.097	<0.002	<0.004	<0.003	<0.002	<0.006	--	<0.004
27...	1300	--	--	--	--	--	--	--	--	--	--	--
SEP												
11...	0930	<0.007	<0.002	0.016	E0.016	<0.002	<0.004	<0.003	<0.002	<0.006	<0.010	0.007

DATE	PHORATE TOTAL (UG/L) (39023)	PER- THANE TOTAL (UG/L) (39034)	DEF TOTAL (UG/L) (39040)	PCNS UNFILT RECOVER (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	LINDANE TOTAL (UG/L) (39340)	LINDANE DIS- SOLVED (UG/L) (39341)	CHLOR- DANE, TECH- NICAL TOTAL (UG/L) (39350)	P, P'- DDD UNFILT RECOVER (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	P, P'- DDT UNFILT RECOVER (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)
OCT 1995												
03...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
20...	--	--	--	--	--	--	<0.004	--	--	--	--	--
JAN 1996												
10...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
14...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
13...	--	--	--	--	--	--	<0.004	--	--	--	--	--
APR												
09...	--	--	--	--	--	--	<0.004	--	--	--	--	--
MAY												
20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	<0.004	--	--	--	--	--
JUN												
11...	--	--	--	--	--	--	0.004	--	--	--	--	--
JUL												
09...	--	--	--	--	--	--	<0.004	--	--	--	--	--
22...	--	--	--	--	--	--	<0.004	--	--	--	--	--
AUG												
15...	--	--	--	--	--	--	<0.004	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
11...	<0.010	<0.100	<0.010	<0.100	<0.010	<0.010	<0.004	<0.100	<0.010	<0.010	<0.010	<0.010



## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	ENDO- SULFAN, I TOTAL (UG/L) (39388)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	TOX- APHENE, TOTAL (UG/L) (39400)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	PCB, TOTAL (UG/L) (39516)	MALA- THION, TOTAL (UG/L) (39530)
OCT 1995											
03...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
NOV											
20...	<0.001	--	--	--	--	--	<0.002	--	--	--	--
JAN 1996											
10...	--	--	--	--	--	--	--	--	--	--	--
FEB											
14...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	<0.001	--	--	--	--	--	<0.002	--	--	--	--
APR											
09...	<0.001	--	--	--	--	--	<0.002	--	--	--	--
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	<0.001	--	--	--	--	--	<0.002	--	--	--	--
JUN											
11...	<0.001	--	--	--	--	--	<0.002	--	--	--	--
JUL											
09...	<0.001	--	--	--	--	--	<0.002	--	--	--	--
22...	<0.001	--	--	--	--	--	<0.002	--	--	--	--
AUG											
15...	<0.001	--	--	--	--	--	<0.002	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
11...	<0.001	<0.010	<0.010	<0.010	<1.00	<0.010	<0.002	<0.010	<0.010	<0.100	<0.010

DATE	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, TOTAL (UG/L) (39540)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, TOTAL (UG/L) (39570)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	METHYL PARA- THION, TOTAL (UG/L) (39600)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
OCT 1995											
03...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
NOV											
20...	<0.005	--	<0.004	--	E0.006	--	<0.001	--	--	--	--
JAN 1996											
10...	--	--	--	--	--	--	--	--	--	--	--
FEB											
14...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	<0.005	--	<0.004	--	0.009	--	<0.001	<0.010	<0.010	--	<0.010
APR											
09...	<0.005	--	<0.004	--	0.026	--	<0.001	--	--	--	--
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	<0.005	--	<0.004	--	0.019	--	<0.001	--	--	--	--
JUN											
11...	<0.005	--	<0.004	--	<0.002	--	<0.001	--	--	--	--
JUL											
09...	<0.005	--	<0.004	--	0.014	--	<0.001	--	--	--	--
22...	<0.005	--	<0.004	--	0.072	--	<0.001	--	--	--	--
AUG											
15...	<0.005	--	<0.004	--	0.036	--	<0.001	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
11...	<0.005	<0.010	<0.004	0.070	0.071	<0.010	<0.001	--	--	<0.010	--

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TOTAL TRI- THION (UG/L) (39786)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ACETO- CHLOR, WATER, REC FLTRD (UG/L) (49260)	2, 4-DP TOTAL (UG/L) (82183)	FONOFOS (DY- FONATE) WATER WHOLE TOT REC (UG/L) (82614)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)
OCT 1995											
03...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
NOV											
20...	--	<0.002	<0.002	--	--	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007
JAN 1996											
10...	--	--	--	--	--	--	--	--	--	--	--
FEB											
14...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	--	<0.002	<0.002	<0.010	--	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007
APR											
09...	--	<0.002	<0.002	--	--	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	--	<0.002	<0.002	--	--	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007
JUN											
11...	--	<0.002	<0.002	--	--	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007
JUL											
09...	--	<0.002	<0.002	--	--	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007
22...	--	<0.002	<0.002	--	--	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007
AUG											
15...	--	<0.002	<0.002	--	--	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
11...	<0.010	<0.002	<0.002	--	<0.010	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007

DATE	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	PFB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
OCT 1995											
03...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
NOV											
20...	<0.002	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.01	<0.003
JAN 1996											
10...	--	--	--	--	--	--	--	--	--	--	--
FEB											
14...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR											
09...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUN											
11...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.010	<0.013	<0.003
JUL											
09...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.010	<0.013	<0.003
22...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
AUG											
15...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
11...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)
OCT 1995											
03...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
NOV											
20...	<0.02	<0.001	<0.004	E0.01	<0.002	E0.001	<0.004	<0.003	<0.01	<0.001	<0.005
JAN 1996											
10...	--	--	--	--	--	--	--	--	--	--	--
FEB											
14...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAR											
13...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
APR											
09...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAY											
20...	--	--	--	--	--	--	--	--	--	--	--
21...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JUN											
11...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JUL											
09...	<0.017	<0.001	<0.004	<0.060	<0.002	E0.003	<0.004	<0.003	<0.013	<0.001	<0.005
22...	<0.017	<0.001	<0.004	E0.028	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
AUG											
15...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
27...	--	--	--	--	--	--	--	--	--	--	--
SEP											
11...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

## CROSS SECTION ANALYSES

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (000009)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET) (81903)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
SEP 1996							
11...	0901	10.0	3.50	458	8.0	19.5	6.8
11...	0902	30.0	3.40	463	8.1	19.5	6.8
11...	0903	50.0	2.90	481	8.1	20.0	6.9
11...	0904	70.0	3.10	490	8.1	20.0	7.0
11...	0905	90.0	1.30	492	8.1	20.0	7.0
11...	0906	110	2.40	500	8.1	20.0	7.1
11...	0907	130	2.50	493	8.2	20.0	7.1
11...	0908	150	2.60	487	8.2	20.0	7.1
11...	0909	170	2.80	479	8.2	20.0	7.1
11...	0910	190	3.20	477	8.2	20.0	7.0
11...	0911	230	1.00	474	8.1	19.5	7.0
11...	0912	270	1.20	471	8.1	19.5	6.9

## RIO GRANDE BASIN

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 south of U.S. Highway 60, 1.8 mi east of Bernardo, about 3 mi upstream from floodway, and 4 mi 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 and concrete control. Datum of gage is 4,720.00 ft above National Geodetic Vertical Datum of 1929. Prior to October 1964, 0.2 mi 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 were for conveyance channel to carry flows up to about 2,000 ft<sup>3</sup>/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. No flow many days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	5.3	4.4	6.2	5.0	5.4	3.4	6.0	20	42	24	51
2	3.5	4.4	4.4	6.3	5.1	5.1	3.4	6.1	18	44	25	55
3	3.1	4.2	4.4	6.2	5.1	4.8	3.4	11	14	43	27	52
4	2.9	4.2	4.4	6.2	5.2	5.0	4.9	6.1	15	40	35	45
5	2.8	4.1	4.4	6.2	5.3	20	5.5	4.6	16	35	36	35
6	2.9	4.3	4.4	6.3	5.3	56	4.1	5.1	12	25	35	35
7	3.0	4.3	4.4	6.3	5.3	52	8.2	4.2	12	25	40	35
8	3.0	4.2	4.4	6.2	5.5	57	7.9	7.0	13	23	36	38
9	3.3	4.3	4.4	6.0	5.4	44	7.1	7.6	13	26	46	31
10	3.9	4.3	4.4	6.1	5.5	57	7.8	5.1	11	29	47	28
11	3.3	4.4	18	5.4	5.5	54	7.6	5.1	11	44	46	26
12	3.0	4.4	9.8	5.1	5.5	53	6.3	5.5	15	45	51	39
13	4.4	4.4	7.6	5.1	5.7	14	5.8	6.8	16	47	51	47
14	3.4	4.4	6.8	5.0	8.7	35	5.1	7.3	17	47	47	57
15	3.2	4.4	6.4	5.0	5.3	7.3	7.2	7.0	16	42	42	60
16	7.4	4.4	6.4	5.1	6.5	5.4	7.0	5.6	10	50	38	62
17	5.7	4.4	6.1	5.2	5.8	5.0	6.8	4.1	5.5	49	33	59
18	6.7	4.4	5.8	5.1	5.6	4.3	6.7	4.2	16	45	37	62
19	7.0	4.5	5.8	5.2	5.5	4.4	7.8	3.8	28	44	36	61
20	9.8	4.5	9.2	5.1	5.4	4.6	8.0	3.6	26	37	40	57
21	9.8	4.5	8.3	5.3	5.6	4.5	6.3	4.2	31	40	40	62
22	5.5	4.2	7.8	5.4	5.7	7.6	6.4	5.7	35	34	48	54
23	4.7	4.3	7.2	5.1	5.9	6.0	6.1	7.3	38	25	47	43
24	9.5	4.3	6.3	4.7	6.0	6.5	7.1	6.7	41	23	52	54
25	5.4	4.1	7.7	4.8	6.1	5.9	6.4	7.4	40	23	54	67
26	9.5	4.1	7.2	4.8	6.3	5.5	8.5	9.5	41	29	57	58
27	4.9	4.1	5.8	4.7	6.0	5.1	10	9.8	44	28	61	53
28	4.7	4.2	5.9	4.8	8.6	4.7	5.8	8.6	45	28	52	52
29	5.9	4.4	6.1	4.8	5.5	4.4	6.1	12	43	28	40	50
30	5.6	4.4	6.2	4.9	---	4.0	7.5	10	45	26	39	40
31	6.1	---	6.1	5.1	---	4.0	---	12	---	28	43	---
TOTAL	158.3	130.4	200.5	167.7	167.9	551.5	194.2	209.0	707.5	1094	1305	1468
MEAN	5.11	4.35	6.47	5.41	5.79	17.8	6.47	6.74	23.6	35.3	42.1	48.9
MAX	9.8	5.3	18	6.3	8.7	57	10	12	45	50	61	67
MIN	2.8	4.1	4.4	4.7	5.0	4.0	3.4	3.6	5.5	23	24	26
AC-FT	314	259	398	333	333	1090	385	415	1400	2170	2590	2910

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
MEAN	87.0	316	284	260	259	215	221	222	189	101	89.7	68.3
MAX	682	1395	1579	1417	1006	1028	1354	1259	1664	1690	890	570
(WY)	1970	1971	1974	1974	1970	1966	1966	1973	1973	1973	1973	1973
MIN	.000	1.54	2.62	2.42	2.55	3.93	2.92	.64	.000	.000	.013	.000
(WY)	1964	1978	1995	1995	1995	1977	1977	1977	1972	1964	1977	1964

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1964 - 1996

ANNUAL TOTAL	2219.1	6354.0	
ANNUAL MEAN	6.08	17.4	
HIGHEST ANNUAL MEAN			192
LOWEST ANNUAL MEAN			1017
HIGHEST DAILY MEAN	26	Mar 21	2.25
LOWEST DAILY MEAN	1.7	Feb 11	2050
ANNUAL SEVEN-DAY MINIMUM	1.8	Feb 3	.00
INSTANTANEOUS PEAK FLOW			.00
ANNUAL RUNOFF (AC-FT)	4400	105	2220
10 PERCENT EXCEEDS	9.7	12600	139200
50 PERCENT EXCEEDS	5.5	47	808
90 PERCENT EXCEEDS	2.6	6.5	6.6
		4.3	.34

## RIO GRANDE BASIN

## 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, 2.0 mi east of Bernardo, and at mile 1,487.2 and 5.0 mi downstream from heading of conveyance channel.

DRAINAGE AREA.--19,230 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> 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 records prior to October 1964.

GAGE.--Water-stage recorder. Datum of gage is 4,722.55 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are fair. Since November 1973 flow completely regulated by Cochiti Dam (station 08317300) 100 mi 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 upstream from station. No flow for many days most years.

AVERAGE DISCHARGE.--19 years (water years 1937-38, 1942-58), 1,125 ft<sup>3</sup>/s, 815,100 acre-ft/yr. Includes flow of floodway, conveyance channel, and Bernardo interior drain. 15 years (water years 1959-73), 898 ft<sup>3</sup>/s, Riverside drain, prior to closure of Cochiti Dam. 23 years (water years 1974-96), 1,461 ft<sup>3</sup>/s, 1,058,000 acre-ft/yr, includes flow of floodway, conveyance channel, Bernardo interior drain, and Lower San Juan Riverside drain, since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD (1936-39 AND SINCE 1941).--Maximum discharge, 21,000 ft<sup>3</sup>/s, Apr. 25, 1942, gage height, 6.90 ft; no flow most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,720 ft<sup>3</sup>/s, Nov. 2; minimum daily, no flow May 14-16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e857	1340	e1300	e1280	e1290	e1180	e646	e.00	180	1150	33	151
2	e847	1720	e1220	e1300	e1320	e1140	e500	e.00	144	896	28	127
3	e819	e1670	e1210	e1210	e1340	e1230	e388	e.38	94	686	34	88
4	e857	e1700	1270	e1160	e1360	e1260	e300	52	52	539	32	80
5	e765	e1690	1290	e1350	e1370	e1090	e266	.54	24	338	38	67
6	e774	e1680	1290	e1290	e1390	1030	e196	e.71	24	216	28	83
7	e646	e1660	1260	e1260	1320	975	e184	e.88	42	171	20	76
8	e599	e1640	1180	e1230	1290	886	e135	e1.1	37	132	39	90
9	e518	e1620	1210	e1190	e1260	756	e124	e1.2	12	133	66	76
10	e584	e1600	1180	e1210	e1210	838	e112	e1.4	17	400	64	74
11	e577	e1580	1190	e1290	e1150	e730	e100	1.4	16	605	62	98
12	e554	e1560	1170	1180	e1100	e696	e90	1.6	40	534	48	64
13	e615	e1540	1150	1220	935	e655	e86	.74	28	672	44	129
14	e623	e1520	1110	e1130	971	e638	e74	.00	57	316	37	275
15	e562	e1500	1120	e1020	994	e696	e70	.00	117	184	32	289
16	e451	e1480	1120	e1000	e1010	e730	e60	.00	190	200	20	552
17	e480	e1460	1120	e975	e996	e765	28	.53	311	205	22	369
18	e486	e1440	1080	e996	1010	e810	38	1.4	257	186	17	301
19	e491	e1420	1170	e1020	982	e829	75	10	212	174	17	310
20	e496	e1400	1480	e1050	995	e857	70	27	153	216	22	335
21	e500	e1390	e1450	e1070	1230	e810	e67	11	122	147	49	205
22	e505	e1380	e1400	e1100	e1240	e783	e64	8.5	136	102	63	117
23	e509	e1370	e1350	e1120	e1550	e792	e60	91	121	79	109	116
24	e332	e1360	e1300	1130	e1410	e783	e57	177	113	e120	145	111
25	e326	e1350	e1260	e1170	e1350	e747	e55	132	82	e202	220	145
26	e270	e1340	e1220	1250	e1340	e739	e52	161	123	94	335	117
27	e359	e1320	e1200	e1290	e1290	e747	e50	201	174	91	485	91
28	e365	e1310	e1210	e1240	e1240	e704	e48	216	1400	72	438	69
29	e305	e1300	e1170	1200	e1200	e747	e45	199	1270	63	251	37
30	e388	e1290	e1160	e1250	---	e713	e46	186	1410	47	230	55
31	e575	---	e1150	1270	---	e655	---	190	---	36	275	---
TOTAL	17035	44630	37990	36451	35143	26011	4086	1673.38	6958	9006	3303	4697
MEAN	550	1488	1225	1176	1212	839	136	54.0	232	291	107	157
MAX	857	1720	1480	1350	1550	1260	646	216	1410	1150	485	552
MIN	270	1290	1080	975	935	638	28	.00	12	36	17	37
AC-FT	33790	88520	75350	72300	69710	51590	8100	3320	13800	17860	6550	9320
(†)	52800	94950	80600	77460	74450	62820	20330	17600	28840	31710	22820	27130

CAL YR 1995 TOTAL 723867 MEAN 1983 MAX 5500 MIN 202 AC-FT 1436000 (†) MEAN 2170 AC-FT 1572000  
WTR YR 1996 TOTAL 226983.38 MEAN 620 MAX 1720 MIN .00 AC-FT 450200 (†) MEAN 815 AC-FT 591500

e Estimated

(†) 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.

## RIO GRANDE BASIN

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1956 to current year.

WATER TEMPERATURE: October 1964 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1964 to current year.

REMARKS.--Sediment total-loads (suspended sediment plus bed material discharge), in tons per day, were determined from the regression equation developed for the period of record. Once-daily water temperature readings were made by the field observer, and once-daily specific conductance values were determined in the laboratory from daily suspended sediment samples collected by the field observer.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1964-96): Maximum daily, 1,410 microsiemens, July 23, 1976; minimum daily, 224 microsiemens, June 5, 1980.

WATER TEMPERATURE: Maximum daily, 35.0 °C, June 5, 6, July 5, 23, 1996; minimum daily, 0.0 °C on several days during 1971-72, 1976-77, 1979, and 1983-87.

SEDIMENT CONCENTRATION (water years 1975-96): Maximum daily mean, 21,400 mg/L, Aug. 11, 1979; minimum daily mean, no flow on many days of most years.

SEDIMENT LOAD: Maximum daily, 356,000 tons, Aug. 11, 1967; minimum daily, 0 ton on many days each year.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,440 microsiemens, July 25; minimum daily, 341 microsiemens, Nov. 21.

WATER TEMPERATURE: Maximum daily, 35.0 °C, June 5, 6, July 5, 23; minimum daily, 6.0 °C, Jan. 2.

SEDIMENT CONCENTRATION: Maximum daily mean, 18,700 mg/L, June 28; minimum daily mean, no flow, May 14-16.

SEDIMENT LOAD: Maximum daily, 70,800 tons, June 28; minimum daily, 0 ton, May 14-16.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
OCT 1995											
17...	1330	471	462	8.4	17.0	16.0	645	8.8	106	22	150
MAR 1996											
13...	0900	550	421	8.3	12.0	10.0	638	9.1	97	18	130
MAY											
30...	0945	205	488	8.8	--	18.5	642	9.8	125	14	160
AUG											
12...	0930	52	566	8.3	27.5	21.0	649	7.4	98	44	180

DATE	HARD- NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CaCO3 (39086)	ALKA- LITY LAB (MG/L AS CaCO3) (90410)
OCT 1995										
17...	16	47	8.0	35	1	4.1	154	5	133	135
MAR 1996										
13...	10	41	7.2	32	1	4.0	143	3	122	130
MAY										
30...	19	48	8.6	38	1	4.7	140	13	136	145
AUG										
12...	26	56	9.0	45	1	4.9	174	5	150	159

## RIO GRANDE BASIN

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)
OCT 1995 17...	66	17	0.50	21	286	1.39	0.010	1.40	<0.015	--
MAR 1996 13...	61	14	0.50	24	261	--	<0.010	0.740	<0.015	--
MAY 30...	78	17	0.60	19	297	--	<0.010	0.270	0.020	0.38
AUG 12...	95	19	0.60	24	349	0.830	0.020	0.850	0.030	--
DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)
OCT 1995 17...	0.40	0.30	0.280	0.230	0.210	6.5	5.0	<1.0	5	74
MAR 1996 13...	0.40	0.20	0.300	0.240	0.230	5.1	--	--	--	--
MAY 30...	0.80	0.40	0.240	0.150	0.140	6.1	--	--	--	--
AUG 12...	0.30	<0.20	0.220	0.130	0.180	17	5.0	<1.0	5	91
DATE	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)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
OCT 1995 17...	<1.0	90	<1.0	1.0	<1.0	2.0	<3.0	<1.0	3.0	<0.10
MAR 1996 13...	--	80	--	--	--	--	<3.0	--	--	--
MAY 30...	--	90	--	--	--	--	<3.0	--	--	--
AUG 12...	<1.0	105	<1.0	2.0	<1.0	2.0	<3.0	<1.0	<1.0	<0.10
DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)
OCT 1995 17...	7.0	2.0	<1	<1	<1.0	2.0	0.08	0.020	1.9	0.1
MAR 1996 13...	--	--	--	--	--	--	--	--	--	--
MAY 30...	--	--	--	--	--	--	--	--	--	--
AUG 12...	8.0	3.0	<1	<1	<1.0	<1.0	--	--	3.0	--

RIO GRANDE BASIN  
08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued  
WATER-QUALITY RECORDS  
WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	STREAM WIDTH (FT) (000004)	STREAM DEPTH, MEAN (FT) (000064)	STREAM VELOC- ITY, MEAN (F/S) (000055)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	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, SUSP. + BED MA- TERIAL (T/DAY) (80156)
OCT 1995										
17...	1220	471	324	1.1	1.35	--	14.0	140	178	283
NOV										
30...	0935	1260	343	1.8	2.02	--	6.5	286	973	1470
JAN 1996										
11...	1040	1280	343	2.0	1.83	--	3.0	376	1300	1950
FEB										
23...	0920	1530	344	2.2	2.01	--	8.5	2260	9340	13300
MAR										
13...	0900	550	--	--	--	421	10.0	114	169	269
21...	0905	815	--	--	--	--	9.5	429	944	1430
APR										
04...	0940	300	--	--	--	--	11.5	10	8.1	--
16...	0940	61	147	0.68	0.60	--	11.5	400	66	94
MAY										
28...	1310	205	74.0	1.2	1.09	--	24.0	58	32	54
JUN										
18...	0940	248	227	0.81	1.34	--	23.0	177	119	192
JUL										
10...	0815	448	297	0.96	1.55	--	22.0	5680	6870	9840
AUG										
12...	0930	52	--	--	--	566	21.0	1220	171	273
16...	1220	21	--	--	--	--	27.0	272	15	26
SEP										
06...	1200	73	--	--	--	--	25.5	568	112	181

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)	SED. SUSP. FALL DIAM. % FINER THAN (70337)	SED. SUSP. FALL DIAM. % FINER THAN (70338)	SED. SUSP. FALL DIAM. % FINER THAN (70339)	SED. SUSP. FALL DIAM. % FINER THAN (70340)	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 (70346)
OCT 1995										
17...	--	--	--	--	--	59	63	94	100	--
NOV										
30...	--	--	--	--	--	35	42	89	100	--
JAN 1996										
11...	--	--	--	--	--	41	50	81	100	--
FEB										
23...	--	--	--	--	--	8	10	38	90	100
MAR										
13...	25	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	75	79	89	100	--
APR										
04...	67	--	--	--	--	--	--	--	--	--
16...	80	--	--	--	--	--	--	--	--	--
MAY										
28...	--	--	--	--	--	62	73	100	--	--
JUN										
18...	--	--	--	--	--	91	93	100	--	--
JUL										
10...	--	49	54	63	68	74	74	88	100	--
AUG										
12...	99	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	87	92	97	100	--
SEP										
06...	--	--	--	--	--	74	75	84	100	--



## RIO GRANDE BASIN

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
OCT 1995										
17...	--	--	--	--	--	--	--	--	--	--
NOV										
30...	0	1	18	75	95	97	97	98	100	--
JAN 1996										
11...	--	0	1	20	74	96	100	--	--	--
FEB										
23...	0	1	18	75	90	92	94	94	98	100
MAR										
13...	--	--	--	--	--	--	--	--	--	--
21...	1	5	32	88	99	100	--	--	--	--
APR										
04...	--	--	--	--	--	--	--	--	--	--
16...	3	12	37	80	96	98	99	99	100	--
MAY										
28...	2	8	48	89	99	100	--	--	--	--
JUN										
18...	0	2	37	91	99	100	--	--	--	--
JUL										
10...	1	4	33	85	97	99	99	100	--	--
AUG										
12...	--	--	--	--	--	--	--	--	--	--
16...	2	5	23	81	97	100	--	--	--	--
SEP										
06...	5	8	25	82	98	100	--	--	--	--

## RIO GRANDE BASIN

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	466	465	---	457	438	426	509	605	530	494	574	526
2	474	473	---	456	440	438	543	677	530	505	594	556
3	465	487	---	543	433	428	569	624	529	522	564	566
4	461	488	---	465	433	420	586	636	533	526	557	567
5	458	477	---	452	428	412	584	615	559	519	531	583
6	466	454	---	462	427	434	584	638	575	544	507	547
7	474	456	520	465	427	433	601	619	550	542	574	541
8	483	460	477	471	426	440	598	633	578	535	613	538
9	473	470	473	462	427	435	607	631	595	478	572	575
10	478	169	472	457	---	436	629	649	---	525	541	551
11	469	471	469	452	---	435	633	622	617	1060	543	526
12	490	461	464	449	---	428	659	595	551	483	564	559
13	493	464	466	455	436	442	731	594	613	524	589	505
14	481	454	469	456	436	440	699	---	609	569	635	581
15	470	462	473	452	436	446	690	---	536	561	621	525
16	488	457	470	447	435	445	605	---	544	586	646	409
17	471	460	468	444	435	442	617	602	553	595	605	523
18	461	459	464	442	---	444	592	612	509	615	665	549
19	480	458	464	448	---	432	616	720	521	601	666	516
20	474	457	467	444	---	431	585	644	519	592	673	498
21	478	341	465	446	419	439	572	568	530	559	589	529
22	482	463	465	441	450	---	558	577	556	---	571	553
23	490	462	475	438	419	467	553	---	549	560	546	546
24	461	471	476	440	421	480	601	494	573	567	533	537
25	400	471	477	454	428	472	589	560	576	2440	528	570
26	481	467	470	452	420	459	579	541	565	871	478	582
27	488	468	468	465	424	462	559	528	533	1370	528	603
28	471	---	473	456	426	497	630	503	583	571	463	601
29	472	---	476	450	425	476	604	507	452	566	516	596
30	502	---	470	452	---	487	566	495	515	562	607	568
31	527	---	469	---	---	487	---	524	---	587	584	---
MEAN	475	---	---	---	---	---	602	---	---	---	573	548
MAX	527	---	---	---	---	---	731	---	---	---	673	603
MIN	400	---	---	---	---	---	509	---	---	---	463	409

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	16.0	---	7.0	10.0	12.0	21.0	27.0	29.0	31.0	30.0	---
2	23.0	15.0	---	6.0	9.0	13.0	22.0	28.0	30.0	32.0	30.0	26.0
3	23.0	17.0	---	7.0	---	13.0	23.0	28.0	32.0	30.0	31.0	29.0
4	20.0	15.0	---	9.0	---	11.0	18.0	27.0	33.0	30.0	32.0	28.0
5	20.0	14.0	---	12.0	10.0	14.0	14.0	30.0	35.0	35.0	31.0	26.0
6	20.0	15.0	---	10.0	11.0	10.0	21.0	30.0	35.0	30.0	33.0	29.0
7	14.0	15.0	13.0	10.0	11.0	10.0	21.0	30.0	34.0	30.0	23.0	29.0
8	20.0	17.0	13.0	13.0	12.0	13.0	25.0	31.0	30.0	31.0	22.0	30.0
9	22.0	19.0	13.0	11.0	---	15.0	26.0	30.0	32.0	29.0	25.0	28.0
10	22.0	14.0	14.0	12.0	---	16.0	18.0	30.0	34.0	30.0	26.0	27.0
11	25.0	10.0	10.0	12.0	---	17.0	18.0	30.0	30.0	33.0	31.0	24.0
12	23.0	14.0	12.0	13.0	---	17.0	23.0	33.0	27.0	31.0	23.0	22.0
13	23.0	14.0	14.0	8.0	18.0	12.0	18.0	30.0	28.0	---	30.0	20.0
14	20.0	15.0	12.0	9.0	18.0	13.0	23.0	---	26.0	---	30.0	18.0
15	15.0	16.0	9.0	9.0	19.0	15.0	22.0	---	30.0	23.0	28.0	22.0
16	20.0	17.0	10.0	13.0	19.0	16.0	22.0	---	30.0	---	28.0	23.0
17	20.0	17.0	13.0	13.0	20.0	15.0	23.0	28.5	30.0	---	29.0	24.0
18	22.0	13.0	12.0	12.0	---	15.0	23.0	---	30.0	---	28.0	21.0
19	20.0	17.0	10.0	12.0	---	16.0	22.0	---	33.0	---	---	22.0
20	21.0	17.0	10.0	12.0	---	17.0	22.0	---	34.0	---	---	26.0
21	20.0	16.0	9.0	8.0	15.0	17.0	22.0	31.0	32.0	33.0	---	24.0
22	22.0	16.0	12.0	12.0	18.0	---	23.0	30.0	28.0	---	---	26.0
23	15.0	15.0	11.0	10.0	13.0	19.0	25.0	---	33.0	35.0	---	25.0
24	17.0	16.0	17.0	12.0	11.0	16.0	27.0	26.0	31.0	34.0	---	21.0
25	18.0	16.0	18.0	11.0	10.0	15.0	27.0	23.0	31.0	27.0	29.0	25.0
26	18.0	15.0	13.0	8.0	10.0	16.0	28.0	21.0	29.0	34.0	26.0	15.0
27	20.0	15.0	11.0	10.0	11.0	17.0	28.0	29.0	28.0	34.0	28.0	20.0
28	21.0	---	9.0	10.0	9.0	19.0	19.0	30.0	28.0	31.0	29.0	23.0
29	15.0	---	8.0	11.0	9.0	15.0	22.0	28.0	26.0	25.0	---	25.0
30	20.0	---	9.0	12.0	---	18.0	25.0	25.0	29.0	28.0	---	25.0
31	17.0	---	10.0	---	---	---	---	---	---	30.0	---	---
MEAN	20.0	---	---	---	---	---	22.4	---	30.6	---	---	---
MAX	25.0	---	---	---	---	---	28.0	---	35.0	---	---	---
MIN	14.0	---	---	---	---	---	14.0	---	26.0	---	---	---

## RIO GRANDE BASIN

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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	1270	2930	2520	9100	871	3060	485	1680	702	2450	1030	3280	
2	667	1470	1110	5150	746	2460	1920	6740	1110	3960	700	2150	
3	538	1230	466	2100	639	2090	868	2840	900	3260	1010	3350	
4	395	914	433	1990	752	2580	900	2820	950	3490	900	3060	
5	324	669	430	1960	806	2810	1100	4010	1500	5550	616	1810	
6	341	713	420	1910	782	2720	1300	4530	1210	4520	602	1670	
7	362	631	556	2490	879	2990	1200	4080	919	3280	734	1930	
8	259	419	750	3320	1710	5440	1200	3990	708	2470	518	1240	
9	200	280	1250	5470	1250	4090	1400	4500	650	2210	495	1010	
10	543	856	1300	5620	812	2590	1040	3400	900	2940	501	1130	
11	363	566	1470	6270	998	3210	1300	4530	1100	3420	450	887	
12	184	275	391	1650	534	1690	1890	6020	1200	3560	475	893	
13	186	309	252	1050	797	2470	1900	6270	1100	2780	506	895	
14	621	1040	251	1030	806	2420	1670	5100	900	2360	127	219	
15	916	1390	700	2840	794	2400	1640	4510	1000	2680	374	703	
16	422	514	1370	5470	1140	3440	1760	4740	800	2180	700	1380	
17	147	191	214	844	868	2620	2280	5990	1000	2690	1100	2270	
18	317	416	416	1620	941	2740	1820	4890	700	1910	1090	2380	
19	333	441	974	3730	706	2230	2500	6880	900	2390	1500	3360	
20	300	402	1430	5410	632	2530	2000	5670	1100	2960	1600	3700	
21	318	429	790	2960	863	3380	1600	4620	505	1680	1340	2930	
22	401	547	543	2020	1000	3780	1220	3620	1200	4020	1300	2750	
23	194	267	309	1140	900	3280	1030	3110	1130	4710	1240	2650	
24	380	341	333	1220	1110	3900	949	2900	1170	4440	281	594	
25	340	299	394	1440	1200	4080	1330	4200	1130	4120	400	807	
26	384	280	656	2370	1340	4410	1510	5090	1110	4020	651	1300	
27	1210	1180	845	3010	616	2000	2010	6990	917	3190	500	1010	
28	980	966	781	2760	1350	4410	1290	4310	1500	5020	484	920	
29	357	294	713	2500	826	2610	1260	4090	1240	4020	500	1010	
30	160	168	785	2730	2760	8640	822	2770	---	---	786	1510	
31	289	449	---	---	3730	11600	600	2060	---	---	400	707	
TOTAL	---	20876	---	91174	---	108670	---	136950	---	96280	---	53505	
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	364	635	68	.00	70	34	8290	25700	1830	168	1450	431	
2	252	340	100	.01	69	27	9910	24000	1130	89	719	171	
3	190	199	71	.07	55	14	6430	11900	1210	114	569	86	
4	218	177	70	9.8	48	6.7	3910	5700	516	47	464	61	
5	220	158	75	.11	47	3.0	2100	1910	2490	269	353	36	
6	189	100	64	.12	59	3.8	1380	804	1480	120	954	126	
7	208	103	46	.11	62	7.0	1030	474	1450	86	1030	128	
8	347	126	53	.16	50	5.0	402	143	1350	157	299	48	
9	242	81	116	.38	49	1.6	604	217	2200	421	268	36	
10	200	60	91	.34	56	2.6	3620	3910	2460	465	380	52	
11	155	42	47	.18	49	2.1	17700	28900	2810	523	300	59	
12	239	58	43	.19	59	6.4	12600	18200	1540	229	212	27	
13	322	75	64	.13	39	2.9	8000	14500	929	125	2280	639	
14	179	36	0	.00	50	7.7	3780	3230	868	98	5120	3350	
15	519	98	0	.00	3790	1200	2660	1320	914	94	3720	2620	
16	407	66	0	.00	940	482	6530	3530	346	22	2870	4030	
17	439	33	1030	1.5	564	474	6990	3870	260	15	2000	1900	
18	207	21	483	1.8	219	152	4510	2260	230	7.5	1640	1300	
19	110	22	165	4.5	179	102	6900	3240	168	4.0	1010	843	
20	141	27	97	7.1	130	54	2390	1400	360	8.4	1270	1150	
21	263	48	82	2.4	116	.38	1130	448	242	13	636	354	
22	103	18	188	4.3	105	.39	1080	298	189	11	349	113	
23	259	42	287	71	85	28	371	76	223	23	736	234	
24	83	13	355	170	78	24	162	35	478	62	331	102	
25	76	11	214	76	79	17	938	261	1170	239	294	117	
26	83	12	402	175	68	23	1270	323	4280	1390	309	102	
27	70	9.5	254	138	194	91	1700	417	6690	3310	234	61	
28	53	6.9	161	94	18700	70800	1890	367	5180	2740	186	37	
29	53	6.4	166	89	7140	24500	917	156	3610	2070	150	16	
30	65	8.1	639	321	10700	40700	1320	167	2620	1290	315	50	
31	---	---	154	79	---	---	2170	216	2840	1660	---	---	
TOTAL	---	2631.9	---	1246.20	---	138847.8	---	157972	---	15869.9	---	18279	
TOTAL LOAD FOR YEAR:			842301.80			TONS.							

## RIO GRANDE BASIN

## 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 upstream from culvert on U.S. Highway 60, and 1.0 mi 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. Elevation of gage is 4,710 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 4, 1936, to May 17, 1937, nonrecording gage 300 ft downstream, and Oct. 1, 1943 to Jan. 12, 1978, water-stage recorder at site 150 ft downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. 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. Prior to 1952, drain was subject to overflow from floodway.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183	51	36	29	25	24	27	141	130	119	57	125
2	183	60	35	28	25	21	26	131	99	114	63	124
3	185	58	35	28	25	22	45	112	120	109	66	120
4	177	56	35	28	25	23	49	128	123	94	91	100
5	158	55	34	27	26	23	50	139	120	82	103	84
6	148	54	32	27	26	24	47	174	117	62	97	93
7	169	46	33	27	26	23	56	139	99	59	102	91
8	181	41	33	26	26	23	54	138	132	55	97	102
9	169	43	32	26	22	23	54	106	144	60	125	92
10	169	42	32	26	21	22	47	113	114	65	117	96
11	163	43	32	26	19	21	55	103	111	90	119	87
12	171	44	32	26	19	21	36	121	111	109	107	103
13	181	44	31	25	20	21	42	127	124	116	108	109
14	168	43	31	25	19	34	38	121	140	111	102	111
15	165	43	30	24	20	62	32	120	145	91	107	124
16	158	43	30	25	21	46	67	139	152	106	102	127
17	154	42	30	25	22	68	71	150	155	107	e105	124
18	162	42	30	24	21	70	87	142	147	96	e107	130
19	174	41	29	25	23	82	132	154	118	98	e110	134
20	166	40	30	25	23	70	113	148	94	90	e115	140
21	167	39	30	25	23	60	141	135	102	116	e120	138
22	181	40	32	25	24	44	147	147	114	103	e125	127
23	181	40	31	24	25	54	166	146	119	60	e130	112
24	171	39	31	24	26	68	166	144	102	64	e135	126
25	167	38	30	25	28	82	162	158	97	56	e140	128
26	173	37	29	24	27	87	148	175	99	68	e140	144
27	178	35	28	24	26	79	130	147	133	72	141	116
28	179	36	29	24	26	75	126	145	135	74	132	131
29	182	36	28	24	27	38	124	143	127	72	101	134
30	162	36	28	24	---	54	112	133	132	74	95	110
31	94	---	28	24	---	46	---	116	---	70	108	---
TOTAL	5219	1307	966	789	686	1410	2550	4235	3655	2662	3367	3482
MEAN	168	43.6	31.2	25.5	23.7	45.5	85.0	137	122	85.9	109	116
MAX	185	60	36	29	28	87	166	175	155	119	141	144
MIN	94	35	28	24	19	21	26	103	94	55	57	84
AC-FT	10350	2590	1920	1560	1360	2800	5060	8400	7250	5280	6680	6910

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996, BY WATER YEAR (WY)

	MEAN	74.7	31.2	27.5	26.1	26.3	48.5	59.0	62.8	57.3	58.2	68.9	72.1
MAX	168	87.9	74.2	87.7	74.5	96.9	118	137	134	146	146	164	164
(WY)	1996	1987	1987	1990	1990	1985	1969	1996	1992	1992	1992	1995	1995
MIN	11	1.37	3.50	3.30	3.90	5.61	4.81	4.84	1.64	1.18	.006	.010	.010
(WY)	1957	1957	1955	1957	1957	1954	1955	1954	1954	1954	1956	1954	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR			FOR 1996 WATER YEAR			WATER YEARS 1954 - 1996		
ANNUAL TOTAL	25939			30328					
ANNUAL MEAN	71.1			82.9			52.1		
HIGHEST ANNUAL MEAN							92.1		
LOWEST ANNUAL MEAN							4.29		
HIGHEST DAILY MEAN	189	Sep 1		185	Oct 3		208	May 5	1983
LOWEST DAILY MEAN	22	Jan 10		19	Feb 11		.00	Jul 31	1954
ANNUAL SEVEN-DAY MINIMUM	22	Jan 10		20	Feb 10		.00	Jul 31	1954
INSTANTANEOUS PEAK FLOW				199	Oct 30		208	May 5	1983
INSTANTANEOUS PEAK STAGE				6.06	Oct 30				
INSTANTANEOUS LOW FLOW				15	Apr 12				
ANNUAL RUNOFF (AC-FT)	51450			60160			37730		
10 PERCENT EXCEEDS	168			154			114		
50 PERCENT EXCEEDS	57			80			39		
90 PERCENT EXCEEDS	25			24			5.6		

e Estimated

## RIO GRANDE BASIN

08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM

LOCATION.--Lat 35°36'04", long 107°09'56", (revised) in SW¼ sec.21, T.16 N., R.3 W., Sandoval County, Hydrologic Unit 13020204, on right bank 1.6 mi upstream from Arroyo Chico, 5.5 mi northeast of village of Guadalupe, and at mile 106.8.

DRAINAGE AREA.--420 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,950 ft above National Geodetic Vertical Datum of 1929. Prior to July 14, 1966, at datum 1.01 ft higher.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 3,700 acres upstream from station in past years, but present diversion negligible. Several observations of water temperature were made during the year. Satellite telemeter at station. No flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1943, probably exceeded 5,000 ft<sup>3</sup>/s based on records for stations upstream and downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	.03	.03	.01	e.00	.13	.00	.00	.00	51	.00	e10
2	1.8	.03	.03	.01	e.00	.13	.00	.00	.00	47	.00	e3.0
3	.43	.02	.04	.01	e.00	.14	.00	.00	.00	47	.00	e50
4	.14	.05	.03	.01	e.00	.14	.00	.00	.00	47	.21	48
5	.07	.06	.04	.01	e.00	.13	.00	.00	.00	45	.00	34
6	.06	.04	.04	.00	e.00	.19	.00	.00	.00	35	.00	e5.0
7	.06	.03	.04	.01	e.00	.19	.00	.00	.00	45	2.5	e.50
8	.05	.02	.04	.00	e.00	.17	.00	.00	.00	177	.75	e.00
9	.04	.03	.03	.00	e.00	.19	.00	.00	.00	1170	1.9	e.00
10	.03	.05	.03	.00	e.00	.23	.00	.00	.00	865	.53	e5.0
11	.03	.03	.01	.00	e.00	.20	.00	.00	.00	.00	.03	e.50
12	.03	.03	.01	.00	e.00	e.10	.00	.00	.00	9.2	.00	e5.0
13	.02	.02	.01	.00	e.00	e.05	.00	.00	.00	.00	.00	e10
14	.01	.03	.01	.00	e.00	e.05	.00	.00	.00	.00	.00	254
15	.01	.03	.01	.00	e.00	e.20	.00	.00	.00	.00	.00	236
16	.02	.03	.01	e.00	e.00	e.10	.00	.00	.00	.00	.00	e10
17	.02	.03	.03	e.00	e.00	.10	.00	.00	.00	e5.0	.00	e60
18	.01	.03	e.01	e.00	e.00	.05	.02	.00	.00	16	.00	304
19	.00	.03	e.00	e.00	e.00	.05	.00	.00	.00	8.1	.00	261
20	.00	.04	e.00	e.00	e.01	.20	.01	.00	.00	3.5	.00	e25
21	.01	.04	e.00	e.00	e.02	.10	.01	.00	.00	1.6	4.6	e2.0
22	.01	.03	e.00	e.00	e.05	.10	.01	.00	.00	.96	13	e.50
23	.00	.03	e.00	e.00	e.10	.05	.01	.00	.00	.27	4.8	e.00
24	.01	.03	e.00	e.00	.18	.05	.02	.00	.00	.05	4.5	e.00
25	.02	.03	e.00	e.00	.16	.03	.00	.00	.00	.00	64	.00
26	.01	.03	e.00	.00	.12	.02	.00	.00	14	.00	23	.00
27	.00	.02	e.00	.00	.15	.01	.00	.00	63	.00	.74	.00
28	.01	e.01	e.00	.00	.21	.00	.00	.00	66	.00	.11	.00
29	.02	e.01	e.00	.00	.17	.00	.00	.00	17	.00	225	.00
30	.02	.03	e.00	.00	---	.00	.00	.00	73	.00	191	.00
31	.02	---	e.00	e.00	---	.00	---	.00	---	.00	43	---
TOTAL	9.96	0.92	0.45	0.06	1.17	3.10	0.08	0.00	233.00	2573.68	579.67	1323.50
MEAN	.32	.031	.015	.002	.040	.10	.003	.000	7.77	83.0	18.7	44.1
MAX	7.0	.06	.04	.01	.21	.23	.02	.00	73	1170	225	304
MIN	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	20	1.8	.9	.1	2.3	6.1	.2	.00	462	5100	1150	2630

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1996, BY WATER YEAR (WY)

MEAN	7.60	3.09	1.46	3.02	12.6	17.5	19.7	40.2	16.6	16.2	23.8	12.3
MAX	129	28.2	15.9	48.2	79.2	161	99.3	236	113	83.0	101	90.3
(WY)	1958	1987	1987	1993	1979	1960	1958	1973	1995	1996	1957	1972
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1953	1953	1953	1953	1953	1953	1964	1964	1953	1959	1962	1952

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1952 - 1996

ANNUAL TOTAL	9739.62	4725.59	
ANNUAL MEAN	26.7	12.9	14.5
HIGHEST ANNUAL MEAN			48.6
LOWEST ANNUAL MEAN			1.11
HIGHEST DAILY MEAN	316	Aug 27	2000
LOWEST DAILY MEAN	.00	Jul 28	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 28	.00
INSTANTANEOUS PEAK FLOW		2520	a6940
INSTANTANEOUS PEAK STAGE		8.10	13.53
ANNUAL RUNOFF (AC-FT)	19320	9370	10530
10 PERCENT EXCEEDS	98	7.3	40
50 PERCENT EXCEEDS	2.4	.01	.12
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 1,300 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 7.75 ft and 10.60 ft.

## RIO GRANDE BASIN

08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-56 (published as "below Cabezon"), 1981 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGES: July 1948 to June 1956, October 1981 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler since August 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 214,000 mg/L, Aug. 28, 1988; minimum daily mean, no flow on many days each year.

SEDIMENT LOADS: Maximum daily, 730,000 tons, July 27, 1955; minimum daily, 0 ton on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 110,000 mg/L, Aug. 7; minimum daily mean, no flow on many days.

SEDIMENT LOADS: Maximum daily, 232,000 tons, July 9; minimum daily, 0 ton on many days.

## SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995					
03...	0950	1810	5.0	50700	100
05...	1143	2290	11.5	70800	100
MAR 1996					
05...	1000	4440	7.0	173	83



## RIO GRANDE BASIN

08341300 BLUEWATER CREEK ABOVE BLUEWATER DAM, NEAR BLUEWATER, NM

LOCATION.--Lat 35°16'04", long 108°06'50", SW¼SW¼, sec. 16, T.12 N., R.12 W., Cibola County, Hydrologic Unit 13020207, on left bank 2.0 mi south of Bluewater Dam, 7.0 mi west of Bluewater, and 11 mi east of Thoreau.

DRAINAGE AREA.--75.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1953 to September 1978 (annual maximum only), July 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.88	.88	e.90	e.94	.92	.77	.41	.20	.11	.02	.06
2	.22	1.1	.89	e.92	e.92	.92	.77	.42	.19	.06	.02	.06
3	.22	1.0	.90	e.90	e.91	.92	.77	.44	.18	.09	.07	.09
4	.20	1.2	.92	e.92	e.90	.93	.73	.46	.16	.05	.06	.04
5	.20	1.3	.94	e.91	e.89	.94	.72	.44	.16	.04	.01	.01
6	.20	1.3	.96	e.89	.88	.92	.72	.42	.13	.03	.00	.03
7	.20	1.4	.94	e.90	.90	.90	.67	.43	.13	.05	.00	.02
8	.18	1.3	.95	e.91	.88	.95	.68	.44	.14	.07	.00	.01
9	.18	1.3	.97	e.90	.86	1.0	.62	.44	.14	.09	1.2	.00
10	.18	1.2	.94	e.88	.84	.98	.57	.46	.16	.07	.38	.00
11	.18	1.1	.95	e.89	.83	.96	.55	.45	.12	.04	.15	.00
12	.19	1.2	.95	e.86	.82	.97	.50	.42	.12	.04	.06	.02
13	.21	1.1	.97	e.88	.88	.98	.52	.43	.16	.25	.01	.16
14	.20	.96	.98	e.94	.87	.90	.53	.44	.23	.07	.00	.34
15	.20	e.89	.99	e.92	.86	.92	.52	.46	.27	.05	.00	.35
16	.22	e.92	.98	e.90	.85	.88	.46	.40	.22	.07	.00	.22
17	.22	e.91	.99	e.91	.87	.86	.44	.42	.17	.06	.00	.18
18	.22	e.95	.98	e.92	.86	.84	.43	.43	.11	.04	.01	.50
19	.22	e.92	.96	e.91	.85	.82	.42	.42	.06	.03	.01	.45
20	.21	.95	.97	e.94	e.84	.64	.43	.40	.03	.03	.01	.32
21	.22	.91	e.98	e.92	e.92	.66	.44	.41	.04	.02	.13	.25
22	.27	.89	e.99	e.90	e.93	.66	.43	.30	.09	.01	.36	.18
23	.32	.89	e.98	e.91	e.92	.66	.41	.28	.02	.01	.44	.14
24	.36	.90	e.96	e.92	e.94	.73	.41	.26	.01	.01	.40	.09
25	.38	.94	e.94	e.91	e.92	.76	.42	.26	.00	.01	.81	.21
26	.59	e.98	e.96	e.90	e.90	.72	.40	.27	.01	.01	.56	.40
27	.87	e.95	e.98	e.91	e.92	.62	.41	.27	.46	.00	.35	.30
28	.83	e.91	e.97	e.92	e.92	.66	.38	.26	.19	.03	.35	.23
29	.86	e.90	e.98	e.91	e.90	.69	.40	.22	.07	.06	.27	.21
30	.84	e.95	e.92	e.96	---	.77	.42	.21	.11	.06	.20	.15
31	.83	---	e.91	e.98	---	.81	---	.21	---	.06	.14	---
TOTAL	10.44	31.10	29.58	28.24	25.72	25.89	15.94	11.58	4.08	1.62	6.02	5.02
MEAN	.34	1.04	.95	.91	.89	.84	.53	.37	.14	.052	.19	.17
MAX	.87	1.4	.99	.98	.94	1.0	.77	.46	.46	.25	1.2	.50
MIN	.18	.88	.88	.86	.82	.62	.38	.21	.00	.00	.00	.00
AC-FT	21	62	59	56	51	51	32	23	8.1	3.2	12	10

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	.48	1.11	.97	3.17	12.0	62.5	46.3	4.50
MAX	1.90	3.47	2.54	17.9	42.1	227	225	14.6
(WY)	1994	1994	1995	1993	1995	1993	1993	1993
MIN	.093	.055	.050	.091	.48	.55	.43	.37
(WY)	1991	1991	1991	1991	1990	1990	1990	1996

## SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1989 - 1996

	1995 CALENDAR YEAR	1996 WATER YEAR	WATER YEARS 1989 - 1996
ANNUAL TOTAL	4670.16	195.23	
ANNUAL MEAN	12.8	.53	11.3
HIGHEST ANNUAL MEAN			44.6
LOWEST ANNUAL MEAN			.24
HIGHEST DAILY MEAN	742	1.4	742
LOWEST DAILY MEAN	.09	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.12	.00	.00
INSTANTANEOUS PEAK FLOW		28	3570
INSTANTANEOUS PEAK STAGE		2.27	8.99
ANNUAL RUNOFF (AC-FT)	9260	387	8180
10 PERCENT EXCEEDS	.39	.96	.20
50 PERCENT EXCEEDS	1.2	.45	.75
90 PERCENT EXCEEDS	.22	.03	.09

e Estimated



## RIO GRANDE BASIN

08341365 COTTONWOOD CREEK NEAR THOREAU, NM

LOCATION.--Lat 35°20'32", long 106°12'42", in NE¼ sec.21, T.13 N., R. 13., McKinley County, Hydrologic Unit 13020207, on left bank 4.0 mi southeast of Thoreau, and 4.0 mi southwest of north end of Bluewater Lake.

DRAINAGE AREA.--77.0 mi.

PERIOD OF RECORD.--July 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,420 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.17	e.10	e.20	.09	.11	.00	.00	.00	.00	.00
2	.00	.00	.20	e.10	e.40	.09	.07	.00	.00	.00	.00	.00
3	.00	.00	.22	e.00	e.30	.08	.06	.00	.00	.00	.00	.00
4	.00	.11	.21	e.00	e.20	.07	.06	.00	.00	.00	.00	.00
5	.00	.04	.25	e.00	e.20	.03	.11	.00	.00	.00	.00	.00
6	.00	.02	.25	e.00	.17	.03	.12	.00	.00	.00	.00	.00
7	.00	.01	.15	e.00	.12	.03	.09	.00	.00	.00	.00	.00
8	.00	.00	.16	e.00	.11	.03	.08	.00	.00	.00	.00	.00
9	.00	.00	.12	e.00	.08	.02	.09	.00	.00	.00	.15	.00
10	.00	.00	.12	e.00	.06	.02	.10	.00	.00	4.3	1.7	.00
11	.00	.00	.12	e.00	.05	.02	.08	.00	.00	1.4	.04	.00
12	.00	.01	.12	e.00	.03	.01	.08	.00	.00	.03	.00	.00
13	.00	.02	.12	e.00	.03	.01	.15	.00	.00	3.0	.00	.00
14	.00	.03	.18	e.00	.03	.02	.20	.00	.00	1.0	.00	.00
15	.00	.04	.22	e.00	.02	.02	.16	.00	.00	.03	.00	.00
16	.00	.04	.20	e.00	.01	.05	.12	.00	.00	.00	.00	.00
17	.00	.04	.23	e.20	.01	.03	.03	.00	.00	.00	.00	.00
18	.00	.04	e.20	e.10	.01	.01	.00	.00	.00	.00	.00	.00
19	.00	.04	e.20	e.10	.01	.01	.01	.00	.00	.00	.00	.00
20	.00	.07	e.10	e.10	.01	.01	.02	.00	.00	.00	.92	.00
21	.00	.10	e.10	e.00	.01	.01	.00	.00	.00	.00	.30	.00
22	.00	.09	e.10	e.00	.02	.03	.02	.00	.00	.00	.10	.00
23	.00	.09	e.10	e.00	.02	.02	.02	.00	.00	.00	.00	.00
24	.00	.10	e.00	e.00	.01	.01	.02	.00	.00	.00	.00	.00
25	.00	.13	e.00	e.20	.02	.01	.00	.00	.00	.00	9.7	.00
26	.00	.09	e.00	e.10	.02	.03	.00	.00	.00	.00	3.6	.00
27	.00	.09	e.00	e.10	.04	.05	.00	.00	.00	.00	4.4	.00
28	.00	.09	e.20	e.10	.06	.06	.00	.00	.00	.00	.44	.00
29	.00	.12	e.10	e.00	.08	.10	.00	.00	.00	.00	.00	.00
30	.00	.16	e.10	e.00	---	.17	.00	.00	.00	.00	.00	.00
31	.00	---	e.10	e.00	---	.18	---	.00	---	.00	.00	---
TOTAL	0.00	1.57	4.34	1.20	2.33	1.35	1.80	0.00	0.00	9.76	36.20	0.00
MEAN	.000	.052	.14	.039	.080	.044	.060	.000	.000	.31	1.17	.000
MAX	.00	.16	.25	.20	.40	.18	.20	.00	.00	4.3	15	.00
MIN	.00	.00	.00	.00	.01	.01	.00	.00	.00	.00	.00	.00
AC-FT	.00	3.1	8.6	2.4	4.6	2.7	3.6	.00	.00	19	72	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	.015	.21	.25	4.89	9.23	43.1	20.1	2.66	.35	.068	.47	.029
MAX	.10	1.22	1.19	34.2	33.4	143	62.8	8.32	.93	.31	1.17	.19
(WY)	1994	1994	1993	1993	1993	1993	1991	1995	1995	1996	1996	1993
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1990	1990	1990	1990	1990	1990	1990	1990	1994	1993	1994	1991

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1989 - 1996

ANNUAL TOTAL	3929.89	58.55	6.79
ANNUAL MEAN	10.8	.16	21.6
HIGHEST ANNUAL MEAN			.006
LOWEST ANNUAL MEAN			
HIGHEST DAILY MEAN	470	15	470
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		175	a813
INSTANTANEOUS PEAK STAGE		4.56	7.64
ANNUAL RUNOFF (AC-FT)	7790	116	4920
10 PERCENT EXCEEDS	42	.16	12
50 PERCENT EXCEEDS	.02	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 2000 ft<sup>3</sup>/s.

## RIO GRANDE BASIN

08341400 BLUEWATER LAKE NEAR BLUEWATER, NM

LOCATION.--Lat 35°17'31", long 108°06'40", in SE¼ sec.9, T.12 N., R.12 W., Cibola County, Hydrologic Unit 13020207, at left end of Bluewater Dam on Bluewater Creek, and 9.5 mi west of Bluewater.

DRAINAGE AREA.--201 mi<sup>2</sup>.

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 above 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.--Lake is formed by concrete arch dam. Storage began in 1927. Capacity, 38,500 acre-ft, survey of 1945 at elevation 7,402.6 ft, crest of uncontrolled siphon spillway, which is vented to avoid drawdown below crest, and 44,200 acre-ft, at elevation 7,405.6 ft, crest of ungated spillway over dam. Capacity table used through 1944 showed a capacity of 50,300 acre-ft at crest of ungated spillway over dam, and that used from 1945-50, 43,500 acre-ft. Tables used prior to 1958 are not available and no adjustments are made for changes in tables. Dead storage, 3.4 acre-ft at elevation 7,345.4 ft, sill of lower outlet tube. Lake not usually drawn below conservation-pool level elevation, 7,365.36 ft, 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, Apr. 30, 1941. Contents may have been greater on Apr. 28, 1941, when peak discharge of 800 ft<sup>3</sup>/s occurred at station 8 mi downstream; no storage at times prior to 1947.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 11,500 acre-ft, March 28, elevation, 7,380.75 ft; minimum, 3,380 acre-ft, Sept. 30, elevation, 7,365.45 ft.

## MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30 .....	7,379.80	10,860	
Oct. 31 .....	7,379.30	10,400	- 460
Nov. 30 .....	7,379.03	10,200	- 200
Dec. 31 .....	7,378.70	9,960	- 240
CAL YR 1995 .....			- 1,360
Jan. 31 .....	7,378.47	9,800	- 160
Feb. 28 .....	7,378.61	9,900	- 100
Mar. 31 .....	7,378.34	9,700	- 200
Apr. 30 .....	7,377.34	9,000	- 700
May 31 .....	7,372.24	6,000	- 3,000
June 30 .....	7,366.00	3,550	- 2,450
July 31 .....	7,366.30	3,650	+ 100
Aug. 31 .....	7,366.46	3,700	+ 50
Sept. 30 .....	7,365.45	3,380	- 320
WTR YR 1996 .....			- 7,480

## RIO GRANDE BASIN

## 08341500 BLUEWATER CREEK BELOW BLUEWATER DAM, NM

LOCATION.--Lat 35°18'13", long 108°05'56", in NW¼NW¼ sec. 3, T.12 N., R. 12 W., Cibola County, Hydrologic Unit 13020207, on left bank 0.5 mi downstream from Bluewater Dam and 11 mi west of Bluewater.

DRAINAGE AREA.--201 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1951 to September 1960, July 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,290 ft above National Geodetic Vertical Datum of 1929, from topographic map. March 14, 1951 to September 30, 1960 at site 0.5 mi upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Bluewater Lake (station 08341400) 0.5 mi upstream, since 1927. No flow at times in 1955, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known occurred Sept. 6, 1909, where Bluewater Dam washed out; stage and discharge not determined. Another major flood probably occurred July 12-19, 1919 when a stage of 13.5 was reached at station (08342000) 8.0 mi downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	1.1	1.1	e.98	.94	.87	1.0	16	79	.63	.47	.41
2	.84	1.2	1.1	e.96	.93	.88	.99	19	76	.57	.48	.42
3	.84	1.1	1.1	e.97	.93	.85	.99	43	75	.57	.50	.44
4	.81	1.2	1.1	e.98	.93	.84	.98	43	74	.61	.51	.43
5	.83	1.2	1.1	e.97	.93	.84	1.0	54	73	.72	.46	.43
6	.84	1.2	1.1	e.96	.93	.87	1.0	59	72	.75	.41	.46
7	.84	1.1	1.0	e.97	.93	.88	1.0	59	69	.80	.42	.47
8	.83	1.1	.98	e.98	.93	.89	1.0	61	67	.81	.42	.46
9	.82	1.2	.98	e.98	.93	.89	1.0	61	65	.93	.58	.47
10	.83	1.2	.98	e.97	.93	.89	1.0	61	62	.89	.48	.49
11	.84	1.2	.98	e.96	.91	.89	1.0	62	61	.79	.41	.48
12	.84	1.2	.98	e.97	.89	.87	1.0	62	52	.78	.41	.52
13	.84	1.2	.98	e.98	.89	.88	1.1	61	47	.88	.41	.53
14	.84	1.2	1.0	e.99	.89	.90	1.0	62	36	.86	.41	.59
15	.84	1.2	.98	e.98	.89	.90	1.0	62	18	.74	.42	.52
16	.86	1.2	.98	e.99	.89	.90	1.0	62	12	.78	.42	.48
17	.84	1.2	.99	e1.0	.89	.87	1.0	64	e2.8	.84	.43	.48
18	.84	1.2	.98	.97	.89	.87	1.1	64	e.62	.78	.43	e.50
19	.86	1.2	.96	.98	.87	.88	1.1	59	.61	.71	.44	e.48
20	.89	1.2	.95	.98	.88	.89	1.1	55	.60	.59	.47	e.48
21	.89	1.2	.95	.96	.89	.87	1.2	57	.62	.42	.53	e.47
22	.89	1.2	.95	.97	.87	.88	1.2	59	.64	.44	.48	e.47
23	.91	1.1	.94	.97	.88	.87	1.2	56	.61	.43	.44	e.48
24	.93	1.1	.93	.95	.87	.92	1.3	57	.61	.42	.60	e.48
25	.93	1.1	.95	.94	.85	.93	1.3	56	.61	.44	1.8	.49
26	.93	1.1	.94	.93	.90	.94	1.3	54	.66	.45	.77	.51
27	1.0	1.1	.94	.96	.93	.96	1.2	62	1.0	.45	.47	.49
28	1.1	1.1	.95	.97	.88	.97	.99	76	.65	.49	.45	.49
29	1.1	1.1	.96	.96	.89	1.0	1.0	84	.57	.47	.42	.47
30	1.1	1.1	e.98	.95	---	1.0	3.6	82	.66	.47	.41	.47
31	1.1	---	e.98	.95	---	1.0	---	80	---	.47	.41	---
TOTAL	27.70	34.8	30.79	30.03	26.16	27.89	34.65	1812	949.26	19.98	15.76	14.36
MEAN	.89	1.16	.99	.97	.90	.90	1.15	58.5	31.6	.64	.51	.48
MAX	1.1	1.2	1.1	1.0	.94	1.0	3.6	84	79	.93	1.8	.59
MIN	.81	1.1	.93	.93	.85	.84	.98	16	.57	.42	.41	.41
AC-FT	55	69	61	60	52	55	69	3590	1880	40	31	28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1989	3.21	15.1	1994	.49	1990
1990	1.45	4.48	1994	.51	1991
1991	1.30	3.90	1994	.28	1991
1992	1.39	4.39	1994	.39	1991
1993	1.58	5.02	1994	.45	1991
1994	2.86	6.25	1993	.68	1990
1995	7.35	21.7	1994	.62	1990
1996	39.1	67.4	1995	.65	1990
1997	31.4	53.3	1995	.46	1990
1998	31.5	59.1	1995	.48	1990
1999	20.4	41.0	1995	.48	1990
2000	11.4	33.0	1993	.39	1989

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1989 - 1996

ANNUAL TOTAL	8019.79	3023.38	
ANNUAL MEAN	22.0	8.26	13.2
HIGHEST ANNUAL MEAN			22.1
LOWEST ANNUAL MEAN			.61
HIGHEST DAILY MEAN	98	84	98
LOWEST DAILY MEAN	.81	.41	.14
ANNUAL SEVEN-DAY MINIMUM	.83	.42	.17
INSTANTANEOUS PEAK FLOW		86	a108
INSTANTANEOUS PEAK STAGE		3.19	3.35
ANNUAL RUNOFF (AC-FT)	15910	6000	9560
10 PERCENT EXCEEDS	63	54	43
50 PERCENT EXCEEDS	5.8	.93	1.5
90 PERCENT EXCEEDS	.96	.47	.48

e Estimated

a-From rating curve extended above 50 ft<sup>3</sup>/s.

## RIO GRANDE BASIN

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 upstream 1,500 ft from El Morro St., 0.2 mi south of Santa Fe Ave. in Grants, and at mile 67.8.

DRAINAGE AREA.--1,020 mi<sup>2</sup>, 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 above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). See WSP 1732 or 1923 for history of changes prior to Jan. 1, 1926. Prior to 1992 at site on right bank at bridge at El Morro St., at same datum.

REMARKS.--Records poor. Flow slightly regulated by Bluewater Lake (station 08341400) 24 mi upstream. Diversions and ground-water withdrawals for irrigation of about 4,500 acres upstream from station. Several observations of water temperature were made during the year. No flow most of time.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY 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	e.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.84
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.6
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.43
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.90
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.53
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.18
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.1	.02
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	e.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	e.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.6	e.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.8	e.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.43	e.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	e.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51.00	9.12
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.65	.30
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	2.6
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	101	18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1996, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	.19	.002	.000	.000	.000	.000	.23	6.02	1.92	.001	.099	.49	.29																
MAX	2.51	.061	.000	.000	.000	.000	6.30	87.0	22.5	.017	1.20	7.79	5.49																
(WY)	1970	1980	1969	1969	1969	1969	1985	1980	1983	1981	1981	1993	1972																
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000																
(WY)	1969	1969	1969	1969	1969	1969	1969	1969	1969	1968	1968	1969	1968																

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1968 - 1996
ANNUAL TOTAL		60.12	
ANNUAL MEAN		.16	.77
HIGHEST ANNUAL MEAN			8.10
LOWEST ANNUAL MEAN			.000
HIGHEST DAILY MEAN		30 Aug 23	355 Apr 21 1980
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	.00 Jun 1 1968
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Oct 1	.00 Jun 1 1968
INSTANTANEOUS PEAK FLOW		73 Aug 22	a1760 Aug 28 1952
INSTANTANEOUS PEAK STAGE		2.59 Aug 22	5.35 Aug 28 1952
ANNUAL RUNOFF (AC-FT)		119	558
10 PERCENT EXCEEDS	.00	.00	.00
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 300 ft<sup>3</sup>/s, on basis of velocity-area studies.

## RIO GRANDE BASIN

08343500 RIO SAN JOSE NEAR GRANTS, NM

LOCATION.--Lat 35°04'27", long 107°45'01", in SE¼SE¼ sec.23, T.10 N., R.9 W., Cibola County, Hydrologic Unit 13020207, on right bank at west boundary of Acoma Pueblo Grant, 8.5 mi southeast of Grants, and at mile 57.4.

DRAINAGE AREA.--2,300 mi<sup>2</sup>, approximately, of which 1,130 mi<sup>2</sup> does not contribute directly to surface runoff.

## WATER-DISCHARGE RECORDS

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 above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow slightly regulated by Bluewater Lake (station 08341400), 34 mi upstream. Diversions and ground-water withdrawal for irrigation of about 5,100 acres upstream from station.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	4.8	4.9	2.5	3.8	3.6	3.5	2.2	1.7	7.6	8.6	2.1
2	4.1	5.0	4.7	2.5	3.8	3.7	3.3	2.2	1.7	8.6	8.7	2.2
3	4.0	5.3	4.4	2.5	3.8	3.8	3.3	2.0	1.6	7.7	8.6	2.4
4	3.9	5.3	4.6	2.5	3.8	3.8	3.4	1.9	1.7	8.0	8.7	2.6
5	3.8	5.4	4.4	2.6	3.8	3.7	3.4	2.0	1.7	8.1	8.7	2.7
6	3.7	5.7	4.1	2.6	3.8	3.6	3.4	1.9	1.8	8.1	8.6	2.9
7	3.6	5.7	3.9	2.6	3.6	3.6	3.5	1.9	1.9	8.0	8.5	3.0
8	3.5	5.8	3.9	2.6	3.7	3.7	3.6	1.8	2.0	8.2	8.2	3.2
9	3.6	6.1	3.8	2.6	3.7	3.7	3.6	1.9	2.1	7.9	22	3.5
10	3.5	6.2	3.8	2.6	3.8	3.7	3.0	1.8	2.2	7.9	14	3.7
11	3.5	6.5	3.9	2.7	3.8	3.7	2.8	1.8	2.3	8.5	6.2	3.9
12	3.5	6.8	3.8	2.9	3.8	3.8	2.8	1.8	2.5	8.0	5.9	4.8
13	3.5	6.9	3.9	2.9	3.8	3.7	2.8	2.3	2.6	7.9	5.6	12
14	3.6	6.6	3.9	3.1	3.8	3.6	2.8	3.6	2.7	7.1	5.2	21
15	3.5	6.6	3.9	3.2	3.8	3.6	3.0	3.3	2.7	7.4	4.7	34
16	3.5	6.7	4.1	3.3	3.8	3.6	3.1	3.1	2.9	12	4.3	12
17	3.5	6.5	4.0	3.4	3.8	3.6	3.1	3.1	3.0	5.1	3.9	7.1
18	3.4	6.3	3.8	3.3	3.8	3.6	2.9	2.9	3.3	4.8	3.7	5.3
19	3.5	6.4	3.9	3.6	3.8	3.6	2.7	3.0	3.6	4.4	3.3	5.6
20	3.4	6.2	3.9	3.8	3.8	3.7	2.8	3.1	3.9	4.2	2.9	6.0
21	3.4	6.3	3.7	3.8	3.7	3.8	2.6	3.0	4.3	4.3	2.8	4.6
22	3.2	6.2	3.5	3.8	3.8	3.9	2.6	3.1	4.7	4.2	2.5	4.3
23	3.1	6.1	3.4	3.8	3.8	3.9	2.6	3.0	4.9	4.3	8.3	4.2
24	3.1	6.0	3.4	3.9	3.8	3.8	2.6	3.0	5.3	4.3	15	4.1
25	3.0	5.9	3.1	4.0	3.8	4.0	2.5	2.9	5.7	4.2	10	4.1
26	3.1	5.8	2.7	3.8	3.8	4.0	2.4	2.9	6.3	4.1	5.2	4.1
27	3.2	5.9	2.6	3.9	3.8	3.6	2.3	2.8	6.3	16	2.4	3.8
28	3.7	5.6	2.7	3.8	3.8	3.6	2.2	2.9	6.4	14	2.1	3.8
29	4.2	5.5	2.6	3.8	3.8	3.6	2.2	2.7	6.4	9.9	2.0	3.9
30	4.3	5.2	2.6	3.8	---	3.6	2.2	1.6	7.4	8.6	2.0	3.8
31	4.7	---	2.5	3.8	---	3.5	---	1.6	---	8.4	2.0	---
TOTAL	112.0	179.3	114.4	100.0	109.7	114.7	87.0	77.1	105.6	231.8	204.6	180.7
MEAN	3.61	5.98	3.69	3.23	3.78	3.70	2.90	2.49	3.52	7.48	6.60	6.02
MAX	4.7	6.9	4.9	4.0	3.8	4.0	3.6	3.6	7.4	16	22	34
MIN	3.0	4.8	2.5	2.5	3.6	3.5	2.2	1.6	1.6	4.1	2.0	2.1
AC-FT	222	356	227	198	218	228	173	153	209	460	406	358

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1996, BY WATER YEAR (WY)

	MEAN	5.63	5.35	5.20	5.56	5.72	5.62	8.26	8.12	5.47	6.83	9.26	6.61
MAX	16.6	9.76	7.82	10.5	11.6	11.4	91.3	128	10.2	24.0	53.2	24.6	
(WY)	1973	1980	1978	1945	1944	1985	1980	1941	1941	1957	1957	1975	
MIN	2.43	3.01	2.51	2.84	3.28	3.58	2.86	2.49	3.52	3.38	3.16	3.52	
(WY)	1990	1994	1994	1994	1994	1994	1994	1996	1996	1994	1994	1990	

## SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1937 - 1996
ANNUAL TOTAL	1680.7	1616.9	
ANNUAL MEAN	4.60	4.42	6.47
HIGHEST ANNUAL MEAN			19.3
LOWEST ANNUAL MEAN			3.53
HIGHEST DAILY MEAN	6.9 Nov 13	34 Sep 15	538 Aug 30 1957
LOWEST DAILY MEAN	2.5 Dec 31	1.6 May 30	1.6 May 30 1996
ANNUAL SEVEN-DAY MINIMUM	2.7 Dec 25	1.7 May 30	1.7 May 30 1996
INSTANTANEOUS PEAK FLOW		287 Jul 27	a1400 Sep 20 1963
INSTANTANEOUS PEAK STAGE		3.42 Jul 27	4.87 Sep 20 1963
INSTANTANEOUS LOW FLOW		1.5 May 29	1.5 May 29 1996
ANNUAL RUNOFF (AC-FT)	3330	3210	4690
10	7.5	7.2	

50 PERCENT EXCEEDS

4.4

3.8

5.1

90 PERCENT EXCEEDS

3.5

2.4

4.1

a-From rating curve extended above 450 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights 3.19 ft and 4.87 ft.

## RIO GRANDE BASIN

08343500 RIO SAN JOSE NEAR GRANTS, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1980-82, 1986 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, SATUR-ATION (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
OCT 1995 25...	1100	3.0	1050	7.9	15.0	13.0	611	8.9	106	320	130
JAN 1996 25...	1045	4.5	986	8.2	5.5	11.0	602	10.4	120	310	--
APR 18...	1000	3.0	1090	8.3	12.5	14.0	608	10.2	125	320	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT 1995 25...	74	34	99	2	5.0	234	0	192	203	240	69
JAN 1996 25...	72	32	92	2	4.7	--	--	--	201	230	63
APR 18...	74	34	100	2	4.7	--	--	--	201	250	73

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	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)
OCT 1995 25...	0.70	32	669	3.0	<1.0	5	43	<1.0	240	<1.0
JAN 1996 25...	0.80	31	646	--	--	--	--	--	210	--
APR 18...	0.90	30	687	--	--	--	--	--	240	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	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)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)
OCT 1995 25...	2.0	<1.0	1.0	<3.0	<1.0	4.0	<0.10	3.0	<1.0	4
JAN 1996 25...	--	--	--	3.0	--	--	--	--	--	--
APR 18...	--	--	--	5.0	--	--	--	--	--	--

DATE	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)	RADIUM 226, DIS-SOLVED RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS. (PCI/L) (76001)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS. (UG/L) (75990)	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 1995 25...	3	<1.0	2.0	0.07	0.020	2.3	0.0	--	--	--
JAN 1996 25...	--	--	--	--	--	--	--	--	--	--
APR 18...	--	--	--	--	--	--	--	58	0.47	45

## RIO GRANDE BASIN

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, 0.2 mi upstream from Interstate Highway 25, 1.2 mi southwest of Bernardo, 3.0 mi upstream from mouth, and 18 mi south of Belen.

DRAINAGE AREA.--7,350 mi<sup>2</sup>, approximately, of which at least 1,130 mi<sup>2</sup> 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 above National Geodetic Vertical Datum of 1929. Prior to Jan. 24, 1969, at datum 3.10 ft higher.

REMARKS.--Water-discharge records poor except for estimated daily discharges, which are poor. Diversions for irrigation of about 11,500 acres upstream from station (includes 3,700 acres irrigated wholly or partly from wells).

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since about 1880 occurred Sept. 23, 1929, from information by local residents (discharge, about 35,000 ft<sup>3</sup>/s, estimated on basis of peak at Rio Puerco). Another flood occurred Aug. 12, 1929 (discharge, 30,600 ft<sup>3</sup>/s, by slope-area measurement, from reports of New Mexico State Engineer).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	.00	.00	.00	.00	.00	.00	.00	.00	e80	.00	399
2	16	.00	.00	.00	.00	.00	.00	.00	.00	e20	.00	59
3	7.5	.00	.00	.00	.00	.00	.00	.00	.00	e200	.00	18
4	5.9	.00	.00	.00	.00	.00	.00	.00	.00	e300	.00	8.9
5	2.1	.00	.00	.00	.00	.00	.00	.00	.00	e200	.00	3.6
6	.61	.00	.00	.00	.00	.00	.00	.00	.00	e100	.00	.57
7	.03	.00	.00	.00	.00	.00	.00	.00	.00	e40	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	e1.6	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	e50	e800	26
10	.00	.00	.00	.10	.00	.00	.00	.00	.00	e160	e360	15
11	.00	.00	.00	.20	.00	.00	.00	.00	.00	e100	e130	4.8
12	.00	.00	.00	.20	.00	.00	.00	.00	.00	e70	e60	.90
13	.00	.00	.00	.10	.00	.00	.00	.00	.00	e120	e18	13
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	e160	e1.1	68
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	e190	e.20	330
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	e110	.00	664
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	e40	.00	400
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	e50	.00	101
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	e70	.00	58
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	e50	.00	39
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	e20	.00	22
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	e3.0	.00	13
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	e1.0	.00	4.5
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.50	e1250	1.1
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e1100	.07
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	e60	e850	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	e51	e690	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	e1150	e10	e290	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	e1300	e3.0	e40	.00
30	.00	.00	.00	.00	---	.00	.00	.00	e200	e.50	69	.00
31	.00	---	.00	.00	---	.00	---	.00	---	e.00	634	---
TOTAL	46.14	0.00	0.00	0.60	0.00	0.00	0.00	0.00	2650.00	2260.60	6292.30	2249.44
MEAN	1.49	.000	.000	.019	.000	.000	.000	.000	88.3	72.9	203	75.0
MAX	16	.00	.00	.20	.00	.00	.00	.00	1300	300	1250	664
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	92	.00	.00	1.2	.00	.00	.00	.00	5260	4480	12480	4460

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1940	50.9	586	1942	.000	1952
1941	7.31	100	1987	.000	1940
1942	1.28	26.6	1985	.000	1940
1943	2.56	70.0	1993	.000	1940
1944	16.1	142	1979	.000	1942
1945	19.0	208	1960	.000	1942
1946	15.3	179	1973	.000	1944
1947	43.0	885	1941	.000	1950
1948	20.4	203	1941	.000	1945
1949	64.3	362	1955	.000	1942
1950	190	922	1957	1.92	1986
1951	88.1	584	1972	.000	1956

## SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1940 - 1996
ANNUAL TOTAL	6697.80	13499.08	
ANNUAL MEAN	18.4	36.9	43.2
HIGHEST ANNUAL MEAN			171
LOWEST ANNUAL MEAN			5.47
HIGHEST DAILY MEAN	325	1300	5980
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		1330	a18800
INSTANTANEOUS PEAK STAGE		10.25	b16.90
ANNUAL RUNOFF (AC-FT)	13290	26780	31310
10 PERCENT EXCEEDS	59	53	68
50 PERCENT EXCEEDS	3.0	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 7,800 ft<sup>3</sup>/s.

b-Maximum gage height, 16.9 ft, present datum, Aug. 12, 1955.

## RIO GRANDE BASIN

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1947 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1947 to current year.

INSTRUMENTATION.--Automatic pumping sampler June 1995.

REMARKS.--Daily suspended-sediment samples are collected when flow is observed on this ephemeral stream.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 267,000 mg/L, July 26, 1957; minimum daily mean, no flow on many days of each year.

SEDIMENT LOAD: Maximum daily, 2,240,000 tons, Aug. 7, 1957; minimum daily, 0 ton on many days of each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 125,000 mg/L, July 4; minimum daily mean, no flow on many days.

SEDIMENT LOAD: Maximum daily, 251,000 tons, Aug. 25; minimum daily, 0 ton on many days.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
OCT 1995											
15...	1015	--	--	--	--	--	--	--	--	--	--
DEC											
07...	0830	--	--	--	--	4.0	--	--	--	--	--
JUL 1996											
03...	0930	180	2480	7.6	24.0	21.5	645	4.7	64	--	--
AUG											
12...	1230	66	1060	7.7	36.5	23.0	648	7.0	97	290	88

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- LINEITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
OCT 1995											
15...	--	--	--	--	--	--	--	--	--	--	--
DEC											
07...	--	--	--	--	--	--	--	--	--	--	--
JUL 1996											
03...	--	--	--	--	--	--	--	--	--	--	--
AUG											
12...	18	98	2	7.7	121	390	33	0.80	10	718	6.0

DATE	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 1995										
15...	--	--	--	--	--	--	--	--	--	--
DEC										
07...	--	--	--	--	--	--	--	--	--	--
JUL 1996										
03...	--	--	--	--	--	--	--	--	--	--
AUG										
12...	<1.0	1	58	<1.0	190	<1.0	1.0	<1.0	5.0	20



## RIO GRANDE BASIN

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)
OCT 1995										
15...	--	--	--	--	--	--	--	--	--	--
DEC										
07...	--	--	--	--	--	--	--	--	--	--
JUL 1996										
03...	--	--	--	--	--	--	--	--	--	<2.0
AUG										
12...	<1.0	<1.0	0.30	6.0	4.0	4	3	<1.0	1.0	--
DATE	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	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)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)
OCT 1995										
15...	--	--	--	--	--	--	--	--	--	--
DEC										
07...	--	--	--	--	--	--	--	--	--	--
JUL 1996										
03...	<0.2	150	310	5	1	210	240	12	25000	20
AUG										
12...	--	--	--	--	--	--	--	--	--	--
DATE	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)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	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 1995										
15...	--	--	--	--	--	--	--	325	--	100
DEC										
07...	--	--	--	--	--	--	--	659	--	99
JUL 1996										
03...	240	0.01	30	0.10	0.020	3.9	0.3	122000	59300	94
AUG										
12...	--	--	--	0.12	0.030	1.3	0.0	27700	4940	96

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MEAN	LOADS	MEAN	LOADS	MEAN	LOADS	MEAN	LOADS	MEAN	LOADS	MEAN	LOADS
	CONCENTRATION (MG/L)		CONCENTRATION (MG/L)		CONCENTRATION (MG/L)		CONCENTRATION (MG/L)		CONCENTRATION (MG/L)		CONCENTRATION (MG/L)	
		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER
1	0	.00	0	.00	0	.0	74400	16100	0	0	94800	102000
2	0	.00	0	.00	0	.0	119000	6410	0	0	49400	7870
3	0	.00	0	.00	0	.0	118000	63900	0	0	28400	1380
4	0	.00	0	.00	0	.0	125000	101000	0	0	24400	587
5	0	.00	0	.00	0	.0	87500	47300	0	0	32200	313
6	0	.00	0	.00	0	.0	81400	22000	0	0	16900	26
7	0	.00	0	.00	0	.0	69800	7530	0	0	0	.0
8	0	.00	0	.00	0	.0	53000	229	0	0	0	.0
9	0	.00	0	.00	0	.0	32100	4340	32800	70800	75300	5290
10	0	.00	0	.00	0	.0	122000	52500	22600	22000	47600	1930
11	0	.00	0	.00	0	.0	81400	22000	35000	12300	1220	16
12	0	.00	0	.00	0	.0	57700	10900	26200	4240	83	.2
13	0	.00	0	.00	0	.0	65900	21300	20800	1010	20400	715
14	0	.00	0	.00	0	.0	68900	29800	30800	92	54600	10000
15	0	.00	0	.00	0	.0	89400	45800	2800	2	57900	51600
16	0	.00	0	.00	0	.0	85500	25400	0	0	31200	55900
17	0	.00	0	.00	0	.0	46500	5020	0	0	67500	72800
18	0	.00	0	.00	0	.0	87800	11800	0	0	42200	11500
19	0	.00	0	.00	0	.0	89500	16900	0	0	27500	4310
20	0	.00	0	.00	0	.0	63100	8510	0	0	32500	3420
21	0	.00	0	.00	0	.0	44100	2380	0	0	34800	2070
22	0	.00	0	.00	0	.0	34600	280	0	0	31100	1090
23	0	.00	0	.00	0	.0	14200	38	0	0	23500	286
24	0	.00	0	.00	0	.0	173	.2	49600	167000	14500	43
25	0	.00	0	.00	0	.0	0	.0	84400	251000	3460	.7
26	0	.00	0	.00	0	.0	41000	6640	78300	180000	0	.0
27	0	.00	0	.00	0	.0	4040	556	48900	91200	0	.0
28	0	.00	0	.00	19200	59500	0	.0	72800	57000	0	.0
29	0	.00	0	.00	40000	141000	0	.0	47000	5080	0	.0
30	0	.00	0	.00	38500	20800	0	.0	46800	8710	0	.0
31	---	---	0	.00	---	---	0	.0	100000	171000	---	---
TOTAL	---	0.00	---	0.00	---	221300.0	---	528633.2	---	1041434	---	333146.9
TOTAL LOAD FOR YEAR: 2130276.56 TONS.												

## RIO GRANDE BASIN

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 downstream from point of diversion.

PERIOD OF RECORD.--April 1936 to September 1964 (monthly discharge only), October 1964 to current year.

REVISED RECORDS.--WSF 1242: 1951.

GAGE.--Water-stage recorder. Datum of gage is 4,660.16 ft above National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). Prior to Mar. 8, 1958, at site 300 ft upstream (in old channel) at datum 0.42 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are fair. This canal is 1 of 3 channels (stations 08354800, 08354900) carrying flow in valley cross section. For combined monthly flow in acre-ft of this canal, conveyance channel, and floodway, see tabulation below daily table for 08354900. Canal diverts water from right bank of Rio Grande for irrigation of about 8,000 acres. Alamillo acequia and 3 other smaller ditches divert water from canal upstream from station for irrigation of about 400 acres. Discharge records collected at the canal heading from October 1964 to September 1965 indicate that 7,770 acre-ft or 9% reaching the regular gaging station. Several observations of water temperature were made during the year. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	27	.00	.00	.00	37	283	192	302	161	114	171
2	216	.00	.00	.00	.00	86	280	209	283	185	148	173
3	223	.00	.00	.00	.00	91	284	166	219	e135	173	177
4	225	.00	.00	.00	.00	128	288	157	196	e120	243	172
5	221	.00	.00	.00	.00	153	280	182	160	e115	244	165
6	217	.00	.00	.00	.00	178	276	198	124	169	236	206
7	217	.00	.00	.00	.00	202	274	243	122	192	221	223
8	217	.00	.00	.00	.00	251	271	238	150	241	209	224
9	208	.00	.00	.00	.00	261	258	179	182	252	182	220
10	206	.00	.00	.00	.00	263	246	185	140	243	163	226
11	202	.00	.00	.00	.00	266	243	181	117	206	178	237
12	194	.00	.00	.00	.00	266	221	166	119	242	178	186
13	199	.00	.00	.00	.00	256	167	107	135	213	196	141
14	197	.00	.00	.00	.00	255	205	111	155	179	210	116
15	203	.00	.00	.00	.00	257	239	124	255	158	212	111
16	239	.00	.00	.00	.00	253	226	181	268	e137	195	141
17	245	.00	.00	.00	.00	254	205	194	253	e116	161	184
18	245	.00	.00	.00	.00	254	218	188	271	108	148	169
19	238	.00	.00	.00	.00	253	232	170	276	105	153	188
20	230	.00	.00	.00	.00	248	242	182	276	133	142	194
21	231	.00	.00	.00	.00	248	269	179	267	194	149	175
22	219	.00	.00	.00	.00	253	275	152	257	198	190	164
23	214	.00	.00	.00	.00	259	269	177	264	147	204	202
24	220	.00	.00	.00	.00	266	276	234	258	114	205	222
25	222	.00	.00	.00	.00	268	264	259	232	95	166	218
26	220	.00	.00	.00	.00	275	279	284	200	190	153	217
27	220	.00	.00	.00	.00	294	270	280	269	167	158	216
28	220	.00	.00	.00	.00	290	232	274	163	132	164	226
29	222	.00	.00	.00	.00	299	197	269	165	180	141	224
30	219	.00	.00	.00	---	283	206	287	163	199	146	225
31	212	---	.00	.00	---	275	---	299	---	119	164	---
TOTAL	6736	27.00	0.00	0.00	0.00	7222	7475	6247	6241	5145	5546	5713
MEAN	217	.90	.000	.000	.000	233	249	202	208	166	179	190
MAX	245	27	.00	.00	.00	299	288	299	302	252	244	237
MIN	175	.00	.00	.00	.00	37	167	107	117	95	114	111
AC-FT	13360	54	.00	.00	.00	14320	14830	12390	12380	10210	11000	11330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
MEAN	126	9.35	7.79	7.13	5.25	148	198	196	191	172	148	128
MAX	257	86.0	79.0	56.7	52.4	234	249	269	298	291	277	223
(WY)	1994	1989	1976	1976	1979	1995	1996	1993	1994	1995	1995	1992
MIN	17.1	.000	.000	.000	.000	39.4	121	81.0	49.9	43.8	56.2	12.6
(WY)	1964	1967	1964	1964	1964	1983	1967	1977	1977	1964	1964	1975

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1964 - 1996

ANNUAL TOTAL	61776.00	50352.00	
ANNUAL MEAN	169	138	112
HIGHEST ANNUAL MEAN			170
LOWEST ANNUAL MEAN			63.7
HIGHEST DAILY MEAN	325	302	325
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
ANNUAL RUNOFF (AC-FT)	122500	99870	81140
10 PERCENT EXCEEDS	290	266	235
50 PERCENT EXCEEDS	225	168	119
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

## RIO GRANDE BASIN

## 08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM

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 upstream from railway crossing, 0.5 mi south of San Acacia, and 1.2 mi downstream from San Acacia diversion dam.

PERIOD OF RECORD.--October 1958 to September 1964 included in composite flow of station 08355000, "Rio Grande at San Acacia," October 1960 to September 1964 (monthly discharge published in WSP 1923 with records for station 08355000), October 1964 to January 1994, October 1994 to current year. Daily records 1958-64 are available in files at district office.

GAGE.--Water-stage recorder. Datum of gage is 4,652.50 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except estimated daily discharges, which are poor. Conveyance channel, constructed in 1958, is 1 of 3 channels (stations 08354500, 08354900) carrying flow in valley cross section. Original design and plan were for conveyance channel to carry all flows up to about 2,000 ft/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. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	e11	e9.3	e11	e10	e10	14	23	25	e7.1	e7.2	24
2	6.4	e12	e8.2	e12	e11	e9.6	13	14	21	e6.7	e8.1	21
3	6.4	e10	e8.0	e11	e10	e10	14	10	20	e7.0	e12	16
4	5.9	e8.2	e7.1	e11	e11	e10	18	9.1	17	e9.9	e8.9	13
5	e8.4	e7.6	e7.6	e9.8	e12	e11	18	8.9	14	e13	e6.9	11
6	e8.6	e8.0	e8.2	e11	e11	e10	15	16	13	e16	e5.9	10
7	e9.6	e7.6	e8.4	e12	e10	e9.7	12	16	12	e21	e7.4	9.5
8	e9.0	e8.2	e9.0	e13	e9.7	e10	9.1	12	10	e20	e8.1	e19
9	e9.8	e8.0	e10	e11	e11	e10	6.1	11	9.8	e19	e6.3	e17
10	e8.8	e8.7	e9.6	e10	e12	11	7.0	9.5	11	e27	e5.7	e14
11	e9.0	e9.4	e10	e9.4	11	9.9	7.1	8.3	12	e18	e6.8	e13
12	e9.6	e12	e11	e10	e11	10	7.4	8.4	8.6	e14	e11	e14
13	e9.0	e14	e13	e11	e10	9.7	9.4	8.9	8.5	e12	e18	e34
14	e8.8	e15	e11	e12	e11	8.2	7.6	7.8	6.9	e13	e22	e24
15	e9.7	e14	e11	e11	e13	8.1	7.8	5.5	e10	e11	12	e19
16	e9.0	e12	e11	e10	e14	8.4	8.9	8.6	9.3	e10	18	e12
17	e8.4	e12	e12	e9.4	e13	8.5	11	9.4	14	e12	12	e15
18	e9.0	e11	e14	e11	e12	8.0	12	12	187	e10	9.9	e12
19	e11	e11	e13	e8.9	e12	7.9	11	15	e67	e15	108	e8.9
20	e10	e10	e14	e10	e11	7.7	14	15	e36	e27	18	e8.1
21	e10	e9.6	e13	e7.1	e10	7.1	16	9.5	e21	e59	11	e7.3
22	e11	e9.3	e11	e8.0	e9.8	6.3	19	8.3	e19	222	9.7	e7.0
23	e12	e9.0	e10	e9.1	e9.7	7.0	20	8.9	e15	353	143	e6.3
24	e13	e8.1	e9.3	e8.3	e9.3	8.4	28	11	e12	e150	30	e6.2
25	e12	e7.3	e10	e9.0	e9.0	9.0	27	13	e11	e94	11	e5.9
26	e9.2	e7.0	e12	e10	e9.7	8.5	28	18	e9.2	e60	9.6	e5.8
27	e8.3	e7.4	e11	e12	e10	8.5	24	18	e8.5	e44	63	e6.1
28	e8.1	e9.0	e8.6	e11	e9.4	8.8	23	17	e10	e18	38	e6.9
29	e9.4	e10	e7.1	e10	---	10	25	20	e12	e14	29	e6.3
30	e11	e9.6	e7.6	e12	---	13	24	22	e8.4	e11	23	e6.1
31	e11	---	e9.0	e11	---	16	---	39	---	e10	75	---
TOTAL	287.8	296.0	314.0	322.0	302.6	290.3	456.4	413.1	638.2	1323.7	754.5	378.4
MEAN	9.28	9.87	10.1	10.4	10.8	9.36	15.2	13.3	21.3	42.7	24.3	12.6
MAX	13	15	14	13	14	16	28	39	187	353	143	34
MIN	5.9	7.0	7.1	7.1	9.0	6.3	6.1	5.5	6.9	6.7	5.7	5.8
AC-FT	571	587	623	639	600	576	905	819	1270	2630	1500	751

CAL YR 1994 TOTAL 6754.50 MEAN 18.5 MAX 729 MIN .01 AC-FT 13400  
WTR YR 1995 TOTAL 5777.0 MEAN 15.8 MAX 353 MIN 5.5 AC-FT 11460

e Estimated

## RIO GRANDE BASIN

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	.00	.00	.00	.00	.00	.00	34	27	.00	.00	.00
2	30	.00	.00	.00	.00	.00	.00	35	27	.00	.00	.00
3	31	.00	.00	.00	.00	.00	.00	34	25	.00	.00	.00
4	31	.00	.00	.00	.00	.00	.00	34	11	.00	.00	.00
5	31	.00	.00	.00	.00	.00	.00	34	.00	.00	.00	.00
6	31	.00	.00	.00	.00	.00	.00	34	.00	.00	.00	.00
7	31	.00	.00	.00	.00	.00	.00	35	.00	.00	.00	.00
8	31	.00	.00	.00	.00	.00	.00	35	.00	.00	.00	.00
9	31	.00	.00	.00	.00	.00	.00	34	.00	.00	.00	.00
10	31	.00	.00	.00	.00	.00	.00	35	.00	.00	.00	.00
11	31	.00	.00	.00	.00	.00	.00	34	.00	.00	.00	.00
12	31	.00	.00	.00	.00	.00	.00	34	.00	.00	.00	.00
13	23	.00	.00	.00	.00	.00	.00	31	.00	.00	.00	.00
14	13	.00	.00	.00	.00	.00	.00	23	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	23	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	23	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	23	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	23	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	5.7	23	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	18	24	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	19	24	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	23	21	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	32	21	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	35	15	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	35	30	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	35	34	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	35	49	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	34	75	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	33	96	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	35	65	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	27	---	.00	.00	---
TOTAL	392.00	0.00	0.00	0.00	0.00	0.00	339.70	1062	90.00	0.00	0.00	0.00
MEAN	12.6	.000	.000	.000	.000	.000	11.3	34.3	3.00	.000	.000	.000
MAX	31	.00	.00	.00	.00	.00	35	96	27	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	15	.00	.00	.00	.00
AC-FT	778	.00	.00	.00	.00	.00	674	2110	179	.00	.00	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1996, BY WATER YEAR (WY)

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
MEAN	131	608	619	502	509	403	374	483	366	196	177	128
MAX	765	1644	1823	1513	1255	1240	1506	1663	1580	1522	829	633
(WY)	1985	1966	1966	1974	1962	1966	1979	1979	1980	1979	1967	1972
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1988	1988	1986	1988	1987	1991	1991	1995	1986	1987	1987	1987

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1959 - 1996

ANNUAL TOTAL	1319.60	1883.70	
ANNUAL MEAN	3.62	5.15	
HIGHEST ANNUAL MEAN			374
LOWEST ANNUAL MEAN			1033
HIGHEST DAILY MEAN	55	96	1973
LOWEST DAILY MEAN	.00	.00	1988
ANNUAL SEVEN-DAY MINIMUM	.00	.00	1950
ANNUAL RUNOFF (AC-FT)	2620	3740	1950
10 PERCENT EXCEEDS	20	30	1290
50 PERCENT EXCEEDS	.00	.00	15
90 PERCENT EXCEEDS	.00	.00	.00

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM

LOCATION.--Lat 34°15'23", long 106°53'18", Socorro County, Hydrologic Unit 13020203, in Sevilleta Grant, on right bank 0.2 mi downstream from San Acacia diversion dam, 0.3 mi east of San Acacia, 2 mi downstream from Rio Salado, and at mile 1,472.6.

