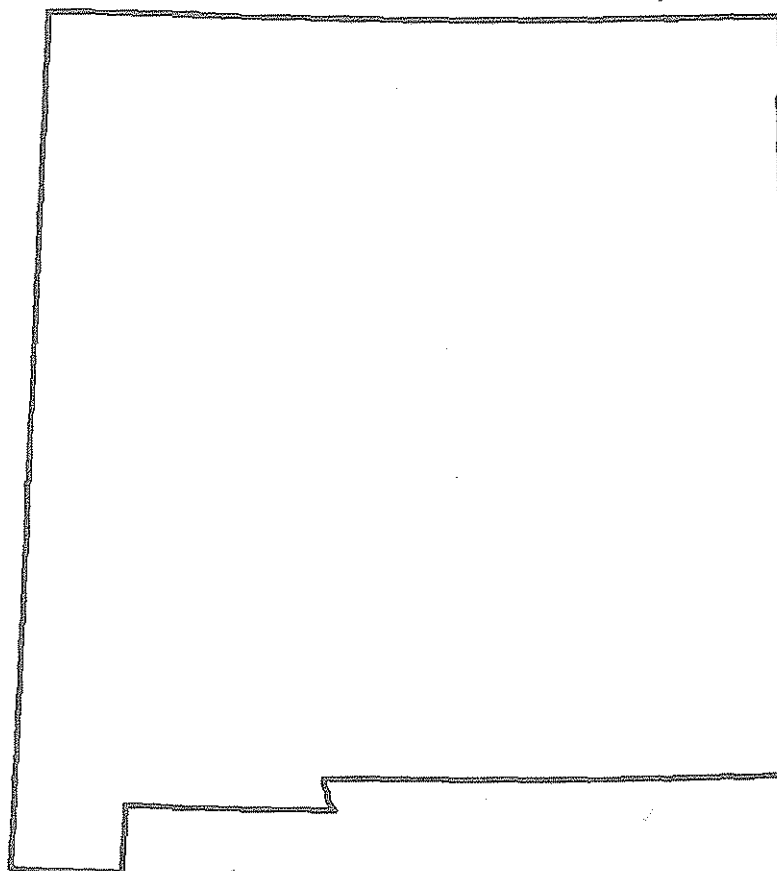




# Water Resources Data New Mexico Water Year 1993



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-93-1  
Prepared in cooperation with the State of New Mexico  
and with other agencies

# CALENDAR FOR WATER YEAR 1993

1992

OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12
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18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26
25	26	27	28	29	30	31	29	30						27	28	29	30	31		

1993

JANUARY							FEBRUARY							MARCH						
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17	18	19	20	21	22	23	21	22	23	24	25	26	27	21	22	23	24	25	26	27
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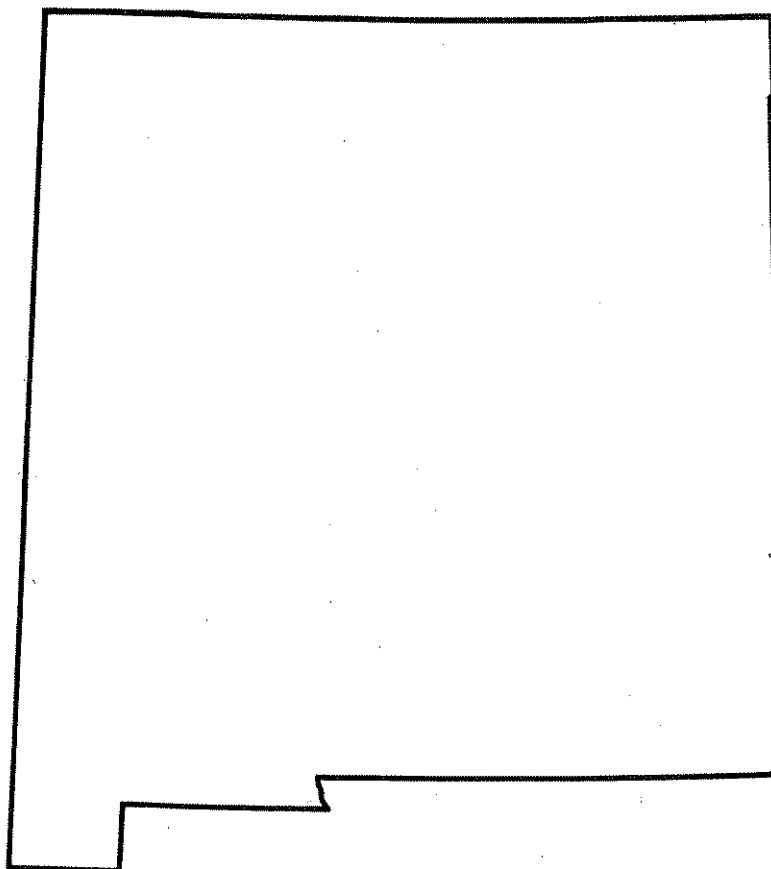
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18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26
25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30			
							30	31												

JULY							AUGUST							SEPTEMBER						
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11	12	13	14	15	16	17	15	16	17	18	19	20	21	12	13	14	15	16	17	18
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25	26	27	28	29	30	31	29	30	31					26	27	28	29	30		



# Water Resources Data New Mexico Water Year 1993

by R.R. Cruz, R.K. DeWees, D.E. Funderburg, R.L. Lepp, D. Ortiz  
and D. Shaul



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-93-1  
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and with other agencies

U.S. DEPARTMENT OF THE INTERIOR

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1994



## 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. The following individuals contributed significantly to the preparation of the publication manuscript for this report:

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This report was prepared in cooperation with the State of New Mexico and other agencies under the supervision of Russell K. Livingston, District Chief, New Mexico, and James F. Blakey, Regional Hydrologist, Central Region.

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## SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

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

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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
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
Coyote Creek above Guadalupita, NM	07217100	71	1956-74
Coyote Creek at Guadalupita, NM	07217500	90	1920-23

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
ARKANSAS RIVER BASIN -- Continued			
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	08254400		1987-88
Latir Creek Outflow Lake	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 Costella, NM	08256000	--	1944-92
Mesa ditch near Garcia, CO	08256500	--	1944-65, 1965-83
Middle ditch at Garcia, CO	08257000	--	1944-56
Cerro Canal at Costella, NM	08258000	--	1944-92
Association ditch at Costilla, NM	08258500	--	1955-71
Cerro Canal below Association Ditch at Costella, 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
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

## 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			
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
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
Hill Acequia at head, near Espanola, NM	08292500	--	1940-41

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
RIO GRANDE BASIN -- Continued			
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
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

## 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			
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
Rito de los Frijoles near Los Alamos, NM	08313300	8.9	1959-63
Rito de los Frijoles in Bandelier National Monument, NM	08313350*	17.5	1963-69, 1977-82
Cochiti East Side Main Canal near Cochiti, NM	08313500	--	1936-37, 1954-60
Sili Main Canal near Cochiti, NM	08314000	--	1937-39, 1954-60
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
Tijeras Arroyo at Albuquerque, NM	08330500*	75.3	1921-22, 1943-49
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
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

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
RIO GRANDE BASIN -- Continued			
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 Cabezon, NM	08333000	360	1943-51
Rio Puerco at Cabezon, 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 below Bluewater Dam, NM	08341500	201	1951-63
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
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
Paguato Creek near Laguna, NM	08349500	--	1937-41
Paguato Reservoir outlet near Laguna, NM	08350000	--	1940-41
Rio San Jose near Laguna, NM	08350500	3,040	1937-41, 1973-76
Mesita ditch near Laguna, NM	08351000	--	1936-41
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

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
RIO GRANDE BASIN -- Continued			
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
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

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
RIO GRANDE BASIN -- Continued			
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
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



## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

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Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
TULAROSA VALLEY -- Continued			
Rio Fresno 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 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
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
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

## DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
LITTLE COLORADO RIVER BASIN			
Puerco River near Church Rock, NM	09395350	193	1978-82, 1989-91
Puerco River at Gallup, NM	09395500*	558	1940-46, 1977-82
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
Canadian River near Taylor Springs, NM	07211500	2,850	b,c,s	1966-75
Conchas Canal below Conchas Dam, NM	07223300	--	c	1964-77
Canadian River at Logan, NM	07227000		c,t	1962-63
Plaza Largo canal below Barranca Creek near Tucumcari, NM	07227073	602	c	1965-66
Revuelto Creek below Plaza Largo Creek near Tucumcari, NM	07227080	672	c	1965-66
Canadian River near Glenrio, NM	07227125	--	c,s,t	1965-66
Canadian River above New Mexico-Texas State Line	07227140	12,616	b,c,s	1969-73; 1975-86
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
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
Willow Creek near Park View, NM	08284500	193	c,s	1962-65
Rio Chama below Heron Dam, NM	08284540	--	c,s	1973-74

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

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
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 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
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 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 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
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
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

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
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 Orla, 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
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
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

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

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Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
Foster Canyon near Continental Divide, NM	09395381	16.8	c	1988
Puerco River at Gallup, NM	09395500	558	c,k,s,t	1975-77; 1979-84
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 FOR NEW MEXICO, WATER YEAR 1993

### 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 181 gaging stations and contents for 26 lakes and reservoirs; water quality for 51 gaging stations, 7 partial-record stations, and 97 wells; and water levels at 132 observation wells. Also included are 109 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. One seepage investigation was made during the year. 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 ground water 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, E.L. Martinez, State Engineer.

New Mexico Interstate Stream Commission, E.L. Martinez, Secretary.

Pecos River Commission, W.E. Hale, Federal representative and Chairman;  
Walter Gerrells, Commissioner for New Mexico;  
Brad Newton, Commissioner for Texas.

New Mexico State Highway and Transportation Department, Louis Medrano, Secretary.

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

Costilla Creek Compact Commission, E.L. Martinez, 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, Alfredo Chavez Jr., Mayor.

City of Raton, Michael Colangelo, Mayor.

Village of Ruidoso, Ronald Wicker, 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 25 gaging stations; by the Bureau of Reclamation, U.S. Department of Interior, for 7 gaging stations; by the Bureau of Indian Affairs, U.S. Department of Interior, for 15 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 FOR NEW MEXICO, WATER YEAR 1993  
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.

An abundance of precipitation in the early months of water year 1993 created a potential for greatly increased streamflows in all parts of the State. The possibility of severe flooding in many areas was being predicted by forecasters in January. For example, at the beginning of January in the Pecos River basin precipitation was 124 percent of average for the water year-to-date (October to December), the Rio Grande basin had recorded 115 percent of average for the water year-to-date, and in the San Francisco/Upper Gila River basin recorded precipitation was 133 percent of average for the water year-to-date. The forecasters worst fears were realized in the Gila River basin, where January rain storms, accounting for 250 percent of normal fell on the mid and low elevation snowpack. The result was a series of catastrophic floods in the area. This trend of precipitation falling as rain did not, thankfully, occur in other areas of the State. Precipitation, though greater than average in most parts of the State through February, fell as snow in those areas and did not contribute significantly to streamflow. Precipitation in March decreased greatly to less than average for the month in most areas. This decreasing trend continued into the Spring and on to the end of the water year 1993. The precipitation for all of water year 1993 in New Mexico was generally near normal to slightly below normal.

Streamflow in New Mexico has been near normal or greater than normal since 1979. Normal streamflows in evidence at the end of water year 1992 increased slightly in most areas at the beginning of water year 1993. Specifically, discharges recorded in October on the Pecos (station 08378500), Delaware (station 08408500), and Gila (station 09430500) Rivers were 93, 73, and 96 percent of normal respectively. During the subsequent winter months, when discharges generally decline, discharges at most reporting stations remained at near normal levels with one major exception. Severe flooding began in late December and continued into January in the Gila River basin. In December streamflow at the gaging station, Gila River at Gila, recorded discharges of 332 percent of normal, increasing to 1558 percent of normal in January, and decreasing back to 309 percent of normal by March. Spring runoff amounts from April through June were well above normal at most recording stations in the State. The flood potential for the Spring predicted by forecasters failed to materialize due to a combination of fortunate natural circumstances. First, increased wind activity across the State sublimated much of the snowpack. Combined with this was a cycle of cold nights and warm days that tended to regulate the melting of the remaining snowpack. Lastly, rainfall dropped below normal during the Spring. Streamflows remained above normal at most recording stations through the summer and into the end of the water year 1993. Specifically, discharges recorded in June and September were 136 and 134 percent of normal for the Pecos River (station 08378500) and 195 and 122 percent of normal for the Gila River (station 09430500). A major exception to this trend was streamflow recorded at the Delaware River (station 08408500) which was only 6 and 13 percent of normal in June and September.

Discharges for water year 1993 at four index streamflow-gaging stations compared with median annual discharge for water years 1962-91 at the same stations are listed below:

Station number	Station name	Median annual discharge in acre-ft	Annual mean discharge in acre-ft	1993 discharge as a percentage of median
		water years 1962-91	water year 1993	
08276500	Rio Grande below Taos Junction Bridge	517,900	687,600	133
08378500	Pecos River near Pecos	66,870	103,000	154
08408500	Delaware River near Red Bluff	5,330	1,290	24
09430500	Gila River near Gila	108,000	310,100	287

Reservoir storage of the State's surface waters at the beginning of water year 1993 ranged from near to less-than-normal levels. These levels varied slightly for most reservoirs during the water year. One exception was the combined storage at El Vado Reservoir which decreased from 53 percent to 29 percent of capacity from October to January and then increased dramatically to 94 percent in May. By September El Vado was down to 69 percent of capacity. To a lesser extent storage varied at Heron Lake from 79 percent to 99 percent of capacity during water year 1993.

The combined storage of 13 major reservoirs in the State increased by 313,700 acre-feet during water year 1993 totaling 5,092,000 acre-feet by September 30, 1993. The total combined capacity of these 13 reservoirs is 8,530,000 acre-feet.

Surface-Water Quality

Dissolved-solids concentrations 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 1993 at selected daily stations compared with median values of specific conductance for water years 1983-92 at the same stations are listed below:

Station number	Station name	Median specific conductance, in microsiemens per centimeter at 25 °Celsius		1993 median as a percentage of 1983-92 median
		water years 1983-92	water year 1993	
08313000	Rio Grande at Otowi Bridge	319	323	101
08330000	Rio Grande at Albuquerque	395	374	95
08354900	Rio Grande FW at San Acacia	620	545	88
08396500	Pecos River near Artesia	7,090	5,290	75
09364500	Animas River at Farmington	527	512	97



Suspended-sediment loads for water year 1993 at three index stations compared with median suspended-sediment loads for water years 1982-91 at the same stations are listed below:

Station number	Station name	Median suspended-sediment load, in tons		1993 load as a percentage of 1982-91 median
		water years 1982-91	water year 1993	
08313000	Rio Grande at Otowi	1,463,300	1,362,724	94
08330000	Rio Grande at Albuquerque	609,550	447,479	74
08396500	Pecos River near Artesia	331,055	237,052	72

#### 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. Nineteen 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 Bench-Mark Network includes 57 sites in small drainage basins around the country whose purpose is to provide hydrologic and water-quality data for basins in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins that have been developed, and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin. Included in this program are stations 08377900, Rio Mora near Terrero; and 09430600, Mogollon Creek near Cliff.

National Stream-Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in national or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the USGS Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are: (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used; (2) to describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs; (3) to detect changes or trends with time in the pattern of occurrence of water-quality characteristics; and (4) to provide a nationally consistent data base useful for water-quality assessment and hydrologic research. Included in this network are stations 07227140, Canadian River above New Mexico-Texas State line; 08251500, Rio Grande near Lobatos, CO; 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08358300, Rio Grande Conveyance Channel at San Marcial; 08358400, Rio Grande Floodway at San Marcial; 08364000, Rio Grande at El Paso, TX; 08370500, Rio Grande below Old Fort Quitman, TX; 08384500, Pecos River below Sumner Dam; 08407500, Pecos River near Red Bluff; 08477110, Mimbres River at Mimbres; 08481500, Tularosa Creek near Bent; 09364500, Animas River at Farmington; 09368000, San Juan River at Shiprock; and 09431500, Gila River near Redrock.

National Water-Quality Assessment Program (NAWQA) is a nationwide program that began full-scale implementation by the U.S. Geological Survey in 1991. The long term goals of the NAWQA program are to describe the status and trends in the quality of a large, representative part of the Nation's surface-water, and ground-water resources and to provide a sound, scientific understanding of the primary natural and human factors affecting the quality of these resources. The principle building blocks of the NAWQA program are the study-unit investigations on which national-level assessments are based. Study unit-investigations are comprehensive and include information on water, sediment, biota, and aquatic and terrestrial habitats within its boundaries. Of the 60 study unit-investigations that comprise the NAWQA program a major part of one, the Rio Grande Valley NAWQA, is located in New Mexico. Water-quality data collected at selected surface-water monitoring sites of the Rio Grande Valley NAWQA are published in this report.

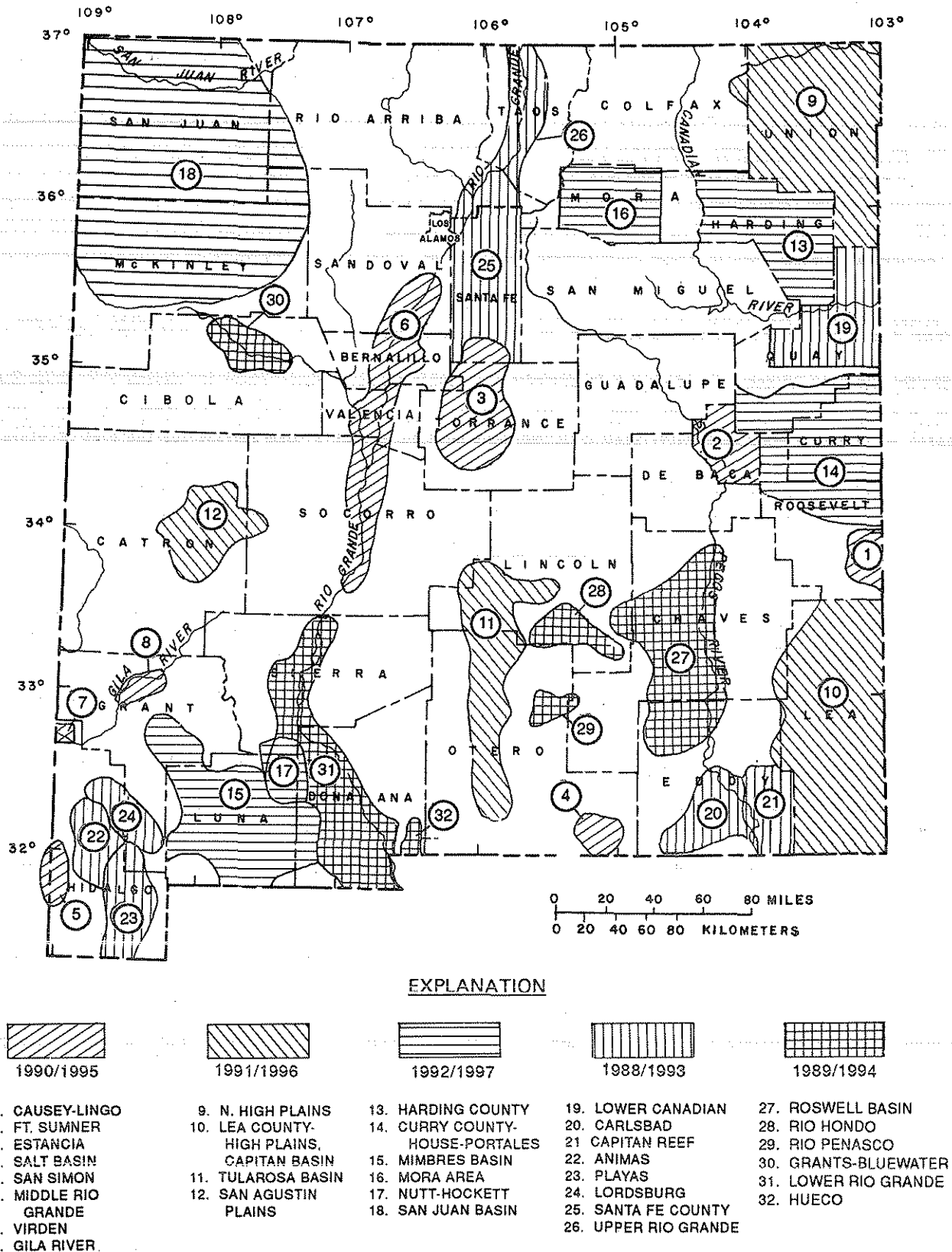
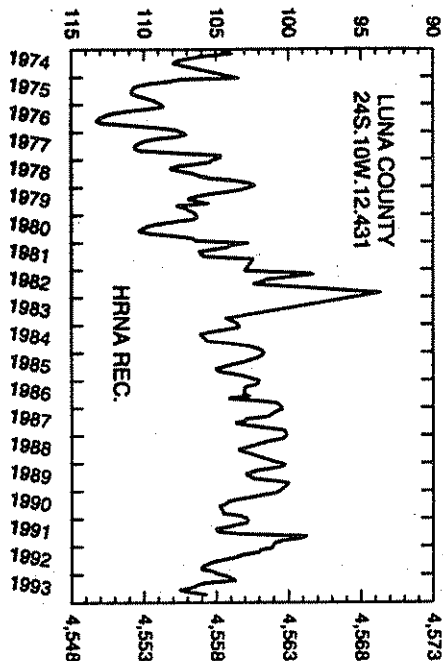
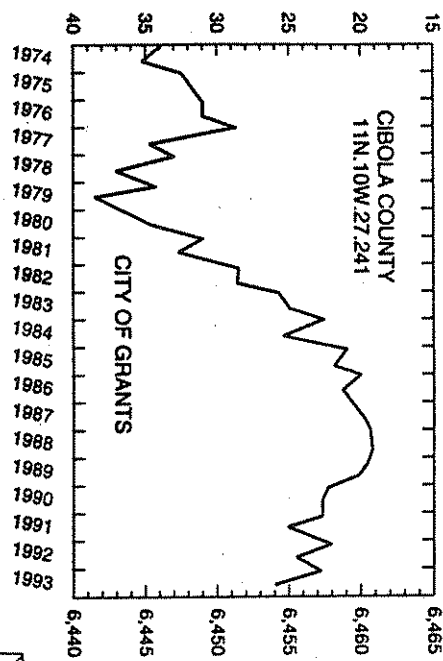


Figure 1.--Areas of 5-year ground-water-level monitoring and years measured or scheduled for measurement.

WATER LEVEL, IN FEET  
BELOW LAND SURFACE



WATER LEVEL, IN FEET  
BELOW LAND SURFACE

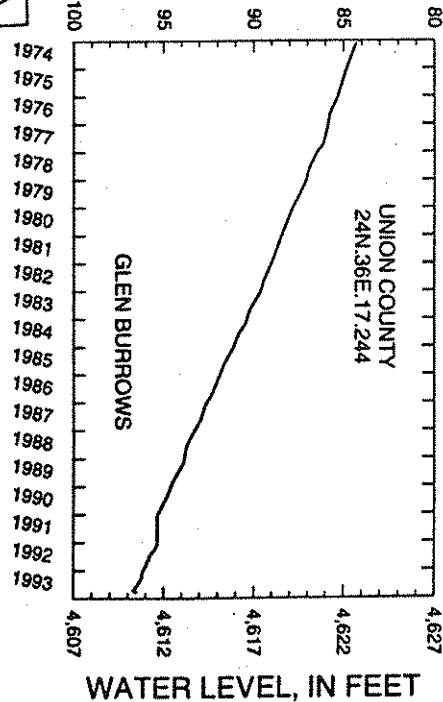
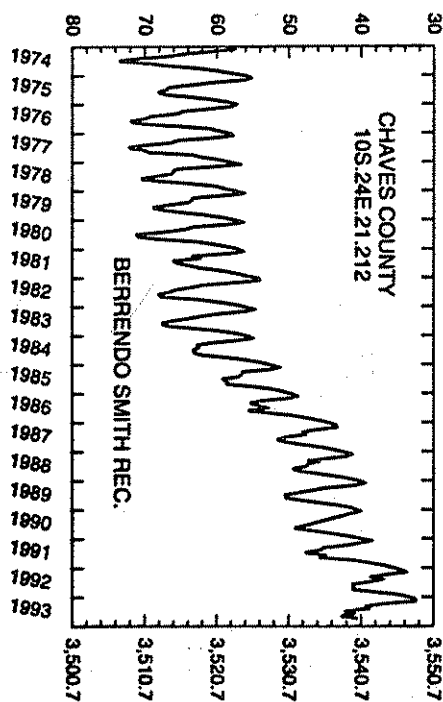


WATER LEVEL, IN FEET  
ABOVE SEA LEVEL

WATER LEVEL, IN FEET  
ABOVE SEA LEVEL

WATER LEVEL, IN FEET  
BELOW LAND SURFACE

WATER LEVEL, IN FEET  
BELOW LAND SURFACE



WATER LEVEL, IN FEET  
ABOVE SEA LEVEL

WATER LEVEL, IN FEET  
ABOVE SEA LEVEL

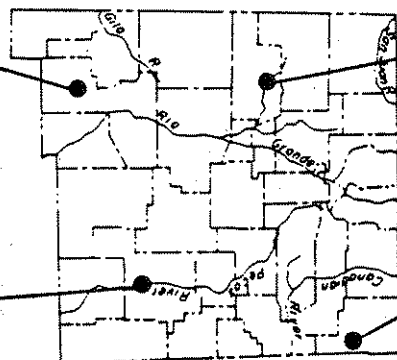


Figure 2.--Ground-water-level trends for the last 20 years or period of record.

## WATER RESOURCES DATA FOR NEW MEXICO, WATER YEAR 1993

Surveillance network stations are surface-water stations selected for water-quality examinations for water-quality control purposes. These stations are usually located at key regulatory streamflow-gaging stations or near the State lines. Data for major inorganic constituents, nutrients, dissolved oxygen, and bacteria are collected at all these stations. Data for trace elements, radiochemicals, and pesticides are collected at some of these stations. Included in this network are stations 07221500, Canadian River near Sanchez; 08276500, Rio Grande below Taos Junction Bridge, near Taos; 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08319000, Rio Grande at San Felipe; 08331000, Rio Grande at Isleta; 08354800, Rio Grande Conveyance Channel at San Acacia; 08354900, Rio Grande Floodway at San Acacia; 08358300, Rio Grande Conveyance Channel at San Marcial; 08358400, Rio Grande Floodway at San Marcial; 08383500, Pecos River near Puerto de Luna; 08386000, Pecos River near Acme; 08396500, Pecos River near Artesia; and 09368000, San Juan River at Shiprock.

Tritium network is a network of stations 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.

## EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1992 water year, which began October 1, 1991, and ended September 30, 1992. 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.

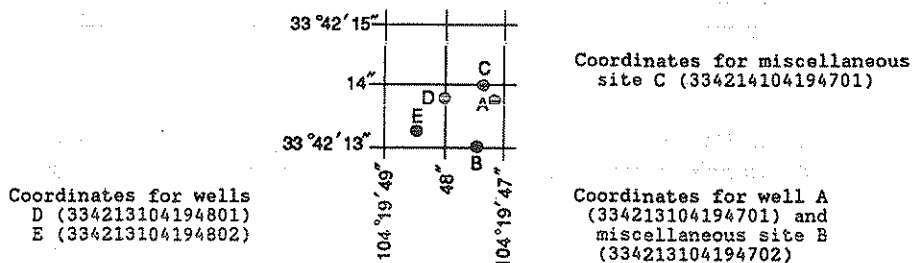


Figure 3.--System for numbering wells, springs, and miscellaneous sites.

## 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

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.

## WATER RESOURCES DATA FOR NEW MEXICO, WATER YEAR 1993

**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.

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

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, 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.



## 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.



## 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

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 RESOURCES DATA FOR NEW MEXICO, WATER YEAR 1993

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.

## 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 National Water-Data STOrage and RETrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices. (See address given on the back of the title page.)

General inquiries about WATSTORE may be directed to:

Chief Hydrologist, U.S. Geological Survey, MS 437, National Center Reston, Virginia 22092

## 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 FOR NEW MEXICO, WATER YEAR 1993

## 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.

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.

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.

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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:

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

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

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

Periphyton 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.

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.

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.

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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 emersed 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 planimeted. All areas shown are those for the stage when the planimeted 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.

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 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.

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, Books and Open-File Reports Section, Federal Center, Box 25425, 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."

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Applications of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. McCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W. Scott Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.
- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and Warren E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by moving-boat method*, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A12. *Fluorometric procedures for dye tracing*, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 41 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

# **PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued**

- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathburn, N. Yotsukura, G.W. Parker, and L.L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.
- 3-A19. *Levels of streamflow gaging stations*, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G.D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-B4. *Regression modeling of ground-water flow*, by Richard L. Cooley and Richard L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 90 pages.
- 3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H.P. Guy and V.W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-B2. *Storage analyses for water supply*, by H.C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M. J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Purdic: USGS--TWRI Book 6, Chapter A2. 1991. 368 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 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.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

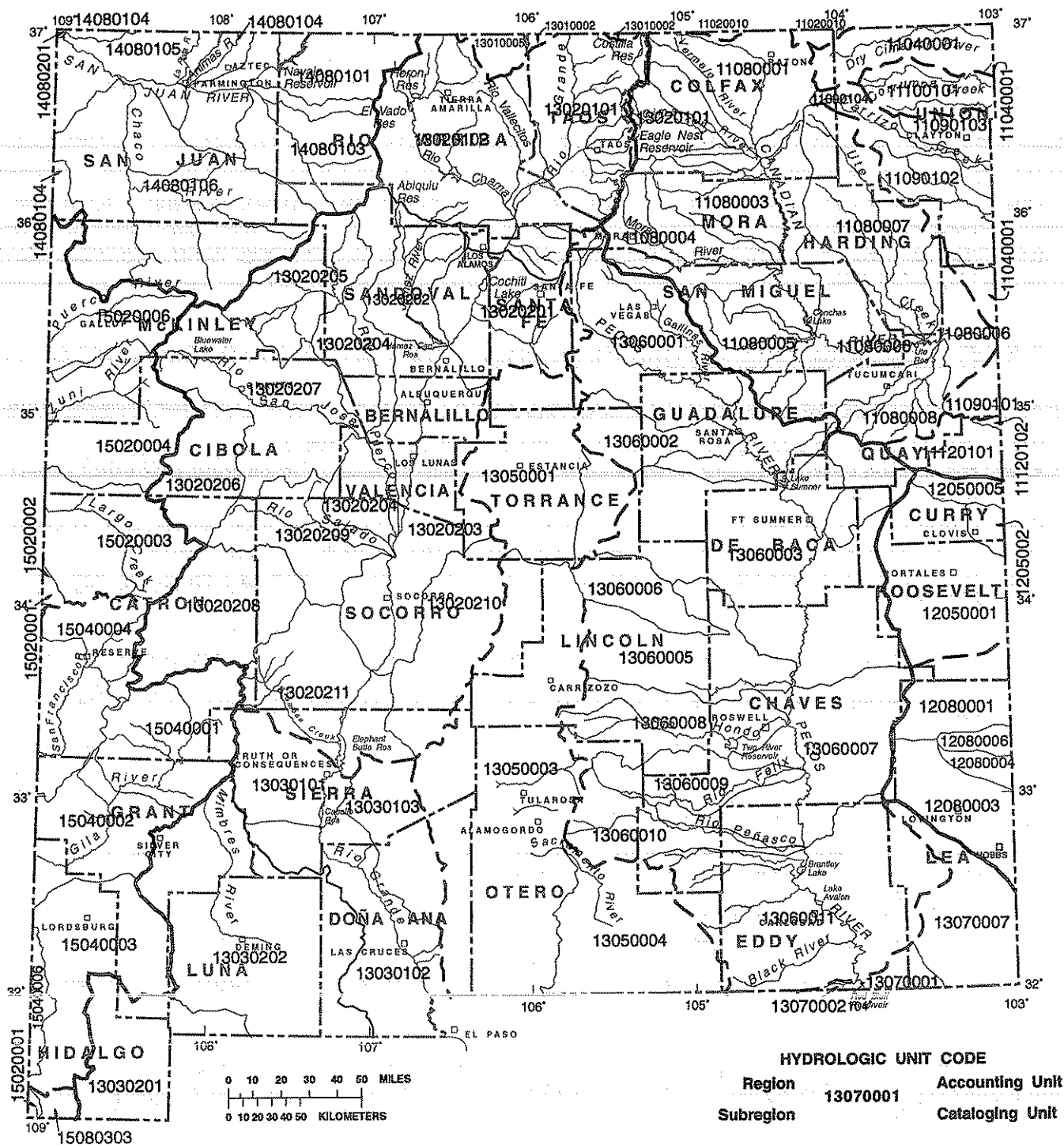
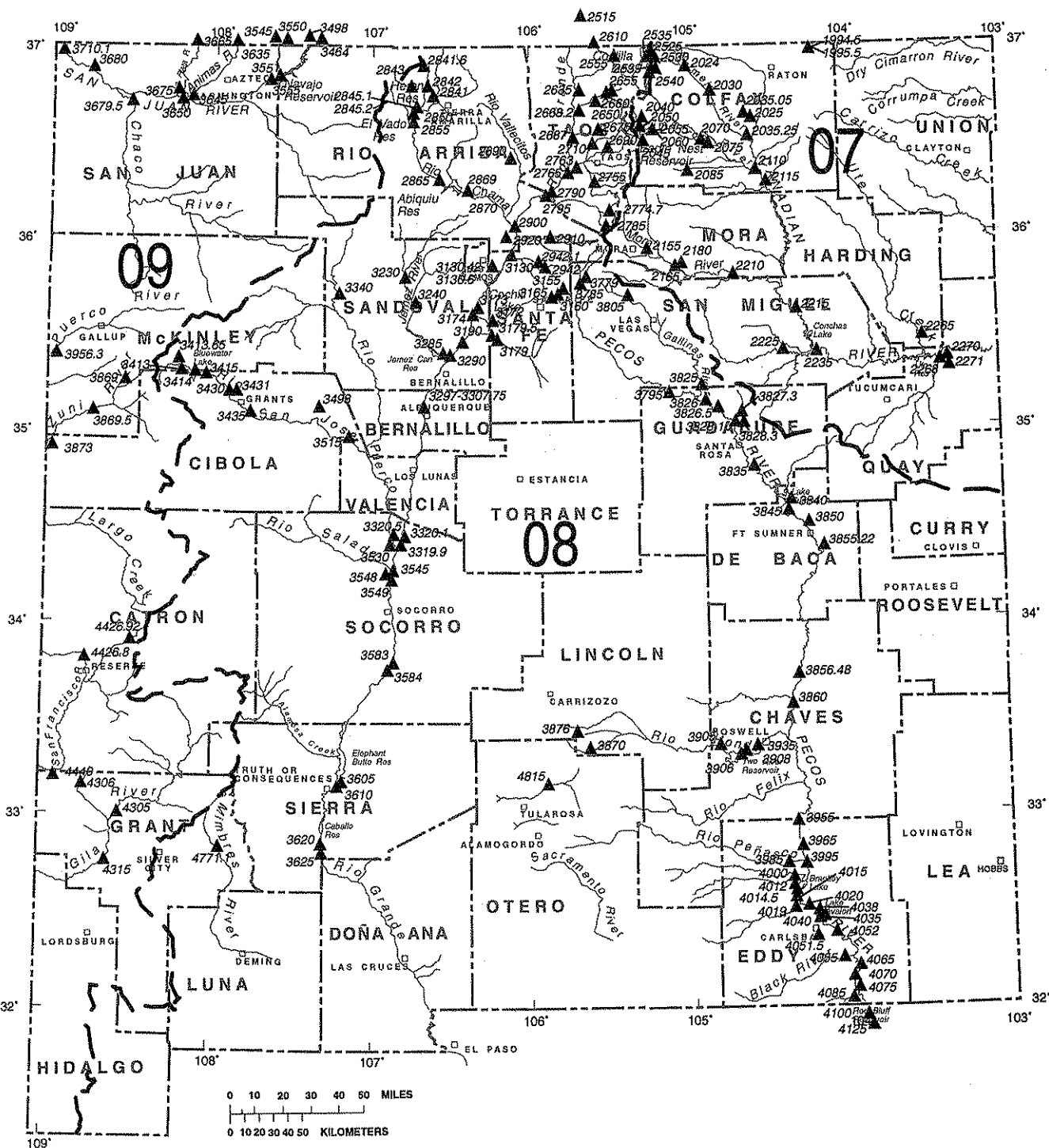


Figure 4.--Location of hydrologic units.



U.S. Geological Survey base

**EXPLANATION**

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

4014.5 ▲ 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.

<u>BASIN AND STATION NUMBER</u>	<u>STATION AND SAMPLING FREQUENCY</u>
07 LOWER MISSISSIPPI RIVER BASIN NUMBER	CHEMICAL QUALITY:   ▲ Daily                      ▲ Other than daily
08 WESTERN GULF OF MEXICO BASIN NUMBER	SUSPENDED SEDIMENT: ▲ Daily                      ▲ Other than daily
09 COLORADO RIVER BASIN NUMBER	CHEMICAL QUALITY AND SUSPENDED SEDIMENT: ▲ Both daily                  ▲ Both other than daily
— — RIVER BASIN BOUNDARY	
3307.75 ▲ STATION AND NUMBER-Number by symbol is abbreviated station number. Complete national station number is: 08 330775	▲ Daily chemical quality and other than daily suspended sediment        ▲ Daily suspended sediment and other than daily chemical quality
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, 7,512.18 ft, Apr. 30, 1987; minimum observed, 911 acre-ft, Feb. 28, 1979, elevation, 7,479.85 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,820 acre-ft, Apr. 13, elevation, 7,512.05 ft; minimum contents, 2,270 acre-ft, many days.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3630	3670	3690	3660	3690	3690	3750	3770	3730	3700	3600	3690
2	3630	3680	3690	3650	3690	3690	3760	3780	3720	3700	3600	3690
3	3630	3680	3690	3650	3680	3680	3750	3780	3720	3690	3600	3690
4	3630	3670	3690	3640	3680	3680	3760	3790	3710	3680	3610	3680
5	3630	3670	3690	3640	3670	3680	3760	3780	3720	3670	3620	3680
6	3620	3660	3690	3650	3670	3660	3770	3770	3710	3670	3630	3680
7	3630	3660	3690	3650	3660	3670	3760	3770	3710	3660	3630	3680
8	3630	3660	3690	3650	3660	3660	3750	3760	3710	3650	3630	3680
9	3630	3660	3690	3650	3660	3670	3760	3760	3710	3650	3630	3680
10	3640	3660	3690	3650	3650	3680	3770	3780	3710	3640	3640	3680
11	3640	3660	3690	3650	3650	3680	3790	3780	3710	3630	3630	3680
12	3650	3650	3690	3650	3650	3670	3790	3790	3710	3630	3630	3680
13	3650	3650	3690	3650	3640	3680	3780	3780	3710	3630	3630	3670
14	3650	3640	3680	3650	3640	3680	3770	3780	3710	3650	3640	3670
15	3660	3640	3690	3650	3630	3680	3760	3770	3710	3650	3640	3680
16	3650	3640	3680	3650	3630	3690	3750	3770	3720	3650	3640	3670
17	3660	3640	3680	3660	3630	3690	3760	3770	3720	3660	3640	3670
18	3660	3650	3670	3650	3630	3700	3770	3800	3720	3660	3640	3670
19	3660	3650	3670	3660	3640	3700	3770	3790	3720	3670	3640	3670
20	3660	3660	3660	3660	3640	3710	3760	3780	3720	3670	3640	3670
21	3670	3660	3660	3660	3650	3720	3760	3780	3720	3670	3640	3670
22	3670	3660	3660	3660	3650	3720	3770	3770	3720	3670	3640	3670
23	3670	3670	3660	3660	3660	3730	3810	3760	3710	3660	3640	3660
24	3670	3660	3660	3660	3660	3730	3790	3760	3710	3650	3640	3660
25	3670	3670	3660	3670	3660	3740	3780	3760	3710	3650	3640	3660
26	3660	3670	3660	3680	3660	3750	3800	3750	3710	3640	3640	3650
27	3660	3680	3660	3680	3670	3760	3800	3730	3710	3630	3660	3650
28	3660	3680	3670	3680	3670	3760	3810	3710	3710	3620	3680	3640
29	3660	3680	3670	3680	---	3760	3820	3720	3700	3610	3680	3650
30	3660	3680	3670	3680	---	3750	3790	3730	3700	3600	3680	3640
31	3670	---	3660	3690	---	3750	---	3730	---	3600	3680	---
MAX	3670	3680	3690	3690	3690	3760	3820	3800	3730	3700	3680	3690
MIN	3620	3640	3660	3640	3630	3660	3750	3710	3700	3600	3600	3640
(†)	7510.80	7510.95	7510.73	7510.97	7510.87	7511.50	7511.87	7511.32	7511.09	7510.21	7510.92	7510.56
(††)	+50	-10	-20	+30	-20	+80	+40	-60	-30	-100	+80	-40
(†††)	21	18	110	107	91	115	106	19	184	254	154	137
(††††)	100	0	0	0	0	0	0	0	0	0	0	0

CAL YR 1992 MAX 2530 MIN 2220 (††) +1240 (†††) 1205 (††††) 1128  
WTR YR 1993 MAX 3750 MIN 2270 (††) +20 (†††) 1316 (††††) 100

(†) 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

e Estimated

## 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 current year.

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, 73 acre-ft, Apr. 30, May 31, 1983, elevation, 7,090 ft; minimum observed, 0 acre-ft, Aug. , Sept. 1989, lake drained.

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30, 1992.....		0	0
Oct. 31.....		0	0
Nov. 30.....		0	0
Dec. 31.....		0	0
CAL YR 1992.....	-	-	0
Jan. 31, 1993.....		0	0
Feb. 29.....		0	0
Mar. 31.....	7,089.6	100	+100
Apr. 30.....	7,089.6	100	0
May 31.....	7,089.6	100	0
June 30.....		0	-100
July 31.....		0	0
Aug. 31.....		0	0
Sept. 30.....		0	0
WTR YR 1993.....	-	0	0



## ARKANSAS RIVER BASIN

07202400 VERMEJO RIVER AT VERMEJO PARK, NM

LOCATION.--Lat 37°57'28", long 105°07'25", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on left bank 0.2 mi upstream from Gold Creek, and 12 mi northwest of Vermejo Park.

DRAINAGE AREA.--36.7 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1985 to September 1993 (discontinued) (no winter record).

GAGE.--Water-stage recorder. Elevation of gage is 8,240 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 460 ft<sup>3</sup>/s, June 23, 1986, gage height, 4.21 ft, from rating curve extended above 60 cfs; minimum recorded, 2.9 ft<sup>3</sup>/s, Oct. 19, 1990.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	---	---	---	---	---	---	---	58	49	9.8	9.9
2	4.4	---	---	---	---	---	---	---	54	49	9.2	9.4
3	4.3	---	---	---	---	---	---	---	51	46	12	9.0
4	4.3	---	---	---	---	---	---	---	47	38	16	8.2
5	4.3	---	---	---	---	---	---	---	44	e33	11	7.9
6	4.5	---	---	---	---	---	---	---	41	e30	10	7.8
7	4.5	---	---	---	---	---	---	---	40	e27	9.8	8.9
8	4.3	---	---	---	---	---	---	---	37	e25	9.0	16
9	4.5	---	---	---	---	---	---	---	38	e23	8.5	8.8
10	4.5	---	---	---	---	---	---	---	38	e22	8.3	8.2
11	4.4	---	---	---	---	---	---	---	34	e21	8.2	8.2
12	4.3	---	---	---	---	---	---	---	31	e20	8.4	7.4
13	4.2	---	---	---	---	---	---	20	30	e20	13	9.1
14	4.1	---	---	---	---	---	---	22	30	18	11	11
15	4.1	---	---	---	---	---	---	26	30	18	9.1	9.2
16	4.2	---	---	---	---	---	---	33	30	16	8.4	8.4
17	4.1	---	---	---	---	---	---	60	31	16	8.5	7.8
18	4.1	---	---	---	---	---	---	58	31	16	8.3	7.5
19	4.2	---	---	---	---	---	---	58	34	15	9.9	7.2
20	4.1	---	---	---	---	---	---	60	37	15	9.1	7.1
21	---	---	---	---	---	---	---	70	46	14	8.7	7.0
22	---	---	---	---	---	---	---	76	50	12	9.7	7.0
23	---	---	---	---	---	---	---	70	42	11	7.9	6.7
24	---	---	---	---	---	---	---	66	48	11	7.4	6.4
25	---	---	---	---	---	---	---	72	45	11	7.2	6.2
26	---	---	---	---	---	---	---	93	57	10	12	6.2
27	---	---	---	---	---	---	---	89	49	9.7	24	5.9
28	---	---	---	---	---	---	---	81	52	9.7	24	5.9
29	---	---	---	---	---	---	---	71	52	9.4	14	5.8
30	---	---	---	---	---	---	---	63	50	9.2	13	5.6
31	---	---	---	---	---	---	---	60	---	11	12	---
TOTAL	85.8	---	---	---	---	---	---	1148	1257	635.0	337.4	239.7
MEAN	4.29	---	---	---	---	---	---	60.4	41.9	20.5	10.9	7.99
MAX	4.5	---	---	---	---	---	---	93	58	49	24	16
MIN	4.1	---	---	---	---	---	---	20	30	9.2	7.2	5.6
AC-FT	170	---	---	---	---	---	---	2280	2490	1260	669	475

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1993, BY WATER YEAR (WY)

	MEAN	5.35	---	---	---	---	---	9.66	28.7	25.3	16.0	11.8	7.04
MAX	6.53	---	---	---	---	---	---	55.5	71.2	61.0	30.8	18.9	10.2
(WY)	1986	---	---	---	---	---	---	1987	1987	1987	1986	1991	1991
MIN	3.91	---	---	---	---	---	---	5.96	7.53	7.29	5.84	5.10	4.04
(WY)	1990	---	---	---	---	---	---	1988	1988	1989	1989	1989	1989

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1986 - 1993

ANNUAL TOTAL	1948.3	3702.9	
ANNUAL MEAN	12.8	23.0	15.5
HIGHEST ANNUAL MEAN			34.6
LOWEST ANNUAL MEAN			5.73
HIGHEST DAILY MEAN	36	May 30	145
LOWEST DAILY MEAN	4.0	Sep 25	4.1
ANNUAL SEVEN-DAY MINIMUM	4.1	Oct 14	3.3
INSTANTANEOUS PEAK FLOW			460
INSTANTANEOUS PEAK STAGE			4.21
ANNUAL RUNOFF (AC-FT)	3860	7340	11230
10 PERCENT EXCEEDS	28	58	31
50 PERCENT EXCEEDS	9.9	12	9.7
90 PERCENT EXCEEDS	4.3	4.4	4.6
e Estimated			

## 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 fair 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	3.4	1.8	e9.8	e10	e15	.00	70	45	5.0	5.3	13
2	.29	2.9	2.0	e8.9	e8.0	e16	.00	69	44	3.6	7.9	11
3	.25	2.9	2.1	e8.1	e9.4	e16	.00	67	40	2.4	14	11
4	.22	3.5	.77	e7.4	e9.2	e17	.00	67	33	e1.0	9.5	8.6
5	.21	5.7	.82	e6.7	e9.5	e17	.00	66	29	e.80	37	6.0
6	.18	5.0	e1.1	e6.3	e10	e17	.00	66	25	e.70	37	5.2
7	.22	5.7	e1.0	e8.1	e10	e17	.00	60	22	e.70	20	7.0
8	.19	4.4	e1.0	e9.2	e12	e18	.00	63	19	e.70	9.5	9.3
9	.67	5.0	e1.3	e10	e14	e18	.00	90	17	e.70	12	6.3
10	1.2	5.8	e1.5	e11	e14	20	.00	90	28	e.70	6.3	4.5
11	1.1	7.7	e1.8	e10	15	20	.00	106	23	e.70	4.4	4.2
12	1.2	8.0	e2.5	e9.2	16	20	.00	121	20	e.70	3.9	4.8
13	1.6	6.9	e3.1	e8.6	15	19	.00	125	16	.62	3.9	3.9
14	1.3	7.4	e3.7	e7.8	e15	18	.00	124	15	.69	5.5	3.6
15	1.3	7.0	e4.0	e7.3	e15	18	.00	122	48	2.5	6.2	4.9
16	1.2	7.0	e4.3	e6.8	e15	19	.00	119	31	12	3.7	3.7
17	1.6	6.9	e4.7	e6.4	e15	20	.00	115	29	9.4	2.9	3.4
18	1.7	6.6	e5.0	e6.2	e16	19	.00	116	47	2.9	3.4	3.1
19	1.7	4.0	e5.5	e5.8	e16	14	.00	120	54	4.2	5.4	2.8
20	1.4	3.8	e6.0	e5.4	e15	.20	.00	122	52	10	9.6	2.4
21	1.0	5.6	e6.5	e5.0	e16	.00	.00	120	32	17	6.8	1.9
22	1.6	3.6	6.4	e4.7	e15	.00	.00	115	24	23	4.9	1.5
23	2.0	4.9	9.4	e4.6	e15	.00	.00	99	23	3.1	4.1	1.4
24	1.6	1.6	e8.5	e4.5	e14	.00	.00	73	22	2.3	3.7	1.1
25	1.2	2.1	e7.7	e4.3	e15	.00	.00	87	21	3.0	4.5	1.1
26	2.0	1.9	e7.5	e.50	e15	.00	29	103	20	2.4	6.9	1.0
27	1.7	1.7	9.1	e5.0	e14	.00	133	98	22	1.4	9.6	1.1
28	4.5	1.6	12	e9.0	e14	.03	118	79	19	.86	29	.85
29	3.2	1.9	15	e6.2	---	.00	66	61	12	1.3	31	.77
30	4.7	1.6	15	e10	---	.26	70	45	7.7	1.3	28	.79
31	4.0	---	12	e11	---	.04	---	42	---	1.2	21	---
TOTAL	45.28	136.1	163.09	223.80	377.1	338.53	416.00	2820	839.7	116.87	356.9	130.21
MEAN	1.46	4.54	5.26	7.22	13.5	10.9	13.9	91.0	28.0	3.77	11.5	4.34
MAX	4.7	8.0	15	11	16	20	133	125	54	23	37	13
MIN	.18	1.6	.77	.50	8.0	.00	.00	42	7.7	.62	2.9	.77
AC-FT	90	270	323	444	748	671	825	5590	1670	232	708	258

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1991, BY WATER YEAR (WY)

	MEAN	2.01	1.95	1.61	1.53	2.34	5.11	9.31	18.2	11.1	6.78	10.7	4.31
MAX	7.06	5.14	5.83	6.36	12.0	24.6	68.7	81.9	46.9	32.0	43.9	12.8	
(WY)	1985	1947	1947	1987	1987	1983	1984	1984	1949	1949	1951	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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1945 - 1991

ANNUAL TOTAL	3958.86	5963.58	
ANNUAL MEAN	10.8	16.3	6.66
HIGHEST ANNUAL MEAN			17.8
LOWEST ANNUAL MEAN			1.51
HIGHEST DAILY MEAN	86	133	217
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		153	
INSTANTANEOUS PEAK STAGE		3.51	
ANNUAL RUNOFF (AC-FT)	7850	11830	4820
10 PERCENT EXCEEDS	36	47	15
50 PERCENT EXCEEDS	4.6	6.2	1.0
90 PERCENT EXCEEDS	.67	.19	.00

e Estimated

## 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	e7.7	e13	e9.1	10	13	34	58	21	13	19
2	13	11	e8.2	e13	e8.5	9.8	12	34	54	20	11	19
3	13	12	e8.5	e12	e7.7	7.7	14	32	51	19	11	18
4	13	e10	e7.4	e11	e7.2	6.0	15	31	49	17	34	18
5	13	e8.2	e2.0	e10	e5.8	5.6	19	34	49	17	35	17
6	13	e9.6	e5.0	e9.0	e6.4	6.0	25	35	45	15	29	19
7	12	13	e4.9	e7.8	e7.5	6.7	24	34	40	14	15	18
8	11	14	e4.4	e8.3	e8.6	6.8	24	34	39	13	22	21
9	11	13	e4.3	e9.2	e8.3	5.6	24	34	38	13	20	20
10	10	11	e4.0	e11	e7.4	6.0	23	34	40	19	20	17
11	12	e10	e3.6	e13	e6.7	7.9	23	32	38	15	13	e16
12	12	e9.6	e4.4	e15	e6.4	8.7	22	32	36	18	9.0	e15
13	11	e9.0	e5.2	e11	e5.9	7.6	21	33	33	20	10	e14
14	10	e10	e4.4	e13	e5.4	8.4	22	35	33	18	25	e14
15	9.5	e9.7	e4.1	e14	e4.9	10	22	36	29	28	16	e13
16	9.9	e8.7	e3.6	e12	e4.5	8.8	21	40	27	33	11	e11
17	13	e8.0	e3.3	e11	e4.3	8.2	21	51	29	19	9.3	e11
18	16	e7.6	e2.8	e13	e6.0	8.3	20	62	44	19	9.5	e10
19	13	e6.7	e2.7	e11	13	8.2	19	70	35	16	12	e9.3
20	10	e6.4	e3.3	e9.1	11	8.5	18	64	54	20	15	e8.6
21	8.7	e6.2	e5.9	e7.5	9.9	9.1	18	76	48	17	33	9.2
22	8.3	e5.5	e9.0	e6.4	6.9	9.7	18	77	43	15	16	10
23	8.4	e5.0	e8.1	e5.9	5.4	8.7	18	72	33	11	13	8.3
24	9.5	e4.5	e6.9	e5.5	9.7	8.3	20	80	29	9.2	9.8	8.5
25	11	e3.8	e5.9	e5.3	7.6	8.3	23	76	29	7.8	5.8	7.3
26	11	e4.9	e6.8	e10	6.8	8.7	22	94	27	7.3	4.7	7.5
27	11	e5.0	e8.6	e13	7.4	14	22	79	25	5.8	26	7.6
28	11	e4.8	e11	e10	7.3	16	25	76	25	4.3	124	7.0
29	13	e5.6	e10	e8.2	---	14	29	73	24	3.3	36	6.2
30	13	e6.1	e12	e9.2	---	14	33	66	23	1.5	23	6.2
31	12	---	e13	e9.8	---	14	---	62	---	9.5	20	---
TOTAL	355.3	250.9	191.0	317.2	205.6	279.6	630	1622	1127	465.7	651.1	385.7
MEAN	11.5	8.36	6.16	10.2	7.34	9.02	21.0	52.3	37.6	15.0	21.0	12.9
MAX	16	14	13	15	13	16	33	94	58	33	124	21
MIN	8.3	3.8	2.0	5.3	4.3	5.6	12	31	23	1.5	4.7	6.2
AC-FT	705	498	379	629	408	555	1250	3220	2240	924	1290	765

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1993, BY WATER YEAR (WY)

	8.67	6.46	5.17	5.19	6.26	6.60	21.3	48.5	34.6	29.1	39.5	16.8
MEAN	8.67	6.46	5.17	5.19	6.26	6.60	21.3	48.5	34.6	29.1	39.5	16.8
MAX	51.6	30.5	15.7	15.5	16.7	34.8	370	372	179	138	147	78.4
(WY)	1942	1942	1916	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1916 - 1993

ANNUAL TOTAL	7884.2	6481.1	
ANNUAL MEAN	21.5	17.8	18.6
HIGHEST ANNUAL MEAN			89.0
LOWEST ANNUAL MEAN			2.05
HIGHEST DAILY MEAN	183	Aug 19	2340
LOWEST DAILY MEAN	2.0	Dec 5	.00
ANNUAL SEVEN-DAY MINIMUM	3.5	Dec 14	.00
INSTANTANEOUS PEAK FLOW		1020	12600
INSTANTANEOUS PEAK STAGE		6.44	15.25
INSTANTANEOUS LOW FLOW		.00	
ANNUAL RUNOFF (AC-FT)	15640	12860	13460
10 PERCENT EXCEEDS	48	35	44
50 PERCENT EXCEEDS	13	12	7.4
90 PERCENT EXCEEDS	6.7	5.6	1.7
e Estimated			

## 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 current year.

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 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	5.1	6.2	e3.3	e2.3	6.3	26	36	e52	12	12	e.00
2	4.8	5.4	7.7	e3.0	e2.7	5.6	7.2	36	e50	13	11	e.00
3	5.1	5.6	6.8	e2.8	e2.8	5.2	10	30	e47	20	e42	e.00
4	4.7	5.5	4.3	e2.4	e2.9	4.8	13	28	e45	e16	24	e.00
5	5.0	5.7	e2.0	e2.3	e3.0	3.9	15	30	e44	e16	e40	e.00
6	5.1	5.3	e3.9	e2.3	e3.0	3.9	24	33	50	e15	e30	e.00
7	5.4	5.2	e3.7	e2.3	e2.7	4.0	29	30	e35	e13	e20	e.00
8	6.2	e4.8	e3.4	e2.6	e2.3	4.1	30	31	e32	e13	e22	e.00
9	6.6	e4.4	e3.2	e3.0	e2.3	4.2	25	32	e30	e12	e20	e.00
10	5.3	e5.5	e3.0	e3.3	e2.0	4.4	24	32	e28	e14	e19	e.00
11	5.6	e4.7	e2.7	e3.7	e2.6	5.3	22	29	e28	e17	e14	e.00
12	5.8	e5.2	e2.6	e4.1	e3.5	6.6	20	30	e27	19	11	e.00
13	4.9	e5.9	e3.8	e4.5	e3.8	6.1	20	32	e27	e17	20	e.00
14	4.2	e5.6	e3.4	e4.9	e4.0	5.9	21	35	e27	e18	23	e.00
15	4.1	e4.9	e3.0	e4.6	e4.1	6.5	20	37	e26	e30	14	e.00
16	4.3	e4.5	e2.8	e4.0	e4.2	7.2	19	42	e26	e29	11	e.00
17	5.0	e4.5	e2.6	e3.3	e4.6	5.1	18	e42	e27	e22	13	.00
18	6.1	e4.9	e2.4	e2.7	4.8	.69	17	e51	e30	e19	11	e.00
19	5.6	e5.2	e2.2	e2.4	10	.27	15	e58	43	16	e58	e.00
20	4.8	e5.2	e2.0	e2.1	8.0	.09	15	e54	e40	19	34	e.00
21	4.4	e5.0	e1.9	e1.8	6.7	.03	14	e59	e48	18	27	e.00
22	4.2	e4.7	e1.9	e1.7	6.6	.01	14	e64	43	16	17	e.00
23	4.4	e4.4	e1.9	e1.6	5.6	.01	14	e63	15	13	15	1.4
24	4.6	e3.9	e2.0	e1.6	4.0	.00	15	e63	14	11	12	e7.7
25	5.0	3.1	e2.0	e1.4	4.9	.00	18	e67	14	9.9	11	e7.1
26	5.1	4.6	e2.2	e1.4	4.4	.00	17	e73	18	9.3	13	e7.1
27	4.8	3.5	e2.5	e1.4	4.4	.00	17	e70	14	8.0	64	e6.7
28	4.7	3.6	e2.8	e1.4	4.6	.00	19	e66	14	7.1	e99	e6.1
29	6.1	5.4	e3.5	e1.4	---	.00	22	e63	13	6.9	30	e6.0
30	6.4	5.5	e4.1	e1.4	---	.00	29	e58	13	5.5	15	e5.9
31	5.5	---	e3.9	e1.8	---	.00	---	e55	---	7.4	e.00	---
TOTAL	158.7	146.8	100.4	80.5	116.8	90.20	543.46	1429	920	464.1	752.00	48.00
MEAN	5.12	4.89	3.24	2.60	4.17	2.91	18.1	46.1	30.7	15.0	24.3	1.60
MAX	6.6	5.9	7.7	4.9	10	7.2	30	73	52	30	99	7.7
MIN	4.1	3.1	1.9	1.4	2.0	.00	.26	28	13	5.5	.00	.00
AC-FT	315	291	199	160	232	179	1080	2830	1820	921	1490	95

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1993, BY WATER YEAR (WY)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	9.74	7.85	5.07	3.87	4.61	9.31	21.0	29.8	30.7	22.9	28.9	15.3	
MAX	17.3	16.3	12.2	8.01	8.89	48.6	111	62.0	77.2	52.8	51.3	40.5	
(WY)	1987	1992	1992	1989	1983	1987	1985	1983	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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1981 - 1993

ANNUAL TOTAL	6435.6	4849.96	
ANNUAL MEAN	17.6	13.3	16.1
HIGHEST ANNUAL MEAN			26.9
LOWEST ANNUAL MEAN			8.48
HIGHEST DAILY MEAN	96	99	229
LOWEST DAILY MEAN	1.0	.00	.00
ANNUAL SEVEN-DAY MINIMUM	1.4	.00	.00
ANNUAL RUNOFF (AC-FT)	12770	9620	11680
10 PERCENT EXCEEDS	44	34	42
50 PERCENT EXCEEDS	8.2	5.6	8.0
90 PERCENT EXCEEDS	2.6	.27	1.8

e Estimated

## ARKANSAS RIVER BASIN

07203525 VERMEJO RIVER NEAR MAXWELL, NM

LOCATION.--Lat 36°29'48", long 104°34'15", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on right bank 30 ft upstream from bridge on Interstate Highway 25, 3.6 mi southwest of Maxwell, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--486 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,880 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Diversions for irrigation above 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	3.9	3.1	3.6	2.9	3.5	12	2.6	1.0	27	2.5	26
2	2.8	4.0	3.2	3.3	2.9	3.8	6.9	3.5	.87	25	2.8	25
3	2.7	4.2	3.3	3.2	3.0	3.5	6.2	3.0	.74	10	8.4	23
4	2.7	4.1	3.4	3.0	3.2	3.2	6.4	2.6	.70	3.5	35	19
5	2.7	4.1	3.8	2.9	3.2	3.1	5.7	2.2	.72	2.3	22	15
6	2.9	4.2	3.7	2.8	3.1	3.2	5.1	2.0	.62	1.8	60	17
7	3.1	4.1	3.6	2.9	3.1	3.0	3.7	1.8	.51	1.8	15	21
8	3.3	4.0	3.6	3.1	3.1	3.0	4.3	1.7	.45	1.6	7.9	21
9	3.5	4.0	3.5	3.6	3.4	2.9	4.4	1.6	.52	1.4	45	28
10	3.6	4.3	3.4	3.6	3.4	2.8	4.1	1.6	.74	1.7	9.7	23
11	3.7	5.9	3.8	2.9	3.2	2.9	3.2	1.5	.69	2.0	5.2	18
12	3.8	5.2	3.7	2.8	3.0	2.8	2.8	1.5	.90	1.7	4.3	15
13	3.7	4.9	4.7	3.1	2.9	2.8	2.6	1.5	.76	1.5	3.9	16
14	3.9	4.6	4.4	2.8	2.9	2.9	2.7	1.4	.67	1.5	6.7	19
15	4.1	3.8	3.3	2.8	3.3	3.2	2.8	1.8	.78	7.1	4.8	23
16	4.2	3.5	3.2	2.8	3.3	3.2	2.9	1.7	.81	63	3.8	21
17	4.3	3.4	3.0	3.0	3.2	3.1	2.8	1.8	.82	8.1	3.6	17
18	4.0	3.2	3.1	3.1	3.1	5.2	2.6	2.2	60	7.8	3.6	13
19	4.0	3.2	3.3	3.1	3.5	7.5	2.4	3.5	56	5.5	4.1	11
20	4.0	3.4	3.2	3.0	3.8	7.4	2.3	5.0	15	266	61	10
21	3.9	3.8	3.3	3.0	3.4	7.8	2.3	7.4	140	16	10	10
22	4.0	3.6	3.5	3.1	3.2	8.3	2.2	3.3	16	9.9	6.4	9.6
23	3.9	3.5	3.2	3.2	3.0	8.6	2.1	1.8	68	8.1	4.6	8.5
24	3.9	3.5	3.2	2.9	3.0	8.2	2.0	1.6	46	6.1	4.1	6.4
25	3.8	3.3	3.4	2.8	2.9	8.1	2.0	8.5	37	4.3	3.9	5.3
26	3.8	3.4	3.3	2.8	3.0	8.2	2.0	17	54	3.2	4.0	3.7
27	4.0	3.0	3.1	2.8	3.1	12	1.9	5.4	34	2.8	8.4	3.2
28	3.9	3.1	3.0	3.0	3.1	13	1.9	2.5	33	2.6	27	3.0
29	3.9	3.2	3.5	3.0	---	13	1.9	1.8	31	2.6	102	3.0
30	4.2	3.1	4.3	3.0	---	12	1.8	1.6	28	2.4	13	2.8
31	4.1	---	4.0	2.9	---	14	---	1.4	---	2.4	29	---
TOTAL	112.8	115.5	108.1	93.9	88.2	186.2	106.0	96.8	630.30	500.7	521.7	436.5
MEAN	3.64	3.85	3.49	3.03	3.15	6.01	3.53	3.12	21.0	16.2	16.8	14.5
MAX	4.3	5.9	4.7	3.6	3.8	14	12	17	140	266	102	28
MIN	2.4	3.0	3.0	2.8	2.9	2.8	1.8	1.4	.45	1.4	2.5	2.8
AC-FT	224	229	214	186	175	369	210	192	1250	993	1030	866

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1993, BY WATER YEAR (WY)

	MEAN	2.43	3.18	2.79	2.64	3.05	2.99	2.38	18.9	17.9	7.27	16.0	3.95
MAX	4.25	5.12	5.22	3.98	5.10	6.01	4.29	89.9	77.9	23.0	80.4	14.5	
(WY)	1985	1985	1985	1985	1985	1993	1987	1987	1987	1987	1992	1993	
MIN	.48	1.13	1.54	1.32	1.51	1.18	.59	1.63	.17	.19	.82	.29	
(WY)	1991	1991	1991	1984	1984	1991	1991	1986	1990	1990	1986	1990	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1984 - 1993

ANNUAL TOTAL	3544.51	2996.70	
ANNUAL MEAN	9.68	8.21	7.46
HIGHEST ANNUAL MEAN			19.2
LOWEST ANNUAL MEAN			1.85
HIGHEST DAILY MEAN	669	266	1060
LOWEST DAILY MEAN	.52	.45	.00
ANNUAL SEVEN-DAY MINIMUM	.68	.61	.00
INSTANTANEOUS PEAK FLOW		1530	7300
INSTANTANEOUS PEAK STAGE		6.91	9.49
INSTANTANEOUS LOW FLOW		.30	
ANNUAL RUNOFF (AC-FT)	7030	5940	5400
10 PERCENT EXCEEDS	5.2	17	6.5
50 PERCENT EXCEEDS	2.5	3.4	2.4
90 PERCENT EXCEEDS	1.4	1.8	.82

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.

PERIOD OF RECORD.--April 1928 to October 1955 and June 1964 to current year (no winter records except water year 1932). Monthly discharge only for some periods, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therna" 1928-34.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1993, BY WATER YEAR (WY)

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1928 - 1993	
ANNUAL MEAN					9.29	
HIGHEST ANNUAL MEAN					9.29	1932
LOWEST ANNUAL MEAN					9.29	1932
HIGHEST DAILY MEAN	20	May 1	58	May 17	189	Apr 23 1942
LOWEST DAILY MEAN	.52	Sep 14	.69	Jul 28	.00	Aug 4 1934
ANNUAL SEVEN-DAY MINIMUM	.60	Sep 8	.92	Jul 24	.00	Aug 28 1951
INSTANTANEOUS PEAK FLOW			60	May 17	240	Sep 1 1946
INSTANTANEOUS PEAK STAGE			2.65	May 17	3.55	May 12 1973
ANNUAL RUNOFF (AC-FT)					6730	
10 PERCENT EXCEEDS	16		45		20	
50 PERCENT EXCEEDS	1.9		3.2		2.0	
90 PERCENT EXCEEDS	.79		1.6		.20	

## 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 (no winter records except in water years 1932, 1948 and 1951). Monthly discharge only for some periods, published in WSP 1311 and 1731. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

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

GAGE.--Water-stage recorder. Concrete control since Sept. 25, 1947. 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. Diversions for irrigation of about 1,000 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	---	---	---	---	---	---	108	25	3.2	1.5	5.1
2	2.0	---	---	---	---	---	---	89	22	3.1	2.5	4.1
3	2.0	---	---	---	---	---	---	89	19	3.0	2.3	3.5
4	2.0	---	---	---	---	---	---	86	17	3.0	4.2	3.2
5	2.2	---	---	---	---	---	---	87	17	3.0	3.2	2.9
6	2.3	---	---	---	---	---	---	81	17	2.9	3.1	3.0
7	2.3	---	---	---	---	---	---	76	16	2.8	2.5	3.9
8	2.1	---	---	---	---	---	---	76	e15	2.7	2.3	3.5
9	2.2	---	---	---	---	---	---	73	e14	2.6	2.0	3.0
10	2.1	---	---	---	---	---	---	62	e13	2.5	1.9	2.8
11	2.1	---	---	---	---	---	---	56	e13	2.4	1.6	2.6
12	2.1	---	---	---	---	---	---	55	e13	2.9	1.5	2.6
13	2.1	---	---	---	---	---	47	64	e12	3.6	4.3	2.8
14	2.0	---	---	---	---	---	45	63	e12	2.6	15	4.6
15	2.0	---	---	---	---	---	50	66	e11	2.6	4.9	3.6
16	2.0	---	---	---	---	---	48	68	e11	2.3	3.1	3.1
17	2.1	---	---	---	---	---	44	81	e10	2.6	3.3	2.8
18	2.0	---	---	---	---	---	38	76	e10	3.5	4.1	3.3
19	2.1	---	---	---	---	---	42	70	e9.6	2.7	5.9	3.2
20	2.1	---	---	---	---	---	40	64	e9.1	3.1	15	3.3
21	2.1	---	---	---	---	---	41	59	e8.5	4.6	7.4	3.2
22	---	---	---	---	---	---	44	61	e8.1	3.0	7.6	3.1
23	---	---	---	---	---	---	55	54	6.6	2.4	5.3	3.1
24	---	---	---	---	---	---	64	48	5.9	2.2	4.0	2.9
25	---	---	---	---	---	---	52	46	5.5	1.9	3.4	2.8
26	---	---	---	---	---	---	54	47	5.3	1.9	3.8	2.9
27	---	---	---	---	---	---	70	41	4.9	1.8	5.6	2.9
28	---	---	---	---	---	---	86	39	4.1	2.2	6.2	2.9
29	---	---	---	---	---	---	102	38	3.6	2.4	6.4	2.9
30	---	---	---	---	---	---	118	33	3.6	2.3	4.9	2.8
31	---	---	---	---	---	---	---	28	---	1.9	7.0	---
TOTAL	43.9	---	---	---	---	---	1040	1984	341.8	83.7	145.8	96.4
MEAN	2.09	---	---	---	---	---	57.8	64.0	11.4	2.70	4.70	3.21
MAX	2.3	---	---	---	---	---	118	108	25	4.6	15	5.1
MIN	2.0	---	---	---	---	---	38	28	3.6	1.8	1.5	2.6
AC-FT	87	---	---	---	---	---	2060	3940	678	166	289	191

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1993, BY WATER YEAR (WY)

	MEAN	2.61	2.66	1.68	1.54	9.68	8.57	35.6	38.0	9.13	3.50	4.08	2.69
MAX	11.6	11.1	2.82	2.57	16.6	25.9	153	188	57.0	20.3	22.9	19.5	
(WY)	1942	1942	1943	1948	1932	1932	1942	1942	1965	1941	1991	1991	
MIN	.016	.073	.10	.50	2.76	.83	1.04	.97	.010	.000	.000	.010	
(WY)	1955	1955	1955	1932	1948	1955	1955	1972	1954	1954	1954	1954	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1928 - 1993

ANNUAL TOTAL	1585.4	3735.6	
ANNUAL MEAN	8.81	19.5	
HIGHEST ANNUAL MEAN			12.2
LOWEST ANNUAL MEAN			51.9
HIGHEST DAILY MEAN	45	118	450
LOWEST DAILY MEAN	1.8	1.5	.00
ANNUAL SEVEN-DAY MINIMUM	2.0	2.0	.00
INSTANTANEOUS PEAK FLOW		135	505
INSTANTANEOUS PEAK STAGE		4.72	5.61
ANNUAL RUNOFF (AC-FT)	3140	7410	8840
10 PERCENT EXCEEDS	24	64	32
50 PERCENT EXCEEDS	3.8	4.1	3.0
90 PERCENT EXCEEDS	2.1	2.1	.49

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 (no winter records in water years 1929-31, 1933-55), July 1958 to current year (no winter records subsequent to water year 1975). Prior to October 1930 monthly discharge only, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

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

GAGE.--Water-stage recorder. Concrete control Sept. 11, 1931 to May 1933, and since Sept. 13, 1934. Datum of gage is 8,195.16 ft 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 upstream at datum 0.43 ft higher.

REMARKS.--Records fair except for estimated daily discharges 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 at times.

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

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	---	---	---	---	---	---	e29	8.7	.91	.68	3.3
2	.24	---	---	---	---	---	---	e28	8.5	.79	.69	3.0
3	.23	---	---	---	---	---	---	e26	7.8	.70	.72	2.9
4	.24	---	---	---	---	---	---	e24	7.4	.77	4.9	2.8
5	.25	---	---	---	---	---	---	e23	6.8	.82	4.6	2.7
6	.26	---	---	---	---	---	---	e21	6.3	1.2	4.1	2.8
7	1.0	---	---	---	---	---	---	e20	6.0	1.5	3.5	3.4
8	1.9	---	---	---	---	---	---	e19	5.6	1.3	3.3	3.6
9	1.9	---	---	---	---	---	---	e17	5.5	.73	4.0	3.2
10	1.9	---	---	---	---	---	---	e16	5.4	.81	4.1	3.0
11	1.9	---	---	---	---	---	---	e15	4.8	1.0	3.2	2.9
12	1.9	---	---	---	---	---	---	e14	4.3	1.1	2.8	2.8
13	1.9	---	---	---	---	---	14	e17	4.1	1.2	4.2	3.1
14	1.8	---	---	---	---	---	13	e16	5.1	1.1	4.8	3.4
15	1.8	---	---	---	---	---	13	e17	6.2	1.1	3.8	3.0
16	1.8	---	---	---	---	---	11	e19	8.8	.96	3.2	2.8
17	1.9	---	---	---	---	---	9.9	e21	8.1	1.1	3.0	2.7
18	1.9	---	---	---	---	---	10	e20	7.4	.95	3.0	2.7
19	1.9	---	---	---	---	---	10	e19	7.3	.78	3.8	2.6
20	1.9	---	---	---	---	---	10	e18	7.2	.91	3.5	2.6
21	1.9	---	---	---	---	---	11	e16	7.1	.89	3.3	2.6
22	---	---	---	---	---	---	12	17	6.9	.69	3.4	2.6
23	---	---	---	---	---	---	15	17	5.8	.59	3.0	2.5
24	---	---	---	---	---	---	16	16	4.2	.52	2.8	2.5
25	---	---	---	---	---	---	13	14	3.1	.50	2.8	2.5
26	---	---	---	---	---	---	14	15	1.6	.53	2.8	2.5
27	---	---	---	---	---	---	17	14	1.5	.51	3.6	2.4
28	---	---	---	---	---	---	20	13	1.4	.48	4.0	2.4
29	---	---	---	---	---	---	22	12	1.2	.54	3.6	2.4
30	---	---	---	---	---	---	e31	11	1.0	.54	3.6	2.4
31	---	---	---	---	---	---	---	9.4	---	.56	3.7	---
TOTAL	28.76	---	---	---	---	---	261.9	553.4	165.1	26.08	102.49	84.1
MEAN	1.37	---	---	---	---	---	14.5	17.9	5.50	.84	3.31	2.80
MAX	1.9	---	---	---	---	---	31	29	8.8	1.5	4.9	3.6
MIN	.23	---	---	---	---	---	9.9	9.4	1.0	.48	.68	2.4
AC-FT	57	---	---	---	---	---	519	1100	327	52	203	167

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

MEAN	1.38	1.34	1.22	1.21	1.43	2.45	7.27	9.20	3.57	1.55	1.89	1.52
MAX	4.35	4.35	3.26	3.14	2.84	6.20	17.8	30.5	19.5	5.97	5.98	5.03
(WY)	1970	1970	1970	1970	1970	1990	1985	1979	1979	1979	1991	1991
MIN	.26	.35	.17	.29	.41	1.18	.86	.92	.43	.13	.29	.22
(WY)	1973	1975	1965	1965	1961	1965	1981	1988	1964	1981	1972	1974

## SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1958 - 1993
ANNUAL TOTAL	303.78	1221.83	
ANNUAL MEAN	1.68	6.36	3.15
HIGHEST ANNUAL MEAN			10.0
LOWEST ANNUAL MEAN			.96
HIGHEST DAILY MEAN	6.9 Apr 24	31 Apr 30	51 May 26
LOWEST DAILY MEAN	.00 Jul 19	.23 Oct 3	.00 Jul 2
ANNUAL SEVEN-DAY MINIMUM	.07 Jul 13	.35 Oct 1	.06 Jun 22
INSTANTANEOUS PEAK FLOW			128 Aug 5
INSTANTANEOUS PEAK STAGE			3.38 Aug 2
ANNUAL RUNOFF (AC-FT)	603	2420	2280
10 PERCENT EXCEEDS	3.4	17	7.1
50 PERCENT EXCEEDS	1.7	3.2	1.6
90 PERCENT EXCEEDS	.10	.71	.42

a-Maximum recorded, may have been higher during period of no gage height record.

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 observed, 78,800 acre-ft, May 31, 1942, gage height, 136.9 ft; minimum observed, 635 acre-ft, Dec. 14, 1954, gage height, 61.33 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 77,410 acre-ft, June 15, gage height, 136.24 ft; minimum, 62,830 acre-ft, Nov. 13, gage height, 129.84 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 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64940	63460	63300	64250	65160	66300	67110	70350	76990	76220	72250	72180
2	64870	63390	63390	64360	65070	66280	67110	70700	77140	76080	72160	72160
3	64800	63350	63150	64160	65180	66260	67170	70930	77040	75950	72270	72140
4	64650	63310	63260	64160	65120	66190	67260	71220	77210	75850	72290	72140
5	64650	63260	63330	64160	65190	66170	67420	71350	77190	75660	72270	72110
6	64630	63240	63260	64450	65200	66190	67620	71670	77290	75410	72180	72110
7	64310	63300	63300	64420	65250	66190	67620	71910	77090	75190	72290	72110
8	64250	63220	63420	64540	65360	66260	67710	71960	77140	75060	72340	72110
9	64220	63190	63420	64600	65410	66170	67780	72180	77140	74920	72360	72090
10	64160	63090	63440	64580	65360	66170	67800	72400	77240	74770	72380	72050
11	64070	63090	63480	64670	65360	66170	67910	72540	77310	74570	72380	71940
12	64000	62920	63500	64600	65380	65990	68070	72670	77360	74420	72340	71940
13	63980	62830	63530	64630	65450	66030	68020	72920	77310	74280	72450	71820
14	63800	62880	63560	64580	65500	65990	68110	73160	77360	74150	72540	71780
15	63780	62900	63580	64580	65610	66060	68250	73410	77410	74060	72580	71870
16	63640	62960	63580	64650	65700	65880	68340	73630	77360	73970	72540	71780
17	63620	63050	63580	64740	65630	65920	68540	73920	77310	73830	72540	71710
18	63580	63020	63590	64780	65740	65920	68670	74170	77360	73720	72520	71670
19	63460	63090	63600	64870	65830	65970	68450	74450	77310	73590	72610	71580
20	63440	63110	63600	64760	66060	66060	68470	74720	77260	73480	72580	71580
21	63420	63090	63620	64780	66010	66210	68670	74940	77160	73320	72580	71550
22	63400	63150	63630	64920	66030	66280	68670	75190	77060	73210	72470	71530
23	63440	63130	63650	64880	66080	66350	68670	75460	76970	73120	72490	71490
24	63390	63070	63680	64870	66120	66460	68810	75610	76870	72920	72490	71400
25	63370	63110	63710	64890	66170	66520	68870	75880	76870	72850	72450	71310
26	63390	63130	63800	64920	66140	66680	68960	76050	76770	72760	72490	71290
27	63420	63130	63900	64980	66190	66770	69160	76270	76690	72630	72470	71290
28	63350	63150	64020	65010	66300	66770	69360	76450	76570	72520	72450	71290
29	63370	63130	64090	65050	---	67000	69560	76640	76420	72450	72400	71200
30	63420	63190	64090	65010	---	67000	69990	76840	76370	72340	72270	71220
31	63390	---	64160	65120	---	67060	---	76940	---	72230	72250	---
MAX	64940	63460	64160	65120	66300	67060	69990	76940	77410	76220	72610	72180
MIN	63350	62830	63150	64160	65070	65880	67110	70350	76370	72230	72160	71200
(†)	130.10	130.01	130.44	130.87	131.40	131.74	133.05	136.05	135.82	134.05	134.06	133.60
(††)	-1640	-200	+970	+960	+1180	+760	+2930	+6950	-570	-4140	+20	-1030
CAL YR 1992	MAX 75880	MIN 62830	(††) -10830									
WTR YR 1993	MAX 77410	MIN 62830	(††) +6190									

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

e Estimated

## ARKANSAS RIVER BASIN

07206000 CIMARRON RIVER BELOW EAGLE NEST DAM, NM

LOCATION.--Lat 36°31'55", long 105°13'43", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left bank 300 ft downstream from Eagle Nest Dam, 2.5 mi southeast of Eagle Nest, 6.7 mi west of Ute Park, and at mile 48.6.

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

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

REVISED RECORDS.--WSP 1281: Drainage area.

GAGE.--Water-stage recorder. Parshall flume since May 15, 1951. Elevation of gage is 8,080 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 15, 1951, at datum 0.81 ft higher.

REMARKS.--Records good. Flow regulated by Eagle Nest Lake (station 07205500) 300 ft. upstream. Diversions for irrigation of 2,500 acres upstream from station. No flow at times most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	.90	.68	.57	.57	.73	58	20	1.4	51	38	35
2	28	.91	.68	.57	.58	16	58	27	1.4	51	44	27
3	28	.85	.68	.57	.57	23	57	27	1.2	45	35	6.7
4	31	.80	.68	.57	.57	23	58	27	1.1	50	6.7	6.8
5	33	.80	.68	.57	.67	23	58	27	1.1	58	2.1	6.5
6	33	.80	.68	.57	.68	23	58	27	1.1	61	2.0	6.3
7	32	.80	.68	.57	.68	23	58	27	1.1	64	1.5	6.1
8	31	.80	.68	.57	.68	23	58	27	1.0	64	1.5	5.6
9	30	.80	.68	.57	.68	23	58	29	1.1	64	1.5	11
10	30	.80	.68	.57	.68	23	58	31	4.2	67	1.5	30
11	30	.80	.66	.57	.68	44	58	31	8.6	75	1.5	30
12	30	.80	.57	.57	.68	56	58	31	8.6	75	1.5	30
13	30	.80	.57	.57	.68	56	58	22	16	74	1.5	30
14	30	.80	.57	.57	.68	56	58	18	20	74	1.5	17
15	30	.76	.57	.57	.68	57	57	15	20	60	1.5	13
16	30	.68	.57	.57	.66	57	56	14	20	42	4.2	13
17	30	.71	.57	.57	.68	57	56	14	20	47	8.6	13
18	29	.73	.57	.57	.67	57	56	14	19	68	8.5	13
19	23	.73	.57	.57	.68	57	56	15	19	63	8.6	13
20	21	.75	.57	.57	.68	57	56	15	33	63	8.6	13
21	9.8	.65	.57	.57	.67	57	56	15	40	63	8.6	13
22	9.6	.68	.57	.57	.67	57	56	11	39	61	8.6	13
23	9.7	.68	.57	.65	.68	57	56	8.6	38	58	8.6	9.9
24	9.6	.68	.57	.68	.68	57	56	7.5	30	41	8.6	1.3
25	7.6	.68	.57	.67	.68	57	56	2.2	30	41	8.6	2.9
26	6.5	.68	.65	.59	.68	57	56	2.1	30	41	8.6	10
27	3.8	.68	.68	.58	.68	57	56	1.8	35	42	24	11
28	.95	.68	.68	.59	.70	57	30	1.7	47	42	35	15
29	.97	.68	.58	.57	---	57	11	1.7	51	42	35	18
30	1.0	.68	.58	.58	---	57	11	1.6	51	42	35	18
31	1.0	---	.57	.58	---	57	---	1.5	---	37	35	---
TOTAL	651.52	22.59	19.18	18.03	18.57	1381.73	1592	512.7	589.9	1726	395.4	438.1
MEAN	21.0	.75	.62	.58	.66	44.6	53.1	16.5	19.7	55.7	12.8	14.6
MAX	33	.91	.68	.68	.70	57	58	31	51	75	44	35
MIN	.95	.65	.57	.57	.57	.73	11	1.5	1.0	37	1.5	1.3
AC-FT	1290	45	38	36	37	2740	3160	1020	1170	3420	784	869

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1993, BY WATER YEAR (WY)

	MEAN	15.3	5.39	.87	.75	2.19	8.91	19.9	30.6	29.4	34.2	19.7	15.0
MAX	50.3	25.9	20.4	19.1	47.0	146	141	102	65.8	73.3	73.8	51.3	
(WY)	1976	1982	1986	1992	1992	1987	1987	1963	1964	1950	1950	1968	
MIN	.16	.000	.000	.000	.000	.000	.000	.74	2.66	7.15	.74	.083	
(WY)	1957	1960	1956	1956	1956	1960	1957	1957	1986	1956	1954	1981	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1950 - 1993

ANNUAL TOTAL	11917.26	7365.72	
ANNUAL MEAN	32.6	20.2	15.0
HIGHEST ANNUAL MEAN			43.2
LOWEST ANNUAL MEAN			5.85
HIGHEST DAILY MEAN	97	Jul 14	187
LOWEST DAILY MEAN	.30	Jan 3	.00
ANNUAL SEVEN-DAY MINIMUM	.57	Dec 12	.00
INSTANTANEOUS PEAK STAGE			3.04
ANNUAL RUNOFF (AC-FT)	23640	14610	10850
10 PERCENT EXCEEDS	53	57	42
50 PERCENT EXCEEDS	39	9.7	6.0
90 PERCENT EXCEEDS	.68	.57	.00

## 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 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	1.4	5.9	e5.5	e6.7	5.8	68	56	52	46	43	37
2	26	2.5	13	e5.1	e7.0	5.8	68	64	51	47	47	35
3	24	2.9	e12	e4.8	e5.3	19	71	63	51	51	51	20
4	25	2.4	e11	e4.5	e5.9	27	70	61	47	47	32	14
5	27	e2.1	e9.0	e4.2	e7.3	30	72	64	39	54	20	15
6	28	e1.8	e7.7	e3.8	e6.2	30	73	65	35	49	18	15
7	27	3.6	e6.5	e4.5	e4.6	29	73	62	32	52	12	15
8	27	1.9	e5.5	e4.8	e3.8	30	74	58	36	52	10	15
9	25	1.4	e5.0	e5.0	3.4	31	73	57	35	52	9.7	13
10	25	1.4	e5.7	e4.5	2.7	33	73	56	33	53	9.8	24
11	25	3.0	e6.0	e5.6	1.8	37	73	53	34	61	9.0	31
12	25	2.2	e5.4	e6.4	2.5	58	74	54	32	62	8.8	31
13	24	2.2	e5.0	e7.0	3.6	62	75	54	33	61	12	32
14	24	1.7	e6.1	e6.3	3.8	62	75	50	35	61	13	31
15	24	1.5	e6.5	e8.0	2.6	62	74	51	34	57	10	20
16	24	1.4	e6.8	e6.9	2.0	62	73	56	30	41	9.1	19
17	25	1.2	e7.0	e5.8	e3.2	63	72	63	33	37	7.8	18
18	24	.92	e6.5	e6.3	e2.8	64	70	66	33	52	8.0	18
19	21	.83	e6.1	6.8	e3.8	65	72	66	38	53	18	18
20	16	.90	e5.8	14	e4.7	67	72	65	44	53	16	18
21	14	1.2	e5.6	9.0	e4.1	68	72	66	51	54	13	18
22	11	e1.1	e6.1	17	e4.1	69	70	70	46	51	12	18
23	10	e.99	e7.0	5.8	e3.8	68	71	69	41	49	10	17
24	9.9	e.79	e5.7	e5.3	e3.5	66	75	68	33	41	9.6	12
25	9.3	e.61	e4.7	e4.8	e3.2	66	73	64	31	41	8.8	8.0
26	7.6	.51	e7.4	e4.4	e3.9	68	72	65	28	42	7.9	9.3
27	7.1	.56	e8.7	e4.8	e4.7	74	75	65	30	42	13	14
28	5.8	2.2	e10	e5.2	5.5	71	72	70	36	42	35	15
29	3.0	6.1	7.6	e5.0	---	71	51	66	41	43	35	19
30	2.2	2.6	6.6	e4.6	---	70	50	61	44	43	36	19
31	1.6	---	6.2	e5.7	---	69	---	56	---	41	37	---
TOTAL	576.5	53.91	218.1	191.4	116.5	1602.6	2126	1904	1138	1530	581.5	588.3
MEAN	18.6	1.80	7.04	6.17	4.16	51.7	70.9	61.4	37.9	49.4	18.8	19.6
MAX	29	6.1	13	17	7.3	74	75	70	52	62	51	37
MIN	1.6	.51	4.7	3.8	1.8	5.8	50	50	28	37	7.8	8.0
AC-FT	1140	107	433	380	231	3180	4220	3780	2260	3030	1150	1170
(†)	0	0	0	0	0	0	0	0	119	230	137	25
(††)	208	240	0	0	0	0	0	248	72	0	0	0

CAL YR 1992 AC-FT (†) 302 (††) 819

WTR YR 1993 AC-FT (†) 511 (††) 768

(†) 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 - 1993, BY WATER YEAR (WY)

MEAN	17.5	10.3	4.73	3.95	5.02	12.0	31.5	58.4	46.0	35.9	25.3	17.5
MAX	44.9	26.7	14.8	18.5	43.7	149	177	180	123	71.0	70.0	50.4
(WY)	1976	1982	1989	1992	1992	1987	1987	1987	1965	1952	1950	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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1950 - 1993

ANNUAL TOTAL	12962.11	10626.81	
ANNUAL MEAN	35.4	29.1	
HIGHEST ANNUAL MEAN			22.2
LOWEST ANNUAL MEAN			57.3
HIGHEST DAILY MEAN	84	Jul 16	1240
LOWEST DAILY MEAN	.51	Nov 26	.00
ANNUAL SEVEN-DAY MINIMUM	.82	Nov 21	.00
INSTANTANEOUS PEAK FLOW			15500
INSTANTANEOUS PEAK STAGE			12.42
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (AC-FT)	25710	21080	16090
10 PERCENT EXCEEDS	63	68	52
50 PERCENT EXCEEDS	41	24	13
90 PERCENT EXCEEDS	5.5	3.0	2.6
e Estimated			

## 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 1992 TO SEPTEMBER 1993

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)
NOV 04...	1415	3.5	360	7.0	2.0	3.0	593	10.8	103	<10	170
JAN 26...	1145	4.4	407	8.3	10.0	0.0	--	--	--	--	--
MAR 11...	1300	30	302	8.3	12.0	6.0	591	10.0	104	--	61
MAY 19...	1515	69	182	7.9	20.5	12.5	594	8.5	103	--	79
JUL 12...	1445	65	302	7.7	19.5	17.0	599	9.2	122	28	130

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
NOV 04...	53	10	17	0.6	1.3	155	46	7.1	0.30	11	239
JAN 26...	--	--	--	--	--	--	--	--	--	--	--
MAR 11...	16	5.1	5.5	0.3	1.2	149	6.9	1.1	0.20	18	143
MAY 19...	24	4.6	7.0	0.3	1.0	75	14	3.3	0.30	10	109
JUL 12...	40	8.3	13	0.5	2.1	139	19	5.7	0.40	7.6	180

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 04...	<0.010	<0.010	<0.050	<0.050	<0.010	<0.010	<0.20	0.020	0.010	<0.010	3.4
JAN 26...	--	--	--	--	--	--	--	--	--	--	--
MAR 11...	--	--	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--	--	--
JUL 12...	--	<0.010	--	0.099	--	0.030	0.30	0.060	--	0.040	8.4

WATER-QUALITY RECORDS

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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)
4...	<1	<0.10	<0.1	<1	<1	20	<3	10	0.09	71
6...	--	--	--	--	--	--	--	--	--	--
1...	--	--	--	--	--	--	--	--	--	--
9...	--	--	--	--	--	--	--	--	--	--
2...	--	--	--	--	--	--	--	74	13	50

## ARKANSAS RIVER BASIN

07207500 PONIL CREEK NEAR CIMARRON, NM

LOCATION.--Lat 36°34'25", long 104°56'46", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left bank 1.6 mi downstream from confluence of North and South Ponil Creeks, and 4.7 mi northwest of Cimarron.

DRAINAGE AREA.--171 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1281: Drainage area. WSP 1731: 1920.

GAGE.--Water-stage recorder. Elevation of gage is 6,630 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 8, 1922, at site 0.1 mi downstream at different datum. May 8, 1922 to Aug. 8, 1929, at site 0.4 mi upstream at different datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 250 acres upstream from station. Diversion 1,000 ft downstream from station for irrigation of about 300 acres. No flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge for flood of Aug. 8, 1929, which destroyed gage, was estimated as 5,200 ft<sup>3</sup>/s by New Mexico State Engineer.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	2.0	e2.6	e3.3	e2.0	2.8	17	69	34	3.5	1.0	7.9
2	.91	2.3	e2.5	e2.8	e2.1	2.5	17	60	31	3.1	1.4	6.3
3	.93	e2.5	2.4	e2.5	e2.1	2.4	20	58	28	2.8	4.3	5.5
4	.87	e2.3	e2.5	e2.3	e2.1	2.5	19	53	27	2.6	7.5	5.0
5	.89	e2.5	e2.5	e1.9	e2.2	2.8	28	56	25	2.3	5.2	4.4
6	1.0	2.9	e2.5	e1.8	e1.8	2.7	32	56	23	2.1	4.6	4.6
7	1.2	2.9	e2.2	e1.7	e1.6	2.7	31	54	20	2.0	3.8	4.8
8	1.3	2.5	e2.1	e1.8	e1.8	2.9	30	52	18	1.6	3.7	5.0
9	1.4	2.5	e2.2	e2.1	e1.9	3.6	31	49	19	1.5	3.9	5.6
10	1.5	2.7	e2.3	e2.4	e1.9	4.4	31	44	20	1.7	3.2	4.4
11	1.6	3.9	e2.5	e2.6	e1.9	5.9	33	39	18	1.7	2.4	4.2
12	1.6	3.4	e3.0	e2.6	e1.9	5.4	39	38	15	3.4	2.1	3.5
13	1.7	e3.2	e3.1	e2.2	e1.9	6.0	42	41	13	4.3	3.2	3.6
14	1.6	e3.1	e3.1	e1.9	e1.9	6.4	42	44	12	4.4	4.9	6.5
15	1.6	e3.1	e3.0	e1.7	e2.0	6.4	37	47	13	4.8	4.7	5.9
16	1.6	e3.0	e2.8	e1.9	e1.8	5.6	34	57	11	5.1	3.4	4.8
17	1.8	e3.0	e2.7	e2.1	e1.6	6.3	32	67	11	3.5	3.0	4.1
18	1.8	2.9	e2.6	e2.2	e1.3	7.3	32	72	12	2.9	3.4	3.7
19	1.9	e2.8	e2.7	e2.3	e1.9	9.1	34	71	11	2.5	5.7	3.4
20	1.9	e2.7	e3.0	e2.5	e1.6	10	34	67	9.9	2.4	6.0	3.1
21	1.9	e2.6	e3.3	e2.6	e2.0	11	32	67	9.2	3.2	5.2	2.8
22	1.9	e2.6	e3.6	e2.5	e2.2	13	35	65	9.0	3.4	4.6	2.5
23	1.9	e2.5	e3.6	e2.1	e2.2	14	44	62	7.7	2.1	3.8	2.3
24	2.0	e2.5	e3.7	e2.1	e2.2	16	52	59	7.0	1.3	3.1	2.1
25	2.0	e2.6	e3.7	e2.2	e2.2	17	47	58	6.6	.93	2.6	1.7
26	1.9	e2.8	e3.9	e2.3	2.2	20	42	56	5.7	.67	2.4	1.7
27	2.6	e2.9	e4.2	e2.2	2.2	28	48	52	5.4	.44	6.1	1.6
28	2.0	e2.9	e5.0	e2.1	2.3	21	54	51	5.1	.38	13	1.5
29	2.1	e2.6	e5.5	e2.1	---	23	63	47	4.5	.42	11	1.4
30	2.0	e2.7	e4.8	e2.0	---	20	68	43	3.9	.43	8.9	1.3
31	2.0	---	e3.9	e2.0	---	18	---	38	---	.83	8.8	---
TOTAL	50.33	82.9	97.5	68.8	54.8	298.7	1100	1692	435.0	72.30	146.9	115.2
MEAN	1.62	2.76	3.15	2.22	1.96	9.84	36.7	54.6	14.5	2.33	4.74	3.84
MAX	2.6	3.9	5.5	3.3	2.3	28	68	72	34	5.1	13	7.9
MIN	.87	2.0	2.1	1.7	1.3	2.4	17	38	3.9	.38	1.0	1.3
AC-FT	190	164	193	136	109	592	2160	3360	663	143	291	226

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1993, BY WATER YEAR (WY)

	MEAN	3.70	3.29	2.36	2.09	2.26	4.95	24.9	44.8	18.3	7.34	15.0	5.35
MAX	23.2	12.3	8.80	8.04	7.35	25.5	126	196	122	31.9	159	51.7	
(WY)	1961	1920	1920	1920	1987	1987	1924	1924	1979	1921	1991	1991	
MIN	.000	.000	.13	.029	.14	.33	1.94	.97	.18	.003	.31	.000	
(WY)	1952	1952	1957	1957	1957	1955	1925	1963	1963	1964	1974	1951	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1916 - 1993

ANNUAL TOTAL	3898.82	4214.43	
ANNUAL MEAN	10.7	11.5	11.3
HIGHEST ANNUAL MEAN			34.5
LOWEST ANNUAL MEAN			1.38
HIGHEST DAILY MEAN	85	Apr 15	819
LOWEST DAILY MEAN	.86	Sep 26	.00
ANNUAL SEVEN-DAY MINIMUM	.92	Sep 26	.00
INSTANTANEOUS PEAK FLOW			5630
INSTANTANEOUS PEAK STAGE			11.13
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (AC-FT)	7730	8360	8200
10 PERCENT EXCEEDS	33	42	27
50 PERCENT EXCEEDS	4.1	3.1	3.0
90 PERCENT EXCEEDS	1.6	1.7	.40
e Estimated			

## ARKANSAS RIVER BASIN

07207500 PONIL CREEK NEAR CIMARRON, NM -- Continued

## WATER-QUALITY RECORDS

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 04...	1600	2.0	280	7.1	2.5	2.0	595	11.0	102
JAN 26...	0945	2.3	293	8.1	5.0	0.0	--	--	--
MAR 11...	1030	5.7	212	7.7	8.0	3.0	591	10.4	100
MAY 20...	0845	67	130	7.2	18.0	10.0	594	9.1	104
JUL 12...	1230	2.1	197	8.3	27.0	24.5	599	7.2	111

DATE	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)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
NOV 04...	130	36	9.5	15	0.6	1.0	132	22	3.5
JAN 26...	--	--	--	--	--	--	--	--	--
MAR 11...	100	28	7.5	11	0.5	0.80	96	24	2.4
MAY 20...	57	16	4.1	5.0	0.3	0.70	52	11	1.2
JUL 12...	83	24	5.6	8.5	0.4	1.0	79	20	1.4

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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	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 04...	0.30	10	176	10	19	10	0.05	75
JAN 26...	--	--	--	--	--	18	0.11	83
MAR 11...	0.20	8.5	140	<10	45	17	0.26	94
MAY 20...	0.20	9.8	79	<10	220	73	13	73
JUL 12...	0.10	10	118	10	22	12	0.07	94

## 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>.

## WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1976. 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.--Water-discharge records good except for estimated daily discharges, which are fair. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	5.8	7.1	e5.6	e6.6	e7.6	17	76	44	9.9	6.4	9.5
2	3.9	5.5	6.3	e5.5	e6.2	e7.8	18	71	40	9.7	7.8	8.4
3	3.9	5.4	5.5	e5.4	e5.8	8.8	18	67	38	9.3	7.6	7.8
4	3.9	4.2	5.4	e4.6	e6.6	8.3	19	64	35	8.7	12	7.4
5	3.9	5.6	5.4	e3.7	e5.9	8.4	23	67	33	8.5	9.1	7.0
6	4.0	4.7	e5.2	e4.1	e5.2	9.5	25	67	30	8.2	10	6.9
7	4.2	5.8	e5.1	e4.8	e4.8	10	24	66	28	8.1	8.4	7.7
8	4.3	5.8	e5.1	e5.3	e5.5	10	23	64	25	7.9	7.3	7.2
9	4.4	5.4	e5.0	e5.6	e6.4	11	23	60	27	8.0	6.4	6.6
10	4.4	5.7	e4.9	e5.1	e6.4	12	24	57	28	8.2	6.2	6.1
11	4.6	4.9	e4.9	e5.8	e6.3	7.8	28	52	25	7.9	5.6	5.8
12	4.5	6.0	e4.9	e6.4	e5.7	5.7	34	53	22	7.9	5.5	5.4
13	4.6	6.3	e4.8	e5.1	e5.2	12	37	59	20	7.9	9.3	5.8
14	4.6	6.2	e4.8	e6.0	e5.1	14	36	61	20	8.8	17	8.2
15	4.6	5.8	e4.7	e4.1	e4.9	7.4	32	64	20	9.2	9.8	6.6
16	4.9	5.7	e4.7	e5.0	e5.2	7.6	29	71	18	7.6	8.1	6.0
17	5.2	6.1	e4.7	e5.6	e5.4	9.1	27	80	18	7.3	9.4	5.7
18	5.1	5.5	e4.7	e5.7	e5.4	11	30	82	19	8.1	10	5.6
19	5.1	5.1	e4.7	e5.8	e5.3	13	36	80	18	10	16	5.4
20	4.8	5.4	e4.6	e5.5	e5.5	13	37	75	17	19	26	4.9
21	4.8	3.9	e4.6	e5.2	e6.4	15	39	74	15	18	17	4.5
22	5.1	7.1	e4.5	e5.3	e6.1	18	42	79	15	10	16	4.9
23	5.4	6.2	e4.3	e5.7	e6.2	19	50	79	14	8.7	13	4.7
24	5.4	6.4	e4.2	e5.3	e6.6	20	62	77	13	7.6	12	4.4
25	5.1	6.4	e3.9	e5.0	e7.0	21	52	72	13	6.9	11	4.1
26	5.1	6.4	e3.7	e4.8	e7.3	23	54	70	12	6.7	10	4.0
27	5.1	6.4	e4.2	e5.0	e7.1	26	71	69	12	6.3	12	4.0
28	5.1	6.4	e5.5	e5.6	e7.2	20	79	69	11	6.4	12	4.1
29	6.4	6.7	e6.4	e5.9	---	22	82	62	10	6.5	11	4.1
30	5.8	6.8	e6.2	e5.7	---	18	82	55	10	6.1	9.9	3.9
31	5.6	---	e6.0	e5.4	---	17	---	49	---	6.0	11	---
TOTAL	147.8	173.6	156.0	163.6	167.3	413.0	1153	2091	650	269.4	332.8	176.7
MEAN	4.77	5.72	5.03	5.23	5.27	13.3	35.4	67.5	21.7	8.69	10.7	5.69
MAX	6.4	7.1	7.1	6.4	7.3	26	82	82	44	19	26	9.5
MIN	3.9	3.9	3.7	3.7	4.8	5.7	17	49	10	6.0	5.5	3.9
AC-FT	293	344	309	325	332	819	2290	4150	1290	534	660	350

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1993, BY WATER YEAR (WY)

	MEAN	5.78	4.89	3.86	3.53	3.97	7.46	30.9	50.4	21.7	9.99	11.5	7.04
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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1912 - 1993

ANNUAL TOTAL	4363.3	5894.2	
ANNUAL MEAN	11.9	16.1	13.4
HIGHEST ANNUAL MEAN			41.6
LOWEST ANNUAL MEAN			2.83
HIGHEST DAILY MEAN	68	Apr 15	2000
LOWEST DAILY MEAN	3.4	Sep 26	.40
ANNUAL SEVEN-DAY MINIMUM	3.6	Sep 23	.67
INSTANTANEOUS PEAK FLOW			9000
INSTANTANEOUS PEAK STAGE			11.50
INSTANTANEOUS LOW FLOW			.03
ANNUAL RUNOFF (AC-FT)	8650	11690	9720
10 PERCENT EXCEEDS	32	52	30
50 PERCENT EXCEEDS	6.4	7.1	5.2
90 PERCENT EXCEEDS	4.4	4.6	2.6



## ARKANSAS RIVER BASIN

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

## WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 04...	1230	2.0	155	--	1.0	2.0	592	10.7	100
JAN 26...	1515	4.9	150	8.0	11.5	4.5	--	--	--
MAR 11...	1530	8.1	132	8.1	0.0	4.0	591	10.6	105
MAY 19...	1245	78	65	7.0	23.5	10.0	593	9.2	105
JUL 13...	1115	7.8	122	7.9	27.0	18.5	598	7.8	107

DATE	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)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)
NOV 04...	75	20	6.2	5.8	0.3	1.2	81	7.0	1.1
JAN 26...	--	--	--	--	--	--	--	--	--
MAR 11...	62	16	5.3	5.3	0.3	1.2	68	6.7	1.2
MAY 19...	26	7.1	2.0	2.9	0.2	0.80	28	4.3	0.80
JUL 13...	50	13	4.2	4.5	0.3	1.2	56	3.7	0.60

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)	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 04...	0.30	21	111	<10	29	5	0.03	56
JAN 26...	--	--	--	--	--	11	0.14	75
MAR 11...	0.20	18	95	<10	110	7	0.15	71
MAY 19...	0.20	14	49	10	140	31	6.5	55
JUL 13...	0.10	21	82	10	93	12	0.25	64

## 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. 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 1992 TO SEPTEMBER 1993

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993												
DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	3.2	13	18	14	14	121	115	48	1.5	46	14
2	.89	2.8	17	17	15	16	118	124	82	1.1	6.5	12
3	.76	2.8	18	17	13	14	135	144	56	.90	19	10
4	.60	3.0	18	13	16	13	135	102	42	.66	248	8.6
5	.66	3.2	17	11	15	13	131	91	38	.54	53	7.8
6	.68	3.3	14	12	15	12	131	84	36	.48	50	9.1
7	.72	3.3	15	17	15	12	130	86	36	.45	20	13
8	.73	3.3	18	18	16	13	132	74	22	.37	17	14
9	.80	3.2	20	15	17	13	141	61	24	.36	14	10
10	1.0	3.1	22	10	18	13	135	55	20	.52	17	9.0
11	1.2	6.8	21	17	17	13	134	50	13	.69	14	7.9
12	1.6	6.9	24	11	14	15	137	25	9.9	.73	12	7.3
13	1.7	6.0	20	14	8.8	15	141	15	7.5	1.1	13	9.4
14	1.8	5.4	16	15	8.0	16	153	13	6.4	1.2	13	14
15	2.0	5.0	19	19	9.9	19	153	13	5.3	1.2	13	14
16	2.1	7.3	18	19	9.9	20	144	11	5.8	1.2	12	10
17	2.3	8.9	18	19	9.0	20	139	9.7	7.0	1.3	11	8.0
18	2.6	8.5	19	17	8.1	25	134	9.0	10	1.8	10	7.0
19	3.1	7.5	18	17	9.6	26	136	11	14	2.9	14	6.8
20	3.2	8.2	18	17	11	32	141	24	19	93	186	6.2
21	2.8	12	16	18	9.0	39	141	65	25	18	50	5.7
22	2.9	11	12	18	7.5	42	140	80	22	5.9	31	5.4
23	2.9	11	13	17	8.2	47	141	80	11	2.6	20	5.8
24	2.8	10	12	14	12	100	163	79	5.4	1.5	16	6.8
25	3.2	8.9	13	12	13	103	171	88	4.3	.96	13	5.9
26	3.0	9.2	12	16	12	106	159	88	3.9	1.1	13	5.1
27	2.6	8.8	13	18	13	129	112	39	9.0	2.6	46	4.7
28	3.0	8.9	16	17	13	134	104	31	8.3	2.4	38	4.5
29	3.3	10	e12	16	---	129	97	26	3.3	1.5	39	4.7
30	3.2	12	e10	16	---	133	95	20	2.4	.73	22	4.7
31	2.9	---	e14	16	---	129	---	15	---	.61	15	---
TOTAL	61.76	203.5	506	491	347.0	1425	4044	1727.7	596.5	149.90	1091.5	251.4
MEAN	1.99	6.78	16.3	15.8	12.4	46.0	135	55.7	19.9	4.84	35.2	8.38
MAX	3.3	12	24	19	18	134	171	144	82	93	248	14
MIN	.60	2.8	10	10	7.5	12	95	9.0	2.4	.36	6.5	4.5
AC-FT	123	404	1000	974	688	2830	8020	3430	1180	297	2160	499

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1993, BY WATER YEAR (WY)

	MEAN	7.41	7.72	6.92	7.04	7.64	9.68	28.8	71.9	37.1	10.8	17.3	11.6
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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1908 - 1993

ANNUAL TOTAL	9763.91	10895.26	18.9	
ANNUAL MEAN	26.7	29.9	128	1987
HIGHEST ANNUAL MEAN			.90	1957
LOWEST ANNUAL MEAN				
HIGHEST DAILY MEAN	194	Aug 11	248	Aug 4
LOWEST DAILY MEAN	.32	Aug 9	.36	Jul 9
ANNUAL SEVEN-DAY MINIMUM	.64	Sep 28	.48	Jul 4
INSTANTANEOUS PEAK FLOW			924	Aug 1
INSTANTANEOUS PEAK STAGE			5.43	Aug 1
INSTANTANEOUS LOW FLOW			.35	Jul 9
ANNUAL RUNOFF (AC-FT)	19370	21610	13720	
10 PERCENT EXCEEDS	65	113	23	
50 PERCENT EXCEEDS	13	13	3.9	
90 PERCENT EXCEEDS	2.0	1.8	1.1	
e Estimated				

## 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 fair. 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 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	15	e25	e32	24	21	313	254	74	30	244	146
2	8.0	14	e22	e26	23	25	280	235	104	26	396	135
3	6.9	15	e20	e21	e22	29	286	256	81	23	88	119
4	6.4	15	e25	e18	e21	28	284	214	58	12	965	109
5	6.0	15	e27	e21	e20	29	281	180	54	8.0	528	101
6	6.2	e15	e26	e25	e21	28	405	146	51	6.3	887	85
7	6.0	e15	e27	e23	e21	27	514	141	50	5.1	240	82
8	6.4	e16	e31	e23	e23	32	489	130	38	4.2	97	70
9	7.1	e17	e32	e24	e25	36	431	106	38	3.3	223	67
10	7.5	e15	e33	e23	28	36	409	109	34	3.0	94	62
11	8.2	e15	e31	e22	27	38	415	92	29	2.9	64	58
12	9.1	e15	e29	e22	25	42	414	70	26	3.5	40	57
13	9.3	e16	e27	e25	19	41	402	77	22	4.1	36	42
14	9.0	e16	e26	e28	18	40	397	78	19	11	34	51
15	9.6	e17	e28	e31	21	44	382	60	21	14	35	52
16	9.7	e17	e31	e33	17	44	342	55	26	34	30	45
17	11	e17	e32	e29	19	45	311	54	21	22	25	38
18	11	e18	e35	e29	22	49	290	76	37	21	23	33
19	12	e18	e33	e29	e21	55	284	86	314	19	28	30
20	14	e18	e32	e29	e18	63	291	87	177	1650	342	28
21	15	e19	e30	32	e15	75	292	131	378	265	186	26
22	16	e20	29	35	e13	72	281	147	190	81	97	24
23	14	e20	30	32	15	81	275	142	112	44	63	24
24	14	e18	30	e20	18	127	315	135	97	31	45	23
25	14	e17	30	e23	20	131	380	119	75	21	60	21
26	14	e17	28	e26	19	143	299	167	71	16	53	18
27	13	e20	29	28	19	190	204	154	57	14	174	16
28	14	e21	35	28	18	255	202	112	50	12	320	15
29	15	e22	48	27	---	326	231	86	39	12	572	14
30	15	e26	66	25	---	338	232	61	33	9.5	164	13
31	15	---	47	25	---	338	---	49	---	8.1	137	---
TOTAL	330.2	519	974	814	572	2828	9931	3809	2376	2416.0	6290	1604
MEAN	10.7	17.3	31.4	26.3	20.4	91.2	331	123	79.2	77.9	203	53.5
MAX	16	26	66	35	28	338	514	256	378	1650	965	146
MIN	6.0	14	20	18	13	21	202	49	19	2.9	23	13
AC-FT	655	1030	1930	1610	1130	5610	19700	7560	4710	4790	12480	3180

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	MEAN	39.3	22.1	19.3	19.8	24.8	26.4	126	223	130	92.1	123	79.9
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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1940 - 1993

ANNUAL TOTAL	24509.4	32463.2	
ANNUAL MEAN	67.0	88.9	
HIGHEST ANNUAL MEAN			78.1
LOWEST ANNUAL MEAN			564
HIGHEST DAILY MEAN	1190	Aug 18	1650
LOWEST DAILY MEAN	6.0	Oct 5	2.9
ANNUAL SEVEN-DAY MINIMUM	6.4	Oct 3	3.7
INSTANTANEOUS PEAK FLOW			4100
INSTANTANEOUS PEAK STAGE			5.76
INSTANTANEOUS LOW FLOW			2.7
ANNUAL RUNOFF (AC-FT)	48610	64390	56550
10 PERCENT EXCEEDS	124	281	120
50 PERCENT EXCEEDS	41	30	14
90 PERCENT EXCEEDS	11	13	2.6
e Estimated			

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>.

## WATER-DISCHARGE RECORDS

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.--Water-discharge records good except for winter period, which are fair. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	4.5	3.8	e2.8	2.8	12	17	31	116	18	26	91
2	16	4.5	3.2	e2.8	2.7	12	17	39	123	16	47	78
3	16	4.6	3.0	e2.9	3.0	12	17	40	126	18	31	70
4	15	4.5	e2.5	e3.0	2.7	11	17	30	118	19	31	65
5	13	4.2	e2.5	e3.0	2.9	11	16	30	105	20	32	60
6	16	4.0	e2.5	e2.6	3.7	11	16	30	95	21	62	57
7	17	4.0	e2.6	e3.0	3.4	11	17	29	84	21	40	56
8	18	4.0	e2.6	e3.0	2.8	11	18	30	74	21	38	54
9	17	3.8	e2.6	e3.1	3.0	11	18	31	78	22	36	49
10	17	3.8	e2.9	e3.1	2.9	10	16	28	84	24	35	47
11	17	5.2	e2.6	e3.1	2.7	11	14	24	74	26	34	48
12	11	6.1	e2.6	e2.8	2.9	11	15	24	64	30	33	42
13	7.4	6.5	e2.6	e2.1	2.8	11	18	32	67	31	38	43
14	6.7	6.7	e2.5	e3.0	2.7	11	21	37	90	31	67	49
15	10	6.4	e2.5	e3.0	2.8	11	26	44	129	35	48	40
16	13	5.0	e2.3	e3.0	2.9	11	27	48	129	34	39	37
17	16	4.2	e2.3	e3.0	2.9	11	25	70	129	41	41	33
18	16	4.2	e2.3	e3.0	2.8	11	20	91	137	37	39	30
19	10	4.0	e2.3	e2.8	2.8	11	19	99	124	34	47	29
20	5.1	3.6	e2.3	e2.5	2.9	12	19	102	119	52	82	27
21	5.2	3.5	e2.2	e3.0	2.7	12	19	109	117	39	96	24
22	4.9	3.4	e2.0	e2.5	2.8	13	19	115	114	37	83	23
23	5.9	3.5	e2.1	e2.9	2.9	13	20	117	104	34	75	23
24	5.9	3.4	e2.3	e2.9	7.1	14	27	129	88	31	68	23
25	5.1	3.0	e2.5	e2.5	11	14	26	132	79	30	73	22
26	5.7	3.8	e2.6	e2.4	11	13	20	135	67	28	89	22
27	7.8	4.0	e2.7	e2.8	12	27	22	146	59	25	117	21
28	7.6	4.0	e2.7	e2.6	12	20	25	151	48	27	103	21
29	5.1	3.2	e2.7	e2.8	---	21	28	140	39	29	91	20
30	4.8	3.4	e2.8	2.9	---	21	32	129	27	28	86	19
31	4.5	---	e2.7	3.4	---	19	---	122	---	25	108	---
TOTAL	334.7	129.0	79.8	88.3	119.6	410	611	2314	2807	884	1835	1223
MEAN	10.8	4.30	2.57	2.85	4.27	13.2	20.4	74.6	93.6	28.5	59.2	40.8
MAX	18	6.7	3.8	3.4	12	27	32	151	137	52	117	91
MIN	4.5	3.0	2.0	2.1	2.7	10	14	24	27	16	26	19
AC-FT	664	256	158	175	237	813	1210	4590	5570	1750	3640	2430
(†)	412	724	678	794	626	255	480	644	614	629	367	50

CAL YR 1992 (†) 6019 WRT YR 1993 (†) 6273  
(†) DIVERSION, IN ACRE-FEET, BY LA CUEVA CANAL

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 1993, BY WATER YEAR (WY)

	1942	1942	1942	1942	1942	1942	1942	1942	1942	1942	1942	1942
MEAN	17.3	11.4	8.89	8.10	7.84	11.2	34.4	76.4	62.8	34.5	44.9	28.7
MAX	87.6	60.7	39.4	21.9	25.5	51.2	244	555	314	142	182	111
(WY)	1942	1942	1907	1907	1907	1987	1942	1941	1941	1911	1961	1991
MIN	.64	.38	.55	.000	.52	1.05	2.05	1.53	1.11	3.02	1.43	.46
(WY)	1957	1957	1957	1908	1957	1957	1933	1967	1956	1934	1956	1956

### SUMMARY STATISTICS

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1906 - 1993	
ANNUAL TOTAL	11734.3		10835.4			
ANNUAL MEAN	32.1		29.7		28.8	
HIGHEST ANNUAL MEAN					113 1941	
LOWEST ANNUAL MEAN					3.12 1956	
HIGHEST DAILY MEAN	182	May 28	151	May 28	1060	Apr 23 1942
LOWEST DAILY MEAN	2.0	Dec 22	2.0	Dec 22	.00	Dec 22 1907
ANNUAL SEVEN-DAY MINIMUM	2.2	Dec 17	2.2	Dec 17	.00	Dec 22 1907
INSTANTANEOUS PEAK FLOW			154	May 28	1530	Sep 23 1941
INSTANTANEOUS PEAK STAGE			2.90	May 28	7.58	Sep 23 1941
INSTANTANEOUS LOW FLOW			1.0	Dec 14		
ANNUAL RUNOFF (AC-FT)	23270		21490		20880	
10 PERCENT EXCEEDS	83		89		74	
50 PERCENT EXCEEDS	15		17		12	
90 PERCENT EXCEEDS	3.5		2.7		1.6	
e Estimated						

## ARKANSAS RIVER BASIN

07215500 MORA RIVER AT LA CUEVA, NM -- Continued

## WATER-QUALITY RECORDS

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 18...	1215	4.4	465	8.3	17.0	7.5	581	10.2	112
JAN 11...	1300	3.2	510	8.1	6.5	2.5	577	13.2	128
MAR 22...	0945	12	490	8.3	6.5	8.0	591	9.4	103
MAY 12...	1200	24	425	7.9	20.0	13.0	588	9.2	114
JUL 26...	1145	30	490	8.0	29.5	16.5	594	8.0	106

DATE	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)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
NOV 18...	250	74	15	12	0.3	1.2	201	73	5.4
JAN 11...	--	--	--	--	--	--	--	--	--
MAR 22...	240	74	14	10	0.3	1.0	189	76	5.4
MAY 12...	240	75	13	9.8	0.3	0.90	177	65	4.5
JUL 26...	250	79	14	10	0.3	1.0	201	57	4.1

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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	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 18...	0.50	8.5	310	30	17	81	0.96	54
JAN 11...	--	--	--	--	--	94	0.82	37
MAR 22...	0.40	9.2	303	30	6	--	--	--
MAY 12...	0.40	8.8	284	30	4	62	4.1	79
JUL 26...	0.40	9.9	296	30	4	194	15	51

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 Golondrinas, 1.9 mi upstream from Coyote Creek, 4.7 mi downstream from Rito Cebolla, and at mile 75.8.

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.

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 ice periods 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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	12	5.2	e5.2	6.8	15	24	26	109	20	17	104
2	16	e11	4.8	e5.3	6.5	14	22	39	116	15	41	82
3	15	12	5.2	e5.5	6.4	14	22	41	122	18	28	69
4	16	12	4.5	e5.8	6.9	13	21	26	112	18	29	63
5	14	e11	4.0	e5.8	5.9	11	19	23	100	19	41	57
6	e17	e11	e4.2	e5.8	6.0	11	20	25	83	19	158	52
7	18	e10	e4.5	e5.8	6.4	11	20	25	68	20	45	51
8	18	e8.0	e4.5	e5.8	6.2	11	23	24	59	23	38	50
9	18	7.7	e4.6	e5.6	8.1	11	24	29	54	16	32	46
10	23	12	e4.6	e5.4	8.2	10	21	27	77	14	31	43
11	19	16	e5.0	e5.0	6.6	11	17	22	67	16	27	45
12	e16	e17	e5.3	e5.0	5.8	12	18	16	55	21	28	40
13	11	e18	5.8	e5.0	5.7	11	23	26	53	29	30	39
14	8.6	18	5.6	e5.0	5.9	12	27	28	68	27	65	49
15	e12	e17	e6.0	e5.5	6.3	12	35	37	133	30	47	40
16	16	e14	6.0	e5.5	6.3	11	38	40	134	35	35	37
17	18	e13	5.3	e6.0	6.4	12	33	66	137	30	37	34
18	20	e12	6.2	e6.4	7.0	11	23	83	156	37	40	32
19	20	7.5	5.9	e6.4	6.9	13	19	95	135	27	43	31
20	e16	7.0	5.5	e6.7	6.8	14	20	103	126	52	83	29
21	e15	6.8	e5.7	e6.8	7.1	14	20	108	118	34	129	26
22	14	5.5	e5.5	e7.5	5.8	15	14	116	114	30	89	27
23	14	e5.2	e5.5	e7.5	5.8	16	14	120	102	28	77	24
24	e11	e5.2	e5.2	e7.0	6.0	16	16	130	79	24	66	24
25	e12	4.6	e5.1	7.1	12	17	18	141	71	18	62	23
26	e13	4.2	e5.0	7.5	12	16	14	143	63	18	90	22
27	13	4.2	e5.0	7.3	12	37	13	159	61	17	162	23
28	e13	4.8	e5.0	7.4	13	33	15	172	48	17	122	22
29	e13	4.9	e5.3	7.2	---	27	19	156	35	24	103	20
30	14	4.2	e5.2	7.3	---	31	26	135	25	21	92	18
31	14	---	e5.2	6.7	---	28	---	122	---	20	125	---
TOTAL	471.6	285.8	160.4	191.8	204.8	490	638	2303	2680	737	2012	1222
MEAN	15.2	9.86	5.17	6.19	7.31	15.8	21.3	74.3	89.3	23.8	64.9	40.7
MAX	23	18	6.2	7.5	13	37	38	172	156	52	162	104
MIN	8.6	4.2	4.0	5.0	5.7	10	13	16	25	14	17	18
AC-FT	935	587	318	380	406	972	1270	4570	5320	1460	3990	2420

MEAN	22.0	14.7	12.1	12.1	11.6	13.1	45.1	88.4	70.8	40.9	57.2	34.2
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

ANNUAL TOTAL	14670.8		11406.4			
ANNUAL MEAN	40.1		31.3		34.4	
HIGHEST ANNUAL MEAN					144	1941
LOWEST ANNUAL MEAN					3.42	1956
HIGHEST DAILY MEAN	231	May 27	172	May 28	1750	Apr 23 1942
LOWEST DAILY MEAN	4.0	Dec 5	4.0	Dec 5	.00	May 4 1917
ANNUAL SEVEN-DAY MINIMUM	4.4	Dec 4	4.4	Dec 4	.00	Aug 4 1917
INSTANTANEOUS PEAK FLOW			1140	Aug 6	14000	Aug 22 1952
INSTANTANEOUS PEAK STAGE			3.64	Aug 6	14.40	Aug 22 1952
INSTANTANEOUS LOW FLOW			.42	Dec 1		
ANNUAL RUNOFF (AC-FT)	29100		22620		24900	
10 PERCENT EXCEEDS	91		89		90	
50 PERCENT EXCEEDS	23		18		14	
90 PERCENT EXCEEDS	5.9		5.5		2.0	
a Estimated						

ARKANSAS RIVER BASIN

49

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 fair except those 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	3.6	e3.5	e5.0	11	12	26	24	22	5.4	1.9	16
2	3.3	3.5	e4.0	e4.5	9.7	11	26	29	18	5.4	4.8	15
3	3.3	2.9	e3.0	e5.0	9.8	11	24	29	12	5.4	3.9	14
4	3.2	2.5	e4.0	e5.0	e9.0	11	22	31	9.5	5.1	4.0	14
5	3.2	2.6	e2.0	e5.0	e9.0	11	22	32	9.2	4.8	4.1	14
6	3.4	2.9	e2.0	e5.0	10	11	25	30	8.4	3.3	13	14
7	3.5	2.8	e2.0	e5.0	10	11	24	29	8.2	2.3	11	14
8	3.7	2.8	e2.5	e5.0	e9.5	8.9	33	23	7.6	2.2	7.0	14
9	3.3	4.2	e3.5	e5.0	e8.0	6.7	33	21	7.2	2.1	6.0	13
10	2.9	6.5	e5.0	e6.0	e9.0	6.7	25	25	7.0	3.3	5.7	12
11	3.0	5.7	e5.0	e6.0	e9.0	7.8	25	22	7.5	4.2	5.5	12
12	3.2	4.9	e5.0	e5.5	e9.0	9.9	23	20	6.9	4.1	5.4	12
13	3.1	5.0	e4.5	e5.5	8.7	9.7	25	22	6.8	3.1	5.8	12
14	3.0	4.9	e4.5	e5.5	8.6	14	26	20	6.8	2.2	7.9	13
15	2.7	4.6	e4.0	e5.5	8.9	15	30	23	9.0	2.3	7.1	9.9
16	2.5	4.6	e4.0	e6.0	9.6	13	28	26	9.3	3.5	6.3	9.2
17	2.5	4.4	e4.5	e6.0	10	14	27	32	9.0	3.7	8.9	8.7
18	2.5	4.4	e5.0	e6.0	10	15	26	38	9.6	6.0	13	8.4
19	4.3	5.0	e5.0	e6.0	10	19	25	40	12	11	11	8.0
20	2.8	4.9	e5.0	e6.0	10	23	24	45	12	235	30	7.7
21	1.9	5.0	e5.0	e6.0	11	21	18	47	11	10	34	7.7
22	2.0	4.9	e5.0	e7.5	9.6	24	15	40	10	8.5	23	7.7
23	2.1	4.8	e5.0	e9.0	9.3	25	12	37	8.8	7.1	18	7.5
24	2.2	e3.5	e5.0	e10	11	24	12	54	6.5	6.7	16	7.4
25	2.2	3.7	e5.0	9.3	11	22	13	48	6.4	6.3	64	7.2
26	2.4	3.2	e5.0	e10	11	19	14	38	6.3	6.0	37	7.0
27	2.4	4.1	e5.5	e10	10	30	15	38	6.2	5.6	25	7.6
28	2.7	5.7	e5.5	11	11	32	16	34	6.0	5.0	22	6.8
29	3.3	e4.0	14	11	---	38	17	29	5.7	3.8	21	6.5
30	3.5	e4.0	15	11	---	38	20	24	5.5	1.9	19	5.4
31	3.6	---	13	10	---	33	---	22	---	1.9	18	---
TOTAL	91.2	125.6	161.0	213.3	272.7	546.7	671	972	270.4	377.2	459.3	311.7
MEAN	2.94	4.19	5.19	6.88	9.74	17.6	22.4	31.4	9.01	12.2	14.8	10.4
MAX	4.3	6.5	15	11	11	38	33	54	22	235	64	16
MIN	1.9	2.5	2.0	4.5	8.0	6.7	12	20	5.5	1.9	1.9	5.4
AC-FT	181	249	319	423	541	1080	1330	1930	536	748	911	618

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1993, BY WATER YEAR (WY)

	9.04	8.68	7.67	7.26	7.69	9.75	20.8	28.5	13.8	9.38	17.0	11.7
MEAN	9.04	8.68	7.67	7.26	7.69	9.75	20.8	28.5	13.8	9.38	17.0	11.7
MAX	80.4	53.9	24.2	19.7	19.4	77.6	195	219	130	67.0	150	150
(WY)	1942	1942	1942	1992	1985	1987	1987	1941	1965	1941	1991	1991
MIN	.72	1.71	1.59	1.64	1.12	1.02	.32	.53	.23	.83	.78	.65
(WY)	1957	1935	1955	1957	1955	1967	1978	1967	1940	1963	1956	1956

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1930 - 1993

ANNUAL TOTAL	4135.7	4472.1	
ANNUAL MEAN	11.3	12.3	12.6
HIGHEST ANNUAL MEAN			52.9
LOWEST ANNUAL MEAN			2.33
HIGHEST DAILY MEAN	38	235	1290
LOWEST DAILY MEAN	1.9	1.9	.00
ANNUAL SEVEN-DAY MINIMUM	2.2	2.2	.10
INSTANTANEOUS PEAK FLOW		2150	4050
INSTANTANEOUS PEAK STAGE		7.37	10.10
INSTANTANEOUS LOW FLOW		1.8	
ANNUAL RUNOFF (AC-FT)	8200	8870	9150
10 PERCENT EXCEEDS	22	26	24
50 PERCENT EXCEEDS	7.6	8.2	5.4
90 PERCENT EXCEEDS	3.2	3.1	1.1

e Estimated

## ARKANSAS RIVER BASIN

07221000 MORA RIVER NEAR SHOEMAKER, NM

LOCATION.--Lat 35°48'01", long 104°46'58", Mora County, Hydrologic Unit 11080004, in Mora Grant, on left bank 5.5 mi east of Shoemaker, 12.3 mi upstream from Pedros Creek, and at mile 39.4.

DRAINAGE AREA.--1,104 mi<sup>2</sup>, of which 71 mi<sup>2</sup> is probably noncontributing.

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

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1281: 1931(M), 1933-1934(M), 1937(M), 1938(P), 1939-40(M), 1941-42(P). WSP 1731: 1921, 1928, 1951(M). WRD NM-75-1: 1974. WRD NM-78-1: 1977.

GAGE.--Water-stage recorder. Elevation of gage is 6,140 above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 10, 1934, at site 2,000 ft upstream at different datum.

REMARKS.--Records good except for winter period, which are poor. Diversions for irrigation of about 26,000 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. No flow at times some years.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e11	11	33	e37	37	19	75	7.9	126	22	21	202
2	e12	12	34	37	36	18	60	24	111	18	19	154
3	e10	12	37	37	29	18	57	35	114	15	45	125
4	e10	14	38	e37	31	18	57	31	110	14	52	107
5	e9.0	15	37	37	28	18	52	27	98	9.4	72	94
6	e9.0	12	e38	e37	29	17	49	17	84	8.7	420	89
7	e8.5	12	e40	36	26	16	48	22	76	8.2	590	88
8	e9.0	14	e39	e35	28	16	56	23	66	8.2	134	78
9	e9.0	16	e38	34	29	15	67	20	54	18	105	62
10	e10	18	e37	e35	33	14	67	25	49	39	94	41
11	e12	20	39	e37	32	13	58	26	66	11	76	34
12	e10	22	e36	e37	28	13	53	16	59	19	64	34
13	e9.0	23	e35	e35	25	13	44	13	53	13	57	28
14	e8.5	27	e34	e35	25	13	32	21	50	10	64	47
15	7.7	26	e34	e35	28	16	37	34	75	55	107	47
16	5.7	26	e34	36	28	25	46	38	109	101	77	37
17	6.4	24	e35	42	31	22	33	54	129	36	57	30
18	6.8	21	e36	40	28	20	22	66	149	34	63	25
19	7.5	20	e34	40	29	14	17	97	157	45	71	24
20	11	20	32	38	28	13	12	114	147	202	72	23
21	13	20	e32	38	28	19	8.9	146	132	91	156	21
22	11	22	34	38	31	20	8.0	138	116	52	134	20
23	9.4	20	e32	42	27	15	7.0	151	106	44	107	16
24	8.3	25	37	42	21	20	7.4	155	88	28	90	15
25	10	e24	38	42	21	28	6.9	208	66	25	79	17
26	10	27	38	36	24	30	8.1	191	53	18	124	21
27	10	28	e34	41	19	32	7.7	217	46	12	161	22
28	9.0	31	30	40	17	53	8.0	231	37	21	246	23
29	8.0	28	36	37	---	70	8.2	205	26	64	199	23
30	8.6	30	e36	37	---	85	7.4	180	24	38	251	21
31	12	---	e36	35	---	82	---	159	---	14	206	---
TOTAL	291.4	620	1103	1165	776	785	1019.6	2691.9	2576	1093.5	4013	1568
MEAN	9.40	20.7	35.6	37.6	27.7	25.3	34.0	86.8	85.9	35.3	129	52.3
MAX	13	31	40	42	37	85	75	231	157	202	590	202
MIN	5.7	11	30	34	17	13	6.9	7.9	24	8.2	19	15
AC-FT	578	1230	2190	2310	1540	1560	2020	5340	5110	2170	7960	3110

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1993, BY WATER YEAR (WY)

	MEAN	38.2	29.5	28.1	28.0	24.2	25.9	73.8	122	101	59.5	94.5	61.3
MAX	326	212	134	94.3	126	318	842	1437	937	700	587	404	
(WY)	1942	1942	1924	1924	1987	1987	1942	1941	1921	1921	1961	1991	
MIN	.000	.33	.64	.98	.75	.58	.34	1.63	.40	.29	.094	.020	
(WY)	1957	1957	1957	1957	1957	1955	1955	1954	1954	1974	1964	1954	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1920 - 1993

ANNUAL TOTAL	19758.5	17702.4	
ANNUAL MEAN	54.0	48.5	
HIGHEST ANNUAL MEAN			57.4
LOWEST ANNUAL MEAN			302
HIGHEST DAILY MEAN	260	590	6320
LOWEST DAILY MEAN	4.8	5.7	.00
ANNUAL SEVEN-DAY MINIMUM	6.2	7.4	.00
INSTANTANEOUS PEAK FLOW		3280	15000
INSTANTANEOUS PEAK STAGE		6.88	12.79
INSTANTANEOUS LOW FLOW		5.6	
ANNUAL RUNOFF (AC-FT)	39190	35110	41610
10 PERCENT EXCEEDS	109	110	120
50 PERCENT EXCEEDS	41	33	16
90 PERCENT EXCEEDS	8.5	10	1.7

e Estimated





## 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 1992 TO SEPTEMBER 1993

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 17...	1200	55	1500	8.3	17.0	6.0	12	642	10.8	104	21	<3
JAN 20...	1330	91	1220	7.9	15.0	1.0	3.5	642	--	--	--	<3
MAR 16...	1200	64	1730	8.3	21.0	12.0	25	647	9.5	105	--	K2
MAY 25...	1200	280	900	8.0	24.0	21.5	110	648	8.4	113	30	130
JUL 07...	1150	31	980	8.0	35.5	26.0	56	641	8.1	120	14	87
SEP 08...	1100	279	829	8.1	22.0	20.0	510	655	7.6	98	34	K970

DATE	STREP-TOCOC CI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	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 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)
NOV 17...	K24	570	400	110	72	130	2	3.8	212	0	174	178
JAN 20...	K2	530	340	110	63	100	2	2.6	234	0	192	193
MAR 16...	K4	750	570	140	98	150	2	3.2	206	7	181	178
MAY 25...	110	350	180	80	36	59	1	2.5	211	0	173	173
JUL 07...	310	350	200	75	40	76	2	3.7	184	0	151	172
SEP 08...	1000	310	140	70	32	51	1	3.7	184	10	167	176

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, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
NOV 17...	630	30	0.40	7.6	1220	1090	<0.010	0.020	0.055	<0.050	0.020	<0.010
JAN 20...	460	19	0.40	8.7	976	879	--	0.010	--	<0.050	--	0.060
MAR 16...	870	32	0.30	7.1	1550	1410	--	0.010	--	<0.050	--	0.020
MAY 25...	300	12	0.40	11	621	607	--	<0.010	--	0.170	--	0.030
JUL 07...	320	18	0.40	11	649	636	--	<0.010	--	<0.050	--	0.020
SEP 08...	260	10	0.30	12	566	541	--	<0.010	--	0.094	--	0.030

## ARKANSAS RIVER BASIN

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	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 TOTAL (MG/L AS P) (70507)	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)	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)
NOV 17...	0.30	0.020	<0.010	<0.010	<0.010	5.8	50	88	<3	24	51	7
JAN 20...	<0.20	<0.010	<0.010	--	<0.010	--	--	--	--	--	--	--
MAR 16...	0.30	0.040	0.010	--	<0.010	--	--	--	--	--	--	--
MAY 25...	0.30	0.020	<0.010	--	<0.010	8.7	90	81	<3	35	24	4
JUL 07...	0.20	0.020	<0.010	--	<0.010	5.2	10	140	<3	6	31	7
SEP 08...	0.80	0.230	0.050	--	0.010	15	310	120	<3	98	20	7
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)	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)
NOV 17...	<10	<1	<1	<1.0	1900	<6	3.0	1.4	120	520	2	<1
JAN 20...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 25...	<10	2	1	<1.0	1000	<6	--	--	--	--	--	--
JUL 07...	<10	<1	1	<1.0	1100	<6	--	--	--	--	--	--
SEP 08...	<10	3	<1	<1.0	840	<6	--	--	--	--	--	--
DATE	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN (062 MM) (70331)	
NOV 17...	2	<5	4	2600	<10	540	<0.01	9	85	13	94	
JAN 20...	--	--	--	--	--	--	--	--	55	13	83	
MAR 16...	--	--	--	--	--	--	--	--	132	23	85	
MAY 25...	--	--	--	--	--	--	--	--	241	182	97	
JUL 07...	--	--	--	--	--	--	--	--	144	12	98	
SEP 08...	--	--	--	--	--	--	--	--	374	282	99	

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
NOV 1992								
17...	1201	6.00	1.00	1520	8.0	6.0	10.7	131
17...	1202	9.00	1.12	1600	8.2	6.0	10.8	147
17...	1203	12.0	1.10	1600	8.2	6.0	10.6	188
17...	1204	15.0	1.46	1580	8.2	6.0	10.7	129
17...	1205	18.0	1.40	1580	8.2	6.0	10.8	148
17...	1206	21.0	1.70	1520	8.2	6.0	10.9	212
17...	1207	24.0	1.20	1550	8.2	6.0	10.8	239
17...	1208	27.0	1.52	1520	8.1	6.0	10.8	100
17...	1209	30.0	1.44	1550	8.2	6.0	10.8	--
17...	1210	33.0	0.82	1510	8.2	6.0	10.8	273

## 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 current year.

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. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.01	.02	.03	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.02	.02	.02	.00	.00	.00	4.5	.00
3	.00	.00	.00	.00	.02	.02	.00	.00	.00	.00	408	.00
4	.00	.00	.00	.00	.02	.02	.00	.00	.00	.00	1000	.00
5	.00	.00	.00	.00	.02	.02	.00	.00	.00	.00	54	.00
6	.00	.00	.00	.00	.02	.02	.00	.00	.00	.00	41	9.5
7	.00	.00	.00	.00	.02	.02	.00	.00	.00	.00	15	4.8
8	.00	.00	.00	.00	.02	.02	.00	.00	.00	.00	13	.72
9	.00	.00	.00	.00	.02	.02	.00	.00	.00	.00	6.8	.32
10	.00	.00	.00	e.00	.02	.01	.00	.00	.00	.00	3.6	.20
11	.00	.00	.00	e.00	.02	.00	.00	.00	.00	.00	2.2	.07
12	.00	.00	.00	e.00	.02	.00	.00	.00	.00	7.6	1.7	.03
13	.00	.00	.00	e.00	.02	.00	.00	.00	.00	7.3	3.2	.03
14	.00	.00	.00	e.00	.02	.00	.00	.00	.00	1.3	4.7	.01
15	.00	.00	.00	e.00	.04	.00	.00	.00	.00	81	2.4	.00
16	.00	.00	.00	e.00	.04	.00	.00	.00	.00	23	1.2	.00
17	.00	.00	.00	e.01	e.03	.00	.00	.00	.00	6.3	40	.00
18	.00	.00	.00	e.01	e.02	.00	.00	.00	.10	2.0	16	.00
19	.00	.00	.00	e.02	.02	.00	.00	.00	.03	.80	5.4	.00
20	.00	.00	.00	e.02	.02	.00	.00	.00	.00	.26	20	.00
21	.00	.00	.00	.02	.01	.00	.00	.00	.00	.10	5.2	.00
22	.00	.00	.00	.03	.00	.00	.00	.00	.00	3.7	2.4	.00
23	.00	.00	.00	.02	.00	.00	.00	.00	.00	2.2	1.3	.00
24	.00	.00	.00	.01	.00	.00	.00	.00	.00	.97	.76	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23	.43	.00
26	.00	.00	.00	.01	.00	.00	.00	.00	.00	.07	.28	.00
27	.00	.00	.00	.02	.02	.06	.00	.00	.00	.01	.12	.00
28	.00	.00	.00	.02	.02	.03	.00	.00	.00	.00	.04	.00
29	.00	.00	.00	.00	---	.02	.00	.00	.00	.00	.01	.00
30	.00	.00	.00	.00	---	.02	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.03	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.19	0.49	0.35	0.05	0.00	0.13	136.84	1653.24	15.68
MEAN	.000	.000	.000	.006	.017	.011	.002	.000	.004	4.41	53.3	.52
MAX	.00	.00	.00	.03	.04	.06	.03	.00	.10	81	1000	9.5
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.4	1.0	.7	.1	.00	.3	271	3280	31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

	MEAN	8.65	1.70	.89	.73	.78	1.29	3.03	12.0	25.7	30.3	34.0	37.6
MAX	90.5	31.6	11.0	8.65	8.26	22.0	63.8	302	503	144	154	549	
(WY)	1942	1937	1943	1943	1937	1937	1942	1941	1937	1972	1977	1941	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.16	.000
(WY)	1937	1937	1937	1937	1937	1953	1949	1938	1938	1945	1980	1980	1948

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1937 - 1993

ANNUAL TOTAL	288.48	1806.97	
ANNUAL MEAN	.79	4.95	13.1
HIGHEST ANNUAL MEAN			108
LOWEST ANNUAL MEAN			.18
HIGHEST DAILY MEAN	36	1000	11700
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		3450	44000
INSTANTANEOUS PEAK STAGE		6.61	19.96
ANNUAL RUNOFF (AC-FT)	572	3580	9490
10 PERCENT EXCEEDS	.96	.74	9.0
50 PERCENT EXCEEDS	.00	.00	.12
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

## ARKANSAS RIVER BASIN

## 07223500 CONCHAS LAKE AT CONCHAS DAM, NM

LOCATION.--Lat 35°24'10", long 104°11'25", San Miguel County, Hydrologic Unit 11080003, in Pablo Montoya Grant, stilling well within concrete portion of Conchas Dam on Canadian River, 24 mi north of Newkirk, and at mile 746.0.

DRAINAGE AREA.--7,409 mi<sup>2</sup>, of which 433 mi<sup>2</sup>, is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by dam consisting of concrete main section and earthfill wings, completed Sept. 15, 1939; storage began Dec. 29, 1938. Capacity, 330,100 acre-ft between elevations 4,060.0 ft and 4,201.0 ft, crest of 300 ft ungated service spillway. Inactive storage, 70,490 acre-ft, at elevation 4,155.0 ft. Lake usually not drawn below elevation, 4,157.35 ft, sill of irrigation outlet, capacity, 77,790 acre-ft, except for minor sluicing; at times irrigation water is pumped into Conchas Canal. Capacity of 198,800 acre-ft between elevations 4,201.0 ft, crest of 300 ft ungated service spillway, and 4,218.0 ft, crest of 3,000 ft ungated emergency spillway, acts as detention storage in the control of floods. Figures given herein represent total contents. Lake is used for irrigation, flood control, and recreation. Diversions upstream from station for irrigation of about 57,000 acres. Direct diversions through Conchas Dam to Bell Ranch Canal and Conchas Canal (stations 07223000, 07223300) irrigate about 36,000 acres near Tucumcari, and on Bell Ranch. 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, 479,600 acre-ft, Apr. 24, 1942, elevation, 4,208.41 ft; minimum after initial filling, 78,080 acre-ft, Sept. 18, 1976, elevation, 4,157.44 ft; minimum elevation, 4,155.80 ft, Sept. 24, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 278,740 acre-ft, Oct. 1, elevation, 4,196.96 ft; minimum, 257,520 acre-ft, Sept. 30, elevation, 4,194.44 ft.

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

(Based on Survey by U.S. Army Corps of Engineers in 1970)

4,180	160,600
4,190	223,400
4,200	306,200
4,210	412,100

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	278740	261960	259320	261800	265950	268470	273050	275970	271780	268640	261550	269740
2	278130	261460	259650	262130	266120	268470	274080	275970	271010	268390	261300	269740
3	277530	260970	259320	262460	266120	268390	273990	275800	270670	267800	262210	269400
4	276750	260800	259650	262790	266210	268390	273910	275710	270500	267130	264780	269230
5	275800	260560	260310	262460	266460	268470	274080	275970	270930	266540	266210	268900
6	275450	260470	259980	263120	266460	268470	274250	275630	271100	266040	266870	268640
7	274420	260310	259980	262960	266540	268470	274420	275280	270670	265200	268050	268900
8	273910	260140	259980	263120	266620	268470	274770	275110	270160	264370	269400	268900
9	273050	259980	259980	263120	266790	268470	275280	274940	269060	263790	269910	268560
10	272540	259820	260470	263120	266790	268470	275450	274680	268470	263200	270750	268310
11	272030	259820	260800	263290	266790	268390	275970	274340	268050	262460	270840	268050
12	271520	259820	260720	263620	266960	268390	276320	274250	267630	261710	270920	267380
13	270840	259650	260640	263620	266960	268470	276830	274080	266710	260890	271010	266870
14	270250	259650	260800	263620	267130	268470	276830	273740	266290	262210	270840	266540
15	269490	259650	260800	263620	267460	268470	276830	273220	265870	264200	270500	266040
16	269060	259650	260800	263700	267460	268390	277180	273050	265370	264700	270160	265540
17	268560	259650	261460	263790	267630	269150	277530	272880	265540	265450	269740	265040
18	268140	259650	261130	263790	267800	269490	277960	272800	265790	265620	269740	264450
19	267630	259650	260970	264290	267880	269320	278130	272630	266210	265290	269570	264040
20	267210	259820	261460	264450	268050	269820	278220	272540	266210	265200	269570	263370
21	266790	259820	261300	264450	268050	269990	278130	272460	266540	265370	269230	262870
22	266290	259820	261300	264870	268310	269490	277870	272200	266960	266040	269400	262050
23	265870	259650	261220	264790	268140	269490	277700	272120	267460	265870	269570	261550
24	265370	259650	261710	265120	268220	269490	277530	272120	268220	265620	269570	261130
25	264950	259650	261460	265120	268220	269490	277350	271860	268640	265120	269230	260560
26	264370	259650	261630	265040	268310	269490	277180	271520	268980	264540	268900	259900
27	263950	259650	261550	265120	268310	270670	277010	271180	269740	263870	268730	259400
28	263620	259570	261380	265120	268310	271010	276660	271860	269660	263450	268560	258750
29	263290	259490	261630	265620	---	271180	276490	271950	269060	262870	268730	258170
30	262960	259490	261800	265790	---	271440	275970	271860	268810	262370	269230	257520
31	262290	---	261630	265790	---	272370	---	271860	---	261960	269570	---
MAX	278740	261960	261800	265790	268310	272370	278220	275970	271780	268640	271010	269740
MIN	262290	259490	259320	261800	265950	268390	273050	271180	265370	260890	261300	257520
(†)	4195.02	4194.68	4194.94	4195.44	4195.74	4196.22	4196.64	4196.16	4195.80	4194.98	4195.89	4194.44
(††)	-17150	-2800	+2140	+4160	+2520	+4060	+3600	+4110	-3050	-6850	+7610	-12050

CAL YR 1992 MAX 307370 MIN 259320 AC-FT (††) -26200  
WTR YR 1993 MAX 278740 MIN 257520 AC-FT (††) -21920

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

LOCATION.--Lat 35°26'18", long 103°31'31", in NW¼SE¼ sec.15, T.14 N., R.32 E., Harding County, Hydrologic Unit 11090007, on right bank 1.9 mi 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.

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

GAGE.--Water-stage recorder. 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.

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 U.S. Bureau of Reclamation; discharge, about 70,000 ft<sup>3</sup>/s.

ANNUAL TOTAL	2748.68	4168.61		
ANNUAL MEAN	7.51	11.4	21.4	
HIGHEST ANNUAL MEAN			57.2	1958
LOWEST ANNUAL MEAN			.084	1974
HIGHEST DAILY MEAN	809	Aug 18	7420	May 28 1946
LOWEST DAILY MEAN	.00	Feb 27	.00	Jul 17 1942
ANNUAL SEVEN-DAY MINIMUM	.00	Mar 5	.00	Mar 18 1943
INSTANTANEOUS PEAK FLOW			3870	Jun 19 1946
INSTANTANEOUS PEAK STAGE			4.92	Jun 19 1981
ANNUAL RUNOFF (AC-FT)	5450	8270	15490	
10 PERCENT EXCEEDS	8.0	.00	20	
50 PERCENT EXCEEDS	.00	.00	.00	
90 PERCENT EXCEEDS	.00	.00	.00	
e Estimated				

## 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.--11,140 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, 246,620 acre-ft at elevation 3,787.0 ft, crest of labyrinth spillway. Top of dam is at elevation 3,812.0 ft. Maximum design capacity of 440,250 acre-ft at elevation 3,806.0 ft, 19.0 ft above crest of spillway, allows 193,600 acre-ft of capacity for protection of the structure. Dead storage, 10,900 acre-ft at elevation 3,725.0 ft, sill of outlet intake tower; inactive pool of 25,140 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, 231,560 acre-ft, July 19, elevation, 3,785.30 ft; minimum, 203,300 acre-ft, Sept. 29, 30, elevation, 3,781.47 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 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229880	228200	225200	222480	223100	223160	222860	220760	218530	229000	228240	222630
2	229880	227900	225200	222550	223010	223220	222700	220760	218530	229080	229000	221640
3	229800	227800	225100	222400	222930	223100	222780	220760	217570	228780	229850	221050
4	229730	227700	225100	222400	222930	223090	222780	220610	217570	228470	231250	220240
5	229730	227500	225050	222400	222930	223130	222930	220530	217350	228020	231410	219130
6	229730	227200	225020	222420	223010	223160	222930	220380	217420	228090	231020	218310
7	229800	227000	225000	222400	223010	223160	222700	220280	217130	227790	230320	217420
8	229800	226700	224950	222500	222930	223130	222550	220250	216910	227940	229770	216910
9	229700	226600	224900	222480	223160	223010	222500	220000	216680	227410	229460	216020
10	229700	226500	224850	222550	223010	223000	222250	219800	216830	227410	229310	215350
11	229600	226400	224710	222600	223010	222860	222250	219650	216680	227330	229380	214610
12	229500	226080	224560	222550	223010	222780	222250	219570	216680	227330	229380	213520
13	229500	226080	224410	222480	223010	222860	222020	219650	216460	227410	229230	212220
14	229500	226080	224560	222500	223010	223010	221950	219650	216020	227940	229230	211500
15	229400	226080	224410	222600	223140	223010	221790	219570	216310	229380	228930	210700
16	229400	226080	224330	222650	223090	222900	221700	219270	216610	230710	229000	210060
17	229400	226080	224330	222630	223240	222780	221650	219200	216460	230780	229230	209260
18	229300	226080	224330	222630	223240	222780	221600	219100	218240	231090	229310	208400
19	229200	225800	224330	222860	223390	222400	221570	218980	224380	231560	229230	207310
20	229200	225700	224300	222930	223400	222400	221420	218830	227260	231090	229310	206810
21	229200	225700	224260	222930	223240	222400	221350	218800	227940	230470	229230	206250
22	229100	225600	224260	223000	223160	222330	221300	218780	228620	229930	228930	205340
23	229000	225600	224260	223010	223240	222300	221200	218760	229230	229460	228930	204350
24	229000	225500	224200	222990	223120	222250	221120	218530	229310	229230	228850	204140
25	229000	225400	224180	222930	223010	222480	221200	218760	229460	229000	228620	203930
26	228900	225400	224260	223010	223160	222480	220980	218760	229380	228850	227860	203720
27	228700	225300	224260	223010	223160	222450	220900	218530	229310	228470	227030	203650
28	228700	225300	224330	222860	223180	222480	220900	218460	229690	228390	226350	203370
29	228600	225200	224330	222860	---	222700	220700	218310	229310	228390	225430	203300
30	228500	225200	224340	222930	---	222780	220610	218240	229150	228550	224220	203300
31	228400	---	224360	223000	---	222860	---	218460	---	228170	223460	---
MAX	229880	228200	225200	223010	223400	223220	222930	220760	229690	231560	231410	222630
MIN	228400	225200	224180	222400	222930	222250	220610	218240	216020	227330	223460	203300
(†)	3784.46	3784.16	3784.10	3784.21	3784.21	3784.16	3783.86	3783.57	3784.99	3784.86	3784.24	3781.47
(††)	-1560	-3200	-840	+600	+180	-320	-2250	-2150	+10690	-980	-4710	-20160
CAL YR 1992	MAX 234520	MIN 220690	(††) -3010									
WTR YR 1993	MAX 231560	MIN 203300	(††) -26660									

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

(††) CHANGE IN CONTENTS, IN ACRE-Feet

\* Based on new capacity table begun 1/1/93.

## ARKANSAS RIVER BASIN

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

## WATER-QUALITY RECORDS

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

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

REMARKS.--Samples for chemical analyses are collected annually at Site B which is located 0.6 mi upstream from Ute Dam. Samples are collected 5 feet above the bottom of the reservoir.

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 1992 TO SEPTEMBER 1993

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	RESER- VOIR DEPTH (FEET) (72025)	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)
AUG												
11...	0920	0.10	81.0	--	--	--	25.0	665	7.8	--	--	--
11...	0921	1.00	81.0	--	--	--	25.0	665	7.8	--	--	--
11...	0922	5.00	81.0	1110	8.5	--	25.0	665	7.8	109	--	--
11...	0923	10.0	81.0	--	--	--	25.0	665	7.8	--	--	--
11...	0924	15.0	81.0	--	--	--	24.5	665	7.7	--	--	--
11...	0925	20.0	81.0	--	--	--	24.5	665	7.6	--	--	--
11...	0926	25.0	81.0	--	--	--	24.5	665	7.4	--	--	--
11...	0927	30.0	81.0	--	--	--	24.0	665	6.9	--	--	--
11...	0928	35.0	81.0	--	--	--	24.0	665	5.9	--	--	--
11...	0929	40.0	81.0	1110	8.2	--	23.0	665	4.6	62	--	--
11...	0930	45.0	81.0	--	--	--	22.0	665	2.5	--	--	--
11...	0931	50.0	81.0	--	--	--	21.5	665	1.7	--	--	--
11...	0932	55.0	81.0	--	--	--	21.0	665	1.3	--	--	--
11...	0933	60.0	81.0	--	--	--	20.5	665	1.0	--	--	--
11...	0934	65.0	81.0	--	--	--	20.0	665	0.7	--	--	--
11...	0935	70.0	81.0	--	--	--	19.0	665	0.5	--	--	--
11...	0936	75.0	81.0	1100	7.9	31.0	18.5	665	0.3	4	<10	K3
11...	0937	80.0	81.0	--	--	--	18.0	665	0.1	--	--	--

DATE	STREP- TOCOC 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)
AUG												
11...	<1	240	41	41	33	130	4	6.2	240	0	197	195

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 AS (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 ORTHOPHOS- PHATE DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
AUG												
11...	280	53	0.60	2.9	665	<0.010	0.120	0.030	0.30	<0.010	<0.010	4.5

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	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)
AUG												
11...	2	2	190	<1	<1.0	<1	<1	<1	2	<3	<1	<1



## 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 1992 TO SEPTEMBER 1993

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)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	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 TOTAL + 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)
AUG 11...	<0.10	<0.1	<1	<1	<10	4	<2.0	24	830	700	7

DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
AUG 11...	1	9	<5	20	7800	20	520	<0.01	30	59	97

## 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.

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.--Records 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 1992 TO SEPTEMBER 1993

DAY	DAILY MEAN VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	3.9	4.2	e4.0	3.9	3.8	4.2	3.4	4.3	3.7	4.1	331
2	2.6	3.8	4.0	e4.0	3.9	3.8	4.0	3.8	3.7	3.7	4.3	331
3	2.8	3.7	4.3	e4.0	3.9	3.4	4.0	3.3	3.6	3.7	26	329
4	2.9	3.7	4.1	e4.0	3.9	3.5	4.2	3.3	3.8	3.6	8.7	329
5	3.1	3.8	4.3	e4.0	3.8	3.6	4.3	3.3	3.7	3.8	97	328
6	3.1	3.8	4.3	3.8	3.9	3.7	4.4	3.3	3.4	3.7	323	329
7	3.4	3.7	4.1	3.9	3.9	3.7	4.6	3.3	3.3	3.6	324	328
8	3.7	3.7	e3.9	3.9	3.8	3.6	3.4	3.5	4.0	3.5	324	327
9	3.5	4.0	e3.9	3.9	3.8	12	2.9	3.6	3.6	4.1	225	327
10	3.5	3.9	e4.0	3.8	3.8	4.8	3.0	3.5	3.7	5.7	7.4	326
11	3.6	4.0	e3.9	3.8	3.8	3.4	3.1	3.7	3.7	4.0	6.0	326
12	3.6	4.0	e3.8	3.9	3.8	3.4	3.2	3.6	3.7	3.7	5.4	324
13	3.8	4.0	e3.9	3.8	3.8	3.5	3.7	3.6	3.6	3.7	5.0	324
14	3.8	3.9	e3.8	3.9	3.8	3.5	5.0	3.4	3.6	3.8	4.9	324
15	3.8	3.8	e3.9	3.8	3.8	3.5	3.8	3.4	3.8	4.8	5.0	324
16	3.8	3.7	e4.0	3.8	3.8	3.5	3.3	3.4	3.7	4.1	4.9	324
17	3.8	3.8	e3.9	3.8	3.8	3.6	3.2	3.5	4.3	3.9	5.0	323
18	3.9	3.9	e3.9	3.8	3.8	3.8	3.5	3.7	4.5	3.9	4.9	323
19	3.8	4.0	e4.0	3.9	3.8	3.6	4.7	3.5	29	45	5.0	323
20	3.9	4.1	e4.0	3.9	7.3	3.6	4.3	3.5	5.2	326	5.1	323
21	3.9	4.2	e3.9	3.8	6.2	3.7	3.5	3.7	5.3	328	5.0	323
22	3.8	4.2	e4.0	3.8	3.8	3.8	3.4	3.6	4.6	326	5.0	323
23	3.9	4.1	e4.0	3.8	3.8	3.6	3.3	3.6	4.1	132	5.1	323
24	3.9	4.1	e4.0	3.8	3.5	3.6	4.7	3.6	3.9	6.4	5.1	177
25	3.9	4.0	e4.0	3.8	3.7	3.5	4.1	3.7	3.8	5.4	5.1	7.2
26	4.0	4.0	e4.0	3.8	3.6	3.7	3.5	3.5	4.5	4.7	161	5.7
27	3.9	4.2	e4.0	3.8	3.7	4.6	3.3	3.4	4.8	4.4	331	5.1
28	3.9	4.1	e4.0	3.8	3.7	4.6	3.2	3.2	4.0	4.1	333	4.8
29	3.9	4.0	e4.0	3.8	---	4.4	3.3	3.1	3.8	4.1	332	4.6
30	3.9	4.1	e4.0	3.8	---	4.4	3.1	4.2	3.7	4.2	331	4.4
31	3.9	---	e4.0	3.8	---	4.5	---	4.0	---	4.2	331	---
TOTAL	111.8	118.2	124.1	119.5	112.1	125.7	112.2	109.2	144.7	1265.6	3239.0	7700.8
MEAN	3.61	3.94	4.00	3.85	4.00	4.05	3.74	3.52	4.82	40.8	104	257
MAX	4.0	4.2	4.3	4.0	7.3	12	5.0	4.2	29	328	333	331
MIN	2.5	3.7	3.8	3.8	3.5	3.4	2.9	3.1	3.3	3.5	4.1	4.4
AC-FT	222	234	246	237	222	249	223	217	287	2510	6420	15270

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

	1963	1964	1965	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
MEAN	33.9	28.5	7.25	7.95	10.0	3.09	15.9	27.5	47.2	69.6	83.4	92.0																			
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 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1963 - 1993
ANNUAL TOTAL	3992.9	13282.9	
ANNUAL MEAN	10.9	36.4	35.6
HIGHEST ANNUAL MEAN			145
LOWEST ANNUAL MEAN			1.62
HIGHEST DAILY MEAN	320 Jan 1	333 Aug 28	6860 Jun 18 1969
LOWEST DAILY MEAN	1.9 Sep 23	2.5 Oct 1	.10 Jan 12 1963
ANNUAL SEVEN-DAY MINIMUM	2.1 Sep 23	2.9 Oct 1	.10 Apr 16 1963
INSTANTANEOUS PEAK FLOW			219000 Sep 22 1941
INSTANTANEOUS PEAK STAGE			29.30 Sep 22 1941
ANNUAL RUNOFF (AC-FT)	7920	26350	25780
10 PERCENT EXCEEDS	4.9	167	8.6
50 PERCENT EXCEEDS	4.0	3.9	2.5
90 PERCENT EXCEEDS	3.5	3.4	1.6
e Estimated			

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[illegible]

## ARKANSAS RIVER BASIN

07227100 REVUELTO CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°20'29", long 103°23'37", in SW¼NW¼ 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 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. No flow at times most years.

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 U.S. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	14	2.5	4.3	3.7	4.0	4.4	31	3.7	2.5	5.8	6.4
2	8.0	14	2.0	6.2	3.8	3.4	2.6	146	3.5	1.3	22	7.2
3	7.5	17	1.7	5.5	3.3	2.4	1.0	40	3.1	1.5	356	7.2
4	6.9	22	.78	4.3	3.0	2.1	1.5	23	2.6	3.2	470	7.5
5	6.5	20	2.9	4.3	3.4	1.8	1.6	17	4.9	1.9	318	7.0
6	6.8	18	5.2	3.7	3.4	1.9	1.6	7.4	5.4	2.0	283	10
7	8.5	22	6.2	4.5	3.4	1.9	1.6	7.4	1.9	2.5	78	26
8	11	32	22	4.3	3.2	1.9	25	6.3	1.2	3.8	39	484
9	15	15	38	7.2	3.3	1.8	10	10	.98	18	36	218
10	12	21	57	5.2	3.3	1.2	8.0	10	1.5	6.4	20	208
11	13	22	17	12	3.2	1.2	10	8.0	7.2	87	14	104
12	12	19	8.9	17	2.7	1.6	8.4	15	10	17	17	59
13	13	36	6.1	14	2.9	2.1	5.2	11	7.8	35	6.8	31
14	11	35	4.3	12	3.4	2.2	3.4	7.3	4.0	48	6.8	24
15	14	11	6.4	6.3	9.2	1.7	4.0	6.2	2.7	882	5.9	16
16	14	6.4	5.8	4.5	39	1.3	5.8	4.8	2.4	470	3.7	12
17	14	5.0	4.9	4.0	53	1.0	7.8	5.4	85	163	476	12
18	16	4.1	6.7	4.0	30	1.5	8.0	4.4	435	37	25	7.4
19	17	3.9	4.0	5.5	23	1.1	6.3	6.3	1490	18	23	8.0
20	22	3.4	3.0	9.4	7.8	.75	8.0	5.2	470	92	76	7.4
21	24	13	3.8	91	3.3	.46	8.4	5.8	360	140	34	17
22	27	26	4.1	19	2.7	.56	8.0	4.8	533	41	93	21
23	24	11	3.4	7.7	3.0	.57	5.1	3.4	103	8.9	83	15
24	18	4.9	3.1	6.3	3.0	.45	8.8	3.9	22	3.4	21	14
25	19	3.5	3.0	6.0	3.0	.29	10	6.0	5.2	2.3	11	12
26	19	6.9	2.3	6.4	2.6	.14	13	5.1	16	1.4	6.6	14
27	19	3.7	2.6	4.8	2.6	3.0	12	2.7	6.1	1.2	7.2	5.8
28	16	3.6	3.3	4.0	2.7	4.4	12	2.0	7.5	1.1	6.5	4.0
29	18	3.3	3.3	3.3	---	2.3	24	2.9	4.2	3.7	8.0	3.0
30	19	2.2	2.7	3.3	---	2.6	32	3.7	1.9	4.1	8.4	3.0
31	15	---	2.5	3.5	---	15	---	7.5	---	3.8	12	---
TOTAL	454.1	418.9	239.48	293.5	230.9	66.62	257.5	419.5	3601.78	2103.0	2572.7	1370.9
MEAN	14.6	14.0	7.73	9.47	8.25	2.15	8.58	13.5	120	67.8	83.0	45.7
MAX	27	36	57	91	53	15	32	146	1490	882	476	484
MIN	6.5	2.2	.78	3.3	2.6	.14	1.0	2.0	.98	1.1	3.7	3.0
AC-FT	901	831	475	582	458	132	511	832	7140	4170	5100	2720

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1993, BY WATER YEAR (WY)

	MEAN	35.1	9.30	10.3	5.78	7.86	6.27	23.8	47.3	71.6	120	125	73.8
MAX	320	34.1	129	27.9	42.5	52.1	346	203	492	1203	575	515	
(WY)	1961	1962	1960	1990	1983	1985	1970	1991	1960	1960	1981	1969	
MIN	.000	.056	.001	.000	.000	.003	.32	.085	.89	.42	.93	1.72	
(WY)	1965	1978	1976	1965	1965	1980	1981	1976	1990	1983	1978	1978	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1959 - 1993

ANNUAL TOTAL	12179.10	12028.88	
ANNUAL MEAN	33.3	33.0	44.5
HIGHEST ANNUAL MEAN			204
LOWEST ANNUAL MEAN			4.72
HIGHEST DAILY MEAN	1080	Aug 18	1490
LOWEST DAILY MEAN	.00	Jun 14	.14
ANNUAL SEVEN-DAY MINIMUM	.21	Jun 13	.46
INSTANTANEOUS PEAK FLOW			5660
INSTANTANEOUS PEAK STAGE			7.37
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (AC-FT)	24160	23860	32260
10 PERCENT EXCEEDS	61	38	58
50 PERCENT EXCEEDS	9.1	6.5	5.0
90 PERCENT EXCEEDS	2.9	1.9	.00

## 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 1992 TO SEPTEMBER 1993

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 12...	1430	20	1150	7.7	13.5	12.0	673	9.7	102	350	74	41
JAN 27...	1110	5.9	2400	8.2	14.0	5.0	670	11.3	102	--	--	--
MAR 30...	1130	2.4	2650	8.6	13.5	14.0	662	9.1	103	440	71	63
JUN 10...	1430	1.0	2450	8.3	31.0	32.0	670	6.7	106	400	67	57
AUG 05...	1220	381	680	8.1	33.0	23.0	674	7.2	95	79	20	7.1

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	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)
NOV 12...	130	3	4.9	207	340	47	0.50	6.9	769	150	8
JAN 27...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	430	9	5.9	270	660	190	0.90	8.4	1590	450	1300
JUN 10...	380	8	6.8	226	510	240	0.60	6.3	1400	310	<10
AUG 05...	110	5	2.8	155	150	22	0.40	8.7	414	210	32

## 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 1992 TO SEPTEMBER 1993

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)
NOV 13...	1130	E18	4580	8.6	15.0	7.0	676	11.3	107	480	98	58
MAR 31...	0930	18	8300	8.4	12.5	14.0	670	9.7	110	540	99	72
JUN 11...	1015	3.7	6900	8.3	24.0	22.0	672	8.8	117	550	93	78
AUG 05...	0940	196	860	8.4	34.5	22.0	672	7.1	93	49	12	4.7

DATE	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	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)
NOV 13...	730	14	6.6	253	440	920	0.70	7.9	2410	260	<10
MAR 31...	1500	28	8.6	258	460	1900	0.70	6.9	4200	410	860
JUN 11...	1400	26	9.7	247	510	1900	1.1	5.7	4150	390	<10
AUG 05...	150	9	2.4	143	110	110	0.50	7.5	483	220	35

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: Nov. 4, 6, 7, 13-15, and Nov. 21 to Mar. 18. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	126	210	270	290	370	749	1500	2770	1170	105	1180
2	76	122	215	270	290	390	710	1510	2570	1100	99	997
3	72	116	235	270	290	390	687	1190	2470	954	99	832
4	70	118	245	260	300	390	680	1010	2180	780	116	744
5	69	126	180	250	310	390	615	983	1750	681	128	544
6	68	120	230	270	310	410	580	967	1490	566	111	484
7	86	130	275	270	310	420	565	832	1500	410	101	395
8	78	136	270	270	310	440	545	746	1400	309	92	425
9	80	158	250	270	320	470	509	708	1170	282	85	445
10	89	200	235	270	320	500	469	640	970	224	95	375
11	78	243	260	270	320	520	458	583	880	187	116	355
12	76	235	280	280	330	532	499	586	853	179	123	330
13	76	246	280	290	330	531	576	678	846	178	118	320
14	83	258	285	290	330	517	596	866	970	192	122	310
15	87	250	285	280	340	539	618	1090	1360	198	99	315
16	78	272	280	270	340	573	560	1300	1570	229	112	312
17	72	232	260	260	340	624	527	1540	1550	204	114	289
18	74	226	270	270	340	650	526	1860	1720	222	110	243
19	74	235	285	280	350	685	552	2030	1650	241	94	222
20	80	242	275	290	360	683	554	1950	1320	238	89	193
21	95	220	275	300	350	700	521	1970	1230	216	103	170
22	100	200	280	300	340	711	553	2090	1250	169	101	156
23	105	195	260	300	340	740	607	2400	1420	174	150	159
24	108	145	255	310	340	745	821	2670	1480	166	195	159
25	103	170	255	300	330	756	973	2320	1390	134	199	154
26	100	190	255	290	340	764	872	2060	1250	120	161	167
27	105	190	245	290	350	836	848	2310	1250	115	140	157
28	108	190	250	280	360	919	889	2960	1280	123	149	142
29	113	185	260	280	---	919	1040	3630	1210	104	351	136
30	112	190	260	280	---	864	1300	3850	1140	100	740	125
31	120	---	260	290	---	810	---	3280	---	104	945	---
TOTAL	2719	5666	7960	8670	9180	18788	19999	52109	43889	10069	5362	10835
MEAN	87.7	189	257	280	328	606	667	1681	1463	325	173	361
MAX	120	272	285	310	360	919	1300	3850	2770	1170	945	1180
MIN	68	116	180	250	290	370	458	583	846	100	85	125
AC-FT	5390	11240	15790	17200	18210	37270	39670	103400	87050	19970	10640	21490

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1993, BY WATER YEAR (WY)

	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
MEAN	177	318	282	257	306	414	541	1143	1248	419	158	122															
MAX	1401	1199	763	521	595	884	2326	4958	4470	2156	842	779															
(WY)	1942	1942	1942	1986	1986	1987	1985	1987	1941	1986	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	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1931 - 1993
ANNUAL TOTAL	121305	195246	
ANNUAL MEAN	331	535	a449
HIGHEST ANNUAL MEAN			1264
LOWEST ANNUAL MEAN			70.9
HIGHEST DAILY MEAN	1670	Apr 15	b9110
LOWEST DAILY MEAN	50	Sep 18	c.00
ANNUAL SEVEN-DAY MINIMUM	58	Sep 13	.00
INSTANTANEOUS PEAK FLOW			d11600
INSTANTANEOUS PEAK STAGE			8.76
ANNUAL RUNOFF (AC-FT)	240600	387300	325000
10 PERCENT EXCEEDS	818	1290	961
50 PERCENT EXCEEDS	250	290	240
90 PERCENT EXCEEDS	82	104	39

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

d-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.

## 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 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, UM-MF (COLS./100 ML)	STREP-TOCOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)
OCT 27...	1400	123	461	8.5	12.0	3.8	10.3	K8	K8
DEC 02...	1200	435	332	8.0	0.0	5.8	12.4	K2	53
FEB 23...	1100	340	287	8.3	0.0	2.3	10.7	K5	84
JUN 14...	1201	970	343	8.4	22.0	6.4	4.7	500	K40
AUG 16...	1230	134	472	9.0	20.5	2.3	8.3	>6000	K8

DATE	HARD-NESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM PERCENT	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	(A) BICAR-A-BONATE WATER DIS IT FIELD (MG/L AS HCO3)	(B) CAR-B-BONATE WATER DIS IT FIELD (MG/L AS CO3)
OCT 27...	140	42	8.2	43	39	2	6.5	167	--
DEC 02...	110	33	6.6	26	33	1	4.5	130	0
FEB 23...	79	24	4.5	25	39	1	4.5	106	0
JUN 14...	100	31	6.6	26	34	1	4.7	107	5
AUG 16...	140	42	8.8	39	36	1	7.6	144	--

DATE	(C) ALKA-C-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT 27...	137	68	12	0.7	24	294	287	97.6
DEC 02...	106	43	8.4	0.4	34	225	223	264
FEB 23...	87	34	8.3	0.3	29	176	183	162
JUN 14...	96	67	7.2	0.4	21	233	222	610
AUG 16...	118	89	11	0.5	24	293	293	106

A-Field dissolved bicarbonate, determined by incremental titration method.

B-Field dissolved carbonate, determined by incremental titration method.

C-Field total dissolved alkalinity, determined by incremental titration method.

K-Based on non-ideal colony counts.



## RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS TOTAL (MG/L AS P)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 27...	<0.01	<0.05	0.02	0.02	0.6	0.09	0.04	0.03
DEC 02...	0.01	0.75	0.01	0.02	0.3	0.08	0.05	0.04
FEB 23...	0.02	0.21	--	0.01	0.2	0.07	0.05	0.05
JUN 14...	<0.01	<0.05	--	0.03	0.5	0.09	0.06	0.05
AUG 16...	<0.01	<0.05	--	0.02	0.4	0.12	0.04	0.04

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)
OCT 27...	<10	33	<3	41	10	12	<10	<1	<1	<1	370	<6
FEB 23...	20	23	<3	58	4	22	<10	<1	<1	<1	190	<6
JUN 14...	30	34	<3	54	5	19	<10	<1	<1	<1	270	<6
AUG 16...	<10	36	<3	9	10	12	<10	<1	<1	<1	370	<6

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS- SOLVED (PCI/L AS METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
DEC 02...	1200	2.0	<0.6	5.0	<0.6	6.4	<0.6	0.03	1.6
JUN 14...	1201	1.1	<0.6	4.4	0.9	5.7	0.9	0.05	<0.01

## CROSS-SECTION DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	TEMPER- ATURE WATER (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	OXYGEN, DIS- SOLVED (MG/L)	SEDI- MENT, SUS- PENDED (MG/L)
OCT 27...	1401	14.0	12.0	460	8.5	10.3	10
27...	1402	23.0	12.0	461	8.5	10.2	19
27...	1403	31.0	12.0	461	8.4	10.3	15
27...	1404	38.0	12.0	461	8.4	10.3	15
27...	1405	45.0	12.0	461	8.4	10.3	12
27...	1406	51.0	12.0	460	8.4	10.3	13
27...	1407	59.0	12.0	461	8.5	10.3	12
27...	1408	69.0	12.0	461	8.5	10.3	12
27...	1409	79.0	12.0	461	8.5	10.4	7
27...	1410	89.0	12.0	461	8.5	10.4	12
AUG 16...	1231	25.0	21.0	467	9.0	8.5	13
16...	1232	39.0	20.5	471	9.0	8.3	17
16...	1233	50.0	20.5	472	9.0	8.2	23
16...	1234	59.0	20.5	473	9.0	8.2	17
16...	1235	66.0	20.5	473	9.0	8.2	17
16...	1236	72.0	20.5	473	9.0	8.3	15
16...	1237	79.0	20.5	474	9.0	8.3	18
16...	1238	85.0	20.5	473	9.0	8.3	16
16...	1239	93.0	20.5	473	9.0	8.4	24
16...	1240	104	21.0	471	9.0	8.7	13

## RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 27...	1400	123	13	4.2
DEC 02...	1200	435	16	19
FEB 23...	1100	340	14	13
JUN 14...	1201	970	55	144
AUG 16...	1230	134	17	6.2

## 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 (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Prior to October 1951, published as "above reservoir, near Costilla."

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

GAGE.--Water-stage recorder. Concrete control since Sept. 17, 1965. 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. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	19	e35	9.5	4.8	6.5
2	---	---	---	---	---	---	---	21	e30	9.1	4.5	6.2
3	---	---	---	---	---	---	---	21	e30	8.4	5.1	6.2
4	---	---	---	---	---	---	---	22	e27	7.9	7.8	5.4
5	---	---	---	---	---	---	---	22	e28	7.5	6.3	5.0
6	---	---	---	---	---	---	---	21	e26	6.8	4.7	4.9
7	---	---	---	---	---	---	---	21	e24	6.4	4.3	6.4
8	---	---	---	---	---	---	---	20	24	6.2	4.2	21
9	---	---	---	---	---	---	---	19	24	6.2	4.1	8.4
10	---	---	---	---	---	---	---	17	23	6.0	4.2	7.1
11	---	---	---	---	---	---	---	19	20	7.2	4.2	7.2
12	---	---	---	---	---	---	---	22	18	8.4	4.0	6.1
13	---	---	---	---	---	---	---	26	19	9.7	5.6	7.7
14	---	---	---	---	---	---	---	30	21	8.4	6.0	11
15	---	---	---	---	---	---	---	34	22	7.1	4.7	9.0
16	---	---	---	---	---	---	---	40	23	6.5	4.0	7.8
17	---	---	---	---	---	---	---	54	22	6.7	4.0	6.9
18	---	---	---	---	---	---	---	48	22	6.5	4.1	6.5
19	---	---	---	---	---	---	---	48	20	5.8	5.7	6.3
20	---	---	---	---	---	---	---	48	20	7.8	4.8	6.1
21	---	---	---	---	---	---	---	56	22	6.6	4.7	5.9
22	---	---	---	---	---	---	---	67	19	5.2	6.4	6.0
23	---	---	---	---	---	---	---	58	17	4.7	4.3	5.9
24	---	---	---	---	---	---	---	56	15	4.4	3.9	5.2
25	---	---	---	---	---	---	---	59	14	4.3	3.7	5.0
26	---	---	---	---	---	---	---	80	13	4.0	5.5	4.9
27	---	---	---	---	---	---	---	74	12	3.8	9.5	4.7
28	---	---	---	---	---	---	---	71	11	4.0	11	4.6
29	---	---	---	---	---	---	---	60	11	4.0	7.9	4.6
30	---	---	---	---	---	---	---	50	10	4.1	9.1	4.5
31	---	---	---	---	---	---	---	40	---	5.8	8.1	---
TOTAL	---	---	---	---	---	---	---	1243	622	199.0	171.2	203.0
MEAN	---	---	---	---	---	---	---	40.1	20.7	6.42	5.52	6.77
MAX	---	---	---	---	---	---	---	80	35	9.7	11	21
MIN	---	---	---	---	---	---	---	17	10	3.8	3.7	4.5
AC-FT	---	---	---	---	---	---	---	2470	1230	395	340	403

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

	3.42	2.57	---	---	---	---	---	24.3	18.5	7.80	6.22	4.12
MEAN	3.42	2.57	---	---	---	---	---	24.3	18.5	7.80	6.22	4.12
MAX	5.40	3.83	---	---	---	---	---	91.4	62.5	21.7	22.6	11.5
(WY)	1991	1961	---	---	---	---	---	1944	1983	1957	1957	1991
MIN	1.23	1.43	---	---	---	---	---	3.58	2.27	1.89	2.23	1.65
(WY)	1965	1965	---	---	---	---	---	1967	1963	1963	1950	1956

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1937 - 1993	
HIGHEST DAILY MEAN	59	May 30	80	May 26	300	Jul 22 1954
LOWEST DAILY MEAN	2.8	Sep 9	3.7	Aug 25	.80	Oct 25 1964
ANNUAL SEVEN-DAY MINIMUM	2.9	Sep 8	4.1	Jul 24	.94	Oct 20 1964
INSTANTANEOUS PEAK FLOW			89	May 27	3870	Jul 22 1954
INSTANTANEOUS PEAK STAGE			3.23	May 27	4.80	Jul 22 1954
10 PERCENT EXCEEDS	35		40		25	
50 PERCENT EXCEEDS	6.8		7.9		5.8	
90 PERCENT EXCEEDS	3.0		4.2		2.3	

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 (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Records for Nov. 1-7, 1947 and Nov. 1-16, 1948, published in WSP 1118 and 1148, are unreliable and should not be used.

REVISED RECORDS.--WSP 1282: 1948-51. WSP 1923: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. 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 good. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	11	63	41	14	16
2	---	---	---	---	---	---	---	13	65	39	14	16
3	---	---	---	---	---	---	---	13	65	37	16	15
4	---	---	---	---	---	---	---	12	61	36	16	14
5	---	---	---	---	---	---	---	13	56	35	16	14
6	---	---	---	---	---	---	---	12	53	33	15	13
7	---	---	---	---	---	---	---	13	52	31	14	14
8	---	---	---	---	---	---	---	13	48	29	14	20
9	---	---	---	---	---	---	---	12	46	29	13	14
10	---	---	---	---	---	---	---	11	43	28	13	13
11	---	---	---	---	---	---	---	12	39	27	13	13
12	---	---	---	---	---	---	---	13	39	27	12	12
13	---	---	---	---	---	---	---	15	40	27	14	14
14	---	---	---	---	---	---	---	17	43	27	13	14
15	---	---	---	---	---	---	---	21	47	24	12	13
16	---	---	---	---	---	---	---	26	50	23	12	13
17	---	---	---	---	---	---	---	30	53	23	12	12
18	---	---	---	---	---	---	---	29	53	22	12	12
19	---	---	---	---	---	---	---	30	51	20	14	12
20	---	---	---	---	---	---	---	33	52	22	12	12
21	---	---	---	---	---	---	---	36	52	19	12	11
22	---	---	---	---	---	---	---	42	49	17	14	12
23	---	---	---	---	---	---	---	41	49	17	12	11
24	---	---	---	---	---	---	---	42	49	16	12	11
25	---	---	---	---	---	---	---	43	47	15	12	10
26	---	---	---	---	---	---	---	51	46	15	13	10
27	---	---	---	---	---	---	---	58	45	14	17	9.9
28	---	---	---	---	---	---	---	62	44	14	17	9.8
29	---	---	---	---	---	---	---	63	44	14	17	9.6
30	---	---	---	---	---	---	---	61	43	14	17	9.3
31	---	---	---	---	---	---	---	63	---	15	16	---
TOTAL	---	---	---	---	---	---	---	911	1487	750	430	379.6
MEAN	---	---	---	---	---	---	---	29.4	49.6	24.2	13.9	12.7
MAX	---	---	---	---	---	---	---	63	65	41	17	20
MIN	---	---	---	---	---	---	---	11	39	14	12	9.3
AC-FT	---	---	---	---	---	---	---	1810	2950	1490	853	753

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

	MEAN	5.39	4.01	---	---	---	8.35	8.37	19.7	32.2	15.8	9.73	6.83
MAX	11.4	6.00	---	---	---	---	8.35	24.7	44.0	82.0	53.8	23.7	15.9
(WY)	1983	1990	---	---	---	---	1978	1987	1984	1983	1983	1957	1961
MIN	2.83	2.10	---	---	---	---	8.35	3.85	2.30	1.83	1.55	2.32	1.45
(WY)	1964	1965	---	---	---	---	1978	1967	1963	1963	1963	1963	1951

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1937 - 1993

ANNUAL TOTAL	3480.8	3957.6	
ANNUAL MEAN	22.8	25.9	15.4
HIGHEST ANNUAL MEAN			39.4
LOWEST ANNUAL MEAN			2.66
HIGHEST DAILY MEAN	46	May 23	111
LOWEST DAILY MEAN	5.8	Sep 30	1.0
ANNUAL SEVEN-DAY MINIMUM	6.0	Sep 24	1.2
INSTANTANEOUS PEAK FLOW			181
INSTANTANEOUS PEAK STAGE			2.07
ANNUAL RUNOFF (AC-FT)	6900	7850	11140
10 PERCENT EXCEEDS	44	52	36
50 PERCENT EXCEEDS	22	16	9.1
90 PERCENT EXCEEDS	6.7	12	3.6

## 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 (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732.

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. 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. No diversions upstream from station. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	1.5	6.8	5.6	2.1	1.6
2	---	---	---	---	---	---	---	1.5	7.1	5.5	2.0	1.5
3	---	---	---	---	---	---	---	1.5	7.3	5.3	2.2	1.5
4	---	---	---	---	---	---	---	1.5	7.1	5.1	2.1	1.5
5	---	---	---	---	---	---	---	1.5	6.7	4.9	2.1	1.4
6	---	---	---	---	---	---	---	1.5	6.6	4.1	1.9	1.4
7	---	---	---	---	---	---	---	1.5	6.5	3.9	1.9	1.5
8	---	---	---	---	---	---	---	1.5	6.1	3.9	1.9	1.8
9	---	---	---	---	---	---	---	1.4	5.9	3.7	1.7	1.5
10	---	---	---	---	---	---	---	1.3	5.5	3.6	1.7	1.5
11	---	---	---	---	---	---	---	1.4	5.1	3.5	1.7	1.4
12	---	---	---	---	---	---	---	1.4	4.8	3.5	1.7	1.4
13	---	---	---	---	---	---	---	1.6	4.7	3.4	1.8	1.6
14	---	---	---	---	---	---	---	1.6	4.7	3.4	1.6	1.5
15	---	---	---	---	---	---	---	1.9	4.7	3.3	1.6	1.5
16	---	---	---	---	---	---	---	2.0	4.9	3.1	1.5	1.4
17	---	---	---	---	---	---	---	2.0	5.4	3.1	1.5	1.4
18	---	---	---	---	---	---	---	2.2	5.6	2.9	1.5	1.4
19	---	---	---	---	---	---	---	2.2	5.7	2.7	1.7	1.4
20	---	---	---	---	---	---	---	2.4	5.8	3.0	1.5	1.3
21	---	---	---	---	---	---	---	2.7	5.8	2.7	1.6	1.3
22	---	---	---	---	---	---	---	3.0	5.6	2.6	1.7	1.3
23	---	---	---	---	---	---	---	3.2	5.6	2.5	1.4	1.3
24	---	---	---	---	---	---	---	3.5	5.7	2.4	1.4	1.3
25	---	---	---	---	---	---	---	4.0	5.7	2.3	1.3	1.3
26	---	---	---	---	---	---	---	4.6	6.8	2.2	1.6	1.2
27	---	---	---	---	---	---	---	5.3	6.5	2.2	2.0	1.2
28	---	---	---	---	---	---	---	5.8	6.2	2.1	1.9	1.2
29	---	---	---	---	---	---	---	6.2	5.9	2.1	1.7	1.2
30	---	---	---	---	---	---	---	6.3	5.7	2.2	1.7	1.2
31	---	---	---	---	---	---	---	6.5	---	2.2	1.6	---
TOTAL	---	---	---	---	---	---	---	84.5	176.5	103.0	53.6	42.0
MEAN	---	---	---	---	---	---	---	2.73	5.88	3.32	1.73	1.40
MAX	---	---	---	---	---	---	---	6.5	7.3	5.6	2.2	1.8
MIN	---	---	---	---	---	---	---	1.3	4.7	2.1	1.3	1.2
AC-FT	---	---	---	---	---	---	---	168	350	204	106	83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

MEAN	1.00	.54	---	---	---	.66	1.11	2.86	5.35	3.11	1.87	1.27
MAX	1.82	1.03	---	---	---	.66	2.60	6.74	12.6	7.98	4.28	2.30
(WY)	1942	1969	---	---	---	1978	1979	1942	1979	1941	1957	1957
MIN	.55	.34	---	---	---	.66	.53	.80	1.11	.63	.56	.42
(WY)	1973	1965	---	---	---	1978	1967	1967	1963	1956	1956	1956

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1937 - 1993

ANNUAL TOTAL	559.8	459.6	
ANNUAL MEAN	3.66	3.00	2.65
HIGHEST ANNUAL MEAN			5.98
LOWEST ANNUAL MEAN			.76
HIGHEST DAILY MEAN	7.7	Jun 9	16
LOWEST DAILY MEAN	1.2	Sep 27	.00
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 24	.21
INSTANTANEOUS PEAK FLOW			18
INSTANTANEOUS PEAK STAGE			1.73
ANNUAL RUNOFF (AC-FT)	1110	912	1920
10 PERCENT EXCEEDS	7.2	5.9	5.8
50 PERCENT EXCEEDS	3.0	2.1	1.8
90 PERCENT EXCEEDS	1.4	1.4	.80

## 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 1, 1990 to present. 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. Altitude of gage is 9,300, from topographic map.

REMARKS.--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.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 15,130 acre-ft June 13, 1938, June 20-23, 1941, gage height, 9,511.5 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 10,600 acre-ft, June 21-27, maximum gage-height, 92.22 ft, June 24, minimum contents, 1,600 acre-ft, Oct. 1, gage height, 51.54 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1600	2240	2760	3300	3800	4250	2600	3670	8820	10200	6250	3400
2	1630	2250	2770	3320	3820	4270	2530	3740	9070	10100	6050	3460
3	1650	e2270	2790	3340	3830	4280	2530	3820	9280	10100	5840	3500
4	1670	e2280	2810	3350	3850	4290	2530	3910	9510	10000	5650	3540
5	1690	e2300	2840	3370	3870	4310	2550	3990	9700	9770	5460	3580
6	1710	e2310	2850	3390	3880	4320	2550	4070	9860	9550	5410	3570
7	1730	e2330	2870	3400	3900	4340	2560	4150	9940	9340	5420	3580
8	1750	e2350	2890	3430	3920	4360	2560	4230	9990	9150	5420	3630
9	1770	e2370	2910	3450	3930	4380	2560	4300	10000	9080	5170	3640
10	1800	e2390	2930	3460	3950	4390	2580	4370	10100	9080	4940	3660
11	1820	e2410	2940	3480	3970	4410	2590	4390	10200	9100	4720	3680
12	1830	e2430	2960	3490	3980	4430	2630	4500	10300	9110	4500	3650
13	1850	e2450	2980	3510	3990	4440	2660	4630	10400	9000	4420	3630
14	1880	e2470	2990	3520	4010	4460	2700	4740	10300	8700	4450	3630
15	1900	e2490	3000	3540	4030	4480	2730	4870	10300	8480	4410	3640
16	1920	e2500	3030	3550	4050	4520	2760	5020	10300	8380	4220	3680
17	1940	e2510	3050	3580	4060	4540	2810	5210	10300	8350	4050	3720
18	1960	2530	3060	3590	4080	4530	2850	5390	10300	8270	3880	3760
19	1980	2550	3080	3610	4090	4480	2890	5570	10400	8060	3770	3790
20	2000	2580	3090	3620	4120	4430	2920	5750	10500	7870	3710	3830
21	2020	2590	3110	3630	4130	4390	2970	5980	10600	7660	3700	3870
22	2040	2610	3130	3650	4140	4290	3040	6220	10600	7460	3660	3910
23	2060	2620	3140	3670	4150	4110	3100	6440	10600	7390	3530	3940
24	2080	2640	3160	3680	4170	3940	3130	6670	10600	7380	3430	3980
25	2100	2650	3160	3700	4180	3780	3200	6910	10600	7320	3330	4020
26	2110	2670	3180	3710	4200	3620	3260	7200	10600	7060	3260	4050
27	2130	2680	3200	3730	4210	3460	3340	7490	10600	6800	3270	4040
28	2160	2700	3230	3740	4230	3280	3420	7780	10500	6570	3310	4040
29	2180	2720	3250	3750	---	3110	3510	8060	10400	6350	3320	4030
30	2200	2740	3270	3770	---	2930	3590	8310	10300	6270	3310	4040
31	2220	---	3280	3790	---	2760	---	8560	---	6280	3350	---
MAX	2220	2740	3280	3790	4230	4540	3590	8560	10600	10200	6250	4050
MIN	1600	2240	2760	3300	3800	2760	2530	3670	8820	6270	3260	3400
(†)	56.54	59.92	63.12	65.88	68.12	60.06	64.80	85.68	91.15	77.26	63.49	67.15
(††)	+640	+520	+540	+510	+440	-1470	+830	+4970	+1740	-4020	-2930	+690
CAL YR 1992	MAX 9020	MIN 1580	AC-FT (††)	-2530								
WTR YR 1993	MAX 10600	MIN 1600	AC-FT (††)	+2460								

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

(††) CHANGE IN CONTENTS, IN ACRE-FEET

e Estimated

## 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 1000 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 (no winter records 1937-44, 1947-49, 1988-92). 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. Elevation of gage is 9,290 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 7, 1989, at site 500 ft upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	99	.01	.00	101	36	1.5
2	---	---	---	---	---	---	52	.00	.21	71	123	1.5
3	---	---	---	---	---	---	14	.00	.43	56	132	1.5
4	---	---	---	---	---	---	14	.00	.43	72	122	1.5
5	---	---	---	---	---	---	14	.00	.43	142	116	6.8
6	---	---	---	---	---	---	14	.00	7.3	129	53	23
7	---	---	---	---	---	---	14	.00	46	114	16	23
8	---	---	---	---	---	---	14	.00	56	108	29	23
9	---	---	---	---	---	---	14	.00	56	52	132	21
10	---	---	---	---	---	---	14	.00	57	17	121	14
11	---	---	---	---	---	---	14	.00	28	40	121	14
12	---	---	---	---	---	---	9.8	.00	1.8	128	120	29
13	---	---	---	---	---	---	1.0	.00	14	138	59	46
14	---	---	---	---	---	---	1.0	.00	83	136	8.5	31
15	---	---	---	---	---	---	.67	.00	90	136	38	17
16	---	---	---	---	---	e.00	.00	.00	86	81	106	6.4
17	---	---	---	---	---	e.00	.00	.00	80	49	100	1.5
18	---	---	---	---	---	21	.00	.00	47	73	92	1.5
19	---	---	---	---	---	37	.00	.00	37	134	83	1.5
20	---	---	---	---	---	37	.00	.00	41	127	53	1.5
21	---	---	---	---	---	37	.00	.00	58	127	27	1.1
22	---	---	---	---	---	68	.00	.01	58	127	43	.59
23	---	---	---	---	---	104	.00	.00	66	59	82	.59
24	---	---	---	---	---	103	.00	.00	66	26	71	.59
25	---	---	---	---	---	103	.00	.00	66	53	66	.59
26	---	---	---	---	---	102	.00	.00	66	147	63	5.9
27	---	---	---	---	---	101	.00	.00	74	145	35	17
28	---	---	---	---	---	100	.00	.00	100	134	19	17
29	---	---	---	---	---	100	.00	.00	99	125	28	17
30	---	---	---	---	---	99	.00	.00	100	66	38	10
31	---	---	---	---	---	99	---	.00	---	19	10	---
TOTAL	---	---	---	---	---	1111.00	289.47	0.02	1484.60	2932	2142.5	336.56
MEAN	---	---	---	---	---	69.4	9.65	.001	49.5	94.6	69.1	11.2
MAX	---	---	---	---	---	104	99	.01	100	147	132	46
MIN	---	---	---	---	---	.00	.00	.00	.00	17	8.5	.59
AC-FT	---	---	---	---	---	2200	574	.04	2940	5820	4250	668

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

	3.72	.83	.27	.24	.24	2.47	4.50	26.2	63.7	69.3	52.7	21.0
MEAN	3.72	.83	.27	.24	.24	2.47	4.50	26.2	63.7	69.3	52.7	21.0
MAX	30.7	10.9	4.20	2.81	3.00	48.8	61.9	173	145	172	120	83.5
(WY)	1962	1962	1950	1950	1950	1992	1984	1942	1942	1941	1973	1957
MIN	.010	.000	.000	.000	.000	.000	.000	.000	10.5	16.9	8.97	2.39
(WY)	1973	1957	1952	1952	1952	1952	1952	1952	1957	1943	1963	1977

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1937 - 1993

ANNUAL MEAN										18.6		
HIGHEST ANNUAL MEAN										40.0		1987
LOWEST ANNUAL MEAN										8.64		1964
HIGHEST DAILY MEAN				146	Jul 16		147	Jul 26		286	May 10	1942
LOWEST DAILY MEAN			.30	Sep 18		.00	Mar 16			.00	Jun 21	1943
ANNUAL SEVEN-DAY MINIMUM			.32	Sep 16		.00	Apr 16			.00	Jul 10	1943
INSTANTANEOUS PEAK FLOW										301	Jun 19	1979
INSTANTANEOUS PEAK STAGE										3.04	Jun 19	1979
ANNUAL RUNOFF (AC-FT)										13480		
10 PERCENT EXCEEDS			114			121				84		
50 PERCENT EXCEEDS			43			21				.80		
90 PERCENT EXCEEDS			2.3			.00				.02		

e Estimated

## RIO GRANDE BASIN

08255500 COSTILLA CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°58'01", long 105°30'23", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on right bank 70 ft downstream from bridge on State Highway 196, 0.5 mi upstream from diversion dam, 1.6 mi southeast of Costilla, and at mile 15.9.

DRAINAGE AREA.--195 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1936 to current year (no winter records 1936-41, 1943). Monthly discharge for March 1943 and water-year estimate for 1943, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1937-39(M).

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1952. Elevation of gage is 7,900 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 18, 1944, at site 200 ft downstream at different datum. June 18, 1944 to Sept. 30, 1964, at site 0.4 mi upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Costilla Reservoir (station 08253900) 19 mi upstream. Diversions for irrigation of about 2,000 acres upstream from station. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	16	e11	e9.5	e9.0	14	118	109	143	120	39	46
2	16	15	e11	e9.5	e9.0	16	104	94	143	108	105	41
3	15	14	e10	e9.5	e9.0	16	51	103	131	79	148	37
4	14	13	e12	e9.5	e9.0	17	46	94	117	79	164	33
5	14	e11	e12	e9.3	e9.0	17	51	106	112	140	140	30
6	14	e13	e12	e9.3	e9.0	17	52	105	106	149	112	43
7	14	e17	e12	e9.3	e8.5	15	48	104	126	133	45	50
8	13	e16	e13	e9.3	e9.0	14	46	98	136	117	39	61
9	15	18	e12	e9.1	e9.0	15	44	90	131	97	115	50
10	14	18	e12	e9.1	e9.0	17	47	84	129	46	135	41
11	14	19	e11	e9.0	e9.5	17	54	80	110	41	135	39
12	14	17	e11	e8.7	e10	14	64	91	72	119	135	37
13	14	e16	e11	e7.5	e9.2	13	57	109	64	143	120	74
14	13	e18	e11	e8.5	e8.5	16	56	129	110	152	44	70
15	13	e17	e11	e9.0	e8.5	16	47	150	143	150	41	54
16	13	e15	e11	e9.5	e9.0	16	43	186	148	123	115	38
17	13	18	e11	e9.5	e9.5	16	41	218	138	68	115	30
18	13	16	e10	e9.5	e9.5	19	45	200	118	65	117	26
19	13	15	e10	e10	e9.5	45	48	209	93	130	109	25
20	13	e14	e10	e10	e10	59	43	197	89	132	108	24
21	13	e12	e10	e9.5	e10	66	51	197	102	136	57	23
22	14	e11	e10	e8.0	e10	71	67	197	102	130	65	22
23	14	e11	e10	e7.5	21	115	87	192	105	103	104	21
24	14	e10	e10	e7.5	14	120	94	179	107	44	96	20
25	14	e9.0	e10	e7.0	15	125	68	173	98	40	83	19
26	14	e9.0	e11	e7.0	16	130	76	186	96	125	81	19
27	14	e8.5	e12	e7.5	15	132	102	192	97	143	91	27
28	14	e9.0	e13	e7.5	14	122	104	196	122	138	83	31
29	15	e9.0	e10	e8.5	---	126	116	180	126	128	76	31
30	15	e10	e10	e7.5	---	122	122	163	123	109	96	32
31	15	---	e9.7	e8.5	---	119	---	150	---	42	70	---
TOTAL	439	414.5	339.7	270.6	297.7	1637	1992	4561	3437	3329	2983	1094
MEAN	14.2	13.8	11.0	8.73	10.6	52.8	66.4	147	115	107	96.2	36.5
MAX	21	19	13	10	21	132	122	218	148	152	164	74
MIN	13	8.5	9.7	7.0	8.5	13	41	80	64	40	39	19
AC-FT	871	822	674	537	590	3250	3950	9050	6820	6600	5920	2170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1993, BY WATER YEAR (WY)

	MEAN	15.4	11.4	8.23	7.64	9.18	17.8	51.5	118	115	83.9	67.5	33.5
MAX	44.9	30.1	19.6	15.0	16.9	70.9	223	594	342	160	137	109	
(WY)	1962	1942	1942	1950	1942	1989	1942	1942	1983	1944	1973	1957	
MIN	4.85	4.11	3.71	3.44	3.38	6.92	13.1	30.8	36.0	23.8	17.3	7.93	
(WY)	1964	1965	1964	1964	1964	1964	1956	1967	1946	1946	1977	1974	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1942 - 1993

ANNUAL TOTAL	23971.4	20794.5	
ANNUAL MEAN	65.5	57.0	45.3
HIGHEST ANNUAL MEAN			134
LOWEST ANNUAL MEAN			16.5
HIGHEST DAILY MEAN	271	218	1000
LOWEST DAILY MEAN	8.5	7.0	1.0
ANNUAL SEVEN-DAY MINIMUM	9.2	7.4	2.5
INSTANTANEOUS PEAK FLOW		237	1150
INSTANTANEOUS PEAK STAGE		3.44	5.37
INSTANTANEOUS LOW FLOW		3.0	.34
ANNUAL RUNOFF (AC-FT)	47550	41250	32830
10 PERCENT EXCEEDS	155	135	116
50 PERCENT EXCEEDS	31	31	18
90 PERCENT EXCEEDS	11	9.3	6.0



## 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 (no winter 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 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e99	60	11	5.3	.00	19
2	---	---	---	---	---	---	e90	47	13	8.2	.59	13
3	---	---	---	---	---	---	e46	48	15	7.2	.47	11
4	---	---	---	---	---	---	e41	25	2.6	3.9	11	9.7
5	---	---	---	---	---	---	e46	12	.86	18	6.4	7.6
6	---	---	---	---	---	---	48	16	1.9	19	4.7	7.1
7	---	---	---	---	---	---	48	14	2.0	8.7	3.5	9.9
8	---	---	---	---	---	---	42	11	8.2	1.7	2.4	18
9	---	---	---	---	---	---	35	4.4	7.3	.24	3.4	8.5
10	---	---	---	---	---	---	38	2.8	4.9	.00	1.8	1.2
11	---	---	---	---	---	---	45	.00	4.5	.00	1.5	.00
12	---	---	---	---	---	---	56	2.7	1.1	.00	1.4	.00
13	---	---	---	---	---	---	46	6.9	7.5	2.4	1.6	19
14	---	---	---	---	---	---	45	13	5.7	6.0	.86	43
15	---	---	---	---	---	---	35	28	2.3	5.0	.24	31
16	---	---	---	---	---	---	26	59	11	8.7	.70	4.7
17	---	---	---	---	---	---	19	70	12	7.9	1.4	1.5
18	---	---	---	---	---	---	21	61	27	5.7	13	.44
19	---	---	---	---	---	---	20	72	29	10	3.5	.32
20	---	---	---	---	---	---	13	70	3.1	2.3	17	.20
21	---	---	---	---	---	---	2.8	74	2.5	1.3	5.5	.12
22	---	---	---	---	---	---	7.4	74	2.3	.84	8.3	.22
23	---	---	---	---	---	---	24	76	2.0	1.2	22	.12
24	---	---	---	---	---	---	46	63	2.7	.43	15	.00
25	---	---	---	---	---	---	25	45	7.3	.19	6.8	.00
26	---	---	---	---	---	---	38	43	5.9	.73	7.3	.00
27	---	---	---	---	---	---	58	54	1.4	1.5	19	.00
28	---	---	---	---	---	---	55	51	5.3	.67	28	1.3
29	---	---	---	---	---	---	64	36	9.6	.55	23	1.2
30	---	---	---	---	---	---	67	22	8.4	.00	45	.39
31	---	---	---	---	---	---	---	12	---	.00	43	---
TOTAL	---	---	---	---	---	---	1246.2	1172.80	217.36	127.65	298.36	208.51
MEAN	---	---	---	---	---	---	41.5	37.8	7.25	4.12	9.62	6.95
MAX	---	---	---	---	---	---	99	76	29	19	45	43
MIN	---	---	---	---	---	---	2.8	.00	.86	.00	.00	.00
AC-FT	---	---	---	---	---	---	2470	2330	431	253	592	414

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, 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
MEAN	2.13	---	---	---	---	---	---	17.9	44.2	25.1	6.60	3.94	1.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MAX	5.84	---	---	---	---	---	---	41.5	189	204	39.3	13.4	6.95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
(WY)	1966	---	---	---	---	---	---	1993	1987	1983	1979	1983	1993	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MIN	.000	---	---	---	---	---	---	.000	.023	.000	.013	.022	.000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
(WY)	1967	---	---	---	---	---	---	1967	1967	1967	1977	1977	1974	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

## SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1966 - 1993
HIGHEST DAILY MEAN	158	99	444
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.07	.00
INSTANTANEOUS PEAK FLOW	---	136	514
INSTANTANEOUS PEAK STAGE	---	3.80	4.91
10 PERCENT EXCEEDS	60	53	43
50 PERCENT EXCEEDS	5.6	7.9	1.5
90 PERCENT EXCEEDS	.00	.23	.00

e Estimated

## RIO GRANDE BASIN

08263500 RIO GRANDE NEAR CERRO, NM

LOCATION.--Lat 36°44'24", long 105°40'59", in NW¼NE¼ sec.20, T.29 N., R.12 E., Taos County, Hydrologic Unit 13020101, on left bank 4 mi 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 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 good 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	167	203	287	352	455	979	1490	2850	1230	e160	1270
2	147	175	225	300	354	464	922	1580	2610	1220	e160	1290
3	143	174	234	310	358	466	873	1430	2540	1120	e165	1070
4	141	164	254	308	363	457	827	1180	2370	977	e165	984
5	140	160	267	308	364	463	784	1080	2030	817	e170	857
6	140	161	195	324	368	471	732	1090	1730	746	e180	657
7	138	163	243	322	359	487	705	1040	1630	614	e165	600
8	136	173	290	325	354	508	695	927	1620	439	e155	505
9	e128	170	283	324	362	544	656	869	1470	352	e150	563
10	e130	192	267	324	363	592	606	837	1240	323	e150	550
11	137	252	252	326	370	663	562	763	1110	306	e160	472
12	e130	284	276	344	384	650	571	722	1070	e295	e165	425
13	e128	242	295	345	384	622	639	766	1030	e290	e170	400
14	128	231	297	349	388	649	724	895	1060	e295	e175	395
15	122	269	301	339	399	648	748	1120	1280	e290	e180	370
16	134	274	301	328	398	720	730	1310	1590	e285	e170	382
17	126	282	293	322	400	735	657	1520	1630	e290	e160	383
18	122	280	276	329	402	763	623	1800	1710	e295	177	340
19	122	266	287	336	474	791	629	2030	1820	e295	171	292
20	122	275	299	345	756	828	680	2030	1570	e290	156	271
21	128	269	291	352	516	822	651	2010	1410	284	144	238
22	137	245	288	354	460	846	638	2090	1360	253	159	214
23	147	225	294	356	442	866	669	2300	1460	208	155	202
24	152	218	277	361	423	908	797	2630	1540	213	213	201
25	156	167	269	351	405	935	1020	2480	1520	203	265	201
26	153	188	269	345	394	941	1060	2210	1380	e180	263	200
27	149	203	268	345	421	987	960	2190	1330	e170	238	203
28	154	206	261	339	450	1050	993	2660	1350	e165	220	193
29	155	203	265	338	---	1100	1050	3230	1330	e165	223	180
30	159	201	276	346	---	1080	1240	3620	1230	e160	651	176
31	161	---	274	348	---	1030	---	3340	---	e155	1030	---
TOTAL	4313	6479	8370	10330	11463	22541	23420	53239	47870	12925	6865	14084
MEAN	139	216	270	333	409	727	781	1717	1596	417	221	469
MAX	161	284	301	361	756	1100	1240	3620	2850	1230	1030	1290
MIN	122	160	195	287	352	455	562	722	1030	155	144	176
AC-FT	8550	12850	16600	20490	22740	44710	46450	105600	94950	25640	13620	27940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1993, BY WATER YEAR (WY)

	MEAN	200	358	298	288	347	468	561	964	1152	479	237	177
MAX	720	1073	774	566	657	1010	2335	4577	4400	2161	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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1949 - 1993

ANNUAL TOTAL	146986	221899	
ANNUAL MEAN	402	608	460
HIGHEST ANNUAL MEAN			1275
LOWEST ANNUAL MEAN			112
HIGHEST DAILY MEAN	1830	Apr 16	3620
LOWEST DAILY MEAN	122	Oct 15	122
ANNUAL SEVEN-DAY MINIMUM	125	Oct 14	125
INSTANTANEOUS PEAK FLOW			3670
INSTANTANEOUS PEAK STAGE			10.76
INSTANTANEOUS LOW FLOW			116
ANNUAL RUNOFF (AC-FT)	291500	440100	333500
10 PERCENT EXCEEDS	798	1390	979
50 PERCENT EXCEEDS	294	351	270
90 PERCENT EXCEEDS	148	158	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. 26 years (water years 1966-91), 40.4 ft<sup>3</sup>/s, 29,270 acre-ft/yr.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	26	e17	27	23	22	31	119	279	174	65	76
2	29	25	e17	26	22	20	32	106	285	162	69	71
3	29	24	e17	26	21	19	32	98	284	153	63	66
4	28	20	e17	17	22	20	30	100	261	150	71	61
5	28	21	e17	21	22	20	33	109	253	138	71	58
6	29	20	e17	24	e20	21	34	106	248	128	69	56
7	28	23	e18	26	e20	22	34	104	242	120	63	57
8	28	24	e18	26	22	22	33	101	221	116	60	55
9	27	24	e19	25	22	23	33	94	203	111	57	51
10	26	24	e19	25	21	24	34	88	183	106	57	48
11	25	26	e19	25	21	24	37	93	169	104	54	47
12	e24	24	e18	21	21	23	41	109	170	103	52	45
13	e23	24	e18	22	20	20	46	123	185	104	59	51
14	e23	24	e16	25	21	22	47	144	209	98	70	57
15	25	24	e13	24	22	23	46	161	230	94	68	50
16	26	24	e12	23	21	23	44	185	255	92	60	46
17	25	25	e12	24	21	24	42	225	266	91	56	43
18	25	24	e15	23	20	25	42	223	263	88	55	41
19	25	24	e19	24	22	26	44	219	252	85	61	40
20	25	24	e17	23	23	27	44	219	242	86	65	38
21	25	24	e13	23	21	28	48	240	246	84	59	37
22	25	20	e13	23	22	30	58	253	244	78	71	36
23	25	e18	e17	23	21	30	74	263	233	75	61	35
24	25	e16	e17	23	21	31	78	257	220	72	56	34
25	25	e17	e17	e21	21	33	71	254	207	69	54	34
26	25	e16	e17	e21	21	34	78	280	193	66	53	34
27	25	e17	18	24	22	36	96	299	184	64	68	34
28	25	e17	24	24	22	34	107	301	179	62	101	33
29	26	e18	27	22	---	34	116	274	175	61	88	32
30	25	e16	28	22	---	33	124	263	177	60	82	32
31	27	---	27	22	---	32	---	266	---	61	82	---
TOTAL	806	653	553	725	598	805	1609	5676	6758	3055	2020	1398
MEAN	26.0	21.8	17.8	23.4	21.4	26.0	53.6	183	225	98.5	65.2	46.6
MAX	30	26	28	27	23	36	124	301	285	174	101	76
MIN	23	16	12	17	20	19	30	88	169	60	52	32
AC-FT	1600	1300	1100	1440	1190	1600	3190	11260	13400	6060	4010	2770

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	MEAN	22.6	16.2	11.2	11.2	11.8	14.7	36.5	113	134	62.1	39.4	28.6
MAX	38.1	32.8	24.1	23.4	22.8	40.0	84.1	267	405	172	70.6	62.2	
(WY)	1986	1987	1987	1993	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1966 - 1993

ANNUAL TOTAL	19479	24656	
ANNUAL MEAN	53.2	67.6	41.9
HIGHEST ANNUAL MEAN			87.6
LOWEST ANNUAL MEAN			11.8
HIGHEST DAILY MEAN	184	Jun. 8	557
LOWEST DAILY MEAN	11	Jan. 1	2.5
ANNUAL SEVEN-DAY MINIMUM	12	Jan. 1	3.1
INSTANTANEOUS PEAK FLOW		321	886
INSTANTANEOUS PEAK STAGE		4.17	5.80
INSTANTANEOUS LOW FLOW		9.0	.60
ANNUAL RUNOFF (AC-FT)	38640	48910	30330
10 PERCENT EXCEEDS	137	197	107
50 PERCENT EXCEEDS	28	33	21
90 PERCENT EXCEEDS	16	19	7.3
e Estimated			

## RIO GRANDE BASIN

08266000 CABRESTO CREEK NEAR QUESTA, NM

LOCATION.--Lat 36°43'50", long 105°33'12", in SE¼SE¼ sec.21, T.29 N., R.13 E., Taos County, Hydrologic Unit 13020101, in Carson National Forest, on right bank 900 ft downstream from Llano ditch heading, 2.6 mi downstream from Lake Fork, 3 mi northeast of Questa, and at mile 3.5.

DRAINAGE AREA.--36.7 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 1712: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 7,845 ft above National Geodetic Vertical Datum of 1929, from river-profile map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Llano ditch (station 08265500), the only diversion upstream from station, diverts from right bank 900 ft upstream from gage for irrigation of about 800 acres downstream. See tabulation below for monthly diversion of Llano ditch (records of daily discharge available in District files). Flow regulated by Cabresto Reservoir (capacity, 732 acre-feet, after reconstruction in 1928) on Lake Fork 1 mi upstream from mouth. Present capacity of Cabresto Reservoir is 1,100 acre-feet after further rehabilitation between 1959 and 1961. Several observations of water temperature were made during year.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 25, 1942, may have exceeded the maximum of record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	3.0	6.5	6.5	6.3	6.2	7.8	30	78	15	13	15
2	8.3	3.3	6.8	6.3	6.2	5.7	8.1	27	76	15	13	15
3	8.3	4.7	6.8	6.2	6.0	5.6	8.2	26	73	14	13	14
4	8.3	5.9	6.9	3.9	6.1	5.6	8.0	28	62	13	15	13
5	8.3	6.2	6.8	4.9	5.2	5.6	8.2	31	52	13	14	13
6	8.3	6.1	6.7	6.0	5.8	5.9	8.4	31	44	13	13	13
7	8.3	6.3	5.1	6.7	6.2	6.2	7.8	31	45	13	12	13
8	8.4	6.6	6.5	6.7	6.2	6.2	7.9	31	37	13	12	13
9	8.4	6.7	6.8	6.6	6.2	6.3	9.1	30	32	13	12	13
10	8.3	6.7	6.8	6.6	6.0	6.6	9.7	29	30	13	12	13
11	8.2	6.8	6.7	6.7	6.0	6.6	10	28	28	13	12	14
12	8.1	6.4	6.7	5.5	5.9	6.3	11	28	25	13	11	14
13	8.0	6.3	6.5	5.4	5.7	5.3	11	32	27	12	12	14
14	8.0	6.5	4.6	6.7	6.0	6.1	12	37	30	12	13	15
15	7.9	6.7	e4.3	6.5	6.2	6.6	11	42	31	12	13	14
16	7.9	6.7	e4.5	6.3	5.9	6.6	11	51	31	12	12	14
17	7.8	6.7	e4.5	6.6	6.0	6.7	11	60	31	13	12	13
18	7.7	6.7	e5.0	6.5	5.9	6.8	11	62	30	13	12	13
19	7.6	6.7	e5.2	6.6	6.2	6.9	11	67	29	12	13	12
20	7.4	6.8	e5.6	6.5	6.3	7.0	11	69	28	12	13	11
21	7.3	6.7	e5.0	5.9	5.7	7.3	12	71	27	12	13	11
22	7.3	5.9	e5.2	6.2	5.7	7.4	13	74	26	13	15	10
23	7.2	6.6	5.9	6.2	5.7	7.7	16	75	24	14	13	10
24	7.2	6.4	6.1	4.9	6.1	7.9	20	70	22	14	13	10
25	7.2	5.9	6.2	5.0	6.2	8.2	19	70	21	14	12	10
26	7.2	5.2	5.4	5.8	6.2	8.5	20	89	20	14	12	10
27	6.8	4.5	5.5	6.4	6.2	8.5	24	98	19	18	14	12
28	6.3	4.9	6.4	6.3	6.2	8.2	26	93	17	15	19	12
29	6.3	6.5	7.0	6.3	---	8.1	28	90	16	13	18	12
30	6.3	6.3	6.9	6.2	---	8.0	31	85	16	13	17	12
31	5.7	---	6.6	6.2	---	7.8	---	81	---	13	17	---
TOTAL	236.7	180.7	185.5	189.1	168.3	212.4	402.2	1666	1027	412	415	378
MEAN	7.64	6.02	5.98	6.10	6.01	6.85	13.4	53.7	34.2	13.3	13.4	12.6
MAX	8.4	6.8	7.0	6.7	6.3	8.5	31	98	78	18	19	15
MIN	5.7	3.0	4.3	3.9	5.2	5.3	7.8	26	16	12	11	10
AC-FT	469	358	368	375	334	421	798	3300	2040	817	823	750
(†)	1	16	---	---	---	25	54	447	1090	677	61	61
CAL YR 1992	TOTAL	MEAN	MAX	MIN	AC-FT	(†)	2335					
WTR YR 1993	TOTAL	MEAN	MAX	MIN	AC-FT	(†)	2432					

(†) DIVERSIONS, IN ACRE-FEET, BY LLANO DITCH

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1993, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1944	6.40	13.1	1986	2.68	1957
1945	5.24	9.83	1958	2.73	1978
1946	4.53	8.14	1958	2.43	1964
1947	4.42	8.11	1991	2.30	1964
1948	4.56	7.19	1991	2.32	1964
1949	5.42	12.8	1989	2.96	1964
1950	13.3	29.5	1985	6.70	1973
1951	32.8	96.7	1958	7.88	1963
1952	22.0	94.7	1979	5.77	1946
1953	11.3	27.4	1979	4.55	1946
1954	9.63	20.9	1957	4.33	1956
1955	7.60	13.8	1957	2.94	1972

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1944 - 1993
ANNUAL TOTAL	5021.2	5472.9	
ANNUAL MEAN	13.7	15.0	10.6
HIGHEST ANNUAL MEAN			22.9
LOWEST ANNUAL MEAN			5.31
HIGHEST DAILY MEAN	64	98	170
LOWEST DAILY MEAN	3.0	3.0	.91
ANNUAL SEVEN-DAY MINIMUM	4.8	4.8	1.4
INSTANTANEOUS PEAK FLOW		102	204
INSTANTANEOUS PEAK STAGE		3.97	4.82
INSTANTANEOUS LOW FLOW		1.3	.44
ANNUAL RUNOFF (AC-FT)	9960	10860	7700
10 PERCENT EXCEEDS	33	30	17
50 PERCENT EXCEEDS	8.3	8.3	6.6
90 PERCENT EXCEEDS	6.0	5.8	3.5
e Estimated			

## RIO GRANDE BASIN

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM

LOCATION.--Lat 36°40'54", Long 105°39'21", in NW¼NW¼ sec.10, T.28 N., R.12 E., Taos County, Hydrologic Unit 13020101, on right bank 0.3 mi 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 poor. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	48	e47	60	51	54	57	153	391	194	77	128
2	58	47	49	60	50	51	59	148	405	185	82	119
3	57	45	50	59	49	50	61	141	392	176	77	113
4	55	44	50	49	50	50	58	132	356	173	85	105
5	54	44	50	47	45	48	60	136	332	171	92	99
6	53	44	50	57	43	51	61	144	312	165	95	97
7	52	45	44	61	45	53	61	142	282	157	90	97
8	51	47	48	65	47	55	60	139	257	146	85	96
9	50	47	51	62	47	56	60	131	239	142	84	93
10	49	48	53	60	47	55	61	122	219	136	84	88
11	46	49	54	61	46	54	62	120	197	132	80	86
12	44	47	55	55	46	52	65	125	194	131	77	82
13	42	47	54	52	46	47	70	146	200	132	82	82
14	e46	48	46	59	46	49	77	188	228	126	100	95
15	e48	48	49	58	47	48	79	211	254	123	98	94
16	49	49	46	56	46	49	79	237	289	117	88	88
17	53	49	47	58	47	50	79	283	308	114	83	85
18	50	49	54	56	45	51	70	284	306	112	81	81
19	50	50	56	56	52	52	71	277	277	106	87	78
20	48	51	48	55	70	52	76	288	265	106	97	77
21	48	53	49	53	63	52	75	310	269	104	92	76
22	49	49	49	54	52	53	83	341	269	96	105	75
23	51	52	47	54	49	55	96	358	255	93	93	74
24	52	50	48	47	53	59	107	346	243	91	87	73
25	50	46	49	45	53	59	102	340	232	89	84	72
26	50	44	47	48	53	58	102	413	223	86	81	71
27	48	43	46	50	53	63	119	437	211	84	104	70
28	50	42	52	49	54	58	129	426	200	80	159	68
29	50	43	61	51	---	59	135	396	194	74	152	67
30	48	e45	65	51	---	58	147	376	195	73	135	66
31	51	---	62	51	---	57	---	374	---	74	139	---
TOTAL	1561	1413	1576	1699	1395	1658	2421	7664	7994	3788	2955	2595
MEAN	50.4	47.1	50.8	54.8	49.8	53.5	80.7	247	266	122	95.3	86.5
MAX	59	53	65	65	70	63	147	437	405	194	159	128
MIN	42	42	44	45	43	47	57	120	194	73	77	66
AC-FT	3100	2800	3130	3370	2770	3290	4800	15200	15860	7510	5860	5150

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1993, BY WATER YEAR (WY)

MEAN	53.7	46.7	42.9	43.4	43.9	48.0	82.3	201	219	106	72.5	61.9
MAX	71.0	59.2	51.0	55.3	57.9	72.0	144	368	520	226	95.3	86.9
(WY)	1986	1992	1987	1992	1992	1989	1985	1985	1979	1979	1993	1986
MIN	29.0	33.0	28.2	31.4	31.5	35.1	39.7	50.5	56.8	43.1	42.1	31.2
(WY)	1979	1979	1979	1979	1981	1981	1981	1981	1981	1981	1981	1978

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1978 - 1993

ANNUAL TOTAL	30026	36719	
ANNUAL MEAN	82.0	101	85.5
HIGHEST ANNUAL MEAN			129
LOWEST ANNUAL MEAN			41.9
HIGHEST DAILY MEAN	213	May 2	437
LOWEST DAILY MEAN	42	Oct 13	42
ANNUAL SEVEN-DAY MINIMUM	44	Nov 25	44
INSTANTANEOUS PEAK FLOW			466
INSTANTANEOUS PEAK STAGE			4.04
INSTANTANEOUS LOW FLOW			36
ANNUAL RUNOFF (AC-FT)	59560	72830	61920
10 PERCENT EXCEEDS	176	230	169
50 PERCENT EXCEEDS	59	61	55
90 PERCENT EXCEEDS	48	47	37

e Estimated

## RIO GRANDE BASIN

08267500 RIO HONDO NEAR VALDEZ, NM

LOCATION.--Lat 36°32'30", long 105°33'21", Taos County, Hydrologic Unit 13020101, in Carson National Forest, on right bank 500 ft upstream from first diversion, 1.6 mi east of Valdez, 3.8 mi downstream from South Fork, and at mile 9.2.

DRAINAGE AREA.--36.2 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1342: 1935. WSP 1712: Drainage area. WSP 1732: 1942(M).

GAGE.--Water-stage recorder. Concrete control since Oct. 28, 1938. Elevation of gage is 7,650 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 28, 1938, at datum 1.92 ft lower.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	16	e12	11	12	11	21	87	254	143	52	103
2	20	15	13	11	12	11	23	72	263	144	47	93
3	20	15	12	11	12	12	23	64	267	140	44	85
4	20	12	12	e11	11	13	22	67	262	136	55	79
5	20	13	14	e10	e11	13	24	79	249	130	52	77
6	20	13	14	e10	e10	12	25	75	240	126	46	73
7	20	13	e12	11	e11	13	23	68	241	122	43	74
8	20	14	13	11	11	15	22	61	223	115	41	69
9	19	14	12	11	11	18	23	56	190	106	40	63
10	19	14	12	10	11	19	27	54	166	96	40	59
11	19	14	12	e10	11	18	33	59	149	90	39	55
12	18	13	12	e9.2	11	17	39	74	157	87	39	52
13	17	13	12	e9.0	11	18	41	88	179	84	53	56
14	17	14	e11	e10	11	15	40	109	202	81	59	57
15	17	14	e12	11	11	15	35	126	202	78	56	51
16	16	14	e13	11	10	15	32	139	216	74	49	48
17	16	14	e11	11	11	17	29	176	218	72	47	45
18	16	13	11	11	12	17	31	168	207	68	46	44
19	16	13	11	11	12	18	36	156	198	61	50	43
20	16	13	e10	11	12	21	38	167	209	63	57	41
21	16	13	e11	11	11	23	42	178	203	61	56	38
22	16	12	e12	10	11	27	49	204	197	58	72	37
23	15	13	e12	10	13	30	61	199	208	56	63	36
24	15	12	e12	e11	11	33	63	188	194	54	59	35
25	16	e11	e12	e10	11	37	55	194	177	51	56	34
26	16	e11	e13	e11	11	40	59	231	162	50	55	32
27	15	e12	e11	11	11	35	72	231	144	48	69	31
28	16	e12	e13	11	11	29	83	226	133	47	120	29
29	17	e12	e13	11	---	25	92	226	138	45	117	29
30	16	e12	14	11	---	22	94	238	138	46	117	29
31	18	---	12	12	---	20	---	247	---	46	114	---
TOTAL	543	394	376	330.2	314	629	1257	4307	5986	2578	1853	1597
MEAN	17.5	13.1	12.1	10.7	11.2	20.3	41.9	139	200	83.2	59.8	53.2
MAX	21	16	14	12	13	40	94	247	267	144	120	103
MIN	15	11	10	9.0	10	11	21	54	133	45	39	29
AC-FT	1080	781	746	655	623	1250	2490	8540	11870	5110	3680	3170

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1993, BY WATER YEAR (WY)

	MEAN	18.4	14.9	12.1	10.8	10.7	14.0	34.5	96.5	113	47.8	29.1	22.4
MAX	43.5	35.8	23.1	20.1	16.6	36.4	92.4	246	299	144	60.3	53.2	
(WY)	1942	1942	1942	1942	1942	1989	1937	1941	1979	1979	1957	1993	
MIN	10.8	8.28	7.52	6.03	6.08	7.60	11.1	20.6	26.4	14.6	10.9	9.87	
(WY)	1957	1952	1964	1935	1935	1964	1977	1971	1963	1972	1972	1956	

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1935 - 1993
ANNUAL TOTAL	15032	20164.2	
ANNUAL MEAN	41.1	55.2	35.4
HIGHEST ANNUAL MEAN			69.9
LOWEST ANNUAL MEAN			15.6
HIGHEST DAILY MEAN	153	May 22	416
LOWEST DAILY MEAN	10	Jan 8	3.0
ANNUAL SEVEN-DAY MINIMUM	10	Jan 6	4.2
INSTANTANEOUS PEAK FLOW			541
INSTANTANEOUS PEAK STAGE			3.56
INSTANTANEOUS LOW FLOW			8.3
ANNUAL RUNOFF (AC-FT)	29820	40000	25630
10 PERCENT EXCEEDS	121	166	85
50 PERCENT EXCEEDS	20	25	18
90 PERCENT EXCEEDS	12	11	9.9

e Estimated

## 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 1992 TO SEPTEMBER 1993

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)
NOV 09...	1415	13	146	7.3	7.0	4.0	569	9.5	97	<10	70
JAN 05...	1115	9.9	155	6.9	0.5	0.0	572	11.5	105	<10	--
MAR 30...	1445	22	180	7.6	3.5	4.0	570	10.6	108	22	160
APR 19...	1645	35	154	7.8	9.5	6.5	--	--	--	14	62
JUN 22...	1630	199	99	7.6	24.5	10.0	571	8.5	101	19	51
SEP 01...	1135	102	116	7.3	17.5	8.5	578	9.0	102	--	--

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 09...	12	24	2.4	3.1	0.2	0.80	71	0	58	61	14
JAN 05...	--	--	--	--	--	--	--	--	--	--	--
MAR 30...	110	49	9.2	12	0.4	1.1	65	0	53	139	38
APR 19...	9	21	2.3	4.8	0.3	0.90	65	0	53	54	11
JUN 22...	13	18	1.5	1.7	0.1	0.70	46	0	38	39	8.6
SEP 01...	--	--	--	--	--	--	--	--	--	--	--

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 TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
NOV 09...	2.0	0.20	7.7	90	--	<0.010	<0.010	0.170	0.190	0.020	0.020
JAN 05...	--	--	--	--	0.430	--	0.010	--	0.440	--	0.010
MAR 30...	7.6	0.30	13	163	--	--	<0.010	--	0.270	--	<0.010
APR 19...	7.0	0.20	8.5	88	--	--	<0.010	--	0.110	--	0.020
JUN 22...	0.80	0.20	6.3	61	--	--	<0.010	--	0.130	--	0.020
SEP 01...	--	--	--	--	--	--	<0.010	--	0.120	--	0.020

## RIO GRANDE BASIN

08267500 RIO HONDO NEAR VALDEZ, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS 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- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 09...	<0.20	0.020	<0.010	0.010	1.0	<10	<3	3	0.11	71
JAN 05...	<0.20	<0.010	--	<0.010	0.8	--	--	7	0.19	67
MAR 30...	<0.20	<0.010	--	<0.010	2.2	30	38	9	0.52	61
APR 19...	<0.20	<0.010	--	<0.010	3.4	<10	30	9	0.85	69
JUN 22...	<0.20	0.020	--	<0.010	2.1	<10	12	22	12	55
SEP 01...	<0.20	<0.010	--	<0.010	2.5	--	--	8	2.2	47



## 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 current year.

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

REMARKS.--Records good except for estimated daily discharges, which are poor. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	283	310	351	442	492	e610	1140	1820	3770	1650	295	1550
2	279	313	371	454	489	e660	1080	1920	3470	1630	306	1650
3	267	314	390	462	493	e590	1030	1790	3350	1530	293	1370
4	259	301	405	443	500	e580	977	1500	3140	1350	299	1230
5	253	288	429	447	490	e570	951	1380	2730	1170	318	1110
6	251	290	380	467	491	e600	895	1390	2360	1060	353	899
7	248	286	346	476	490	e620	867	1350	2190	938	335	849
8	251	305	435	499	493	e640	848	1210	2150	761	311	733
9	266	304	434	477	505	e660	816	1120	1980	647	289	761
10	258	320	426	471	501	e700	771	1080	1710	588	292	765
11	259	395	407	473	504	e760	726	1000	1520	515	279	686
12	261	438	426	477	512	e800	730	965	1430	481	304	640
13	252	405	445	474	510	e740	795	1020	1430	490	321	626
14	250	377	432	492	518	e770	897	1210	1540	462	353	649
15	249	419	441	484	528	e780	925	1490	1790	465	349	606
16	261	436	446	474	524	e800	917	1750	2170	483	321	597
17	266	427	433	470	527	e840	836	2030	2250	503	297	594
18	256	437	430	472	522	e870	791	2280	2320	478	312	559
19	253	434	434	478	583	e900	796	2550	2480	473	327	496
20	252	433	433	481	1000	e920	847	2620	2190	512	326	467
21	257	443	428	485	776	e970	830	2620	2000	501	300	432
22	264	392	427	489	632	e1000	811	2740	1920	482	314	401
23	283	400	427	493	574	e1020	863	2960	1980	415	320	374
24	287	377	419	485	565	e1080	975	3340	2090	405	359	366
25	299	304	407	476	534	e1120	1210	3240	2070	392	422	371
26	296	326	401	478	e530	e1140	1310	3010	1890	357	439	367
27	285	338	398	481	e560	e1200	1220	3010	1790	330	470	367
28	289	348	408	476	e600	e1240	1270	3500	1790	318	553	360
29	297	350	429	477	---	e1300	1340	4110	1780	315	553	334
30	296	358	448	484	---	e1290	1550	4550	1670	310	796	337
31	310	---	441	484	---	1210	---	4300	---	291	1300	---
TOTAL	8337	10868	12927	14721	15443	26980	29014	68855	64950	20302	12106	20546
MEAN	269	362	417	475	552	870	967	2221	2165	655	391	685
MAX	310	443	448	499	1000	1300	1550	4550	3770	1650	1300	1650
MIN	248	286	346	442	489	570	726	965	1430	291	279	334
AC-FT	16540	21560	25640	29200	30630	53510	57550	136600	128800	40270	24010	40750

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

	MEAN	366	530	430	423	484	665	797	1336	1563	701	400	334
MAX	905	1200	832	640	758	1077	2620	5542	5013	2487	941	988	
(WY)	1970	1987	1987	1986	1987	1987	1985	1987	1985	1979	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 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1963 - 1993
ANNUAL TOTAL	213645	305049	
ANNUAL MEAN	584	836	672
HIGHEST ANNUAL MEAN			1522
LOWEST ANNUAL MEAN			233
HIGHEST DAILY MEAN	2300	Apr 16	7290
LOWEST DAILY MEAN	234	Sep 18	138
ANNUAL SEVEN-DAY MINIMUM	239	Sep 14	143
INSTANTANEOUS PEAK FLOW		4590	7550
INSTANTANEOUS PEAK STAGE		6.13	8.52
INSTANTANEOUS LOW FLOW		240	136
ANNUAL RUNOFF (AC-FT)	423800	605100	486800
10 PERCENT EXCEEDS	1280	1850	1290
50 PERCENT EXCEEDS	429	493	442
90 PERCENT EXCEEDS	278	296	211

e Estimated



## 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	8.8	e8.0	5.8	7.1	6.8	12	59	114	98	24	66
2	12	8.9	e8.0	5.8	7.1	6.6	13	50	109	92	23	57
3	11	8.5	e8.0	5.7	6.8	6.9	14	44	110	88	23	52
4	11	9.5	7.1	e5.5	6.8	6.9	13	47	103	86	25	47
5	11	10	6.3	e5.5	e6.5	6.9	14	55	99	80	26	44
6	11	10	6.0	e5.5	6.5	7.0	14	52	99	74	24	40
7	11	9.3	e6.0	5.9	6.5	7.4	14	48	97	70	23	39
8	11	9.1	6.2	5.7	6.5	8.5	13	42	91	66	23	36
9	11	8.8	6.0	5.5	6.6	9.9	14	37	85	63	22	33
10	11	8.6	6.0	5.5	6.5	11	16	33	75	60	21	31
11	11	8.8	6.0	5.3	6.5	10	19	38	70	56	21	29
12	10	8.9	6.1	5.4	6.4	9.4	24	54	80	53	20	28
13	9.9	8.9	6.0	e6.0	6.4	8.8	25	64	81	50	28	30
14	9.8	8.9	5.7	6.3	6.4	8.4	24	73	98	46	30	30
15	9.7	8.7	6.1	6.5	6.4	8.4	20	81	99	43	35	28
16	9.5	8.5	5.9	6.4	6.2	8.6	18	82	103	41	30	27
17	9.5	8.4	5.8	6.5	6.4	9.6	16	85	104	38	29	26
18	9.5	8.3	5.8	6.5	6.5	10	17	86	102	35	28	25
19	9.4	8.2	5.8	6.5	6.5	11	18	83	100	33	29	24
20	9.4	8.4	5.7	6.4	6.7	13	19	88	114	34	29	23
21	9.3	8.3	5.7	6.3	6.7	15	21	93	115	32	30	22
22	9.3	e7.5	5.8	6.4	6.7	17	30	104	114	30	39	22
23	9.1	8.2	5.6	6.6	6.5	19	42	109	114	29	35	21
24	9.1	7.9	5.6	6.6	6.5	21	43	103	116	28	32	20
25	9.8	e8.0	5.6	e6.0	6.4	24	34	103	111	27	31	20
26	9.3	e7.5	5.6	6.4	6.2	25	38	110	107	26	30	19
27	9.1	e7.0	5.9	6.5	6.4	22	51	113	104	26	44	18
28	9.4	e7.0	e6.0	6.7	6.5	18	60	106	102	25	80	18
29	9.6	e7.0	e6.0	6.9	---	15	66	105	101	24	74	18
30	9.2	e7.5	6.2	6.8	---	13	65	108	101	24	83	17
31	9.8	---	5.8	6.9	---	12	---	113	---	25	74	---
TOTAL	312.7	253.4	190.3	190.3	183.2	376.1	787	2368	3018	1502	1065	910
MEAN	10.1	8.45	6.14	6.14	6.54	12.1	26.2	76.4	101	48.5	34.4	30.3
MAX	12	10	8.0	6.9	7.1	25	66	113	116	98	83	66
MIN	9.1	7.0	5.6	5.3	6.2	6.6	12	33	70	24	20	17
AC-FT	620	503	377	377	363	746	1560	4700	5990	2980	2110	1800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1993, BY WATER YEAR (WY)

	MEAN	11.7	9.09	7.25	6.05	5.99	8.92	22.6	59.4	70.6	29.9	18.6	13.9
MAX	27.8	22.0	14.8	10.0	9.92	21.2	47.5	156	178	96.6	37.5	34.5	34.5
(WY)	1942	1942	1991	1942	1991	1989	1937	1941	1941	1941	1967	1982	1982
MIN	6.29	5.37	4.26	3.51	3.47	4.11	8.77	14.5	14.0	7.86	6.55	6.74	6.74
(WY)	1979	1977	1951	1951	1964	1977	1977	1972	1972	1972	1972	1972	1972

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1913 - 1993

ANNUAL TOTAL	9183.5	11156.0	
ANNUAL MEAN	25.1	30.6	
HIGHEST ANNUAL MEAN			22.3
LOWEST ANNUAL MEAN			46.7
HIGHEST DAILY MEAN	97	Jun 7	9.91
LOWEST DAILY MEAN	5.6	Dec 23	2.0
ANNUAL SEVEN-DAY MINIMUM	5.7	Dec 20	2.7
INSTANTANEOUS PEAK FLOW			310
INSTANTANEOUS PEAK STAGE			3.12
INSTANTANEOUS LOW FLOW			1.4
ANNUAL RUNOFF (AC-FT)	18220	22130	16170
10 PERCENT EXCEEDS	70	92	53
50 PERCENT EXCEEDS	14	15	11
90 PERCENT EXCEEDS	7.1	6.1	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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	8.7	7.1	7.7	6.8	7.6	25	63	172	27	11	21
2	6.2	7.7	7.7	7.5	6.6	7.0	27	52	166	25	9.8	19
3	6.3	7.5	7.1	7.7	6.4	6.6	28	45	155	23	8.8	18
4	6.5	6.7	6.9	7.2	6.7	6.6	27	44	138	22	8.5	17
5	6.5	5.8	6.4	7.0	6.3	6.6	30	51	118	20	11	16
6	6.6	5.8	7.6	8.1	6.8	7.6	33	53	109	19	14	16
7	6.6	6.0	7.6	9.6	7.6	8.5	31	54	102	18	12	18
8	7.0	6.1	8.1	10	7.2	9.5	30	52	93	17	10	18
9	6.5	6.3	8.6	9.6	7.3	11	29	47	84	16	10	15
10	e6.5	7.1	8.2	8.4	7.0	11	31	41	76	15	9.7	14
11	e6.5	8.9	8.0	8.4	6.7	12	35	41	67	14	9.3	13
12	e6.6	8.5	7.8	7.3	6.4	12	42	47	61	16	8.5	13
13	6.6	8.2	7.8	6.8	6.0	9.1	41	55	60	23	16	14
14	6.7	8.3	7.0	8.6	6.9	10	40	67	64	17	20	17
15	6.5	8.3	7.3	8.2	7.0	11	37	95	68	16	13	14
16	6.5	8.4	8.4	7.7	6.2	12	34	122	68	14	11	13
17	6.4	8.3	8.6	8.2	6.7	12	32	142	65	14	10	12
18	6.4	8.4	8.4	7.7	6.0	14	33	162	61	14	10	11
19	6.3	8.0	7.8	7.5	7.8	17	36	168	57	13	11	11
20	6.3	8.5	e7.4	7.4	10	18	37	174	55	13	17	11
21	6.3	8.4	e7.4	6.8	8.5	22	38	175	52	12	22	10
22	6.5	7.7	e7.4	6.9	7.8	24	43	191	49	11	22	10
23	6.5	8.0	e7.5	7.2	7.0	24	62	197	46	11	16	9.5
24	6.3	7.5	e7.6	5.4	7.6	26	67	188	44	10	13	9.0
25	6.4	6.6	e7.6	5.3	7.9	28	60	177	41	9.6	12	8.9
26	6.5	5.4	e7.2	7.1	7.3	31	62	191	38	9.1	12	8.8
27	6.7	5.4	e7.2	8.6	7.6	34	62	216	36	8.8	20	8.6
28	6.6	6.5	e7.5	8.0	7.7	30	54	211	34	9.4	23	8.5
29	7.1	8.2	e7.6	7.6	---	27	58	207	31	10	22	8.3
30	7.3	6.9	e7.7	7.0	---	27	61	185	29	10	20	8.2
31	8.7	---	7.9	6.8	---	26	---	172	---	12	24	---
TOTAL	204.9	222.1	236.4	237.3	199.8	508.1	1225	3685	2239	468.9	436.6	390.8
MEAN	6.61	7.40	7.63	7.65	7.14	16.4	40.8	119	74.6	15.1	14.1	13.0
MAX	8.7	8.9	8.6	10	10	34	67	216	172	27	24	21
MIN	6.2	5.4	6.4	5.3	6.0	6.6	25	41	29	8.8	8.5	8.2
AC-FT	406	441	469	471	396	1010	2430	7310	4440	920	966	775

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1993, BY WATER YEAR (WY)

	MEAN	7.31	6.46	5.72	5.19	5.53	8.86	31.9	89.5	49.6	14.3	12.6	8.98
MAX	14.2	11.8	10.4	9.19	9.31	19.1	91.9	237	170	41.9	35.7	24.9	19.57
(WY)	1958	1987	1958	1958	1989	1989	1962	1973	1979	1986	1957	1957	1957
MIN	2.12	2.95	2.97	2.06	2.65	4.65	9.61	12.9	6.36	3.14	2.33	1.56	1.56
(WY)	1957	1957	1957	1955	1955	1955	1981	1981	1981	1956	1972	1956	1956

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1953 - 1993

ANNUAL TOTAL	9919.9	10053.9	
ANNUAL MEAN	27.1	27.5	20.6
HIGHEST ANNUAL MEAN			42.4
LOWEST ANNUAL MEAN			5.96
HIGHEST DAILY MEAN	143	May 3	590
LOWEST DAILY MEAN	5.2	Mar 5	1.2
ANNUAL SEVEN-DAY MINIMUM	5.9	Feb 12	1.2
INSTANTANEOUS PEAK FLOW			644
INSTANTANEOUS PEAK STAGE			4.16
INSTANTANEOUS LOW FLOW			2.0
ANNUAL RUNOFF (AC-FT)	19680	19940	14910
10 PERCENT EXCEEDS	89	62	49
50 PERCENT EXCEEDS	9.0	10	8.0
90 PERCENT EXCEEDS	6.3	6.5	4.0

e Estimated

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.

WATER-DISCHARGE RECORDS

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 fair except for estimated daily discharges, which are poor. 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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	29	36	47	46	70	95	301	460	84	19	112
2	14	28	37	52	46	68	96	253	453	77	18	96
3	15	27	37	52	43	67	103	214	439	74	15	87
4	16	26	39	37	45	63	95	205	384	70	15	83
5	16	27	39	e42	40	58	109	217	336	64	21	78
6	17	28	39	e36	39	60	122	214	307	60	27	71
7	16	29	e38	e40	42	61	116	207	278	50	23	170
8	16	30	e37	83	46	61	112	201	231	41	22	e90
9	17	28	40	76	75	63	104	188	204	38	21	e66
10	18	29	46	59	69	65	111	155	185	34	25	e60
11	17	38	44	55	57	69	132	138	148	32	20	e80
12	17	33	40	48	53	68	165	149	133	33	19	e74
13	16	31	38	38	49	58	181	185	131	37	41	e66
14	17	32	37	46	50	59	177	218	152	36	91	e60
15	17	36	e40	47	53	61	164	274	183	32	50	e90
16	18	43	39	45	50	61	145	312	198	26	40	e80
17	20	43	e39	46	52	64	126	372	205	23	35	e66
18	21	41	38	43	53	67	121	381	207	21	34	e56
19	21	41	38	45	109	72	129	380	191	22	41	e48
20	20	43	36	45	128	78	124	387	185	19	42	e43
21	20	42	e34	43	74	85	119	445	188	18	47	e60
22	19	38	e34	44	64	92	127	565	183	17	62	e54
23	20	39	e34	47	60	94	175	595	157	18	47	e50
24	23	39	e36	36	60	99	206	477	150	18	40	e46
25	23	34	e36	36	61	107	188	444	130	18	33	e44
26	21	33	e38	40	61	117	176	454	110	16	33	e42
27	19	32	e38	43	63	130	214	598	94	16	70	41
28	22	34	41	41	65	117	246	620	94	15	115	39
29	23	37	51	43	---	109	265	557	99	15	105	38
30	24	35	59	45	---	106	299	474	92	16	99	36
31	28	---	50	43	---	102	---	439	---	17	119	---
TOTAL	586	1025	1228	1443	1653	2451	4542	10619	6307	1057	1389	2026
MEAN	18.9	34.2	39.6	46.5	59.0	79.1	151	343	210	34.1	44.8	67.5
MAX	28	43	59	83	128	130	299	620	460	84	119	170
MIN	14	26	34	36	39	58	95	138	92	15	15	36
AC-FT	1160	2030	2440	2860	3280	4860	9010	21060	12510	2100	2760	4020

MEAN	25.8	31.6	33.1	31.7	37.2	46.5	111	238	131	28.2	25.6	23.7
MAX	74.9	71.9	56.8	47.3	60.3	91.0	301	844	708	113	97.9	67.5
(WY)	1958	1958	1987	1985	1987	1985	1985	1984	1979	1979	1957	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
(WY)	1964	1973	1973	1973	1973	1971	1972	1972	1971	1972	1972	1972

ANNUAL TOTAL	31509		34326				
ANNUAL MEAN	86.1		94.0		62.9		
HIGHEST ANNUAL MEAN					168		1979
LOWEST ANNUAL MEAN					14.5		1972
HIGHEST DAILY MEAN	524	Apr 15	620	May 28	1590		Jun 9 1979
LOWEST DAILY MEAN	14	Oct 2	14	Oct 2	2.6		Aug 16 1972
ANNUAL SEVEN-DAY MINIMUM	15	Sep 28	16	Oct 1	3.0		Aug 10 1972
INSTANTANEOUS PEAK FLOW			1450	Sep 7	2380		Aug 24 1957
INSTANTANEOUS PEAK STAGE			8.53	Sep 7	8.93		May 22 1991
INSTANTANEOUS LOW FLOW			14	Oct 1	1.9		Aug 1 1972
ANNUAL RUNOFF (AC-FT)	62500		68090		45550		
10 PERCENT EXCEEDS	249		207		126		
50 PERCENT EXCEEDS	41		50		31		
90 PERCENT EXCEEDS	17		20		9.8		

e Estimated

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 1992 TO SEPTEMBER 1993

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) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)
NOV										
09...	1045	27	460	8.3	11.0	3.0	590	11.6	112	<10
12...	1300	31	529	8.6	--	6.5	602	11.7	121	--
12...	1300	31	529	8.6	--	6.5	602	11.7	121	--
JAN										
05...	1330	87	450	7.9	5.0	0.0	595	11.6	102	170
MAR										
29...	1600	105	366	8.3	2.5	5.0	590	10.4	106	24
APR										
19...	1415	130	321	8.4	13.0	11.0	--	--	--	13
JUN										
21...	1330	195	225	8.3	25.0	16.5	599	8.7	114	18
SEP										
01...	1400	104	327	8.1	28.0	17.5	600	8.8	118	19

[illegible][illegible]

## RIO GRANDE BASIN

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

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	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)
NOV 09...	0.220	0.090	0.090	0.30	0.090	0.080	0.080	2.6	50	14
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
JAN 05...	0.310	--	0.190	0.60	0.140	--	0.060	6.0	--	--
MAR 29...	0.089	--	<0.010	0.40	0.040	--	<0.010	5.6	10	13
APR 19...	<0.050	--	0.110	0.70	0.070	--	0.030	6.2	20	33
JUN 21...	<0.050	--	0.100	0.30	0.040	--	0.010	3.5	20	12
SEP 01...	<0.050	--	0.200	0.50	0.020	--	0.020	3.4	--	--

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)
NOV 09...	1045	27	460	3.0	16	1.2	62	--	--
12...	1300	31	--	--	--	--	--	83	100
JAN 05...	1330	87	450	0.0	244	57	45	--	--
MAR 29...	1600	105	366	5.0	50	14	73	--	--
APR 19...	1415	130	321	11.0	53	19	69	--	--
JUN 21...	1330	195	225	16.5	17	9.0	46	--	--
SEP 01...	1400	104	327	17.5	36	10	49	--	--

## RIO GRANDE BASIN

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

(Surveillance network station)

LOCATION.--Lat 36°19'12", long 105°45'14", in NW¼NE¼ sec.15, T.24 N., R.11 E., Taos County, Hydrologic Unit 13020101, on left bank 1.7 mi downstream from bridge on State Highway 567, 2.0 mi downstream from Rio Pueblo de Taos, 11.8 mi southwest of Taos, and at mile 1,657.7.

DRAINAGE AREA.--9,730 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.--July 1925 to current year. Prior to October 1930 monthly discharge only, published in WSP 1312.

Published as "at Taos Junction Bridge, near Taos" prior to 1934.

REVISED RECORDS.--WSP 788: 1934(M). WSP 828: Drainage area. WSP 1392: 1931-1932, 1935, 1937, 1945, 1950.