DRAINAGE AREA.--26,770 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> 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 above National Geodetic Vertical Datum of 1929. Prior to Mar. 19, 1953, at several sites 0.1 mi upstream at different datums. Mar. 19, 1953, to Aug. 19, 1965, at site 0.4 mi downstream at datum 3.60 ft higher. Aug. 19, 1965, to Aug. 15, 1967, at same site at datum 1.89 ft higher. Datum on Aug. 21, 1987, was lowered 2.00 ft. Floodway is bypassed by Socorro main canal north and since Oct. 1958 by conveyance channel.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Floodway is 1 of 3 channels (stations 08354500, 08354800) carrying flow in valley cross section. For combined monthly flow in acre-ft of floodway, conveyance channel, and Socorro main canal north, see tabulation below. Normal plan is for floodway to carry flow when combined capacities of conveyance channel (about 2,000 ft<sup>3</sup>/s) and Socorro main canal north (about 200 ft<sup>3</sup>/s) is exceeded, during periods of silt sluicing, and when river silt load is excessive. Diversions upstream from station for irrigation of about 760,000 acres; this includes Socorro main canal north, which bypasses station and irrigates about 8,000 acres. U.S. Bureau of Reclamation satellite telemeter at station. No flow at times.

AVERAGE DISCHARGE.--22 years (water years 1937-58), 1,192 ft<sup>3</sup>/s, 863,000 acre-ft/yr, prior to construction of conveyance channel; does not include Socorro main canal north. 15 years (water years 1959-73), 911 ft<sup>3</sup>/s, 660,000 acre-ft/yr, combined flow of floodway, conveyance channel and Socorro main canal north, prior to closure of Cochiti Dam. 23 years (water years 1974-96), 1,482 ft<sup>3</sup>/s, 1,074,000 acre-ft/yr, combined flow of floodway, conveyance channel, and Socorro Main Canal North, since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft<sup>3</sup>/s, Aug. 5, 1936, gage height, 10.75 ft, site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,500 ft<sup>3</sup>/s, June 28; minimum daily, 17 ft<sup>3</sup>/s, Apr. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e520	699	e940	876	e1430	1020	e320	57	81	e28	82	784
2	e610	1270	e920	746	e1440	989	e280	63	77	e34	96	440
3	e920	1300	e938	736	e1500	1130	e250	60	57	e135	120	272
4	e810	e1100	e1200	725	e1490	1240	e210	60	70	e180	138	174
5	e570	e1050	1010	715	e1480	1110	e165	61	79	e172	130	134
6	490	e1060	965	705	e1410	1110	e144	61	75	e140	143	134
7	548	e1070	1020	695	e1410	e1180	e130	61	83	e122	152	93
8	527	e1080	997	685	e1420	e1150	e105	60	87	e100	174	78
9	532	e1070	1030	745	e1440	885	e94	51	87	e70	526	73
10	544	e1060	959	e1220	e1480	787	e86	41	85	e74	476	48
11	561	e1060	955	e1400	e1490	786	e80	41	85	e170	336	29
12	507	e1050	942	e1500	e1500	820	e66	42	86	e196	278	384
13	532	e1010	924	e1500	e1510	788	e60	42	90	e170	159	143
14	511	e1000	864	e1500	e1490	797	e48	42	91	e150	132	191
15	531	e1080	809	e1480	e1500	806	e40	42	725	e70	111	918
16	501	e1100	786	e1480	e1550	816	e35	45	137	e190	86	894
17	e395	e1150	757	e1450	e1540	838	e24	54	194	e250	77	909
18	e415	e1110	719	e1430	e1530	839	e22	67	246	e340	70	720
19	e440	e1100	646	e1480	e1500	878	e20	79	214	e430	64	818
20	e450	e1090	666	e1500	e1490	910	e18	96	121	e500	58	815
21	e470	e1090	681	e1510	e1480	e940	18	115	84	e400	53	712
22	452	e1100	657	e1560	1380	e910	17	132	83	e270	54	e464
23	460	e1080	e1000	e1380	1520	e860	50	151	89	67	117	e414
24	468	e1060	e996	e1300	1550	e800	29	e170	99	75	138	e374
25	475	e1040	e970	e1300	1430	e790	30	52	73	74	428	e363
26	483	e1020	e960	e1320	1340	e780	33	75	47	93	752	e325
27	491	e1000	e980	e1340	1310	e760	48	108	136	80	920	e203
28	499	e990	e1010	e1300	1270	e700	51	113	e5500	76	922	e190
29	507	e980	e1040	e1330	1160	e580	50	79	e350	85	724	e168
30	515	e965	e1060	e1380	---	e460	51	87	e200	103	637	e142
31	524	---	1030	e1420	---	e390	---	84	---	79	1040	---
TOTAL	16258	31834	28431	37708	42040	26849	2574	2291	9431	4923	9193	11406
MEAN	524	1061	917	1216	1450	866	85.8	73.9	314	159	297	380
MAX	920	1300	1200	1560	1550	1240	320	170	5500	500	1040	918
MIN	395	699	646	685	1160	390	17	41	47	28	53	29
AC-FT	32250	63140	56390	74790	83390	53250	5110	4540	18710	9760	18230	22620
(†)	46390	63190	56390	74790	83390	67570	20610	19040	31270	19970	29230	33950
CAL YR 1995	TOTAL 695050 MEAN 1904 MAX 6000 MIN 80 AC-FT 1379000 (†) MEAN 2077 AC-FT 1504000											
WTR YR 1996	TOTAL 222938 MEAN 609 MAX 5500 MIN 17 AC-FT 442200 (†) MEAN 752 AC-FT 545800											

e Estimated

(†) COMBINED FLOW, IN ACRE-FEET, AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY, CONVEYANCE CHANNEL, AND SOCORRO MAIN CANAL NORTH.

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937-56, 1959 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July to December 1937, March 1939 to September 1956, October 1964 to current year.

WATER TEMPERATURE: October 1947 to August 1956, January 1959 to current year.

SUSPENDED-SEDIMENT DISCHARGE: July 1946 to June 1956, January 1959 to current year.

REMARKS.--Sediment total-loads (suspended sediment plus bed material discharge), in tons per day, were determined from the regression equation for the period of record.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,700 microsiemens, July 14, 1940; minimum daily, 236 microsiemens, June 1, 1995.

WATER TEMPERATURE: (1947-56, 1959-62, 1964-96): Maximum daily, 34.5 °C, July 13, 1971; minimum daily, 0.0 °C on many days during winter months of most years.

SEDIMENT CONCENTRATION: Maximum daily mean, 223,000 mg/L, Aug. 11, 1946; minimum daily mean, no flow on many days of most years.

SEDIMENT LOAD: Maximum daily, 1,760,000 tons, Aug. 12, 1955; minimum daily, 0 ton on many days of most years.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,170 microsiemens, July 3; minimum daily, 360 microsiemens, Oct. 23.

WATER TEMPERATURE: Maximum daily, 28.0 °C, on July 18; minimum daily, 2.0 °C, Dec. 28.

SEDIMENT CONCENTRATION: Maximum daily mean, 31,800 mg/L, June 28; minimum daily mean, 33 mg/L, May 4.

SEDIMENT LOAD: Maximum daily, 472,000 tons, June 28; minimum daily, 2.1 tons Apr. 21.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
OCT 1995													
17...	0945	391	508	8.2	14.5	12.5	646	8.9	99	17	--	--	
MAR 1996													
11...	1200	790	479	8.3	20.0	10.5	646	9.8	104	20	73	K350	
JUN													
04...	0945	75	620	8.7	24.0	22.0	648	7.3	99	36	87	640	
JUL													
23...	0845	67	730	8.4	28.0	22.0	646	7.4	101	--	--	--	
AUG													
13...	1200	155	749	8.2	30.0	22.5	648	7.1	97	99	--	--	
DATE		HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1995													
17...	160	20	50	8.7	41	1	4.3	172	0	141	143	76	
MAR 1996													
11...	140	13	44	7.7	39	1	4.2	157	0	129	135	72	
JUN													
04...	200	36	60	11	51	2	5.1	162	16	159	166	100	
JUL													
23...	210	46	66	12	63	2	5.5	195	5	168	171	150	
AUG													
13...	220	66	67	12	62	2	5.8	184	0	150	159	160	

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L 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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 1995 17...	22	0.40	22	--	315	--	<0.010	1.20	<0.015	--	0.40
MAR 1996 11...	21	0.60	24	--	293	--	<0.010	0.590	<0.015	--	<0.20
JUN 04...	32	0.60	23	--	379	--	<0.010	<0.050	0.020	0.28	1.0
JUL 23...	31	0.70	24	480	454	0.180	0.020	0.200	0.050	0.15	0.90
AUG 13...	27	0.70	22	--	451	0.770	0.010	0.780	0.030	0.17	0.40

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)
OCT 1995 17...	0.20	0.260	0.180	0.180	4.4	--	5.0	<1.0	5	64	<1.0
MAR 1996 11...	<0.20	0.260	0.250	0.180	4.6	--	--	--	--	--	--
JUN 04...	0.30	0.270	0.100	0.090	--	--	--	--	--	--	--
JUL 23...	0.20	0.380	0.060	0.090	8.2	4.3	--	--	--	--	--
AUG 13...	0.20	0.190	0.050	0.080	38	--	9.0	<1.0	4	65	<1.0

DATE	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)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
OCT 1995 17...	100	<1.0	<1.0	<1.0	2.0	4.0	<1.0	5.0	<0.10	7.0	2.0
MAR 1996 11...	90	--	--	--	--	4.0	--	--	--	--	--
JUN 04...	116	--	--	--	--	3.0	--	--	--	--	--
JUL 23...	--	--	--	--	--	5.0	--	20	--	--	--
AUG 13...	130	<1.0	2.0	<1.0	4.0	7.0	<1.0	<1.0	0.10	8.0	3.0

DATE	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	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)
OCT 1995 17...	<1	<1	<1.0	7.0	--	--	--	--	--	--	--
MAR 1996 11...	--	--	--	--	2.0	6.0	40	330	3	<10	5
JUN 04...	--	--	--	--	--	--	--	--	--	--	--
JUL 23...	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	2	<1	<1.0	2.0	--	--	--	--	--	--	--



[illegible]

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	PEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
------	---	--	---	--	--	---	--	--	---	--

OCT 1995										
17...	--	--	--	--	--	--	--	--	--	--
MAR 1996										
11...	--	--	--	--	--	--	--	--	--	--
JUN										
04...	--	--	--	--	--	--	--	--	--	--
JUL										
23...	E0.003	<0.004	E0.004	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017
AUG										
13...	--	--	--	--	--	--	--	--	--	--

DATE	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)
------	---	--	--	---	---	---	---	--	---	--

OCT 1995										
17...	--	--	--	--	--	--	--	--	--	--
MAR 1996										
11...	--	--	--	--	--	--	--	--	--	--
JUN										
04...	--	--	--	--	--	--	--	--	--	--
JUL										
23...	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
AUG										
13...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	STREAM WIDTH (FT) (000004)	STREAM DEPTH, MEAN (FT) (000064)	STREAM VELOC- ITY, MEAN (F/S) (000055)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	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, SUSP. + BED MA- TERIAL (T/DAY) (80156)
------	------	--	-------------------------------------	--	---	---	---	---	---	--

OCT 1995										
17...	0945	391	82.0	1.5	3.16	508	12.5	121	128	206
DEC										
04...	1130	1220	155	2.1	3.81	--	7.5	1810	5960	20900
JAN 1996										
10...	0950	1200	141	2.6	3.25	--	3.0	506	1640	2370
FEB										
22...	1030	1380	153	2.3	3.97	--	10.0	836	3110	4370
MAR										
11...	1200	790	--	--	--	479	10.5	159	339	523
20...	0920	918	147	2.8	2.24	--	9.5	75	186	294
APR										
17...	0930	27	46.0	1.2	0.46	--	13.0	86	6.3	10
JUN										
04...	0945	75	--	--	--	620	22.0	45	9.1	16
19...	1310	224	74.0	1.3	2.23	--	23.5	213	129	207
JUL										
18...	0930	336	96.0	0.89	3.90	--	22.0	6960	6310	8610
23...	0845	67	--	--	--	730	22.0	707	128	206
AUG										
13...	1200	155	--	--	--	749	22.5	4550	1900	2730
15...	0950	119	66.0	1.2	2.45	--	--	830	267	416
SEP										
04...	1005	192	76.0	1.2	2.13	--	20.5	2550	1320	1920

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)	SED. SUSP. FALL DIAM. % FINER THAN (70337)	SED. SUSP. FALL DIAM. % FINER THAN (70338)	SED. SUSP. FALL DIAM. % FINER THAN (70339)	SED. SUSP. FALL DIAM. % FINER THAN (70340)	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 (70346)
OCT 1995										
17...	--	--	--	--	--	84	85	96	100	--
DEC										
04...	--	--	--	--	--	14	20	51	88	100
JAN 1996										
10...	--	--	--	--	--	39	51	93	100	--
FEB										
22...	--	--	--	--	--	23	34	84	100	--
MAR										
11...	59	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	81	82	98	100	--
APR										
17...	--	--	--	--	--	55	58	84	100	--
JUN										
04...	60	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	86	87	97	100	--
JUL										
18...	--	52	64	69	74	86	95	99	100	--
23...	--	--	--	--	--	--	--	--	--	--
AUG										
13...	99	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	88	91	100	--	--
SEP										
04...	--	78	87	90	92	96	97	99	100	--
DATE	BED MAT. SIEVE DIAM. % FINER THAN (80164)	BED MAT. SIEVE DIAM. % FINER THAN (80165)	BED MAT. SIEVE DIAM. % FINER THAN (80166)	BED MAT. SIEVE DIAM. % FINER THAN (80167)	BED MAT. SIEVE DIAM. % FINER THAN (80168)	BED MAT. SIEVE DIAM. % FINER THAN (80169)	BED MAT. SIEVE DIAM. % FINER THAN (80170)	BED MAT. SIEVE DIAM. % FINER THAN (80171)	BED MAT. SIEVE DIAM. % FINER THAN (80172)	BED MAT. SIEVE DIAM. % FINER THAN (80173)
OCT 1995										
17...	51	70	84	88	88	89	90	93	98	100
DEC										
04...	0	1	35	96	100	--	--	--	--	--
JAN 1996										
10...	3	11	53	90	92	92	92	93	93	100
FEB										
22...	1	8	39	90	99	99	100	--	--	--
MAR										
11...	--	--	--	--	--	--	--	--	--	--
20...	1	3	22	60	67	68	70	74	82	100
APR										
17...	0	1	13	48	57	59	61	65	76	86
JUN										
04...	--	--	--	--	--	--	--	--	--	--
19...	1	2	27	76	81	82	83	86	95	100
JUL										
18...	1	13	65	98	100	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
AUG										
13...	--	--	--	--	--	--	--	--	--	--
15...	3	9	22	69	92	96	97	98	100	--
SEP										
04...	2	5	20	89	97	99	100	--	--	--

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

## WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	481	568	546	536	540	---	585	667	591	715	687	775
2	---	519	500	563	565	527	586	---	706	1060	796	716
3	515	497	552	563	528	494	556	685	705	1170	730	690
4	516	503	446	538	537	516	763	753	644	---	794	772
5	510	519	553	576	525	495	657	650	679	953	---	811
6	505	505	547	559	550	521	780	686	699	735	---	735
7	508	511	546	536	497	515	783	681	680	678	---	---
8	515	510	556	524	528	523	638	722	724	689	---	---
9	503	501	547	536	526	523	641	722	582	---	---	---
10	523	493	556	534	542	496	783	676	678	724	729	---
11	515	494	556	525	530	538	784	753	662	728	710	---
12	513	504	545	517	544	516	700	718	634	964	688	---
13	497	501	546	534	543	529	769	740	829	815	707	---
14	518	494	551	541	495	517	793	702	890	1010	697	708
15	510	540	521	544	548	515	785	734	794	969	710	685
16	498	500	522	535	541	567	790	605	731	1060	724	722
17	526	498	551	538	536	518	787	650	641	1100	707	683
18	517	506	536	520	540	531	701	715	641	1160	957	608
19	536	501	524	543	496	531	792	718	733	722	904	684
20	520	506	530	543	450	549	769	620	728	715	797	746
21	521	501	576	521	496	566	---	---	787	713	821	627
22	519	546	552	544	541	550	663	---	629	958	787	607
23	360	503	546	537	501	520	663	---	632	1100	825	683
24	521	493	529	545	539	567	711	584	742	1110	878	630
25	525	538	---	541	544	520	728	631	599	932	940	---
26	508	541	---	541	502	560	---	591	725	974	731	757
27	514	532	564	---	494	522	667	591	888	988	734	695
28	499	533	545	545	501	549	688	624	910	746	737	711
29	536	538	562	541	521	557	688	605	840	742	720	764
30	513	543	538	546	---	517	---	746	534	754	818	683
31	528	---	563	547	---	585	---	710	---	755	748	---
MEAN	---	515	---	---	524	---	---	---	709	---	---	---
MAX	---	568	---	---	565	---	---	---	910	---	---	---
MIN	---	493	---	---	450	---	---	---	534	---	---	---

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	15.0	7.5	7.0	9.0	---	13.0	18.0	22.0	24.0	27.0	21.0
2	---	14.0	8.0	5.5	7.5	10.0	13.0	---	22.0	24.0	27.0	22.0
3	19.0	14.0	9.0	5.0	7.0	11.0	14.0	19.0	24.5	23.0	27.0	24.0
4	19.0	13.0	9.0	6.0	7.0	11.0	13.0	19.0	24.0	---	26.0	23.0
5	18.0	13.0	9.0	6.0	8.0	10.0	14.0	20.0	24.0	24.0	---	22.0
6	16.0	13.5	9.0	6.5	9.0	9.5	14.0	18.0	25.0	24.0	---	22.0
7	17.0	13.0	9.0	6.0	9.0	9.0	13.0	20.0	25.0	25.0	---	---
8	17.0	13.0	9.0	6.0	10.0	9.0	12.0	20.0	24.0	23.0	---	---
9	18.0	13.5	8.0	6.0	9.0	10.0	13.0	21.0	24.0	---	---	---
10	17.0	13.0	7.0	6.0	10.0	11.5	12.0	21.0	24.5	25.0	21.0	---
11	---	11.0	7.0	6.5	10.0	9.0	12.0	21.0	24.0	25.0	21.0	---
12	18.0	11.0	8.0	6.5	11.0	12.0	13.0	21.0	24.0	26.0	22.0	---
13	18.5	12.0	8.0	7.0	11.0	12.5	14.0	22.0	22.0	25.0	22.0	---
14	18.0	12.5	8.0	7.0	11.5	12.0	12.0	21.0	23.0	26.0	22.0	18.0
15	19.0	12.5	7.5	8.0	12.0	13.0	14.0	20.0	23.0	26.0	22.0	18.0
16	17.0	12.0	7.0	8.0	12.0	13.0	13.0	21.0	24.0	27.0	23.0	18.0
17	17.0	12.5	6.0	8.0	12.0	13.5	13.0	21.0	24.0	24.0	23.0	18.0
18	17.0	12.0	5.5	7.0	13.0	13.0	12.0	21.0	24.0	28.0	17.0	17.0
19	17.0	11.0	5.0	7.0	12.5	14.0	13.0	22.0	24.5	27.0	23.0	17.0
20	15.0	10.0	5.0	7.0	13.0	14.0	14.5	22.0	25.0	27.0	23.0	17.0
21	14.0	9.5	4.5	6.5	13.0	14.0	---	---	25.0	27.0	24.0	18.0
22	14.0	9.0	5.0	7.0	12.0	14.0	17.0	---	26.0	26.0	23.0	15.0
23	13.0	9.0	5.5	6.0	11.0	13.0	17.0	---	25.0	27.0	24.0	17.0
24	13.0	8.5	5.0	6.0	11.0	10.0	18.0	21.0	24.0	26.0	24.0	18.0
25	14.0	8.5	---	6.0	10.0	10.0	17.0	22.0	24.0	26.0	24.0	---
26	13.5	8.0	---	7.0	10.0	13.0	---	23.0	23.0	27.0	23.0	17.0
27	14.0	7.5	4.0	---	9.0	9.5	17.0	23.0	24.0	26.0	23.0	18.0
28	14.5	6.0	2.0	7.0	6.0	10.0	15.0	22.0	24.0	26.0	24.0	18.0
29	15.0	6.5	5.5	7.0	10.0	10.0	18.0	22.0	23.0	26.0	23.0	18.0
30	15.5	7.0	6.0	---	---	10.5	---	22.0	23.0	26.0	23.0	17.0
31	15.0	---	6.0	10.0	---	11.0	---	23.0	---	27.0	22.0	---
MEAN	---	11.0	---	---	10.2	---	---	---	23.9	---	---	---
MAX	---	15.0	---	---	13.0	---	---	---	26.0	---	---	---
MIN	---	6.0	---	---	6.0	---	---	---	22.0	---	---	---

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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	3900	5470	900	1700	103	261	210	497	126	486	156	430			
2	2760	4540	1860	6370	307	763	195	393	127	494	144	385			
3	1710	4240	1000	3520	197	499	111	221	136	551	119	363			
4	2550	5580	1070	3170	154	499	107	209	140	563	127	425			
5	1820	2810	1420	4040	66	180	120	232	150	599	92	276			
6	323	427	488	1400	162	422	176	335	170	647	105	315			
7	602	891	576	1660	198	545	162	304	221	841	76	242			
8	1260	1790	682	1990	212	571	148	274	165	633	113	351			
9	909	1310	566	1640	240	667	178	358	170	661	112	268			
10	132	194	610	1750	149	386	168	553	289	1150	79	168			
11	147	223	371	1060	165	425	162	612	306	1230	108	229			
12	146	200	309	876	181	460	139	563	288	1170	79	175			
13	127	182	423	1150	167	417	143	579	185	754	68	145			
14	135	186	366	988	156	364	134	543	97	390	70	151			
15	144	206	153	446	107	234	166	663	118	478	73	159			
16	132	179	236	701	120	255	194	775	113	473	73	161			
17	127	154	475	1470	148	302	208	814	98	407	69	156			
18	112	132	837	2510	223	433	172	664	224	925	70	159			
19	98	116	398	1180	192	335	145	579	244	988	72	171			
20	100	121	227	668	129	232	168	680	166	668	72	177			
21	143	181	255	750	111	204	197	803	108	432	63	160			
22	128	156	152	451	135	239	185	779	109	406	57	140			
23	103	128	293	854	156	421	210	782	191	784	74	172			
24	151	191	519	1490	134	360	160	562	164	686	69	149			
25	152	195	229	643	138	361	85	298	131	506	74	158			
26	141	184	134	369	155	402	90	321	195	706	62	131			
27	157	208	131	354	123	325	115	416	124	439	65	133			
28	154	207	140	374	176	480	156	548	154	528	54	102			
29	129	177	195	516	197	553	156	560	151	473	56	88			
30	126	175	190	495	127	363	190	708	---	---	66	82			
31	150	212	---	---	149	414	105	403	---	---	51	54			
TOTAL	---	30965	---	44585	---	12372	---	16028	---	19068	---	6275			
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	49	42	86	13	51	11	8440	638	1340	298	7920	18000			
2	48	36	61	10	46	9.6	17100	1570	4620	1200	6780	8920			
3	52	35	50	8.1	51	7.8	28400	10400	7690	2490	6000	5040			
4	52	29	33	5.3	49	9.3	30700	14900	10800	4020	7600	3860			
5	52	23	49	8.1	47	10	22700	10500	3540	1240	7700	2790			
6	58	23	87	14	47	9.5	9570	3620	2340	905	11000	3970			
7	40	14	93	15	47	11	349	115	870	357	1700	428			
8	52	15	57	9.2	48	11	225	61	826	388	1270	267			
9	55	14	46	6.3	49	12	171	32	12800	18200	1930	947			
10	52	12	65	7.2	54	12	228	46	10300	13200	2410	312			
11	38	8.2	65	7.2	61	14	291	134	400	363	3210	251			
12	52	9.3	60	6.8	92	21	16400	8650	446	335	9570	9920			
13	43	7.0	43	4.9	2870	698	10800	4960	481	206	9640	3720			
14	38	4.9	46	5.2	8290	2040	16400	6660	369	132	18300	27500			
15	47	5.1	49	5.6	14400	28200	18700	3540	656	197	17600	38200			
16	48	4.5	44	5.1	10900	4030	25100	12900	895	213	14500	28600			
17	60	2.8	42	4.6	252	132	22800	15400	477	102	9880	20400			
18	51	3.3	48	5.2	169	112	27200	25000	21900	4320	4160	6820			
19	38	2.3	77	7.7	193	112	5020	5830	25800	4800	2790	5340			
20	41	2.2	47	4.7	325	106	2810	3790	16900	2870	5570	10700			
21	44	2.1	35	3.4	311	71	1250	1350	15700	2450	4010	6760			
22	58	2.7	39	3.7	139	31	766	558	19900	3280	3310	4440			
23	64	9.0	36	3.2	107	26	1220	853	18800	6450	3620	4570			
24	49	3.8	76	19	174	47	1050	212	17600	7180	1850	2040			
25	45	3.6	37	5.2	484	95	1820	364	27100	33200	2720	3250			
26	47	4.2	42	8.5	3560	452	5370	1350	26900	57300	4490	4760			
27	79	10	43	13	17000	6230	9890	2140	21300	55500	3000	2590			
28	80	11	41	13	31800	472000	5640	1160	20100	52700	10100	6520			
29	52	7.0	47	10	17300	16300	2470	566	16800	35000	9950	7410			
30	52	7.2	57	13	12800	6910	4920	1370	16300	30000	3210	2050			
31	---	---	62	14	---	---	2750	587	16200	48200	---	---			
TOTAL	---	353.2	---	259.2	---	537730.2	---	139256	---	387096	---	240375			
TOTAL LOAD FOR YEAR:			1434362.6			TONS.									

## RIO GRANDE BASIN

## 08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM

LOCATION.--Lat 33°41'15", long 106°59'40", Socorro County, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 34, on right bank 0.4 mi northwest of Atchison, Topeka and Santa Fe Railway Co. bridge over floodway channel, 1.0 mi southwest of former site of San Marcial, 3.5 mi downstream from railroad bridge near Tiffany siding, and 51 mi downstream from heading at San Acacia.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to September 1959, October 1964 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 above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 29, 1958, at datum 4.19 ft higher.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are fair. Original design and plan were for conveyance channel to carry all flows up to about 2,000 ft<sup>3</sup>/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. Bureau of Reclamation satellite telemeter at station. No flow from River since 1965.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288	377	257	248	269	255	382	242	138	326	153	258
2	298	319	256	248	269	277	363	240	182	326	147	273
3	335	272	256	246	270	295	351	220	199	319	144	255
4	338	271	255	246	270	293	354	206	177	330	146	241
5	342	270	255	246	271	300	354	178	97	307	160	236
6	343	269	255	246	271	312	356	182	91	275	157	229
7	337	269	255	245	273	327	368	149	93	293	143	218
8	330	269	255	245	275	341	375	92	91	287	139	201
9	353	268	255	245	272	332	385	114	91	224	144	211
10	323	268	255	245	273	329	342	135	109	259	191	228
11	317	268	254	244	273	345	298	162	122	242	202	206
12	334	267	253	244	274	351	288	156	89	247	200	246
13	328	265	253	246	275	314	270	153	78	225	183	315
14	328	266	253	247	275	344	267	150	82	266	159	323
15	322	265	252	248	275	352	272	102	147	280	176	275
16	336	264	252	250	275	356	249	91	195	293	202	214
17	320	263	253	251	277	346	178	89	222	240	183	215
18	336	263	253	252	285	379	191	129	205	232	167	270
19	339	263	252	253	278	370	163	135	177	238	161	263
20	341	262	251	255	279	357	146	135	159	225	143	250
21	330	262	251	256	279	348	145	105	239	221	149	242
22	335	262	250	257	278	362	174	101	231	216	165	250
23	344	261	249	258	274	358	174	126	227	193	199	252
24	369	259	249	259	271	345	193	85	266	191	237	234
25	349	259	249	261	268	385	207	81	227	173	203	239
26	336	259	248	262	265	366	227	100	213	183	244	253
27	339	259	248	262	263	333	230	142	250	169	265	277
28	335	258	249	263	259	333	263	133	330	192	271	277
29	347	258	249	264	261	341	288	158	362	191	276	273
30	363	258	248	265	---	363	248	171	332	174	266	291
31	352	---	248	266	---	392	---	109	---	184	245	---
TOTAL	10387	8093	7818	7823	7897	10501	8101	4371	5421	7521	5820	7515
MEAN	335	270	252	252	272	339	270	141	181	243	188	250
MAX	369	377	257	266	285	392	385	242	362	330	276	323
MIN	288	258	248	244	259	255	145	81	78	169	139	201
AC-FT	20600	16050	15510	15520	15660	20830	16070	8670	10750	14920	11540	14910

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1996, BY WATER YEAR (WY)

	MEAN	259	533	523	435	428	434	466	547	477	336	281	251
MAX	759	1729	1880	1558	1112	1394	1679	1782	1652	1690	986	730	
(WY)	1985	1970	1966	1974	1985	1966	1966	1969	1973	1973	1973	1972	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
(WY)	1969	1977	1975	1975	1975	1977	1976	1976	1976	1976	1976	1974	

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1965 - 1996
ANNUAL TOTAL	126380	91268	
ANNUAL MEAN	346	249	414
HIGHEST ANNUAL MEAN			1137
LOWEST ANNUAL MEAN			.000
HIGHEST DAILY MEAN	529	Jul 21	2200
LOWEST DAILY MEAN	246	Jan 1	.00
ANNUAL SEVEN-DAY MINIMUM	248	Dec 25	.00
ANNUAL RUNOFF (AC-FT)	250700	181000	299800
10 PERCENT EXCEEDS	434	342	1140
50 PERCENT EXCEEDS	356	255	273
90 PERCENT EXCEEDS	255	146	.00

e Estimated

## RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (PER-CENT LEVEL) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
JUN 1996													
05...	0830	85	1190	8.2	19.0	19.0	649	6.5	83	33	87	1700	
JUL													
23...	1130	191	944	8.1	28.0	22.5	650	7.0	96	--	--	--	
DATE		HARD-NESS TOTAL (MG/L AS CAC03) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CAC03 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
JUN 1996													
05...	250	53	77	15	140	4	6.9	245	0	200	189	200	
JUL													
23...	220	59	66	13	100	3	5.7	194	0	159	206	170	
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, 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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
JUN 1996													
05...	120	0.60	25	--	705	--	<0.010	<0.050	0.030	0.27	0.60	0.30	
JUL													
23...	74	0.60	24	594	550	0.220	0.010	0.230	0.040	--	0.50	<0.20	
DATE		PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	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)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	
JUN 1996													
05...	0.150	0.050	0.050	--	--	212	3.0	--	98	22	77		
JUL													
23...	0.280	0.060	0.080	6.1	3.2	--	<3.0	2.0	386	199	--		

## RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM

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 downstream from former site of San Marcial, 18.5 mi southwest of San Antonio, and at mile 1,425.2.

DRAINAGE AREA.--27,700 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> 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 above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Floodway is 1 of 2 channels (station 08358300) carrying flow in valley cross section. Prior to 1950 all flow was in floodway channel. Normal plan is for floodway to carry flow when capacity of conveyance channel (about 2,000 ft<sup>3</sup>/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 upstream from station (includes about 13,800 acre-ft diverted from conveyance channel, as based on weekly measurements, data provided by Bureau of Reclamation). Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--32 years (water years 1965-96), 807 ft<sup>3</sup>/s, 584,700 acre-ft/yr. Total flow of river, 101 years (water years 1895-1996), 1,273 ft<sup>3</sup>/s, 922,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, since January 1895, about 50,000 ft<sup>3</sup>/s, Oct. 11, 1904; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,690 ft<sup>3</sup>/s, June 30; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	416	286	928	899	912	1120	213	.00	.00	951	.00	585
2	537	472	897	894	932	985	118	.00	.00	916	.00	816
3	399	851	870	955	991	893	96	.00	.00	780	.00	422
4	427	1010	856	1010	1070	779	82	.00	.00	950	.00	209
5	445	971	872	985	1070	898	e13	.00	.00	796	.00	55
6	425	1020	885	982	1020	859	.00	.00	.00	565	.00	8.8
7	315	1130	887	1050	997	826	.00	.00	.00	230	.00	.00
8	268	1180	898	1020	993	765	.00	.00	.00	211	.00	.00
9	261	1090	876	968	931	681	.00	.00	.00	19	.00	.00
10	246	1140	849	969	892	684	.00	.00	.00	.00	e210	.00
11	238	1170	886	975	931	604	.00	.00	.00	384	552	.00
12	247	1130	905	1050	983	494	.00	.00	.00	1160	312	.00
13	231	1110	933	1120	1000	485	.00	.00	.00	924	266	389
14	203	1100	929	1100	997	490	.00	.00	.00	837	135	791
15	193	1080	928	1040	996	394	.00	.00	.00	487	39	823
16	202	1130	920	1020	1020	367	.00	.00	.00	191	e22	1220
17	191	1120	926	999	1060	406	.00	.00	.00	453	.00	1160
18	164	1120	934	1020	1050	425	.00	.00	.00	194	.00	1050
19	181	1120	942	1050	1030	451	.00	.00	.00	96	.00	622
20	179	1120	941	1030	1000	507	.00	.00	.00	126	.00	456
21	185	1130	957	1050	965	573	.00	.00	.00	213	.00	413
22	160	1160	1010	1070	963	588	.00	.00	.00	38	.00	372
23	131	1100	982	1070	970	537	.00	.00	.00	.00	.00	169
24	126	1040	922	1040	1090	429	.00	.00	.00	.00	.00	12
25	153	994	896	1030	1310	359	.00	.00	.00	.00	118	.00
26	218	933	881	1010	1200	316	.00	.00	.00	.00	361	.00
27	317	888	885	953	1160	325	.00	.00	.00	.00	881	.00
28	270	885	891	933	1150	331	.00	.00	.00	.00	1070	.00
29	279	892	890	915	1140	289	.00	.00	.00	.00	1020	.00
30	309	941	883	935	---	137	.00	.00	654	.00	628	.00
31	298	---	890	919	---	241	---	.00	1690	.00	381	---
TOTAL	8214	30313	28149	31061	29823	17238	522.00	0.00	2344.00	10521.00	5995.00	9572.80
MEAN	265	1010	908	1002	1028	556	17.4	.000	78.1	339	193	319
MAX	537	1180	1010	1120	1310	1120	213	.00	1690	1160	1070	1220
MIN	126	286	849	894	892	137	.00	.00	.00	.00	.00	.00
AC-FT	16290	60130	55830	61610	59150	34190	1040	.00	4650	20870	11890	18990
(†)	36890	76180	71340	77130	74810	55020	17110	8670	15400	35790	23430	33900

CAL YR 1995 TOTAL 579540.00 MEAN 1588 MAX 4880 MIN .00 AC-FT 1150000 (†) MEAN 1934 AC-FT 1,401,00  
WTR YR 1996 TOTAL 173752.80 MEAN 475 MAX 1690 MIN .00 AC-FT 344600 (†) MEAN 724 AC-FT 525,700

e Estimated

(†) COMBINED FLOW, IN ACRE-FEET, 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 TEMPERATURE: January 1949 to September 1994 (discontinued).

SUSPENDED-SEDIMENT DISCHARGE: July 1946 to current year.

INSTRUMENTATION.--Automatic pump sampler since September 1994.

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. Sediment total-loads (suspended plus bed material discharge), in tons per day, were determined from the regression equation developed for the period of record. Once-daily specific conductance values were determined in the laboratory from daily suspended sediment samples collected by Isco sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,730 microsiemens, Apr. 8, 1953; minimum daily, 276 microsiemens, May 11, 1994.

SEDIMENT CONCENTRATION: Maximum daily mean, 135,000 mg/L, July 23, 1977; minimum daily mean, no flow on many days each year.

SEDIMENT LOAD: Maximum daily, 1,200,000 tons, Sept. 21, 1982; minimum daily, 0 ton on many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,620 microsiemens, July 13; minimum daily, 410 microsiemens, Feb. 6.

SEDIMENT CONCENTRATION: Maximum daily mean, 38,100 mg/L, Sept. 14; minimum daily mean, no flow on many days.

SEDIMENT LOAD: Maximum daily, 114,000 tons, Sept. 16; minimum daily, 0 ton on many days.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 1995											
16...	1400	200	539	8.3	26.0	16.0	649	8.3	99	50	--
MAR 1996											
12...	0945	500	477	8.3	15.0	10.0	647	9.1	95	22	K13
JUL											
23...	1300	3.0	988	8.2	32.0	29.0	649	6.5	100	--	--
AUG											
13...	0830	280	680	8.2	20.0	21.0	654	7.0	92	130	--

DATE	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	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 WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 1995												
16...	170	25	52	9.2	43	1	4.4	168	3	143	146	82
MAR 1996												
12...	140	13	45	7.9	40	1	4.3	161	0	132	138	71
JUL												
23...	290	160	87	17	87	2	6.4	152	0	125	168	310
AUG												
13...	190	56	60	10	57	2	5.1	165	0	135	144	140

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, 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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 1995											
16...	25	0.40	20	--	325	--	<0.010	0.630	<0.015	--	0.60
MAR 1996											
12...	22	0.60	22	--	295	--	<0.010	0.570	0.030	0.27	0.40
JUL											
23...	29	0.90	15	677	630	0.640	0.020	0.660	0.040	0.26	0.60
AUG											
13...	27	0.70	18	--	403	0.860	0.020	0.880	0.040	--	0.30

## RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA: WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)
OCT 1995											
16...	0.20	0.220	0.110	0.120	7.1	--	5.0	<1.0	5	67	<1.0
MAR 1996											
12...	0.30	0.250	0.160	0.170	9.6	--	--	--	--	--	--
JUL											
23...	0.30	0.170	<0.010	0.040	13	4.6	--	--	--	--	--
AUG											
13...	<0.20	0.060	0.040	0.060	46	--	11	<1.0	3	80	<1.0

DATE	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)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
OCT 1995											
16...	90	<1.0	1.0	<1.0	2.0	<3.0	<1.0	3.0	<0.10	7.0	2.0
MAR 1996											
12...	90	--	--	--	--	6.0	--	--	--	--	--
JUL 23...	--	--	--	--	--	3.0	--	5.0	--	--	--
AUG 13...	123	<1.0	2.0	<1.0	3.0	6.0	<1.0	<1.0	0.10	10	3.0

DATE	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. TERIAL (UG/G 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 UG) (01029)
OCT 1995											
16...	<1	<1	<1.0	2.0	--	--	--	--	--	--	--
MAR 1996											
12...	--	--	--	--	<2.0	2.0	20	300	2	<10	7
JUL											
23...	--	--	--	--	--	--	--	--	--	--	--
AUG											
13...	2	<1	<1.0	<1.0	--	--	--	--	--	--	--

[illegible]

RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS. WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

[illegible]

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

[illegible]

## RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	531	524	499	505	487	474	534	---	---	617	1050	1090
2	490	562	501	502	491	474	535	---	---	---	1060	1250
3	491	533	504	498	493	474	552	---	---	899	1060	1090
4	601	533	504	490	485	490	590	---	---	1470	1070	855
5	539	520	505	486	475	480	605	---	---	1230	---	764
6	---	509	502	491	410	472	507	---	---	1260	---	734
7	---	498	498	---	479	459	607	---	---	1050	---	769
8	515	486	500	---	479	464	497	---	---	755	870	797
9	510	488	502	511	486	474	596	---	---	761	690	800
10	513	489	505	515	491	485	595	---	---	791	1150	740
11	509	492	---	510	492	485	601	---	---	1340	963	629
12	519	491	500	502	483	484	603	---	---	1380	419	664
13	519	490	498	498	481	489	507	---	---	1620	668	901
14	524	486	499	496	477	486	611	---	---	875	862	---
15	527	482	499	497	479	495	612	---	---	680	779	---
16	532	478	502	501	480	501	614	---	---	754	791	---
17	528	479	505	497	473	499	618	---	---	885	807	---
18	524	480	500	499	472	495	622	---	---	860	807	807
19	526	480	502	500	476	501	624	---	1200	720	812	404
20	521	482	496	498	477	491	527	---	---	927	814	678
21	---	484	497	494	488	482	630	---	978	1440	831	703
22	530	477	498	493	487	477	631	---	1030	1110	813	635
23	544	481	495	490	486	486	632	---	1070	966	---	640
24	547	488	506	491	484	500	636	---	1080	951	---	655
25	539	493	506	488	469	520	634	---	1090	953	732	674
26	537	496	512	490	469	531	---	---	1070	956	1170	696
27	512	500	513	494	472	527	---	---	1070	960	1070	660
28	508	503	509	495	473	522	---	---	1070	959	850	627
29	523	504	505	496	471	516	---	---	822	---	723	603
30	508	500	509	496	---	520	---	---	415	---	708	627
31	506	---	508	496	---	541	---	---	---	---	758	---
MEAN	---	497	---	---	478	493	---	---	---	---	---	---
MAX	---	562	---	---	493	541	---	---	---	---	---	---
MIN	---	477	---	---	410	459	---	---	---	---	---	---

RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MEAN CONCENTRATION	LOADS (T/DAY)	MEAN CONCENTRATION	LOADS (T/DAY)	MEAN CONCENTRATION	LOADS (T/DAY)	MEAN CONCENTRATION	LOADS (T/DAY)	MEAN CONCENTRATION	LOADS (T/DAY)	MEAN CONCENTRATION	LOADS (T/DAY)
	(MG/L)		(MG/L)		(MG/L)		(MG/L)		(MG/L)		(MG/L)	
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1290	1450	238	184	193	484	273	663	168	414	627	1900
2	1010	1460	374	477	193	467	277	669	192	483	486	1290
3	708	763	881	2020	209	491	271	699	370	990	162	391
4	2180	2520	883	2410	235	543	320	873	477	1380	380	799
5	2140	2580	681	1790	226	532	326	867	536	1550	517	1250
6	992	1140	661	1820	236	564	250	663	510	1400	406	942
7	792	674	666	2030	247	592	284	805	383	1030	345	769
8	793	574	640	2040	218	529	243	669	332	890	383	791
9	601	424	542	1600	185	438	133	348	277	696	287	528
10	462	307	561	1730	183	419	191	500	236	568	266	491
11	404	260	534	1690	203	486	224	590	273	686	366	597
12	368	245	442	1350	198	484	229	649	293	778	393	524
13	407	254	413	1240	175	441	302	913	262	707	485	635
14	386	212	421	1250	170	426	442	1310	281	756	295	390
15	347	181	438	1280	163	408	379	1060	348	936	256	272
16	345	188	443	1350	241	599	293	807	321	884	408	404
17	309	159	402	1220	263	658	302	815	341	976	509	558
18	301	133	392	1190	261	658	322	887	375	1060	545	625
19	285	139	392	1190	299	760	245	695	340	946	438	533
20	293	142	390	1180	332	844	258	717	368	994	416	569
21	347	173	305	931	353	912	261	740	283	737	512	792
22	361	156	241	755	343	935	265	766	165	429	634	1010
23	269	95	251	745	363	962	303	875	394	1030	662	960
24	165	56	257	722	380	946	300	842	416	1220	639	740
25	182	75	235	631	394	953	343	954	672	2380	571	553
26	244	144	261	657	396	942	314	856	904	2930	465	397
27	330	282	255	611	408	975	281	723	631	1980	343	301
28	396	289	242	578	442	1060	295	743	613	1900	321	287
29	299	225	226	544	411	988	216	534	578	1780	382	298
30	280	234	192	488	324	772	213	538	---	---	295	109
31	302	243	---	---	261	627	230	571	---	---	245	159
TOTAL	---	15777	---	35703	---	20895	---	23341	---	32510	---	19864

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	280	161	0	.00	0	.00	4220	10800	0	.0	15800	25000
2	275	88	0	.00	0	.00	4110	10200	0	.0	24000	52800
3	210	54	0	.00	0	.00	5870	12400	0	.0	16700	19000
4	201	45	0	.00	0	.00	11800	30300	0	.0	10900	6170
5	42	1.5	0	.00	0	.00	19500	41900	0	.0	2890	429
6	0	.00	0	.00	0	.00	19100	29100	0	.0	651	15
7	0	.00	0	.00	0	.00	13600	8420	0	.0	0	.0
8	0	.00	0	.00	0	.00	4260	2430	0	.0	0	.0
9	0	.00	0	.00	0	.00	355	18	0	.0	0	.0
10	0	.00	0	.00	0	.00	0	.0	23600	13400	0	.0
11	0	.00	0	.00	0	.00	408	423	35000	52200	0	.0
12	0	.00	0	.00	0	.00	23800	74700	7920	6670	0	.0
13	0	.00	0	.00	0	.00	24300	60700	3740	2680	25500	26800
14	0	.00	0	.00	0	.00	20300	45900	2200	800	38100	81400
15	0	.00	0	.00	0	.00	9580	12600	2130	224	35900	79700
16	0	.00	0	.00	0	.00	7110	3670	65	3.9	34500	114000
17	0	.00	0	.00	0	.00	16400	20000	0	.0	32800	103000
18	0	.00	0	.00	0	.00	18500	9710	0	.0	17300	49100
19	0	.00	0	.00	0	.00	11600	3020	0	.0	11600	19400
20	0	.00	0	.00	0	.00	11200	3820	0	.0	7970	9810
21	0	.00	0	.00	0	.00	30600	17600	0	.0	6080	6780
22	0	.00	0	.00	0	.00	17300	1770	0	.0	3920	3940
23	0	.00	0	.00	0	.00	2330	.0	0	.0	1930	879
24	0	.00	0	.00	0	.00	0	.0	0	.0	1530	49
25	0	.00	0	.00	0	.00	0	.0	18100	5780	0	.0
26	0	.00	0	.00	0	.00	0	.0	23200	22600	0	.0
27	0	.00	0	.00	0	.00	0	.0	33400	79500	0	.0
28	0	.00	0	.00	0	.00	0	.0	23800	68700	0	.0
29	0	.00	0	.00	7630	13500	0	.0	7790	21500	0	.0
30	0	.00	0	.00	6150	28100	0	.0	9520	16100	0	.0
31	---	---	0	.00	---	---	0	.0	9870	10100	---	---
TOTAL	---	349.50	---	0.00	---	41600.00	---	399481.0	---	300257.9	---	598272.0
TOTAL LOAD FOR YEAR: 1488050.40 TONS.												

## RIO GRANDE BASIN

## 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 west of Elephant Butte, 4 mi northeast of Truth or Consequences (Hot Springs), and at mile 1,383.2.

DRAINAGE AREA.--29,445 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> 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 43.3 ft above 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, 2,065,000 acre-ft, survey of 1988 at gage height 4,407.0 ft crest of spillway. Capacity by original survey was 2,638,900 acre-ft. 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. Water is used for power development and irrigation on Rio Grande Project of Bureau of Reclamation. A 50,000-acre-ft permanent pool is authorized for recreational purposes.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 2,303,000 acre-ft, June 16-18, 1942, gage height, 4,409.19 ft; minimum daily contents after initial filling, 9,900 acre-ft, Aug. 6, 1954, gage height, 4,258.03 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,045,300 acre-ft, Jan. 2, gage height, 4,406.46 ft; minimum contents, 1,634,100 acre-ft, Sept. 11, gage height, 4,394.21 ft.

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

4,380	1,241.2	4,400	1,819.7
4,390	1,509.1	4,410	2,177.0

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1956400	1932200	1990100	2043100	2036600	2040900	2003700	1946200	1855100	1763900	1682600	1642700
2	1955700	1932900	1991600	2045300	2037300	2040900	2002700	1944100	1852100	1762600	1680000	1642400
3	1954300	1934300	1993000	2040200	2036600	2040900	2001200	1942700	1848700	1761300	1677900	1642400
4	1953300	1935700	1994400	2041300	2035800	2040900	2003000	1941000	1845600	1759400	1675700	1642400
5	1952200	1937100	1997300	2041300	2035100	2040600	2000200	1939200	1842600	1757400	1673200	1641200
6	1950800	1938500	1998400	2041700	2035500	2039500	1997600	1937500	1839900	1756100	1671300	1639600
7	1950500	1940300	2000900	2042400	2035500	2038000	1995100	1934700	1837900	1753800	1669400	1639000
8	1950100	1943100	2001900	2043100	2035800	2037300	1992600	1933600	1829100	1751200	1666000	1638400
9	1949700	1944800	2003400	2043500	2035800	2036200	1989100	1930500	1826100	1746000	1662900	1637500
10	1949000	1947300	2004800	2043100	2035500	2035100	1990900	1928000	1822800	1741800	1660700	1635000
11	1948700	1949700	2006600	2043100	2035100	2034000	1988400	1926600	1818700	1738000	1658600	1634100
12	1948000	1952200	2007300	2042700	2035100	2032600	1986200	1925200	1814700	1735700	1656300	1636300
13	1946600	1954300	2009100	2042400	2034800	2031100	1984100	1924200	1812100	1733500	1655100	1635300
14	1945900	1956800	2011600	2042400	2035800	2028600	1981900	1921800	1806700	1731200	1654200	1635900
15	1945200	1959600	2013400	2042000	2036200	2026800	1979800	1918300	1803100	1728600	1652000	1636600
16	1944500	1961000	2015200	2041700	2036600	2025000	1977700	1916200	1799400	1726100	1649200	1637200
17	1943800	1963500	2017000	2040900	2036900	2022800	1975500	1913100	1796100	1723800	1647700	1639000
18	1943100	1965600	2018800	2039800	2037300	2021000	1975500	1911000	1792200	1721900	1646100	1641200
19	1942400	1967700	2018800	2038000	2037700	2019900	1971600	1908900	1789500	1719000	1644900	1643000
20	1941300	1969500	2020300	2037300	2038400	2017800	1969500	1906500	1787900	1717100	1643600	1644000
21	1939900	1971600	2022100	2036600	2039800	2016300	1967400	1902000	1783900	1715200	1642700	1644600
22	1938500	1974500	2023900	2036200	2040600	2015600	1965300	1898200	1779000	1713300	1641200	1645500
23	1937500	1976300	2025700	2036200	2043800	2014500	1963100	1893700	1774100	1711000	1640300	1646100
24	1935700	1978000	2027500	2036200	2040900	2013400	1960700	1887500	1769100	1706900	1639900	1647300
25	1934300	1980200	2029000	2034800	2037700	2012400	1958200	1883100	1764200	1704700	1639600	1646700
26	1934700	1982300	2030000	2035100	2034800	2013100	1957500	1878600	1761600	1699300	1639300	1647000
27	1933300	1984800	2032200	2035100	2039100	2008800	1955000	1874200	1760300	1697100	1640900	1648300
28	1932900	1985100	2033300	2034800	2041300	2008000	1952600	1869700	1756400	1694900	1641500	1646100
29	1932900	1986600	2034400	2034400	2042000	2006600	1950100	1865600	1764900	1692000	1641800	1646100
30	1932600	1987600	2037300	2034000	---	2005500	1946200	1861600	1763900	1689200	1643000	1646100
31	1931900	---	2040200	2033300	---	2004500	---	1858200	---	1686600	1642700	---
MAX	1956400	1987600	2040200	2045300	2043800	2040900	2003700	1946200	1855100	1763900	1682600	1648300
MIN	1931900	1932200	1990100	2033300	2034800	2004500	1946200	1858200	1756400	1686600	1639300	1634100
(†)	4403.28	4404.86	4406.32	4406.13	4406.37	4405.33	4403.69	4401.14	4398.31	4395.90	4394.49	4394.60
(††)	-25200	+55700	+52600	-6900	+8700	-37500	-58300	-88000	-94300	-77300	-43900	+3400
CAL YR 1995	MAX 2041300	MIN 1931900	(††)	+1500								
WTR YR 1996	MAX 2045300	MIN 1634100	(††)	-311000								

(†) ELEVATION, IN FEET, AT END OF MONTH.  
(††) CHANGE IN CONTENTS, IN ACRE-FEET.

## RIO GRANDE BASIN

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM

LOCATION.--Lat 33°08'54", long 107°12'22", Sierra County, Hydrologic Unit 13030101, in Pedro Armendaris Grant, on left bank 1.0 mi downstream from dam, 1.5 mi upstream from Cuchillo Negro River, and at mile 1,382.2.

DRAINAGE AREA.--29,450 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> in closed basin in San Luis Valley, CO.

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. Datum of gage is 4,241.09 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 24, 1980, at datum 1.0 ft higher. See WSP 1732 for history of changes prior to Apr. 24, 1942.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Elephant Butte Reservoir (station 08360500). Diversion for irrigation of about 800,000 acres upstream from station. U.S. Geological Survey satellite telemeter at station. No flow at times prior to 1929, Mar. 2-4, 1979.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	726	34	67	62	1220	1280	1080	1010	1800	1840	1470	604
2	748	32	67	417	1220	1280	1100	1030	1800	1540	1270	623
3	767	40	68	625	1190	1270	1090	1020	1800	1850	1170	607
4	769	46	70	654	1190	1240	e1080	1020	1800	1870	1180	640
5	788	40	77	678	1210	1310	1070	1010	1800	1870	1190	626
6	771	41	75	701	1210	1460	1060	1020	1790	1890	1190	649
7	775	41	80	728	1200	1500	1050	1010	1780	1920	1180	655
8	773	45	80	955	1200	1510	1050	1000	1700	1940	1220	645
9	774	37	77	1140	1190	1500	1030	996	1780	1960	1230	675
10	772	42	78	1240	1210	1500	1020	989	1780	1920	1230	675
11	772	39	80	1240	1210	1490	1040	988	1770	1950	1240	675
12	769	38	86	1260	1010	1490	1060	987	1770	1960	1250	679
13	768	40	88	1310	898	1480	1050	982	1760	1970	1250	677
14	767	44	85	1310	898	1460	997	978	1900	1980	1340	682
15	764	47	86	1330	905	1540	974	977	1780	1980	1270	670
16	762	49	88	1320	913	1490	958	984	1780	1980	859	275
17	759	62	79	1370	910	1460	972	989	1820	1960	624	35
18	761	72	79	1370	916	e1470	963	1000	1850	1680	624	24
19	764	63	79	1400	917	e1460	981	1010	1800	1520	630	23
20	765	55	79	1390	927	e1470	993	1490	1790	1520	633	30
21	705	69	78	1340	932	e1470	1000	1780	1830	1510	628	33
22	754	64	75	1270	948	e1210	1000	1780	1780	1510	624	35
23	753	68	72	1230	1150	e1100	999	1780	1770	1500	620	37
24	761	88	71	1180	1260	e1170	996	1780	1800	1470	634	36
25	761	89	70	1180	1270	e1130	997	1780	1830	1470	640	38
26	759	92	72	1180	1300	e1070	1010	1790	1820	1480	626	40
27	755	71	71	1180	1310	e1070	1020	1790	1830	1480	616	40
28	750	68	67	1180	1290	1080	1010	1800	1850	1470	617	34
29	750	64	60	1180	1300	1030	999	1790	1810	1470	619	33
30	746	66	61	1190	---	1090	e1020	1800	1850	1470	611	34
31	296	---	61	1200	---	1080	---	1800	---	1470	604	---
TOTAL	23104	1646	2326	33810	32304	41160	30669	40160	54020	53400	28889	10529
MEAN	745	54.9	75.0	1091	1114	1328	1022	1295	1801	1723	932	351
MAX	788	92	88	1400	1310	1540	1100	1800	1900	1980	1470	682
MIN	296	32	60	62	898	1030	958	977	1700	1470	604	23
AC-FT	45830	3260	4610	67060	64070	81640	60830	79660	107100	105900	57300	20880

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 1996, BY WATER YEAR (WY)

	MEAN	336	270	320	340	718	1168	1527	1607	1822	1724	1400	791
MAX	2040	2662	2110	1944	3026	2297	2717	7601	6098	4032	2623	2169	
(WY)	1987	1942	1987	1987	1986	1989	1942	1942	1942	1995	1924	1939	
MIN	2.41	1.25	1.38	.000	3.38	16.6	188	8.32	284	673	155	2.73	
(WY)	1986	1972	1994	1918	1955	1983	1977	1957	1964	1964	1954	1954	

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1917 - 1996
ANNUAL TOTAL	590274	352017	
ANNUAL MEAN	1617	962	1003
HIGHEST ANNUAL MEAN			2665
LOWEST ANNUAL MEAN			253
HIGHEST DAILY MEAN	4600	Jul 14	8220
LOWEST DAILY MEAN	32	Nov 2	.00
ANNUAL SEVEN-DAY MINIMUM	39	Nov 1	.00
INSTANTANEOUS PEAK FLOW			8220
INSTANTANEOUS PEAK STAGE			9.72
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (AC-FT)	1171000	698200	726600
10 PERCENT EXCEEDS	4030	1790	2090
50 PERCENT EXCEEDS	966	1010	1010
90 PERCENT EXCEEDS	71	63	5.2

e Estimated



## RIO GRANDE BASIN

## 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 downstream from mouth of Apache Canyon, 0.9 mi upstream from Bojarquez Bridge, 2 mi upstream from Percha diversion dam, 3.5 mi northeast of Arrey, 5.2 mi south of Caballo, and at mile 1,356.6.

DRAINAGE AREA.--30,700 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> 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 above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam, completed Sept. 19, 1938. Storage began Feb. 8, 1938. Capacity by 1983 survey, 331,500 acre-ft between gage heights 4,104 ft, bottom of tunnel entrance of gates and 4,182 ft, gage height above which spillway gates operate automatically. Capacity by original survey was 345,900 acre-ft. No dead storage. Storage held for flood control, 100,000 acre-ft. Water released from Elephant Butte Reservoir for power development is stored in Caballo Reservoir and released for irrigation on Rio Grande Project of Bureau of Reclamation.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 347,000 acre-ft, Mar. 4, 1942, gage height, 4,182.06 ft; minimum contents, 118 acre-ft, Oct. 14, 1938, gage height, 4,108.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 223,790 acre-ft, Feb. 20, 23, 27 gage height, 4,171.61 ft; minimum contents, 28,240 acre-ft, Sept. 30, gage height, 4,137.94 ft.

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

4,125	4,810	4,160	131,200
4,130	11,680	4,170	209,400
4,140	33,770	4,180	308,900
4,150	71,800		

RESERVOIR STORAGE (ACRE-Feet), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	158110	151820	155330	161600	207870	221420	180910	155180	128910	125250	118780	69680
2	157740	152040	155480	161980	208140	220960	179140	154210	128770	126970	116800	68540
3	156980	152340	155630	162210	209190	220510	177700	153760	128630	127310	115230	68020
4	156380	152340	155850	163660	210240	220150	176670	152190	128630	128070	113680	66430
5	156080	152340	156000	164880	211300	219870	175160	150630	128490	128840	112070	65060
6	155100	152270	156230	166420	212440	219330	175240	149080	127860	129180	110660	63740
7	154510	152570	156530	167960	212440	218610	175320	147980	127520	129530	109590	62580
8	153910	152710	156760	169510	214930	217710	175480	146590	126970	129950	108520	61660
9	153310	152860	156910	170990	215830	216990	176350	145120	126410	130230	107510	60700
10	152790	152860	157060	172950	217530	216180	176430	143880	125930	129530	106770	59790
11	152040	152940	157210	175320	219240	215470	175400	143150	125800	128700	106020	58380
12	151080	153010	157510	177540	220870	214750	174760	142430	125450	128350	105280	58470
13	149890	153090	157660	179300	222330	212270	173970	141700	125040	127860	104790	58170
14	148710	153460	157810	180990	223060	210940	173190	140980	124770	127380	103620	57920
15	147540	153610	158260	182770	223510	209270	172400	139320	124500	126830	102350	57670
16	146360	153390	158410	184480	223600	207960	171380	137600	124570	128070	100900	57460
17	145120	152860	158570	186280	223600	206650	169590	135890	124570	129390	98450	56840
18	143660	153760	158790	188590	223700	205440	167960	133970	124500	130090	96050	55850
19	142210	153830	158490	189830	223700	203790	166340	132060	124090	129950	93730	54920
20	142140	153910	158870	191490	223790	202330	165190	130090	123480	129740	91110	53840
21	142860	153910	159170	193160	223700	200780	164040	129180	122800	129530	88640	52030
22	143590	154060	159320	194840	223330	198990	162820	128840	121850	129250	85840	50240
23	144390	154210	159470	194840	223790	196610	161600	128560	120910	128910	83410	48520
24	144170	154430	159700	198140	223610	194760	160690	128140	119980	127930	82020	46530
25	144970	154660	159850	199670	223330	193160	160000	128420	119110	127030	80650	43430
26	145630	154880	160080	201300	223150	191910	159170	128490	118320	125860	79350	39960
27	146440	155030	160380	202330	223790	189580	158410	128700	117850	124910	78110	36140
28	147610	155100	160460	203360	221510	187760	157660	128840	119380	123950	76220	33380
29	148790	154950	160690	204570	221420	185870	156830	128970	120650	123070	74410	30760
30	149890	155100	160990	205700	---	184240	155700	128970	124160	122190	72730	28240
31	151150	---	161290	206310	---	182610	---	129040	---	120380	70390	---
MAX	158110	155100	161290	206310	223790	221420	180910	155180	128910	130230	118780	69680
MIN	142140	151820	155330	161600	207870	182610	155700	128140	117850	120380	70390	28240
(†)	4162.76	4163.29	4164.11	4169.65	4171.35	4166.83	4163.37	4159.69	4158.98	4158.42	4149.71	4137.94
(††)	-7420	+3950	+6190	+45020	+15110	-38810	-26910	-26660	-4880	-3780	-49990	-42150
CAL YR 1995	MAX 279720	MIN 86990	(††)	+76920								
WTR YR 1996	MAX 223790	MIN 28240	(††)	-130330								

(†) ELEVATION, IN FEET, AT END OF MONTH.

(††) CHANGE IN CONTENTS, IN ACRE-Feet.

## RIO GRANDE BASIN

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 upstream from Interstate Highway 25, 4,200 ft downstream from Caballo Dam, 1.2 mi downstream from Apache Canyon, 1.3 mi upstream from Percha diversion dam, 3 mi northeast of Arrey, 5 mi south of Caballo, and at mile 1,355.6.

DRAINAGE AREA.--30,700 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> 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 above National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1938, at datum 7.0 ft higher, Oct. 7-12, 1938, at datum 6.0 ft higher, and Oct. 13, 1938, to Dec. 31, 1945, at datum 5.0 ft higher than present datum.

REMARKS.--Flow regulated by Caballo Reservoir (station 08362000), capacity, 331,500 acre-ft, 1981 survey and Elephant Butte Reservoir (station 08360500), capacity, 2,065,000 acre-ft, 1988 survey. Diversions for irrigation of about 800,000 acres upstream from station. Figures of daily discharge do not include Bonita ditch, which diverts from Caballo Dam and bypasses station for irrigation downstream. See monthly table below for record of ditch. Bureau of Reclamation satellite telemeter at station.

COOPERATION.--Records provided by Bureau of Reclamation.

AVERAGE DISCHARGE.--58 years, 928 ft<sup>3</sup>/s, 672,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,650 ft<sup>3</sup>/s, May 20, 1942; minimum daily, 0.1 ft<sup>3</sup>/s, Oct. 31 to Nov. 14, 1954, Nov. 7 to Dec. 31, 1955, Feb. 15-29, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,380 ft<sup>3</sup>/s, July 31; minimum daily 1.0 ft<sup>3</sup>/s, Jan. 5-11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	8.0	7.0	2.0	659	1200	1820	1550	1930	1180	2370	1270
2	1020	7.0	6.0	2.0	607	1280	1770	1540	1930	1310	2260	1260
3	1010	7.0	6.0	2.0	557	1290	1720	1590	1930	1480	2140	1400
4	1000	6.0	6.0	2.0	558	1280	1720	1660	1970	1480	2000	1500
5	1000	6.0	6.0	1.0	559	1510	1250	1660	2110	1580	1830	1410
6	1000	6.0	5.0	1.0	559	1720	760	1650	2100	1660	1780	1300
7	1000	5.0	5.0	1.0	558	1720	774	1700	2050	1660	1730	1180
8	998	5.0	5.0	1.0	542	1770	772	1730	2000	1650	1720	1170
9	997	5.0	5.0	1.0	307	1820	1080	1640	2000	1910	1660	1160
10	1080	5.0	5.0	1.0	133	1830	1370	1530	1990	2230	1590	1290
11	1240	5.0	5.0	1.0	110	1860	1370	1380	1990	2150	1590	1440
12	1210	5.0	5.0	1.0	114	2070	1370	1380	1990	2100	1580	1260
13	1230	5.0	4.0	323	409	2260	1380	1380	2000	2230	1740	957
14	1340	5.0	4.0	323	642	2240	1360	1630	1980	2150	1890	849
15	1330	5.0	4.0	323	637	2170	1380	1900	1960	1650	1870	847
16	1330	6.0	4.0	324	684	2110	1740	1890	1960	1380	1930	850
17	1390	6.0	4.0	325	752	2110	2020	1930	1960	1500	1990	725
18	1500	6.0	4.0	322	755	2160	1820	1980	2080	1670	1980	624
19	980	6.0	3.0	324	761	2220	1700	1970	2190	1620	1970	620
20	612	6.0	3.0	323	826	2270	1590	1970	2200	1570	1980	845
21	302	6.0	3.0	324	890	2270	1580	1920	2220	1570	1990	1070
22	283	6.0	3.0	326	1070	2110	1580	1840	2250	1570	1980	1060
23	280	6.0	3.0	325	1170	1980	1520	1740	2250	1730	1750	1120
24	282	6.0	3.0	325	1170	1960	1470	1700	2240	1860	1530	1440
25	281	6.0	3.0	326	1180	1970	1460	1680	2210	1840	1530	1850
26	281	6.0	3.0	409	1180	1950	1410	1660	2180	1870	1520	2030
27	219	6.0	3.0	502	1160	1960	1370	1660	1720	1900	1590	1980
28	13	7.0	3.0	503	1150	1970	1360	1730	1430	1890	1670	1670
29	12	7.0	3.0	505	1140	1970	1370	1830	1360	1890	1600	1880
30	11	7.0	3.0	614	---	1880	1460	1830	1250	2110	1400	697
31	10	---	3.0	705	---	1820	---	1880	---	2380	1280	---
TOTAL	24271	178.0	129.0	7635.0	20839	58730	43346	53130	59430	54770	55440	36754
MEAN	783	5.93	4.16	246	719	1895	1445	1714	1981	1767	1788	1225
MAX	1500	8.0	7.0	705	1180	2270	2020	1980	2250	2380	2370	2030
MIN	10	5.0	3.0	1.0	110	1200	760	1380	1250	1180	1280	620
AC-FT	48140	353	256	15140	41330	116500	85980	105400	117900	108600	110000	72900
(†)	0	0	11	0	0	178	85	202	199	146	111	163

CAL YR 1995 TOTAL 552534.0 MEAN 1514 MAX 4540 MIN 2.0 AC-FT 1096000  
WTR YR 1996 TOTAL 414652.0 MEAN 1133 MAX 2380 MIN 1.0 AC-FT 822500

(†) DIVERSION, IN ACRE-FEET, BY 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  
and National Water-Quality Assessment Program Station)

## WATER-QUALITY RECORDS

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 upstream from American Dam, 5.6 mi upstream from Santa Fe Street-Juarez Avenue Bridge between El Paso and Cd. Juarez, Chihuahua, and at mile 1,249.

DRAINAGE AREA.--32,207 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--Water years 1930 to current year.

REMARKS.--Records of discharge are given in International Boundary and Water Commission Water Bulletins.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
NOV 1995											
02...	1400	268	1830	8.5	20.0	17.5	18	664	8.5	103	380
DEC											
07...	1245	174	2300	8.4	20.5	14.5	--	661	9.4	107	430
JAN 1996											
17...	0815	338	1310	8.3	15.0	9.5	--	652	9.2	95	260
24...	1530	354	1270	8.2	12.5	9.0	16	668	11.9	118	260
FEB											
29...	0830	406	1110	8.2	7.5	6.5	--	670	9.5	88	230
MAR											
26...	0900	999	878	8.3	4.0	10.0	24	665	9.4	96	190
APR											
23...	0750	738	1020	8.2	10.5	16.5	--	670	8.0	94	220
MAY											
29...	0845	731	1060	8.4	24.0	20.5	30	663	7.6	98	210
JUN											
27...	0815	1280	801	7.9	22.5	23.5	--	664	5.3	72	170
JUL											
25...	0800	858	1000	8.3	24.5	24.0	--	668	7.0	96	210
AUG											
13...	0830	858	963	8.0	26.5	24.0	170	668	6.4	87	200
SEP											
10...	0900	597	1220	8.4	25.5	22.5	--	666	7.2	96	250

DATE	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
NOV 1995											
02...	130	110	24	230	5	11	281	8	243	252	370
DEC											
07...	160	120	31	330	7	11	281	25	272	260	480
JAN 1996											
17...	69	73	18	160	4	8.3	228	0	187	194	260
24...	77	74	19	160	4	7.4	228	0	187	189	240
FEB											
29...	58	66	17	130	4	7.1	197	9	177	178	200
MAR											
26...	33	56	13	95	3	5.8	196	0	161	--	160
APR											
23...	--	65	15	110	3	5.2	--	--	--	180	190
MAY											
29...	39	62	14	120	4	6.8	198	7	174	--	200
JUN											
27...	41	49	11	86	3	6.3	155	0	127	148	150
JUL											
25...	41	60	14	110	3	7.1	195	4	167	191	190
AUG											
13...	48	57	13	100	3	7.4	181	0	148	--	180
SEP											
10...	65	72	17	150	4	7.5	217	4	185	193	240

## RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TX -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
NOV 1995											
02...	190	0.60	20	1190	1110	0.860	0.050	0.910	0.020	0.18	0.40
DEC											
07...	310	0.70	25	1510	1480	1.07	0.030	1.10	0.070	0.23	0.50
JAN 1996											
17...	150	0.60	15	828	801	0.890	0.020	0.910	0.020	0.28	0.80
24...	140	0.70	14	780	772	0.650	0.020	0.670	0.060	--	0.40
FEB											
29...	120	0.70	12	698	661	0.470	0.010	0.480	<0.015	--	0.60
MAR											
26...	79	0.70	11	557	519	0.310	0.010	0.320	<0.015	--	0.70
APR											
23...	95	0.70	11	624	601	0.220	0.020	0.240	0.020	0.28	0.50
MAY											
29...	95	0.60	12	--	--	--					
JUN											
27...	66	0.60	12	498	459	0.360	0.020	0.380	<0.015	--	2.4
JUL											
25...	89	0.70	17	627	589	0.180	0.020	0.200	0.040	--	1.0
AUG											
13...	85	0.60	16	588	551	0.460	0.020	0.480	0.030	--	1.3
SEP											
10...	120	0.70	18	766	737	0.320	0.010	0.330	<0.015	--	0.90

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS- (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)
NOV 1995											
02...	0.20	0.110	0.100	0.050	--	13	0.70	<10	--	3	100
DEC											
07...	0.30	0.100	0.060	0.050	--	--	--	--	--	--	--
JAN 1996											
17...	0.30	0.170	0.050	0.050	--	--	--	--	--	--	--
24...	--	0.090	0.070	0.050	--	--	--	10	--	2	60
FEB											
29...	<0.20	0.150	0.030	0.040	--	--	--	4.0	<1.0	2	63
MAR											
26...	0.20	0.200	0.030	0.030	--	6.1	2.5	3.0	<1.0	2	57
APR											
23...	0.30	0.110	0.020	0.020	--	--	--	--	--	--	--
MAY											
29...	--	--	--	--	--	--	--	3.0	<1.0	2	69
JUN											
27...	0.40	0.890	0.030	0.040	--	--	--	--	--	--	--
JUL											
25...	<0.20	0.210	<0.010	0.030	8.6	3.4	--	--	--	--	--
AUG											
13...	<0.20	0.500	0.050	0.040	--	3.4	3.2	13	<1.0	4	74
SEP											
10...	<0.20	0.190	0.020	0.020	--	--	--	--	--	--	--

## RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TX -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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)	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)
NOV 1995											
02...	<0.50	--	<1.0	<5.0	<3.0	1.0	4.0	<1.0	160	15	--
DEC											
07...	--	--	--	--	--	--	<9.0	--	--	37	--
JAN 1996											
17...	--	--	--	--	--	--	<3.0	--	--	16	--
24...	--	--	<1.0	<1.0	<3.0	1.0	3.0	<1.0	120	29	<0.1
FEB											
29...	<1.0	--	<1.0	2.0	<1.0	2.0	<3.0	<1.0	--	9.0	<0.1
MAR											
26...	<1.0	160	<1.0	1.0	<1.0	2.0	<3.0	<1.0	82	2.0	--
APR											
23...	--	--	--	--	--	--	31	--	--	5.0	--
MAY											
29...	<1.0	180	<1.0	<1.0	<1.0	3.0	<3.0	<1.0	93	4.0	--
JUN											
27...	--	--	--	--	--	--	9.0	--	--	3.0	--
JUL											
25...	--	--	--	--	--	--	<3.0	--	--	<1.0	--
AUG											
13...	<1.0	175	<1.0	2.0	<1.0	2.0	4.0	<1.0	81	<1.0	--
SEP											
10...	--	--	--	--	--	--	<3.0	--	--	1.0	--
DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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)	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	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)
NOV 1995											
02...	<10	<1.0	<1	<1.0	1500	<6	12	--	250	181	26
DEC											
07...	--	--	--	--	--	--	--	--	109	51	--
JAN 1996											
17...	--	--	--	--	--	--	--	--	127	116	64
24...	20	<1.0	<1	<1.0	1000	<6	<10	--	--	--	--
FEB											
29...	8.0	3.0	<1	<1.0	--	--	6.0	3.0	92	--	68
MAR											
26...	7.0	1.0	<1	<1.0	730	<6	2.0	3.0	252	680	49
APR											
23...	--	--	--	--	--	--	--	--	1360	2710	5
MAY											
29...	8.0	3.0	<1	<1.0	810	<6	3.0	3.0	189	373	48
JUN											
27...	--	--	--	--	--	--	--	--	2070	7160	36
JUL											
25...	--	--	--	--	--	--	--	--	292	676	--
AUG											
13...	8.0	3.0	<1	<1.0	750	<6	9.0	3.0	--	--	--
SEP											
10...	--	--	--	--	--	--	--	--	322	519	81

## RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TX -- Continued

## WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER, DISS, REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P, P' DDE DISSOLV (UG/L) (34653)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	LINDANE DIS- SOLVED (UG/L) (39341)
NOV 1995												
02...	1400	<0.007	<0.002	E0.004	E0.005	<0.002	<0.004	<0.003	<0.002	<0.006	E0.003	<0.004
DEC												
07...	1245	--	--	--	--	--	--	--	--	--	--	--
JAN 1996												
17...	0815	--	--	--	--	--	--	--	--	--	--	--
24...	1530	--	--	--	--	--	--	--	--	--	--	--
FEB												
29...	0830	<0.007	<0.002	0.007	E0.006	<0.002	<0.004	<0.003	<0.002	<0.006	<0.004	<0.004
MAR												
26...	0900	<0.007	<0.002	0.010	E0.008	<0.002	<0.004	<0.003	<0.002	<0.006	<0.004	<0.004
APR												
23...	0750	--	--	--	--	--	--	--	--	--	--	--
MAY												
29...	0845	<0.007	<0.002	0.006	E0.007	<0.002	<0.004	<0.003	<0.002	<0.006	0.029	<0.004
JUN												
27...	0815	<0.007	<0.002	0.011	0.330	<0.002	<0.004	<0.003	<0.002	<0.006	0.006	<0.004
JUL												
25...	0800	<0.007	<0.002	0.010	E0.009	E0.003	0.009	<0.003	<0.002	<0.006	<0.004	<0.004
AUG												
13...	0830	--	--	--	--	--	--	--	--	--	--	--
SEP												
10...	0900	<0.007	<0.002	E0.004	0.018	<0.002	<0.004	<0.003	<0.002	<0.006	E0.004	<0.004

DATE	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (82660)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (82661)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (82663)
NOV 1995												
02...	<0.001	0.006	<0.005	<0.004	0.004	<0.001	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004
DEC												
07...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1996												
17...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
29...	<0.001	0.004	<0.005	<0.004	<0.002	<0.001	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004
MAR												
26...	<0.001	0.011	<0.005	<0.004	<0.002	<0.001	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004
APR												
23...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
29...	<0.001	0.008	<0.005	<0.004	<0.002	E0.004	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004
JUN												
27...	<0.001	0.014	0.013	<0.004	0.052	E0.004	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004
JUL												
25...	<0.001	0.009	<0.005	<0.004	E0.003	0.005	<0.002	<0.002	<0.004	<0.003	0.005	<0.004
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
10...	<0.001	0.005	<0.005	<0.004	<0.002	<0.001	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004

## RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TX -- Continued

## WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPIC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)
NOV 1995												
02...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.01
DEC												
07...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1996												
17...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
29...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013
MAR												
26...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013
APR												
23...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
29...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	E0.004	<0.004	<0.003	<0.002	<0.005	<0.013
JUN												
27...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	0.016
JUL												
25...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	0.011	<0.004	<0.003	<0.002	<0.003	<0.013
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
10...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013
DATE	FRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- FARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)
NOV 1995												
02...	<0.003	<0.02	<0.001	<0.004	<0.003	<0.002	E0.004	<0.004	<0.003	<0.01	<0.001	<0.005
DEC												
07...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 1996												
17...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
29...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	0.008	<0.004	<0.003	<0.013	<0.001	<0.005
MAR												
26...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	0.008	<0.004	<0.003	<0.013	<0.001	<0.005
APR												
23...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
29...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	0.004	<0.004	<0.003	<0.013	<0.001	<0.005
JUN												
27...	<0.003	<0.017	<0.001	<0.004	E0.082	<0.002	0.007	<0.004	<0.003	<0.013	<0.001	<0.005
JUL												
25...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
AUG												
13...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
10...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

## RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TX -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## CROSS SECTION ANALYSES

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET) (81903)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
SEP 1996							
10...	0822	155	3.80	1070	8.3	22.5	7.4
10...	0826	145	4.10	1140	8.4	22.5	7.4
10...	0828	135	2.90	1230	8.4	22.5	7.2
10...	0830	125	0.60	1220	8.4	22.5	7.1
10...	0832	115	1.30	1240	8.4	22.5	7.2
10...	0833	105	1.40	1260	8.4	22.5	7.2
10...	0835	95.0	1.50	1250	8.4	22.5	7.2
10...	0837	85.0	1.60	1260	8.4	22.5	7.2
10...	0838	75.0	1.90	1260	8.4	22.5	7.2
10...	0839	65.0	1.60	1270	8.4	22.5	7.2
10...	0840	55.0	1.70	1270	8.4	22.5	7.2
10...	0841	45.0	1.50	1270	8.4	22.5	7.2
10...	0842	35.0	1.60	1270	8.4	22.5	7.2
10...	0843	25.0	1.60	1280	8.4	22.5	7.2
10...	0844	15.0	1.60	1280	8.4	22.5	7.2
10...	0845	5.00	1.60	1280	8.4	22.5	7.2



## RIO GRANDE BASIN

08377900 RIO MORA NEAR TERRERO, NM

(Hydrologic bench-mark station)

LOCATION.--Lat 35°46'38", long 105°39'27", in SW¼ sec.22, T.18 N., R.12 E., San Miguel County, Hydrologic Unit 13060001, in Santa Fe National Forest, on left bank 450 ft upstream from bridge on State Highway 63, 600 ft upstream from mouth, and 2.6 mi north of Terrero.

DRAINAGE AREA.--53.2 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 7,890 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except for estimated daily discharges, 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.

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).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	23	e12	7.2	6.6	20	27	74	278	98	24	49
2	16	22	e13	7.2	7.7	19	22	84	277	89	21	43
3	15	26	e14	7.3	10	17	21	96	284	82	20	39
4	15	24	e13	7.0	11	16	20	95	286	81	18	35
5	15	21	e12	7.5	11	16	20	109	296	71	17	32
6	14	22	e11	7.9	11	19	20	114	328	64	16	30
7	15	21	e11	7.6	12	22	23	109	342	59	16	32
8	16	21	e11	7.3	12	28	30	104	323	54	15	42
9	15	20	9.4	7.1	12	26	41	92	307	48	16	32
10	16	19	e9.2	7.3	12	19	40	94	288	45	18	31
11	15	21	e9.6	7.2	11	21	35	110	273	41	16	32
12	14	99	e9.6	7.0	11	25	31	128	265	39	21	28
13	13	108	e9.8	6.6	11	23	33	138	261	37	20	27
14	14	60	e10	e6.5	10	23	40	156	260	40	17	26
15	14	48	e10	e6.2	11	25	41	222	245	41	18	28
16	19	39	e11	6.5	11	26	39	300	234	40	18	25
17	34	32	11	6.7	e9.8	26	37	327	248	39	25	24
18	24	e26	10	e6.3	e9.6	28	34	260	366	38	18	23
19	24	e21	10	6.8	e10	38	31	222	482	40	18	22
20	25	e20	9.7	6.3	14	49	28	236	416	34	16	21
21	26	e18	9.4	6.2	18	54	26	287	333	31	16	21
22	26	e18	9.1	6.3	18	68	23	349	292	30	18	20
23	26	e15	9.3	6.0	18	61	24	371	245	28	22	19
24	27	e14	8.8	5.7	19	54	22	335	199	26	28	20
25	26	e13	8.2	5.7	19	50	23	293	163	25	43	23
26	25	e10	8.1	5.7	21	44	32	280	142	25	76	19
27	e25	e11	7.8	5.7	22	39	39	235	126	23	73	18
28	25	e11	7.7	5.5	21	31	44	222	112	22	64	19
29	26	e10	7.4	5.8	---	27	52	249	111	21	58	21
30	26	e11	7.7	e5.8	---	26	67	277	109	21	60	20
31	25	---	7.6	6.0	---	34	---	296	---	22	55	---
TOTAL	632	824	307.4	203.9	369.7	974	965	6264	7891	1354	881	821
MEAN	20.4	27.5	9.92	6.58	13.2	31.4	32.2	202	263	43.7	28.4	27.4
MAX	34	108	14	7.9	22	68	67	371	482	98	76	49
MIN	13	10	7.4	5.5	6.6	16	20	74	109	21	15	18
AC-FT	1250	1630	610	404	733	1930	1910	12420	15650	2690	1750	1630

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1995, BY WATER YEAR (WY)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
MEAN	14.4	10.3	7.08	5.95	6.28	12.2	36.4	126	87.9	29.7	43.6	27.7
MAX	25.2	27.5	13.3	9.82	13.2	41.3	88.4	319	263	73.1	159	84.5
(WY)	1986	1995	1985	1986	1995	1989	1985	1973	1995	1988	1991	1988
MIN	5.73	3.72	2.90	1.72	2.43	3.40	11.2	14.2	8.25	8.43	9.23	6.93
(WY)	1965	1990	1990	1964	1964	1964	1971	1967	1967	1989	1989	1978

## SUMMARY STATISTICS

## FOR 1994 CALENDAR YEAR

## FOR 1995 WATER YEAR

## WATER YEARS 1964 - 1995

ANNUAL TOTAL	16871.9	21487.0	
ANNUAL MEAN	46.2	58.9	34.1
HIGHEST ANNUAL MEAN			65.3
LOWEST ANNUAL MEAN			11.6
HIGHEST DAILY MEAN	391	May 21	726
LOWEST DAILY MEAN	4.0	Feb 1	.90
ANNUAL SEVEN-DAY MINIMUM	4.7	Jan 28	.97
INSTANTANEOUS PEAK FLOW			581
INSTANTANEOUS PEAK STAGE			3.71
INSTANTANEOUS LOW FLOW			3.5
ANNUAL RUNOFF (AC-FT)	33470	42620	24700
10 PERCENT EXCEEDS	107	234	83
50 PERCENT EXCEEDS	20	23	14
90 PERCENT EXCEEDS	6.0	7.8	5.0
e Estimated			

## RIO GRANDE BASIN

08377900 RIO MORA NEAR TERRERO, NM -- Continued

## WATER-QUALITY RECORDS

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	
DEC 1995												
12...	1130	11	143	7.9	9.0	0.0	0.20	570	10.9	100	<1	
FEB 1996												
13...	0945	6.0	126	8.1	-3.5	0.0	--	574	10.9	99	<1	
DATE		STREP-TOCOCI, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)
DEC 1995												
12...	18	64	6	22	2.3	1.9	0.1	0.50	71	0	58	
FEB 1996												
13...	400	--	--	--	--	--	--	--	69	0	56	
DATE		ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L) (00625)
DEC 1995												
12...	57	7.9	0.60	0.30	7.0	81	78	<0.010	0.050	<0.015	<0.20	
FEB 1996												
13...	--	--	--	--	--	--	--	<0.010	0.110	<0.015	<0.20	
DATE		PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)
DEC 1995												
12...	<0.010	<0.010	<0.010	<10	29	<3.0	<3.0	<4	<1.0	10	<1.0	
FEB 1996												
13...	<0.010	<0.010	<0.010	--	--	--	--	--	--	--	--	
DATE		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)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS. (PCI/L) (76001)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS. (UG/L) (75990)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC 1995												
12...	<1	<1.0	51	<6	0.03	0.010	0.47	0.0	56	1.7	24	
FEB 1996												
13...	--	--	--	--	--	--	--	--	6	0.10	56	

## RIO GRANDE BASIN

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 downstream from bridge on private road, 270 ft upstream from Indian Creek, 2.4 mi downstream from Holy Ghost Creek, 9.0 mi north of Pecos, and at mile 896.6.

DRAINAGE AREA.--189 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1919 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "near Cowles" 1919-25, "at Irvins Ranch" 1926-29, and as "at Irvins Ranch near Pecos" 1930-39.

REVISED RECORDS.--WSP 898: Drainage area. WSP 1312: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 7,502.94 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1977, at site 30 ft upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 75 acres, 1959 determinations, upstream from station. Several observations of water temperature were made during the year. National Weather Service satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1904, was greatest since 1886, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	37	34	e21	e20	e30	37	99	44	70	42	82
2	60	41	35	e22	e20	e31	43	108	43	55	42	78
3	57	36	34	e22	e22	e30	48	116	41	49	39	75
4	54	38	34	e22	e22	29	48	125	40	46	36	70
5	51	38	33	e22	e22	29	42	130	38	48	34	63
6	51	40	32	e20	e25	28	36	132	37	47	31	64
7	52	38	31	e20	e29	e31	38	131	36	51	31	59
8	50	37	32	e20	32	e33	39	129	35	70	39	55
9	48	38	30	e19	33	34	50	127	34	136	37	52
10	47	41	e32	e19	33	31	62	126	33	116	36	51
11	46	33	34	e19	32	32	62	121	32	80	31	52
12	45	43	35	e19	30	33	57	119	32	77	29	52
13	44	41	32	e19	32	33	64	116	33	75	28	63
14	43	39	31	e22	33	33	52	113	55	66	31	58
15	43	38	28	e25	34	31	48	108	45	62	35	70
16	41	37	28	e25	35	31	53	103	37	55	24	61
17	41	37	e28	e25	33	30	59	99	33	54	24	55
18	40	35	e28	e25	33	29	63	93	31	46	29	69
19	39	35	e28	e17	33	28	65	87	29	43	24	77
20	38	35	e28	e17	34	e18	61	83	28	45	24	65
21	37	35	e28	e19	38	e16	55	77	27	56	37	59
22	37	36	e25	e20	38	e17	57	73	28	50	58	56
23	34	35	e25	e20	33	e16	61	69	31	43	104	53
24	37	30	e25	e19	32	e16	78	65	27	44	82	51
25	40	34	e25	e19	35	e15	91	63	26	48	79	50
26	38	36	e20	e19	31	e17	108	61	32	47	79	52
27	37	28	e20	e19	27	e16	123	59	98	48	87	53
28	37	25	e20	e19	e29	e18	127	55	64	52	93	49
29	38	32	e20	e19	e30	e30	108	52	80	56	99	48
30	37	36	e20	e20	---	32	98	49	66	48	109	46
31	37	---	e20	e20	---	34	---	47	---	44	91	---
TOTAL	1363	1084	875	633	880	831	1933	2935	1215	1827	1564	1788
MEAN	44.0	36.1	28.2	20.4	30.3	26.8	64.4	94.7	40.5	58.9	50.5	59.6
MAX	64	43	35	25	38	34	127	132	98	136	109	82
MIN	34	25	20	17	20	15	36	47	26	43	24	46
AC-FT	2700	2150	1740	1260	1750	1650	3830	5820	2410	3620	3100	3550

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1996, BY WATER YEAR (WY)

	MEAN	51.9	38.0	29.5	26.3	26.7	40.7	133	336	252	97.2	108	75.7
MAX	217	138	61.9	49.7	45.6	97.3	366	1158	950	299	402	284	
(WY)	1942	1942	1942	1942	1995	1995	1942	1941	1979	1941	1957	1931	
MIN	11.9	11.6	9.52	11.2	14.8	18.1	40.1	43.7	28.6	20.5	20.0	10.8	
(WY)	1957	1957	1957	1957	1951	1951	1951	1950	1956	1956	1956	1956	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1920 - 1996

ANNUAL TOTAL	61607	16928	
ANNUAL MEAN	169	46.3	
HIGHEST ANNUAL MEAN			102
LOWEST ANNUAL MEAN			267
HIGHEST DAILY MEAN	1370	Jun 18	30.7
LOWEST DAILY MEAN	20	Dec 26	1950
ANNUAL SEVEN-DAY MINIMUM	21	Dec 25	1980
INSTANTANEOUS PEAK FLOW			May 22 1991
INSTANTANEOUS PEAK STAGE			6.0
INSTANTANEOUS LOW FLOW			Dec 22 1956
ANNUAL RUNOFF (AC-FT)	122200	33580	6.7
10 PERCENT EXCEEDS	576	82	Dec 19 1956
50 PERCENT EXCEEDS	77	37	Sep 21 1929
90 PERCENT EXCEEDS	34	20	Sep 21 1929
e Estimated			2.0
			Mar 19 1971
			73670
			250
			48
			21

## RIO GRANDE BASIN

08379500 PECOS RIVER NEAR ANTON CHICO, NM

LOCATION.--Lat 35°10'44", long 105°06'30", Guadalupe County, Hydrologic Unit 13060001, in Anton Chico Grant, on right bank 2.1 mi upstream from Canon Blanco, 2.3 mi southeast of Anton Chico, 9.7 mi downstream from Tecolote Creek, and at mile 808.0.

DRAINAGE AREA.--1,050 mi<sup>2</sup>, approximately (contributing area).

PERIOD OF RECORD.--April 1910 to May 1916, October 1916 to September 1924, August to December 1925, January 1927 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1342: 1951(M), 1952-53. WSP 1512: 1912-14, 1931, 1933(M), 1935-36(M), 1938(P), 1939-40, 41-42(P), 1945(M), 1946(P). WSP 1712: 1942(P).

GAGE.--Water-stage recorder. Elevation of gage is 5,130 ft above National Geodetic Vertical Datum of 1929, from river-profile map. See WSP 1732 for history of changes prior to June 21, 1951.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 4,900 acres, 1959 determinations, upstream and downstream from station. Acequia del Bodo Juan Paiz (see table below) diverts water 8 mi upstream from gage and bypasses this station on left bank; ditch flow not included in record measurements made at point opposite regular gage. A portion of this flow may be returned to the river about 5.0 mi downstream. Several observations of water temperature were made during the year. No flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since 1879 occurred Sept. 29, 1904, discharge about 73,000 ft<sup>3</sup>/s, from information by a local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	8.6	5.7	30	38	14	1.4	7.5	3.5	58	e45	339
2	27	11	5.6	30	33	22	1.2	5.2	4.5	36	e37	251
3	26	13	5.5	21	27	24	.81	2.2	4.2	21	e32	186
4	23	14	5.1	20	28	18	.66	8.2	3.8	14	e40	158
5	20	12	4.5	30	37	18	.82	13	3.1	10	e20	118
6	18	6.8	4.6	38	41	21	.54	5.7	2.8	3.2	e10	84
7	16	7.9	4.6	33	38	e26	.50	6.6	2.8	88	e8.2	54
8	19	11	4.4	32	30	e35	.54	6.2	2.5	23	e10	50
9	21	8.4	4.6	35	23	e36	.48	15	2.5	249	e9.8	60
10	20	7.3	3.9	35	23	e40	.39	14	3.0	2900	e9.4	47
11	22	7.5	3.6	34	24	e50	.34	21	2.5	1310	e9.0	14
12	25	8.3	7.5	30	25	e48	.16	e28	2.1	527	e8.0	71
13	22	8.0	11	32	12	e46	.61	e46	27	569	e7.6	103
14	23	7.2	11	24	20	e43	1.8	e50	42	e500	e8.6	99
15	23	8.4	13	22	23	e47	.54	e33	7.9	e350	e9.0	172
16	17	7.0	17	16	27	e43	.60	e23	9.0	e200	e7.4	173
17	17	6.2	18	14	32	e50	.45	e12	3.8	e100	e6.8	114
18	18	6.3	16	15	27	e48	.60	e9.0	5.7	e50	e6.6	51
19	17	6.1	15	16	16	e40	.23	e6.0	3.5	e26	e8.2	46
20	19	6.0	16	18	19	e44	.23	e4.5	2.4	e16	e7.2	66
21	19	5.7	15	25	19	e50	.31	e3.5	2.5	e12	e5.5	53
22	15	5.6	14	26	21	e60	.41	e5.0	1.9	e60	s13	43
23	12	5.5	13	27	22	e70	.19	7.6	1.7	e200	9.2	35
24	11	5.5	8.1	25	30	e50	.13	12	1.3	e350	192	31
25	11	5.3	8.5	13	24	e30	.10	10	2.7	e474	789	22
26	11	5.2	12	30	11	3.8	.07	13	19	e400	487	12
27	10	5.1	19	17	15	13	1.1	4.4	256	e250	258	14
28	13	5.5	22	27	20	9.1	.65	2.8	79	e150	1380	15
29	17	5.4	15	39	19	6.9	15	3.6	75	e90	410	14
30	17	5.7	31	39	---	8.7	17	3.1	67	e70	250	10
31	9.2	---	31	37	---	12	---	5.6	---	e55	1630	---
TOTAL	571.2	225.5	365.2	830	724	1026.5	47.86	386.7	644.7	9161.2	5723.5	2505
MEAN	18.4	7.52	11.8	26.8	25.0	33.1	1.60	12.5	21.5	296	185	83.5
MAX	33	14	31	39	41	70	17	50	256	2900	1630	339
MIN	9.2	5.1	3.6	13	11	3.8	.07	2.2	1.3	3.2	5.5	10
AC-FT	1130	447	724	1650	1440	2040	95	767	1280	18170	11350	4970

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1996, BY WATER YEAR (WY)

	MEAN	62.6	38.9	27.2	24.4	24.1	59.3	180	365	262	134	195	122
MAX	500	279	103	78.3	78.5	249	854	2031	1150	507	928	679	
(WY)	1942	1942	1942	1942	1987	1985	1942	1941	1941	1941	1991	1941	
MIN	.000	.000	.000	1.82	.92	.29	1.54	2.86	4.17	3.81	13.0	.000	
(WY)	1957	1957	1957	1957	1957	1971	1981	1971	1934	1934	1964	1956	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1929 - 1996

ANNUAL TOTAL	66424.9	22211.36	
ANNUAL MEAN	182	60.7	
HIGHEST ANNUAL MEAN			125
LOWEST ANNUAL MEAN			489
HIGHEST DAILY MEAN	1830	Jun 19	23.4
LOWEST DAILY MEAN	3.6	Dec 11	10000
ANNUAL SEVEN-DAY MINIMUM	4.3	Dec 5	.00
INSTANTANEOUS PEAK FLOW			.00
INSTANTANEOUS PEAK STAGE			20800
INSTANTANEOUS LOW FLOW			14.47
ANNUAL RUNOFF (AC-FT)	131800	44060	.00
10 PERCENT EXCEEDS	667	85	90550
50 PERCENT EXCEEDS	64	16	341
90 PERCENT EXCEEDS	8.4	2.5	38
			5.0

e Estimated



LOCATION.--Lat 35°10'55", long 104°53'59", Guadalupe County, Hydrologic Unit 13060001, in Anton Chico Grant, and Preston Beck Grants, on right bank 2.3 mi south of San Miguel-Guadalupe County line, 2.4 mi upstream from mouth, 5.8 mi northwest of Colonias, and 9.0 mi east of Dilia. Mouth at Pecos River mile 789.2.