GAGE.--Water-stage recorder. Datum of gage is 6,050.3 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 14, 1934, at bridge 1.7 mi upstream at different datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are fair. Diversions upstream from station for irrigation of about 620,000 acres in Colorado and 30,000 acres in New Mexico.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1888, about 14,000 ft<sup>3</sup>/s June 19, 1903, from records for Rio Grande at Embudo and estimated inflow. Other floods exceeding 10,000 ft<sup>3</sup>/s occurred June 9, 1905, May 28, 1920, and June 16, 1921, from comparison of records for stations near Lobatos and at Embudo.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	305	e348	376	504	558	677	1190	2090	4530	1740	357	1570
2	299	e353	396	521	551	653	1130	2190	4160	1720	368	1740
3	290	e357	417	537	554	655	1100	2040	3960	1620	354	1480
4	284	e356	431	498	563	656	1040	1700	3720	1450	354	1320
5	279	e341	451	493	546	641	1030	1580	3240	1270	378	1200
6	277	e340	427	514	541	646	978	1600	2780	1150	410	986
7	275	e335	360	548	549	669	950	1570	2540	1030	406	1030
8	271	e346	447	611	554	685	927	1420	2490	868	377	838
9	292	e352	470	607	648	722	903	1320	2290	749	362	820
10	284	e357	468	564	657	771	867	1230	1980	686	363	834
11	282	e426	446	558	615	832	853	1150	1720	620	351	762
12	287	e473	456	546	593	830	876	1100	1600	571	362	702
13	278	e480	481	531	581	779	931	1170	1570	573	423	679
14	277	e433	465	564	583	799	1020	1380	1630	549	476	736
15	277	e434	473	560	596	809	1050	1690	1840	537	434	677
16	282	e488	487	543	589	840	1040	2050	2310	549	414	652
17	293	e490	467	542	591	881	958	2450	2470	563	376	644
18	287	e492	473	535	590	910	902	2790	2510	545	397	626
19	283	e483	474	545	898	945	901	3050	2660	522	413	567
20	283	e480	464	546	2060	985	942	3160	2440	561	420	532
21	284	e495	460	551	1170	997	942	3200	2230	553	411	502
22	290	e467	458	557	793	1030	917	3410	2130	538	431	470
23	307	e460	459	564	680	1050	1000	3620	2130	471	422	446
24	316	e432	452	535	657	1110	1120	3960	2240	448	419	430
25	324	e410	442	532	616	1160	1330	3900	2230	442	468	430
26	324	e354	433	534	600	1190	1440	3660	2060	416	501	425
27	312	e366	429	540	637	1220	1400	3680	1910	385	568	422
28	315	e385	444	535	669	1270	1470	4100	1900	373	682	419
29	e326	e400	482	536	---	1330	1550	4700	1900	369	702	397
30	e328	e434	513	542	---	1330	1770	5260	1790	369	784	394
31	e340	---	516	542	---	1260	---	5150	---	355	1350	---
TOTAL	9151	12367	14017	16835	19239	28332	32527	81370	72960	22592	14533	22730
MEAN	295	412	452	543	687	914	1084	2625	2432	722	469	750
MAX	340	495	516	611	2060	1330	1770	5260	4530	1740	1350	1740
MIN	271	335	360	493	541	641	853	1100	1570	355	351	394
AC-FT	18150	24530	27800	33390	38160	56200	64520	161400	144700	44810	28830	45080

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1993, BY WATER YEAR (WY)

	MEAN	413	531	493	475	543	663	882	1800	1797	716	411	378
MAX	1675	1532	1018	764	865	1195	3020	6055	6007	2945	1536	2086	
(WY)	1942	1942	1942	1986	1987	1987	1942	1987	1941	1941	1929	1927	
MIN	171	223	243	263	290	259	250	233	188	185	184	161	
(WY)	1957	1957	1957	1957	1957	1957	1981	1977	1977	1959	1956	1956	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1926 - 1993

ANNUAL TOTAL	245980	346653	
ANNUAL MEAN	672	950	759
HIGHEST ANNUAL MEAN			1840
LOWEST ANNUAL MEAN			271
HIGHEST DAILY MEAN	2670	5260	9730
LOWEST DAILY MEAN	271	271	159
ANNUAL SEVEN-DAY MINIMUM	276	280	159
INSTANTANEOUS PEAK FLOW		5460	9730
INSTANTANEOUS PEAK STAGE		7.49	9.23
INSTANTANEOUS LOW FLOW		265	155
ANNUAL RUNOFF (AC-FT)	487900	687600	549600
10 PERCENT EXCEEDS	1430	2070	1470
50 PERCENT EXCEEDS	481	564	470
90 PERCENT EXCEEDS	303	350	242
e Estimated			



## 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 1992 TO SEPTEMBER 1993

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)
OCT										
28...	1030	302	350	8.4	16.5	10.0	--	605	10.2	114
NOV										
13...	1000	455	376	8.5	--	4.0	--	617	11.0	104
13...	1000	455	376	8.5	--	4.0	--	617	11.4	108
MAR										
18...	0945	934	300	8.4	11.5	4.5	12	608	10.0	97
APR										
21...	1110	996	288	8.3	15.0	10.0	11	617	9.5	104
MAY										
27...	0900	3690	202	8.3	--	13.5	35	650	8.3	94
JUN										
24...	0830	2270	--	8.6	--	16.0	--	612	7.9	100
JUL										
29...	0930	349	347	8.7	--	18.5	--	616	8.2	109
AUG										
26...	0830	500	356	8.7	--	18.0	3.4	615	6.9	91
SEP										
23...	1015	450	337	8.7	--	17.0	--	614	8.1	105

DATE	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCOCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL 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)
OCT										
28...	29	K4	K1	130	8	37	8.2	26	1	3.4
NOV										
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
MAR										
18...	<10	--	--	93	0	28	5.5	23	1	3.7
APR										
21...	--	K2	K7	100	0	30	6.1	19	0.8	2.9
MAY										
27...	39	340	150	72	--	22	4.2	12	0.6	2.9
JUN										
24...	--	--	--	80	0	24	4.9	15	0.7	3.0
JUL										
29...	--	--	--	110	3	32	7.3	23	1	4.2
AUG										
26...	12	21	K12	120	9	35	7.7	25	1	3.9
SEP										
23...	--	--	--	110	14	34	7.3	20	0.8	2.8

## RIO GRANDE BASIN

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

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
OCT 28...	138	3	119	119	53	8.5	0.70	26	--	235
NOV 13...	139	24	154	--	--	--	--	--	--	--
NOV 13...	139	24	154	--	--	--	--	--	--	--
MAR 18...	126	0	104	98	46	8.3	0.40	24	201	203
APR 21...	96	17	107	99	41	6.9	0.40	22	197	193
MAY 27...	--	--	--	68	24	3.3	0.30	18	134	128
JUN 24...	95	2	82	77	34	3.9	0.30	18	152	152
JUL 29...	124	3	106	107	56	6.9	0.70	23	218	218
AUG 26...	124	5	110	112	60	6.8	0.60	24	227	230
SEP 23...	121	1	100	107	50	6.3	0.60	23	204	205

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 28...	--	<0.010	<0.010	0.170	0.190	0.010	<0.010	--	--	0.20
NOV 13...	--	--	--	--	--	--	--	--	--	--
NOV 13...	--	--	--	--	--	--	--	--	--	--
MAR 18...	0.290	--	0.020	--	0.310	--	0.040	<0.20	--	0.40
APR 21...	--	--	<0.010	--	0.110	--	0.020	0.20	0.18	0.40
MAY 27...	--	--	<0.010	--	0.062	--	0.030	0.20	0.17	0.30
JUN 24...	--	--	<0.010	--	0.070	--	0.030	<0.20	--	0.40
JUL 29...	--	--	<0.010	--	0.150	--	0.030	<0.20	--	<0.20
AUG 26...	--	--	<0.010	--	0.140	--	0.020	0.20	0.18	0.20
SEP 23...	--	--	<0.010	--	0.110	--	0.020	<0.20	--	<0.20

WATER-QUALITY RECORDS

	PHOS- PHORUS TOTAL	PHOS- PHORUS DIS- SOLVED	PHOS- PHORUS ORTHO TOTAL	PHOS- PHORUS DIS- SOLVED	CARBON, ORGANIC TOTAL	CARBON, ORGANIC DIS- SOLVED	CARBON, ORGANIC PENDE TOTAL	BORON, DIS- SOLVED	IRON, DIS- SOLVED	MANGA- NESE, DIS- SOLVED
DATE	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	(UG/L)	(UG/L)
	AS P	AS P	AS P	AS P	AS C	AS C	AS C	AS B	AS FE	AS MN
	(00665)	(00666)	(70507)	(00671)	(00680)	(00681)	(00689)	(01020)	(01046)	(01056)

[illegible]

## RIO GRANDE BASIN

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

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

		ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	
NOV 13...	1000	7	2	<10	2	1.8	95	51	20	49	51	
DATE	TIME	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	
NOV 13...		16	<8	<4	3.5	51	37	30	0.90	1700	<.02	
DATE	TIME	MOLYB- DENIUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	
NOV 13...		<2	51	30	10	0.12	1.7	10	0.5	0.3	1.1	
DATE	TIME	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	
NOV 13...		260	0.11	<40	12	<10	4	82	31	3	320	
DATE	TIME	CHLOR- DYRIFOS TOTAL RECOVER (UG/L) (38932)	DI- SYSTON TOTAL (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)	PER- THANE TOTAL (UG/L) (39034)	DEF TOTAL (UG/L) (39040)	THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	
MAR 18...	0945	--	--	--	--	--	--	--	--	--	--	
AUG 26...	0830	<0.01	<0.01	<0.01	<0.1	<0.01	<0.10	<0.010	<0.010	<0.1	<0.010	
DATE	TIME	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, 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)
MAR 18...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 26...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<1	<0.010	<0.010	<0.01	<0.1
DATE	TIME	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)	FONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L) (82614)
MAR 18...	--	--	--	--	--	<0.01	<0.01	--	<0.01	--	<0.01	--
AUG 26...	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	<0.01	--	<0.01	--	<0.01

## RIO GRANDE BASIN

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

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT							
28...	1030	302	350	10.0	10	8.2	29
APR							
21...	1110	996	288	10.0	39	105	78
MAY							
27...	0900	3690	202	13.5	73	727	87
JUN							
24...	0830	2270	--	16.0	102	625	--
JUL							
29...	0930	349	347	18.5	18	17	--
AUG							
26...	0830	500	356	18.0	85	115	--
SEP							
23...	1015	450	337	17.0	17	21	--

## 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 were made during year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	15	e11	13	12	12	28	209	262	37	11	85
2	9.5	14	e12	13	11	12	31	167	236	31	11	72
3	9.8	14	e12	12	12	12	35	144	205	28	9.7	63
4	9.8	11	e12	10	12	13	33	139	161	27	10	55
5	10	e11	e11	e9.0	e9.6	13	42	163	142	24	11	48
6	11	e12	e10	e10	e9.0	15	50	167	134	22	27	45
7	11	e13	e9.0	e12	e9.4	14	45	159	127	19	20	44
8	10	e14	e9.0	13	12	15	41	151	109	18	41	41
9	10	e15	e11	12	12	16	40	134	102	16	19	37
10	11	14	13	12	12	18	46	113	93	15	16	34
11	11	e15	13	12	11	19	63	114	82	15	16	33
12	11	e14	13	11	11	17	81	140	78	17	15	31
13	11	e12	e10	e10	11	16	78	171	80	22	21	33
14	11	e13	e9.4	e11	11	e14	72	209	88	20	36	38
15	11	e14	e9.0	e11	12	16	61	271	96	25	25	30
16	12	15	e9.0	e11	11	16	52	325	95	17	19	28
17	12	15	e9.0	12	e8.2	18	49	341	94	15	21	26
18	13	14	e9.8	12	e8.0	21	56	368	95	16	20	24
19	13	13	e9.8	12	e8.6	25	70	372	89	13	22	23
20	13	14	e9.0	11	13	26	70	398	87	14	50	23
21	13	13	e8.0	e9.8	9.0	28	76	407	87	12	64	22
22	14	11	e8.4	e9.6	13	32	101	410	82	11	75	22
23	14	e10	e8.4	e9.6	15	35	143	397	77	10	47	20
24	14	e10	e8.4	e9.6	12	37	158	369	72	9.5	37	19
25	14	e9.6	e8.0	e9.6	12	40	135	345	66	9.2	35	19
26	14	e9.6	e8.0	e10	12	42	149	365	58	9.0	40	18
27	14	e9.6	e8.6	e10	12	46	189	383	54	8.6	80	17
28	14	e10	e9.0	e10	12	37	219	386	46	12	79	17
29	14	e10	e10	e10	---	35	226	388	42	13	69	17
30	14	e10	e11	e10	---	31	218	325	40	14	69	16
31	16	---	e12	11	---	29	---	288	---	10	96	---
TOTAL	374.4	374.8	310.8	338.2	312.8	720	2657	8318	3079	529.3	1111.7	1000
MEAN	12.1	12.5	10.0	10.9	11.2	23.2	88.6	268	103	17.1	35.9	33.3
MAX	16	15	13	13	15	46	226	410	262	37	96	85
MIN	9.3	9.6	8.0	9.0	8.0	12	28	113	40	8.6	9.7	16
AC-FT	743	743	616	671	620	1430	5270	16500	6110	1050	2210	1980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)

	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993
MEAN	12.1	12.5	12.6	12.7	14.0	27.2	148	272	120	26.9	26.1	24.1
MAX	12.1	12.5	15.2	14.6	16.8	31.1	208	277	138	36.8	35.9	33.3
(WY)	1993	1993	1992	1992	1992	1992	1992	1992	1992	1992	1993	1993
MIN	12.1	12.5	10.0	10.9	11.2	23.2	88.6	268	103	17.1	16.4	14.8
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1992 - 1993
ANNUAL TOTAL	24015.9	19126.0	
ANNUAL MEAN	65.6	52.4	52.4
HIGHEST ANNUAL MEAN			52.4
LOWEST ANNUAL MEAN			52.4
HIGHEST DAILY MEAN	391	May 1	410
LOWEST DAILY MEAN	6.8	Aug 20	6.8
ANNUAL SEVEN-DAY MINIMUM	7.7	Aug 17	7.7
INSTANTANEOUS PEAK FLOW			493
INSTANTANEOUS PEAK STAGE			5.34
INSTANTANEOUS LOW FLOW			7.9
ANNUAL RUNOFF (AC-FT)	47640	37940	37960
10 PERCENT EXCEEDS	248	143	224
50 PERCENT EXCEEDS	18	16	19
90 PERCENT EXCEEDS	10	9.7	10

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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	13	e11	e8.0	e7.4	7.8	13	78	221	88	29	106
2	16	14	12	e8.0	e7.4	8.2	15	69	219	83	29	101
3	16	13	13	e8.0	e7.0	11	16	64	227	80	26	95
4	15	13	11	e7.6	e6.4	10	16	67	203	72	25	88
5	15	15	10	e7.0	6.2	9.8	18	73	187	69	26	78
6	14	16	10	e6.6	e6.2	9.5	19	72	182	64	34	72
7	14	16	9.8	e6.6	e6.4	10	18	71	171	60	44	67
8	14	15	e9.2	e7.0	e6.8	9.6	16	67	157	56	59	61
9	14	13	e8.4	e7.4	e7.0	10	16	62	151	52	40	57
10	14	13	e7.6	e7.6	e7.0	11	19	59	144	49	40	54
11	14	14	e8.0	e7.6	e7.2	11	26	62	139	50	38	51
12	13	16	e8.2	e6.8	7.4	11	31	68	139	53	38	49
13	13	17	e8.2	e6.6	e7.4	e9.0	31	74	139	61	46	52
14	13	16	e7.6	e6.6	e7.4	e7.0	30	85	142	62	53	52
15	13	15	e7.2	e6.6	e7.4	4.9	26	103	147	68	46	46
16	12	15	e7.0	e6.6	e7.6	4.7	23	117	147	54	45	44
17	13	14	e7.0	e6.8	e8.0	5.0	22	152	145	54	47	40
18	13	14	e7.0	e7.0	8.6	5.3	24	154	145	49	50	37
19	13	14	e7.0	e7.0	8.3	5.6	27	161	142	50	54	35
20	12	13	e6.4	e7.0	8.7	6.8	27	171	140	47	74	34
21	13	14	e6.4	e6.6	e7.6	7.7	32	187	141	44	96	32
22	14	e13	e6.4	e6.4	e8.0	9.4	42	184	139	41	100	33
23	13	e12	e6.4	e6.4	e8.4	11	52	196	135	35	94	32
24	13	e11	e6.6	e6.4	8.8	13	52	186	131	34	91	30
25	13	e11	e7.0	e6.4	9.3	17	47	186	126	33	87	28
26	14	e11	e7.0	e6.6	8.2	21	53	197	118	32	85	27
27	14	e10	e7.0	e7.0	8.0	20	65	204	113	31	98	26
28	13	e10	e7.0	e7.0	7.8	17	73	218	107	33	104	25
29	14	e11	e7.6	e7.0	---	15	78	239	104	32	101	25
30	13	e11	e7.6	e7.4	---	14	81	215	99	36	103	24
31	15	---	e8.0	e7.4	---	13	---	209	---	30	111	---
TOTAL	426	403	252.6	217.0	211.9	325.3	1008	4050	4500	1602	1913	1501
MEAN	13.7	13.4	8.15	7.00	7.57	10.5	33.6	131	150	51.7	61.7	50.0
MAX	16	17	13	8.0	9.3	21	81	239	227	88	111	106
MIN	12	10	6.4	6.4	6.2	4.7	13	59	99	30	25	24
AC-FT	845	799	501	430	420	645	2000	8030	8930	3180	3790	2980

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1993, BY WATER YEAR (WY)

	MEAN	12.0	10.6	7.79	6.65	6.60	10.2	40.5	98.0	103	35.5	46.3	27.5
MAX	17.0	17.1	13.6	9.24	9.11	17.5	75.3	165	175	62.1	129	66.5	
(WY)	1953	1992	1992	1953	1992	1992	1992	1992	1957	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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1953 - 1993

ANNUAL TOTAL	16803.1	16409.8	
ANNUAL MEAN	45.9	45.0	31.7
HIGHEST ANNUAL MEAN			50.5
LOWEST ANNUAL MEAN			12.0
HIGHEST DAILY MEAN	211	Jun 6	267
LOWEST DAILY MEAN	6.4	Dec 20	3.0
ANNUAL SEVEN-DAY MINIMUM	6.6	Dec 18	5.6
INSTANTANEOUS PEAK FLOW			275
INSTANTANEOUS PEAK STAGE			5.40
INSTANTANEOUS LOW FLOW			4.4
ANNUAL RUNOFF (AC-FT)	33330	32550	22960
10 PERCENT EXCEEDS	152	139	96
50 PERCENT EXCEEDS	17	16	13
90 PERCENT EXCEEDS	8.3	7.0	5.5

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 RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 5,858.60 ft 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	39	33	50	40	45	100	328	600	110	26	271
2	22	34	37	51	38	43	103	286	586	102	29	238
3	21	33	42	50	36	41	116	256	573	97	26	214
4	21	31	44	26	39	41	110	234	524	91	26	197
5	23	30	31	28	34	40	124	262	485	81	31	177
6	23	33	39	38	38	43	142	274	464	67	117	163
7	24	34	41	49	39	47	141	266	436	60	73	161
8	24	37	41	56	40	52	128	267	390	49	95	146
9	23	36	44	54	43	60	119	250	360	37	74	132
10	26	37	36	47	42	69	124	214	328	33	61	122
11	26	44	36	47	39	76	149	199	271	32	55	115
12	24	38	37	35	37	77	183	208	246	32	45	103
13	24	38	36	31	35	58	183	242	231	36	54	117
14	24	40	25	51	38	61	177	287	242	38	94	136
15	26	42	32	44	41	65	154	359	282	58	82	111
16	26	42	36	38	38	63	132	422	291	50	70	98
17	24	45	32	41	39	70	116	482	288	44	64	87
18	25	42	37	40	37	78	107	515	298	44	66	81
19	25	40	37	40	46	93	119	531	274	38	73	79
20	24	42	32	39	61	98	122	559	261	43	101	72
21	26	40	31	35	50	109	122	612	270	43	199	66
22	27	36	33	38	43	120	140	633	253	39	217	69
23	29	37	32	41	43	122	188	621	229	36	171	68
24	28	36	30	27	47	127	209	592	207	32	144	61
25	29	34	30	32	44	135	183	566	192	27	132	60
26	28	30	31	40	42	151	182	602	174	26	129	58
27	28	28	30	42	42	172	220	670	163	22	252	53
28	29	29	31	38	44	147	254	697	149	21	269	49
29	29	39	43	41	---	133	279	740	134	20	256	48
30	29	33	76	40	---	122	291	658	122	21	238	44
31	35	---	60	37	---	111	---	626	---	22	329	---
TOTAL	795	1099	1155	1266	1155	2669	4717	13458	9323	1451	3598	3396
MEAN	25.6	36.6	37.3	40.8	41.2	86.1	157	434	311	46.8	116	113
MAX	35	45	76	56	61	172	291	740	600	110	329	271
MIN	21	28	25	26	34	40	100	199	122	20	26	44
AC-FT	1580	2180	2290	2510	2290	5290	9360	26690	18490	2880	7140	6740

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1993, BY WATER YEAR (WY)

	MEAN	37.9	35.2	31.1	28.6	30.3	45.7	146	308	196	50.2	50.2	42.4
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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1924 - 1993

ANNUAL TOTAL	47672	44082	
ANNUAL MEAN	130	121	83.8
HIGHEST ANNUAL MEAN			235
LOWEST ANNUAL MEAN			12.8
HIGHEST DAILY MEAN	631	Apr 15	740 May 29
LOWEST DAILY MEAN	19	Sep 11	20 Jul 29
ANNUAL SEVEN-DAY MINIMUM	21	Sep 9	22 Oct 1
INSTANTANEOUS PEAK FLOW			827 May 29
INSTANTANEOUS PEAK STAGE			4.45 May 29
INSTANTANEOUS LOW FLOW			14 Feb 6
ANNUAL RUNOFF (AC-FT)	94560	87440	60690
10 PERCENT EXCEEDS	454	280	210
50 PERCENT EXCEEDS	45	50	34
90 PERCENT EXCEEDS	25	28	13



WATER-QUALITY RECORDS

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT 28...	1400	28	372	8.0	12.0	11.0	608	8.7	99	190	63	7.5
MAR 29...	1245	125	256	8.1	4.0	6.0	608	9.6	97	120	39	4.9
APR 19...	1115	120	254	8.1	10.5	8.0	609	9.9	105	120	39	5.2
JUN 30...	1000	123	268	8.4	26.5	17.0	615	8.6	111	140	46	5.3
SEP 01...	0940	266	195	7.8	20.5	12.0	618	8.6	99	--	--	--

[illegible]

## RIO GRANDE BASIN

08279500 RIO GRANDE AT EMBUDO, NM

LOCATION.--Lat 36°12'20", long 105°57'49", in SW¼SW¼ sec.23, T.23 N., R.9 E., Rio Arriba County, Hydrologic Unit 13020101, on right bank 0.2 mi downstream from bridge at Embudo, 2.8 mi downstream from Embudo Creek, and at mile 1,643.1.

DRAINAGE AREA.--10,400 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> in closed basin in San Luis Valley, CO.

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

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

GAGE.--Water-stage recorder. Datum of gage is 5,789.14 ft above National Geodetic Vertical Datum of 1929. Jan. 1 to Feb. 28, 1889, nonrecording gage 1.2 mi upstream at different datum. March 1889 to December 1903, nonrecording gage 1,300 ft upstream at different datum. September 1912 to June 1914, water-stage recorder on downstream end of bridge pier at site 200 ft upstream at present datum.

REMARKS.--Records good. Diversions upstream from station for irrigation of about 620,000 acres in Colorado and 40,000 acres in New Mexico. Several observations of water temperature were made during the year. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--41 years (water years 1890-1930), 1,238 ft<sup>3</sup>/s, 896,900 acre-ft/yr.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	DAILY MEAN VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	336	410	439	569	610	754	1290	2280	4780	1690	375	1720
2	334	403	460	582	608	712	1230	2370	4420	1670	382	1880
3	323	410	495	605	606	714	1210	2270	4220	1590	359	1660
4	314	397	511	548	618	711	1150	1930	4000	1450	352	1470
5	310	381	520	530	599	696	1150	1830	3570	1280	378	1350
6	307	383	517	561	590	701	1130	1860	3110	1150	589	1150
7	307	378	426	610	604	725	1100	1830	2840	1040	478	1140
8	303	392	530	676	614	751	1070	1690	2730	885	454	1000
9	320	399	549	692	671	797	1040	1550	2520	748	415	918
10	320	403	540	628	745	850	1000	1430	2210	682	398	931
11	315	478	522	617	682	909	1000	1330	1900	625	391	869
12	319	520	523	594	654	918	1050	1290	1750	571	383	792
13	309	527	547	574	638	850	1110	1370	1690	564	428	785
14	306	482	523	622	641	863	1190	1580	1740	562	575	857
15	309	485	530	618	660	882	1200	1930	1950	558	512	779
16	311	540	554	595	652	898	1190	2370	2420	557	483	730
17	325	545	529	597	650	955	1100	2830	2610	570	430	713
18	323	542	541	590	647	987	1020	3190	2650	560	445	695
19	316	532	540	600	866	1030	1030	3490	2750	527	463	635
20	315	531	523	599	1940	1070	1060	3610	2600	564	510	586
21	316	544	519	599	1430	1100	1070	3670	2370	570	621	553
22	324	513	516	608	904	1140	1070	3820	2250	551	664	523
23	341	507	523	620	751	1160	1170	4010	2190	494	605	498
24	356	478	512	579	738	1210	1290	4290	2270	453	557	466
25	367	453	507	582	683	1260	1440	4290	2260	445	580	459
26	369	393	495	589	663	1310	1590	4080	2090	422	614	454
27	359	403	491	596	671	1360	1600	4090	1900	385	800	448
28	361	424	513	592	730	1390	1680	4490	1860	370	925	441
29	375	448	552	593	---	1430	1780	5110	1850	399	944	423
30	378	451	610	598	---	1430	1960	5480	1760	364	917	400
31	397	---	596	595	---	1360	---	5340	---	353	1580	---
TOTAL	10265	13752	16153	18558	20865	30923	36970	90700	77260	22649	17607	25325
MEAN	331	458	521	599	745	998	1232	2926	2575	731	568	844
MAX	397	545	610	692	1940	1430	1960	5480	4780	1690	1580	1880
MIN	303	378	426	530	590	696	1000	1290	1690	353	352	400
AC-FT	20360	27280	32040	36810	41390	61340	73330	179900	153200	44920	34920	50230

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1993, BY WATER YEAR (WY)

MEAN	419	555	520	502	571	706	1027	2075	1979	757	446	379
MAX	1795	1611	1052	799	888	1290	3544	7228	6837	3054	1699	1132
(WY)	1942	1942	1942	1942	1987	1989	1942	1941	1941	1941	1957	1982
MIN	182	243	269	300	323	286	274	249	199	188	186	171
(WY)	1957	1957	1957	1957	1957	1957	1981	1972	1977	1963	1956	1956

## SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1931 - 1993

ANNUAL TOTAL	300353	381027	
ANNUAL MEAN	821	1044	
HIGHEST ANNUAL MEAN			828
LOWEST ANNUAL MEAN			2077
HIGHEST DAILY MEAN	3250	Apr 16	5480
LOWEST DAILY MEAN	295	Sep 18	303
ANNUAL SEVEN-DAY MINIMUM	300	Sep 14	312
INSTANTANEOUS PEAK FLOW			5580
INSTANTANEOUS PEAK STAGE			9.07
INSTANTANEOUS LOW FLOW			300
ANNUAL RUNOFF (AC-FT)	595800	755800	600100
10 PERCENT EXCEEDS	1680	2250	1610
50 PERCENT EXCEEDS	551	621	505
90 PERCENT EXCEEDS	335	378	260

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 Puente, 6.7 mi upstream from flow line of El Vado Reservoir, and at mile 91.4.

WATER-DISCHARGE RECORDS

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.

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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	89	e60	e45	e30	e70	455	2280	3640	489	48	231
2	39	74	e65	e45	e30	e80	490	1790	3570	415	49	175
3	38	71	e55	e40	e35	e90	492	1800	3200	367	49	142
4	35	65	e55	e40	e35	e95	461	2100	2650	347	43	123
5	34	64	e50	e45	e30	e95	608	2240	2300	290	43	107
6	35	65	e45	e50	e35	99	777	1940	2190	254	47	104
7	37	62	e40	e50	e35	111	581	1750	2160	227	49	99
8	39	67	e40	e55	e40	129	496	1570	1720	210	55	96
9	39	72	e45	e60	e50	147	528	1350	1480	197	54	85
10	41	76	e50	e65	e50	172	764	1370	1360	175	55	77
11	40	82	e50	e65	e55	197	1030	1900	1290	159	56	75
12	40	70	e50	e60	e60	177	1180	2520	1330	154	50	68
13	40	65	e50	e60	e60	161	1040	2910	1440	156	58	89
14	39	71	e45	e55	e60	160	915	2950	1470	148	77	166
15	38	77	e40	e55	e60	175	806	3190	1480	133	89	137
16	37	80	e40	e55	e60	207	817	3900	1510	124	82	109
17	38	83	e36	e60	e65	254	805	4870	1470	114	73	98
18	39	75	e30	e60	e60	290	987	4610	1290	106	64	89
19	39	74	e25	e60	e65	360	900	4330	1100	98	63	83
20	40	80	e30	e55	e60	429	872	4260	1050	91	115	79
21	39	74	e30	e45	e70	520	1010	4280	1070	81	116	74
22	41	65	e30	e40	e65	631	1300	4740	1030	76	132	69
23	43	73	e30	e35	e65	667	1710	4410	930	71	105	66
24	46	70	e30	e30	e65	721	1660	4310	853	63	77	62
25	55	e65	e30	e30	e60	850	1150	4320	760	59	64	59
26	56	e60	e30	e30	e60	959	1420	4980	685	56	59	58
27	55	e60	e35	e30	e65	1020	1750	4740	645	52	85	58
28	55	e55	e35	e30	e65	724	2020	4240	615	48	763	57
29	63	e55	e40	e30	---	524	2410	4000	596	45	611	55
30	71	e50	e40	e30	---	464	2520	3850	566	47	293	53
31	82	---	e45	e30	---	448	---	3700	---	46	257	---
TOTAL	1375	2089	1276	1440	1490	11026	31954	101200	45450	4898	3781	2843
MEAN	44.4	69.6	41.2	46.5	53.2	356	1065	3265	1515	158	122	94.8
MAX	82	89	65	65	70	1020	2520	4980	3640	489	763	231
MIN	34	50	25	30	30	70	455	1350	566	45	43	53
AC-FT	2730	4140	2530	2860	2960	21870	63380	200700	90150	9720	7500	5640

MEAN	94.2	84.8	59.9	55.9	71.3	175	858	1816	738	129	99.4	79.5
MAX	562	422	131	103	174	445	1846	4195	3091	571	352	320
(WY)	1987	1987	1987	1987	1962	1985	1962	1985	1957	1957	1957	1982
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

ANNUAL TOTAL	150801		208822				
ANNUAL MEAN	412		572			356	
HIGHEST ANNUAL MEAN						723	1985
LOWEST ANNUAL MEAN						63.0	1977
HIGHEST DAILY MEAN	3180	May 1	4980	May 26		7720	May 10 1985
LOWEST DAILY MEAN	25	Dec 19	25	Dec 19		4.4	Sep 19 1956
ANNUAL SEVEN-DAY MINIMUM	29	Dec 18	29	Dec 18		5.6	Sep 18 1956
INSTANTANEOUS PEAK FLOW			6180	May 26		11200	May 28 1979
INSTANTANEOUS PEAK STAGE			6.36	May 26		6.46	May 14 1984
INSTANTANEOUS LOW FLOW						4.0	Sep 19 1956
ANNUAL RUNOFF (AC-FT)	299100		414200			258100	
10 PERCENT EXCEEDS	1620		1790			1040	
50 PERCENT EXCEEDS	86		75			80	
90 PERCENT EXCEEDS	40		39			30	

e Estimated

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 1992 TO SEPTEMBER 1993

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 OF (MG/L) (00300)	OXYGEN, DIS- SOLVED CENT SATUR- ATION) (MG/L) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
NOV 24...	1530	59	154	8.4	2.0	0.0	574	12.9	117	--	66
FEB 17...	1345	65	252	8.2	2.0	1.5	583	11.9	111	<10	--
MAR 19...	1100	299	230	7.2	12.0	11.0	585	11.6	138	15	110
MAY 28...	1000	4120	68	7.9	22.0	11.0	588	12.6	149	810	29
AUG 10...	1500	56	184	8.0	26.0	22.0	578	7.2	110	22	83
SEP 08...	1400	97	215	8.0	17.5	17.0	588	7.6	103	<10	--

DATE	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- 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 24...	0	20	3.8	6.0	0.3	1.3	34	34	84	66	16
FEB 17...	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	22	32	6.7	9.5	0.4	2.2	104	0	85	80	48
MAY 28...	0	9.2	1.5	2.6	0.2	1.0	52	0	41	30	3.9
AUG 10...	0	25	5.0	7.0	0.3	2.2	73	29	108	81	13
SEP 08...	--	--	--	--	--	--	115	0	94	--	--

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 CONSTITUENTS, DIS- SOLVED (MG/L) (70001)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00610)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00610)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00600)
NOV 24...	1.4	0.10	18	118	0.045	<0.010	0.020	0.063	0.065	<0.010	0.010
FEB 17...	--	--	--	--	0.054	--	0.010	--	0.064	--	0.030
MAR 19...	3.1	<0.10	16	169	--	--	<0.010	--	0.056	--	0.030
MAY 28...	0.80	<0.10	15	60	--	--	<0.010	--	0.100	--	0.040
AUG 10...	1.4	0.10	20	139	--	--	<0.010	--	<0.050	--	0.020
SEP 08...	--	--	--	--	--	--	<0.010	--	<0.050	--	0.030

## RIO GRANDE BASIN

08284100 RIO CHAMA NEAR LA PUENTE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	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- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 24...	0.50	0.040	0.030	0.020	2.0	<10	65	6	0.96	67
FEB 17...	<0.20	0.040	--	0.030	2.2	--	--	5	0.88	74
MAR 19...	0.30	0.050	--	0.030	5.5	20	83	23	19	84
MAY 28...	0.20	0.050	--	0.030	5.4	<10	58	111	1230	77
AUG 10...	0.60	0.050	--	0.040	3.6	<10	83	13	2.0	81
SEP 08...	<0.20	0.040	--	0.030	2.7	--	--	9	2.4	86

## 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 U.S. 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 U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--23 years, 130 ft<sup>3</sup>/s, 94,180 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, 1,010 ft<sup>3</sup>/s, May 17; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	660	816	111	23	255
2	.00	.00	.00	.00	.00	.00	.00	478	786	89	23	203
3	.00	.00	.00	.00	.00	.00	.00	466	794	124	19	133
4	.00	.00	.00	.00	.00	.00	.00	539	843	120	4.0	65
5	.00	.00	.00	.00	.00	.00	.00	556	785	116	.50	52
6	.00	.00	.00	.00	.00	.00	.00	449	770	102	1.0	44
7	.00	.00	.00	.00	.00	.00	.00	386	752	54	1.0	29
8	.00	.00	.00	.00	.00	.00	.00	343	620	41	1.0	3.5
9	.00	.00	.00	.00	.00	.00	.00	273	531	41	2.0	2.0
10	.00	.00	.00	.00	.00	.00	.00	291	494	41	1.0	1.5
11	.00	.00	.00	.00	.00	.00	.00	479	557	40	1.0	1.5
12	.00	.00	.00	.00	.00	.00	.00	660	659	39	1.0	1.5
13	.00	.00	.00	.00	.00	.00	.00	765	818	36	1.0	5.0
14	.00	.00	.00	.00	.00	.00	.00	984	850	29	22	25
15	.00	.00	.00	.00	.00	.00	.00	968	878	29	25	8.6
16	.00	.00	.00	.00	.00	.00	.00	942	839	29	22	2.5
17	.00	.00	.00	.00	.00	.00	.00	1010	783	29	.00	1.0
18	.00	.00	.00	.00	.00	.00	.00	987	714	29	.00	1.0
19	.00	.00	.00	.00	.00	.00	.00	979	666	28	1.0	1.0
20	.00	.00	.00	.00	.00	.00	.00	975	631	35	5.5	1.0
21	.00	.00	.00	.00	.00	.00	.00	955	623	51	1.0	1.0
22	.00	.00	.00	.00	.00	.00	.00	955	613	51	7.6	.50
23	.00	.00	.00	.00	.00	.00	171	996	573	46	1.0	.50
24	.00	.00	.00	.00	.00	.00	402	969	520	48	1.0	1.0
25	.00	.00	.00	.00	.00	.00	332	997	465	35	1.0	1.0
26	.00	.00	.00	.00	.00	.00	360	928	382	28	1.0	1.0
27	.00	.00	.00	.00	.00	.00	340	851	331	24	1.5	.50
28	.00	.00	.00	.00	.00	.00	615	881	259	23	253	.50
29	.00	.00	.00	.00	---	.00	754	870	192	23	621	.00
30	.00	.00	.00	.00	---	.00	773	839	135	23	385	.00
31	.00	---	.00	.00	---	.00	---	848	---	24	302	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	3747.00	23279	18679	1538	1729.10	842.10
MEAN	.000	.000	.000	.000	.000	.000	125	751	623	49.6	55.8	28.1
MAX	.00	.00	.00	.00	.00	.00	773	1010	878	124	621	255
MIN	.00	.00	.00	.00	.00	.00	.00	273	135	23	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	7430	46170	37050	3050	3430	1670

CAL YR 1992 TOTAL 43894.60 MEAN 120 MAX 985 MIN .00 AC-FT 87060

WTR YR 1993 TOTAL 49814.20 MEAN 136 MAX 1010 MIN .00 AC-FT 98810

## 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 U.S. 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 U.S. 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. 23 years (water years 1971-93), 144 ft<sup>3</sup>/s, 104,300 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, 1,000 ft<sup>3</sup>/s, May 17; no flow Aug. 18, 19. and Sept. 29. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.50	.08	1.5	4.0	12	237	689	769	125	21	263
2	1.0	.50	.08	2.0	4.5	15	324	509	769	84	22	224
3	1.0	.50	.08	1.5	3.5	17	277	469	748	120	22	150
4	.50	.50	.08	1.5	3.5	18	259	540	818	116	9.1	70
5	.50	.50	.08	1.0	3.0	18	342	565	764	113	4.5	73
6	.50	.50	.08	.50	2.5	19	551	474	764	111	2.0	42
7	.50	.50	.08	1.0	2.5	29	297	397	732	56	2.0	32
8	.50	.50	.08	1.5	3.5	40	191	362	613	43	2.0	20
9	.50	.50	.09	1.5	6.0	49	216	302	533	38	2.0	3.5
10	.50	.50	.08	1.5	8.1	71	294	302	476	38	3.0	2.0
11	.50	1.0	.08	1.5	7.6	81	312	440	528	37	2.5	2.0
12	.50	.50	.09	1.5	6.0	83	262	628	685	38	2.0	2.0
13	.50	.50	.09	1.0	6.0	71	186	726	786	40	1.5	3.0
14	.50	.50	.08	1.0	5.5	72	141	934	796	28	9.1	32
15	.50	.50	.09	1.0	5.0	89	102	916	851	28	28	11
16	.50	.50	.09	1.0	4.5	149	106	928	786	27	23	4.0
17	.50	.50	.09	1.0	4.5	183	102	1000	786	25	8.1	2.0
18	.50	.50	.20	1.5	5.0	224	134	959	690	25	.00	1.5
19	.50	.50	.30	1.5	11	313	99	956	653	24	.00	1.0
20	.50	.50	.30	1.5	15	322	82	935	613	26	2.0	1.0
21	1.0	.50	.30	1.5	8.6	400	92	911	598	49	9.1	.50
22	1.0	.50	.30	1.5	8.1	422	133	918	598	51	8.1	.50
23	.50	.50	.30	2.0	9.1	400	235	948	563	48	3.0	.50
24	1.0	.50	.30	2.0	7.6	430	486	915	500	42	2.5	.50
25	1.0	.50	.10	2.0	6.6	475	388	949	462	33	2.0	.50
26	.50	.50	.04	2.0	6.0	435	417	906	380	34	1.5	.50
27	.50	.50	.04	3.0	7.6	488	385	840	336	25	2.5	.50
28	.50	.50	.04	3.5	8.1	242	637	853	290	21	148	.50
29	.50	.50	.05	3.5	---	160	775	856	229	19	620	.00
30	.50	.50	.05	3.5	---	181	802	792	155	20	375	.00
31	1.0	---	.40	3.5	---	169	---	803	---	21	294	---
TOTAL	19.50	15.50	4.14	54.00	172.9	5677	8864	22722	18271	1505	1631.50	943.00
MEAN	.63	.52	.13	1.74	6.17	183	295	733	609	48.5	52.6	31.4
MAX	1.0	1.0	.40	3.5	15	488	802	1000	851	125	620	263
MIN	.50	.50	.04	.50	2.5	12	82	302	155	19	.00	.00
AC-FT	39	31	8.2	107	343	11260	17580	45070	36240	2990	3240	1870

CAL YR 1992 TOTAL 48742.14 MEAN 133 MAX 920 MIN .04 AC-FT 96680  
WTR YR 1993 TOTAL 59879.54 MEAN 164 MAX 1000 MIN .00 AC-FT 118800

## 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 U.S. Bureau of Reclamation). Prior to July 1, 1971, at site 1,100 ft upstream at higher datums.

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

COOPERATION.--Records provided by U.S. 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, 66 ft<sup>3</sup>/s, Apr. 6, no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	40	4.5	1.0	.00	.00	.00
2	---	---	---	---	---	---	46	4.6	.84	.00	.00	.00
3	---	---	---	---	---	---	42	4.6	.64	.00	.00	.00
4	---	---	---	---	---	---	38	4.7	.54	.00	.00	.00
5	---	---	---	---	---	---	44	4.7	.48	.00	.00	.00
6	---	---	---	---	---	---	66	4.8	.33	.00	.00	.00
7	---	---	---	---	---	---	51	4.8	.42	.00	.00	.00
8	---	---	---	---	---	---	36	5.0	.36	.00	.00	.00
9	---	---	---	---	---	---	32	4.7	.45	.00	.00	.00
10	---	---	---	---	---	---	36	3.3	.51	.00	.00	.00
11	---	---	---	---	---	---	44	2.8	.30	.00	.00	.00
12	---	---	---	---	---	---	47	2.5	.22	.00	.00	.00
13	---	---	---	---	---	---	38	2.4	.12	.00	.00	.03
14	---	---	---	---	---	---	30	2.3	.06	.00	.00	1.4
15	---	---	---	---	---	---	25	2.2	.04	.00	.00	.00
16	---	---	---	---	---	---	23	3.2	.02	.00	.00	.00
17	---	---	---	---	---	---	20	7.4	.02	.00	.00	.00
18	---	---	---	---	---	---	19	4.0	.00	.00	.00	.00
19	---	---	---	---	---	---	16	3.4	.00	.00	.00	.00
20	---	---	---	---	---	---	13	2.8	.00	.00	.00	.00
21	---	---	---	---	---	---	12	2.6	.01	.00	.00	.00
22	---	---	---	---	---	---	10	2.4	.00	.00	.00	.00
23	---	---	---	---	---	---	9.2	2.1	.00	.00	.00	.00
24	---	---	---	---	---	---	8.5	1.8	.00	.00	.00	.00
25	---	---	---	---	---	---	6.3	1.6	.00	.00	.00	.00
26	---	---	---	---	---	---	5.7	1.6	.00	.00	.00	.00
27	---	---	---	---	---	---	5.5	1.9	.02	.00	.00	.00
28	---	---	---	---	---	---	5.1	2.1	.04	.00	.01	.00
29	---	---	---	---	---	---	4.5	2.2	.05	.00	1.0	.00
30	---	---	---	---	---	---	4.5	1.7	.06	.00	.00	.00
31	---	---	---	---	---	---	---	1.2	---	.00	.00	---
TOTAL	---	---	---	---	---	---	777.3	99.9	6.53	0.00	1.01	1.43
MEAN	---	---	---	---	---	---	25.9	3.22	.22	.000	.033	.048
MAX	---	---	---	---	---	---	66	7.4	1.0	.00	1.0	1.4
MIN	---	---	---	---	---	---	4.5	1.2	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	1540	198	.13	.00	2.0	2.8



## 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 U.S. 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 U.S. 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, 401,040 acre-ft, July 7, elevation, 7,186.50 ft; minimum, 312,360 acre-ft, Apr. 23, elevation, 7,169.94 ft.

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

(Based on survey by U.S. Bureau of Reclamation in 1971)

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

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	382690	380740	378960	378850	380050	381250	335090	320130	367410	400450	397210	392360
2	382630	380740	378960	378850	380110	380390	333500	321110	368810	400570	397270	392180
3	382570	380680	378790	378850	380110	378680	331750	322260	370220	400620	396920	392300
4	382460	380560	378910	378730	380110	377140	330110	323300	371800	400680	396330	392410
5	382400	380510	378850	378730	380110	375430	328580	324390	373220	400800	395920	392410
6	382230	380450	378730	378730	380050	373730	328320	325330	374690	400920	395740	392410
7	382060	380390	378680	378960	380050	372140	327690	326170	376170	401040	395740	392360
8	381880	380280	378680	379360	380110	370900	326430	326850	377310	401040	395740	392360
9	381770	380280	378680	379360	380220	369040	324440	327430	378330	401040	395690	392300
10	381770	380450	378620	379540	380220	367690	322360	327950	379250	401040	395160	392240
11	381600	380510	378680	379710	380110	366230	320280	328850	380280	401040	394750	392240
12	381600	380510	378680	379650	379990	365440	318160	330110	381480	401040	394110	392120
13	381540	380450	378620	379650	379880	363940	316310	331540	383030	401040	393580	392360
14	381370	380450	378560	379710	379880	362490	315540	333550	384820	401040	393520	392240
15	381310	380390	378560	379710	379940	360540	314770	335520	386430	400980	393520	392180
16	381200	380390	378620	379710	379990	359370	314360	337440	388060	400980	393580	392000
17	381140	380390	378560	379820	379990	358160	314050	339800	389450	400980	393290	391770
18	381080	380340	378560	379880	379940	357160	313790	341890	390720	400920	392940	391540
19	381080	380280	378560	380110	380390	356440	313540	343830	391950	400740	392530	391310
20	381020	380450	378510	380110	380560	355620	313180	345840	393170	400210	392120	391020
21	380970	380340	378510	380050	380560	354900	312770	347740	394460	399560	392240	391020
22	380970	380280	378390	380050	380620	353970	312570	349590	395510	398920	392120	391020
23	380910	380160	378390	379990	380680	352430	312360	351550	396510	398330	392060	390840
24	380910	380050	378330	379990	380740	350680	312720	353470	397390	398150	391710	390720
25	380850	379760	378330	379990	380740	348990	312920	355510	398150	398090	391250	390610
26	380790	379650	378280	379940	380790	347140	313540	357380	398800	398030	390780	390490
27	380680	379480	378280	379880	380850	345730	314260	359100	399390	397390	390670	390430
28	380740	379360	378620	379880	380970	343720	315440	360870	399860	397210	391190	390320
29	380680	379250	378850	379880	---	341410	317080	362600	400210	397150	392470	390260
30	380740	379080	378910	379880	---	339150	318680	364100	400390	397150	392940	390140
31	380800	---	378850	379880	---	336960	---	365780	---	397210	392820	---
MAX	382690	380740	378960	380110	380970	381250	335090	365780	400390	401040	397270	392410
MIN	380680	379080	378280	378730	379880	336960	312360	320130	367410	397150	390670	390140
(†)	7182.57	7182.27	7182.23	7182.41	7182.60	7174.65	7171.17	7179.92	7185.94	7185.40	7184.65	7184.19
(††)	-1950	-1720	-230	+1030	+1090	-44010	-18280	+47100	+34610	-3180	-4390	-2680
CAL YR 1992	MAX 401570	MIN 339630	(††)	-15490								
WTR YR 1993	MAX 401040	MIN 312360	(††)	+7390								

(†) 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 U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--22 years, 122 ft<sup>3</sup>/s, 88,390 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, 1,500 ft<sup>3</sup>/s, Mar. 24-28; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	41	.00	.00	.00	1110	.00	.00	.00	.00	502
2	.00	.00	41	.00	.00	509	1160	.00	.00	.00	130	251
3	.00	.00	41	.00	.00	930	1180	.00	.00	.00	241	.00
4	.00	.00	41	.00	.00	937	1180	.00	.00	.00	209	.00
5	.00	.00	41	.00	.00	929	1190	.00	.00	.00	145	.00
6	.00	.00	41	.00	.00	933	902	.00	.00	.00	.00	.00
7	.00	.00	23	.00	.00	933	703	.00	.00	.00	.00	44
8	.00	.00	.00	.00	.00	932	940	.00	.00	.00	.00	93
9	.00	.00	.00	.00	.00	929	1290	.00	.00	.00	152	94
10	.00	.00	.00	.00	32	928	1430	.00	.00	.00	300	92
11	.00	.00	.00	.00	55	926	1430	.00	.00	.00	300	63
12	.00	.00	.00	.00	55	926	1430	.00	.00	.00	300	41
13	.00	.00	.00	.00	55	926	1080	.00	.00	.00	122	41
14	.00	.00	.00	.00	55	926	644	.00	.00	.00	.00	21
15	.00	.00	.00	.00	55	923	504	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	56	915	350	.00	.00	.00	103	.00
17	.00	.00	.00	.00	56	905	308	.00	.00	.00	204	.00
18	.00	.00	.00	.00	56	903	308	.00	.00	.00	204	.00
19	.00	.00	.00	.00	55	902	309	.00	.00	173	203	.00
20	.00	.00	.00	.00	55	901	310	.00	.00	337	94	.00
21	.00	.00	.00	.00	55	901	311	.00	.00	337	.00	.00
22	.00	.00	.00	.00	24	1040	311	.00	.00	337	.00	.00
23	.00	.00	.00	.00	.00	1340	311	.00	.00	148	105	.00
24	.00	23	.00	.00	.00	1500	311	.00	.00	.00	224	.00
25	.00	41	.00	.00	.00	1500	311	.00	.00	.00	226	.00
26	.00	41	.00	.00	.00	1500	161	.00	.00	186	228	.00
27	.00	41	.00	.00	.00	1500	.00	.00	.00	210	90	.00
28	.00	41	.00	.00	.00	1500	.00	.00	.00	.00	.00	.00
29	.00	41	.00	.00	.00	1490	.00	.00	.00	.00	.00	.00
30	.00	41	.00	.00	.00	1490	.00	.00	.00	.00	250	.00
31	.00	.00	.00	.00	.00	1490	.00	.00	.00	.00	506	.00
TOTAL	0.00	269.00	269.00	0.00	664.00	32364.00	19474.00	0.00	0.00	1728.00	4336.00	1242.00
MEAN	.000	3.97	3.93	.000	23.7	1044	549	.000	.000	55.7	140	41.4
MAX	.00	41	41	.00	56	1500	1430	.00	.00	337	506	502
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	534	534	.00	1320	64190	38630	.00	.00	3430	8600	2460

CAL YR 1992 TOTAL 55132.00 MEAN 151 MAX 2280 MIN .00 AC-FT 109400  
WTR YR 1993 TOTAL 60346.00 MEAN 165 MAX 1500 MIN .00 AC-FT 119700

## 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 U.S. 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, 180,390 acre-ft, June 14, elevation, 6,900.17 ft; minimum, 61,200 acre-ft, Mar. 1, elevation 6,848.38.

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

(Based on survey by U.S. Bureau of Reclamation in 1984)

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 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105730	97660	89910	82250	71340	61200	120450	124140	176760	179850	158320	137650
2	105510	97450	89740	82040	70880	61740	121870	123970	177800	179690	157460	137650
3	105330	97180	89540	81840	70400	63180	122970	123640	177920	179530	156840	137030
4	105130	96880	89390	81570	69920	64580	124040	124140	177920	179440	156170	136390
5	104890	96590	89290	81300	69480	65950	125320	125480	178270	179340	155430	135620
6	104650	96260	89130	81060	68970	67410	126340	126950	178740	179280	154040	134930
7	104410	95910	88860	80900	68480	68840	126590	128250	179310	179370	152150	134380
8	103950	95540	88550	80790	68010	70380	126590	129610	179720	179410	150750	134060
9	103600	95260	88320	80610	67620	71980	126640	130560	179660	179310	150120	133750
10	103430	95010	88030	80400	67230	73590	127250	131550	179500	179090	149690	133460
11	103230	94710	87730	80250	66860	75230	128270	133070	179500	178770	149260	133140
12	103150	94320	87480	79970	66470	76820	129170	135170	179720	178270	148890	132880
13	102890	94020	87210	79700	65700	78320	128860	137410	180200	177800	147730	132800
14	102650	93880	86870	79490	65350	79860	127510	140100	180390	177200	146010	132830
15	102350	93360	86600	79110	65000	81410	125750	143230	180360	176570	144750	132750
16	101960	93110	86320	78690	64630	83130	123640	146600	180040	175380	144110	132620
17	101660	92870	86020	78320	64280	84830	121530	150140	179790	173790	143620	132410
18	101360	92620	85770	77930	64120	86560	119880	152210	179560	172510	143090	132150
19	101040	92400	85510	77540	64070	88320	118570	154760	179310	172080	142650	131790
20	100830	92220	85210	77070	63810	90220	118470	157550	179660	171800	141710	131580
21	100430	91980	84930	76650	63330	92140	118960	160780	179910	171550	140290	131290
22	100030	91720	84630	76090	63160	94380	119740	163330	179690	171240	139180	130930
23	99820	91440	84370	75610	62820	97230	120270	164990	179630	170160	138670	130540
24	99540	91230	84090	75090	62470	100050	120200	166270	179660	168380	138370	130100
25	99290	91050	83810	74600	62110	102630	119350	167280	179820	167000	138020	129710
26	98950	90810	83510	74100	61770	105350	119030	169910	180010	166270	137680	129270
27	98680	90620	83220	73630	61480	108520	119470	171980	180170	165510	136790	128910
28	98430	90440	83030	73140	61480	111090	120320	172450	180230	164270	136530	128480
29	98200	90280	82870	72660	---	113240	121970	172600	180140	163210	136530	128120
30	97950	90110	82720	72190	---	115640	123490	173470	180040	161710	136690	127690
31	97870	---	82500	71730	---	118060	---	175130	---	159800	137190	---
MAX	105730	97660	89910	82250	71340	118060	129170	175130	180390	179850	158320	137650
MIN	97870	90110	82500	71730	61480	61200	118470	123640	176760	159800	136530	127690
(†)	6868.97	6865.12	6861.10	6854.93	6848.56	6877.98	6880.19	6898.50	6900.06	6893.43	6885.49	6881.85
(††)	-7970	-7760	-7610	-10770	-10250	+56580	+5430	+51640	+4910	-20240	-22610	-9500
CAL YR 1992	MAX 180360	MIN 82500	(††) -34770									
WTR YR 1993	MAX 180390	MIN 61200	(††) +21850									

(†) 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 Nutrias, 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.

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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	183	196	196	307	272	705	1700	2550	708	816	485
2	128	183	196	196	303	269	933	1700	2820	597	643	484
3	128	183	197	193	309	268	1080	1640	2870	533	633	487
4	128	183	200	193	310	268	1090	1570	2400	510	573	490
5	131	199	202	193	310	268	1100	1340	1920	451	557	490
6	134	225	207	193	312	269	1110	1060	1790	393	774	488
7	134	225	205	190	318	271	1110	962	1680	266	1010	374
8	218	225	210	190	320	274	1350	828	1440	282	792	243
9	188	225	210	190	322	270	1610	834	1450	316	569	241
10	131	227	210	190	322	260	1740	837	1420	354	565	246
11	131	228	211	186	326	256	1740	956	1270	387	556	248
12	131	229	214	186	326	256	1970	1270	1200	444	554	248
13	131	232	214	186	325	256	2150	1670	1200	477	735	248
14	150	233	214	187	327	256	2160	1910	1310	436	970	245
15	172	233	214	239	332	258	2190	2110	1400	473	784	244
16	179	208	213	264	332	259	2180	2780	1550	722	522	244
17	179	196	213	264	306	257	2170	3500	1480	939	490	244
18	179	196	216	265	288	365	2150	3550	1310	707	492	244
19	179	196	214	279	288	438	1740	3230	1210	478	490	244
20	189	196	210	291	302	458	1170	2860	911	496	695	245
21	193	196	210	292	308	462	1040	2910	998	499	936	245
22	186	196	207	292	286	485	1110	3370	1140	503	721	244
23	186	196	204	296	272	485	1480	3370	1010	713	462	245
24	186	196	203	295	272	675	1770	3500	904	957	434	244
25	186	195	203	294	272	933	1770	3660	786	747	430	243
26	187	196	200	297	271	981	1550	3660	713	595	430	240
27	186	196	200	301	272	907	1310	3860	714	650	673	240
28	186	196	200	300	272	913	1310	3870	737	662	952	241
29	186	196	200	301	---	917	1310	3700	750	661	711	237
30	186	196	196	304	---	778	1520	3240	747	809	441	236
31	185	---	196	307	---	706	---	2700	---	991	526	---
TOTAL	5094	6164	6385	7550	8510	13990	45618	74147	41680	17756	19956	8897
MEAN	164	205	206	244	304	451	1521	2392	1389	573	644	297
MAX	218	233	216	307	332	981	2190	3870	2870	991	1010	490
MIN	101	183	196	186	271	256	705	828	713	266	430	236
AC-FT	10100	12230	12660	14980	16880	27750	90480	147100	82670	35220	39580	17650

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	189	181	314	151	167	294	905	1700	865	368	312	287
MEAN	189	181	314	151	167	294	905	1700	865	368	312	287
MAX	607	646	1272	435	522	962	1887	3412	2184	707	670	692
(WY)	1987	1987	1976	1987	1986	1985	1986	1985	1983	1992	1992	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	1973	1972	1976	1985	1971	1972

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1971 - 1993

ANNUAL TOTAL	204109	255747	
ANNUAL MEAN	558	701	479
HIGHEST ANNUAL MEAN			754
LOWEST ANNUAL MEAN			194
HIGHEST DAILY MEAN	3110	May 2	5790
LOWEST DAILY MEAN	90	Sep 26	11
ANNUAL SEVEN-DAY MINIMUM	93	Sep 23	16
ANNUAL RUNOFF (AC-FT)	404900	507300	347200
10 PERCENT EXCEEDS	1310	1720	1170
50 PERCENT EXCEEDS	248	312	219
90 PERCENT EXCEEDS	186	189	39

## 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. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	199	193	232	336	371	695	1850	2730	621	931	490
2	110	195	193	231	335	339	829	1840	2910	535	597	485
3	130	195	193	249	332	343	1130	1790	3170	450	588	481
4	129	193	196	203	331	330	1150	1670	2680	438	562	483
5	129	193	202	208	331	323	1150	1570	2090	400	523	480
6	133	224	201	215	329	330	1190	1090	1860	357	589	481
7	133	234	195	239	332	364	1190	1050	1820	276	990	475
8	140	232	210	680	333	422	1350	805	1560	192	1000	263
9	277	233	208	542	344	464	1670	804	1420	292	800	252
10	138	239	208	288	371	479	1870	783	1510	267	600	252
11	132	254	208	244	355	438	1900	842	1310	332	560	250
12	131	249	209	218	344	401	2020	1140	1190	343	525	247
13	131	246	208	204	341	333	2290	1660	1180	433	580	260
14	129	244	208	225	342	316	2270	1970	1250	425	963	322
15	168	242	211	229	341	319	2260	2190	1420	434	910	257
16	186	238	211	304	339	357	2250	2790	1520	560	541	252
17	188	201	205	310	337	379	2250	3730	1600	936	498	249
18	189	199	211	309	314	399	2240	4150	1350	910	498	249
19	189	197	208	319	430	543	2050	3730	1250	485	497	248
20	189	199	203	332	1070	564	1310	3220	1000	510	575	247
21	203	199	199	328	596	564	1050	3150	820	507	951	247
22	194	195	208	327	407	589	1090	3660	1140	503	997	247
23	196	195	212	328	335	573	1410	3910	1040	540	498	249
24	193	195	212	326	329	635	1890	3870	866	946	440	247
25	193	193	212	323	312	943	1870	4190	757	904	433	246
26	193	193	210	323	307	1150	1770	4200	614	534	436	246
27	193	193	209	326	321	1020	1410	4360	609	604	548	246
28	193	193	220	327	389	1040	1430	4530	614	601	1060	247
29	193	193	220	329	---	989	1440	4280	632	599	924	247
30	193	193	330	329	---	890	1550	3850	634	651	459	247
31	218	---	261	331	---	723	---	3060	---	991	537	---
TOTAL	5204	6348	6574	9378	10583	16930	47974	81734	42546	16576	20610	9192
MEAN	168	212	212	303	378	546	1599	2637	1418	535	665	306
MAX	277	254	330	680	1070	1150	2290	4530	3170	991	1060	490
MIN	91	193	193	203	307	316	695	783	609	192	433	246
AC-FT	10320	12590	13040	18600	20990	33580	95160	162100	84390	32880	40880	18230

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	1999	187	322	159	188	335	961	1810	908	377	326	292
MEAN	199	187	322	159	188	335	961	1810	908	377	326	292
MAX	625	676	1273	431	495	1050	1985	3741	2409	707	665	724
(WY)	1987	1987	1976	1987	1987	1985	1985	1984	1983	1992	1993	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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1971 - 1993

ANNUAL TOTAL	211899	273649	
ANNUAL MEAN	579	750	
HIGHEST ANNUAL MEAN			823
LOWEST ANNUAL MEAN			204
HIGHEST DAILY MEAN	3470	May 2	6480
LOWEST DAILY MEAN	87	Sep 27	11
ANNUAL SEVEN-DAY MINIMUM	90	Sep 25	20
INSTANTANEOUS PEAK FLOW			6680
INSTANTANEOUS PEAK STAGE			7.03
INSTANTANEOUS LOW FLOW			79
ANNUAL RUNOFF (AC-FT)	420300	542800	367200
10 PERCENT EXCEEDS	1440	1850	1210
50 PERCENT EXCEEDS	277	364	231
90 PERCENT EXCEEDS	187	193	54

## 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, 202,270 acre-ft, May 31, elevation, 6,223.12 ft; minimum, 135,150 acre-ft, Sept. 30, elevation, 6,205.81 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 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134010	115130	121700	127060	135360	144850	167620	192150	256220	234850	216310	221500
2	132950	115300	122110	127230	135790	145220	168620	192810	258570	232570	215970	221850
3	131900	115430	122410	127360	136180	145550	169520	194010	261120	229900	216100	222210
4	130880	115690	122510	127570	136530	146130	170300	195290	263090	227250	215840	222510
5	129720	115920	122610	127750	137000	146460	171270	196000	263880	224540	216140	222780
6	128540	116110	122680	127780	137280	146750	172290	195250	264370	221940	217140	223260
7	127360	116310	122980	128160	137600	147050	173310	194300	264470	219400	218180	223750
8	126330	116540	123150	128710	138000	147450	174500	193060	264270	217880	218920	223530
9	125550	116900	123250	129240	138500	148110	175880	191610	263780	217140	218660	223570
10	124730	117360	123520	129270	139000	148810	177190	190170	263630	217050	217920	223620
11	123920	117820	123850	129030	139250	149440	178540	190740	262940	217050	217180	223660
12	123080	118150	124220	128820	139640	149550	180060	189920	261910	216840	216620	223570
13	122310	118520	124600	128960	140000	149880	181550	190000	260770	216830	216310	223660
14	121470	118910	125000	129170	140360	150140	182870	190660	259690	216750	217360	223660
15	120470	119280	125240	129760	140720	150480	184170	191980	259200	216700	217660	223660
16	119540	119510	125310	130000	141010	151110	185470	194170	258860	216790	217270	223570
17	118720	119540	125240	130250	141190	151850	186890	198200	258710	217400	217050	223440
18	117860	119580	125170	130490	141550	152590	188280	203190	257930	217960	216620	223000
19	117030	119710	125210	130600	142460	153380	189020	207110	257050	217830	216490	222560
20	116340	119910	125240	130740	143620	154280	188770	210090	255790	217620	216530	222160
21	115750	120170	125310	131050	144820	155110	188160	213040	253990	217440	218220	221550
22	115260	120370	125410	131400	145330	156240	187710	216790	252890	217220	219360	221110
23	114840	120540	125480	131720	145070	157290	188120	220850	251450	217010	219180	220760
24	114450	120600	125580	132040	144490	158550	188900	224850	249680	217440	218220	220280
25	114060	120800	125690	132350	143870	160030	189630	228950	247780	218140	217960	219970
26	113870	121070	125820	132600	143760	161480	190250	233390	245610	217880	217880	219490
27	113800	121270	125920	132990	144120	162580	190580	238120	243550	217530	218010	219310
28	114060	121400	126200	133520	144520	163350	190830	243360	241220	216960	219400	218790
29	114350	121540	126510	134010	---	164150	191030	247880	239180	216230	220450	218490
30	114550	121640	126710	134470	---	165230	191240	251680	237060	215710	220930	218140
31	114840	---	126880	134930	---	166420	---	254380	---	215970	221200	---
MAX	134010	121640	126880	134930	145330	166420	191240	254380	264470	234850	221200	223750
MIN	113800	115130	121700	127060	135360	144850	167620	189920	237060	215710	215840	218140
(†)	6199.84	6201.90	6203.45	6205.75	6208.42	6214.25	6220.47	6234.75	6231.07	6226.34	6227.54	6226.84
(††)	-20310	+6800	+5240	+8050	+9590	+21900	+24820	+63140	-17320	-21090	-5230	-3060
CAL YR 1992	MAX 202270	MIN 113800	(††) -29050									
WTR YR 1993	MAX 264470	MIN 113800	(††) +82990									

(†) 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	627	52	99	179	117	199	186	1750	1730	1780	820	318
2	613	72	88	179	135	237	413	1750	1730	1790	768	243
3	625	114	102	179	152	195	759	1750	1720	1780	623	267
4	e625	98	101	169	161	166	755	650	1750	1780	624	266
5	e641	71	99	152	162	183	750	1730	1750	1770	357	274
6	e674	72	99	152	162	219	737	1740	1750	1770	104	280
7	e675	71	99	152	162	217	739	1730	1730	1630	150	270
8	676	72	99	213	162	197	784	1730	1710	1130	526	270
9	608	72	91	300	163	150	1090	1720	1700	493	867	249
10	526	72	82	299	165	149	1330	1750	1710	310	864	208
11	529	72	82	366	173	177	1350	814	1750	345	862	212
12	530	76	81	356	182	199	1540	1700	1800	399	811	249
13	504	79	82	180	182	198	1710	1750	1790	433	679	320
14	476	79	104	219	182	200	1840	1780	1790	436	687	279
15	544	80	158	215	182	149	1830	1770	1790	437	689	219
16	585	134	196	215	182	75	1800	1780	1790	493	627	270
17	586	181	197	215	197	75	1790	1630	1780	553	623	383
18	581	180	198	215	196	76	1780	1520	1790	553	677	438
19	578	179	200	214	170	120	1780	1670	1780	554	617	424
20	579	125	200	213	171	146	1780	1720	1780	561	572	424
21	551	81	198	213	171	149	1780	1680	1780	561	573	424
22	450	80	200	214	232	120	1780	1680	1780	560	574	431
23	384	96	198	214	488	77	1750	1680	1780	557	653	426
24	385	124	171	214	625	115	1740	1740	1810	561	758	393
25	385	111	152	201	632	289	1750	1740	1870	566	630	371
26	304	99	152	179	417	573	1760	1720	1730	603	468	415
27	199	99	153	154	179	672	1760	1730	1750	743	472	424
28	136	99	152	122	179	671	1770	1740	1750	896	418	366
29	52	99	152	122	---	672	1780	1730	1760	894	361	365
30	52	99	169	123	---	424	1750	1730	1760	896	360	365
31	52	---	187	120	---	186	---	1730	---	851	360	---
TOTAL	14732	2938	4341	6258	6281	7275	42363	51334	52890	26685	18174	9843
MEAN	475	97.9	140	202	224	235	1412	1656	1763	861	586	328
MAX	676	181	200	366	632	672	1840	1780	1870	1790	867	438
MIN	52	52	81	120	117	75	186	650	1700	310	104	208
AC-FT	29220	5830	8610	12410	12460	14430	84030	101800	104900	52930	36050	19520

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	MEAN	263	305	324	187	253	428	907	1178	1048	638	443	390
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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1971 - 1993

ANNUAL TOTAL	256973	243114											
ANNUAL MEAN	702	666											
HIGHEST ANNUAL MEAN										531			
LOWEST ANNUAL MEAN										872			1987
HIGHEST DAILY MEAN	1940	May 2	1870	Jun 25						213			1972
LOWEST DAILY MEAN	52	Oct 29	52	Oct 29						2660	May 15	1985	
ANNUAL SEVEN-DAY MINIMUM	70	Oct 29	70	Oct 29						10	Sep 19	1972	
ANNUAL RUNOFF (AC-FT)	509700		482200							21	Sep 30	1972	
10 PERCENT EXCEEDS	1770		1760							384600			
50 PERCENT EXCEEDS	597		399							1600			
90 PERCENT EXCEEDS	100		99							277			
										50			

e Estimated

## RIO GRANDE BASIN

08289000 RIO OJO CALIENTE AT LA MADERA, NM

LOCATION.--Lat 36°20'59", long 106°02'37", in NW¼NE¼ sec.1, T.24 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, on left bank 400 ft upstream from bridge on State Highway 554, 2.4 mi south of La Madera, 2.6 mi downstream from confluence of Rio Vallecitos and Rio Tusas, 3.1 mi north of Ojo Caliente, and at mile 19.9.

DRAINAGE AREA.--419 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1932 to current year.

REVISED RECORDS.--WSP 1712: 1959.

GAGE.--Water-stage recorder. Datum of gage is 6,358.84 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 23, 1934, at site about 2.6 mi upstream at different datum. Apr. 23, 1934 to Apr. 21, 1936, at datum 12.58 ft lower and Apr. 22, 1936 to Oct. 26, 1956, at datum 13.84 ft lower, both at site 1,400 ft downstream.

REMARKS.--Records good. Diversions upstream from station for irrigation of about 3,500 acres (1962 determination). Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Apr. 21, 1958, may have been exceeded by a flood in May 1920, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	21	17	22	26	52	233	946	264	16	7.0	29
2	8.7	20	17	22	27	46	268	626	242	15	7.0	23
3	8.1	19	17	22	25	49	275	596	211	14	6.7	19
4	8.8	17	18	18	26	48	219	742	173	13	6.7	17
5	9.0	15	16	19	23	47	293	861	153	13	7.0	15
6	9.2	16	17	21	24	50	344	673	147	11	22	14
7	8.7	17	18	22	26	57	246	618	139	10	9.1	15
8	9.0	18	19	26	26	72	201	602	127	9.7	7.0	15
9	9.1	19	20	25	29	92	201	470	107	9.5	6.6	14
10	9.3	18	20	23	30	116	286	413	103	9.1	7.0	14
11	9.2	24	20	23	29	121	404	559	90	9.0	6.8	14
12	9.2	19	20	20	29	102	489	759	82	8.9	6.7	13
13	9.4	19	20	20	27	77	443	944	76	9.0	7.2	16
14	10	20	18	22	28	73	375	1050	73	8.3	7.6	17
15	10	21	20	22	32	73	279	1100	71	8.1	7.6	16
16	10	22	18	22	29	94	256	1190	69	8.5	7.2	15
17	11	22	18	23	30	126	255	1290	65	9.2	7.7	14
18	11	22	18	23	27	148	351	1060	63	8.7	8.4	14
19	11	21	18	24	40	185	330	1050	52	7.1	9.3	13
20	12	22	17	24	91	190	309	943	49	7.0	15	13
21	12	21	17	23	72	218	343	961	52	6.8	13	13
22	12	18	18	23	50	237	460	886	54	6.7	17	12
23	12	20	18	23	44	251	626	706	42	6.3	14	12
24	13	18	17	21	43	271	679	604	38	6.1	13	12
25	14	16	17	22	43	316	543	507	34	6.0	12	11
26	14	17	17	23	39	351	607	535	26	6.0	11	11
27	14	16	17	24	41	452	739	511	23	6.1	22	11
28	14	16	18	24	47	325	870	468	21	6.3	28	7.8
29	15	18	20	24	---	265	1000	439	19	6.5	41	8.1
30	16	17	21	25	---	223	1080	341	16	6.5	34	8.1
31	18	---	21	25	---	226	---	293	---	6.8	30	---
TOTAL	345.1	569	567	700	1003	4953	13004	22743	2681	274.2	404.6	426.0
MEAN	11.1	19.0	18.3	22.6	35.8	160	433	734	89.4	8.85	13.1	14.2
MAX	18	24	21	26	91	452	1080	1290	264	16	41	29
MIN	6.1	15	16	16	23	46	201	293	16	6.0	6.6	7.3
AC-FT	685	1130	1120	1390	1990	9820	25790	45110	5320	544	803	845

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1993, BY WATER YEAR (WY)

	MEAN	14.7	17.5	17.6	18.4	22.9	55.8	289	320	49.9	9.92	14.2	10.7
MAX	57.5	49.2	36.0	33.5	55.5	164	979	1256	275	33.1	68.1	29.8	
(WY)	1987	1987	1987	1952	1941	1937	1937	1941	1941	1941	1967	1936	
MIN	3.98	8.82	11.2	10.0	12.0	15.5	44.5	9.32	5.09	2.64	3.13	2.30	
(WY)	1957	1957	1957	1964	1955	1981	1955	1977	1954	1951	1956	1956	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1933 - 1993

ANNUAL TOTAL	27337.3	47669.9	
ANNUAL MEAN	74.7	131	70.2
HIGHEST ANNUAL MEAN			205
LOWEST ANNUAL MEAN			13.4
HIGHEST DAILY MEAN	773	1290	2180
LOWEST DAILY MEAN	7.0	6.0	1.1
ANNUAL SEVEN-DAY MINIMUM	7.2	6.2	1.1
INSTANTANEOUS PEAK FLOW		1670	3140
INSTANTANEOUS PEAK STAGE		6.45	7.25
INSTANTANEOUS LOW FLOW		5.9	2.20
ANNUAL RUNOFF (AC-FT)	54220	94550	50830
10 PERCENT EXCEEDS	255	463	167
50 PERCENT EXCEEDS	21	22	17
90 PERCENT EXCEEDS	7.8	8.5	5.3



## RIO GRANDE BASIN

## 08290000 RIO CHAMA NEAR CHAMITA, NM

LOCATION.--Lat 36°04'26", long 106°06'40", in NE¼NE¼ sec.8, T.21 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, in San Juan Pueblo Grant, 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.

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 except for estimated daily discharges, which are poor. 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. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	580	e80	123	e225	167	274	517	2450	2080	1850	756	373
2	506	e95	126	e215	165	302	556	2410	2060	1860	740	263
3	514	e130	121	e210	180	282	1090	2320	1990	1880	592	275
4	517	120	125	e205	188	272	1020	1800	1980	1860	573	290
5	522	e95	141	e205	199	256	1080	1980	1950	1880	536	277
6	598	91	e115	e200	204	293	1160	2390	1930	1880	448	284
7	599	98	e115	208	212	304	1080	2270	1920	1880	e135	287
8	611	104	e115	280	218	304	1020	2320	1930	1400	e400	269
9	604	105	e100	495	219	275	1200	2200	1910	570	740	266
10	500	106	e105	495	215	273	1610	2140	1900	394	721	202
11	488	121	e100	457	212	287	1730	1470	1890	343	729	185
12	493	111	e100	530	227	332	2040	2100	1930	445	727	184
13	501	109	e100	209	227	307	2180	2660	1940	410	669	373
14	457	109	e100	232	236	298	2240	2950	1940	384	662	324
15	470	110	e170	239	245	293	2080	3100	1960	510	676	219
16	527	110	223	237	244	241	2030	3290	1970	545	628	213
17	538	181	e240	244	240	228	2000	3390	1940	560	555	309
18	558	201	239	241	271	239	2100	3030	1950	560	618	384
19	564	204	243	266	233	293	2120	2990	1930	560	604	427
20	564	208	e240	249	255	375	2090	2960	1950	562	571	497
21	556	126	e240	239	289	414	2120	2890	1970	551	558	489
22	510	97	e230	239	248	457	2230	2870	1960	548	605	422
23	376	101	e230	242	414	409	2450	2610	1940	554	558	396
24	364	136	e230	236	677	418	2570	2530	1950	551	668	377
25	373	147	e210	245	694	518	2320	2450	1930	555	675	360
26	374	133	e185	217	649	932	2340	2430	1830	549	598	364
27	228	132	e180	213	271	1230	2580	2460	1860	569	551	403
28	206	132	e180	167	251	1150	2630	2380	1830	870	555	352
29	e78	127	e180	163	---	1050	2800	2380	1880	713	421	347
30	e75	124	e195	167	---	919	2670	2230	1860	767	403	344
31	e75	---	e215	167	---	533	---	2150	---	773	403	---
TOTAL	13926	3743	5216	7937	7850	13758	55653	77600	58060	27333	18075	9755
MEAN	449	125	168	256	280	444	1855	2503	1935	882	583	325
MAX	611	208	243	530	694	1230	2800	3390	2080	1880	756	497
MIN	75	80	100	163	165	228	517	1470	1830	343	135	184
AC-FT	27620	7420	10350	15740	15570	27290	110400	153900	115200	54210	35850	19350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	MEAN	268	327	352	222	288	476	1160	1523	1035	599	422	374
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 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1971 - 1993
ANNUAL TOTAL	268729	298906	
ANNUAL MEAN	734	819	588
HIGHEST ANNUAL MEAN			923
LOWEST ANNUAL MEAN			234
HIGHEST DAILY MEAN	2610	Apr 15	3570
LOWEST DAILY MEAN	75	Oct 30	1.2
ANNUAL SEVEN-DAY MINIMUM	93	Oct 29	1.7
INSTANTANEOUS PEAK FLOW			15000
INSTANTANEOUS PEAK STAGE			10.45
ANNUAL RUNOFF (AC-FT)	533000	592900	425900
10 PERCENT EXCEEDS	1800	2160	1690
50 PERCENT EXCEEDS	539	445	292
90 PERCENT EXCEEDS	129	129	72
e Estimated			

## 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 1992 TO SEPTEMBER 1993

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 OF SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT OF SATUR- ATION) (MG/L) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV											
25...	1130	110	--	8.4	-2.0	0.0	594	11.9	104	26	K27
FEB											
24...	1030	715	355	8.3	13.0	3.0	613	11.8	109	--	--
MAR											
16...	1000	246	390	8.5	10.5	6.0	621	10.4	103	--	--
APR											
20...	0930	2120	338	8.3	27.0	7.0	623	10.6	107	--	--
MAY											
25...	0900	2410	--	8.3	--	11.0	623	9.7	108	54	120
JUN											
22...	0930	1960	268	8.4	--	12.0	620	8.9	102	--	--
JUL											
28...	1030	841	257	8.4	--	14.5	622	9.7	117	--	--
AUG											
25...	0930	8870	267	8.4	--	15.0	620	7.9	97	K60	220
SEP											
22...	0930	396	289	8.4	--	15.5	620	7.5	93	--	--

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)	ALKA- LITY LAB (MG/L AS CACO3) (90410)
NOV											
25...	160	15	47	9.4	26	0.9	2.4	137	17	140	125
FEB											
24...	--	--	--	--	--	--	--	122	0	100	--
MAR											
16...	140	27	40	9.0	26	1	2.5	134	0	110	111
APR											
20...	130	41	37	8.4	17	0.7	2.0	105	0	86	85
MAY											
25...	110	--	31	7.3	13	0.5	1.9	--	--	--	75
JUN											
22...	96	--	28	6.4	11	0.5	1.7	--	--	--	74
JUL											
28...	97	24	29	6.0	11	0.5	1.7	89	0	74	75
AUG											
25...	100	26	31	6.4	11	0.5	1.6	95	0	78	82
SEP											
22...	110	35	34	6.9	14	0.6	1.7	95	0	79	86

## RIO GRANDE BASIN

08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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, 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. (MG/L AS N) (00623)
NOV 25...	85	7.6	0.30	15	--	277	--	--	--	--
FEB 24...	--	--	--	--	--	--	--	--	--	--
MAR 16...	78	9.7	0.20	17	256	249	0.010	<0.050	0.020	<0.20
APR 20...	82	3.5	0.20	14	226	216	<0.010	<0.050	0.020	0.20
MAY 25...	59	2.6	0.20	14	178	174	<0.010	<0.050	0.030	0.20
JUN 22...	48	2.0	0.10	13	168	155	<0.010	0.068	0.030	0.30
JUL 28...	45	1.7	0.10	13	153	152	<0.010	0.085	0.030	<0.20
AUG 25...	58	2.6	0.60	13	176	171	<0.010	0.093	0.020	<0.20
SEP 22...	56	2.4	0.20	13	187	175	<0.010	<0.050	0.020	<0.20

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	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)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 25...	--	--	--	--	--	--	--	40	82	--
FEB 24...	--	--	--	--	--	--	--	--	--	--
MAR 16...	--	0.20	0.020	0.020	<0.010	5.8	1.2	50	44	13
APR 20...	0.18	0.40	0.060	0.030	<0.010	4.7	0.5	40	41	4
MAY 25...	0.17	0.20	0.040	0.030	<0.010	6.1	0.6	--	32	3
JUN 22...	0.27	0.30	0.030	0.040	0.010	22	0.6	--	23	3
JUL 28...	--	0.20	0.040	0.010	0.020	4.2	0.5	--	10	8
AUG 25...	--	0.20	0.050	0.020	0.010	--	0.7	--	9	3
SEP 22...	--	0.20	0.040	0.020	0.010	3.8	0.7	--	5	6

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
NOV 25...	1130	2	2	<1	<1.0	<1	1	2	3

## RIO GRANDE BASIN

08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

		LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)		
NOV 25...		<1	1	0.10	<0.1	<1	<1	30	11		
DATE		ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	
FEB 24...	1030	5	2	<10	0.2	78	56	12	19	43	
DATE		GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)
FEB 24...	14	<8	<4	3.1	18	40	1.2	700	<.02	<2	
DATE		NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)
FEB 24...	39	21	13	0.08	1.8	9	0.2	<.10	0.97	380	
DATE		SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	
FEB 24...		0.05	<40	18	<10	4	78	25	3	64	
DATE		CHLOR- DYRIFOS TOTAL RECOVER (UG/L) (38932)	DI- SYSTON TOTAL (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)	PER- THANE TOTAL (UG/L) (39034)	DEF TOTAL (UG/L) (39040)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)
NOV 25...	1130	<0.01	<0.01	<0.01	<0.1	<0.01	<0.10	<0.010	<0.010	<0.1	<0.010
MAR 16...	1000	--	--	--	--	--	--	--	--	--	--
JUL 28...	1030	--	--	--	--	--	--	--	--	--	--
AUG 25...	0930	<0.01	<0.01	<0.01	<0.1	<0.01	<0.10	<0.010	<0.010	<0.1	<0.010

## RIO GRANDE BASIN

08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, 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)
NOV 25...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<1	<0.010	<0.010	<0.01	<0.1
MAR 16...	--	--	--	--	--	--	--	--	--	--	--
JUL 28...	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<1	<0.010	<0.010	<0.01	<0.1

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)	FONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L) (82614)
NOV 25...	<0.01	<0.01	<0.01	<0.01	--	--	<0.01	--	<0.01	--	<0.01
MAR 16...	--	--	--	--	<0.01	<0.01	--	<0.01	--	<0.01	--
JUL 28...	--	--	--	--	<0.01	<0.01	--	<0.01	--	<0.01	--
AUG 25...	<0.01	<0.01	<0.01	<0.01	--	--	<0.01	--	<0.01	--	<0.01

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)
FEB 24...	1000	715	--	--	--	--	--	27	100
MAR 16...	1000	246	390	6.0	36	24	84	--	--
APR 20...	0930	2120	338	7.0	34	195	89	--	--
MAY 25...	0900	2410	--	11.0	165	1070	28	--	--
JUN 22...	0930	1960	268	12.0	92	487	--	--	--
JUL 28...	1030	841	257	14.5	180	409	--	--	--
AUG 25...	0930	870	267	15.0	165	--	--	--	--
SEP 22...	0930	396	289	15.5	154	165	--	--	--

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.

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.

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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	10	e9.3	e11	15	18	42	109	220	53	21	64
2	9.8	10	e9.5	e12	15	19	42	89	210	50	21	55
3	10	10	9.5	e11	e14	21	44	81	205	46	18	49
4	9.9	8.7	9.1	e10	e13	22	41	80	187	44	19	44
5	9.9	7.7	10	e12	e12	22	44	88	167	42	21	40
6	9.8	8.8	11	e13	e14	22	48	88	154	39	57	37
7	9.7	9.3	e10	e13	e13	23	45	83	146	37	30	36
8	9.7	9.8	e9.0	e15	17	27	41	79	136	34	36	32
9	10	9.9	e9.0	e17	15	35	37	72	124	33	28	30
10	10	10	e9.0	e15	15	42	40	65	115	31	26	28
11	9.8	10	e9.5	e14	14	41	55	67	104	31	24	28
12	9.7	9.7	9.2	e12	14	36	70	73	101	37	24	28
13	9.7	9.9	9.2	e14	14	32	67	78	99	42	25	32
14	9.5	9.7	e9.0	e14	14	28	62	95	110	34	37	34
15	9.4	9.8	e8.5	13	14	26	52	106	116	33	31	28
16	9.4	9.7	9.2	13	14	26	45	115	121	30	27	27
17	9.4	9.7	e9.0	13	14	31	40	128	120	29	27	26
18	9.1	9.2	9.5	14	14	44	38	134	119	30	26	26
19	8.8	9.0	8.5	14	17	55	45	137	112	28	26	26
20	8.9	9.5	e8.0	14	29	62	48	146	108	29	52	25
21	8.8	9.2	e8.0	13	25	72	48	168	105	25	53	24
22	9.1	8.6	e9.0	14	21	72	58	174	98	23	62	24
23	9.1	9.5	e9.5	14	20	68	81	170	90	21	43	22
24	9.0	e10	e11	e14	19	70	90	169	84	20	38	21
25	9.3	e10	e12	e15	18	75	71	167	78	19	34	20
26	9.3	e10	e9.8	e14	17	82	72	174	73	19	34	21
27	9.0	e13	e9.5	e13	17	83	97	201	70	18	64	20
28	9.2	e11	e9.5	e14	18	64	107	231	64	26	69	21
29	10	9.4	e9.0	16	---	57	111	300	59	28	68	20
30	10	e9.0	e10	15	---	51	110	263	56	20	69	19
31	11	---	e10	17	---	46	---	231	---	20	82	---
TOTAL	296.0	290.1	292.3	423	456	1372	1791	4161	3551	971	1192	907
MEAN	9.55	9.67	9.43	13.6	16.3	44.3	59.7	134	118	31.3	38.5	30.2
MAX	11	13	12	17	29	83	111	300	220	53	82	64
MIN	8.8	7.7	8.0	10	12	18	37	65	56	18	18	19
AC-FT	587	575	580	839	904	2720	3550	8250	7040	1930	2360	1800

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1993, BY WATER YEAR (WY)

MEAN	15.6	12.1	10.3	9.40	9.98	19.5	52.0	97.8	75.2	28.3	25.9	19.7
MAX	61.3	43.4	25.2	19.5	18.6	51.1	205	329	293	115	109	78.6
(WY)	1942	1942	1987	1987	1987	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

## WATER YEARS 1933 - 1993

ANNUAL TOTAL	16633.1		15702.4				
ANNUAL MEAN	45.4		43.0			31.4	
HIGHEST ANNUAL MEAN						75.2	1941
LOWEST ANNUAL MEAN						8.93	1950
HIGHEST DAILY MEAN	199	Apr 14	300	May 29		623	Jun 9 1979
LOWEST DAILY MEAN	7.7	Nov 5	7.7	Nov 5		1.1	Dec 3 1950
ANNUAL SEVEN-DAY MINIMUM	8.0	Jan 16	8.7	Dec 15		2.2	Sep 11 1956
INSTANTANEOUS PEAK FLOW			416	Aug 20		2420	Sep 24 1931
INSTANTANEOUS PEAK STAGE			3.41	Aug 20		7.80	Sep 24 1931
INSTANTANEOUS LOW FLOW			5.8	Nov 22		1.19	Mar 13 1954
ANNUAL RUNOFF (AC-FT)	32990		31150			22740	
10 PERCENT EXCEEDS	157		107			76	
50 PERCENT EXCEEDS	14		25			14	
90 PERCENT EXCEEDS	9.0		9.4			7.5	

## RIO GRANDE BASIN

08291600 RIO GRANDE AT SANTA CLARA, NM

## WATER-QUALITY RECORDS

LOCATION.--Lat 36°03'41", long 106°04'34", Rio Arriba County, Hydrologic Unit 13020101, in Santa Clara Indian Reservation, at Santa Clara Pueblo, 1.0 mi south of Espanola.

PERIOD OF RECORD.--Water years 1987 to 1992, March to September 1993.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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-A-TURE AIR (DEG C) (00020)	TEMPER-A-TURE 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)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCHI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)
MAR 25...	1200	1500	242	8.2	22.0	15.0	624	9.2	112	140	200
JUN 16...	1400	4550	274	7.6	26.0	17.0	618	8.4	108	K950	K210
SEP 09...	1100	2000	--	8.2	20.0	17.0	621	11.2	--	87	260

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 (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)
MAR 25...	100	6	31	5.9	18	0.8	2.9	117	0	96	92
JUN 16...	100	20	31	6.6	16	0.7	2.5	103	0	84	84
SEP 09...	100	8	32	5.8	14	0.6	2.4	107	5	96	91

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)
MAR 25...	41	6.7	0.20	22	185	30	140	158	640	90
JUN 16...	54	4.3	0.30	16	181	30	27	133	1630	80
SEP 09...	38	4.9	0.30	18	173	20	28	130	702	90

DATE	TIME	CHLOR-DYRIFOS TOTAL RECOVER (UG/L) (38932)	DI-SYSTON TOTAL (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)	PER-THANE TOTAL (UG/L) (39034)	DEF TOTAL (UG/L) (39040)	NAPH-THA-LENES, FOLY-CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	LINDANE TOTAL (UG/L) (39340)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)
SEP 09...	1100	<0.01	<0.01	<0.01	<0.1	<0.01	<0.10	<0.010	<0.010	<0.1	<0.010

WATER-QUALITY RECORDS

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[illegible]



## RIO GRANDE BASIN

08292000 SANTA CLARA CREEK NEAR ESPANOLA, NM

LOCATION.--Lat 35°58'40", long 106°10'20", in SW¼SW¼ sec.11, T.20 N., R.7 E., Rio Arriba County, Hydrologic Unit 13020101, in Santa Clara Indian Reservation, on right bank 5.5 mi upstream from mouth, and 5.5 mi southwest of Espanola.

DRAINAGE AREA.--34.5 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1936 to September 1941, August 1949 to October 1950, October 1950 to September 1961 (annual maximum only), April 1984 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Several observations of water temperature were made during year. Two small diversions upstream from station for irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	3.3	4.6	e2.5	3.1	4.1	8.2	9.1	4.5	2.1	1.9	e2.0
2	1.9	2.9	5.2	e3.0	3.0	3.8	7.7	9.0	4.3	2.1	1.9	e2.0
3	1.9	3.2	4.4	e3.5	3.4	3.7	7.3	8.7	4.2	2.1	1.9	e2.0
4	1.9	3.1	5.9	e3.0	3.2	4.0	6.8	8.4	4.0	2.1	2.1	e2.0
5	1.9	4.1	e4.5	e2.0	3.2	4.8	7.5	8.7	3.9	2.2	1.9	e2.0
6	1.9	3.3	e4.5	e2.0	3.3	4.6	9.2	8.9	3.9	2.1	1.8	e2.0
7	1.9	3.4	e3.5	e2.0	3.9	4.1	9.1	8.8	3.8	2.1	4.0	e2.0
8	1.9	3.2	e3.5	e3.0	3.8	4.2	9.0	8.9	3.7	2.0	e2.0	e2.0
9	1.8	3.1	e3.5	e2.5	3.5	4.3	8.9	8.7	3.7	2.0	e2.0	e2.0
10	1.7	3.2	e3.5	e2.5	3.2	4.3	8.7	8.7	3.5	2.0	2.1	e2.0
11	1.7	3.8	e3.5	e2.5	3.2	4.3	8.7	8.6	3.4	2.0	1.9	e2.0
12	1.7	3.1	e4.0	e2.0	3.3	4.1	8.1	8.4	3.3	2.1	2.1	e3.5
13	1.7	3.2	e3.5	e2.0	3.7	5.4	6.6	8.4	3.2	2.0	2.2	e3.0
14	1.7	3.1	e3.0	e2.5	3.4	6.0	6.9	8.6	3.1	2.1	3.1	e3.0
15	1.7	3.1	e3.5	e2.5	3.7	4.6	7.0	8.9	3.3	2.5	2.6	e3.0
16	1.7	3.1	e3.5	e3.0	3.6	4.8	7.4	8.9	3.1	2.1	1.9	e3.0
17	1.7	3.0	e3.5	e2.5	3.4	4.5	7.5	8.7	2.9	1.9	1.7	2.9
18	1.8	3.1	e3.0	e3.0	3.5	4.3	7.3	8.7	2.8	1.9	1.6	2.8
19	1.8	3.1	e2.0	e3.0	3.7	4.2	7.3	8.7	2.6	1.9	1.9	2.9
20	2.1	3.3	e2.0	e3.5	4.2	3.8	7.2	8.7	2.6	2.6	2.3	2.9
21	2.3	3.4	e2.0	e4.5	4.0	3.9	7.5	8.7	2.6	2.5	2.4	2.9
22	2.4	3.3	e2.0	3.4	4.3	3.8	7.4	8.7	2.5	2.2	2.1	3.1
23	2.8	e3.5	e2.5	3.0	4.6	2.6	7.9	8.7	2.5	2.0	1.8	3.0
24	2.5	e3.0	e2.5	1.7	4.0	1.5	8.0	8.2	2.4	2.0	1.6	3.0
25	2.6	e3.0	e2.5	2.9	3.8	1.8	8.0	7.6	2.4	1.9	1.5	2.9
26	2.5	2.7	e2.5	3.9	3.7	.50	7.8	7.6	2.4	1.9	7.3	2.9
27	2.5	3.9	e3.0	4.5	3.6	.93	7.9	7.1	2.3	1.9	9.7	2.9
28	2.5	3.7	e3.0	4.1	4.0	.32	8.3	7.3	2.3	1.9	e7.0	3.0
29	2.6	1.9	e3.5	3.5	---	4.5	8.6	7.2	2.3	2.1	e4.5	3.0
30	2.5	3.4	e3.5	3.0	---	7.4	8.8	5.8	2.2	2.3	e3.0	3.1
31	3.6	---	e3.5	3.1	---	8.6	---	4.8	---	2.0	e2.5	---
TOTAL	65.1	96.5	105.1	90.1	101.3	123.75	236.6	256.2	93.7	64.6	86.3	78.8
MEAN	2.10	3.22	3.39	2.91	3.62	3.99	7.89	8.26	3.12	2.08	2.78	2.63
MAX	3.6	4.1	5.9	4.5	4.6	8.6	9.2	9.1	4.5	2.6	9.7	3.5
MIN	1.7	1.9	2.0	1.7	3.0	.32	6.6	4.8	2.2	1.9	1.5	2.0
AC-FT	129	191	208	179	201	245	469	508	186	128	171	156

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

	3.40	3.65	3.50	3.33	3.79	4.33	6.04	7.95	4.36	3.65	3.58	3.76
MEAN	3.40	3.65	3.50	3.33	3.79	4.33	6.04	7.95	4.36	3.65	3.58	3.76
MAX	4.79	6.61	4.50	4.35	4.93	5.87	13.2	27.8	16.3	6.02	6.53	7.25
(WY)	1939	1987	1937	1937	1988	1987	1987	1941	1941	1941	1991	1991
MIN	1.68	.70	1.87	1.77	2.89	1.85	3.25	2.98	1.58	2.08	1.74	1.98
(WY)	1991	1990	1991	1991	1991	1990	1989	1989	1990	1993	1984	1992

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1937 - 1993

ANNUAL TOTAL	1266.2	1398.05	
ANNUAL MEAN	3.46	3.83	4.33
HIGHEST ANNUAL MEAN			7.74
LOWEST ANNUAL MEAN			2.91
HIGHEST DAILY MEAN	12	May 4	9.7
LOWEST DAILY MEAN	1.4	Aug 18	.32
ANNUAL SEVEN-DAY MINIMUM	1.5	Aug 17	1.6
INSTANTANEOUS PEAK FLOW			111
INSTANTANEOUS PEAK STAGE			3.12
INSTANTANEOUS LOW FLOW			.10
ANNUAL RUNOFF (AC-FT)	2510	2770	3140
10 PERCENT EXCEEDS	5.3	8.1	6.2
50 PERCENT EXCEEDS	3.2	3.1	3.7
90 PERCENT EXCEEDS	1.9	1.9	2.1

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 U.S. 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.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

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, 2,040 acre-ft, elevation 6,826.96 many days; minimum, 1,230 acre-ft, Oct. 12, elevation 6,810.67 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 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1420	1380	1530	1760	1900	1930	1710	1650	2040	2030	1640	1970
2	1430	1380	1540	1770	1910	1930	1690	1630	2040	2030	1620	2000
3	1440	1380	1530	1780	1910	1940	1680	1610	2040	2030	1590	2020
4	1420	1380	1550	1780	1910	1940	1670	1590	2040	2030	1580	2020
5	1410	1380	1560	1790	1910	1920	1650	1600	2040	2030	1580	2020
6	1390	1380	1570	1800	1910	1900	1640	1600	2040	2030	1580	2020
7	1360	1380	1580	1810	1910	1890	1630	1680	2040	2030	1580	2020
8	1350	1380	1580	1830	1910	1860	1610	1730	2040	2030	1590	2020
9	1290	1380	1590	1840	1910	1860	1600	1820	2040	2030	1600	2020
10	1270	1380	1600	1840	1910	1850	1580	1840	2040	2030	1610	2020
11	1250	1390	1600	1850	1910	1840	1570	1850	2040	2030	1620	2020
12	1230	1400	1610	1860	1910	1830	1560	1860	2040	2030	1630	2020
13	1230	1400	1620	1870	1910	1810	1560	1880	2040	2030	1630	2020
14	1240	1410	1620	1870	1910	1810	1560	1900	2040	2020	1610	2020
15	1240	1420	1630	1880	1910	1790	1560	1920	2040	2020	1580	2020
16	1250	1420	1640	1890	1910	1780	1540	1940	2040	2020	1570	2020
17	1260	1430	1640	1900	1910	1760	1530	1990	2040	2020	1580	2020
18	1270	1440	1650	1900	1910	1750	1520	2020	2040	2020	1600	2020
19	1250	1450	1660	1900	1910	1750	1510	2030	2040	2010	1620	2020
20	1260	1430	1660	1900	1920	1740	1520	2030	2040	1990	1650	2020
21	1260	1460	1680	1900	1920	1740	1530	2040	2040	1970	1670	2020
22	1270	1470	1680	1900	1920	1740	1540	2030	2030	1950	1690	2020
23	1280	1480	1690	1900	1920	1750	1560	2040	2030	1910	1720	2020
24	1290	1480	1690	1900	1920	1740	1570	2040	2030	1890	1730	2020
25	1320	1490	1700	1900	1920	1740	1590	2040	2030	1860	1740	2020
26	1320	1490	1700	1900	1920	1740	1630	2040	2030	1820	1750	2020
27	1330	1500	1710	1900	1920	1740	1640	2040	2030	1790	1790	2020
28	1340	1510	1720	1900	1920	1740	1660	2040	2030	1740	1830	2020
29	1350	1510	1730	1900	---	1740	1680	2040	2030	1730	1850	2020
30	1360	1530	1750	1900	---	1740	1660	2040	2030	1710	1900	2000
31	1370	---	1760	1900	---	1730	---	2040	---	1690	1930	---
MAX	1440	1530	1760	1900	1920	1940	1710	2040	2040	2030	1930	2020
MIN	1230	1380	1530	1760	1900	1730	1510	1590	2030	1690	1570	1970
(†)	6813.80	6817.24	6821.82	6824.47	6824.89	6821.30	6819.97	6826.93	6826.75	6820.51	6825.05	6826.30
(††)	-40	+160	+230	+140	+20	-190	-70	+380	-10	-340	+240	+80

CAL YR 1992 MAX 2040 MIN 1230 (††) -160  
WTR YR 1993 MAX 2040 MIN 1230 (††) +590

(†) 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.--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.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 312 ft<sup>3</sup>/s June 9, 1979, gage height, 1.96 ft at site 1,100 ft downstream (maximum release and spill computed at Nambe Falls Dam, 250 ft<sup>3</sup>/s, June 9, 1979); minimum daily discharge, 0.13 ft<sup>3</sup>/s May 3, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 104 ft<sup>3</sup>/s, June 1-2; minimum daily, 0.90 ft<sup>3</sup>/s, Oct. 1-2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	1.6	1.6	1.7	4.6	4.6	22	42	104	33	25	1.9
2	.90	3.8	1.6	1.7	4.6	4.6	22	42	104	32	25	1.9
3	6.0	4.7	1.6	1.7	4.6	5.0	22	42	91	28	25	1.9
4	10	5.2	1.6	1.7	4.6	10	22	42	101	25	16	10
5	11	4.2	1.6	1.7	4.6	15	23	14	70	24	9.9	10
6	17	5.0	1.6	1.7	4.6	15	23	2.0	67	24	9.9	10
7	21	4.7	1.6	1.7	4.6	15	23	2.0	63	21	9.9	11
8	21	4.7	1.6	1.7	4.6	15	23	2.0	58	17	9.9	12
9	20	4.7	1.6	1.7	4.6	15	23	2.0	51	16	4.2	11
10	15	4.7	1.6	1.7	4.6	15	23	12	48	16	1.0	6.4
11	15	2.5	1.6	1.7	4.6	15	23	21	42	16	1.0	8.2
12	15	1.4	1.6	1.7	4.6	15	23	21	42	20	1.0	7.8
13	4.8	1.4	1.6	1.7	4.6	15	23	21	44	25	16	11
14	2.7	1.4	1.6	1.7	4.6	15	23	21	50	25	21	10
15	2.7	1.4	1.6	1.7	4.6	15	23	25	53	19	21	8.7
16	1.7	1.4	1.6	1.7	4.6	15	23	27	54	20	10	8.2
17	1.7	1.4	1.6	1.7	4.6	15	23	27	54	20	2.3	8.2
18	1.7	1.4	1.7	3.5	4.6	15	23	40	53	18	2.0	8.2
19	1.4	1.4	1.7	4.6	4.6	15	16	44	50	21	2.0	8.2
20	1.4	1.4	1.7	4.6	4.6	15	14	51	48	26	2.0	7.8
21	1.4	1.4	1.7	4.6	4.6	15	14	51	48	26	2.0	7.3
22	1.4	1.4	1.7	4.6	4.6	15	14	51	50	26	2.0	7.8
23	1.4	1.5	1.7	4.6	4.6	15	14	53	50	26	2.0	7.3
24	1.4	1.6	1.7	4.6	4.6	19	14	60	48	26	2.1	7.3
25	1.4	1.6	1.7	4.6	4.6	22	14	65	44	26	2.0	6.4
26	1.6	1.6	1.7	4.6	5.0	22	14	65	42	28	2.0	6.4
27	1.6	1.6	1.7	4.6	5.0	22	21	65	41	31	2.0	7.3
28	1.6	1.6	1.7	4.6	5.0	22	24	83	39	31	2.0	9.6
29	1.0	1.6	1.7	4.6	---	22	36	79	38	26	1.9	11
30	1.0	1.6	1.7	4.6	---	22	42	89	37	23	1.9	12
31	1.0	---	1.7	4.6	---	23	---	101	---	25	1.9	---
TOTAL	185.70	73.9	51.0	92.2	130.0	483.2	647	1262.0	1684	740	235.9	244.8
MEAN	5.99	2.46	1.65	2.97	4.64	15.6	21.6	40.7	56.1	23.9	7.61	8.16
MAX	21	5.2	1.7	4.6	5.0	23	42	101	104	33	25	12
MIN	.90	1.4	1.6	1.7	4.6	4.6	14	2.0	37	16	1.0	1.9
AC-FT	368	147	101	183	258	958	1280	2500	3340	1470	468	486

CAL YR 1992 TOTAL 7531.00 MEAN 20.6 MAX 93 MIN .80 AC-FT 14940  
WTR YR 1993 TOTAL 5829.70 MEAN 16.0 MAX 104 MIN .90 AC-FT 11560

## RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM  
(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 35°52'29", long 106°08'30", in SWSW 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, 1920-1970), 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 1992 TO SEPTEMBER 1993

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	474	610	821	816	1100	1920	4750	7330	3670	1160	2380
2	938	468	611	825	825	1100	1900	4810	6910	3690	1170	2460
3	941	495	635	857	845	1090	2360	4620	6630	3620	974	2280
4	938	546	672	798	878	1030	2410	3910	6420	3480	874	1980
5	953	523	684	751	901	975	2420	3840	6030	3290	889	1830
6	1000	490	680	753	865	1020	2500	4270	5520	3110	741	1660
7	1020	506	620	810	880	1080	2440	4160	5170	2970	726	1530
8	1060	513	569	963	905	1120	2300	4100	4990	2340	503	1550
9	1060	546	713	1230	956	1150	2370	3910	4760	1590	1120	1280
10	984	560	696	1100	1150	1210	2790	3660	4500	941	1180	1240
11	908	656	679	1070	1060	1280	2930	3050	4150	752	1170	1160
12	899	681	662	1210	1020	1370	3150	3250	3960	924	1150	1060
13	905	686	684	931	971	1300	3330	4040	3920	1160	1150	1260
14	844	660	674	857	955	1250	3410	4530	3850	1040	1370	1500
15	834	645	661	925	1000	1270	3330	4980	4150	1080	1330	1220
16	952	683	762	888	1000	1210	3210	5490	4610	1020	1190	1080
17	978	761	771	901	969	1260	3120	5990	4880	1060	1010	1130
18	981	798	783	892	996	1330	3100	6130	4870	1100	1090	1280
19	970	806	793	942	978	1420	3110	6400	4890	1070	1130	1250
20	962	806	765	930	2040	1550	3100	6660	4850	1090	1170	1190
21	963	752	749	905	2690	1650	3140	6710	4630	1090	1300	1100
22	927	699	758	910	1400	1740	3220	6790	4430	1080	1420	1050
23	760	659	774	933	1230	1760	3460	6780	4290	1040	1250	1030
24	771	673	755	900	1540	1820	3700	6930	4440	940	1360	990
25	767	668	718	869	1510	1960	3680	7010	4460	889	1380	901
26	794	580	676	860	1460	2390	3790	6770	4120	850	1100	898
27	628	576	680	861	1060	2840	3950	6840	3920	876	1530	987
28	540	581	718	829	1030	2780	4100	7060	3860	1140	1890	907
29	520	608	737	790	---	2650	4300	7720	3860	1230	1600	840
30	424	614	809	800	---	2580	4490	7990	3790	1200	1510	807
31	433	---	852	803	---	2050	---	7920	---	1180	2170	---
TOTAL	26664	18713	21950	27914	31930	48335	93030	171070	144190	50512	37607	39830
MEAN	860	624	708	900	1140	1559	3101	5518	4806	1629	1213	1328
MAX	1060	806	852	1230	2690	2840	4490	7990	7330	3690	2170	2460
MIN	424	468	569	751	816	975	1900	3050	3790	752	503	807
AC-FT	52890	37120	43540	55370	63330	95870	184500	339300	286000	100200	74590	79000

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

	MEAN	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	762	1007	958	800	933	1402	2424	3756	3318	1553	950	839											
MAX	1554	2034	1959	1757	2641	3127	6412	8390	7914	3579	1612	1547											
(WY)	1988	1987	1976	1986	1987	1987	1985	1985	1979	1979	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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1971 - 1993

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1971 - 1993
ANNUAL TOTAL	607717	711745	
ANNUAL MEAN	1660	1950	1559
HIGHEST ANNUAL MEAN			2764
LOWEST ANNUAL MEAN			602
HIGHEST DAILY MEAN	5840	Apr 15	7990
LOWEST DAILY MEAN	424	Oct 30	424
ANNUAL SEVEN-DAY MINIMUM	479	Oct 28	479
INSTANTANEOUS PEAK FLOW			8200
INSTANTANEOUS PEAK STAGE			8.20
INSTANTANEOUS LOW FLOW			402
ANNUAL RUNOFF (AC-FT)	1205000	1412000	1130000
10 PERCENT EXCEEDS	3690	4510	3710
50 PERCENT EXCEEDS	1080	1100	966
90 PERCENT EXCEEDS	678	675	463

## RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1946 to current year.

WATER TEMPERATURE: October 1948 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.

WATER TEMPERATURE: Maximum, 31.0 °C, Aug. 4, 5, 1954; minimum, 0.0 °C on many days during winter periods each year.

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, 366,000 tons, Aug. 23, 1961; minimum daily, 3 tons, July 27, 1963.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 430 microsiemens, Nov. 2; minimum daily, 212 microsiemens, Sept. 3

WATER TEMPERATURE: Maximum daily, 22.0 °C, July 10, 11, Aug. 9; minimum daily, 0.0 °C, Nov. 24, 30, Dec. 8, 24, 25, 28.

SEDIMENT CONCENTRATION: Maximum daily mean, 7,620 mg/L, Sept. 7; minimum daily mean, 24 mg/L, Dec. 4.

SEDIMENT LOAD: Maximum daily, 31,500 tons, Sept. 7, 8; minimum daily, 44 tons, Nov. 7, Dec. 4.

REMARKS.--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.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
NOV 24...	1100	707	358	8.7	-2.0	2.0	3.4	616	12.2	109
MAR 17...	0930	1200	314	8.3	11.5	6.5	--	627	10.4	103
APR 20...	1345	3120	328	8.0	27.0	11.5	17	625	9.7	109
MAY 26...	0845	6880	225	8.1	--	15.0	0.70	628	7.3	88
JUN 23...	0830	4010	--	8.4	--	15.0	--	623	7.8	94
JUL 27...	0900	935	310	8.5	--	18.0	24	625	7.2	93
AUG 24...	0830	1100	300	8.5	--	17.5	--	625	7.2	92
SEP 21...	1000	1100	299	8.6	--	15.5	23	625	7.8	96

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	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)
NOV 24...	K16	23	130	10	40	7.7	25	0.9	3.0	129
MAR 17...	--	--	110	9	34	6.3	22	0.9	3.1	124
APR 20...	K11	42	120	11	35	7.6	17	0.7	2.3	107
MAY 26...	>2000	160	--	--	--	--	--	--	--	--
JUN 23...	--	--	87	--	26	5.4	11	0.5	2.2	--
JUL 27...	93	--	120	22	37	7.2	18	0.7	2.7	122
AUG 24...	--	--	130	37	41	7.4	16	0.6	2.1	115
SEP 21...	70	120	120	18	36	6.5	17	0.7	2.1	119

## RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	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)	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)
NOV 24...	10	122	128	51	8.4	0.50	20	229	230	0.130
MAR 17...	0	102	108	45	8.1	0.40	23	214	204	0.230
APR 20...	12	108	92	67	4.8	0.30	17	218	216	--
MAY 26...	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	78	37	2.9	0.20	15	144	147	--
JUL 27...	0	101	99	51	4.5	0.30	17	171	198	--
AUG 24...	1	96	101	48	4.4	0.30	17	197	194	--
SEP 21...	1	99	103	46	4.6	0.30	17	187	189	--

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
NOV 24...	<0.010	0.020	0.150	0.150	<0.010	0.020	--	--	<0.20	0.030
MAR 17...	--	0.020	--	0.250	--	0.020	<0.20	--	<0.20	0.060
APR 20...	--	<0.010	--	0.051	--	0.010	0.20	0.19	0.40	0.080
MAY 26...	--	<0.010	--	0.070	--	0.030	0.20	0.17	0.30	0.070
JUN 23...	--	<0.010	--	0.061	--	0.030	<0.20	--	0.20	0.030
JUL 27...	--	<0.010	--	<0.050	--	0.020	<0.20	--	<0.20	0.050
AUG 24...	--	<0.010	--	0.053	--	0.030	<0.20	--	0.20	0.040
SEP 21...	--	<0.010	--	<0.050	--	0.020	<0.20	--	1.5	0.040

DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 24...	0.040	0.020	0.010	--	--	<0.010	50	4	15
MAR 17...	0.050	--	0.030	3.1	1.7	--	40	10	10
APR 20...	0.030	--	0.010	4.2	0.6	--	40	18	5
MAY 26...	0.050	--	0.030	4.7	0.9	--	--	--	--
JUN 23...	0.030	--	0.020	20	0.7	--	--	32	3
JUL 27...	0.010	--	<0.010	3.5	1.0	0.040	--	6	5
AUG 24...	0.020	--	0.010	--	1.1	--	--	7	3
SEP 21...	<0.010	--	0.010	2.8	0.5	<0.010	--	6	4

## RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	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)	LITHIUM, DIS- SOLVED (UG/L AS LI) (01130)	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)
NOV 24...	1100	<10	53	<3	19	<10	<1	<1	<1.0	320	6
MAY 26...	0845	--	--	3	--	--	--	--	<1.0	--	<6
JUL 27...	0900	20	51	<3	11	2	1	<1	<1.0	270	<6
SEP 21...	1000	30	55	<3	15	<10	<1	<1	<1.0	270	<6

DATE	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)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)
NOV 24...	<2.0	1.4	70	100	3	<1	2	<5	2	1800	<10

DATE	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)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	ALPHA SED SUSP AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)
NOV 24...	60	<0.01	90	4.8	2.2	3.4	1.6	<0.6	<0.6	0.43	4.6
MAY 26...	--	--	--	1.2	1.0	0.9	0.77	2.5	3.4	1.8	2.4

DATE	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 (PCI/L /Y90) (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP, TOT DRY CS-137 (PCI/L) (76005)	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)
NOV 24...	1.3	3.4	0.85	1.1	1.0	0.61	0.67	0.110	3.5	<1.0
MAY 26...	0.88	1.9	0.71	2.3	2.2	0.72	<0.02	0.030	--	--

## RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 24...	1100	707	358	2.0	14	27	61
MAR 17...	0930	1200	314	6.5	91	295	60
APR 20...	1345	3120	328	11.5	45	379	73
MAY 26...	0845	6880	225	15.0	83	1540	83
JUN 23...	0830	4010	--	15.0	189	2050	--
JUL 27...	0900	935	310	18.0	96	242	--
AUG 24...	0830	1100	300	17.5	385	1140	--
SEP 21...	1000	1100	299	15.5	82	244	--



WATER-QUALITY RECORDS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	339	---	---	357	341	334	291	---	225	---	---	279
2	345	430	395	353	339	357	292	---	233	---	313	229
3	---	427	387	---	339	349	---	261	238	---	309	212
4	---	424	395	---	331	347	---	266	234	---	318	---
5	355	418	---	343	328	343	314	233	---	---	318	---
6	354	420	373	345	---	---	308	274	---	---	320	231
7	355	---	382	345	---	---	316	294	253	---	---	323
8	350	---	383	330	333	350	328	---	266	---	---	260
9	350	420	367	---	332	344	338	---	268	279	300	270
10	---	419	368	---	314	328	---	310	271	308	300	274
11	---	405	361	346	325	325	---	307	276	322	297	---
12	365	418	---	341	332	322	311	270	---	334	298	290
13	367	419	---	339	---	---	323	300	---	344	300	---
14	370	---	352	338	---	---	327	293	303	327	---	273
15	365	---	358	338	335	335	335	---	294	334	---	294
16	360	386	357	---	336	331	335	---	288	339	320	302
17	---	390	348	---	339	319	---	246	274	---	317	302
18	---	382	349	336	337	315	---	230	244	---	303	---
19	362	379	---	340	338	311	326	225	---	331	298	---
20	364	380	---	343	---	---	330	235	---	333	313	300
21	367	---	345	340	---	---	329	---	235	331	---	302
22	368	376	348	339	258	299	316	223	243	332	---	308
23	378	386	344	---	308	287	316	---	248	331	305	312
24	---	384	347	---	330	281	---	230	256	---	308	317
25	---	---	349	332	339	285	---	232	255	---	298	---
26	382	383	---	334	344	286	300	229	---	317	310	321
27	398	---	---	334	---	---	284	227	---	322	300	320
28	404	396	346	333	---	---	269	228	---	315	---	332
29	401	392	346	326	---	293	268	---	---	300	---	336
30	410	403	349	---	---	304	258	---	---	300	285	338
31	---	---	356	---	---	289	---	223	---	---	265	---
MEAN	369	402	361	340	329	319	310	254	258	322	304	292
MAX	410	430	395	357	344	357	338	310	303	344	320	338
MIN	339	376	344	326	258	281	258	223	225	279	265	212
WTR	YR 1993	MEAN 323	MAX 430	MIN 212								

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	---	---	4.0	7.0	6.5	11.5	---	15.0	---	---	15.5
2	14.0	10.5	4.0	2.5	6.0	8.0	7.0	---	14.0	---	18.0	16.0
3	---	8.0	5.0	---	6.5	9.0	---	9.0	14.0	---	19.0	16.0
4	---	7.0	3.0	---	5.0	9.0	---	10.0	13.0	---	17.0	---
5	18.0	6.0	---	3.0	5.0	4.5	6.0	11.0	---	---	18.5	---
6	17.5	7.5	1.0	2.0	---	---	10.0	9.0	---	---	19.5	16.0
7	15.0	---	1.0	4.0	---	---	10.0	10.0	12.0	---	---	20.0
8	15.0	---	.0	4.0	4.5	11.0	12.0	---	16.0	---	---	19.5
9	15.0	8.0	2.5	---	5.5	11.5	12.0	---	14.0	18.0	22.0	21.5
10	---	7.5	4.0	---	7.0	9.0	---	9.0	11.0	22.0	18.0	20.5
11	---	6.0	4.0	5.0	7.5	8.0	---	13.5	13.5	22.0	17.0	---
12	16.0	7.5	---	4.0	8.0	7.0	11.5	12.5	---	19.0	18.5	19.0
13	17.0	8.0	---	4.0	---	---	8.5	13.0	---	18.0	19.0	---
14	16.0	---	2.0	4.5	---	---	10.0	11.5	14.5	19.5	---	16.0
15	16.0	---	.5	5.5	4.5	9.0	12.0	---	14.5	18.0	---	18.5
16	13.5	8.5	1.0	---	5.0	11.0	10.0	---	14.0	18.0	18.5	16.0
17	---	9.0	.5	---	7.0	10.0	---	11.5	14.5	---	16.0	19.0
18	---	5.0	3.0	2.5	7.0	10.5	---	12.0	14.0	---	20.0	---
19	14.0	6.0	---	5.0	8.5	12.0	11.0	11.0	---	19.0	20.5	---
20	15.0	4.5	---	7.0	---	---	12.0	13.0	---	21.5	17.0	19.0
21	15.5	---	1.0	7.0	---	---	12.5	---	15.0	18.0	---	19.5
22	16.0	5.0	1.0	7.0	6.0	8.0	14.0	14.5	14.5	18.5	---	21.0
23	14.5	3.0	1.0	---	6.5	13.0	6.0	---	14.0	17.0	16.5	21.0
24	---	.0	.0	---	5.0	11.0	---	12.5	15.5	---	16.0	20.0
25	---	---	.0	4.0	6.0	13.0	---	13.0	14.0	---	18.0	---
26	15.5	7.5	---	5.0	7.0	10.0	9.0	14.5	---	17.0	18.0	13.5
27	15.0	---	---	5.0	---	---	10.5	14.0	---	18.0	18.5	18.5
28	12.5	6.5	.0	5.5	---	---	11.5	14.0	---	18.5	---	18.5
29	12.0	4.5	2.0	2.5	---	7.5	10.0	---	---	16.0	---	18.0
30	11.0	.0	5.0	---	---	6.5	11.0	---	---	---	16.5	18.0
31	---	---	3.0	---	---	8.0	---	14.0	---	---	16.0	---
MEAN	15.2	6.2	1.9	4.4	6.2	9.3	10.4	12.0	14.1	18.6	18.1	18.3
MAX	19.5	10.5	5.0	7.0	8.5	13.0	14.0	14.5	16.0	22.0	22.0	21.5
MIN	11.0	.0	.0	2.0	4.5	4.5	6.0	9.0	11.0	16.0	16.0	13.5
WTR YR 1993	MEAN	11.1	MAX	22.0	MIN	.0						

## RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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												
1	123	335	39	50	44	72	104	231	133	293	328	974
2	143	362	38	48	50	82	122	272	120	267	320	950
3	145	368	38	51	40	69	126	292	140	319	1760	5180
4	138	349	44	65	24	44	108	233	156	370	253	704
5	132	340	42	59	35	65	100	203	139	338	210	553
6	136	367	34	45	65	119	86	175	126	294	235	647
7	134	369	32	44	75	126	98	214	163	387	233	679
8	125	358	35	48	74	114	132	343	158	386	231	699
9	127	363	38	56	135	260	260	863	158	408	274	851
10	125	332	39	59	79	148	272	808	332	1030	384	1250
11	115	282	81	143	57	104	242	699	249	713	420	1450
12	105	255	81	149	55	98	323	1060	211	581	428	1580
13	101	247	61	113	57	105	227	571	218	572	421	1480
14	104	237	55	98	56	102	210	486	206	531	385	1300
15	105	236	53	92	55	98	207	517	201	543	353	1210
16	128	329	61	112	112	230	186	446	164	443	263	859
17	135	356	86	177	156	325	179	435	139	364	279	949
18	128	339	98	211	129	273	182	438	174	468	320	1150
19	113	296	81	176	108	231	186	473	265	700	577	2210
20	100	260	66	144	115	238	200	502	1320	7250	783	3280
21	102	265	56	114	153	309	206	503	945	6860	662	2950
22	98	245	53	100	149	305	154	378	632	2390	604	2840
23	500	1030	51	91	150	313	139	350	446	1480	732	3480
24	601	1250	33	60	150	306	150	364	611	2540	827	4060
25	290	601	36	65	145	281	165	387	540	2200	1550	8190
26	105	225	46	72	141	257	408	947	424	1670	1380	8890
27	631	1070	49	76	134	246	163	379	398	1140	1120	8560
28	84	122	36	56	139	269	126	282	379	1050	1070	8010
29	52	73	43	71	112	223	148	316	---	---	1050	7510
30	48	55	43	71	132	288	160	346	---	---	823	5730
31	42	49	---	---	135	311	163	353	---	---	693	3840
TOTAL	---	11365	---	2716	---	6011	---	13866	---	35587	---	92015
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												
1	578	3000	1090	14000	952	18800	302	2990	204	639	1590	10200
2	543	2790	1180	15400	979	18300	279	2780	213	673	1430	9520
3	836	5330	872	10900	971	17400	264	2580	225	592	1160	7130
4	816	5310	749	9710	981	17000	222	2090	237	559	973	5200
5	698	4560	953	9880	983	16000	183	1630	454	1090	803	3970
6	722	4870	837	9650	962	14300	151	1270	4060	8110	615	2760
7	711	4680	963	10800	883	12300	143	1150	3030	5930	7620	31500
8	588	3650	881	9750	672	9050	131	828	1260	1710	7540	31500
9	612	3920	717	7570	535	6880	98	421	777	2350	450	1560
10	1110	8360	605	5980	722	8770	115	292	364	1160	313	1050
11	1070	8460	625	5150	919	10300	94	191	316	998	265	830
12	993	8450	1170	10200	871	9310	760	1900	308	956	203	581
13	1060	9520	959	10500	725	7670	3180	9950	342	1060	525	1790
14	1000	9210	1370	16700	591	6140	519	1460	344	1270	1440	5840
15	955	8590	1360	18300	557	6240	1380	4020	358	1290	484	1590
16	741	6420	1150	17000	711	8850	669	1840	361	1160	400	1170
17	580	4890	1070	17300	805	10600	335	959	263	717	277	845
18	571	4780	1250	20700	730	9600	240	713	255	750	225	778
19	687	5770	1140	19800	681	8990	167	482	247	754	223	753
20	723	6050	1130	20400	733	9600	147	433	590	1860	189	607
21	561	4760	1060	19100	827	10300	185	544	999	3510	183	544
22	604	5250	890	16300	576	6890	167	487	762	2920	196	556
23	619	5780	874	16000	456	5280	153	430	621	2100	206	573
24	690	6890	967	18100	493	5910	141	358	555	2040	174	465
25	831	8260	836	15800	433	5210	128	307	430	1600	142	345
26	780	7980	810	14800	399	4440	113	259	354	1050	129	313
27	967	10300	821	15200	359	3800	122	289	3360	13900	156	416
28	838	9280	870	16600	343	3570	255	785	3630	18500	143	350
29	959	11100	864	18000	340	3540	334	1110	1640	7100	112	254
30	912	11100	861	18600	334	3420	211	684	1320	5390	89	194
31	---	---	880	18800	---	---	204	650	3320	19400	---	---
TOTAL	---	199310	---	445190	---	278460	---	43882	---	111138	---	123184

TOTAL LOAD FOR YEAR: 1362724 TONS.

## RIO GRANDE BASIN

08313042 LOS ALAMOS CANYON NEAR LOS ALAMOS, NM

LOCATION.--Lat 35°52'01", long 106°13'21", in SW¼NE¼ sec.20, T.19 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, on right bank 2.7 mi northwest of White Rock, 3.9 mi east of Los Alamos, and 13.5 mi southwest of Espanola.

DRAINAGE AREA.--9.08 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1970 to June 1971, October 1991 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,380 ft above National Geodetic Vertical Datum of 1929 from topographic map.

REMARKS.--Records fair. No diversion above station. Several observations of water temperature were made during year.

WATER YEAR 1971.--Nov. 25, 1970 to June 17, 1971 no flow entire period.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	e.00	e.00	e.00	2.5	3.6	2.0	.00	.00	.01
2	.00	.00	.00	e.00	e.00	e.00	2.1	3.2	1.8	.00	.00	.00
3	.00	.00	.00	e.00	e.00	e.00	1.9	3.0	1.7	.00	.00	.00
4	.00	.00	.00	e.00	e.00	e.00	1.8	2.7	2.6	.00	.05	.00
5	.00	.00	.00	e.00	e.00	e.00	2.1	1.0	1.3	.00	.51	.00
6	.00	.00	.00	e.00	e.00	e.00	2.2	1.1	1.1	.00	.05	.00
7	.00	.00	.00	e.00	e.00	e.00	2.9	1.2	3.3	.00	.00	.00
8	.00	.00	.00	e.00	e.00	e.00	4.3	.87	1.5	.00	.00	.00
9	.00	.00	.00	e.00	e.00	.00	5.6	.73	1.1	.00	.00	.00
10	.00	.00	.00	e.00	e.00	.00	6.6	.66	1.0	.00	.00	.00
11	.00	.00	.00	e.00	e.00	.00	8.0	.47	.72	.00	.47	.00
12	.00	.00	e.00	e.00	e.00	.00	9.2	.03	.48	.00	.25	.00
13	.00	.00	e.00	e.00	e.00	.00	11	.00	.25	.00	.00	.00
14	.00	.00	e.00	e.00	e.00	.00	13	.00	.07	.00	.00	.00
15	.00	.78	e.00	e.00	e.00	.00	13	.00	.05	.00	.00	1.7
16	.00	1.3	e.00	e.00	e.00	.00	12	.00	.00	.00	.00	.08
17	.00	.12	e.00	e.00	e.00	.00	10	.00	.00	.74	.00	.00
18	.00	.03	e.00	e.00	e.00	.00	9.0	.00	.00	.07	.00	.00
19	.00	.00	e.00	e.00	e.00	.00	8.2	.00	.00	.00	.00	.44
20	.00	.00	e.00	e.00	e.00	.00	7.1	.00	.00	.00	.00	.36
21	.00	.00	e.00	e.00	e.00	.00	5.1	.00	.00	.00	.00	.29
22	.00	.00	e.00	e.00	e.00	.00	4.3	3.3	.00	.00	.00	.23
23	.00	.00	e.00	e.00	e.00	.02	3.2	2.5	.00	.85	.00	.03
24	.00	.00	e.00	e.00	e.00	.09	3.3	.83	.00	.11	3.5	.00
25	.00	.00	e.00	e.00	e.00	.00	3.6	.60	.14	.00	.05	.00
26	.00	.00	e.00	e.00	e.00	.01	3.7	.62	.00	.00	3.1	.00
27	.00	.00	e.00	e.00	e.00	.49	3.7	.49	.00	.00	.32	.00
28	.00	.00	e.00	e.00	e.00	.68	3.8	.74	.00	.00	.35	.00
29	.00	.00	e.00	e.00	e.00	.80	3.8	4.2	.00	.00	.03	.00
30	.00	.00	e.00	e.00	---	1.1	3.7	5.1	.00	.00	.41	.00
31	.00	---	e.00	e.00	---	2.0	---	2.2	---	.00	.17	---
TOTAL	0.00	2.23	0.00	0.00	0.00	5.19	170.7	39.14	19.11	1.77	9.26	3.14
MAX	.00	1.3	.00	.00	.00	2.0	13	5.1	3.3	.85	3.5	1.7
MIN	.00	.00	.00	.00	.00	.00	1.8	.00	.00	.00	.00	.00
AC-FT	.00	4.4	.00	.00	.00	10	339	78	38	3.5	18	6.2

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

MAX	.000	.074	.000	.000	.000	.17	5.69	1.26	.64	.057	.30	.10
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	.000	.074	.000	.000	.000	.17	5.69	1.26	.64	.057	.30	.10
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS

FOR 1992 WATER YEAR

ANNUAL TOTAL	250.54
HIGHEST DAILY MEAN	13 Apr 14
LOWEST DAILY MEAN	.00 Oct 1
ANNUAL SEVEN-DAY MINIMUM	.00 Oct 1
INSTANTANEOUS PEAK FLOW	88 Aug 26
INSTANTANEOUS PEAK STAGE	2.50 Aug 26
ANNUAL RUNOFF (AC-FT)	497
10 PERCENT EXCEEDS	2.5
50 PERCENT EXCEEDS	.00
90 PERCENT EXCEEDS	.00

e Estimated

## RIO GRANDE BASIN

08313042 LOS ALAMOS CANYON NEAR LOS ALAMOS, NM --Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	2.6	6.1	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	2.3	4.6	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	2.6	3.4	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	2.3	2.7	.00	.00	1.9	.00
5	.00	.00	.00	.00	.00	.00	2.2	2.5	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	2.7	2.6	.00	.00	.00	.69
7	.00	.00	.00	.00	.00	.00	2.8	2.6	.00	.00	.00	.09
8	.00	.00	.00	.00	.00	.00	2.6	2.6	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	2.2	2.1	.01	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	2.0	1.5	.02	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	2.9	1.2	.01	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	5.0	1.2	.01	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	5.6	2.0	.00	.00	.08	.00
14	.00	.00	.00	.00	.00	.00	4.9	1.7	.00	2.6	.00	.00
15	.00	.00	.00	.00	.00	.00	3.8	2.2	1.1	.05	.00	.00
16	.00	.00	.00	.00	.00	.00	3.0	2.5	.01	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	2.7	2.2	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	2.9	2.1	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	3.4	1.7	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	3.5	1.5	.00	1.7	.00	.00
21	.00	.00	.00	.00	.00	.00	3.3	1.5	.00	.08	.00	.00
22	.00	.00	.00	.00	.00	.15	3.8	1.2	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	1.0	4.7	.97	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	1.4	5.7	.83	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	2.0	4.7	.68	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	3.3	3.9	.41	.00	.00	.98	.00
27	.00	.00	.00	.00	.00	6.8	4.5	.03	.00	.00	6.9	.00
28	.00	.00	.00	.00	.00	5.6	5.5	.03	.00	.00	1.1	.00
29	.00	.00	.00	.00	---	6.0	5.9	.11	.00	.00	.00	.00
30	.00	.00	.00	.00	---	4.2	5.6	.06	.00	.00	.00	.00
31	.00	---	.00	.00	---	3.1	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	33.55	109.6	54.82	1.16	4.43	10.96	0.78
MAX	.00	.00	.00	.00	.00	6.8	5.9	6.1	1.1	2.6	6.9	.69
MIN	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	67	217	109	2.3	8.8	22	1.5

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)

	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MAX	.000	.074	.000	.000	.000	1.08	5.69	1.77	.64	.14	.35	.10
(WY)	1992	1992	1992	1992	1992	1993	1992	1993	1992	1993	1993	1992
MIN	.000	.000	.000	.000	.000	.17	3.65	1.26	.039	.057	.30	.026
(WY)	1992	1993	1992	1992	1992	1992	1993	1992	1993	1992	1992	1993

## SUMMARY STATISTICS

## FOR 1993 WATER YEAR

## WATER YEARS 1992 - 1993

ANNUAL TOTAL	215.30	
HIGHEST ANNUAL MEAN		.68 1992
LOWEST ANNUAL MEAN		.59 1993
HIGHEST DAILY MEAN	6.9 Aug 27	13 Apr 14 1992
LOWEST DAILY MEAN	.00 Oct 1	.00 Oct 1 1991
ANNUAL SEVEN-DAY MINIMUM	.00 Oct 1	.00 Oct 1 1991
INSTANTANEOUS PEAK FLOW	137 Aug 27	137 Aug 27 1993
INSTANTANEOUS PEAK STAGE	2.78 Aug 27	2.78 Aug 27 1993
ANNUAL RUNOFF (AC-FT)	427	462
10 PERCENT EXCEEDS	2.6	2.6
50 PERCENT EXCEEDS	.00	.00
90 PERCENT EXCEEDS	.00	.00

## RIO GRANDE BASIN

08313060 PUEBLO CANYON NEAR LOS ALAMOS, NM

LOCATION.--Lat 35°52'13", long 106°12'56", in NE¼NE¼ sec.20, T.19 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, on right bank at State Highway maintenance yard 200 ft north of State Hwy 502, and 4.2 mi east of Los Alamos.

DRAINAGE AREA.--6.94 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,330 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. No diversion above station. Several observations of water temperature were made during year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	e.90	e1.3	e1.2	.48	.42	.51	.35	.56	.40
2	---	---	---	e.98	e1.3	e1.2	.47	.42	.62	.27	.52	.35
3	---	---	---	e1.0	e1.4	e1.2	.48	.41	.55	.40	.49	.27
4	---	---	---	e1.1	e1.5	e1.2	.50	.29	.56	.26	.50	.30
5	---	---	---	e1.2	e1.6	.87	.50	.27	.50	.39	.77	.48
6	---	---	---	e1.3	e1.6	.95	.45	.27	.45	.49	.65	.56
7	---	---	---	e1.5	e1.5	1.0	.48	.31	.41	.59	.59	.44
8	---	---	---	e1.5	e1.5	.98	.49	.42	.43	.73	.60	.57
9	---	---	---	e1.3	e1.3	.97	.49	.33	.41	.74	.58	.67
10	---	---	---	e1.2	e1.2	.94	.49	.33	.45	.85	.70	.50
11	---	---	---	e1.1	e1.1	.88	.49	.29	.27	.69	.85	.53
12	---	---	---	e1.0	e1.1	.88	.50	.34	.26	.64	.79	.67
13	---	---	---	e.98	e1.0	.85	.51	.38	.37	.74	.66	.50
14	---	---	---	e.94	1.1	.85	.51	.40	.37	.78	.67	.48
15	---	---	---	e1.0	e1.5	.87	.47	.45	.29	.53	.66	.67
16	---	---	---	e1.1	e1.5	.80	.46	.55	.27	.73	.70	.73
17	---	---	---	e1.2	e1.4	.76	.46	.51	.24	1.0	.70	.49
18	---	---	---	e1.3	e1.4	.69	.42	.51	.24	.65	.69	.44
19	---	---	---	e1.5	e1.3	1.0	.36	.60	.30	.57	.72	.49
20	---	---	---	e1.7	e1.3	1.3	.36	.39	.35	.50	.74	.51
21	---	---	---	e1.7	e1.2	1.2	.36	.38	.37	.64	.96	.55
22	---	---	---	e1.8	e1.2	1.0	.26	.56	.36	.82	.96	.73
23	---	---	---	e2.0	e1.2	.93	.26	.43	.33	.60	.70	.52
24	---	---	---	e2.1	e1.1	.93	.32	.36	.34	.64	1.2	.37
25	---	---	---	e1.9	e1.1	.89	.34	.39	.47	.67	.73	.43
26	---	---	---	e1.8	e1.1	.89	.37	.44	.42	.53	2.1	.55
27	---	---	---	e1.7	e1.2	.84	.39	.43	.48	.53	.45	.45
28	---	---	---	e1.5	e1.3	.84	.44	.39	.38	.60	.50	.44
29	---	---	---	e1.4	e1.3	.76	.36	.54	.34	.61	.50	.71
30	---	---	---	e1.3	---	.53	.39	.77	.32	.56	.52	.31
31	---	---	---	e1.2	---	.67	---	.52	---	.54	.53	---
TOTAL	---	---	---	42.20	37.6	28.87	12.86	13.10	11.66	18.64	22.29	15.11
MEAN	---	---	---	1.36	1.30	.93	.43	.42	.39	.60	.72	.50
MAX	---	---	---	2.1	1.6	1.3	.51	.77	.62	1.0	2.1	.73
MIN	---	---	---	.90	1.0	.53	.26	.27	.24	.26	.45	.27
AC-FT	---	---	---	84	75	57	26	26	23	37	44	30

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

	MEAN	MAX	(WY)	MIN	(WY)
1992	1.36	1.36	1992	1.36	1992
1992	1.30	1.30	1992	1.30	1992
1992	.93	.93	1992	.93	1992
1992	.43	.43	1992	.43	1992
1992	.42	.42	1992	.42	1992
1992	.39	.39	1992	.39	1992
1992	.60	.60	1992	.60	1992
1992	.72	.72	1992	.72	1992
1992	.50	.50	1992	.50	1992

SUMMARY STATISTICS

FOR 1992 WATER YEAR

HIGHEST DAILY MEAN	2.1	Jan 24
LOWEST DAILY MEAN	.24	Jun 17
ANNUAL SEVEN-DAY MINIMUM	.29	Jun 12
INSTANTANEOUS PEAK FLOW	6.3	Aug 26
INSTANTANEOUS PEAK STAGE	5.91	Aug 26
10 PERCENT EXCEEDS	1.3	
50 PERCENT EXCEEDS	.59	
90 PERCENT EXCEEDS	.34	

e Estimated

## RIO GRANDE BASIN

08313060 PUEBLO CANYON NEAR LOS ALAMOS, NM --Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.28	.23	1.3	1.6	.65	.86	.59	.25	.19	.56	e1.3
2	.30	.32	.17	.94	1.3	.69	.84	.53	.20	.48	.71	e1.3
3	.28	.32	.15	1.2	1.1	.62	.74	.45	.27	.10	.90	e1.3
4	.40	.37	.36	1.6	1.2	.54	.92	.18	.30	.39	1.0	e1.5
5	.43	.34	.44	1.4	1.3	.71	.85	.37	.43	.51	.76	e1.5
6	.29	.39	.34	1.9	1.2	.81	.71	.64	.63	.40	.86	e1.7
7	.30	.35	.68	1.5	1.1	.54	.75	1.1	.56	.61	.82	e1.7
8	.30	.66	1.2	1.7	1.2	.57	.87	.82	.32	.46	.89	e1.7
9	.29	.62	.70	1.5	1.4	.69	.60	1.1	.32	.02	.98	e1.7
10	.29	.79	.45	1.2	1.3	.60	.81	.86	.74	.07	.88	e1.7
11	.33	1.2	.41	1.2	1.2	.76	.81	.82	.42	.20	.83	e1.7
12	.35	1.0	1.7	1.2	1.1	.79	.94	.75	.11	.28	.68	e1.7
13	.27	.88	1.1	.89	.98	.93	.72	.73	.15	.31	.74	e1.8
14	.31	.76	1.1	.87	1.1	.56	.88	1.0	.16	.33	1.4	e1.9
15	.26	.87	1.3	.92	1.1	.80	.77	1.1	.90	.82	1.1	2.1
16	.29	.90	.61	.78	1.1	.69	.55	.95	1.0	.79	.99	1.9
17	.29	.88	1.5	.86	1.0	.74	1.1	.45	.87	.64	1.3	2.4
18	.28	.91	.90	.92	1.0	1.1	1.0	1.2	.96	.67	.70	2.3
19	.30	.86	.52	1.1	.99	.89	.49	1.7	.54	.55	.78	2.3
20	.26	1.0	1.6	1.4	1.1	.87	.31	.92	.67	.72	.92	2.4
21	.28	.89	e1.0	1.5	.78	.90	.46	.79	.39	.81	1.1	2.5
22	.34	.88	e1.0	1.3	.66	.81	.33	.46	.63	.73	1.4	2.3
23	.33	.93	e.90	1.3	.56	.73	.80	.41	.49	.76	1.1	2.1
24	.31	.78	e.90	1.2	.64	.65	.74	.62	.43	.46	1.3	2.0
25	.30	.85	1.7	1.1	.61	.80	.79	.20	.44	.62	1.2	1.5
26	.30	.99	1.6	.89	.63	.87	.46	.37	.65	.54	1.4	1.7
27	.37	.59	1.4	.74	.66	1.1	.18	.50	.60	.31	1.6	1.6
28	.28	.38	1.4	1.0	.66	.88	.18	.30	.48	.50	e1.4	1.3
29	.29	.32	1.8	1.2	---	.93	.15	.36	.47	.53	e1.4	1.6
30	.26	.28	1.5	1.3	---	.82	.30	.48	.52	.42	e1.4	1.3
31	.27	---	1.4	1.2	---	.74	---	.23	---	.79	e1.3	---
TOTAL	9.43	20.59	30.06	37.11	28.57	23.78	19.91	20.98	14.90	15.01	32.40	53.8
MEAN	.30	.69	.97	1.20	1.02	.77	.66	.68	.50	.48	1.05	1.79
MAX	.43	1.2	1.8	1.9	1.6	1.1	1.1	1.7	1.0	.82	1.6	2.5
MIN	.26	.28	.15	.74	.56	.54	.15	.18	.11	.02	.56	1.3
AC-FT	19	41	60	74	57	47	39	42	30	30	64	107

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)

	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993
MEAN	.30	.69	.97	1.28	1.16	.85	.55	.55	.44	.54	.88	1.15
MAX	.30	.69	.97	1.36	1.30	.93	.66	.68	.50	.60	1.05	1.79
(WY)	1993	1993	1993	1992	1992	1992	1993	1993	1993	1992	1993	1993
MIN	.30	.69	.97	1.20	1.02	.77	.43	.42	.39	.48	.72	.50
(WY)	1993	1993	1993	1993	1993	1993	1992	1992	1992	1993	1992	1992

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1992 - 1993

ANNUAL TOTAL	262.41	306.54	
ANNUAL MEAN	.72	.84	.84
HIGHEST ANNUAL MEAN			.84
LOWEST ANNUAL MEAN			.84
HIGHEST DAILY MEAN	2.1 Jan 24	2.5 Sep 21	2.5 Sep 21 1993
LOWEST DAILY MEAN	.15 Dec 3	.02 Jul 9	.02 Jul 9 1993
ANNUAL SEVEN-DAY MINIMUM	.27 Nov 25	.24 Jul 6	.24 Jul 6 1993
INSTANTANEOUS PEAK FLOW		4.0 Aug 27	6.3 Aug 26 1992
INSTANTANEOUS PEAK STAGE		5.72 Aug 27	5.91 Aug 26 1992
ANNUAL RUNOFF (AC-FT)	520	608	608
10 PERCENT EXCEEDS	1.3	1.5	1.4
50 PERCENT EXCEEDS	.56	.79	.71
90 PERCENT EXCEEDS	.30	.29	.30

e Estimated

## RIO GRANDE BASIN

## 08315500 MCCLURE RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'18", long 105°50'06", in NE¼SW¼, sec.24, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, at McClure Dam on Santa Fe River, 2.1 mi 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 1989, modifications to the dam and spillway increased capacity to 2,813 acre-ft. 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, 2,870 acre-ft; many days, maximum gage height, 100.08 ft, May 28; minimum, 1,390 acre-ft, many days, gage height, 76.92.

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

(Based on survey by Public Service Co. of New Mexico in 1947)

60	668	90	2,160
70	1,050	100	2,860
80	1,550		

RESERVOIR STORAGE (ACRE-Feet), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1780	1550	1400	1430	1760	1650	2740	2860	2870	2840	2300	2130
2	1770	1550	1400	1440	1770	1650	2770	2850	2870	2840	2270	2140
3	1760	1540	1400	1450	1790	1640	2810	2850	2860	2840	2240	2160
4	1750	1530	1400	1460	1800	1640	2840	2850	2860	2840	2210	2160
5	1750	1520	1400	1470	1810	1650	2840	2850	2860	2840	2180	2170
6	1740	1510	1400	1480	1830	1660	2840	2850	2860	2830	2160	2180
7	1730	1510	1390	1490	1840	1670	2840	2850	2860	2840	2130	2190
8	1720	1500	1390	1500	1850	1680	2840	2850	2850	2830	2100	2190
9	1720	1500	1390	1510	1850	1700	2840	2850	2850	2840	2070	2200
10	1710	1500	1390	1520	1830	1730	2840	2850	2850	2830	2060	2200
11	1700	1490	1390	1530	1820	1760	2850	2850	2850	2830	2040	2200
12	1690	1490	1390	1540	1810	1790	2850	2850	2850	2830	2030	2210
13	1690	1480	1390	1540	1800	1810	2850	2850	2850	2830	2030	2210
14	1680	1470	1390	1550	1790	1820	2840	2860	2850	2820	2030	2210
15	1670	1470	1390	1560	1780	1830	2840	2860	2850	2790	2020	2210
16	1660	1460	1390	1560	1770	1850	2840	2860	2850	2760	2010	2220
17	1660	1460	1390	1570	1760	1870	2840	2860	2850	2730	2000	2220
18	1650	1450	1390	1580	1740	1900	2840	2860	2850	2710	2000	2210
19	1640	1450	1390	1590	1730	1950	2840	2860	2850	2680	1990	2210
20	1630	1440	1390	1600	1730	1990	2840	2870	2850	2650	1990	2210
21	1620	1440	1390	1610	1720	2050	2840	2870	2850	2620	1990	2200
22	1620	1430	1390	1620	1710	2120	2850	2870	2850	2590	2000	2200
23	1610	1430	1390	1630	1710	2190	2850	2870	2850	2560	2000	2200
24	1600	1430	1390	1650	1700	2260	2850	2870	2840	2520	2000	2200
25	1600	1420	1390	1660	1690	2330	2850	2870	2850	2490	2010	2200
26	1590	1420	1390	1670	1670	2410	2850	2860	2840	2460	2010	2190
27	1580	1410	1390	1680	1670	2500	2850	2870	2840	2430	2020	2190
28	1570	1410	1390	1700	1660	2570	2860	2870	2840	2400	2040	2190
29	1570	1410	1400	1710	---	2620	2860	2870	2840	2370	2060	2180
30	1560	1410	1420	1730	---	2670	2860	2870	2840	2350	2090	2180
31	1560	---	1430	1740	---	2710	---	2870	---	2320	2110	---
MAX	1780	1550	1430	1740	1850	2710	2860	2870	2870	2840	2300	2220
MIN	1560	1410	1390	1430	1660	1640	2740	2850	2840	2320	1990	2130
(†)	80.01	77.26	77.69	83.16	81.71	97.81	99.91	100.03	99.64	92.34	89.20	90.25
(††)	-210	-150	+20	+310	-80	+1050	+150	+10	-30	-520	-210	+70

CAL YR 1992 MAX 2860 MIN 1390 (††) -1400  
WTR YR 1993 MAX 2870 MIN 1390 (††) +410

(†) GAGE HEIGHT, IN FEET, AT END OF MONTH  
(††) 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	4.9	2.9	.73	.82	11	2.5	46	77	11	16	3.3
2	4.9	4.9	2.9	.73	.86	11	2.5	37	75	9.9	16	3.1
3	4.9	4.9	2.9	1.1	.86	11	2.5	31	70	9.2	16	3.1
4	4.9	4.9	2.9	1.2	.91	9.1	6.4	29	62	8.1	16	3.1
5	4.9	4.9	2.8	1.2	.82	6.8	20	31	56	7.3	16	3.1
6	4.9	4.9	2.7	1.2	.82	6.8	27	33	50	6.8	16	3.1
7	4.9	4.9	2.7	.77	.82	6.9	25	31	46	6.4	16	3.2
8	4.9	4.8	2.7	.78	.81	7.2	22	28	41	5.9	16	3.1
9	4.9	4.6	2.5	.82	6.9	7.5	19	25	39	5.4	12	3.1
10	4.9	4.7	2.0	.76	11	7.7	19	22	32	5.3	7.3	3.1
11	4.9	4.7	1.9	.73	11	7.6	25	21	28	5.3	7.3	3.1
12	4.9	4.6	1.9	.67	12	7.4	33	23	27	5.2	7.3	3.1
13	4.9	4.6	1.9	.70	12	7.2	33	27	29	5.6	7.6	3.1
14	4.9	4.6	1.9	.71	12	7.1	29	34	33	12	7.5	3.1
15	4.8	4.6	1.9	.73	12	7.0	24	38	36	16	7.4	3.1
16	4.8	4.5	1.9	.70	12	4.4	19	46	37	16	7.3	3.1
17	4.7	4.2	1.9	.70	12	2.9	16	54	36	16	7.3	3.1
18	4.7	4.2	1.9	.73	11	3.3	17	59	33	16	7.3	3.1
19	4.7	4.2	1.9	.73	11	3.8	20	56	31	16	7.3	3.1
20	4.7	4.2	1.7	.73	11	3.8	22	58	29	16	5.0	3.1
21	4.7	4.2	1.7	.73	11	3.8	21	68	28	16	3.0	3.1
22	4.7	4.2	1.7	.80	11	3.8	23	80	26	16	2.9	3.1
23	4.8	3.9	1.7	.91	11	3.4	31	82	24	16	2.9	3.1
24	4.7	3.1	1.6	.91	11	3.3	35	77	20	16	2.9	3.1
25	4.7	3.1	1.6	.91	11	3.1	29	76	18	16	2.9	3.1
26	4.7	3.1	1.6	.91	11	3.2	27	77	17	16	3.0	3.1
27	4.6	3.1	1.6	.90	11	3.5	32	76	16	16	3.1	3.1
28	4.7	3.1	1.5	.90	11	2.9	41	80	14	16	3.2	3.1
29	4.6	3.1	.85	.91	---	2.7	46	85	13	16	3.2	3.1
30	4.6	2.9	.73	.90	---	2.6	46	79	12	16	3.3	3.1
31	4.7	---	.73	.85	---	2.5	---	77	---	16	3.3	---
TOTAL	148.5	126.6	61.11	26.05	228.62	174.3	714.9	1586	1055	375.4	252.3	93.3
MEAN	4.79	4.22	1.97	.84	8.16	5.62	23.8	51.2	35.2	12.1	8.14	3.11
MAX	4.9	4.9	2.9	1.2	12	11	46	85	77	16	16	3.3
MIN	4.6	2.9	.73	.67	.81	2.5	2.5	21	12	5.2	2.9	3.1
AC-FT	295	251	121	52	453	346	1420	3150	2090	745	500	185

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1993, BY WATER YEAR (WY)

	MEAN	4.58	3.06	2.63	2.44	2.76	4.75	12.8	23.4	17.2	9.37	8.50	6.64
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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1913 - 1993

ANNUAL TOTAL	4906.01	4842.08	
ANNUAL MEAN	13.4	13.3	8.18
HIGHEST ANNUAL MEAN			26.2
LOWEST ANNUAL MEAN			1.88
HIGHEST DAILY MEAN	99	85	378
LOWEST DAILY MEAN	.73	.67	.10
ANNUAL SEVEN-DAY MINIMUM	1.2	.71	.17
INSTANTANEOUS PEAK FLOW		103	1500
INSTANTANEOUS PEAK STAGE		3.04	5.17
INSTANTANEOUS LOW FLOW		.54	.05
ANNUAL RUNOFF (AC-FT)	9730	9600	5930
10 PERCENT EXCEEDS	37	33	18
50 PERCENT EXCEEDS	4.9	4.9	4.2
90 PERCENT EXCEEDS	3.0	.91	1.0



## 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, 698 acre-ft, May 27, 28; maximum gage height, 167.43 ft May 27, minimum, 192 acre-ft, Feb. 7; gage height, 144.22

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 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	279	e340	e460	319	219	574	686	693	697	662	633	582
2	274	346	e465	312	215	585	685	692	696	651	640	576
3	272	e350	e470	317	211	591	689	692	695	636	651	576
4	269	e360	e475	314	206	591	691	693	694	621	659	567
5	264	e370	e480	308	201	592	692	692	694	605	670	561
6	261	e380	e487	301	197	593	691	692	693	588	678	555
7	257	e390	496	298	192	597	691	692	691	570	687	547
8	260	e390	e495	297	200	604	690	691	691	551	685	542
9	260	391	e498	295	221	613	690	690	690	531	679	533
10	262	e395	e496	294	240	622	692	690	689	511	673	521
11	265	e398	e493	287	258	630	693	691	689	492	663	510
12	266	e405	e490	284	275	641	693	692	690	478	656	505
13	263	e415	e488	279	294	646	692	692	691	481	659	504
14	e265	e425	486	275	313	647	691	693	691	498	665	508
15	e264	e430	e475	271	330	644	690	694	691	504	663	509
16	e266	431	e463	267	345	640	690	694	690	512	660	504
17	e265	435	450	264	360	642	690	695	690	518	658	499
18	e266	e440	434	261	376	652	691	695	689	528	658	490
19	266	e450	427	255	398	662	691	695	689	536	658	485
20	e270	e455	420	250	422	668	689	696	689	547	654	480
21	e280	e460	413	246	442	e675	690	697	690	554	644	475
22	e282	e460	404	244	461	682	692	697	689	555	634	466
23	e285	463	397	244	478	688	693	696	688	558	624	455
24	e290	e465	e390	244	494	688	692	697	687	561	610	444
25	e300	e465	e370	240	510	689	692	697	687	564	598	429
26	308	e460	368	234	526	689	693	697	686	567	583	414
27	e315	e460	361	227	543	689	694	698	685	573	578	402
28	e320	e458	351	225	560	689	694	698	682	586	577	387
29	e325	e458	341	224	---	688	694	697	678	601	577	374
30	e330	458	330	222	---	687	694	697	671	610	577	362
31	e335	---	321	221	---	687	---	697	---	621	580	---
MAX	335	465	498	319	560	689	694	698	697	662	687	582
MIN	257	340	321	221	192	574	685	690	671	478	577	362
(+)	---	---	152.19	146.22	162.58	167.04	167.28	167.38	166.51	164.86	163.32	154.33
(++)	+53	+123	-137	-100	+339	+127	+7	+3	-26	-50	-41	-218
CAL YR 1992	MAX 693	MIN 257	(++) -367									
WTR YR 1993	MAX 698	MIN 192	(++) +80									

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

e Estimated

RIO GRANDE BASIN  
08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM

LOCATION.--Lat 35°32'49", long 106°13'41", in NW¼ sec.8, T.15 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201 in Mesita de Juana Lopez Grant, on right bank at foot of La Bajada Hill, 5.0 mi upstream from Cochiti Dam, 6.3 mi east of Pena Blanca, and at mile 7.9.

DRAINAGE AREA.--231 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5,505 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Surface and ground-water diversions and returns for municipal supply of City of Santa Fe in upper part of basin. Diversions for irrigation of about 400 acres upstream from station. See tabulation below for the results of discharge measurements made during year at point adjacent to gage of an unnamed ditch on right bank which diverts water 0.4 mi upstream and bypasses gage; ditch flow not included in record. Lowest flow for period of record, no flow July 16-18, 1971.

DISCHARGE MEASUREMENTS, IN CUBIC FEET PER SECOND, OF DITCH, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Discharge	Date	Discharge	Date	Discharge
Oct. 7	.99	Feb. 2	0	Jul. 8	.79
Nov. 5	.12	Mar. 3	0	Aug. 11	.85
Nov. 17	0	May. 7	2.1	Sept. 9	.95
Dec. 14	0	June 11	2.2		

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	9.1	12	11	12	8.0	17	e28	e71	6.6	9.1	e8.5
2	6.1	10	12	11	14	7.5	15	e27	e74	7.1	8.7	e8.5
3	6.6	11	12	11	15	8.9	14	e26	e72	7.3	7.5	e8.6
4	7.0	11	13	12	14	11	12	e25	e72	6.1	7.5	e8.8
5	7.7	11	14	14	14	11	13	e26	e71	4.6	8.6	e8.9
6	7.5	11	15	11	14	11	24	e27	e70	5.6	8.5	e8.7
7	6.9	11	13	11	13	11	33	e28	e69	4.8	7.9	e8.6
8	7.7	11	16	36	13	11	24	49	e69	5.4	8.6	e8.9
9	7.0	10	13	19	13	11	23	37	e67	4.5	8.1	e9.1
10	7.7	10	12	16	12	11	18	26	e65	4.6	7.8	9.3
11	7.3	12	12	17	12	12	22	23	44	5.8	e6.5	9.4
12	7.6	11	13	15	12	15	25	21	23	9.5	e6.7	8.8
13	8.5	11	13	14	11	13	30	23	20	7.4	e6.8	10
14	7.6	11	13	13	11	13	26	26	37	6.8	e6.6	10
15	7.1	11	15	14	11	13	25	32	39	6.8	e6.5	9.4
16	8.3	11	13	14	11	13	23	33	26	6.2	e6.7	7.9
17	7.6	11	15	15	11	13	24	38	25	5.6	e6.9	8.2
18	7.8	11	13	15	10	13	21	41	23	5.8	e7.0	7.6
19	8.3	11	13	18	9.9	14	e21	42	19	6.5	e7.2	7.7
20	7.5	11	15	16	9.9	14	e22	44	20	12	e7.4	8.2
21	8.0	12	18	13	9.5	14	e23	50	20	7.5	e7.2	7.8
22	8.1	11	25	13	9.2	15	e25	61	19	7.3	e7.4	8.9
23	7.9	11	21	13	9.2	15	e27	58	14	6.8	e7.5	9.1
24	8.3	11	16	13	8.8	18	e28	60	10	6.5	e7.7	9.9
25	8.5	11	15	13	8.6	19	e29	66	10	6.6	e7.8	9.2
26	8.4	12	17	12	8.6	19	e30	e67	7.9	6.0	e8.0	7.5
27	8.3	12	18	12	8.1	29	e29	e68	7.2	5.8	e7.8	7.9
28	8.6	12	13	12	8.0	22	e28	e70	7.7	8.1	e8.1	8.1
29	8.7	12	16	12	---	27	e27	e72	7.6	12	e8.2	6.9
30	8.2	12	13	11	---	30	e28	e71	6.4	8.8	e8.3	8.3
31	8.8	---	12	12	---	20	---	e73	---	9.8	e8.4	---
TOTAL	240.0	332.1	451	439	312.8	462.4	706	1338	1085.8	214.2	237.0	258.7
MEAN	7.74	11.1	14.5	14.2	11.2	14.9	23.5	43.2	36.2	6.91	7.65	8.62
MAX	8.8	12	25	36	15	30	33	73	74	12	9.1	10
MIN	6.1	9.1	12	11	8.0	7.5	12	21	6.4	4.5	6.5	6.9
AC-FT	476	659	895	871	620	917	1400	2650	2150	425	470	513

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	1986	1992	1992	1986	1992	1992	1986	1992	1986	1992	1986	1992
MEAN	7.41	8.71	9.80	9.88	10.0	10.4	22.6	18.5	14.0	8.26	7.37	7.58
MAX	16.4	13.2	15.2	14.4	16.6	28.6	306	69.3	75.3	28.0	32.8	19.2
(WY)	1986	1992	1992	1986	1992	1992	1992	1973	1979	1971	1991	1990
MIN	3.98	5.53	6.84	6.51	7.17	6.15	3.64	1.60	1.19	2.29	2.14	2.61
(WY)	1980	1980	1971	1971	1971	1971	1971	1970	1971	1980	1971	1970

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1970 - 1993

ANNUAL TOTAL	14586.6	6077.0	
ANNUAL MEAN	39.9	16.6	11.4
HIGHEST ANNUAL MEAN			40.1
LOWEST ANNUAL MEAN			6.09
HIGHEST DAILY MEAN	1000	Apr 17	1000
LOWEST DAILY MEAN	3.4	Jul 1	.00
ANNUAL SEVEN-DAY MINIMUM	4.9	Jun 26	.01
INSTANTANEOUS PEAK FLOW			124
INSTANTANEOUS PEAK STAGE			1.99
INSTANTANEOUS LOW FLOW			
ANNUAL RUNOFF (AC-FT)	28930	12050	8260
10 PERCENT EXCEEDS	36	30	16
50 PERCENT EXCEEDS	12	11	7.9
90 PERCENT EXCEEDS	6.6	7.1	2.7

e Estimated

a-From rating curve extended above 160 ft³/s on basis of slope-area measurements at gage heights 5.69 ft. and 9.58 ft.

## 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 1992 TO SEPTEMBER 1993

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)	HARD-NESS NONCARE DISSOLV FLD. AS CaCO3 (MG/L) (00904)	
NOV 04...	1030	9.1	738	8.3	--	6.5	627	9.2	91	--	--	--	
17...	1315	8.9	705	8.1	19.0	11.0	620	7.9	88	27	150	--	
MAR 23...	0900	14	523	8.3	13.0	7.0	627	9.9	99	410	130	0	
APR 08...	1030	24	348	8.5	16.5	8.0	625	12.6	130	--	99	0	
MAY 07...	0840	29	349	8.8	--	10.0	622	9.5	103	--	92	0	
JUN 11...	1130	21	310	8.4	25.0	18.5	625	7.7	101	--	69	0	
JUL 06...	1100	4.4	622	8.7	27.0	22.5	635	7.4	103	--	120	0	
AUG 11...	0945	6.0	604	8.7	25.0	20.5	628	8.2	112	--	110	0	
SEP 09...	0945	9.1	682	8.5	--	16.5	627	8.5	106	--	120	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)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV 04...	--	--	--	--	--	--	--	0	268	--	--	--	--
17...	47	7.5	86	3	9.6	--	--	--	227	40	39	0.60	
MAR 23...	41	7.1	52	2	6.7	173	3	146	143	44	39	0.60	
APR 08...	31	5.1	29	1	4.1	113	7	105	109	24	16	0.40	
MAY 07...	29	4.7	30	1	4.0	122	0	100	101	22	16	0.40	
JUN 11...	22	3.4	28	1	--	126	2	107	106	22	--	0.40	
JUL 06...	37	5.7	79	3	9.6	222	12	202	199	40	47	0.70	
AUG 11...	36	5.5	82	3	9.6	213	16	202	197	33	43	0.80	
SEP 09...	38	6.4	88	3	10	250	10	221	207	40	54	0.80	
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 TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)
NOV 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	25	--	420	3.93	0.410	0.370	4.40	4.30	0.910	0.900	--	--	--
MAR 23...	19	335	321	3.38	--	0.220	--	3.60	--	0.570	1.3	0.73	
APR 08...	18	213	197	0.820	--	0.060	--	0.880	--	0.530	0.80	0.27	
MAY 07...	17	183	189	0.530	--	0.050	--	0.580	--	0.840	1.3	0.46	
JUN 11...	15	197	--	0.350	--	0.050	--	0.400	--	0.300	0.50	0.20	
JUL 06...	23	386	374	1.49	--	0.110	--	1.60	--	0.060	0.50	0.44	
AUG 11...	25	361	366	--	--	<0.010	--	1.40	--	0.020	0.60	0.58	
SEP 09...	26	408	428	4.99	--	0.010	--	5.00	--	0.030	0.80	0.77	

## RIO GRANDE BASIN

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	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 TOTAL (MG/L AS P) (70507)	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- PENDE TOTAL (MG/L AS C) (00689)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 04...	--	--	--	--	--	--	--	--	--	--	--
17...	2.6	3.20	--	2.80	2.80	8.3	--	--	230	16	--
MAR 23...	2.1	2.40	2.20	--	2.00	--	9.1	0.4	170	25	25
APR 08...	1.1	0.850	0.730	--	0.720	--	8.4	3.0	80	62	17
MAY 07...	1.5	0.860	0.760	--	0.710	--	7.5	5.0	--	32	10
JUN 11...	1.7	0.970	0.290	--	0.280	--	6.4	0.9	--	57	6
JUL 06...	0.60	1.60	1.10	--	1.10	--	6.0	0.3	--	9	5
AUG 11...	0.80	1.50	1.40	--	1.30	--	6.3	0.3	--	13	5
SEP 09...	1.0	3.30	3.00	--	3.10	--	7.0	0.4	--	18	4

DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (UG/G) (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
NOV 04...	1030	6	2	<10	0.3	4.6	92	58	14	43	51

DATE	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (UG/G) (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (UG/G) (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)
NOV 04...	17	<8	<4	3.5	51	33	50	1.2	750	0.07

DATE	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (UG/G) (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (UG/G) (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (UG/G) (34960)
NOV 04...	<2	48	27	12	0.15	1.7	12	0.4	2.4	0.99

DATE	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD PERCENT (UG/G) (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
NOV 04...	230	0.10	<40	17	<10	6	77	36	4	120

## RIO GRANDE BASIN

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)
NOV									
04...	1130	9.1	--	--	--	--	--	88	100
17...	1315	8.9	705	11.0	50	1.2	51	--	--
MAR									
23...	0900	14	523	7.0	101	3.9	93	--	--
APR									
08...	1030	24	348	8.0	295	19	--	--	--
MAY									
07...	0840	29	349	10.0	1790	141	16	--	--
JUN									
11...	1130	21	310	18.5	213	12	51	--	--
JUL									
06...	1100	4.4	622	22.5	39	0.46	--	--	--
AUG									
11...	0945	6.0	604	20.5	7	0.11	--	--	--
SEP									
09...	0945	9.1	682	16.5	38	0.94	--	--	--

## RIO GRANDE BASIN

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM

LOCATION.--Lat 35°37'01", Long 106°18'58", in NW¼SW¼ sec.16, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, in control tower at Cochiti Dam, 1.7 mi 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, 83,180 acre-ft, June 2, elevation, 5,355.92 ft; minimum, 49,030 acre-ft, Oct. 15, elevation, 5,334.35 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	101,300
5,355	81,310	5,395	196,280

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49490	50240	50190	51040	51160	51810	51880	53310	82990	50870	50630	50540
2	49480	50170	50270	50710	51210	51730	52000	54490	83180	51050	50630	50600
3	49410	50190	50460	50540	51210	51150	52150	54330	82380	50870	50560	50330
4	49310	50240	50760	50520	51180	51150	51900	52280	81030	50650	50360	49940
5	49260	50240	50730	50810	51220	51440	51580	50880	79040	50770	50290	50110
6	49220	50150	50980	50980	51130	51640	51550	51600	76130	50810	50110	50430
7	49210	50150	50980	51070	51060	51950	51570	51720	72630	50750	49780	50530
8	49280	50120	50660	51230	51110	52150	51630	51480	68950	50600	49080	50830
9	49370	50120	50880	51270	51170	52060	51690	50980	64710	51080	49030	50600
10	49500	50220	51220	51190	51270	52040	51920	50520	60790	51380	49440	50470
11	49560	50370	51270	51170	51180	52200	52140	50690	57400	50900	49790	50320
12	49500	50460	51100	51370	51150	52280	51710	50700	54600	50890	50110	50270
13	49410	50330	51050	51470	51160	52250	51290	51810	52610	51530	50430	50460
14	49210	50170	51020	51260	51160	52130	51080	52330	51650	51180	51120	50990
15	49030	50010	50900	51220	51110	52130	51130	52940	51650	50840	51650	50850
16	49040	50020	51170	51240	51050	52130	51150	54160	51900	50400	50520	50460
17	49190	50100	51000	51180	50950	52100	51270	56610	51830	50490	49870	50490
18	49330	50160	51260	51080	51480	52150	51600	58900	51530	50580	50050	50640
19	49460	50190	51320	51170	52850	52100	51830	60650	51370	51010	50410	50440
20	49550	50170	50960	51210	53290	52050	51080	62340	51230	50910	50630	50370
21	49810	50150	50660	51180	59460	52230	51820	64920	51040	50790	50660	50390
22	50090	50010	50840	51130	60350	52220	51790	67140	51180	50660	50760	50490
23	50230	49940	51000	51100	59860	51900	51880	69220	51330	50770	50470	50530
24	50260	49910	51020	51110	59190	51860	51780	70960	51160	50720	50220	50490
25	50320	49980	51000	51120	58180	52240	51690	72540	51080	50700	50330	50290
26	50320	50040	50900	51180	56940	52100	51840	73540	50940	50720	50380	50090
27	50330	50000	50880	51220	55200	52060	52180	74620	50960	50630	50850	50150
28	50310	49960	51110	51240	53220	51770	52160	75440	51010	50390	52000	50410
29	50260	49960	51270	51130	---	51500	52140	77280	51010	50460	53040	50520
30	50220	50040	51390	51110	---	51860	52390	79600	50840	50580	51590	50560
31	50260	---	51350	51150	---	51810	---	81830	---	50630	50520	---
MAX	50330	50460	51390	51470	60350	52280	52390	81830	83180	51530	53040	50990
MIN	49030	49910	50190	50520	50950	51150	51080	50520	50840	50390	49030	49940
(†)	5335.43	5335.24	5336.34	5336.17	5337.78	5336.70	5337.15	5335.26	5355.92	5335.74	5335.65	5335.68
(††)	+820	-220	+1310	-200	+2070	-1410	+580	-29440	+30990	-210	-110	+40

CAL YR 1992 MAX 93550 MIN 45450 (†) +2080  
WTR YR 1993 MAX 83180 MIN 49030 (†) +4220

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

## RIO GRANDE BASIN

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM -- Continued

## WATER-QUALITY RECORDS

LOCATION.--Samples collected in Cochiti Lake impounded by Cochiti Dam on the Rio Grande.

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

REMARKS.--Samples for chemical analyses are collected annually at Site A which is located 500 ft upstream from the Outlet Tower (Riser). Samples are collected 5 feet above the bottom of the lake.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAM- PLING DEPTH (FEET) (000003)	RESER- VOIR DEPTH (FEET) (72025)	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, (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)
JUN												
24...	1112	0.10	88.0	--	--	26.0	19.5	626	7.6	--	--	--
24...	1113	1.00	88.0	--	--	26.0	19.5	626	7.5	--	--	--
24...	1114	5.00	88.0	253	8.1	26.0	19.0	626	7.5	99	--	--
24...	1115	10.0	88.0	--	--	26.0	18.0	626	6.9	--	--	--
24...	1116	15.0	88.0	--	--	26.0	17.5	626	6.8	--	--	--
24...	1117	20.0	88.0	--	--	26.0	17.5	626	6.6	--	--	--
24...	1118	25.0	88.0	--	--	26.0	17.0	626	6.5	--	--	--
24...	1119	30.0	88.0	--	--	26.0	17.0	626	6.4	--	--	--
24...	1120	35.0	88.0	--	--	26.0	17.0	626	6.4	--	--	--
24...	1121	40.0	88.0	265	7.8	26.0	17.0	626	6.4	81	--	--
24...	1122	45.0	88.0	--	--	26.0	16.5	626	6.2	--	--	--
24...	1123	50.0	88.0	--	--	26.0	16.5	626	6.1	--	--	--
24...	1124	55.0	88.0	--	--	26.0	16.0	626	5.9	--	--	--
24...	1125	60.0	88.0	--	--	26.0	16.0	626	5.7	--	--	--
24...	1126	65.0	88.0	--	--	26.0	16.0	626	5.6	--	--	--
24...	1127	70.0	88.0	--	--	26.0	16.0	626	5.6	--	--	--
24...	1128	75.0	88.0	--	--	26.0	15.5	626	5.3	--	--	--
24...	1129	80.0	88.0	--	--	26.0	15.5	626	5.1	--	--	--
24...	1130	85.0	88.0	280	7.7	26.0	15.0	626	4.7	57	29	K6

DATE	STREP- TOCOC 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)
------	---	--	--	---	---	---	--	--	--	---	--	--

JUN	24...	22	110	23	33	6.4	14	0.6	2.5	105	0	86	85
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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 CONSTITUENTS, DIS- SOLVED (MG/L AS CD) (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)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
------	--	--	---	--	--	--	--	--	--	---	---	--

JUN	24...	47	3.6	0.20	16	175	0.130	0.030	0.160	0.050	0.40	0.110	0.030
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DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)
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JUN	24...	5.8	1	2	30	<1	<1.0	1	<1	3	1	11	2
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## RIO GRANDE BASIN

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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)
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JUN 24...	<1	<0.10	<0.1	<1	<1	<10	6	19	48	2800	920	8
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DATE	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
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JUN 24...	1	10	20	20	15000	30	1300	0.03	90	80	95
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## 08317400 RIO GRANDE BELOW COCHITI DAM, NM

LOCATION.--Lat 35°37'05", long 106°19'24", in SW¼NE¼ sec.17, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, on right bank 320 ft 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 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	697	522	526	e990	795	1820	1990	4710	6880	3790	902	2420
2	695	540	549	e920	798	1180	1890	4720	6860	3740	898	2520
3	695	519	523	e800	822	1360	2180	5020	7120	3860	870	2590
4	681	519	513	e700	843	995	2600	5410	7230	3740	772	2350
5	683	535	563	e610	848	812	2570	4520	7190	3430	755	1760
6	686	543	567	675	889	868	2510	4060	7170	3330	754	1560
7	683	519	633	755	879	878	2500	4210	7080	3030	753	1420
8	682	519	615	938	847	909	2300	4290	7100	2460	746	1320
9	682	519	542	1150	880	1050	2320	4230	7100	1470	745	1210
10	634	456	591	1150	952	1050	2570	3860	6660	914	749	1090
11	623	514	710	1080	1030	1050	2790	3110	5920	1090	753	966
12	678	593	750	999	958	1170	3320	2780	5240	855	744	767
13	717	704	699	992	900	1220	3640	3160	4640	874	786	691
14	700	704	662	994	921	1210	3620	3920	3980	1130	750	1000
15	667	668	610	942	977	1160	3560	4340	3780	1240	837	1130
16	616	602	610	913	979	1130	3420	4620	4110	1200	1510	1090
17	616	652	874	965	965	1140	3290	4670	4550	900	1130	866
18	616	713	740	975	681	1200	3070	4970	2710	936	753	913
19	616	732	813	931	289	1350	3120	5500	3100	1070	778	1080
20	617	759	906	933	292	1450	3210	5560	3150	1090	832	983
21	568	759	774	933	298	1500	3280	5610	4820	1070	1110	862
22	526	714	e590	935	880	1630	3300	5660	4380	992	1220	786
23	520	660	e610	935	1430	1830	3410	5690	4210	928	1320	780
24	521	644	e700	905	1720	1760	3810	5970	4450	813	1390	776
25	542	590	e720	860	1960	1700	3890	6210	4650	760	1290	777
26	566	569	e700	842	2050	2280	3850	6250	4380	706	1230	765
27	494	566	e650	834	2040	2800	3970	6250	4110	744	1250	669
28	427	566	e620	836	2040	3010	4330	6560	4030	894	1340	573
29	404	566	e700	836	---	2870	4620	6740	4030	937	1250	572
30	328	551	e800	810	---	2570	4710	6790	4060	881	2180	571
31	338	---	e900	796	---	2300	---	6850	---	902	2570	---
TOTAL	18518	18017	20760	27934	28963	47252	95640	156240	154690	49776	32967	34857
MEAN	597	601	670	901	1034	1524	3188	5040	5156	1606	1063	1162
MAX	717	759	906	1150	2050	3010	4710	6850	7230	3860	2570	2590
MIN	328	456	513	610	289	812	1890	2780	2710	706	744	571
AC-FT	36730	35740	41180	55410	57450	93720	189700	309900	306800	98730	65390	69140
(†)	7040	106	0	0	0	5010	7320	8060	7270	7250	7550	7120
(††)	4160	0	0	0	0	3840	4200	4280	4240	4200	4160	3870

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1993, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993
MEAN	566	858	835	724	858	1286
MAX	597	1159	1126	901	1034	1701
(WY)	1993	1992	1992	1993	1993	1992
MIN	534	601	670	449	688	672
(WY)	1992	1993	1993	1990	1992	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1988 - 1993
ANNUAL TOTAL	556903	685614	1739
ANNUAL MEAN	1522	1878	1878
HIGHEST ANNUAL MEAN			1993
LOWEST ANNUAL MEAN			1992
HIGHEST DAILY MEAN	5580	May 11	7230
LOWEST DAILY MEAN	259	Feb 18	289
ANNUAL SEVEN-DAY MINIMUM	268	Feb 15	436
INSTANTANEOUS PEAK FLOW			Oct 27
INSTANTANEOUS PEAK STAGE			100
INSTANTANEOUS LOW FLOW			b10300
ANNUAL RUNOFF (AC-FT)	1105000	1360000	a7.90
10 PERCENT EXCEEDS	3950	4620	c.51
50 PERCENT EXCEEDS	862	965	Jul 26 1971
90 PERCENT EXCEEDS	559	569	Jul 26 1971

e Estimated

a-Site and datum then in use.

b-Form 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 mi<sup>2</sup>.

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 NE¼NE¼ 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.59	e1.4	e.80	8.9	14	10	7.5	.00	.00	25	8.1
2	.00	.67	e1.4	e.70	8.2	12	9.2	9.0	.00	.00	8.7	8.2
3	.00	.62	e1.3	e.70	8.9	14	8.0	6.1	.00	.00	.43	6.8
4	.00	.36	e1.3	e.60	9.6	17	7.9	5.2	.00	.00	.00	1.8
5	.00	.64	e1.3	e.60	8.2	17	7.4	4.3	.00	.00	2.8	.00
6	.00	1.6	e1.3	e.70	6.4	15	7.1	3.9	.00	.00	2.6	2.5
7	.00	2.4	e1.2	4.8	5.9	14	7.1	3.8	.00	.00	4.4	17
8	.00	2.5	e1.2	7.6	8.2	17	6.6	4.4	.00	.00	3.0	4.5
9	.00	e2.0	e1.2	18	13	23	5.9	4.5	.00	.00	.00	.00
10	.00	e2.0	e1.2	10	16	29	5.2	3.5	.00	.00	.00	.00
11	.00	e2.0	e1.1	7.9	13	28	4.7	2.9	.00	.00	.00	.00
12	.00	e2.0	e1.1	7.2	12	26	4.4	2.3	.00	1.4	.00	.00
13	.00	e1.8	e1.1	12	11	21	4.8	2.2	.00	.00	13	3.4
14	.00	e1.8	e1.0	4.0	14	20	6.1	2.5	.00	.00	7.9	7.4
15	.00	e1.8	e1.0	3.6	12	17	6.7	3.3	.00	.00	2.7	.00
16	.00	e1.8	e1.0	4.2	8.6	14	5.4	3.1	.00	.00	.67	.00
17	.00	e1.7	e1.0	2.9	9.2	15	4.8	3.4	.00	.00	.00	.00
18	.00	e1.7	e.90	3.0	8.6	21	4.5	4.4	.00	.00	24	.00
19	.00	e1.7	e.90	6.8	30	29	3.5	4.0	.00	4.3	1.7	.00
20	.00	e1.7	e.80	6.3	24	29	3.0	3.2	.09	124	86	.00
21	.00	e1.6	e.80	6.5	15	27	3.0	2.9	17	2.4	60	.00
22	.00	e1.6	e.80	6.2	14	25	3.1	2.3	.71	.10	12	.00
23	.00	e1.6	e.90	7.5	9.6	23	2.7	1.9	.00	.00	2.6	.00
24	.00	e1.6	e.90	8.0	8.9	21	2.4	1.8	.00	.00	.74	.00
25	.00	e1.5	e.90	11	8.2	19	2.7	1.7	.00	.00	.00	.00
26	1.6	e1.5	e1.0	11	7.6	19	3.3	1.4	.00	.00	13	.00
27	.57	e1.5	e1.0	6.8	13	22	3.3	1.1	.00	.00	31	.00
28	.74	e1.5	e1.0	6.9	13	20	3.2	1.1	.00	20	8.8	.00
29	1.5	4.9	e1.0	9.1	---	18	3.2	.47	.00	20	26	.00
30	.74	e1.4	e.80	10	---	17	3.9	.33	.00	3.7	14	.00
31	.72	---	e.80	8.4	---	12	---	.19	---	.22	9.4	---
TOTAL	5.87	50.08	32.60	193.80	325.0	615	153.1	98.69	17.80	176.12	360.44	59.70
MEAN	.19	1.67	1.05	6.25	11.6	19.8	5.10	3.18	.59	5.68	11.6	1.99
MAX	1.6	4.9	1.4	18	30	29	10	9.0	17	124	86	17
MIN	.00	.36	.80	.60	5.9	12	2.4	.19	.00	.00	.00	.00
AC-FT	12	99	65	384	645	1220	304	196	35	349	715	118

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	MEAN	1.32	1.53	1.60	2.28	2.96	3.14	2.94	5.51	22.1	15.7	10.6
MAX	28.9	7.20	6.55	6.25	11.6	19.8	23.8	31.7	29.5	110	55.7	52.4
(WY)	1982	1987	1987	1993	1993	1993	1973	1985	1979	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1970 - 1993

ANNUAL TOTAL	1351.46	2088.20	6.11
ANNUAL MEAN	3.69	5.72	12.8
HIGHEST ANNUAL MEAN			1.28
LOWEST ANNUAL MEAN			1170
HIGHEST DAILY MEAN	220	Jun 21	124
LOWEST DAILY MEAN	.00	May 14	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 12	.00
INSTANTANEOUS PEAK FLOW			a2000
INSTANTANEOUS PEAK STAGE			b7.00
ANNUAL RUNOFF (AC-FT)	2680	4140	4430
10 PERCENT EXCEEDS	6.3	17	8.0
50 PERCENT EXCEEDS	1.2	1.8	.50
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 1,400 ft<sup>3</sup>/s.

b-Maximum gage height, 7.33 ft, July 20, 1971.

## RIO GRANDE BASIN

08319000 RIO GRANDE AT SAN FELIPE, NM  
(Surveillance network station)

LOCATION.--Lat 35°26'39", long 106°26'23", in SW1/4 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 Hemon 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 1992 TO SEPTEMBER 1993

## DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	516	580	1050	861	1740	2110	4550	6720	e3250	1180	2300
2	1020	546	589	1020	861	1190	1890	4610	6640	3160	1200	2320
3	953	513	595	975	870	1360	2150	4780	e6710	3340	1120	2360
4	875	504	553	903	895	1150	2520	5280	e6730	3280	1090	2250
5	815	517	644	736	896	882	2620	4680	e6800	3050	1030	1900
6	816	553	637	678	911	952	2510	4070	e6800	2890	1050	1600
7	818	534	676	788	938	963	2500	4140	e6670	2860	948	1590
8	812	535	702	891	900	980	2390	4260	e6750	2530	935	1440
9	823	536	641	1130	918	1140	2270	4240	e6800	1720	948	1480
10	800	510	631	1130	961	1200	2490	3960	e6680	948	895	1320
11	748	546	756	1110	1030	1160	2690	3260	e5600	1100	908	1300
12	783	556	806	1030	1030	1230	3020	2920	e5500	895	946	1160
13	828	692	788	1030	946	1280	3480	3050	e5000	781	1060	1040
14	820	712	740	1030	943	1280	3480	3790	e3850	1090	1170	1150
15	821	698	724	1010	992	1240	3470	4240	e3600	1140	1210	1300
16	743	654	666	942	932	1200	3370	4520	e3700	1210	1630	1270
17	731	637	788	979	1000	1200	3240	4550	e3800	971	1870	1100
18	734	723	834	1000	901	1220	3070	4800	e4200	919	1290	1000
19	739	731	801	980	393	1330	3010	5240	e2600	1090	1270	1190
20	740	753	928	982	381	1470	3130	5400	e2600	1810	1370	1130
21	713	768	877	972	389	1510	3160	5400	e2600	1210	1580	1020
22	645	756	686	975	666	1590	3220	5440	e2600	1200	1620	919
23	626	698	628	978	1270	1740	3260	5480	e3800	1070	1630	908
24	623	684	725	958	1500	1790	3540	5750	e4000	1070	1660	894
25	633	639	758	930	1720	1680	3730	6040	e4000	1080	1520	874
26	674	609	764	895	1840	1990	3670	6040	e3850	1000	1440	871
27	634	614	737	900	1870	2640	3770	6040	e3950	989	1420	821
28	550	609	688	904	1860	2840	4010	6200	e3870	1120	1430	695
29	525	624	742	908	---	2830	4350	6380	e3800	1160	1450	691
30	484	617	867	882	---	2580	4560	6590	e3750	1080	1850	682
31	400	---	963	864	---	2340	---	6640	---	1100	2640	---
TOTAL	23066	18584	22514	29560	28674	47697	92680	152340	143970	50113	41360	38575
MEAN	744	619	726	954	1024	1539	3089	4914	4799	1617	1334	1286
MAX	1140	768	963	1130	1870	2840	4560	6640	6800	3340	2640	2360
MIN	400	504	553	678	381	882	1890	2920	2600	781	895	682
AC-FT	45750	36860	44660	58630	56870	94610	183800	302200	285600	99400	82040	76510
(†)	2860	0	0	0	2690	4040	4000	3670	3640	3830	3640	3810

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1993, BY WATER YEAR (WY)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	644	932	1015	906	1076	1394	2367	3417	3235	1934	1068	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 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1974 - 1993
ANNUAL TOTAL	600147	689133	
ANNUAL MEAN	1640	1888	a1568
HIGHEST ANNUAL MEAN			2493
LOWEST ANNUAL MEAN			547
HIGHEST DAILY MEAN	5820	Apr 28	8100
LOWEST DAILY MEAN	303	Feb 19	67
ANNUAL SEVEN-DAY MINIMUM	308	Feb 17	135
INSTANTANEOUS PEAK FLOW			7040
INSTANTANEOUS PEAK STAGE			6.63
INSTANTANEOUS LOW FLOW			32
ANNUAL RUNOFF (AC-FT)	1190000	1367000	1136000
10 PERCENT EXCEEDS	4160	4300	3830
50 PERCENT EXCEEDS	982	1100	976
90 PERCENT EXCEEDS	621	638	434

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-Site and datum then in use.

c-From rating curve extended above 15,000 ft<sup>3</sup>/s.