PERIOD OF RECORD.--January 1951 to current year.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 7,000 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year. No flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about June 1, 1937, reached a stage of about 27.2 ft; discharge determined as 26,700 ft<sup>3</sup>/s by slope-area measurement made in 1951. A flood of about the same magnitude occurred Sept. 29-30, 1904.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e6.5	2.1	2.6	3.8	3.6	2.1	1.3	.00	.00	49	273	115
2	e6.2	1.9	2.5	4.4	3.8	2.3	1.2	.00	.00	44	20	52
3	e5.7	1.7	2.4	5.2	3.1	2.3	1.3	.00	.00	16	10	35
4	4.6	2.0	2.3	4.0	2.4	2.3	.82	.00	.00	8.8	17	26
5	3.5	2.8	1.8	5.2	3.3	2.0	.56	.00	.00	6.0	8.3	21
6	2.8	3.4	1.4	5.9	4.5	1.5	.44	.00	.00	4.6	5.7	17
7	2.3	3.3	1.4	5.6	5.5	1.5	.00	.00	.00	8.9	4.4	14
8	2.5	3.1	1.3	5.4	4.9	1.5	.00	.00	.00	101	4.3	17
9	3.3	3.1	1.3	4.9	4.2	1.6	.00	.00	.00	83	246	16
10	2.2	2.8	1.4	4.8	3.7	2.0	.00	.00	.00	1080	13	25
11	2.9	2.6	2.5	4.8	3.5	2.0	.00	.00	.00	572	6.9	17
12	2.9	2.6	2.0	4.7	3.3	1.8	.00	.00	.00	338	6.0	53
13	1.6	2.7	1.6	4.7	3.1	1.5	.00	.00	.00	339	5.4	28
14	1.3	3.1	1.4	4.5	3.1	1.1	.00	.00	.00	84	3.8	46
15	1.3	3.0	1.7	4.4	3.0	1.0	.00	.00	15	67	3.2	43
16	1.2	2.6	2.3	4.1	2.9	1.1	.00	.00	4.8	32	2.3	25
17	1.1	2.8	3.2	3.9	2.9	1.4	.00	.00	1.6	20	1.4	18
18	.87	2.8	4.3	3.9	2.9	1.7	.00	.00	.43	14	.97	14
19	.41	2.8	4.3	3.9	2.6	1.7	.00	.00	.00	10	15	12
20	.47	2.8	4.3	3.9	2.5	1.7	.00	.00	.00	11	14	11
21	.25	2.8	4.3	4.3	2.2	1.7	.00	.00	.00	22	27	10
22	.00	2.8	4.5	4.3	2.1	1.3	.00	.00	.00	7.4	6.9	9.6
23	.00	2.8	4.5	3.8	1.8	1.2	.00	.00	.00	5.5	18	8.7
24	.00	2.6	4.5	3.9	1.6	1.3	.00	.00	.00	4.6	102	7.9
25	.00	2.6	4.3	3.2	1.8	1.4	.00	.00	.00	4.2	72	7.3
26	1.2	2.6	3.1	1.6	1.9	1.4	.00	.00	.00	57	161	6.0
27	1.2	2.3	2.6	3.2	1.9	1.5	.00	.00	.00	22	222	5.6
28	1.4	2.1	2.9	2.5	2.0	1.7	.00	.00	42	9.1	1350	5.5
29	1.8	2.3	3.1	2.9	2.0	1.6	.00	.00	362	179	114	5.0
30	2.0	2.6	3.9	4.1	---	1.5	.00	.00	39	166	70	4.3
31	2.1	---	4.5	4.0	---	1.4	---	.00	---	85	475	---
TOTAL	63.60	79.5	88.2	129.8	86.1	50.1	5.62	0.00	464.83	3450.1	3278.57	674.9
MEAN	2.05	2.65	2.85	4.19	2.97	1.62	.19	.000	15.5	111	106	22.5
MAX	6.5	3.4	4.5	5.9	5.5	2.3	1.3	.00	362	1080	1350	115
MIN	.00	1.7	1.3	1.6	1.6	1.0	.00	.00	.00	4.2	.97	4.3
AC-FT	126	158	175	257	171	99	11	.00	922	6840	6500	1343

MEAN	12.2	4.99	3.23	2.97	3.77	4.55	16.5	17.8	18.2	42.2	63.9	23.0
MAX	166	50.0	18.3	18.9	58.9	48.2	269	261	91.4	222	268	178
(WY)	1958	1987	1987	1992	1987	1958	1958	1973	1986	1988	1991	1972
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.09	.000
(WY)	1953	1952	1952	1951	1951	1951	1951	1952	1951	1964	1983	1951

ANNUAL TOTAL	5110.50		8371.32						
ANNUAL MEAN	14.0		22.9			18.1			
HIGHEST ANNUAL MEAN						66.6			1958
LOWEST ANNUAL MEAN						.85			1978
HIGHEST DAILY MEAN	353	Jul 23	1350	Aug 28		2640			Aug 11 1981
LOWEST DAILY MEAN	.00	Oct 22	.00	Oct 22		.00			Jan 1 1951
ANNUAL SEVEN-DAY MINIMUM	.16	Oct 19	.00	Apr 7		.00			Jan 1 1951
INSTANTANEOUS PEAK FLOW			7120	Aug 28		13700			Jul 11 1982
INSTANTANEOUS PEAK STAGE			14.57	Aug 28		19.67			Jul 11 1982
INSTANTANEOUS LOW FLOW			.00	Apr 7		.00			Apr 7 1996
ANNUAL RUNOFF (AC-FT)	10140		16600			13120			
10 PERCENT EXCEEDS	21		26			26			
50 PERCENT EXCEEDS	9.8		2.6			.64			
90 PERCENT EXCEEDS	2.3		.00			.00			

e Estimated

## RIO GRANDE BASIN

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 upstream from Canon del Uta, 2.9 mi southeast of Colonias, and at mile 775.8.

DRAINAGE AREA.--2,330 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--January 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,800 ft above National Geodetic Vertical Datum of 1929, from U.S. Army Corps of Engineers plan and profile map.

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation for about 11,800 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station. No flow many days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	8.8	7.9	6.0	4.8	4.0	1.9	1.8	.73	85	185	379
2	17	8.8	8.0	6.1	4.8	4.0	1.9	1.6	.73	98	24	167
3	16	8.8	7.9	5.8	4.8	4.0	1.8	1.6	.73	41	4.6	106
4	15	9.3	7.9	5.6	4.7	3.7	1.9	1.7	.73	26	4.1	68
5	15	8.9	7.6	5.6	4.7	3.4	1.9	1.6	.73	27	3.5	46
6	15	8.6	7.4	5.6	4.8	3.9	1.8	1.6	.73	23	2.8	21
7	15	8.3	7.4	5.5	5.0	3.6	1.8	1.6	.73	28	2.8	7.7
8	14	8.3	7.4	5.0	5.2	3.4	1.6	1.6	.73	30	2.8	2.6
9	13	8.1	7.0	4.8	5.2	3.2	1.6	1.6	.85	185	141	2.5
10	13	7.3	6.9	4.8	5.2	3.2	1.7	1.8	1.4	2300	18	2.6
11	13	7.9	6.7	4.6	5.2	3.2	1.5	1.9	1.1	2490	6.0	2.3
12	12	7.8	6.5	4.3	4.8	2.9	1.7	1.9	1.1	362	5.6	82
13	12	7.9	7.0	4.3	4.8	2.9	1.0	1.9	1.2	532	5.6	56
14	12	7.9	7.4	4.3	4.8	2.9	.91	1.9	25	322	5.4	53
15	11	7.9	7.9	4.3	4.8	3.0	1.5	1.7	17	145	5.0	108
16	11	7.9	7.9	4.2	4.8	3.1	1.6	1.6	.49	80	4.3	65
17	11	7.9	8.3	3.9	4.8	3.0	.96	1.3	.29	46	4.3	54
18	11	8.2	8.3	4.0	4.2	2.9	.73	1.1	.00	25	5.3	17
19	10	7.9	7.9	4.0	3.9	2.7	.50	1.1	.00	12	4.9	4.4
20	10	7.9	7.9	4.2	3.7	2.5	.89	1.1	.04	.63	4.3	2.1
21	9.6	8.3	7.6	4.3	3.6	2.3	.98	1.1	.35	.00	4.3	8.6
22	9.5	8.0	7.4	4.3	3.6	2.7	1.1	1.6	.75	.00	5.4	7.2
23	9.3	7.9	7.4	4.1	3.7	2.4	1.1	1.6	.94	.00	4.3	4.7
24	9.3	7.6	7.4	4.1	4.0	2.0	1.1	1.6	.73	.00	94	4.0
25	9.3	7.9	7.0	4.3	4.2	2.3	1.5	1.6	.60	.00	322	4.3
26	8.9	7.5	6.9	4.3	3.8	1.8	1.8	1.3	.21	220	341	4.5
27	9.3	7.8	6.9	4.3	3.6	1.7	1.5	1.1	.45	41	485	6.3
28	9.3	7.8	6.9	4.3	3.8	1.9	1.7	.82	136	1.4	1370	2.8
29	9.3	7.6	6.6	4.7	4.0	1.6	1.6	.35	323	.34	450	3.5
30	9.3	7.9	6.1	4.7	---	1.5	1.3	.48	269	185	178	3.6
31	9.1	---	5.9	4.8	---	1.9	---	.73	---	26	911	---
TOTAL	366.2	242.7	227.3	145.1	129.3	87.6	42.87	44.28	786.34	7331.37	4604.3	1295.7
MEAN	11.8	8.09	7.33	4.68	4.46	2.83	1.43	1.43	26.2	236	149	43.2
MAX	18	9.3	8.3	6.1	5.2	4.0	1.9	1.9	323	2490	1370	379
MIN	8.9	7.3	5.9	3.9	3.6	1.5	.50	.35	.00	.00	2.8	2.1
AC-FT	726	481	451	288	256	174	85	88	1560	14540	9130	2570

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

	MEAN	22.9	22.8	7.63	4.10	6.19	33.4	107	314	278	117	170	93.6
MAX	139	148	42.0	19.0	73.4	192	382	736	1057	418	1062	660	
(WY)	1986	1995	1987	1987	1987	1985	1987	1979	1995	1991	1991	1991	
MIN	.000	.000	.000	.000	.000	.000	.000	.26	2.15	3.17	7.60	.000	
(WY)	1978	1977	1977	1976	1976	1976	1976	1981	1977	1980	1978	1978	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1976 - 1996

ANNUAL TOTAL	66563.0	15303.06	
ANNUAL MEAN	182	41.8	
HIGHEST ANNUAL MEAN			102
LOWEST ANNUAL MEAN			245
HIGHEST DAILY MEAN	2540	Jun 30	2490
LOWEST DAILY MEAN	3.6	Feb 12	.00
ANNUAL SEVEN-DAY MINIMUM	4.0	Feb 6	.27
INSTANTANEOUS PEAK FLOW			9080
INSTANTANEOUS PEAK STAGE			11.53
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (AC-FT)	132000	30350	73810
10 PERCENT EXCEEDS	725	46	322
50 PERCENT EXCEEDS	24	4.7	7.1
90 PERCENT EXCEEDS	6.0	.95	.00

a-From rating curve extended above 1,200 ft<sup>3</sup>/s, on basis of step-backwater analysis of channel.

## RIO GRANDE BASIN

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM

LOCATION.--Lat 35°03'35", long 104°45'41", in ~~NEWSE~~ sec.25, T.10 N., R.20 E., Guadalupe County, Hydrologic Unit 13060001, at south boundary Preston Beck Grant, on left bank 1.6 mi upstream from River Ranch, 5.8 mi southeast of Colonias, 9.1 mi northwest of Santa Rosa, and at mile 770.8.

DRAINAGE AREA.--2,340 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1976 to current year. Prior to October 1979, published as "above Los Esteros Reservoir."

GAGE.--Water-stage recorder. Elevation of gage is 4,760 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Diversions and ground-water withdrawals for irrigation of about 11,800 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	32	35	30	36	29	24	23	24	84	e205	e450
2	35	32	35	31	35	29	25	23	24	73	e70	e240
3	33	31	34	32	34	28	24	23	24	42	e22	e128
4	33	30	33	32	32	27	24	24	23	29	e21	e82
5	34	29	33	32	30	27	23	24	23	28	e20	e56
6	34	30	32	31	29	28	22	24	21	27	e20	e45
7	33	30	32	32	28	28	22	23	21	26	e20	e34
8	35	30	33	32	28	28	22	22	21	25	e20	e30
9	35	30	33	32	27	28	24	22	21	148	e172	e27
10	34	30	33	32	27	26	24	22	20	4310	e59	e31
11	35	30	32	32	26	27	23	21	21	3930	e23	e25
12	36	30	32	33	26	28	23	21	21	461	e22	e103
13	37	30	32	35	26	28	22	21	21	723	e20	e78
14	37	30	33	34	26	28	23	21	31	542	e19	85
15	36	30	33	34	28	27	22	22	38	273	e19	142
16	35	30	33	34	28	28	22	21	19	e112	e18	88
17	35	30	34	33	29	30	22	21	17	e48	e18	77
18	42	30	33	33	29	31	22	21	16	e29	e23	46
19	40	30	32	34	28	30	23	21	16	e19	e19	28
20	37	30	32	33	28	29	23	21	17	e17	e18	24
21	36	31	32	33	27	29	23	21	17	e16	e18	29
22	34	30	32	32	27	29	24	22	17	e16	e24	25
23	33	29	33	33	29	28	23	21	17	e15	e19	19
24	34	30	33	34	29	28	23	21	17	15	e200	18
25	34	31	34	34	27	28	24	22	17	16	e530	18
26	33	32	33	34	27	28	24	22	16	226	e640	18
27	33	35	33	34	27	26	23	22	18	77	e540	19
28	33	40	33	34	28	24	23	22	146	31	e3210	22
29	34	39	32	35	28	25	23	22	330	23	e560	21
30	34	35	31	34	---	24	23	22	309	e215	e340	21
31	33	---	30	36	---	23	---	22	---	e92	e1140	---
TOTAL	1084	936	1015	1024	829	856	692	680	1343	11688	8049	2029
MEAN	35.0	31.2	32.7	33.0	28.6	27.6	23.1	21.9	44.8	377	260	67.6
MAX	42	40	35	36	36	31	25	24	330	4310	3210	450
MIN	33	29	30	30	26	23	22	21	16	15	18	18
AC-FT	2150	1860	2010	2030	1640	1700	1370	1350	2660	23180	15970	4020

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	42.8	40.9	24.8	22.1	23.6	48.9	120	328	299	151	221	127									
MAX	147	176	68.7	46.1	106	207	415	768	945	440	1077	683									
(WY)	1986	1995	1987	1987	1987	1985	1987	1985	1979	1991	1991	1991									
MIN	6.50	9.53	7.77	7.74	6.40	5.69	4.99	7.93	8.87	18.6	16.1	6.12									
(WY)	1979	1982	1978	1978	1978	1978	1978	1981	1977	1980	1978	1978									

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1976 - 1996

ANNUAL TOTAL	66789	30225	
ANNUAL MEAN	183	82.6	125
HIGHEST ANNUAL MEAN			265
LOWEST ANNUAL MEAN			26.1
HIGHEST DAILY MEAN	3120	Jun 30	4310
LOWEST DAILY MEAN	24	Jan 13	15
ANNUAL SEVEN-DAY MINIMUM	27	Jan 12	16
INSTANTANEOUS PEAK FLOW			16000
INSTANTANEOUS PEAK STAGE			19.06
INSTANTANEOUS LOW FLOW			13
ANNUAL RUNOFF (AC-FT)	132500	59950	90500
10 PERCENT EXCEEDS	595	74	346
50 PERCENT EXCEEDS	54	29	30
90 PERCENT EXCEEDS	30	20	9.6

e Estimated

a-From rating curve extended above 1,500 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.



## RIO GRANDE BASIN

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1981 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)
DEC 1995											
05...	1415	33	890	8.1	15.0	15.0	644	9.8	116	450	150
MAR 1996											
06...	0900	28	930	7.9	1.5	8.0	640	9.8	99	490	160
JUN											
12...	0930	21	970	8.1	23.0	19.0	645	12.8	164	570	190
SEP											
05...	0930	56	4350	8.1	24.5	20.0	643	9.2	122	220	73

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
DEC 1995											
05...	19	10	0.2	1.3	128	310	5.8	0.30	11	585	<0.010
MAR 1996											
06...	21	11	0.2	1.2	144	340	6.7	0.30	11	638	--
JUN											
12...	23	12	0.2	1.5	123	400	6.9	0.30	12	719	--
SEP											
05...	9.7	11	0.3	2.1	128	130	5.4	0.20	10	319	<0.010

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
DEC 1995											
05...	0.110	<0.015	<0.20	<0.20	0.010	<0.010	<0.010	--	--	--	--
MAR 1996											
06...	--	--	--	--	--	--	--	--	--	--	--
JUN											
12...	--	--	--	--	--	--	--	--	--	--	--
SEP											
05...	0.090	<0.015	0.50	<0.20	0.070	<0.010	<0.010	15	<1.0	1	121

DATE	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)	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)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
DEC 1995										
05...	--	60	--	--	--	--	16	--	--	<0.10
MAR 1996										
06...	--	40	--	--	--	--	<3.0	--	--	--
JUN										
12...	--	47	--	--	--	--	<3.0	--	--	--
SEP										
05...	<1.0	32	<1.0	<1.0	<1.0	2.0	6.0	<1.0	10	<0.10

## RIO GRANDE BASIN

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	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)
DEC 1995										
05...	--	--	1	--	--	--	--	16	1.4	54
MAR 1996										
06...	--	--	--	--	--	--	--	--	--	--
JUN										
12...	--	--	--	--	--	--	--	43	2.4	64
SEP										
05...	1.0	2.0	<1	<1	<1.0	2.0	1.0	343	52	64

## RIO GRANDE BASIN

08382730 LOS ESTEROS CREEK ABOVE SANTA ROSA LAKE, NM

LOCATION.--Lat 35°05'42", Long 104°39'49", Guadalupe County, Hydrologic Unit 13060001, in Preston Beck Grant, on left bank 3.7 mi upstream from mouth, 4.9 mi northeast of Santa Rosa Dam, and 10.4 mi northeast of Santa Rosa. Mouth at Pecos River mile 763.0.

DRAINAGE AREA.--65.6 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1973 to current year. Prior to October 1979, published as "above Los Esteros Reservoir."

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,770 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated discharges, which are poor. No known diversions or ground-water withdrawals for irrigation upstream from station. Several observations of water temperature were made during the year. No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.00	.00	.00	.00	.00	.00	.00	.00	15	e.00	.08
2	.14	.00	.00	.00	.00	.00	.00	.00	.00	.69	e.00	.00
3	.04	.00	.00	.00	.00	.00	.00	.00	.00	.37	e.00	.00
4	.01	.00	.00	.00	.00	.00	.00	.00	.00	.17	e.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	770	e.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.2	e.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.71	e.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	341	e.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	e22	e.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00	.94
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.58
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.03
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.12	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	5.9	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	34	e.00	3.5	.00
30	.00	.00	.00	.00	---	.00	.00	.00	33	e.00	.20	.00
31	.00	---	.00	.00	---	.00	---	.00	---	e.00	.11	---
TOTAL	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.00	1153.14	9.83	1.63
MEAN	.006	.000	.000	.000	.000	.000	.000	.000	2.23	37.2	.32	.054
MAX	.14	.00	.00	.00	.00	.00	.00	.00	34	770	5.9	.94
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.4	.00	.00	.00	.00	.00	.00	.00	133	2290	19	3.2

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1996, BY WATER YEAR (WY)

	MEAN	.33	.19	.000	.003	.18	.003	.070	.85	4.30	4.70	6.48	2.77
MAX	5.20	2.26	.007	.028	3.74	.045	1.57	10.9	37.9	37.2	48.1	18.1	
(WY)	1986	1979	1979	1987	1987	1987	1985	1994	1995	1996	1977	1988	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1974	1974	1974	1974	1974	1974	1974	1974	1974	1980	1979	1973	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1973 - 1996

ANNUAL TOTAL	1876.59	1231.80	
ANNUAL MEAN	5.14	3.37	1.70
HIGHEST ANNUAL MEAN			5.41
LOWEST ANNUAL MEAN			.021
HIGHEST DAILY MEAN	637	770	770
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		4350	a9200
INSTANTANEOUS PEAK STAGE		9.71	13.22
INSTANTANEOUS LOW FLOW		.00	.00
ANNUAL RUNOFF (AC-FT)	3720	2440	1230
10 PERCENT EXCEEDS	.01	.00	.03
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended 70 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights, 6.5 ft and 9.3 ft.

## RIO GRANDE BASIN

08382810 SANTA ROSA LAKE NEAR SANTA ROSA, NM

LOCATION.--Lat 35°01'47", long 104°41'30", Guadalupe County, Hydrologic Unit 13060001, in Jose Perea Grant, near outlet gates of Santa Rosa Dam on Pecos River, approximately 7.0 mi north of Santa Rosa, and at mile 757.2.

DRAINAGE AREA.--2,430 mi<sup>2</sup>, approximately.

PERIOD OF RECORDS.--April 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Lake is formed by earth and rockfill dam on Pecos River. Storage began on Apr. 22, 1980. Capacity, 439,900 acre-ft, from capacity table effective October 1990, between elevations 4,630.0 ft, invert of outlet structure, and 4,797.0 ft, crest of spillway. Capacity by original survey was 447,100 acre-ft. No dead storage. Lake was created primarily for flood, irrigation, and sediment control. U.S. Army Corps of Engineers satellite telemeter at station.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 120,481 acre-ft, May 8, 1987, elevation, 4,749.71 ft; no storage for many days, July-Sept., 1980 and June-Aug., 1981.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 68,410 acre-ft, Dec. 31, Jan. 1 elevation, 4,736.22 ft; minimum, 3,600 acre-ft, June 29, elevation, 4,685.86 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66570	67000	67260	68410	58480	59310	59590	58480	38270	3740	32250	45620
2	66710	66940	67260	68150	58580	59230	59640	57190	38330	3900	32370	46100
3	66770	66970	67290	67260	58630	59230	59570	55810	38310	3990	32400	46380
4	66710	67000	67370	66090	58630	59250	59570	54250	38310	4040	32400	46590
5	66740	67060	67340	64890	58760	59250	59570	52840	38310	4070	32400	46620
6	66690	67080	67370	63690	58820	59250	59570	51470	38270	4100	32400	46750
7	66710	67110	67370	62550	58790	59280	59590	50060	38250	4130	32350	46830
8	66740	67140	67370	61460	58760	59310	59670	48740	38330	4170	32440	46900
9	66740	67140	67370	60300	58890	59360	59750	47400	38310	4490	32780	46940
10	66800	67110	67400	59150	58870	59330	59670	45920	37660	14040	32940	46940
11	66890	66770	67460	58280	58870	59310	59620	44580	35760	21810	33010	46960
12	66860	66860	67460	58100	58940	59310	59640	43200	33620	22850	33020	47100
13	66800	66710	67510	58170	58970	59330	59510	41900	31460	25900	33040	47400
14	66860	66830	67540	58170	59020	59330	59620	40560	29190	27610	33010	47600
15	66910	66910	67570	58230	59020	59380	59640	39150	26770	28510	33020	47930
16	66940	66940	67570	58280	59070	59430	59670	38610	24510	28680	32990	48100
17	66970	66970	67800	58280	59120	59430	59590	38570	22350	28970	32990	48260
18	66970	67030	67800	58280	59120	59430	59570	38610	20170	29110	33040	48340
19	66940	67060	67800	58280	59150	59430	59540	38570	17760	29240	33020	48300
20	66940	67060	67830	58350	59150	59460	59510	38530	15580	29380	33020	48320
21	67000	67080	67890	58380	59180	59510	59490	38550	13760	29380	33020	48210
22	66890	67110	67950	58400	59180	59540	59460	38570	12330	29380	33040	48340
23	66890	67140	68000	58380	59180	59540	59460	38440	10890	29360	32990	47600
24	66860	67170	68030	58430	59200	59540	59430	38380	9740	29390	33300	46160
25	66860	67230	68120	58460	59200	59540	59360	38530	8470	29430	34030	44620
26	66910	67170	68180	58460	59180	59540	59280	38310	6890	30290	34860	43000
27	66890	67140	68150	58460	59150	59540	59230	38340	5380	30620	35980	41420
28	66890	67230	68260	58460	59100	59540	59200	38340	4260	30700	39570	39940
29	66970	67310	68290	58510	59230	59540	59180	38290	3600	30730	40890	38420
30	66970	67290	68350	58480	---	59540	59150	38310	3930	31380	41460	37290
31	67030	---	68410	58480	---	59540	---	38310	---	31720	44490	---
MAX	67030	67310	68410	68410	59230	59540	59750	58480	38330	31720	44490	48340
MIN	66570	66710	67260	58100	58480	59230	59150	38290	3600	3740	32250	37290
(+)	4735.74	4735.83	4736.22	4732.57	4732.86	4732.98	4732.83	4723.40	4687.08	4719.71	4726.52	4722.85
(++)	+630	+260	+1120	-9930	+750	+310	-390	-20840	-34380	+27790	+12770	-7200

CAL YR 1995 MAX 37070 MIN 19910 (++) -26270  
WTR YR 1996 MAX 43320 MIN 5190 (++) -29110

(+) ELEVATION, IN FEET, AT END OF MONTH.  
(++) CHANGE IN CONTENTS, IN ACRE-FEET.

## RIO GRANDE BASIN

08382830 PECOS RIVER BELOW SANTA ROSA DAM, NM

LOCATION.--Lat 35°01'27", long 104°41'20", Guadalupe County, Hydrologic Unit 13060001, in Jose Perea Grant, on right bank 0.2 mi downstream from Santa Rosa Dam, 5.7 mi north of Santa Rosa, and at mile 757.0.

DRAINAGE AREA.--2,430 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--January 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,640 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 31, 1980, at datum about 1.2 ft higher. Prior to Mar. 26, 1982, at site 195 ft upstream at datum 2.36 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow completely regulated by Santa Rosa Lake (08382810) 0.2 mi upstream since April 1980. Diversions and ground-water withdrawals for irrigation of about 12,000 acres, 1959 determination, upstream from station. Several observations of water temperatures were made during the year. U.S. Army Corps of Engineers satellite telemeter at station. No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	.26	.81	7.0	e.43	.26	.26	354	.35	278	.05	.24
2	.97	.26	.85	363	e.43	.26	.26	654	.37	.91	.00	.21
3	.59	.23	.83	617	e.43	.26	.27	687	.37	.89	.00	.21
4	.51	.17	.71	609	e.43	.26	.31	710	.37	.89	.00	.21
5	.44	.17	.58	604	.43	.28	.27	703	.37	.85	.00	.21
6	.30	.15	.58	604	.43	.25	.26	700	.34	.68	.00	.21
7	.17	.22	.55	605	.43	.25	.29	698	.31	.68	.00	.26
8	.00	.43	.57	603	.43	.24	.33	697	.31	.68	.11	.25
9	.00	.61	5.9	602	.43	.24	.29	695	.31	.49	.01	.21
10	.00	.62	.64	606	.43	.23	.26	686	323	.45	.00	.21
11	.00	.61	.67	473	.43	.29	.26	688	968	.02	.00	.21
12	.00	.59	.65	122	.43	.31	.26	686	1110	.00	.00	.27
13	.00	.62	.68	.40	.43	.28	.26	681	1100	.20	.00	.26
14	.00	.64	.68	.37	.43	.29	.26	682	1170	.07	.00	.31
15	.00	.68	.68	.37	.43	.29	.29	682	1200	.00	.02	.23
16	.00	.72	.68	.33	.43	.26	.31	263	1180	.00	.04	.24
17	.00	.74	.60	.31	.43	.26	.31	.48	1170	.00	.04	.31
18	.00	.86	.59	.31	.41	.25	.34	.51	1150	.00	.04	.31
19	.00	.81	.59	.31	.37	.21	.33	.51	1170	.01	.04	.31
20	.00	.75	.59	.34	.37	.21	.29	.48	1090	.00	.04	.28
21	.02	.73	.59	.37	.37	.21	.26	.44	819	.00	.04	.31
22	.07	.77	.59	.37	.37	.23	.27	.39	670	.07	.04	.31
23	.14	.74	.59	.37	.37	.27	.31	.37	661	.09	.04	410
24	.17	.77	.57	.37	.37	.26	.31	.66	526	.00	.07	777
25	.18	.82	.51	.37	.37	.26	.31	.43	587	.00	.12	835
26	.23	.81	.51	.37	.30	.26	.33	.43	761	.08	.16	855
27	.24	.86	.51	.37	e.26	.24	.34	.38	766	.05	.14	853
28	.21	.92	.58	.37	e.26	.24	.35	.37	768	.00	.18	851
29	.23	1.0	.56	.37	e.26	.24	.31	.28	743	.00	.17	848
30	.26	.89	.56	.37	---	.24	.37	.17	777	.00	.17	639
31	.22	---	.53	.44	---	.26	---	.26	---	.16	.21	---
TOTAL	5.52	18.45	24.53	5821.88	11.39	7.89	8.87	10272.16	18712.10	285.27	1.73	6073.57
MEAN	.18	.61	.79	188	.39	.25	.30	331	624	9.20	.056	202
MAX	.97	1.0	5.9	617	.43	.31	.37	710	1200	278	.21	855
MIN	.00	.15	.51	.31	.26	.21	.26	.17	.31	.00	.00	.21
AC-FT	11	37	49	11550	23	16	18	20370	37120	566	3.4	12050

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1996, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	15.4	13.0	8.94	17.9	38.2	38.2	101	300	279	182	206	150					
MAX	112	145	59.0	188	249	275	655	672	1026	561	619	649					
(WY)	1993	1987	1987	1996	1995	1995	1989	1989	1995	1983	1994	1988					
MIN	.018	.041	.081	.068	.059	.064	.072	.98	2.05	.047	.056	.040					
(WY)	1990	1990	1990	1990	1990	1990	1983	1982	1984	1989	1996	1989					

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1980 - 1996

ANNUAL TOTAL	78358.26	41243.36	
ANNUAL MEAN	215	113	
HIGHEST ANNUAL MEAN			117
LOWEST ANNUAL MEAN			215
HIGHEST DAILY MEAN	1100	Feb 28	35.8
LOWEST DAILY MEAN	.00	Oct 8	1910
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 8	.00
INSTANTANEOUS PEAK FLOW		1260	.00
INSTANTANEOUS PEAK STAGE		6.13	6.13
INSTANTANEOUS LOW FLOW		.00	.00
ANNUAL RUNOFF (AC-FT)	155400	81810	84780
10 PERCENT EXCEEDS	1020	664	493
50 PERCENT EXCEEDS	.78	.35	1.1
90 PERCENT EXCEEDS	.11	.01	.05

e Estimated

## RIO GRANDE BASIN

08383000 PECOS RIVER AT SANTA ROSA, NM

## WATER-QUALITY RECORDS

LOCATION.--Samples collected 0.6 mi downstream from discharge station.

PERIOD OF RECORD.--Water years 1905-07, 1959 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	
SEP 1996 05...	0715	8.0	2370	7.6	20.0	19.0	648	8.2	105	<10	148	0	
DATE		ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	
SEP 1996 05...	121	<0.010	0.070	0.220	0.0	<0.20	0.20	0.010	<0.010	0.010	0.70		
DATE		ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	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)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	
SEP 1996 05...	8.0	<2.0	<1	26	<2.0	<2.0	<2.0	<2.0	6.0	<2.0	109		
DATE		MERCURY TOTAL RECOV-ERABLE (UG/L (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L (01060)	NICKEL, DIS-SOLVED (UG/L (01065)	SELE-NIUM, TOTAL (UG/L (01147)	SELE-NIUM, DIS-SOLVED (UG/L (01145)	SILVER, DIS-SOLVED (UG/L (01075)	ZINC, DIS-SOLVED (UG/L (01090)	URANIUM NATURAL DIS-SOLVED (UG/L (22703)	SEDI-MENT, SUS-PENDED (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (80155)	SED. SUSP. SIEVE DIAM. % FINER AS NI) (70331)	AS SE) A
SEP 1996 05...	<0.10	3.0	16	<1	<1	<2.0	5.0	<2.0	40	0.86	63		

## RIO GRANDE BASIN

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM

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 9.0 mi southeast of Puerto de Luna, 17.5 mi upstream from Summer Dam, and at mile 719.5.  
DRAINAGE AREA.--3,970 mi<sup>2</sup>, 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. Elevation of gage is 4,311.34 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 15, 1954, at datum 1.0 ft higher.

REMARKS.--Water-discharge records good. Flow regulated by Santa Rosa Lake (station 08382810) 37.7 mi upstream since April 1980. Diversions for irrigation of about 10,280 acres, 1970 determination, upstream from station.

Discharge represents inflow to Lake Summer. Several observations of water temperature were made during the year.

Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--41 years (water years 1939-79), 209 ft<sup>3</sup>/s, 151,400 acre-ft/yr, prior to completion of Santa Rosa Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1886 occurred June 2, 1937, when peak at Santa Rosa was 55,200 ft<sup>3</sup>/s, and peak inflow to Lake Summer was about 75,000 ft<sup>3</sup>/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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	80	89	88	93	82	69	72	69	830	74	82
2	226	80	90	90	95	83	62	519	70	204	60	81
3	88	83	91	246	105	81	65	646	64	124	69	76
4	82	86	91	602	94	80	62	694	61	96	68	71
5	76	86	88	613	93	80	66	709	61	83	59	70
6	77	85	89	619	92	79	67	717	62	76	56	68
7	78	85	90	627	89	82	69	718	56	76	58	226
8	75	86	89	633	89	81	71	723	55	72	66	177
9	75	85	88	640	89	82	66	723	56	77	98	77
10	71	83	89	643	88	83	62	724	56	489	97	73
11	71	84	89	645	87	82	63	730	537	429	69	69
12	73	85	87	413	86	81	67	733	1080	298	64	161
13	74	81	87	189	87	79	67	734	1110	138	60	163
14	74	85	87	120	87	78	73	739	1260	171	58	148
15	75	82	88	112	86	80	68	734	1270	128	90	154
16	75	81	88	107	83	82	67	703	1250	116	101	91
17	75	82	95	108	85	83	69	193	1190	116	63	83
18	74	82	101	103	85	84	66	103	1110	88	60	78
19	74	83	94	106	83	84	66	86	1110	80	59	76
20	74	83	92	96	83	85	70	78	1230	94	59	67
21	75	83	92	94	83	85	71	73	922	82	55	67
22	75	83	92	94	82	83	69	70	692	73	56	68
23	75	83	91	93	83	75	78	65	674	63	60	68
24	75	83	92	92	85	69	72	62	655	60	64	600
25	76	81	91	93	83	69	72	63	484	68	95	777
26	74	78	90	92	82	72	72	66	766	164	138	867
27	73	78	90	101	80	73	69	61	839	123	341	896
28	76	82	93	92	77	73	69	62	913	51	101	910
29	77	86	94	91	77	72	67	73	850	45	86	922
30	76	87	90	91	---	75	69	68	851	46	78	899
31	76	---	89	90	---	74	---	66	---	60	208	---
TOTAL	2496	2491	2806	7823	2511	2451	2043	11807	19403	4620	2670	8165
MEAN	80.5	83.0	90.5	252	86.6	79.1	68.1	381	647	149	86.1	272
MAX	226	87	101	645	105	85	78	739	1270	830	341	922
MIN	71	78	87	88	77	69	62	61	55	45	55	67
AC-FT	4950	4940	5570	15520	4980	4860	4050	23420	38490	9160	5300	16200

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1996, BY WATER YEAR (WY)

	104	97.2	95.5	102	116	120	171	367	366	289	315	284
MEAN	104	97.2	95.5	102	116	120	171	367	366	289	315	284
MAX	225	232	147	252	306	371	685	744	1211	725	706	948
(WY)	1986	1987	1987	1996	1994	1995	1989	1989	1995	1983	1994	1988
MIN	73.1	79.5	73.5	80.9	76.7	73.5	67.9	64.0	66.1	72.9	86.1	66.4
(WY)	1988	1983	1991	1993	1984	1989	1984	1982	1991	1989	1996	1990

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1980 - 1996

ANNUAL TOTAL	116199	69286	
ANNUAL MEAN	318	189	202
HIGHEST ANNUAL MEAN			318
LOWEST ANNUAL MEAN			122
HIGHEST DAILY MEAN	2680	1270	3510
LOWEST DAILY MEAN	53	45	39
ANNUAL SEVEN-DAY MINIMUM	57	58	43
INSTANTANEOUS PEAK FLOW		2180	a48600
INSTANTANEOUS PEAK STAGE		4.37	17.00
INSTANTANEOUS LOW FLOW		14	11
ANNUAL RUNOFF (AC-FT)	230500	137400	146600
10 PERCENT EXCEEDS	1100	679	602
50 PERCENT EXCEEDS	85	83	86
90 PERCENT EXCEEDS	71	64	67

a-From rating curve extended above 7,400 ft<sup>3</sup>/s, on basis of flow "at Santa Rosa".

## RIO GRANDE BASIN

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937-66, 1972 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
DEC 1995												
05...	1115	88	2920	8.0	13.5	9.0	658	10.3	104	<10	K1	
MAR 1996												
06...	1245	80	297	8.0	0.0	4.0	652	10.1	90	<10	K9	
JUL												
09...	1745	80	2630	8.0	30.5	29.0	653	11.0	170	<10	<3	
SEP												
04...	1800	71	2640	8.0	29.5	28.0	653	10.2	154	<10	--	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
DEC 1995												
05...	K4	1700	1600	560	71	98	1	2.2	145	0	119	
MAR 1996												
06...	K2	1700	1600	560	71	98	1	2.2	144	0	118	
JUL												
09...	K21	1500	1400	510	64	86	1	2.6	112	0	92	
SEP												
04...	--	1700	1600	570	70	100	1	2.4	122	0	100	
DATE		ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, 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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)
DEC 1995												
05...	115	1600	140	0.50	13	2560	--	<0.010	<0.050	0.090	0.41	
MAR 1996												
06...	121	1500	130	0.70	13	2450	--	<0.010	<0.050	0.110	--	
JUL												
09...	91	1400	120	0.60	13	2250	0.130	0.020	0.150	0.170	0.03	
SEP												
04...	90	1600	140	0.70	18	2560	--	<0.010	0.070	0.200	--	
DATE		NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)
DEC 1995												
05...	<0.20	0.50	<0.010	<0.010	<0.010	4.3	--	--	--	--	--	
MAR 1996												
06...	<0.20	<0.20	<0.010	<0.010	<0.010	0.90	--	--	--	--	--	
JUL												
09...	<0.20	0.20	0.030	0.020	<0.010	1.4	--	--	--	--	--	
SEP												
04...	0.30	<0.20	0.070	0.010	<0.010	2.4	19	<2.0	<1	58	<2.0	



## RIO GRANDE BASIN

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
DEC 1995											
05...	110	--	--	--	--	<9.0	--	--	<0.10	--	--
MAR 1996											
06...	130	--	--	--	--	<9.0	--	--	--	--	--
JUL											
09...	111	--	--	--	--	<9.0	--	--	--	--	--
SEP											
04...	110	<2.0	<2.0	<2.0	6.0	21	<2.0	7.0	<0.10	3.0	15
DATE	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	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)
DEC 1995											
05...	<1	--	--	--	<2.0	1.0	30	74	4	<1	2
MAR 1996											
06...	--	--	--	--	--	--	--	--	--	--	--
JUL											
09...	--	--	--	--	--	--	--	--	--	--	--
SEP											
04...	<1	<1	<2.0	4.0	<2.0	0.3	50	240	4	<1	6
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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	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)
DEC 1995											
05...	<5	3	2100	<10	510	<0.01	7	--	33	7.8	87
MAR 1996											
06...	--	--	--	--	--	--	--	--	24	5.2	48
JUL											
09...	--	--	--	--	--	--	--	--	50	11	66
SEP											
04...	<5	6	7800	20	750	<0.01	10	<2.0	245	47	96

## RIO GRANDE BASIN

08384000 LAKE SUMNER NEAR FORT SUMNER, NM

LOCATION.--Lat 34°36'30", long 104°23'04", in SE&SW sec.34, T.5 N., R.24 E., DeBaca County, Hydrologic Unit 13060001, near center of dam on Pecos River, 5.0 mi northeast of Guadalupe, 12.2 mi northwest of Fort Sumner, and at mile 702.0.

DRAINAGE AREA.--4,390 mi<sup>2</sup>, approximately (contributing area).

PERIOD OF RECORD.--December 1938 to September 1965 (monthend elevations and contents), October 1965 to current year. Monthend elevations September 1937 to November 1938 published in reports of Pecos River Commission. Elevations and contents May 27 1937, to June 10, 1937, in WSP 842. Prior to October 1974, published as "Alamogordo Reservoir."

REVISED RECORDS.--WSP 1732: 1939-54 (contents). WSP 1923: 1939-53(M).

GAGE.--Water-stage recorder. Elevation of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). April 1, 1946, to Sept. 30, 1957, water-stage recorder above elevation 4,234.25 ft, nonrecording gage below. Oct. 1, 1988 to current year, water-stage recorder above elevation 4,238.00 ft, nonrecording gage below.

REMARKS.--Lake is formed by earthfill dam; completed and storage began in August 1937. Capacity, 94,750 acre-ft, from capacity table dated August 1992, between elevation 4,200.0 ft, sill of outlet gate, and elevation 4,275.0 ft, normal operating level. Capacity by original survey was 132,200 acre-feet. Dead storage 2,500 acre-feet. Reservoir is used to store water for irrigation. Bureau of Reclamation satellite telemeter at station.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 138,300 acre-ft, May 23-30, June 1-10, July 21, Sept. 22, 23, 30, Oct. 12, Nov. 4, 5, 30, Dec. 23, 24, 1941, elevation, 4,275.00 ft; maximum elevation, 4,276.10 ft June 3, Sept. 8, 1958; no storage, July 28 to Aug. 2, 1951, elevation, 4,200.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 43,320 acre-ft, Feb. 14, elevation, 4,260.84 ft; minimum, 5,190 acre-ft, July 9, elevation, 4,236.22 ft.

## RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25710	24280	28120	30450	42310	41710	39270	35810	14650	7340	8570	9490
2	25770	24360	28200	30510	42290	41710	39240	33400	14560	6870	8600	9490
3	26310	24440	28290	30510	42790	41710	39270	31960	14500	5350	8540	9480
4	26270	24640	28270	30900	42920	41660	38950	30600	14450	5420	8480	9450
5	26130	24820	28420	32120	42700	41570	38800	29400	14380	5410	8390	9420
6	26050	24990	28400	33300	42760	41460	38670	28270	14330	5370	8320	9370
7	25970	25080	28460	34550	42870	41170	38610	27110	14200	5300	8230	9330
8	25930	25200	28780	35760	42980	41080	38610	25970	14120	5250	8170	9350
9	25870	25420	28700	36990	43010	41000	38670	24740	14050	5190	8140	9790
10	25770	25570	28760	38120	43090	41030	38560	23560	13960	5250	8140	9790
11	25690	25550	28870	39320	43060	41080	38430	22360	13840	6100	8150	9750
12	25630	25830	29000	40570	43150	41110	38300	21260	14650	6700	8100	9720
13	25530	25910	29070	41190	43220	40900	38170	20120	14250	7300	8030	9860
14	25400	26030	29090	41490	43320	40810	37970	18960	14120	7560	7960	10080
15	25320	26210	29130	41520	43120	40790	37810	17830	13990	7670	7890	10260
16	25280	26330	29130	41680	42950	40760	37730	16620	13930	7700	7870	10420
17	25220	26550	29240	41960	42920	40570	37660	15370	13790	7690	7930	10430
18	25140	26590	29400	41660	42900	40490	37580	15570	13690	7640	8180	10410
19	25100	26760	29460	41740	42840	40360	37450	15610	13580	7590	8190	10370
20	24930	26940	29510	41960	42810	40330	37150	15540	13380	7540	8180	10320
21	24850	27050	29620	41850	42760	40330	37020	15450	13300	7530	8130	10260
22	24830	27270	29620	41930	42650	40300	36940	15450	12740	7480	8060	10210
23	24680	27340	29710	41980	42590	40250	36770	15340	11770	7420	8050	10170
24	24590	27440	29780	41960	42400	40170	36740	15220	10780	7330	8000	10140
25	24510	27590	29800	41980	42370	39800	36690	15130	10290	7240	7970	11070
26	24490	27880	29890	42090	42260	39690	36440	15060	9230	7200	8230	12390
27	24360	27880	29980	41980	42070	39690	36340	14950	8370	8030	8400	13900
28	24280	27880	30040	42070	41900	39670	36210	14870	7910	8740	9270	15330
29	24230	27950	30180	42120	41760	39720	36040	14800	7880	8740	9260	16850
30	24250	27990	30270	42290	---	39510	36010	14730	7630	8690	9260	18300
31	24170	---	30330	42150	---	39350	---	14690	---	8640	9250	---
MAX	26310	27990	30330	42290	43320	41710	39270	35810	14650	8740	9270	18300
MIN	24170	24280	28120	30450	41760	39350	36010	14690	7630	5190	7870	9330
(†)	4252.71	4254.62	4255.69	4260.42	4260.28	4259.38	4258.08	4246.83	4240.07	4241.36	4242.05	4249.29
(††)	-1640	+3820	+2340	+11820	-390	-2410	-3340	-21320	-7060	+1010	+610	+9050

CAL YR 1995 MAX 37070 MIN 19910 (††) +9950

WTR YR 1996 MAX 43320 MIN 5190 (††) -7510

(†) ELEVATION, IN FEET, AT END OF MONTH.

(††) CHANGE IN CONTENTS, IN ACRE-FEET.

## RIO GRANDE BASIN

08384500 PECOS RIVER BELOW SUMNER DAM, NM

LOCATION.--Lat 34°36'15", Long 104°23'14", sec.2, T.4 N., R.24 E., DeBaca County, Hydrologic Unit 13060003, on left bank 1,200 ft downstream from Sumner Dam, 2.9 mi upstream from Salado Creek, 4.6 mi northeast of Guadalupe, 12.2 mi northwest of Fort Sumner, and at mile 701.7.

DRAINAGE AREA.--4,390 mi<sup>2</sup>, 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. Elevation of gage is 4,142.99 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Sept. 10, 1936 at site 1.5 mi upstream at different datum. Sept. 14, 1936, to Mar. 8, 1941, and June 11 to Sept. 21, 1941, at site 0.2 mi downstream at different datums.

REMARKS.--Records good except for those below 10 ft/s which are poor. Flow regulated by Lake Sumner (station 08384000) 0.3 mi upstream, since August 1937 and Santa Rosa Lake (station 08382810) 55.5 mi upstream, since April 1980. Diversions for irrigation of about 12,500 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--23 years (water years 1913-25, 1927-36), 236 ft<sup>3</sup>/s, 171,000 acre-ft/yr, prior to completion of Sumner Dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	.38	41	50	46	105	103	921	86	1100	97	78
2	97	.23	40	50	46	104	101	1270	87	1030	97	79
3	98	.23	40	50	47	103	101	1280	87	367	97	78
4	98	.23	40	51	47	103	99	1290	87	96	96	79
5	98	.26	40	51	47	103	102	1280	86	96	94	79
6	98	.30	40	48	47	103	101	1280	85	97	92	79
7	99	.34	39	47	47	102	100	1280	85	97	92	79
8	99	.35	45	49	47	102	101	1330	85	97	91	79
9	98	.35	46	50	47	103	100	1320	84	97	92	79
10	99	.23	46	53	47	104	70	1310	88	99	92	79
11	99	.17	46	49	47	103	94	1320	90	97	92	79
12	99	.23	46	45	47	103	73	1310	852	95	92	79
13	99	.23	46	46	47	104	100	1290	1220	96	92	78
14	99	.52	46	46	47	104	99	1280	1210	95	92	79
15	100	.58	46	47	47	104	97	1290	1220	96	92	79
16	97	.58	46	46	47	104	97	1290	1210	95	92	79
17	96	.50	46	45	80	104	96	469	1230	95	92	79
18	97	.54	46	43	105	104	97	86	1240	95	93	79
19	97	.58	46	49	104	103	97	87	1240	94	93	79
20	97	.58	46	51	104	103	97	87	1250	94	93	79
21	97	.58	46	51	103	104	97	87	1250	95	92	79
22	98	.64	47	52	104	104	97	88	1230	96	92	79
23	97	.77	46	49	105	103	97	86	1240	97	91	79
24	98	.82	46	47	105	103	97	87	1070	96	92	79
25	98	.84	45	47	105	103	98	88	1030	97	92	80
26	98	.94	46	47	105	103	94	88	1230	97	92	80
27	97	16	46	47	105	104	93	87	1220	97	93	80
28	97	42	45	46	105	104	92	86	1110	97	92	80
29	97	41	50	46	105	104	88	86	1050	97	83	81
30	98	41	50	46	---	104	86	86	1070	96	78	80
31	57	---	50	46	---	104	---	86	---	97	78	---
TOTAL	2994	152.00	1394	1490	2085	3208	2864	22025	23122	5190	2838	2374
MEAN	96.6	5.07	45.0	48.1	71.9	103	95.5	710	771	167	91.5	79.1
MAX	100	42	50	53	105	105	103	1330	1250	1100	97	81
MIN	57	.17	39	43	46	102	70	86	84	94	78	78
AC-FT	5940	301	2760	2960	4140	6360	5680	43690	45860	10290	5630	4710
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1996, BY WATER YEAR (WY)												
MEAN	129	32.5	14.5	21.1	28.2	228	279	350	445	315	289	271
MAX	1184	910	170	143	274	605	1317	1404	2905	970	967	2789
(WY)	1942	1943	1942	1942	1995	1944	1942	1973	1937	1983	1994	1941
MIN	29.7	.21	.086	.18	.22	2.05	45.6	61.5	61.5	47.4	50.9	36.7
(WY)	1975	1989	1989	1994	1954	1948	1957	1956	1963	1991	1991	1972
SUMMARY STATISTICS FOR 1995 CALENDAR YEAR												
ANNUAL TOTAL				99226.82			69736.00					
ANNUAL MEAN				272			191			201		
HIGHEST ANNUAL MEAN										710		1941
LOWEST ANNUAL MEAN										91.9		1954
HIGHEST DAILY MEAN				1150	Aug 15		1330	May 8		26400	Sep 1	1942
LOWEST DAILY MEAN				.03	Jan 2		.17	Nov 11		.00	Sep 1	1937
ANNUAL SEVEN-DAY MINIMUM				.03	Jan 2		.27	Nov 7		.00	Feb 18	1952
INSTANTANEOUS PEAK FLOW							1470	May 9		a42800	Sep 1	1942
INSTANTANEOUS PEAK STAGE							4.39	May 9		13.58	Sep 22	1941
ANNUAL RUNOFF (AC-FT)				196800			138300			145600		
10 PERCENT EXCEEDS				1070			873			786		
50 PERCENT EXCEEDS				99			92			83		
90 PERCENT EXCEEDS				.74			42			.50		

a-From computation of flow over spillway and through outlet gates of Sumner Dam by Bureau of Reclamation.

## RIO GRANDE BASIN

08385000 FORT SUMNER MAIN CANAL NEAR FORT SUMNER, NM

LOCATION.--Lat 34°30'30", long 104°16'40", in SE1/4SW1/4 sec.1, T.3 N., R.25 E., DeBaca County, Hydrologic Unit 13060003, on right bank of concrete canal, 200 ft downstream from diversion dam on Pecos River, 3.0 mi northwest of Fort Sumner, and at Pecos River mile 684.8.

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. Elevation of gage is 4,034.7 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to March 1954, at site 2.4 mi downstream at different datum. April 1954 to March 1965, at site 1.1 mi downstream at datum 1.7 ft lower.

REMARKS.--Records good. Canal diverts water from Pecos River for irrigation of about 6,600 acres, 1961 determination, by the Fort Sumner Irrigation District. Several observations of water temperature were made during the year. No flow for many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	5.3	.00	.00	.00	91	88	72	87	88	94	74
2	78	.00	.00	.00	.00	92	86	82	86	88	94	73
3	85	.00	.00	.00	.00	91	86	100	86	89	94	73
4	84	.00	.00	.00	.00	91	84	100	85	88	94	75
5	85	.00	.00	.00	.00	91	86	100	85	92	94	76
6	85	.00	.00	.00	.00	91	86	67	85	92	94	79
7	86	.00	.00	.00	.00	92	85	.00	86	92	90	84
8	84	.00	.00	.00	.00	92	78	.00	86	92	96	92
9	83	.00	.00	.00	.00	92	80	81	85	92	97	91
10	82	.00	.00	.00	.00	92	79	95	82	91	96	79
11	80	.00	.00	.00	.00	91	75	85	89	87	97	90
12	77	.00	.00	.00	.00	90	86	84	86	90	98	97
13	75	.00	.00	.00	.00	91	89	84	91	90	98	99
14	73	.00	.00	.00	73	90	91	84	93	85	98	100
15	71	.00	.00	.00	48	90	92	84	92	84	99	101
16	70	.00	.00	.00	.00	90	89	85	92	83	100	98
17	76	.00	.00	.00	54	90	89	90	91	81	99	98
18	84	.00	.00	.00	91	91	90	98	94	77	100	98
19	84	.00	.00	.00	91	87	89	96	98	88	102	98
20	84	.00	.00	.00	91	82	89	95	98	89	101	47
21	83	.00	.00	.00	91	82	90	94	92	90	100	75
22	83	.00	.00	.00	91	80	90	94	83	91	98	80
23	82	.00	.00	.00	91	89	89	94	88	93	100	81
24	81	.00	.00	.00	92	89	89	92	86	93	100	80
25	81	.00	.00	.00	92	89	89	93	86	94	99	81
26	80	.00	.00	.00	89	89	89	93	87	94	99	81
27	80	.00	.00	.00	91	89	87	89	84	95	98	84
28	79	.00	.00	.00	91	89	86	87	86	94	95	83
29	79	.00	.00	.00	91	89	85	86	87	93	88	85
30	79	.00	.00	.00	---	89	81	87	88	94	77	84
31	79	---	.00	.00	---	89	---	89	---	95	74	---
TOTAL	2489	5.30	0.00	0.00	1267.00	2770	2592	2580.00	2644	2784	2963	2536
MEAN	80.3	.18	.000	.000	43.7	89.4	86.4	83.2	88.1	89.8	95.6	84.5
MAX	86	5.3	.00	.00	92	92	92	100	98	95	102	101
MIN	70	.00	.00	.00	.00	80	75	.00	82	77	74	47
AC-FT	4940	11	.00	.00	2510	5490	5140	5120	5240	5520	5880	5030

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

	MEAN	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	67.7	.89	.43	7.77	6.19	55.4	75.1	78.1	84.6	80.7	79.0	73.1
MAX	98.0	3.57	19.6	43.5	46.2	95.8	98.6	105	108	108	99.9	101
(WY)	1974	1983	1940	1967	1988	1988	1987	1989	1973	1942	1955	1955
MIN	.000	.000	.000	.000	.000	.000	35.4	.000	46.8	29.6	31.3	1.33
(WY)	1942	1942	1941	1940	1940	1942	1942	1942	1941	1972	1990	1942

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1939 - 1996

	21997.60	22630.30	
ANNUAL TOTAL	21997.60	22630.30	
ANNUAL MEAN	60.3	61.8	51.4
HIGHEST ANNUAL MEAN			61.8
LOWEST ANNUAL MEAN			25.3
HIGHEST DAILY MEAN	107	102	174
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		116	116
INSTANTANEOUS PEAK STAGE		5.29	5.29
INSTANTANEOUS LOW FLOW		.00	.00
ANNUAL RUNOFF (AC-FT)	43630	44890	37210
10 PERCENT EXCEEDS	95	95	97
50 PERCENT EXCEEDS	84	85	71
90 PERCENT EXCEEDS	.00	.00	.00

## RIO GRANDE BASIN

08385500 PECOS RIVER NEAR FORT SUMNER, NM

LOCATION.--Lat 34°28'43", long 104°16'19", in SE¼SW¼ sec.13 T. 3 N., R.25 E., DeBaca County, Hydrologic Unit 13060003 on right bank 100 ft upstream from Atchison, Topeka and Santa Fe Railway Bridge, 0.8 mi upstream from U.S. Highway 60 and 2.5 mi downstream from Fort Sumner Diversion dam.

DRAINAGE AREA.--5,300 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--June to July 1904, July 1904 to June 1905 (gage heights and discharge measurements only). Daily discharges July 18 to August 11, 1904 are unreliable and should not be used, July 1905 to February 1910, September 1912 to December 1913, July 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,020 above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 5, 1905, staff gage at site 2.5 mi upstream at different datum. July 5, 1905 to Dec. 31, 1913, staff gage at site 1.5 mi upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversion above gage for about 6,100 acres (1961 determination) part of which are below gage. Bureau of Reclamation satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined, probably exceeded 53,000 ft<sup>3</sup>/s, Sept. 30, 1904, gage height, 17.95 ft, from floodmarks, site and datum then in use; minimum daily 0.3 ft<sup>3</sup>/s, Aug. 17, 1922.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,220 ft<sup>3</sup>/s, May 8; minimum daily, 0.95 ft<sup>3</sup>/s, Apr. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	28	39	57	51	14	4.2	370	2.4	821	12	2.2
2	68	12	39	45	51	13	3.2	1010	2.4	825	12	2.0
3	15	8.2	40	55	49	12	2.8	1030	2.0	523	11	1.6
4	14	6.3	41	55	46	10	2.8	1050	1.9	59	11	1.5
5	13	5.2	42	71	46	9.5	2.8	1030	1.3	33	11	1.5
6	14	4.2	42	60	45	9.8	2.9	1090	1.0	28	9.6	1.5
7	19	3.4	42	56	45	10	3.2	1190	1.1	23	12	1.6
8	16	2.9	44	53	45	11	7.5	1220	1.3	20	10	7.0
9	15	2.7	47	57	45	11	3.4	1120	1.1	19	16	5.1
10	15	2.3	48	57	45	11	3.2	1100	3.5	115	11	9.1
11	17	2.0	49	61	45	9.3	3.2	1120	2.1	35	13	2.4
12	19	1.8	49	52	45	8.3	4.9	1100	355	19	12	6.3
13	20	1.8	49	53	33	8.4	8.5	1080	973	52	11	12
14	21	1.8	37	53	37	8.1	10	1100	1040	20	11	18
15	22	1.6	59	53	70	8.5	14	1130	1030	17	12	25
16	23	1.6	51	53	86	9.0	7.0	1150	1030	16	15	11
17	17	1.6	53	51	54	9.3	7.8	733	1040	14	15	9.1
18	13	1.6	51	49	16	12	6.6	80	1030	18	19	8.5
19	12	1.5	38	48	15	11	7.3	42	1020	8.3	412	9.4
20	12	1.4	62	55	14	4.2	7.4	26	1020	9.3	42	44
21	12	1.5	52	55	14	4.4	7.4	17	1030	9.7	24	3.9
22	12	1.5	52	56	14	9.3	7.2	13	1020	8.8	19	2.6
23	12	1.5	52	55	15	5.7	6.6	8.5	1010	8.8	29	2.0
24	13	1.4	52	52	15	5.5	6.2	6.6	909	8.6	22	1.5
25	13	1.4	52	51	14	5.8	5.9	5.9	713	10	25	1.3
26	12	1.6	52	50	15	6.2	6.2	4.9	987	11	28	1.3
27	13	1.5	52	51	15	6.1	2.9	4.2	991	16	27	1.1
28	12	7.0	52	50	14	6.0	2.2	3.9	932	11	14	1.1
29	12	33	53	50	14	5.2	1.9	3.8	794	9.8	12	1.1
30	13	38	57	49	---	5.1	.95	3.6	813	12	3.6	1.4
31	13	---	57	50	---	5.6	---	3.2	---	12	2.5	---
TOTAL	522	180.3	1505	1663	1013	264.3	160.15	17845.6	17757.1	2792.3	883.7	196.1
MEAN	16.8	6.01	48.5	53.6	34.9	8.53	5.34	576	592	90.1	28.5	6.54
MAX	68	38	62	71	86	14	14	1220	1040	825	412	44
MIN	12	1.4	37	45	14	4.2	.95	3.2	1.0	8.3	2.5	1.1
AC-FT	1040	358	2990	3300	2010	524	318	35400	35220	5540	1750	389

e Estimated

## RIO GRANDE BASIN

08385522 PECOS RIVER BELOW TAIBAN CREEK NEAR FORT SUMNER, NM

LOCATION.--Lat 34°19'56", long 104°10'48", NW¼NE¼ sec.11, T.1 N., R.26 E., De Baca County, Hydrologic Unit 13060003, on left bank 0.6 mi downstream from Taiban Creek, 11.0 mi southeast of Fort Sumner, and at mile 665.7.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,910 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records fair except for estimated daily discharges, and those above 1,000 ft<sup>3</sup>/s, which are poor. Flow partly regulated by Summer Dam (station 08384000) 23 mi upstream. Diversion for irrigation of about 19,100 acres (1959 determination) above station. Discharge represents in general, return flow from irrigated areas in Fort Sumner Irrigation Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,330 ft<sup>3</sup>/s, Aug. 20, 1995; minimum daily, 11 ft<sup>3</sup>/s, Feb. 11-13, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,330 ft<sup>3</sup>/s, May 8; minimum daily, 32 ft<sup>3</sup>/s, Nov. 27-28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	66	53	63	62	44	47	104	e33	869	123	65
2	217	51	54	65	58	44	54	1110	e32	861	75	58
3	68	e44	55	68	62	38	53	1160	e30	760	52	e45
4	71	e40	54	65	63	40	53	1190	e29	152	54	e35
5	63	e38	52	65	60	46	62	1180	e25	95	47	45
6	79	e36	53	68	59	51	57	1220	28	81	47	42
7	97	e35	54	63	58	50	61	1320	28	84	73	39
8	74	e33	53	59	57	56	41	1330	26	103	63	57
9	84	e31	57	64	57	62	50	1250	27	86	50	42
10	68	29	58	63	56	51	41	1220	26	200	60	38
11	56	28	57	64	56	61	38	1220	30	117	248	40
12	58	28	56	62	56	69	38	1210	79	94	58	42
13	51	27	57	62	56	70	37	1200	1040	137	53	52
14	59	26	59	62	55	65	39	1180	1130	101	42	81
15	80	26	57	62	59	62	42	1190	1150	98	48	254
16	84	25	63	62	105	61	46	1180	1060	79	50	74
17	51	25	67	62	90	65	43	984	1060	62	45	79
18	46	25	67	61	45	57	42	109	1070	68	45	80
19	51	25	62	59	43	44	48	49	1070	83	361	73
20	48	25	59	62	44	58	49	e47	1070	68	88	80
21	48	25	64	64	40	44	47	e44	1070	65	60	64
22	50	24	62	64	33	46	47	e41	1080	e53	50	59
23	64	23	62	66	33	41	52	e38	1070	e54	61	47
24	58	23	61	65	38	43	52	e35	1030	e55	63	50
25	49	23	62	62	38	43	49	e33	752	53	130	51
26	45	23	63	64	34	48	43	e33	995	65	164	49
27	47	22	62	61	41	49	46	e31	1070	116	148	43
28	56	22	60	61	36	45	41	e32	1050	112	108	53
29	52	31	58	59	38	45	49	e30	843	101	80	52
30	54	49	62	57	---	52	49	e32	855	83	66	59
31	67	---	63	56	---	55	---	e35	---	86	134	---
TOTAL	2056	928	1826	1940	1532	1605	1416	19837	18858	5041	2746	1848
MEAN	66.3	30.9	58.9	62.6	52.8	51.8	47.2	640	629	163	88.6	61.6
MAX	217	66	67	68	105	70	62	1330	1150	869	361	254
MIN	45	22	52	56	33	38	37	30	25	53	42	35
AC-FT	4080	1840	3620	3850	3040	3180	2810	39350	37400	10000	5450	3670
CAL YR 1995	TOTAL 87011	MEAN 238	MAX 1330	MIN 15	AC-FT 172600							
WTR YR 1996	TOTAL 59633	MEAN 163	MAX 1330	MIN 22	AC-FT 118300							

e Estimated

## RIO GRANDE BASIN

08385522 PECOS RIVER BELOW TAIBAN CREEK NEAR FORT SUMNER, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1992 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
DEC 1995										
06...	0915	53	2220	8.0	7.0	5.0	2.5	663	11.0	100
MAR 1996										
06...	1450	56	200	8.2	22.0	14.0	1.2	655	10.0	113
JUL										
09...	1400	87	1820	8.0	--	26.0	11	662	13.2	189
SEP										
04...	1315	33	2540	8.0	32.0	28.5	72	664	12.3	185

DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD HCO3 (MG/L AS (00453)	CAR- BONATE WATER DIS IT FIELD CO3 (MG/L AS (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
DEC 1995										
06...	1300	1100	400	69	96	1	2.6	182	0	149
MAR 1996										
06...	1200	1000	360	61	93	1	3.4	154	0	126
JUL										
09...	910	740	280	51	69	1	3.2	205	0	168
SEP										
04...	1300	1200	400	82	120	1	3.7	182	0	149

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
DEC 1995									
06...	140	1000	100	0.40	0.11	11	1770	150	47
MAR 1996									
06...	146	1100	100	0.60	0.10	9.7	1800	150	17
JUL									
09...	148	780	71	0.50	0.22	12	1370	135	170
SEP									
04...	160	1200	120	0.70	0.14	15	2030	209	67

## RIO GRANDE BASIN

08385630 PECOS RIVER NEAR DUNLAP, NM

LOCATION.--Lat 34°03'48", long 104°18'22", in SE¼NW¼, sec. 10, T.3 S., R.25 E., DeBaca County, Hydrologic Unit 13060003, on left bank 1.2 mi south of Van Eaton Ranch, 2.5 mi upstream from Arroyo de la Mora, 2.7 mi downstream from Blanco Canyon, 15 mi east of Dunlap, NM, and at mile 638.1

PERIOD OF RECORD.--August 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,760 ft above National Geodetic Vertical Datum of 1929, from river profile map.

REMARKS.--Records fair except for estimated daily discharges and those above 600 ft<sup>3</sup>/s, which are poor. Flow partly regulated by Lake Summer (station 08384000). Diversion for irrigation of about 19,100 acres (1959 determination) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,320 ft<sup>3</sup>/s, Sept. 9, 1995; minimum daily, 9.2 ft<sup>3</sup>/s, June 12, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,100 ft<sup>3</sup>/s May 9, June 14; minimum daily, 9.2 ft<sup>3</sup>/s, June 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	64	32	60	59	32	51	59	36	879	93	161
2	98	62	40	59	e58	37	46	249	32	884	103	82
3	184	54	42	64	e56	38	49	819	28	914	73	71
4	112	45	44	61	e52	31	46	910	26	569	58	63
5	104	42	47	62	e50	30	48	934	24	192	47	40
6	98	40	47	62	e53	35	54	942	20	124	43	46
7	102	36	46	66	59	42	55	1010	19	103	43	49
8	106	34	46	63	57	45	52	1050	20	95	88	84
9	90	32	43	60	55	48	43	1100	16	98	142	86
10	93	28	48	61	53	55	47	1040	15	111	84	64
11	84	26	51	61	51	46	35	1050	12	189	77	39
12	75	25	50	63	52	50	34	1080	9.2	137	202	55
13	75	25	48	64	51	60	32	1070	225	230	76	67
14	68	25	47	62	50	60	27	1060	1100	140	63	89
15	78	24	49	61	47	59	32	1050	985	105	47	88
16	90	22	43	60	47	57	34	1050	952	87	46	87
17	91	21	55	61	e46	56	41	1050	934	71	43	86
18	65	20	56	59	e45	61	40	607	954	58	39	84
19	56	20	54	63	e45	58	37	181	962	56	46	83
20	58	20	52	64	44	45	41	113	963	74	301	83
21	56	19	48	64	43	56	50	83	970	67	109	83
22	55	19	56	68	38	47	48	62	978	55	63	84
23	51	18	55	67	34	44	51	47	990	56	48	79
24	64	18	54	68	31	41	53	43	994	65	74	54
25	63	17	53	68	36	40	58	38	873	66	100	54
26	53	17	54	64	37	40	58	36	783	60	299	51
27	48	16	55	64	32	43	50	32	1090	63	640	61
28	50	17	55	63	37	50	49	32	1080	91	350	47
29	58	17	55	62	36	43	47	31	964	88	137	49
30	54	17	53	60	---	41	50	33	848	87	94	53
31	57	---	57	57	---	43	---	39	---	74	88	---
TOTAL	2418	840	1535	1941	1354	1433	1358	16900	16902.2	5888	3716	2122
MEAN	78.0	28.0	49.5	62.6	46.7	46.2	45.3	545	563	190	120	70.7
MAX	184	64	57	68	59	61	58	1100	1100	914	640	161
MIN	48	16	32	57	31	30	27	31	9.2	55	39	39
AC-FT	4800	1670	3040	3850	2690	2840	2690	33520	33530	11680	7370	4210

CAL YR 1995 TOTAL 85081 MEAN 233 MAX 1320 MIN 10 AC-FT 168800  
WTR YR 1996 TOTAL 56407.2 MEAN 154 MAX 1100 MIN 9.2 AC-FT 111900

e Estimated



## RIO GRANDE BASIN

08385648 PECOS RIVER ABOVE ACME, NM

LOCATION.--Lat 33°41'09", long 104°18'59", in SW¼NE¼ sec. 31, T.7 S., R.26 E., Chaves County, Hydrologic Unit 13060007, on left bank 0.5 mi upstream from Eightmile Draw, 2.5 mi upstream from boundary for Bitter Lake National Wildlife Refuge, 4.6 miles downstream from Sand Creek and at mile 596.3.

PERIOD OF RECORD.--August 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,550 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges and those above 600 ft<sup>3</sup>/s, which are poor. Flow partly regulated by Lake Sumner (station 08384000). Diversion for irrigation of about 19,100 acres (1959 determination) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,200 ft<sup>3</sup>/s, Mar. 2, 1995; minimum daily, 1.9 ft<sup>3</sup>/s, Aug. 11, 1995.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,170 ft<sup>3</sup>/s, May 12; minimum daily, 6.5 ft<sup>3</sup>/s, June 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	44	20	61	59	38	35	21	39	e910	e90	153
2	50	48	19	65	59	38	37	19	37	e900	58	154
3	62	51	26	65	60	37	41	e220	35	e850	83	86
4	155	54	36	63	48	40	37	e820	29	e800	59	71
5	e82	47	40	64	65	41	43	e920	25	e550	46	60
6	e69	43	41	65	79	38	45	e950	19	e350	35	49
7	e71	40	44	66	75	37	45	e970	15	255	32	41
8	e76	38	45	68	66	40	53	e1080	13	166	48	e100
9	e86	36	44	69	61	46	50	e1110	11	116	e300	140
10	e75	32	46	66	59	48	50	e1120	10	243	144	129
11	e61	30	45	65	56	54	38	e1100	7.6	252	81	70
12	e60	28	49	65	56	57	38	e1170	6.5	e150	e80	82
13	e48	27	51	65	55	49	30	e1120	17	e200	e110	77
14	e40	26	52	67	55	55	27	e1100	e250	e250	e90	242
15	e46	27	52	64	54	61	25	e1110	e1100	160	e65	353
16	e42	26	53	63	53	68	23	e1080	e950	114	e55	e450
17	e64	25	55	61	52	63	23	e1060	e900	90	e100	e250
18	e63	24	59	61	67	60	23	e1030	e1000	78	e50	93
19	e50	23	63	60	85	63	25	e490	e1050	65	e45	57
20	e33	23	63	60	70	62	25	e320	e1100	54	e45	49
21	e30	22	61	61	53	58	23	207	e1130	54	90	42
22	e29	22	58	60	47	51	23	155	e960	57	105	43
23	e26	21	61	61	45	55	30	122	e920	41	67	41
24	e27	20	62	62	42	45	28	100	e900	38	e80	33
25	e30	20	62	61	40	42	28	81	e910	46	243	26
26	e42	19	63	63	36	39	27	68	e750	52	126	21
27	40	19	62	62	37	38	31	59	e900	155	e650	21
28	37	20	62	60	38	38	30	54	e1000	54	e350	22
29	37	20	62	61	36	40	25	51	e950	55	e200	19
30	42	20	61	62	---	42	23	44	e900	63	176	16
31	45	---	61	60	---	37	---	40	---	e100	e200	---
TOTAL	1672	895	1578	1956	1608	1480	981	17791	15934.1	7268	3903	2990
MEAN	53.9	29.8	50.9	63.1	55.4	47.7	32.7	574	531	234	126	99.7
MAX	155	54	63	69	85	68	53	1170	1130	910	650	450
MIN	26	19	19	60	36	37	23	19	6.5	38	32	16
AC-FT	3320	1780	3130	3880	3190	2940	1950	35290	31610	14420	7740	5930

CAL YR 1995 TOTAL 80639.9 MEAN 221 MAX 2100 MIN 1.9 AC-FT 159900  
WTR YR 1996 TOTAL 58056.1 MEAN 159 MAX 1170 MIN 6.5 AC-FT 115200

e Estimated

## RIO GRANDE BASIN

08386000 PECOS RIVER NEAR ACME, NM

LOCATION.--Lat 33°32'10", long 104°22'34", in SW1/4 sec.14, T.9 S., R.25 E., Chaves County, Hydrologic Unit 13060007, on right bank 3.0 mi downstream from U.S. Highway 70, 3.7 mi downstream from Salt Creek, 4.7 mi southwest of Acme, 14 mi northeast of Roswell, and at mile 585.3.

DRAINAGE AREA.--11,380 mi<sup>2</sup>, 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. Elevation of gage is 3,510 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 1, 1938, at site on highway bridge 3 mi upstream at various datums. Since Oct. 25, 1963, supplemental water-stage recorder at site opposite base gage at same datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow regulated by Lake Summer (station 08384000) 117 mi upstream since August 1937 and Santa Rosa Lake (station 08382810) 172 mi upstream since April 1980. Diversions for irrigation of about 20,000 acres, 1959 determination, upstream from station. U.S. Army Corps of Engineers satellite telemeter at station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 28, 1937, reached a discharge of 53,000 ft<sup>3</sup>/s, gage height, 14.82 ft, from floodmarks, site and datum then in use, from slope-area measurement, but may have been exceeded by the flood of Oct. 1, 1904.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	35	2.8	59	39	21	25	14	e24	920	108	189
2	48	36	3.1	58	36	28	23	10	e24	895	38	105
3	45	45	2.4	59	34	25	32	213	e16	870	23	122
4	146	45	19	55	30	25	32	822	e17	813	26	76
5	145	43	31	57	27	31	31	917	14	539	8.8	61
6	83	31	34	53	60	30	41	957	8.9	351	2.9	52
7	77	26	38	55	81	19	43	977	7.1	205	1.7	37
8	71	21	42	53	64	21	48	1080	2.3	135	6.1	38
9	81	17	40	60	51	30	56	1110	1.4	100	331	121
10	78	14	39	56	47	41	43	1110	1.0	173	103	159
11	62	9.6	42	49	44	47	35	1090	.80	148	56	83
12	63	8.7	44	48	42	62	23	1060	.40	102	38	122
13	50	6.3	50	47	41	51	22	1110	1.7	175	80	99
14	39	5.8	52	49	42	42	11	1090	263	294	48	153
15	43	5.7	51	50	41	67	10	1100	1010	112	16	261
16	38	5.7	52	44	40	78	8.7	1070	933	81	9.3	325
17	48	5.8	52	41	37	80	7.2	1050	882	49	62	460
18	69	4.6	53	39	36	74	7.8	1030	973	33	6.5	221
19	68	4.2	65	38	89	73	7.3	452	1010	21	4.3	127
20	36	3.7	64	38	86	85	11	274	1050	13	3.7	112
21	29	3.0	65	39	51	76	11	174	1040	7.8	98	96
22	28	3.0	63	42	34	56	9.2	144	940	13	93	92
23	24	2.5	53	39	28	57	13	144	895	6.9	32	95
24	26	2.5	66	44	27	46	21	128	892	2.3	34	83
25	24	2.3	63	43	24	33	19	100	934	56	165	79
26	34	2.3	60	44	18	32	17	75	737	18	97	e60
27	36	2.2	62	45	17	27	20	54	939	75	260	e50
28	27	3.5	59	39	21	28	25	34	992	40	742	e40
29	24	3.1	61	40	21	27	22	e47	957	6.3	340	e40
30	27	2.9	58	42	---	34	15	e35	892	16	177	e40
31	37	---	57	42	---	32	---	e30	---	17	119	---
TOTAL	1655	400.4	1443.3	1467	1208	1378	689.2	17501	15457.60	6287.3	3129.3	3598
MEAN	53.4	13.3	46.6	47.3	41.7	44.5	23.0	565	515	203	101	120
MAX	146	45	66	60	89	85	56	1110	1050	920	742	460
MIN	24	2.2	2.4	38	17	19	7.2	10	.40	2.3	1.7	37
AC-FT	3280	794	2860	2910	2400	2730	1370	34710	30660	12470	6210	7140

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1938	149	2200	1942	.000	1948
1939	53.9	858	1943	.000	1948
1940	26.5	236	1942	.000	1948
1941	26.2	190	1942	.000	1948
1942	29.4	234	1987	.000	1953
1943	164	595	1941	.16	1954
1944	212	1217	1942	3.58	1967
1945	286	2680	1941	1.81	1946
1946	313	2186	1941	.000	1947
1947	320	1611	1960	.19	1954
1948	261	804	1994	.90	1947
1949	303	3527	1941	.000	1947

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1938 - 1996
ANNUAL TOTAL	81821.09	54214.10	
ANNUAL MEAN	224	148	179
HIGHEST ANNUAL MEAN			964
LOWEST ANNUAL MEAN			56.8
HIGHEST DAILY MEAN	1860	1110	29500
LOWEST DAILY MEAN	.09	.40	.00
ANNUAL SEVEN-DAY MINIMUM	2.5	2.1	.00
INSTANTANEOUS PEAK FLOW		1600	a45000
INSTANTANEOUS PEAK STAGE		6.25	b13.71
INSTANTANEOUS LOW FLOW		.20	.00
ANNUAL RUNOFF (AC-FT)	162300	107500	129900
10 PERCENT EXCEEDS	882	598	680
50 PERCENT EXCEEDS	57	44	23
90 PERCENT EXCEEDS	6.1	7.0	.82

e Estimated

a-From slope-area measurement, but may have exceeded by the flood of Oct. 1, 1904.

b-From floodmarks, site and datum then in use.

## RIO GRANDE BASIN

08386000 PECOS RIVER NEAR ACME, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)		
DEC 1995												
12...	0830	40	2730	--	3.5	3.0	676	11.5	98	--		
MAR 1996												
07...	1500	20	3270	8.1	12.0	11.0	629	9.4	105	K1		
MAY												
02...	0910	12	3980	8.1	17.5	12.0	676	10.4	110	67		
SEP												
05...	1415	57	1880	8.2	32.5	29.0	670	8.4	126	<26		
DATE		STREP-TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD HCO3 (MG/L AS) (00453)	CAR-BONATE WATER DIS IT FIELD CO3 (MG/L AS) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD CACO3 (MG/L AS) (39086)
DEC 1995												
12...	--		1300	--	390	76	190	2	3.2	--	--	--
MAR 1996												
07...	<1		1400	1300	410	88	250	3	3.8	84	0	69
MAY												
02...	K20		1800	1700	530	110	320	3	4.9	124	0	102
SEP												
05...	58		960	880	290	58	120	2	4.2	96	0	79
DATE		ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, 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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)
DEC 1995												
12...	102		1100	250	0.50	10	2080	--	<0.010	0.240	0.030	--
MAR 1996												
07...	102		1300	340	0.50	9.6	2440	--	<0.010	0.110	0.090	0.11
MAY												
02...	90		1700	470	0.60	9.9	3210	--	<0.010	<0.050	<0.015	--
SEP												
05...	79		910	140	0.50	11	1580	0.110	0.010	0.120	0.060	--
DATE		NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	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)
DEC 1995												
12...	<0.20	<0.20	<0.010	<0.010	<0.010	<0.010	1.5	5.0	<2.0	<1	28	<2.0
MAR 1996												
07...	0.20	0.20	0.010	<0.010	<0.010	<0.010	3.4	--	--	--	--	--
MAY												
02...	0.20	<0.20	0.040	0.010	<0.010	<0.010	2.4	--	--	--	--	--
SEP												
05...	0.40	<0.20	0.070	0.020	0.010	0.010	4.7	293	<1.0	1	140	<1.0

## RIO GRANDE BASIN

08386000 PECOS RIVER NEAR ACME, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
DEC 1995 12...	180	<2.0	<2.0	<2.0	14	18	<2.0	5.0	<0.10	<2.0	12
MAR 1996 07...	230	--	--	--	--	<9.0	--	--	--	--	--
MAY 02...	290	--	--	--	--	<3.0	--	--	--	--	--
SEP 05...	156	<1.0	<1.0	1.0	5.0	170	<1.0	10	<0.10	3.0	8.0

DATE	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	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) (01029)
DEC 1995 12...	<1	<1	<2.0	11	<2.0	1.0	50	78	2	2	1
MAR 1996 07...	--	--	--	--	--	--	--	--	--	--	--
MAY 02...	--	--	--	--	--	--	--	--	--	--	--
SEP 05...	<1	<1	<1.0	3.0	<2.0	<0.2	30	140	2	<1	3

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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	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)
DEC 1995 12...	<5	2	1300	<10	190	<0.01	4	6.0	102	11	51
MAR 1996 07...	--	--	--	--	--	--	--	--	54	2.9	74
MAY 02...	--	--	--	--	--	--	--	--	45	1.4	58
SEP 05...	<5	2	2300	<10	140	<0.01	5	5.0	1370	211	24



RIO GRANDE BASIN  
08387000 RIO RUIDOSO AT HOLLYWOOD, NM -- Continued  
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-67, 1987 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
DEC 1995										
11...	1510	7.9	1330	--	15.0	11.0	605	9.2	106	--
APR 1996										
17...	1105	7.2	1320	8.0	16.5	11.0	628	8.5	94	--
MAY										
02...	1205	6.6	1260	8.2	24.0	21.0	605	7.8	111	--
SEP										
06...	0945	24	693	8.2	20.0	17.0	610	8.6	112	<1
30...	1210	18	893	8.4	26.0	13.0	605	9.0	108	<1

DATE	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DEC 1995										
11...	--	--	--	--	--	--	--	--	--	--
APR 1996										
17...	--	--	--	--	--	--	--	--	--	--
MAY										
02...	--	--	--	--	--	--	--	--	--	--
SEP										
06...	300	16	<1.0	<1	31	<1.0	<1.0	<1.0	<1.0	2.0
30...	68	13	<1.0	<1	28	<1.0	<1.0	2.0	<1.0	2.0

DATE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
DEC 1995										
11...	--	--	--	--	--	--	--	--	--	--
APR 1996										
17...	--	--	--	--	--	--	--	--	--	--
MAY										
02...	--	--	--	--	--	--	--	--	--	--
SEP										
06...	<1.0	7.0	<0.10	2.0	2.0	<1	<1	<1.0	2.0	<1.0
30...	<1.0	7.0	<0.10	2.0	4.0	--	<1	<1.0	3.0	<1.0

## RIO GRANDE BASIN

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 on right bank 100 ft upstream from culvert under State Road 532, 400 ft downstream from South Fork, and 2.5 mi west of Alto. Mouth at Rio Ruidoso mile 11.3.

DRAINAGE AREA.--8.14 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1969 to December 1980, April 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,600 ft above National Geodetic Vertical Datum of 1929, from topographic map. August 26, 1969 to December 31, 1980, at site 360 ft downstream at datum 6.0 ft higher.

REMARKS.--Records good. No diversions for irrigation upstream from 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	.19	.12	.22	.21	.18	.12	.00	.00	.02	1.5	2.6
2	.63	.20	.13	.23	.32	.18	.12	.00	.00	.06	1.4	1.8
3	.63	.21	.12	.22	.32	.18	.11	.00	.00	.32	2.3	2.1
4	.75	.20	.12	.25	.32	.16	.14	.00	.00	.18	2.2	1.6
5	.83	.19	.12	.23	.32	.16	.18	.00	.00	.12	1.8	1.8
6	.80	.33	.12	.22	.32	.16	.24	.00	.00	.12	1.2	1.7
7	.78	.32	.13	.22	.32	.18	.25	.00	.00	.11	.98	1.2
8	.73	.23	.15	.22	.31	.17	.21	.00	.00	.11	.92	1.2
9	.65	.19	.13	.22	.30	.17	.20	.00	.00	.11	1.0	1.2
10	.52	.18	.13	.22	.28	.17	.17	.00	.00	.19	1.0	1.1
11	.46	.18	.12	.22	.26	.16	.14	.00	.00	.33	.79	2.0
12	.42	.18	.12	.22	.25	.14	.12	.00	.00	.17	.56	8.7
13	.39	.16	.12	.23	.24	.13	.11	.00	.00	.13	.47	13
14	.35	.16	.12	.24	.24	.13	.10	.00	.00	.12	.43	11
15	.32	.16	.12	.24	.23	.13	.09	.00	.00	.14	.39	11
16	.31	.16	.12	.24	.21	.13	.09	.00	.00	.16	.59	9.1
17	.30	.16	.13	.22	.21	.13	.07	.00	.00	.13	.71	6.7
18	.27	.15	.13	.21	.21	.13	.05	.00	.00	.12	1.5	5.0
19	.26	.15	.14	.24	.22	.14	.04	.00	.00	2.1	1.1	4.1
20	.25	.15	.14	.23	.25	.13	.03	.00	.00	1.4	.58	3.4
21	.25	.15	.14	.22	.26	.13	.02	.00	.00	.64	.66	2.9
22	.23	.14	.14	.23	.22	.12	.02	.00	.00	.42	.64	2.5
23	.22	.14	.16	.24	.20	.12	.01	.00	.00	.25	.49	2.2
24	.22	.14	.15	.24	.19	.12	.01	.00	.00	.22	.49	2.3
25	.22	.14	.17	.24	.21	.12	.01	.00	.00	1.3	.64	2.4
26	.22	.13	.27	.24	.21	.12	.00	.00	.00	.65	1.4	2.5
27	.21	.13	.49	.24	.20	.12	.00	.00	.20	6.2	4.0	1.6
28	.20	.13	.67	.24	.19	.12	.00	.00	.11	3.8	5.6	1.4
29	.20	.13	.20	.22	.18	.12	.00	.00	.06	1.7	6.2	1.1
30	.20	.13	.20	.21	---	.12	.00	.00	.04	1.9	4.6	1.0
31	.19	---	.19	.20	---	.12	---	.00	---	1.8	3.5	---
TOTAL	12.73	5.21	5.31	7.06	7.20	4.39	2.65	0.00	0.41	25.02	49.64	110.2
MEAN	.41	.17	.17	.23	.25	.14	.088	.000	.014	.81	1.60	3.67
MAX	.83	.33	.67	.25	.32	.18	.25	.00	.20	6.2	6.2	13
MIN	.19	.13	.12	.20	.18	.12	.00	.00	.00	.02	.39	1.0
AC-FT	25	10	11	14	14	8.7	5.3	.00	.8	50	98	219

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1996, BY WATER YEAR (WY)

	MEAN	2.57	2.07	2.17	1.70	2.35	3.89	5.11	3.99	1.36	1.75	3.65	3.84
MAX	14.4	17.3	19.5	7.89	8.19	10.6	14.0	15.8	5.94	5.50	16.3	9.26	
(WY)	1975	1979	1979	1979	1979	1979	1973	1979	1979	1990	1988	1974	
MIN	.29	.17	.17	.22	.25	.14	.088	.000	.014	.10	.31	.35	
(WY)	1990	1996	1996	1990	1996	1996	1996	1996	1996	1971	1994	1994	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1970 - 1996

ANNUAL TOTAL	390.03	229.82	
ANNUAL MEAN	1.07	.63	2.82
HIGHEST ANNUAL MEAN			8.48
LOWEST ANNUAL MEAN			.39
HIGHEST DAILY MEAN	7.7 Feb 15	13 Sep 13	170 Dec 19 1978
LOWEST DAILY MEAN	.10 Jul 9	.00 Apr 26	.00 Jul 9 1989
ANNUAL SEVEN-DAY MINIMUM	.11 Jul 6	.00 Apr 26	.00 Jun 17 1990
INSTANTANEOUS PEAK FLOW		28 Jul 27	a206 Dec 19 1978
INSTANTANEOUS PEAK STAGE		6.34 Jul 27	6.34 Jul 27 1996
INSTANTANEOUS LOW FLOW		.00 May 30	.00 Jul 9 1989
ANNUAL RUNOFF (AC-FT)	774	456	2040
10 PERCENT EXCEEDS	3.1	1.6	7.2
50 PERCENT EXCEEDS	.75	.19	1.2
90 PERCENT EXCEEDS	.14	.00	.23

a-From rating curve extended above 40 ft<sup>3</sup>/s.

## RIO GRANDE BASIN

08390500 RIO HONDO AT DIAMOND A RANCH, NEAR ROSWELL, NM

LOCATION.--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 40 ft downstream from bridge on Mossman Road at Diamond A Ranch farm, 1.3 mi south of U.S. Highway 70-380, 13 mi upstream from Two Rivers Reservoir, 21 mi upstream from mouth of Rocky Arroyo, 18 mi west of Roswell, and at mile 44.7.

DRAINAGE AREA.--947 mi<sup>2</sup>, 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 7, State of New Mexico, State Engineer Office, "Streamflow and Reservoir Content, 1888-1954."

REVISED RECORDS.--WSP 1392: Drainage area. WSP 1512: 1939-40(P), 1941, 1942-43(P), 1946(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,190 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 11, 1965, at site on left bank at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions and ground-water withdrawals upstream from station for irrigation above and below station of about 6,500 acres, 1959 determination. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station. No flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on June 1, 1937, reached a discharge of 24,900 ft<sup>3</sup>/s at Riverside, about 13 mi upstream. Other major floods occurred Oct. 31, 1901, Sept. 29, 30, 1904, and July 25, 1905.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.54	.00	.00	3.5	.00	.00	e.00	e23	3.0	12
2	.00	.00	.00	.00	.00	.00	.00	.00	e.00	11	5.7	10
3	.00	.00	.06	.00	2.6	.00	.00	.00	.00	7.0	.00	5.0
4	.00	.00	.00	.00	5.2	.00	.00	.00	.00	.86	.22	17
5	.00	.00	.38	.00	2.7	.00	.00	.00	.00	.07	2.0	21
6	.00	.00	.05	.00	.65	.00	.00	.00	.00	.00	.35	5.7
7	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.18	5.6
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5
9	.00	.00	.00	.00	.21	.00	.00	.00	.00	.00	.03	7.5
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.39
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	91
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2510
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	329
14	.00	.00	.00	.00	.00	.00	.00	e.00	.00	112	.00	174
15	.00	.00	.00	.00	.00	.00	.00	e.00	.00	201	.00	85
16	.00	.00	.00	.00	.00	.00	.00	e.00	.00	262	.00	76
17	.00	.00	.00	.00	.00	.00	.00	e.00	.00	4.0	.00	71
18	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.01	.00	60
19	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	49
20	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	44
21	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	40
22	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	38
23	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	33
24	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00	29
25	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.07	3.0	26
26	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	12	23
27	.00	.00	.00	.00	.00	.00	.00	e.00	e87	.00	41	21
28	.00	.00	.00	.00	.72	.00	.00	e.00	e2380	.00	23	19
29	.00	.00	.00	.00	3.3	.00	.00	e.00	e285	.00	18	16
30	.00	.19	.00	.00	---	.00	.00	e.00	e177	.00	18	13
31	.00	---	.00	.00	---	.00	---	e.00	---	5.4	14	---
TOTAL	0.00	0.19	1.03	0.00	15.39	3.50	0.00	0.00	2929.00	626.41	140.55	3832.69
MEAN	.000	.006	.033	.000	.53	.11	.000	.000	97.6	20.2	4.53	128
MAX	.00	.19	.54	.00	5.2	3.5	.00	.00	2380	262	41	2510
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.39
AC-FT	.00	.4	2.0	.00	31	6.9	.00	.00	5810	1240	279	7600

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	MEAN	27.8	17.5	20.0	17.5	13.7	14.3	28.1	30.7	24.8	28.4	41.3	53.7
MAX	458	199	222	160	97.5	153	199	519	334	163	241	1090	
(WY)	1942	1942	1979	1985	1987	1987	1987	1941	1986	1955	1984	1941	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
(WY)	1941	1949	1940	1952	1940	1950	1946	1951	1951	1975	1960	1943	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1940 - 1993

ANNUAL TOTAL	1846.50	7548.76	
ANNUAL MEAN	5.06	20.6	26.5
HIGHEST ANNUAL MEAN			181
LOWEST ANNUAL MEAN			1.30
HIGHEST DAILY MEAN	41	Jan 1	8380
LOWEST DAILY MEAN	.00	Apr 16	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Apr 27	.00
INSTANTANEOUS PEAK FLOW			6380
INSTANTANEOUS PEAK STAGE			26.02
INSTANTANEOUS LOW FLOW			
ANNUAL RUNOFF (AC-FT)	3660	14970	19230
10 PERCENT EXCEEDS	20	12	67
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 3,100 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

b-Maximum gage height, 28.78 ft, Sept. 22, 1941.



## 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 southwest of Roswell at mile 33.4. 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 southwest of Roswell.

DRAINAGE AREA.--1,027 mi<sup>2</sup>; Rio Hondo, 963 mi<sup>2</sup>; Rocky Arroyo, 64 mi<sup>2</sup>.

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 recorder. Elevation of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Two Rivers Reservoir, completed July 16, 1963, is formed by earthfill dams on Rio Hondo, which forms Rio Hondo Reservoir, and on Rocky Arroyo, which forms Rocky Arroyo Reservoir. Above elevation 3,980.0 ft, the pools of the two reservoirs combine to form Two Rivers Reservoir with a total capacity of 163,800 acre-ft, at elevation 4,032.0 ft, crest of ungated spillway. Capacity by original survey was 167,900 acre-ft. Capacity of Rio Hondo Reservoir, 142 acre-ft, from capacity table dated January 1990, between elevations 3,957.0 ft, sill of outlet gate, and 3,980.0. Capacity of Rocky Arroyo Reservoir, 12,860 acre-ft, from capacity table dated January 1990, between elevations 3,945.0, sill of outlet gate, and 3,980.0 ft. 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. U.S. Army Corps of Engineers satellite telemeters at stations.

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Rio Hondo Reservoir: Maximum contents, 1,260 acre-ft, July 29, 1965, elevation, 3,985.7 ft; no storage most of time. Rocky Arroyo Reservoir: Maximum contents, 6,090 acre-ft, June 18, 1965, elevation, 3,970.7 ft; no storage most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, Rio Hondo Reservoir, 1,600 acre-ft, Sept. 12; elevation 3,990.70 ft; Rocky Arroyo Reservoir, 1,800 acre-ft, Sept. 13; elevation 3,962.40 ft; no contents both reservoirs most of time.

CONTENTS, IN ACRE-FEET, AND ELEVATION, IN FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
NO CONTENTS AT 2400 HOURS DURING YEAR EXCEPT:

## RIO HONDO RESERVOIR

DATE	ELEVATION	CONTENTS	DATE	ELEVATION	CONTENTS
June 28	3973.05	6	Sep. 13	3988.63	1180
29	3988.92	1240	14	3988.64	1180
30	3986.74	858	15	3987.79	1030
July 1	3981.16	214	16	3986.10	760
16	3976.33	21	17	3982.87	360
Sep. 12	3990.70	1600	18	3972.92	5

## ROCKY ARROYO RESERVOIR

DATE	ELEVATION	CONTENTS
SEP. 12	3951.17	41
13	3962.40	1800
14	3958.30	778
15	3954.58	260

## RIO GRANDE BASIN

08390800 RIO HONDO BELOW DIAMOND A DAM, NEAR ROSWELL, NM

LOCATION.--Lat 33°18'05", long 104°43'12", in NESEKNEK sec.4, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, on left bank 500 ft downstream from outlet conduit of Diamond A Dam (Two Rivers Reservoir), 13 mi southwest of Roswell, and at mile 33.3.

DRAINAGE AREA.--963 mi<sup>2</sup>, contributing area.

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 3,949.68 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions and ground-water withdrawals for irrigation of about 6,500 acres, 1959 determination, upstream from station. This record represents the outflow from Two Rivers Reservoir through Diamond A Dam 0.1 mi upstream; flow from reservoir can also be discharged into Rocky Arroyo through Rocky Dam (see REMARKS for station 08390600). Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY 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	224	.00	.31
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	65	.00	.01
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.0	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.9	.00	11
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00	1.3
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.3	.00	.07
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.46
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	128
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.1	.00	49
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	57	.00	.03
15	.00	.00	.00	.00	.00	.00	.00	.00	21	7.9	.00	39
16	.00	.00	.00	.00	.00	.00	.00	.00	.05	189	.00	118
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	62	.00	157
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.5	.00	150
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.3	.00	46
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.2	.00	32
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.0	.00	30
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.2	.00	28
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	24
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	21
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.6	.00	19
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00	15
27	.00	.00	.00	.00	.00	.00	.00	.00	1.9	.00	28	11
28	.00	.00	.00	.00	.00	.00	.00	.00	23	.00	30	10
29	.00	.00	.00	.00	.00	.00	.00	.00	19	.00	8.9	e2.2
30	.00	.00	.00	.00	---	.00	.00	.00	95	.00	9.7	e.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	2.8	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	159.95	652.17	79.40	892.38
MEAN	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	5.33	21.0	2.56	29.7
MAX	.00	.00	.00	.00	.00	.00	.00	.00	95	224	30	157
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	317	1290	157	1770

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964
MEAN	14.3	12.4	16.3	17.1	14.7	15.1	21.6	17.4	8.79	7.94	24.5	26.7
MAX	151	122	118	128	82.9	122	176	127	74.7	52.3	137	116
(WY)	1986	1987	1985	1985	1987	1987	1987	1987	1992	1986	1984	1988
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1964	1964	1964	1964	1964	1964	1964	1967	1971	1974	1975	1973

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1964 - 1996
ANNUAL TOTAL	984.21	1783.90	
ANNUAL MEAN	2.70	4.87	16.4
HIGHEST ANNUAL MEAN			85.6
LOWEST ANNUAL MEAN			24
HIGHEST DAILY MEAN	34 Jan 1	224 Jul 1	459 Sep 8 1965
LOWEST DAILY MEAN	.00 Feb 10	.00 Oct 1	.00 Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	.00 Apr 7	.00 Oct 1	.00 Oct 1 1963
INSTANTANEOUS PEAK FLOW		357 Sep 12	659 Jul 29 1965
INSTANTANEOUS PEAK STAGE		3.56 Sep 12	4.91 Jul 29 1965
INSTANTANEOUS LOW FLOW		.00 Oct 1	.00 Oct 1 1963
ANNUAL RUNOFF (AC-FT)	1950	3540	11880
10 PERCENT EXCEEDS	11	3.2	57
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

RIO GRANDE BASIN

08393500 RIO HONDO AT ROSWELL, NM

LOCATION.--Lat 33°22'19", long 104°32'42", in NE¼ sec.7, T.11 S., R.24 E., Chaves County, Hydrologic Unit 13060008, on left bank 0.3 mi upstream from bridge on Sunset Ave. in Roswell, 6.3 mi downstream from Rocky Arroyo and 11.7 mi upstream from mouth. Mouth at Pecos River mile 566.0.

DRAINAGE AREA.--1,070 mi<sup>2</sup>, approximately, (contributing area).

PERIOD OF RECORD.--February 1981 to current year. Records for June 1903 to February 1906, published in WSP 358, are unreliable and should not be used.

GAGE.--Water-stage recorder. Elevation of gage is 3,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Flow regulated by Two Rivers Reservoir (station 08390600) 21.7 mi upstream. Diversions and ground-water withdrawals for irrigation upstream from station. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station. No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY 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	e60	.00	e.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	e100	.00	e.00
3	.00	.00	.00	.58	.00	.00	.00	.00	.00	e30	.00	e.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	e2.0	.00	e.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	e2.0
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	e5.0
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	e1.0
8	.00	.00	.00	.10	.00	.00	.00	.00	.00	e.00	.00	e.00
9	.00	.00	.00	.10	.00	.00	.00	.00	.00	e.00	.00	e.00
10	.00	.00	2.2	.00	.00	.00	.00	.00	.00	e.00	.00	e.00
11	.00	.00	.27	.00	.00	.00	.00	.00	.00	e.00	.00	e.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	e60
13	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e2.5	.00	e10
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	e33	.00	e70
15	.00	.00	.00	.00	.00	.00	.00	.00	e10	e9.0	.00	e.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	e70	.00	e.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	e10	.00	e.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	e.00
19	.00	.00	1.2	.00	.00	.00	.00	.00	.00	e.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	7.0	e.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	e5.0	e.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	e10	e.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	30	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	e.00	---
TOTAL	0.00	0.00	3.67	0.78	0.00	0.00	0.00	0.00	62.00	316.50	0.00	148.00
MEAN	.0000	.0000	.12	.025	.0000	.0000	.0000	.0000	2.07	10.2	.0000	4.93
MAX	.00	.00	2.2	.58	.00	.00	.00	.00	30	100	.00	70
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	7.3	1.5	.00	.00	.00	.00	123	628	.00	294

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1996, BY WATER YEAR (WY)

	18.0	11.4	23.4	22.7	18.3	16.8	21.7	20.9	10.6	12.0	25.4	20.6
MEAN	18.0	11.4	23.4	22.7	18.3	16.8	21.7	20.9	10.6	12.0	25.4	20.6
MAX	132	107	114	113	79.9	123	139	110	69.2	99.5	116	92.4
(WY)	1986	1987	1985	1985	1987	1987	1987	1987	1992	1991	1984	1986
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1982	1982	1982	1982	1982	1981	1981	1982	1982	1982	1983	1992

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1981 - 1996

ANNUAL TOTAL	158.12	530.95	
ANNUAL MEAN	.43	1.45	
HIGHEST ANNUAL MEAN			18.9
LOWEST ANNUAL MEAN			74.5
HIGHEST DAILY MEAN	17 Jan 7	100 Jul 2	363 Dec 23 1984
LOWEST DAILY MEAN	.00 Jan 13	.00 Oct 1	.00 Feb 19 1981
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 15	.00 Oct 1	.00 Feb 19 1981
INSTANTANEOUS PEAK FLOW			a378 Jul 18 1991
INSTANTANEOUS PEAK STAGE			b7.50 May 3 1981
INSTANTANEOUS LOW FLOW		.00 Oct 1	.00 Feb 1 1981
ANNUAL RUNOFF (AC-FT)	314	1050	13680
10 PERCENT EXCEEDS	.00	.00	70
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 360 ft<sup>3</sup>/s.

b-Maximum gage height 7.5 ft, May 3, 1981, from floodmarks.

## 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 13060007, on left bank 400 ft upstream from bridge on Yuma Road, 2.5 mi east of Lake Arthur, 7 mi upstream from Cottonwood Creek, 11 mi northeast of Artesia, and at mile 522.0.

DRAINAGE AREA.--14,760 mi<sup>2</sup>, approximately (contributing area).

PERIOD OF RECORD.--August 1938 to current year.

GAGE.--Water-stage recorder and rock control. Elevation of gage is 3,327.07 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Lake Sumner (station 08384000) 180 mi upstream, since August 1937, and by Two Rivers Reservoir (station 08390600) 77 mi upstream, since July 1963. Diversions and ground-water withdrawals for irrigation of about 124,000 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1937, reached a stage of 21.77 ft, discharge, 51,500 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	70	63	102	102	66	62	28	42	1370	57	271
2	100	74	62	101	102	69	71	26	36	1010	68	225
3	99	77	61	102	103	68	65	26	36	1010	108	179
4	100	74	60	101	101	68	57	62	29	1040	78	166
5	98	79	60	106	98	71	57	755	29	1000	63	146
6	155	84	58	105	100	68	65	874	26	561	88	120
7	141	87	69	105	96	67	69	904	23	331	62	106
8	118	81	75	106	110	72	73	973	19	252	62	93
9	117	77	76	108	129	71	72	1090	14	195	65	84
10	113	74	75	110	122	63	60	1130	15	162	236	84
11	116	66	78	115	110	67	65	1190	17	148	158	124
12	113	65	80	113	103	66	69	1150	12	193	146	107
13	103	63	81	111	99	70	67	1090	14	163	109	1400
14	103	61	83	111	98	82	59	1100	18	157	85	282
15	96	58	85	112	96	89	44	1090	248	466	105	198
16	91	55	88	113	94	80	36	1100	1040	291	86	245
17	87	54	89	119	95	85	40	1100	994	184	77	273
18	84	54	91	104	97	103	34	1090	913	191	68	378
19	88	54	93	104	94	117	31	1030	937	129	103	358
20	94	54	95	106	93	101	26	449	938	103	63	162
21	102	53	98	104	108	105	27	328	933	93	43	119
22	87	57	99	104	122	111	30	262	928	81	42	108
23	81	62	98	104	100	108	24	203	922	73	93	100
24	75	61	96	103	87	110	26	160	928	68	110	91
25	73	60	93	103	86	91	27	131	1140	77	80	88
26	73	63	95	104	86	90	26	112	1000	90	110	77
27	74	61	97	104	80	76	29	94	673	110	175	69
28	75	59	99	103	75	69	30	79	1070	77	289	57
29	78	59	101	105	67	66	29	70	1140	108	747	56
30	76	62	101	103	---	60	27	62	2710	90	391	54
31	69	---	99	101	---	58	---	50	---	57	325	---
TOTAL	2984	1958	2598	3292	2853	2487	1397	17808	16844	9880	4292	5820
MEAN	96.3	65.3	83.8	106	98.4	80.2	46.6	574	561	319	138	194
MAX	155	87	101	119	129	117	73	1190	2710	1370	747	1400
MIN	69	53	58	101	67	58	24	26	12	57	42	54
AC-FT	5920	3880	5150	6530	5660	4930	2770	35320	33410	19600	8510	11540

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1938	249	3701	1942	3.89	1965
1939	121	983	1942	32.0	1968
1940	95.8	546	1942	29.9	1967
1941	94.8	451	1942	34.5	1965
1942	85.9	446	1942	26.6	1965
1943	178	682	1941	16.6	1967
1944	228	1308	1942	7.35	1967
1945	319	3673	1941	11.9	1975
1946	327	2436	1941	4.78	1977
1947	340	1521	1960	1.02	1954
1948	271	913	1941	.42	1964
1949	375	5407	1941	1.30	1964

SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1938 - 1996

	1995 CALENDAR YEAR	1996 WATER YEAR	1938 - 1996
ANNUAL TOTAL	86302.7	72213	224
ANNUAL MEAN	236	197	1314
HIGHEST ANNUAL MEAN			1941
LOWEST ANNUAL MEAN			62.2
HIGHEST DAILY MEAN	1660	2710	39800
LOWEST DAILY MEAN	9.7	12	.00
ANNUAL SEVEN-DAY MINIMUM	12	16	.10
INSTANTANEOUS PEAK FLOW		3780	a49600
INSTANTANEOUS PEAK STAGE		10.74	21.90
INSTANTANEOUS LOW FLOW		9.2	b.00
ANNUAL RUNOFF (AC-FT)	171200	143200	162400
10 PERCENT EXCEEDS	840	695	666
50 PERCENT EXCEEDS	89	93	70
90 PERCENT EXCEEDS	33	52	14

a-From rating curve extended above 16,100 ft<sup>3</sup>/s, on basis of slope-area measurements at gage height 21.77 ft.

b-Also occurred in 1947, 1953, 1954, 1962, 1964.

**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. Elevation of gage is 3,291.92 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). See WSP 1923 or 2123 for history of changes prior to Apr. 5, 1941. Apr. 5, 1941 to Apr. 2, 1981, water-stage recorder at site 250 ft downstream at same datum.

**REMARKS.**--Water-discharge records fair except for estimated daily discharges, which are poor. Considerable flow regulation by Lake Sumner (station 08384000) since August 1937, and by Two Rivers Reservoir (station 08390600) since July 1963. Diversions and ground-water withdrawals for irrigation of about 154,000 acres, 1959 determination, upstream from station. U.S. Army Corps of Engineers satellite telemeter at station. No flow at times.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Greatest flood since at least 1893 occurred Oct. 2, 1904, discharge not determined; the peak inflow to Lake McMillan, which includes Rio Penasco and Fourmile Draw, was estimated at 82,000 ft<sup>3</sup>/s. The second highest flood occurred July 25, 1905, discharge downstream from Rio Penasco, 50,300 ft<sup>3</sup>/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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	127	71	67	102	94	65	54	28	43	1590	62	166	
2	120	69	68	103	94	64	58	32	40	945	67	102	
3	115	73	66	101	94	66	63	27	37	845	94	84	
4	112	72	66	101	95	65	59	26	37	827	96	91	
5	111	73	66	101	94	66	54	392	33	805	72	126	
6	128	75	66	103	93	67	57	713	33	553	79	103	
7	157	76	67	103	94	64	59	804	31	e356	83	90	
8	129	78	76	104	93	64	60	862	29	e262	72	81	
9	116	76	77	103	109	66	63	998	24	e202	73	76	
10	113	73	79	104	114	65	60	1030	20	118	171	63	
11	108	69	81	105	105	62	54	1050	20	102	163	84	
12	112	66	83	107	99	63	58	1040	20	128	147	108	
13	101	66	83	105	94	62	59	1040	15	133	124	886	
14	97	66	85	102	90	65	56	1040	21	119	97	851	
15	98	64	86	100	89	74	52	1040	23	248	88	234	
16	94	62	89	101	87	76	44	1060	795	270	114	216	
17	89	57	90	101	87	70	40	1060	1020	173	106	251	
18	87	56	92	99	89	76	41	1050	1160	165	84	258	
19	87	56	95	94	89	89	36	1050	e910	138	107	314	
20	89	57	97	95	88	90	33	585	e900	e109	112	215	
21	96	58	101	93	87	84	29	246	e890	e95	82	145	
22	95	58	105	93	106	88	29	188	788	e81	77	e106	
23	86	62	104	92	102	87	33	140	767	75	78	e94	
24	82	64	102	91	85	87	27	112	775	72	161	e85	
25	79	65	100	94	79	83	28	92	877	77	137	e78	
26	78	64	97	94	76	74	29	78	899	81	123	e72	
27	77	67	100	95	75	72	28	e70	725	109	192	e63	
28	76	66	99	97	72	64	30	e60	787	89	178	e54	
29	75	65	100	96	70	60	30	54	1030	86	590	e48	
30	76	65	101	97	---	58	30	52	1630	112	447	e45	
31	75	---	100	95	---	56	---	48	---	78	227	---	
TOTAL	3085	1989	2688	3071	2643	2192	1353	16067	14379	9043	4303	5189	
MEAN	99.5	66.3	86.7	99.1	91.1	70.7	45.1	518	479	292	139	173	
MAX	157	78	105	107	114	90	63	1060	1630	1590	590	886	
MIN	75	56	66	91	70	56	27	26	15	72	62	45	
AC-FT	6120	3950	5330	6090	5240	4350	2680	31870	28520	17940	8530	10290	
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1996, BY WATER YEAR (WY)													
MEAN	254	132	107	106	96.2	185	228	362	381	337	262	374	
MAX	4203	1240	614	499	504	768	1292	3834	3495	1453	880	5704	
(WY)	1942	1942	1942	1942	1942	1941	1942	1941	1937	1960	1941	1941	
MIN	2.26	31.5	33.6	34.6	28.5	21.7	10.7	15.8	5.42	.77	.065	.27	
(WY)	1965	1968	1967	1965	1972	1981	1967	1975	1977	1954	1964	1964	
SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1937 - 1996													
ANNUAL TOTAL				84871				66002				236	
ANNUAL MEAN				233				180				1378	1941
HIGHEST ANNUAL MEAN												64.8	1964
LOWEST ANNUAL MEAN													
HIGHEST DAILY MEAN				1510	Sep 11	1630	Jun 30	44300	Sep 25	1941			
LOWEST DAILY MEAN				12	Aug 15	15	Jun 13	.00	Aug 14	1946			
ANNUAL SEVEN-DAY MINIMUM				18	May 21	20	Jun 9	.00	Aug 14	1946			
INSTANTANEOUS PEAK FLOW						2210	Jun 30	a51500	May 30	1937			
INSTANTANEOUS PEAK STAGE						10.46	Jun 30	1015.00	Sep 11	1995			
INSTANTANEOUS LOW FLOW						13	Jun 13	.00	Oct 1	1934			
ANNUAL RUNOFF (AC-FT)				168300				130900				171000	
10 PERCENT EXCEEDS				816				627				662	
50 PERCENT EXCEEDS				89				89				77	
90 PERCENT EXCEEDS				35				48				16	

a-From a slope-area measurement made at a site 15 mi upstream.

RIO GRANDE BASIN  
08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued  
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
DEC 1995												
08...	1410	77	7840	--	19.5	12.0	677	11.4	123	59	--	
MAR 1996												
12...	1100	65	8410	8.0	21.0	13.0	676	10.4	114	75	--	
JUN												
14...	1100	21	9490	8.0	20.0	24.0	679	6.8	94	130	<3	
SEP												
09...	0945	77	4510	8.0	21.0	24.0	682	8.0	108	<44	--	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARE DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
DEC 1995												
08...	--		2300	--	580	210	1100	10	8.6	--	--	--
MAR 1996												
12...	--		2200	2100	580	190	1100	10	7.9	159	0	130
JUN												
14...	240	2400	2300	610	210	1300	12	14	127	0	104	
SEP												
09...	--	1400	1300	350	120	610	7	6.4	118	0	97	
DATE		ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)
DEC 1995												
08...	180	1700	2000	0.90	13	5730	1.78	0.120	1.90	0.350	0.45	
MAR 1996												
12...	143	1800	1900	0.80	9.0	5670	0.140	0.010	0.150	0.110	0.39	
JUN												
14...	108	2100	2300	0.70	13	6610	--	<0.010	<0.050	0.160	0.04	
SEP												
09...	100	1100	1100	0.70	12	3360	0.570	0.030	0.600	0.120	0.18	
DATE		NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)
DEC 1995												
08...	0.80	0.80	0.070	0.030	0.030	3.8	7.0	<4.0	<1	37	<4.0	
MAR 1996												
12...	0.50	0.50	0.040	<0.010	0.010	3.6	--	--	--	--	--	
JUN												
14...	0.60	0.20	0.040	0.010	<0.010	6.6	--	--	--	--	--	
SEP												
09...	0.60	0.30	0.210	<0.010	<0.010	5.5	7.0	<3.0	<1	103	<3.0	

## RIO GRANDE BASIN

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
DEC 1995 08...	410	<4.0	6.0	<4.0	28	10	<4.0	13	<0.10	<4.0	21
MAR 1996 12...	450	--	--	--	--	40	--	--	--	--	--
JUN 14...	651	--	--	--	--	32	--	--	--	--	--
SEP 09...	321	6.0	<3.0	<3.0	6.0	<15	3.0	<3.0	<0.10	3.0	9.0

DATE	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	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)
DEC 1995 08...	2	2	<4.0	27	<2.0	2.0	40	85	1	1	2
MAR 1996 12...	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	--	--	--
SEP 09...	1	1	<3.0	6.0	<2.0	<0.2	40	130	2	<1	3

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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	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)
DEC 1995 08...	<5	1	1400	<10	220	<0.01	6	6.0	60	13	54
MAR 1996 12...	--	--	--	--	--	--	--	--	--	--	--
JUN 14...	--	--	--	--	--	--	--	--	72	4.0	53
SEP 09...	<5	2	3100	<10	220	<0.01	5	5.0	372	77	87

DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	2, 4-DP TOTAL (UG/L) (82183)
DEC 1995 08...	1410	--	--	--	--
MAR 1996 12...	1100	--	--	--	--
JUN 14...	1100	<0.010	<0.010	<0.010	<0.010
SEP 09...	0945	--	--	--	--

## RIO GRANDE BASIN

08398500 RIO PENASCO AT DAYTON, NM

LOCATION.--Lat 32°44'36", long 104°24'49", in NE¼SE¼ sec.18, T.18 S., R.26 E., Eddy County, Hydrologic Unit 13060010, on left bank 1.2 mi upstream from U.S. Highway 285, 1.9 mi northwest of old Dayton railway station, 5.6 mi upstream from mouth, and 7.0 mi south of Artesia. Mouth at Pecos River mile 496.4.

DRAINAGE AREA.--1,060 mi<sup>2</sup>, 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. Elevation of gage is 3,385.19 ft above National Geodetic Vertical Datum of 1929. Prior to May 9, 1968, at site 2.4 mi downstream, at datum 44.30 ft lower. May 9, 1968 to June 12, 1975, at present site at datum 1.98 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions and ground-water withdrawals for irrigation of about 3,000 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year. No flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about Sept. 22, 1941, reached a stage of about 9 ft, from floodmark, previous site and datum, discharge not determined. Peak discharge at discontinued station "near Dunken" (station 08397600), about 60 mi upstream, was 70,000 ft<sup>3</sup>/s, determined in 1956, from rating curve extended above a slope-area measurement of 36,000 ft<sup>2</sup>/s, for peak of Oct. 6 or 7, 1954.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	3.5	.00	3.4
2	e.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	.32	.00	.12
3	e.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
4	e.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	74	.00	.00
16	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.50	.00	.00
17	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.08	.00	.00
18	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
25	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	1.6	.00
27	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00
28	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	40	.00
29	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	.62	.00
30	e.00	e.00	e.00	.00	---	.00	.00	.00	1.5	.00	.00	.00
31	e.00	---	e.00	.00	---	.00	---	.00	---	.00	43	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	131.50	78.40	87.22	3.52
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	4.38	2.53	2.81	.12
MAX	.00	.00	.00	.00	.00	.00	.00	.00	90	74	43	3.4
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	261	156	173	7.0
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)												
MEAN	5.41	1.62	.000	.000	.000	.000	.019	1.28	13.1	9.38	16.8	11.3
MAX	201	72.8	.016	.000	.000	.000	.70	41.0	528	221	328	372
(WY)	1955	1984	1975	1952	1952	1952	1957	1965	1986	1968	1966	1974
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1952	1952	1952	1952	1952	1952	1951	1952	1951	1954	1951	1951
SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1951 - 1996												
ANNUAL TOTAL									300.64			
ANNUAL MEAN									.82	5.03		
HIGHEST ANNUAL MEAN										43.4		1986
LOWEST ANNUAL MEAN										.000		1959
HIGHEST DAILY MEAN							90	Jun 28	9490		Aug 23	1966
LOWEST DAILY MEAN				.00	Jan 1		.00	Oct 1		.00	Apr 1	1951
ANNUAL SEVEN-DAY MINIMUM				.00	Jan 1		.00	Oct 1		.00	Apr 1	1951
INSTANTANEOUS PEAK FLOW							634	Jun 28	a29800		Aug 23	1966
INSTANTANEOUS PEAK STAGE							3.93	Jun 28	b16.40		Aug 23	1966
INSTANTANEOUS LOW FLOW									.00		Oct 1	1993
ANNUAL RUNOFF (AC-FT)							596		3650			
10 PERCENT EXCEEDS				.00			.00			.00		
50 PERCENT EXCEEDS				.00			.00			.00		
90 PERCENT EXCEEDS				.00			.00			.00		

e Estimated

a-From rating curve extended above 7,800 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights 6.82 ft and 7.90 ft, at previous site and datum.

b-From floodmarks, present site and datum.





a-From rating curve extended above 5,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.  
b-From floodmarks, present datum.

LOCATION.--Lat 32°35'19", long 104°25'17", in SE¼SE¼NW¼ sec.7, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on downstream side of center pier of bridge on U.S. Highway 285, 0.4 mi south of Seven Rivers, 2.6 mi upstream from mouth, and 4.0 mi southwest of Lakewood. Mouth at Pecos River mile 480.9.

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

REMARKS.--Records good except for estimated daily discharges, which are poor. No surface diversions upstream from station, ground-water withdrawals for 240 acres, upstream from station. Several observations of water temperature were made during the year. No flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1941, about 30,000 ft<sup>3</sup>/s, gage height, 22.8 ft, from old debris on left bank, former site and datum, from rating curve extended above 5,700 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 21.8 ft. Probable date of flood, Oct. 7, 1954.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	8.0
2	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	e.00	.00	e.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	e.00	.00	e.00	.00	.00	.00	e78	.00
9	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	e.00	e.00	e.00	.00	17	.00	.00	.00
15	.00	.00	.00	.00	e.00	e.00	e.00	.00	.06	.00	.00	.00
16	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	e.00	e.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	e.00	e.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	e.00	e.00	e.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	e.00	e.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	e.00	e.00	.00	.00	22	.00	e33	.00
28	.00	.00	.00	.00	e.00	e.00	.00	.00	e281	.00	e850	.00
29	.00	.00	.00	.00	e.00	e.00	.00	.00	.00	.00	29	.00
30	.00	.00	.00	e.00	---	e.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	e.00	---	e.00	---	.00	---	.00	e1320	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	320.06	0.00	2310.00	8.00
MEAN	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	10.7	.0000	74.5	.27
MAX	.00	.00	.00	.00	.00	.00	.00	.00	281	.00	1320	8.0
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	635	.00	4580	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1970, BI WATER YEAR (M)												
MEAN	.92	.062	.000	.000	.000	.000	.005	2.90	10.1	1.83	19.7	12.0
MAX	15.9	2.05	.000	.000	.000	.000	.17	83.9	275	28.3	369	237
(WY)	1984	1984	1964	1964	1964	1964	1966	1965	1986	1968	1966	1974
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1964	1964	1964	1964	1964	1964	1964	1966	1964	1965	1964	1965

## WATER YEARS 1964 - 1996

SUMMARY STATISTICS FOR 1995 WATER YEAR		FOR 1996 WATER YEAR		FOR 1997 WATER YEAR		FOR 1998 WATER YEAR	
ANNUAL TOTAL	186.63		2638.06				
ANNUAL MEAN	.51		7.21			3.97	
HIGHEST ANNUAL MEAN						31.5	1966
LOWEST ANNUAL MEAN						.000	1989
HIGHEST DAILY MEAN	137	Jun 30	1320	Aug 31	9300		Aug 23 1966
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00		Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00		Oct 1 1963
INSTANTANEOUS PEAK FLOW			12800	Aug 31	a25500		May 30 1965
INSTANTANEOUS PEAK STAGE			15.76	Aug 31	b20.00		May 30 1965
INSTANTANEOUS LOW FLOW					.00		Oct 1 1963
ANNUAL RUNOFF (AC-FT)	370		5230		2880		
10 PERCENT EXCEEDS	.00		.00		.00		
50 PERCENT EXCEEDS	.00		.00		.00		
90 PERCENT EXCEEDS	.00		.00		.00		

a-From rating curve extended above 5,700 ft<sup>3</sup>/s, on basis of slope-area measurements of gage heights 18.15 ft and 20.0 ft.

b-From floodmarks, present site and datum.

## RIO GRANDE BASIN

08401450 BRANTLEY LAKE NEAR CARLSBAD, NM

LOCATION.--Lat 32°32'48", long 104°22'43", in NE¼SE¼NE¼ sec.28, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, in control tower at Brantley Dam, 2.4 mi downstream from South Seven Rivers, 4.2 mi southeast of Seven Rivers, 6.0 mi south of Lakewood, 11.5 mi northwest of Carlsbad, and at mile 478.6.

DRAINAGE AREA.--17,650 mi<sup>2</sup>, approximately (contributing area).

PERIOD OF RECORD.--August 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,202.5 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Lake is formed by a concrete and earthfill dam on Pecos River. Storage began August 31, 1988. Capacity, 1,008,000 acre-ft, from capacity table dated June 1992, between elevations 3,202.5 ft and 3,303.5 ft. Dead storage 2,010 acre-ft. Lake was created primarily for irrigation storage and flood control.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 49,270 acre-ft, Sept. 22-24, 1991, elevation, 3,257.60 ft; minimum contents, 2,040 acre-ft, May 26, 1990, elevation, 3,224.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 40,130 acre-ft, Oct. 1, elevation, 3,253.10 ft; minimum, 13,530 acre-ft, June 14, elevation, 3,240.13 ft.

RESERVOIR STORAGE (ACRE-Feet), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 07:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40130	24620	26080	28760	32980	32470	28850	16020	20930	33160	25890	26210
2	40100	24640	26190	28890	33110	32570	28350	15860	20200	35230	25570	26530
3	40020	24640	26190	28940	33180	32660	27730	15700	19540	36570	24990	26680
4	39880	24680	26230	29120	33230	32740	27110	15590	18690	37480	24530	26830
5	39540	24760	26250	29170	33430	32760	26720	15360	18320	38380	24290	26920
6	39290	24800	26290	29330	33550	32760	26510	15910	18350	39150	24070	27030
7	38320	24920	26360	29460	33730	32710	26530	16980	17590	39260	23800	27110
8	37370	25010	26420	29670	33830	32690	26420	18040	16870	39010	23540	27160
9	36620	25110	26420	29860	33980	32690	26100	19090	16230	38180	22990	27180
10	35620	25170	26460	29900	34160	32710	25780	20380	15760	37230	22660	27180
11	34380	25190	26550	30090	34280	32740	25320	21490	15300	36250	22480	27180
12	33180	25240	26610	30320	34410	32760	24900	22690	14790	35330	22400	27330
13	31980	25300	26610	30460	34490	32810	24530	23960	14150	34490	22440	27510
14	30880	25360	26770	30670	34670	32690	24070	25130	13530	33280	22310	29080
15	29930	25450	26850	30790	34740	32490	23600	26290	13770	32640	21890	30340
16	29080	25450	26920	30960	34510	32320	22970	27330	13780	32300	21410	30510
17	28020	25550	27030	31070	34380	32130	22310	28330	15120	31790	21250	30740
18	28020	25570	27160	31260	34130	31790	21720	29170	16520	30860	20990	31030
19	26080	25590	27200	31360	33900	31670	21120	29970	17750	29950	20820	31410
20	26190	25660	27330	31500	33650	31550	20450	31140	18970	29050	20760	31840
21	26310	25660	27420	31650	33580	31500	19820	31480	20020	29190	20600	32080
22	26210	25740	27490	31810	33480	31480	19170	30840	20930	28960	20340	32180
23	25910	25780	27600	31930	33380	31290	18690	29670	21660	28690	20020	32220
24	25660	25800	27730	31930	33180	31240	18240	28550	22420	28080	19770	32270
25	25400	25820	27860	32100	33030	31070	17750	27600	23240	27710	19950	32350
26	25150	25870	27950	32200	32860	30790	17360	26640	24570	27420	20060	32370
27	24860	25950	28080	32300	32710	30300	17070	25680	25970	27090	20620	32440
28	24700	25970	28200	32440	32590	29860	16820	24780	27840	26740	20970	31930
29	24450	25990	28370	32660	32640	29530	16590	23760	29370	26420	22870	31500
30	24410	26040	28460	32710	---	29300	16280	22770	31070	26270	23740	31030
31	24490	---	28510	32810	---	29050	---	21810	---	26190	24510	---
MAX	40130	26040	28510	32810	34740	32810	28850	31480	31070	39260	25890	32440
MIN	24410	24620	26080	28760	32590	29050	16280	15360	13530	26190	19770	26210
†)	3246.63	3247.37	3248.50	3250.33	3250.14	3248.74	3242.05	3245.27	3249.61	3247.45	3246.64	3249.59
(††)	-15670	+1550	+2470	+4300	-170	-3590	-12770	+5530	+9260	-4880	-1680	+6520

CAL YR 1995 MAX 43830 MIN 11230 (††) +6280  
WTR YR 1996 MAX 40130 MIN 13530 (††) -9130

(†) ELEVATION, IN FEET, AT END OF MONTH.  
(††) CHANGE IN CONTENTS, IN ACRE-Feet

## RIO GRANDE BASIN

08401500 PECOS RIVER BELOW BRANTLEY DAM NEAR CARLSBAD, NM

LOCATION.--Lat 32°32'38", long 104°22'00", in NE¼NW¼SE¼ sec.27, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on left bank 0.8 mi downstream from Brantley Dam, 3.2 mi downstream from South Seven Rivers, 4.7 mi southeast of Seven Rivers, 6.4 mi south of Lakewood, 11.0 mi northwest of Carlsbad, and at mile 477.8.

DRAINAGE AREA.--17,650 mi<sup>2</sup>, approximately (contributing area).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1947 to September 1950, October 1971 to current year. Prior to October 1989 published as "below Major Johnson Springs." Prior to October 1988, operated as a low-flow station only. Records prior to October 1971 not equivalent due to spring inflow between sites.

GAGE.--Water-stage recorder. Elevation of gage is 3,191.15 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation reference point). Prior to October 1971, at site 1.3 mi upstream at different datum. October 1971 to June 4, 1985, at site 0.8 mi upstream at datum 7.29 ft higher. Prior to October 1988, at site 0.2 mi downstream at same datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow completely regulated by Brantley Lake (station 08401450) 0.8 mi upstream since August 1988. Diversions and ground-water withdrawals for irrigation of about 173,000 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year. Bureau of Reclamation satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	25	26	28	.54	2.5	254	142	459	e19	e219	e41
2	130	24	27	28	5.5	.69	333	106	438	e55	e290	e38
3	130	24	26	28	1.7	.58	377	105	468	e178	e329	e38
4	168	24	26	28	.69	12	337	134	339	e263	e261	e37
5	192	24	27	19	6.4	28	239	151	127	e278	e164	e37
6	458	24	27	1.5	1.7	32	118	184	260	e316	e172	e40
7	606	24	28	.71	.76	34	95	236	434	e369	e269	e41
8	551	25	28	4.7	.62	34	172	258	404	e502	e372	e37
9	583	25	28	1.7	6.3	34	240	260	330	e566	e314	e43
10	702	23	28	.76	1.9	34	288	262	294	e601	e234	e45
11	744	24	27	.62	.68	34	275	264	293	e587	e207	e49
12	739	25	27	5.1	6.1	34	260	265	350	e540	e142	e48
13	697	26	27	1.7	1.6	71	258	266	431	e675	e150	e45
14	625	26	27	.70	5.8	128	286	266	335	e570	e269	e45
15	596	26	28	5.0	370	149	366	313	133	e464	e314	e44
16	642	26	28	1.8	355	150	398	341	e74	e519	e285	e45
17	666	25	28	.54	187	180	369	402	e60	e599	e243	e45
18	614	25	27	.45	139	145	383	411	e83	e623	e198	e46
19	231	25	27	5.5	152	113	396	329	e108	e621	e140	e45
20	25	25	27	1.9	140	113	393	293	e109	e242	e152	e43
21	102	25	27	.77	146	113	392	391	e206	e123	e177	e44
22	178	25	27	6.0	142	113	337	713	e295	e189	e195	e42
23	199	25	27	1.9	141	112	305	700	e356	e290	e170	e44
24	199	25	26	.79	147	110	303	631	e332	e312	e83	e54
25	199	25	26	.51	e152	169	276	599	e206	e232	e39	e66
26	199	25	27	5.8	e153	266	229	558	e108	e231	e36	e68
27	170	25	27	1.8	e152	305	178	539	e92	e251	e39	e220
28	183	26	28	.68	2.6	262	159	559	e61	e229	e43	e318
29	141	26	28	5.1	142	188	187	570	e20	e175	e40	e324
30	61	26	28	1.5	---	159	204	568	e19	e150	e40	e375
31	27	---	27	.66	---	159	---	520	---	e193	e42	---
TOTAL	10865	748	842	189.19	2560.89	3284.77	8407	11336	7224	10962	5628	2407
MEAN	350	24.9	27.2	6.10	88.3	106	280	366	241	354	182	80.2
MAX	744	26	28	28	370	305	398	713	468	675	372	375
MIN	25	23	26	.45	.54	.58	95	105	19	19	36	37
AC-FT	21550	1480	1670	375	5080	6520	16680	22480	14330	21740	11160	4770

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996, BY WATER YEAR (WY)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	156	43.6	50.7	45.0	56.9	76.3	230	217	219	225	199	168													
MAX	412	222	460	297	300	149	307	1058	641	527	305	500													
(WY)	1995	1992	1992	1987	1987	1994	1986	1973	1992	1995	1995	1991													
MIN	22.6	5.92	1.22	3.49	20.6	19.1	136	79.9	66.5	11.3	18.4	50.9													
(WY)	1979	1989	1995	1995	1978	1990	1981	1976	1977	1976	1981	1976													

## SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1972 - 1996
ANNUAL TOTAL	72784.91	64453.85	
ANNUAL MEAN	199	176	147
HIGHEST ANNUAL MEAN			282
LOWEST ANNUAL MEAN			69.5
HIGHEST DAILY MEAN	790	744	2050
LOWEST DAILY MEAN	.30	.45	.30
ANNUAL SEVEN-DAY MINIMUM	1.1	2.2	.33
INSTANTANEOUS PEAK FLOW		781	a4160
INSTANTANEOUS PEAK STAGE		8.32	c9.23
INSTANTANEOUS LOW FLOW		.34	.19
ANNUAL RUNOFF (AC-FT)	144400	127800	106800
10 PERCENT EXCEEDS	469	458	331
50 PERCENT EXCEEDS	150	127	79
90 PERCENT EXCEEDS	5.0	5.4	21

e Estimated

a-From rating curve extended above 780 ft<sup>3</sup>/s.

b-Also occurred July 24, 1950.

c-Site and datum then in use.

## RIO GRANDE BASIN

08401500 PECOS RIVER BELOW BRANTLEY DAM NEAR CARLSBAD, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1962, 1978-79, 1981 to current year.

REMARKS.--This station prior to Brantley Dam was called Pecos River below Major Johnson Springs near Carlsbad, NM.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
DEC 1995												
08...	1025	28	5180	--	14.0	10.5	680	10.4	107	1500	400	120
MAR 1996												
12...	1400	33	5860	8.0	29.5	17.0	676	9.4	112	1700	450	140
JUN												
14...	1300	300	3230	7.9	31.5	24.0	682	11.8	159	1400	430	81
SEP												
09...	1200	42	2860	7.6	29.0	27.0	685	8.3	118	1000	290	72

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- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
DEC 1995											
08...	650	7	3.0	135	1100	1100	0.60	11	3470	270	<12
MAR 1996											
12...	690	7	6.2	127	1300	1200	0.70	9.5	3870	310	<12
JUN											
14...	260	3	4.7	88	1200	400	0.70	11	2440	166	99
SEP											
09...	330	4	5.1	84	880	530	0.60	11	2170	203	<9.0

## RIO GRANDE BASIN

08401900 ROCKY ARROYO AT HIGHWAY BRIDGE, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'23", long 104°22'28", in SE $\frac{1}{4}$  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 upstream from mouth and 10 mi northwest of Carlsbad. Mouth at Pecos River mile 475.2.

DRAINAGE AREA.--285 mi<sup>2</sup>, approximately.

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

GAGE.--Water-stage recorder. Elevation of gage is 3,250 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to February 1985, at site 60 ft downstream at same datum.

REMARKS.--Records good. Diversions for irrigation of 220 acres, upstream from station. Several observations of water temperature were made during the year. No flow during water year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Since about 1941 the maximum discharge probably occurred Oct. 7, 1954, discharge, 63,600 ft<sup>3</sup>/s, gage height, 19.2 ft, from floodmarks, on downstream end of bridge pier, by slope-area measurement at site 5 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY 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	42
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.3
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2
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	38	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	60	12	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.70	.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	308	.00	834	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	46	.00	176	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	2.7	.00	5.6	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	415	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	417.40	50.00	1430.60	47.50
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	13.9	1.61	46.1	1.58
MAX	.00	.00	.00	.00	.00	.00	.00	.00	308	38	834	42
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	828	99	2840	94

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	9.33	.26	.017	.000	.000	.000	.063	2.36	17.7	2.72	25.6	20.7
MAX	185	7.67	.56	.002	.000	.000	1.50	37.6	468	19.3	616	335
(WY)	1975	1975	1975	1975	1964	1964	1965	1979	1986	1964	1966	1974
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1964	1964	1964	1964	1964	1964	1964	1964	1964	1965	1964	1964

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1964 - 1996
ANNUAL TOTAL	147.78	1945.50	
ANNUAL MEAN	.40	5.32	6.58
HIGHEST ANNUAL MEAN			53.9
LOWEST ANNUAL MEAN			.000
HIGHEST DAILY MEAN	141 Sep 9	834 Aug 28	13900 Aug 23 1966
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	.00 Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Oct 1	.00 Oct 1 1963
INSTANTANEOUS PEAK FLOW		4260 Aug 28	a31600 Aug 23 1966
INSTANTANEOUS PEAK STAGE		9.97 Aug 28	15.35 Aug 23 1966
INSTANTANEOUS LOW FLOW		.00 Oct 1	.00 Oct 1 1995
ANNUAL RUNOFF (AC-FT)	293	3860	4770
10 PERCENT EXCEEDS	.00	.00	.00
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

a-From rating curve extended above 8,500 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

b-From floodmarks at present datum.



## RIO GRANDE BASIN

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 downstream from headgates in Avalon Dam, and 3.3 mi north of Carlsbad. Pecos River mile 467.2.

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. Elevation of gage is 3,156.50 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to March 1951, at site 20 ft upstream at datum 0.9 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Carlsbad Main Canal diverts water from Lake Avalon (station 08403800) for irrigation of about 25,000 acres in the Carlsbad Irrigation District. About 1,600 acres are irrigated on the left bank, most of it upstream from gaging station 08405200. The remaining acreage (most of which is downstream from station 08405200) is on the right bank. Several observations of water temperature were made during the year. No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	110	21	31	.00	.05	258	128	117	132	191	.00
2	86	65	18	19	.00	.08	288	124	132	157	220	.00
3	95	40	20	15	.00	.10	310	132	174	161	219	.00
4	99	29	13	19	.00	.75	295	143	222	136	182	.00
5	120	28	24	15	.00	114	220	130	261	150	210	.00
6	145	24	18	13	.00	113	117	156	265	206	260	.00
7	146	25	15	2.7	.00	104	118	221	268	e198	298	.00
8	146	23	25	1.3	.00	86	177	190	280	e247	308	.00
9	146	22	14	1.2	.00	85	229	225	237	e335	238	.00
10	146	21	15	.82	.00	86	245	228	268	e311	191	.00
11	146	22	21	.39	.00	85	229	252	294	e285	114	.00
12	146	23	16	.25	.00	106	233	231	322	e331	127	.00
13	146	24	16	.14	.00	110	235	250	358	e345	172	.00
14	147	23	20	.28	.00	123	263	267	255	e291	235	.00
15	148	25	20	.16	.00	126	367	293	177	e268	237	.00
16	148	23	15	.16	.00	117	351	321	102	e219	212	.00
17	148	30	29	4.7	.00	133	308	364	124	e238	200	.00
18	148	22	25	3.7	.00	116	345	348	172	e272	157	.00
19	148	25	15	.00	.00	133	317	285	163	e238	143	.00
20	148	28	15	.01	.00	150	336	324	161	e210	155	.00
21	148	19	22	.00	.00	133	288	303	230	e238	142	.00
22	145	25	17	.00	.00	98	260	319	267	e266	155	123
23	143	23	15	.09	.00	90	280	279	275	e238	137	238
24	149	21	21	.00	.00	120	269	226	262	205	134	314
25	150	22	21	.00	.08	216	229	232	213	210	85	283
26	150	16	17	.00	.11	262	216	209	188	214	30	307
27	150	28	20	.00	.10	239	209	191	139	199	.00	306
28	150	18	12	.00	.03	232	193	215	84	172	.27	289
29	149	22	24	.00	.10	195	179	195	88	172	.00	288
30	149	20	17	.00	---	174	153	165	90	174	.00	314
31	133	---	18	.00	---	163	---	134	---	194	.02	---
TOTAL	4305	846	579	127.90	0.42	3784.23	7517	7080	6188	7012	4752.29	2462.00
MEAN	139	28.2	18.7	4.13	.014	122	251	228	206	226	153	82.1
MAX	150	110	29	31	.11	262	367	364	358	345	308	314
MIN	86	16	12	.00	.00	.05	117	124	84	132	.00	.00
AC-FT	8540	1680	1150	254	.8	7510	14910	14040	12270	13910	9430	4880

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

	MEAN	81.0	4.42	7.85	11.7	23.2	75.3	246	131	159	201	204	140
MAX	212	112	172	120	208	227	386	228	297	391	463	298	
(WY)	1980	1955	1947	1956	1950	1940	1943	1996	1942	1940	1943	1939	
MIN	.000	.000	.000	.000	.000	.000	167	6.58	.000	.000	2.81	.000	
(WY)	1953	1942	1941	1942	1941	1948	1967	1953	1953	1976	1981	1964	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1939 - 1996

ANNUAL TOTAL	51541.27	44653.84	
ANNUAL MEAN	141	122	106
HIGHEST ANNUAL MEAN			174
LOWEST ANNUAL MEAN			51.8
HIGHEST DAILY MEAN	385	Jun 15	526
LOWEST DAILY MEAN	.00	Jan 1	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00
INSTANTANEOUS PEAK FLOW		383	383
INSTANTANEOUS PEAK STAGE		3.47	3.47
INSTANTANEOUS LOW FLOW		.00	.00
ANNUAL RUNOFF (AC-FT)	102200	88570	76860
10 PERCENT EXCEEDS	345	281	294
50 PERCENT EXCEEDS	116	124	68
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-Also occurred Sept. 16, 1946.

## RIO GRANDE BASIN

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 north of Carlsbad, and at mile 467.2.

DRAINAGE AREA.--18,070 mi<sup>2</sup>, 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. Elevation of gage is 3,157.0 ft above 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 the flood of Aug. 3, 1893; repaired immediately. The dam was destroyed again Oct. 2, 1904; construction of present dam commenced on June 1, 1906, and was 88 percent complete June 30, 1907. Capacity, 4,330 acre-ft, from capacity table put into use January 1, 1982, between gage heights 0.0 (sill of outlet gates) and 20.4 ft, crest of spillway no. 2. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents. Water is used by Carlsbad Irrigation District.

COOPERATION.--Records provided by Carlsbad Irrigation District.

EXTREMES FOR PERIOD OF RECORD (SINCE 1938).--Maximum contents, 11,000 acre-ft, May 22, 1941, gage height, 25.0 ft; no storage at times when natural flow is passing through reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,790 acre-ft, Aug. 31, Sept. 1-4, 13-22 elevation, 3,176.80 ft; no storage Nov. 2 to Feb. 15.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1150	457	.00	.00	.00	3110	975	1050	975	975	811	3790
2	1030	.00	.00	.00	.00	3110	919	1050	975	864	662	3790
3	1150	.00	.00	.00	.00	3030	919	1090	864	493	760	3790
4	1210	.00	.00	.00	.00	2950	1090	1030	760	662	975	3790
5	1340	.00	.00	.00	.00	2710	1150	975	864	864	975	3710
6	1410	.00	.00	.00	.00	2480	1150	919	532	1030	919	3710
7	1470	.00	.00	.00	.00	2250	1090	919	811	1090	662	3710
8	1610	.00	.00	.00	.00	2100	1090	975	919	1210	423	3710
9	1470	.00	.00	.00	.00	1960	1030	1030	919	1090	662	3710
10	1470	.00	.00	.00	.00	1820	975	975	919	864	864	3710
11	1470	.00	.00	.00	.00	1680	1030	975	864	864	864	3620
12	1540	.00	.00	.00	.00	1540	1090	1030	811	864	1030	3710
13	1610	.00	.00	.00	.00	1340	1090	1030	811	710	1030	3790
14	1610	.00	.00	.00	.00	1210	1030	1030	1090	1030	811	3790
15	1470	.00	.00	.00	.00	1150	975	975	1210	864	710	3790
16	1280	.00	.00	.00	311	1090	919	975	1340	662	864	3790
17	1470	.00	.00	.00	532	1150	975	919	1340	710	975	3790
18	1610	.00	.00	.00	811	1410	975	919	1090	710	1030	3790
19	1610	.00	.00	.00	1030	1410	975	1030	919	662	975	3790
20	1540	.00	.00	.00	1210	1340	1030	975	864	864	864	3790
21	1210	.00	.00	.00	1470	1090	1090	919	616	975	864	3790
22	1090	.00	.00	.00	1680	1150	1280	1090	573	662	864	3790
23	1030	.00	.00	.00	1890	1210	1280	1090	662	493	919	2380
24	1150	.00	.00	.00	2170	1210	1280	1240	616	573	1030	2870
25	1150	.00	.00	.00	2400	1090	1280	1150	864	811	864	2110
26	1090	.00	.00	.00	2560	975	1340	1090	811	710	811	1680
27	1090	.00	.00	.00	2790	975	1280	1030	811	811	919	1090
28	1030	.00	.00	.00	2950	1090	1210	1030	710	919	975	919
29	975	.00	.00	.00	2950	1090	1090	975	1030	864	2950	864
30	919	.00	.00	.00	---	1210	1090	975	1030	864	2950	864
31	573	---	.00	.00	---	1210	---	1030	---	811	3790	---
MAX	1610	457	.00	.00	2950	3110	1340	1240	1340	1210	3790	3790
MIN	573	.00	.00	.00	.00	975	919	919	532	493	423	864
(†)	3172.20	---	---	---	3175.80	3173.40	3173.20	3173.10	3173.10	3172.70	3176.80	3172.80
(††)	-637	-573	---	---	+2950	-1740	-120	-60	0	-219	+2979	-2926

CAL YR 1995 MAX 2560 MIN .00 (††) 0

WTR YR 1996 MAX 3790 MIN .00 (††)-346

(†) ELEVATION, IN FEET, AT END OF MONTH.

(††) CHANGE IN CONTENTS, IN ACRE-FEET.

LOCATION.--Lat 32°28'55", long 104°15'47", in SWSWANE% sec.14, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 4,800 ft downstream from Avalon Dam, 4.5 mi northwest of Carlsbad, and at mile 466.3.

PERIOD OF RECORD.--January 1906 to March 1907 (published as "at Avalon"), June 1951 to current year.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow completely regulated by Lake Avalon (station 08403800) 0.9 mi upstream. Diversions and ground-water withdrawals upstream from station for irrigation of about 198,000 acres, 1959 determination. Station bypassed by Carlsbad Main Canal (station 08403500). Several observations of water temperature were made during the year. No flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1904, caused in part by failure of Avalon Dam, probably exceeded 90,000 ft<sup>3</sup>/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 ft<sup>3</sup>/s, at site 6.5 mi downstream.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	317	.00	.00	e.00
2	.00	.00	.00	.00	.00	.00	.00	.00	306	.00	.00	e.00
3	.00	.00	.00	.00	.00	.00	.00	.00	293	.00	.00	e.00
4	.00	.00	.00	.00	.00	.00	.00	.00	117	.00	.00	e.00
5	.00	.00	.00	.00	.00	.00	.00	.00	2.1	.00	.00	e.00
6	75	.00	.00	.00	.00	.00	.00	.00	.48	.00	.00	e.00
7	331	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	339	.00	.00	.00	.00	.00	.00	.00	.00	172	.00	.00
9	329	.00	.00	.00	.00	.00	.00	.00	.00	314	.00	.00
10	314	.00	.00	.00	.00	.00	.00	.00	.00	301	.00	.00
11	325	.00	.00	.00	.00	.00	.00	.00	.00	294	.00	.00
12	334	.00	.00	.00	.00	.00	.00	.00	.00	287	.00	.00
13	335	.00	.00	.00	.00	.00	.00	.00	.00	274	.00	.00
14	331	.00	.00	.00	.00	.00	.00	.00	.00	294	.00	.00
15	319	.00	.00	.00	.00	.00	.00	.00	.00	282	.00	.00
16	315	.00	.00	.00	.00	.00	.00	.00	.00	274	.00	.00
17	328	.00	.00	.00	.00	.00	.00	.00	.00	283	.00	.00
18	336	.00	.00	.00	.00	.00	.00	.00	.00	294	.00	.00
19	131	.00	.00	.00	.00	.00	.00	.00	.00	301	.00	.00
20	.55	.00	.00	.00	.00	.00	.00	.00	.00	133	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	183	.00	.13	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	327	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	335	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	334	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	330	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	322	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	316	.00	.00	2.8	.00
29	.00	.00	.00	.00	.00	.00	.00	315	.00	.00	.12	.00
30	.00	.00	.00	.00	---	.00	.00	318	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	322	---	.00	.00	---
TOTAL	4142.55	0.00	0.00	0.00	0.00	0.00	0.00	3102.00	1035.58	3504.63	2.92	0.00
MEAN	134	.000	.000	.000	.000	.000	.000	100	34.5	113	.094	.000
MAX	339	.00	.00	.00	.00	.00	.00	335	317	314	2.8	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	8220	.00	.00	.00	.00	.00	.00	6150	2050	6950	5.8	.00

MEAN	103	22.4	23.7	10.3	11.7	4.77	1.33	42.1	58.6	32.6	60.4	54.1
MAX	2365	445	435	237	255	188	59.6	739	1832	595	2034	1113
(WY)	1955	1987	1992	1987	1987	1987	1987	1973	1986	1960	1966	1974
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1952	1952	1952	1952	1952	1952	1952	1952	1951	1951	1951	1951

## WATER YEARS 1951 - 1996

ANNUAL TOTAL	8540.33			11787.68				
ANNUAL MEAN	23.4			32.2			35.9	
HIGHEST ANNUAL MEAN							206	1955
LOWEST ANNUAL MEAN							.000	1953
HIGHEST DAILY MEAN	339	Oct	8	339	Oct	8	33600	Aug 23 1966
LOWEST DAILY MEAN	.00	Jan	1	.00	Oct	1	.00	Jun 1 1951
ANNUAL SEVEN-DAY MINIMUM	.00	Jan	1	.00	Oct	21	.00	Jun 1 1951
INSTANTANEOUS PEAK FLOW				344	Oct	8	a55500	Aug 23 1966
INSTANTANEOUS PEAK STAGE				5.64	Oct	12	b26.40	Aug 23 1966
INSTANTANEOUS LOW FLOW				.00	Oct	1	.00	Oct 1 1992
ANNUAL RUNOFF (AC-FT)	16940			23380			26040	
10 PERCENT EXCEEDS	.00			175			.00	
50 PERCENT EXCEEDS	.00			.00			.00	
90 PERCENT EXCEEDS	.00			.00			.00	

a-From rating curve extended above 33,000 ft<sup>3</sup>/s, on basis of computation of peak flow over Tansill Dam 5.8 mi downstream.

b-From floodmarks.

## RIO GRANDE BASIN

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 bridge on Canal Street in Carlsbad, and 0.6 mi upstream from mouth. Mouth at Pecos River mile 459.2.

DRAINAGE AREA.--450 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,088.21 ft above 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 upstream from station for irrigation of approximately 2,100 acres, 1973 determination, and for municipal supply for Carlsbad. Several observations of water temperature were made during the year. No flow during water year.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 23, 1966, reached a discharge of 66,000 ft<sup>3</sup>/s, as determined by slope-area measurement at site 1.2 mi 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1996, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1973	8.52	196	1975	.000	1974
1974	.86	19.7	1979	.000	1974
1975	.000	.000	1974	.000	1974
1976	.000	.000	1973	.000	1973
1977	.000	.000	1973	.000	1973
1978	.000	.000	1973	.000	1973
1979	.47	8.81	1979	.000	1973
1980	16.4	386	1986	.000	1973
1981	.52	12.4	1981	.000	1973
1982	7.02	162	1984	.000	1973
1983	27.9	331	1985	.000	1973

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1973 - 1996

ANNUAL TOTAL	167.50		
ANNUAL MEAN	.46		
HIGHEST ANNUAL MEAN		5.30	
LOWEST ANNUAL MEAN		31.7	1986
HIGHEST DAILY MEAN	83	.000	1976
LOWEST DAILY MEAN	.00	8750	Sep 26 1980
ANNUAL SEVEN-DAY MINIMUM	.00	.00	Jan 1 1973
INSTANTANEOUS PEAK FLOW		.00	Jan 1 1973
INSTANTANEOUS PEAK STAGE		a27000	Sep 26 1980
INSTANTANEOUS LOW FLOW		b12.53	Jun 24 1986
ANNUAL RUNOFF (AC-FT)	332	.00	Oct 1 1993
10 PERCENT EXCEEDS	.00	.00	
50 PERCENT EXCEEDS	.00	.00	
90 PERCENT EXCEEDS	.00	.00	

a-From rating curve extended above 7,100 ft<sup>3</sup>/s.

b-Maximum gage height, 12.53 ft, June 24, 1986.

## RIO GRANDE BASIN

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 downstream from mouth of Dark Canyon Draw, 0.3 mi downstream from Lower Tansill Dam and Bataan recreational area, 0.8 mi downstream from bridge on U.S. Highway 62-180 in Carlsbad, and at mile 459.1.

DRAINAGE AREA.--18,550 mi<sup>2</sup>, approximately, contributing area.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 3,075.19 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated by Lake Avalon (station 08403800) 8.1 mi upstream and by several other reservoirs and up to Nov. 1982 at low stages by power plant. Power plant discontinued operation Nov. 1982. Gage is bypassed on left bank by Carlsbad Main Canal East, which irrigates several hundred acres adjacent to and downstream from gage and on right bank by Carlsbad Main Canal South, which with supplemental ground-water withdrawals irrigates about 23,000 acres downstream. Diversions and ground-water withdrawals upstream from station for irrigation of about 198,000 acres, 1959 determination. Bureau of Reclamation satellite telemeter at station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 23, 1966, reached a stage of about 22 ft, discharge not determined. (For dates of other historical floods see station 08404000.)

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	37	37	46	17	11	16	10	326	16	12	10
2	19	35	36	38	16	11	16	11	321	16	11	18
3	18	30	32	34	17	11	16	11	305	17	11	16
4	23	28	34	33	17	12	14	11	193	17	17	16
5	17	29	34	53	16	12	23	9.6	15	18	11	17
6	18	37	35	39	15	14	14	9.0	12	21	9.9	18
7	309	31	36	31	15	6.3	14	9.0	10	35	10	20
8	357	32	34	32	19	8.8	14	12	10	86	8.5	19
9	344	35	37	24	17	10	14	9.7	13	329	8.9	19
10	338	34	34	22	17	12	15	7.6	12	337	9.2	21
11	355	27	36	20	11	13	16	6.3	15	317	16	47
12	362	32	37	20	12	13	14	7.7	14	305	10	41
13	353	31	33	21	13	13	17	8.4	21	278	7.7	31
14	356	30	35	19	15	13	12	9.1	26	290	7.0	37
15	351	31	35	19	13	12	13	10	20	290	6.6	34
16	345	32	35	20	13	14	16	9.1	15	283	7.1	23
17	354	31	35	24	13	16	16	7.9	13	288	12	23
18	376	35	44	13	14	11	14	8.7	12	295	8.6	21
19	236	36	35	18	12	12	14	10	13	320	10	25
20	25	39	32	17	13	12	13	8.6	18	226	10	24
21	21	39	39	15	12	13	14	7.4	12	14	10	20
22	23	36	38	17	13	16	12	74	13	6.4	20	19
23	21	38	37	17	13	18	11	321	21	4.2	42	19
24	19	37	34	14	11	19	12	330	14	8.3	48	17
25	19	37	35	20	12	19	13	337	22	19	8.9	33
26	19	37	35	12	13	20	12	331	14	16	44	61
27	18	33	34	14	12	20	13	328	14	12	9.3	51
28	19	38	35	16	11	21	13	322	18	11	45	20
29	22	35	35	24	9.9	23	8.5	315	14	11	15	24
30	24	36	37	20	---	20	9.5	319	14	11	9.0	23
31	28	---	34	17	---	19	---	330	---	10	25	---
TOTAL	4805	1018	1093	729	401.9	445.1	419.0	3200.1	1540	3906.9	479.7	767
MEAN	155	33.9	35.3	23.5	13.9	14.4	14.0	103	51.3	126	15.5	25.6
MAX	376	39	44	53	19	23	23	337	326	337	48	61
MIN	16	27	32	12	9.9	6.3	8.5	6.3	10	4.2	6.6	10
AC-FT	9530	2020	2170	1450	797	883	831	6350	3050	7750	951	1520

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1996, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	80.4	55.1	49.3	39.1	41.0	31.1	20.0	63.4	122	50.4	40.2	123															
MAX	727	527	367	319	305	249	103	702	2041	345	674	1250															
(WY)	1975	1987	1992	1987	1987	1987	1987	1973	1986	1986	1984	1974															
MIN	9.11	8.07	6.27	9.80	10.5	6.02	.087	1.11	.34	.080	.18	3.22															
(WY)	1978	1978	1991	1978	1978	1978	1972	1972	1974	1977	1976	1977															

## SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1970 - 1996
ANNUAL TOTAL	16189.0	18804.7	
ANNUAL MEAN	44.4	51.4	60.5
HIGHEST ANNUAL MEAN			242
LOWEST ANNUAL MEAN			10.9
HIGHEST DAILY MEAN	376	Oct 18	22800
LOWEST DAILY MEAN	1.0	Mar 26	.00
ANNUAL SEVEN-DAY MINIMUM	1.2	Mar 25	.00
INSTANTANEOUS PEAK FLOW		461	Oct 12
INSTANTANEOUS PEAK STAGE		3.32	Oct 12
INSTANTANEOUS LOW FLOW		2.9	Jul 23
ANNUAL RUNOFF (AC-FT)	32110	37300	43820
10 PERCENT EXCEEDS	61	229	49
50 PERCENT EXCEEDS	19	18	18
90 PERCENT EXCEEDS	2.7	10	4.3

a-From rating curve extended above 12,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

b-From floodmarks.

## RIO GRANDE BASIN

08405200 PECOS RIVER BELOW DARK CANYON DRAW, AT CARLSBAD, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Replaces station 08405000 Pecos River at Carlsbad, New Mexico at which sample collection was discontinued after September, 1987.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)
NOV 1995												
30...	1445	29	3740	7.9	23.0	13.0	681	10.0	108	1300	320	110
MAR 1996												
12...	1515	19	3410	8.0	31.5	17.0	678	10.3	121	1200	300	110
APR												
29...	1435	8.5	3580	7.7	20.5	22.0	690	9.0	116	1300	320	120
JUN												
14...	1500	13	2790	7.4	31.5	27.0	683	10.3	146	1200	340	78
JUL												
25...	1515	15	2120	7.8	33.0	30.0	687	11.9	177	850	250	54
SEP												
09...	1330	19	2980	7.7	31.5	28.0	686	8.8	127	1200	300	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)	ALKA- LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS Fe) (01046)
NOV 1995											
30...	380	5	2.9	138	1000	640	0.60	8.0	2540	220	<9.0
MAR 1996											
12...	310	4	4.5	171	940	530	0.70	13	2310	220	<9.0
APR											
29...	370	4	4.6	159	1000	600	0.80	10	2520	260	<9.0
JUN											
14...	240	3	5.1	94	950	360	0.60	12	2040	161	250
JUL											
25...	150	2	4.1	92	750	240	0.50	12	1520	136	13
SEP											
09...	330	4	4.4	141	990	530	0.70	18	2370	237	<9.0



## RIO GRANDE BASIN

08406500 PECOS RIVER NEAR MALAGA, NM

LOCATION.--Lat 32°12'26", long 104°01'22", in SW1/4 sec.19, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, on right bank 3.1 mi southeast of Malaga, 4.3 mi downstream from Black River, and at mile 432.2.

DRAINAGE AREA.--19,190 mi<sup>2</sup>, 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. Elevation of gage is 2,895.64 ft above National Geodetic Vertical Datum of 1929. May 1, 1920 to Mar. 24, 1949, at datum 3 ft higher.

REMARKS.--Water-discharge records good. Flow regulated by many reservoirs and diversion dams. Diversions and ground-water withdrawals upstream from station for irrigation of about 202,000 acres, 1959 determination. Harroun canal bypasses gage on left bank and irrigates approximately 1,000 acres adjacent to and downstream from gage. This bypass is not gaged.

AVERAGE DISCHARGE.--16 years (water years 1921-36), 274 ft<sup>3</sup>/s, 198,500 acre-ft/yr, prior to completion of Lake Summer.

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 ft<sup>3</sup>/s, at Carlsbad, 27 mi upstream. Flood in September 1919 reached a stage of 29.4 ft, present datum, discharge, 40,400 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	146	92	102	68	49	53	60	394	49	54	246
2	66	160	93	107	63	50	51	59	379	47	58	109
3	73	148	93	109	69	52	53	53	381	48	52	75
4	70	119	90	97	69	51	52	59	362	49	53	72
5	77	112	89	92	72	52	67	66	259	49	56	68
6	61	108	88	93	73	53	68	53	83	44	60	64
7	57	107	90	115	72	54	66	46	41	42	56	63
8	268	102	90	98	66	50	57	42	34	36	53	64
9	383	99	89	90	63	61	56	39	39	41	57	63
10	359	101	89	91	66	68	60	39	45	280	60	61
11	355	99	91	83	70	58	53	45	46	308	57	370
12	379	90	90	79	68	62	54	42	45	304	66	1160
13	389	94	94	76	66	54	52	40	47	285	51	202
14	388	97	93	76	67	51	49	41	79	279	52	107
15	392	96	90	76	68	49	49	44	96	314	52	85
16	371	97	92	74	62	50	48	42	65	315	48	78
17	363	99	92	71	56	49	42	39	52	316	52	79
18	388	98	97	78	55	51	43	39	49	363	57	74
19	415	97	102	73	56	55	52	40	48	328	67	70
20	264	96	102	68	59	48	53	35	46	336	69	67
21	98	96	93	72	60	47	50	28	42	272	66	66
22	75	96	93	71	55	55	50	25	41	95	56	64
23	84	94	95	70	56	54	60	34	52	46	49	63
24	74	94	95	71	57	56	50	308	51	40	58	66
25	68	94	93	67	54	43	47	369	63	46	147	68
26	91	95	96	63	51	51	51	371	58	51	137	70
27	90	95	96	70	53	41	56	365	54	52	116	63
28	89	90	94	67	56	45	52	370	73	61	143	54
29	92	88	94	68	51	49	56	354	55	61	107	63
30	94	92	92	66	---	59	48	355	56	50	113	82
31	91	---	95	75	---	57	---	394	---	53	396	---
TOTAL	6126	3099	2882	2508	1801	1624	1598	3896	3135	4660	2518	3836
MEAN	198	103	93.0	80.9	62.1	52.4	53.3	126	104	150	81.2	128
MAX	415	160	102	115	73	68	68	394	394	363	396	1160
MIN	57	88	88	63	51	41	42	25	34	36	48	54
AC-FT	12150	6150	5720	4970	3570	3220	3170	7730	6220	9240	4990	7610

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1938	271	5302	1942	8.49	1978
1939	143	1338	1942	7.82	1978
1940	121	822	1942	7.87	1978
1941	110	738	1942	10.5	1978
1942	94.5	557	1942	11.9	1965
1943	65.4	290	1942	9.41	1978
1944	56.1	697	1942	8.80	1965
1945	219	6887	1941	7.85	1978
1946	174	2983	1941	8.93	1977
1947	105	1171	1941	6.70	1977
1948	152	4200	1966	6.20	1977
1949	280	6975	1941	8.27	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1938 - 1996
ANNUAL TOTAL	33800	37683	150
ANNUAL MEAN	92.6	103	16.8
HIGHEST ANNUAL MEAN			1941
LOWEST ANNUAL MEAN			1977
HIGHEST DAILY MEAN	415	1160	68000
LOWEST DAILY MEAN	24	25	3.7
ANNUAL SEVEN-DAY MINIMUM	30	34	4.5
INSTANTANEOUS PEAK FLOW		3700	a120000
INSTANTANEOUS PEAK STAGE		11.48	b42.10
INSTANTANEOUS LOW FLOW		20	3.7
ANNUAL RUNOFF (AC-FT)	67040	74740	108500
10 PERCENT EXCEEDS	141	279	198
50 PERCENT EXCEEDS	76	67	52
90 PERCENT EXCEEDS	36	46	14

a-From rating curve extended above 36,000 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.  
b-From floodmarks.



## RIO GRANDE BASIN

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)
DEC 1995												
01...	1400	92	5710	8.0	26.0	13.5	685	10.3	112	1900	480	170
MAR 1996												
11...	1535	54	5040	8.1	28.5	8.5	687	9.8	94	1900	480	170
APR												
30...	1000	47	6280	7.8	26.0	18.5	687	8.2	99	2100	510	200
JUN												
10...	1400	46	5160	8.0	39.5	28.5	686	12.6	184	1800	510	130
JUL												
25...	1245	56	3640	7.8	29.0	28.0	690	12.9	185	1300	360	92
SEP												
10...	1145	61	5830	7.9	31.0	27.0	692	9.0	127	1900	450	180

DATE	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS Fe) (01046)
DEC 1995											
01...	630	6	4.2	190	1500	1100	0.70	13	4010	340	<12
MAR 1996											
11...	590	6	8.6	160	1500	1000	0.80	8.0	3850	360	<12
APR											
30...	790	8	10	165	1700	1300	0.90	9.4	4620	440	23
JUN											
10...	540	6	12	126	1500	900	0.90	17	3690	296	150
JUL											
25...	370	5	9.3	130	1100	620	0.70	16	2650	237	<9.0
SEP											
10...	690	7	10	149	1500	1200	0.80	16	4140	390	<15

LOCATION.--Lat 32°11'19", long 103°58'43", in SW/4SW/4NW sec.27, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, on right bank 550 ft upstream from Pierce Canyon Crossing, 6.0 mi southeast of Malaga, and at mile 425.7.

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WSP 898: 1938(M). WSP 1712: 1959.

REMARKS.--Water-discharge records good except those above 300 ft<sup>3</sup>/s, which are fair. Flow regulated by many reservoirs and diversion dams. Diversions and ground-water withdrawals upstream from station for irrigation of about 202,000 acres, 1959 determination.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1938 - 1996
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ANNUAL TOTAL	33583		35931				
ANNUAL MEAN	92.0		98.2		129		
HIGHEST ANNUAL MEAN					1694		1941
LOWEST ANNUAL MEAN					18.7		1977
HIGHEST DAILY MEAN	426	Jul 25	1290	Sep 12	65000		Aug 23 1966
LOWEST DAILY MEAN	29	May 9	31	May 22	2.1		Jun 22 1978
ANNUAL SEVEN-DAY MINIMUM	34	Apr 21	36	May 17	2.6		Sep 26 1977
INSTANTANEOUS PEAK FLOW			1900	Sep 12	a65000		Aug 23 1966
INSTANTANEOUS PEAK STAGE			7.11	Sep 12	31.60		Aug 23 1966
INSTANTANEOUS LOW FLOW			28	May 22	.54		May 30 1965
ANNUAL RUNOFF (AC-FT)	66610		71270		93160		
10 PERCENT EXCEEDS	139		281		138		
50 PERCENT EXCEEDS	74		63		45		
90 PERCENT EXCEEDS	36		45		12		

a-From floodmarks.

## RIO GRANDE BASIN

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

## WATER-QUALITY RECORDS

LOCATION.--Samples collected 0.2 mi downstream from streamflow gaging station.

PERIOD OF RECORD.--Water years 1938-41, 1952 to current year.

REMARKS.--No significant inflow between streamflow gaging station and sampling cross-section.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
DEC 1995												
01...	1445	86	7330	8.0	--	14.0	685	10.4	115	2100	500	200
MAR 1996												
11...	1445	55	8280	8.2	31.0	8.0	687	10.0	96	2300	540	230
APR												
30...	1200	46	9160	7.9	29.0	21.0	696	10.4	132	2300	540	230
JUN												
10...	1500	46	7870	8.0	41.0	29.0	686	15.7	234	1800	490	140
JUL												
25...	1345	58	5520	8.0	29.0	29.0	690	12.4	182	1200	330	96
SEP												
10...	1030	61	8080	7.9	32.0	27.0	694	8.8	125	1900	450	190

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
DEC 1995											
01...	960	9	12	185	1500	1600	0.70	13	4900	410	<10
MAR 1996											
11...	1300	12	33	166	1900	2200	0.90	5.9	6310	540	40
APR											
30...	1400	13	38	165	1800	2300	0.90	8.5	6420	580	<15
JUN											
10...	1100	11	43	117	1500	1800	0.80	17	5160	71	220
JUL											
25...	770	10	31	123	1100	1200	0.70	17	3620	298	52
SEP											
10...	1200	12	33	133	1500	1900	0.70	16	5370	485	<15

## RIO GRANDE BASIN

08407500 PECOS RIVER AT RED BLUFF, NM

LOCATION.--Lat 32°04'30", Long 104°02'21", in SW 1/4 sec. 1, T.26 S., R.28 E., Eddy County, Hydrologic Unit 13060011, on right bank at Red Bluff, 0.2 mi downstream from Red Bluff Draw, 1.6 mi northwest of the El Paso Natural Gas (Pecos River) compressor station, 5.2 mi north of the New Mexico-Texas State line, 5.5 mi upstream from Delaware River, and at mile 411.2.

DRAINAGE AREA.--19,540 mi<sup>2</sup>, approximately (contributing area).

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,850.05 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Discharge records good. Flow regulated by many reservoirs and diversion dams. Diversions and ground-water withdrawals upstream from station for irrigation of about 202,000 acres, 1959 determination. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1904 reached a stage of 28.0 ft, from information by Panhandle and Santa Fe Railway Co. (For dates of other historical floods see stations 08404000, 08406500.)

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	93	88	99	74	51	58	48	353	55	52	409
2	72	143	89	102	66	50	54	57	347	51	49	186
3	71	153	89	107	62	51	52	56	340	49	50	90
4	71	132	90	105	67	51	52	50	336	51	47	66
5	69	108	87	95	69	51	62	57	320	50	48	64
6	72	105	86	91	71	52	71	60	217	50	48	58
7	58	96	85	97	73	52	70	50	107	47	51	55
8	86	96	88	109	71	54	66	44	70	45	47	69
9	361	91	86	94	64	52	58	40	58	42	45	55
10	404	90	87	88	61	63	57	37	52	94	48	58
11	389	91	88	88	64	69	59	37	49	326	52	84
12	394	88	89	80	68	60	53	42	47	339	48	632
13	410	82	90	76	67	61	53	40	46	334	52	625
14	418	86	92	74	65	54	51	37	55	318	42	183
15	420	89	90	74	66	52	49	37	79	316	41	108
16	415	89	87	74	67	52	49	40	91	346	40	86
17	402	90	90	71	61	51	48	38	63	324	41	78
18	405	91	95	69	55	50	43	36	51	350	42	77
19	427	91	96	74	54	53	45	36	49	366	60	71
20	424	91	101	69	55	55	50	36	47	341	165	68
21	246	90	99	66	58	50	51	33	45	355	59	65
22	121	90	92	70	58	50	49	30	42	253	53	64
23	87	90	93	69	54	55	50	29	47	127	44	62
24	84	89	94	67	56	55	56	72	50	83	44	62
25	73	89	93	69	57	55	49	310	51	78	60	65
26	70	90	92	64	53	47	45	340	65	75	135	66
27	89	90	95	61	51	53	51	336	60	71	178	68
28	86	89	94	68	52	46	53	336	58	68	134	61
29	84	85	93	66	55	48	50	335	71	72	114	53
30	88	86	93	67	---	52	52	321	56	64	95	64
31	89	---	91	64	---	60	---	344	---	56	191	---
TOTAL	6547	2883	2822	2467	1794	1655	1606	3364	3322	5196	2175	3752
MEAN	211	96.1	91.0	79.6	61.9	53.4	53.5	109	111	168	70.2	125
MAX	427	153	101	109	74	69	71	344	353	366	191	632
MIN	58	82	85	61	51	46	43	29	42	42	40	53
AC-FT	12990	5720	5600	4890	3560	3280	3190	6670	6590	10310	4310	7440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

	MEAN	277	149	126	114	98.1	70.5	58.6	223	184	114	159	289
MAX	5255	1382	813	703	534	295	681	6954	3181	1273	4210	6521	
(WY)	1942	1942	1942	1942	1942	1942	1942	1941	1941	1941	1966	1941	
MIN	10.0	6.71	8.57	10.7	13.7	7.76	6.38	7.90	4.30	2.55	5.08	5.77	
(WY)	1965	1978	1978	1965	1965	1978	1978	1971	1990	1966	1964	1977	

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1938 - 1996
ANNUAL TOTAL	34908	37583	
ANNUAL MEAN	95.6	103	155
HIGHEST ANNUAL MEAN			1655
LOWEST ANNUAL MEAN			19.2
HIGHEST DAILY MEAN	427	632	50700
LOWEST DAILY MEAN	30	29	.22
ANNUAL SEVEN-DAY MINIMUM	33	34	.33
INSTANTANEOUS PEAK FLOW		1140	a111000
INSTANTANEOUS PEAK STAGE		7.25	33.32
INSTANTANEOUS LOW FLOW		28	.19
ANNUAL RUNOFF (AC-FT)	69240	74550	112600
10 PERCENT EXCEEDS	148	317	208
50 PERCENT EXCEEDS	79	68	56
90 PERCENT EXCEEDS	36	47	14

a-From rating curve extended above 32,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.



## RIO GRANDE BASIN

08410000 RED BLUFF RESERVOIR NEAR ORLA, TX

LOCATION.--Lat 31°54'04", long 103°54'35", Reeves County, Hydrologic Unit 13070001, at right end of Red Bluff Dam on the Pecos River, 2.8 mi upstream from Salt Creek, and 5.2 mi north of Orla.

DRAINAGE AREA.--20,720 mi<sup>2</sup>, 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 below National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by a rock-faced earthfill dam 9,200 ft long. The dam was completed and storage began in September 1936. The dam and reservoir are owned and operated by the Red Bluff Water Power Control District. The water is used for power development and for irrigation from Mentone to Grandfalls. The uncontrolled emergency spillway, 790 ft wide, is a cut through natural ground located to the right of right end of dam. The controlled service spillway is equipped with 12 tainter gates that are 25 by 15 ft high. Inflow is regulated by many reservoirs and diversion dams. The capacity curve is based on Geological Survey topographic map and aerial photography, survey of 1986. 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 emergency spillway .....	2,845.0	324,000
Top of gates (top of conservation pool) .....	2,842.0	289,700
Crest of service spillway and bottom of tainter gates .....	2,827.0	155,700
Lowest gated outlet (invert) .....	2,764.0	2,800

COOPERATION.--Gage-height records and capacity curve were furnished by Red Bluff Water Power and Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 352,000 acre-ft, Sept. 27, 28, 1941, gage height, 2,846.2 ft, observed on nonrecording gage at service spillway (affected by variable drawdown due to flow through tainter gates); minimum observed, 11,080 acre-ft, May 13, 1948, gage height, 2,781.4 ft.

EXTREMES (AT 0800) FOR CURRENT YEAR.--Maximum contents observed, 77,520 acre-ft, Apr. 10-12, gage height, 2,812.82 ft; minimum observed, 56,690 acre-ft, Aug. 25, gage height, 2,807.31 ft.

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

2,806.0	52,460	2,812.0	74,090	2,820.0	112,200
2,808.0	59,000	2,814.0	82,630	2,822.0	123,600
2,810.0	66,220	2,816.0	91,830	2,818.0	101,700

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60060	67570	68880	72650	75470	77020	76730	75680	66290	63300	58370	59710
2	60410	67600	68990	72800	75510	77020	76730	75350	66370	63340	58030	60770
3	60480	67600	69110	72930	75600	77060	76730	74510	66450	63380	57700	61120
4	60550	67570	69260	73050	75680	77060	76770	74010	66370	63380	57530	61220
5	60910	67570	69380	73170	75770	77100	76850	73530	66290	63340	57390	61300
6	61330	67600	69490	73290	75850	77100	77020	73050	66220	63300	57060	61370
7	61370	67570	69610	73410	75890	77100	77190	72560	66070	63270	57030	61440
8	61400	67530	69720	73530	75930	77150	77360	72080	65700	62750	56990	61510
9	61440	67450	69840	73690	76010	77150	77440	71600	65180	62180	56960	61580
10	61400	67370	69910	73850	76100	77150	77520	71120	64740	61610	56930	61650
11	61580	67290	69990	74010	76180	77190	77520	70630	64150	61050	56990	61720
12	61790	67220	70070	74130	76270	77190	77520	70150	63640	60770	56990	62240
13	62350	67140	70150	74260	76350	77190	77480	69720	63190	60730	56990	63340
14	63190	67060	70270	74380	76430	77230	77480	69300	62970	60700	56990	64370
15	63710	67060	70390	74510	76520	76810	77440	68880	63190	60660	56960	64740
16	64220	67140	70510	74640	76600	76770	77440	68450	62820	61300	56930	64850
17	64890	67260	70630	74760	76640	76730	77400	68060	62460	61300	56930	64960
18	65550	67370	70790	74800	76690	76730	77400	67680	62490	61260	56890	65070
19	66220	67490	70950	74840	76730	76690	77360	67290	62530	61220	56890	65180
20	66870	67600	71080	74890	76770	76690	77360	66910	62460	61190	56960	65260
21	67290	67720	71240	74930	76810	76690	77310	66520	62350	61150	56960	65290
22	67330	67830	71360	74970	76850	76730	77310	66140	62240	61120	56890	65330
23	67180	67950	71520	75010	76850	76730	77270	65770	62140	60840	56830	65370
24	67060	68060	71680	75050	76900	76690	77270	65400	61960	60590	56760	65400
25	66870	68180	71830	75140	76900	76690	77230	65480	62310	60380	56690	65290
26	66910	68300	72000	75220	76940	76690	77230	65590	62710	60170	56790	65110
27	66990	68410	72160	75260	76940	76690	76940	65740	62900	59920	56990	64920
28	67060	68530	72320	75310	76980	76690	76690	65850	63080	59610	57460	64740
29	67180	68640	72440	75350	76980	76690	76350	65990	63150	59290	58170	64560
30	67290	68760	72560	75390	---	76690	76010	66140	62900	58970	59010	64440
31	67490	---	72680	75430	---	76690	---	66220	---	58670	59360	---
MAX	67490	68760	72680	75430	76980	77230	77520	75680	66450	63380	59360	65400
MIN	60060	67060	68880	72650	75470	76690	76010	65400	61960	58670	56690	59710
(†)	2810.33	2810.66	2811.65	2812.32	2812.69	2812.62	2812.46	2810.00	2809.10	2807.90	2808.10	2809.52
(††)	+7530	+1270	+3920	+2750	+1550	-290	-680	-9790	-3320	-4230	+690	+5080

CAL YR 1995 MAX 90380 MIN 56120 (††) -8900

WTR YR 1996 MAX 77520 MIN 56690 (††) +4480

(†) GAGE HEIGHT, IN FEET, AT END OF MONTH.

(††) CHANGE IN CONTENTS, IN ACRE-FEET.



## RIO GRANDE BASIN

08412500 PECOS RIVER NEAR ORLA, TX -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: July 1937 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1937 to current year.

WATER TEMPERATURE: March 1953 to current year.

REMARKS.--October 1937 to September 1969, this station was published as 08410100 Pecos River below Red Bluff Dam, near Orla. Water-quality station operation transferred from the Texas District to the New Mexico District beginning with the 1993 water year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 29,400 microsiemens May 16, 1978; minimum daily, 1,600 microsiemens June 19, 1984.

WATER TEMPERATURE: Maximum daily, 32.0 °C, Aug 4, 1991; minimum daily, 0.0 °C, many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 20,500 microsiemens Sept. 10; minimum daily, 6,560 microsiemens Aug. 10.

WATER TEMPERATURE: Maximum daily, 29.0 °C, July 2; minimum daily 3.0 °C, Jan. 7, Feb. 3,4.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)
DEC 1995 01...	1215	8.6	10500	7.9	21.0	8.5	691	10.0	98
MAR 1996 11...	1200	8.0	10800	8.0	25.5	11.0	694	9.8	102
APR 09...	1235	10	11800	7.8	30.0	22.0	697	8.6	112
JUN 10...	1145	247	9960	8.0	35.0	25.0	690	8.0	111
JUL 25...	1030	228	9280	7.6	24.5	25.5	696	11.4	158
SEP 10...	0950	20	19500	7.8	26.0	24.0	695	8.4	117

DATE	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)
DEC 1995 01...	2700	2600	640	260	1500	13	16	134	0
MAR 1996 11...	2700	2600	630	270	1600	13	32	155	0
APR 09...	2700	2600	660	260	2000	17	34	142	0
JUN 10...	2700	2600	650	250	1400	12	41	106	0
JUL 25...	2400	2300	580	230	1300	12	37	95	0
SEP 10...	3700	3600	940	340	4600	33	38	137	0

DATE	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	ALKALINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
DEC 1995 01...	110	--	2100	2400	0.80	12	6990	--	--
MAR 1996 11...	127	--	2100	2700	1.0	9.5	7420	--	--
APR 09...	116	116	2300	3300	1.0	7.0	8630	1000	<24
JUN 10...	87	95	2300	2400	1.0	9.4	7100	466	<30
JUL 25...	78	--	2200	2200	0.90	11	6610	--	--
SEP 10...	112	--	3000	6400	1.1	5.9	15400	--	--



## RIO GRANDE BASIN

08412500 PECOS RIVER NEAR ORLA, TX -- Continued

## WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13000	10600	10200	11000	11900	9980	10900	9940	10300	11100	8560	12300
2	10800	10500	---	11100	11200	9960	10900	9890	10400	11500	9590	12100
3	16000	9200	---	11100	12000	10000	11000	9880	10300	11700	9580	12000
4	7100	9200	---	12200	11000	10000	11000	9920	10400	11600	9320	---
5	9800	9200	10900	11000	11200	10300	10600	9910	10400	11500	9500	11500
6	10400	9000	11000	11500	11100	10200	10300	9900	10400	11500	9550	11400
7	11400	9400	11000	11500	11500	9970	10800	9890	10400	11500	10200	11400
8	11400	9200	11100	11600	11900	10500	11100	9900	10400	9000	10100	11300
9	12800	9000	11500	11900	11900	10600	12700	9900	10400	8980	9460	11200
10	10400	9100	10800	12000	12000	10600	12800	9870	11400	9030	6560	20500
11	10200	9000	10000	12000	12100	11100	12800	10000	9280	9030	8290	11800
12	10200	9500	11100	12100	12300	11000	13400	9960	9390	9000	8670	20200
13	10100	9200	11100	12000	12000	11000	---	9950	9330	9000	9490	12700
14	10500	9100	11200	12300	12000	11100	13300	10000	9130	9030	9690	10200
15	10800	9200	11000	12000	12000	9470	13200	10000	9110	9010	9750	9630
16	11500	9500	11200	12300	12000	10100	12800	10000	9890	14200	9810	8490
17	11200	10000	12000	12100	10900	---	12300	10000	9260	8980	9780	10000
18	11400	10400	11000	12200	10900	10800	12200	10000	10200	9440	9890	10400
19	11200	10200	10900	12000	10800	10800	12100	10000	9940	9030	10800	10800
20	11900	10600	10900	12000	10300	10800	12100	10000	9750	8990	10300	10800
21	10100	10100	11000	11900	10400	10900	12000	10200	9630	8950	9460	10900
22	9800	10000	11000	11800	10200	10900	12000	10100	9590	8950	9440	10800
23	10200	---	10900	11700	10100	10900	11900	10100	9560	8930	9670	10600
24	9800	10200	10900	11900	10800	11000	11800	10100	9130	8960	9570	10600
25	9800	10400	11000	11400	10200	11000	11800	10000	7440	8880	9520	8890
26	9600	10400	10500	12000	9990	11000	11700	10300	9100	8890	9530	8540
27	10600	10200	10900	11200	9990	10900	9870	10200	9630	8620	9580	8420
28	10900	11000	11000	11500	10000	10800	9830	10300	8960	8640	10100	8460
29	10900	10400	11000	11800	10000	10900	9870	10300	9830	8720	10900	8470
30	11000	10100	11500	11600	---	11000	9930	10300	10500	8630	14700	8500
31	10600	---	10100	11100	---	11000	---	10300	---	8610	13700	---
MEAN	10800	9790	11000	11700	11100	10600	11600	10000	9780	9670	9840	11100
MAX	16000	11000	12000	12300	12300	11100	13400	10300	11400	14200	14700	20500
MIN	7100	9000	10000	11000	9990	9470	9830	9870	7440	8610	6560	8420

WTR YR 1996 MEAN 10600 MAX 20500 MIN 6560  
WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	---	7.0	5.5	4.5	7.0	14.0	16.0	22.0	27.0	27.0	27.0
2	22.0	15.0	8.0	5.0	4.0	7.0	15.0	17.5	24.0	29.0	26.0	26.0
3	20.0	14.0	---	3.5	3.0	9.5	19.0	18.0	23.5	28.5	26.0	25.0
4	20.0	14.0	---	6.0	3.0	10.0	17.0	18.0	24.0	26.0	26.0	---
5	20.5	14.0	10.0	6.5	3.5	13.0	14.0	18.0	23.0	27.5	27.0	25.0
6	18.0	16.0	10.5	5.0	5.0	14.5	11.5	18.5	24.0	26.5	27.0	25.0
7	16.0	15.0	10.0	3.0	7.0	9.0	13.0	20.0	24.0	27.0	27.0	25.0
8	16.0	14.0	9.0	3.5	8.0	7.5	15.0	19.0	23.5	26.0	---	24.5
9	19.0	13.0	7.5	3.5	9.5	5.0	17.0	19.0	24.0	26.0	25.5	24.5
10	19.0	16.0	5.0	4.5	11.0	7.0	20.0	20.0	24.0	26.0	24.5	24.5
11	18.0	12.0	5.0	7.0	11.0	9.0	19.0	21.5	25.0	27.0	26.0	25.0
12	18.0	14.0	5.0	7.0	9.0	11.5	18.0	21.0	24.0	26.0	26.0	26.0
13	18.0	13.0	9.5	6.5	8.0	14.0	---	21.0	25.0	26.0	26.0	22.0
14	18.0	13.0	9.5	7.5	10.0	15.0	17.0	21.5	24.0	28.0	27.0	22.5
15	16.5	12.0	9.0	7.5	10.0	12.0	16.0	21.0	24.0	27.0	26.0	26.0
16	16.0	13.0	7.5	8.0	9.5	19.0	16.0	21.0	25.0	23.0	26.0	22.0
17	16.0	13.0	7.0	11.0	10.0	---	17.5	21.0	25.0	25.5	26.0	23.0
18	20.0	11.0	8.0	6.5	9.0	12.5	18.0	21.0	26.5	26.0	26.5	24.5
19	17.0	11.0	6.5	8.0	10.0	12.0	19.0	22.0	27.5	26.0	27.0	23.0
20	15.0	15.0	4.5	8.0	13.0	13.5	17.0	21.0	27.0	27.0	26.0	22.0
21	16.0	12.5	6.0	5.0	16.0	13.0	17.0	21.0	27.0	27.0	25.5	21.0
22	20.0	14.0	6.0	9.5	14.5	14.0	16.0	21.5	27.0	27.0	25.0	21.5
23	17.0	14.0	5.0	5.5	12.5	16.0	17.5	22.0	26.5	27.5	25.5	23.0
24	15.0	12.0	6.5	10.0	13.0	17.0	19.0	22.0	26.0	26.0	25.5	24.5
25	16.0	14.0	8.0	9.0	15.0	12.5	20.0	24.0	22.5	26.0	26.0	22.0
26	16.0	13.0	4.5	7.0	10.0	10.0	18.0	23.0	24.5	27.0	25.0	22.5
27	18.0	11.5	4.0	6.0	12.5	11.0	17.0	22.0	24.5	26.0	25.0	20.0
28	14.0	10.0	4.0	7.0	10.0	12.5	18.5	21.5	24.5	27.0	25.5	20.0
29	15.0	7.5	5.0	5.0	8.5	15.0	17.0	21.0	27.0	27.0	23.5	19.0
30	18.0	7.0	5.0	7.5	---	15.5	17.0	23.0	27.5	28.5	24.5	19.0
31	20.0	---	5.0	6.5	---	15.5	---	23.0	---	27.0	28.5	---
MEAN	17.7	12.9	6.8	6.5	9.3	12.0	16.9	20.6	24.9	26.7	25.9	23.3
MAX	22.0	16.0	10.5	11.0	16.0	19.0	20.0	24.0	27.5	29.0	28.5	27.0
MIN	14.0	7.0	4.0	3.0	3.0	5.0	11.5	16.0	22.0	23.0	23.5	19.0

WTR YR 1996 MEAN 17.0 MAX 29.0 MIN 3.0

## MIMBRES RIVER BASIN

08477110 MIMBRES RIVER AT MIMBRES, NM

LOCATION.--Lat 32°51'17", long 107°58'23", in NW¼ sec.3, T.17 S., R.11 W., Grant County, Hydrologic Unit 13030202, on left bank 100 ft downstream from Willow Springs Canyon, 0.3 mi east of Mimbres, 1.1 mi downstream from Shepard Canyon, 2.5 mi downstream from Bear Canyon, and at mile 73.1.

DRAINAGE AREA.--216 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,920 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 17, 1979, at datum 2.29 ft higher.

REMARKS.--Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	4.8	7.5	6.7	6.8	4.1	3.0	1.9	3.6	1.8	39	7.3
2	5.9	5.0	6.9	6.3	6.6	3.7	2.9	2.0	4.4	1.7	15	6.9
3	6.0	5.0	6.7	6.0	6.7	3.7	3.4	1.9	4.7	1.9	31	7.5
4	6.2	5.2	7.4	5.6	5.3	4.2	3.4	1.9	4.3	1.5	37	10
5	5.9	5.2	7.7	5.6	5.9	3.9	3.6	2.2	5.1	1.3	15	9.6
6	5.8	6.1	7.8	5.6	6.1	3.5	3.8	2.0	4.9	9.0	7.0	8.0
7	5.8	5.6	7.1	5.5	5.8	2.3	3.7	1.8	5.1	6.4	4.5	7.7
8	5.7	5.6	6.6	5.4	5.7	2.7	3.0	1.9	5.6	4.3	4.4	7.2
9	5.8	5.9	6.2	5.4	5.5	2.4	2.6	1.7	5.4	4.0	3.7	7.1
10	5.7	6.1	5.9	5.4	5.1	2.5	2.9	1.6	5.4	4.0	4.1	7.6
11	5.7	6.2	6.6	5.2	4.9	2.9	2.6	1.7	3.4	9.3	4.9	7.9
12	5.5	6.3	6.9	5.3	5.4	2.8	2.4	1.8	2.9	4.1	4.9	11
13	5.4	6.8	6.9	5.2	5.3	3.5	2.3	1.7	2.8	13	4.7	12
14	5.0	6.7	6.3	5.1	5.5	3.6	2.2	1.7	2.9	4.3	5.2	100
15	5.1	6.4	5.9	5.1	5.2	3.7	2.6	1.8	2.8	8.3	4.3	224
16	5.5	6.0	5.7	4.9	5.3	3.3	2.5	1.7	2.3	5.4	4.1	108
17	5.6	5.9	6.1	5.2	4.8	3.5	2.9	1.7	1.9	4.0	17	58
18	5.5	6.0	6.8	5.2	4.4	3.3	2.6	2.0	1.7	3.4	4.5	37
19	5.3	6.0	6.7	5.3	5.3	2.3	2.6	1.9	1.4	3.9	4.1	29
20	5.0	6.6	6.5	5.2	4.4	2.6	2.5	3.9	1.1	3.2	3.8	24
21	4.9	7.0	6.1	5.3	3.8	2.3	2.4	4.6	.96	4.2	4.7	20
22	4.3	7.1	6.2	5.5	3.3	2.3	2.1	6.1	.90	5.3	4.4	18
23	4.4	6.7	5.8	5.7	3.1	2.4	1.9	7.3	.95	3.9	5.5	14
24	4.6	6.7	5.9	5.6	2.7	2.8	2.5	8.1	1.1	4.0	5.8	13
25	5.1	6.6	6.5	5.6	2.9	3.5	2.3	10	1.2	3.8	6.3	14
26	4.9	6.8	6.7	5.6	3.7	2.9	1.7	9.4	1.4	4.5	22	14
27	4.8	7.2	6.4	5.6	3.8	2.6	1.5	9.5	1.4	19	35	13
28	4.5	7.0	6.1	5.6	4.1	2.3	1.7	7.8	1.5	26	21	12
29	4.5	7.0	7.0	5.4	3.9	2.4	1.6	7.3	1.8	29	11	13
30	5.1	7.1	6.9	5.7	---	2.8	1.5	5.3	1.7	44	8.4	14
31	5.0	---	6.8	5.9	---	2.8	---	3.4	---	62	8.3	---
TOTAL	164.3	186.6	204.6	170.7	141.3	93.6	76.7	117.6	84.61	300.5	350.6	834.8
MEAN	5.30	6.22	6.60	5.51	4.67	3.02	2.56	3.79	2.82	9.69	11.3	27.8
MAX	6.2	7.2	7.8	6.7	6.8	4.2	3.8	10	5.6	62	39	224
MIN	4.3	4.8	5.7	4.9	2.7	2.3	1.5	1.6	.90	1.3	3.7	6.9
AC-FT	326	370	406	339	280	186	152	233	168	596	695	1660

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1996, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	13.6	13.8	37.2	31.6	31.2	35.0	24.5	16.4	8.75	12.0	30.6	12.6							
MAX	67.9	43.9	186	163	99.1	93.2	89.5	64.9	23.0	52.1	234	48.6							
(WY)	1986	1979	1985	1993	1995	1992	1992	1992	1992	1986	1988	1988							
MIN	2.56	2.47	3.65	4.24	3.10	2.16	2.34	1.84	2.82	1.64	3.30	2.64							
(WY)	1995	1981	1981	1981	1981	1990	1990	1990	1996	1994	1994	1978							

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1978 - 1996
ANNUAL TOTAL	9375.0	2725.91	
ANNUAL MEAN	25.7	7.45	22.4
HIGHEST ANNUAL MEAN			45.1
LOWEST ANNUAL MEAN			5.08
HIGHEST DAILY MEAN	269	Feb 15	2500
LOWEST DAILY MEAN	3.5	Jul 3	.07
ANNUAL SEVEN-DAY MINIMUM	3.7	Jul 2	.34
INSTANTANEOUS PEAK FLOW		375	a6360
INSTANTANEOUS PEAK STAGE		3.20	b8.05
INSTANTANEOUS LOW FLOW		.86	.22
ANNUAL RUNOFF (AC-FT)	18600	5410	16210
10 PERCENT EXCEEDS	65	10	52
50 PERCENT EXCEEDS	10	5.2	8.7
90 PERCENT EXCEEDS	5.1	1.9	2.8

a-From floodmarks.

b-From rating curve extended above 450 ft<sup>3</sup>/s, on basis of slope-area measurement at gage heights 6.70 ft and 8.05 ft.