(†) 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 1992 TO SEPTEMBER 1993

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 DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	
NOV 09...	1240	533	406	8.4	12.0	10.0	632	9.8	105	<10	K14
APR 20...	1015	3080	520	8.1	22.5	12.5	635	10.3	116	28	23
AUG 19...	1315	1280	320	8.0	31.5	22.0	650	9.1	123	<10	--
SEP 01...	1330	2320	380	8.0	29.5	21.0	630	11.0	150	20	K46

DATE	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS, TOTAL (MG/L AS CaCO3) (00900)	HARDNESS, NONCARBONATE DISSOLVED (MG/L AS CaCO3) (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)
NOV 09...	23	150	20	46	8.4	25	0.9	3.2	156	1
APR 20...	100	120	--	36	7.5	19	0.8	2.6	--	--
AUG 19...	--	130	18	39	6.8	18	0.7	2.5	131	0
SEP 01...	120	--	--	--	--	--	--	--	142	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)	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, NITRITE DIS-SOLVED (MG/L AS N) (00615)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV 09...	130	128	63	7.3	0.40	20	251	0.010	0.020	<0.050
APR 20...	--	97	60	5.8	0.30	18	208	--	<0.010	--
AUG 19...	108	106	50	4.9	0.30	16	202	--	<0.010	--
SEP 01...	117	--	--	--	--	--	--	--	<0.010	--

DATE	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P) (70507)	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)	ARSENIC TOTAL (UG/L AS AS) (01002)
NOV 09...	<0.050	0.010	0.010	<0.20	0.020	0.010	<0.010	2.9	--	2
APR 20...	0.080	--	0.060	<0.20	0.040	--	0.020	5.5	--	--
AUG 19...	<0.050	--	0.020	<0.20	0.040	--	0.010	4.7	--	--
SEP 01...	<0.050	--	0.020	0.30	0.150	--	0.020	4.5	<10	2

## RIO GRANDE BASIN

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)
NOV 09...	2	50	<1	<1.0	<1	<1	<1	<1	5	<1
APR 20...	--	30	--	--	--	--	--	--	19	--
AUG 19...	--	40	--	--	--	--	--	--	18	--
SEP 01...	2	30	<1	<1.0	<1	<1	4	4	--	2

DATE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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 09...	<1	<0.10	<0.1	<1	<1	10	<3	10	14	83
APR 20...	--	--	--	--	--	--	--	38	316	78
AUG 19...	--	--	--	--	--	--	--	117	404	76
SEP 01...	<1	<0.10	<0.1	<1	<1	<10	<10	105	659	52

## 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 current year. 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 Fierco 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	e26	e16	15	20	26	160	e255	e138	23	20	21
2	15	e22	e15	17	20	25	179	e235	e130	22	20	19
3	15	e20	10	18	18	25	194	e230	e122	21	19	17
4	15	e16	11	16	20	26	186	e225	e115	20	18	16
5	15	e16	13	e14	18	27	232	e220	e110	19	17	16
6	15	e16	20	e16	19	29	245	e223	e108	19	16	15
7	15	e16	18	18	19	33	205	e217	e105	12	16	15
8	15	e17	14	21	20	40	179	e212	e98	11	16	16
9	16	e17	14	19	22	53	172	e195	e92	17	16	15
10	15	e17	13	17	22	65	213	e185	83	17	28	14
11	15	e20	13	17	21	66	293	e198	74	17	30	14
12	e15	e18	13	15	20	64	354	e200	72	19	17	14
13	e15	e17	14	21	19	56	316	e203	71	19	11	16
14	e15	e17	20	19	21	53	273	e220	69	22	11	32
15	e15	e18	24	17	22	55	231	e235	67	20	14	24
16	e14	e18	18	16	20	66	230	e249	65	19	14	17
17	e14	e19	26	18	20	83	215	e255	60	19	14	14
18	e15	e17	19	17	18	103	272	e243	71	18	14	16
19	e15	e16	11	19	23	124	288	e240	50	17	15	15
20	e14	e17	e12	18	27	137	262	e233	44	18	22	15
21	e14	e16	e11	16	26	159	e262	e230	46	19	42	15
22	e14	e14	e12	17	24	198	e262	e250	44	18	37	14
23	e14	e15	e12	18	23	215	e258	e225	38	17	27	14
24	e14	e13	e13	17	24	237	e254	e218	34	16	15	14
25	e14	e12	e13	19	25	275	e250	e202	31	16	14	14
26	e14	e13	e13	20	24	313	e247	e222	29	16	19	13
27	e14	e14	e14	19	24	357	e245	e200	27	15	25	13
28	e14	e13	e14	18	26	243	e242	e189	26	16	46	12
29	e14	e13	14	18	---	212	e240	e169	25	18	46	9.2
30	e15	e14	15	19	---	176	e237	e153	25	18	35	9.7
31	e19	---	15	19	---	161	---	e145	---	19	27	---
TOTAL	458	497	460	548	605	3702	7196	6676	2069	557	681	468.9
MEAN	14.8	16.6	14.8	17.7	21.6	119	240	215	69.0	18.0	22.0	15.6
MAX	19	26	26	21	27	357	354	255	138	23	46	32
MIN	14	12	10	14	18	25	160	145	25	11	11	9.2
AC-FT	908	986	912	1090	1200	7340	14270	13240	4100	1100	1350	930

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1993, BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	19.6	19.7	16.7	15.5	18.3	58.4	203	218	58.9	21.2	23.1	19.8
MAX	57.6	56.8	31.8	27.0	33.5	119	421	471	174	31.4	40.6	47.8
(WY)	1987	1987	1987	1992	1992	1993	1992	1985	1983	1983	1988	1988
MIN	10.5	8.11	7.54	7.79	7.66	22.0	77.4	25.9	12.9	10.0	13.6	8.81
(WY)	1988	1990	1990	1990	1990	1990	1990	1989	1989	1989	1990	1989

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1982 - 1993

ANNUAL TOTAL	31091	23917.9	
ANNUAL MEAN	84.9	65.5	57.7
HIGHEST ANNUAL MEAN			101
LOWEST ANNUAL MEAN			23.5
HIGHEST DAILY MEAN	950	357	950
LOWEST DAILY MEAN	10	9.2	4.0
ANNUAL SEVEN-DAY MINIMUM	12	12	5.5
INSTANTANEOUS PEAK FLOW		538	b3190
INSTANTANEOUS PEAK STAGE		5.72	a8.40
INSTANTANEOUS LOW FLOW		9.2	2.8
ANNUAL RUNOFF (AC-FT)	61670	47440	41830
10 PERCENT EXCEEDS	284	230	156
50 PERCENT EXCEEDS	25	19	20
90 PERCENT EXCEEDS	14	14	10

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.

## RTO GRANDE BASTIN

08324000 JEMEZ RIVER NEAR JEMEZ. NM

LOCATION.--Lat 35°39'42", long 106°44'34", Sandoval County, Hydrologic Unit 13020202, in Canon de San Diego Grant, on left bank 0.7 mi downstream from Rio Guadalupe, 3.5 mi north of Jemez, and at mile 29.5.

DRAINAGE AREA.--470 mi<sup>2</sup>.

## 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.

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 poor. 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  
 game was destroyed (discharge probably exceeded 6,000 ft<sup>3</sup>/s), from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	53	28	41	43	54	341	479	229	42	34	54
2	26	45	30	43	41	49	383	432	214	39	34	47
3	25	38	32	49	37	48	422	382	197	38	33	42
4	26	33	32	30	41	50	422	370	164	35	27	39
5	30	29	26	39	36	50	509	368	150	36	24	37
6	27	32	27	43	39	53	567	344	148	34	20	36
7	27	33	27	45	40	58	449	333	142	30	22	37
8	23	34	31	66	44	67	391	315	139	27	23	38
9	25	34	33	49	47	82	374	290	136	27	24	36
10	27	33	33	45	47	98	482	275	128	29	40	35
11	27	41	32	45	43	102	776	286	118	32	46	32
12	28	34	34	34	41	100	945	313	111	34	34	32
13	26	35	30	32	40	90	732	329	107	37	19	40
14	26	35	29	44	47	89	593	352	105	32	19	55
15	27	36	31	41	48	90	480	375	101	32	28	48
16	27	36	33	38	43	100	481	407	102	29	27	36
17	27	39	28	45	39	127	463	424	99	26	25	30
18	25	33	37	42	35	153	535	407	105	19	27	33
19	22	32	34	54	46	191	501	404	86	18	27	32
20	22	37	26	43	50	226	438	397	81	21	40	29
21	24	33	40	37	46	254	436	382	85	21	67	28
22	24	27	33	41	43	295	468	403	76	18	68	26
23	24	33	32	42	43	321	518	350	66	17	52	27
24	26	25	32	29	45	345	505	322	59	15	38	25
25	29	27	34	37	46	382	444	305	57	13	35	25
26	28	28	31	39	44	430	444	385	50	13	41	26
27	29	27	32	40	43	516	474	353	48	13	64	28
28	31	27	34	38	50	429	492	312	45	115	87	28
29	33	31	39	39	---	425	501	270	45	38	89	26
30	34	28	42	41	---	366	498	250	44	35	72	23
31	42	---	42	40	---	339	---	231	---	34	62	---
TOTAL	843	1008	1004	1291	1207	5979	15064	10845	3237	949	1248	1030
MEAN	27.2	33.6	32.4	41.6	43.1	193	502	350	108	30.6	40.3	34.3
MAX	42	53	42	66	50	516	945	479	229	115	89	55
MIN	22	25	26	29	35	48	341	231	44	13	19	23
AC-FT	1670	2000	1990	2560	2390	11860	29880	21510	6420	1880	2480	2040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1993, BY WATER YEAR (WY)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1990, BY WATER YEAR (WY)												
MEAN	36.3	38.1	28.9	28.3	35.3	85.2	282	244	66.8	33.0	46.6	35.0
MAX	109	128	58.2	49.6	72.3	221	961	1118	274	78.5	121	95.8
(WY)	1987	1987	1987	1992	1986	1985	1958	1973	1979	1986	1957	1991
MIN	14.5	18.4	17.0	16.6	19.9	31.6	43.3	22.5	11.9	14.5	15.8	11.1
(WY)	1957	1957	1957	1977	1955	1981	1955	1967	1955	1972	1956	1956

## SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

## WATER YEARS 1954 - 1993

ANNUAL TOTAL	47164		43705				
ANNUAL MEAN	129		120			80.0	
HIGHEST ANNUAL MEAN						189	1973
LOWEST ANNUAL MEAN						29.3	1977
HIGHEST DAILY MEAN	1050	Apr 14	945	Apr 12	3160		Apr 21 1958
LOWEST DAILY MEAN	22	Sep 13	13	Jul 25		2.1	Jul 25 1981
ANNUAL SEVEN-DAY MINIMUM	24	Oct 18	16	Jul 21		6.0	Jul 23 1981
INSTANTANEOUS PEAK FLOW			3600	Jul 28	a5900		Apr 21 1958
INSTANTANEOUS PEAK STAGE			9.40	Jul 28		b10.10	Jul 15 1985
INSTANTANEOUS LOW FLOW						1.2	Jul 25 1981
ANNUAL RUNOFF (AC-FT)	93550		86690		57940		
10 PERCENT EXCEEDS	386		403			173	
50 PERCENT EXCEEDS	45		41			34	
90 PERCENT EXCEEDS	27		26			18	

e 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 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (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)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
NOV												
06...	1130	29	553	8.4	--	6.5	626	10.2	101	--	--	--
06...	1131	29	553	8.4	--	6.5	626	10.5	104	--	--	--
06...	1132	29	553	8.4	--	6.5	626	10.5	104	--	--	--
06...	1133	29	553	8.4	--	6.5	626	10.5	104	--	--	--
06...	1133	29	553	8.4	--	6.5	626	10.5	104	--	--	--
DEC												
23...	1215	34	510	7.8	9.0	1.0	635	12.2	103	<10	140	48
JAN												
08...	1345	84	410	8.2	10.0	3.5	625	9.8	90	--	--	--
APR												
21...	1300	442	E200	8.0	24.0	8.5	615	11.6	--	--	79	27
AUG												
23...	1230	49	400	8.3	30.5	18.0	700	9.8	113	--	120	41
SEP												
01...	1200	55	510	8.1	30.5	20.0	700	10.6	127	19	120	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)
NOV											
06...	--	--	--	--	207	0	170	--	--	--	--
06...	--	--	--	--	207	0	170	--	--	--	--
06...	--	--	--	--	207	0	170	--	--	--	--
06...	--	--	--	--	207	0	170	--	--	--	--
06...	--	--	--	--	207	0	170	--	--	--	--
DEC											
23...	5.3	58	2	9.1	--	--	--	181	12	70	0.90
JAN											
08...	--	--	--	--	--	--	--	--	--	--	--
APR											
21...	2.9	9.6	0.5	2.4	--	--	--	84	7.1	7.4	0.20
AUG											
23...	4.6	36	1	5.7	--	--	--	144	8.9	39	0.60
SEP											
01...	4.5	39	2	6.6	--	--	--	144	12	47	0.70

DATE	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 TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
DEC											
23...	36	349	0.049	0.030	0.020	0.059	0.069	0.030	0.010	<0.20	0.020
JAN											
08...	--	--	--	--	--	--	--	--	--	--	--
APR											
21...	21	128	--	--	--	--	--	--	--	--	--
AUG											
23...	30	253	--	--	--	--	--	--	--	--	--
SEP											
01...	33	270	--	--	<0.010	--	<0.050	--	0.030	<0.20	0.020

## RIO GRANDE BASIN

08324000 JEMEZ RIVER NEAR JEMEZ, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
DEC 23...	0.010	0.010	2.1	53	54	610	<1	<1.0	6	<1	2
JAN 08...	--	--	--	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	70	--	--	--	--	--
AUG 23...	--	--	--	--	--	370	--	--	--	--	--
SEP 01...	--	0.010	4.7	--	--	380	--	--	--	--	--

DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)
DEC 23...	<1	32	<1	<1	<0.10	<0.1	<1	<1	10	7	11
JAN 08...	--	--	--	--	--	--	--	--	--	--	--
APR 21...	--	210	--	--	--	--	--	--	--	--	--
AUG 23...	--	22	--	--	--	--	--	--	--	--	--
SEP 01...	--	71	--	--	--	--	--	--	--	--	--

DATE	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO, 2 SIGMA WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, DIS- SOLVED AS (PCI/L) CS-137 (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED AS (PCI/L) YT-90 (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L) (75988)	GROSS BETA, SUSP. TOTAL (PCI/L) CS-137 (03516)
DEC 23...	4.7	8.5	3.6	<0.6	<0.6	0.36	12	2.1	9.2	1.6	0.7

DATE	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP. TOT DRY CS-137 (PCI/L) (76005)	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- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER 0.62 MM (70331)	BED MAT. SIEVE DIAM. % FINER THAN 0.62 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN 0.125 MM (80165)
NOV 06...	--	--	--	--	--	--	--	--	--	37	100
DEC 23...	0.6	0.59	3.0	0.480	1.7	<1.0	11	1.0	62	--	--
AUG 23...	--	--	--	--	--	--	67	8.9	50	--	--

## RIO GRANDE BASIN

08324000 JEMEZ RIVER NEAR JEMEZ, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
NOV										
06...	1130	20	3	<10	0.1	80	54	13	18	43
06...	1131	12	2	<10	0.2	76	50	12	18	41
06...	1132	25	3	<10	0.2	84	55	13	18	46
06...	1133	21	3	<10	0.2	72	51	13	19	40

DATE	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)
NOV										
06...	15	<8	<4	3.0	18	50	1.3	840	0.03	<2
06...	14	<8	<4	2.7	20	50	1.2	580	0.04	<2
06...	16	<8	<4	3.0	18	50	1.3	1000	0.04	<2
06...	15	<8	<4	2.9	18	60	1.3	840	<0.02	<2

DATE	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)
NOV										
06...	38	24	15	0.07	1.6	10	0.4	<0.1	0.88	150
06...	36	20	15	0.06	1.6	9	0.2	<0.1	1.0	160
06...	40	23	15	0.07	1.6	10	0.4	0.1	0.86	160
06...	38	22	14	0.06	1.6	10	0.3	<0.1	0.88	150

DATE	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
NOV									
06...	0.05	<40	15	<10	4	61	25	3	84
06...	<0.05	<40	14	<10	4	59	26	3	75
06...	0.05	<40	13	<10	4	62	28	3	82
06...	0.05	<40	10	<10	4	61	24	3	87

## RIO GRANDE BASIN

08328500 JEMEZ CANYON RESERVOIR NEAR BERNALILLO, NM

LOCATION.--Lat 35°23'40", long 106°32'50", in SW¼SW¼ sec.32, T.14 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, at corner of outlet works control tower of Jemez Canyon Dam on Jemez River, 2.8 mi 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, 33,300 acre-ft, June 1, elevation, 5,200.82 ft; minimum contents, 20,870 acre-ft, Apr. 26, elevation, 5,191.66 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 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23640	23170	22900	22840	22940	22980	22040	22660	33300	25380	23340	23770
2	23600	23180	22860	22880	22810	22850	22280	23110	33300	25260	23300	23270
3	23560	23080	22790	22930	22740	22600	22560	23440	33230	25210	23260	23070
4	23530	23040	22790	22900	22690	22520	22940	24080	33160	25110	23220	23040
5	23490	23010	22790	22720	22720	22520	23040	24710	33000	25030	23160	23030
6	23460	22970	22750	22690	22740	22520	22740	25330	32900	24970	23160	22990
7	23360	22970	22790	22740	22780	22560	22420	25840	32630	24900	23150	22950
8	23360	22950	22860	23110	22750	22500	21700	26130	32500	24850	23110	22940
9	23340	22970	22950	23090	22710	22450	21120	26340	32280	24740	23070	22900
10	23330	22990	22990	23060	22640	22450	20900	26470	32070	24690	23030	22840
11	23310	23110	22950	23060	22600	22520	21210	26580	31870	24660	23010	22790
12	23290	23070	22990	22890	22600	22480	21990	26730	31610	24630	22970	22750
13	23250	22990	22990	22840	22620	22410	22250	27000	31360	24570	22890	22780
14	23250	23030	22970	22800	22740	22310	22110	27330	30780	24500	22940	22780
15	23250	23070	22930	22800	22860	22300	21750	27790	29940	24410	22970	22740
16	23240	23070	22810	22850	22890	22370	21420	28270	29080	24300	22920	22620
17	23210	22920	22670	22920	22650	22480	21140	28820	28220	24180	22920	22590
18	23210	22880	22710	23040	22510	22500	20960	29330	27650	24040	22920	22510
19	23220	22890	22790	23250	22590	22450	20930	29830	27260	23960	22890	22470
20	23220	23030	22780	23090	22720	22450	20990	30330	26880	24040	22880	22470
21	23180	23170	22790	22900	22760	22520	21030	30790	26320	24000	22920	22430
22	23150	23250	22830	22850	22860	22790	21180	31250	25810	23960	22950	22410
23	23120	23180	22830	22880	22860	23220	21300	31590	25680	23910	22990	22400
24	23110	22930	22840	22900	22830	22890	21250	31880	25640	23840	23030	22330
25	23150	22780	22880	22880	22760	22520	21120	32070	25640	23790	22980	22280
26	23180	22740	22920	22830	22720	22430	20870	32270	25600	23730	23040	22250
27	23120	22780	22970	22720	22740	22760	20910	32660	25600	23690	23340	22210
28	23040	22810	23090	22700	22860	23070	21150	32920	25540	23600	23660	22180
29	23080	22850	23030	22750	---	22990	21580	33100	25490	23690	23940	22140
30	23090	22890	22880	22840	---	22520	22130	33230	25410	23650	24050	22120
31	23170	---	22830	22900	---	22080	---	33260	---	23510	24070	---
MAX	23640	23250	23090	23250	22940	23220	23040	33260	33300	25380	24070	23770
MIN	23040	22740	22670	22690	22510	22080	20870	22660	25410	23510	22880	22120
(†)	5193.50	5193.28	5193.23	5193.29	5193.26	5196.64	5192.68	5200.79	5195.20	5193.76	5194.19	5192.67
(††)	-480	-280	-60	+70	-40	-780	+50	+11130	-7850	-1900	+540	-1950
CAL YR 1992	MAX 45540	MIN 22670	(†)	-3310								
WTR YR 1993	MAX 33300	MIN 20870	(†)	-1550								

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

(††) CHANGE IN CONTENTS, IN ACRE-FEET.

## RIO GRANDE BASIN

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM

LOCATION.--Lat 35°23'24", long 106°32'03", in NE¼ sec.5, T.13 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, on right bank 0.8 mi downstream from Jemez Canyon Dam, 2.0 mi upstream from mouth, and 6 mi north of Bernalillo.

DRAINAGE AREA.--1,038 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1936 to January 1938, March 1943 to current year. Published as "Jemez Creek" prior to 1948, and as "near Bernalillo" prior to 1954.

REVISED RECORDS.--WSP 1178: 1949. WSP 1212: 1950. WSP 1512: 1936, 1943, 1945, 1947-48, 1949(M), 1950. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,095.60 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Apr. 24, 1951, at site 0.8 mi upstream at datum 24.51 ft higher. Apr. 24, 1951, to June 25, 1958, at site 37 ft upstream at datum 4.40 ft above present datum. Supplementary water-stage recorder at gages on Jemez Canyon Dam at datum 5,125.00 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark) used at times since January 1953.

REMARKS.--Records good except for estimated daily discharges, which are fair. Subsequent to October 1953, flow at this station can be completely regulated by Jemez Canyon Reservoir (station 08328500). However, reservoir is designed essentially for desilting and flood control rather than storage. Diversions for irrigation of about 3,000 acres upstream from station. U.S. Army Corps of Engineers satellite telemeter at station. No flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in 1900 was probably less than 16,000 ft<sup>3</sup>/s, but highest observed outside period of record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	3.8	19	27	42	55	336	251	170	27	66	213
2	3.5	31	36	27	93	150	258	252	170	20	32	272
3	3.3	71	64	26	93	164	254	212	170	15	9.0	117
4	3.3	58	46	65	64	75	254	98	172	16	8.6	12
5	3.5	40	18	92	26	44	442	54	174	16	9.1	10
6	3.5	30	17	53	26	43	654	54	174	17	6.0	9.8
7	3.5	21	9.7	26	25	43	651	101	174	16	2.3	9.1
8	3.6	20	1.9	43	56	73	767	170	175	17	2.1	9.1
9	3.3	20	12	43	84	91	604	170	176	17	2.8	8.2
10	3.5	20	46	43	84	74	502	172	178	17	5.7	8.1
11	3.2	20	53	103	67	74	499	172	177	17	5.6	7.8
12	3.2	60	33	126	36	100	545	173	179	14	1.3	7.6
13	3.4	63	32	74	27	127	670	172	181	13	1.1	11
14	3.2	5.8	30	74	27	127	703	170	297	34	.96	19
15	3.3	5.8	50	50	26	81	703	171	457	42	.95	42
16	3.3	53	81	17	51	52	627	172	455	39	1.2	64
17	3.2	102	64	18	151	71	582	169	455	40	1.2	36
18	3.4	50	23	18	97	122	581	170	318	38	1.3	14
19	3.5	7.2	3.6	67	6.3	180	486	171	230	21	1.1	13
20	3.0	6.6	2.7	157	5.1	197	412	172	234	19	1.1	9.6
21	17	4.1	1.8	158	2.9	195	382	172	300	5.2	.95	6.0
22	24	2.7	12	59	1.8	144	360	172	268	4.9	.90	5.9
23	16	60	17	24	37	116	433	172	93	5.6	.69	5.8
24	5.2	148	13	24	68	438	506	172	35	5.8	.24	5.4
25	4.3	94	10	63	67	507	506	173	6.6	5.8	.13	4.7
26	11	24	10	95	50	412	506	173	7.4	5.9	4.0	4.1
27	41	12	8.8	96	29	327	416	171	7.3	6.0	2.0	4.2
28	45	1.4	24	49	29	326	345	172	28	6.4	1.5	3.7
29	8.9	1.0	95	9.1	---	490	298	172	e35	6.9	1.4	3.0
30	7.1	.90	150	7.2	---	593	251	172	e38	29	1.3	2.8
31	4.4	---	61	6.2	---	521	---	172	---	66	2.5	---
TOTAL	251.1	1036.30	1044.5	1739.5	1371.1	6012	14533	5139	5534.3	602.5	175.02	937.9
MEAN	8.10	34.5	33.7	56.1	49.0	194	484	166	184	19.4	5.65	31.3
MAX	45	148	150	158	151	593	767	252	457	66	66	272
MIN	3.0	.90	1.8	6.2	1.8	43	251	54	6.6	4.9	.13	2.8
AC-FT	498	2060	2070	3450	2720	11920	28830	10190	10980	1200	347	1860

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1993, BY WATER YEAR (WY)

	MEAN	23.4	25.9	20.6	23.1	28.2	55.8	183	185	72.0	19.3	44.4	20.0
MAX	178	179	68.7	56.1	56.7	194	577	968	988	137	247	157	
(WY)	1958	1958	1992	1993	1963	1993	1945	1973	1958	1958	1991	1988	
MIN	.000	2.47	2.15	3.13	12.2	13.7	5.63	.000	.000	.000	.13	.000	
(WY)	1956	1989	1977	1951	1967	1981	1951	1972	1946	1947	1950	1945	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1943 - 1993

ANNUAL TOTAL	41424.41	38376.22	
ANNUAL MEAN	113	105	58.9
HIGHEST ANNUAL MEAN			178
LOWEST ANNUAL MEAN			10.6
HIGHEST DAILY MEAN	1340	May 8	3640
LOWEST DAILY MEAN	.00	Jul 9	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 9	.00
INSTANTANEOUS PEAK FLOW			b16300
INSTANTANEOUS PEAK STAGE			a5.62
ANNUAL RUNOFF (AC-FT)	82170	76120	42670
10 PERCENT EXCEEDS	310	321	137
50 PERCENT EXCEEDS	41	38	17
90 PERCENT EXCEEDS	2.5	3.2	.00

e Estimated

a--Site and datum then in use.

b--From rating curve extended above 3,000 ft<sup>3</sup>/s.

## 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 mi².

PERIOD OF RECORD.--April 1982 to current year (no winter 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.--Records good. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/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, 375 ft³/s, at 0215 hours Aug. 2, gage height, 2.28 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
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	12	.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	6.8
7	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	1.4
8	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	---	---	---	---	---	.00	.00	.00	.00	.00	1.2
13	.00	---	---	---	---	---	.00	.00	.00	.00	9.6	.00
14	.00	---	---	---	---	---	.00	.00	.00	5.8	3.5	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
20	.00	---	---	---	---	---	.00	.00	.00	1.0	.39	.00
21	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
22	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
23	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
24	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
25	3.4	---	---	---	---	---	.00	.00	.00	.00	.00	.00
26	.00	---	---	---	---	.00	.00	.00	.00	.00	1.4	.00
27	.00	---	---	---	---	.00	.00	.00	.00	.00	14	.00
28	9.8	---	---	---	---	.00	.00	.00	.00	.59	.61	.00
29	1.3	---	---	---	---	1.8	.00	.00	.00	.00	15	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.00	3.3	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	14.50	---	---	---	---	---	0.00	0.00	0.00	7.39	59.80	9.40
MEAN	.47	---	---	---	---	---	.000	.000	.000	.24	1.93	.31
MAX	9.8	---	---	---	---	---	.00	.00	.00	5.8	15	6.8
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.29	---	---	---	---	---	.00	.00	.00	.15	.119	.19
(†)	0.54					0.19	0.00	0.10	0.22	0.43	2.11	0.51

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329700 CAMPUS WASH AT ALBUQUERQUE, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1991 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, KF AGAR (COLS. PER 100 ML) (31673)
DEC 16...	1635	1.0	1760	7.8	2.5	3.5	636	--	--	--
APR 29...	0930	0.08	797	9.9	19.0	12.0	632	55	120	440
MAY 26...	0930	0.47	988	9.0	23.0	20.0	631	<10	130	880

DATE	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)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RINE, TOTAL RESI-DUAL (MG/L) (50060)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)
DEC 16...	190	68	5.3	230	7	10	--	77	--	400
APR 29...	260	84	12	64	2	8.5	135	170	<0.02	69
MAY 26...	390	120	21	58	1	12	218	200	<0.02	81

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)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	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)
DEC 16...	0.30	10	--	802	--	--	--	--	--
APR 29...	--	--	589	488	8	--	<0.010	<0.050	0.020
MAY 26...	--	--	746	632	10	2.08	0.020	2.10	0.040

DATE	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)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	OIL AND GREASE, TOTAL RECOV. GRAVI-METRIC (MG/L) (00556)	IRON, DIS-SOLVED (UG/L AS Fe) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS Mn) (01056)
DEC 16...	--	--	--	23	--	--	--	49	37
APR 29...	1.2	0.530	0.340	14	<0.010	1	<1	--	--
MAY 26...	0.30	0.430	0.420	3.2	<0.010	2	<1	--	--

## RIO GRANDE BASIN

08329700 CAMPUS WASH AT ALBUQUERQUE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	ARSENIC TOTAL (UG/L) AS AS) (01002)	BARIUM, TOTAL RECOV- ERABLE (UG/L) AS BA) (01007)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L) AS BE) (01012)	CADMIUM TOTAL RECOV- ERABLE (UG/L) AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L) AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L) AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L) AS FE) (01045)
DEC 16...	1635	2	300	--	1	<1	19	3400
APR 29...	0930	11	--	<10	<1	<1	6	--
MAY 26...	0930	11	--	<10	<1	2	2	--

DATE	TIME	LEAD, TOTAL RECOV- ERABLE (UG/L) AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L) AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L) AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L) AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L) AS SE) (01147)	SILVER, TOTAL RECOV- ERABLE (UG/L) AS AG) (01077)	THAL- LIUM, TOTAL RECOV- ERABLE (UG/L) AS TL) (01059)	ZINC, TOTAL RECOV- ERABLE (UG/L) AS ZN) (01092)
DEC 16...	36	210	<0.10	--	--	--	--	--	290
APR 29...	16	--	<0.10	7	<2	<1	<20	20	
MAY 26...	1	--	<0.10	1	3	<1	<20	<10	

DATE	TIME	DI-BROMO- METHANE WATER WHOLE RECOVER (UG/L) (30217)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L) (32101)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	PHENOLS TOTAL (UG/L) (32730)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	ACE- NAPHTH- YLENE TOTAL (UG/L) (34200)
APR 29...	0930	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1	<0.2	<0.2	<5.0
MAY 26...	0930	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	2	<0.2	<0.2	<5.0

DATE	ACE- NAPHTH- ENE TOTAL (UG/L) (34205)	ACRO- LEIN TOTAL (UG/L) (34210)	ACRYLO- NITRILE TOTAL (UG/L) (34215)	ANTHRA- CENE TOTAL (UG/L) (34220)	BENZO B FLUOR- AN- THENE TOTAL (UG/L) (34230)	BENZO K FLUOR- AN- THENE TOTAL (UG/L) (34242)	BENZO A- PYRENE TOTAL (UG/L) (34247)	DELTA BENZENE BEMA- CHLOR- IDE TOTAL (UG/L) (34259)	BIS 2- CHLORO- ETHYL ETHER TOTAL (UG/L) (34273)	BIS (2- CHLORO- ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS (2- CHLORO- ISOPROPYL) ETHER TOTAL (UG/L) (34283)	N-BUTYL BENZYL PHTHAL- ATE TOTAL (UG/L) (34292)
APR 29...	<5.0	<20	<20	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0	<5.0
MAY 26...	<5.0	<20	<20	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0	<5.0

DATE	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	CHRY- SENE TOTAL (UG/L) (34320)	DIETHYL PHTHAL- ATE TOTAL (UG/L) (34336)	DI- METHYL PHTHAL- ATE TOTAL (UG/L) (34341)	ENDO- SULFAN SULFATE TOTAL (UG/L) (34351)	ENDO- SULFAN BETA TOTAL (UG/L) (34356)	ENDO- SULFAN- I WATER WHOLE REC (UG/L) (34361)	ENDRIN ALDE- HYDE TOTAL (UG/L) (34366)	ETHYL- BENZENE TOTAL (UG/L) (34371)	FLUOR- ANTHENE TOTAL (UG/L) (34376)	FLUOR- ENE TOTAL (UG/L) (34381)
APR 29...	<0.20	<0.2	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	<0.2	<5.0	<5.0
MAY 26...	<0.20	<0.2	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	<0.2	<5.0	<5.0



## RIO GRANDE BASIN

08329700 CAMPUS WASH AT ALBUQUERQUE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	HEXA- CHLORO- CYCLO- PENT- ADIENE TOTAL (UG/L) (34386)	HEXA- CHLORO- ETHANE TOTAL (UG/L) (34396)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L) (34403)	ISO- PHORONE TOTAL (UG/L) (34408)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE- CHLO- RIDE TOTAL (UG/L) (34423)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L) (34428)	N-NITRO -SODI- PHENY- LAMINE TOTAL (UG/L) (34433)	N-NITRO -SODI- METHY- LAMINE TOTAL (UG/L) (34438)	NITRO- BENZENE TOTAL (UG/L) (34447)	PARA- CHLORO- META CRESOL TOTAL (UG/L) (34452)
APR 29...	<5.0	<5.0	<10.0	<5.0	<0.2	<0.2	<0.2	<5.0	<5.0	<5.0	<5.0	<30.0
MAY 26...	<5.0	<5.0	<10.0	<5.0	<0.2	<0.2	<0.2	<5.0	<5.0	<5.0	<5.0	<30.0
DATE	PHENAN- THRENE TOTAL (UG/L) (34461)	PYRENE TOTAL (UG/L) (34469)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2- TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L) (34521)	BENZO A ANTHRAC ENE1,2- BENZANT HRACENE TOTAL (UG/L) (34526)	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)
APR 29...	<5.0	<5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<10.0	<10.0	<5.0
MAY 26...	<5.0	<5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<10.0	<10.0	<5.0
DATE	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANS DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	1,2,5,6- DIBENZ- -ANTHRA- -CENE TOTAL (UG/L) (34556)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L) (34576)	2- CHLORO- NAPH- THALENE TOTAL (UG/L) (34581)	2- CHLORO- PHENOL TOTAL (UG/L) (34586)	2- NITRO- PHENOL TOTAL (UG/L) (34591)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L) (34596)	2,4-DI- CHLORO- PHENOL TOTAL (UG/L) (34601)
APR 29...	<0.2	<0.2	<5.0	<10.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<10.0	<5.0
MAY 26...	<0.2	<0.2	<5.0	<10.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<10.0	<5.0
DATE	2,4-DI- METHYL- PHENOL TOTAL (UG/L) (34606)	2,4-DI- NITRO- TOLUENE TOTAL (UG/L) (34611)	2,4,6- DI- NITRO- PHENOL TOTAL (UG/L) (34616)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L) (34621)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L) (34626)	3,3'- DI- CHLORO- BENZI- DINE TOTAL (UG/L) (34631)	4- BROMO- PHENYL PHENYL ETHER TOTAL (UG/L) (34636)	4- CHLORO- PHENYL PHENYL ETHER TOTAL (UG/L) (34641)	4- NITRO- PHENOL TOTAL (UG/L) (34646)	4,6- DINITRO -ORTHO- CRESOL TOTAL (UG/L) (34657)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	AROCLOR 1016 PCB TOTAL (UG/L) (34671)
APR 29...	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	<0.2	<0.1
MAY 26...	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	<0.2	<0.1
DATE	PHENOL (C6H- 5OH) TOTAL (UG/L) (34694)	NAPHTH- ALENE TOTAL (UG/L) (34696)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	PENTA- CHLORO- PHENOL TOTAL (UG/L) (39032)	CHLOR- DANE CIS WATER WHOLE TOTAL (UG/L) (39062)	CHLOR- DANE TRANS WATER WHOLE TOTAL (UG/L) (39065)	BIS(2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L) (39100)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L) (39110)	BENZI- DINE TOTAL (UG/L) (39120)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)
APR 29...	<5.0	<5.0	<0.2	<0.2	<30.0	<0.10	<0.10	<5.0	<5.0	<40.0	<0.2	<0.2
MAY 26...	<5.0	<5.0	<0.2	<0.2	<30.0	<0.10	<0.10	<5.0	<5.0	<40.0	<0.2	<0.2

## RIO GRANDE BASIN

08329700 CAMPUS WASH AT ALBUQUERQUE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	P,P' DDT, TOTAL (UG/L) (39300)	P,P' DDD, TOTAL (UG/L) (39310)	P,P' DDE, TOTAL (UG/L) (39320)	ALDRIN, TOTAL (UG/L) (39330)	ALPHA BHC TOTAL (UG/L) (39337)	BETA BENZENE HEXA- CHLOR- IDE TOTAL (UG/L) (39338)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TOTAL (UG/L) (39350)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	TOX- APHENE, TOTAL (UG/L) (39400)	HEPTA- CHLOR, TOTAL (UG/L) (39410)
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APR 29...	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	<0.1	<0.020	<0.060	<2	<0.030
MAY 26...	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	<0.1	<0.020	<0.060	<2	<0.030

DATE	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	AROCLOR 1231 PCB TOTAL (UG/L) (39488)	AROCLOR 1232 PCB TOTAL (UG/L) (39492)	AROCLOR 1242 PCB TOTAL (UG/L) (39496)	AROCLOR 1248 PCB TOTAL (UG/L) (39500)	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1260 PCB TOTAL (UG/L) (39508)	HEXA- CHLORO- BENZENE TOTAL (UG/L) (39700)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	CIS-1,2 -DI- CHLORO- ETHENE WATER TOTAL (UG/L) (77093)	STYRENE TOTAL (UG/L) (77128)
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APR 29...	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<5.0	<0.2	<0.2
MAY 26...	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<5.0	<0.2	<0.2

DATE	1,1-DI CHLORO- PRO- PENE, WAT, WH TOTAL (UG/L) (77168)	2,2-DI CHLORO- PRO- PANE WAT, WH TOTAL (UG/L) (77170)	1,3-DI- CHLORO- PROPANE WAT, WH TOTAL (UG/L) (77173)	PSEUDO- CUMENE WATER UNFLTRD REC (UG/L) (77222)	ISO- PROPYL- BENZENE WATER WHOLE REC (UG/L) (77223)	BENZENE N-PROPY WATER UNFLTRD REC (UG/L) (77224)	MESIT- YLENE WATER UNFLTRD REC (UG/L) (77226)	O- CHLORO- TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	METHANE BROMO CHLORO- WAT UNFLTRD REC (UG/L) (77297)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)
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APR 29...	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20
MAY 26...	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20

DATE	BENZENE SEC BUTYL- WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT- BUTYL- WATER UNFLTRD REC (UG/L) (77353)	P-ISO- PROPYL- TOLUENE WATER WHOLE REC (UG/L) (77356)	123-TRI CHLORO- PROPANE WATER WHOLE TOTAL (UG/L) (77443)	ETHANE, 1112- TETRA- CHLORO- WAT UNE REC (UG/L) (77562)	1,2,3- TRI- CHLORO- BENZENE WAT, WH REC (UG/L) (77613)	1,2- DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	XYLENE WATER UNFLTRD REC (UG/L) (81551)	BROMO- BENZENE WATER, WHOLE TOTAL (UG/L) (81555)	DIBROMO CHLORO- PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	1,2-DI- PHENYL- HYDRA- ZINE WATER TOT.REC (UG/L) (82626)
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APR 29...	<0.20	<0.20	<0.20	<0.2	<0.2	<0.20	<0.2	<0.20	<0.2	<1.0	<5.0
MAY 26...	<0.20	<0.20	<0.20	<0.2	<0.2	<0.20	<0.2	<0.20	<0.2	<1.0	<5.0

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	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)
DEC 16...	1635	1.0	1760	3.5	259	0.70
MAY 26...	0930	0.47	988	20.0	24	0.03

## 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 right 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 (no winter 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, 78 ft<sup>3</sup>/s, at 1555 hours June 8, gage height, 1.70 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.06	---	---	---	---	.20	1.3	.76	.08	1.8	.04
2	.14	.06	---	---	---	---	.19	.13	.06	.11	.14	.05
3	.13	.12	---	---	---	---	.27	.09	.10	.07	.17	.06
4	.14	.01	---	---	---	---	.29	.07	.20	.10	.09	.06
5	.07	.01	---	---	---	---	.28	.08	.86	.05	.14	.06
6	.03	.01	---	---	---	---	.27	.11	1.1	.04	.16	.11
7	.05	.02	---	---	---	---	.27	.11	1.5	.03	.13	.11
8	.11	.01	---	---	---	---	.19	.14	25	.02	.14	.09
9	.08	.01	---	---	---	---	.27	.20	69	.02	.16	.10
10	.08	---	---	---	---	---	.31	.13	19	.05	.17	.10
11	.08	---	---	---	---	---	.40	.13	.33	.39	.13	.10
12	.13	---	---	---	---	---	.40	.15	.34	.73	.16	.18
13	.14	---	---	---	---	---	.33	.15	.19	.00	1.3	.44
14	.05	---	---	---	---	---	.23	.15	.23	.00	.37	.08
15	.03	---	---	---	---	---	.22	.16	.14	.00	.06	.06
16	.04	---	---	---	---	---	.26	.22	.09	.00	.07	.08
17	.06	---	---	---	---	---	.30	.24	.30	.00	.07	.07
18	.13	---	---	---	---	---	.36	.38	.50	.00	.07	.07
19	.04	---	---	---	---	---	.32	1.0	.52	.00	.24	.08
20	.04	---	---	---	---	---	.26	.92	.26	1.0	1.2	.07
21	.05	---	---	---	---	---	.15	.39	.40	.00	.06	.22
22	.43	---	---	---	---	---	.13	.24	.21	.02	.03	.32
23	.09	---	---	---	---	---	.14	.19	.13	.05	.03	.05
24	.06	---	---	---	---	.08	.18	.15	.23	.08	.04	.05
25	.49	---	---	---	---	.09	.20	.17	.25	.09	.04	.05
26	.08	---	---	---	---	.10	.24	.26	.34	.12	1.1	.08
27	.09	---	---	---	---	.25	.23	.17	.35	.12	.64	.16
28	1.1	---	---	---	---	.24	.26	.13	.40	1.1	.22	.06
29	.52	---	---	---	---	2.3	.27	.34	.33	.05	.10	.05
30	.11	---	---	---	---	.30	.19	.64	.09	.00	.17	.04
31	.28	---	---	---	---	.24	---	.89	---	.41	.05	---
TOTAL	5.01	---	---	---	---	---	7.61	9.43	123.21	4.73	9.25	3.09
MEAN	.16	---	---	---	---	---	.25	.30	4.11	.15	.30	.10
MAX	1.1	---	---	---	---	---	.40	1.3	.69	1.1	1.8	.44
MIN	.03	---	---	---	---	---	.13	.07	.06	.00	.03	.04
AC-FT	9.9	---	---	---	---	---	15	19	244	9.4	18	6.1

## 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 (no winter 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, at 2045 hours Aug. 1, 1993, gage height, 1.86 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18 ft<sup>3</sup>/s, at 2045 hours Aug. 1, gage height, 1.86 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	---	.04	.00	.00	.15	.00
2	.00	.00	---	---	---	---	---	.02	.00	.00	.00	.00
3	.00	.00	---	---	---	---	---	.00	.00	.00	.01	.00
4	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
5	.00	.00	---	---	---	---	---	.00	.00	.00	.01	.00
6	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.01
7	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
8	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
9	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
10	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
11	.00	.08	---	---	---	---	---	.00	.00	.01	.00	.00
12	.00	.00	---	---	---	---	---	.00	.00	.08	.00	.01
13	.00	.00	---	---	---	---	---	.00	.00	.00	.14	.05
14	.00	.00	---	---	---	---	---	.00	.00	.00	.04	.00
15	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
16	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
18	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
19	.00	.00	---	---	---	---	---	.00	.00	.00	.02	.00
20	.00	.06	---	---	---	---	.00	.00	.00	.08	.02	.00
21	.00	.07	---	---	---	---	.00	.00	.02	.04	.00	.01
22	.03	.01	---	---	---	---	.00	.00	.02	.02	.00	.00
23	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
25	.01	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
26	.00	---	---	---	---	.00	.00	.00	.00	.00	.11	.00
27	.00	---	---	---	---	---	.00	.00	.00	.00	.07	.00
28	.05	---	---	---	---	---	.00	.00	.00	.03	.04	.00
29	.02	---	---	---	---	---	.00	.00	.00	.04	.01	.00
30	.00	---	---	---	---	---	.00	.00	.00	.00	.03	.00
31	.01	---	---	---	---	---	---	.00	---	.02	.01	---
TOTAL	0.12	---	---	---	---	---	---	0.06	0.04	0.32	0.66	0.08
MEAN	.004	---	---	---	---	---	---	.002	.001	.010	.021	.003
MAX	.05	---	---	---	---	---	---	.04	.02	.08	.15	.05
MIN	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
AC-FT	.2	---	---	---	---	---	---	.1	.08	.6	1.3	.2

## 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 (no winter records).

GAGE.--Water-stage recorder and concrete-lined channel. Elevation of gage is 5,485 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

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, 46 ft<sup>3</sup>/s, at 1945 hours Aug. 1, 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	---	---	---	.00	.12	.00	.00	.39	.00
2	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.04	.00
4	.00	.00	.28	---	---	---	.00	.00	.00	.00	.02	.00
5	.00	.00	.01	---	---	---	.00	.00	.00	.00	.05	.00
6	.00	.00	1.2	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	.16	---	---	---	.00	.00	.00	.00	.00	---
8	.00	.00	.04	---	---	---	.00	.00	.05	.00	.00	---
9	.00	.00	.06	---	---	---	.00	.00	.00	.00	.00	---
10	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	---
11	.00	.23	---	---	---	---	.00	.00	.00	.07	.00	---
12	.00	.00	---	---	---	---	.00	.00	.00	.12	.00	---
13	.00	.00	---	---	---	---	.00	.00	.00	.00	.30	---
14	.00	.00	---	---	---	---	.00	.00	.00	.00	.13	---
15	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	---
16	.00	.00	---	---	---	---	.00	.00	.18	.00	.00	---
17	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	---
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	---
19	.00	.00	---	---	---	---	.00	.00	.00	.00	.04	---
20	.00	.31	---	---	---	---	.00	.00	.00	.21	.05	---
21	.00	.30	---	---	---	---	.00	.00	.05	.00	.00	---
22	.12	.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	.08	.00	---	---	---	.00	.00	.00	.00	.00	.00	---
26	.00	.00	---	---	---	.00	.00	.00	.00	.00	.23	---
27	.00	.00	---	---	---	.03	.00	.00	.00	.00	.22	---
28	.20	.00	---	---	---	.00	.00	.00	.00	.15	.10	---
29	.14	.00	---	---	---	.21	.00	.00	.00	.00	.07	---
30	.00	.00	---	---	---	.00	.00	.00	.00	.00	.09	---
31	.05	---	---	---	---	.00	---	.00	---	.11	.00	---
TOTAL	0.59	0.84	---	---	---	---	0.00	0.12	0.28	0.66	1.73	---
MEAN	.019	.028	---	---	---	---	.000	.004	.009	.021	.056	---
MAX	.20	.31	---	---	---	---	.00	.12	.18	.21	.39	---
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	---
AC-FT	1.2	1.7	---	---	---	---	.00	.2	.6	1.3	3.4	---
(†)	0.82	1.43	0.94	---	---	---	0.00	0.29	0.14	1.45	3.30	0.41

(†) 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 (no winter 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 good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40 ft<sup>3</sup>/s, July 20, 1993, gage height, 1.44 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40 ft<sup>3</sup>/s, at 0355 hours July 20, gage height, 2.80 ft; no flow most of the time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	---	---	---	.00	.01	.00	.00	---	.00
2	.00	.00	.00	---	---	---	.00	.00	.00	.00	---	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	---	.00
4	.00	.00	.03	---	---	---	.00	.00	.00	.00	---	.00
5	.00	.00	.00	---	---	---	.00	.00	.00	.00	---	.00
6	.00	.00	.05	---	---	---	.00	.00	.00	.00	---	.00
7	.00	.00	.01	---	---	---	.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	.05	---	---	---	---	.00	.00	.00	.01	---	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.05	---	.00
13	.00	.00	---	---	---	---	.00	.00	.00	.00	---	.02
14	.00	.00	---	---	---	---	.00	.00	.00	.00	---	.00
15	.00	.00	---	---	---	---	.00	.00	.00	.00	---	.00
16	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
20	.00	.04	---	---	---	---	.00	.00	.00	.06	.00	.00
21	.00	.05	---	---	---	---	.00	.00	.01	.00	.00	.00
22	.03	.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	.01	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	---	---	---	.00	.00	.00	.00	.00	.04	.00
27	.00	.00	---	---	---	.00	.00	.00	.00	.00	.02	.00
28	.04	.00	---	---	---	.00	.00	.00	.00	.00	.02	.00
29	.01	.00	---	---	---	.04	.00	.00	.00	---	.00	.00
30	.00	.00	---	---	---	.00	.00	.00	.00	---	.01	.00
31	.00	---	---	---	---	.00	---	.00	---	---	.00	---
TOTAL	0.09	0.14	---	---	---	---	0.00	0.01	0.01	---	---	0.02
MEAN	.003	.005	---	---	---	---	.000	.000	.000	---	---	.001
MAX	.04	.05	---	---	---	---	.00	.01	.01	---	---	.02
MIN	.00	.00	---	---	---	---	.00	.00	.00	---	---	.00
AC-FT	.2	.3	---	---	---	---	.00	.02	.02	---	---	.04

## 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 (no winter records).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,445 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, 9.5 ft<sup>3</sup>/s, at 1955 hours Aug. 1, gage height, 3.13 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	.00	.15	.00
2	---	---	---	---	---	---	---	---	.00	.00	.00	.00
3	---	---	---	---	---	---	---	---	.00	.00	.01	.00
4	---	---	---	---	---	---	---	---	.00	.00	.00	.00
5	---	---	---	---	---	---	---	---	.00	.00	.00	.00
6	---	---	---	---	---	---	---	---	.00	.00	.00	.01
7	---	---	---	---	---	---	---	---	.00	.00	.00	.00
8	---	---	---	---	---	---	---	---	.01	.00	.00	.00
9	---	---	---	---	---	---	---	---	.00	.00	.00	.00
10	---	---	---	---	---	---	---	---	.02	.00	.00	.00
11	---	---	---	---	---	---	---	.00	.00	.03	.00	.00
12	---	---	---	---	---	---	---	.00	.00	.07	.00	.00
13	---	---	---	---	---	---	---	.00	.00	.00	.16	.06
14	---	---	---	---	---	---	---	.00	---	.00	.03	.00
15	---	---	---	---	---	---	---	.01	---	.00	.00	.00
16	---	---	---	---	---	---	---	.00	---	.00	.00	.00
17	---	---	---	---	---	---	---	.00	---	.00	.00	.00
18	---	---	---	---	---	---	---	.00	---	.00	.00	.00
19	---	---	---	---	---	---	---	.00	---	.00	.00	.00
20	---	---	---	---	---	---	---	.00	---	.07	.00	.00
21	---	---	---	---	---	---	---	.00	---	.00	.00	.00
22	---	---	---	---	---	---	---	.00	---	.00	.00	.00
23	---	---	---	---	---	.00	---	.00	---	.00	.00	.00
24	---	---	---	---	---	.06	---	.00	---	.00	.00	.00
25	---	---	---	---	---	.00	---	.00	---	.00	.00	.00
26	---	---	---	---	---	.00	---	.00	---	.00	.09	.00
27	---	---	---	---	---	.08	---	.00	---	.00	.05	.00
28	---	---	---	---	---	.00	---	.00	---	.03	.05	.00
29	---	---	---	---	---	.57	---	.00	.00	.00	.06	.00
30	---	---	---	---	---	---	---	.00	.00	.00	.07	.00
31	---	---	---	---	---	---	---	.00	---	.02	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	0.22	0.67	0.07
MEAN	---	---	---	---	---	---	---	---	---	.007	.022	.002
MAX	---	---	---	---	---	---	---	---	---	.07	.16	.06
MIN	---	---	---	---	---	---	---	---	---	.00	.00	.00
AC-FT	---	---	---	---	---	---	---	---	---	.4	1.3	.1

## 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 High School grounds, on right 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 (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13 ft<sup>3</sup>/s, Aug. 13, 1993, gage height, 1.88 ft; no flow part of many days.

EXTREMES FOR 1991 WATER YEAR.--No flow recorded during the water year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft<sup>3</sup>/s, at 1530 hours Aug. 13, gage height, 1.88 ft; no flow part of many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
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	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.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	.25	.00
14	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
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	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.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
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	.00
25	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	---	---	---	.00	.00	.00	.00	.00	.15	.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	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	---	---	---	---	0.00	0.00	0.00	0.00	0.40	0.00
MEAN	.000	.000	---	---	---	---	.000	.000	.000	.000	.013	.000
MAX	.00	.00	---	---	---	---	.00	.00	.00	.00	.25	.00
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	---	---	---	---	.00	.00	.00	.00	.8	.00



## 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 (no winter 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 good except for estimated daily discharges, which are poor.

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, 3,350 ft<sup>3</sup>/s, at 1510 hours Aug. 13, gage height, 8.10 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	.00	32	.00	.00	e30	.00
2	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	---	---	---	---	.00	.00	.00	.00	3.2	.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	24
7	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	8.9
8	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	.00	.00	.00	.00	1.2	.00
11	.00	---	---	---	---	---	.00	.00	.00	17	.00	.00
12	.00	---	---	---	---	---	.00	.00	.00	.00	.00	15
13	.00	---	---	---	---	---	.00	.00	.00	3.9	e38	33
14	.00	---	---	---	---	---	.00	.00	.00	15	e12	9.0
15	.00	---	---	---	---	---	.00	.00	.00	e.00	e.00	.00
16	.00	---	---	---	---	---	.00	.00	.00	e.00	e.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	e.00	e.00	.00
18	.00	---	---	---	---	---	.00	.00	.00	e.00	e.00	.00
19	.00	---	---	---	---	---	.00	.00	.00	e.00	11	.00
20	.00	---	---	---	---	---	.00	.00	1.1	e.00	16	.00
21	.00	---	---	---	---	---	.00	.00	17	e.00	.00	6.7
22	5.0	---	---	---	---	---	.00	.00	.00	e.00	.00	4.9
23	.00	---	---	---	---	.00	.00	.00	.00	e.00	.00	.00
24	3.6	---	---	---	---	.00	.00	.00	.00	e.00	.00	.00
25	40	---	---	---	---	.00	.00	.00	.00	e.00	.00	.00
26	.00	---	---	---	---	.00	.00	.00	.00	e.00	35	.00
27	.00	---	---	---	---	11	.00	.00	.00	e.00	131	.00
28	94	---	---	---	---	.00	.00	.00	.00	e.00	16	.00
29	23	---	---	---	---	55	.00	.00	.00	e.00	56	.00
30	.00	---	---	---	---	.00	.00	.00	.00	e.00	21	.00
31	3.5	---	---	---	---	.00	---	.00	---	e.00	12	---
TOTAL	169.10	---	---	---	---	---	0.00	32.00	18.10	35.90	382.40	101.50
MEAN	5.45	---	---	---	---	---	.000	1.03	.60	1.16	12.3	3.38
MAX	94	---	---	---	---	---	.00	32	17	17	131	33
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	335	---	---	---	---	---	.00	63	36	71	758	201

e Estimated

## RIO GRANDE BASIN

08329838 SOUTH FORK HAHN ARROYO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°07'16", long 106°34'06", 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 (no winter 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. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 553 ft<sup>3</sup>/s, Aug. 2, 1993, gage height, 4.33 ft, from step-backwater analysis of concrete lined stream channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 553 ft<sup>3</sup>/s, at 0945 hours, Aug. 2, gage height, 4.33 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	---	---	---	.11	4.7	.43	.00	.90	.00
2	.00	.00	.00	---	---	---	.00	.00	.00	.00	5.2	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.33	.00
4	.00	.00	5.5	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	13	---	---	---	.00	.05	.00	.00	.00	.00
6	.04	.00	3.0	---	---	---	.00	.00	.00	.40	.05	.54
7	.00	.00	.23	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	---	---	---	.00	.24	.00	.00	.09	.00
9	.00	.00	.00	---	---	---	.00	.00	.00	.32	.00	.00
10	.00	.00	.00	---	---	---	.00	1.6	.00	.00	.00	.00
11	.00	4.8	---	---	---	---	.00	3.2	.00	.00	.05	.00
12	.00	.00	---	---	---	---	.00	2.0	.00	1.2	.05	.12
13	.00	1.2	---	---	---	---	.00	1.4	.00	.10	5.8	.81
14	.00	.00	---	---	---	---	.00	.05	.00	.60	.61	.00
15	.00	.00	---	---	---	---	.00	.00	.00	.66	.00	.00
16	.00	1.2	---	---	---	---	.00	.00	.31	.11	.00	.00
17	.00	.48	---	---	---	---	.00	1.1	.00	.00	.00	.00
18	.00	.39	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	1.2	---	---	---	---	.00	.00	.00	.80	.67	.00
20	.00	7.6	---	---	---	---	.00	.00	.00	2.2	1.1	.00
21	.00	6.0	---	---	---	---	.00	.44	.76	.09	.00	.14
22	1.4	.56	---	---	---	---	.00	.00	.00	.00	.00	.00
23	1.3	.56	---	---	---	.00	.00	.00	.00	.52	.00	.00
24	.25	1.2	---	---	---	.39	.00	.00	.00	.55	.00	.00
25	1.4	1.3	---	---	---	.23	.00	.05	.00	.00	.00	.00
26	.00	.36	---	---	---	.37	.00	.00	.00	.00	.90	.00
27	.00	1.0	---	---	---	.92	.00	.00	.00	.00	1.2	.00
28	3.5	1.7	---	---	---	.00	.00	.00	.00	.05	.43	.12
29	1.9	.00	---	---	---	4.5	.00	.00	.00	3.1	.22	.12
30	.00	.00	---	---	---	.22	.00	.00	.00	.10	.44	.06
31	.51	---	---	---	---	.08	---	.00	---	.05	.09	---
TOTAL	10.30	29.55	---	---	---	---	0.11	14.83	1.50	10.85	18.13	1.91
MEAN	.33	.98	---	---	---	---	.004	.48	.050	.35	.58	.064
MAX	3.5	7.6	---	---	---	---	.11	4.7	.76	3.1	5.8	.81
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	20	59	---	---	---	---	.2	29	3.0	22	36	3.8
(†)	0.70	1.53	0.93	---	---	---	---	0.04	0.65	0.61	2.82	0.30

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329839 NORTH FORK HAHN ARROYO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°07'35", long 106°34'06", 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 (no winter 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 to Louisiana Boulevard bridge, at different datum.

REMARKS.--Records good. 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, 56 ft<sup>3</sup>/s, at 1955 hours, Aug. 1, gage height, 1.88 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	---	---	---	.00	---	.00	.00	1.3	.00
2	.00	.00	.00	---	---	---	.00	---	.00	.00	.13	.00
3	.00	.00	.00	---	---	---	.00	---	.00	.00	.00	.00
4	.00	.00	.00	---	---	---	.00	---	.00	.00	.00	.00
5	.00	.00	.06	---	---	---	.00	---	.00	.00	.00	.00
6	.00	.00	.02	---	---	---	.00	.00	.00	.00	.00	.02
7	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.03	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	.00	---	---	---	---	.00	.00	.00	.00	.27	.01
14	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
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	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
20	.00	.01	---	---	---	---	---	.00	.00	.00	.00	.00
21	.00	.02	---	---	---	---	---	.00	.00	.00	.00	.00
22	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
23	.00	.00	---	---	---	.00	---	.00	.00	.00	---	.00
24	.00	.00	---	---	---	.00	---	.00	.00	.00	---	.00
25	.00	.00	---	---	---	.00	---	.00	.00	.00	---	.00
26	.00	.02	---	---	---	.00	---	.00	.00	.00	---	.00
27	.00	.00	---	---	---	.00	---	.00	.00	.00	.02	.00
28	.01	.00	---	---	---	.00	---	.00	.00	.00	.01	.00
29	.00	.00	---	---	---	.01	---	.00	.00	.00	.00	.00
30	.00	.00	---	---	---	.00	---	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.01	0.08	---	---	---	---	---	---	0.00	0.00	---	0.03
MEAN	.000	.003	---	---	---	---	---	---	.000	.000	---	.001
MAX	.01	.03	---	---	---	---	---	---	.00	.00	---	.02
MIN	.00	.00	---	---	---	---	---	---	.00	.00	---	.00
AC-FT	.02	.2	---	---	---	---	---	---	.00	.00	---	.06
(†)	0.60	1.68	0.94				0.30	0.41	0.19	0.56	2.66	0.25

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329840 HAHN ARROYO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°07'34", long 106°35'26", in SE¼NE¼ sec.2, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, 860 ft below San Mateo Boulevard Bridge on left 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 (no winter records).

GAGE.--Water-stage recorder 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 good. 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, 387 ft<sup>3</sup>/s, at 2005 hours Aug. 1, gage height, 1.65 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	27	.00	.00	11	.00
2	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	---	---	---	---	---	.00	.00	.00	.00	.00	1.9
7	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	.00	.00	.00	1.9	.00	.00
12	---	---	---	---	---	---	.00	.00	.00	.77	.00	.61
13	---	---	---	---	---	---	.00	.00	.00	.00	12	4.2
14	---	---	---	---	---	---	.00	.00	.00	.52	1.6	2.8
15	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	---	---	---	---	---	---	.00	.00	.00	.00	1.4	.00
20	---	---	---	---	---	---	.00	.00	.00	6.3	2.4	.00
21	---	---	---	---	---	---	.00	.00	3.0	1.5	.00	2.2
22	---	---	---	---	---	---	.00	.00	.00	.00	.00	2.2
23	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
24	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
25	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
26	---	---	---	---	---	.00	.00	.00	.00	.00	3.0	.00
27	---	---	---	---	---	1.9	.00	.00	.00	.00	5.9	.00
28	---	---	---	---	---	.00	.00	.00	.00	4.8	3.4	.00
29	---	---	---	---	---	9.7	.00	.00	.00	.00	2.8	.00
30	---	---	---	---	---	5.6	.00	.00	.00	.00	2.7	.00
31	---	---	---	---	---	.00	---	.00	---	2.7	1.1	---
TOTAL	---	---	---	---	---	---	0.00	27.00	3.00	18.49	47.30	13.91
MEAN	---	---	---	---	---	---	.0000	.87	.10	.60	1.53	.46
MAX	---	---	---	---	---	---	.00	27	3.0	6.3	12	4.2
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	.00	54	6.0	37	94	26
(†)	0.54	---	---	---	---	---	0.00	0.15	0.12	0.35	3.36	0.24

(†) 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 (no winter 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, at 1505 hours Aug. 13, gage height, 1.76 ft, from rating curve extended above 5.0 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 2.08; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft<sup>3</sup>/s, at 1505 hours Aug. 13, gage height, 1.76 ft. No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	---	---	---	.00	.04	.00	.00	.12	.00
2	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	.04	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.07
7	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	---	---	---	---	.00	---	.00	.00	.00	.00
9	.00	.00	---	---	---	---	.00	---	.00	.00	.01	.00
10	.00	.00	.00	---	---	---	.00	---	.00	.00	.00	.00
11	.00	.10	---	---	---	---	.00	---	.00	.00	.00	.00
12	.00	.00	---	---	---	---	.00	---	.00	.02	.00	.00
13	.00	.00	---	---	---	---	.00	---	.00	.00	.26	.01
14	.00	.00	---	---	---	---	.00	---	.00	.00	.02	.00
15	.00	.00	---	---	---	---	.00	---	.00	.00	.00	.00
16	.00	.00	---	---	---	---	.00	---	.00	.00	.00	.00
17	.00	.00	---	---	---	---	.00	---	.00	.00	.00	.00
18	.00	.00	---	---	---	---	.00	---	.00	.00	.00	.00
19	.00	.00	---	---	---	---	.00	---	.00	.00	.00	.00
20	.00	.06	---	---	---	---	.00	---	.00	.00	.00	.00
21	.00	.09	---	---	---	---	.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	.02	.00	---	---	---	.00	.00	---	.00	.01	.00	.00
26	.00	.00	---	---	---	.00	.00	---	.00	.00	.02	.00
27	.00	.00	---	---	---	.00	.00	---	.00	.00	.03	.00
28	.07	.00	---	---	---	.00	.00	---	.00	.00	.02	.00
29	.02	.00	---	---	---	.02	.00	---	.00	.00	.01	.00
30	.00	.00	---	---	---	.00	.00	---	.00	.00	.01	.00
31	.00	---	---	---	---	.00	---	---	---	.00	.00	---
TOTAL	0.11	0.25	---	---	---	---	0.00	---	0.00	0.03	0.50	0.08
MEAN	.004	.008	---	---	---	---	.000	---	.000	.001	.016	.003
MAX	.07	.10	---	---	---	---	.00	---	.00	.02	.26	.07
MIN	.00	.00	---	---	---	---	.00	---	.00	.00	.00	.00
AC-FT	.2	.5	---	---	---	---	.00	---	.00	.06	1.0	.2
(†)		1.65				0.27	0.00	0.24	0.06	0.32	2.63	0.49

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329880 ACADEMY ACRES DRAIN AT ALBUQUERQUE, NM

LOCATION.--Lat 35°09'02", long 106°34'18", in NE¼SE¼ sec.25, T.11 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank of concrete-lined channel, at intersection of Burlison Drive and Leander Avenue, 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 (no winter records).

GAGE.--Water-stage recorder and V-notch weir. Elevation of gage is 5,306 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. 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, 52 ft<sup>3</sup>/s, at 1945 hours Aug. 1, gage height, 3.53 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	---	---	---	---	.17	.00	.00	.50	.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
5	.00	.00	---	---	---	---	---	.00	.00	.00	.01	.00
6	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.07
7	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
8	.00	.00	---	---	---	---	---	.00	.00	.00	.01	.00
9	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
10	.00	.01	---	---	---	---	---	.00	.00	.00	.00	.00
11	.00	.32	---	---	---	---	---	.00	.00	.05	.00	.00
12	.00	.00	---	---	---	---	---	.00	.00	.19	.00	.00
13	.00	.00	---	---	---	---	---	.00	.00	.00	.49	.05
14	.00	.00	---	---	---	---	---	.00	.00	.00	.12	.00
15	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
16	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
17	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
18	.00	.00	---	---	---	---	---	.00	.00	.00	.00	.00
19	.00	.00	---	---	---	---	---	.00	.00	.00	.02	.00
20	.00	.23	---	---	---	---	---	.01	.00	.08	.00	.00
21	.00	.30	---	---	---	---	---	.00	.04	.00	.00	.00
22	.03	.01	---	---	---	.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
25	.09	.00	---	---	---	---	.00	.01	.00	.00	---	.00
26	.00	.00	---	---	---	---	.00	.00	.00	.00	.17	.00
27	.00	.00	---	---	---	---	.00	.00	.00	.00	.09	.00
28	.21	.00	---	---	---	---	.00	.00	.00	.00	.11	.00
29	.05	.00	---	---	---	---	.00	.00	.00	.00	.03	---
30	.00	.00	---	---	---	---	.00	.00	.00	.00	.03	---
31	.02	---	---	---	---	---	---	.00	---	.05	.00	---
TOTAL	0.40	0.87	---	---	---	---	---	0.19	0.04	0.37	---	---
MEAN	.013	.029	---	---	---	---	---	.006	.001	.012	---	---
MAX	.21	.32	---	---	---	---	---	.17	.34	.19	---	---
MIN	.00	.00	---	---	---	---	---	.00	.00	.00	---	---
AC-FT	.8	1.7	---	---	---	---	---	.4	.08	.7	---	---
(†)	1.16	1.33	---	---	---	0.30	0.00	0.42	0.09	0.41	1.57	0.54

(†) 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.

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 good except for estimated daily discharges, which are poor. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	102	3.0	91	.00	.00	295	e.00
2	.00	.00	.00	.00	.00	.00	.00	4.8	1.8	.00	48	e.00
3	.00	.00	.00	.00	.00	.00	.00	.63	1.1	.00	1.1	e.00
4	.00	.97	123	.00	.00	.00	.00	.00	3.2	.00	7.9	.00
5	.00	.00	e10	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	e.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	36
7	e.00	.00	e.00	31	.00	.00	.00	.00	.00	.00	.00	15
8	.00	.00	e.00	157	.00	.00	.00	.00	.00	.00	.00	.03
9	.00	.00	e.00	.00	32	.00	.00	.00	1.1	.00	.00	.00
10	.00	.00	.00	.00	5.1	.00	.00	.00	15	.00	1.8	.00
11	.00	182	.00	60	.00	.00	.00	.00	.00	2.9	.00	.00
12	.00	.00	27	.00	.00	.00	.00	.00	.00	81	.00	7.2
13	.00	.00	28	14	.00	.00	.00	.00	.00	8.2	355	25
14	.00	.00	.00	.00	78	.00	.00	.00	.00	86	128	e.00
15	.00	.00	.00	.00	203	.00	.00	.00	.00	14	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	11	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	5.5	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	125	.00	.00	.00	.00	.00	.00	17	.00
20	.00	153	11	.00	.00	.00	.00	.35	1.7	189	42	.00
21	.00	162	.00	.00	.00	.00	.00	.00	54	.00	.00	1.5
22	11	16	.00	.00	.00	.00	.00	.00	7.0	.00	.00	18
23	17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	1.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	48	.00	.00	.00	.00	.00	.00	.98	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	100	.00
27	.00	.00	.00	.00	26	e28	.00	.00	.00	.00	207	.00
28	149	.00	.00	.00	208	.00	.00	6.4	.00	36	60	.00
29	74	.00	10	.00	---	e82	.00	.95	.00	3.8	114	.00
30	1.3	.00	.00	.00	---	.00	.00	.41	.00	.00	25	3.1
31	31	---	.00	.00	---	2.3	---	.00	---	19	70	---
TOTAL	332.80	513.97	209.00	403.50	552.10	214.30	3.00	105.64	84.90	439.90	1471.80	105.83
MEAN	10.7	17.1	6.74	13.0	19.7	6.91	1.10	3.41	2.83	14.2	47.5	3.53
MAX	149	182	123	157	208	102	3.0	91	54	189	355	36
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	660	1020	415	800	1100	425	6.0	210	168	873	2920	210

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1993, BY WATER YEAR (WY)

MEAN	10.4	5.12	1.75	1.56	2.35	3.89	5.88	7.38	6.91	20.5	23.7	12.3
MAX	38.1	17.3	6.74	13.0	19.7	14.0	28.4	22.8	36.1	75.0	51.9	40.1
(WY)	1985	1988	1993	1993	1993	1973	1988	1992	1988	1991	1991	1991
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.78	3.35	.73
(WY)	1976	1970	1973	1969	1969	1969	1978	1974	1975	1980	1973	1968

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1968 - 1993

ANNUAL TOTAL	4565.80	4436.74	8.77
ANNUAL MEAN	12.5	12.2	17.6
HIGHEST ANNUAL MEAN			3.12
LOWEST ANNUAL MEAN			1991
HIGHEST DAILY MEAN	512	355	1060
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		4140	a11000
INSTANTANEOUS PEAK STAGE		5.57	10.40
ANNUAL RUNOFF (AC-FT)	9060	8800	6350
10 PERCENT EXCEEDS	27	28	20
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.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 1992 TO SEPTEMBER 1993

DATE	TIME	ENDING TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	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 DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)
OCT 28-28	1547	1607	1480	--	125	8.2	--	15.0	--	--
OCT 28-28	1558	1859	780	--	--	--	--	--	--	--
DEC 16...	1130	--	--	E1.0	506	7.9	-0.5	5.5	633	--
DEC 16...	1745	--	--	59	1360	7.9	2.0	3.0	636	--
MAR 29...	1500	--	--	400	120	8.5	12.5	10.0	--	270
APR 29...	1403	--	--	2.8	1080	9.6	26.0	33.0	630	47
MAY 26...	1530	--	--	4.5	464	10.3	30.0	31.0	631	280
JUN 21...	0915	--	--	64	410	7.4	--	18.5	--	380
JUL 20-20	0443	0456	2210	--	89	7.8	--	--	--	--
JUL 20-20	0454	0849	450	--	142	8.2	--	--	--	52
AUG 01-01	1956	2010	1510	--	91	8.6	--	22.5	--	--
AUG 01-01	2012	2118	3250	--	84	8.7	--	--	--	130
AUG 13-13	1512	1529	4060	--	110	8.9	--	24.0	--	--
AUG 13-13	1517	1816	2260	--	91	8.6	--	--	--	140
AUG 26-26	1952	2008	758	--	114	8.6	--	23.0	637	--
AUG 26-26	2011	2300	596	--	114	8.2	--	--	--	140
DATE	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)*	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31616)*	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	STREP-TOCOCCI, FECAL (MPN) (31677)*	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)
OCT 28-28	--	28000	--	--	80000	--	--	--	--	--
OCT 28-28	--	--	--	--	--	32	11	1.0	4.7	0.4
DEC 16...	--	--	--	--	--	110	37	3.5	56	2
DEC 16...	--	--	--	--	--	170	59	4.4	130	6
MAR 29...	--	--	--	--	--	39	14	1.1	6.6	0.5
APR 29...	--	--	<2	790	--	460	160	15	59	1
MAY 26...	--	--	K2	330	--	160	58	2.8	35	1
JUN 21...	--	--	--	--	--	150	51	4.9	22	0.8
JUL 20-20	--	90000	--	--	>24000000	--	--	--	--	--
JUL 20-20	14	--	--	--	--	31	11	0.81	3.1	0.2
AUG 01-01	--	18000	--	--	50000	--	--	--	--	--
AUG 01-01	17	--	--	--	--	29	10	0.88	3.0	0.2
AUG 13-13	--	80000	--	--	170000	--	--	--	--	--
AUG 13-13	18	--	--	--	--	31	11	0.80	2.9	0.2
AUG 26-26	--	12000	--	--	50000	--	--	--	--	--
AUG 26-26	25	--	--	--	--	42	15	1.0	4.3	0.3

\* Analyses performed by City of Albuquerque Water Quality Laboratory



## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	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- RINE, TOTAL RESI- DUAL (MG/L) (50060)	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- PENDE (MG/L) (00530)
OCT 28-28	--	--	--	--	--	--	--	--	--	--
OCT 28-28	2.7	98	6.8	<0.02	4.9	--	--	39	90	295
DEC 16...	5.7	33	36	--	74	0.40	26	--	258	--
DEC 16...	10	20	83	--	330	0.40	16	--	695	--
MAR 29...	3.0	86	9.9	<0.02	5.1	0.30	4.2	100	101	--
APR 29...	9.9	89	440	<0.02	37	--	--	926	774	3
MAY 26...	10	135	53	<0.02	28	--	--	414	268	6
JUN 21...	9.4	206	45	<0.02	19	1.1	17	406	293	--
JUL 20-20	--	--	--	<0.02	--	--	--	--	--	--
JUL 20-20	2.2	101	4.7	<0.02	2.7	--	--	56	88	1490
AUG 01-01	--	--	--	<0.02	--	--	--	--	--	--
AUG 01-01	2.7	88	6.9	--	2.2	--	--	59	82	4780
AUG 13-13	--	--	--	<0.02	--	--	--	--	--	--
AUG 13-13	2.4	111	5.9	--	2.1	--	--	76	96	676
AUG 26-26	--	--	--	<0.02	--	--	--	--	--	--
AUG 26-26	2.6	81	7.9	<0.02	3.3	--	--	87	87	632

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 28-28	--	--	--	--	--	--	--	--	--	--
OCT 28-28	--	0.040	--	0.410	--	0.300	--	--	--	2.0
DEC 16...	--	--	--	--	--	--	--	--	--	--
DEC 16...	--	--	--	--	--	--	--	--	--	--
MAR 29...	0.590	--	0.060	--	0.650	--	0.780	1.8	1.0	3.5
APR 29...	--	--	<0.010	--	<0.050	--	0.030	--	--	0.70
MAY 26...	--	--	<0.010	--	<0.050	--	0.040	--	--	2.0
JUN 21...	--	--	--	--	--	--	--	--	--	--
JUL 20-20	--	--	--	--	--	--	--	--	--	--
JUL 20-20	0.420	--	0.020	--	0.440	--	0.360	--	--	1.2
AUG 01-01	--	--	--	--	--	--	--	--	--	--
AUG 01-01	0.550	--	0.020	--	0.570	--	0.350	--	--	2.8
AUG 13-13	--	--	--	--	--	--	--	--	--	--
AUG 13-13	0.650	--	0.020	--	0.670	--	0.570	--	--	1.2
AUG 26-26	--	--	--	--	--	--	--	--	--	--
AUG 26-26	0.590	--	0.040	--	0.630	--	0.490	--	--	1.2

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

		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)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	OIL AND GREASE, TOTAL RECOV. GRAVI- METRIC (MG/L) (00556)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)			
	DATE												
	OCT 28-28	--	--	--	--	0.020	14	2	--	--			
	OCT 28-28	0.560	0.230	--	38	--	--	--	--	--			
	DEC 16...	--	--	--	4.7	--	--	--	27	7			
	DEC 16...	--	--	--	16	--	--	--	24	35			
	MAR 29...	0.770	0.310	0.290	48	--	--	--	--	--			
	APR 29...	0.080	0.050	--	11	<0.010	2	<1	--	--			
	MAY 26...	0.080	0.050	--	91	<0.010	5	1	--	--			
	JUN 21...	--	--	--	170	--	--	--	--	--			
	JUL 20-20	--	--	--	--	<0.010	3	5	--	--			
	JUL 20-20	0.370	0.200	--	31	--	--	--	140	20			
	AUG 01-01	--	--	--	--	<0.010	3	1	--	--			
	AUG 01-01	1.30	0.180	--	51	--	--	--	140	<10			
	AUG 13-13	--	--	--	--	<0.010	--	--	--	--			
	AUG 13-13	0.290	0.230	--	48	--	3	2	80	20			
	AUG 26-26	--	--	--	--	<0.010	8	2	--	--			
	AUG 26-26	0.290	0.220	--	39	--	--	--	72	12			
			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, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	
	OCT 28-28	1558	1859	--	--	3	--	--	<10	--	1	--	
	DEC 16...	1745	--	--	--	3	--	300	--	--	1	--	
	MAR 29...	1500	--	--	--	3	--	200	--	--	1	--	
	APR 29...	1403	--	--	--	13	--	--	<10	--	<1	--	
	MAY 26...	1530	--	--	--	6	--	--	<10	--	<1	--	
	JUN 21...	0915	--	--	--	10	--	500	--	--	2	--	
	JUL 20-20	0454	0849	210	2	5	2	--	<100	<10	<10	1	<1.0
	AUG 01-01	2012	2118	100	6	12	2	--	<100	<10	<10	3	<1.0
	AUG 13-13	1517	1816	200	5	6	2	--	<100	<10	<10	2	<1.0
	AUG 26-26	2011	2300	340	7	5	2	--	23	<10	<0.5	<1	<1.0

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)
OCT 28-28	11	--	--	9	--	--	67	--	--	--	<0.10
DEC 16...	13	--	--	24	--	3700	44	--	--	200	<0.10
MAR 29...	12	--	--	16	--	6900	100	--	--	290	<0.10
APR 29...	<10	--	--	4	--	--	1	--	--	--	<0.10
MAY 26...	<1	--	--	11	--	--	2	--	--	--	<0.10
JUN 21...	14	--	--	68	--	9600	110	--	--	630	<0.10
JUL 20-20	14	<1	<1	28	7	--	98	<1	<10	--	<0.10
AUG 01-01	48	1	<1	95	5	--	300	<1	<10	--	0.30
AUG 13-13	15	<1	<1	16	7	--	120	1	<10	--	0.60
AUG 26-26	8	<1	<1	9	8	--	55	<1	7	--	0.40

DATE	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL RECOVERABLE (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)	THALLIUM, TOTAL (UG/L AS TL) (01059)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 28-28	--	--	11	--	<2	--	2	--	<10	230	--
DEC 16...	--	--	--	--	--	--	--	--	--	250	--
MAR 29...	--	--	--	--	--	--	--	--	--	320	--
APR 29...	--	--	1	--	<2	--	<1	--	<10	20	--
MAY 26...	--	--	3	--	<2	--	2	--	<10	20	--
JUN 21...	--	--	--	--	--	--	--	--	--	460	--
JUL 20-20	<0.1	<1	16	<1	<2	<1	1	<1.0	<5	340	30
AUG 01-01	<0.1	1	65	<1	7	<1	21	<1.0	<5	800	<10
AUG 13-13	<0.1	2	19	2	<2	<1	1	<1.0	--	370	10
AUG 26-26	<0.1	<1	10	1	<1	<1	1	<1.0	<5	230	12

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	ENDING TIME	DI- BROMO- METHANE WATER RECOVER (UG/L) (30217)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L) (32101)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	PHENOLS TOTAL (UG/L) (32730)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)
OCT 28-28	1547	1607	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	14	0.2	<0.2
OCT 28-28	1558	1859	--	--	--	--	--	--	--	--	--	--
APR 29...	1403	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	2	<0.2	<0.2
MAY 26...	1530	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	5	<0.2	<0.2
JUL 20-20	0443	0456	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	3	0.3	<0.2
JUL 20-20	0454	0849	--	--	--	--	--	--	--	--	--	--
AUG 01-01	1956	2010	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	3	<0.2	<0.2
AUG 01-01	2012	2118	--	--	--	--	--	--	--	--	--	--
AUG 13-13	1512	1529	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	0.6	<0.2
AUG 13-13	1517	1816	--	--	--	--	--	--	--	3	--	--
AUG 26-26	1952	2008	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	8	<0.2	<0.2
AUG 26-26	2011	2300	--	--	--	--	--	--	--	--	--	--

DATE	ACE- NAPHTH- YLENE TOTAL (UG/L) (34200)	ACE- NAPHTH- ENE TOTAL (UG/L) (34205)	ACRO- LEIN TOTAL (UG/L) (34210)	ACRYLO- NITRILE TOTAL (UG/L) (34215)	ANTHRA- CENE TOTAL (UG/L) (34220)	BENZO B FLUOR- AN- THENE TOTAL (UG/L) (34230)	BENZO K FLUOR- AN- THENE TOTAL (UG/L) (34242)	BENZO- A- PYRENE TOTAL (UG/L) (34247)	DELTA BENZENE HEXA- CHLOR- IDE TOTAL (UG/L) (34259)	BIS 2- CHLORO- ETHYL ETHER TOTAL (UG/L) (34273)	BIS (2- CHLORO- ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS (2- CHLORO- ISO- PROPYL) ETHER TOTAL (UG/L) (34283)
OCT 28-28	--	--	<20	<20	--	--	--	--	--	--	--	--
OCT 28-28	<5.0	<5.0	--	--	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0
APR 29...	<5.0	<5.0	<20	<20	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0
MAY 26...	<5.0	<5.0	<20	<20	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0
JUL 20-20	--	--	<20	<20	--	--	--	--	--	--	--	--
JUL 20-20	<5.0	<5.0	--	--	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0
AUG 01-01	--	--	<20	<20	--	--	--	--	--	--	--	--
AUG 01-01	<5.0	<5.0	--	--	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0
AUG 13-13	--	--	<20	<20	--	--	--	--	--	--	--	--
AUG 13-13	<5.0	<5.0	--	--	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0
AUG 26-26	--	--	<20	<20	--	--	--	--	--	--	--	--
AUG 26-26	<5.0	<5.0	--	--	<5.0	<10.0	<10.0	<10.0	<0.90	<5.0	<5.0	<5.0

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	N-BUTYL BENZYL PHTHAL- ATE TOTAL (UG/L) (34292)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	CHRY- SENE TOTAL (UG/L) (34320)	DIETHYL PHTHAL- ATE TOTAL (UG/L) (34336)	DI- METHYL PHTHAL- ATE TOTAL (UG/L) (34341)	ENDO- SULFAN SULFATE TOTAL (UG/L) (34351)	ENDO- SULFAN BETA TOTAL (UG/L) (34356)	ENDO- SULFAN- I WATER WHOLE REC (UG/L) (34361)	ENDRIN ALDE- HYDE TOTAL (UG/L) (34366)	ETHYL- BENZENE TOTAL (UG/L) (34371)	FLUOR- ANTHENE TOTAL (UG/L) (34376)
OCT 28-28	--	<0.20	<0.2	--	--	--	--	--	--	--	<0.2	--
OCT 28-28	6.0	--	--	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	--	5.0
APR 29...	<5.0	<0.20	<0.2	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	<0.2	<5.0
MAY 26...	<5.0	<0.20	<0.2	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	<0.2	<5.0
JUL 20-20	--	<0.20	<0.2	--	--	--	--	--	--	--	<0.2	--
JUL 20-20	<5.0	--	--	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	--	<5.0
AUG 01-01	--	<0.20	<0.2	--	--	--	--	--	--	--	<0.2	--
AUG 01-01	<5.0	--	--	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	--	5.0
AUG 13-13	--	<0.20	<0.2	--	--	--	--	--	--	--	0.2	--
AUG 13-13	<5.0	--	--	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	--	<5.0
AUG 26-26	--	<0.20	<0.2	--	--	--	--	--	--	--	<0.2	--
AUG 26-26	<5.0	--	--	<10.0	<5.0	<5.0	<6.0	<0.40	<1.0	<2.0	--	<5.0

DATE	FLUOR- ENE TOTAL (UG/L) (34381)	HEXA- CHLORO- CYCLO- PENT- ADIENE TOTAL (UG/L) (34386)	HEXA- CHLORO- ETHANE TOTAL (UG/L) (34396)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L) (34403)	ISO- PHORONE TOTAL (UG/L) (34408)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L) (34428)	N-NITRO- -SODI- PHENY- LAMINE TOTAL (UG/L) (34433)	N-NITRO- -SODI- METHY- LAMINE TOTAL (UG/L) (34438)	NITRO- BENZENE TOTAL (UG/L) (34447)
OCT 28-28	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	--	--
OCT 28-28	<5.0	<5.0	<5.0	<10.0	<5.0	--	--	--	<5.0	<5.0	<5.0	<5.0
APR 29...	<5.0	<5.0	<5.0	<10.0	<5.0	<0.2	<0.2	<0.2	<5.0	<5.0	<5.0	<5.0
MAY 26...	<5.0	<5.0	<5.0	<10.0	<5.0	<0.2	<0.2	<0.2	<5.0	<5.0	<5.0	<5.0
JUL 20-20	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	--	--
JUL 20-20	<5.0	<5.0	<5.0	<10.0	<5.0	--	--	--	<5.0	<5.0	<5.0	<5.0
AUG 01-01	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	--	--
AUG 01-01	<5.0	<5.0	<5.0	<10.0	<5.0	--	--	--	<5.0	<5.0	<5.0	<5.0
AUG 13-13	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	--	--
AUG 13-13	<5.0	<5.0	<5.0	<10.0	<5.0	--	--	--	<5.0	<5.0	<5.0	<5.0
AUG 26-26	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	--	--
AUG 26-26	<5.0	<5.0	<5.0	<10.0	<5.0	--	--	--	<5.0	<5.0	<5.0	<5.0