## TULAROSA VALLEY BASIN

08480595 SALT CREEK AT RR316 ON WSMR, NM

LOCATION.--Lat 33°16'32", long 106°23'50", in SE¼NE¼ sec.16, T.12 S., R.6 E., Sierra County Hydrologic Unit 10301103, on right bank, 360 ft upstream from Range Road 316, .5 mi east of Range Road 7, and about 65 miles north of small missile range on U.S. Highway 70.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1995 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,020 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 88 ft<sup>3</sup>/s, July 3, 1996, gage height, 6.10 ft; minimum no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 88 ft<sup>3</sup>/s, July 3, 1996, gage height, 6.10 ft; minimum discharge, .06 ft<sup>3</sup>/s, Oct. 5, 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.26	.47	e.50	e3.0	.48	.53	.36	.27	1.1	1.2	.30
2	.12	.26	.49	e.49	e1.0	.49	.51	.30	.29	.59	.53	.29
3	.09	.26	.50	e.49	e.80	.53	.51	.30	.28	.49	11	.27
4	.08	.26	.49	e.51	e.71	.56	.60	.30	.31	.49	6.5	.28
5	.06	.30	.46	e.52	.73	.48	.58	.32	.33	.49	1.8	.29
6	.06	.51	.44	e.53	.70	.54	.52	.32	.33	.50	.51	.27
7	.08	.44	.47	e.54	.67	.44	.51	.32	.37	.53	.28	.27
8	.09	.35	.50	e.53	.61	.58	.49	.29	.39	.56	.32	.96
9	.09	.31	.42	e.51	.65	.51	.43	.25	.45	.62	2.1	28
10	.09	.24	.44	e.50	.62	.56	.38	.28	.46	4.0	14	1.0
11	.09	.22	.46	e.49	.53	.56	.33	.27	.48	13	5.9	1.5
12	.09	.26	.47	e.50	.57	.50	.37	.27	.52	1.1	.36	9.2
13	.10	.28	.45	e.51	.61	.37	.29	.28	.54	.67	.22	1.7
14	.10	.28	.43	e.52	.66	.49	.39	.24	2.4	21	.17	1.5
15	.11	.29	.45	e.52	.63	.52	.38	.25	1.4	13	.16	4.0
16	.11	.28	.49	e.50	.59	.55	.40	.21	7.9	1.4	.17	.80
17	.11	.30	.56	e.49	.63	.54	.37	.22	.80	.94	1.8	e.70
18	.11	.26	.49	e.49	.56	.52	.32	.23	.44	.87	27	e.67
19	.11	.32	.44	e.51	.53	.52	.40	.21	.39	.83	1.1	e.58
20	.09	.36	.49	e.52	.59	.54	.30	.20	.38	3.3	.28	e.55
21	.11	.35	.51	e.52	.55	.57	.37	.20	.38	5.6	.18	e.52
22	.10	.43	.59	e.52	.41	.55	.39	.19	.39	1.1	.16	e.49
23	.13	.41	.58	e.51	.50	.33	.36	.17	.47	.98	.16	e.46
24	.14	.40	.56	e.51	.48	.46	.31	.16	.48	.94	.15	e.43
25	.17	.43	.52	e.50	.35	.47	.33	.17	.44	17	.14	e.40
26	.19	.44	.52	e.50	.37	.53	.31	.18	.47	1.7	15	e.40
27	.21	.45	.51	e.56	.54	.55	.28	.22	15	e.80	5.7	.82
28	.22	.40	.51	e1.8	.48	.52	.22	.24	2.1	e.60	2.0	e.56
29	.23	.43	.53	e5.0	.49	.40	.29	.24	31	e.50	.40	e.44
30	.26	.46	.50	e6.3	---	.54	.32	.23	4.3	e6.4	.33	.40
31	.28	---	.86	e4.7	---	.56	---	.25	---	32	.33	---
TOTAL	3.97	10.24	15.60	31.59	19.56	15.76	11.79	7.67	73.76	133.10	99.95	58.05
MEAN	.13	.34	.50	1.02	.67	.51	.39	.25	2.46	4.29	3.22	1.93
MAX	.28	.51	.86	6.3	3.0	.58	.60	.36	31	32	27	28
MIN	.06	.22	.42	.49	.35	.33	.22	.16	.27	.49	.14	.27
AC-FT	7.9	20	31	63	39	31	23	15	146	264	198	115

e Estimated

## TULAROSA VALLEY BASIN

08480595 SALT CREEK AT RANGE ROAD 316 ON WSMR, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--MAY 1996 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
MAY 1996 01...	1400	0.36	26400	8.0	33.0	23.5	652	10.3	156	3800	3700	870
JUL 30...	1330	0.31	29200	8.0	34.0	29.0	655	10.1	170	3800	3700	830
DATE		MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
MAY 1996 01...	400	5000	35	130	149	0	122	125	3800	7500	5.3	
JUL 30...	410	5800	41	130	150	0	123	125	3600	9200	2.3	
DATE		BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L 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, NITRITE DIS-SOLVED (AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS-SOLVED (AS N) (00623)	PHOS-PHORUS TOTAL (AS P) (00665)	PHOS-PHORUS DIS-SOLVED (AS P) (00666)
MAY 1996 01...	1.8	18	19200	17800	<0.010	0.050	0.050	0.50	<0.20	<0.010	<0.010	
JUL 30...	1.6	14	21200	20100	<0.010	0.120	0.210	<0.20	<0.20	<0.010	<0.010	
DATE		PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	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)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
MAY 1996 01...	<0.010	290	230	2	2	100	37	990	1000	<10	<4.0	
JUL 30...	0.010	740	103	3	3	200	150	940	921	<4	<4.0	
DATE		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)	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)
MAY 1996 01...	2	1.6	<4	<4.0	210	260	<10	<10	800	880	60	
JUL 30...	<4	<4.0	4	<4.0	420	<60	<10	<4.0	700	1100	80	

## TULAROSA VALLEY BASIN

08480595 SALT CREEK AT RANGE ROAD 316 ON WSMR, NM -- Continued

## WATER-QUALITY RECORDS

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

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)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY 1996 01...	32	0.80	0.3	4	4	<5	<4.0	19000	19000	<10	69
JUL 30...	<20	<0.10	0.5	2	2	<4	<10	19000	18000	<10	<60

## CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	2,4-DP TOTAL (UG/L) (82183)
MAY 1996 01...	1400	0.030	<0.010	<0.010	<0.010
JUL 30...	1330	<0.010	<0.010	<0.010	<0.010

## TULAROSA VALLEY BASIN

08481500 TULAROSA CREEK NEAR BENT, NM

LOCATION.--Lat 33°08'41", long 105°53'50", in SE¼NW¼ sec.32, T.13 S., R.11 E., Otero County, Hydrologic Unit 13044503, on right bank 45 ft downstream from bridge on old U.S. Highway 70, 2.6 mi west of Bent, 8.5 mi northeast of Tularosa, and at mile 19.4.

DRAINAGE AREA.--120 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--December 1947 to September 1996 (discontinued). Prior to October 1982 published as "Rio Tularosa near Bent".

REVISED RECORDS.--WSP 1312: 1949(M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5,450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,000 acres, 1959 determination, upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood probably occurred Sept. 3, 1938, when a peak of 9,640 ft<sup>3</sup>/s was computed for station approximately 6 mi downstream near Tularosa. Another flood may have occurred July 2, 1914.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	20	18	24	24	24	19	24	19	24	50	e23
2	17	20	18	22	25	24	17	24	18	26	56	e23
3	18	19	18	21	23	21	20	22	18	26	135	e22
4	21	19	19	22	22	22	20	22	20	26	252	e22
5	21	19	18	22	22	20	20	22	21	25	e70	e22
6	20	22	19	22	22	22	20	21	20	24	e30	e22
7	20	25	19	22	23	22	20	21	20	24	e29	e22
8	21	25	19	22	23	22	20	20	19	23	e28	e21
9	22	25	20	23	22	22	20	20	16	25	e27	e21
10	22	25	21	22	22	22	19	22	15	25	e28	e21
11	21	25	21	22	22	21	18	21	15	26	e28	24
12	21	24	21	22	22	20	18	19	16	23	e27	37
13	21	23	22	22	22	20	18	20	16	22	e28	19
14	20	21	23	22	22	20	15	20	16	22	e29	19
15	19	21	22	22	22	20	17	21	15	23	e29	20
16	19	22	22	22	23	21	17	22	14	26	e28	19
17	19	24	25	21	22	18	19	22	14	26	e29	18
18	20	24	25	21	21	18	20	21	14	27	e29	19
19	20	24	24	21	22	19	21	21	14	27	e28	19
20	20	25	23	21	22	22	21	21	13	27	e28	19
21	20	23	24	21	23	22	21	19	13	29	e29	19
22	19	22	23	23	23	22	21	19	13	36	e28	19
23	20	21	24	23	24	23	21	19	12	24	e27	19
24	21	21	23	23	24	22	21	21	11	23	e26	20
25	21	21	24	23	24	22	21	20	12	28	e26	21
26	21	20	24	23	24	22	23	18	31	e25	e25	22
27	20	20	25	23	24	22	23	17	25	e24	e25	20
28	20	20	25	23	24	22	20	16	20	e23	e24	20
29	21	20	26	23	24	22	22	19	26	e24	e24	19
30	21	19	25	23	---	22	23	19	26	e24	e24	20
31	20	---	24	23	---	18	---	19	---	e25	e23	---
TOTAL	626	659	684	689	662	659	595	632	522	782	1269	631
MEAN	20.2	22.0	22.1	22.2	22.8	21.3	19.8	20.4	17.4	25.2	40.9	21.0
MAX	22	25	26	24	25	24	23	24	31	36	252	37
MIN	17	19	18	21	21	18	15	16	11	22	23	18
AC-FT	1240	1310	1360	1370	1310	1310	1180	1250	1040	1550	2520	1250

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1996, BY WATER YEAR (WY)

	MEAN	12.7	13.6	14.1	14.3	14.3	13.9	13.3	12.1	10.7	12.3	14.7	13.3
MAX	26.0	26.9	26.5	27.3	26.1	24.5	24.7	24.3	21.1	29.5	40.9	36.0	
(WY)	1991	1992	1992	1995	1992	1992	1992	1992	1988	1995	1996	1990	
MIN	5.88	7.68	6.91	7.36	8.05	7.66	7.66	5.82	5.09	4.18	4.94	5.68	
(WY)	1962	1971	1971	1967	1967	1958	1960	1958	1963	1963	1970	1954	

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1948 - 1996
ANNUAL TOTAL	8241	8410	
ANNUAL MEAN	22.6	23.0	13.3
HIGHEST ANNUAL MEAN			23.6
LOWEST ANNUAL MEAN			8.19
HIGHEST DAILY MEAN	320	Jul 31	631
LOWEST DAILY MEAN	13	Jul 10	1.4
ANNUAL SEVEN-DAY MINIMUM	15	Jul 9	2.1
INSTANTANEOUS PEAK FLOW		1650	4280
INSTANTANEOUS PEAK STAGE		3.73	b5.60
INSTANTANEOUS LOW FLOW		11	.00
ANNUAL RUNOFF (AC-FT)	16350	16680	9630
10 PERCENT EXCEEDS	27	26	22
50 PERCENT EXCEEDS	21	22	11
90 PERCENT EXCEEDS	18	18	6.5

e Estimated

a-From rating curve extended above 160 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

b-Maximum gage height, 5.60 ft, Aug. 8, 1988, and July 14, 1991, discharge not determined.

## SAN JUAN RIVER BASIN

09343300 RIO BLANCO BELOW BLANCO DIVERSION DAM, NEAR PAGOSA SPRINGS, CO

LOCATION.--Lat 37°12'13", long 106°48'38", in NE¼NW¼ sec.11, T.34 N., R.1 E., Archuleta County, Hydrologic Unit 14080101, on left bank 250 downstream from Blanco Diversion Dam, 1.1 mi downstream for Leche Creek, and 12 mi southeast of Pagosa Springs.

DRAINAGE AREA.--69.1 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 7,858.04 ft above sea level, (levels by Bureau of Reclamation).

REMARKS.--Records good except for Oct. 1 to Dec. 7 (unstable approach conditions at flume), and estimated daily discharges, which are poor. Flows controlled by diversion dam upstream.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	22	17	13	14	e22	25	44	29	22	20	14
2	35	20	17	13	e12	e22	25	45	29	22	21	14
3	33	15	e16	14	e10	e22	24	46	29	22	20	13
4	32	17	16	15	e12	23	24	47	29	22	20	13
5	30	15	e15	14	14	21	24	48	30	22	19	13
6	30	16	17	12	15	20	24	45	29	22	18	14
7	29	16	17	12	16	e20	24	46	30	22	17	13
8	28	17	16	e11	16	e20	25	45	31	22	17	13
9	27	18	e14	12	19	e24	26	44	30	23	17	12
10	25	19	e14	13	e20	32	25	44	30	21	17	11
11	23	17	e15	13	e25	39	25	45	30	20	16	11
12	23	23	e15	14	27	43	25	45	30	20	15	15
13	24	30	16	17	23	34	25	45	30	20	14	21
14	24	31	17	20	e20	31	25	45	30	20	14	68
15	24	29	e14	19	e25	28	23	45	31	20	14	49
16	22	27	e14	e14	e30	27	23	45	30	20	14	28
17	22	26	16	13	34	27	23	43	30	20	11	38
18	21	25	e15	13	34	26	23	42	30	21	9.7	40
19	20	24	16	15	29	27	23	42	30	22	11	26
20	19	23	e15	14	34	31	23	43	29	22	11	25
21	18	22	e15	14	54	31	23	42	29	21	12	25
22	18	21	16	13	37	21	23	37	30	21	18	25
23	15	20	15	13	31	24	24	31	29	24	24	25
24	16	19	e14	14	e28	24	25	31	29	23	36	25
25	16	19	13	14	27	24	26	31	27	23	29	25
26	16	20	12	14	23	24	24	31	23	23	22	25
27	16	17	11	15	20	24	24	32	24	23	26	23
28	16	13	14	15	e22	24	23	32	25	23	21	24
29	16	15	14	14	23	24	22	32	23	22	20	22
30	16	17	e13	14	---	24	32	31	23	22	17	22
31	16	---	14	14	---	24	---	30	---	20	15	---
TOTAL	713	613	463	435	694	807	730	1254	858	670	555.7	692
MEAN	23.0	20.4	14.9	14.0	23.9	26.0	24.3	40.5	28.6	21.6	17.9	23.1
MAX	43	31	17	20	54	43	32	48	31	24	36	68
MIN	15	13	11	11	10	20	22	30	23	20	9.7	11
AC-FT	1410	1220	918	863	1380	1600	1450	2490	1700	1330	1100	1370

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

	MEAN	39.6	30.0	20.0	16.6	19.2	38.5	49.2	110	140	70.8	38.7	38.3
MAX	145	98.3	35.6	26.4	40.0	103	200	340	654	330	99.8	161	
(WY)	1987	1987	1987	1986	1995	1989	1989	1984	1985	1995	1995	1982	
MIN	16.1	13.5	8.52	7.58	10.0	17.5	20.4	40.5	18.9	19.7	15.0	15.8	
(WY)	1993	1990	1990	1990	1990	1981	1974	1996	1977	1972	1972	1974	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1971 - 1996

ANNUAL TOTAL	35662	8484.7	
ANNUAL MEAN	97.7	23.2	52.0
HIGHEST ANNUAL MEAN			135
LOWEST ANNUAL MEAN			19.5
HIGHEST DAILY MEAN	808	Jun 21	1330
LOWEST DAILY MEAN	11	Dec 27	1.0
ANNUAL SEVEN-DAY MINIMUM	13	Dec 24	6.8
INSTANTANEOUS PEAK FLOW			3130
INSTANTANEOUS PEAK STAGE			5.14
ANNUAL RUNOFF (AC-FT)	70740	16830	37650
10 PERCENT EXCEEDS	305	34	106
50 PERCENT EXCEEDS	39	22	23
90 PERCENT EXCEEDS	16	14	15

e-Estimated.

a-Maximum gage height, 3.50 ft, Feb 10, 1996, backwater from ice.

## SAN JUAN RIVER BASIN

09344400 NAVAJO RIVER BELOW OSO DIVERSION DAM, NEAR CHROMO, CO

LOCATION.--Lat 37°01'49", long 106°44'14", in NE¼ sec.9, T.32 N., R.2 E., Archuleta County, Hydrologic Unit 14080101, on left bank 600 downstream from Oso Diversion Dam, 5.8 mi east of Chromo, and 6 mi upstream from Little Navajo River.

DRAINAGE AREA.--100.5 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder with satellite telemetry and Parshall flume. Datum of gage is 7,665.30 ft above sea level, (levels by Bureau of Reclamation). Prior to Sept. 5, 1979, at same site, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flows controlled by diversion dam upstream.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	48	29	33	34	39	43	90	55	57	34	37
2	70	47	46	e32	e32	40	39	88	55	56	33	36
3	66	40	30	e32	e30	40	41	80	57	56	37	36
4	62	41	30	33	e30	42	39	91	58	58	37	37
5	58	41	36	34	e34	42	38	91	58	58	32	35
6	56	41	35	e32	39	42	38	90	59	58	28	36
7	55	40	29	e30	38	38	38	90	59	58	24	34
8	53	40	36	e28	e36	40	38	89	59	56	25	32
9	53	40	35	e32	e36	42	37	89	59	56	28	32
10	53	48	35	35	39	46	37	90	59	55	27	31
11	52	39	43	e34	39	51	38	90	59	55	26	31
12	50	43	46	e32	35	48	39	90	59	56	25	33
13	50	46	40	e30	34	39	38	90	59	57	24	34
14	48	46	38	e30	34	39	38	90	59	57	26	43
15	47	46	35	32	40	43	39	91	59	57	26	53
16	45	40	33	32	44	46	39	93	59	55	26	39
17	45	38	35	30	44	47	39	91	58	55	30	44
18	45	42	33	e30	45	45	39	90	58	56	32	61
19	44	41	33	e28	43	46	38	91	56	57	28	64
20	43	42	32	e30	49	51	38	91	56	57	27	58
21	42	41	e30	e32	68	46	38	91	58	50	33	49
22	42	39	32	e30	59	37	38	85	60	42	36	48
23	38	40	e30	e28	51	36	38	82	59	35	34	46
24	43	37	e26	e30	47	36	38	82	58	36	47	43
25	43	39	e28	e30	47	38	38	82	56	36	48	39
26	42	39	e28	e28	43	39	38	82	58	35	39	39
27	39	35	e28	e26	37	38	38	82	59	35	40	38
28	38	43	e30	e32	39	38	39	82	57	40	48	37
29	39	36	32	e34	42	38	39	82	56	42	58	37
30	40	36	30	35	---	38	69	80	56	40	44	27
31	40	---	32	34	---	40	---	68	---	36	37	---
TOTAL	1517	1234	1035	968	1188	1290	1186	2693	1737	1557	1039	1209
MEAN	48.9	41.1	33.4	31.2	41.0	41.6	39.5	86.9	57.9	50.2	33.5	40.3
MAX	76	48	46	35	68	51	69	93	60	58	58	64
MIN	38	35	26	26	30	36	37	68	55	35	24	27
AC-FT	3010	2450	2050	1920	2360	2560	2350	5340	3450	3090	2060	2400

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

	MEAN	54.3	46.7	38.8	35.3	37.1	60.9	58.5	132	160	95.0	65.1	59.6
MAX	161	132	71.9	51.3	52.7	135	183	271	720	406	124	146	
(WY)	1987	1987	1987	1985	1986	1989	1993	1984	1985	1995	1982	1982	
MIN	26.3	27.4	21.3	19.8	24.4	32.0	37.5	86.9	44.7	40.2	28.1	28.4	
(WY)	1981	1990	1977	1990	1990	1977	1973	1996	1977	1972	1972	1978	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1971 - 1996

ANNUAL TOTAL	48078	16653	71.1	1985
ANNUAL MEAN	132	45.5	158	1977
HIGHEST ANNUAL MEAN			41.5	1977
LOWEST ANNUAL MEAN			1160	Jun 9 1985
HIGHEST DAILY MEAN	918	Jun 21	93	May 16
LOWEST DAILY MEAN	e26	Dec 24	a24	Aug 7
ANNUAL SEVEN-DAY MINIMUM	29	Dec 21	26	Aug 7
INSTANTANEOUS PEAK FLOW			150	May 17
INSTANTANEOUS PEAK STAGE			2.66	May 17
ANNUAL RUNOFF (AC-FT)	95360	33030	c4.92	May 24 1984
10 PERCENT EXCEEDS	367	65	122	
50 PERCENT EXCEEDS	78	40	48	
90 PERCENT EXCEEDS	36	30	31	

e-Estimated.

a-Also occurred Aug 13.

b-Also occurred Oct 11, 1981.

c-Maximum gage height, 5.07 ft, Feb 13, 1994, backwater from ice.



## SAN JUAN RIVER BASIN

09345200 LITTLE NAVAJO RIVER BELOW LITTLE OSO DIVERSION DAM, NEAR CHROMO, CO

LOCATION.--Lat 37°04'32", long 106°48'38", in SW¼ sec.23, T.33 N., R.1 E., Archuleta County, Hydrologic Unit 14080101, on right bank at Little Oso Diversion Dam, 3.5 mi northeast of Chromo, and 4.0 mi upstream from confluence with Navajo River.

DRAINAGE AREA.--14.2 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 7,756.10 ft above sea level, (levels by Bureau of Reclamation).

REMARKS.--Flow controlled by diversion dam upstream. Streamflow data for water year 1994 (not previously published), is published below. Streamflow data for water year 1996 is published on the following page.

COOPERATION.--Records collected and computed by Bureau of Reclamation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	27	30	e2.0	e2.0	e2.0
2	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	33	27	29	e2.0	e2.0	e2.0
3	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	37	29	30	e2.0	e2.0	e2.0
4	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	38	29	30	e2.0	e2.0	e2.0
5	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	15	29	30	e2.0	e2.0	e2.0
6	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	9.0	29	30	e2.0	e2.0	e2.0
7	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.5	29	29	e2.0	e2.0	e2.0
8	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.7	29	28	e2.0	e2.0	e2.0
9	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	7.1	28	29	e2.0	e2.0	e2.0
10	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	7.2	29	29	e2.0	e2.0	e2.0
11	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	7.2	29	29	e2.0	e2.0	e2.0
12	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.5	28	29	e2.0	e2.0	e2.0
13	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.7	29	28	e2.0	e2.0	e2.0
14	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.1	28	26	e2.0	e2.0	e2.0
15	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.5	28	23	e2.0	e2.0	e2.0
16	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	7.1	29	20	e2.0	e2.0	e2.0
17	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.9	28	19	e2.0	e2.0	e2.0
18	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.7	28	18	e2.0	e2.0	e2.0
19	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	6.7	28	20	e2.0	e2.0	e2.0
20	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	8.8	28	30	e2.0	e2.0	e2.0
21	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	9.0	28	e2.0	e2.0	e2.0	e2.0
22	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	9.0	29	e2.0	e2.0	e2.0	e2.0
23	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	8.6	28	e2.0	e2.0	e2.0	e2.0
24	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	8.4	29	e2.0	e2.0	e2.0	e2.0
25	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	8.4	30	e2.0	e2.0	e2.0	e2.0
26	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	8.8	29	e2.0	e2.0	e2.0	e2.0
27	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	9.0	30	e2.0	e2.0	e2.0	e2.0
28	e2.0	e2.0	e2.0	e2.0	e2.0	e2.0	9.4	30	e2.0	e2.0	e2.0	e2.0
29	e2.0	e2.0	e2.0	e2.0	---	e2.0	27	30	e2.0	e2.0	e2.0	e2.0
30	e2.0	e2.0	e2.0	e2.0	---	e2.0	27	30	e2.0	e2.0	e2.0	e2.0
31	e2.0	---	e2.0	e2.0	---	e2.0	---	30	---	e2.0	e2.0	---
TOTAL	62.0	60.0	62.0	62.0	56.0	62.0	355.3	891	556.0	62.0	62.0	60.0
MEAN	2.00	2.00	2.00	2.00	2.00	2.00	11.8	28.7	18.5	2.00	2.00	2.00
MAX	2.0	2.0	2.0	2.0	2.0	2.0	38	30	30	2.0	2.0	2.0
MIN	2.0	2.0	2.0	2.0	2.0	2.0	2.0	27	2.0	2.0	2.0	2.0
AC-FT	123	119	123	123	111	123	705	1770	1100	123	123	119

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1994, BY WATER YEAR (WY)

	6.64	5.23	2.80	2.47	2.55	8.22	14.1	25.0	18.9	7.23	4.01	3.95
MEAN	49.9	46.4	8.82	5.82	6.53	32.0	45.7	66.3	29.3	17.1	9.25	17.3
MAX	(WY) 1987	1987	1987	1987	1986	1985	1989	1973	1983	1983	1986	1982
MIN	1.47	1.00	.47	1.02	1.03	1.95	4.19	4.86	1.87	.87	.47	1.02
(WY)	1976	1990	1990	1990	1990	1977	1976	1977	1977	1984	1972	1972

## SUMMARY STATISTICS

## FOR 1993 CALENDAR YEAR

## FOR 1994 WATER YEAR

## WATER YEARS 1971 - 1994

ANNUAL TOTAL	4208.4	2350.3	
ANNUAL MEAN	11.5	6.44	8.50
HIGHEST ANNUAL MEAN			18.6
LOWEST ANNUAL MEAN			2.34
HIGHEST DAILY MEAN	70	38	202
LOWEST DAILY MEAN	a2.0	a2.0	b.00
ANNUAL SEVEN-DAY MINIMUM	2.0	2.0	.02
INSTANTANEOUS PEAK FLOW		Not determined	c235
ANNUAL RUNOFF (AC-FT)	8350	4660	6160
10 PERCENT EXCEEDS	28	28	27
50 PERCENT EXCEEDS	3.3	2.0	3.5
90 PERCENT EXCEEDS	2.0	2.0	1.4

e-Estimated.

a-Occurs many times some years.

b-Also occurred Oct 21, 1988.

c-Gage height not determined.

## 09345200 LITTLE NAVAJO RIVER BELOW LITTLE OSO DIVERSION DAM, NEAR CHROMO, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.0	2.4	2.0	e1.9	3.5	10	31	6.9	8.6	1.3	.98
2	3.0	2.6	2.1	1.9	e1.9	3.5	6.9	30	6.3	4.8	1.2	.98
3	3.0	1.7	2.0	e1.9	e1.9	3.6	8.4	29	5.4	2.8	1.6	.88
4	2.9	2.5	2.1	e1.9	e1.9	3.6	7.0	29	4.8	2.2	1.5	.88
5	2.8	2.0	2.1	e1.9	e1.9	3.6	7.0	29	4.4	2.1	1.2	1.1
6	2.9	2.4	2.1	e1.9	e1.9	3.8	4.6	32	4.1	2.0	1.1	1.4
7	2.8	2.2	2.0	e1.9	1.9	3.6	6.7	31	3.9	2.1	.88	.98
8	2.8	2.2	2.2	e1.9	2.0	3.8	6.5	28	3.6	5.8	.98	.88
9	2.6	2.5	1.7	e1.9	2.1	4.1	7.4	26	3.3	6.9	1.2	.70
10	2.5	2.5	1.9	e1.9	2.4	4.6	7.2	25	3.0	3.2	1.2	.70
11	2.5	1.7	1.9	e1.9	2.4	4.9	7.2	24	3.0	3.3	.98	1.2
12	2.5	2.9	2.0	e1.9	2.2	6.1	7.4	24	2.9	4.4	.98	2.1
13	2.5	3.2	2.1	e1.9	2.2	5.2	7.2	25	2.9	3.8	.88	1.5
14	2.5	3.3	2.2	e1.9	2.5	4.8	8.2	25	3.2	2.9	.79	3.0
15	2.4	3.2	2.0	e1.9	2.0	4.4	7.2	24	3.9	9.9	.79	4.8
16	2.5	3.0	2.1	e1.9	5.1	4.4	7.2	23	3.2	4.6	.88	2.5
17	2.5	2.8	2.1	e1.9	4.4	4.6	7.4	23	2.8	6.5	.88	2.5
18	2.5	2.5	2.1	e1.9	4.6	4.4	7.6	21	2.6	3.8	.88	3.8
19	2.5	2.5	2.1	e1.9	4.3	4.6	7.6	19	2.4	3.0	.79	4.1
20	2.5	2.5	2.0	e1.9	4.3	5.1	6.3	18	2.0	2.5	.79	4.8
21	2.4	2.4	2.0	e1.9	5.8	6.7	2.9	16	2.0	2.2	1.3	3.9
22	2.5	2.2	2.0	e1.9	4.6	9.0	2.2	15	2.0	2.0	1.4	2.9
23	.98	2.2	2.1	e1.9	4.3	9.2	5.4	13	2.0	1.9	1.3	2.2
24	2.6	1.9	2.0	e1.9	4.1	7.6	5.4	12	2.0	1.7	2.8	1.9
25	2.4	2.0	1.9	e1.9	4.1	6.3	5.2	12	2.0	1.7	2.8	1.6
26	2.2	2.4	1.9	e1.9	3.9	6.1	5.2	11	2.0	1.7	1.9	1.5
27	2.2	1.2	1.9	e1.9	3.9	6.9	5.2	9.9	2.0	1.7	2.0	1.4
28	2.4	1.1	1.7	e1.9	3.8	8.8	5.1	9.2	2.0	2.0	1.5	1.4
29	2.4	1.5	1.7	e1.9	3.8	9.2	5.2	8.4	2.0	1.6	1.7	1.3
30	2.2	2.2	1.7	e1.9	---	8.0	30	7.8	2.8	1.5	1.3	1.2
31	2.2	---	1.9	e1.9	---	9.6	---	7.2	---	1.5	1.1	---
TOTAL	78.28	70.3	62.0	59.0	92.1	173.6	216.8	637.5	95.4	104.7	39.90	59.08
MEAN	2.53	2.34	2.00	1.90	3.18	5.60	7.23	20.6	3.18	3.38	1.29	1.97
MAX	3.6	3.3	2.4	2.0	5.8	9.6	30	32	6.9	9.9	2.8	4.8
MIN	.98	1.1	1.7	1.9	1.9	3.5	2.2	7.2	2.0	1.5	.79	.70
AC-FT	155	139	123	117	183	344	430	1260	189	208	79	117

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

	MEAN	4.99	2.73	2.42	2.64	8.46	13.8	25.0	19.4	7.67	3.94	3.84
MAX	49.9	46.4	8.82	5.82	6.53	32.0	45.7	66.3	47.5	22.5	9.25	17.3
(WY)	1987	1987	1987	1987	1986	1985	1989	1973	1995	1995	1986	1982
MIN	.000	1.00	.47	1.02	1.03	1.95	4.19	4.86	1.87	.87	.47	1.02
(WY)	1995	1990	1990	1990	1990	1977	1976	1977	1977	1984	1972	1972

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1971 - 1996

ANNUAL TOTAL	4552.58	1688.66	
ANNUAL MEAN	12.5	4.61	8.49
HIGHEST ANNUAL MEAN			18.6
LOWEST ANNUAL MEAN			2.34
HIGHEST DAILY MEAN	62	32	202
LOWEST DAILY MEAN	.98	a.70	b.00
ANNUAL SEVEN-DAY MINIMUM	1.6	.83	.00
INSTANTANEOUS PEAK FLOW		Not determined	c235
ANNUAL RUNOFF (AC-FT)	9030	3350	6150
10 PERCENT EXCEEDS	35	8.7	27
50 PERCENT EXCEEDS	4.3	2.5	3.5
90 PERCENT EXCEEDS	1.9	1.3	1.4

e-Estimated.

a-Also occurred Sep 10.

b-Also occurred Oct 21, 1988 and Oct 1 to Nov 3, 1994.

c-Gage height not determined.

## SAN JUAN RIVER BASIN

09346400 SAN JUAN RIVER NEAR CARRACAS, CO

LOCATION.--Lat 37°00'49", long 107°18'42", in SE1/4 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 northwest of Carracas, 7.2 mi upstream from Piedra River, and at mile 332.8.

DRAINAGE AREA.--1,230 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1961 to current year. Water-quality data available, July 1969 to August 1973. Sediment data available, August 1973.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 6,090 ft above National Geodetic Vertical Datum of 1929, from river-profile map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 11,000 acres upstream from station. High-water diversions upstream from 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."

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911; June 29, 1927.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	402	145	e150	e120	e135	182	227	e700	453	374	124	94
2	328	165	e150	e115	e135	163	296	e800	446	282	119	90
3	292	169	e140	e115	e115	162	302	e960	483	242	118	84
4	261	141	e140	e125	e120	182	279	e1150	453	192	121	92
5	242	139	e140	e130	e130	189	279	1310	434	174	124	92
6	227	141	e135	e125	e145	e190	275	1460	410	161	111	88
7	224	144	e130	e120	e145	e180	270	1480	439	131	94	90
8	216	144	127	e120	e145	e175	307	1310	394	148	90	90
9	208	144	128	e130	e150	e180	369	1350	360	208	88	74
10	208	156	119	e135	e155	e190	456	1300	364	251	92	72
11	202	177	126	e125	e165	e195	440	1470	324	281	94	74
12	197	141	142	e125	e160	e205	405	1410	289	246	82	100
13	190	156	156	e130	e160	e215	382	1520	270	280	72	110
14	186	172	165	e135	e175	e210	381	1460	270	191	66	168
15	182	175	162	e135	186	e205	344	1580	326	188	64	350
16	179	172	130	e135	204	e190	333	1640	369	152	66	281
17	176	166	121	e130	231	e195	333	1720	314	183	64	232
18	172	156	146	e115	239	e200	323	1670	271	259	67	235
19	172	159	132	e130	240	e200	303	1530	234	246	69	311
20	169	150	135	e140	232	e200	279	1480	212	166	63	249
21	164	148	135	e130	306	e200	279	1320	208	153	67	224
22	159	147	e130	e135	408	e210	257	1180	243	122	81	e225
23	153	141	e115	e135	300	e225	261	1110	316	141	145	e220
24	138	141	e80	e130	241	e240	359	886	243	133	261	e210
25	141	127	e95	e125	228	e235	548	873	212	128	341	e210
26	146	132	e110	e120	220	e225	788	775	201	129	226	e210
27	147	132	e110	e115	187	e210	947	666	277	132	174	e210
28	144	e100	e110	e130	172	e200	1090	533	385	121	223	e205
29	138	e110	e115	e140	186	e195	788	485	349	124	171	e195
30	138	e130	e125	e140	---	200	e730	477	324	152	141	e185
31	138	---	e130	e140	---	208	---	477	---	141	115	---
TOTAL	6039	4420	4029	3975	5615	6156	12630	36082	9873	5831	3733	5070
MEAN	195	147	130	128	194	199	421	1164	329	188	120	169
MAX	402	177	165	140	408	240	1090	1720	483	374	341	350
MIN	138	100	80	115	115	162	227	477	201	121	63	72
AC-FT	11980	8770	7990	7880	11140	12210	25050	71570	19580	11570	7400	10060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1996, BY WATER YEAR (WY)

STATISTICS		FOR 1995 CALENDAR YEAR										FOR 1996 WATER YEAR										WATER YEARS 1971 - 1996				
MEAN	314	248	176	159	202	615	1122	1767	1874	690	330	288														
MAX	932	983	406	296	481	1369	2524	3195	4080	2427	733	880														
(WY)	1987	1987	1987	1987	1986	1995	1979	1973	1985	1995	1993	1982														
MIN	106	104	72.9	74.7	85.0	134	233	395	251	132	69.0	61.2														
(WY)	1979	1990	1990	1990	1990	1977	1977	1977	1977	1972	1972	1978														
SUMMARY STATISTICS		FOR 1995 CALENDAR YEAR										FOR 1996 WATER YEAR										WATER YEARS 1971 - 1996				
ANNUAL TOTAL		354184										103453														
ANNUAL MEAN		970										283										a649				
HIGHEST ANNUAL MEAN																						1191				
LOWEST ANNUAL MEAN																						200				
HIGHEST DAILY MEAN		5810										1720										May 17				
LOWEST DAILY MEAN		80										63										Aug 20				
ANNUAL SEVEN-DAY MINIMUM		105										66										Aug 14				
INSTANTANEOUS PEAK FLOW												2040										May 17				
INSTANTANEOUS PEAK STAGE												4.52										May 17				
ANNUAL RUNOFF (AC-FT)		702500										205200										470300				
10 PERCENT EXCEEDS		2620										479										1750				
50 PERCENT EXCEEDS		480										178										287				
90 PERCENT EXCEEDS		141										111										110				

e-Estimated.

a-Average discharge for 9 years (water years 1962-70), 632 ft<sup>3</sup>/s; 457,900 acre-ft/yr, prior to completion of Azotea Tunnel.

b-Also maximum daily discharge for period of record.

c-Minimum daily discharge for period of record, about 5 ft<sup>3</sup>/s, Dec 10, 1961, result of freezeup.

d-Maximum discharge and stage for period of record, 9,730 ft<sup>3</sup>/s, Sep 6, 1970, gage height, 8.34 ft, from rating curve extended above 6,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

f-Maximum gage height for statistical period, and period of record, 9.63 ft, Jan. 4, 1994, backwater from ice.

## 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 downstream from Ignacio Creek, 4.6 mi northeast of Arboles Post Office, and 2.5 mi upstream from Navajo Reservoir.

DRAINAGE AREA.--629 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1962 to current year. Gage operated 1895-99, 1910-27 at a site 7.5 mi downstream at altitude 6,000 ft. Low-flow records probably not equivalent. Water-quality data available, November to August 1973.

GAGE.--Water-stage recorder. Elevation of gage is 6,147.52 ft above National Geodetic Vertical Datum of 1929, from Colorado State Highway Department bench mark.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,800 acres upstream from station. Several observations of specific conductance and water temperature were obtained and are published in "Supplemental Water-Quality Data for Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909, and Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	78	60	e54	e54	e74	115	521	178	276	e58	75
2	178	80	67	e52	e52	e63	150	558	170	231	e56	66
3	160	80	63	e52	e46	e68	171	617	154	208	e58	59
4	144	71	64	e54	e48	e73	165	698	e152	180	e60	54
5	137	75	66	e57	e53	e76	159	801	e151	178	e59	50
6	127	73	64	e53	e56	e73	159	841	e150	155	e52	51
7	118	75	59	e53	e56	e63	162	912	e148	148	e46	54
8	121	75	59	e54	e56	e69	190	814	e147	133	e43	59
9	118	73	54	e54	e57	e75	240	789	e143	134	e44	60
10	113	82	48	e57	e59	e84	319	747	e138	154	e47	56
11	106	84	49	e54	e64	e93	330	746	e125	171	e43	57
12	106	71	53	e54	e62	e105	290	834	113	144	e39	55
13	104	80	56	e56	e59	e110	285	870	106	142	e37	78
14	103	80	e60	e56	e64	e98	257	824	104	141	e36	97
15	97	80	e52	e56	e70	e88	234	795	138	119	e35	158
16	93	80	e44	e55	e75	e85	219	789	174	97	e35	174
17	89	77	47	e53	e78	e81	226	834	151	111	e36	145
18	89	78	46	e50	e80	e74	219	767	129	143	e34	139
19	89	75	48	e53	e78	e76	201	710	116	116	e33	171
20	89	78	52	e58	e80	e80	188	680	104	103	e35	162
21	85	77	50	e54	e93	e95	181	606	102	93	e50	167
22	81	e72	e50	e55	e115	e110	169	518	133	86	e68	e165
23	77	e72	e40	e56	e140	e130	177	432	190	75	e64	e160
24	71	e68	e38	e53	e105	e150	239	380	172	63	e120	e150
25	73	e66	e44	e50	e93	e130	399	331	143	e60	102	e140
26	75	e68	e47	e48	e94	e105	557	303	145	e67	108	e140
27	75	e72	e50	e48	e70	e100	670	286	229	e65	100	e125
28	75	52	e50	e53	e61	99	744	246	338	e61	123	e110
29	77	46	e52	e55	e62	108	557	226	297	e76	109	e105
30	77	55	e55	e53	---	111	482	205	242	e82	91	e97
31	76	---	e58	e53	---	102	---	188	---	e66	83	---
TOTAL	3226	2193	1645	1663	2080	2848	8454	18868	4782	3878	1904	3179
MEAN	104	73.1	53.1	53.6	71.7	91.9	282	609	159	125	61.4	106
MAX	203	84	67	58	140	150	744	912	338	276	123	174
MIN	71	46	38	48	46	63	115	188	102	60	33	50
AC-FT	6400	4350	3260	3300	4130	5650	16770	37420	9490	7690	3780	6310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	175	127	90.9	75.8	95.2	320	890	1301	1063	352	207	206												
MAX	618	517	257	153	244	895	2126	2926	2526	1133	551	943												
(WY)	1973	1987	1987	1987	1986	1995	1979	1979	1979	1975	1968	1970												
MIN	51.2	48.4	31.2	31.2	34.7	47.4	125	168	121	69.8	37.0	35.3												
(WY)	1979	1968	1990	1990	1964	1964	1977	1977	1977	1972	1972	1978												

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1963 - 1996
ANNUAL TOTAL	202181	54720	
ANNUAL MEAN	554	150	409
HIGHEST ANNUAL MEAN			822
LOWEST ANNUAL MEAN			94.0
HIGHEST DAILY MEAN	3290	912	5360
LOWEST DAILY MEAN	e38	e33	19
ANNUAL SEVEN-DAY MINIMUM	46	35	26
INSTANTANEOUS PEAK FLOW		992	a8370
INSTANTANEOUS PEAK STAGE		2.76	b6.38
ANNUAL RUNOFF (AC-FT)	401000	108500	296400
10 PERCENT EXCEEDS	1460	292	1200
50 PERCENT EXCEEDS	201	83	150
90 PERCENT EXCEEDS	68	50	54

e-Estimated.

a-From rating curve extended above 4,400 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

b-Gage height, 6.38 ft, recorded, 7.55 ft from floodmarks.

## SAN JUAN RIVER BASIN

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 upstream from Spring Creek, and 2 mi upstream from maximum elevation of Navajo Reservoir.

DRAINAGE AREA.--510 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733. Water-quality data available, July 1969 to August 1973, January 1988 to September 1991.

GAGE.--Water-stage recorder. Datum of gage is 6,143.59 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Vallecito Reservoir (station 09353000) 24 mi upstream since April 1941. Diversions for irrigation of about 33,000 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on Oct. 5, 1911 has not yet been exceeded.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e330	77	e45	e53	e52	105	e53	28	107	254	101	e92
2	e330	64	45	e49	e50	107	50	25	107	179	107	e80
3	e320	56	45	e49	e47	105	50	30	112	161	125	e74
4	e200	55	e44	e53	e44	107	53	51	110	139	127	e65
5	e200	53	43	e55	e48	116	56	67	105	128	119	e60
6	e180	53	43	e52	e53	125	52	59	110	123	118	e59
7	e180	49	e44	e50	e52	132	52	60	110	110	108	e62
8	e180	49	e44	e50	e52	130	51	67	108	127	97	e66
9	e160	49	e43	e48	e52	115	49	73	120	380	91	e70
10	e135	56	e43	e47	e54	105	54	75	122	192	107	e67
11	115	55	e44	e47	56	99	56	73	118	128	97	e66
12	113	52	43	e47	60	93	55	76	117	134	93	e66
13	115	49	46	e47	62	93	60	89	115	179	89	e78
14	120	48	e48	e47	63	99	65	93	142	167	85	e105
15	113	46	e49	e48	69	154	43	97	158	161	89	e150
16	112	50	49	e48	69	164	36	97	138	148	107	e200
17	95	51	e50	e51	66	158	37	91	135	161	107	e180
18	89	51	e48	e48	67	104	37	91	123	145	107	e165
19	87	49	e47	e48	61	95	29	89	110	175	115	e190
20	79	48	e46	e47	60	97	22	101	108	146	108	e200
21	129	43	44	e46	75	93	23	101	125	130	110	e190
22	136	47	e43	e47	71	91	15	99	172	128	112	e190
23	101	48	e41	e48	64	94	12	93	141	113	120	e185
24	93	45	e45	e47	56	97	63	105	133	105	182	e180
25	87	43	e50	e47	55	97	72	120	132	99	193	e170
26	81	45	e50	e44	60	93	30	120	137	117	144	e165
27	81	43	e46	e43	56	93	26	125	226	122	135	e150
28	81	e43	e48	e46	71	68	28	120	323	115	128	e135
29	81	e45	e50	e50	91	e60	32	120	218	115	120	e125
30	81	e45	e54	e51	---	e57	27	110	171	110	e115	e110
31	81	---	e54	e52	---	e55	---	108	---	101	e105	---
TOTAL	4285	1507	1434	1505	1736	3201	1288	2653	4153	4592	3561	3695
MEAN	138	50.2	46.3	48.5	59.9	103	42.9	85.6	138	148	115	123
MAX	330	77	54	55	91	164	72	125	323	380	193	200
MIN	79	43	41	43	44	55	12	25	105	99	85	59
AC-FT	8500	2990	2840	2990	3440	6350	2550	5260	8240	9110	7060	7330

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

	194	138	104	76.1	101	215	350	443	505	308	214	203
MEAN	194	138	104	76.1	101	215	350	443	505	308	214	203
MAX	672	709	396	182	362	972	1339	1719	1555	1381	878	706
(WY)	1987	1987	1983	1985	1993	1993	1979	1958	1979	1957	1957	1970
MIN	47.9	32.1	33.8	33.9	38.6	45.1	22.8	44.3	74.5	81.6	80.4	58.3
(WY)	1978	1960	1964	1978	1978	1977	1951	1951	1977	1959	1977	1951

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1951 - 1996

ANNUAL TOTAL	132781	33610	
ANNUAL MEAN	364	91.8	
HIGHEST ANNUAL MEAN			242
LOWEST ANNUAL MEAN			582
HIGHEST DAILY MEAN	2510	Mar 6	380
LOWEST DAILY MEAN	e41	Dec 23	12
ANNUAL SEVEN-DAY MINIMUM	43	Dec 4	25
INSTANTANEOUS PEAK FLOW			610
INSTANTANEOUS PEAK STAGE			4.97
ANNUAL RUNOFF (AC-FT)	263400	66670	175000
10 PERCENT EXCEEDS	907	161	538
50 PERCENT EXCEEDS	177	81	132
90 PERCENT EXCEEDS	48	45	50

a-Estimated.

a-From rating curve extended above 5,100 ft<sup>3</sup>/s.

b-Maximum gage height, 9.00 ft, backwater from ice, sometime during period, Dec 23, 1990 to Jan 17, 1991.

## 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 upstream from mouth, and 0.2 mi east of La Boca.

DRAINAGE AREA.--58 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733. Water-quality data available, May 1974, January 1988 to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 6,160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Part of flow is return waste from irrigation. Nearly all irrigation in this basin is water diverted from the Los Pinos River near Bayfield, Co., which causes a considerable change in the annual pattern and natural flow. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	5.5	e3.3	e2.6	e2.2	e2.3	2.0	e17	53	156	108	135
2	65	6.7	e3.3	e2.5	e2.1	e2.4	2.0	e19	52	91	120	138
3	60	5.1	e3.2	e2.4	e2.0	e2.4	2.0	e21	51	87	138	142
4	48	4.7	2.7	e2.5	e1.8	e2.4	2.0	e24	48	85	122	e140
5	46	4.7	e3.0	e2.6	e2.0	e2.5	2.3	e26	43	85	101	e122
6	48	4.7	e3.1	e2.4	e2.2	e2.5	2.3	e28	40	88	109	156
7	53	4.7	3.0	e2.3	e2.1	e2.4	2.0	e28	39	85	116	150
8	53	4.7	e3.0	e2.4	e2.1	e2.3	2.3	e28	40	91	115	e138
9	47	4.7	e3.0	e2.2	e2.1	e2.4	2.0	e29	46	132	118	e118
10	46	5.8	e3.0	e2.2	e2.2	e2.5	2.0	e28	46	118	131	e117
11	48	5.9	e3.0	e2.2	e2.2	e2.6	2.3	e29	45	103	124	e120
12	48	4.4	e2.9	e2.1	e2.2	e2.7	2.0	e31	45	108	122	e118
13	45	4.3	e3.0	e2.1	e2.2	e2.8	3.0	e32	49	130	116	166
14	42	4.7	e3.0	e2.1	e2.2	e2.7	3.0	e33	54	129	113	222
15	43	4.4	e2.9	e2.1	e2.3	e2.6	2.3	e34	63	125	116	154
16	43	4.0	e2.8	e2.2	e2.3	e2.5	2.1	e35	58	125	125	32
17	38	4.0	e2.9	e2.3	e2.3	e2.5	3.7	e35	57	134	127	28
18	39	4.0	e2.9	e2.2	e2.3	e2.5	3.3	34	55	126	131	27
19	38	4.3	e2.8	e2.1	e2.3	e2.5	3.3	35	56	134	122	e27
20	39	4.0	2.7	e2.1	e2.4	e2.5	3.0	38	58	126	125	e25
21	43	3.7	e2.6	e2.1	e2.5	e2.5	4.0	40	61	e112	127	e21
22	22	4.0	e2.6	e2.1	e2.6	e2.7	3.3	46	85	e105	134	e18
23	7.4	3.7	e2.4	e2.1	e2.5	e2.8	3.0	43	71	e102	135	e16
24	5.9	3.3	e2.1	e2.0	e2.5	e2.9	5.0	43	68	e102	221	e14
25	5.5	e3.2	e2.3	e2.1	e2.4	e2.8	12	48	64	e106	201	e12
26	5.5	e3.3	e2.5	e1.9	e2.4	e2.7	e19	52	69	107	157	e10
27	5.5	e3.2	e2.4	e1.9	e2.3	e2.6	e22	51	141	104	152	e9.8
28	4.7	e3.2	e2.3	e2.0	e2.2	e2.5	e23	48	157	111	144	e9.1
29	5.1	e3.3	e2.4	e2.1	e2.2	e2.4	e18	52	101	109	146	e9.0
30	5.1	e3.3	e2.5	e2.2	---	2.3	e15	52	102	109	142	e9.3
31	4.7	---	e2.7	e2.2	---	2.0	---	52	---	104	140	---
TOTAL	1071.4	129.5	86.3	68.3	65.1	78.2	192.1	1111	1917	3429	4098	2403.2
MEAN	34.6	4.32	2.78	2.20	2.24	2.52	6.40	35.8	63.9	111	132	80.1
MAX	68	6.7	3.3	2.6	2.6	2.9	23	52	157	156	221	222
MIN	4.7	3.2	2.1	1.9	1.8	2.0	2.0	17	39	85	101	9.0
AC-FT	2130	257	171	135	129	155	381	2200	3800	6800	8130	4770

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

	MEAN	35.3	10.8	5.50	4.70	10.3	13.7	39.6	57.7	67.2	67.5	59.4
MAX	87.9	29.6	20.4	19.3	54.8	89.7	41.1	64.5	79.3	111	132	92.0
(WY)	1973	1956	1985	1980	1980	1979	1979	1992	1986	1996	1996	1983
MIN	5.25	3.68	1.74	2.04	2.24	2.52	3.77	15.7	24.4	21.2	32.1	26.5
(WY)	1978	1978	1960	1973	1996	1996	1978	1977	1977	1977	1977	1951

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1951 - 1996
ANNUAL TOTAL	14120.4	14649.1	
ANNUAL MEAN	38.7	40.0	33.0
HIGHEST ANNUAL MEAN			47.7
LOWEST ANNUAL MEAN			15.6
HIGHEST DAILY MEAN	918	Mar 6	918
LOWEST DAILY MEAN	e2.1	Dec 24	1.0
ANNUAL SEVEN-DAY MINIMUM	2.3	Dec 23	2.0
INSTANTANEOUS PEAK FLOW		405	405
INSTANTANEOUS PEAK STAGE		2.48	2.48
ANNUAL RUNOFF (AC-FT)	28010	29060	23890
10 PERCENT EXCEEDS	75	125	72
50 PERCENT EXCEEDS	25	7.0	23
90 PERCENT EXCEEDS	3.3	2.2	3.2

e-Estimated.

a-From rating curve extended above 160 ft<sup>3</sup>/s, on basis of field estimate of peak flow.

b-Maximum gage height, 5.98 ft, Mar 9, 1960, backwater from ice.

## SAN JUAN RIVER BASIN

09355100 NAVAJO RESERVOIR NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'28", long 107°36'31", in SW¼ 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 east of Archuleta, 33 mi east of Farmington, and at mile 298.6.

DRAINAGE AREA.--3,230 mi<sup>2</sup>, 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 between elevation 5,720 ft upstream toe of dam and 6,085 ft crest of spillway. Usable capacity 1,696,000 acre-ft above elevation 5,774.9 ft minimum operating level. Dead storage below elevation 5,774.9 ft is 12,600 acre-ft. Figures given herein are usable contents. Reservoir is used for irrigation storage, river regulation, desilting, flood control, and recreation.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,731,000 acre-ft, July 2-4, 1973, elevation, 6,087.25 ft; minimum contents after June 1964 (initial filling period), 234,300 acre-ft, Mar. 10, 11, 1965, elevation, 5,906.36 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,555,600 acre-ft, Oct. 1, elevation, 6,075.64 ft; minimum contents, 1,202,800 acre-ft, Sept. 30, elevation, 6,048.40 ft.

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 (ACRE-FEET), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1555600	1527200	1494200	1460800	1450200	1439500	1430100	1433300	1460100	1337200	1289200	1232900
2	1555000	1526100	1492900	1460200	1449600	1439100	1429800	1434100	1455800	1336200	1287000	1231100
3	1554400	1525000	1491500	1459500	1449100	1438600	1429800	1435300	1451900	1335300	1285000	1229800
4	1553500	1523900	1490100	1459000	1448600	1438600	1429700	1437000	1446900	1334100	1282700	1228200
5	1552600	1522600	1488900	1458500	1448000	1438200	1429800	1438900	1442300	1333300	1280800	1226300
6	1551700	1521500	1487800	1458000	1447500	1438200	1429500	1441000	1437200	1332400	1278500	1224500
7	1550800	1520400	1486600	1457300	1446900	1437800	1429300	1443300	1432800	1331300	1276300	1222900
8	1550100	1519300	1485500	1456800	1446300	1437800	1429000	1445800	1428200	1329800	1274400	1221500
9	1549100	1518100	1484400	1456100	1445800	1437200	1429000	1447700	1423000	1328100	1272700	1219700
10	1548100	1517000	1483300	1455900	1445200	1437200	1429100	1449500	1417200	1326800	1271000	1217800
11	1546900	1515900	1482200	1455800	1444800	1437000	1429100	1451700	1411400	1325500	1269000	1216200
12	1545900	1514800	1481200	1455600	1444400	1437000	1429300	1454600	1405500	1324100	1267100	1214700
13	1545000	1513700	1480300	1455500	1444000	1437000	1429500	1456800	1400200	1322800	1264900	1213700
14	1544200	1512700	1479500	1455400	1443500	1436500	1429500	1459000	1395500	1321800	1262600	1213800
15	1543500	1511700	1478500	1455200	1443300	1436100	1429900	1461500	1390400	1320100	1260500	1213700
16	1542500	1510700	1477400	1455100	1443000	1435700	1429500	1464200	1386200	1319300	1258600	1213600
17	1541400	1509700	1476300	1455100	1442700	1435700	1429100	1467300	1381100	1317900	1256200	1213500
18	1540300	1508800	1475200	1455200	1442400	1434900	1428400	1469800	1375900	1316400	1253800	1212900
19	1539400	1507800	1474000	1455100	1442300	1434500	1428200	1471900	1370300	1315200	1251500	1212500
20	1538600	1506700	1472800	1455000	1442100	1434100	1428100	1474000	1363800	1313700	1249200	1211800
21	1537600	1505700	1471500	1454700	1442100	1433700	1428000	1475600	1359100	1311900	1247000	1211100
22	1536500	1504600	1470300	1454500	1442100	1433100	1427200	1476400	1354700	1310100	1245200	1210400
23	1535600	1503400	1468900	1454300	1442100	1432300	1426800	1477000	1349600	1308300	1243700	1209300
24	1534700	1502300	1467500	1454200	1442000	1432000	1426400	1477000	1344500	1306400	1243000	1208400
25	1533700	1501200	1466100	1453600	1441900	1432000	1426800	1477000	1340200	1304200	1242000	1206800
26	1532700	1500100	1465200	1452900	1441600	1431500	1427600	1477100	1337400	1302300	1241200	1205200
27	1532000	1499000	1464400	1452400	1441000	1431400	1428800	1477400	1336700	1300100	1240400	1204600
28	1531300	1497800	1463500	1452000	1440600	1430800	1430300	1476100	1337000	1298200	1239200	1203900
29	1530300	1496700	1462800	1451600	1440200	1430600	1431800	1473200	1336600	1296200	1238200	1203200
30	1529300	1495600	1462100	1451100	---	1430600	1432100	1469800	1337600	1293900	1236500	1202800
31	1528400	---	1461500	1450700	---	1430300	---	1464900	---	1291500	1234700	---
MAX	1555600	1527200	1494200	1460800	1450200	1439500	1432100	1477400	1460100	1337200	1289200	1232900
MIN	1528400	1495600	1461500	1450700	1440200	1430300	1426400	1433300	1336600	1291500	1234700	1202800
(†)	6073.74	6071.40	6068.96	6068.13	6067.37	6066.64	6066.78	6069.21	6059.51	6055.81	6051.14	6048.40
(††)	-27200	-32800	-34100	-10800	-10500	-9900	+1800	+32800	-127300	-46100	-56800	-31900

CAL YR 1995 MAX 1610400 MIN 1378600 (††) +70400

WTR YR 1996 MAX 1555600 MIN 1202800 (††) -352800

(†) ELEVATION, IN FEET, AT END OF MONTH.

(††) CHANGE IN CONTENTS, IN ACRE-FEET.

## SAN JUAN RIVER BASIN

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'05", long 107°41'51", in NW¼NE¼ sec.20, T.30 N., R.8 W., San Juan County, Hydrologic Unit 14080101, on left bank 0.5 mi upstream from Gobernador Canyon, 0.8 mi northeast of Archuleta, 7.2 mi downstream from Navajo Dam, and at mile 291.4.

DRAINAGE AREA.--3,260 mi<sup>2</sup>, 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.

The correct value is 1,455,000 acre-ft.

GAGE.--Water-stage recorder. Elevation of gage is 5,653 ft above National Geodetic Vertical Datum of 1929, from river-profile survey. Prior to Dec. 29, 1959, at site 5.0 mi upstream at elevation 55 ft higher. Dec. 29, 1959 to Nov. 15, 1964, at site 0.4 mi upstream at elevation 5 ft higher. Prior to Nov. 28, 1966, at elevation 2.0 ft higher.

REMARKS.--Water-discharge records good. Flow completely regulated by Navajo Reservoir (station 09355100) 7 mi upstream except for minor inflow from 30 mi<sup>2</sup> intervening drainage area. High-water diversions through Azotea tunnel (station 08284160) into Rio Grande basin began in March 1971. Diversions for irrigation of about 47,000 acres upstream from 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. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	815	778	780	511	502	510	487	498	2410	647	624	609
2	803	773	778	510	498	510	487	488	2440	630	632	608
3	810	769	778	504	493	508	487	495	2450	607	630	608
4	804	771	778	506	493	510	485	494	2440	607	631	608
5	803	771	795	507	494	509	488	493	2390	608	633	609
6	807	771	834	512	493	513	487	493	2440	613	629	602
7	808	771	801	510	490	494	490	490	2440	608	633	603
8	808	774	796	509	493	511	493	487	2430	608	635	607
9	804	775	795	508	493	512	493	487	2430	608	641	607
10	804	777	790	387	493	509	489	485	2450	608	636	610
11	803	772	778	232	493	507	487	489	2520	607	629	608
12	801	773	749	244	493	499	493	487	2580	606	626	608
13	800	774	749	241	488	499	502	485	2470	607	626	606
14	802	778	754	241	487	499	501	482	2440	610	626	644
15	799	778	749	241	487	495	500	482	2450	613	626	620
16	785	780	744	242	487	500	499	482	2450	615	626	622
17	776	775	742	251	477	501	501	484	2440	613	630	621
18	777	776	763	249	476	496	495	493	2440	613	627	624
19	776	781	797	249	474	490	490	495	2440	610	628	628
20	772	778	825	252	480	490	488	499	2430	608	623	631
21	773	778	800	250	499	493	483	494	2430	609	622	634
22	771	780	795	252	501	490	484	494	2420	609	619	634
23	771	781	785	252	503	492	487	496	2410	608	620	631
24	768	782	788	252	499	491	486	493	2240	608	624	634
25	771	779	788	363	500	490	486	490	1900	609	610	636
26	769	778	659	493	504	487	484	490	1540	608	609	635
27	771	779	526	489	507	487	476	493	1150	610	631	640
28	774	778	500	490	507	487	471	768	801	614	607	639
29	769	778	501	498	510	484	478	1280	659	628	603	642
30	772	780	507	499	---	487	490	1730	670	617	606	648
31	771	---	512	501	---	487	---	2220	---	622	611	---
TOTAL	24437	23288	22736	11745	14314	15437	14667	19236	65200	18988	19353	18656
MEAN	788	776	733	379	494	498	489	621	2173	613	624	622
MAX	815	782	834	512	510	513	502	2220	2580	647	641	648
MIN	768	769	500	232	474	484	471	482	659	606	603	602
AC-FT	48470	46190	45100	23300	28390	30620	29090	38150	129300	37660	38390	37000
(†)	6200	0	0	0	0	2300	13000	31300	39500	40500	38600	22300

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

MEAN	886	924	1048	1100	1104	1181	1453	1730	1784	1288	974	923
MAX	2131	3018	2886	2768	2382	4216	4768	4962	5169	5126	3508	2674
(WY)	1966	1966	1966	1986	1987	1993	1979	1985	1979	1979	1973	1973
MIN	298	240	162	115	149	207	244	279	300	320	353	337
(WY)	1962	1963	1963	1963	1963	1964	1964	1967	1967	1967	1963	1963

## SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1963 - 1996
ANNUAL TOTAL	586958	268057	
ANNUAL MEAN	1608	732	a1200
HIGHEST ANNUAL MEAN			2686
LOWEST ANNUAL MEAN			280
HIGHEST DAILY MEAN	4850	2580	6420
LOWEST DAILY MEAN	483	232	30
ANNUAL SEVEN-DAY MINIMUM	496	242	108
INSTANTANEOUS PEAK FLOW		2630	b18900
INSTANTANEOUS PEAK STAGE		5.24	c11.00
INSTANTANEOUS LOW FLOW		219	8.0
ANNUAL RUNOFF (AC-FT)	1164000	531700	869100
10 PERCENT EXCEEDS	4370	807	2620
50 PERCENT EXCEEDS	803	609	689
90 PERCENT EXCEEDS	520	487	408

a-Average discharge for 7 years (water year 1956-62), 1,304 ft<sup>3</sup>/s, 944,700 acre-ft/yr, prior to closure of Navajo Dam.

b-Site and datum then in use.

c-Maximum discharge since construction of Navajo Dam in 1962, 6,500 ft<sup>3</sup>/s, June 20, 1965, gage height 4.75 ft.

(†) DISCHARGE, IN ACRE-FT, THROUGH NAVAJO INDIAN IRRIGATION TUNNEL.



## SAN JUAN RIVER BASIN

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	
DEC 1995										
07...	0915	787	223	8.1	6.5	7.5	15	620	--	
JAN 1996										
17...	0845	254	233	8.1	3.0	4.5	6.4	604	9.8	
APR										
02...	0830	484	218	7.7	8.0	4.5	1.3	618	9.9	
DATE		OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD HCO3 (00453)
DEC 1995										
07...	--		87	17	26	5.4	10	0.5	1.5	85
JAN 1996										
17...	96		83	15	25	4.9	12	0.6	1.4	82
APR										
02...	95		85	15	26	4.8	11	0.5	1.5	85
DATE		CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINIT WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINIT LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
DEC 1995										
07...	0		69	72	33	1.6	0.20	11	142	130
JAN 1996										
17...	0		67	70	38	2.3	0.20	11	140	135
APR										
02...	0		69	73	33	1.4	0.20	11	122	131

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 downstream from Florida River, 2.5 mi upstream from Colorado-New Mexico State line. 8.5 mi north of Cedar Hill, and at mile 32.9.

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WSP 1563: 1940 and 1946 (monthly figures only).

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 20,000 acres upstream from station. During water years 1944-49, Twin Rocks Canal diverted upstream from station for irrigation downstream. Slight regulation by Lemon Dam about 30 mi upstream on Florida River since November 1963 (capacity, 40,100 acre-ft). Satellite telemeter at station.

**EXTREMES OUTSIDE PERIOD OF RECORD.**--A major flood occurred in October 1911 at this location.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	686	327	283	e240	236	235	305	1050	928	897	238	223
2	657	327	279	232	236	242	333	1210	1050	830	240	214
3	e620	320	277	e240	218	244	396	1410	1270	770	237	199
4	e580	298	276	e243	e220	245	426	1600	1440	709	249	195
5	e540	287	276	e245	216	263	432	1830	1520	682	252	199
6	501	286	275	e240	230	269	398	2100	1560	637	233	e190
7	481	288	269	232	232	260	386	2260	1620	596	231	e180
8	484	287	269	236	219	243	422	2250	1620	591	235	e190
9	477	286	269	229	228	251	516	2410	1530	705	227	e200
10	458	303	256	214	233	254	697	2180	1390	648	222	e230
11	456	307	254	218	232	269	783	2250	1280	631	213	e250
12	445	286	255	211	234	280	733	2710	1190	560	199	e270
13	440	297	258	212	236	294	678	3110	1110	528	190	e330
14	483	297	263	211	237	293	628	3030	1230	497	181	e480
15	493	297	265	210	237	296	546	3100	1360	487	180	e500
16	468	297	257	215	247	275	503	3350	1150	427	178	e500
17	433	292	252	242	249	275	520	3550	1090	451	130	e520
18	421	285	259	235	250	276	521	3430	1070	430	141	e570
19	422	283	255	225	249	276	495	3240	1010	450	140	e550
20	427	283	242	219	253	273	458	3160	961	421	138	e530
21	417	281	236	229	280	273	449	2790	991	386	158	e520
22	406	272	236	e220	276	282	418	2580	1380	353	167	e510
23	359	276	238	e225	274	309	410	2270	1340	325	185	e500
24	346	279	239	e230	261	330	445	e1900	1040	326	247	e480
25	342	279	e240	e230	255	333	670	e1600	895	301	224	e460
26	342	287	e240	e230	255	325	1040	e1300	808	280	310	438
27	339	293	e242	e230	254	314	1270	e1100	834	263	349	439
28	333	273	e245	e235	232	301	1440	e950	1080	248	341	419
29	327	263	e245	e235	230	301	1240	e850	1120	240	313	412
30	327	278	e240	e240	---	304	1020	828	922	261	279	379
31	327	---	e240	239	---	304	---	908	---	259	246	---
TOTAL	13837	8714	7930	7092	7009	8689	18578	66306	35789	15189	6873	11077
MEAN	446	290	256	229	242	280	619	2139	1193	490	222	369
MAX	686	327	283	245	260	333	1440	3550	1620	897	349	570
MIN	327	263	236	210	216	235	305	828	808	240	130	180
AC-FT	27450	17280	15730	14070	13900	17230	36850	131500	70990	30130	13630	21970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904				1920, 21 WATER YEAR (WY)								
MEAN	464	340	267	244	260	423	1085	2515	3018	1263	612	520
MAX	2479	1068	555	388	467	1043	2191	5686	6145	3710	1661	1922
(WY)	1942	1942	1987	1973	1987	1993	1985	1941	1957	1957	1957	1970
MIN	169	158	159	169	151	141	273	449	458	223	222	155
(WY)	1957	1934	1957	1954	1964	1977	1977	1977	1934	1934	1996	1956

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1964		1998
ANNUAL TOTAL	487655		207083				
ANNUAL MEAN	1336		566				
HIGHEST ANNUAL MEAN					927		
LOWEST ANNUAL MEAN					1713		1941
HIGHEST DAILY MEAN	7700	Jun 16	3550	May 17	340		1977
LOWEST DAILY MEAN	220	Jan 19	130	Aug 17	11800		1949
ANNUAL SEVEN-DAY MINIMUM	239	Dec 20	150	Aug 16	.00		1933
INSTANTANEOUS PEAK FLOW			4020	May 17	.00		1933
INSTANTANEOUS PEAK STAGE			7.61	May 17	13100		1949
INSTANTANEOUS LOW FLOW			117	Aug 17	11.45		1949
ANNUAL RUNOFF (AC-FT)	967300		410700		63		1935
10 PERCENT EXCEEDS	3920		1270		671700		
50 PERCENT EXCEEDS	694		299		2430		
90 PERCENT EXCEEDS	269		224		406		
e Estimated					210		

## SAN JUAN RIVER BASIN

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM -- Continued

PERIOD OF RECORD.--Water years 1943, 1945, 1958-59, 1969-73, 1975, 1987 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
DEC 1995													
07...	1145	269	640	8.3	9.0	3.5	620	--	--	<10	K7	41	
JAN 1996													
18...	0930	252	654	8.2	-11.5	0.0	613	11.9	102	13	K1	36	
APR													
02...	1115	346	549	7.9	17.0	10.0	612	10.4	115	<10	18	50	
SEP													
04...	0900	200	708	8.3	12.0	15.0	617	7.6	94	<10	--	--	
DATE		HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD HCO3 (MG/L AS) (00453)	CARBONATE WATER DIS IT FIELD CO3 (MG/L AS) (00452)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
DEC 1995													
07...	270	120	85	14	26	0.7	3.0	170	9	155	159	130	
JAN 1996													
18...	300	150	95	15	28	0.7	3.9	177	0	145	150	160	
APR													
02...	240	110	77	12	20	0.6	3.0	155	0	127	131	130	
SEP													
04...	270	100	83	16	38	1	5.0	209	0	172	177	140	
DATE		CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
DEC 1995													
07...	21		0.50	8.5	383	0.410	0.020	0.430	0.050	--	<0.20	<0.20	0.040
JAN 1996													
18...	23		0.40	9.7	424	0.480	0.020	0.500	0.060	--	<0.20	<0.20	0.030
APR													
02...	16		0.40	7.2	343	0.120	0.020	0.140	0.040	0.16	<0.20	0.20	0.020
SEP													
04...	36		0.50	7.5	429	0.090	0.010	0.100	<0.015	--	0.20	<0.20	0.020
DATE		PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTIMONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	
DEC 1995													
07...	0.020	0.020	2.7	11	<1.0	<1	82	<1.0	80	<1.0	<1.0		
JAN 1996													
18...	0.020	0.020	2.1	--	--	--	--	--	60	--	--		
APR													
02...	0.030	0.010	2.9	18	<1.0	<1	68	<1.0	60	<1.0	<1.0		
SEP													
04...	0.010	<0.010	2.2	5.0	<1.0	<1	104	<1.0	119	<1.0	<1.0		

## SAN JUAN RIVER BASIN

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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, DIS- SOLVED (UG/L AS AG) (01075)
DEC 1995											
07...	<1.0	4.0	8.0	<1.0	47	<0.10	2.0	2.0	<1	<1	<1.0
JAN 1996											
18...	--	--	7.0	--	--	--	--	--	--	--	--
APR											
02...	<1.0	2.0	5.0	<1.0	55	<0.10	1.0	2.0	<1	<1	<1.0
SEP											
04...	<1.0	2.0	5.0	<1.0	40	<0.10	2.0	3.0	<1	<1	<1.0

DATE	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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, NH4 + ORG. TOT IN BOT. MAT (MG/KG AS N) (00626)	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 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)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)
DEC 1995											
07...	25	4.0	230	1600	580	7	2	<1	<5	13	720
JAN 1996											
18...	--	--	--	--	--	--	--	--	--	--	--
APR											
02...	15	--	--	--	--	--	--	--	--	--	--
SEP											
04...	3.0	--	--	--	--	--	--	--	--	--	--

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)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	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)
DEC 1995											
07...	30	1200	0.03	460	0.07	0.020	1.1	0.0	13	9.4	58
JAN 1996											
18...	--	--	--	--	--	--	--	--	8	5.4	67
APR											
02...	--	--	--	--	--	--	1.0	--	16	15	67
SEP											
04...	--	--	--	--	--	--	2.0	--	80	43	79

## 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 upstream from bridge on Miller Ave., 0.4 mi downstream from bridge on U.S. Highway 64 in Farmington, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--1,360 mi<sup>2</sup>, 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. Elevation of gage is 5,280 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 1, 1905, non recording gage at old bridge 0.1 mi upstream at different datum. Sept. 17, 1912, to Oct. 4, 1938, water-stage recorder at site 0.8 mi downstream at lower datums (datum lowered 2.0 ft Aug. 15, 1927, and raised 0.2 ft Dec. 16, 1929). Oct. 5, 1938, to Nov. 1, 1973, at site 900 ft downstream at datum 1.74 ft lower.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 30,000 acres upstream from station. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, when a stage of about 16.5 ft was reached (datum in use Oct. 1938 to Nov. 1973). Flood of Sept. 6, 1909, reached a stage of 11.1 ft, 1904-5 site and datum (discharge, about 19,000 ft<sup>3</sup>/s).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	662	259	e213	e170	e166	275	220	640	607	705	40	69
2	623	246	e209	e162	e166	275	199	791	662	683	15	58
3	563	240	e207	e170	e140	279	202	986	883	655	1.5	58
4	478	223	e206	e173	e148	283	267	1200	1120	592	2.0	59
5	491	212	e206	e175	e147	289	284	1440	1220	538	6.0	39
6	485	222	e205	e170	e167	303	228	1730	1320	494	18	37
7	491	222	e199	e162	e173	297	228	1950	1450	476	.14	18
8	429	227	e199	e166	e161	278	240	1980	1490	443	.00	11
9	397	222	e199	e159	e169	259	264	2060	1440	514	.00	21
10	371	231	e186	e144	e174	258	377	1970	1300	511	.28	9.3
11	349	261	e199	e147	e250	256	532	1900	1140	530	24	17
12	327	236	e183	e145	e261	266	523	2350	1030	417	4.6	28
13	330	234	e188	e143	e265	277	481	2880	986	387	.00	69
14	329	244	e193	e142	266	287	472	2880	952	387	.00	201
15	355	240	e195	e141	268	288	458	2890	1300	349	.00	388
16	354	234	e187	e143	276	284	315	3130	1110	305	.00	407
17	319	226	e182	e162	283	259	293	3400	921	288	.00	401
18	323	215	e189	e155	286	261	287	3340	891	275	.00	415
19	314	221	e185	e156	286	264	277	3130	858	267	.00	459
20	316	224	e172	e147	288	261	260	3030	793	273	.00	431
21	307	222	e166	e154	310	249	239	2730	808	230	.00	386
22	311	214	e166	e165	318	249	217	2410	1100	205	.00	375
23	332	209	e168	e175	315	262	188	2170	1310	166	.00	346
24	318	210	e169	e180	298	279	183	1760	988	125	86	327
25	300	208	e170	e180	289	292	239	1310	771	109	173	303
26	307	208	e170	e180	289	286	535	1030	641	85	123	295
27	305	223	e172	e180	292	271	871	861	615	65	179	299
28	295	e223	e175	e180	281	252	1050	707	806	55	184	289
29	288	e203	e175	e175	268	249	1060	584	952	42	167	274
30	287	e193	e170	e172	---	254	739	518	784	34	124	255
31	286	---	e170	e170	---	242	---	595	---	53	99	---
TOTAL	11642	6752	5773	5043	7000	8384	11728	58352	30248	10258	1246.52	6344.3
MEAN	376	225	186	163	241	270	391	1882	1008	331	40.2	211
MAX	662	261	213	180	318	303	1060	3400	1490	705	184	459
MIN	286	193	166	141	140	242	183	518	607	34	.00	9.3
AC-FT	23090	13390	11450	10000	13880	16630	23260	115700	60000	20350	2470	12580

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

	430	351	294	274	299	449	989	2402	2993	1126	484	433
MEAN	430	351	294	274	299	449	989	2402	2993	1126	484	433
MAX	2726	1140	609	554	675	995	2489	6126	6930	3609	1971	2182
(WY)	1942	1942	1987	1920	1920	1993	1979	1920	1920	1957	1921	1925
MIN	87.0	152	174	163	162	112	54.1	195	235	46.4	40.2	10.6
(WY)	1957	1935	1964	1996	1964	1977	1977	1977	1934	1934	1996	1956

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1914 - 1996

ANNUAL TOTAL	457501	162770.82	
ANNUAL MEAN	1253	445	
HIGHEST ANNUAL MEAN			878
LOWEST ANNUAL MEAN			1733
HIGHEST DAILY MEAN	7460	3400	11000
LOWEST DAILY MEAN	166		
ANNUAL SEVEN-DAY MINIMUM	169		
INSTANTANEOUS PEAK FLOW			a25000
INSTANTANEOUS PEAK STAGE		7.49	9.32
INSTANTANEOUS LOW FLOW		.00	.00
ANNUAL RUNOFF (AC-FT)	907500	322900	636100
10 PERCENT EXCEEDS	3770	1040	2320
50 PERCENT EXCEEDS	644	261	375
90 PERCENT EXCEEDS	211	58	186

e Estimated

a-From rating curve extended above 10,000 ft<sup>3</sup>/s.

## SAN JUAN RIVER BASIN

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1940 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 1995												
03...	1600	508	480	--	19.0	16.0	--	--	--	--	--	--
DEC 06...	0830	269	774	8.2	0.0	3.5	630	11.9	109	<10	<14	47
JAN 1996												
16...	1430	261	792	8.2	12.0	2.0	625	12.1	107	10	<1	<15
APR 01...	1415	220	636	8.6	22.5	14.5	629	12.5	149	<10	K2	35
SEP 04...	1315	72	905	8.3	27.5	22.0	631	9.0	125	<10	--	--

DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 1995												
03...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 06...	310	150	100	15	39	1	3.0	202	0	166	173	180
JAN 1996												
16...	300	130	96	15	34	0.9	3.0	207	0	170	173	190
APR 01...	270	140	85	13	31	0.8	3.0	129	11	123	114	170
SEP 04...	350	170	110	18	55	1	4.0	205	5	176	158	250

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, 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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
OCT 1995												
03...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 06...	22	0.50	5.0	465	0.200	0.010	0.210	<0.015	--	<0.20	<0.20	<0.010
JAN 1996												
16...	24	0.40	8.0	474	0.370	0.010	0.380	0.020	--	<0.20	<0.20	0.030
APR 01...	19	0.40	5.3	401	--	0.020	<0.050	0.020	0.18	<0.20	0.20	0.020
SEP 04...	31	0.50	4.9	580	--	<0.010	0.090	<0.015	--	0.20	<0.20	0.040

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SE) (01095)	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)
OCT 1995											
03...	--	--	--	--	--	--	--	--	--	--	--
DEC 06...	<0.010	<0.010	2.4	7.0	<1.0	<1	81	<1.0	90	<1.0	1.0
JAN 1996											
16...	0.020	<0.010	3.3	--	--	--	--	--	90	--	--
APR 01...	<0.010	0.020	3.6	9.0	<1.0	<1	59	<1.0	70	<1.0	<1.0
SEP 04...	0.020	<0.010	2.2	6.0	<1.0	<1	107	<1.0	111	<1.0	1.0

## SAN JUAN RIVER BASIN

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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, DIS- SOLVED (UG/L AS AG) (01075)
OCT 1995											
03...	--	--	--	--	--	--	--	--	--	--	--
DEC											
06...	<1.0	4.0	11	<1.0	51	<0.10	2.0	3.0	<1	<1	<1.0
JAN 1996											
16...	--	--	6.0	--	--	--	--	--	--	--	--
APR											
01...	<1.0	2.0	7.0	<1.0	46	<0.10	2.0	2.0	<1	<1	<1.0
SEP											
04...	<1.0	2.0	<3.0	<1.0	55	<0.10	3.0	3.0	<1	<1	<1.0
DATE	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, NH4 TOT. IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN, NH4 + ORG. TOT. IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)
OCT 1995											
03...	--	--	--	--	--	--	--	--	--	--	--
DEC											
06...	20	2.0	63	1000	390	8	<1	<1	<5	12	700
JAN 1996											
16...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	4.0	--	--	--	--	--	--	--	--	--	--
SEP											
04...	4.0	--	--	--	--	--	--	--	--	--	--
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)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	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 1995											
03...	--	--	--	--	--	--	--	--	--	--	--
DEC											
06...	30	960	0.03	120	0.08	0.020	1.7	0.0	30	22	34
JAN 1996											
16...	--	--	--	--	--	--	--	--	31	22	62
APR											
01...	--	--	--	--	--	--	2.0	--	22	13	64
SEP											
04...	--	--	--	--	--	--	3.0	--	36	7.0	53

b-From rating curve extended above 37,000 ft<sup>3</sup>/s.



## SAN JUAN RIVER BASIN

## 09366500 LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 36°59'51", long 108°11'17", in NW¼ 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 downstream from Ponds Arroyo, and 4.8 mi north of La Plata, NM.

DRAINAGE AREA.--331 mi<sup>2</sup>.

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 with satellite telemetry. Datum of gage is 5,975.15 ft above National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Mar. 17, 1934. Mar. 17, 1934 to July 1, 1996, water-stage recorder at same site, and at datum 3.12 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 15,000 acres, most of which are upstream from station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	12	13	e14	16	14	5.7	44	10	4.2	2.9	4.0
2	6.5	12	13	e13	15	14	4.4	46	12	4.3	3.1	3.9
3	6.0	12	13	e12	15	14	5.0	44	15	2.9	3.2	4.0
4	6.2	12	13	e13	17	15	5.0	56	18	2.6	3.5	3.8
5	7.3	12	13	e14	18	16	6.0	59	18	3.0	3.4	3.8
6	8.7	12	13	e14	15	15	6.3	62	18	2.9	3.1	4.3
7	8.9	12	13	e14	15	14	5.6	61	19	3.1	2.9	4.0
8	8.0	11	14	e14	15	14	5.3	66	17	3.4	2.9	3.7
9	8.1	12	13	e14	15	14	6.1	76	15	2.9	3.4	3.7
10	8.0	13	12	14	15	15	16	65	13	3.4	4.2	3.5
11	8.1	13	12	e13	15	14	34	62	11	3.1	3.5	3.6
12	7.7	13	13	e14	15	14	36	60	10	2.5	2.9	4.0
13	7.7	13	13	e14	15	15	39	58	11	2.4	2.7	5.3
14	7.4	13	15	e14	15	15	34	62	15	2.1	2.7	7.2
15	7.7	12	14	e14	15	15	19	65	21	1.7	2.7	6.6
16	7.6	12	14	e15	15	14	15	68	14	.98	2.6	6.0
17	7.1	12	14	e16	15	14	14	64	9.6	1.3	2.6	5.9
18	6.8	12	14	e15	18	14	14	62	6.6	1.1	2.6	6.4
19	6.8	13	14	e15	16	13	14	63	5.6	2.3	2.8	6.6
20	7.4	13	14	e14	19	12	13	65	6.0	2.5	2.8	5.2
21	8.0	13	e14	e14	20	12	12	55	7.4	2.1	3.9	4.2
22	8.7	13	e13	e14	19	12	9.8	54	7.3	2.0	3.6	4.0
23	9.4	13	e12	e14	17	10	10	48	4.1	1.8	4.4	3.9
24	9.6	13	e12	e14	15	8.9	10	40	4.1	1.7	4.4	4.2
25	9.7	13	e13	e14	15	9.3	24	37	4.0	1.6	3.9	4.4
26	9.8	13	e13	e13	16	8.8	47	28	3.8	2.2	4.1	4.4
27	9.4	13	e13	e14	15	8.7	59	18	41	2.2	4.1	4.5
28	9.3	15	e14	e14	15	8.3	70	11	12	3.5	4.8	4.6
29	10	13	e14	e15	15	8.9	46	8.2	5.8	3.3	4.7	4.8
30	10	13	e14	e15	---	9.3	48	8.5	3.9	3.2	4.4	4.8
31	10	---	e14	15	---	7.7	---	9.7	---	2.8	4.0	---
TOTAL	253.1	378	413	436	461	388.9	633.2	1525.4	358.2	79.08	106.8	139.3
MEAN	8.16	12.6	13.3	14.1	15.9	12.5	21.1	49.2	11.9	2.55	3.45	4.64
MAX	10	15	15	16	20	16	70	76	41	4.3	4.8	7.2
MIN	6.0	11	12	12	15	7.7	4.4	8.2	3.8	.98	2.6	3.5
AC-FT	502	750	819	865	914	771	1260	3030	710	157	212	276

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1996, BY WATER YEAR (WY)

	MEAN	13.9	11.9	12.2	11.7	17.0	36.3	107	110	67.3	20.3	11.8	11.2
MAX	260	99.2	53.9	38.3	53.9	130	363	506	306	99.4	65.1	126	
(WY)	1942	1942	1987	1942	1924	1993	1980	1941	1957	1957	1957	1927	
MIN	.097	.98	1.24	.80	2.96	.63	3.06	5.32	1.94	.019	.006	.000	
(WY)	1935	1940	1978	1930	1977	1977	1977	1977	1924	1922	1922	1956	

## SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1921 - 1996
ANNUAL TOTAL	16028.5	5171.98	
ANNUAL MEAN	43.9	14.1	35.9
HIGHEST ANNUAL MEAN			109
LOWEST ANNUAL MEAN			4.44
HIGHEST DAILY MEAN	343	76	1120
LOWEST DAILY MEAN	3.2	.98	a.00
ANNUAL SEVEN-DAY MINIMUM	3.8	1.7	.00
INSTANTANEOUS PEAK FLOW		227	b4750
INSTANTANEOUS PEAK STAGE		4.36	11.36
ANNUAL RUNOFF (AC-FT)	31790	10260	26020
10 PERCENT EXCEEDS	111	25	86
50 PERCENT EXCEEDS	19	12	12
90 PERCENT EXCEEDS	7.5	3.1	1.6

e-Estimated.

a-No flow at times in many years.

b-From rating curve extended above 750 ft/s, on basis of slope-area measurement of peak flow, at datum then in use.

## SAN JUAN RIVER BASIN

09367500 LA PLATA RIVER NEAR FARMINGTON, NM

LOCATION.--Lat 36°44'23", long 108°14'51", in NE1/4 sec.7, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on right bank 1,300 ft upstream from bridge U.S. Highway 550 in Farmington, and 1,800 ft upstream from mouth.

DRAINAGE AREA.--583 mi<sup>2</sup>.

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. Elevation of gage is 5,210 ft above National Geodetic Vertical Datum of 1929, from river-profile map. Prior to July 28, 1978, at elevation 1.0 ft higher. December 6, 1990 to July 1, 1993 at site 1,000 ft downstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 24,000 acres upstream from station. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909, and Oct. 5 or 6, 1911 and September 10, 1939.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	11	20	e15	33	12	.99	1.2	1.3	e25	.00	.00
2	2.7	11	20	e27	30	10	1.0	1.2	1.4	9.1	.00	.00
3	2.4	12	20	e22	26	8.8	.93	1.2	1.3	7.2	.00	.00
4	2.1	14	20	e18	23	8.6	.96	1.2	1.2	6.3	.00	.00
5	e1.2	15	20	e23	27	8.9	1.0	1.2	1.2	5.3	.00	.00
6	1.2	13	20	e25	25	8.7	.94	1.2	1.2	4.7	.00	.38
7	1.5	14	21	e30	24	8.4	.92	1.2	1.2	4.2	.00	5.1
8	1.9	13	21	e36	24	7.0	.91	1.2	1.2	5.7	.00	2.7
9	1.8	15	20	e42	23	5.3	.84	1.2	1.1	4.5	.00	3.2
10	1.6	15	20	41	23	4.8	.89	3.7	1.1	3.8	.00	4.0
11	1.6	16	20	41	23	4.1	.91	2.1	1.1	3.2	.00	e3
12	1.7	17	20	40	24	4.0	.91	1.5	1.1	2.8	.00	e3
13	1.8	19	21	40	23	5.3	1.3	1.5	1.1	2.4	.00	e2
14	1.8	19	23	39	23	5.0	1.1	1.5	1.1	2.2	.00	32
15	2.1	19	22	32	23	5.6	1.2	1.8	21	1.9	.00	40
16	2.2	19	22	30	23	5.3	1.3	2.0	6.2	1.6	.00	33
17	1.7	19	24	33	23	4.3	1.2	2.2	3.6	3.1	.00	e15
18	2.9	18	24	28	23	3.4	1.3	1.5	2.9	3.0	.00	e9.5
19	2.3	16	22	29	24	3.1	1.2	1.3	2.5	2.3	.00	e5.0
20	1.2	15	21	28	22	2.2	1.3	1.3	2.3	1.8	.00	e3.0
21	1.2	13	20	25	23	1.8	1.3	1.3	2.2	1.5	.00	e2.0
22	1.1	12	e20	28	24	1.6	1.3	1.3	2.1	e1.1	.00	e1.5
23	1.1	11	e20	26	22	1.5	1.3	1.2	2.1	e.70	.00	e1.0
24	1.1	9.5	e20	27	21	1.4	1.3	1.3	2.0	e.45	.00	e.70
25	1.1	8.7	e20	27	20	1.4	1.2	1.3	2.0	e.30	.00	e.60
26	1.1	10	e18	25	18	1.3	1.2	1.3	2.0	e.15	.00	e.50
27	1.2	11	e17	23	17	1.3	1.2	1.3	22	e.08	.00	e.45
28	1.3	15	e16	28	17	1.2	1.2	1.2	e40	e.03	.00	e.40
29	1.2	20	e15	25	17	1.3	1.4	1.2	e20	e.02	.01	e.35
30	5.2	20	e13	27	---	1.2	1.3	1.3	e10	e.02	.04	e.30
31	11	---	e12	29	---	1.0	---	1.3	---	e.00	.01	---
TOTAL	66.0	440.2	612	909	668	139.8	33.80	45.2	159.5	104.45	0.06	168.68
MEAN	2.13	14.7	19.7	29.3	23.0	4.51	1.13	1.46	5.32	3.37	.002	5.62
MAX	11	20	24	42	33	12	1.4	3.7	40	25	.04	40
MIN	1.1	8.7	12	15	17	1.0	.84	1.2	1.1	.00	.00	.00
AC-FT	131	873	1210	1800	1320	277	67	90	316	207	.1	335

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

	MEAN	20.4	12.9	14.2	18.2	24.3	35.0	90.3	68.0	34.7	9.07	11.5	11.2
MAX	537	141	73.1	100	89.2	166	408	783	252	117	64.5	170	170
(WY)	1942	1987	1987	1979	1979	1993	1980	1941	1957	1986	1957	1941	1941
MIN	.000	.000	.000	.032	1.00	.16	.000	.000	.000	.000	.000	.000	.000
(WY)	1947	1955	1956	1957	1957	1959	1951	1939	1939	1948	1950	1955	1955

SUMMARY STATISTICS

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1938 - 1996
ANNUAL TOTAL	11741.31	3346.69	
ANNUAL MEAN	32.2	9.14	29.0
HIGHEST ANNUAL MEAN			134
LOWEST ANNUAL MEAN			.48
HIGHEST DAILY MEAN	300	Mar 6	2370
LOWEST DAILY MEAN	.26	Aug 14	.00
ANNUAL SEVEN-DAY MINIMUM	.29	Aug 13	.00
INSTANTANEOUS PEAK FLOW		71	b5770
INSTANTANEOUS PEAK STAGE		2.10	a13.60
INSTANTANEOUS LOW FLOW		.00	.00
ANNUAL RUNOFF (AC-FT)	23290	6640	21020
10 PERCENT EXCEEDS	108	24	65
50 PERCENT EXCEEDS	19	2.4	4.0
90 PERCENT EXCEEDS	.92	.02	.00

e Estimated

a-From floodmarks.

b-From rating curve extended on basis of slope-area measurement of peak flow.

## SAN JUAN RIVER BASIN

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM

## WATER-QUALITY RECORDS

LOCATION.--Lat 36°44'25", long 108°24'09", in NW S SE S sec. 10, T.29 N., R.15 W., San Juan County, Hydrologic Unit 14080105, on right bank 300 ft downstream from Four Corners Powerplant highway bridge, 0.4 mi west of Fruitland, 10 mi downstream from La Plata River, 14.0 mi upstream from Chaco River, and at mile 239.

DRAINAGE AREA.--8,010 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--Water years 1978 to September 1996 (discontinued).

REMARKS.--Discharges estimated from discharge records at 09365000 San Juan River at Farmington, which is approximately 11 miles upstream and station 09367500 La Plata River near Farmington which is approximately 8.7 miles upstream.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
OCT 1995										
05...	1100	E1200	453	--	18.0	9.0	--	--	--	--
DEC										
06...	1330	E1270	524	8.6	12.5	6.0	21	635	11.2	108
JAN 1996										
18...	1500	E659	764	8.6	0.0	0.5	38	634	13.4	112
APR										
04...	0830	E394	528	7.8	12.0	10.0	11	634	9.6	103

DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
OCT 1995										
05...	--	--	--	--	--	--	--	--	--	--
DEC										
06...	190	77	59	11	32	1	2.2	129	6	115
JAN 1996										
18...	290	140	88	16	54	1	2.6	162	6	143
APR										
04...	170	64	54	8.7	34	1	1.8	130	0	106

DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995									
05...	--	--	--	--	--	--	--	15	40
DEC									
06...	117	130	10	0.30	8.4	334	322	--	--
JAN 1996									
18...	149	220	17	0.30	8.9	512	492	--	--
APR									
04...	109	140	12	0.30	6.4	328	321	--	--

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM

LOCATION.--Lat 36°46'52", long 108°41'23", in SE¼ sec.25, T.30 N., R.18 W., San Juan County, Hydrologic Unit 14080105, on right bank 500 ft upstream from bridge on U.S. Highway 666 in Shiprock, 3 mi downstream from Chaco River, and at mile 215.0.