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	PARA- CHLORO- META CRESOL TOTAL (UG/L) (34452)	PHENAN- THRENE TOTAL (UG/L) (34461)	PYRENE TOTAL (UG/L) (34469)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC TOTAL (UG/L) (34516)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L) (34521)	BENZO A ANTHRAC ENE1,2- BENZANT HRACENE TOTAL (UG/L) (34526)
OCT 28-28	--	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--
OCT 28-28	<30.0	<5.0	<5.0	--	--	--	--	--	--	--	<10.0	<10.0
APR 29...	<30.0	<5.0	<5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<10.0	<10.0
MAY 26...	<30.0	<5.0	<5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<10.0	<10.0
JUL 20-20	--	--	--	<0.2	0.2	<0.2	<0.2	1.3	<0.2	<0.2	--	--
JUL 20-20	<30.0	<5.0	<5.0	--	--	--	--	--	--	--	<10.0	<10.0
AUG 01-01	--	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--
AUG 01-01	<30.0	<5.0	<5.0	--	--	--	--	--	--	--	<10.0	<10.0
AUG 13-13	--	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--
AUG 13-13	<30.0	<5.0	<5.0	--	--	--	--	--	--	--	<10.0	<10.0
AUG 26-26	--	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--
AUG 26-26	<30.0	<5.0	<5.0	--	--	--	--	--	--	--	<10.0	<10.0

DATE	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANS DI CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L) (34576)	2- CHLORO- NAPH- THALENE TOTAL (UG/L) (34581)	2- CHLORO- PHENOL TOTAL (UG/L) (34586)	2- NITRO- PHENOL TOTAL (UG/L) (34591)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L) (34596)
OCT 28-28	<5.0	<0.2	<0.2	<5.0	--	<5.0	<5.0	<1.0	--	--	--	--
OCT 28-28	--	--	--	--	<10.0	--	--	--	<5.0	<5.0	<5.0	<10.0
APR 29...	<0.20	<0.2	<0.2	<0.20	<10.0	<0.20	<0.20	<1.0	<5.0	<5.0	<5.0	<10.0
MAY 26...	<5.0	<0.2	<0.2	<5.0	<10.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<10.0
JUL 20-20	<0.20	<0.2	<0.2	<0.20	--	<0.20	<0.20	<1.0	--	--	--	--
JUL 20-20	<5.0	--	--	<5.0	<10.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<10.0
AUG 01-01	<0.20	<0.2	<0.2	<0.20	--	<0.20	<0.20	<1.0	--	--	--	--
AUG 01-01	<5.0	--	--	<5.0	<10.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<10.0
AUG 13-13	<0.20	<0.2	<0.2	<0.20	--	<0.20	<0.20	<1.0	--	--	--	--
AUG 13-13	<5.0	--	--	<5.0	<10.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<10.0
AUG 26-26	<0.20	<0.2	<0.2	<0.20	--	<0.20	<0.20	<1.0	--	--	--	--
AUG 26-26	<5.0	--	--	<5.0	<10.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<10.0

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	2,4-DI- CHLORO- PHENOL TOTAL (UG/L) (34601)	2,4-DI- METHYL- PHENOL TOTAL (UG/L) (34606)	2,4-DI- NITRO- TOLUENE TOTAL (UG/L) (34611)	2,4,- DI- NITRO- PHENOL TOTAL (UG/L) (34616)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L) (34621)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L) (34626)	3,3'- DI- CHLORO- BENZI- DINE TOTAL (UG/L) (34631)	4- BROMO- PHENYL ETHER TOTAL (UG/L) (34636)	4- CHLORO- PHENYL ETHER TOTAL (UG/L) (34641)	4- NITRO- PHENOL TOTAL (UG/L) (34646)	4,6- DINITRO- -ORTHO- CRESOL TOTAL (UG/L) (34657)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)
OCT 28-28	--	--	--	--	--	--	--	--	--	--	--	<0.2
OCT 28-28	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	--
APR 29...	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	<0.2
MAY 26...	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	<0.2
JUL 20-20	--	--	--	--	--	--	--	--	--	--	--	<0.2
JUL 20-20	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	--
AUG 01-01	--	--	--	--	--	--	--	--	--	--	--	<0.2
AUG 01-01	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	--
AUG 13-13	--	--	--	--	--	--	--	--	--	--	--	<0.2
AUG 13-13	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	--
AUG 26-26	--	--	--	--	--	--	--	--	--	--	--	<0.2
AUG 26-26	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	--

DATE	AROCLOR 1016 PCB TOTAL (UG/L) (34671)	PHENOL (C6H- 5OH) TOTAL (UG/L) (34694)	NAPHTH- ALENE TOTAL (UG/L) (34696)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	PENTA- CHLORO- PHENOL TOTAL (UG/L) (39032)	CHLOR- DANE CIS WATER WHOLE TOTAL (UG/L) (39062)	CHLOR- DANE TRANS WATER WHOLE TOTAL (UG/L) (39065)	BIS(2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L) (39100)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L) (39110)	BENZI- DINE TOTAL (UG/L) (39120)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)
OCT 28-28	--	--	<5.0	<0.2	<0.2	--	--	--	--	--	--	<0.2
OCT 28-28	<0.1	<5.0	--	--	--	<30.0	<0.10	<0.10	33.0	<5.0	<40.0	--
APR 29...	<0.1	<5.0	<0.2	<0.2	<0.2	<30.0	<0.10	<0.10	<5.0	<5.0	<40.0	<0.2
MAY 26...	<0.1	<5.0	<5.0	<0.2	<0.2	<30.0	<0.10	<0.10	<5.0	<5.0	<40.0	<0.2
JUL 20-20	--	--	<0.2	<0.2	<0.2	--	--	--	--	--	--	<0.2
JUL 20-20	<0.1	<5.0	<5.0	--	--	<30.0	<0.10	<0.10	<5.0	<5.0	<40.0	--
AUG 01-01	--	--	0.2	<0.2	<0.2	--	--	--	--	--	--	<0.2
AUG 01-01	<0.1	<5.0	<5.0	--	--	<30.0	<0.10	<0.10	<5.0	<5.0	<40.0	--
AUG 13-13	--	--	0.3	<0.2	<0.2	--	--	--	--	--	--	<0.2
AUG 13-13	<0.1	<5.0	<5.0	--	--	<30.0	<0.10	<0.10	11.0	<5.0	<40.0	--
AUG 26-26	--	--	<0.2	<0.2	<0.2	--	--	--	--	--	--	<0.2
AUG 26-26	<0.1	<5.0	<5.0	--	--	<30.0	<0.10	<0.10	9.0	<5.0	<40.0	--

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	P,P' DDT, TOTAL (UG/L) (39300)	P,P' DDD, TOTAL (UG/L) (39310)	P,P' DDE, TOTAL (UG/L) (39320)	ALDRIN, TOTAL (UG/L) (39330)	ALPHA BHC TOTAL (UG/L) (39337)	BETA BENZENE HEXA- CHLOR- IDE TOTAL (UG/L) (39338)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TOTAL (UG/L) (39350)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	TOX- APHENE, TOTAL (UG/L) (39400)
OCT 28-28	<0.2	--	--	--	--	--	--	--	--	--	--	--
OCT 28-28	--	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	0.1	<0.020	<0.060	<2
APR 29...	<0.2	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	<0.1	<0.020	<0.060	<2
MAY 26...	<0.2	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	<0.1	<0.020	<0.060	<2
JUL 20-20	<0.2	--	--	--	--	--	--	--	--	--	--	--
JUL 20-20	--	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	0.2	<0.020	<0.060	<2
AUG 01-01	<0.2	--	--	--	--	--	--	--	--	--	--	--
AUG 01-01	--	<0.10	0.10	0.04	<0.040	<0.03	<0.03	<0.030	0.7	0.060	<0.060	<2
AUG 13-13	<0.2	--	--	--	--	--	--	--	--	--	--	--
AUG 13-13	--	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	0.4	0.040	<0.060	<2
AUG 26-26	<0.2	--	--	--	--	--	--	--	--	--	--	--
AUG 26-26	--	<0.10	<0.10	<0.04	<0.040	<0.03	<0.30	<0.030	0.1	<0.20	<0.600	<20

DATE	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	AROCLOR 1221 PCB TOTAL (UG/L) (39488)	AROCLOR 1232 PCB TOTAL (UG/L) (39492)	AROCLOR 1242 PCB TOTAL (UG/L) (39496)	AROCLOR 1248 PCB TOTAL (UG/L) (39500)	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1260 PCB TOTAL (UG/L) (39508)	HEXA- CHLORO- BENZENE TOTAL (UG/L) (39700)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	CIS-1,2 -DI- CHLORO- ETHENE WATER TOTAL (UG/L) (77093)	STYRENE TOTAL (UG/L) (77128)
OCT 28-28	--	--	--	--	--	--	--	--	--	<5.0	<0.2	<0.2
OCT 28-28	<0.030	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	--	--	--
APR 29...	<0.030	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<0.2	<0.2	<0.2
MAY 26...	<0.030	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<5.0	<0.2	<0.2
JUL 20-20	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2
JUL 20-20	<0.030	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<5.0	--	--
AUG 01-01	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2
AUG 01-01	<0.030	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	0.7	<5.0	<5.0	--	--
AUG 13-13	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2
AUG 13-13	<0.030	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	0.4	<5.0	<5.0	--	--
AUG 26-26	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2
AUG 26-26	<0.030	<8.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<5.0	--	--



WATER-QUALITY RECORDS

[illegible][illegible]

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	TEMPER- ATURE WATER (DEG C) (000010)	SEDI- MENT, CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC							
16...	1745	59	1360	3.0	158	25	93
MAY							
26...	1530	4.5	464	31.0	16	0.20	83
AUG*							
13...	1522	4170	150	--	2360	26600	--
13...	1530	4060	138	--	1710	18700	--
13...	1542	4060	146	--	1480	16200	--
13...	1555	3400	138	--	1070	9820	--
13...	1605	3400	141	--	975	8950	--
26...	1956	680	157	--	1080	1980	--
26...	2009	836	184	--	1170	2650	--
26...	2013	1040	160	--	1210	3390	--
26...	2029	1140	144	--	1130	3470	--
26...	2043	1070	163	--	799	2310	--
26...	2100	930	153	--	613	1540	--
26...	2121	686	151	--	435	806	--
26...	2145	478	157	--	452	583	--
26...	2200	405	172	--	320	350	--
26...	2215	350	160	--	264	249	--
26...	2230	281	147	--	207	157	--
26...	2245	257	154	--	189	131	--
26...	2300	248	157	--	160	107	--

\* Collected by automatic peristaltic pump sampler

## 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 1992 TO SEPTEMBER 1993

FROM AUTOMATIC WATER-QUALITY MINIMONITOR RECORDER

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	518	320	407	203	176	187	569	367	463	---	---	---
2	454	320	370	339	203	247	---	---	---	---	---	---
3	434	328	376	449	309	369	---	---	---	---	---	---
4	432	343	374	425	128	332	---	---	---	---	---	---
5	509	342	397	318	127	203	---	---	---	---	---	---
6	477	315	383	382	126	268	---	---	---	---	---	---
7	438	315	396	391	268	355	---	---	---	---	---	---
8	473	391	437	402	356	378	---	---	---	---	---	---
9	451	366	405	403	367	385	---	---	---	---	---	---
10	427	332	373	424	98	348	---	---	---	---	---	---
11	397	334	373	302	58	98	---	---	---	---	---	---
12	400	321	373	240	88	142	---	---	---	---	---	---
13	456	319	374	416	238	333	---	---	---	---	---	---
14	473	349	406	390	341	367	---	---	---	---	---	---
15	429	351	396	420	331	363	---	---	---	---	---	---
16	405	354	381	374	318	349	---	---	---	---	---	---
17	442	364	393	394	351	365	---	---	---	---	---	---
18	390	354	374	420	324	366	---	---	---	---	---	---
19	477	340	391	413	331	372	---	---	---	---	---	---
20	452	260	384	396	83	191	---	---	---	---	---	---
21	436	298	380	232	116	157	---	---	---	---	---	---
22	452	319	391	340	173	224	---	---	---	---	---	---
23	556	315	442	341	278	298	---	---	---	---	---	---
24	602	556	584	434	283	353	---	---	---	---	---	---
25	589	159	327	557	243	395	---	---	---	---	---	---
26	555	450	512	969	311	511	---	---	---	---	---	---
27	567	499	538	632	358	443	---	---	---	---	---	---
28	540	82	330	553	229	403	---	---	---	---	---	---
29	124	93	108	502	372	420	---	---	---	---	---	---
30	186	124	150	635	381	481	---	---	---	---	---	---
31	213	172	194	---	---	---	---	---	---	---	---	---
MONTH	602	82	378	969	58	323	569	367	463	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	---	---	---	671	230	434
2	---	---	---	---	---	---	---	---	---	380	259	313
3	---	---	---	---	---	---	---	---	---	486	383	433
4	---	---	---	---	---	---	---	---	---	657	402	516
5	---	---	---	---	---	---	---	---	---	559	421	478
6	---	---	---	---	---	---	---	---	---	657	377	451
7	---	---	---	---	---	---	---	---	---	472	351	416
8	---	---	---	---	---	---	---	---	---	423	338	385
9	---	---	---	---	---	---	---	---	---	520	360	420
10	---	---	---	---	---	---	---	---	---	562	359	423
11	---	---	---	---	---	---	---	---	---	528	311	350
12	---	---	---	---	---	---	---	---	---	511	341	397
13	---	---	---	---	---	---	---	---	---	518	318	388
14	---	---	---	---	---	---	---	---	---	452	349	399
15	---	---	---	---	---	---	---	---	---	560	394	460
16	---	---	---	---	---	---	---	---	---	791	400	529
17	---	---	---	---	---	---	---	---	---	>999	342	719
18	---	---	---	---	---	---	---	---	---	723	449	535
19	---	---	---	---	---	---	---	---	---	723	540	629
20	---	---	---	---	---	---	---	---	---	738	276	537
21	---	---	---	---	---	---	944	529	636	623	478	546
22	---	---	---	---	---	---	>999	533	695	>999	493	578
23	---	---	---	---	---	---	961	600	777	691	492	566
24	---	---	---	---	---	---	>999	709	936	691	530	593
25	---	---	---	---	---	---	>999	654	808	701	402	568
26	---	---	---	---	---	---	831	564	683	703	464	568
27	---	---	---	---	---	---	919	648	816	691	525	595
28	---	---	---	---	---	---	984	663	861	725	496	595
29	---	---	---	---	---	---	828	613	721	743	501	627
30	---	---	---	---	---	---	786	582	662	826	650	745
31	---	---	---	---	---	---	---	---	---	930	816	860
MONTH	---	---	---	---	---	---	>999	529	759	>999	230	518

Values reported greater than (&gt;) 999 indicate that specific conductance exceeded recorder range.

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
FROM AUTOMATIC WATER-QUALITY MINIMONITOR RECORDER

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	946	585	767	831	633	741	643	244	385	---	---	---
2	702	570	647	814	547	681	355	202	275	---	---	---
3	646	165	427	>999	774	899	533	240	379	660	487	559
4	804	153	306	>999	841	956	454	164	324	673	473	542
5	891	156	388	>999	934	974	642	374	514	718	562	618
6	916	711	795	985	658	833	748	480	634	702	145	576
7	939	624	782	832	662	765	784	514	638	351	133	242
8	702	505	606	766	673	725	673	507	597	526	181	331
9	672	527	605	751	536	666	714	431	587	622	391	497
10	629	407	499	705	573	639	560	282	389	626	445	546
11	619	459	519	955	666	820	750	406	547	659	554	610
12	677	542	577	827	435	589	672	512	569	664	217	593
13	755	572	643	534	311	440	599	56	396	233	79	159
14	778	549	665	768	96	469	120	85	97	332	115	215
15	833	596	709	436	97	248	241	125	181	489	311	411
16	799	579	698	519	378	436	580	220	395	629	443	516
17	790	610	698	538	452	491	584	457	514	656	474	536
18	905	617	724	739	538	621	579	440	504	615	491	545
19	695	570	642	765	515	647	491	179	321	630	543	595
20	784	665	746	593	53	221	405	89	220	632	533	599
21	895	234	553	569	242	443	370	244	287	633	258	560
22	506	322	434	701	462	571	566	331	434	430	223	278
23	699	504	598	852	28	592	709	422	548	617	324	482
24	857	584	700	791	627	676	736	477	587	628	480	566
25	870	621	735	774	658	714	756	562	641	699	547	637
26	910	659	760	859	570	730	667	120	537	660	597	622
27	924	610	756	724	511	614	258	156	184	741	188	596
28	839	650	783	718	129	506	292	163	222	713	564	647
29	841	618	751	500	237	338	327	174	250	709	428	588
30	977	673	807	653	465	566	392	88	236	634	306	433
31	---	---	---	733	230	541	---	---	---	---	---	---
MONTH	977	153	644	>999	28	618	784	56	413	741	79	504
YEAR	>999	28	498									

Values reported greater than (>) 999 indicate that specific conductance exceeded recorder range.

TEMPERATURE, WATER (DEG. C) WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
FROM AUTOMATIC WATER-QUALITY MINIMONITOR RECORDER

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	27.2	9.6	17.0	13.8	4.1	8.3	9.4	e.0	2.5	---	---	---
2	27.5	9.0	16.3	15.5	4.0	8.5	---	---	---	---	---	---
3	26.0	8.7	15.5	12.2	2.1	5.8	---	---	---	---	---	---
4	23.3	8.9	15.1	11.4	1.3	4.5	---	---	---	---	---	---
5	21.0	9.4	15.0	11.0	e.0	4.7	---	---	---	---	---	---
6	26.3	9.7	15.6	16.9	e.0	5.7	---	---	---	---	---	---
7	19.5	5.7	11.8	18.1	e.0	6.5	---	---	---	---	---	---
8	19.8	2.9	10.5	17.3	e.0	6.9	---	---	---	---	---	---
9	19.6	4.4	11.2	15.4	2.8	7.7	---	---	---	---	---	---
10	20.9	5.8	12.5	11.5	e.2	6.3	---	---	---	---	---	---
11	21.2	6.7	13.2	8.3	1.1	5.4	---	---	---	---	---	---
12	21.2	7.4	13.7	15.3	e.0	5.1	---	---	---	---	---	---
13	25.0	7.4	14.5	16.6	e.0	5.4	---	---	---	---	---	---
14	22.6	9.3	13.9	15.8	e.1	6.4	---	---	---	---	---	---
15	22.4	6.7	12.9	19.2	e.4	7.8	---	---	---	---	---	---
16	23.1	6.1	12.9	15.3	1.2	7.5	---	---	---	---	---	---
17	23.7	5.4	13.0	18.0	2.1	8.0	---	---	---	---	---	---
18	20.2	6.7	12.5	17.5	e.2	6.8	---	---	---	---	---	---
19	20.5	7.2	12.4	15.0	e.7	6.5	---	---	---	---	---	---
20	24.9	5.3	12.4	7.7	2.9	5.3	---	---	---	---	---	---
21	24.0	7.9	13.9	6.1	e.4	3.1	---	---	---	---	---	---
22	25.7	7.2	13.9	9.0	e.6	4.1	---	---	---	---	---	---
23	21.7	11.0	14.4	8.4	e.0	3.2	---	---	---	---	---	---
24	18.8	8.1	13.6	5.7	e.0	1.3	---	---	---	---	---	---
25	22.7	12.6	16.2	7.2	e.0	1.5	---	---	---	---	---	---
26	21.3	11.4	15.6	7.2	e.0	1.3	---	---	---	---	---	---
27	18.0	10.2	13.9	8.7	e.0	1.9	---	---	---	---	---	---
28	19.7	9.9	13.5	8.0	e.0	1.8	---	---	---	---	---	---
29	18.0	10.5	13.0	10.7	e.0	3.0	---	---	---	---	---	---
30	20.0	7.8	13.2	10.1	e.1	2.8	---	---	---	---	---	---
31	12.8	7.0	11.1	---	---	---	---	---	---	---	---	---
MONTH e Estimated	27.5	2.9	13.7	19.2	e.0	5.2	9.4	e.0	2.5	---	---	---

## WATER-QUALITY RECORDS

TEMPERATURE, WATER (DEG. C) WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
FROM AUTOMATIC WATER-QUALITY MINIMONITOR RECORDER

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	15.5	10.5	12.5
2	---	---	---	---	---	---	---	---	---	23.3	8.9	15.4
3	---	---	---	---	---	---	---	---	---	24.0	11.3	17.5
4	---	---	---	---	---	---	---	---	---	26.1	12.4	17.5
5	---	---	---	---	---	---	---	---	---	24.4	10.7	15.1
6	---	---	---	---	---	---	---	---	---	26.4	6.5	15.7
7	---	---	---	---	---	---	---	---	---	23.5	11.4	16.0
8	---	---	---	---	---	---	---	---	---	22.1	8.6	13.8
9	---	---	---	---	---	---	---	---	---	25.6	6.5	15.4
10	---	---	---	---	---	---	---	---	---	33.3	7.6	18.7
11	---	---	---	---	---	---	---	---	---	34.1	9.1	19.7
12	---	---	---	---	---	---	---	---	---	31.8	10.6	18.7
13	---	---	---	---	---	---	---	---	---	27.0	8.8	18.5
14	---	---	---	---	---	---	---	---	---	31.4	11.1	20.1
15	---	---	---	---	---	---	---	---	---	31.7	10.7	20.9
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	31.1	12.5	20.1
19	---	---	---	---	---	---	---	---	---	32.5	11.2	20.5
20	---	---	---	---	---	---	---	---	---	34.4	12.7	21.0
21	---	---	---	---	---	---	23.8	8.8	15.8	34.4	14.6	21.5
22	---	---	---	---	---	---	24.3	9.3	15.4	31.8	12.8	20.8
23	---	---	---	---	---	---	27.5	10.5	17.1	34.5	12.0	20.9
24	---	---	---	---	---	---	25.0	9.8	15.7	34.3	13.8	21.8
25	---	---	---	---	---	---	28.8	7.6	16.1	33.0	13.6	21.9
26	---	---	---	---	---	---	30.0	7.8	17.3	31.4	16.4	20.7
27	---	---	---	---	---	---	32.2	10.0	19.5	34.3	14.3	22.5
28	---	---	---	---	---	---	31.7	11.8	20.0	34.0	14.0	21.9
29	---	---	---	---	---	---	30.0	10.7	18.6	31.5	14.7	22.2
30	---	---	---	---	---	---	30.5	11.4	18.5	32.8	13.4	22.2
31	---	---	---	---	---	---	---	---	---	31.2	13.8	21.9
MONTH	---	---	---	---	---	---	32.2	7.6	17.4	34.5	6.5	19.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	30.3	16.2	22.5	36.2	19.2	26.3	35.1	13.3	24.4	---	---	---
2	32.1	13.4	21.0	37.1	11.7	24.0	35.0	14.7	23.5	---	---	---
3	30.8	13.3	20.2	33.1	17.3	23.7	33.6	16.6	24.4	---	---	---
4	30.2	12.6	20.7	28.1	14.9	21.5	32.8	13.8	23.5	35.4	14.1	23.2
5	25.9	14.2	19.8	29.6	18.3	23.2	33.0	18.0	23.8	29.9	14.4	21.4
6	21.3	14.0	17.0	34.9	18.0	24.5	35.7	16.5	23.7	34.2	14.7	22.4
7	30.3	12.6	19.6	31.9	13.9	22.8	31.1	15.6	22.4	33.2	16.4	23.3
8	31.8	10.4	19.6	34.9	14.0	23.3	33.4	12.9	22.0	34.4	14.8	22.6
9	29.7	11.8	17.9	35.2	16.4	24.0	35.4	15.2	23.7	34.9	13.2	22.4
10	32.7	10.7	20.1	32.7	12.2	22.8	34.6	12.5	23.2	31.1	14.5	22.2
11	33.6	12.6	21.8	31.4	15.5	24.2	35.8	12.8	23.7	27.5	14.2	20.5
12	34.3	12.8	22.3	31.9	14.9	23.8	---	---	---	23.0	7.4	15.8
13	36.4	13.4	23.8	32.7	17.2	23.0	---	---	---	27.5	16.1	19.9
14	36.3	14.3	23.5	35.2	18.2	24.8	31.8	11.5	23.0	31.0	14.4	20.6
15	33.6	17.8	23.8	35.0	16.8	24.0	---	---	---	30.5	10.5	18.7
16	32.7	17.7	23.2	35.0	16.3	23.6	---	---	---	31.8	12.7	20.6
17	34.0	15.5	22.2	30.6	17.1	23.0	---	---	---	31.2	13.2	20.1
18	30.6	14.7	22.0	31.9	14.0	22.3	---	---	---	28.3	10.4	18.1
19	33.6	12.6	22.5	36.5	15.1	24.1	---	---	---	24.3	10.0	16.5
20	29.3	17.2	21.9	31.1	11.3	22.4	---	---	---	25.4	9.8	17.4
21	28.0	15.6	21.0	33.7	16.5	23.6	---	---	---	29.6	11.6	19.1
22	33.4	16.4	22.7	33.0	14.9	22.5	---	---	---	31.4	15.5	21.6
23	32.7	14.4	22.5	33.1	14.2	22.8	---	---	---	31.9	14.2	21.8
24	35.7	14.2	22.7	30.1	14.1	22.2	---	---	---	31.9	14.9	21.6
25	35.2	12.3	22.2	29.0	12.7	21.6	---	---	---	25.3	9.0	16.4
26	36.3	13.7	23.2	34.4	17.2	23.6	32.3	14.2	22.5	29.0	10.2	17.3
27	34.4	17.3	24.8	35.5	13.1	24.1	25.5	15.0	21.1	28.8	10.5	17.7
28	38.4	17.8	26.3	35.0	17.8	23.7	28.0	19.3	22.3	29.5	8.5	16.8
29	37.6	20.2	26.4	35.3	14.4	23.1	---	---	---	29.3	8.9	17.2
30	36.8	18.2	26.4	35.5	16.4	24.3	---	---	---	30.0	10.4	17.3
31	---	---	---	37.7	17.1	25.5	---	---	---	---	---	---
MONTH	38.4	10.4	22.1	37.7	11.3	23.5	35.8	11.5	23.1	35.4	7.4	19.7
YEAR	38.4	.0	17.6									

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

(DATA NOT PREVIOUSLY PUBLISHED)

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
FROM AUTOMATIC WATER-QUALITY MINIMONITOR RECORDER

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	268	258	265	959	834	898
2	---	---	---	---	---	---	281	266	272	>999	650	884
3	---	---	---	---	---	---	444	278	328	884	335	639
4	---	---	---	---	---	---	446	360	406	995	780	884
5	---	---	---	---	---	---	547	282	456	983	738	869
6	---	---	---	---	---	---	529	394	468	998	740	888
7	---	---	---	---	---	---	523	449	496	996	345	706
8	---	---	---	---	---	---	970	175	630	549	194	355
9	---	---	---	---	---	---	710	179	522	386	207	297
10	---	---	---	---	---	---	888	530	636	373	141	252
11	---	---	---	---	---	---	981	602	769	965	400	663
12	---	---	---	---	---	---	926	298	686	986	729	864
13	---	---	---	---	---	---	792	236	581	---	---	---
14	---	---	---	---	---	---	832	178	666	---	---	---
15	---	---	---	---	---	---	844	400	693	---	---	---
16	---	---	---	---	---	---	611	463	514	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	561	122	475	---	---	---
19	---	---	---	---	---	---	592	442	515	---	---	---
20	---	---	---	---	---	---	436	342	385	---	---	---
21	---	---	---	---	---	---	552	429	503	---	---	---
22	---	---	---	---	---	---	650	464	557	---	---	---
23	---	---	---	---	---	---	488	331	432	---	---	---
24	---	---	---	---	---	---	409	296	360	---	---	---
25	---	---	---	---	---	---	492	307	359	---	---	---
26	---	---	---	---	---	---	470	362	416	---	---	---
27	---	---	---	---	---	---	526	415	463	---	---	---
28	---	---	---	---	---	---	909	384	708	---	---	---
29	---	---	---	266	254	263	995	422	792	491	316	398
30	---	---	---	268	256	263	945	754	820	488	357	424
31	---	---	---	268	254	263	---	---	---	---	---	---
MONTH	---	---	---	268	254	263	995	122	523	>999	141	644
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	532	247	395	---	---	---	559	470	505
2	---	---	---	578	76	394	---	---	---	564	471	508
3	---	---	---	198	147	171	---	---	---	561	172	390
4	---	---	---	237	176	205	---	---	---	304	206	244
5	---	---	---	260	237	248	---	---	---	366	310	332
6	---	---	---	349	261	312	---	---	---	314	138	177
7	---	---	---	374	350	361	---	---	---	210	135	176
8	---	---	---	363	189	280	---	---	---	259	211	235
9	---	---	---	318	212	249	769	570	700	443	89	237
10	---	---	---	501	250	384	789	700	769	184	66	107
11	---	---	---	391	259	321	790	730	762	450	125	269
12	---	---	---	---	---	---	701	288	423	526	146	331
13	---	---	---	387	217	290	433	332	384	497	128	321
14	---	---	---	449	370	401	410	343	383	450	310	367
15	---	---	---	496	391	440	491	74	342	581	452	478
16	---	---	---	602	80	422	311	146	226	586	406	502
17	---	---	---	600	121	289	859	67	321	530	403	450
18	416	227	336	876	400	598	128	74	103	539	430	486
19	695	272	389	997	220	797	---	---	---	497	408	435
20	603	408	492	870	324	529	---	---	---	489	375	423
21	612	422	509	692	168	525	---	---	---	556	386	458
22	554	423	492	545	261	402	---	---	---	485	417	456
23	600	459	521	716	192	469	---	---	---	536	426	478
24	627	549	582	762	182	477	---	---	---	563	465	505
25	662	500	596	894	317	586	---	---	---	602	361	503
26	781	570	670	>999	621	904	---	---	---	572	431	517
27	804	546	669	980	510	776	582	451	519	613	576	593
28	644	531	599	942	400	553	672	472	559	632	563	603
29	375	175	280	868	756	821	679	200	550	624	571	599
30	298	188	230	978	701	810	434	178	299	581	551	568
31	---	---	---	---	---	---	555	377	460	---	---	---
MONTH	804	175	490	999	76	462	859	67	453	632	66	408
YEAR	>999	66	480									

Values reported greater than (>) 999 indicate that specific conductance exceeded recorder range.  
No recorder data collected during October 1990 through February 1991.

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

(DATA NOT PREVIOUSLY PUBLISHED)

TEMPERATURE, WATER (DEG. C) WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991\*  
FROM AUTOMATIC WATER-QUALITY MINIMONITOR RECORDER

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	18.5	7.5	13.3	---	---	---
2	---	---	---	---	---	---	20.1	10.0	14.7	---	---	---
3	---	---	---	---	---	---	25.3	5.9	14.0	---	---	---
4	---	---	---	---	---	---	19.9	1.1	9.7	---	---	---
5	---	---	---	---	---	---	29.8	7.1	15.2	---	---	---
6	---	---	---	---	---	---	28.7	6.3	15.9	---	---	---
7	---	---	---	---	---	---	27.2	7.5	15.2	---	---	---
8	---	---	---	---	---	---	21.5	7.3	12.5	---	---	---
9	---	---	---	---	---	---	24.2	5.0	12.6	---	---	---
10	---	---	---	---	---	---	20.4	3.7	11.8	---	---	---
11	---	---	---	---	---	---	17.9	6.5	11.0	---	---	---
12	---	---	---	---	---	---	19.2	6.2	10.9	---	---	---
13	---	---	---	---	---	---	14.6	2.9	9.2	---	---	---
14	---	---	---	---	---	---	19.0	4.4	10.9	---	---	---
15	---	---	---	---	---	---	20.9	4.9	11.6	---	---	---
16	---	---	---	---	---	---	21.9	3.2	11.5	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	28.3	3.1	15.6	---	---	---
19	---	---	---	---	---	---	28.8	4.8	15.0	---	---	---
20	---	---	---	---	---	---	26.6	7.5	15.6	---	---	---
21	---	---	---	---	---	---	26.7	7.0	15.3	---	---	---
22	---	---	---	---	---	---	25.7	8.3	15.0	---	---	---
23	---	---	---	---	---	---	25.4	8.4	15.5	---	---	---
24	---	---	---	---	---	---	26.8	2.3	15.9	---	---	---
25	---	---	---	---	---	---	25.5	8.3	14.8	---	---	---
26	---	---	---	---	---	---	16.7	6.2	10.7	---	---	---
27	---	---	---	---	---	---	21.0	3.3	11.2	---	---	---
28	---	---	---	---	---	---	16.3	6.7	10.9	---	---	---
29	---	---	---	10.5	4.9	8.2	---	---	---	30.9	10.2	19.8
30	---	---	---	13.2	3.8	7.7	---	---	---	28.7	10.8	17.5
31	---	---	---	16.4	5.1	10.3	---	---	---	---	---	---
MONTH	---	---	---	16.4	3.8	8.7	28.8	1.1	13.2	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	37.6	16.8	25.6	---	---	---	34.8	16.5	23.4
2	---	---	---	38.5	18.1	26.2	---	---	---	34.1	17.4	24.6
3	---	---	---	36.3	18.5	25.2	---	---	---	35.5	17.1	24.1
4	---	---	---	33.9	17.0	24.3	---	---	---	27.7	20.5	23.3
5	---	---	---	36.3	18.2	25.1	---	---	---	33.5	19.7	23.5
6	---	---	---	34.6	18.5	25.6	---	---	---	26.8	19.8	22.4
7	---	---	---	34.4	19.1	25.1	---	---	---	30.5	17.7	23.0
8	---	---	---	34.1	20.7	25.8	---	---	---	29.8	16.3	22.2
9	---	---	---	32.9	19.6	25.1	34.6	17.7	23.1	27.3	17.0	21.3
10	---	---	---	36.6	18.3	25.0	30.4	17.8	23.1	26.0	18.6	20.9
11	---	---	---	33.9	17.3	23.2	29.5	18.1	23.3	32.0	17.7	22.9
12	---	---	---	---	---	---	35.0	19.6	25.6	31.2	16.4	21.2
13	---	---	---	30.8	18.6	23.1	36.0	19.4	25.2	30.7	16.4	20.7
14	---	---	---	30.2	17.5	22.0	34.7	17.7	24.3	30.5	13.2	21.4
15	---	---	---	35.6	18.7	25.2	37.5	19.0	25.8	27.2	13.3	19.5
16	---	---	---	35.6	19.9	26.5	33.2	21.2	25.2	32.5	13.3	20.5
17	---	---	---	35.5	21.2	27.0	32.1	18.8	24.7	30.9	13.2	20.7
18	37.0	13.4	24.1	35.6	18.8	25.4	29.7	19.9	24.3	27.4	14.6	18.6
19	30.7	17.3	21.6	37.6	20.7	27.5	---	---	---	25.1	13.0	17.4
20	35.3	15.8	23.6	35.3	21.6	26.6	---	---	---	25.6	11.9	16.4
21	33.7	16.0	24.2	33.2	21.7	25.9	---	---	---	28.7	11.4	17.7
22	33.2	15.8	23.2	35.2	21.7	26.3	---	---	---	31.7	13.4	19.2
23	29.9	16.4	22.7	34.7	21.0	25.5	---	---	---	29.0	12.7	18.6
24	29.1	16.7	22.5	33.2	20.5	24.2	---	---	---	26.5	12.4	18.5
25	27.3	16.8	22.1	33.1	19.0	24.7	---	---	---	29.1	11.5	18.2
26	29.3	18.3	23.2	35.2	18.4	25.4	---	---	---	28.4	12.1	18.9
27	34.5	17.0	23.7	32.0	17.3	23.6	33.9	17.6	24.2	27.1	12.4	18.6
28	32.3	18.9	25.4	36.3	17.5	25.3	32.1	17.8	24.1	27.9	12.5	18.9
29	33.7	21.2	25.7	31.7	19.1	24.3	32.0	17.3	23.4	27.9	13.8	19.1
30	35.6	19.3	26.2	34.4	17.8	25.0	32.1	17.3	23.8	30.1	12.0	19.0
31	---	---	---	---	---	---	35.2	17.1	23.0	---	---	---
MONTH	37.0	13.4	23.7	38.5	16.8	25.2	37.5	17.1	24.2	35.5	11.4	20.5

\* No recorder data collected during October 1990 through February 1991.

## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

(DATA NOT PREVIOUSLY PUBLISHED)

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992\*  
FROM AUTOMATIC WATER-QUALITY MINIMONITOR RECORDER

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	---	---	---	461	253	356	---	---	---
2	---	---	---	---	---	---	540	301	373	---	---	---
3	---	---	---	---	---	---	750	350	532	---	---	---
4	---	---	---	---	---	---	524	349	402	---	---	---
5	---	---	---	---	---	---	618	329	440	---	---	---
6	---	---	---	---	---	---	526	333	428	---	---	---
7	---	---	---	---	---	---	503	314	395	---	---	---
8	---	---	---	---	---	---	435	349	386	---	---	---
9	---	---	---	495	441	473	445	357	396	---	---	---
10	---	---	---	526	442	483	432	353	384	---	---	---
11	---	---	---	459	154	263	365	145	218	---	---	---
12	---	---	---	345	255	297	197	154	179	---	---	---
13	---	---	---	461	335	410	222	192	205	---	---	---
14	---	---	---	427	85	238	310	225	257	---	---	---
15	---	---	---	179	45	123	337	263	287	---	---	---
16	---	---	---	77	47	59	353	276	296	---	---	---
17	---	---	---	83	71	77	299	281	287	---	---	---
18	---	---	---	98	83	88	297	183	260	---	---	---
19	---	---	---	120	99	110	188	158	174	---	---	---
20	---	---	---	149	121	134	---	---	---	---	---	---
21	---	---	---	166	153	158	---	---	---	---	---	---
22	---	---	---	510	167	292	---	---	---	---	---	---
23	---	---	---	868	324	551	---	---	---	---	---	---
24	---	---	---	480	340	411	---	---	---	---	---	---
25	---	---	---	457	334	414	---	---	---	---	---	---
26	---	---	---	457	370	418	---	---	---	---	---	---
27	---	---	---	499	358	410	---	---	---	---	---	---
28	---	---	---	527	465	491	---	---	---	---	---	---
29	---	---	---	466	355	425	---	---	---	---	---	---
30	---	---	---	445	328	388	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	868	45	305	750	145	329	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	---	---	---	296	106	184	564	209	385
2	---	---	---	835	613	692	386	148	300	685	554	585
3	---	---	---	748	555	655	580	394	480	704	492	650
4	---	---	---	812	662	771	765	517	624	619	498	551
5	---	---	---	984	669	845	820	498	653	614	526	557
6	---	---	---	980	575	783	693	80	374	682	622	645
7	---	---	---	917	438	629	171	97	136	682	496	588
8	---	---	---	595	255	485	289	175	234	569	465	534
9	---	---	---	443	200	308	353	290	322	649	530	566
10	---	---	---	442	238	335	701	350	530	662	483	570
11	---	---	---	441	293	366	738	85	507	670	454	557
12	---	---	---	397	235	348	163	116	137	575	511	534
13	---	---	---	513	391	454	224	142	186	581	513	536
14	---	---	---	549	421	481	322	226	273	636	520	594
15	---	---	---	671	426	530	387	319	354	594	149	286
16	---	---	---	667	523	581	424	362	389	661	406	526
17	---	---	---	614	502	558	386	262	368	797	665	725
18	---	---	---	701	451	551	374	248	333	832	783	799
19	---	---	---	988	499	743	381	242	310	798	295	562
20	---	---	---	829	623	744	388	262	348	543	352	435
21	---	---	---	---	---	---	367	237	257	654	546	592
22	---	---	---	---	---	---	279	244	261	661	445	546
23	---	---	---	---	---	---	297	273	286	542	476	506
24	---	---	---	---	---	---	296	124	176	550	460	494
25	---	---	---	---	---	---	518	149	307	558	451	504
26	---	---	---	---	---	---	612	381	461	610	407	520
27	---	---	---	---	---	---	663	448	517	503	392	453
28	---	---	---	---	---	---	518	353	448	519	340	417
29	---	---	---	599	204	474	661	356	474	443	365	398
30	---	---	---	557	283	440	593	466	511	432	365	401
31	---	---	---	606	123	478	782	184	486	---	---	---
MONTH	---	---	---	988	123	557	820	80	362	832	149	534
YEAR	988	45	427									

\* No recorder data collected during October 1991 and during January through June 1992.



## RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

## WATER-QUALITY RECORDS

(DATA NOT PREVIOUSLY PUBLISHED)

TEMPERATURE, WATER (DEG. C) WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992\*

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	---	---	---	3.7	e.3	1.9	---	---	---
2	---	---	---	---	---	---	8.4	e.4	2.6	---	---	---
3	---	---	---	---	---	---	7.5	e.7	1.9	---	---	---
4	---	---	---	---	---	---	7.4	e.1	1.8	---	---	---
5	---	---	---	---	---	---	5.0	e.1	1.4	---	---	---
6	---	---	---	---	---	---	10.9	e.1	2.8	---	---	---
7	---	---	---	---	---	---	11.7	e.2	3.9	---	---	---
8	---	---	---	---	---	---	14.2	e.1	4.7	---	---	---
9	---	---	---	20.5	3.7	10.7	13.8	e.1	4.6	---	---	---
10	---	---	---	21.4	8.9	12.5	11.4	e.4	4.9	---	---	---
11	---	---	---	10.9	7.4	9.9	6.4	3.3	5.1	---	---	---
12	---	---	---	18.5	4.7	9.1	10.7	3.3	5.9	---	---	---
13	---	---	---	19.3	3.0	9.8	7.4	2.0	4.0	---	---	---
14	---	---	---	15.4	9.8	11.6	8.6	1.6	3.7	---	---	---
15	---	---	---	10.8	6.7	9.0	4.9	1.5	2.8	---	---	---
16	---	---	---	7.5	4.8	6.0	6.1	e.7	2.4	---	---	---
17	---	---	---	14.6	3.7	8.1	8.7	e.8	3.3	---	---	---
18	---	---	---	8.4	4.5	6.6	6.1	2.6	4.3	---	---	---
19	---	---	---	9.1	2.0	5.5	5.3	3.4	4.6	---	---	---
20	---	---	---	12.3	2.3	5.8	---	---	---	---	---	---
21	---	---	---	11.0	1.9	6.0	---	---	---	---	---	---
22	---	---	---	9.2	1.0	4.8	---	---	---	---	---	---
23	---	---	---	11.7	1.0	3.3	---	---	---	---	---	---
24	---	---	---	10.1	e.3	3.0	---	---	---	---	---	---
25	---	---	---	13.6	e.1	4.7	---	---	---	---	---	---
26	---	---	---	14.1	e.1	5.3	---	---	---	---	---	---
27	---	---	---	14.3	e.1	6.2	---	---	---	---	---	---
28	---	---	---	12.7	2.7	6.0	---	---	---	---	---	---
29	---	---	---	9.5	1.7	4.5	---	---	---	---	---	---
30	---	---	---	5.2	e.0	2.3	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	21.4	e.0	6.8	14.2	e.1	3.5	---	---	---
e DAY	Estimated MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	---	---	---	32.1	17.7	24.0	28.9	14.6	20.8
2	---	---	---	30.7	12.1	21.5	32.7	18.8	24.3	28.8	14.2	21.2
3	---	---	---	31.3	17.6	23.3	36.0	19.0	24.7	33.0	16.3	22.2
4	---	---	---	35.4	18.2	24.1	34.9	17.1	24.2	29.2	13.0	20.0
5	---	---	---	32.2	20.3	25.9	36.7	16.0	24.5	28.2	11.9	19.6
6	---	---	---	36.4	19.0	24.4	36.2	15.9	23.9	26.7	13.4	19.6
7	---	---	---	38.6	20.2	26.2	34.3	17.5	24.1	28.1	13.3	20.4
8	---	---	---	36.6	18.6	26.2	32.4	18.3	24.4	30.3	13.6	20.0
9	---	---	---	33.0	20.9	24.7	33.7	18.3	25.0	32.2	10.8	20.1
10	---	---	---	30.5	19.9	23.6	36.7	19.4	26.1	34.1	11.5	20.4
11	---	---	---	30.4	18.4	22.6	35.5	15.9	22.1	31.4	11.5	20.9
12	---	---	---	36.6	16.9	24.0	34.3	18.6	23.8	28.9	10.3	20.3
13	---	---	---	35.1	15.1	23.1	30.3	18.5	22.9	30.3	14.3	21.3
14	---	---	---	30.8	15.1	21.9	35.9	14.8	23.6	32.5	13.6	21.4
15	---	---	---	34.3	13.8	23.2	34.3	16.9	23.2	31.2	14.8	22.7
16	---	---	---	35.6	16.0	23.6	30.9	16.8	22.3	32.5	10.3	21.8
17	---	---	---	32.6	15.6	22.9	34.7	18.6	24.9	28.3	12.6	20.5
18	---	---	---	32.2	15.3	23.1	32.2	14.6	22.8	29.6	10.8	19.7
19	---	---	---	33.6	18.2	24.4	36.1	15.3	22.0	21.6	14.9	18.4
20	---	---	---	35.2	17.6	23.8	33.4	15.5	23.4	28.3	14.4	19.7
21	---	---	---	---	---	---	34.7	16.2	23.0	27.6	13.2	19.2
22	---	---	---	---	---	---	24.2	13.4	19.9	31.4	13.8	20.8
23	---	---	---	---	---	---	25.7	15.7	20.2	29.8	11.8	19.2
24	---	---	---	---	---	---	21.8	16.7	19.6	29.8	12.8	19.6
25	---	---	---	---	---	---	34.9	13.6	21.8	26.6	12.6	18.2
26	---	---	---	---	---	---	35.1	15.8	22.6	26.3	8.2	16.4
27	---	---	---	---	---	---	33.7	12.6	21.0	26.7	9.0	16.7
28	---	---	---	---	---	---	32.2	11.4	19.5	28.7	9.1	16.3
29	---	---	---	36.6	14.1	24.6	31.4	12.1	20.5	26.4	10.9	17.1
30	---	---	---	35.1	17.0	23.9	27.1	11.7	20.1	27.5	6.8	17.1
31	---	---	---	35.5	15.9	23.9	30.8	15.8	21.1	---	---	---
MONTH	---	---	---	38.6	12.1	23.9	36.7	11.4	22.8	34.1	6.8	19.7
YEAR	38.6	e.0	16.4									

\* No recorder data collected during October 1991 and during January through June 1992.

## 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 (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,364 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. 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, 20 ft<sup>3</sup>/s, at 0225 hours Nov. 11, gage height, 1.17 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
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	.61	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
20	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
21	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
22	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
23	.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
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
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	.000	---	---	---	---	---	.000	.000	.000	.000	.000	.000
MAX	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
(†)	2.24							0.36	0.26	0.83	1.25	0.70

(†) Total rainfall accumulation in inches.

## RIO GRANDE BASIN

08329928 RIO GRANDE NEAR ALAMEDA NM

LOCATION.--Lat 35°10'54", long 106°39'20", Bernalillo County, Hydrologic Unit 13020203, on downstream side of Paseo del Norte bridge in Albuquerque, and at mile 1,532.0.

DRAINAGE AREA.--17,263 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--March 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,990 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300), 48 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). Diversions upstream from station for irrigation of about 714,000 acres, several hundred of which are downstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	484	523	591	1240	844	2180	2360	4850	7030	3410	938	2480
2	434	611	586	1280	871	1540	1670	4810	7110	3020	1060	2600
3	430	683	618	1180	858	1120	1850	4800	7230	3150	767	2630
4	426	702	751	1150	922	1050	2280	5360	7790	3130	702	2350
5	445	655	655	1010	935	546	2780	4980	7840	2910	624	2110
6	491	677	663	755	978	502	3090	3570	7920	2530	591	1520
7	473	642	650	806	1050	534	3080	3580	7860	2480	651	1560
8	509	607	750	1100	1030	505	3200	3980	7770	2210	598	1270
9	522	601	687	1290	1060	599	2790	3890	8100	1630	566	1290
10	531	586	628	1410	1060	827	2870	3790	8080	652	579	1090
11	463	778	781	1490	1100	756	3100	3010	7110	563	566	1110
12	461	615	907	1430	1130	793	3490	2080	6210	741	545	960
13	534	811	961	1270	905	868	4450	1970	5420	460	854	866
14	533	826	816	1230	865	887	4520	2690	4540	523	922	874
15	544	855	795	1190	1160	812	4550	3350	4210	678	691	1160
16	479	817	744	1060	959	680	4380	3840	4230	785	849	1260
17	435	823	798	1080	962	689	3920	3960	5090	669	1990	1140
18	427	902	992	1130	998	736	3720	4010	5670	487	927	803
19	436	842	823	1330	463	907	3370	4770	5410	564	826	951
20	406	973	998	1200	194	1140	3390	4990	5350	1550	796	1140
21	392	1060	1050	1290	162	1140	3290	5070	5560	956	1030	916
22	359	919	851	1150	148	1220	3330	5100	5230	705	1260	766
23	346	870	704	1060	838	1270	3330	5150	4070	576	1230	712
24	326	958	769	1060	1400	2030	3800	5240	4050	503	1270	684
25	403	904	842	1000	1730	2080	4320	5790	4310	511	1200	661
26	373	716	867	1020	1910	2090	4280	5820	4090	512	1090	643
27	389	682	860	1020	1970	3070	4330	5880	3850	512	1250	646
28	499	655	768	1020	2320	3430	4400	5950	3580	524	1180	523
29	365	617	780	958	---	3800	4700	6590	3570	749	1170	461
30	288	629	1100	938	---	3450	4830	6810	3500	716	1200	437
31	304	---	1140	889	---	2880	---	6960	---	704	2610	---
TOTAL	13507	22539	24925	35036	28822	44131	105470	142640	171780	39110	30532	35613
MEAN	436	751	804	1130	1029	1424	3516	4601	5726	1262	985	1187
MAX	544	1060	1140	1490	2320	3800	4830	6960	8100	3410	2610	2630
MIN	288	523	586	755	148	502	1670	1970	3500	460	545	437
AC-FT	26790	44710	49440	69490	57170	87530	209200	282900	340700	77570	60560	70640

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993
MEAN	382	836	985	839	858
MAX	468	1498	1530	1130	1029
(WY)	1991	1992	1992	1993	1993
MIN	310	166	771	574	645
(WY)	1992	1990	1991	1990	1990

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1989 - 1993

ANNUAL TOTAL	543493	694105	1465
ANNUAL MEAN	1485	1902	1902
HIGHEST ANNUAL MEAN			1993
LOWEST ANNUAL MEAN			1990
HIGHEST DAILY MEAN	6920	May 11	8100
LOWEST DAILY MEAN	240	Jul 1	22
ANNUAL SEVEN-DAY MINIMUM	265	Feb 19	29
INSTANTANEOUS PEAK FLOW			8670
INSTANTANEOUS PEAK STAGE			6.54
INSTANTANEOUS LOW FLOW			14
ANNUAL RUNOFF (AC-FT)	1078000	1377000	1062000
10 PERCENT EXCEEDS	3960	4800	3700
50 PERCENT EXCEEDS	818	1020	827
90 PERCENT EXCEEDS	367	507	310

## RIO GRANDE BASIN

08329935 ARROYO 19A AT ALBUQUERQUE, NM

LOCATION.--Lat 35°09'24", long 106°43'37", in NE¼NE¼ 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 (no winter records).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,328 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 1992 TO SEPTEMBER 1993  
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	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.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
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	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.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
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	.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	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	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
MAX	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
(†)	0.27						0.00	0.04	0.22	0.61	3.63	0.40

(†) 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 SE/4SW/4 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 (no winter records).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,115 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 most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft<sup>3</sup>/s, Aug. 29, at 1725 hours gage height, 2.19 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	---	---	---	.00	.00	.00	.00	.25	.00
2	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	.05	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.11	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	.06	---	---	---	.00	.00	.00	.00	.00	.01
8	.00	.00	.01	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	---	---	---	.00	.00	.00	.00	.07	.01
10	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.06	.00	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	.01	---	---	---	.00	.00	.00	.08	.00	.01
13	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.02
14	.01	.00	.00	---	---	---	.00	.00	.00	.23	.04	.00
15	.04	.00	---	---	---	---	.00	.00	.00	.00	.02	.00
16	.00	.00	---	---	---	---	.00	.00	.00	.00	.01	.00
17	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	.00	---	---	---	---	.00	.00	.00	.00	.01	.00
20	.00	.01	---	---	---	---	.00	.00	.02	.00	.02	.00
21	.00	.03	---	---	---	---	.00	.00	.01	.00	.01	.01
22	.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	.00	.00	.01	.00
27	.00	.00	---	---	---	.01	.00	.00	.00	.00	.18	.00
28	.01	.00	---	---	---	.00	.00	.00	.00	.00	.12	.00
29	.00	.00	---	---	---	.00	.00	.00	.00	.00	.28	.00
30	.00	.00	---	---	---	.00	.00	.00	.00	.08	.04	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.06	0.10	---	---	---	---	0.00	0.00	0.03	0.39	1.06	0.06
MEAN	.002	.003	---	---	---	---	.000	.000	.001	.013	.034	.002
MAX	.04	.06	---	---	---	---	.00	.00	.02	.23	.28	.02
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.1	.2	---	---	---	---	.00	.00	.06	.8	2.1	.1
(†)	0.33	0.87								0.49	2.25	0.42

(†) 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 of natural channel, 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 (no winter 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 fair. 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, 182 ft<sup>3</sup>/s, at 1410 hours Aug. 27, gage height, 4.11 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
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	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.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	.00
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	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.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
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	.00
26	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	---	---	---	.00	.00	.00	.00	.00	1.8	.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	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	---	---	---	---	0.00	0.00	0.00	0.00	1.80	0.00
MEAN	.000	.000	---	---	---	---	.000	.000	.000	.000	.058	.000
MAX	.00	.00	---	---	---	---	.00	.00	.00	.00	1.8	.00
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	---	---	---	---	.00	.00	.00	.00	3.6	.00
(†)	0.32	0.25					0.00	0.00	0.00	0.11	0.20	0.41

(†) 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. No flow at times.

COOPERATION.--Records for Albuquerque Riverside drain and Arenal, Armiijo, and Atrisco canals provided by Middle Rio Grande Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	480	537	587	1150	920	2260	2560	4750	6740	3470	809	2120
2	449	604	587	1200	928	1640	e2050	4720	6670	3070	1300	2200
3	438	639	606	1130	929	1280	e2060	4790	6590	3140	810	2170
4	441	651	692	1100	926	1320	e2290	5100	6860	3180	767	1890
5	465	632	629	1060	884	908	e2660	5050	7000	3030	664	1670
6	486	625	626	945	855	802	e2900	3930	6930	2720	611	1140
7	472	623	629	944	884	806	e2990	4030	6960	2700	680	1090
8	480	591	670	1150	873	798	3080	4390	6930	2540	639	942
9	478	581	676	1310	911	880	2800	4380	6990	2070	610	895
10	471	574	657	1460	910	999	2750	4350	6930	1070	599	825
11	462	691	710	1530	949	949	2980	3730	6460	680	542	780
12	430	611	794	1480	984	957	3350	2840	5830	865	521	710
13	461	664	839	1340	919	1010	4190	2720	5250	637	717	663
14	507	735	785	1310	878	1070	4300	3400	4600	628	926	660
15	547	732	768	1290	1140	1080	4330	4150	4210	946	620	748
16	542	721	753	1170	938	979	4240	4560	4130	979	674	893
17	502	717	765	1160	967	962	3990	4800	4780	948	1580	841
18	497	758	896	1190	1040	990	3860	4830	5180	666	886	654
19	491	733	842	1410	744	1130	3580	5420	4910	687	607	661
20	480	757	897	1220	451	1360	3560	5700	4930	1720	608	808
21	503	895	975	1280	407	1410	3560	5750	5120	1280	808	715
22	472	775	896	1200	393	1450	3630	5750	5000	834	913	622
23	429	723	769	1140	797	1460	3600	5790	3830	733	867	569
24	424	754	758	1110	1460	1970	4040	5780	3830	603	903	555
25	483	780	814	1090	1780	2050	4550	6100	4050	614	874	555
26	479	675	839	1090	1980	2120	4460	6110	3830	540	752	528
27	516	618	843	1080	2040	2950	4470	6200	3650	477	986	528
28	543	597	834	1060	2200	3160	4470	6240	3360	517	957	499
29	536	591	836	999	---	3500	4750	6600	3410	745	915	399
30	385	592	1010	982	---	3290	4730	6580	3430	768	938	385
31	403	---	1120	960	---	2960	---	6770	---	756	2070	---
TOTAL	14752	20176	24102	36540	29087	48500	106780	155310	158390	43613	26153	27715
MEAN	476	673	777	1179	1039	1565	3559	5010	5280	1407	844	924
MAX	547	895	1120	1530	2200	3500	4750	6770	7000	3470	2070	2200
MIN	385	537	587	944	393	798	2050	2720	3360	477	521	385
AC-FT	29260	40020	47810	72480	57690	96200	211800	308100	314200	86510	51870	54970
(†)	7920	479	436	493	447	4920	2410	8460	8170	7870	7620	7600

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1993, BY WATER YEAR (WY)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	399	946	1057	956	1088	1320	2274	3327	2944	1595	800	577								
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 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1974 - 1993
ANNUAL TOTAL	539412	691118	
ANNUAL MEAN	1474	1893	a1440
HIGHEST ANNUAL MEAN			2486
LOWEST ANNUAL MEAN			356
HIGHEST DAILY MEAN	5900	7000	8650
LOWEST DAILY MEAN	319	385	.00
ANNUAL SEVEN-DAY MINIMUM	328	462	.00
INSTANTANEOUS PEAK FLOW		7210	b25000
INSTANTANEOUS PEAK STAGE		6.49	7.82
ANNUAL RUNOFF (AC-FT)	1070000	1371000	1043000
10 PERCENT EXCEEDS	3950	4780	3650
50 PERCENT EXCEEDS	840	949	832
90 PERCENT EXCEEDS	469	525	237

e 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 field observer, 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, 719 microsiemens, July 21; minimum daily, 225 microsiemens, June 1.

WATER TEMPERATURE: Maximum daily, 25.5 °C, July 30; minimum daily, 4.5 °C, Jan. 1, 2, 24.

SEDIMENT CONCENTRATION: Maximum daily mean, 10,500 mg/L, July 21; minimum daily mean, 26 mg/L, Nov. 4.

SEDIMENT LOAD: Maximum daily, 39,500 tons, July 21; minimum daily, 43 tons, Nov. 29.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC- ITY, MEAN (F/S) (00055)	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 .062 MM (70331)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	
NOV													
30...	1415	593	308	1.2	1.60	3.5	76	122	199	--	40	55	
JAN													
05...	1315	1050	--	--	--	5.5	3260	9240	13000	--	2	3	
FEB													
03...	1300	932	346	1.5	1.85	6.5	203	511	792	--	17	29	
26...	1126	2040	310	2.3	2.84	8.5	3220	17700	24300	--	10	16	
APR													
01...	1330	2510	310	2.7	3.02	12.5	302	2050	3030	16	--	--	
30...	1300	4870	320	3.9	3.90	15.5	1060	13900	19200	14	--	--	
MAY													
27...	1230	6270	330	4.6	4.18	18.5	869	14700	20300	14	--	--	
JUN													
25...	1000	4180	320	3.7	3.57	18.0	317	3580	5190	27	--	--	
AUG													
13...	1300	536	164	1.6	2.08	20.0	179	259	412	--	82	83	
SEP													
03...	1330	2220	315	2.7	2.63	22.5	336	2010	2970	98	--	--	
30...	1145	385	--	--	--	16.0	93	97	160	--	39	40	
DATE		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)	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)
NOV													
30...		88	100	--	0	1	12	60	89	96	99	100	--
JAN													
05...		13	72	96	5	23	49	87	99	100	--	--	--
FEB													
03...		48	100	--	--	--	0	4	54	96	99	100	--
26...		58	100	--	60	68	74	93	100	--	--	--	--
APR													
01...		--	--	--	--	0	8	63	94	99	100	--	--
30...		--	--	--	--	0	4	32	73	88	94	96	100
MAY													
27...		--	--	--	--	0	4	40	77	89	93	96	100
JUN													
25...		--	--	--	--	0	3	37	72	85	92	96	100
AUG													
13...		94	100	--	0	1	10	54	83	87	90	94	100
SEP													
03...		--	--	--	77	92	98	100	--	--	--	--	--
30...		48	100	--	--	0	5	63	96	100	--	--	--





RIO GRANDE BASIN  
08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	54	70	31	45	38	60	55	171	68	169	116	708
2	54	65	27	44	31	49	55	178	82	205	93	412
3	61	72	29	50	37	61	50	153	77	193	62	214
4	58	69	26	46	43	80	50	148	50	125	57	203
5	55	69	32	55	47	80	53	152	64	153	98	240
6	61	80	32	54	51	86	54	138	66	152	112	243
7	51	65	29	49	48	82	52	133	54	129	123	268
8	44	57	28	45	49	89	53	165	46	108	109	235
9	47	61	28	44	44	80	54	191	35	86	36	86
10	43	55	41	64	48	85	48	189	64	157	44	119
11	41	51	51	95	56	107	50	207	62	159	119	305
12	42	49	39	64	62	133	51	204	71	189	162	419
13	42	52	44	79	63	143	53	192	69	171	50	136
14	46	63	48	95	62	131	54	191	55	130	52	150
15	42	62	43	85	56	116	51	178	62	191	142	414
16	41	60	45	88	55	112	53	167	109	276	54	143
17	43	58	46	89	59	122	50	157	73	191	81	210
18	45	60	49	100	59	143	48	154	69	194	134	358
19	46	61	50	99	58	132	51	194	50	100	37	113
20	51	66	51	104	60	145	50	165	55	67	50	184
21	51	69	58	140	60	158	52	180	69	76	62	236
22	57	73	49	103	58	140	50	162	57	60	115	450
23	43	50	32	62	58	120	50	154	51	110	152	599
24	40	46	34	69	70	143	50	150	73	288	70	372
25	45	59	32	67	65	143	50	147	52	250	89	493
26	50	65	31	56	60	136	51	150	82	438	37	212
27	45	63	34	57	63	143	50	146	89	490	79	629
28	43	63	31	50	57	128	47	135	97	576	106	904
29	49	71	27	43	55	124	50	135	---	---	100	945
30	46	48	161	257	63	172	54	143	---	---	124	1100
31	44	48	---	---	59	178	52	135	---	---	72	575
TOTAL	---	1900	---	2298	---	3621	---	5064	---	5433	---	11675

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	80	553	110	1410	156	2840	248	2320	315	688	817	4680
2	112	620	83	1060	167	3010	229	1900	780	2740	699	4150
3	109	606	82	1060	196	3490	233	1980	537	1170	667	3910
4	111	686	70	964	197	3650	242	2080	383	793	628	3200
5	71	510	40	545	208	3930	218	1780	297	532	542	2440
6	302	2360	73	775	204	3820	194	1420	248	409	388	1190
7	126	1020	111	1210	732	13800	185	1350	487	894	260	765
8	126	1050	87	1030	343	6420	168	1150	454	783	249	633
9	464	3510	37	1030	591	11200	164	217	293	421	217	524
10	105	780	146	1710	763	14300	173	500	630	1020	158	352
11	59	475	102	1030	669	11700	187	343	563	824	172	362
12	65	588	43	330	634	9980	200	467	341	480	113	217
13	99	1120	75	551	615	8720	236	406	510	987	85	152
14	93	1080	111	1020	507	6300	304	515	1670	4180	137	244
15	111	1300	103	1150	485	5510	380	971	889	1490	206	416
16	87	996	101	1240	403	4490	660	1740	522	950	213	514
17	80	862	56	726	332	4280	352	901	976	4160	129	293
18	84	875	33	430	308	4310	207	372	587	1400	98	173
19	71	686	55	805	315	4180	119	221	631	1030	126	225
20	63	606	81	1250	333	4430	4840	38400	932	1530	156	340
21	63	606	82	1270	361	4990	10500	39500	1180	2570	109	210
22	77	755	113	1750	352	4750	665	1500	1390	3420	94	155
23	71	690	114	1780	257	2660	612	1210	1150	2680	101	158
24	90	982	117	1830	244	2520	527	858	705	1720	120	180
25	105	1290	117	1930	335	3660	425	705	343	809	121	181
26	101	1220	109	1800	330	3410	330	481	276	560	110	157
27	83	1000	120	2010	277	2730	282	363	526	1400	534	761
28	73	881	107	1800	248	2250	318	444	626	1620	80	108
29	93	1190	122	2170	243	2240	542	1090	541	1340	57	61
30	164	2090	78	1390	248	2300	612	1270	601	1520	65	68
31	---	---	125	2280	---	---	427	872	1120	6260	---	---
TOTAL	---	30987	---	39336	---	161870	---	108026	---	50450	---	26819

TOTAL LOAD FOR YEAR: 447479 TONS.

## RIO GRANDE BASIN

08330150 RIO GRANDE AT RIO BRAVO BRIDGE NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°01'59", long 106°40'23", Bernalillo County, Hydrologic Unit 13020203, in Atrisco Grant, 200 ft upstream of the Rio Bravo Bridge near Albuquerque, and at mile 1,535.1.

DRAINAGE AREA.--17,500 mi<sup>2</sup>, approximately, including 2,940 mi<sup>2</sup> in closed basin in San Luis Valley, CO.

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

GAGE.--Water-stage recorder. Altitude of gage is 4,930 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 53 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	423	444	685	1040	898	2650	2520	4600	6880	3480	622	1920
2	382	514	660	1120	910	2030	2020	4560	6760	3220	977	2110
3	357	553	678	1120	906	1510	2030	4620	6710	3250	674	2160
4	357	592	799	1060	941	1550	2270	4840	6970	3340	664	1950
5	376	569	827	976	970	1130	2620	4830	6960	3220	603	1790
6	406	590	776	840	974	911	2880	3790	6850	2960	567	1360
7	400	597	721	794	1000	952	2950	3780	6740	2850	590	1240
8	410	546	702	961	1050	963	2880	4130	6640	2680	550	1060
9	424	565	690	1090	1090	1040	2710	4160	6750	2320	505	939
10	443	577	653	1240	1130	1170	2590	4170	6750	1510	502	885
11	440	673	692	1290	1180	1180	2790	3760	6300	938	434	792
12	399	614	802	1280	1230	1180	3110	3100	5700	1070	414	714
13	417	654	875	1260	1160	1250	3810	2940	5180	840	449	647
14	446	727	841	1250	1110	1310	3940	3430	4620	704	844	654
15	461	705	789	1240	1340	1280	3970	4140	4300	978	578	674
16	439	709	757	1170	1120	1160	3950	4590	4260	964	602	800
17	403	715	718	1140	1100	1120	3730	4840	4850	955	1170	755
18	402	756	821	1170	1140	1110	3540	4860	5280	700	910	603
19	391	781	791	1320	933	1190	3300	5360	5050	606	601	565
20	383	802	838	1200	550	1360	3350	5600	5110	1210	592	697
21	399	945	938	1260	477	1440	3420	5660	5300	1270	743	657
22	385	901	851	1220	464	1490	3530	5650	5300	796	873	593
23	363	816	720	1180	806	1540	3520	5680	4330	694	845	544
24	368	834	701	1150	1490	1880	3870	5680	4150	534	884	530
25	403	857	756	1110	1990	1990	4380	6140	4240	525	887	523
26	384	763	763	1090	2430	1940	4320	6170	4060	459	774	480
27	402	712	774	1050	2470	2600	4220	6070	3850	384	960	478
28	417	701	755	1050	2460	2890	4180	6150	3530	396	1010	472
29	466	699	768	1020	---	3190	4500	6630	3480	557	962	398
30	350	701	896	964	---	3160	4580	6770	3460	596	974	364
31	361	---	978	916	---	2820	---	6930	---	572	1730	---
TOTAL	12457	20612	24015	34571	33319	50986	101480	153630	160360	44578	23490	27354
MEAN	402	687	775	1115	1190	1645	3383	4956	5345	1438	758	912
MAX	466	945	978	1320	2470	3190	4580	6930	6970	3480	1730	2160
MIN	350	444	653	794	464	911	2020	2940	3460	384	414	364
AC-FT	24710	40880	47630	68570	66090	101100	201300	304700	318100	88420	46590	54260

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1993, BY WATER YEAR (WY)

	375	907	983	991	916	1343	3156	4219	4021	1149	958	802
MEAN	375	907	983	991	916	1343	3156	4219	4021	1149	958	802
MAX	402	1127	1192	1115	1190	1645	3754	4956	5345	1438	1413	912
(WY)	1993	1992	1992	1993	1993	1993	1992	1993	1993	1993	1991	1993
MIN	348	687	775	868	686	1179	2333	3130	2726	602	703	592
(WY)	1992	1993	1993	1992	1992	1992	1991	1991	1992	1992	1992	1992

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1991 - 1993

ANNUAL TOTAL	534764	686852	
ANNUAL MEAN	1461	1882	
HIGHEST ANNUAL MEAN			1705
LOWEST ANNUAL MEAN			1882
HIGHEST DAILY MEAN	6230	May 12	1528
LOWEST DAILY MEAN	281	Jul 1	1992
ANNUAL SEVEN-DAY MINIMUM	333	Feb 17	6970
INSTANTANEOUS PEAK FLOW			Jun 4
INSTANTANEOUS PEAK STAGE			Oct 30
ANNUAL RUNOFF (AC-FT)	1061000		257
10 PERCENT EXCEEDS	3990		279
50 PERCENT EXCEEDS	828		7130
90 PERCENT EXCEEDS	405		Jun 4
		6.48	6.48
			1235000
			4150
			1060
			448

## 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 left 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 (no winter 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 good.

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, 295 ft<sup>3</sup>/s, at 1330 hours Aug. 27, gage height 1.82 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	---	---	---	.00	.54	.00	.00	.45	.00
2	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	1.2	---	---	---	.00	.00	.00	.00	.69	.00
5	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.00	---	---	---	---	.00	.00	.00	.77	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.70
13	.00	.00	---	---	---	---	.00	.00	.00	.00	1.5	.41
14	.00	.00	---	---	---	---	.00	.00	.00	3.6	.00	.00
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	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
20	.00	.00	---	---	---	---	.00	.00	.00	9.6	.00	.00
21	.00	.00	---	---	---	---	.00	.00	.58	.00	.00	.01
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	.68	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
26	.00	.00	---	---	---	.00	.00	.00	.00	.00	.77	.00
27	.00	.00	---	---	---	.00	.00	.00	.00	.00	11	.00
28	.87	.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	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	1.55	0.00	---	---	---	---	0.00	0.54	0.58	13.97	14.41	1.12
MEAN	.050	.000	---	---	---	---	.000	.017	.019	.45	.46	.037
MAX	.87	.00	---	---	---	---	.00	.54	.58	9.6	11	.70
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	3.1	.00	---	---	---	---	.00	1.1	1.2	28	29	2.2

## RIO GRANDE BASIN

08330565 ARROYO DEL COYOTE NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'55", long 106°32'18", in NE¼NE¼ sec. 17, T. 9 N., R. 4 E., Bernalillo County Hydrologic Unit 13020203, on left bank 0.6 mi downstream from Pennsylvania Ave., 2 mi upstream from confluence with Tijeras Arroyo, and 2.5 southeast of Kirtland Air Force Base.

DRAINAGE AREA.--35.0 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1989 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,370 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Record good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 666 ft<sup>3</sup>/s, Sept. 6, 1991, gage height, 3.95 ft, from floodmarks, from step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow during water year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
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	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.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
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	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.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
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	.00
26	.00	.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	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	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
MAX	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00

## RIO GRANDE BASIN

08330567 ARROYO DEL COYOTE AT MOUTH NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°01'20", long 106°33'00", in NW¼SW¼, sec. 8, T. 9 N., R. 4 E., Bernalillo County, Hydrologic Unit 13020203, on left bank 1.5 mi downstream from Pennsylvania Ave., 2,000 ft upstream from confluence with Tijeras Arroyo, and 1.5 mi south of Kirtland Air Force Base.

DRAINAGE AREA.--39.0 mi².

PERIOD OF RECORD.--September 1989 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,290 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 262 ft³/s, Sept. 6, 1991, gage height, 5.21 ft, from floodmarks, from step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow during water year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
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	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.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
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	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.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
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	.00
26	.00	.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	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	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
MAX	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00

## RIO GRANDE BASIN

08330569 TIJERAS ARROYO BELOW ARROYO DEL COYOTE NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°01'37", long 106°33'48", in NW¼NE¼, sec. 7, T.9N., R.4 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 2.3 mi southeast of intersection of Gibson Boulevard and Louisiana Boulevard and 1.6 mi south of Kirtland Air Force Base.

DRAINAGE AREA.--126 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1989 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,240 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 944 ft<sup>3</sup>/s, Aug. 11, 1992, Sept. 6, 1991; gage height, 6.90 ft, from floodmarks, from rating curve extended above 20 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 4.18 ft and 6.90 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 157 ft<sup>3</sup>/s, at 0515 hours July 20, gage height, 4.74 ft, from floodmarks, from rating curve extended on basis of slope-area measurements at gage; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
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	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	.00	---	---	---	---	.00	.00	.00	.00	.40	.00
14	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
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	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
20	.00	.00	---	---	---	---	.00	.00	.00	11	.00	.00
21	.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	.00
26	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	---	---	---	.00	.00	.00	.00	.00	.99	.00
28	.04	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	---	---	---	.00	.00	.00	.00	.00	.01	.00
30	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.04	0.00	---	---	---	---	0.00	0.00	0.00	11.00	1.40	0.00
MEAN	.001	.000	---	---	---	---	.000	.000	.000	.35	.045	.000
MAX	.04	.00	---	---	---	---	.00	.00	.00	11	.99	.00
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.08	.00	---	---	---	---	.00	.00	.00	22	2.8	.00

## RIO GRANDE BASIN

08330580 TIJERAS ARROYO AT MONTESSA PARK NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°01'19", long 106°35'40", Bernalillo County, Hydrologic Unit 13020203, on left bank 3.1 mi upstream from highway bridge on Interstate 25, and 3.5 mi south of Albuquerque.

DRAINAGE AREA.--122 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1987 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Recording rain gage at station. See tabulation below for monthly precipitation in inches. No flow most of time.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,090 ft<sup>3</sup>/s, July 9, 1988, gage height, 4.60 ft, from slope-area measurements of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 429 ft<sup>3</sup>/s, at 0700 hours July 20, gage height, 2.52 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
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	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	---	---	---	.00	.00	.00	.00	4.3	.00
14	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
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	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
20	.00	.00	---	---	---	---	.00	.00	.00	9.7	.00	.00
21	.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	.00
26	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	---	---	---	.00	.00	.00	.00	.00	6.9	.00
28	.38	.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	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.38	0.00	---	---	---	---	0.00	0.00	0.00	9.70	11.20	0.00
MEAN	.012	.000	---	---	---	---	.000	.000	.000	.31	.36	.000
MAX	.38	.00	---	---	---	---	.00	.00	.00	9.7	6.9	.00
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.8	.00	---	---	---	---	.00	.00	.00	.19	.22	.00
(†)	0.04	0.96	0.42	0.88	1.14	0.32	0.00	0.15	0.32	0.19	2.07	0.06

(†) Total rainfall accumulation in inches.



## 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 (no winter 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, 181 ft<sup>3</sup>/s, at 0845 hours July 20, gage height, 3.76 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 1992 TO SEPTEMBER 1993  
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	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	.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	.00
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	.00
18	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.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
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	.00
26	.00	.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	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	---	---	---	---	0.00	0.00	0.00	10.00	38.40	0.00
MEAN	.000	.000	---	---	---	---	.000	.000	.000	.32	1.24	.000
MAX	.00	.00	---	---	---	---	.00	.00	.00	10	17	.00
MIN	.00	.00	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	---	---	---	---	.00	.00	.00	20	76	.00

## 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 (no winter record).

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.

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, 171 ft<sup>3</sup>/s, at 2130 hours Aug. 29, gage height, 1.71 ft; no flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.20	---	---	---	---	---	.00	.00	.00	3.3	.30
2	.00	.00	---	---	---	---	---	.00	.00	.00	14	.00
3	.00	.00	---	---	---	---	---	.00	.00	.00	2.2	.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	.00	.09	.10
8	.00	---	---	---	---	---	---	.30	.00	.00	.00	.10
9	.00	---	---	---	---	---	---	.00	.00	.00	.00	.10
10	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
11	.00	7.6	---	---	---	---	---	.10	.00	.00	.00	.00
12	.00	---	---	---	---	---	---	.30	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.10	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.45	.20
15	.00	---	---	---	---	---	.00	.00	.00	.66	.00	.10
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
20	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
21	.00	---	---	---	---	---	.00	.00	.10	.00	.00	.00
22	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.19
23	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
24	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
25	1.1	---	---	---	---	---	.00	.00	.00	.00	.00	.00
26	.40	---	---	---	---	---	.00	.00	.00	.00	.00	.00
27	.30	---	---	---	---	---	.00	.00	.00	.00	.00	.00
28	1.3	---	---	---	---	---	.00	.00	.00	.00	13	.00
29	1.2	---	---	---	---	---	.00	.00	.00	.00	21	.00
30	.50	---	---	---	---	---	.00	.00	.00	.00	13	.00
31	.30	---	---	---	---	---	---	.00	---	.00	4.8	---
TOTAL	5.10	---	---	---	---	---	---	0.80	0.10	0.66	71.84	1.09
MEAN	.16	---	---	---	---	---	---	.026	.003	.021	2.32	.036
MAX	1.3	---	---	---	---	---	---	.30	.10	.66	21	.30
MIN	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
AC-FT	10	---	---	---	---	---	---	1.6	.2	1.3	142	2.2

## RIO GRANDE BASIN

08330775 SOUTH DIVERSION CHANNEL ABOVE TIJERAS ARROYO NEAR ALBUQUERQUE, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water years 1992 to current year.

REMARKS.--Selected composite samples were collected with an automatic parastaltic pump sampler.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	ENDING TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)*	COLI-FORM, FECAL, 0.45 UM-MF (COLS./100 ML) (31616)*	STREP-TOCOCCI FECAL (MPN) (31677)*	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
AUG 01...	2245	--	--	45	188	7.7	--	--	37000	300000	--	--
AUG 01-02	2327	0240	64	--	151	7.8	120	23	--	--	57	19
AUG 27...	2115	--	--	43	284	7.6	--	--	140000	170000	--	--
AUG 27-28	2125	0005	50	--	186	8.0	260	41	--	--	61	20
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-RINE, TOTAL RESI-DUAL (MG/L) (50060)	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)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)
AUG 01...	--	--	--	--	--	--	<0.02	--	--	--	--	--
AUG 01-02	2.2	5.8	0.3	5.3	114	13	<0.02	4.9	111	122	174	0.640
AUG 27...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 27-28	2.6	10	0.6	5.0	173	17	--	7.9	155	168	3010	0.390
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)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	OIL AND GREASE, TOTAL RECOV. GRAVI-METRIC (MG/L) (00556)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
AUG 01...	--	--	--	--	--	--	--	<0.010	5	<1	--	--
AUG 01-02	0.030	0.670	0.330	2.6	0.750	0.270	35	--	--	--	70	20
AUG 27...	--	--	--	--	--	--	--	<0.010	5	1	--	--
AUG 27-28	0.030	0.420	0.040	0.50	0.180	0.160	69	--	--	--	--	--
DATE	TIME	ENDING TIME	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, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	
AUG 01-02	2327	0240	40	5	7	4	<100	<10	<10	<1	<1.0	
AUG 27-28	2125	0005	--	--	12	--	--	<10	--	<1	--	

\* Analyses performed by City of Albuquerque Water Quality Laboratory

## RIO GRANDE BASIN

08330775 SOUTH DIVERSION CHANNEL ABOVE TIJERAS ARROYO NEAR ALBUQUERQUE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MERCURY, TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)
AUG 01-02	8	<1	<1	13	4	48	1	10	<0.10	<0.1
AUG 27-28	2	--	--	15	--	91	--	--	0.20	--

DATE	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	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)	THALLIUM, TOTAL (UG/L AS TL) (01059)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
AUG 01-02	<2	11	2	<2	<1	<1	<1.0	<5	130	<10
AUG 27-28	--	31	--	<1	--	<1	--	<10	210	--

DATE	TIME	ENDING TIME	DI-BROMOMETHANE WATER WHOLE RECOVER (UG/L) (30217)	DI-CHLOROMETHANE TOTAL (UG/L) (32101)	CARBON-TETRA-CHLORIDE TOTAL (UG/L) (32102)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	BROMO-FORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMOMETHANE TOTAL (UG/L) (32105)	CHLORO-FORM TOTAL (UG/L) (32106)	PHENOLS TOTAL (UG/L) (32730)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)
AUG 01...	2245	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	5	0.3	<0.2
AUG 01-02	2327	0240	--	--	--	--	--	--	--	--	--	--
AUG 27...	2115	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	5	<0.2	<0.2
AUG 27-28	2125	0005	--	--	--	--	--	--	--	--	--	--

DATE	ACE-NAPHTHYLENE TOTAL (UG/L) (34200)	ACE-NAPHTHYLENE TOTAL (UG/L) (34205)	ACROLEIN TOTAL (UG/L) (34210)	ACRYLONITRILE TOTAL (UG/L) (34215)	ANTHRACENE TOTAL (UG/L) (34220)	BENZO B FLUORANTHENE TOTAL (UG/L) (34230)	BENZO K FLUORANTHENE TOTAL (UG/L) (34242)	BENZO-A-PYRENE TOTAL (UG/L) (34247)	DELTA BENZENE HEXA-CHLORIDE TOTAL (UG/L) (34259)	BIS-2-CHLORO-ETHYL ETHER TOTAL (UG/L) (34273)	BIS-(2-CHLORO-ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS-(2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L) (34283)
AUG 01...	--	--	<20	<20	--	--	--	--	--	--	--	--
AUG 01-02	<5.0	<5.0	--	--	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0
AUG 27...	--	--	<20	<20	--	--	--	--	--	--	--	--
AUG 27-28	<5.0	<5.0	--	--	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0

## RIO GRANDE BASIN

08330775 SOUTH DIVERSION CHANNEL ABOVE TIJERAS ARROYO NEAR ALBUQUERQUE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	N-BUTYL BENZYL PHTHAL- ATE TOTAL (UG/L) (34292)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	CHRY- SENE TOTAL (UG/L) (34320)	DIETHYL PHTHAL- ATE TOTAL (UG/L) (34336)	DI- METHYL PHTHAL- ATE TOTAL (UG/L) (34341)	ENDO- SULFAN SULFATE TOTAL (UG/L) (34351)	ENDO- SULFAN BETA TOTAL (UG/L) (34356)	ENDO- SULFAN- I WATER WHOLE REC (UG/L) (34361)	ENDRIN ALDE- HYDE TOTAL (UG/L) (34366)	ETHYL- BENZENE TOTAL (UG/L) (34371)	FLUOR- ANTHENE TOTAL (UG/L) (34376)
AUG 01...	--	<0.20	<0.2	--	--	--	--	--	--	--	<0.2	--
AUG 01-02	<5.0	--	--	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	--	<5.0
AUG 27...	--	<0.20	<0.2	--	--	--	--	--	--	--	<0.2	--
AUG 27-28	<5.0	--	--	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	--	<5.0

DATE	FLUOR- ENE TOTAL (UG/L) (34381)	HEXA- CHLORO- CYCLO- PENT- ADIENE TOTAL (UG/L) (34386)	HEXA- CHLORO- ETHANE TOTAL (UG/L) (34396)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L) (34403)	ISO- PHORONE TOTAL (UG/L) (34408)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- CHLO- RIDE TOTAL (UG/L) (34423)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L) (34428)	N-NITRO -SODI- PHENY- LAMINE TOTAL (UG/L) (34433)	N-NITRO -SODI- METHY- LAMINE TOTAL (UG/L) (34438)	NITRO- BENZENE TOTAL (UG/L) (34447)
AUG 01...	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	--	--
AUG 01-02	<5.0	<5.0	<5.0	<10.0	<5.0	--	--	--	<5.0	<5.0	<5.0	<5.0
AUG 27...	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	--	--
AUG 27-28	<5.0	<5.0	<5.0	<10.0	<5.0	--	--	--	<5.0	<5.0	<5.0	<5.0

DATE	PARA- CHLORO- META CRESOL TOTAL (UG/L) (34452)	PHENAN- THRENE TOTAL (UG/L) (34461)	PYRENE TOTAL (UG/L) (34469)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L) (34521)	BENZO A ANTHRAC ENE1,2- BENZANT HRACENE TOTAL (UG/L) (34526)
AUG 01...	--	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--
AUG 01-02	<30.0	<5.0	<5.0	--	--	--	--	--	--	--	<10.0	<10.0
AUG 27...	--	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--
AUG 27-28	<30.0	<5.0	<5.0	--	--	--	--	--	--	--	<10.0	<10.0

DATE	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANSDI CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L) (34576)	2- CHLORO- NAPH- THALENE TOTAL (UG/L) (34581)	2- CHLORO- PHENOL TOTAL (UG/L) (34586)	2- NITRO- PHENOL TOTAL (UG/L) (34591)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L) (34596)
AUG 01...	<0.20	<0.2	<0.2	<0.20	--	<0.20	<0.20	<1.0	--	--	--	--
AUG 01-02	<5.0	--	--	<5.0	<10.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<10.0
AUG 27...	<0.20	<0.2	<0.2	<0.20	--	<0.20	<0.20	<1.0	--	--	--	--
AUG 27-28	<5.0	--	--	<5.0	<10.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<10.0

## RIO GRANDE BASE

08330775 SOUTH DIVERSION CHANNEL ABOVE TIJERAS ARROYO NEAR ALBUQUERQUE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	2,4-DI- CHLORO- PHENOL TOTAL (UG/L) (34601)	2,4-DI- METHYL- PHENOL TOTAL (UG/L) (34606)	2,4-DI- NITRO- TOLUENE TOTAL (UG/L) (34611)	2,4,- DI- NITRO- PHENOL TOTAL (UG/L) (34616)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L) (34621)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L) (34626)	3,3'- DI- CHLORO- BENZI- DINE TOTAL (UG/L) (34631)	4- BROMO- PHENYL ETHER TOTAL (UG/L) (34636)	4- CHLORO- PHENYL ETHER TOTAL (UG/L) (34641)	4- NITRO- PHENOL TOTAL (UG/L) (34646)	4,6- DINITRO- -ORTHO- CRESOL TOTAL (UG/L) (34657)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)
------	--	--	--	--	---	--	---	---	--	--	---	---

AUG 01...	--	--	--	--	--	--	--	--	--	--	--	<0.2
AUG 01-02	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	--
AUG 27...	--	--	--	--	--	--	--	--	--	--	--	<0.2
AUG 27-28	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	--

DATE	AROCLOR 1016 PCB TOTAL (UG/L) (34671)	PHENOL (C6H- 5OH) TOTAL (UG/L) (34694)	NAPHTH- ALENE TOTAL (UG/L) (34696)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	PENTA- CHLORO- PHENOL TOTAL (UG/L) (39032)	CHLOR- DANE CIS WATER WHOLE TOTAL (UG/L) (39062)	CHLOR- DANE TRANS WATER WHOLE TOTAL (UG/L) (39065)	BIS(2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L) (39100)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L) (39110)	BENZI- DINE TOTAL (UG/L) (39120)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)
------	--	---	--	---	--	---	---	---	---	--	--	--

AUG 01...	--	--	<0.2	<0.2	<0.2	--	--	--	--	--	--	<0.2
AUG 01-02	<0.1	<5.0	<5.0	--	--	<30.0	<0.10	<0.10	<5.0	<5.0	<40.0	--
AUG 27...	--	--	<0.2	<0.2	<0.2	--	--	--	--	--	--	<0.2
AUG 27-28	<0.1	<5.0	<5.0	--	--	<30.0	<0.10	<0.10	<5.0	<5.0	<40.0	--

DATE	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	P,P' DDT TOTAL (UG/L) (39300)	P,P' DDD TOTAL (UG/L) (39310)	P,P' DDE TOTAL (UG/L) (39320)	ALDRIN, TOTAL (UG/L) (39330)	ALPHA BHC TOTAL (UG/L) (39337)	BETA BENZENE HEXA- CHLOR- IDE TOTAL (UG/L) (39338)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TOTAL (UG/L) (39350)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	TOX- APHENE, TOTAL (UG/L) (39400)
------	--	---	---	---	---------------------------------------	--	---	---------------------------------------	---	---	--	---

AUG 01...	<0.2	--	--	--	--	--	--	--	--	--	--	--
AUG 01-02	--	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	0.1	<0.020	<0.060	<2
AUG 27...	<0.2	--	--	--	--	--	--	--	--	--	--	--
AUG 27-28	--	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	0.1	<0.020	<0.060	<2

DATE	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	AROCLOR 1221 PCB TOTAL (UG/L) (39488)	AROCLOR 1232 PCB TOTAL (UG/L) (39492)	AROCLOR 1242 PCB TOTAL (UG/L) (39496)	AROCLOR 1248 PCB TOTAL (UG/L) (39500)	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1260 PCB TOTAL (UG/L) (39508)	HEXA- CHLORO- BENZENE TOTAL (UG/L) (39700)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	CIS-1,2 -DI- CHLORO- ETHENE TOTAL (UG/L) (77093)	STYRENE TOTAL (UG/L) (77128)
------	--	--	--	--	--	--	--	--	---	--	--	---------------------------------------

AUG 01...	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2
AUG 01-02	<0.030	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<5.0	--	--
AUG 27...	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2
AUG 27-28	<0.030	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<5.0	--	--

WATER-QUALITY RECORDS

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[illegible]

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM  
(Surveillance network station)

## WATER-QUALITY RECORDS

LOCATION.--Lat 34°54'21", long 106°41'04", in NE¼NE¼SW¼ sec. 24, T.08 N., R.02 E., Valencia County, Hydrologic Unit 13020203, 50 feet upstream from diversion dam, at or upstream of bridge on State Highway 47, at Isleta.