DRAINAGE AREA.--12,900 mi<sup>2</sup>, 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 4,890 ft above 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 upstream at different datum. Oct. 26, 1933, to Sept. 30, 1936, water-stage recorder at present site at datum 3.31 ft higher and Oct. 1, 1936, to Sept. 30, 1952, at datum 1.77 ft higher. Supplementary water-stage recorders at nearby sites, same datum, used at times. Water-stage recorder, at site 4 mi upstream Sept. 1994.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are fair. Since 1962 flow partly regulated by Navajo Reservoir (station 09355100). Diversions for irrigation of about 118,000 acres upstream from station. Ungaged canals bypass station on both right and left banks, though some of bypass flow is returned to river downstream from gage. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, and reached a stage of 22 ft, site and datum then in use.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1240	1040	1100	824	862	709	469	691	e1600	e1500	155	402
2	1230	983	1070	820	897	761	470	777	e2000	e1250	144	375
3	1130	977	1060	788	823	760	394	843	e2500	e1060	142	378
4	1120	975	1050	770	774	793	393	1010	e2900	981	145	311
5	1100	978	1040	799	759	788	467	1210	e3240	847	158	261
6	1150	990	1040	885	771	746	510	1530	e3220	749	140	398
7	1110	1050	1110	884	763	761	498	1930	e3210	687	161	450
8	1060	1050	1080	864	771	729	511	2170	e3260	663	218	393
9	1010	1060	1070	855	806	718	539	2070	e3250	581	227	329
10	876	1060	1060	855	803	707	429	2270	e3100	592	369	330
11	871	1090	1050	783	814	713	587	1950	e2950	630	356	295
12	853	1090	1050	609	810	716	823	2060	e2990	622	296	362
13	817	1060	1020	587	801	696	741	2710	e3100	531	239	376
14	812	1050	1040	591	794	719	738	3090	e2800	550	167	932
15	827	1050	1090	591	788	773	684	2970	e2950	590	158	1640
16	932	1060	1080	582	785	771	576	3090	e3100	454	156	1260
17	903	1040	1020	531	790	764	408	3380	e2870	538	143	1090
18	847	1040	1050	635	790	794	387	3550	e2750	835	147	1100
19	847	1090	1050	600	795	766	384	3390	e2690	845	154	1390
20	842	1120	1080	537	811	710	382	3220	e2540	722	157	1280
21	812	1120	1120	513	739	703	364	3140	e2700	535	159	1100
22	804	1100	1070	498	784	706	296	2660	e2800	465	170	932
23	940	1080	1060	512	781	677	282	e2250	e3000	419	535	887
24	975	1090	1040	550	759	663	286	e1900	e2600	371	1210	862
25	997	1090	1030	572	730	669	265	e1550	e2400	239	1210	823
26	994	1090	1020	586	694	652	324	e1350	e2100	211	1210	796
27	1080	1090	995	795	705	633	731	e1080	e2200	203	1220	864
28	1050	1120	865	833	709	579	983	e1040	e1900	192	1260	810
29	1030	1100	765	856	707	546	1120	e1000	e1600	172	673	770
30	1030	1090	771	859	---	490	907	e980	e1520	169	544	747
31	1030	---	809	868	---	477	---	e1050	---	154	429	---
TOTAL	30319	31823	31755	21832	22615	21689	15948	61911	79840	18357	12452	21943
MEAN	978	1061	1024	704	780	700	532	1997	2661	592	402	731
MAX	1240	1120	1120	885	897	794	1120	3550	3260	1500	1260	1640
MIN	804	975	765	498	694	477	265	691	1520	154	140	261
AC-FT	60140	63120	62990	43300	44860	43020	31630	122800	158400	36410	24700	43520

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1996, BY WATER YEAR (WY)

	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
MEAN	1267	1108	1073	1082	1233	1649	3080	4918	5365	2236	1300	1187
MAX	8370	3997	3420	3169	3314	5099	9275	19790	15540	8869	5171	3329
(WY)	1942	1987	1966	1966	1987	1993	1937	1941	1941	1957	1957	1938
MIN	247	365	386	390	395	359	274	268	630	185	126	44.4
(WY)	1957	1935	1957	1963	1964	1964	1977	1977	1977	1963	1939	1956

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1935 - 1996
ANNUAL TOTAL	1010233	370484	
ANNUAL MEAN	2768	1012	2125
HIGHEST ANNUAL MEAN			5324
LOWEST ANNUAL MEAN			702
HIGHEST DAILY MEAN	11700	3550	33300
LOWEST DAILY MEAN	765	140	8.0
ANNUAL SEVEN-DAY MINIMUM	814	148	13
INSTANTANEOUS PEAK FLOW		4040	80000
INSTANTANEOUS PEAK STAGE		10.15	14.02
INSTANTANEOUS LOW FLOW		117	a8.0
ANNUAL RUNOFF (AC-FT)	2004000	734900	1540000
10 PERCENT EXCEEDS	6910	2180	5070
50 PERCENT EXCEEDS	1280	823	1150
90 PERCENT EXCEEDS	872	330	450

e Estimated

a-Also occurred Aug. 26, 1939.

## 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.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	
OCT 1995												
04...	1450	1080	465	--	18.0	14.0	--	--	--	--	--	
DEC 05...	1200	1040	586	8.1	5.0	5.5	641	12.6	119	11	<14	
JAN 1996												
17...	1245	619	805	8.1	7.0	3.5	623	12.5	116	<10	<7	
APR 03...	1130	394	604	8.3	15.0	13.0	635	9.8	112	20	20	
SEP 03...	1230	368	553	8.3	26.0	20.5	640	7.9	105	14	--	
DATE		STREP-TOCOCCEI, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CAC03 (MG/L) (00904)	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 WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)
OCT 1995												
04...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	130	220	98	65	13	37	1	2.3	144	0	118	
JAN 1996												
17...	40	300	160	90	19	57	1	2.6	175	2	148	
APR 03...	77	210	100	64	13	46	1	2.4	137	0	112	
SEP 03...	--	190	69	58	10	39	1	2.4	143	0	117	
DATE		ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, 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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 1995												
04...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	125	150	12	0.30	7.5	359	0.180	0.010	0.190	<0.015	0.30	
JAN 1996												
17...	151	240	20	0.30	7.3	526	0.400	0.010	0.410	<0.015	0.20	
APR 03...	115	170	14	0.30	3.5	381	--	<0.010	0.080	<0.015	0.30	
SEP 03...	121	140	11	0.30	10	342	--	<0.010	0.180	<0.015	0.40	
DATE		NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	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)
OCT 1995												
04...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 05...	0.20	0.030	<0.010	<0.010	3.8	16	<1.0	<1	69	<1.0	50	
JAN 1996												
17...	<0.20	0.020	<0.010	<0.010	3.9	--	--	--	--	--	80	
APR 03...	0.30	0.020	<0.010	<0.010	4.1	--	--	--	--	--	50	
SEP 03...	0.20	0.100	0.020	0.020	5.6	6.0	<1.0	1	76	<1.0	55	

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
OCT 1995											
04...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	<1.0	<1.0	<1.0	3.0	17	<1.0	26	<0.10	1.0	3.0	<1
JAN 1996											
17...	--	--	--	--	8.0	--	--	--	--	--	--
APR											
03...	--	--	--	--	16	--	--	--	--	--	--
SEP											
03...	<1.0	<1.0	<1.0	2.0	<3.0	<1.0	4.0	<0.10	2.0	2.0	<1

DATE	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)	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, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)
OCT 1995											
04...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	<1	<1.0	6.0	4.0	86	620	470	4	<1	<1	<5
JAN 1996											
17...	--	--	--	--	--	--	--	--	--	--	--
APR											
03...	--	--	--	--	--	--	--	--	--	--	--
SEP											
03...	<1	<1.0	1.0	--	--	--	--	--	--	--	--

DATE	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995										
04...	--	--	--	--	--	--	--	--	--	--
DEC										
05...		4	630	<10	170	0.01	10	2.0	33	92
JAN 1996										
17...	--	--	--	--	--	--	--	--	54	90
APR										
03...	--	--	--	--	--	--	--	--	26	28
SEP										
03...	--	--	--	--	--	--	2.0	346	346	98

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

## WATER-QUALITY RECORDS

## CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	CHLOR- PYRIFOS TOTAL RECOVER (UG/L) (38932)	DISUL- FOTON UNFILT RECOVER (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)	PER- THANE TOTAL (UG/L) (39034)	DEF TOTAL (UG/L) (39040)	PCNS UNFILT RECOVER (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TECH- NICAL TOTAL (UG/L) (39350)	P,P'- DDD UNFILT RECOVER (UG/L) (39360)
OCT 1995											
04...	1450	--	--	--	--	--	--	--	--	--	--
DEC											
05...	1200	--	--	--	--	--	--	--	--	--	--
JAN 1996											
17...	1245	--	--	--	--	--	--	--	--	--	--
APR											
03...	1130	--	--	--	--	--	--	--	--	--	--
SEP											
03...	1230	<0.010	<0.010	<0.010	<0.100	<0.010	<0.100	<0.010	<0.010	<0.100	<0.010

DATE	DDE, TOTAL (UG/L) (39365)	P,P'- DDT UNFILT RECOVER (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, I TOTAL (UG/L) (39388)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	TOX- APHENE, TOTAL (UG/L) (39400)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	PCB, TOTAL (UG/L) (39516)
OCT 1995											
04...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN 1996											
17...	--	--	--	--	--	--	--	--	--	--	--
APR											
03...	--	--	--	--	--	--	--	--	--	--	--
SEP											
03...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<1.00	<0.010	<0.010	<0.010	<0.100

DATE	MALA- THION, TOTAL (UG/L) (39530)	PARA- THION, TOTAL (UG/L) (39540)	DI- AZINON, TOTAL (UG/L) (39570)	METHYL PARA- THION, TOTAL (UG/L) (39600)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)	TOTAL TRI- THION (UG/L) (39786)	2,4-DP TOTAL (UG/L) (82183)	PONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L) (82614)
OCT 1995											
04...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN 1996											
17...	--	--	--	--	--	--	--	--	--	--	--
APR											
03...	--	--	--	--	<0.010	<0.010	--	<0.010	--	<0.010	--
SEP											
03...	<0.010	<0.010	<0.010	<0.010	--	--	<0.010	--	<0.010	--	<0.010

## 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 upstream from bridge on U.S. Highway 160, 0.1 mi north of New Mexico-Colorado State line, 1.0 mi east of Four Corners Monument, 3.0 mi downstream from Mancos River, and at mile 187.2.

DRAINAGE AREA.--14,600 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,900 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow partly regulated by Navajo Reservoir (09355100).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1310	1110	1170	879	964	780	579	858	2550	1530	e220	e510
2	1340	1100	1140	877	991	841	608	e840	2780	1540	e220	e470
3	1250	1070	1120	856	923	853	556	e950	3000	1190	e210	e430
4	1250	1070	1120	832	846	872	523	e1150	3100	1070	e210	e410
5	1180	1070	1110	846	828	886	535	e1500	3400	971	e220	e360
6	1230	1070	1100	927	837	844	564	e1780	3440	894	e200	e430
7	1170	1140	1170	926	847	862	551	e1900	3380	824	e220	e530
8	1120	1120	1130	911	842	843	525	e2200	3440	756	e260	e510
9	1100	1130	1120	896	895	804	569	e2160	3420	691	e340	e450
10	972	1140	1110	898	912	796	532	e2300	3290	607	e400	e400
11	1020	1150	1100	869	924	796	579	e2200	3160	580	e390	e380
12	1000	1180	1120	690	915	814	908	e2150	3110	689	e370	e450
13	957	1140	1090	630	905	761	819	e2700	3040	641	e320	e700
14	898	1140	1110	632	898	753	798	e3100	2910	579	e260	e1040
15	938	1130	1140	636	893	805	752	e2910	3150	549	e190	1580
16	1030	1140	1140	637	898	801	648	3080	3330	507	e190	1790
17	1010	1140	1100	631	905	794	556	3290	3070	1040	e180	1390
18	953	1110	1100	689	898	813	501	3540	2930	997	e190	1310
19	951	1170	1100	688	885	789	456	3480	2830	1070	e190	1420
20	951	1180	1130	656	925	753	406	3280	2770	965	e190	1550
21	946	1180	1170	615	839	725	e390	3220	2770	856	e200	1360
22	974	1170	1120	607	863	743	e350	2770	2920	719	e220	1240
23	1050	1130	1100	576	880	723	e330	2520	3220	557	e650	1170
24	1140	1150	1090	611	869	690	e330	2260	3250	431	e1070	1120
25	1160	1150	1100	667	837	700	e310	1880	2790	e350	1100	1020
26	1120	1160	1100	675	771	700	e360	1500	2250	e300	1360	e950
27	1200	1160	1110	956	789	685	e680	1220	2390	e270	1230	e1030
28	1160	1190	955	1070	788	646	1080	1150	2410	e250	1400	e980
29	1140	1170	856	1020	785	604	1250	1080	1880	e240	1260	e910
30	1120	1160	823	929	---	609	1140	1530	1610	e230	1020	e850
31	1110	---	839	952	---	627	---	2030	---	e230	e750	---
TOTAL	33750	34120	33683	24284	25352	23712	18185	66528	87590	22123	15230	26740
MEAN	1089	1137	1087	783	874	765	606	2146	2920	714	491	891
MAX	1340	1190	1170	1070	991	886	1250	3540	3440	1540	1400	1790
MIN	898	1070	823	576	771	604	310	840	1610	230	180	360
AC-FT	66940	67680	66810	48170	50290	47030	36070	132000	173700	43880	30210	53040

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1996, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	1273	1418	1462	1547	1666	2187	3146	4730	5314	2520	1361	1328							
MAX	2959	3732	3466	3300	3365	5454	7893	10220	10370	6846	3016	3243							
(WY)	1987	1987	1987	1987	1987	1993	1979	1979	1979	1979	1986	1986							
MIN	634	838	799	760	739	707	606	1030	1236	714	259	467							
(WY)	1978	1980	1990	1990	1990	1990	1996	1981	1989	1996	1978	1989							

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1978 - 1996
ANNUAL TOTAL	1065148	411297	
ANNUAL MEAN	2918	1124	2329
HIGHEST ANNUAL MEAN			4180
LOWEST ANNUAL MEAN			991
HIGHEST DAILY MEAN	12100	3540	16400
LOWEST DAILY MEAN	816	180	110
ANNUAL SEVEN-DAY MINIMUM	859	190	126
INSTANTANEOUS PEAK FLOW		4170	16900
INSTANTANEOUS PEAK STAGE		3.45	a6.25
INSTANTANEOUS LOW FLOW		170	110
ANNUAL RUNOFF (AC-FT)	2113000	815800	1687000
10 PERCENT EXCEEDS	7200	2440	5620
50 PERCENT EXCEEDS	1340	950	1480
90 PERCENT EXCEEDS	937	397	715

e Estimated

a-Maximum gage height, 14.43 ft, Dec. 12, 1978 (backwater from ice).



## SAN JUAN RIVER BASIN

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978-81, 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	
OCT 1995										
04...	0915	1250	453	--	18.0	12.5	--	--	--	
DEC										
08...	0930	1140	630	8.4	2.0	4.0	9.0	646	--	
JAN 1996										
19...	1000	660	878	8.3	0.5	0.5	26	640	11.9	
APR										
03...	0900	560	675	8.0	13.5	12.0	8.0	642	8.9	
DATE		OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)
OCT 1995										
04...	--	--	--	--	--	--	--	--	--	--
DEC										
08...	--		230	110	66	15	39	1	2.4	136
JAN 1996										
19...	99		330	180	96	21	66	2	2.6	180
APR										
03...	98		230	120	67	16	50	1	2.6	137
DATE		CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
OCT 1995										
04...	--	--	--	--	--	--	--	--	--	--
DEC										
08...	5		119	125	170	12	0.30	7.1	400	384
JAN 1996										
19...	0		148	156	280	23	0.30	6.8	604	584
APR										
03...	0		112	116	210	13	0.30	3.7	432	430

## LITTLE COLORADO RIVER BASIN

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 upstream from Nutria diversion dam, 1.3 mi northeast of Upper Nutria, and 10.4 mi northwest of Ramah.

DRAINAGE AREA.--71.4 mi<sup>2</sup>.

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 June 6, 1975. Control raised 2.35 ft June 28, 1984. Elevation of gage is 6,860 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. No flow Oct. 1-20, 1969.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.28	.22	.18	.17	.21	.36	.59	.45	.29	.09	.10
2	.18	.36	.22	.14	.19	.20	.36	.60	.41	.14	.07	.10
3	.15	.33	.22	.12	.14	.19	.31	.73	.36	.12	.07	.09
4	.14	.39	.22	.14	.12	.23	.36	.69	.34	.11	.06	.68
5	.13	.41	.22	.14	.14	.29	.36	.68	.31	.10	.06	.42
6	.15	.36	.21	.13	.15	.31	.31	.72	.27	.08	.05	.13
7	.15	.36	.22	.12	.16	.26	.36	.73	.25	.09	.05	.12
8	.15	.31	.22	.12	.13	.22	.36	.74	.24	.10	.06	.10
9	.15	.31	.22	.13	.14	.18	.36	.75	.20	.23	.06	.10
10	.15	.31	.22	.14	.13	.18	.43	.80	.18	.18	.06	.10
11	.15	.31	.22	.14	.13	.19	.51	.80	.16	.17	.05	.11
12	.15	.30	.18	.14	.14	.20	.43	.85	.14	.14	.05	.16
13	.15	.28	.18	.12	.16	.19	.51	.91	.13	.14	.05	.23
14	.15	.31	.26	.12	.16	.20	.51	.90	.15	.12	.04	.42
15	.15	.29	.27	.12	.15	.26	.31	.95	.23	.13	.04	.15
16	.15	.26	.24	.13	.20	.20	.31	1.1	.18	2.0	.04	.85
17	.18	.26	.34	e.14	.22	.18	.36	1.1	.12	2.0	.04	.37
18	.17	.26	.27	e.14	.22	.17	.37	1.1	.10	.20	.03	3.4
19	.15	.26	.21	e.16	.22	.15	.37	1.3	.09	.14	.03	10
20	.15	.26	.22	e.14	.23	.15	.39	1.3	.08	.12	.04	1.0
21	.16	.26	.21	e.13	.25	.15	.43	1.2	.09	.11	.14	.37
22	.18	.26	.18	e.13	.24	.15	.39	1.1	.08	.09	.11	.24
23	.18	.23	.13	e.14	.24	.18	.41	.99	.07	.09	.45	.20
24	.18	.22	.17	.13	.18	.22	.45	.97	.06	.10	1.3	.18
25	.19	.22	.15	.14	.16	.22	.51	.88	.06	.08	1.4	.16
26	.22	.24	.14	.16	.17	.26	.53	.80	.07	.08	.61	.24
27	.22	.23	.13	.13	.21	.22	.59	.77	.07	.09	.32	.20
28	.22	.22	.13	.16	.21	.22	.55	.74	.08	.09	.32	.17
29	.25	.22	.15	.16	.22	.31	.52	.65	.07	.09	.21	.15
30	.26	.22	.17	.16	---	.36	.59	.59	.37	.09	.14	.14
31	.26	---	.17	.17	---	.36	---	.53	---	.09	.11	---
TOTAL	5.42	8.53	6.31	4.32	5.18	6.81	12.61	26.56	5.41	7.60	75.45	99.88
MEAN	.17	.28	.20	.14	.18	.22	.42	.86	.18	.25	2.43	3.33
MAX	.26	.41	.34	.18	.25	.36	.59	1.3	.45	2.0	.45	.42
MIN	.13	.22	.13	.12	.12	.15	.31	.53	.06	.08	.03	.09
AC-FT	11	17	13	8.6	10	14	25	53	11	15	150	198

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1996, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1970	.39	2.43	1973	.028	1994
1971	.67	5.43	1995	.023	1978
1972	.89	3.76	1984	.019	1978
1973	1.26	18.9	1993	.058	1976
1974	6.34	57.1	1995	.084	1971
1975	32.5	135	1993	.11	1972
1976	34.5	187	1973	.12	1976
1977	3.71	33.8	1973	.087	1976
1978	.34	1.33	1973	.031	1984
1979	.58	3.52	1982	.015	1993
1980	1.30	7.15	1992	.038	1971
1981	.49	3.33	1996	.033	1983

## SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1970 - 1996

	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1970 - 1996
ANNUAL TOTAL	5826.75	264.08	
ANNUAL MEAN	16.0	.72	6.89
HIGHEST ANNUAL MEAN			22.4
LOWEST ANNUAL MEAN			.13
HIGHEST DAILY MEAN	1030	45	1030
LOWEST DAILY MEAN	.00	.03	.00
ANNUAL SEVEN-DAY MINIMUM	.01	.04	.00
INSTANTANEOUS PEAK FLOW		206	b1850
INSTANTANEOUS PEAK STAGE		7.20	a9.34
ANNUAL RUNOFF (AC-FT)	11560	524	4990
10 PERCENT EXCEEDS	31	.73	9.2
50 PERCENT EXCEEDS	.26	.20	.18
90 PERCENT EXCEEDS	.05	.09	.05

e Estimated

a-Datum then in use.

b-From rating curve extended above 470 ft<sup>3</sup>/s; maximum gage height, 7.90 ft, Mar. 12, 1985.

## LITTLE COLORADO RIVER BASIN

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 upstream from flow line of Black Rock Reservoir, 2.3 mi northeast of Black Rock, and 5.9 mi northeast of Zuni Pueblo.

DRAINAGE AREA.--848 mi<sup>2</sup>, of which 13 mi<sup>2</sup> is non-contributing.

PERIOD OF RECORD.--October 1969 to current year. Prior to October 1974 published as "above Zuni Reservoir."

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 6,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.17	.17	.59	.14	7.3	8.9	.06	.00	.00	.00	.00
2	.00	.66	.15	.57	.12	7.2	8.3	.00	.00	.00	.00	.00
3	.00	1.1	.13	e.56	.28	6.8	6.9	.00	.00	.00	.00	.00
4	.00	1.0	.11	e.54	.23	5.3	5.2	.00	.00	.00	.00	.00
5	.00	.94	.08	e.53	.17	3.9	6.0	.00	.00	.00	.00	.00
6	.00	1.4	.34	.52	.22	3.7	7.1	.00	.00	.00	.00	.00
7	.00	1.1	.54	.45	.24	5.1	7.5	.00	.00	.00	.00	.00
8	.00	1.0	.23	.45	.23	6.8	7.2	.00	.00	.00	.00	.00
9	.00	.72	.30	.44	.23	6.5	5.3	.00	.00	.00	.00	.00
10	.00	.71	.31	.45	.23	4.0	1.4	.00	.00	.00	.00	.00
11	.00	.69	.29	.44	.23	4.7	.92	.00	.00	.00	.00	.00
12	.00	.68	.28	.42	.23	5.0	.79	.00	.00	.00	.00	.00
13	.00	.57	.76	.42	.23	7.6	.73	.00	.00	.00	.00	.00
14	.00	.45	.39	.43	.44	8.2	10	.00	.00	.00	.00	.00
15	.00	.43	.62	.45	1.1	7.2	6.9	.00	.00	.00	.00	.00
16	.00	.15	.92	.59	1.5	8.5	.55	.00	.00	.09	.00	.00
17	.00	.22	.88	.65	2.1	8.2	.55	.00	.00	.00	.00	.00
18	.00	.40	1.0	.63	1.3	6.2	.47	.00	.00	.00	.00	.00
19	.00	.41	.99	.65	1.4	7.3	.27	.00	.00	.00	.00	.00
20	.00	.31	.83	.65	1.5	6.8	.00	.00	.00	.00	.00	.00
21	.00	.35	.37	.84	1.1	10	.00	.00	.00	.00	.00	.00
22	.00	.36	e.45	.57	2.6	12	.00	.00	.00	.00	.00	.00
23	.00	.36	e.52	.70	5.5	11	.00	.00	.00	.00	.00	.00
24	.00	.35	e.55	.51	4.9	8.5	.00	.00	.00	.00	.00	.00
25	.00	.32	.57	.08	4.2	9.2	.00	.00	.00	.00	.00	.00
26	.20	.29	e.58	.05	4.4	10	.00	.00	.00	.00	.00	.00
27	.48	.24	e.59	.06	5.4	8.2	.00	.00	.00	.00	.00	.00
28	.52	.22	.60	.03	6.2	8.5	.00	.00	.00	.00	.00	.00
29	.45	.19	.60	e.03	6.3	7.8	.00	.00	.00	.00	.00	.00
30	.39	.19	.59	.04	---	9.9	.03	.00	.00	.00	.00	.00
31	.39	---	.58	.10	---	9.9	---	.00	---	.00	.00	---
TOTAL	2.43	15.98	15.32	13.44	52.72	231.3	85.01	0.06	0.00	0.09	0.00	0.00
MEAN	.078	.53	.49	.43	1.82	7.46	2.83	.002	.000	.003	.000	.000
MAX	.52	1.4	1.0	.84	6.3	12	10	.06	.00	.09	.00	.00
MIN	.00	.15	.08	.03	.12	3.7	.00	.00	.00	.00	.00	.00
AC-FT	4.8	32	30	27	105	459	169	.1	.00	.2	.00	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1996, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	1.67	1.48	1.35	3.06	11.1	45.9	55.3	5.70	.20	3.04	6.23	2.67															
MAX	12.6	13.7	5.87	41.9	73.4	263	308	65.3	1.97	25.6	23.6	17.5															
(WY)	1984	1984	1984	1993	1980	1985	1973	1973	1979	1977	1977	1984															
MIN	.000	.000	.013	.11	.33	.66	.009	.002	.000	.000	.000	.000															
(WY)	1974	1971	1971	1977	1972	1971	1972	1996	1970	1971	1986	1979															

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1970 - 1996

ANNUAL TOTAL	2408.60	416.35	
ANNUAL MEAN	6.60	1.14	11.4
HIGHEST ANNUAL MEAN			46.9
LOWEST ANNUAL MEAN			.50
HIGHEST DAILY MEAN	339	Mar 7	12
LOWEST DAILY MEAN	.00	Jun 5	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 5	.00
INSTANTANEOUS PEAK FLOW			18
INSTANTANEOUS PEAK STAGE			3.10
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (AC-FT)	4780	826	8290
10 PERCENT EXCEEDS	13	5.4	11
50 PERCENT EXCEEDS	.53	.00	.80
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 670 ft/s on basis of slope-area measurements at gage heights 4.05 ft, 3.95 ft and 6.61 ft.

## GILA RIVER BASIN

09430500 GILA RIVER NEAR GILA, NM

LOCATION.--Lat 33°03'40", long 108°32'12", in NE1/4 sec.30, T.14 S., R.16 W., Grant County, Hydrologic Unit 15040001, on left bank at Hooker damsite, 1.6 mi upstream from Mogollon Creek, 7 mi northeast of Gila, and at mile 572.5.

DRAINAGE AREA.--1,864 mi<sup>2</sup>.

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 4,654.8 ft above National Geodetic Vertical Datum of 1929, (river-profile survey). Prior to Dec. 31, 1928, at site 5 mi upstream at different datum. Dec. 31, 1928, to Jan. 7, 1942, at site 200 ft upstream at datum 1.00 ft higher. Prior to Feb. 28, 1994 at datum 1.00 ft higher.

REMARKS.--Records good. Diversions for irrigation of about 500 acres upstream from station. Several observations of water temperature were made during the year. National Weather Service satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in November 1905, December 1906, and January 1916.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	67	70	68	77	64	56	44	27	106	71	210
2	63	68	70	69	95	64	56	42	25	59	82	169
3	64	68	69	68	88	64	57	43	25	53	76	160
4	64	67	71	68	79	65	56	43	24	58	83	191
5	64	65	70	67	74	66	56	42	23	57	93	154
6	65	68	68	67	71	64	56	40	22	47	77	128
7	65	68	68	68	69	64	57	40	21	41	64	108
8	65	68	71	67	68	63	56	38	24	40	59	96
9	66	67	71	67	68	62	56	38	26	47	59	90
10	66	68	69	66	68	62	55	37	26	47	93	116
11	66	68	69	64	66	61	54	37	24	50	92	135
12	66	68	70	63	65	60	54	35	23	67	90	161
13	66	69	70	63	68	62	54	34	24	71	79	210
14	66	69	70	63	73	62	52	33	26	96	69	652
15	67	68	69	63	75	62	52	33	29	172	63	2160
16	66	69	70	63	73	62	52	32	30	178	59	1350
17	66	70	71	64	71	62	52	32	28	169	56	841
18	66	70	70	64	69	62	53	31	27	124	55	524
19	66	70	70	63	68	62	52	29	24	93	69	352
20	67	71	69	63	66	60	52	29	22	80	85	259
21	66	71	69	63	64	60	51	28	22	64	121	201
22	65	71	69	62	64	60	50	28	22	57	168	165
23	65	70	68	63	64	62	50	27	22	53	358	141
24	65	70	68	63	64	59	48	27	21	69	402	125
25	65	70	68	63	67	57	47	27	21	71	295	122
26	65	71	69	62	66	57	47	26	22	56	257	121
27	66	70	69	62	66	57	47	27	25	56	237	118
28	66	70	68	62	66	56	46	27	57	60	416	110
29	66	70	68	62	65	57	44	26	56	69	353	104
30	66	70	68	62	---	56	43	26	83	72	247	101
31	66	---	68	62	---	57	---	26	---	68	243	---
TOTAL	2030	2069	2147	1994	2037	1891	1561	1027	851	2350	4571	9374
MEAN	65.5	69.0	69.3	64.3	70.2	61.0	52.0	33.1	28.4	75.8	147	312
MAX	67	71	71	69	95	66	57	44	83	178	416	2160
MIN	63	65	68	62	64	56	43	26	21	40	55	90
AC-FT	4030	4100	4260	3960	4040	3750	3100	2040	1690	4660	9070	18590

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996, BY WATER YEAR (WY)

	MEAN	119	99.0	171	178	242	318	221	143	60.6	65.1	141	145
MAX	994	726	1632	1810	1204	1049	903	716	249	225	901	960	
(WY)	1973	1995	1979	1993	1993	1985	1973	1973	1992	1986	1988	1988	
MIN	29.1	47.8	50.1	50.0	50.9	53.9	49.2	33.1	23.5	22.3	37.5	24.0	
(WY)	1957	1951	1954	1954	1954	1971	1971	1996	1974	1971	1956	1956	

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR	FOR 1996 WATER YEAR	WATER YEARS 1928 - 1996
ANNUAL TOTAL	75175	31902	
ANNUAL MEAN	206	87.2	159
HIGHEST ANNUAL MEAN			477
LOWEST ANNUAL MEAN			47.8
HIGHEST DAILY MEAN	3320	Feb 15	2160
LOWEST DAILY MEAN	39	Jul 13	21
ANNUAL SEVEN-DAY MINIMUM	41	Jul 9	22
INSTANTANEOUS PEAK FLOW			2530
INSTANTANEOUS PEAK STAGE			4.62
INSTANTANEOUS LOW FLOW			18
ANNUAL RUNOFF (AC-FT)	149100	63280	115000
10 PERCENT EXCEEDS	459	121	317
50 PERCENT EXCEEDS	79	65	74
90 PERCENT EXCEEDS	51	29	40

a-From rating curve extended above 7,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 12.5 ft; maximum gage height, 17.2 ft from floodmark, Sept. 29, 1941.

b-From floodmarks.

## GILA RIVER BASIN

09430600 MOGOLLON CREEK NEAR CLIFF, NM

(Hydrologic bench-mark station)

LOCATION.--Lat 33°10'00", long 108°38'57", in SE¼SE¼ sec.13, T.13 S., R.18 W., Grant County, Hydrologic Unit 15040001, on right bank 0.3 mi downstream from Rain Creek, 0.8 mi downstream from Gila Wilderness Boundary, 12 mi upstream from mouth, and 14 mi north of Cliff.

DRAINAGE AREA.--69 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.57	2.2	3.3	12	2.8	1.8	.54	.00	7.0	24	18
2	.82	1.1	2.2	2.9	12	2.7	1.7	.47	.00	10	21	5.3
3	.58	1.4	2.3	3.6	9.3	2.7	1.6	.32	.00	15	15	7.1
4	.37	1.2	2.3	3.8	6.7	2.6	1.5	.22	.00	9.1	40	5.8
5	.21	1.2	2.3	2.8	5.8	2.6	2.2	.12	.00	5.4	17	2.6
6	.11	2.6	2.3	2.9	6.4	2.5	2.3	.08	.00	11	9.8	1.8
7	.20	4.1	2.4	2.7	6.8	2.5	2.0	.02	.00	11	7.2	1.8
8	.22	2.2	3.1	2.5	5.8	2.5	1.7	.00	.00	21	5.8	1.7
9	.13	1.6	2.8	2.4	4.7	2.5	1.6	.00	.00	13	9.9	1.6
10	.09	1.2	2.7	2.4	4.1	2.3	1.5	.00	.00	56	108	1.6
11	.05	1.2	2.6	2.0	3.8	2.3	1.5	.00	.00	25	142	5.3
12	.02	1.7	2.5	2.0	3.2	2.2	1.7	.00	.00	58	48	4.4
13	.00	1.7	2.5	1.9	4.6	2.1	1.7	.00	.00	76	2.7	10
14	.00	1.7	2.4	2.0	6.9	2.2	1.7	.00	.00	77	2.6	213
15	.00	1.5	2.2	1.8	5.3	2.3	1.6	.00	.00	136	3.9	198
16	.00	1.4	2.3	2.1	4.1	2.3	1.5	.00	.00	151	7.5	40
17	.00	1.4	3.2	2.3	3.5	2.3	1.3	.00	.00	145	6.4	10
18	.00	1.4	3.0	2.5	3.4	2.2	1.1	.00	.00	e110	6.2	1.9
19	.00	1.4	2.7	2.2	3.2	2.1	1.0	.00	.00	e100	8.6	1.3
20	.01	1.3	3.0	2.3	2.9	2.0	.94	.00	.00	e95	33	1.2
21	.09	1.3	2.8	2.2	2.6	1.9	1.0	.00	.00	e90	428	1.7
22	.16	1.3	2.7	2.3	2.5	1.9	1.1	.00	.00	e75	153	2.2
23	.10	1.3	3.1	2.0	2.5	1.9	1.1	.00	.00	e70	162	1.3
24	.34	1.3	3.2	3.3	2.5	1.8	.99	.00	.00	e65	222	7.1
25	.56	1.3	3.0	5.4	2.4	2.0	.90	.00	.00	e60	265	12
26	.55	1.5	2.9	2.5	2.6	2.0	.79	.00	.00	e55	237	13
27	.59	1.9	3.0	1.8	3.0	2.0	.66	.00	.00	e53	217	11
28	.63	1.9	2.9	1.9	3.0	1.9	.59	.00	.00	e50	158	9.8
29	.64	2.0	3.0	1.7	2.9	1.8	.42	.00	.00	e45	111	9.1
30	.59	2.2	2.9	1.9	---	1.8	.50	.00	.00	43	83	8.7
31	.61	---	2.9	2.1	---	1.8	---	.00	---	29	39	---
TOTAL	8.67	47.87	83.4	77.5	138.5	68.5	39.99	1.77	0.00	1766.5	2593.6	608.3
MEAN	.28	1.60	2.69	2.50	4.78	2.21	1.33	.057	.000	57.0	83.7	20.3
MAX	1.0	4.1	3.2	5.4	12	2.8	2.3	.54	.00	151	428	213
MIN	.00	.57	2.2	1.7	2.4	1.8	.42	.00	.00	5.4	2.6	1.2
AC-FT	17	95	165	154	275	136	79	3.5	.00	3500	5140	1210

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996, BY WATER YEAR (WY)

	MEAN	22.4	19.0	48.6	38.1	61.5	71.1	56.6	29.1	3.57	7.83	17.8	16.2
MAX	237	166	410	298	211	272	182	160	24.1	57.0	83.7	120	
(WY)	1973	1979	1979	1993	1968	1978	1973	1992	1992	1996	1996	1975	
MIN	.14	1.07	1.03	1.14	1.44	1.33	.90	.057	.000	.000	1.02	.33	
(WY)	1980	1971	1974	1971	1971	1971	1971	1996	1971	1980	1975	1987	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1967 - 1996

ANNUAL TOTAL	12227.91	5434.60	
ANNUAL MEAN	33.5	14.8	
HIGHEST ANNUAL MEAN			32.8
LOWEST ANNUAL MEAN			97.0
HIGHEST DAILY MEAN	901	Feb 14	1979
LOWEST DAILY MEAN	.00	Jun 16	1971
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 3	1971
INSTANTANEOUS PEAK FLOW			6000
INSTANTANEOUS PEAK STAGE			1.83
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (AC-FT)	24250	10780	.00
10 PERCENT EXCEEDS	93	40	.00
50 PERCENT EXCEEDS	4.3	2.2	.00
90 PERCENT EXCEEDS	.25	.00	.37

e Estimated

## GILA RIVER BASIN

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
NOV 1995												
08...	1100	2.2	140	8.0	15.0	7.5	0.30	630	10.0	101	7	
JAN 1996												
10...	1600	1.6	140	7.8	16.5	5.0	0.10	627	11.0	105	K17	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
NOV 1995												
08...	26	50	0	14	3.6	7.6	0.5	1.1	63	0	52	
JAN 1996												
10...	K6	46	4	13	3.2	7.2	0.5	0.70	51	0	42	
DATE		ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
NOV 1995												
08...	58	8.2	1.8	0.40	19	85	87	<0.010	<0.050	<0.015	<0.20	
JAN 1996												
10...	51	8.2	1.7	0.60	20	90	80	<0.010	<0.050	<0.015	0.30	
DATE		PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
NOV 1995												
08...	0.040	0.010	0.010	20	5.0	<3.0	10	<4	5.0	<10	<1.0	
JAN 1996												
10...	0.020	0.020	0.010	<10	4.0	<3.0	10	<4	2.0	<10	<1.0	
DATE		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)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)
NOV 1995												
08...	<1	<1.0	81	<6	<0.02	0.020	0.08	0.0	8	0.05	96	
JAN 1996												
10...	<1	<1.0	72	<6	--	--	--	--	22	0.10	72	

## GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM

LOCATION.--Lat 32°43'37", long 108°40'30", in W¼ sec.23, T.18 S., R.18 W., Grant County, Hydrologic Unit 15040002, on left bank 0.2 mi downstream from Copper Canyon, 0.2 mi upstream from lower end of box canyon, 4.7 mi northeast of Redrock, 14 mi downstream from Mangas Creek, and at mile 539.2.

DRAINAGE AREA.--2,829 mi².

## 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 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. Elevation of gage is 4,090 ft above National Geodetic Vertical Datum of 1929, from plane table survey. Prior to Dec. 31, 1907, nonrecording gage at site 13.5 mi upstream at different datum. May 14, 1908, to July 16, 1909, nonrecording gage at site 0.2 mi downstream at different datum. June 13, 1980 to Feb. 23, 1983 at site 1,300 ft downstream at same datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 5,000 acres upstream from station. Gage height and rain gage satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	70	87	70	92	84	66	42	20	23	100	286
2	66	76	86	89	108	83	64	43	19	34	106	286
3	63	80	85	88	117	75	62	40	18	47	105	238
4	61	83	85	89	116	64	45	25	12	73	94	261
5	57	86	83	103	111	81	43	21	8.9	45	105	226
6	56	94	83	68	104	80	46	30	8.2	61	96	192
7	54	94	63	68	102	81	67	36	14	68	89	169
8	52	96	72	88	98	76	70	35	18	57	82	142
9	53	94	68	84	95	75	67	34	19	37	79	132
10	55	82	71	85	92	72	64	33	19	45	516	139
11	56	74	66	70	91	61	63	32	19	78	232	145
12	55	75	64	88	90	73	59	19	20	128	168	297
13	40	75	64	86	91	70	59	15	22	108	145	241
14	45	79	81	87	93	72	47	23	e21	234	129	1020
15	55	88	82	89	96	76	48	30	e20	246	114	2260
16	57	88	83	87	98	73	47	28	e20	305	101	1080
17	57	93	70	86	94	70	49	28	e19	224	90	618
18	54	99	74	87	94	69	57	26	20	192	164	423
19	54	101	89	89	90	67	56	18	e19	179	123	332
20	55	100	90	89	88	69	55	15	e18	156	116	281
21	56	93	86	88	85	65	39	14	18	130	589	248
22	42	91	87	90	83	66	56	19	19	e110	372	223
23	45	92	68	87	79	51	58	22	17	e100	296	204
24	64	74	69	86	72	54	56	22	13	e110	377	196
25	63	65	69	83	73	68	54	22	13	120	340	189
26	63	67	87	67	82	67	52	23	13	115	403	179
27	62	79	90	66	83	64	48	16	13	87	337	172
28	63	80	90	86	84	62	33	13	25	80	384	163
29	52	82	82	84	84	60	39	16	25	81	429	154
30	54	88	65	85	---	66	43	19	26	85	341	173
31	59	---	68	82	---	68	---	20	---	83	353	---
TOTAL	1742	2538	2407	2594	2685	2162	1612	779	536.1	3441	6975	10669
MEAN	56.2	84.6	77.6	83.7	92.6	69.7	53.7	25.1	17.9	111	225	356
MAX	74	101	90	103	117	84	70	43	26	305	589	2260
MIN	40	65	63	66	72	51	33	13	8.2	23	79	132
AC-FT	3460	5030	4770	5150	5330	4290	3200	1550	1060	6830	13830	21160

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

	MEAN	154	355	338	438	500	311	198	62.4	75.6	212	227
MAX	1768	911	2200	2987	1692	1438	1155	1068	278	287	1182	1315
(WY)	1973	1995	1979	1993	1993	1978	1973	1992	1992	1986	1988	1975
MIN	27.6	55.1	60.0	64.9	53.8	40.0	41.2	25.1	12.0	15.6	40.9	22.2
(WY)	1974	1974	1981	1971	1971	1971	1971	1996	1974	1978	1994	1978

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1963 - 1996

ANNUAL TOTAL	119008	38140.1	
ANNUAL MEAN	326	104	256
HIGHEST ANNUAL MEAN			664
LOWEST ANNUAL MEAN			57.2
HIGHEST DAILY MEAN	6750	2260	34000
LOWEST DAILY MEAN	32	8.2	3.6
ANNUAL SEVEN-DAY MINIMUM	39	14	4.9
INSTANTANEOUS PEAK FLOW		3680	48800
INSTANTANEOUS PEAK STAGE		9.94	29.80
INSTANTANEOUS LOW FLOW		7.5	2.2
ANNUAL RUNOFF (AC-FT)	236100	75650	185400
10 PERCENT EXCEEDS	804	192	560
50 PERCENT EXCEEDS	101	75	98
90 PERCENT EXCEEDS	48	21	34

e Estimated

## GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	
NOV 1995												
09...	1300	98	521	8.2	22.0	13.0	3.6	656	9.7	107	<10	
JAN 1996												
11...	1630	71	425	8.8	20.0	20.0	0.50	664	9.7	123	<10	
MAR												
08...	1330	83	402	8.2	15.0	16.5	3.3	666	10.2	120	<10	
APR												
19...	1230	58	430	8.1	17.0	23.5	1.0	659	8.0	109	11	
JUN												
05...	1530	9.4	421	8.5	38.5	28.5	1.1	656	9.6	145	<10	
AUG												
09...	1030	84	405	8.3	28.0	24.5	69	664	7.0	97	31	
DATE		COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOC- CI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)
NOV 1995												
09...	30	14	140	0	42	8.5	29	1	2.1	145	19	
JAN 1996												
11...	30	K17	150	37	44	8.7	30	1	2.1	132	0	
MAR												
08...	64	21	130	0	40	8.3	31	1	2.0	166	0	
APR												
19...	K18	K8	150	3	45	8.7	34	1	2.2	177	0	
JUN												
05...	39	--	140	15	40	9.3	35	1	2.6	118	16	
AUG												
09...	210	290	130	0	38	7.9	30	1	2.9	174	0	
DATE		ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	ANTI- MONY, TOTAL (UG/L AS SB) (01097)
NOV 1995												
09...	151	149	39	12	1.9	256	225	17	<0.20	0.060	<1	
JAN 1996												
11...	108	149	41	14	2.1	270	207	4	0.21	0.300	<1	
MAR												
08...	136	145	37	14	2.0	255	216	10	0.21	0.030	<1	
APR												
19...	145	154	43	14	2.0	268	236	6	0.23	0.020	<1	
JUN												
05...	123	126	61	15	2.0	280	239	5	0.31	<0.020	<1	
AUG												
09...	143	146	35	14	1.9	266	215	206	0.53	0.360	2	



## GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, 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, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
NOV 1995											
09...	<1.0	2	1	20	<10	<0.50	40	40	<1	<1.0	<1
JAN 1996											
11...	<1.0	1	2	18	<10	<0.50	20	50	<1	<1.0	<1
MAR											
08...	<1.0	1	1	17	<10	<0.50	50	30	<1	<1.0	<1
APR											
19...	<1.0	<1	1	18	--	<0.50	50	50	<1	<1.0	<1
JUN											
05...	<1.0	1	1	18	<10	<0.50	50	54	<1	<1.0	2
AUG											
09...	<1.0	2	2	28	<10	1.3	50	43	<1	<1.0	3

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
NOV 1995											
09...	1.2	8	<1.0	340	6.0	1	<1.0	20	2.0	<0.10	<0.1
JAN 1996											
11...	<1.0	2	<1.0	90	7.0	<1	<1.0	10	5.0	<0.10	<0.1
MAR											
08...	<1.0	2	2.0	170	5.0	<1	<1.0	10	5.0	<0.10	<0.1
APR											
19...	<1.0	3	4.0	120	11	<1	<1.0	10	3.0	<0.10	<0.1
JUN											
05...	1.2	2	2.0	50	6.0	<1	<1.0	<10	3.0	<0.10	<0.1
AUG											
09...	1.2	19	1.0	50000	<3.0	6	<1.0	210	3.0	<0.10	<0.1

DATE	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, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1995										
09...	<100	<10	<1	<1	<1.0	<10	9.0	29	7.7	49
JAN 1996										
11...	<100	<10	<1	<1	<1.0	20	<3.0	10	1.9	72
MAR										
08...	<100	<10	<1	<1	<1.0	<10	<3.0	16	3.6	77
APR										
19...	<100	<10	<1	<1	<1.0	<10	4.0	42	6.6	28
JUN										
05...	<100	<10	<1	<1	<1.0	<10	5.0	18	0.46	61
AUG										
09...	<100	<10	<1	<1	<1.0	20	<3.0	219	50	94

## 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 downstream from Blue Creek, 10 mi east of Virden, and 16 mi upstream from New Mexico-Arizona State line.

DRAINAGE AREA.--3,203 mi<sup>2</sup>, 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 downstream, and in Sunset Canal. Published as "Gila River near Duncan, Ariz.," 1914-15 and as "Gila River at Fuller's Ranch, near Duncan, Ariz.," 1931-38.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1929, 1931-32(M).

GAGE.--Water-stage recorder. Elevation of gage is 3,875 ft above sea level, from river-profile map. May 11, 1914, to Sept. 30, 1915, at site 6 mi downstream, 1,000 ft upstream from intake of Sunset Canal. June 1 to July 7, 1931, nonrecording gage at present site and datum. Since April 18, 1980, supplementary gage on left bank 800 ft downstream at same datum. Since June 1980, crest-stage gages at supplementary gage site. Since Nov. 1990, water-stage recorder at supplementary gage.

REMARKS.--Records fair. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres above station.

AVERAGE DISCHARGE.--69 (water years 1928-96), 215 ft<sup>3</sup>/s, 155,800 acre-ft/yr; median of yearly mean discharges, 150 ft<sup>3</sup>/s, 109,000 acre-ft/yr.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	62	75	96	115	108	69	51	12	17	85	364
2	32	62	76	105	119	108	68	53	14	15	73	330
3	31	66	76	116	134	104	67	55	14	19	72	358
4	34	68	78	117	133	96	67	53	17	37	62	390
5	35	69	78	113	134	97	55	44	14	50	65	271
6	36	73	80	108	126	102	52	37	12	48	63	230
7	34	77	77	91	126	102	55	41	11	57	54	208
8	36	78	72	99	126	101	65	44	10	62	45	182
9	36	73	75	109	123	100	68	42	9.7	49	55	168
10	40	65	74	114	119	98	68	43	9.9	40	491	159
11	38	58	73	107	117	88	65	43	10	110	227	166
12	37	55	72	105	119	89	64	34	11	122	167	254
13	36	57	71	108	123	90	60	27	12	118	138	385
14	33	58	77	106	120	92	58	24	13	358	121	2310
15	36	65	87	108	119	95	52	28	12	266	114	3650
16	41	66	91	106	119	96	51	34	10	324	106	2110
17	42	65	90	100	118	93	49	34	9.3	240	110	1180
18	43	68	88	93	114	90	53	32	8.5	210	141	721
19	40	72	93	106	114	88	55	28	7.7	175	148	513
20	41	74	101	105	111	88	56	23	7.3	188	124	384
21	44	72	104	104	108	87	53	25	7.3	145	1560	285
22	40	70	104	100	106	86	49	22	8.0	133	724	220
23	41	70	101	96	107	81	58	23	8.0	122	447	194
24	43	66	95	104	107	72	58	32	8.9	118	528	183
25	53	59	94	104	91	80	56	31	9.1	106	718	165
26	56	58	85	85	95	86	55	33	8.6	136	475	165
27	57	64	93	63	108	85	55	31	8.6	118	438	158
28	56	67	96	83	110	82	52	27	7.8	106	460	150
29	55	69	93	106	109	80	44	23	26	108	500	139
30	48	71	80	116	---	81	50	18	18	103	458	141
31	52	---	87	117	---	80	---	16	---	83	431	---
TOTAL	1277	1997	2636	3190	3370	2825	1727	1051	334.7	3783	9200	16133
MEAN	41.2	66.6	85.0	103	116	91.1	57.6	33.9	11.2	122	297	538
MAX	57	78	104	117	134	108	69	55	26	358	1560	3650
MIN	31	55	71	63	91	72	44	16	7.3	15	45	139
AC-FT	2530	3960	5230	6330	6680	5600	3430	2080	664	7500	18250	32000
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1996, BY WATER YEAR (WY)												
MEAN	160	129	256	321	368	426	270	152	51.3	75.4	202	193
MAX	1667	1040	2485	4158	1752	1464	1138	977	298	366	1164	1507
(WY)	1973	1995	1979	1993	1993	1973	1973	1992	1992	1986	1988	1975
MIN	5.39	34.9	47.6	64.0	61.1	45.1	27.7	13.5	4.43	4.85	9.35	4.89
(WY)	1957	1957	1957	1981	1971	1971	1955	1956	1956	1951	1951	1953
SUMMARY STATISTICS FOR 1995 CALENDAR YEAR FOR 1996 WATER YEAR WATER YEARS 1932 - 1996												
ANNUAL TOTAL				131003				47523.7				
ANNUAL MEAN				359				130				211
HIGHEST ANNUAL MEAN												746
LOWEST ANNUAL MEAN												43.1
HIGHEST DAILY MEAN				11100	Jan 5				33100	Dec 19	1978	
LOWEST DAILY MEAN				23	Sep 26				1.7	Jul 11	1956	
INSTANTANEOUS PEAK FLOW									a58700	Dec 19	1978	
INSTANTANEOUS PEAK STAGE									29.00	Dec 19	1978	
INSTANTANEOUS LOW FLOW									1.0	Jul 14	1934	
ANNUAL SEVEN-DAY MINIMUM				30	Sep 25				2.0	Sep 26	1956	
ANNUAL RUNOFF (AC-FT)				259800				94260				153200
ANNUAL RUNOFF (CFSM)				.11				.041				.066
ANNUAL RUNOFF (INCHES)				1.52				.55				.90
10 PERCENT EXCEEDS				772				198				459
50 PERCENT EXCEEDS				87				78				92
90 PERCENT EXCEEDS				41				23				22

a-From rating curve extended above 38,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

## GILA RIVER BASIN

09442680 SAN FRANCISCO RIVER NEAR RESERVE, NM

LOCATION.--Lat 33°44'12", long 108°46'14", in NE1/4 sec.35, T.6 S., R.19 W., Catron County, Hydrologic Unit 15040004, on left bank 1,300 ft downstream from Rainbow Bridge Canyon, 1.7 mi northwest of Reserve, and at mile 563.1.

DRAINAGE AREA.--350 mi<sup>2</sup>, approximately.

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

REVISED RECORDS.--WDR NM-78-1: 1977. WDR NM-84-1: 1973, 1979-80.

GAGE.--Water-stage recorder. Elevation of gage is 5,820 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 15, 1972 at site 1,800 ft upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Possible minor regulation by Luna Lake, 27 mi upstream. Diversions for irrigation of about 280 acres upstream from station. Several observations of water temperature were made during the year. U.S. Geological Survey satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 15 ft, as determined in 1962 from old floodmarks. Major floods of Nov. 26, 1905 and Dec. 3, 1906, exceeded 20,000 ft<sup>3</sup>/s at Alma (downstream). See WSP 1313.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	3.3	8.8	9.7	12	8.5	6.2	3.6	2.1	6.9	2.5	4.7
2	5.5	6.8	6.7	9.4	8.1	8.2	7.0	3.0	1.7	7.1	4.2	4.0
3	5.9	5.1	6.3	9.0	12	8.2	8.7	3.7	1.9	6.3	7.3	3.7
4	3.5	5.1	6.2	11	11	8.2	6.9	4.0	1.6	e7.7	6.5	3.0
5	5.5	7.4	6.2	8.5	9.7	4.7	6.2	e3.9	1.6	e7.3	4.6	16
6	4.5	6.8	6.3	8.5	6.6	6.7	8.0	e3.8	1.6	e8.0	3.5	11
7	5.2	6.2	8.8	9.8	8.6	8.0	8.2	e3.7	1.3	15	3.5	5.0
8	2.8	5.3	9.2	8.7	9.4	6.8	8.0	e3.9	1.6	19	5.1	2.5
9	2.9	5.8	6.7	8.8	8.0	7.1	7.2	e3.6	1.8	18	12	5.1
10	5.1	5.7	6.0	9.4	8.9	8.9	3.2	e3.9	2.1	e15	6.6	6.5
11	4.0	5.6	5.9	8.0	8.8	9.7	3.1	3.0	1.9	e9.0	6.1	6.0
12	4.7	6.2	5.4	7.8	8.3	8.7	4.1	3.9	1.9	.87	3.1	7.1
13	2.0	6.4	6.6	9.0	7.3	5.5	5.1	4.2	2.2	e1.1	3.0	15
14	1.4	6.1	6.9	9.3	8.4	4.2	5.6	e3.9	3.4	e1.3	2.8	45
15	3.5	6.6	6.7	8.9	8.6	5.3	6.5	e4.0	5.1	5.7	2.3	14
16	2.1	6.8	5.1	8.2	7.7	5.7	3.8	e3.9	4.6	2.3	2.0	11
17	3.0	7.4	8.5	8.9	7.5	6.3	4.5	e3.6	3.9	.87	1.9	6.6
18	2.1	6.7	8.5	8.1	9.5	7.2	4.0	e3.1	3.0	1.3	18	5.6
19	3.5	6.6	7.9	8.3	9.0	6.9	5.0	2.9	2.5	.82	4.2	5.4
20	2.7	6.5	7.9	8.9	7.0	6.6	4.4	3.7	2.9	.88	4.0	5.6
21	4.2	6.1	7.0	8.0	6.5	6.8	5.9	3.5	2.8	.88	2.6	5.3
22	3.6	6.5	6.8	9.6	6.2	6.6	7.4	2.4	2.8	.90	6.3	5.6
23	3.5	6.5	8.4	8.4	5.9	5.5	6.8	1.9	2.6	.94	10	5.6
24	2.8	7.6	7.0	7.8	4.5	6.0	5.6	2.8	3.2	.96	9.1	3.1
25	2.7	6.5	8.7	8.8	7.6	6.2	4.0	2.0	3.0	.91	7.9	7.4
26	5.5	6.2	7.1	7.3	9.8	5.8	2.8	3.2	2.5	.82	11	4.4
27	6.0	6.0	6.7	7.3	10	5.2	2.3	3.6	3.9	.86	8.6	6.4
28	4.2	5.7	7.3	8.1	9.8	5.8	2.3	3.2	5.0	1.3	7.2	4.9
29	3.1	5.9	7.9	9.9	8.8	4.6	4.0	3.1	5.6	1.5	6.1	4.2
30	3.7	7.8	7.8	9.9	---	5.1	4.3	3.0	6.4	2.3	6.3	3.8
31	5.9	---	8.8	8.9	---	5.7	---	2.9	---	2.4	5.6	---
TOTAL	123.6	187.2	224.1	272.2	245.5	204.7	161.1	104.9	86.5	148.21	183.9	233.5
MEAN	3.99	6.24	7.23	8.78	8.47	6.60	5.37	3.38	2.88	4.78	5.93	7.78
MAX	8.5	7.8	9.2	11	12	9.7	8.7	4.2	6.4	19	18	45
MIN	1.4	3.3	5.1	7.3	4.5	4.2	2.3	1.9	1.3	.82	1.9	2.5
AC-FT	245	371	445	540	487	406	320	208	172	294	365	463

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1996, BY WATER YEAR (WY)

	MEAN	30.1	19.7	21.7	22.3	41.7	78.8	55.2	20.3	6.59	8.70	16.2	19.0
MAX	430	211	159	159	231	336	398	162	39.7	28.3	79.2	172	
(WY)	1984	1979	1979	1993	1993	1985	1973	1973	1992	1967	1967	1983	
MIN	3.27	5.18	5.11	5.68	5.14	4.04	3.38	2.70	1.39	1.34	4.55	3.09	
(WY)	1983	1976	1978	1970	1964	1959	1967	1959	1990	1995	1961	1959	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1959 - 1996

ANNUAL TOTAL	8297.88	2175.41	
ANNUAL MEAN	22.7	5.94	28.7
HIGHEST ANNUAL MEAN			101
LOWEST ANNUAL MEAN			5.94
HIGHEST DAILY MEAN	354	Feb 15	5000
LOWEST DAILY MEAN	.76	Jul 23	.76
ANNUAL SEVEN-DAY MINIMUM	.79	Jul 23	.79
INSTANTANEOUS PEAK FLOW			339
INSTANTANEOUS PEAK STAGE			2.31
INSTANTANEOUS LOW FLOW			.81
ANNUAL RUNOFF (AC-FT)	16460	4310	20760
10 PERCENT EXCEEDS	71	9.0	56
50 PERCENT EXCEEDS	7.0	5.9	8.5
90 PERCENT EXCEEDS	2.0	2.2	3.5

e Estimated

## GILA RIVER BASIN

09442692 TULAROSA RIVER ABOVE ARAGON, NM

LOCATION.--Lat 33°53'29", long 108°30'54", in NE¼NW¼ sec.9, T.5 S., R.16 W., Catron County, Hydrologic Unit 15040004, on right bank 0.4 mi upstream from first diversion, 1.4 mi northeast of Aragon, and 8 mi upstream from Apache Creek.

DRAINAGE AREA.--94 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1966 to September 1996 (discontinued). 1955 to 1965 at site 0.6 mi upstream (drainage area, 89 mi<sup>2</sup>), annual maximum only.

REVISED RECORD.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,750 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.5	3.1	2.8	3.2	3.1	3.2	3.0	3.0	3.1	3.1	3.0
2	3.0	3.5	3.1	2.9	3.2	3.1	3.1	3.1	3.0	3.1	3.0	3.0
3	3.0	3.5	3.0	2.8	3.2	3.1	3.2	3.1	3.0	3.0	3.1	3.0
4	2.9	3.5	3.0	2.8	3.2	3.1	3.2	3.0	3.0	3.0	3.0	3.0
5	2.9	3.4	3.0	2.9	3.2	3.1	3.2	3.0	3.0	3.1	3.0	3.0
6	2.9	3.6	3.0	3.0	3.2	3.1	3.2	3.0	3.0	3.0	3.0	3.0
7	2.9	3.4	3.1	3.0	3.2	3.2	3.2	3.0	3.0	3.1	3.0	3.0
8	2.9	3.4	3.1	3.1	3.2	3.2	3.2	3.0	3.1	3.1	3.0	3.0
9	2.9	3.4	3.0	3.2	3.2	3.2	3.2	3.0	3.1	3.1	3.0	3.0
10	2.9	3.4	3.0	3.1	3.1	3.2	3.2	3.0	3.0	3.1	3.0	3.0
11	2.9	3.4	3.0	3.1	3.1	3.2	3.2	3.0	3.1	3.1	3.0	3.4
12	3.0	3.4	3.0	3.1	3.1	3.2	3.1	3.3	3.1	3.1	3.1	3.1
13	3.0	3.3	3.0	3.1	3.2	3.2	3.2	3.1	3.1	3.1	2.9	3.0
14	3.0	3.3	3.1	3.2	3.1	3.2	3.1	3.1	3.1	3.1	2.9	3.5
15	3.0	3.3	3.0	3.2	3.1	3.2	3.3	3.1	3.1	3.1	2.9	3.1
16	3.0	3.3	3.1	3.2	3.1	3.2	3.1	3.1	3.1	3.1	2.9	3.0
17	3.1	3.2	3.1	3.4	3.1	3.2	3.1	3.3	3.1	3.1	3.0	3.0
18	3.1	3.3	3.1	3.2	3.1	3.2	3.1	3.6	3.1	3.0	2.9	3.0
19	3.1	3.2	3.1	3.1	3.1	3.2	3.2	2.9	3.2	3.0	2.9	3.0
20	3.1	3.2	3.0	3.3	3.2	3.2	3.1	2.9	3.1	3.0	3.6	3.0
21	3.2	3.2	3.0	3.1	3.2	3.2	3.2	2.9	3.2	3.1	3.3	3.0
22	3.2	3.2	3.0	3.2	3.2	3.2	3.1	3.0	3.2	2.8	3.2	3.0
23	3.2	3.1	3.0	3.2	3.1	3.2	3.1	3.0	3.3	2.8	3.1	2.9
24	3.3	3.1	3.0	3.1	3.2	3.2	3.1	3.1	3.3	3.2	3.0	3.0
25	3.3	3.1	3.0	3.2	3.1	3.2	3.1	3.1	3.2	2.9	3.0	3.1
26	3.4	3.1	2.9	3.2	3.1	3.2	3.0	3.2	3.2	2.9	3.0	3.1
27	3.4	3.1	2.9	3.2	3.2	3.2	3.0	3.1	3.3	3.0	3.0	3.0
28	3.4	3.0	2.8	3.2	3.1	3.2	3.0	3.1	3.1	3.0	3.0	3.0
29	3.4	3.1	2.8	3.1	3.1	3.2	3.0	3.1	3.1	3.2	3.0	3.0
30	3.5	3.1	2.8	3.1	---	3.2	3.0	3.0	3.1	3.0	3.0	3.0
31	3.5	---	2.8	3.1	---	3.2	---	3.0	---	3.0	3.0	---
TOTAL	96.4	98.6	92.9	96.2	91.4	98.6	94.0	95.2	93.3	94.3	93.9	91.2
MEAN	3.11	3.29	3.00	3.10	3.15	3.18	3.13	3.07	3.11	3.04	3.03	3.04
MAX	3.5	3.6	3.1	3.4	3.2	3.2	3.3	3.6	3.3	3.2	3.6	3.5
MIN	2.9	3.0	2.8	2.8	3.1	3.1	3.0	2.9	3.0	2.8	2.9	2.9
AC-FT	191	196	184	191	181	196	186	189	185	187	186	181

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
MEAN	3.34	3.02	3.42	3.29	4.15	4.99	4.88	3.02	2.89	3.02	2.98	3.00																			
MAX	10.6	3.87	7.72	10.4	10.8	17.2	24.2	3.64	3.51	5.12	3.41	3.65																			
(WY)	1984	1973	1985	1993	1968	1985	1973	1992	1995	1992	1987	1976																			
MIN	2.59	2.62	2.63	2.32	2.49	2.41	2.33	2.66	2.25	2.45	2.47	2.49																			
(WY)	1983	1984	1984	1984	1984	1984	1984	1984	1994	1986	1986	1968																			

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1966 - 1996

ANNUAL TOTAL	1275.0	1136.0	
ANNUAL MEAN	3.49	3.10	3.50
HIGHEST ANNUAL MEAN			5.74
LOWEST ANNUAL MEAN			2.73
HIGHEST DAILY MEAN	53	Feb 15	186
LOWEST DAILY MEAN	2.8	Dec 28	2.0
ANNUAL SEVEN-DAY MINIMUM	2.9	Dec 25	2.2
INSTANTANEOUS PEAK FLOW			660
INSTANTANEOUS PEAK STAGE			3.90
INSTANTANEOUS LOW FLOW			1.1
ANNUAL RUNOFF (AC-FT)	2530	2250	2530
10 PERCENT EXCEEDS	3.5	3.3	3.5
50 PERCENT EXCEEDS	3.1	3.1	3.0
90 PERCENT EXCEEDS	3.0	3.0	2.6

## GILA RIVER BASIN

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM

LOCATION.--Lat 33°14'48", long 108°52'47", in NE¼NW¼ sec.23, T.12 S., R.20 W., Catron County, Hydrologic Unit 15040004, on left bank 0.2 mi upstream from hot springs, 5 mi south of Glenwood, 6 mi downstream from Whitewater Creek, and at mile 511.5.

DRAINAGE AREA.--1,653 mi<sup>2</sup>.

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 and crest-stage gage. Elevation of gage is 4,560 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Feb. 15, 1934, at site 4.5 mi upstream at datum 98.82 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,000 acres upstream from station. Gage height and rain gage satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916 when discharges of 60,000 ft<sup>3</sup>/s or greater were computed for station at Clifton, AZ. On Nov. 26, 1905, a peak of 25,000 ft<sup>3</sup>/s was measured (by float-area method) at station at Alma (about 12 mi upstream, drainage area, 1,560 mi<sup>2</sup>); a similar measurement of 21,000 ft<sup>3</sup>/s was made at the Alma station for peak of Dec. 3, 1906.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	21	24	35	45	35	22	16	13	27	28	35
2	39	24	23	33	47	34	22	15	11	28	28	36
3	34	24	23	33	46	35	20	16	11	33	23	36
4	29	24	25	33	45	34	21	19	13	31	25	36
5	24	24	25	34	43	36	23	21	14	30	26	34
6	23	25	26	35	43	34	24	21	13	26	51	35
7	19	26	28	35	41	33	24	20	12	50	21	33
8	18	27	30	35	40	31	23	18	14	50	20	34
9	18	27	30	35	41	32	21	17	14	62	24	33
10	18	27	30	35	41	31	19	17	15	54	369	36
11	19	27	30	36	41	32	21	18	14	70	e74	34
12	19	27	31	36	40	29	23	16	13	76	e53	16
13	19	26	31	36	40	27	24	15	14	105	e49	17
14	20	26	30	36	41	25	24	14	18	70	e45	18
15	20	25	29	35	39	26	23	15	17	80	e44	19
16	20	24	30	34	40	23	19	16	19	80	e40	19
17	20	22	33	36	40	24	20	16	21	e72	e36	19
18	19	23	33	36	40	23	19	13	21	e64	e51	19
19	19	23	33	36	36	23	19	15	19	e52	e43	19
20	17	23	34	36	35	21	21	15	18	e46	e40	20
21	16	23	34	36	35	18	21	14	14	e54	e280	19
22	20	23	34	35	34	21	17	13	14	e47	e135	18
23	19	21	34	35	34	22	18	12	15	e40	e96	18
24	19	21	35	36	36	23	16	13	15	e33	e124	22
25	19	21	35	37	35	24	18	12	16	e25	e90	34
26	19	22	35	38	37	23	16	15	15	27	53	e27
27	20	24	35	37	38	22	15	17	18	26	37	e25
28	22	24	35	38	36	24	21	15	48	27	37	e26
29	22	24	35	38	35	24	22	15	32	24	36	e24
30	18	24	34	38	---	22	20	17	32	27	35	e22
31	21	---	35	37	---	22	---	13	---	25	35	---
TOTAL	675	722	959	1105	1144	833	616	489	523	1461	2048	783
MEAN	21.8	24.1	30.9	35.6	39.4	26.9	20.5	15.8	17.4	47.1	66.1	26.1
MAX	46	27	35	38	47	36	24	21	48	105	369	36
MIN	16	21	23	33	34	18	15	12	11	24	20	16
AC-FT	1340	1430	1900	2190	2270	1650	1220	970	1040	2900	4060	1550

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996, BY WATER YEAR (WY)

	MEAN	85.9	49.7	88.7	103	132	198	145	77.5	28.9	37.9	77.0	59.1
MAX	2026	520	1068	1568	1034	1036	1049	593	146	108	392	368	
(WY)	1984	1979	1979	1993	1993	1985	1973	1973	1992	1930	1957	1988	
MIN	9.77	10.8	12.9	13.5	14.9	11.3	10.2	8.65	5.70	13.2	13.7	7.66	
(WY)	1966	1957	1954	1956	1956	1959	1957	1956	1956	1963	1960	1956	

## SUMMARY STATISTICS

## FOR 1995 CALENDAR YEAR

## FOR 1996 WATER YEAR

## WATER YEARS 1928 - 1996

ANNUAL TOTAL	43168	11358	
ANNUAL MEAN	118	31.0	90.1
HIGHEST ANNUAL MEAN			351
LOWEST ANNUAL MEAN			13.9
HIGHEST DAILY MEAN	2120	Feb 16	369
LOWEST DAILY MEAN	16	Oct 21	11
ANNUAL SEVEN-DAY MINIMUM	18	Jul 30	12
INSTANTANEOUS PEAK FLOW			2730
INSTANTANEOUS PEAK STAGE			6.00
INSTANTANEOUS LOW FLOW			10
ANNUAL RUNOFF (AC-FT)	85620	22530	65250
10 PERCENT EXCEEDS	361	43	175
50 PERCENT EXCEEDS	34	25	32
90 PERCENT EXCEEDS	20	16	15

e Estimated

07 LOWER MISSISSIPPI RIVER BASIN NUMBER <sup>4051</sup>▲ CREST-STAGE STATION AND ABBREVIATED NUMBER  
08 WESTERN GULF OF MEXICO BASIN NUMBER Complete national station number is: 08 405100  
09 COLORADO RIVER BASIN NUMBER Basin number + station number  
— RIVER BASIN BOUNDARY

Figure 7.--Location of partial-record stations.

## 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 that 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 and number	Location and drainage area	Period of record	Water year 1996 maximum		Period of record maximum			
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
ARKANSAS RIVER BASIN								
Carrizozo Creek near Kenton, OK. (07154400)	Lat 36°52'55", long 103°01'05", Union County, Hydrologic Unit 11040001, under bridge on New Mexico State Highway 406; 4 mi southwest of Kenton, OK. Drainage area is 111 mi2.	1953-	07-25-96	5.85	2,500	07-06-58	12.22	15,600
Raton Creek at Raton. (07201000)	Lat 36°55'38", long 104°26'22", Colfax County, Hydrologic Unit 11080001, 60 ft upstream from bridge on State Highway 72 at Raton. Drainage area is 14.4 mi2.	1953-96g	07-27-96	1.16	201	06-17-65	14.80	3,990
Chicorica Creek tributary near Raton. (07201200)	Lat 36°49'41", long 104°19'58", Colfax County, Hydrologic Unit 11080001, upstream from culvert on U.S. Highway 64-87, 7.7 mi southeast of Raton. Drainage area is 5.18 mi2.	1971-96g	07-27-96	9.14	475	08-05-82	18.30	1,340
Clear Creek near Ute Park. (07206400)	Lat 36°31'35", long 105°10'30", Colfax County, Hydrologic Unit 11080002, 0.25 mi upstream from mouth, and 4 mi southwest of Ute Park. Drainage area is 7.44 mi2.	1962-67* 1968-96g	06-02-96	2.49	49	06-18-65	3.05	151
Lagartija Creek tributary near Sanchez. (07221600)	Lat 35°39'21", long 104°24'57", San Miguel County, Hydrologic Unit 11080003, at bridge on State Highway 419; 0.9 mi northeast of Sanchez. Drainage area is 1.19 mi2.	1961-96g	07-25-96	4.41	730	05-11-94	5.83	1,500
Trementina Creek at Trementina. (07222300)	Lat 35°29'28", long 104°24'59", San Miguel County, Hydrologic Unit 11080005, at bridge on State Highway 419; at Trementina. Drainage area is 63.9 mi2.	1959-	07-25-96	(e)	(+)	09-11-65	12.00	14,100

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES  
Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1996 maximum		Period of record maximum			
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
ARKANSAS RIVER BASIN -- Continued								
Garita Creek tributary near Variadero. (07222800)	Lat 35°20'10", long 104°21'50", San Miguel County, Hydrologic Unit 11080005, 1.2 mi upstream from mouth, and 6.3 mi southeast of Variadero. Drainage area is 23.0 mi2.	1971-96g	- -96	<2.83	<26	08-29-77	17.37	7,020
Bluewater Creek near Tucumcari. (07225300)	Lat 35°08'31", long 103°47'32", Quay County, Hydrologic Unit 11080006, in Tucumcari Metropolitan Park, 1,600 ft north of the park's southern boundary, and 4.8 mi southwest of Tucumcari. Drainage area is 15.2 mi2.	1971-96g	- -96 05-11-94 06-22-93	-- 9.88 8.69(h)	(k) 1,450(h) 800(h)	08-11-81	12.71	2,350
Bueyeros Creek at Bueyeros. (07226200)	Lat 35°58'10", long 103°41'05", in E1/2 sec.7, T.20 N., R.31 E., Harding County, Hydrologic Unit 11080007, on right upstream wingwall of culvert on State Road 102 at Bueyeros. Drainage area is 33.4 mi2.	1957-96g	- -96	--	(k)	07-17-72	12.77	5,800
Carrizo Creek near Roy. (07226300)	Lat 36°02'58", long 103°57'48", Harding County, Hydrologic Unit 11080007, 800 ft down- stream from State Highway 120, and 15 mi northeast of Roy. Drainage area is a68 mi2.	1954-	- -96	--	(k)	08-11-81	7.11	1,800
Plaza Larga Creek tributary near Ragland. (07227050)	Lat 34°48'29", long 103°45'35", Quay County, Hydrologic Unit 11080008, at culvert on State Highway 209, 1.2 mi northwest of Ragland. Drainage area is 0.36 mi2.	1952-96g	07-10-96	7.10	234	07-16-58	12.70	1,170
Arroyo del Puerto near Endee. (07227150)	Lat 35°03'32", long 103°06'04", Quay County, Hydrologic Unit 11090101, at bridge on State Highway 93, 5.4 mi south of Endee. Drainage area is a25 mi2.	1961-96g	07-10-96	7.69	860	08-10-91	9.19	1,450
Tramperos Creek near Stead. (07227200)	Lat 36°04'15", long 103°12'10", in NW1/4 sec.10, T.21 N., R.35 E., Union County, Hydrologic Unit 11090102, at bridge on State Highway 402, 2.1 mi south of Stead, and 26 mi south of Clayton. Drainage area is a556 mi2.	1966-73* 1974-	08-09-96	6.57	755	10-17-65	16.5	12,300
Sand Draw tributary near Clayton. (07227295)	Lat 36°23'20", long 103°19'05", Union County, Hydrologic Unit 11090103, upstream from culvert on U.S. Highway 56, 8 mi southwest of Clayton. Drainage area is 1.25 mi2.	1952-96g	- -96	---	(k)	07-16-56	7.33	388



DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES  
Annual maximum discharge at crest-stage partial-record stations  
ARKANSAS RIVER BASIN -- Continued

Station name and number	Location and drainage area	Period of record	Water year 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
Sand Draw near Clayton. (07227300)	Lat 36°20'30", long 103°11'30", Union County, Hydrologic Unit 11090103, on downstream side of bridge on State Highway 402, 7.5 mi south of Clayton. Drainage area is 42 mi <sup>2</sup> .	1953-	- -96	--	(k)	10-16-95	5.59	3,500
BRAZOS RIVER BASIN								
Blackwater Draw tributary near Floyd. (08079300)	Lat 34°14'52", long 103°44'51", Roosevelt County, Hydrologic Unit 12050001, 0.5 mi down- stream from section road, and 10 mi west of Floyd. Drainage area is 10 mi <sup>2</sup> .	1963-	- -96	--	(k)	- -69	5.96	3,400
Running Water Draw near Clovis. (08080600)	Lat 34°31'55", long 103°12'05", Curry County, Hydrologic Unit 12050005, 0.25 mi upstream from State Highway 209; and 8 mi north of Clovis. Drainage area is 109 mi <sup>2</sup> .	1953-56 1957-64* 1965-	08-07-96	6.77	3,500	07-24-72	---	8,000
RIO GRANDE BASIN								
Arroyo Seco tributary near Pojoaque. (08293700)	Lat 35°56'33", long 106°01'12", Santa Fe County, Hydrologic Unit 13020101, upstream from culvert on U.S. Highway 84-285, 3.5 mi north of Pojoaque. Drainage area is 0.72 mi <sup>2</sup> .	1971-96g	06-27-96	6.50	110	07-28-74	10.62	508
Bland Canyon near Cochiti Pueblo. (08313400)	Lat 35°42'11", long 106°24'56", Sandoval County, Hydrologic Unit 13020201, 200 ft south of Forest Service Road, 0.3 mi inside Santa Fe National Forest, and 7.5 mi north of Cochiti Pueblo. Drainage area is 7.57 mi <sup>2</sup> .	1962-	02-04-96	3.16	144	08-10-85	3.54	243
Capulin Canyon above Ranger Cabin, Bandelier National Monument (08313365)	Lat 35°46'36", long 106°21'00", Sandoval County, Hydrologic Unit 13020201, about .4 mi <sup>2</sup> downstream from west park boundary, 2.25mi <sup>2</sup> upstream from Ranger cabin. Drainage area is 6.5mi <sup>2</sup> .	1996-	06-26-96	15.24	2,820	06-26-96	15.24	2,820
Capulin Canyon below Ranger Cabin, Bandelier National Mounumnet (08313366)	Lat 35°45'21", long 106°19'36", Sandoval County Hydrologic Unit 13020201, about .25 mi downstream from Ranger cabin, Drainage area is 8.4 mi <sup>2</sup> .	1996-	06-26-96	9.30	2,700	06-26-96	9.30	2,700
Capulin Canyon below Painted Cave, Bandelier National Mounumnet (08313368)	Lat 33°44'21", long 106°19'09", sandoval County, Hydrologic Unit 13020201, about .25 mi downstream from Ranger cabin, and 2.25 mi upstream from mouth. Drainage area is 31.9 mi <sup>2</sup> .	1996-	06-26-96	7.90	3,630	06-26-96	7.90	3,630

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES  
Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1996 maximum		Period of record maximum	
			Date	Gage height (ft)	Date	Gage height (ft)
				Dis- charge (ft <sup>3</sup> /s)		Dis- charge (ft <sup>3</sup> /s)
RIO GRANDE BASIN -- Continued						
Canada de la Cueva near Galisteo. (08317720)	Lat 35°26'13", long 106°00'45", Santa Fe County, Hydrologic Unit 13020201, 6.4 mi east of Cerrillos, and 4.8 mi northwest of Galisteo. Drainage area is 1.81 mi <sup>2</sup> .	1970-96g	06-27-96	4.34	515	09-18-82 4.78 919
Juan Toro Canyon near Miera. (08330400)	Lat 35°00'57", long 106°20'14", Bernalillo County, Hydrologic Unit 13020203, 150 ft east of State Highway 337, 1 mi south- east of Cadro, and 4.5 mi northwest of Miera. Drainage area is 1.57 mi <sup>2</sup> .	1959-96g	06-26-96	1.24	37	07-20-71 1.33 44
Tijeras Arroyo at Albuquerque. (08330500)	Lat 35°03'40", long 106°28'40", Bernalillo County, Hydrologic Unit 13020203, 300 ft south of old U.S. Highway 66, and 0.4 mi southeast of city limits of Albuquerque. Drainage area is 75.3 mi <sup>2</sup> .	1943-48* 1958-	06-26-96	9.08	4,580	06-24-67 6.85 6,500
Pine Canyon near Thoreau. (08341370)	Lat 35°18'34", long 108°10'14", McKinley County, Hydrologic Unit 13020207, about 1 mi southwest of the north end of Bluewater Lake, and about 7 mi southeast of Thoreau. Drainage area is 6.09 mi <sup>2</sup> .	1969-96g	- -96	--	(k)	08-27-93 3.56 195
Chupadera Wash tributary at Bingham. (08358600)	Lat 33°51'39", long 106°22'06", Socorro County, Hydrologic Unit 13020210, 75 ft upstream from culvert on U.S. Highway 380, and 0.1 mi west of Bingham. Drainage area is 1.29 mi <sup>2</sup> .	1961-96g	- -96	---	(k)	09-10-80 4.75 620
San Jose Arroyo near Monticello. (08359300)	Lat 33°28'05", long 107°14'30", Sierra County, Hydrologic Unit 13020211, at head of box canyon just downstream from major tributary, 800 ft downstream from culvert on old U.S. Highway 85, and 13 mi northeast of Monticello. Drainage area is 26.9 mi <sup>2</sup> .	1959-96g	09-13-96	4.42	2,170	06-10-88 6.09 5,070
Rio Grande tributary near Radium Springs. (08363100)	Lat 32°30'05", long 106°57'05", Dona Ana County, Hydrologic Unit 13030102, upstream from culvert on State Highway 185, 120 ft upstream from mouth, and 1.4 mi west of Radium Springs. Drainage area is 0.40 mi <sup>2</sup> .	1955-96g	06-27-96	6.40	207	08-24-59 8.20 332
Aleman Draw at Aleman. (08363200)	Lat 33°00'00", long 107°00'20", Sierra County, Hydrologic Unit 13030103, on Santa Fe Railroad bridge, 140 ft upstream from dip on Engle-Rincon road, and 0.26 mi west of Aleman. Drainage area is 25.5 mi <sup>2</sup> .	1959-96g	06-29-96	10.54	7,100	08-07-67 19.10 16,400

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
RIO GRANDE BASIN -- Continued								
Tecolote Creek at Tecolote. (08379300)	Lat 35°27'20", long 105°16'55", San Miguel County, Hydrologic Unit 13060001, on bridge on old U.S. Highway 85 at Tecolote. Drainage area is 122 mi2.	1954-	07-10-96	7.66	1,910	08-17-61	12.92	12,300
Sandoval Canyon at Gallinas. (08380300)	Lat 35°41'19", long 105°21'17", San Miguel County, Hydrologic Unit 13060001, about 500 ft upstream from culvert on State Highway 65, at north edge of Gallinas. Drainage area is 7.6 mi2.	1957 1961-96g	- -96	--	(m)	08-01-66	5.26	2,530
Pecos River tributary near Pintada. (08382900)	Lat 34°58'06", long 105°05'38", Guadalupe County, Hydrologic Unit 13060001, in Anton Chico Grant, 1,500 ft south of Interstate Highway 40, and 6.8 mi north of Pintada. Drainage area is 16.0 mi2.	1961-96g	06-26-96	(e)	(+)	07-19-71	4.80	6,600
Pecos River tributary near Puerto de Luna. (08383370)	Lat 34°52'35", long 104°38'16", Guadalupe County, Hydrologic Unit 13060001, 25 ft upstream from culvert on State Highway 91, and 3.1 mi north of Puerto de Luna. Drainage area is 0.37 mi2.	1961-96g	09-14-96	7.39	118	08-23-87	15.89	2,000
Alamosa Creek tributary near Jordan. (08385530)	Lat 34°47'44", long 103°58'07", Quay County, Hydrologic Unit 13060004, 500 ft upstream from dip on State Highway 156, and 6.9 mi west of Jordan. Drainage area is 9.71 mi <sup>2</sup> .	1962-96g	07-10-96	1.44	5.8	07-11-72	6.86	2,850
Aragon Creek tributary near Encinoso. (08385670)	Lat 33°43'35", long 105°31'43", Lincoln County, Hydrologic Unit 13060005, 0.3 mi upstream from wooden bridge on dirt road, 1.2 mi north of State Highway 246, and 4.3 mi west of Encinoso. Drainage area is 6.07 mi2.	1961-96g	09-11-96	4.00	590	09-06-61	5.10	1,610
Salt Creek tributary near Roswell. (08385900)	Lat 33°32'22", long 104°31'08", Chavez County, Hydrologic Unit 13060005, at culvert on U.S. Highway 285, 4.7 mi north of junction of U.S. Highways 70 and 285, and 10 mi north of Roswell. Drainage area is 0.04 mi2.	1952-96g	06-28-96	1.10	13	08-11-77	3.75	73
Rio Bonito tributary near Fort Stanton. (08389060)	Lat 33°31'15", long 105°28'05", Lincoln County, Hydrologic Unit 13060008, at culvert on U.S. Highway 380, 150 ft upstream from mouth, and 3.5 mi northeast of Fort Stanton. Drainage area is 0.72 mi2.	1955-96g	- -96	---	(k)	09-30-82	6.40	512
Rio Hondo tributary at Tinnie. (08390050)	Lat 33°22'36", long 105°13'01", Lincoln County, Hydrologic Unit 13060008, upstream from culvert on U.S. Highway 70-380, 0.5 mi east of junction of U.S. Highway 70-380 and State Highway 368, and at Tinnie. Drainage area is 0.23 mi2.	1971-96g	06-27-96	3.48	18	09-07-72	10.80	420

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES  
Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
RIO GRANDE BASIN -- Continued								
Gallo Canyon near Picacho. (08390150)	Lat 33°17'23", long 105°10'49", Lincoln County, Hydrologic Unit 13060009, 500 ft east of road, 5 mi south of Picacho. Drainage area is 1.32 mi2.	1962-96g	09-13-96	10.38	3,600	09-13-96	10.38	3,600
Pancho Canyon near Arabela. (08393700)	Lat 33°30'36", long 105°11'38", Lincoln County, Hydrologic Unit 13060008, 200 ft down- stream from dip on State Highway 368, and 5.6 mi south of Arabela. Drainage area is 16.7 mi2.	1962-96g	06-27-96	4.51	1,450	08-10-65	5.49	1,700
Eight Mile Draw near Roswell. (08393900)	Lat 33°24'05", long 104°37'54", Chavez County, Hydrologic Unit 13060008, 6.5 mi west of Roswell. Drainage area is 397 mi2.	1941 1952-	09-13-96	13.90	940	07-13-91	17.80	10,300
Twin Butte Canyon tributary near Roswell. (08394300)	Lat 33°10'34", long 104°51'30", Chavez County, Hydrologic Unit 13060009, about 0.1 mi upstream from mouth, and about 22 mi southwest of Roswell. Drainage area is 5.01 mi2.	1968-96g	06-14-96	3.60	290	09-08-95	9.60	5,900
Hyatt Canyon near Cloudcroft. (08397400)	Lat 32°56'06", long 105°37'37", Otero County, Hydrologic Unit 13060010, 0.5 mi south of U.S. Highway 82, and 7 mi east of Cloudcroft. Drainage area is 3.08 mi2.	1953-96g	06-27-96	2.21	109	06-27-96	2.21	109
Last Chance Canyon tributary near Carlsbad Caverns. (08405050)	Lat 32°17'30", long 104°36'20", Eddy County, Hydrologic Unit 13060011, upstream from culvert on State Highway 137, 0.1 mi north of road to Sitting Bull Falls, and 12.5 mi northwest of Carlsbad Caverns. Drainage area is 0.2 mi2.	1959-96g	08-25-96	3.29	160	08-23-66	7.77	683
Mosley Canyon near Whites City. (08405100)	Lat 32°15'27", long 104°22'43", Eddy County, Hydrologic Unit 13060011, 600 ft downstream from dip on Dark Canyon Road, and 5.5 mi north of Whites City. Drainage area is 14.6 mi2.	1959-	09-12-96	5.33	1,750	05-30-65	13.70	16,400
Antelope Draw near Jal. (08436000)	Lat 32°09'18", long 103°21'51", Lea County, Hydrologic Unit 13070007, 0.4 mi south of State Highway 128, and 10.7 mi west of Jal. Drainage area is 20 mi2.	1963-96g	08-19-96	1.28	4.0	07-30-94	4.85	530
MIMBRES BASIN								
Silva Creek at Silver City. (08477580)	Lat 32°46'41", long 108°16'41", Grant County, Hydrologic Unit 13030202, 190 ft upstream from Twelfth Street bridge in Silver City. Drainage area is 10.0 mi2.	1958-96	09-11-96	3.64	1,180	08-11-60	6.01	2,670
Pinos Altos Creek at Silver City. (08477590)	Lat 32°46'52", long 108°16'04", Grant County, Hydrologic Unit 13030202, downstream from U.S. Highway 180 in Silver City. Drainage area is 4.63 mi2.	1958-96g	09-11-96	3.26	2,080	09-03-72	4.09	3,700

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES  
Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1996 maximum		Period of record maximum		Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
			Date		Date				
MIMBRES BASIN -- Continued									
Mimbres River at Deming. (08478500)	Lat 32°17'00", long 107°45'35", Luna County, Hydrologic Unit 13030202, culvert on U.S. Highway 180, at north end of Deming. Drainage area is 1,370 mi <sup>2</sup> .	1954-79 1983-	09-12-96	6.37	695	10-20-72	6.68	2,690	
Mimbres basin tributary near Florida. (08478600)	Lat 32°21'30", long 107°37'30", Luna County, Hydrologic Unit 13030202, upstream from culvert on State Highway 26, and 5 mi southwest of Florida. Drainage area is 0.55 mi <sup>2</sup> .	1959-	09-12-96	2.28	148	06-14-91	4.74	480	
Seventysix Draw tributary near Waterloo. (08478800)	Lat 31°56'34", long 107°44'38", Luna County, Hydrologic Unit 13030202, upstream from culvert on State Road 11, 3.9 mi southeast of Waterloo, and 7.9 mi north of Columbus. Drainage area is 0.2 mi <sup>2</sup> .	1967-	09-12-96	<1.43	<25	08-04-67	7.30	222	
TULAROSA BASIN									
White Oaks Canyon near Carrizozo. (08480150)	Lat 33°43'51", long 105°50'11", Lincoln County, Hydrologic Unit 13050003, 100 ft upstream from culvert on U.S. Highway 54, 6 mi north of Carrizozo. Drainage area is 31 mi <sup>2</sup> .	1959- 1961-	09-28-95	4.59	1,770	07-26-59	14.30	7,690	
Nogal Creek tributary near Nogal. (08480170)	Lat 33°34'54", long 105°41'10", Lincoln County, Hydrologic Unit 13050003, upstream from culvert on U.S. Highway 380, about 2.0 road mi west of Indian Divide, 7 mi northwest of Capitan, and 2 mi north of Nogal. Drainage area is 1.94 mi <sup>2</sup> .	1968-96g	- -96	---	(k)	08-10-77	8.45	655	
Taylor Canyon tributary near Bingham. (08480200)	Lat 33°48'11", long 106°12'00", Socorro County, Hydrologic Unit 13050003, 200 ft north of U.S. Highway 380, and 12 mi southeast of Bingham. Drainage area is 2.66 mi <sup>2</sup> .	1961-96g	07-25-96	1.33	88	08-12-61	2.39	551	
Indian Creek near Three Rivers. (08480700)	Lat 33°22'10", long 105°53'25", Otero County, Hydrologic Unit 13050003, 150 ft upstream from diversion dam, and 12 mi east of Three Rivers. Drainage area is 6.8 mi <sup>2</sup> .	1956-58* 1959-96g	06-27-96	7.03	635	07-14-91	12.08	3,000	
ESTANCIA BASIN									
Estancia Valley tributary at Cedar Grove. (08488000)	Lat 35°10'05", long 106°10'08", Santa Fe County, Hydrologic Unit 13050001, 50 ft upstream from culvert on State Highway 344, 0.1 mi south of Cedar Grove. Drainage area is 1.21 mi <sup>2</sup> .	1955 1961-96g	06-26-96	8.03	(+)	07-11-77	7.92	144	
Juan Tomas Canyon near Edgewood. (08488100)	Lat 35°04'35", long 106°13'46", Santa Fe County, Hydrologic Unit 13050001, 140 ft upstream from culvert on Interstate Highway 40, 2.5 mi northwest of Edgewood. Drainage area is a20 mi <sup>2</sup> .	1962-96g	06-26-96	2.15	72	08-01-89	2.48	150	

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES  
Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1996 maximum		Period of record maximum				
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	
ESTANCIA BASIN -- Continued									
Canon de Torreon at Torreon. (08488500)	Lat 34°43'20", long 106°17'50", Torrance County, Hydrologic Unit 13050001, at culvert on State Highway 55, in Torreon. Drainage area is 18.2 mi2.	1954-96g	06-26-96	1.96	63	08-09-67	4.23	4,310	
Big Draw near Mountainair. (08489000)	Lat 34°18'45", long 106°11'35", Torrance County, Hydrologic Unit 13050001, 0.25 mi upstream from culvert on State Highway 55, and 8.4 mi south- east of Mountainair. Drainage area is 4.06 mi2.	1953-96g	06-26-96	6.64	1,040	09-25-54	8.68	1,710	
SALT BASIN									
Fleming Draw near Pinon. (08492500)	Lat 32°31'01", long 105°20'42", Otero County, Hydrologic Unit 13050004, 0.2 mi upstream from dip in ranch road, and 7.5 mi south of Pinon. Drainage area is 16.6 mi2.	1959-96g	06-27-96	4.75	950	- -69	8.75	5,800	
SAN AGUSTIN PLAINS BASIN									
Swingle Canyon near Datil. (08500000)	Lat 34°11'17", long 107°53'55", Catron County, Hydrologic Unit 13020208, 0.3 mi upstream from U.S. Highway 60, and 4.3 mi northwest of Datil. Drainage area is 6.35 mi2.	1970-72 1976-96g	- -96	5.06	120	07-16-77	5.73	900	
SAN JUAN RIVER BASIN									
Ruben Canyon near Gobernador. (09350700)	Lat 36°44'26", long 107°14'33", Rio Arriba County, Hydrologic Unit 14080101, in Carson National Forest, upstream from culvert on U.S. Highway 64, and 6.5 mi east of Gobernador. Drainage area is 5.06 mi2.	1970-96g	- -96	---	(k)	08-17-88	5.89	380	
Gobernador Canyon near Gobernador. (09355700)	Lat 36°41'05", long 107°25'10", San Juan County, Hydrologic Unit 14080101, 0.2 mi south of U.S. Highway 64, and 4 mi southwest of Gobernador. Drainage area is 19.8 mi2.	1956-96g	08-02-96	5.04	545	08-06-63	9.30	3,450	
Manzanares Canyon near Turley. (09356400)	Lat 36°44'15", long 107°42'15", San Juan County, Hydrologic Unit 14080101, 600 ft upstream from culvert on U.S. Highway 64, and 4.2 mi east of Turley. Drainage area is 3.20 mi2.	1956-96g	08-02-96	1.95	318	08-03-69	6.19	2,210	
Burro Canyon near Lindrith. (09356520)	Lat 36°16'21", long 107°14'46", Rio Arriba County, Hydrologic Unit 14080103, upstream from culvert on State Highway 537, 11.5 mi west of Lindrith. Drainage area is 9.11 mi2.	1970-96g	06-29-96	11.81	28	06-29-81	10.87	725	
West Draw near Farmington. (09357230)	Lat 36°35'24", long 108°11'03", San Juan County, Hydrologic Unit 14080101, 15 ft upstream from culvert on State Highway 371, 11 mi south of Farmington. Drainage area is 0.32 mi2.	1975-96g	08-02-96	3.36	34	07-26-76	4.61	74	

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES  
Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1996 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
SAN JUAN RIVER BASIN -- Continued								
La Plata River tributary near Farmington. (09367400)	Lat 36°47'10", long 108°13'31", San Juan County, Hydrologic Unit 14080105, about 700 ft upstream from culvert on State Highway 170, and 4.1 mi northwest of Farmington. Drainage area is 1.03 mi2.	1970-96g	08-02-96	3.66	138	03- -73	4.25	1,130
Stevens Arroyo near Kirtland. (09367550)	Lat 36°45'56", long 108°21'59", San Juan County, Hydrologic Unit 14080105, upstream from gravel road to Young's Lake, 0.6 mi north of El Paso Natural Gas, San Juan Plant, and 2.3 mi north of Kirtland. Drainage area is 4.52 mi2.	1970-96g	08-02-96	12.30	245	09-06-91	15.09	1,550
Chaco Wash at Chaco Culture National Monument. (09367680)	Lat 36°01'43", long 107°55'04", San Juan County, Hydrologic Unit 14080106, on downstream side of center bridge pier, 800 ft downstream from Fajada Wash, and 0.5 mi southwest of Chaco Culture National Historical Park Visitors Center. Drainage area is 578 mi2.	1976-90* 1991-	08-02-96	4.33	599	09-02-88	8.55	1,920
Black Springs Wash near Mexican Springs. (09367900)	Lat 35°45'40", long 108°49'00", McKinley County, Hydrologic Unit 14080106, 2.5 mi south of Mexican Springs, and 17 mi north of Gallup. Drainage area is 7.05 mi2.	1954-78 1979-82* 1983-96g	08-02-96	3.74	1,040	08-18-55		2,200
Coyote Wash tributary near Naschitti. (09367920)	Lat 36°05'56", long 108°41'48", San Juan County, Hydrologic Unit 14080106, on bridge on U.S. Highway 666, 2.4 mi north of Naschitti, and 39 mi north of Gallup. Drainage area is 12.0 mi2.	1967-96g	08-02-96	2.01	81	06-29-67	10.80	(+)
Hunter Wash at Bisti Trading Post. (09367930)	Lat 36°16'37", long 108°15'12", San Juan County, Hydrologic Unit 14080106, on right bank upstream from road crossing at Bisti Trading Post. Drainage area is 45.6 mi2.	1975-82* 1983-96g	06-28-96	4.57	837	08-19-76	6.22	1,570
Rattlesnake Arroyo near Shiprock. (09367980)	Lat 36°46'14", long 108°43'32", San Juan County, Hydrologic Unit 14080105, upstream from bridge on U.S. Highway 64, 0.8 mi west of Shiprock. Drainage area is	1980-96g	08-02-96	3.78	380	09-07-95	6.25	3,800
Malpais Arroyo near Shiprock. (09368020)	Lat 36°55'33", long 108°43'26", San Juan County, Hydrologic Unit 14080105, upstream from culvert on U.S. Highway 666, 8.3 mi north of Shiprock. Drainage area is	1980-96g	08-02-96	0.53	21	09-13-93	2.44	295
LITTLE COLORADO RIVER BASIN								
Galestena Canyon tributary near Black Rock. (09387050)	Lat 34°58'45", long 108°40'00", McKinley County, Hydrologic Unit 15020004, 100 ft downstream from bridge on State Highway 36, and 10.5 mi southeast of Black Rock. Drainage area is 19 mi2.	1957-96g	06-15-96	1.98	72	09-05-70	6.40	660

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES  
Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1996 maximum		Period of record maximum		
			Date	Gage height (ft)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
LITTLE COLORADO RIVER BASIN -- Continued							
Milk Ranch Canyon near Fort Wingate. (09395400)	Lat 35°25'55", long 108°33'30", McKinley County, Hydrologic Unit 15020006, 0.5 mi downstream from culvert on secondary road between Fort Wingate and McGaffey, and 3 mi south of Fort Wingate. Drainage area is 14.0 mi2.	1949-96g	- -96	-- (k)	- -49	4.20	1,360
GILA RIVER BASIN							
Copperas Canyon near Pinos Altos. (09430300)	Lat 33°04'42", long 108°12'14", Grant County, Hydrologic Unit 15040001, on east side of State Highway 15, and 15 mi north of Pinos Altos. Drainage area is 3.95 mi2.	1963-96g	- -96	<2.19 <78	08-13-80	4.82	650
Duck Creek at Cliff. (09430900)	Lat 32°58'03", long 108°36'36", Grant County, Hydrologic Unit 15040002, at Cliff 100 ft downstream from bridge on State Highway 211, and 0.6 mi upstream from mouth. Drainage area is 228 mi2.	1957-	- -96	<2.78 <1,050	01-18-93	11.76	7,400
Mangas Creek near Cliff. (09431130)	Lat 32°51'39", long 108°34'01", Grant County, Hydrologic Unit 15040002, on right bank, about 0.5 mi upstream of U.S. Forest Service Road 806, in close proximity to Bill Evans Lake, 7 mi south of Cliff. Drainage area is	1986-	09-14-96	6.11 235	09-07-90	5.04	1,400
Mail Hollow near Luna. (09442630)	Lat 33°47'38", long 108°56'59", Catron County, Hydrologic Unit 15040004, 1,000 ft upstream from culvert on U.S. Highway 180, 2.3 mi south of Luna. Drainage area is 4.20 mi2.	1970-96g	09-14-96	2.92 58	10-02-83	4.35	264
Steins Creek at Steins. (09455800)	Lat 32°13'47", long 109°00'01", Hidalgo County, Hydrologic Unit 15040006, at culvert on Interstate Highway 10, and 0.9 mi west of Steins. Drainage area is 1.26 mi2.	1959-96g	- -96	--- (k)	09-03-65	4.80	317

< Less than.  
+ Discharge not yet determined.  
\* Operated as continuous-record gaging station.  
a Approximately.  
b Peak too low to register on 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.  
k No evidence of any flow during water year.  
m No record.  
n Correction.



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Measurements at Miscellaneous Sites

Measurements of streamflow at points other than gaging stations are given in the following table.

## Discharge Measurements Made at Miscellaneous Sites during Water Year 1996

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
RIO GRANDE BASIN						
La Cienega Stream	Santa Fe River	Lat 35°34'35", long 106°05'45", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 33, T. 16 N., R. 8 E., Santa Fe County, Hydrologic Unit 13020201, 0.5 mi downstream from I-25 bridge, 1.8 mi northeast of Cienega School, 12.1 mi southwest of Santa Fe.	---	1986 1989 1991-	02-20-96 05-10-96 07-22-96	0.71 0.59 0.59
Lea Lake Drain 08394018	Pecos River	Lat 33°18'56", long 104°19'56", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 11 S., R. 26 E., Chaves County, Hydrologic Unit 13060007, on downstream side of road crossing at Bottomless Lakes State Park near Roswell.	---	1976-	10-04-95 01-11-96 04-16-96 07-22-96	5.33 7.91 6.38 8.08
Blue Springs 08405450	Black River	Lat 32°11'07", long 104°16'50", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T. 24 S., R. 26 E., Eddy County, Hydrologic Unit 13060011, upstream from all diversions, 5.5 mi east of Whites City.	---	1907 1919-20 1923 1935 1952-70 1974-	10-12-95 01-16-96 07-22-96	12.9 13.9 13.2
Castle Springs 08405490	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., Eddy County, Hydrologic Unit 13060011, upstream from mouth at Black River Village, 7.2 mi east of Whites City.	---	1975-	10-12-95 01-16-96 07-22-96	0.40 0.32 0.23
GILA RIVER BASIN						
Mangas Creek 09431100	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, Hydrologic Unit 15040002, 0.4 mi northwest of Mangas Springs.	177	1970-	10-05-95 12-07-95 03-07-96 06-03-96	6.44 6.38 5.72 4.82

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Water-quality partial-record stations and water-quality miscellaneous sites are surface-water locations where chemical-quality, biological, and/or sediment data are collected on a limited frequency over a short period of years or once only for use in hydrologic investigations. Continuous streamflow recording gages are not located at these stations or sites.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN

## 08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
FEB 1996										
14...	1215	36	903	8.2	6.0	633	12.2	119	170	4
AUG 27...	1515	170	1210	8.2	22.0	638	7.6	105	210	62

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER WH IT FIELD (MG/L AS HCO3) (00450)	BICAR-BONATE WATER WH IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER WH IT FIELD (MG/L AS CO3) (00447)	CAR-BONATE WATER WH IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT WH TOT IT FIELD (MG/L AS CaCO3) (00419)
FEB 1996										
14...	56	6.8	120	4	7.7	201	200	0	0	165
AUG 27...	70	9.0	170	5	11	--	183	--	0	--

DATE	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
FEB 1996										
14...	164	170	120	98	563	507	6	<0.010	270	4.0
AUG 27...	150	175	230	150	748	730	22	<0.010	630	1.0

DATE	ANTI-MONY, DIS-SOLVED (UG/L AS Sb) (01095)	ARSENIC TOTAL (UG/L AS As) (01002)	ARSENIC DIS-SOLVED (UG/L AS As) (01000)	BARIUM, DIS-SOLVED (UG/L AS Ba) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS Be) (01010)	CADMIUM DIS-SOLVED (UG/L AS Cd) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS Cr) (01030)	COBALT, DIS-SOLVED (UG/L AS Co) (01035)	COPPER, DIS-SOLVED (UG/L AS Cu) (01040)	LEAD, DIS-SOLVED (UG/L AS Pb) (01049)
FEB 1996										
14...	<1.0	22	20	104	<1.0	<1.0	2.0	<1.0	3.0	<1.0
AUG 27...	<1.0	24	25	124	<1.0	<1.0	<1.0	<1.0	2.0	<1.0

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS Mn) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS Mo) (01060)	NICKEL, DIS-SOLVED (UG/L AS Ni) (01065)	SILVER, TOTAL RECOV-ERABLE (UG/L AS Ag) (01077)	SILVER, DIS-SOLVED (UG/L AS Ag) (01075)	ZINC, DIS-SOLVED (UG/L AS Zn) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SEDI-MENT, DIS-SOLVED, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB 1996										
14...	12	4.0	2.0	<1	<0.20	1.0	2.0	33	3.2	83
AUG 27...	20	6.0	2.0	<1	<0.20	<1.0	3.0	103	47	86

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

RIO GRANDE BASIN -- Continued

08329928 RIO GRANDE NEAR ALAMEDA, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	
OCT 1995											
02...	1430	740	352	7.8	21.0	635	7.8	106	120	--	
FEB 1996											
13...	0900	1260	362	8.1	4.5	642	10.6	97	130	--	
MAY											
19...	1500	490	371	7.9	--	631	--	--	130	--	
AUG											
26...	1445	760	388	8.0	26.0	640	6.5	96	130	47	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER WH IT FIELD (MG/L AS HCO3) (00450)	BICAR-BONATE WATER WH IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER WH IT FIELD (MG/L AS CO3) (00447)	CAR-BONATE WATER WH IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT WH TOT IT FIELD (MG/L AS CACO3) (00419)
OCT 1995											
02...	38	7.2	21	0.8	3.0	137	--	0	--	--	112
FEB 1996											
13...	41	7.5	24	0.9	3.1	139	--	0	--	--	114
MAY											
19...	40	7.5	24	0.9	3.2	143	--	0	--	--	117
AUG											
26...	43	6.4	27	1	3.5	--	106	--	0	--	--
DATE		ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
OCT 1995											
02...	--	113	52	6.4	218	195	195	73	<0.010	1300	4.0
FEB 1996											
13...	--	119	47	9.4	233	200	200	22	<0.010	250	28
MAY											
19...	--	120	58	7.3	206	210	210	39	<0.010	550	2.0
AUG											
26...	87	121	79	11	238	222	222	4100	<0.010	50000	5.0
DATE		ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
OCT 1995											
02...	<1.0	2	2	66	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<1.0
FEB 1996											
13...	<1.0	3	2	63	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
MAY											
19...	<1.0	2	2	65	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
AUG											
26...	<1.0	3	3	90	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

## 08329928 RIO GRANDE NEAR ALAMEDA, NM

DATE	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995										
02...	2.0	4.0	1.0	<1	<0.20	5.0	2.0	107	214	80
FEB 1996										
13...	3.0	4.0	1.0	<1	<0.20	2.0	3.0	44	150	64
MAY										
19...	3.0	4.0	2.0	<1	<0.20	<1.0	3.0	62	82	63
AUG										
26...	<1.0	4.0	1.0	<1	<0.20	16	2.0	4560	9350	98

## 08330075 CITY OF ALBQ LIFT STATION 32 AT ALBQ, NM

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)
JAN 1996							
31...	0912	E0.50	528	7.5	10.0	12.5	0.250

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
JAN 1996						
31...	0.040	0.290	0.310	1.1	2.00	2.10

## 08330150 RIO GRANDE AT RIO BRAVO BRIDGE BRIDGE NEAR ALBUQUERQUE, NM

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
OCT 1995										
03...	0845	790	388	7.7	14.0	639	8.3	96	130	--
FEB 1996										
13...	1300	1150	368	8.1	6.0	644	10.7	102	130	--
MAY										
20...	0845	460	381	8.0	16.5	637	8.0	98	130	--
AUG										
27...	0830	650	366	7.8	21.0	642	7.0	94	130	40

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

08330150 RIO GRANDE AT RIO BRAVO BRIDGE BRIDGE NEAR ALBUQUERQUE, NM

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3 (00450)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER WH IT FIELD MG/L AS CO3 (00447)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)
OCT 1995										
03...	40	7.3	23	0.9	3.0	143	--	0	--	117
FEB 1996										
13...	41	7.6	25	0.9	3.0	140	--	0	--	115
MAY										
20...	41	7.7	24	0.9	3.1	146	--	0	--	120
AUG										
27...	41	6.6	23	0.9	3.2	--	109	--	0	--
DATE	ALKA- LITY WAT IT TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
OCT 1995										
03...	--	117	53	6.5	223	203	78	<0.010	1800	2.0
FEB 1996										
13...	--	121	48	9.7	238	203	37	<0.010	550	22
MAY										
20...	--	124	59	7.6	266	214	1	<0.010	990	15
AUG										
27...	89	110	69	9.0	196	205	2580	<0.010	32000	3.0
DATE	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
OCT 1995										
03...	<1.0	2	2	69	<1.0	<1.0	1.0	<1.0	2.0	<1.0
FEB 1996										
13...	<1.0	2	2	66	<1.0	<1.0	2.0	<1.0	2.0	<1.0
MAY										
20...	<1.0	2	2	66	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
AUG										
27...	<1.0	3	3	89	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- SOLVED (UG/L AS U) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995										
03...	<1.0	4.0	<1.0	<1	<0.20	1.0	2.0	110	235	90
FEB 1996										
13...	2.0	4.0	2.0	<1	<0.20	8.0	3.0	66	205	64
MAY										
20...	2.0	5.0	2.0	<1	<0.20	<1.0	3.0	76	94	73
AUG										
27...	<1.0	4.0	1.0	<1	<0.20	<1.0	2.0	2770	4870	99

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

RIO GRANDE BASIN -- Continued

08333450 ARROYO CHAVEZ NR SAN LUIS, NM

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI MENT LOAD (TONS)
JUL 1995					
16-16	1557	1657	8.5	59000	56
AUG					
22-22	1912	2037	1.4	63000	14
AUG					
24-24	1753	1813	2.6	78000	8.1
AUG					
25-25	1852	1917	1.1	62000	3.3
SEP					
28-28	1051	1120	4.2	59000	14
JUN 1996					
26-26	1601	1701	9.4	108000	114
JUN					
28-28	1346	1400	6.7	67500	13
JUN					
28-28	1446	1456	4.1	29500	2.7
JUN					
30-30	1547	1607	5.4	52000	10
JUL					
07-07	1957	2012	7.4	122000	25
JUL					
08-09	2146	0039	14	38000	173
JUL					
09-09	2015	2100	18	29000	45
AUG					
07-07	1605	1645	2.3	60500	10
SEP					
14-14	1513	1649	4.3	52200	40
SEP					
17-17	1513	1826	3.3	34000	10
SEP					
26-26	0249	0337	3.0	40000	11

08351225 VOLCANO HILL WASH NR CORREO, NM

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI MENT LOAD (TONS)
AUG 1995					
16-16	1910	2045	42	34700	259
AUG					
25-26	2200	0003	43	31800	315
SEP					
08-08	1852	2015	12	24000	45
JUN 1996					
28-28	1341	1441	55	44000	272
JUL					
08-08	2337	2347	5.6	30500	3.1
JUL					
15-15	1250	1450	3.5	38500	30
AUG					
09-09	1504	1657	43	38000	345
AUG					
22-22	0125	0149	1.9	36000	3.1
AUG					
22-23	2233	0100	1.9	22500	12
SEP					
12-12	1423	1523	10	36500	41
SEP					
13-13	1353	1553	62	32500	453
SEP					
14-14	0229	0341	21	31000	88

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

## 08362500 RIO GRANDE BLW CABALLO DAM,NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)		
JUL 1996 24...	0815	1860	569	7.8	26.0	23.0	656	7.1	97	140		
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)		
JUL 1996 24...	38	10	60	2	5.0	120	99	39	0.50			
DATE		SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)		
JUL 1996 24...	12		347	336	0.050	0.020	0.070	0.050	0.45	0.50		
DATE		PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)		
JUL 1996 24...	<0.010	0.030	0.010	6.7	4.4	4.0	30	84	421			
08363500 RIO GRANDE AT LEASBURG DAM,NM												
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	
JUL 1996 24...	1200	1340	616	8.1	26.5	25.0	662	7.2	101	150	30	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3 CO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3 CACO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
JUL 1996 24...	43	11	64	2	5.3	150	0	123	141	110	44	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

RIO GRANDE BASIN -- Continued

08363500 RIO GRANDE AT LEASBURG DAM,NM

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, 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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
JUL 1996 24...	0.50	13	374	365	0.080	0.010	0.090	0.040	0.16	0.60

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
JUL 1996 24...	0.20	0.140	<0.010	0.010	6.5	3.7	<3.0	1.0	262	948



## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN

The following water -quality tables for miscellaneous sites in the Rio Grande basin are identified by 15-digit latitude-longitude site numbers are in order by ascending site numbers as shown in parenthesis after the site names. The inorganic analyses tables are followed by the organic-compound analyses table for these sites. This departure from the normal downstream order for surface -water sites was taken to facilitate locating these sites in this report and for comparing results for the same group of analyses

## 315046106361810 - RIO GRANDE A TX-260 BRIDGE NR SANTA TERESA, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)
FEB 1996 29...	1115	351	873	8.4	13.0	10.0	670	10.1	102	179	7

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (UG/L) AS AL (70300)	ALUM-INUM, DIS-SOLVED (UG/L) AS AL (01106)	ANTI-MONY, DIS-SOLVED (UG/L) AS SB (01095)	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)	CADMIUM, DIS-SOLVED (UG/L) AS CD (01025)	CHRO-MIUM, DIS-SOLVED (UG/L) AS CR (01030)	COBALT, DIS-SOLVED (UG/L) AS CO (01035)
FEB 1996 29...	159	564	5.0	<1.0	2	65	<1.0	<1.0	2.0	<1.0

DATE	COPPER, DIS-SOLVED (UG/L) AS CU (01040)	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)	MOLYB-DENUM, DIS-SOLVED (UG/L) AS MO (01060)	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)	ZINC, DIS-SOLVED (UG/L) AS ZN (01090)	URANIUM, NATURAL DIS-SOLVED (UG/L) AS U (22703)
FEB 1996 29...	3.0	<1.0	2.0	<0.1	7.0	2.0	<1	<1.0	2.0	3.0

## 315454106360610 - RIO GRANDE AT TX 259 BRIDGE, CANUTILLO, TX

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L) AS CACO3 (00900)
JAN 1996 24...	1200	330	1000	8.1	13.5	5.5	15	669	11.3	102	230

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	ALKA-LINITY LAB (MG/L) AS CAC03 (90410)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)
JAN 1996 24...	56	66	16	110	3	7.2	214	0	175	175	180

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

315454106360610 - RIO GRANDE AT TX 259 BRIDGE, CANUTILLO, TX

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, 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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
JAN 1996 24...	90	0.70	11	605	589	0.400	0.010	0.410	0.070	0.40	0.080

DATE	PHOS- PHORUS ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHOPHOS- PHATE, DIS- SOLVED (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)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	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)
JAN 1996 24...	0.050	0.030	20	2	59	<1.0	<1.0	<3.0	1.0	4.0	<1.0

DATE	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- DENIUM, DIS- SOLVED (UG/L AS MO) (01060)	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)	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)
JAN 1996 24...	95	3.0	<0.1	10	<1.0	<1	<1.0	860	<6	<10

315958106380710 - RIO GRANDE AT NM-225 BRIDGE NR ANTHONY, NM

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)	BICAR- BONATE WATER FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER FIELD MG/L AS CO3 (00452)
FEB 1996 29...	1415	245	880	8.2	14.5	13.0	665	9.8	107	197	0	0

DATE	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
FEB 1996 29...	161	584	4.0	<1.0	2	67	<1.0	<1.0	2.0	<1.0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	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)	MOLYB- DENIUM, DIS- SOLVED (UG/L AS MO) (01060)	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)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
FEB 1996 29...	2.0	<1.0	11	<0.1	7.0	2.0	<1	<1.0	4.0	3.0

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

## 320610106393110 - DEL RIO DRAIN AT LEVEE ROAD NEAR VADO, NM

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	BICAR- BONATE WATER DIS IT FIELD HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD CO3 (00452)
FEB 1996 28...	1215	38	1160	8.1	17.0	13.0	665	9.3	102	244	0

DATE	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
FEB 1996 28...	200	766	5.0	<1.0	2	66	<1.0	<1.0	2.0	<1.0

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	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)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
FEB 1996 28...	2.0	<1.0	9.0	<0.1	9.0	2.0	<1	<1.0	3.0	3.0

## 320648106400510 - RIO GRANDE AT NM 227 BRIDGE NEAR VADO, NM

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
JAN 1996 24...	0845	306	880	8.2	-3.0	1.5	6.3	670	12.5	102	210

DATE	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	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 WATER DIS IT FIELD HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JAN 1996 24...	50	60	14	93	3	6.3	193	0	158	161	150

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

## 320648106400510 - RIO GRANDE AT NM 227 BRIDGE NEAR VADO, NM

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, 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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
JAN 1996 24...	74	0.60	8.7	524	505	0.490	0.020	0.510	0.020	0.30	0.090

DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (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)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	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)
JAN 1996 24...	0.040	0.030	10	2	67	<1.0	<1.0	<3.0	<1.0	4.0	<1.0

DATE	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)	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)	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)
JAN 1996 24...	84	2.0	<0.1	20	<1.0	<1	<1.0	770	<6	<10

## 321317106471510 - RIO GRANDE BELOW MESILLA DAM NR SANTO TOMAS, NM

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
JAN 1996 23...	1445	315	850	8.2	9.5	8.5	21	666	10.7	105	210	48
FEB 28...	0810	139	746	8.2	3.0	8.0	--	660	8.9	87	--	--

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
JAN 1996 23...	59	14	93	3	6.6	192	0	157	160	150	77
FEB 28...	--	--	--	--	--	170	0	139	--	--	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

## 321317106471510 - RIO GRANDE BELOW MESILLA DAM NR SANTO TOMAS, NM

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, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
JAN 1996											
23...	0.60	8.9	524	507	<0.010	0.620	0.020	0.40	0.090	0.050	0.030
FEB											
28...	--	--	466	--	--	--	--	--	--	--	--

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SE) (01095)	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)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	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)
JAN 1996											
23...	20	--	2	65	--	<1.0	<1.0	<3.0	<1.0	4.0	<1.0
FEB											
28...	6.0	<1.0	2	64	<1.0	<1.0	2.0	<1.0	2.0	--	<1.0

DATE	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)	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)	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
JAN 1996											
23...	84	4.0	<0.1	<10	<1.0	<1	<1.0	760	<6	<10	--
FEB											
28...	--	2.0	<0.1	6.0	2.0	<1	<1.0	--	--	3.0	3.0

## 321551106492910 - RIO GRANDE AT CALLE DEL NORTE BRDG NR MESILLA, NM

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
AUG 1996												
06...	0830	1120	623	8.3	--	23.0	--	7.0	--	150	42	11
07...	0800	1290	611	8.2	--	24.0	--	7.3	--	140	40	10
20...	1330	1680	595	8.1	35.0	27.0	664	7.1	103	130	36	9.5
21...	0845	1630	610	8.3	25.0	24.0	664	6.3	86	140	38	10

DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, TOTAL (UG/L AS SB) (01097)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
AUG 1996												
06...	6.5	3.3	1900	25	1	<1.0	73	<10	<1.0	<1	<1.0	1
07...	6.3	3.3	1900	21	1	2.0	68	<10	<1.0	<1	<1.0	1
20...	6.0	3.5	2700	6.0	<1	1.0	63	<10	<1.0	<1	<1.0	2
21...	6.2	3.3	2500	5.0	<1	<1.0	66	<10	<1.0	<1	<1.0	2

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

## 321551106492910 - RIO GRANDE AT CALLE DEL NORTE BRDG NR MESILLA, NM

DATE	CHROMIUM, TOTAL, 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)	LEAD, TOTAL, RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL, RECOV- ERABLE (UG/L AS MN) (01055)	MANGANESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY, TOTAL, RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY, DIS- SOLVED (UG/L AS HG) (71890)
AUG 1996											
06...	2.0	<1	<1.0	3	6.0	2	<1.0	220	<1.0	<0.10	<0.1
07...	2.0	1	<1.0	3	3.0	2	<1.0	180	<1.0	<0.10	<0.1
20...	<1.0	6	<1.0	2	2.0	4	<1.0	230	1.0	<0.10	<0.1
21...	1.0	1	<1.0	2	2.0	2	<1.0	170	<1.0	<0.10	<0.1

DATE	MOLYBDENUM, TOTAL, RECOV- ERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL, RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL, RECOV- ERABLE (UG/L AS SE) (01147)	SELENIUM, 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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
AUG 1996											
06...	4	6.0	2	2.0	<1	<1	<1	<1.0	20	6.0	2.0
07...	4	6.0	3	2.0	<1	<1	<1	<1.0	20	6.0	2.0
20...	4	6.0	6	2.0	<1	<1	<1	<1.0	20	8.0	2.0
21...	4	6.0	2	2.0	<1	<1	<1	<1.0	<10	6.0	2.0

## 321739106485910 - CITY OF LAS CRUCES WASTE WATER TREATMENT PLANT, NM

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, TOTAL (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS- SOLVED (MG/L AS Mg) (00925)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
AUG 1996												
06...	0950	1260	7.5	--	29.0	--	6.7	--	250	72	18	7.6
07...	0950	1260	7.4	--	28.0	--	6.4	--	250	72	18	5.8
20...	1100	1220	7.3	33.0	32.0	663	6.4	102	250	70	18	8.9
21...	1130	1210	7.3	27.5	28.0	663	6.3	93	250	71	18	6.6

DATE	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	ALUMINUM, TOTAL, RECOV- ERABLE (UG/L AS AL) (01105)	ALUMINUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTIMONY, TOTAL, RECOV- ERABLE (UG/L AS SB) (01097)	ANTIMONY, DIS- SOLVED (UG/L AS SB) (01095)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYLLIUM, TOTAL, RECOV- ERABLE (UG/L AS BE) (01012)	BERYLLIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS Cd) (01027)	CADMIUM DIS- SOLVED (UG/L AS Cd) (01025)	CHROMIUM, TOTAL, RECOV- ERABLE (UG/L AS CR) (01034)
AUG 1996											
06...	5.1	30	17	<1	<1.0	8.0	<10	<1.0	<1	<1.0	<1
07...	5.0	30	15	<1	<1.0	8.0	<10	<1.0	<1	<1.0	<1
20...	5.5	40	13	<1	<1.0	9.0	<10	<1.0	<1	<1.0	<1
21...	5.0	40	13	<1	<1.0	8.0	<10	<1.0	<1	<1.0	<1

DATE	CHROMIUM, TOTAL, 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)	LEAD, TOTAL, RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL, RECOV- ERABLE (UG/L AS MN) (01055)	MANGANESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY, TOTAL, RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY, DIS- SOLVED (UG/L AS HG) (71890)
AUG 1996											
06...	1.0	<1	<1.0	1	3.0	<1	<1.0	50	32	<0.10	<0.1
07...	2.0	<1	<1.0	1	2.0	<1	<1.0	40	30	<0.10	<0.1
20...	1.0	<1	<1.0	2	2.0	<1	<1.0	50	39	<0.10	<0.1
21...	2.0	<1	<1.0	2	2.0	<1	<1.0	40	35	<0.10	<0.1

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

RIO GRANDE BASIN -- Continued

321739106485910 - CITY OF LAS CRUCES WASTE WATER TREATMENT PLANT, NM

DATE	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 (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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
AUG 1996											
06...	23	27	2	3.0	<1	<1	<1	<1.0	30	18	10
07...	23	28	1	3.0	<1	<1	<1	<1.0	20	16	10
20...	27	31	2	4.0	<1	<1	<1	<1.0	<10	16	11
21...	27	31	1	4.0	<1	<1	<1	<1.0	10	14	10

321745106492510 - RIO GRANDE BELOW PICACHO BRIDGE NR LAS CRUCES, NM

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L AS O) (00300)	OXYGEN, DIS- SOLVED (MG/L AS O) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
JAN 1996												
23...	1145	336	820	8.0	8.0	5.0	7.1	665	--	--	210	48
FEB												
27...	1245	730	718	8.4	14.0	13.0	--	660	9.2	101	--	--

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
JAN 1996											
23...	59	14	89	3	6.0	193	0	158	160	150	74
FEB											
27...	--	--	--	--	--	164	4	141	--	--	--

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, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
JAN 1996											
23...	0.60	7.8	509	496	<0.010	<0.050	<0.015	0.30	0.040	0.030	<0.010
FEB											
27...	--	--	454	--	--	--	--	--	--	--	--

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	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)
JAN 1996											
23...	<10	--	2	60	--	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0
FEB											
27...	5.0	<1.0	2	62	<1.0	<1.0	2.0	<1.0	2.0	--	<1.0

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

## 321745106492510 - RIO GRANDE BELOW PICACHO BRIDGE NR LAS CRUCES, NM

DATE	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)	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)	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
JAN 1996											
23...	77	4.0	<0.1	<10	<1.0	<1	<1.0	730	<6	<10	--
FEB											
27...	--	3.0	<0.1	6.0	2.0	<1	<1.0	--	--	2.0	3.0

## 321837106493810 - RIO GRANDE AT PICACHO BRDG NR LAS CRUCES, NM

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
AUG 1996												
06...	1250	1180	623	8.2	--	31.5	--	7.3	--	150	42	11
07...	1130	1060	620	8.2	--	24.0	--	7.4	--	150	41	11
20...	0845	1140	595	8.0	21.0	24.0	663	6.6	91	130	35	9.5
21...	1300	1140	603	8.3	28.5	25.5	663	6.9	98	140	39	10

DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, TOTAL (UG/L AS SB) (01097)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	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)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
AUG 1996												
06...	5.1	3.4	1500	19	1	1.0	72	<10	<1.0	<1	<1.0	<1
07...	6.9	3.3	1800	20	1	<1.0	70	<10	<1.0	<1	<1.0	1
20...	6.4	3.3	2600	10	<1	<1.0	62	<10	<1.0	<1	<1.0	2
21...	6.1	3.3	1700	6.0	1	<1.0	68	<10	<1.0	<1	<1.0	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)	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)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)
AUG 1996											
06...	1.0	<1	<1.0	2	4.0	1	<1.0	200	1.0	<0.10	<0.1
07...	2.0	<1	<1.0	3	3.0	1	<1.0	200	<1.0	<0.10	<0.1
20...	<1.0	2	<1.0	3	1.0	3	<1.0	180	<1.0	<0.10	<0.1
21...	2.0	<1	<1.0	2	1.0	1	<1.0	160	1.0	<0.10	<0.1

DATE	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 (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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
AUG 1996											
06...	4	6.0	3	3.0	<1	<1	<1	<1.0	10	4.0	2.0
07...	4	6.0	2	1.0	<1	<1	<1	<1.0	<10	2.0	2.0
20...	5	5.0	3	2.0	<1	<1	<1	<1.0	<10	2.0	2.0
21...	5	6.0	2	2.0	<1	<1	<1	<1.0	<10	2.0	2.0



## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

322841106551010 - RIO GRANDE BELOW LEASBURG DAM, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
JAN 1996												
23...	0915	313	810	8.5	5.5	4.5	3.3	662	10.5	94	200	49
FEB												
27...	0800	E789	714	8.1	5.0	7.5	--	660	9.8	95	--	--
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)
JAN 1996												
23...	57	14	85	3	5.9	185	0	152	158	140	67	
FEB												
27...	--	--	--	--	--	153	11	143	--	--	--	--
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, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
JAN 1996												
23...	0.60	7.5	487	469	<0.010	<0.050	<0.015	0.40	0.050	0.030	<0.010	
FEB												
27...	--	--	458	--	--	--	--	--	--	--	--	--
DATE		ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS Sb) (01095)	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)	CADMIUM DIS-SOLVED (UG/L AS Cd) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS Cr) (01030)	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)
JAN 1996												
23...	<10	--	2	65	--	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0	
FEB												
27...	5.0	<1.0	2	73	<1.0	<1.0	2.0	<1.0	1.0	--	<1.0	
DATE		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)	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)	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)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
JAN 1996												
23...	76	4.0	<0.1	<10	<1.0	<1	<1.0	720	<6	<10	--	
FEB												
27...	--	2.0	<0.1	6.0	2.0	<1	<1.0	--	--	1.0	3.0	
30...	150	<0.10	0.2	<1	<1	<4	<10	19000	20000	<10	<60	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

RIO GRANDE BASIN -- Continued

344816106430010 - RIO GRANDE AT HWY 6 AT LOS LUNAS, NM

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	
OCT 1995 04...	0930	550	450	7.5	14.5	635	7.7	91	140	43	7.3	32	
DATE	RATIO	SODIUM AD- SORP- TION (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH IT FIELD (MG/L AS HCO3 (00450)	CAR- BONATE WATER WH IT FIELD (MG/L AS CO3 (00447)	ALKA- LITY WAT WH TOT IT FIELD (MG/L AS CACO3 (00419)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 1995 04...	1	4.0	149	0	122	120	60	15	261	235	75	<0.010	
DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)		
OCT 1995 04...	1500	2.0	<1.0	4	4	74	<1.0	<1.0	1.0	<1.0	2.0		
DATE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)		
OCT 1995 04...	<1.0	2.0	7.0	1.0	<1	<0.20	3.0	2.0	115	171	87		

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

RIO GRANDE BASIN -- Continued

345547106405510 - ATRISCO RIVERSIDE DRAIN AT MOUTH NEAR ISLETA, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	
OCT 1995											
05...	1315	46	430	7.4	18.5	640	7.1	91	150	--	
FEB 1996											
15...	1330	55	421	8.0	7.0	639	9.8	97	150	23	
MAY											
21...	1500	34	446	8.4	21.5	638	--	--	160	--	
AUG											
28...	1330	56	441	8.0	23.5	645	7.2	101	160	32	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER WH IT DIS IT FIELD (MG/L AS HCO3) (00450)	BICAR-BONATE WATER WH IT DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER WH IT DIS IT FIELD (MG/L AS CO3) (00447)	CAR-BONATE WATER WH IT DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT WH TOT IT FIELD (MG/L AS CACO3) (00419)
OCT 1995											
05...	47	7.2	30	1	3.9	160	--	0	--	131	
FEB 1996											
15...	46	7.4	28	1	3.6	159	149	0	0	130	
MAY											
21...	50	7.6	32	1	3.6	148	--	7	--	133	
AUG											
28...	50	7.8	31	1	4.3	--	152	--	0	--	
DATE		ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
OCT 1995											
05...	--	132	62	12	269	241	17	<0.010	530	<1.0	
FEB 1996											
15...	122	134	60	11	270	234	9	<0.010	190	4.0	
MAY											
21...	--	141	66	15	274	254	4	<0.010	50	<1.0	
AUG											
28...	124	138	72	13	254	253	106	<0.010	2000	1.0	
DATE		ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
OCT 1995											
05...	<1.0	5	5	87	<1.0	<1.0	2.0	<1.0	2.0	<1.0	
FEB 1996											
15...	<1.0	4	4	87	<1.0	<1.0	1.0	<1.0	2.0	<1.0	
MAY											
21...	<1.0	4	4	82	<1.0	<1.0	1.0	<1.0	2.0	<1.0	
AUG											
28...	<1.0	5	5	98	<1.0	<1.0	<1.0	<1.0	1.0	<1.0	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

RIO GRANDE BASIN -- Continued

345547106405510 - ATRISCO RIVERSIDE DRAIN AT MOUTH NEAR ISLETA, NM

DATE	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995 05...	45	5.0	1.0	<1	<0.20	1.0	2.0	73	9.1	68
FEB 1996 15...	89	4.0	1.0	<1	<0.20	2.0	3.0	39	5.7	69
MAY 21...	45	5.0	2.0	<1	<0.20	1.0	3.0	31	2.8	66
AUG 28...	64	6.0	2.0	<1	<0.20	2.0	2.0	193	29	61

345550106404810 - ALBUQUERQUE RIVERSIDE DRAIN AT MOUTH NR ISLETA, NM

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATURATION (00301)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLVED (MG/L AS CaCO3) (00904)
OCT 1995 05...	0930	164	435	7.7	14.0	640	7.5	87	150	--
FEB 1996 15...	1115	51	460	7.9	10.5	640	7.0	75	150	10
MAY 21...	1300	94	433	8.0	18.5	641	7.4	94	150	--
AUG 28...	1145	178	412	7.9	21.5	646	6.4	86	160	39

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	BICARBONATE WATER FIELD (MG/L AS HCO3) (00450)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CARBONATE WATER WH IT FIELD (MG/L AS CO3) (00447)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKALINITY WATER WH TOT IT FIELD (MG/L AS CaCO3) (00419)
OCT 1995 05...	47	7.7	27	1	3.7	159	--	0	--	130
FEB 1996 15...	48	7.6	33	1	4.3	172	172	0	0	141
MAY 21...	48	8.1	29	1	3.6	164	--	0	--	134
AUG 28...	50	8.2	28	1	4.0	--	146	--	0	--

DATE	ALKALINITY WATER DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	ALKALINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 185 DEG C, SUSPENDED (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)
OCT 1995 05...	--	130	60	9.5	255	233	45	<0.010	1300	1.0
FEB 1996 15...	141	142	61	15	293	254	12	<0.010	80	4.0
MAY 21...	--	138	65	11	222	245	69	<0.010	980	<1.0
AUG 28...	119	134	73	10	242	245	612	<0.010	8600	2.0

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

## 345550106404810 - ALBUQUERQUE RIVERSIDE DRAIN AT MOUTH NR ISLETA, NM

DATE	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
OCT 1995 05...	<1.0	3	4	79	<1.0	<1.0	2.0	<1.0	1.0	<1.0
FEB 1996 15...	<1.0	5	5	107	<1.0	<1.0	1.0	<1.0	1.0	<1.0
MAY 21...	<1.0	4	3	81	<1.0	<1.0	1.0	<1.0	1.0	<1.0
AUG 28...	<1.0	4	4	103	<1.0	<1.0	<1.0	<1.0	1.0	<1.0

DATE	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SEDIMENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995 05...	18	5.0	2.0	<1	<0.20	1.0	2.0	99	44	76
FEB 1996 15...	351	6.0	2.0	<1	<0.20	5.0	4.0	17	2.4	89
MAY 21...	32	5.0	2.0	<1	<0.20	1.0	3.0	104	26	79
AUG 28...	4.0	5.0	2.0	<1	<0.20	<1.0	3.0	630	303	92

## 345612106403310 - BASS LAKE AT ISLETA LAKES, NM

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, SATURATION (MG/L AS) (00301)	BICARBONATE WATER WH IT FIELD (MG/L AS HCO3) (00450)
DEC 1995 12...	1000	547	8.7	7.0	642	8.8	86	203

DATE	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CARBONATE WATER WH IT FIELD (MG/L AS CO3) (00447)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKALINITY WAT WH TOT IT FIELD (MG/L AS CACO3) (00419)	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
DEC 1995 12...	200	10	8	182	178	3	2

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

345705106405210 - RIO GRANDE AT I25 BRIDGE NR ISLETA PUEBLO, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
OCT 1995										
03...	1100	774	406	7.5	16.0	640	7.7	93	130	--
FEB 1996										
13...	1600	1270	412	7.8	8.5	641	10.0	102	130	12
MAY										
20...	1100	419	432	7.9	20.0	638	7.7	102	130	--
AUG										
27...	1100	713	410	8.0	23.0	638	6.8	95	130	38

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER WH IT FIELD (MG/L AS HCO3) (00450)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER WH IT FIELD (MG/L AS CO3) (00447)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT WH TOT IT FIELD (MG/L AS CACO3) (39086)
OCT 1995										
03...	41	7.0	28	1	4.0	146	--	0	--	120
FEB 1996										
13...	39	7.2	32	1	3.9	144	140	0	0	118
MAY										
20...	40	7.4	35	1	4.6	146	--	0	--	120
AUG										
27...	43	6.6	30	1	4.0	--	118	--	0	--

DATE	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
OCT 1995										
03...	--	117	55	11	242	218	70	<0.010	1700	4.0
FEB 1996										
13...	115	119	52	16	262	221	47	<0.010	670	21
MAY										
20...	--	121	63	16	240	238	43	<0.010	790	13
AUG										
27...	97	123	74	14	220	230	2850	<0.010	38000	4.0

DATE	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
OCT 1995										
03...	<1.0	3	3	63	<1.0	<1.0	2.0	<1.0	2.0	<1.0
FEB 1996										
13...	<1.0	3	3	64	<1.0	<1.0	1.0	<1.0	2.0	<1.0
MAY										
20...	<1.0	3	3	59	<1.0	<1.0	1.0	<1.0	1.0	<1.0
AUG										
27...	<1.0	4	3	87	<1.0	<1.0	<1.0	<1.0	1.0	<1.0

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

345705106405210 - RIO GRANDE AT I25 BRIDGE NR ISLETA PUEBLO, NM

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995 03...	3.0	6.0	<1.0	<1	<0.20	2.0	2.0	127	265	79
FEB 1996 13...	4.0	6.0	2.0	<1	<0.20	5.0	3.0	59	203	54
MAY 20...	2.0	9.0	2.0	<1	<0.20	3.0	3.0	66	75	54
AUG 27...	<1.0	5.0	2.0	<1	<0.20	2.0	2.0	3300	6340	96

350104106401110 - ALBUQUERQUE WASTEWATER TREATMENT PLANT OUTFALL, NM

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CAC03 (MG/L) (00904)
OCT 1995 06...	1130	89	808	6.6	24.5	640	4.3	62	130	29
FEB 1996 15...	1500	87	833	6.9	11.0	637	6.8	74	130	18
MAY 22...	1120	78	794	7.0	26.0	638	6.4	95	130	--
AUG 29...	1200	81	764	7.1	28.5	645	5.6	86	130	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER WH IT FIELD (MG/L AS HCO3) (00450)	BICAR-BONATE WATER WH IT DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER WH IT DIS IT FIELD (MG/L AS CO3) (00447)	CAR-BONATE WATER WH IT DIS IT (MG/L AS CO3) (00452)	ALKA-LINITY WAT WH TOT IT FIELD (MG/L AS CAC03) (00419)
OCT 1995 06...	42	6.2	110	4	14	128	124	0	0	105
FEB 1996 15...	40	6.3	100	4	15	139	132	0	0	114
MAY 22...	41	6.1	110	4	14	149	--	0	--	122
AUG 29...	42	6.1	100	4	14	--	166	--	0	--

DATE	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CAC03) (39086)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM-INUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
OCT 1995 06...	102	80	93	92	541	420	7	<0.010	150	22
FEB 1996 15...	108	99	94	89	532	413	17	<0.010	180	20
MAY 22...	--	123	90	85	486	420	3	E0.008	90	20
AUG 29...	136	118	90	88	452	422	3	<0.010	60	16

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

## 350104106401110 - ALBUQUERQUE WASTEWATER TREATMENT PLANT OUTFALL, NM

DATE	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
OCT 1995 06...	<1.0	8	7	25	<1.0	<1.0	2.0	<1.0	5.0	<1.0
FEB 1996 15...	<1.0	8	8	25	<1.0	<1.0	2.0	<1.0	5.0	<1.0
MAY 22...	<1.0	7	7	24	<1.0	<1.0	2.0	<1.0	3.0	<1.0
AUG 29...	<1.0	5	5	20	<1.0	<1.0	<1.0	<1.0	1.0	<1.0

DATE	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SEDIMENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995 06...	18	28	4.0	1	<0.20	23	<1.0	40	9.6	80
FEB 1996 15...	20	26	5.0	1	<0.20	30	<1.0	19	4.5	76
MAY 22...	24	29	3.0	<1	<0.20	29	<1.0	43	9.1	79
AUG 29...	42	34	4.0	<1	<0.20	19	<1.0	25	5.5	74

## 350547106411610 - ALBUQUERQUE RSD BLW GATE N OF CENTRAL BLVD, NM

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (PERCENT OF SATURATION) (MG/L) (00300)	OXYGEN, DIS-SOLVED (MG/L) (00301)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
OCT 1995 05...	1130	131	405	7.6	15.0	640	8.1	96	140	--
FEB 1996 15...	0850	78	401	7.8	6.5	639	9.4	91	140	17
MAY 21...	1000	E77	401	7.9	15.5	640	7.7	92	140	--
AUG 28...	0930	87	400	8.0	21.0	644	6.8	91	150	31

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	BICARBONATE WATER WH IT FIELD (MG/L AS HCO3) (00450)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CARBONATE WATER WH IT FIELD (MG/L AS CO3) (00447)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKALINITY WAT WE TOT IT FIELD (MG/L AS CaCO3) (00419)
OCT 1995 05...	44	7.6	24	0.9	3.3	154	--	0	--	126
FEB 1996 15...	45	7.6	25	0.9	2.9	152	154	0	0	124
MAY 21...	44	7.8	26	0.9	3.1	158	--	0	--	129
AUG 28...	48	8.1	26	0.9	3.6	--	149	--	0	--



## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

RIO GRANDE BASIN -- Continued

350547106411610 - ALBUQUERQUE RSD BLW GATE N. OF CENTRAL BLVD, NM

DATE	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
OCT 1995 05...	--	125	57	7.4	239	219	21	<0.010	690	2.0
FEB 1996 15...	126	131	56	9.5	252	221	8	<0.010	60	1.0
MAY 21...	--	130	62	8.7	242	229	1	<0.010	1400	<1.0
AUG 28...	122	130	73	7.3	254	239	920	<0.010	14000	2.0

DATE	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
OCT 1995 05...	<1.0	3	3	75	<1.0	<1.0	2.0	<1.0	1.0	<1.0
FEB 1996 15...	<1.0	3	3	92	<1.0	<1.0	1.0	<1.0	1.0	<1.0
MAY 21...	<1.0	3	3	75	<1.0	<1.0	1.0	<1.0	1.0	<1.0
AUG 28...	<1.0	3	3	95	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995 05...	3.0	4.0	<1.0	<1	<0.20	4.0	2.0	65	23	75
FEB 1996 15...	6.0	4.0	1.0	<1	<0.20	<1.0	3.0	14	2.9	65
MAY 21...	6.0	4.0	2.0	<1	<0.20	1.0	3.0	145	--	64
AUG 28...	<1.0	4.0	1.0	<1	<0.20	<1.0	3.0	1080	254	93

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

RIO GRANDE BASIN -- Continued

351153106383510 - UPPER CORRALES RSD AT MOUTH NEAR CORRALES, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
OCT 1995										
04...	1330	36	375	7.9	17.5	630	8.5	108	130	--
FEB 1996										
14...	1400	21	374	8.5	13.5	633	11.4	132	140	19
MAY										
21...	0830	45	382	7.6	13.5	638	7.1	82	140	--
AUG										
28...	0800	48	379	7.9	20.5	642	6.0	80	150	48

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	BICARBONATE WATER FIELD (MG/L AS HCO3) (00450)	BICARBONATE WATER FIELD (MG/L AS HCO3) (00453)	CARBONATE WATER FIELD (MG/L AS CO3) (00447)	CARBONATE WATER FIELD (MG/L AS CO3) (00452)	ALKALINITY WAT WH TOT IT FIELD (MG/L AS CaCO3) (00419)
OCT 1995										
04...	41	6.9	23	0.9	3.2	142	--	0	--	116
FEB 1996										
14...	44	7.1	23	0.8	3.0	134	130	7	8	122
MAY										
21...	43	7.6	24	0.9	3.1	122	--	0	--	100
AUG										
28...	47	7.9	23	0.8	3.3	--	124	--	0	--

DATE	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	ALKALINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)
OCT 1995										
04...	--	119	55	7.0	235	206	20	<0.010	570	2.0
FEB 1996										
14...	120	126	51	8.6	239	210	6	<0.010	40	4.0
MAY										
21...	--	125	58	8.3	210	204	55	<0.010	750	<1.0
AUG										
28...	102	125	71	6.4	242	220	456	<0.010	5600	2.0

DATE	ANTIMONY, DIS-SOLVED (UG/L AS Sb) (01095)	ARSENIC TOTAL (UG/L AS As) (01002)	ARSENIC DIS-SOLVED (UG/L AS CO) (01000)	BARIUM, DIS-SOLVED (UG/L AS CU) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS Pb) (01010)	CADMIUM DIS-SOLVED (UG/L) (01025)	CHROMIUM, DIS-SOLVED (UG/L) (01030)	COBALT, DIS-SOLVED (UG/L) (01035)	COPPER, DIS-SOLVED (UG/L) (01040)	LEAD, DIS-SOLVED (UG/L) (01049)
OCT 1995										
04...	<1.0	3	3	78	<1.0	<1.0	1.0	<1.0	1.0	<1.0
FEB 1996										
14...	<1.0	3	3	86	<1.0	<1.0	1.0	<1.0	1.0	<1.0
MAY										
21...	<1.0	2	2	74	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
AUG										
28...	<1.0	3	3	99	<1.0	<1.0	<1.0	<1.0	1.0	<1.0

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

## 351153106383510 - UPPER CORRALES RSD AT MOUTH NEAR CORRALES, NM

DATE	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SEDIMENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995 04...	4.0	4.0	1.0	<1	<0.20	1.0	2.0	53	5.2	75
FEB 1996 14...	44	4.0	<1.0	<1	<0.20	<1.0	3.0	12	0.66	71
MAY 21...	12	4.0	2.0	<1	<0.20	3.0	3.0	87	11	81
AUG 28...	3.0	4.0	2.0	<1	<0.20	<1.0	2.0	539	70	91

## 351533106354610 - RIO RANCHO WASTEWATER TREATMENT PLANT NO.2 OUTFALL, NM

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND (00060)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
OCT 1995 06...	1000	2.8	707	7.0	23.0	640	6.2	87	47	--
FEB 1996 16...	0900	3.0	712	7.3	17.0	641	6.7	83	38	0
MAY 22...	0900	1.1	766	7.3	23.5	636	--	--	46	--
AUG 29...	1045	2.5	775	7.5	28.0	643	5.8	89	53	0

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	BICARBONATE WATER WH IT FIELD (MG/L AS HCO3) (00450)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CARBONATE WATER WH IT FIELD (MG/L AS CO3) (00447)	CARBONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKALINITY WAT WH TOT IT FIELD (MG/L AS CaCO3) (00419)
OCT 1995 06...	15	2.3	120	8	13	154	--	0	--	126
FEB 1996 16...	12	2.0	130	9	13	133	132	0	0	109
MAY 9 3.1	154	--	0	--	126	--	--	--	--	--
AUG 29...	17	2.6	140	8	15	--	204	--	0	--

DATE	ALKALINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	ALKALINITY LAB AS CaCO3 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)
OCT 1995 06...	--	126	80	53	463	359	14	<0.010	310	30
FEB 1996 16...	108	114	80	50	474	353	12	<0.010	290	29
MAY 22...	--	131	94	60	480	390	3	<0.010	150	30
AUG 29...	167	180	96	56	486	427	<1	<0.010	90	42

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

RIO GRANDE BASIN -- Continued

351533106354610 - RIO RANCHO WASTEWATER TREATMENT PLANT NO.2 OUTFALL, NM

DATE	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
OCT 1995										
06...	<1.0	15	14	7.0	<1.0	<1.0	3.0	<1.0	9.0	<1.0
FEB 1996										
16...	<1.0	20	19	6.0	<1.0	<1.0	3.0	<1.0	4.0	<1.0
MAY										
22...	<1.0	16	15	6.0	<1.0	<1.0	3.0	<1.0	4.0	<1.0
AUG										
29...	<1.0	19	19	11	<1.0	<1.0	1.0	<1.0	5.0	<1.0

DATE	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SEDIMENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995										
06...	3.0	9.0	1.0	<1	<0.20	47	<1.0	49	0.37	82
FEB 1996										
16...	2.0	7.0	1.0	<1	<0.20	35	<1.0	56	0.46	95
MAY										
22...	3.0	10	2.0	<1	<0.20	36	<1.0	39	0.12	70
AUG										
29...	2.0	12	1.0	<1	<0.20	43	1.0	33	0.22	87

351827106333710 - BERNALILLO WASTEWATER TREATMENT PLANT OUTFALL, NM

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND (00060)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARBONATE (MG/L AS CaCO3) (00904)
OCT 1995										
06...	0830	0.71	1420	7.2	19.0	640	4.7	61	250	--
FEB 1996										
16...	0800	0.88	1390	7.3	14.0	640	5.0	58	240	120
MAY										
22...	0800	0.64	1360	7.5	21.5	635	5.0	69	240	--
AUG										
29...	0830	0.75	1270	7.6	25.0	643	6.4	93	230	100

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	BICARBONATE WATER WH IT FIELD (MG/L AS HCO3) (00450)	BICARBONATE WATER WH IT FIELD (MG/L AS HCO3) (00453)	CARBONATE WATER WH IT FIELD (MG/L AS CO3) (00447)	CARBONATE WATER WH IT FIELD (MG/L AS CO3) (00452)	ALKALINITY WAT WH TOT IT FIELD (MG/L AS CaCO3) (00419)
OCT 1995										
06...	80	12	170	5	16	177	--	0	--	145
FEB 1996										
16...	77	12	170	5	17	149	150	0	0	122
MAY										
22...	77	11	180	5	16	188	--	0	--	154
AUG										
29...	74	11	170	5	17	--	153	--	0	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

## 351827106333710 - BERNALILLO WASTEWATER TREATMENT PLANT OUTFALL, NM

DATE	ALKA- LITY DIS- TOT IT MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, PENDE (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
OCT 1995 06...	--	147	140	220	860	725	<1	0.019	70	48
FEB 1996 16...	123	132	140	230	882	719	6	E0.005	90	19
MAY 22...	--	160	140	230	834	747	2	E0.007	80	48
AUG 29...	125	137	130	220	796	697	3	0.016	60	30

DATE	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
OCT 1995 06...	<1.0	16	16	23	<1.0	<1.0	3.0	<1.0	3.0	<1.0
FEB 1996 16...	<1.0	16	15	22	<1.0	<1.0	2.0	<1.0	3.0	<1.0
MAY 22...	<1.0	13	12	25	<1.0	<1.0	3.0	<1.0	2.0	<1.0
AUG 29...	<1.0	15	12	33	<1.0	<1.0	<1.0	<1.0	2.0	<1.0

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSE. SIEVE DIAM. X FINER THAN .062 MM (70331)
OCT 1995 06...	26	3.0	3.0	<1	<0.20	14	3.0	49	0.09	81
FEB 1996 16...	10	2.0	2.0	2	<0.20	28	2.0	67	0.16	88
MAY 22...	2.0	1.0	3.0	<1	<0.20	21	3.0	32	0.05	79
AUG 29...	1.0	3.0	3.0	<1	<0.20	34	2.0	55	0.11	61

## 351921106332710 - RIO GRANDE AT HWY 44 AT BERNALILLO, NM

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
OCT 1995 02...	1245	806	354	7.5	17.0	636	8.8	110	130	--
FEB 1996 12...	1300	1160	355	8.3	5.0	643	13.4	125	130	15
MAY 19...	1145	599	365	7.8	16.5	631	--	--	130	--
AUG 26...	1130	808	388	7.5	22.0	640	6.7	92	140	44

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

RIO GRANDE BASIN -- Continued

351921106332710 - RIO GRANDE AT HWY 44 AT BERNALILLO, NM

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3 (00450)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER WH IT FIELD MG/L AS CO3 (00447)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)
OCT 1995 02...	39	7.1	21	0.8	2.9	126	--	0	--	103
FEB 1996 12...	39	7.2	24	0.9	3.0	138	131	0	3	113
MAY 19...	39	7.6	23	0.9	3.1	143	--	0	--	117
AUG 26...	44	7.2	25	0.9	3.3	--	117	--	0	--

DATE	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM- INUM, TOTAL RECOV- ERABLE (MG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (MG/L AS AL) (01106)
OCT 1995 02...	--	113	51	5.7	208	189	35	<0.010	980	2.0
FEB 1996 12...	112	118	46	9.2	232	199	11	<0.010	190	18
MAY 19...	--	120	56	6.7	186	206	21	<0.010	350	22
AUG 26...	96	115	76	9.6	182	223	1930	<0.010	23000	3.0

DATE	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
OCT 1995 02...	<1.0	2	2	77	<1.0	<1.0	1.0	<1.0	<1.0	<1.0
FEB 1996 12...	<1.0	2	2	62	<1.0	<1.0	1.0	<1.0	1.0	<1.0
MAY 19...	<1.0	2	2	63	<1.0	<1.0	1.0	<1.0	1.0	<1.0
AUG 26...	<1.0	3	2	86	<1.0	<1.0	<1.0	<1.0	1.0	<1.0

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. X FINER THAN .062 MM (70331)
OCT 1995 02...	4.0	5.0	<1.0	<1	<0.20	1.0	2.0	68	148	86
FEB 1996 12...	9.0	4.0	1.0	<1	<0.20	1.0	3.0	19	60	78
MAY 19...	8.0	4.0	2.0	<1	<0.20	1.0	3.0	54	87	73
AUG 26...	<1.0	4.0	2.0	<1	<0.20	<1.0	2.0	2330	5090	92

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

315046106361810 - RIO GRANDE A TX-260 BRIDGE NR SANTA TERESA, NM

DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER, DISS, REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)	
FEB 1996 29...	1115	<0.007	<0.002	0.007	E0.006	<0.002	<0.004	<0.003	<0.002	<0.006	
DATE		CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	LINDANE DIS- SOLVED (UG/L) (39341)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	SILVEX, DIS- SOLVED (UG/L) (39762)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)
FEB 1996 29...		<0.004	<0.004	<0.001	E0.004	<0.005	<0.004	<0.002	<0.001	<0.021	<0.002
DATE		ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
FEB 1996 29...		<0.002	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002
DATE		FEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)
FEB 1996 29...		<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001
DATE		PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	
FEB 1996 29...		<0.004	<0.003	<0.002	0.008	<0.004	<0.003	<0.013	<0.001	<0.005	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

## RIO GRANDE BASIN -- Continued

315958106380710 - RIO GRANDE AT NM-225 BRIDGE NR ANTHONY, NM

DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER, DISS, REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)
FEB 1996 29...	1415	<0.007	<0.002	0.007	E0.005	<0.002	<0.004	<0.003	<0.002	<0.006
DATE	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	LINDANE DIS- SOLVED (UG/L) (39341)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	SILVEX, DIS- SOLVED (UG/L) (39762)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)
FEB 1996 29...	<0.004	<0.004	<0.001	E0.004	<0.005	<0.004	<0.002	<0.001	<0.021	<0.002
DATE	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT GF, REC (UG/L) (82661)	ETHAL- FLUR- ALIN WAT FLT GF, REC (UG/L) (82663)	PHORATE WATER FLTRD GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD GF, REC (UG/L) (82665)	LIN- URON WATER FLTRD GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT GF, REC (UG/L) (82667)	EPTC WATER FLTRD GF, REC (UG/L) (82668)
FEB 1996 29...	<0.002	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002
DATE	FEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLD GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)
FEB 1996 29...	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001
DATE	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT GF, REC (UG/L) (82686)	PER- CIS WAT FLT GF, REC (UG/L) (82687)	
FEB 1996 29...	<0.004	<0.003	<0.002	0.009	<0.004	<0.003	<0.013	<0.001	<0.005	



## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

## RIO GRANDE BASIN -- Continued

320610106393110 - DEL RIO DRAIN AT LEVEE ROAD NEAR VADO, NM

DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER, DISS, REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P, P' DDE DISSOLV (UG/L) (34653)	
FEB 1996 28...	1215	<0.007	<0.002	E0.004	E0.006	<0.002	<0.004	<0.003	<0.002	E0.002	
DATE		CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	LINDANE DIS- SOLVED (UG/L) (39341)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	SILVEX, DIS- SOLVED (UG/L) (39762)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)
FEB 1996 28...		<0.004	<0.004	<0.001	0.005	<0.005	<0.004	<0.002	<0.001	<0.021	<0.002
DATE		ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
FEB 1996 28...		<0.002	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002
DATE		FEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)
FEB 1996 28...		<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001
DATE		PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	
FEB 1996 28...		<0.004	<0.003	<0.002	E0.003	<0.004	<0.003	<0.013	<0.001	<0.005	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

## RIO GRANDE BASIN -- Continued

321317106471510 - RIO GRANDE BELOW MESILLA DAM NR SANTO TOMAS, NM

DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER, DISS, REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P, P' DDE DISSOLV (UG/L) (34653)
FEB 1996 28...	0810	<0.007	<0.002	0.008	E0.008	<0.002	<0.004	<0.003	<0.002	<0.006
DATE		CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	LINDANE DIS- SOLVED (UG/L) (39341)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)
FEB 1996 28...		<0.004	<0.004	<0.001	E0.003	<0.005	<0.004	<0.002	<0.001	<0.021
DATE		ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	METRI- BUZIN WATER FLTRD DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT GF, REC (UG/L) (82661)	ETHAL- FLUR- ALIN WAT FLT GF, REC (UG/L) (82663)	PHORATE WATER FLTRD GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD GF, REC (UG/L) (82665)	LIN- URON WATER FLTRD GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT GF, REC (UG/L) (82667)
FEB 1996 28...		<0.002	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006
DATE		FEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLT GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
FEB 1996 28...		<0.004	E0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017
DATE		PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT GF, REC (UG/L) (82687)
FEB 1996 28...		<0.004	<0.003	<0.002	E0.004	<0.004	<0.003	<0.013	<0.001	<0.005

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

## RIO GRANDE BASIN -- Continued

321745106492510 - RIO GRANDE BELOW PICACHO BRIDGE NR LAS CRUCES,

DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)	
FEB 1996 27...	1245	<0.007	<0.002	0.007	E0.008	<0.002	<0.004	<0.003	<0.002	<0.006	
DATE		CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	LINDANE DIS- SOLVED (UG/L) (39341)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	SILVEX, DIS- SOLVED (UG/L) (39762)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)
FEB 1996 27...		<0.004	<0.004	<0.001	E0.003	<0.005	<0.004	<0.002	E0.003	<0.021	<0.002
DATE		ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD GF, REC (UG/L) (82665)	LIN- URON WATER FLTRD GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPTC WATER FLTRD GF, REC (UG/L) (82668)
FEB 1996 27...		<0.002	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002
DATE		PEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)
FEB 1996 27...		<0.004	E0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001
DATE		PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	
FEB 1996 27...		<0.004	<0.003	<0.002	E0.003	<0.004	<0.003	<0.013	<0.001	<0.005	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## RIO GRANDE BASIN -- Continued

322841106551010 - RIO GRANDE BELOW LEASBURG DAM, NM

DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER, DISS, REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)	
FEB 1996 27...	0800	<0.007	<0.002	0.008	E0.008	E0.003	<0.004	<0.003	<0.002	<0.006	
DATE		CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	LINDANE DIS- SOLVED (UG/L) (39341)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	SILVEX, DIS- SOLVED (UG/L) (39762)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)
FEB 1996 27...		<0.004	<0.004	<0.001	E0.004	<0.005	<0.004	<0.002	E0.003	<0.021	<0.002
DATE		ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
FEB 1996 27...		<0.002	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006	<0.002
DATE		PET- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)
FEB 1996 27...		<0.004	E0.006	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017	<0.001
DATE		PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	
FEB 1996 27...		<0.004	<0.003	<0.002	E0.004	<0.004	<0.003	<0.013	<0.001	<0.005	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## TULAROSA VALLEY BASIN

The following water quality tables for miscellaneous sites in the Tularosa Valley Basin are identified by 15-digit latitude-longitude site numbers are in order by ascending site numbers as shown in parenthesis after the site names. The inorganic analyses tables are followed by the organic-compound analyses table for these sites. This departure from the normal downstream order for surface water sites was taken to facilitate locating these sites in this report and for comparing results for the same group of analyses.

## 330716106234510 - SALT CREEK 3 AT RANGE ROAD 6 ON WSMR, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CAC03 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	
JUL 1996 29...	1130	0.19	26800	9.1	31.5	26.0	660	12.0	188	3800	3700	840	
DATE		MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CAC03) (39086)	ALKA-LINITY LAB AS CAC03 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)
JUL 1996 29...	400	5300	38	120	21	24	57	47	3800	8100	1.6	1.2	
DATE		SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	
JUL 1996 29...	1.5	19500	18600	<0.010	0.110	0.210	0.79	1.0	1.0	<0.010	<0.010		
DATE		PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	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)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	
JUL 1996 29...	<0.010	40	29	4	3	200	150	1000	964	<4	<4.0		
DATE		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)	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)	
JUL 1996 29...	<4	<4.0	<4	<4.0	<10	<60	<10	<4.0	660	940	130		
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)	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)	
JUL 1996 29...	110	0.40	<0.1	2	2	<4	<10	16000	17000	<10	76		

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## TULAROSA VALLEY BASIN -- Continued

331158106265710 - SALT CREEK NR NW-50 ON WSMR, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUL 1996	29...	1330	0.08	26000	9.2	35.0	33.5	651	9.2	166	3400	3300 710

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)
JUL 1996	29...	380	5300	40	130	20	19	48	40	3400	8200	1.6 1.2

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
JUL 1996	29...	0.90	18600	18200	<0.010	0.120	0.190	0.61	0.80	0.80	<0.010 <0.010

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	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)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
JUL 1996	29...	0.010	2200	15	2	2	200	150	930	878	<4 <4.0

DATE	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)	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)
JUL 1996	29...	<4	<4.0	7	<4.0	1900	<60	<10	<4.0	620	910 130

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)	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)
JUL 1996	29...	36	<0.10	<0.1	2	1	<4	<10	14000 16000	20	<60

30...	<20	<0.10	0.5	2	2	<4	<10	19000 18000	<10	<60
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## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## TULAROSA VALLEY BASIN -- Continued

331657106185010 - MALPAIS MARSH NR OSCURA, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
JUL 1996 30...	1530	0.44	7240	7.3	37.0	26.0	0.71	657	7.1	105	2600

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
JUL 1996 30...	740	180	750	6	8.6	71	2200	1500	1.5	0.35	28

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
JUL 1996 30...	5770	5470	<0.010	0.380	0.170	<0.20	<0.010	<0.010	30	30

DATE	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)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD (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)
JUL 1996 30...	1	<1	<100	14	280	258	<1	<1.0	2	2.0

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)
JUL 1996 30...	<1	<1.0	<10	<15	<2	<4.0	40	62	30	16

DATE	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)	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)
JUL 1996 30...	<0.10	<0.1	3	3	<1	<1.0	13000	13000	<10	<15

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

TULAROSA VALLEY BASIN -- Continued

332057106211310 - SALT CREEK 4 AT RANGE ROAD 7 ON WSMR, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)
JUL 1996	30...	1200	0.10	28900	7.7	35.5	25.0	653	7.4	116	3700	3500 950
DATE		MAGNE-SIUM, DIS-SOLVED (MG/L AS BR) (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 WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CAC03) (39086)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
JUL 1996	30...	310	5700	41	140	225	0	184	187	3200	9200	4.5
DATE		BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
JUL 1996	30...	1.9	29	20600	19700	<0.010	0.120	0.220	<0.20	<0.20	<0.010	<0.010
DATE		PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	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)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
JUL 1996	30...	0.010	90	64	3	2	<100	78	680	632	<4	<4.0
DATE		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)	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)
JUL 1996	30...	<4	<4.0	<4	<4.0	20	<60	<10	<4.0	770	1200	150
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)	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)
JUL 1996	30...	150	<0.10	0.2	<1	<1	<4	<10	19000	20000	<10	<60



## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## TULAROSA VALLEY BASIN -- Continued

## 332528106170710 - LOWER MOUND SPRING POND NR OSCURA, NM

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
AUG 1996 01...	1520	6140	32.5	28.0	2.2	652	12.0	184	2800	830	180
DATE		SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
AUG 1996 01...	460	4	4.8	33	2500	900	1.5	0.41	24	5150	
DATE		SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
AUG 1996 01...	4930	<0.010	<0.050	0.170	0.13	0.30	<0.010	<0.010	<10	14	
DATE		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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (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)
AUG 1996 01...	<1	<1	<100	10	280	274	<1	<1.0	3	<1.0	
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)
AUG 1996 01...	<1	<1.0	<10	<15	<4	<4.0	50	69	20	<5.0	
DATE		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)	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)
AUG 1996 01...	<0.10	<0.1	1	1	<1	<1.0	11000	12000	<10	<15	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

## TULAROSA VALLEY BASIN -- Continued

## 330716106234510 - SALT CREEK 3 AT RANGE ROAD 6 ON WSMR, NM

DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	2, 4-DP TOTAL (UG/L) (82183)
JUL 1996				
29...	1130	<0.010	<0.010	<0.010

## 331158106265710 - SALT CREEK NR NW-50 ON WSMR, NM

DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	2, 4-DP TOTAL (UG/L) (82183)
JUL 1996				
29...	1330	<0.010	<0.010	<0.010

## 331657106185010 - MALPAIS MARSH NR OSCURA, NM

DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	2, 4-DP TOTAL (UG/L) (82183)
JUL 1996				
30...	1530	<0.010	<0.010	<0.010

## 332057106211310 - SALT CREEK 4 AT RANGE ROAD 7 ON WSMR, NM

DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	2, 4-DP TOTAL (UG/L) (82183)
JUL 1996				
30...	1200	<0.010	<0.010	<0.010

## 332528106170710 - LOWER MOUND SPRING POND NR OSCURA, NM

DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	2, 4-DP TOTAL (UG/L) (82183)
AUG 1996				
01...	1520	<0.010	<0.010	<0.010

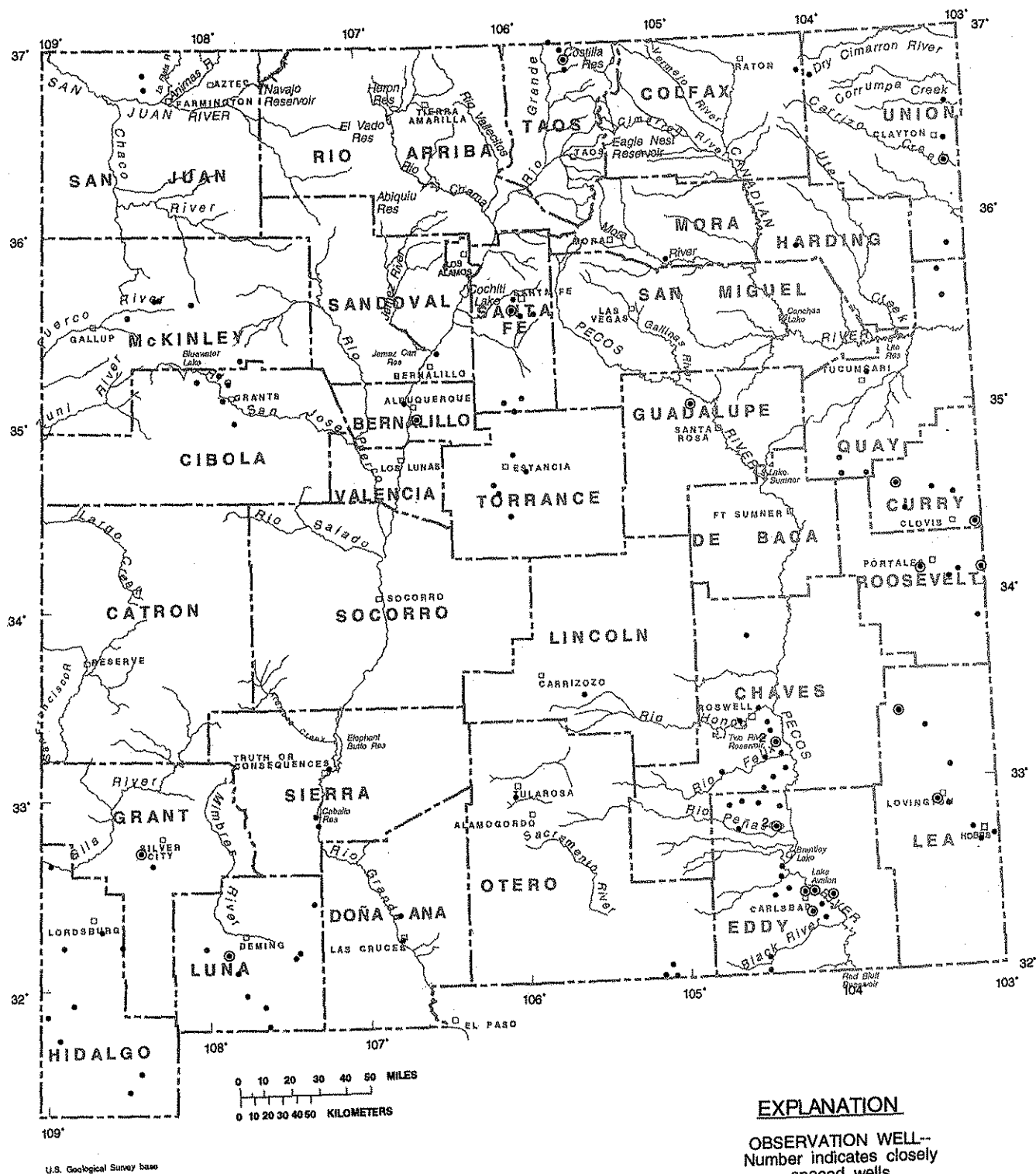


Figure 8.--Location of observation wells.

GROUND-WATER LEVELS  
BERNALILLO COUNTY  
Albuquerque Area

350256106390801. Local number, 10N.03E.32.314.  
LOCATION.--Lat 35°02'56", long 106°39'08", Hydrologic Unit 13020203. Owner: City of Albuquerque.  
AQUIFER.--Santa Fe Group.  
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 16 in., depth 764 ft, perforated 188-764 ft.  
INSTRUMENTATION.--Digital recorder, 1-hour punch.  
DATUM.--Elevation of land-surface datum is 4,941 ft above National Geodetic Vertical Datum of 1929.  
Measuring point: Top of casing, 3.00 ft above land-surface datum.  
REMARKS.--Lost several days of record, due to recorder malfunction.  
PERIOD OF RECORD.--1982 to current year.  
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.07 ft below land-surface datum, Jan. 5, 1987;  
lowest measured, 45.23 ft below land-surface datum, July 16, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.90	37.73	36.86	35.32	34.61	36.44	37.47	38.44	40.77	40.23	40.81	39.22
10	38.92	37.70	36.05	35.54	35.06	36.88	37.15	40.21	40.47	39.69	41.24	38.44
15	38.95	37.83	36.48	35.33	35.44	37.88	38.09	39.48	41.65	38.82	41.20	38.28
20	38.61	36.84	36.08	35.46	35.81	37.44	38.16	39.90	41.07	39.65	40.38	37.81
25	38.03	37.24	35.83	35.06	36.75	37.02	37.62	41.78	40.51	40.53	39.81	---
EQM	37.25	37.33	35.39	35.04	36.41	36.96	37.53	40.86	40.17	41.22	38.70	---

WTR YEAR 1996 HIGHEST 34.61 FEB 5, 1996 LOWEST 42.83 AUG 3, 1996

351051106395304. Local number, 11N.03E.18.411.  
LOCATION.--Lat 35°10'51", long 106°39'53", Hydrologic Unit 13020203. Owner: City of Albuquerque.  
AQUIFER.--Santa Fe Group.  
WELL CHARACTERISTICS.--Drilled water-table observation well, casing diameter 6 in., with 2 in., P.V.C. piezometer set at 980 ft., casing is screened from 870 to 1,050 ft.  
INSTRUMENTATION.--Monthly steel-tape measurements.  
DATUM.--Elevation of land-surface datum is 4,995 ft above National Geodetic Vertical Datum of 1929.  
Measuring point: Top of 2 in. P.V.C., 1.80 ft, above land-surface datum.  
PERIOD OF RECORD.--1982 to current year.  
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.29 ft below land-surface datum, Feb. 22, 1984;  
lowest measured, 43.71 ft below land-surface datum, June 27, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	41.73	NOV 28	41.17	DEC --	--	JAN 26	40.77	FEB 26	40.99	MAR 26	41.23
APR 29	42.44	MAY 30	43.25	JUNE 27	43.71	JULY 31	43.60	AUG 30	43.59	SEP 26	43.25

CHAVES COUNTY  
Roswell Basin

334138104343801. (formerly 334645104344501) Local number, 07S.23E.23.24431.  
LOCATION.--Lat 33°46'45", long 104°34'45", Hydrologic Unit 13060005. Owner: Ted Nelson.  
AQUIFER.--San Andres Limestone.  
WELL CHARACTERISTICS.--Drilled artesian irrigation well, diameter 14 in., depth 436 ft.  
INSTRUMENTATION.--Periodic steel-tape measurements.  
DATUM.--Elevation of land-surface datum is 3,810 ft above National Geodetic Vertical Datum of 1929.  
Measuring point: Lower outer edge of mouth of discharge pipe, 3.71 ft above land-surface datum.  
PERIOD OF RECORD.--May 1951 to Mar. 1960, Jan. 1962 to Jan. 1966, Jan. 1968 to current year.  
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 239.83 ft below land-surface datum, May 26, 1951;  
lowest measured, 290.80 ft below land-surface datum, Aug. 21, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 24	266.55
Aug. 15	261.00

## GROUND-WATER LEVELS

CHAVES COUNTY  
Roswell Basin

332615104303601. Local number, 10S.24E.21.212.

LOCATION.--Lat 33°26'15", long 104°30'36", Hydrologic Unit 13060008. Owner: Pecos Valley Artesian Conservancy District.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled artesian observation well completed in San Andres Limestone, diameter 10 in., depth 324 ft.

INSTRUMENTATION.--Monthly steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,580.65 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of recorder shelf, 3.60 ft above land-surface datum.

REMARKS.--Recorder removed Nov. 26, 1990. Monthly steel-tape measurements.

PERIOD OF RECORD.--June 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.06 ft below land-surface datum, Jan. 19, 1946; lowest measured, 74.40 ft below land-surface datum, July 30, 1977.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	36.70	NOV 27	34.30	DEC 26	33.00	JAN 25	31.80	FEB 26	32.30	MAR 25	34.20
APR 25	37.70	MAY 24	40.50	JUNE 25	40.40	JULY 25	41.10	AUG 25	40.50	SEP 25	39.80

332255104360401. Local number, 11S.23E.03.342.

LOCATION.--Lat 33°22'55", long 104°36'04", Hydrologic Unit 13060008. Owner: J. L. Mask.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 15 in., depth 478 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,725 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing 0.50 ft above land-surface datum.

PERIOD OF RECORD.--Mar. 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 156.97 ft below land-surface datum, Mar. 11, 1952; lowest measured, 198.96 ft below land-surface datum, Oct. 18, 1985.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 30	171.13
Aug. 15	176.91

331914104253701. (formerly 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 water-table irrigation well, diameter 16 in., depth 160 ft, cased to 160 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,535 ft above National Geodetic Vertical Datum of 1929.

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, 12.30 ft below land-surface datum, Aug. 19, 1991; lowest measured, 21.72 ft below land-surface datum, Aug. 26, 1980.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 30	14.41
Aug. 16	pumping

331705104262801. (formerly 332200104270001) Local number, 12S.25E.09.422.

LOCATION.--Lat 33°17'05", long 104°26'28", Hydrologic Unit 13060007. Owner: Cumberland Townsite.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 10 in., reported depth 90 ft, cased to 90 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,564 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 3/4 in. collar, 0.62 ft above land-surface datum.

PERIOD OF RECORD.--May 1937 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.64 ft below land-surface datum, Oct. 16, 1941; lowest measured, 83.06 ft below land-surface datum, Aug. 21, 1973.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 30	66.51
Aug. 16	69.43

## GROUND-WATER LEVELS

CHAVES COUNTY  
Roswell Basin

331525104245201. (formerly 331205104245101) Local number, 12S.25E.23.344.  
LOCATION.--Lat 33°15'25", long 104°24'52", Hydrologic Unit 13060007. Owner: Pecos Valley Artesian Conservancy District.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 9 to 7 in., depth 930 ft, 9 in. casing 0-304 ft, 7 in. casing 304-714 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,539 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of recorder shelf, 2.90 ft above land-surface datum.

REMARKS.--Lost record due to recorder malfunction.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.97 ft below land-surface datum, Feb. 9, 1993;  
lowest measured, 199.68 ft below land-surface datum, June 20, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.07	27.91	16.65	8.74	7.86	26.71	95.75	---	126.14	---	95.07	58.39
10	36.83	24.47	14.33	7.54	9.84	25.89	95.25	---	119.70	107.40	84.95	67.47
15	36.87	23.27	12.54	7.33	14.84	32.47	93.51	---	112.85	108.49	90.47	50.28
20	41.90	21.07	10.50	7.23	17.57	48.61	---	88.77	114.47	104.69	94.26	60.39
25	37.39	18.67	9.61	8.55	14.33	68.38	---	114.92	112.98	111.36	90.25	60.11
COM	34.37	16.11	10.90	8.41	20.85	92.98	---	130.30	89.79	97.03	58.48	48.75

WTR YEAR 1996 HIGHEST 6.80 JAN 19, 1996 LOWEST 135.02 JUN 7, 1996

331524104245101. Local number, 12S.25E.23.344A.

LOCATION.--Lat 33°15'24", long 104°24'51", Hydrologic Unit 13060007. Owner: Pecos Valley Artesian Conservancy District.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 7 in., total depth 231 ft, cased to total depth, perforated 105-231 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,540 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of recorder shelf 2.90 ft above land-surface datum.

REMARKS.--Lost several days of record, due to recorder malfunction.

PERIOD OF RECORD.--1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 101.62 ft below land-surface datum, Apr. 9, 1995;  
lowest measured, 111.17 below land-surface datum, Sep. 22, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	103.10	102.89	102.68	102.40	102.06	101.69	101.61	101.41	101.56	101.88	---	102.44
10	103.10	102.84	102.60	102.25	102.01	101.69	101.37	101.53	101.58	101.96	---	102.51
15	103.06	102.86	102.62	102.22	101.91	101.63	101.46	101.48	101.62	102.00	---	102.47
20	103.02	102.87	102.47	102.25	101.89	101.64	101.32	101.45	101.70	102.01	---	102.51
25	102.96	102.77	102.51	102.02	101.83	101.62	101.35	101.47	101.76	---	102.34	102.46
COM	102.91	102.65	102.25	102.00	101.75	101.55	101.35	101.52	101.84	---	102.41	102.54

WTR YEAR 1996 HIGHEST 101.32 APR 20, 1996 LOWEST 103.23 OCT 19, 20, 1996

331213104241601. (formerly 331216104241701) Local number, 13S.25E.12.311.

LOCATION.--Lat 33°12'16", long 104°24'17", Hydrologic Unit 13060007. Owner: Hal Bogle.

AQUIFER.--Alluvium

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 13 in., depth 190 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,506 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.80 ft above land-surface datum.

REMARKS.--"s" indicates nearby well pumping.

PERIOD OF RECORD.--Jan. 1939 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.23 ft below land-surface datum, Feb. 3, 1942;  
lowest measured, 90.13 ft below land-surface datum, Aug. 27, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 30	82.32
Aug. 16	89.15

## GROUND-WATER LEVELS

CHAVES COUNTY  
Roswell Basin

331002104254701. (formerly 331002104272001) Local number, 13S.25E.27.211.  
 LOCATION.--Lat 33°10'02", long 104°25'47", Hydrologic Unit 13060007. Owner: Hal Bogle.  
 AQUIFER.--San Andres Limestone.  
 WELL CHARACTERISTICS.--Drilled artesian observation well completed in San Andres Limestone, diameter 10 in., depth 880 ft.  
 INSTRUMENTATION.--Monthly steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,523.76 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of recorder shelf 3.59 ft above land-surface datum.  
 REMARKS.--Recorder removed Nov. 25, 1990. Monthly steel-tape measurements.  
 PERIOD OF RECORD.--1940 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.06 ft above land-surface datum, Dec. 27, 1993;  
 lowest measured, 198.30 ft below land-surface datum, July 18, 1980.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	36.09	NOV 27	10.28	DEC 26	1.72	JAN 25	2.91	FEB 26	10.54	MAR 25	96.81
APR 25	132.68	MAY 24	124.41	JUNE 25	136.43	JULY 25	136.61	AUG 26	95.01	SEP 26	63.65

330702104402401. (formerly 330700104402501) Local number, 14S.23E.08.144.  
 LOCATION.--Lat 33°07'00", long 104°40'25", Hydrologic Unit 13060009. Owner: M. D. Kincaid.  
 AQUIFER.--San Andres Limestone.  
 WELL CHARACTERISTICS.--Drilled artesian stock well, diameter 8 in., depth 460 ft, casing information not available.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,844 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing 1.00 ft above land-surface datum.  
 PERIOD OF RECORD.--Apr. 1940 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 257.55 ft below land-surface datum, Feb. 9, 1943;  
 lowest measured, 327.34 ft below land-surface datum, Aug. 27, 1967.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 29	282.56
Aug. 16	285.80

330646104173301. (formerly 330640104174501) Local number, 14S.26E.12.431331.  
 LOCATION.--Lat 33°06'40", long 104°17'45", Hydrologic Unit 13060007. Owner: C. B. Donaghy.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 13 in., depth 125 ft, cased 0-125 ft, perforated 50-115 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,396.4 ft above National Geodetic Vertical Datum of 1929.  
 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 below land-surface datum, Jan. 22, 1942;  
 lowest measured, 23.77 ft below land-surface datum, Aug. 25, 1967.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 29	16.99
Aug. 16	16.44

330404104221201. Local number, 14S.26E.30.44444.  
 LOCATION.--Lat 33°04'04", long 104°22'12", Hydrologic Unit 13060007. Owner: Bartlett.  
 AQUIFER.--San Andres Limestone.  
 WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 5/8 in., depth 1,150 ft, cased to 740 ft, open hole 740-1,150 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,484 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing 1.00 ft above land-surface datum.  
 PERIOD OF RECORD.--Feb. 1970 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 58.10 ft below land-surface datum, Feb. 11, 1993;  
 lowest measured, 276.99 ft below land-surface datum, Aug. 17, 1995.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 29	71.26
Aug. 16	218.88

## GROUND-WATER LEVELS

CIBOLA COUNTY  
Grants-Bluewater Area

350346107521201. (formerly 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 artesian irrigation well, diameter 16 in., depth 216 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,455 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 1/2 in. hole in pump base, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.18 ft below land-surface datum, Feb. 21, 1952;  
lowest measured, 34.69 ft below land-surface datum, Jan. 17, 1977.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 23	28.78
Aug. 2	29.90

350923107522701. (formerly 350925107523001) Local number, 11N.10W.27.242.

LOCATION.--Lat 35°09'25", long 107°52'30", Hydrologic Unit 13020207. Owner: City of Grants.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 16 to 12 in., depth 158 ft, perforated 50 to 150 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,480 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing at land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.23 ft below land-surface datum, Sep. 29, 1988;  
lowest measured, 39.08 ft below land-surface datum, Aug. 1, 1972.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 23	21.53
Aug. 2	23.95

351304107543701. (formerly 351400107524201) Local number, 12N.10W.29.434.

LOCATION.--Lat 35°14'00", long 107°52'42", Hydrologic Unit 13020207. Owner: Plains Electric.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled artesian unused well, diameter 18 in., reported depth 205 ft, cased 0-150 ft, perforated 93-130 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,552 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Lower edge of hole in north side of casing, 2.20 ft 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 below land-surface datum, Oct. 14, 1944;  
lowest measured, 107.61 ft below land-surface datum, Aug. 6, 1975.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 23	77.96
Aug. 2	78.26

351651107594501. (formerly 351650107535001) Local number, 12N.11W.09.424.

LOCATION.--Lat 35°16'50", long 107°53'50", Hydrologic Unit 13020207. Owner: Plains Electric.

AQUIFER.--San Andres Limestone and Yeso Formation of Permian Age.

WELL CHARACTERISTICS.--Drilled artesian unused well, diameter 16 in., reported depth 505 ft, 16 in. casing to 175 ft, 12 in. casing to 325 ft.

INSTRUMENTATION.--Monthly steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,642 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing 3.05 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.69 ft below land-surface datum, Sep. 29, 1988;  
lowest measured, 274.81 ft below land-surface datum, Jan. 23, 1984.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	89.75	NOV 21	90.82	DEC --	--	JAN 18	92.51	FEB 21	93.10	MAR 19	93.43
APR 16	93.81	MAY 21	93.35	JUNE 18	92.44	JULY 23	93.06	AUG 20	94.64	SEP 25	95.37



## GROUND-WATER LEVELS

CIBOLA COUNTY  
Grants-Bluewater Area

351630107572801. (formerly 351637107584501) Local number, 12N.11W.14.213.  
 LOCATION.--Lat 35°16'37", long 107°58'45", Hydrologic Unit 13020207. Owner: Duane Berryhill.  
 AQUIFER.--San Andres Limestone and Yeso Formation of Permian Age.  
 WELL CHARACTERISTICS.--Drilled test well, diameter 4 in., depth 130.4 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,605 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 3.70 ft above land-surface datum.  
 PERIOD OF RECORD.--June 1949 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 81.74 ft below land-surface datum, Sep. 25, 1986;  
 lowest measured, 101.39 ft below land-surface datum, June 10, 1954.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 23	83.29
Aug. 2	83.82

COLFAX COUNTY  
Capulin Basin

364522104034501. (formerly 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 water-table unused well, diameter 8 in., depth 120 ft, cased to 20 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,821.5 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.50 ft above land-surface datum.  
 PERIOD OF RECORD.--Feb. 1957 to Feb. 1969, Feb. 1971 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.65 ft below land-surface datum, Feb. 3, 1960;  
 lowest measured, 9.37 ft below land-surface datum, Aug. 13, 1975.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 23	8.39
July 24	8.84

COSTILLA COUNTY (in Colorado)  
Sunshine Valley

370004105402201. (formerly 370009105410001) Local number, 01N.74W.33.322.  
 LOCATION.--Lat 37°00'09", long 105°41'00", Hydrologic Unit 13020101. Owner: Waller and Allen.  
 AQUIFER.--Santa Fe Group.  
 WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 15 in., depth 232 ft, casing information not available.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 7,495 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Edge of hole inside pump base, 2.00 ft 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 below land-surface datum, Aug. 26, 1968;  
 lowest measured, 139.24 ft below land-surface datum, Sep. 2, 1982.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 15	111.17
Aug. 5	138.40

## GROUND-WATER LEVELS

CURRY COUNTY  
Clovis area

341836103052001. Local number, 01N.37E.17.113133

LOCATION.--Lat 34°18'53", long 103°05'26", Hydrologic Unit 12050002. Owner: Don Oppliger.

AQUIFER.--Ogallala.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 16 in., depth 373 ft, screened 293-373 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 4,113 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top edge of recorder shelter apron, 3.93 ft above land-surface datum.

REMARKS.--Lost record due to recorder malfunction.

PERIOD OF RECORD.--Jan. 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 158.17 ft below land-surface datum, Jan. 28, 1972;

lowest measured, 257.63 ft below land-surface datum, Aug. 27, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	246.74	246.33	246.10	246.12	245.56	---	247.24	248.25	---	254.16	256.37	256.31
10	246.65	246.15	246.13	245.70	---	---	247.15	248.91	---	254.96	256.77	256.26
15	246.61	246.38	246.32	245.72	---	248.17	247.21	248.52	---	254.96	256.92	256.03
20	246.48	246.41	246.02	245.73	---	248.55	247.61	---	252.68	254.87	257.30	256.12
25	246.45	246.16	246.15	245.42	---	248.79	248.53	---	253.37	255.50	257.37	255.87
EQM	246.43	246.14	245.67	245.55	---	247.39	248.73	---	253.70	255.86	256.55	256.08

WTR YEAR 1996 HIGHEST 245.30 JAN 17, 1996 LOWEST 257.63 AUG 27, 1996

342358103093601. Local number, 02N.36E.15.11111.

LOCATION.--Lat 34°23'58", long 103°09'36", Hydrologic Unit 12050002. Owner: Anne Humphreys.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table irrigation well; diameter, depth and casing information not available.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,227 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of concrete base 1.20 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 266.89 ft below land-surface datum, Jan. 4, 1974;

lowest measured, 291.29 ft below land-surface datum, Aug. 6, 1985.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 10	288.42
Aug. 9	290.95

342736103203701. (formerly 342815103270001) Local number, 03N.34E.23.433133.

LOCATION.--Lat 34°27'36", long 103°20'37", Hydrologic Unit 12050001. Owner: Archie Baker.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 16 in., depth 418 ft, cased to 418 ft, perforated 365-418 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,432 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.40 ft above land-surface datum.

PERIOD OF RECORD.--Apr. 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 340.62 ft below land-surface datum, Mar. 16, 1957;

lowest measured, 359.39 ft below land-surface datum, Sept. 24, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 11	359.20
Sep. 24	359.39

## GROUND-WATER LEVELS

CURRY COUNTY  
Clovis area

343347103345001. Local number, 04N.32E.22.111.

LOCATION.--Lat 34°33'47", long 103°34'50", Hydrologic Unit 12050001. Owner: Noel Dougherty.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 16 in., depth 401 ft.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 4,587 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Edge of recorder shelter, 3.50 ft above land surface datum.

REMARKS.--Recorder installed Aug. 1988. Lost record due to recorder malfunction.

PERIOD OF RECORD.--Jan. 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 297.64 ft above land-surface datum, Feb. 26, 1995;  
lowest measured, 309.92 ft below land-surface datum, Jan. 9, 1981.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	297.63	297.48	297.47	297.72	297.45	297.23			---	297.45	297.38	---
10	297.76	297.29	297.53	297.30	297.38	297.37			---	297.55	297.40	---
15	297.68	297.64	297.72	297.44	297.43	---			297.42	297.52	---	---
20	297.60	297.68	297.45	297.49	297.41	---			297.49	297.46	---	---
25	297.58	297.42	297.67	297.21	297.33	---			---	297.50	---	297.20
ECM	297.48	297.47	297.06	297.31	297.42	---			---	297.41	---	297.42

WTR YEAR 1996 HIGHEST 296.84 JAN 17, 1996 LOWEST 298.08 OCT 19,20, 1995

343615103123801. Local number, 05N.35E.35.313.

LOCATION.--Lat 34°36'15", long 103°12'38", Hydrologic Unit 12050005. Owner: S. W. Pipkin.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 527 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,504 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing 0.50 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 376.40 ft below land-surface datum, Mar. 26, 1954;  
lowest measured, 450.61 ft below land-surface datum, Aug. 9, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 9	449.60
Aug. 9	450.61

DONA ANA COUNTY  
Rincon and Mesilla Valleys

322203106484101. (formerly 322210106483001) Local number, 22S.01E.26.411.

LOCATION.--Lat 32°22'10", long 106°48'30", Hydrologic Unit 13030102. Owner: H. Worthheim.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 18 in., depth 107 ft, cased to 107 ft.

DATUM.--Elevation of land-surface datum is 3,920 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of east side of casing, 1.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.67 ft below land-surface datum, July 23, 1993;  
lowest measured, 25.57 ft below land-surface datum, Apr. 25, 1957.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 9	11.92
Aug. 29	10.37

## GROUND-WATER LEVELS

DONA ANA COUNTY  
Rincon and Mesilla Valleys

321606106462901. (formerly 321620106461501) Local number, 23S.02E.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 water-table irrigation well, diameter 14 in., reported depth 70 ft, cased to 70 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,880 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of 5/8 in. hole in pump base, 1.08 ft 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 below land-surface datum, Feb. 10, 1948;  
 lowest measured, 29.12 ft below land-surface datum, Jan. 7, 1958.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 15	19.08
Aug. 29	17.68

EDDY COUNTY  
Roswell Basin

325516104404601. (formerly 325510104410001) Local number, 16S.23E.15.322333.  
 LOCATION.--Lat 32°55'10", long 104°41'00", Hydrologic Unit 13060007. Owner: D. W. Runyan.  
 AQUIFER.--Yesso formation  
 WELL CHARACTERISTICS.--Drilled oil test well, used for stock water, diameter 10 in., depth 1,458 ft, cased.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,807 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing 0.70 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1951 to Jan. 1965, Feb. 1970 to Aug. 1971, Jan. 1974 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 225.16 ft below land-surface datum, Jan. 12, 1951;  
 lowest measured, 277.60 ft below land-surface datum, Aug. 5, 1971.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 26	231.74
Aug. 16	235.77

325702104352801. (formerly 325735104360701) Local number, 16S.24E.04.411341.  
 LOCATION.--Lat 32°57'35", long 104°36'07", Hydrologic Unit 13060007. Owner: Ellis Hunlic.  
 AQUIFER.--San Andres Limestone.  
 WELL CHARACTERISTICS.--Drilled artesian irrigation well, diameter not available, depth 610 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,624 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Southwest side of pump, 1.50 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1969 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.48 ft below land-surface datum, Jan. 29, 1996;  
 lowest measured, 100.54 ft below land-surface datum, Aug. 27, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 29	52.48
Aug. 16	pumping

325638104274801. Local number, 16S.25E.11.111131A.  
 LOCATION.--Lat 32°56'38", long 104°27'48", Hydrologic Unit 13060007. Owner: Pecos Valley Artesian Conservancy District.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 7 in., depth 171 ft, casing 0-171 ft, perforated 94-170 ft.  
 INSTRUMENTATION.--Recorder removed Nov. 27, 1990. Monthly steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,450 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of recorder shelf 3.00 ft above land-surface datum.  
 PERIOD OF RECORD.--1964 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.90 ft below land-surface datum, Feb. 18, 1966;  
 lowest measured, 64.72 ft below land-surface datum, July 24, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	61.07	NOV 20	60.53	DEC 15	60.16	JAN 19	59.77	FEB 20	59.62	MAR 21	60.33
APR 19	61.26	MAY 16	61.68	JUNE 21	62.19	JULY 19	62.31	AUG 20	61.89	SEP 20	61.51

## GROUND-WATER LEVELS

EDDY COUNTY  
Roswell Basin

325450104251101. (formerly 325445104253501) Local number, 16S.26E.19.21113.

LOCATION.--Lat 32°54'45", long 104°25'35", Hydrologic Unit 13060007. Owner: John Crook.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 160 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,399 ft above National Geodetic Vertical Datum of 1929.

Measuring point: 1/2 in. by 3 in. vertical slot under pump base, at land-surface datum.

PERIOD OF RECORD.--Jan. 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.60 ft below land-surface datum, Jan. 16, 1969;  
lowest measured, 140.89 ft below land-surface datum, Aug. 6, 1992.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 29	105.32
Aug. 16	117.09

324838104435301. (formerly 324831104435701) Local number, 17S.23E.30.12344

LOCATION.--Lat 32°48'31", long 104°43'57", Hydrologic Unit 13060007. Owner: Village of Hope.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled artesian public-supply well, diameter 16 in., depth 600 ft, cased to 558 ft,  
perforated 498-558 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,085 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 2 in. pipe on north side of concrete base, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--Dec. 1968, Jan. 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 514.85 ft below land-surface datum, Jan. 27, 1988;  
lowest measured, 553.18 ft below land-surface datum, Aug. 7, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 26	540.80
Sept. 4	534.53

324620104255001. (formerly 324624104244501) Local number, 18S.26E.06.442A.

LOCATION.--Lat 32°46'20", long 104°24'45", Hydrologic Unit 13060007. Owner: Pecos Valley Artesian Conservancy District.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 9 in., depth 1,008 ft, cased to 726 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,402.1 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of recorder shelf, 3.40 ft above land-surface datum.

REMARKS.--Lost record due to recorder malfunction.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.57 ft below land-surface datum, Feb. 20, 1989;  
lowest measured, 209.15 ft below land-surface datum, July 31-Aug. 2, 1966.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	119.72	99.46	90.40	81.95	76.18	81.87	118.64	125.89	146.10	140.52	---	124.56
10	116.04	97.71	88.93	80.72	76.08	84.20	119.19	129.16	144.78	142.25	---	125.04
15	111.25	96.56	87.45	80.02	76.06	98.39	123.33	132.04	146.24	147.17	---	118.11
20	107.62	94.53	85.71	78.89	77.80	104.34	128.66	138.12	145.60	149.35	---	121.22
25	105.04	92.96	84.43	78.13	77.23	108.47	129.11	144.87	146.69	---	144.78	127.25
EOY	101.98	91.38	83.08	77.48	78.71	113.85	126.66	147.45	141.20	---	132.26	126.81

WTR YEAR 1996 HIGHEST 75.71 FEB 13, 1996 LOWEST 155.80 JUL 25, 1996

## GROUND-WATER LEVELS

EDDY COUNTY  
Roswell Basin

324620104255101. Local number, 18S.26E.06.442B.

LOCATION.--Lat 32°46'20", long 104°24'45", Hydrologic Unit 13060007. Owner: Pecos Valley Artesian Conservancy District.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 7 in., depth 246 ft, casing 0-246 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,402 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of recorder shelf, 2.70 ft above land-surface datum.

REMARKS.--Lost record due to recorder malfunction.

PERIOD OF RECORD.--1963 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 106.83 ft below land-surface datum, Jan. 7, 1974; lowest measured, 142.37 ft below land-surface datum, Aug. 16 & 17, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	139.36	133.75	129.28	125.58	122.31	121.00	126.93	132.51	136.62	140.39	141.55	142.08
10	---	132.90	128.55	124.73	121.91	121.18	127.68	132.99	137.01	140.67	142.07	142.09
15	---	132.38	127.98	124.25	121.64	121.77	129.10	133.47	137.55	141.14	142.13	142.08
20	---	131.63	127.22	123.86	121.45	122.84	129.83	134.21	137.89	140.36	142.11	138.75
25	135.52	130.57	126.80	123.07	121.25	123.87	130.73	135.14	139.54	140.86	142.08	138.18
EOM	134.48	129.83	125.62	122.60	121.19	125.48	131.74	136.10	140.18	141.09	142.08	138.12

WTR YEAR 1996 HIGHEST 121.00 MAR 5, 1996 LOWEST 142.37 AUG 16, 17, 1996

324325104233001. Local number, 18S.26E.28.122111.

LOCATION.--Lat 32°43'25", long 104°23'30", Hydrologic Unit 13060011. Owner: Town of Dayton.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 8 in., depth 250 ft, cased to 182 ft, casing slotted 92-182 ft.

INSTRUMENTATION.--Monthly steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,403 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.06 ft above land-surface datum.

REMARKS.--Recorder removed Nov. 27, 1990.

PERIOD OF RECORD.--Aug. 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 59.79 ft below land-surface datum, Feb. 5, 1952; lowest measured, 124.87 ft below land-surface datum, Feb. 25, 1982 and Sept. 20, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	124.39	NOV 20	124.45	DEC 15	124.52	JAN 11	124.57	FEB 20	124.44	MAR 21	124.52
APR 19	124.52	MAY 16	124.56	JUNE 21	124.70	JULY 19	124.69	AUG 20	124.85	SEP 20	124.87

323705104225501. Local number, 19S.26E.33.41224.

LOCATION.--Lat 32°37'05", long 104°22'55", Hydrologic Unit 13060011. Owner: L. T. Lewis.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 14 in., depth 225 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,282 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 1 in. hole, in north side of pump base, 0.95 ft. above land-surface datum.

PERIOD OF RECORD.--Jan. 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.48 ft below land-surface datum, Aug. 19, 1991; lowest measured, 124.00 ft below land-surface datum, Jan. 9, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 29	36.41
Aug. 16	pumping

323542104242701. (formerly 323540104232001) Local number, 20S.26E.08.121111.

LOCATION.--Lat 32°35'40", long 104°23'20", Hydrologic Unit 13060011. Owner: Moutry.

AQUIFER.--Valley Fill

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 13 in., depth 346 ft, casing information not available.

INSTRUMENTATION.--Monthly steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,286 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of basal flange of pump head, 0.20 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.47 ft below land-surface datum, May 26, 1992; lowest measured, 90.25 ft below land-surface datum, Aug. 8, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	32.86	NOV 20	33.38	DEC 15	33.27	JAN 19	32.70	FEB	--	MAR	--
APR 19	33.31	MAY 16	34.25	JUNE 21	38.47	JULY 19	33.67	AUG 20	35.94	SEP 20	33.30

## GROUND-WATER LEVELS

EDDY COUNTY  
Carlsbad Area

322637104142301. (formerly 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 water-table municipal well, diameter 20 in., depth 327 ft, casing 0-290 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,121.84 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of recorder shelf, 4.14 ft above land-surface datum.

REMARKS.--Records good.

PERIOD OF RECORD.--April 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.98 ft below land-surface datum, June 14, 1987;  
lowest measured, 26.07 ft below land-surface datum, Aug. 2, 1974.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.98	22.55	22.39	22.27	22.72	22.97	23.12	23.56	23.48	23.48	23.49	22.78
10	22.84	22.38	22.45	22.34	22.71	22.97	22.95	23.60	23.58	23.61	23.53	22.81
15	22.61	22.48	22.40	22.45	22.79	22.87	23.12	23.62	23.50	23.43	23.73	22.23
20	22.63	22.51	22.32	22.42	22.86	22.99	23.08	23.87	23.52	23.34	23.48	22.22
25	22.57	22.43	22.39	22.40	22.99	22.95	23.32	23.64	23.60	23.44	23.31	22.09
ECM	22.47	22.38	22.12	22.54	22.99	23.15	23.38	23.55	23.46	23.54	22.92	22.27

WTR YEAR 1996 HIGHEST 22.09 SEP 25, 1996 LOWEST 24.04 MAY 21, 1996

322636104125801. (formerly 322640104165801) Local number, 21S.27E.32.112411.

LOCATION.--Lat 32°26'40", long 104°12'58", Hydrologic Unit 13060011. Owner: L. E. Loman.

AQUIFER.--Capitan Limestone.

WELL CHARACTERISTICS.--Drilled water-table domestic well, diameter 12 in., reported depth 305 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,112 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.40 ft above land-surface datum.

PERIOD OF RECORD.--Oct. 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.64 ft below land-surface datum, Jan. 17, 1950;  
lowest measured, 17.35 ft below land-surface datum, Aug. 9, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan.	not measured
Aug.	not measured

322712104074501. (formerly 322710104073901) Local number, 21S.28E.30.14123.

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., reported depth 1,060 ft, plugged back, total depth 906 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,181.71 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing 1.64 ft above land-surface datum.

REMARKS.--Records good.

PERIOD OF RECORD.--1963 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.13 ft below land-surface datum, June 29, 1987;  
lowest measured, 98.68 ft below land-surface datum, Aug. 3, 1974.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	93.84	93.26	93.10	92.98	93.42	93.66	93.88	94.16	94.15	94.17	94.27	93.61
10	93.72	93.08	93.20	93.08	93.36	93.70	93.69	94.22	94.26	94.30	94.31	93.60
15	93.46	93.20	93.06	93.15	93.41	93.62	93.82	94.21	94.29	94.28	94.36	93.06
20	93.40	93.21	93.04	93.16	93.48	93.76	93.79	94.44	94.16	94.06	94.32	93.01
25	93.25	93.13	93.12	93.17	93.68	93.59	94.06	94.37	94.21	94.28	94.20	93.03
ECM	93.18	93.10	92.86	93.27	93.73	93.80	94.14	94.25	94.17	94.26	93.79	93.22

WTR YEAR 1996 HIGHEST 92.86 DEC 31, 1996 LOWEST 94.57 MAY 21, 1996

## GROUND-WATER LEVELS

EDDY COUNTY  
Carlsbad Area

322120104151501. Local number, 22S.26E.25.333333. (formerly 22S.26E.36.111A)

LOCATION.--Lat 32°21'20", long 104°15'15", Hydrologic Unit 13060011. Owner: Carlsbad Airfield.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 12 in., depth 260 ft, cased to 260 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,225 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.40 ft above land-surface datum.

REMARKS.--Records good.

PERIOD OF RECORD.--July 1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 131.50 ft below land-surface datum, Oct. 14, 1942;  
lowest measured, 214.82 ft below land-surface datum, Sep. 15, 1978.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	159.28	152.99	148.90	146.63	146.21	146.18	149.11	158.12	160.49	162.71	164.43	158.70
10	158.37	151.88	148.33	146.79	145.93	146.45	150.84	158.42	161.28	162.65	163.38	157.59
15	157.23	151.24	147.78	146.83	145.86	146.45	153.21	158.63	160.94	163.01	161.99	156.26
20	156.30	150.79	147.24	146.56	145.69	146.97	155.00	157.89	160.41	163.50	161.39	155.23
25	155.27	150.18	147.04	146.31	145.64	147.15	155.66	158.48	160.85	163.46	161.13	154.25
EOY	153.96	149.43	146.26	146.13	145.75	147.78	156.91	159.63	161.99	164.47	159.96	154.86

WTR YEAR 1996 HIGHEST 145.58 FEB 18, 1996 LOWEST 164.67 AUG 4, 1996

322238104101801. (formerly 322231104131001) Local number, 22S.27E.22.421333.

LOCATION.--Lat 32°22'31", long 104°10'10", Hydrologic Unit 13060011. Owner: Enea Grandi.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., reported depth 150 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,100 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.20 ft above land-surface datum.

PERIOD OF RECORD.--Sep. 1947 to Aug. 1968, Jan. 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.43 ft below land-surface datum, Sep. 15, 1950;  
lowest measured, 81.10 ft below land-surface datum, Aug. 8, 1977.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 24	28.95
Aug. 15	28.44

321741104204901. (formerly 321721104204801) Local number, 23S.25E.24.213.

LOCATION.--Lat 32°17'21", long 104°20'48", Hydrologic Unit 13060011. Owner: City of Carlsbad.

AQUIFER.--Capitan Limestone.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 16 in. 0-20 ft, open hole 20-900 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,501.7 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.17 ft above land-surface datum.

REMARKS.--Records good.

PERIOD OF RECORD.--1963 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 369.53 ft below land-surface datum, June 27, 1986;  
lowest measured, 404.06 ft below land-surface datum, July 10, 1974.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	400.76	400.56	400.37	400.22	400.64	400.95	401.35	402.06	402.74	401.60	401.58	400.87
10	400.83	400.43	400.42	400.33	400.60	401.14	401.17	402.02	402.81	401.83	401.57	400.90
15	400.75	400.58	400.56	400.39	400.67	400.89	401.42	402.13	402.69	401.63	401.64	399.00
20	400.69	400.52	400.17	400.58	400.71	401.05	401.38	402.93	402.61	401.46	401.57	399.86
25	400.63	400.53	400.40	400.46	400.86	400.96	401.67	403.00	401.82	401.65	401.43	399.94
EOY	400.55	400.34	400.16	400.48	400.95	401.17	401.92	402.74	401.62	401.78	401.03	400.07

WTR YEAR 1996 HIGHEST 391.29 SEP 12, 1996 LOWEST 403.26 MAY 21, 22, 1996



## GROUND-WATER LEVELS

EDDY COUNTY  
Carlsbad Area

321939104113301. (formerly 321930104113301) Local number, 23S.27E.09.211124.  
 LOCATION.--Lat 32°19'30", long 104°11'33", Hydrologic Unit 13060011. Owner: H. C. Bindel.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 200 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,143 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, under pump base, 1.25 ft above land-surface datum.  
 PERIOD OF RECORD.--July 1949 to Nov. 1955, Jan. 1971 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.70 ft below land-surface datum, Sep. 15, 1950;  
 lowest measured, 60.92 ft below land-surface datum, Jan. 13, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 26	56.04
Aug. 15	55.48

320604104284101. (formerly 320602104285201) Local number, 25S.24E.27.421121.  
 LOCATION.--Lat 32°06'02", long 104°28'52", Hydrologic Unit 13060011. Owner: Walker Hood.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 101 ft, uncased.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,701 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Northwest corner of pump base, 1.00 ft above land-surface datum.  
 PERIOD OF RECORD.--Apr. 1952 to Aug. 1967, Jan. 1969 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.12 ft below land-surface datum, Aug. 22, 1988;  
 lowest measured, 85.10 ft below land-surface datum, Aug. 25, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 26	57.18
Aug. 15	pumping

320316104294301. (formerly 320257104295201) Local number, 26S.24E.09.443111.  
 LOCATION.--Lat 32°03'16", long 104°29'43", Hydrologic Unit 13060011. Owner: John Mayes.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 12 in., depth 100 ft, cased to 85 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,749.4 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of air-line flange support, 1.40 ft above land-surface datum.  
 PERIOD OF RECORD.--Apr. 1952 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.31 ft below land-surface datum, Aug. 22, 1988;  
 lowest measured, 54.98 ft below land-surface datum, Sep. 8, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 26	43.55
Aug. 15	44.78

GRANT COUNTY  
Mimbres Basin

324245108175603. Local number, 18S.14W.28.143B.  
 LOCATION.--Lat 32°42'45", long 108°17'56", Hydrologic Unit 13030202. Owner: Exxon Corp.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 6 in., depth unknown.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 5,800 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: 3/4 in. hole in cover plate, at land-surface datum.  
 REMARKS.--"s" indicates nearby well pumping.  
 PERIOD OF RECORD.--Mar. 1984 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 268.84 ft below land-surface datum, Jan. 14, 1986;  
 lowest measured, 404.60 s ft below land-surface datum, Jan. 6, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 18	386.78
July 1	388.06

## GROUND-WATER LEVELS

GRANT COUNTY  
Silver City Area

324600108222501. Local number, 18S.15W.11.323.

LOCATION.--Lat 32°46'00", long 108°22'25", Hydrologic Unit 15040002. Owner: Town of Silver City.

AQUIFER.--Gila Conglomerate.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 12 in., depth 580 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 5,845 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 12 in. casing, 1.50 ft above land-surface datum.

REMARKS.--Lost several days of record, due to recorder malfunction.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 262.34 ft below land-surface datum, Mar. 3, 1962;  
lowest measured, 294.52 ft below land-surface datum, Apr. 20, 1986.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	291.57	293.10	292.88	292.80	292.91	292.53	292.61	293.13	293.89	293.63	293.39	293.26
10	292.06	292.89	293.00	292.72	292.69	292.73	292.47	293.14	294.00	293.68	293.41	293.37
15	292.42	292.95	292.80	292.72	292.61	292.51	292.73	293.08	294.02	293.62	293.38	293.20
20	292.62	293.00	292.71	292.64	292.62	292.62	292.60	293.32	293.83	293.53	293.34	293.30
25	292.81	292.90	293.00	292.61	292.47	292.47	292.73	293.46	293.80	293.53	293.28	293.14
EOB	293.00	292.87	292.46	292.53	292.72	292.59	292.65	293.77	293.84	293.44	293.24	293.22

WTR YEAR 1996 HIGHEST 291.34 OCT 4, 1995 LOWEST 294.22 JUN 13, 1996

GUADALUPE COUNTY  
Santa Rosa Area

350414104485101. Local number, 10N.20E.28.2214.

LOCATION.--Lat 35°04'14", long 104°48'51", Hydrologic Unit 13060001. Owner: Town of Santa Rosa.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 12 3/4 in., casing 0-514 ft, 10 3/4 in.  
505-575 ft, casing perforated 515-575 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 5,162.7 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing 1.10 ft above land-surface datum.

REMARKS.--Records good.

PERIOD OF RECORD.--May 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 343.67 ft below land-surface datum, July 27, 1992;  
lowest measured, 362.36 ft below land-surface datum, Apr. 12, 1978.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	345.62	346.67	347.74	348.74	349.45	350.14	351.05	351.84	353.07	353.14	352.39	351.90
10	345.81	346.82	347.92	348.77	349.60	350.33	351.14	352.00	353.24	352.78	352.46	351.95
15	345.99	347.15	348.14	348.92	349.75	350.47	351.34	352.11	353.00	352.50	352.57	351.68
20	346.21	347.32	348.20	349.01	349.80	350.64	351.41	352.51	353.13	352.38	352.59	351.64
25	346.29	347.43	348.44	349.10	349.89	350.78	351.45	352.73	353.61	352.57	352.47	351.59
EOB	346.48	347.55	348.45	349.32	350.08	350.93	351.58	352.77	353.22	352.37	351.90	351.81

WTR YEAR 1996 HIGHEST 345.48 OCT 4, 1995 LOWEST 354.09 JUN 27, 1996

HARDING COUNTY  
Roy Area

355352104054201. Local number, 19N.27E.05.334.

LOCATION.--Lat 35°53'52", long 104°05'42", Hydrologic Unit 11080007. Owner: Town of Roy.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table municipal well, diameter 10 in., depth 75 ft, cased to 75 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 5,658 ft above National Geodetic Vertical Datum of 1929.

Measuring point: 3/4" plugged hole, east side, 1.50 ft above land-surface datum.

REMARKS.--Submersible pump installed in 1984.

PERIOD OF RECORD.--Jan. 1967 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.34 ft below land-surface datum, Jan. 18, 1983;  
lowest measured, 55.76 ft below land-surface datum, Aug. 19, 1987.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 17	50.12
July 25	50.35

## GROUND-WATER LEVELS

HIDALGO COUNTY  
Virden Valley

324051108594101. (formerly 324053108594101) Local number, 19S.21W.03.414.  
 LOCATION.--Lat 32°40'51", long 108°59'41", Hydrologic Unit 15040002. Owner: Jones, Clouse, and Jensen.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 20 in., depth 72 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,750 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Hole inside pump shell, 0.90 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1959 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.50 ft below land-surface datum, Jan. 11, 1993;  
 lowest measured, 15.79 ft below land-surface datum, Aug. 4, 1978.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 24	12.94
July 8	13.77

HIDALGO COUNTY  
Lordsburg Area

321849108392001. (formerly 321848108391401) Local number, 23S.18W.12.333.  
 LOCATION.--Lat 32°18'49", long 108°39'20", Hydrologic Unit 15040003. Owner: R. I. McDonald.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 12 in., depth 220 ft,  
 perforations 100-220 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,240 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: End of entry port pipe, 1.50 ft above land-surface datum.  
 PERIOD OF RECORD.--Apr. 1957 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 100.02 ft below land-surface datum, Jan. 11, 1958;  
 lowest measured, 190.45 ft below land-surface datum, Aug. 7, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 23	156.96
July 9	166.24

321248108331401. (formerly 321257108331201) Local number, 24S.17W.14.442.  
 LOCATION.--Lat 32°12'48", long 108°33'14", Hydrologic Unit 15040003. Owner: E. W. Richens.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 18 in., depth 420 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,265 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing 1.00 ft above land-surface datum.  
 PERIOD OF RECORD.--May 1955 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 78.97 ft below land-surface datum, Jan. 7, 1981;  
 lowest measured, 114.90 ft below land-surface datum, Jan. 15, 1970.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 22	86.98
July 8	90.97

HIDALGO COUNTY  
Animas Valley

321624108504001. (formerly 321540108514101) Local number, 23S.20W.25.422.  
 LOCATION.--Lat 32°16'24", long 108°50'40", Hydrologic Unit 15040003. Owner: Kerr Cattle Co.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 150 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,150 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing 0.40 ft above land-surface datum.  
 PERIOD OF RECORD.--May 1948 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.36 ft below land-surface datum, May 21, 1948;  
 lowest measured, 54.82 ft below land-surface datum, July 9, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 23	53.71
July 9	54.82

## GROUND-WATER LEVELS

HIDALGO COUNTY  
Animas Valley

315610108483901. (formerly 315645108493501) Local number, 27S.19W.20.343.  
 LOCATION.--Lat 31°56'10", long 108°49'35", Hydrologic Unit 15040003. Owner: Felix Gauthier.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 358 ft, cased to 358 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,414 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top edge of 1 1/4 in. pipe in concrete pump base, 1.25 ft above land-surface datum.  
 PERIOD OF RECORD.--July 1949 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 131.90 ft below land-surface, 198.50 ft below land-surface

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 23	179.79
July 9	189.20

HIDALGO COUNTY  
San Simon Valley

315738109004001. Local number, 27S.21W.17.124.  
 LOCATION.--Lat 34°57'38", long 109°00'40", Hydrologic Unit 15040006. Owner: E. J. Bagwell.  
 AQUIFER.--Bolson.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 220 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,020 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Hole in west side of pump base, 1.00 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1978, Jan. 1980, July 1984 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 120.98 ft above land-surface datum, Jan. 10, 1980;  
 lowest measured, 126.69 ft below land-surface datum, July 10, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 24	125.93
July 10	126.69

315048109010201. (formerly 315010108570001) Local number, 28S.21W.30.222.  
 LOCATION.--Lat 31°50'48", long 109°01'02", Hydrologic Unit 15040006. Owner: C. L. Johnston.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 8 in. depth 471 ft, cased to 471 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,128 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Hole in west side of casing, 0.70 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1968 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 110.88 ft below land-surface datum, Jan. 15, 1969;  
 lowest measured, 124.93 ft below land-surface datum, July 16, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 24	121.76
July 10	122.46

HIDALGO COUNTY  
Playas Valley

313502108275001. Local number, 31S.16W.33.233.  
 LOCATION.--Lat 31°33'00", long 108°27'50", Hydrologic Unit 13030201. Owner: U-Bar Ranch.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 16 in., depth 654 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,404 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Bottom edge of shelf, 4.05 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1965 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.66 ft below land-surface datum, Apr. 18-20, 1973;  
 lowest measured, 54.95 ft below land-surface datum, Sep. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 22	47.16
July 8	47.14

## GROUND-WATER LEVELS

HIDALGO COUNTY  
Playas Valley

312938108302301. Local number, 32S.16W.30.134.  
 LOCATION.--Lat 31°29'38", long 108°30'23", Hydrologic Unit 13030201. Owner: C. C. Edwards.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 150 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,490 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of 3/4 in. pipe nipple inside pump shell, 1.45 ft above land-surface datum.  
 PERIOD OF RECORD.--Mar. 1952 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 85.11 ft below land-surface datum, Mar. 27, 1952;  
 lowest measured, 129.10 ft below land-surface datum, Aug. 20, 1962.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 22	86.31
July 8	86.41

LEA COUNTY  
Tatum-Lovington-Hobbs Area

332115103403301. Local number, 11S.32E.24.113.  
 LOCATION.--Lat 33°21'15", long 103°40'33", Hydrologic Unit 12080001. Owner: Paul Hamilton.  
 AQUIFER.--Ogallala formation.  
 WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 1/2 in., depth 110 ft.  
 INSTRUMENTATION.--Digital recorder, 1-hour punch.  
 DATUM.--Elevation of land-surface datum is 4,336 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.70 ft. above land-surface datum.  
 REMARKS.--Records good.  
 PERIOD OF RECORD.--Oct. 1977 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 59.74 ft above land-surface datum, Oct. 3, 1993;  
 lowest measured, 62.67 ft below land-surface datum, Apr. 19, 1993.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	61.55	61.51	61.49	61.56	61.52	61.48	61.48	61.45	61.43	61.43	61.42	61.36
10	61.54	61.51	61.48	61.51	61.53	61.49	61.47	61.46	61.42	61.42	61.41	61.36
15	61.53	61.50	61.48	61.52	61.51	61.48	61.47	61.45	61.38	61.43	61.41	61.36
20	61.52	61.50	61.52	61.53	61.48	61.49	61.44	61.45	61.44	61.42	61.41	61.36
25	61.52	61.49	61.55	61.49	61.48	61.48	61.47	61.43	61.42	61.41	61.38	61.35
EOY	61.52	61.49	61.54	61.50	61.48	61.48	61.45	61.43	61.43	61.42	61.38	61.36

WTR YEAR 1996 HIGHEST 61.35 SEP 11,25, 1996 LOWEST 61.60 OCT 4, 1995

331713103283301. (formerly 331740103285001) Local number, 12S.34E.11.421.  
 LOCATION.--Lat 33°17'22", long 103°28'50", Hydrologic Unit 12080006. Owner: A. D. Jones.  
 AQUIFER.--Ogallala formation.  
 WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 15 in., depth 87 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,144 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of concrete pump base, 0.80 ft above land-surface datum.  
 PERIOD OF RECORD.--May 1949 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.57 ft below land-surface datum, May 24, 1949;  
 lowest measured, 34.14 ft below land-surface datum, Aug. 17, 1983.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 2	31.42
Aug. 7	31.65

330458103251001. (formerly 330455103251301) Local number, 14S.35E.28.1111.  
 LOCATION.--Lat 35°04'55", long 103°25'13", Hydrologic Unit 12080003. Owner: Paul Fisher.  
 AQUIFER.--Ogallala formation.  
 WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in., depth 137 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,031 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.00 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1983 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.05 ft below land-surface datum, Jan. 5, 1994;  
 lowest measured, 44.73 ft below land-surface datum, Aug. 7, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 3	43.50
Aug. 7	44.73

## GROUND-WATER LEVELS

LEA COUNTY  
Tatum-Lovington-Hobbs Area

330405103194501. (formerly 330400103193401) Local number, 14S.36E.32.12121.

LOCATION.--Lat 33°04'00", long 103°19'34", Hydrologic Unit 12080003. Owner: E. T. Howell.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth and casing information not available.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,990 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of concrete pump base, 0.50 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1949 to Jan. 1950, Jan. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.38 ft below land-surface datum, Jan. 19, 1949;  
lowest measured, 73.62 ft below land-surface datum, Jan. 3, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 3	73.62
Aug. 7	71.10

325730103213901. (formerly 325703103213201) Local number, 16S.36E.04.322.

LOCATION.--Lat 32°57'03", long 103°21'32", Hydrologic Unit 12080003. Owner: City of Lovington.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 13 in., depth 212 ft, perforated 80-208 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,926 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of shelf, 4.00 ft above land-surface datum.

REMARKS.--Records good.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.67 ft below land-surface datum, Feb. 5, 1995;  
lowest measured, 67.11 ft below land-surface datum, Aug. 24, 1971.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	58.40	58.19	58.10	58.07	58.00	57.86	58.00	58.13	58.30	58.37	58.32	58.19
10	58.38	58.14	58.11	58.04	57.96	57.90	58.00	58.17	58.33	58.39	58.31	58.17
15	58.33	58.16	58.10	58.03	57.94	57.88	58.04	58.22	58.38	58.40	58.30	58.12
20	58.29	58.15	58.09	58.02	57.91	57.90	58.03	58.25	58.38	58.38	58.30	58.10
25	58.24	58.12	58.11	57.99	57.89	57.91	58.05	58.25	58.37	58.38	58.26	58.04
EOY	58.21	58.10	58.03	57.99	57.90	57.95	58.08	58.30	58.40	58.35	58.22	58.03

WTR YEAR 1996 HIGHEST 57.83 MAR 17, 1996 LOWEST 58.45 OCT 1, 1995

325658103200001. Local number, 16S.37E.11.11111.

LOCATION.--Lat 32°56'58", long 103°20'00", Hydrologic Unit 12080003. Owner: H. J. Taylor.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., reported depth 118 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,900 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 1 in. hole in southwest side of pump, 1.34 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.93 ft below land-surface datum, Jan. 23, 1949;  
lowest measured, 78.64 ft below land-surface datum, Jan. 3, 1979.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 9	66.59
Aug. 7	67.42

325132103112501. Local number, 17S.38E.07.111311.

LOCATION.--Lat 32°51'32", long 103°11'25", Hydrologic Unit 12080003. Owner: L. R. Seblings.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., reported depth 125 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,740 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Edge of pipe on west side of pump, 0.95 ft above land-surface datum.

PERIOD OF RECORD.--July 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.59 ft below land-surface datum, Mar. 21, 1952;  
lowest measured, 74.15 ft below land-surface datum, July 22, 1980.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 10	68.28
Aug. 7	68.38

## GROUND-WATER LEVELS

LEA COUNTY  
Tatum-Lovington Hobbs Area

324745103082001. Local number, 17S.38E.34.113143.  
 LOCATION.--Lat 32°47'45", long 103°08'20", Hydrologic Unit 12080003. Owner: W. E. Busby.  
 AQUIFER.--Ogallala formation.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 12 in., depth 125 ft, cased to 90 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,660 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.40 ft above land-surface datum.  
 PERIOD OF RECORD.--Nov. 1943 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.78 ft below land-surface datum, Jan. 15, 1944;  
 lowest measured, 68.25 ft below land-surface datum, Aug. 7, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 10	67.17
Aug. 7	68.25

LINCOLN COUNTY  
Hondo Valley

333241105341101. (formerly 333242105340701) Local number, 09S.14E.10.13221.  
 LOCATION.--Lat 33°32'42", long 105°34'07", Hydrologic Unit 13060008. Owner: Village of Capitan.  
 AQUIFER.--Mancos Shale of Late Cretaceous age.  
 WELL CHARACTERISTICS.--Drilled water-table municipal well, diameter 8 in., depth 324 ft, cased to 271 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,340 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of breather hole on west side of pump base, 1.00 ft above land-surface datum.  
 PERIOD OF RECORD.--June 1955 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.56 ft below land-surface datum, Jan. 28, 1993;  
 lowest measured, 69.77 ft below land-surface datum, Nov. 28, 1956.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 29	39.02
Aug. 15	37.99

332110105092501. (formerly 332157105094101) Local number, 11S.18E.15.33313.  
 LOCATION.--Lat 33°21'02", long 105°09'41", Hydrologic Unit 13060008. Owner: Lincoln County Livestock Co.  
 AQUIFER.--Yesso formation of Permian age.  
 WELL CHARACTERISTICS.--Drilled water-table domestic and stock well, diameter 12 in., depth 125 ft, cased to 110 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,989 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.50 ft above land-surface datum.  
 PERIOD OF RECORD.--Oct. 1955 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.43 ft below land-surface datum, Aug. 18, 1988;  
 lowest measured, 60.18 ft below land-surface datum, Jan. 15, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 29	47.96
Aug. 15	47.03

LUNA COUNTY  
Nutt-Hockett

322927107220101. (formerly 322930107221001) Local number, 21S.05W.08.444.  
 LOCATION.--Lat 32°29'30", long 107°22'10", Hydrologic Unit 13030202. Owner: Leonard Farms.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 435 ft, cased to 435 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,530 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Hole in NE side of pump shell, 1.60 ft above land-surface datum.  
 PERIOD OF RECORD.--Nov. 1961 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 102.06 ft below land-surface datum, Jan. 17, 1962;  
 lowest measured, 205.42 ft below land-surface datum, Jan. 17, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 17	205.42
July 3	pumping

## 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.--Bolson deposits.

WELL CHARACTERISTICS.--Dug and drilled water-table unused well, diameter 36 in., reported depth 132 ft.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 4,330 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of recorder shelter shelf, 1.36 ft above land-surface datum.

REMARKS.--Recorder re-installed Jan. 26, 1994. Lost several days of record due to recorder malfunction.

PERIOD OF RECORD.--Apr. 1939 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 71.61 ft below land-surface datum, May 6-13, 1940;  
lowest measured, 113.30 ft below land-surface datum, Aug. 12 and 20, 1976.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	101.63	101.80	101.27	---	100.95	101.58	---	---	103.43	103.28	103.23	103.36
10	101.78	101.54	101.33	---	100.92	101.78	---	---	103.44	103.30	103.24	103.36
15	101.73	101.54	101.22	---	100.98	101.88	---	---	103.42	103.26	103.29	---
20	101.87	101.51	---	---	101.24	---	102.69	---	103.37	103.20	103.32	---
25	101.87	101.39	---	---	101.28	102.13	102.72	---	103.38	103.19	103.33	103.05
EOB	101.85	101.34	---	100.73	101.52	---	---	103.42	103.42	103.16	103.35	103.06

WTR YEAR 1996 HIGHEST 100.70 FEB 1, 1996 LOWEST 103.59 MAY 29, 1996

321328107565301. (formerly 321415107565501) Local number, 24S.11W.14.122.

LOCATION.--Lat 32°13'28", long 107°56'55", Hydrologic Unit 13030202. Owner: Charles Waldrop.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 12 in., reported depth 350 ft, cased to 198 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,405 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 1 in. hole in pump base, 0.80 ft above land-surface datum.

PERIOD OF RECORD.--July 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 107.66 ft below land-surface datum, Jan. 23, 1952;  
lowest measured, 228.00 ft below land-surface datum, May 11, 1956.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 16	172.00
July 2	176.74

321010107260201. (formerly 321015107260501) Local number, 25S.06W.02.111.

LOCATION.--Lat 32°10'15", long 107°26'05", Hydrologic Unit 13030202. Owner: C. W. Johnson, Jr.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled artesian irrigation well, diameter 16 in., depth 235 ft, perforated 180-235 ft, gravel packed.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,090 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.30 ft above land-surface datum.

PERIOD OF RECORD.--May 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.45 ft below land-surface datum, Mar. 14, 1953;  
lowest measured, 117.66 ft below land-surface datum, Aug. 6, 1980.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 17	21.49
July 3	31.24

320918107293301. (formerly 320915104294501) Local number, 25S.06W.07.211.

LOCATION.--Lat 32°09'15", long 107°29'45", Hydrologic Unit 13030202. Owner: H. C. Telles.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 230 ft, cased to 230 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,084.22 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Hole in pump base, 1.20 ft 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 below land-surface datum, Mar. 14, 1953;  
lowest measured, 122.16 ft below land-surface datum, Aug. 13, 1970.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 17	82.39
July 3	82.33



## GROUND-WATER LEVELS

LUNA COUNTY  
Mimbres Valley

320647107490701. Local number, 25S.09W.19.31331.

LOCATION.--Lat 32°26'47", long 107°49'07", Hydrologic Unit 13030202. Owner: Tryon.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 14 in., depth 240 ft, cased to 240 ft, perforated 80-240 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,070 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 98.68 ft below land-surface datum, Feb. 10, 1959; lowest measured, 221.86 ft below land-surface datum, Aug. 20, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	211.50	NOV --	--	DEC 20	195.00	JAN 25	193.50	FEB --	--	MAR 5	198.40
APR 18	201.68	MAY 23	215.26	JUNE 20	218.66	JULY 19	220.02	AUG 20	221.86	SEP 23	215.19

315517107375001. (formerly 315525107374501) Local number, 27S.08W.35.122.

LOCATION.--Lat 31°55'25", long 107°37'45", Hydrologic Unit 13030202. Owner: M. M. Gibson.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 12 to 8 in., depth 550 ft, cased to 550 ft, perforated 155-550 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,070 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.20 ft above land-surface datum.

PERIOD OF RECORD.--July 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.84 ft below land-surface datum, Mar. 16, 1953; lowest measured, 119.34 ft below land-surface datum, Aug. 3, 1981.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 16	75.56
July 2	81.84

315903107424501. (formerly 315905107425001) Local number, 27S.09W.01.431.

LOCATION.--Lat 31°59'05", long 107°42'50", Hydrologic Unit 13030202. Owner: I. G. Burns.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 62 ft, cased to 62 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,135 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top edge of rectangular hole in pump base, 0.65 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.61 ft below land-surface datum, Jan. 19, 1954; lowest measured, 47.26 ft below land-surface datum, Aug. 11, 1977.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 16	38.71
July 2	38.87

314942107361001. (formerly 314938107371401) Local number, 28S.08W.36.411.

LOCATION.--Lat 31°49'38", long 107°37'14", Hydrologic Unit 13030202. Owner: M. R. Hemley.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 250 ft, cased to 250 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,008 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.85 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.18 ft below land-surface datum, Aug. 2, 1983; lowest measured, 27.85 ft below land-surface datum, Jan. 14, 1966.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 16	15.67
July 2	16.15

## GROUND-WATER LEVELS

MCKINLEY COUNTY  
San Juan Basin

352023107473201. Local number, 13N.09W.21.4123.

LOCATION.--Lat 35°20'23", long 107°47'32", Hydrologic Unit 13020207. Owner: Nabor Marquez.

AQUIFER.--Morrison Formation.

WELL CHARACTERISTICS.--Drilled water-table unused stock well, diameter 6 in., depth 155 ft, cased to 155 ft.

INSTRUMENTATION.--Monthly steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,785 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.80 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 58.30 ft below land-surface datum, Feb. 22, 1978;

lowest measured, 144.80 ft below land-surface datum, Dec. 8, 1955.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	86.37	NOV 21	86.62	DEC --	--	JAN 18	86.90	FEB 21	87.10	MAR 19	88.89
APR 16	87.34	MAY 21	87.58	JUNE 18	87.75	JULY 23	87.90	AUG 20	89.63	SEP 25	90.13

353645108011501. Local number, 16N.11W.17.4322.

LOCATION.--Lat 35°36'45", long 108°01'15", Hydrologic Unit 14080106. Owner: Navajo Nation.

AQUIFER.--Gallup Sandstone.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 5/8 in., depth 570 ft, cased to 570 ft, perforated 470-570 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 7,070 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.53 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 254.76 ft below land-surface datum, Feb. 23, 1996;

lowest measured, 318.28 ft below land-surface datum, July 21, 1982.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 23	254.76
July 31	255.73

353521108284901. Local number, 16N.16W.25.142.

LOCATION.--Lat 35°35'21", long 108°28'49", Hydrologic Unit 15020006. Owner: Navajo Nation.

AQUIFER.--Entrada Sandstone.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 8 3/4 in., depth 1,052 ft, cased to 1,052 ft, perforated 628-896, 974-1033 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 7,115 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Hole in cover plate, 0.80 ft above land-surface datum.

PERIOD OF RECORD.--Oct. 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.55 ft below land-surface datum, Feb. 2, 1995;

lowest measured, 160.64 ft below land-surface datum, Feb. 20, 1985.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 23	147.76
July 31	136.03

354235108170702. Local number, 17N.14W.13.1144B.

LOCATION.--Lat 35°42'35", long 108°17'07", Hydrologic Unit 14080106. Owner: United Nuclear.

AQUIFER.--Morrison Sandstone.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 8 5/8 in. 0-2,225 ft, total depth 2,225 ft. Perforated 1,820-2,225 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,757.70 ft above National Geodetic Vertical Datum of 1929.

Measuring point: 3/8 in. plug, 0.80 ft above land-surface datum.

PERIOD OF RECORD.--Aug. 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 245.39 ft below land-surface datum, July 31, 1996;

lowest measured, 350.38 ft below land-surface datum, Oct. 8, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 23	246.86
July 31	245.39

## GROUND-WATER LEVELS

McKINLEY COUNTY  
San Juan Basin

354235108170703. Local number, 17N.14W.13.1144C.  
 LOCATION.--Lat 35°42'35", long 108°17'07", Hydrologic Unit 14080106. Owner: United Nuclear.  
 AQUIFER.--Dakota Sandstone.  
 WELL CHARACTERISTICS.--Drilled water-table well, diameter 8 5/8 in. 0-54 ft, 6 5/8 in. 54- 1,728 ft.  
 Perforated 1,587-1,728 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,757.70 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: 3/8 in. plug, 0.80 ft above land-surface datum.  
 PERIOD OF RECORD.--Aug. 1982 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 76.21 ft below land-surface datum, Aug. 4, 1982;  
 lowest measured, 126.35 ft below land-surface datum, July 11, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 23	125.97
July 31	125.94

OTERO COUNTY  
Tularosa-Alamogordo Area

330321106011101. (formerly 330324106011201) Local number, 14S.10E.31.144.  
 LOCATION.--Lat 33°03'21", long 106°01'11", Hydrologic Unit 13050003. Owner: Luther Watson.  
 AQUIFER.--Bolson deposits.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, depth 230 ft, diameter 17 in., casing 0-130 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,450 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top edge of 1 in. hole in pump base, 0.70 ft above land-surface datum.  
 PERIOD OF RECORD.--Apr. 1952 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 73.75 ft below land-surface datum, Apr. 8, 1952;  
 lowest measured, 134.21 ft below land-surface datum, Aug. 3, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb.	not measured
Aug. 23	93.18

Crow Flats Basin  
(Salt Basin)

320657105061501. Local number, 25S.18E.21.233.  
 LOCATION.--Lat 32°06'57", long 105°06'15", Hydrologic Unit 13050004. Owner: Gene Lewis.  
 AQUIFER.--Bolson deposits.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth unknown.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,690 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing 0.50 ft above land-surface datum.  
 PERIOD OF RECORD.--Apr. 1956 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.80 ft below land-surface datum, Apr. 20, 1956;  
 lowest measured, 101.55 ft below land-surface datum, Sep. 15, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 26	89.07
Aug. 15	91.67

320138105063101. (formerly 320650105034801) Local number, 26S.18E.21.331.  
 LOCATION.--Lat 32°01'38", long 105°06'31", Hydrologic Unit 13050004. Owner: Frank Gentry.  
 AQUIFER.--Bolson deposits.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 18 in., depth 544 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,655 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.50 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1971 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.08 ft below land-surface datum, Jan. 8, 1973;  
 lowest measured, 82.94 ft below land-surface datum, Aug. 17, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 26	55.33
Aug. 15	68.68

## GROUND-WATER LEVELS

Crow Flats Basin  
(Salt Basin)

320008105064501. Local number, 26S.18E.33.133.  
 LOCATION.--Lat 32°00'08", long 105°06'45", Hydrologic Unit 13050004. Owner: J. W. Hill.  
 AQUIFER.--Bone Spring Limestone.  
 WELL CHARACTERISTICS.--Drilled water-table used irrigation well, diameter 14 in., depth 435 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,620 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.80 ft. above land-surface datum.  
 PERIOD OF RECORD.--Feb. 1956 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.50 ft below land-surface datum, Feb. 15, 1956;  
 lowest measured, 62.84 ft below land-surface datum, Aug. 20, 1984.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 26	50.12
Aug. 15	61.76

QUAY COUNTY  
House Area

343848103555801. Local number, 05N.28E.23.222232.  
 LOCATION.--Lat 34°38'48", long 103°55'58", Hydrologic Unit 13060004. Owner: Jimmy Snipes.  
 AQUIFER.--Ogallala formation.  
 WELL CHARACTERISTICS.--Drilled water-table stock well, diameter 6 in., depth 93.5 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,788 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, west side, 2.00 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1968 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 74.50 ft below land-surface datum, Sep. 15, 1994;  
 lowest measured, 84.22r ft below land-surface datum, Feb. 18, 1972.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Mar. 14	74.52
Sep. 24	74.58

343855103482901. (formerly 343810103463001) Local number, 05N.30E.18.331311.  
 LOCATION.--Lat 34°38'55", long 103°48'29", Hydrologic Unit 13060004. Owner: W. C. and H. J. Lee.  
 AQUIFER.--Ogallala formation.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 75 ft, cased to 60 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,630 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of concrete pump base, 0.50 ft above land-surface datum.  
 PERIOD OF RECORD.--May. 1944 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.76 ft below land-surface datum, Mar. 28, 1946;  
 lowest measured, 51.49 ft below land-surface datum, Aug. 11, 1969.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Mar. 14	48.67
Sep. 24	48.44

344406103555501. Local number, 06N.28E.13.33333.  
 LOCATION.--Lat 34°44'06", long 103°55'55", Hydrologic Unit 13060004. Owner: Jack Jennings.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled domestic well, diameter 16 in., depth 131 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,816 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: 3/4 in. hole in cover plate, 0.40 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1948 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 100.47 ft below land-surface datum, Jan. 20, 1948;  
 lowest measured, 120.20 ft below land-surface datum, Sep. 24, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Mar. 14	119.88
Sep. 24	120.20

## GROUND-WATER LEVELS

QUAY COUNTY  
Lower Canadian

351040103433602. Local number, 11N.30E.14.144D.  
 LOCATION.--Lat 35°10'40", long 104°43'36", Hydrologic Unit 11080006. Owner: Southern Pacific R. R.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table unused test well, diameter 6 in., depth 295 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,080 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of 1.5 in. pipe extension, 4.20 ft above land-surface datum.  
 PERIOD OF RECORD.--July 1952 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.20 ft below land-surface datum, Sep. 9, 1963;  
 lowest measured, 137.66 ft below land-surface datum, Dec. 16, 1952.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 18	47.50
July 25	57.55

QUAY COUNTY  
Northern High Plains

353239103111301. Local number, 15N.35E.11.21222.  
 LOCATION.--Lat 35°32'39", long 103°11'13", Hydrologic Unit 11080006. Owner: J. L. Smith.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 12 in., depth 175 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,126 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: 2 1/2 in. hole, in east side of casing, 1.20 ft above land-surface datum.  
 PERIOD OF RECORD.--July 1971 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.83 ft below land-surface datum, July 26, 1995;  
 lowest measured, 114.67 ft below land-surface datum, Feb. 5, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan.	not measured
July 24	89.20

354238103132301. Local number, 17N.35E.16.221.  
 LOCATION.--Lat 35°42'38", long 103°13'23", Hydrologic Unit 11090101. Owner: L. C. Morrison.  
 AQUIFER.--Dakota formation.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter unknown, depth 250 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,465 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Hole in south side of pump base, 2.00 ft. above land-surface datum.  
 PERIOD OF RECORD.--Oct. 1967 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 159.30 ft below land-surface datum, Apr. 10, 1991;  
 lowest measured, 171.59 ft below land-surface datum, Sep. 19, 1988.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan.	not measured
July 24	169.01

ROOSEVELT COUNTY  
Portales Valley

341014103264401. Local number, 01S.33E.35.434344.  
 LOCATION.--Lat 34°10'14", long 103°26'44", Hydrologic Unit 12050002. Owner: Jones  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 16 in., depth 84 ft.  
 INSTRUMENTATION.--Digital recorder, 1-hour punch.  
 DATUM.--Elevation of land-surface datum is 4,066 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of 1.80 in. shaft hole, in center of pump, 2.80 ft above land-surface datum.  
 REMARKS.--Recorder installed Apr. 25, 1996. Lost record several days due to recorder malfunction.  
 PERIOD OF RECORD.--Apr. to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.37 ft below  
 land-surface datum, Apr. 25, 1996; lowest measured, 66.72 ft below land-surface datum, Sep. 27, 1996

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5							---	66.38	66.40	66.51	66.56	---
10							---	66.38	66.41	66.52	66.57	---
15							---	66.38	66.43	66.53	---	---
20							---	66.38	66.46	66.53	---	---
25							---	66.39	66.50	66.55	---	66.67
EOM							66.37	66.39	66.52	66.54	---	66.67
WTR YEAR 1996	HIGHEST	66.37	APR 25, 1996	LOWEST	66.72	SEP 27, 1996						

## GROUND-WATER LEVELS

ROOSEVELT COUNTY  
Portales Valley

341037103254501. Local number, 01S.33E.36.23111.

LOCATION.--Lat 34°10'37", long 103°25'45", Hydrologic Unit 12050002. Owner: State of New Mexico.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 18 in., depth 105 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 4,048 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing 1.95 ft above land-surface datum.

REMARKS.--Lost record, several days, due to recorder malfunction. Recorder removed Apr. 25, 1996.

PERIOD OF RECORD.--Jan. 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.19 ft below land-surface datum, Jan. 25, 1952;

lowest measured, 86.42 ft below land-surface datum, Jan. 17, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	84.62	84.69	84.75	84.80		---	---					
10	84.64	84.69	84.72	84.77		---	---					
15	84.64	84.73	84.80	84.73		---	---					
20	84.62	84.75	84.79	---		84.79	---					
25	84.66	84.71	84.82	---		84.81	---					
ECM	84.68	84.71	84.73	---		84.82	---					

WTR YEAR 1996 HIGHEST 84.57 OCT 1,3,4, 1995 LOWEST 84.96 JAN 15, 1996

340732103145001. Local number, 02S.35E.23.11113.

LOCATION.--Lat 34°07'32", long 103°14'50", Hydrologic Unit 12050001. Owner: Herman Gras.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 10 in., depth 80 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,961 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 1.5 in. shaft hole, in center of pump, 2.80 ft above land-surface datum.

PERIOD OF RECORD.--July 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.32 ft below land-surface datum, Mar. 27, 1951;

lowest measured, 56.33 ft below land-surface datum, Aug. 8, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 10	57.58
Aug. 8	57.59

340753103083101. Local number, 02S.36E.14.31111.

LOCATION.--Lat 34°07'53", long 103°08'31", Hydrologic Unit 12050001. Owner: Rogers.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 16 in., depth 151 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,938 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.37 ft above land-surface datum, Jan. 6, 1975;

lowest measured, 79.44 ft below land-surface datum, July 25, 1990.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 9	79.06
Aug. 8	pumping

340844103055001. Local number, 02S.37E.07.432222.

LOCATION.--Lat 34°08'44", long 103°05'50", Hydrologic Unit 12050001. Owner: Rogers.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 13.5 in., depth 204 ft, cased to 204 ft, perforated 151-204 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,982 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Edge of recorder shelter, 3.00 ft. above land-surface datum.

REMARKS.--Recorder installed June 2, 1992. Lost record, due to recorder malfunction.

PERIOD OF RECORD.--June 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 103.78 ft below land-surface datum, June 2 1992;

lowest measured, 126.82 ft below land-surface datum, Aug. 16, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	119.19	118.99	118.78	118.02	117.57				---	123.42	126.09	123.06
10	119.22	118.97	118.56	118.15	118.31				---	125.35	126.10	123.99
15	119.14	119.70	118.49	118.00	117.59				---	125.36	---	123.19
20	119.05	119.09	118.42	117.85	117.43				---	126.00	124.25	123.34
25	119.22	118.98	118.36	117.74	117.35				123.84	126.06	123.53	123.04
ECM	119.02	118.74	118.19	117.71	120.77				122.28	126.08	123.20	123.06

WTR YEAR 1996 HIGHEST 117.35 FEB 2, 1996 LOWEST 126.82 AUG 16, 1996

## GROUND-WATER LEVELS

ROOSEVELT COUNTY  
Causey-Lingo Area

334700103030601. (formerly 335655103032001) Local number, 06S.38E.21.233131.  
 LOCATION.--Lat 33°47'00", long 103°03'11", Hydrologic Unit 12050001. Owner: C. C. Harvey.  
 AQUIFER.--Undifferentiated Cretaceous rocks.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 140 ft, cased to 140 ft, casing slotted 100-140 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 3,939 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of 1 in. hole in north side of pump, 2.10 ft above land-surface datum.  
 REMARKS.--"p" means well pumping during measurement.  
 PERIOD OF RECORD.--Jan. 1956 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 87.18 ft below land-surface datum, Jan. 13, 1956; lowest measured, 115.21p ft below land-surface datum, Aug. 11, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 10	92.40
Aug. 8	95.52

SANDOVAL COUNTY  
Bernalillo Area

352121106285501. (formerly 352235106282401) Local number, 13N.04E.12.112.  
 LOCATION.--Lat 35°22'35", long 106°28'24", Hydrologic Unit 13020201. Owner: John Bowers.  
 AQUIFER.--Valley Fill  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 12 in., depth 50 ft, cased.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 5,117 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Lower inside edge of hole in south side of casing 0.45 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1976 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.57 ft below land-surface datum, July 18, 1991; lowest measured, 25.27 ft below land-surface datum, Jan. 31, 1978.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb.	not measured
July 30	26.67

SAN JUAN COUNTY  
San Juan Basin

364534108292701. Local number, 29N.15W.02.232.  
 LOCATION.--Lat 36°57'34", long 108°92'27", Hydrologic Unit 14080105. Owner: Myrl Harper.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table well, diameter 10 in., depth 37 ft, cased to 37 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 5,045 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.05 ft above land-surface datum.  
 PERIOD OF RECORD.--Apr. 1992 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.53 ft below land-surface datum, July 30, 1996; lowest measured, 10.04 ft below land-surface datum, Feb. 22, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 22	10.04
July 30	7.53

364744108225001. Local number, 30N.15W.23.4411.  
 LOCATION.--Lat 36°47'44", long 108°22'50", Hydrologic Unit 14080105. Owner: B.L.M.  
 AQUIFER.--Pictured Cliffs Sandstone.  
 WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in., depth 729.5 ft, cased to 729.5 ft, perforated 613-729.5 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 5,290 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.00 ft above land-surface datum.  
 PERIOD OF RECORD.--Feb. 1978 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 123.75 ft below land-surface datum, Feb. 21, 1978; lowest measured, 161.45 ft below land-surface datum, July 30, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 22	159.39
July 30	161.45

## GROUND-WATER LEVELS

SANTA FE COUNTY  
Estancia Valley

350534106024801. (formerly 350525106025001) Local number, 10N.08E.13.1332.  
 LOCATION.--Lat 35°05'34", long 106°02'48", Hydrologic Unit 13050001. Owner: W. R. Irby.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., reported depth 513 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,274 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Lower inside edge of hole in south side of casing, 0.45 ft above land-surface datum.  
 PERIOD OF RECORD.--Feb. 1950 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.75 ft below land-surface datum, Feb. 22, 1950;  
 lowest measured, 181.55p ft below land-surface datum, Aug. 4, 1969.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 21	145.89
Aug. 1	pumping

350344106004601. (formerly 350340106005001) Local number, 10N.09E.29.1334.  
 LOCATION.--Lat 35°03'44", long 106°00'46", Hydrologic Unit 13050001. Owner: Phil Wallen.  
 AQUIFER.--Glorieta Sandstone of Permian age.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 14 in., reported depth 200 ft, cased to 140 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,248 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top edge of 3 in. pipe on north side of pump, 1.30 ft above land-surface datum.  
 PERIOD OF RECORD.--Feb. 1949 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 55.00 ft below land-surface datum, May 4, 1949;  
 lowest measured, 133.50 ft below land-surface datum, Aug. 1, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 21	pumping
Aug. 1	133.50

350859106002901. Local number, 11N.09E.29.143.  
 LOCATION.--Lat 35°08'59", long 106°00'29", Hydrologic Unit 13050001. Owner: King Bros.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 15 in., depth unknown.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,274 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.80 ft above land-surface datum.  
 PERIOD OF RECORD.--July 1986 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.93 ft below land-surface datum, Apr. 1, 1987;  
 lowest measured, 137.55 ft below land-surface datum, Aug. 1, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 21	136.83
Aug. 1	137.55

## Santa Fe Area

353636106021001. Local number, 16N.08E.13.444.  
 LOCATION.--Lat 35°36'36", long 106°02'10", Hydrologic Unit 13020201. Owner: Harold Nelson.  
 AQUIFER.--Tesuque Formation of Santa Fe Group.  
 WELL CHARACTERISTICS.--Drilled domestic well, diameter 6 1/2 in., depth 337 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,400 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.70 ft above land-surface datum.  
 PERIOD OF RECORD.--Feb. 1972 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 256.04 ft below land-surface datum, Jan. 20, 1982;  
 lowest measured, 263.54 ft below land-surface datum, Feb. 15, 1994.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 14	262.54
Aug.	not measured



## GROUND-WATER LEVELS

SANTA FE COUNTY  
Santa Fe Area

353516106035801. Local number, 16N.08E.26.32112.

LOCATION.--Lat 35°35'16", long 106°03'58", Hydrologic Unit 13020201. Owner: State Highway Dept.

AQUIFER.--Tesuque Formation of Santa Fe Group.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 10 in., depth 160 ft, cased to 160 ft, perforated 125-160 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 6,285 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.25 ft above land-surface datum.

REMARKS.--Records good.

PERIOD OF RECORD.--July 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.62 ft below land-surface datum, June 11, 1973; lowest measured, 130.80 ft below land-surface datum, Jul. 10, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	130.36	130.37	130.42	130.44	130.52	130.48	130.56	130.50	130.53	130.59	130.57	130.59
10	130.35	130.40	130.40	130.42	130.55	130.50	130.45	130.54	130.54	130.60	130.57	130.61
15	130.33	130.42	130.40	130.44	130.51	130.50	130.49	130.51	130.55	130.61	130.55	130.65
20	130.31	130.41	130.41	130.50	130.53	130.51	130.42	130.53	130.54	130.60	130.56	130.63
25	130.34	130.36	130.46	130.36	130.48	130.51	130.50	130.51	130.55	130.52	130.57	130.58
EOB	130.34	130.38	130.35	130.44	130.49	130.52	130.47	130.54	130.59	130.54	130.58	130.63

WTR YEAR 1996 HIGHEST 130.27 OCT 3, 1995 LOWEST 130.80 JUL 10, 1996

353735105581201. (formerly 353753105580501) Local number, 16N.09E.10.42114.

LOCATION.--Lat 35°37'53", long 105°58'05", Hydrologic Unit 13020201. Owner: Paul Ragel.

AQUIFER.--Ancha Formation of Santa Fe Group.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 6 in., depth 243 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,820 ft above National Geodetic Vertical Datum of 1929.

Measuring point: 1/2 in. plug in cover plate, 6.00 ft below land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 149.52 ft below land-surface datum, Dec. 11, 1957; lowest measured, 230.44 ft below land-surface datum, Aug. 22, 1994.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 14	229.30
Aug.	not measured

354013105580601. (formerly 354005105574501) Local number, 17N.09E.27.441.

LOCATION.--Lat 35°40'05", long 105°57'45", Hydrologic Unit 13020201. Owner: U.S. Indian School.

AQUIFER.--Tesuque Formation of Santa Fe Group.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 8 in., depth 989 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,848 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing 2.70 ft below land-surface datum.

PERIOD OF RECORD.--Dec. 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 102.33 ft below land-surface datum, Dec. 27, 1951; lowest measured, 231.17 ft below land-surface datum, Feb. 14, 1996.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 14	231.17
Aug.	not measured

SIERRA COUNTY  
Hot Springs Area

331002107150001. Local number, 13S.04W.21.213.

LOCATION.--Lat 33°10'02", long 107°15'00", Hydrologic Unit 13030101. Owner: Unknown.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 13 in., depth unknown.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,355 ft above National Geodetic Vertical Datum of 1929.

Measuring point: 1 in. hole in west side of pump base, and 1.50 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.84 ft below land-surface datum, July 27, 1992; lowest measured, 65.56 ft below land-surface datum, Feb. 25, 1972.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 9	49.16
Aug. 30	45.06

## GROUND-WATER LEVELS

SIERRA COUNTY  
Hot Springs Area

325921107185101. (formerly 325550107184001) Local number, 15S.05W.24.312.  
 LOCATION.--Lat 32°59'20", long 107°18'40", Hydrologic Unit 13030101. Owner: William M. Dawson.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth and casing information not available.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,279 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.20 ft above land-surface datum.  
 PERIOD OF RECORD.--May 1974 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.97 ft below land-surface datum, July 27, 1992;  
 lowest measured, 41.97 ft below land-surface datum, Feb. 29, 1984.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 9	38.47
Aug. 30	40.65

## Rincon Valley

325340107183001. (formerly 325350107175501) Local number, 16S.05W.25.211.  
 LOCATION.--Lat 32°53'35", long 107°17'55", Hydrologic Unit 13030102. Owner: U.S. Government.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 10 in., depth 32 ft, cased to 32 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,198 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 3.00 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1961 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.29 ft below land-surface datum, Feb. 12, 1987;  
 lowest measured, 25.95 ft below land-surface datum, Jan. 6, 1966.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 9	16.26
Aug. 30	18.76

TAOS COUNTY  
Sunshine Valley

365035105360501. (formerly 365036105355301) Local number, 30N.13E.18.1121.  
 LOCATION.--Lat 36°50'35", long 105°36'05", Hydrologic Unit 13020101. Owner: U. S. Government.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 10 in., depth 500 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 7,597 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 2.00 ft above land-surface datum.  
 PERIOD OF RECORD.--Sep. 1973 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.50 ft below land-surface datum, Jan. 16, 1994;  
 lowest measured, 77.33 ft below land-surface datum, Aug. 9, 1978.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 16	68.68
Aug. 5	68.67

365644105363501. (formerly 365650105370001) Local number, 01S.74W.24.244.  
 LOCATION.--Lat 36°56'44", long 105°36'35", Hydrologic Unit 13020101. Owner: Dimmitt.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 270 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 7,620 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing 3.00 ft above land-surface datum.  
 REMARKS.--Lost record due to recorder malfunction.  
 PERIOD OF RECORD.--June 1955 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 182.78 ft below land-surface datum, Jan. 17, 1996  
 lowest measured, 213.53 ft below land-surface datum, Aug. 10, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	183.94	183.87	183.70	183.47	183.87	183.31	183.72	183.67	183.80	183.86	183.83	183.78
10	184.17	183.39	183.89	183.60	183.73	183.87	183.42	183.74	183.87	183.95	183.99	184.07
15	184.19	183.97	183.77	183.68	183.66	183.48	183.71	183.67	183.82	183.91	184.01	183.79
20	184.16	183.98	183.45	183.34	183.48	183.69	183.40	183.52	183.83	183.94	184.01	183.98
25	183.96	183.84	183.82	183.10	183.28	183.43	183.50	183.87	184.02	183.94	183.94	183.83
EOB	183.68	183.76	183.13	183.21	183.47	183.66	---	183.68	184.07	184.00	183.83	184.02

WTR YEAR 1996 HIGHEST 182.78 JAN 17, 1996 LOWEST 184.39 OCT 20, 1995

## GROUND-WATER LEVELS

TAOS COUNTY  
Sunshine Valley

365410105345601. (formerly 365410105354501) Local number, 02S.73W.05.244.  
 LOCATION.--Lat 36°54'10", long 105°34'56", Hydrologic Unit 13020101. Owner: Bert Quintana.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table domestic and stock well, diameter 6 in., depth unknown.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 7,590 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: 1 in. hole in plate over casing, 1.00 ft above land-surface datum.  
 PERIOD OF RECORD.--Feb. 1974 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.86 ft below land-surface datum, Aug. 11, 1995;  
 lowest measured, 84.78 ft below land-surface datum, Jan. 27, 1977.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 16	66.94
Aug. 5	67.46

TORRANCE COUNTY  
Estancia Valley

343443106024401. Local number, 04N.09E.07.334.  
 LOCATION.--Lat 34°34'43", long 106°02'44", Hydrologic Unit 13050001. Owner: Franklin Development.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 16 in., reported depth 163 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,118 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Hole in northwest side of pump base, 1.50 ft above land-surface datum.  
 PERIOD OF RECORD.--Feb. 1956 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.70 ft below land-surface datum, Feb. 10, 1958;  
 lowest measured, 100.39 ft below land-surface datum, Aug. 24, 1995.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 21	94.10
Aug. 1	pumping

344016106070901. (formerly 344016106064701) Local number, 05N.08E.08.424.  
 LOCATION.--Lat 34°40'16", long 106°07'09", Hydrologic Unit 13050001. Owner: J. J. Spangler.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., reported depth 204 ft, cased to 98 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,218 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: 3/4 in. inch plug in south side of discharge pipe, 1.80 ft above land-surface datum.  
 PERIOD OF RECORD.--Mar. 1948 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.03 ft below land-surface datum, Mar. 23, 1948;  
 lowest measured, 129.74 ft below land-surface datum, Sep. 17, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 21	123.52
Aug. 1	pumping

344234106070601. (formerly 344234106074901) Local number, 06N.08E.32.212.  
 LOCATION.--Lat 34°42'34", long 106°07'06", Hydrologic Unit 13050001. Owner: Robert McMath.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 18 in., reported depth 209 ft, cased to 84 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,174 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of 1 1/2 in. hole in pump base, 0.04 ft above land-surface datum.  
 PERIOD OF RECORD.--Feb. 1947 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.22 ft below land-surface datum, Feb. 18, 1947;  
 lowest measured, 84.64 ft below land-surface datum, July 27, 1992.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 21	80.90
Aug. 1	pumping

## GROUND-WATER LEVELS

TORRANCE COUNTY  
Estancia Valley

344604105574601. (formerly 344622105575501) Local number, 06N.09E.11.211.  
 LOCATION.--Lat 34°46'04", long 105°57'46", Hydrologic Unit 13050001. Owner: Paragon Corp.  
 AQUIFER.--Valley Fill.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 18 in., reported depth 148 ft, cased to 140 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,086 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.75 ft above land-surface datum.  
 PERIOD OF RECORD.--May 1949 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.07 ft below land-surface datum, May 4, 1949;  
 lowest measured, 28.65 ft below land-surface datum, July 13, 1994.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 21	18.25
Aug. 1	19.97

344842106032701. Local number, 07N.08E.25.121.  
 LOCATION.--Lat 34°48'43", long 106°03'22", Hydrologic Unit 13050001. Owner: M. D. Brooks.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 16 in., depth 200 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,131 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 0.00 ft above land-surface datum.  
 REMARKS.--"s" indicates nearby well pumping.  
 PERIOD OF RECORD.--Feb. 1962 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.30 ft below land-surface datum, Feb. 7, 1962;  
 lowest measured, 65.71 ft below land-surface datum, May 21, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Feb. 21	55.76
Aug.	not measured

UNION COUNTY  
Clayton Area

355144103041201. (formerly 360940103083501) Local number, 19N.36E.23.244.  
 LOCATION.--Lat 35°51'44", long 103°04'12", Hydrologic Unit 11090102. Owner: Stevens.  
 AQUIFER.--Dakota and Purgatoire formation.  
 WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 14 in., depth 206 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,326 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.00 ft above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 145.22 ft below land-surface datum, Mar. 17, 1971;  
 lowest measured, 158.58 ft below land-surface datum, Aug. 19, 1987.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan.	not measured
July 24	150.36

## GROUND-WATER LEVELS

UNION COUNTY  
Clayton Area

361847103064701. (formerly 361910103170501) Local number, 24N.36E.17.244.  
 LOCATION.--Lat 36°18'47", long 103°06'47", Hydrologic Unit 11090103. Owner: Glen Burrows.  
 AQUIFER.--Ogallala formation.  
 WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 20 in., depth 231 ft.  
 INSTRUMENTATION.--Continuous strip-chart recorder.  
 DATUM.--Elevation of land-surface datum is 4,707 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, 1.95 ft above land-surface datum.  
 REMARKS.--Records good.  
 PERIOD OF RECORD.--May 1968 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 81.38 ft below land-surface datum, May 8, 1968;  
 lowest measured, 99.40 ft below land-surface datum, Sep. 27, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	98.38	98.36	98.43	98.50	98.54	98.58	98.77	98.86	98.93	99.11	99.20	99.29
10	98.40	98.31	98.54	98.45	98.56	98.73	98.70	98.93	98.96	99.17	99.20	99.30
15	98.38	98.41	98.47	98.46	98.57	98.64	98.79	98.93	98.97	99.11	99.19	99.23
20	98.35	98.45	98.44	98.50	98.55	98.65	98.74	98.96	99.04	99.15	99.23	99.30
25	98.35	98.40	98.50	98.45	98.60	98.68	98.87	98.88	99.07	99.15	99.22	99.25
ECM	98.34	98.39	98.40	98.47	98.59	98.69	98.81	98.91	99.08	99.18	99.24	99.34

WTR YEAR 1996 HIGHEST 98.27 OCT 4, 1995 LOWEST 99.40 SEP 27, 1996

362540103095001. Local number, 25N.35E.02.441.  
 LOCATION.--Lat 36°25'40", long 103°10'02", Hydrologic Unit 11090103. Owner: Bill Winchester.  
 AQUIFER.--Ogallala formation.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter unknown, depth 185 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,984 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Plugged hole in pump base, 1.70 ft above land-surface datum.  
 PERIOD OF RECORD.--Dec. 1965 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 91.14 ft below land-surface datum, Jan. 9, 1989;  
 lowest measured, 106.85 ft below land-surface datum, Feb. 2, 1971.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 24	95.82
July 24	98.45

363410103064801. Local number, 27N.36E.17.434.  
 LOCATION.--Lat 36°34'10", long 103°06'48", Hydrologic Unit 11100101. Owner: Paul Carter.  
 AQUIFER.--Ogallala formation.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 200 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,837 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing, north side, 1.20 ft above land-surface datum.  
 PERIOD OF RECORD.--Feb. 1967 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 81.16 ft below land-surface datum, Jan. 21, 1975;  
 lowest measured, 97.44 ft below land-surface datum, Jan. 26, 1993.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 23	96.26
July 24	94.89

## Capulin Area

364444104000201. (formerly 364430103595501) Local number, 29N.28E.18.341.  
 LOCATION.--Lat 36°44'44", long 104°00'02", Hydrologic Unit 11040001. Owner: City of Raton.  
 AQUIFER.--Cinders.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 78 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,820.8 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Edge of 2 in. hole in west side of steel plate, at land-surface datum.  
 REMARKS.--"p" indicates well pumping during measurement.  
 PERIOD OF RECORD.--July 1951, Aug. 1958 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.01 ft below land-surface datum, Feb. 8, 1974;  
 lowest measured, 53.38p ft below land-surface datum, Aug. 7, 1985.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
Jan. 23	34.88
July 24	34.07

## QUALITY OF GROUND WATER

EXPLANATION OF GEOLOGIC UNIT (AQUIFER) CODES (LISTED FROM YOUNGEST TO OLDEST AGE) U-UPPER, M-MIDDLE, L-LOWER:  
 000 EXRV-UNKNOWN, Extrusive Rocks; 110 AVMB-Cenozoic, Quaternary, Alluvium, Bolson Deposits and other Surface  
 Deposits; 110 BLSN-Cenozoic, Quaternary, Bolson Fill; 400 PCMB-Paleozoic, Precambrian, Precambrian Erathem.

REMARKS.--Ground Water sites in this table are segregated by county which appear alphabetically. The sites are  
 then listed in ascending well numbers that are explained at the beginning of this report.

## BERNALILLO COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)
10N.06E.31.323	350245106203001	001	GW	09-06-96	0900	273.00	7310	15	
10N.06E.07.422	350613106192301	001	GW	09-09-96	1200	--	6800	15	
11N.06E.27.342 VEENHUIS	350840106171601	001	GW	09-09-96	1015	320.00	6780	15	

LOCAL IDENT- I- FIER	DATE	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
10N.06E.31.323	09-06-96	10	810	7.3	17.5	14.0	380	66	98
10N.06E.07.422	09-09-96	10	876	7.4	18.0	20.0	270	0	71
11N.06E.27.342 VEE	09-09-96	10	1010	7.3	22.5	15.5	410	240	130

LOCAL IDENT- I- FIER	DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)
10N.06E.31.323	09-06-96	32	25	0.6	2.3	379	0	311	321
10N.06E.07.422	09-09-96	22	75	2	7.6	344	0	282	284
11N.06E.27.342 VEE	09-09-96	21	21	0.5	2.0	204	0	167	168

LOCAL IDENT- I- FIER	DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
10N.06E.31.323	09-06-96	69	38	0.40	18	473	<0.010	0.860	0.020
10N.06E.07.422	09-09-96	80	59	0.60	12	504	<0.010	1.60	0.030
11N.06E.27.342 VEE	09-09-96	100	140	0.20	19	566	<0.010	7.20	<0.015

LOCAL IDENT- I- FIER	DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	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)
10N.06E.31.323	09-06-96	<0.20	<0.010	0.010	1.5	1	61	<3.0	<1.0
10N.06E.07.422	09-09-96	<0.20	<0.010	<0.010	2.3	<1	125	<3.0	2.0
11N.06E.27.342 VEE	09-09-96	0.30	0.010	0.020	2.0	<1	61	<3.0	<1.0

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DONA ANA COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
25S.06E.19.443	320645106215101	013	GW	09-12-96	1000	--	--	--	--
22S.05E.28.234 T-34	322201106260201	013	GW	04-01-96	1420	110BLSN	400.00	290	--
22S.05E.28.142B T-37	322205106261801	013	GW	04-01-96	1500	110BLSN	--	253	--
22S.05E.28.142A T-35	322208106261401	013	GW	04-01-96	1345	110BLSN	--	250	--
22S.05E.28.122 T-29	322213106261301	013	GW	04-01-96	1300	110BLSN	--	248	--
21S.04E.14.114 (HTA-3)	322910106303601	013	GW	01-19-96	1050	400PCMB	157.00	--	5150
		013	GW	04-04-96	1040	400PCMB	157.00	--	5150
		013	GW	06-12-96	1430	400PCMB	157.00	--	5150
		013	GW	09-11-96	1515	400PCMB	157.00	--	5150
21S.04E.10.411B (HTA-11)	322941106311301	013	GW	01-18-96	1530	400PCMB	86.10	84	5690
		013	GW	04-03-96	1550	400PCMB	86.10	84	5690
		013	GW	06-12-96	1045	400PCMB	86.10	84	5690
		013	GW	09-11-96	1230	400PCMB	86.10	84	5690
21S.04E.10.411C (HTA-10A)	322941106311502	013	GW	01-19-96	0907	400PCMB	82.00	80	--
		013	GW	04-04-96	0930	400PCMB	82.00	80	--
		013	GW	06-12-96	1215	400PCMB	82.00	80	--
		013	GW	09-11-96	1330	400PCMB	82.00	80	--
21S.04E.10.322 (HTA-12)	322943106312301	013	GW	01-18-96	1207	400PCMB	157.10	155	5765
		013	GW	04-03-96	1400	400PCMB	157.10	155	5765
		013	GW	06-12-96	1330	400PCMB	157.10	155	5765
		013	GW	09-11-96	1400	400PCMB	157.10	155	5765

LOCAL IDENT- I- FIER	DATE	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
25S.06E.19.443	09-12-96	1000	1520	7.9	--	24.0	--	--	--	--
22S.05E.28.234 T-3	04-01-96	--	702	7.8	27.0	23.0	--	--	--	--
22S.05E.28.142B T-	04-01-96	--	527	7.9	25.0	23.5	--	--	--	--
22S.05E.28.142A T-	04-01-96	--	568	7.9	26.5	24.0	--	--	--	--
22S.05E.28.122 T-2	04-01-96	--	510	7.7	26.0	24.0	--	--	--	--
21S.04E.14.114 (HT	01-19-96	--	773	7.4	--	19.0	--	290	82	20
	04-04-96	--	775	7.3	--	19.0	0.91	290	83	19
	06-12-96	--	829	7.3	--	21.0	--	290	85	20
	09-11-96	--	799	7.2	--	21.0	--	280	81	19
21S.04E.10.411B (H	01-18-96	--	916	7.3	--	19.0	2.5	390	110	28
	04-03-96	--	945	7.2	--	19.5	1.6	370	100	28
	06-12-96	--	987	7.3	--	20.0	--	390	110	29
	09-11-96	--	956	7.2	--	20.0	--	360	100	27
21S.04E.10.411C (H	01-19-96	--	897	7.3	--	19.0	1.5	350	95	28
	04-04-96	--	906	7.4	--	19.0	3.6	390	110	27
	06-12-96	--	962	7.3	--	20.0	--	370	100	28
	09-11-96	--	931	7.3	--	20.0	--	350	96	27
21S.04E.10.322 (HT	01-18-96	--	964	7.2	--	18.5	0.39	400	110	30
	04-03-96	--	990	7.0	--	19.5	0.75	390	110	29
	06-12-96	--	1030	7.2	--	21.5	--	420	120	30
	09-11-96	--	994	7.2	--	20.0	--	390	110	29

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
DONA ANA COUNTY -- Continued

LOCAL IDENT- I- FIER	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- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
25S.06E.19.443	09-12-96	--	--	--	76	--	--	--	--
22S.05E.28.234 T-3	04-01-96	--	--	--	--	--	--	--	--
22S.05E.28.142B T-	04-01-96	--	--	--	--	--	--	--	--
22S.05E.28.142A T-	04-01-96	--	--	--	--	--	--	--	--
22S.05E.28.122 T-2	04-01-96	--	--	--	--	--	--	--	--
21S.04E.14.114 (HT	01-19-96	58	1	0.80	--	229	130	27	4.4
	04-04-96	57	1	0.80	--	229	130	26	5.5
	06-12-96	57	1	0.80	--	229	130	26	5.6
	09-11-96	58	2	1.0	--	228	130	28	5.3
21S.04E.10.411B (H	01-18-96	58	1	1.1	--	254	160	34	4.2
	04-03-96	58	1	1.0	--	254	170	34	5.1
	06-12-96	58	1	1.0	--	253	170	33	5.0
	09-11-96	57	1	1.2	--	254	170	32	4.7
21S.04E.10.411C (H	01-19-96	59	1	1.4	--	248	160	32	4.2
	04-04-96	57	1	1.2	--	248	160	33	5.1
	06-12-96	59	1	1.3	--	247	160	31	5.1
	09-11-96	59	1	1.5	--	248	160	32	4.8
21S.04E.10.322 (HT	01-18-96	65	1	1.3	--	284	200	33	3.8
	04-03-96	64	1	1.1	--	280	200	31	4.5
	06-12-96	66	1	1.2	--	280	200	31	4.9
	09-11-96	65	1	1.4	--	281	200	31	4.3

LOCAL IDENT- I- FIER	DATE	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)
25S.06E.19.443	09-12-96	--	--	--	--	--	--	--	--
22S.05E.28.234 T-3	04-01-96	--	--	--	--	--	--	--	--
22S.05E.28.142B T-	04-01-96	--	--	--	--	--	--	--	--
22S.05E.28.142A T-	04-01-96	--	--	--	--	--	--	--	--
22S.05E.28.122 T-2	04-01-96	--	--	--	--	--	--	--	--
21S.04E.14.114 (HT	01-19-96	0.32	24	510	484	20	<3.0	23	260
	04-04-96	0.31	25	508	484	40	3.0	21	260
	06-12-96	0.35	25	516	487	39	<3.0	23	260
	09-11-96	0.32	25	504	485	35	<3.0	23	260
21S.04E.10.411B (H	01-18-96	0.34	24	620	572	60	<3.0	16	270
	04-03-96	0.36	25	619	574	80	4.0	18	270
	06-12-96	0.28	26	596	584	66	<3.0	15	270
	09-11-96	0.41	25	574	570	60	<3.0	14	250
21S.04E.10.411C (H	01-19-96	0.37	24	606	553	70	<3.0	15	250
	04-04-96	0.39	25	600	568	70	3.0	11	240
	06-12-96	0.34	25	612	558	72	12	13	260
	09-11-96	0.37	25	574	555	65	<3.0	15	250
21S.04E.10.322 (HT	01-18-96	0.34	24	660	638	30	<3.0	19	290
	04-03-96	0.48	25	657	633	50	<3.0	16	280
	06-12-96	0.49	26	494	648	47	11	18	290
	09-11-96	0.32	25	642	635	40	<3.0	19	280



QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LINCOLN COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)
SOUTH MOUND SPRING NR OSCU	332420106173901	027	SP	07-31-96	1100	110AVMB	4830	7.0	33.0
DEAD ORYX MOUND SPRING NR	332501106171201	027	SP	07-31-96	1330	110AVMB	4930	8.5	38.0
WEST MOUND SPRING NR OSCUR	332508106173401	027	SP	08-01-96	1130	110AVMB	4600	7.0	36.0
MOUND SPRING (UPPER POND)	332535106170501	027	SP	08-01-96	1345	110AVMB	4970	6.9	33.0
NORTH MOUND SPRING NR OSCU	332606106172001	027	SP	08-01-96	1630	110AVMB	5430	--	34.5

LOCAL IDENT- I- FIER	DATE	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
SOUTH MOUND SPRING	07-31-96	22.0	22	656	1.7	2400	710	140	330
DEAD ORYX MOUND SP	07-31-96	25.0	6.6	655	7.7	2300	670	150	340
WEST MOUND SPRING	08-01-96	20.5	160	655	1.1	2200	660	140	300
MOUND SPRING (UPPE	08-01-96	19.5	19	654	2.3	2300	680	140	350
NORTH MOUND SPRING	08-01-96	27.0	2.0	652	7.7	2700	780	170	350

LOCAL IDENT- I- FIER	DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED AS SIO2) (00955)
SOUTH MOUND SPRING	07-31-96	3	4.9	120	1900	690	1.1	0.32	27
DEAD ORYX MOUND SP	07-31-96	3	4.8	58	2000	720	1.1	0.25	21
WEST MOUND SPRING	08-01-96	3	4.7	121	1900	600	1.2	0.32	28
MOUND SPRING (UPPE	08-01-96	3	4.6	115	1900	700	1.3	0.36	27
NORTH MOUND SPRING	08-01-96	3	6.4	47	2300	790	1.4	0.31	21

LOCAL IDENT- I- FIER	DATE	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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
SOUTH MOUND SPRING	07-31-96	4260	3890	0.220	0.120	0.340	0.200	<0.20	0.050
DEAD ORYX MOUND SP	07-31-96	4400	3950	--	<0.010	0.090	0.150	<0.20	<0.010
WEST MOUND SPRING	08-01-96	4080	3720	0.080	0.020	0.100	0.360	0.30	0.020
MOUND SPRING (UPPE	08-01-96	4300	3890	0.620	0.130	0.750	0.270	0.20	<0.010
NORTH MOUND SPRING	08-01-96	4620	4460	--	<0.010	<0.050	0.200	0.30	<0.010

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
LINCOLN COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)
SOUTH MOUND SPRING	07-31-96	<0.010	<1	15	224	<1.0	2.0	<1.0	240
DEAD ORYX MOUND SP	07-31-96	<0.010	<1	17	207	<1.0	2.0	<1.0	90
WEST MOUND SPRING	08-01-96	0.040	<1	17	193	<1.0	<1.0	<1.0	6000
MOUND SPRING (UPPE	08-01-96	<0.010	<1	10	204	<1.0	<1.0	<1.0	30
NORTH MOUND SPRING	08-01-96	<0.010	<1	19	237	<1.0	<1.0	<1.0	10

LOCAL IDENT- I- FIER	DATE	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)	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)
SOUTH MOUND SPRING	07-31-96	120	<4.0	43	6.0	<0.1	3	<1.0	9000
DEAD ORYX MOUND SP	07-31-96	<12	<4.0	53	12	<0.1	3	<1.0	9600
WEST MOUND SPRING	08-01-96	46	<4.0	49	13	<0.1	<1	<1.0	8400
MOUND SPRING (UPPE	08-01-96	<12	<4.0	52	<4.0	<0.1	3	<1.0	9200
NORTH MOUND SPRING	08-01-96	<15	<4.0	66	8.0	<0.1	1	<1.0	10000

LOCAL IDENT- I- FIER	DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	2, 4-DP TOTAL (UG/L) (82183)
SOUTH MOUND SPRING NR OSCU	07-31-96	1100	<0.010	<0.010	<0.010
DEAD ORYX MOUND SPRING NR	07-31-96	1330	<0.010	<0.010	<0.010
WEST MOUND SPRING NR OSCUR	08-01-96	1130	<0.010	<0.010	<0.010
MOUND SPRING (UPPER POND)	08-01-96	1345	<0.010	<0.010	<0.010
NORTH MOUND SPRING NR OSCU	08-01-96	1630	<0.010	<0.010	<0.010

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

OTERO COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	
	MALPAIS SPRING NR OSCURA,	331715106183301	035	SP	07-30-96	1345	110AVMB	6700	7.5	
LOCAL IDENT- I- FIER	DATE	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	
	MALPAIS SPRING NR	07-30-96	37.0	18.0	0.36	658	8.0	2300	660	160
LOCAL IDENT- I- FIER	DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	
	MALPAIS SPRING NR	07-30-96	680	6	8.2	54	1900	1300	1.2	0.39
LOCAL IDENT- I- FIER	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)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	
	MALPAIS SPRING NR	07-30-96	28	5200	4800	<0.010	3.20	0.160	<0.20	<0.010
LOCAL IDENT- I- FIER	DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	
	MALPAIS SPRING NR	07-30-96	<0.010	<1	13	258	<1.0	2.5	1.0	<10
LOCAL IDENT- I- FIER	DATE	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)	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)	
	MALPAIS SPRING NR	07-30-96	<15	<4.0	53	<5.0	<0.1	7	<1.0	12000
LOCAL IDENT- I- FIER	DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	2, 4-DP TOTAL (UG/L) (82183)					
	MALPAIS SPRING NR OSCURA,	07-30-96	1345	<0.010	<0.010	<0.010				

QUALITY OF GROUND WATER  
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996  
 RIO ARRIEA COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)
24N.07E.11.4331 SCHAFFER	361920106094301	039	GW	09-12-96	1000	300.00	6670	542	

LOCAL IDENT- I- FIER	DATE	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)
24N.07E.11.4331 SC	09-12-96	7.44	200	66	9.0	36	1	0.90	258

LOCAL IDENT- I- FIER	DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
24N.07E.11.4331 SC	09-12-96	26	4.6	0.70	33	331	5.0	19

## RIO GRANDE BASIN

## Rio Grande Seepage Investigation

REACH.--The seepage investigation was conducted along a 62.4-mile reach from the Rio Grande below Leasburg Dam near Radium Springs, New Mexico to the Rio Grande at El Paso, Texas (08364000). River miles are referenced upstream from the Rio Grande at El Paso, Texas; which is designated as river mile 1,249.9.

PREVIOUS INVESTIGATIONS.--A seepage investigation of the reach between the gaging station "below Caballo Dam" (08362500) and a site 0.3 mi upstream from the gaging station "at El Paso" (08364000) was conducted by the U.S. Geological Survey on February 12-13, 1974. A seepage investigation of the reach from mile 1,312.3 to 1,249.9 was conducted on January 5-6, 1988, January 10-11, 1989, January 9-10, 1990, January 8-9, 1991. A seepage investigation of the reach from mile 1,312.3 to 1,277.8 was conducted on December 17, 1991, and January 26-27, 1993.

DATE.--January 23-24, 1996.

WEATHER.--Weather was favorable for the seepage investigation; no precipitation occurred. Temperature extremes at Las Cruces, New Mexico ranged from a low of -7 degrees Celsius on January 24 to a high of 18 degrees Celsius on January 23.

STREAMFLOW.--The seepage investigation was conducted during a scheduled winter release from Caballo Reservoir of approximately 300 ft<sup>3</sup>/s. Discharge measurements indicate a net seepage loss of 67.3 ft<sup>3</sup>/s, from river mile 1,312.3 to river mile 1,249.9. Indicated gains and losses throughout the reach are shown in the following table. Tributary flow recorded as inflow is considered a contribution and not a gain; no outflow (diversions) occurred during the investigation. Evaporation from the water surface of the river in January is considered negligible.

REMARKS.--The seepage investigation is rated good based upon steady streamflow conditions. Recorded river stage in the Rio Grande at NM-227 Bridge near Vado, New Mexico (river mile 1,277.8), indicates steady stage with a slight change in gage-height from 0.09 feet on January 23 at 1630 to 0.07 feet on January 24 at 0910. Individual discharge measurements were rated good (within 5 percent) to fair (within 8 percent) throughout most of the stream reach. Recent channel excavation occurred from river mile 1,296.5 to river mile 1,293.2 and at river mile 1,259.3. The channel excavation resulted in poor channel conditions; altered streambed profiles may effect seepage results. Accuracy of discharge measurements needs to be considered when evaluating indicated gains and losses.

River mile	Stream	Location	Time	Water temp (°C)	Specific conduct- ance (uS/cm)	Discharge, in ft <sup>3</sup> /s		
						Main stream	Inflow	Gain or loss
January 23, 1996								
1,312.3	Rio Grande	Below Leasburg Dam near Radium Springs, NM Lat 32°28'41", long 106°55'10"	0930	4.6	802	313		--
1,310.2	Rio Grande	Near Leasburg, NM Lat 32°27'21", long 106°54'08"	1230	--	809	323		+10
*1,307.6	Selden Drain	Near Leasburg, NM Lat 32°25'38", long 106°52'50"	1300	--	--		0	--
1,306.3	Rio Grande	Near Hill, NM Lat 32°25'05", long 106°52'01"	1405	8.	833	353		+30
1,302.7	Rio Grande	At Shalem Bridge near Dona Ana, NM Lat 32°22'34", long 106°51'16"	1530	9.5	837	311		-42
*1,301.2	Wasteway no. 5	Near Dona Ana, NM Lat 32°22'14", long 106°50'14"	1555	--	--		0	--
1,298.8	Rio Grande	Near Picacho, NM Lat 32°20'18", long 106°50'09"	0945	4.0	834	342		+31
1,295.6	Rio Grande	Below Picacho Bridge near Las Cruces, NM Lat 32°17'45", long 106°49'25"	1125	5.4	833	336		-6
*1,295.4	Wastewater inflow	City of Las Cruces, NM Lat 32°17'35", long 106°49'26"	1100	17.9	1,280		1/18.0	--
1,293.1	Rio Grande	At NM-359 Bridge near Mesilla, NM Lat 32°15'49", long 106°49'29"	1405	8.3	869	288		-66
*1,291.8	Picacho Drain	Above Mesilla Dam Lat 32°14'34", long 106°48'56"	1640	7.8	1,440		2.64	--
1,291.7	Rio Grande	Below Picacho Drain Lat 32°14'30", long 106°48'49"	1530	8.6	881	341		+50.4
1,289.5	Rio Grande	Below Mesilla Dam Lat 30°13'17", long 106°47'15"	1140	7	850	315		-26
1,287.3	Rio Grande	At NM-28 Bridge near San Pablo, NM Lat 32°12'24", long 106°45'32"	0950	5.0	856	297		-18
*1,283.6	Santo Tomas River Drain	Near San Miguel, NM Lat 32°10'16", long 106°43'11"	--	--	--		0	--
1,282.7	Rio Grande	At NM-228 Bridge near San Miguel, NM Lat 32°09'43", long 106°42'58"	1430	7.5	855	310		+13
1,277.8	Rio Grande	At NM-227 Bridge near Vado, NM Lat 32°06'48", long 106°40'05"	1630	8	861	297		-13

River mile	Stream	Location	Time	Water temp (°C)	Specific conduct- ance (uS/cm)	Discharge, in ft <sup>3</sup> /s		Gain or loss
						Main stream	Inflow	
January 24, 1996								
1,277.8	Rio Grande	At NM-227 Bridge near Vado, NM Lat 32°06'48", long 106°40'05"	0910	1.8	862	306		--
*1,276.6	Del Rio Drain	Near Vado, NM Lat 32°06'09", long 106°39'27"	1045	5.9	1,310		25.6	--
1,273.8	Rio Grande	At NM-226 Bridge near Berino, NM Lat 32°03'56", long 106°39'45"	1155	4.0	906	337		+5.4
*1,271.6	La Mesa Drain	Near Chamberino, NM Lat 32°02'15", long 106°39'23"	1305	7.2	1,900		8.84	--
1,271.5	Rio Grande	Below La Mesa Frain near Chamberino, NM Lat 32°02'12", long 106°39'18"	1415	7.4	907	370		+24.2
1,268.5	Rio Grande	At NM-225 Bridge near Anthony, NM Lat 31°59'58", long 106°38'07"	0945	2.9	936	338		-32
1,268.5	Pipe Inflow	At NM-225 Bridge near Anthony, NM Lat 31°59'58", long 106°38'07"	0945	15.3	3,780		1/0.1	--
*1,265.4	East Drain	Near Vinton, Tx Lat 31°58'09", long 106°36'17"	1055	5.4	2,940		7.35	--
1,264.7	Rio Grande	At Vinton Bridge near Vinton, TX Lat 31°57'33", long 106°36'16"	1200	4.5	1,070	342		-3.4
1,261.6	Rio Grande	At TX-259 Bridge, Canutillo, TX Lat 31°54'54", long 106°36'06"	1430	6.4	980	330		-12
1,259.3	Rio Grande	At Borderland Bridge near Borderland, TX Lat 31°53'09", long 106°35'55"	1520	7.3	982	286		-44
1,256.2	Rio Grande	At TX-260 Bridge near Santa Teresa, NM Lat 31°50'46", long 106°36'18"	0950	3.3	987	329		+43
1,252.8	Rio Grande	Near Sunland Park, NM Lat 31°48'24", long 106°34'57"	1140	4.8	987	323		-6
*1,251.0	Wastewater Inflow	Sunlnad Plant, City of Sunland Park, NM Lat 31°45'55", long 106°33'25"	1445	19.0	1,480		1/2.17	--
1,250.9	Rio Grande	At Sunland Park Bridge, Sunland Park, NM Lat 31°47'56", long 106°33'16"	1410	7.3	988	324		-1.2
*1,250.3	Montoya Drain	Near Sunland Park, NM Lat 31°48'10", long 106°32'47"	1610	12.0	2,930		33.4	--
*1,250.1	Keystone Reservoir Outlet	Near El Paso, TX Lat 31°48'18", long 106°32'39"	1645	9.5	4,840		3/0.06	--
1,250.0	Temporary Well	Above Courchesne Bridge near El Paso, TX Lat 31°48'13", long 106°32'28"	1700	19.2	12,400		4/1.20	--
1,249.9	Rio Grande	At Courchesne Bridge, El Paso, TX Lat 31°48'09", long 106°32'26"	1730	7.9	1,270	354		-4.7

\* River mile at mouth of drain or point of discharge.

1/ Reported discharge

2/ Estimated discharge

3/ Storm drain inflow

4/ Temporary well inflow to the Rio Grande at left bank approximately 400 feet upstream from the Courchesne Bridge. Shallow wells were pumped for the purpose of dewatering at road construction sites along Doniphan Drive.

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