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 1992 TO SEPTEMBER 1993

DATE	TIME	SAM- PLING DEPTH (FEET) (000003)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (000400)	TEMPER- ATURE AIR (DEG C) (000020)	TEMPER- ATURE WATER (DEG C) (000010)	BARO- METRIC PRES- SURE (MM OF HG) (000025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (000300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (000301)
NOV 04...	1318	--	--	470	8.1	6.5	10.5	643	8.4	90
FEB 25...	1100	6.10	2050	412	8.0	--	7.0	637	8.6	85
MAR 09...	1100	--	1320	436	8.4	--	12.0	639	7.8	87
APR 21...	1130	--	4530	379	8.3	--	15.0	642	7.7	91
MAY 10...	1230	--	4310	307	8.2	--	15.5	643	8.1	97
JUN 22...	1130	--	5020	299	8.0	29.0	19.5	637	6.9	91
JUL 27...	1230	--	580	434	8.1	32.0	24.0	637	5.4	77
AUG 31...	0815	--	1450	379	8.1	--	20.0	641	5.7	75
SEP 28...	0845	--	746	413	7.9	--	16.0	645	6.2	75

DATE	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)	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)
NOV 04...	13	K7	K13	150	9	47	7.7	34	1	3.7
FEB 25...	--	--	--	--	--	--	--	--	--	--
MAR 09...	19	--	--	130	0	40	6.9	35	1	4.3
APR 21...	--	--	--	130	31	40	7.2	27	1	3.3
MAY 10...	21	30	60	99	0	27	5.2	16	0.7	2.0
JUN 22...	--	--	--	110	--	33	6.4	20	0.8	2.8
JUL 27...	--	--	--	140	--	43	6.9	31	1	4.5
AUG 31...	36	1000	840	130	17	42	7.0	28	1	3.9
SEP 28...	--	--	--	130	1	42	6.8	33	1	4.3



## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LIVITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LIVITY 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)
NOV 04...	171	0	140	128	73	17	0.50	23	--	295
FEB 25...	176	0	144	--	--	--	--	--	--	--
MAR 09...	164	0	134	123	61	19	0.40	23	270	276
APR 21...	120	0	98	103	61	13	0.30	20	241	233
MAY 10...	112	0	100	87	52	7.1	0.30	15	198	181
JUN 22...	--	--	--	85	50	6.5	0.40	17	180	189
JUL 27...	--	--	--	120	58	15	0.50	22	254	260
AUG 31...	142	0	116	118	56	13	0.50	21	241	245
SEP 28...	161	0	132	121	52	16	0.60	23	242	263

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
NOV 04...	0.510	0.100	0.090	0.590	0.600	0.770	0.760	--	--	1.2
FEB 25...	--	--	--	--	--	--	--	--	--	--
MAR 09...	0.510	--	0.040	--	0.550	--	0.950	1.1	0.15	1.4
APR 21...	0.270	--	0.020	--	0.290	--	0.150	--	--	0.60
MAY 10...	0.190	--	0.010	--	0.200	--	0.050	0.20	0.15	0.50
JUN 22...	0.230	--	0.010	--	0.240	--	0.110	0.30	0.19	0.40
JUL 27...	0.610	--	0.120	--	0.730	--	1.60	2.1	0.50	2.3
AUG 31...	0.420	--	0.150	--	0.570	--	0.350	0.50	0.15	0.60
SEP 28...	0.550	--	0.170	--	0.720	--	1.20	1.4	0.20	1.4

## WATER QUALITY DATA. WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[illegible]

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	
NOV 04...	6	4.2	2.4	3.1	1.8	1.7	2.1	1.5	7.3	1.5	
AUG 31...	--	--	--	--	--	--	--	--	--	--	
DATE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP, TOT DRY CS-137 (PCI/L) (76005)	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)		
NOV 04...	5.5	1.1	3.4	3.2	0.89	0.44	0.070	2.7	<1.0		
AUG 31...	--	--	--	--	--	--	--	--	--		
DATE	TIME	CHLOR- DYRIFOS TOTAL RECOVER (UG/L) (38932)	DI- SYSTON TOTAL (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)	PER- THANE TOTAL (UG/L) (39034)	DEF TOTAL (UG/L) (39040)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)
MAR 09...	1100	--	--	--	--	--	--	--	--	--	--
AUG 31...	0815	<0.01	<0.01	<0.01	<0.1	<0.01	<0.10	<0.010	<0.010	<0.1	<0.010
DATE	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, 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)
MAR 09...	--	--	--	--	--	--	--	--	--	--	--
AUG 31...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<1	<0.010	<0.010	<0.01	<0.1
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)	FONOFOS (DY- FONATE) WATER WHOLE TOT REC (UG/L) (82614)
MAR 09...	--	--	--	--	<0.01	<0.01	--	<0.01	--	<0.01	--
AUG 31...	<0.01	<0.01	0.02	<0.01	--	--	<0.01	--	<0.01	--	<0.01

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
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FEB 25...	1100	6	2	<10	0.3	69	48	12	24	40
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DATE	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)
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FEB 25...	15	<8	<4	2.9	23	40	1.2	570	0.04	<2
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DATE	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)
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FEB 25...	37	21	11	0.09	1.8	10	0.4	1	0.80	250
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DATE	SULFUR BOT MAT <63U WS PERCENT (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
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FEB 25...	0.06	<40	16	<10	4	75	25	2	77
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DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	RED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	RED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)
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NOV 04...	1318	--	470	10.5	154	--	37	--	--
FEB 25...	1100	2050	--	--	--	--	--	50	100
MAR 09...	1100	1320	436	12.0	154	549	37	--	--
APR 21...	1130	4530	379	15.0	278	3400	37	--	--
MAY 10...	1230	4310	307	15.5	5830	67900	49	--	--
JUN 22...	1130	5020	299	19.5	1250	17000	72	--	--
JUL 27...	1230	580	434	24.0	122	191	--	--	--
AUG 31...	0815	1450	379	20.0	709	2780	--	--	--
SEP 28...	0845	746	413	16.0	57	115	--	--	--

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 1993							
28...	1305	150	2.60	392	8.0	19.0	6.6
28...	1308	190	3.20	392	8.0	19.0	6.5
28...	1311	230	4.90	390	8.0	19.0	6.5
28...	1314	270	3.70	411	8.0	19.0	6.5
28...	1317	310	3.50	390	8.0	19.5	6.4
28...	1320	350	3.50	388	8.0	19.5	6.4
28...	1323	390	2.50	389	8.0	20.0	6.5
28...	1326	430	2.40	391	8.0	20.0	6.6
28...	1329	470	1.90	388	8.0	20.0	6.4
28...	1332	510	1.90	388	8.0	20.0	6.7
28...	1336	550	2.10	388	8.0	20.0	6.8
28...	1339	590	2.30	388	8.0	20.0	6.8

## 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/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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.77	1.8	2.9	3.4	4.3	9.2	9.3	11	2.2	.56	1.1
2	.26	.87	1.8	3.0	3.4	4.2	8.2	11	12	2.4	.66	1.2
3	.36	.72	1.9	3.1	3.2	4.1	8.6	11	13	2.5	.28	1.0
4	.36	.83	2.0	3.2	3.1	3.6	10	11	11	2.1	.19	1.6
5	.26	.98	2.1	3.0	3.0	3.4	9.3	11	12	2.1	.68	1.4
6	.27	.95	2.1	3.2	3.0	3.3	9.4	11	13	2.7	3.7	1.6
7	.17	.95	2.3	3.2	3.0	3.0	9.4	9.3	9.5	2.2	.38	2.0
8	.31	.92	2.4	3.2	3.1	9.6	10	8.9	8.9	3.3	.21	1.7
9	.46	1.0	2.3	3.0	3.1	6.1	11	7.6	8.6	3.4	.17	1.2
10	.44	8.1	12	3.4	12	4.9	11	7.5	6.7	2.6	.71	.90
11	.42	5.0	6.2	3.8	7.5	4.6	9.5	6.7	6.9	2.0	.61	2.2
12	.46	2.8	4.7	3.7	5.7	4.3	9.8	6.3	6.9	1.7	.15	4.2
13	.46	2.5	4.1	3.7	5.1	4.3	11	5.6	7.0	1.2	.11	1.4
14	.40	2.2	3.9	3.7	5.2	4.0	11	5.6	6.1	1.6	.55	1.1
15	.36	2.1	3.8	3.8	5.2	4.0	12	5.9	4.6	8.1	.58	1.2
16	.46	2.0	3.7	3.6	4.5	3.9	10	5.9	4.7	1.6	.32	1.1
17	.58	2.0	3.5	3.8	4.3	6.5	11	7.0	4.7	1.1	.29	.71
18	.65	1.9	3.4	3.8	4.1	4.6	9.7	7.1	4.5	.74	.24	.68
19	.80	1.9	3.3	3.8	4.1	4.0	9.6	11	5.7	2.0	.35	3.1
20	.70	2.1	3.2	3.7	3.9	4.0	9.3	6.5	7.8	1.7	.38	1.2
21	.65	2.0	3.2	3.7	3.8	3.9	8.8	5.9	9.0	1.5	.95	.60
22	.78	2.0	3.3	3.7	3.5	3.8	8.5	5.6	4.9	1.4	.87	.62
23	.70	2.0	3.3	3.6	3.5	5.0	9.8	5.3	4.2	2.0	.34	.89
24	.68	2.0	3.1	3.6	3.5	4.3	10	5.2	3.7	1.5	.34	.42
25	.88	2.0	3.0	3.6	3.7	4.8	9.3	9.3	3.3	1.0	.72	.50
26	.78	1.9	3.1	3.6	3.9	5.1	8.8	7.6	4.0	.73	2.7	1.7
27	.70	2.0	3.0	3.7	4.1	5.7	9.0	7.2	3.0	.55	1.2	3.7
28	.67	2.0	3.1	3.5	4.2	5.4	11	7.3	2.7	.38	7.3	4.0
29	.75	1.8	3.0	3.4	---	6.5	9.9	9.5	2.6	.95	1.1	3.5
30	.95	1.8	2.9	3.4	---	5.5	9.9	8.7	2.3	.93	.98	2.4
31	.83	---	4.0	3.4	---	5.8	---	9.8	---	.34	1.1	---
TOTAL	16.80	60.09	105.5	107.8	120.1	146.5	294.0	246.6	204.3	58.52	28.72	48.92
MEAN	.54	2.00	3.40	3.48	4.29	4.73	9.80	7.95	6.81	1.89	.93	1.63
MAX	.95	8.1	12	3.8	12	9.6	12	11	13	8.1	7.3	4.2
MIN	.17	.72	1.8	2.9	3.0	3.0	8.2	5.2	2.3	.34	.11	.42
AC-FT	33	119	209	214	238	291	583	489	405	116	57	97

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

	MEAN	95.4	347	312	286	284	236	243	243	207	109	97.0	73.3
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	3.40	2.97	3.44	3.93	2.92	.64	.000	.000	.013	.000	
(WY)	1964	1978	1993	1982	1982	1977	1977	1977	1972	1964	1977	1964	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1964 - 1993

ANNUAL TOTAL	1254.35	1437.85	
ANNUAL MEAN	3.43	3.94	
HIGHEST ANNUAL MEAN			210
LOWEST ANNUAL MEAN			1017
HIGHEST DAILY MEAN	16	13	2050
LOWEST DAILY MEAN	.00	.11	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.28	.00
INSTANTANEOUS PEAK FLOW			2220
ANNUAL RUNOFF (AC-FT)	2490	2850	152400
10 PERCENT EXCEEDS	8.0	9.4	856
50 PERCENT EXCEEDS	3.2	3.3	7.0
90 PERCENT EXCEEDS	.09	.56	.11

## 08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM

LOCATION.--Lat 34°25'01", Long 106°48'00", Socorro County, Hydrologic Unit 13020203, in Belen or Sevilleta Grant, on downstream side of bridge on U.S. Highway 60, 5 mi downstream from heading of conveyance channel, 2 mi east of Bernardo, and at mile 1.487.2.

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. 20 years (water years 1974-93), 1,438 ft<sup>3</sup>/s, 1,042,000 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, 6,650 ft<sup>3</sup>/s, June 5; minimum daily, 64 ft<sup>3</sup>/s July 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	394	571	784	1280	1160	2770	2670	4500	5590	2580	180	1990
2	351	622	828	1340	1110	2640	2440	4650	5710	2650	304	2290
3	315	677	782	1390	1090	2120	1950	4670	5880	2310	435	2160
4	275	709	785	1390	1090	1670	1840	4710	6200	2340	610	2230
5	260	727	891	1370	1110	1710	2030	5170	6650	2450	400	2020
6	248	712	866	1340	1100	1300	2540	4800	6290	2250	326	1760
7	258	672	830	1150	1090	1060	2870	3770	6380	2090	329	1150
8	279	679	823	1060	1120	1100	2680	3860	6100	2020	351	937
9	297	628	816	1250	1180	1100	2680	4030	5870	1790	407	775
10	298	652	838	1350	1210	1120	2500	3590	5080	1480	312	620
11	358	682	788	1540	1260	1380	2420	3200	5060	1070	316	643
12	366	771	781	1550	1300	1420	2590	2220	4650	e560	271	396
13	330	828	906	1510	1370	1380	2820	2120	4120	e420	259	462
14	287	834	956	1410	1310	1450	3550	2110	4300	e660	269	503
15	320	978	946	1350	1320	1540	3710	2790	3620	e500	566	537
16	334	965	898	1340	1620	1430	3650	3490	3610	e480	599	482
17	380	982	871	1280	1310	1330	3480	4020	3720	e620	577	701
18	358	971	823	1200	1280	1230	3380	3890	4310	e526	632	675
19	349	961	919	1270	1420	1220	3570	4190	4290	e400	1050	507
20	346	1010	907	1470	1210	1270	3240	4650	e4500	e260	518	364
21	332	1020	879	1280	744	1330	3160	4550	e4570	e385	478	480
22	340	1170	1020	1370	643	1480	2840	4670	e4800	e700	503	504
23	349	1100	975	1300	606	1450	2950	4800	e4700	e490	779	458
24	355	970	859	1220	777	1540	2950	4860	e3750	e320	681	448
25	402	935	807	1200	1810	1780	3260	4950	e3400	e280	633	422
26	413	971	886	1180	2190	1930	3750	5120	3260	e220	715	361
27	391	872	921	1170	2400	1950	3610	5160	2970	e110	759	380
28	388	766	947	1150	2430	2780	3870	5190	3060	e90	1070	332
29	493	745	957	1150	---	2810	3970	5110	2630	e76	1270	342
30	619	744	942	1110	---	3200	4330	5380	2550	64	1160	296
31	550	---	1070	1120	---	2990	---	5430	---	124	1350	---
TOTAL	11035	24924	27301	40090	36260	53480	91300	131650	137620	30315	18109	25225
MEAN	356	831	881	1293	1295	1725	3043	4247	4587	978	584	841
MAX	619	1170	1070	1550	2430	3200	4330	5430	6650	2650	1350	2290
MIN	248	571	781	1060	606	1060	1840	2110	2550	64	180	296
AC-FT	21890	49440	54150	79520	71920	106100	181100	261100	273000	60130	35920	50030
(†)	38400	55300	59090	84290	76200	115600	197200	277400	289900	74520	52510	66800

CAL YR 1992 TOTAL 522396 MEAN 1427 MAX 5130 MIN 53 AC-FT 1036000 (†) MEAN 1623 AC-FT 1179000  
WTR YR 1993 TOTAL 627309 MEAN 1719 MAX 6650 MIN 64 AC-FT 1244000 (†) MEAN 1917 AC-FT 1387000

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 1964-93): Maximum daily, 1,410 microsiemens, July 23, 1976; minimum daily, 224 microsiemens, June 5, 1980.

WATER TEMPERATURE: Maximum daily, 34.5 °C, Aug. 9, 1975; minimum daily, 0.0 °C on several days during 1971-72, 1976-77, 1979, and 1983-87.

SEDIMENT CONCENTRATION (water years 1975-93): 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, 850 microsiemens, Aug. 2; minimum daily, 290 microsiemens, May 29, June 3,

4.

WATER TEMPERATURE: Maximum daily, 33.0 °C, Aug. 9; minimum daily, 6.0 °C, Nov. 24.

SEDIMENT CONCENTRATION: Maximum daily mean, 10,900 mg/L, Sept. 24; minimum daily mean, 94 mg/L, Oct. 10.

SEDIMENT LOAD: Maximum daily, 28,100 tons, May 18; minimum daily, 29 tons, July 29.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
NOV 05...	1148	717	576	8.4	10.0	9.5	642	9.8	102	15	180	56
APR 21...	1145	3210	396	8.2	20.0	14.0	650	10.5	120	--	140	45
MAY 17...	1400	4270	345	8.3	26.0	20.5	640	7.5	100	--	120	37
AUG 25...	1220	638	453	8.4	30.5	25.5	645	7.0	102	37	160	50

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS- SOLVED (MG/L AS Na) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS Cl) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)
NOV 05...	9.2	46	2	4.8	158	92	22	0.50	27	358	0.950	0.040
APR 21...	7.9	35	1	3.9	112	76	17	0.40	22	274	--	--
MAY 17...	6.8	22	0.9	3.1	97	60	8.7	0.30	19	215	--	--
AUG 25...	7.8	33	1	4.0	133	72	15	0.50	22	284	--	--

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	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)
NOV 05...	0.020	0.950	0.970	0.220	0.200	0.70	0.500	0.420	0.400	6.3	110	8
APR 21...	--	--	--	--	--	--	--	--	--	--	100	3
MAY 17...	--	--	--	--	--	--	--	--	--	--	50	4
AUG 25...	<0.010	--	<0.050	--	<0.010	0.20	0.300	--	<0.010	11	100	<3



## RIO GRANDE BASIN

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	
NOV 05...	1148	4	4	<1	<1.0	11	<1	5	1	4	<1	<0.10	
DATE	TIME	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO. DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)
NOV 05...	<0.1	<1	<1	30	4	5.3	2.9	4.1	2.2	10	8.9	4.7	
DATE	TIME	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L) (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP, TOT DRY CS-137 (PCI/L) (76005)	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)	
NOV 05...	6.5	1.4	4.9	1.1	6.6	6.0	1.7	0.09	0.020	2.7	<1.0		
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC- ITY, MEAN (F/S) (00055)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY) (80155)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY) (80156)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)		
OCT 07...	1145	290	190	1.2	1.29	--	20.5	86	67	111	--		
NOV 10...	1045	646	212	1.5	2.02	--	9.5	354	617	947	--		
DEC 15...	1115	963	--	--	--	--	1.0	1500	3900	5680	--		
JAN 06...	1150	1350	330	1.8	2.27	--	6.0	1280	4670	6760	--		
FEB 05...	1230	1100	220	2.5	2.03	--	6.0	2390	7100	10200	--		
MAR 10...	1400	1040	--	--	--	--	12.5	819	2300	3400	--		
APR 20...	1345	3250	--	--	--	--	12.5	453	3980	5790	--		
MAY 17...	1400	4270	360	3.9	3.07	345	20.5	501	5780	8320	--		
JUN 17...	1310	3730	357	3.4	3.08	--	21.0	568	5720	8230	--		
JUL 19...	1400	472	181	1.4	1.83	--	29.0	116	148	237	--		
JUL 23...	1130	490	209	1.3	1.74	575	25.0	4620	6110	8780	99		
AUG 24...	1330	650	258	1.3	1.90	--	26.0	1310	2300	3400	--		
SEP 15...	1145	524	264	1.2	1.71	--	20.0	187	265	417	--		

## RIO GRANDE BASIN

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)	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)
OCT 07...	--	--	--	--	--	--	76	86	100	--	--
NOV 10...	--	--	--	--	--	--	39	42	74	100	--
DEC 15...	--	--	--	--	--	--	12	20	80	97	100
JAN 06...	--	--	--	--	--	--	37	67	97	100	--
FEB 05...	--	100	--	--	--	--	5	6	53	82	99
MAR 10...	--	100	--	--	--	--	20	24	50	94	99
APR 20...	--	--	--	--	--	--	4	22	79	100	--
MAY 17...	--	--	--	--	--	--	59	74	97	100	--
JUN 17...	95	95	--	--	--	--	24	39	83	95	--
JUL 19...	--	--	--	--	--	--	77	81	96	100	--
JUL 23...	--	--	--	--	--	--	--	--	--	--	--
AUG 24...	--	--	57	67	85	90	97	97	99	100	--
SEP 15...	--	--	--	--	--	--	74	77	97	100	--

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 07...	0	1	14	79	98	100	--	--	--	--
NOV 10...	0	1	27	80	97	99	100	--	--	--
DEC 15...	3	12	77	99	100	--	--	--	--	--
JAN 06...	23	39	72	95	97	98	99	100	--	--
FEB 05...	75	89	94	95	96	96	96	96	96	100
MAR 10...	4	15	62	97	100	--	--	--	--	--
APR 20...	1	4	36	72	98	100	--	--	--	--
MAY 17...	1	3	40	95	100	--	--	--	--	--
JUN 17...	0	1	21	81	97	99	100	100	--	--
JUL 19...	0	1	23	88	99	100	--	--	--	--
JUL 23...	--	--	--	--	--	--	--	--	--	--
AUG 24...	--	0	25	86	98	100	--	--	--	--
SEP 15...	0	3	46	91	99	100	--	--	--	--



## RIO GRANDE BASIN

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	207	220	262	404	388	821	393	1360	758	2370	1290	9630
2	131	124	226	380	320	715	345	1250	417	1250	1390	9890
3	173	147	235	430	252	532	892	3350	1600	4710	688	3940
4	140	104	440	842	430	911	3130	11700	1230	3610	484	2180
5	175	123	657	1290	445	1070	779	2880	525	1570	457	2110
6	127	85	461	886	245	573	321	1160	791	2350	667	2340
7	119	83	369	670	485	1090	434	1350	588	1730	1670	4770
8	174	131	313	574	313	696	388	1110	572	1730	331	983
9	144	115	305	517	327	720	1130	3830	518	1650	330	980
10	94	76	507	893	329	744	1590	5790	913	2980	631	1910
11	195	188	575	1060	318	677	723	3010	702	2390	1030	3830
12	283	280	558	1160	265	559	920	3850	1440	5060	384	1470
13	117	104	332	742	2090	5120	581	2370	748	2770	1590	5920
14	224	174	288	649	932	2410	461	1760	505	1790	3630	14200
15	137	118	306	808	439	1120	393	1430	355	1270	1000	4160
16	157	142	262	683	510	1240	478	1730	897	3920	6100	23600
17	244	250	1820	4830	2080	4900	479	1660	950	3360	5500	19700
18	134	130	595	1560	1120	2490	292	946	1780	6140	597	1980
19	1010	948	272	706	2690	6680	316	1080	948	3630	388	1280
20	367	343	1250	3410	1030	2520	563	2230	374	1220	933	3200
21	864	774	402	1110	2180	5170	509	1760	349	701	1750	6290
22	341	313	2340	7400	4790	13200	454	1680	234	406	373	1490
23	309	291	1360	4050	5390	14200	364	1280	231	378	391	1530
24	915	877	1920	5030	6170	14300	261	860	407	854	543	2260
25	526	571	321	810	5950	13000	292	946	2660	13000	1340	6460
26	609	679	297	779	628	1500	295	940	2660	15700	1920	10000
27	187	197	532	1250	511	1270	439	1390	2460	15900	1470	7720
28	159	167	282	583	389	995	512	1590	1250	8210	2260	17000
29	326	434	292	587	1470	3790	862	2680	---	---	1920	14600
30	398	665	353	709	356	905	382	1140	---	---	1170	10100
31	324	481	---	---	260	751	355	1070	---	---	1020	8230
TOTAL	---	9334	---	44802	---	104669	---	69182	---	110649	---	203753

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	954	6880	890	10800	454	6850	1320	9220	1070	521	2470	13300
2	869	5720	685	8600	381	5870	671	4800	8160	6700	3620	22400
3	776	4090	585	7380	673	10700	556	3470	3390	3990	4710	27400
4	754	3750	599	7620	597	9990	259	1640	5170	8510	2140	12900
5	551	3020	592	8260	510	9160	236	1560	2890	3120	1970	10700
6	691	4740	600	7780	630	10700	523	3180	1940	1710	5630	26700
7	1260	9720	659	6710	729	12600	661	3730	2230	1980	2090	6500
8	1260	9090	608	6340	692	11400	587	3200	504	478	925	2340
9	1040	7550	713	7760	737	11700	460	2220	539	592	659	1380
10	955	6450	598	5900	1240	17000	606	2420	---	---	611	1560
11	792	5170	695	6000	877	12000	497	1440	2160	1840	4740	8220
12	682	4770	668	4000	749	9400	1740	2620	1100	806	790	845
13	581	4420	627	3590	755	8400	961	1090	521	364	1150	1440
14	866	8300	852	4850	621	7210	461	822	472	343	2190	2970
15	868	8690	1020	7650	481	4700	648	875	1530	2340	933	1350
16	833	8210	992	9350	462	4500	928	1200	2540	4100	332	432
17	715	6720	1250	13600	462	4640	449	752	2300	3580	2210	4170
18	822	7500	2680	28100	609	7090	576	818	1640	2800	855	1560
19	973	9380	1080	12200	862	9980	259	280	2210	6270	277	379
20	872	7630	1090	13700	765	9290	856	601	914	1280	245	241
21	773	6600	662	8130	716	8830	1790	1860	2250	2900	502	651
22	815	6250	776	9780	770	9980	4620	8730	1140	1540	358	487
23	892	7100	898	11600	1000	12700	3720	4930	2820	5940	1850	2290
24	799	6360	693	9090	857	8680	1600	1380	3710	6820	10900	13200
25	808	7110	685	9160	959	8800	525	397	1280	2180	1340	1520
26	827	8370	621	8580	962	8470	272	162	880	1700	223	217
27	806	7860	572	7970	517	4150	206	61	1310	2680	172	176
28	826	8630	588	8240	496	4100	184	45	1530	4420	155	139
29	938	10100	741	10200	447	3170	143	29	1310	4500	399	368
30	957	11200	601	8730	1140	7830	275	48	1660	5200	316	253
31	---	---	570	8360	---	---	368	123	1370	5000	---	---
TOTAL	---	211380	---	279930	---	259890	---	63703	---	94204	---	165888

TOTAL LOAD FOR YEAR: 1617384 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 fair. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	48	37	24	25	26	110	123	116	e112	117	126
2	169	43	35	24	25	13	112	121	107	e112	132	129
3	171	41	34	24	24	e.00	110	117	106	112	124	143
4	169	40	34	24	24	e.00	107	120	115	110	125	158
5	164	39	34	24	23	e.00	96	117	113	117	125	153
6	153	50	33	23	23	e.00	95	116	118	116	120	143
7	158	62	32	23	23	e.00	95	113	120	116	127	134
8	157	59	31	23	24	e.00	95	107	116	112	121	149
9	152	56	30	22	24	e.00	112	120	121	116	119	145
10	150	55	30	23	24	e.00	105	105	122	125	116	147
11	156	54	29	23	23	e.00	111	104	122	123	121	149
12	160	53	28	23	23	e.00	110	97	121	82	125	137
13	165	53	27	24	23	e.00	111	97	120	84	132	148
14	167	52	26	26	24	e.00	118	106	116	95	119	137
15	162	51	26	26	25	e.00	124	103	116	89	123	120
16	164	51	25	27	25	e.00	122	93	115	87	135	121
17	152	37	25	27	24	10	122	108	e115	91	125	133
18	149	24	25	27	24	55	121	121	e110	92	119	126
19	140	24	25	27	24	65	116	105	e135	86	123	133
20	140	23	25	27	24	74	116	95	e150	85	130	134
21	136	23	24	27	22	79	124	100	e110	86	134	126
22	129	22	24	27	22	68	121	102	e110	100	135	131
23	123	27	24	26	21	61	126	101	e111	125	136	142
24	124	44	24	26	21	67	118	102	e112	124	141	139
25	116	41	24	26	21	71	114	111	e112	117	142	131
26	110	40	24	26	23	69	110	116	e110	114	137	133
27	117	40	24	26	24	69	108	114	e110	113	154	139
28	124	39	24	26	25	68	96	107	e110	111	140	134
29	94	38	24	25	---	69	109	108	e111	115	138	127
30	71	37	24	25	---	65	119	121	e112	121	137	131
31	61	---	23	25	---	88	---	112	---	119	131	---
TOTAL	4364	1266	854	776	657	1017.00	3353	3382	3482	3307	4003	4098
MEAN	141	42.2	27.5	25.0	23.5	32.8	112	109	116	107	129	137
MAX	171	62	37	27	25	88	126	123	150	125	154	158
MIN	61	22	23	22	21	.00	95	93	106	82	116	120
AC-FT	8660	2510	1690	1540	1300	2020	6650	6710	6910	6560	7940	8130

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1993, BY WATER YEAR (WY)

	MEAN	69.2	30.9	27.5	26.3	26.4	48.1	58.0	59.8	54.6	56.3	66.4	67.3
MAX	145	87.9	74.2	87.7	74.5	96.9	118	129	134	146	146	147	147
(WY)	1991	1987	1987	1990	1990	1985	1969	1983	1992	1992	1992	1992	1992
MIN	.11	1.37	3.50	3.30	3.90	5.61	4.81	4.84	1.64	.18	.006	.010	.010
(WY)	1957	1957	1955	1957	1957	1954	1955	1954	1954	1956	1954	1956	1956

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1954 - 1993

ANNUAL TOTAL	33576	30559.00		
ANNUAL MEAN	91.7	83.7	50.3	
HIGHEST ANNUAL MEAN			92.1	1992
LOWEST ANNUAL MEAN			4.29	1955
HIGHEST DAILY MEAN	171	Oct 3	171	Oct 3
LOWEST DAILY MEAN	22	Nov 22	.00	Mar 3
ANNUAL SEVEN-DAY MINIMUM	24	Dec 25	.00	Mar 3
INSTANTANEOUS PEAK FLOW			208	May 5 1983
ANNUAL RUNOFF (AC-FT)	66600	60610	36440	Jul 31 1954
10 PERCENT EXCEEDS	153	139	110	Jul 31 1954
50 PERCENT EXCEEDS	87	105	37	May 5 1983
90 PERCENT EXCEEDS	32	23	5.3	

e Estimated

## RIO GRANDE BASIN

08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM

LOCATION.--Lat 35°38'08", Long 107°09'56", in SW¼ sec.21, T.16 N., R.3 W., Sandoval County, Hydrologic Unit 13020204, on right bank 1.6 mi upstream from Arroyo Chico, 5.5 mi northeast of village of Guadalupe, and at mile 106.8.

DRAINAGE AREA.--420 mi², 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 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 ft³/s based on records for stations upstream and downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	12	19	35	56	93	116	.00	.72	1.5
2	.00	.00	.00	20	16	24	47	88	107	.00	2.2	.28
3	.00	.00	.00	58	9.4	54	45	67	90	.00	2.7	.10
4	.00	.00	.00	6.6	7.5	47	39	53	79	.00	.36	.07
5	.00	.00	.00	.61	6.4	40	37	45	65	.00	.26	.05
6	.00	.00	.00	.85	7.0	27	42	48	50	.00	.14	.04
7	.00	.00	.00	4.3	9.5	31	50	40	46	.00	.14	.03
8	.00	.00	.00	505	7.8	56	46	38	51	.00	.11	.00
9	.00	.00	.00	e330	9.6	130	36	35	41	.00	.09	.00
10	.00	.00	.00	e13	62	235	33	32	34	.00	.18	.00
11	.00	.59	.00	e12	17	166	35	25	29	.00	.11	.00
12	.00	.00	.00	e11	8.4	126	47	28	25	72	.00	.00
13	.00	.45	.00	12	7.3	68	54	37	19	6.6	.00	.26
14	.00	1.7	.00	9.4	8.0	47	44	47	25	1.8	.28	24
15	.00	.65	.00	14	8.0	66	42	70	26	.92	.26	7.0
16	.00	.68	.00	14	7.6	116	55	90	29	.00	.11	1.5
17	.00	.50	.00	18	6.6	141	42	110	31	.00	.00	.28
18	.00	.42	.00	135	5.1	88	34	141	31	.00	.00	.06
19	.00	.31	.00	107	5.4	91	39	156	34	.00	.00	.00
20	.00	.36	.00	67	40	73	43	148	27	.00	19	.00
21	.00	.39	.00	23	116	71	36	198	25	.00	1.9	.00
22	.00	.42	.00	16	48	66	35	213	33	.00	39	.00
23	.00	.66	.00	29	15	43	46	201	25	.00	13	.00
24	.00	.42	.00	11	12	41	59	169	22	.00	1.7	.00
25	.00	.00	.00	6.5	9.2	45	60	144	11	.00	.42	.00
26	.00	.00	.00	8.4	6.9	48	50	163	6.3	.00	.28	.00
27	.00	.00	.00	8.9	5.6	73	61	240	4.0	.00	.33	.00
28	.00	.00	.00	9.2	12	107	74	248	1.2	118	197	.00
29	.00	.00	.00	10	---	91	77	222	1.1	37	62	.00
30	.00	.00	2.4	12	---	126	88	167	.00	3.2	48	.00
31	.00	---	22	11	---	72	---	131	---	.92	6.0	---
TOTAL	0.00	7.55	24.40	1494.76	492.3	2444	1452	3487	1083.60	240.44	396.29	35.17
MEAN	.000	.25	.79	48.2	17.6	78.8	48.4	112	36.1	7.76	12.8	1.17
MAX	.00	1.7	22	505	116	253	66	246	116	118	197	24
MIN	.00	.00	.00	.61	5.1	24	33	25	.00	.00	.00	.00
AC-FT	.00	15	48	2960	976	4850	2880	6920	2150	477	786	70

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1993, BY WATER YEAR (WY)

	MEAN	8.08	3.16	1.54	3.22	12.7	17.9	20.2	39.9	14.9	15.1	23.9	11.5
MAX	129	28.2	15.9	48.2	79.2	161	99.3	236	98.4	78.4	101	90.3	
(WY)	1958	1987	1987	1993	1979	1960	1958	1973	1973	1955	1957	1972	
MIN	.000	.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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1952 - 1993

ANNUAL TOTAL	11046.01	11157.51	
ANNUAL MEAN	30.2	30.6	14.4
HIGHEST ANNUAL MEAN			48.6
LOWEST ANNUAL MEAN			1.11
HIGHEST DAILY MEAN	359	Aug 25	2000
LOWEST DAILY MEAN	.00	Jun 29	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 29	.00
INSTANTANEOUS PEAK FLOW		1300	a6940
INSTANTANEOUS PEAK STAGE		5.75	13.53
ANNUAL RUNOFF (AC-FT)	21910	22130	10420
10 PERCENT EXCEEDS	108	90	39
50 PERCENT EXCEEDS	1.7	6.4	.10
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 1,300 ft³/s on basis of slope-area measurements at gage height 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 Cabezón"), 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, 93,100 mg/L, Jan. 8; minimum daily mean, no flow on many days.

SEDIMENT LOADS: Maximum daily, 127,000 tons, Jan. 8; minimum daily, 0 ton on many days.

## SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JAN							
12...	1100	6.6	1470	0.0	2270	40	88
MAR							
05...	0958	30	1180	1.0	27100	2190	98
05...	1025	43	1180	1.0	36600	4250	81
24...	1400	40	1150	15.5	28500	3080	73
25...	1020	39	1090	--	24000	2530	76
25...	1022	39	1110	--	19100	2010	98
MAY							
13...	1040	37	946	14.5	23100	2310	73
26...	1026	88	812	17.5	25200	5990	96
26...	1040	141	803	17.5	35800	13600	66
28...	1055	215	800	18.0	30300	17600	94
28...	1110	215	798	18.0	41600	24100	69
JUN							
21...	1050	24	1180	20.5	11300	732	70
21...	1055	24	1170	20.5	9510	616	73
JUL							
30...	1005	7.8	2230	22.0	3810	80	99
30...	1020	7.8	2260	22.0	6090	128	95
AUG							
23...	1026	10	1400	16.5	70300	1900	98
23...	1037	6.0	1430	16.5	69200	1120	99
SEP							
03...	1108	0.12	3280	21.5	58	0.02	95

## RIO GRANDE BASIN

08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM -- Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	0	.00	0	.00	28300	916	18300	937	35500	3350
2	0	.00	0	.00	0	.00	31400	1690	18600	803	31700	2060
3	0	.00	0	.00	0	.00	36800	5760	18000	458	38400	5610
4	0	.00	0	.00	0	.00	27400	488	17800	361	38000	4820
5	0	.00	0	.00	0	.00	13300	22	19300	333	36400	3930
6	0	.00	0	.00	0	.00	7200	17	19500	369	35600	2590
7	0	.00	0	.00	0	.00	19600	228	20900	536	36200	3030
8	0	.00	0	.00	0	.00	93100	127000	1930	41	39700	6000
9	0	.00	0	.00	0	.00	67900	60500	1960	51	47700	16800
10	0	.00	0	.00	0	.00	17400	611	3090	518	64700	41000
11	0	.00	3070	4.9	0	.00	6420	208	2320	107	58700	26300
12	0	.00	0	.00	0	.00	9520	283	20600	468	51300	17500
13	0	.00	608	.74	0	.00	15600	506	21400	421	44800	8220
14	0	.00	9200	42	0	.00	15300	389	22100	476	42500	5390
15	0	.00	7850	14	0	.00	16400	621	22600	489	50700	9040
16	0	.00	7630	14	0	.00	16500	622	21500	441	58700	18400
17	0	.00	6410	8.6	0	.00	17000	825	21600	385	61500	23400
18	0	.00	5560	6.3	0	.00	30000	10900	21700	299	52800	12600
19	0	.00	5300	4.4	0	.00	26900	7770	22100	322	50200	12300
20	0	.00	5830	5.7	0	.00	23100	4190	33000	3570	46700	9200
21	0	.00	5390	5.7	0	.00	19100	1190	36800	11500	38700	7410
22	0	.00	6830	7.7	0	.00	18100	780	31100	4030	32100	5710
23	0	.00	8190	15	0	.00	19500	1530	25800	1050	34800	4040
24	0	.00	7830	8.9	0	.00	17100	506	23400	758	29300	3250
25	0	.00	0	.00	0	.00	18000	315	22500	559	25500	3100
26	0	.00	0	.00	0	.00	18100	410	21900	407	26100	3380
27	0	.00	0	.00	0	.00	18800	451	21300	322	28400	5590
28	0	.00	0	.00	0	.00	18700	466	26000	843	42000	12100
29	0	.00	0	.00	0	.00	18100	488	---	---	45900	11300
30	0	.00	0	.00	4770	31	18300	594	---	---	44000	15000
31	0	.00	---	---	29400	1750	17300	515	---	---	28400	5510
TOTAL	---	0.00	---	137.94	---	1781.00	---	230791	---	30854	---	307930

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	23500	3550	25300	6340	32500	10200	0	.00	8060	16	18600	75
2	22000	2790	26800	6380	32000	9240	0	.00	27000	161	15600	12
3	21900	2660	18600	3360	30900	7500	0	.00	38500	281	66700	18
4	21300	2240	19700	2820	29100	6220	0	.00	18600	18	11200	2.1
5	21500	2150	19700	2400	26900	4720	0	.00	9510	6.7	8290	1.1
6	24400	2770	20300	2630	25500	3440	0	.00	7340	2.8	6180	.67
7	24600	3330	20400	2200	24700	3070	0	.00	5920	2.2	4110	.33
8	23400	2910	20000	2050	24400	3370	0	.00	4390	1.3	0	.00
9	22500	2190	21600	2040	22100	2440	0	.00	5780	1.4	0	.00
10	21500	1910	22900	1580	19600	1800	0	.00	12500	6.1	0	.00
11	20700	1950	22300	1500	18500	1450	0	.00	7420	2.2	0	.00
12	25500	3230	22100	1670	17400	1180	42700	8300	0	.00	0	.00
13	31000	4520	23400	2340	16400	843	22000	392	2800	.00	16800	12
14	25600	3040	25300	3210	16600	1120	15500	75	5490	4.2	55900	3620
15	22500	2560	25800	4880	14900	1040	12100	30	5800	4.1	39200	741
16	34200	5070	24800	6020	14400	1130	0	.00	4670	1.4	22600	92
17	28000	3180	24600	7300	14100	1180	0	.00	0	.00	15000	11
18	24700	2270	27800	10600	14400	1210	0	.00	0	.00	8650	1.4
19	24900	2620	29200	12300	13400	1230	0	.00	0	.00	0	.00
20	25500	2960	21400	8560	12000	877	0	.00	39800	2040	0	.00
21	23500	2280	24800	13300	11200	755	0	.00	39500	202	0	.00
22	20600	1940	36100	20800	10900	976	0	.00	64900	6840	0	.00
23	20700	2570	43000	23300	10600	713	0	.00	68600	2410	0	.00
24	21600	3450	40500	18500	8850	526	0	.00	50500	232	0	.00
25	21300	3450	38600	15000	7170	213	0	.00	42000	48	0	.00
26	21200	2870	38300	16900	5870	100	0	.00	35100	27	0	.00
27	20700	3420	43900	28400	5080	55	0	.00	29200	26	0	.00
28	20900	4170	41300	27600	4740	15	27100	8640	82700	44000	0	.00
29	20700	4310	37800	22700	4000	12	35400	3540	51400	8600	0	.00
30	22900	5440	35600	16100	0	.00	6390	55	57300	7430	0	.00
31	---	---	33500	11800	---	---	4050	10	32100	519	---	---
TOTAL	---	91800	---	304980	---	66625.00	---	21042.00	---	72882.40	---	4586.60

TOTAL LOAD FOR YEAR: 1133409.94 TONS.



## 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, and 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.55	e.38	5.7	17	35	162	29	5.7	1.1	.88	11
2	.07	.50	e.35	11	17	42	191	30	4.6	1.2	.62	9.3
3	.07	.54	.30	8.9	17	37	182	30	3.9	1.5	.50	7.2
4	.07	.55	.44	13	16	39	236	31	3.0	1.6	.44	6.0
5	.07	.50	4.3	13	15	42	297	28	2.3	1.4	.70	5.1
6	.05	.49	1.6	12	16	48	361	26	1.9	1.2	.79	4.4
7	.02	.55	e.55	23	15	70	406	25	1.6	1.1	.65	3.9
8	.03	.50	e.50	e21	15	116	411	23	1.3	.94	.67	3.1
9	.04	.49	e.52	e20	21	187	402	21	1.3	.78	.65	2.7
10	.06	.54	e.50	e19	25	214	396	18	1.2	.78	.95	2.3
11	.03	e.55	e.49	20	26	176	398	16	1.2	1.6	.72	2.0
12	.01	e.56	e.47	18	26	133	409	13	1.1	1.2	.12	1.9
13	.02	e.55	e.46	20	25	106	403	12	1.1	1.1	.18	3.9
14	.07	e.54	e.45	14	24	91	387	12	1.3	1.0	.42	6.0
15	.07	e.54	e.48	13	23	106	350	12	1.3	.86	.31	5.6
16	.08	e.52	e.50	11	19	221	310	11	1.5	.75	.24	4.1
17	.08	e.53	e.50	16	21	331	274	10	1.5	.87	.21	3.0
18	.09	e.50	e.48	22	22	458	238	8.6	1.5	.71	.19	2.3
19	.10	e.49	e.49	23	31	709	205	7.4	1.4	.68	.15	1.9
20	.10	e.48	e.50	23	102	547	170	6.8	1.4	.62	64	1.9
21	.11	e.50	e.47	23	73	543	136	9.4	1.4	.53	11	1.8
22	.14	e.50	e.46	25	74	512	110	10	1.5	.47	13	1.6
23	.16	e.46	e.48	24	63	413	85	9.4	1.6	.48	6.7	1.2
24	.22	e.44	e.50	25	50	307	65	8.2	1.5	.38	3.2	1.0
25	.30	e.44	e.50	26	43	289	42	6.9	1.3	.35	2.1	1.4
26	.28	e.42	e.55	22	39	348	28	6.2	1.3	.62	1.7	2.1
27	.30	e.40	e.58	18	34	320	21	6.6	1.4	.52	3.2	2.0
28	.36	e.38	e.58	18	36	168	23	6.4	1.1	.51	88	1.9
29	.38	e.38	e.61	17	---	139	24	6.9	1.1	.62	121	1.8
30	.33	e.39	.63	16	---	134	27	6.6	1.1	.86	23	1.9
31	.50	---	1.1	15	---	166	---	5.9	---	1.0	15	---
TOTAL	4.29	14.78	20.72	555.6	905	7047	6749	452.3	53.4	27.33	361.29	104.3
MEAN	.14	.49	.67	17.9	32.3	227	225	14.6	1.78	.88	11.7	3.48
MAX	.50	.56	4.3	26	102	709	411	31	5.7	1.6	121	11
MIN	.01	.38	.30	5.7	15	35	21	5.9	1.1	.35	.12	1.0
AC-FT	8.5	29	41	1100	1800	13980	13390	897	106	54	717	207

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993
MEAN	.18	.42	.50	4.69	10.1
MAX	.32	.92	1.04	17.9	32.3
(WY)	1992	1992	1992	1993	1993
MIN	.093	.055	.050	.091	.48
(WY)	1991	1991	1991	1991	1990

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1989 - 1993

ANNUAL TOTAL	2390.71	16295.01	
ANNUAL MEAN	6.53	44.6	15.4
HIGHEST ANNUAL MEAN			44.6
LOWEST ANNUAL MEAN			.24
HIGHEST DAILY MEAN	75	709	709
LOWEST DAILY MEAN	.01	.01	.00
ANNUAL SEVEN-DAY MINIMUM	.03	.03	.00
INSTANTANEOUS PEAK FLOW		1270	1270
INSTANTANEOUS PEAK STAGE		4.05	4.05
ANNUAL RUNOFF (AC-FT)	4740	32320	11180
10 PERCENT EXCEEDS	32	164	28
50 PERCENT EXCEEDS	.55	2.3	.54
90 PERCENT EXCEEDS	.17	.34	.07

e Estimated

## RIO GRANDE BASIN

08341365 COTTONWOOD CREEK NEAR THOREAU, NM

LOCATION.--Lat 35°20'32", long 106°12'42", in NE¼SE¼ 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 7,415 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for periods of estimated daily discharges, which are poor. No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.00	12	17	34	115	5.0	2.0	.00	.00	5.6
2	.00	.00	.00	9.9	16	32	123	5.5	1.9	.00	.00	.03
3	.00	.00	.00	15	15	34	117	4.6	1.6	.00	.00	.00
4	.00	.00	.00	13	12	30	100	4.1	1.6	.00	.00	.00
5	.00	.00	.00	13	10	27	102	3.6	1.5	.00	.00	.00
6	.00	.00	.00	13	9.8	30	97	3.8	1.3	.00	.00	.00
7	.00	.00	.00	70	9.6	45	66	3.9	1.2	.00	.00	.00
8	.00	.00	.00	101	9.5	80	49	3.8	1.2	.00	.00	.00
9	.00	.00	.00	72	19	131	47	3.4	1.3	.00	.00	.00
10	.00	.00	.00	75	24	138	51	3.0	1.3	.00	.00	.00
11	.00	.04	.00	69	23	111	57	2.9	1.2	.00	.00	.00
12	.00	.00	.00	67	20	86	55	2.8	.98	.00	.00	.00
13	.00	.00	.00	65	21	67	42	2.8	.80	.00	.00	.00
14	.00	.00	.00	44	21	63	33	5.0	.65	.00	.00	.00
15	.00	.00	.00	17	19	79	13	5.2	.57	.00	.00	.00
16	.00	.00	.00	16	13	157	12	5.6	.62	.00	.00	.00
17	.00	.00	.00	49	16	217	11	4.9	.60	.00	.00	.00
18	.00	.00	.00	54	19	280	10	3.9	.54	.00	.00	.00
19	.00	.00	.00	44	61	342	9.5	3.6	.43	.00	.00	.00
20	.00	.00	.00	31	202	285	9.0	3.8	.36	.00	.00	.00
21	.00	.00	.00	28	68	285	8.5	34	.27	.00	.00	.00
22	.00	.00	.00	29	61	275	8.0	9.2	.23	.00	.00	.00
23	.00	.00	.00	32	59	235	7.5	5.5	.17	.00	.00	.00
24	.00	.00	.00	25	47	216	7.0	4.3	.10	.00	.00	.00
25	.00	.00	.00	18	36	206	6.5	3.7	.05	.00	.00	.00
26	.00	.00	.00	13	34	223	6.5	3.4	.00	.00	.00	.00
27	.00	.00	.00	14	32	173	6.0	3.3	.00	.00	6.6	.00
28	.00	.00	.72	13	42	153	5.8	3.2	.00	.00	9.7	.00
29	.00	.00	4.3	13	---	156	5.6	3.1	.00	.00	.45	.00
30	.00	.00	16	12	---	128	5.0	2.6	.00	.00	.00	.00
31	.02	---	16	12	---	127	---	2.3	---	.00	11	---
TOTAL	0.03	0.05	37.02	1058.9	935.9	4445	1184.9	155.8	22.47	0.00	27.75	5.63
MEAN	.001	.002	1.19	34.2	33.4	143	39.5	5.03	.75	.000	.90	.19
MAX	.02	.04	16	101	202	342	123	34	2.0	.00	11	5.6
MIN	.00	.00	.00	9.9	9.5	27	5.0	2.3	.00	.00	.00	.00
AC-FT	.06	.1	73	2100	1860	8820	2350	309	45	.00	55	11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993
MEAN	.000	.008	.30	8.54	8.97
MAX	.001	.030	1.19	34.2	33.4
(WY)	1992	1992	1992	1992	1992
MIN	.000	.000	.000	.000	.000
(WY)	1990	1990	1990	1990	1990

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1989 - 1993

ANNUAL TOTAL	1811.58	7873.45	
ANNUAL MEAN	4.95	21.6	8.67
HIGHEST ANNUAL MEAN			21.6
LOWEST ANNUAL MEAN			.006
HIGHEST DAILY MEAN	82	342	342
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		483	a483
INSTANTANEOUS PEAK STAGE		6.00	6.00
ANNUAL RUNOFF (AC-FT)	3590	15620	6280
10 PERCENT EXCEEDS	19	67	19
50 PERCENT EXCEEDS	.00	.17	.00
90 PERCENT EXCEEDS	.00	.00	.00

a-From rating curve extended above 1.00 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 mi².

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 ft³/s occurred at station 8 mi downstream; no storage at times prior to 1947.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 35,860 acre-ft, April 25, 26, elevation, 7,401.12ft; minimum, 4,530 acre-ft, Dec. 25 elevation, 7,368.8 ft.

## MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30 .....	7,369.6	4,840	-----
Oct. 31 .....	7,369.1	4,460	- 200
Nov. 30 .....	7,368.8	4,530	- 110
Dec. 31 .....	7,369.0	4,600	+ 70
CAL YR 1992 .....			- 240
Jan. 31 .....	7,374.2	4,040	+ 2,440
Feb. 28 .....	7,380.2	11,080	+ 4,040
Mar. 31 .....	7,398.2	31,280	+20,200
Apr. 30 .....	7,400.9	35,510	+ 4,230
May 31 .....	7,399.8	33,700	- 1,810
June 30 .....	7,398.1	31,130	- 2,570
July 31 .....	7,395.9	28,000	- 3,130
Aug. 31 .....	7,395.4	27,320	- 680
Sept. 30 .....	7,394.3	25,860	- 1,460
WTR YR 1993 .....			+21,020

## 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 mi².

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. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	.89	.79	.92	1.2	2.6	12	13	36	32	40	15
2	.72	.84	.81	.95	1.2	2.6	13	14	36	34	40	15
3	.67	.87	.84	.90	1.2	2.6	12	23	38	36	41	16
4	.67	.90	.89	.80	1.2	2.7	12	23	39	36	41	16
5	.67	.84	.85	.92	1.2	2.7	13	23	39	39	42	16
6	.66	.84	.87	.90	1.2	2.8	13	24	35	47	42	16
7	.63	.84	.85	1.1	1.2	2.9	13	29	30	49	42	16
8	.65	.84	.84	1.8	1.3	3.0	13	31	29	48	41	16
9	.66	.84	.86	1.0	1.3	3.2	13	31	29	43	40	16
10	.62	.86	.86	.97	1.4	3.5	13	32	28	37	41	16
11	.64	.93	.92	1.0	1.4	4.0	13	32	28	38	37	16
12	.67	.86	.96	.93	1.4	4.2	13	32	24	39	33	16
13	.64	.86	.94	1.0	1.4	4.5	13	33	22	40	29	21
14	.64	.85	.96	1.1	1.5	4.8	13	33	22	40	24	23
15	.65	.84	.95	1.0	1.6	4.9	13	33	22	39	22	27
16	.65	.84	.96	1.1	1.6	5.1	13	35	22	42	22	31
17	.64	.84	.94	1.4	1.6	5.4	13	37	23	43	22	40
18	.65	.84	.98	1.2	1.7	6.1	13	37	24	43	28	40
19	.70	.80	.96	1.3	1.8	6.5	13	34	24	43	32	40
20	.67	.86	.91	1.2	1.9	7.1	13	34	24	43	38	40
21	.67	.84	.93	1.2	1.9	7.8	13	31	24	41	33	53
22	.72	.84	.93	1.2	1.8	8.5	13	30	26	40	21	58
23	.69	.84	.86	1.2	1.9	9.0	13	30	27	40	17	57
24	.71	.79	.88	1.2	2.0	9.4	13	32	27	45	17	56
25	.73	.79	.88	1.2	2.0	9.9	13	34	27	45	19	55
26	.75	.80	.82	1.2	2.1	10	13	38	28	44	17	55
27	.72	.82	.83	1.2	2.2	11	13	38	37	39	17	54
28	.88	.78	1.2	1.2	2.4	11	13	37	40	39	19	53
29	.94	.78	1.3	1.2	---	12	13	37	38	40	16	52
30	.84	.77	1.1	1.2	---	12	13	37	33	39	16	46
31	1.0	---	.99	1.2	---	12	---	37	---	40	15	---
TOTAL	21.87	25.13	28.66	34.69	44.6	193.8	387	964	881	1263	904	991
MEAN	.71	.84	.92	1.12	1.59	6.25	12.9	31.1	29.4	40.7	29.2	33.0
MAX	1.0	.93	1.3	1.8	2.4	12	13	38	40	49	42	58
MIN	.62	.77	.79	.80	1.2	2.6	12	13	22	32	15	15
AC-FT	43	50	57	69	88	384	766	1910	1750	2510	1790	1970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

	1992	1992	1993	1993	1993	1993	1993	1991	1992	1993	1991	1993
MEAN	1.20	.71	.69	.72	.87	2.37	4.92	25.2	22.6	26.8	17.0	12.0
MAX	3.09	.88	.92	1.12	1.59	6.25	12.9	42.5	33.6	40.7	40.5	33.0
(WY)	1992	1992	1993	1993	1993	1993	1993	1991	1992	1993	1991	1993
MIN	.49	.51	.28	.39	.45	.68	.62	.65	.46	.48	.48	.39
(WY)	1990	1991	1991	1991	1991	1990	1990	1990	1990	1990	1990	1989

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1989 - 1993
ANNUAL TOTAL	3417.26	5738.75	
ANNUAL MEAN	9.34	15.7	10.2
HIGHEST ANNUAL MEAN			15.7
LOWEST ANNUAL MEAN			.61
HIGHEST DAILY MEAN	45 Jun 30	58 Sep 22	59 May 25 1991
LOWEST DAILY MEAN	.45 Sep 7	.62 Oct 10	.14 Dec 9 1990
ANNUAL SEVEN-DAY MINIMUM	.47 Sep 5	.64 Oct 7	.17 Dec 5 1990
INSTANTANEOUS PEAK FLOW		62 Jun 25	a83 Jul 11 1992
INSTANTANEOUS PEAK STAGE		3.06 Jun 25	3.31 Jul 11 1992
ANNUAL RUNOFF (AC-FT)	6780	11380	7420
10 PERCENT EXCEEDS	32	40	37
50 PERCENT EXCEEDS	.96	12	.86
90 PERCENT EXCEEDS	.64	.81	.44

a-From rating curve extended above 50 ft³/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 good except for estimated daily discharges, which are 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 1992 TO SEPTEMBER 1993

DAY	DAILY MEAN VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	2.6
2	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.38
3	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
4	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
5	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
6	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
7	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
8	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
9	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
10	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
11	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
12	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
13	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
14	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
15	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
16	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
17	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
18	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
19	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
20	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e3.0	e.15	e.00	e.00	.00
21	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e1.5	e.00	e.00	e.00	.00
22	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
23	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
24	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
25	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	.00
26	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.10	.00
27	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	1.1	.00
28	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	e.00	5.4	.00
29	e.00	e.00	e.00	e.00	---	e.00	e.00	e.00	e.00	e.00	81	.00
30	e.00	e.00	e.00	e.00	---	e.00	e.00	e.00	e.00	e.00	133	.00
31	e.00	---	e.00	e.00	---	e.00	---	e.00	---	e.00	21	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.50	0.15	0.00	241.60	2.98
MEAN	.000	.000	.000	.000	.000	.000	.000	.15	.005	.000	7.79	.099
MAX	.00	.00	.00	.00	.00	.00	.00	3.0	.15	.00	133	2.6
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	8.9	.3	.00	479	5.9

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1993, BY WATER YEAR (WY)

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968													1970, BY WATER YEAR (WY)												
MEAN	.21	.002	.000	.000	.000	.26	6.75	2.12	.001	.11	.49	.31													
MAX	2.51	.061	.000	.000	.000	6.30	87.0	22.5	.017	1.20	7.79	5.49													
(WY)	1970	1980	1969	1969	1969	1985	1980	1983	1981	1981	1993	1972													
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000													
(WY)	1969	1969	1969	1969	1969	1969	1969	1969	1968	1968	1969	1968													

## SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1968 - 1993	
ANNUAL TOTAL	0.33		249.23			
ANNUAL MEAN	.001		.68		.85	
HIGHEST ANNUAL MEAN					8.10	
LOWEST ANNUAL MEAN					.000	
HIGHEST DAILY MEAN	.22 Jul 23		133 Aug 30		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			206 Aug 30		a1760 Aug 28 1952	
INSTANTANEOUS PEAK STAGE			3.61 Aug 30		5.35 Aug 28 1952	
ANNUAL RUNOFF (AC-FT)	.7		494		618	
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

08343100 GRANTS CANYON AT GRANTS, NM

LOCATION.--Lat 35°09'39", long 107°50'15", in NE¼NE¼ sec.25, T.11 N., R.10 W., Cibola County, Hydrologic Unit 13020207, on upstream side of culvert under Roosevelt Avenue, in Grants, 0.2 mi east of intersection of Roosevelt and First Avenues, and 1.1 mi upstream from confluence with Rio San Jose (formerly Bluewater Creek).

DRAINAGE AREA.--13.0 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder and culvert control. Elevation of gage is 6,450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. No flow most of time.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
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	.49	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.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	.02	.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	3.4	.15	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	1.8	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.03	.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	1.7	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.1	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.6	.00
29	.00	.00	.00	.00	---	.02	.00	.00	.00	.00	.53	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.02	0.00	5.23	0.15	0.00	6.46	0.00
MEAN	.000	.000	.000	.000	.000	.001	.000	.17	.005	.000	.21	.000
MAX	.00	.00	.00	.00	.00	.02	.00	3.4	.15	.00	2.1	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.04	.00	10	.3	.00	13	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1993, BY WATER YEAR (WY)

MEAN	.15	.000	.001	.001	.000	.000	.000	.029	.029	.23	.59	.31
MAX	2.29	.615	.613	.639	.600	.615	.603	.62	.28	1.25	3.49	3.80
(WY)	1973	1980	1966	1963	1962	1978	1968	1970	1966	1977	1963	1967
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1964	1963	1963	1962	1962	1962	1962	1962	1962	1968	1978	1966

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1962 - 1993

ANNUAL TOTAL	12.24	11.86	
ANNUAL MEAN	.033	.032	.11
HIGHEST ANNUAL MEAN			.56
LOWEST ANNUAL MEAN			.001
HIGHEST DAILY MEAN	5.2 Aug 24	3.4 May 20	80 Sep 8 1967
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	.00 Jan 1 1962
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Oct 1	.00 Jan 1 1962
INSTANTANEOUS PEAK FLOW		53 May 20	a1550 Aug 26 1936
INSTANTANEOUS PEAK STAGE		.95 May 20	b5.10 Aug 26 1936
ANNUAL RUNOFF (AC-FT)	24	24	83
10 PERCENT EXCEEDS	.00	.00	.00
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

a-From rating curve extended above 240 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights 3.17 ft, 5.10 ft and 5.38 ft.

b-Maximum gage height 5.38 ft Sept. 8, 1967.

## 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. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	3.4	3.6	4.2	3.9	3.6	4.0	3.3	2.9	7.3	6.3	27
2	2.6	3.3	3.6	4.2	4.0	3.7	3.6	3.2	2.8	7.7	5.9	8.1
3	2.5	3.4	3.6	4.0	4.0	3.6	3.6	3.2	2.7	8.2	5.5	4.4
4	2.5	3.5	3.6	3.9	3.8	3.6	3.6	3.4	2.6	8.5	5.2	3.3
5	2.6	3.4	3.4	3.8	3.8	3.6	3.6	3.2	2.6	8.7	4.6	3.0
6	2.6	3.3	3.3	4.0	3.8	3.6	3.5	3.4	2.6	9.3	4.1	2.7
7	2.5	3.3	3.1	4.1	3.8	3.6	3.3	3.4	2.5	9.3	3.9	2.7
8	2.5	3.3	3.2	4.9	3.8	3.6	3.5	3.3	2.5	9.3	3.8	2.8
9	2.6	3.3	3.3	8.0	3.8	3.6	3.6	3.4	2.6	9.6	3.6	3.1
10	2.7	3.3	3.3	5.9	3.9	3.6	3.6	3.8	2.6	9.8	3.3	2.9
11	2.8	3.2	3.6	5.9	3.9	3.5	3.6	3.7	2.7	9.7	3.4	3.1
12	2.7	3.5	3.6	5.7	3.6	3.3	3.6	3.8	2.9	10	3.2	3.0
13	2.7	3.6	3.6	6.1	3.6	3.3	3.6	3.8	2.9	10	3.0	3.3
14	2.8	3.6	3.5	5.4	3.6	3.3	3.6	3.6	3.2	10	3.2	3.3
15	2.9	3.7	3.3	4.5	3.6	3.3	3.5	3.5	3.5	10	3.4	3.4
16	3.1	3.8	3.3	4.2	4.5	3.3	3.6	3.6	3.6	11	3.4	3.5
17	3.0	3.9	3.3	4.4	4.1	3.3	3.5	3.5	3.7	11	3.2	4.3
18	3.1	3.8	3.3	5.0	3.8	3.3	3.3	3.4	3.7	10	3.4	3.8
19	3.1	3.7	3.2	5.1	3.8	3.4	3.1	3.5	3.9	11	3.2	3.8
20	3.1	3.7	3.4	6.3	3.8	4.3	3.4	3.4	5.1	11	2.8	3.9
21	3.3	3.6	3.6	4.9	3.6	4.0	3.6	3.8	4.1	10	3.5	4.0
22	3.1	3.6	3.6	5.1	3.7	3.6	3.4	7.0	3.9	9.9	2.6	4.0
23	3.1	3.7	3.3	4.6	3.6	3.6	3.3	4.5	3.9	9.5	3.7	3.8
24	3.3	3.5	3.5	4.0	3.6	3.6	3.3	3.8	4.0	8.6	3.0	3.8
25	4.1	3.3	3.6	3.8	3.6	3.6	3.4	3.8	4.4	8.0	2.8	3.8
26	3.5	3.4	3.4	3.8	3.6	3.6	3.4	3.7	5.1	7.7	2.8	3.9
27	3.6	3.6	3.5	3.8	3.6	3.8	3.4	3.7	5.6	7.5	5.3	3.8
28	3.5	3.6	3.6	4.1	3.6	3.6	3.4	3.5	6.1	7.3	9.7	3.9
29	3.4	3.6	3.6	4.1	---	3.7	3.2	3.4	6.6	6.9	14	3.8
30	4.0	3.6	4.4	4.0	---	6.8	3.3	3.2	7.0	6.6	28	3.8
31	3.7	---	4.1	4.0	---	5.9	---	3.1	---	6.4	99	---
TOTAL	93.7	105.5	108.3	145.8	105.8	116.2	104.4	112.9	112.3	279.8	252.8	134.0
MEAN	3.02	3.52	3.49	4.70	3.78	3.75	3.48	3.64	3.74	9.03	8.15	4.47
MAX	4.1	3.9	4.4	8.0	4.5	6.8	4.0	7.0	7.0	11	99	27
MIN	2.5	3.2	3.1	3.8	3.6	3.3	3.1	3.1	2.5	6.4	2.6	2.7
AC-FT	186	209	215	289	210	230	207	224	223	555	501	266

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

	MEAN	5.68	5.37	5.29	5.67	5.81	5.71	8.50	8.34	5.49	6.90	9.51	6.72
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	3.52	3.49	3.84	3.78	3.75	3.48	3.64	3.70	3.63	3.34	3.52	
(WY)	1990	1993	1993	1984	1993	1993	1993	1993	1967	1966	1990	1990	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1937 - 1993

ANNUAL TOTAL	1583.4	1671.5	
ANNUAL MEAN	4.33	4.58	
HIGHEST ANNUAL MEAN			6.59
LOWEST ANNUAL MEAN			19.3
HIGHEST DAILY MEAN	26	Sep 15	99
LOWEST DAILY MEAN	2.5	Aug 29	2.5
ANNUAL SEVEN-DAY MINIMUM	2.5	Oct 2	2.5
INSTANTANEOUS PEAK FLOW			151
INSTANTANEOUS PEAK STAGE			2.59
INSTANTANEOUS LOW FLOW			
ANNUAL RUNOFF (AC-FT)	3140	3320	4770
10 PERCENT EXCEEDS	5.6	7.0	7.2
50 PERCENT EXCEEDS	4.0	3.6	5.1
90 PERCENT EXCEEDS	3.0	3.0	4.3

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 1992 TO SEPTEMBER 1993

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)
DEC 02...	1415	3.5	1000	8.4	10.0	14.5	595	7.9	100	15	K26	140
JAN 25...	1130	E25	1130	8.1	7.0	13.0	609	12.6	151	<10	K2	<2
APR 01...	1000	4.4	1760	8.1	14.5	13.5	605	9.1	111	--	K5	40
MAY 26...	0930	3.8	995	8.3	19.0	17.0	610	--	--	<10	K13	46
AUG 16...	1330	3.8	987	8.3	29.5	17.0	610	11.2	146	12	--	--

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 CACO3 (MG/L AS) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
DEC 02...	300	100	70	31	91	2	5.0	246	0	202	201	210
JAN 25...	310	110	69	34	110	3	5.1	242	0	198	200	270
APR 01...	420	210	85	50	190	4	7.3	249	0	204	198	420
MAY 26...	310	130	72	31	92	2	5.8	195	10	176	198	230
AUG 16...	300	91	68	31	89	2	4.6	237	7	206	200	230

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 TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
DEC 02...	63	0.50	33	630	1.08	0.030	0.020	0.990	1.10	0.070	0.070
JAN 25...	80	0.80	30	723	0.920	--	0.020	--	0.940	--	0.020
APR 01...	150	0.80	28	1060	--	--	<0.010	--	0.650	--	0.030
MAY 26...	64	0.80	31	637	--	--	<0.010	--	0.840	--	0.050
AUG 16...	62	0.80	31	640	--	--	--	--	--	--	--

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
DEC 02...	0.20	0.160	0.080	0.080	1.8	5	4	220	<1	<1.0	2
JAN 25...	0.20	0.100	--	0.070	1.1	--	--	250	--	--	--
APR 01...	<0.20	0.110	--	0.100	3.3	--	--	430	--	--	--
MAY 26...	<0.20	0.080	--	0.070	0.9	5	5	210	1	3.0	<1
AUG 16...	--	--	--	--	0.7	6	6	210	<1	<1.0	<1



## RIO GRANDE BASIN

08343500 RIO SAN JOSE NEAR GRANTS, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	CHROMIUM, 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, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
DEC 02...	<1	2	<1	8	1	<1	<0.10	<0.1	5	4	10
JAN 25...	--	--	--	4	--	--	--	--	--	--	--
APR 01...	--	--	--	18	--	--	--	--	--	--	--
MAY 26...	<1	<1	9	5	2	4	<0.10	<0.1	4	4	<10
AUG 16...	<1	3	1	23	1	<1	<0.10	<0.1	3	4	<10

DATE	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, DIS- SOLVED AS CS-137 (PCI/L) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)
DEC 02...	4	5.7	4.7	3.7	3.0	2.0	2.4	1.5	6.2	1.8	4.7
JAN 25...	--	--	--	--	--	--	--	--	--	--	--
APR 01...	--	--	--	--	--	--	--	--	--	--	--
MAY 26...	<3	--	--	--	--	--	--	--	--	--	--
AUG 16...	8	5.9	4.7	3.8	3.0	0.6	0.6	0.58	7.7	2.0	5.8

DATE	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP, TOT DRY CS-137 (PCI/L) (76005)	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 0.062 MM (70331)
DEC 02...	1.3	2.7	2.5	0.85	0.08	0.020	3.0	<1.0	94	0.90	87
JAN 25...	--	--	--	--	--	--	--	--	--	--	--
APR 01...	--	--	--	--	--	--	--	--	16	0.19	65
MAY 26...	--	--	--	--	--	--	--	--	59	0.61	45
AUG 16...	1.5	0.9	0.9	0.61	0.06	0.020	2.8	<1.0	--	--	--

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)
JAN 25...	1130	<0.01	<0.01	<0.01	<0.01
APR 01...	1000	0.28	<0.01	<0.01	<0.01

## RIO GRANDE BASIN

08349800 RIO PAGUATE BELOW JACKPILE MINE NEAR LAGUNA, NM

LOCATION.--Lat 35°07'09", long 107°19'58", in SW/SE¼ sec.2, T.10 N., R.5 W., Cibola County, Hydrologic Unit 13020207, in Pagate Purchase Grant, near right bank on downstream end of bridge abutment of former Atchison, Topeka and Santa Fe Railway Co. bridge, 1.4 mi downstream from Rio Moquino, 4.2 mi upstream from Pagate Reservoir, 5.0 mi southeast of Pagate, and 26 mi east of Grants.

DRAINAGE AREA.--107 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,820 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	.90	.48	2.8	2.7	3.4	1.7	2.2	1.0	e.60	e.68	e10
2	.76	.95	.43	2.8	2.9	3.2	1.7	2.4	.99	e.58	e59	e1.4
3	.75	1.0	.96	3.0	2.8	2.8	1.7	2.3	.95	e.56	e.56	e1.3
4	.76	1.1	1.9	3.8	2.8	2.6	1.8	2.0	.94	e.57	e.57	e1.0
5	.75	1.1	8.6	4.3	2.9	2.5	1.7	2.0	.99	e.58	e.35	e.92
6	.73	1.0	6.9	3.8	3.1	2.4	1.6	2.0	.95	e.56	e.27	e.88
7	.61	1.0	4.7	3.7	3.0	2.4	1.7	2.0	.92	e.58	e.24	e.82
8	.63	1.0	9.8	5.5	2.5	2.3	1.9	2.0	.99	e.59	e.20	e.80
9	.66	1.0	6.4	4.1	2.9	2.3	1.7	1.9	1.0	e.57	e.22	e.80
10	.62	.98	5.8	4.1	2.7	2.4	1.6	1.7	1.0	e.60	e.18	e.79
11	.62	1.0	5.2	4.8	2.6	2.4	1.7	1.6	.98	e.66	e.18	e.78
12	.50	.84	4.1	4.3	2.6	2.2	1.7	1.6	.92	e.71	e.16	e.74
13	.48	.90	4.4	4.6	2.8	2.3	1.8	1.5	.86	e1.0	e.16	e.68
14	.42	.92	2.9	3.4	3.2	2.3	1.9	1.6	.80	e2.1	e.15	e.62
15	.41	.91	6.7	3.1	3.2	2.2	1.9	1.6	.85	e2.5	e.13	e.56
16	.38	.91	3.0	3.0	3.0	2.0	2.0	2.1	.93	e3.0	e.13	e.56
17	.37	.86	5.6	3.3	3.0	2.1	1.9	1.7	.93	e.34	e.18	e.55
18	.37	.74	6.6	3.3	3.0	2.1	2.0	1.3	.82	e3.0	e.18	e.54
19	.38	.65	7.5	4.2	2.9	2.4	2.0	2.0	.75	e8.0	e.17	e.53
20	.41	.64	10	3.2	3.2	2.3	2.0	1.6	2.0	e1330	e.18	e.53
21	.41	.69	7.3	3.2	3.2	2.0	2.1	1.7	1.3	e35	e.16	e.53
22	.41	.76	9.4	3.0	3.1	1.9	2.2	1.7	.77	e2.5	e.17	e.50
23	.42	.82	9.6	2.9	3.1	2.0	2.1	1.6	.64	e2.2	e.17	e.49
24	.48	.81	12	3.3	3.1	1.9	2.1	1.6	e.60	e1.9	e.18	e.47
25	1.5	.66	11	3.8	3.0	2.1	2.3	1.6	e285	e1.7	e.18	e.46
26	.69	.66	10	3.3	3.0	2.0	2.2	1.3	e22	e1.5	e.21	e.46
27	.62	.65	14	2.8	3.0	1.9	2.3	1.3	e6.5	e1.3	e.38	e.39
28	.64	.62	8.3	3.0	3.4	1.9	2.3	1.4	e1.5	e1.2	e.40	e.39
29	.68	.59	5.9	3.0	---	2.2	2.4	1.4	e.62	e1.0	e25	e.47
30	.81	.51	3.0	2.7	---	1.9	2.4	1.3	e.60	e.88	e650	e.50
31	.89	---	2.8	2.5	---	1.7	---	1.2	---	e.72	e100	---
TOTAL	18.94	25.17	195.27	108.6	82.7	70.1	58.4	53.2	339.10	1407.00	840.74	29.46
MEAN	.61	.84	6.30	3.50	2.95	2.26	1.95	1.72	11.3	45.4	27.1	.98
MAX	1.5	1.1	14	5.5	3.4	3.4	2.4	2.4	285	1330	650	10
MIN	.37	.51	.43	2.5	2.5	1.7	1.6	1.2	.60	.34	.13	.39
AC-FT	38	50	387	215	164	139	116	106	673	2790	1670	58

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	1.00	1.10	1.90	2.16	2.04	2.63	2.26	1.43	1.22	4.71	11.8	2.80						
MAX	5.29	3.49	6.30	4.35	5.49	12.2	10.3	3.64	11.3	45.4	142	18.2						
(WY)	1987	1987	1993	1987	1987	1987	1983	1991	1993	1993	1988	1988						
MIN	.073	.26	.33	.28	.27	.82	.80	.29	.11	.003	.095	.068						
(WY)	1990	1990	1981	1986	1986	1981	1978	1980	1980	1987	1980	1989						

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1976 - 1993

ANNUAL TOTAL	643.27	3228.68	
ANNUAL MEAN	1.76	8.85	3.02
HIGHEST ANNUAL MEAN			15.5
LOWEST ANNUAL MEAN			.68
HIGHEST DAILY MEAN	21	Aug 24	1330
LOWEST DAILY MEAN	.03	Jul 7	.13
ANNUAL SEVEN-DAY MINIMUM	.05	Jul 1	.16
INSTANTANEOUS PEAK FLOW			18000
INSTANTANEOUS PEAK STAGE			unknown
ANNUAL RUNOFF (AC-FT)	1280	6400	2190
10 PERCENT EXCEEDS	3.1	4.3	3.2
50 PERCENT EXCEEDS	.89	1.6	.94
90 PERCENT EXCEEDS	.24	.42	.11
e Estimated			

a-From slope-area measurement of peak flow.

b-gage height unknown for peak stage.

## RIO GRANDE BASIN

08349800 RIO PAQUATE BELOW JACKPILE MINE NEAR LAGUNA, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977, 1987-92, April to September 1993.

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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) (00490)	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)
APR 06...	1000	1.7	1600	8.7	16.0	8.0	605	8.9	95	620	360
MAY 27...	1130	1.4	1710	8.3	27.5	26.0	600	6.3	100	660	420
SEP 01...	1255	1.7	2500	8.1	--	25.0	--	--	--	1400	1100

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)
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APR 06...	110	84	130	2	6.4	315	2	262	246	650
MAY 27...	110	94	140	2	7.6	293	0	240	198	760
SEP 01...	300	150	210	2	9.1	282	0	231	218	1600

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)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
------	--	---	--	--	--	---	---	--	---	---

APR 06...	16	0.40	29	1180	1	2	90	<1	<1.0	<1
MAY 27...	18	0.40	28	1300	2	1	110	<1	<1.0	<1
SEP 01...	40	0.70	5.6	2450	1	<1	150	<1	<1.0	<1

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, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
------	--	--	---	---	--	---	--	---	---	--

APR 06...	<1	1	1	9	1	<1	<0.10	<0.1	<1	2
MAY 27...	<1	2	1	4	1	<1	<0.10	<0.1	1	1
SEP 01...	<1	2	2	<10	2	<1	<0.10	<0.1	5	6

DATE	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO, WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)
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APR 06...	10	6	54	18	42	13	1.0	1.1	0.80	20
MAY 27...	<10	<3	65	20	47	15	11	11	3.3	26
SEP 01...	<10	<10	320	66	230	46	5.8	7.2	3.0	87

## RIO GRANDE BASIN

08349800 RIO PAQUATE BELOW JACKPILE MINE NEAR LAGUNA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	BETA, 2 SIGMA WATER, DISS, AS (PCI/L) (75989)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L CS-137) (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP, TOT DRY CS-137 (PCI/L) (76005)	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)
APR 06...	4.3	15	3.2	8.1	7.8	1.3	0.28	0.050	50	7.4
MAY 27...	5.1	20	3.9	18	17	2.6	0.72	0.120	58	8.6
SEP 01...	14	64	10	84	79	9.4	1.3	0.240	290	44

## RIO GRANDE BASIN

08351500 RIO SAN JOSE AT CORREO, NM

LOCATION.--Lat 34°58'03", long 107°10'10", in NE¼ sec.32, T.9 N., R.3 W., Cibola County, Hydrologic Unit 13020207, on left bank 0.3 mi downstream from State Highway 6, 1.2 mi northeast of Correo, and 13 mi upstream from mouth.

DRAINAGE AREA.--3,660 mi<sup>2</sup>, approximately, of which about 1,130 mi<sup>2</sup> does not contribute directly to surface runoff.

PERIOD OF RECORD.--April 1943 to current year. Prior to October 1955, published as "San Jose River at Correo."

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,474.88 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1958 to Sept. 30, 1975, water-stage recorder at site 1 mi upstream at datum 17.55 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated to some extent since 1927 by Bluewater Lake (station 08341400) 79 mi upstream. Several observations of water temperature were made during the year. No flow many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood that probably occurred Aug. 21, 1935, reached a stage of 15.4 ft, from floodmarks, (discharge, about 11,000 ft<sup>3</sup>/s), but was probably exceeded by the flood of Sept. 23, 1929 (discharge not determined), based on study of records for Rio Puerco at Rio Puerco.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	3.0	6.6	11	e9.3	8.7	6.9	.00	.00	.00	.00	59
2	.00	2.9	7.2	9.1	9.6	8.7	7.4	.00	.00	.00	.00	35
3	.00	2.8	8.1	7.8	9.6	7.6	6.1	.00	.00	.00	.00	14
4	.00	3.0	7.0	4.5	8.9	7.2	5.8	.00	.00	.00	.00	5.8
5	.00	3.1	2.0	6.8	8.2	7.0	5.7	.00	.00	.00	.00	3.6
6	.00	3.9	3.0	6.0	10	6.9	5.7	.00	.00	.00	.00	6.7
7	.00	4.8	3.2	8.7	7.6	6.8	5.8	.00	.00	.00	.00	1.9
8	.00	4.9	3.1	9.6	9.9	6.2	5.8	.00	.00	.00	.00	3.3
9	.00	4.9	3.0	11	9.5	6.1	5.5	.00	.00	.00	.00	1.9
10	.00	4.9	3.1	10	9.5	6.0	5.2	.00	.00	.00	.00	2.7
11	.00	6.0	3.2	12	8.8	6.0	5.2	.00	.00	.00	.00	1.8
12	.00	5.9	3.4	10	8.5	6.0	5.0	.00	.00	.00	.00	1.1
13	.00	5.5	3.3	e9.6	8.1	5.8	4.7	.00	.00	.00	.00	.73
14	.23	4.8	3.3	e9.4	8.1	5.8	4.9	.00	.00	.00	.00	.86
15	.00	1.7	3.5	e9.2	e7.9	6.1	5.1	.00	.00	.00	2.0	1.3
16	.00	6.0	3.4	e9.0	e7.8	6.1	4.9	.00	.00	.00	1.2	1.4
17	.00	6.1	3.4	e8.8	e7.5	5.8	5.0	.00	.00	.00	.17	1.2
18	.00	5.5	3.4	e8.9	e7.4	5.7	5.0	.00	.00	.00	.00	.94
19	.00	6.0	3.5	e9.0	e7.0	6.9	2.6	.00	.00	.00	.00	1.1
20	.42	6.5	3.6	e9.2	e7.1	7.2	1.5	.00	.00	1330	.00	1.3
21	1.1	6.8	3.6	e9.3	e7.0	6.7	.49	.00	305	97	.00	1.7
22	1.1	7.1	3.6	e9.4	e7.0	6.8	.01	.02	78	11	.00	1.3
23	2.3	6.5	3.7	e9.2	6.9	6.3	.00	.17	16	3.1	.05	.71
24	2.3	6.0	3.8	e9.3	7.0	5.9	.00	.22	8.6	.90	1.7	.48
25	2.4	3.0	3.8	9.4	7.6	5.7	.00	.00	2.3	.33	1.2	.40
26	11	3.4	3.8	9.3	7.2	5.6	.00	.00	.79	.00	.20	.40
27	4.8	3.8	3.8	e9.3	7.0	4.9	.00	.00	.43	.00	.00	.37
28	3.2	4.4	5.3	e9.5	7.3	4.0	.00	.00	.32	.00	25	.36
29	3.0	5.0	8.5	e9.4	---	5.8	.00	.00	.30	.00	416	.35
30	2.7	5.0	9.7	e9.6	---	8.2	.00	.00	.01	.00	676	.35
31	2.5	---	10	e9.4	---	8.5	---	.00	---	.00	143	---
TOTAL	37.07	143.2	139.9	282.7	227.3	201.0	104.30	0.41	411.75	1442.33	1266.52	152.05
MEAN	1.20	4.77	4.51	9.12	8.12	6.48	3.48	.013	13.7	46.5	40.9	5.07
MAX	11	7.1	10	12	10	8.7	7.4	.22	305	1330	676	59
MIN	.00	1.7	2.0	4.5	6.9	4.0	.00	.00	.00	.00	.00	.35
AC-FT	74	284	277	561	451	399	207	.8	817	2860	2510	302

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1993, BY WATER YEAR (WY)

	MEAN	13.0	3.56	2.84	4.42	5.85	5.54	6.15	3.92	2.71	16.8	49.2	21.0
MAX	123	39.2	13.0	20.1	42.9	39.4	82.6	33.3	33.4	170	363	126	
(WY)	1973	1987	1987	1987	1987	1973	1973	1949	1967	1957	1955	1954	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.042	.000	
(WY)	1944	1944	1944	1951	1951	1950	1943	1945	1944	1960	1980	1953	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1943 - 1993

ANNUAL TOTAL	1544.85	4408.53	
ANNUAL MEAN	4.22	12.1	
HIGHEST ANNUAL MEAN			11.3
LOWEST ANNUAL MEAN			40.4
HIGHEST DAILY MEAN	55	Jul 25	1330
LOWEST DAILY MEAN	.00	May 1	.00
ANNUAL SEVEN-DAY MINIMUM	.00	May 1	.00
INSTANTANEOUS PEAK FLOW			4000
INSTANTANEOUS PEAK STAGE			12.14
ANNUAL RUNOFF (AC-FT)	3060	8740	8210
10 PERCENT EXCEEDS	9.1	9.3	12
50 PERCENT EXCEEDS	3.4	3.0	.00
90 PERCENT EXCEEDS	.00	.00	.00
e Estimated			

a-Backwater from dam (present datum).

## 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 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 good 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.55	4.7	12	111	11	96	.00	.00	543
2	.00	.00	.00	.82	5.6	10	87	15	87	.00	.00	123
3	.00	.00	.00	34	3.9	6.8	49	46	77	.00	.00	33
4	.00	.00	.00	43	2.1	21	25	50	78	.00	.00	e9.0
5	.00	.00	.00	56	1.7	11	16	35	72	.00	.00	e4.0
6	.00	.00	.00	31	1.2	44	14	19	54	.00	.00	e3.0
7	.00	.00	.00	20	3.7	40	16	8.0	37	.00	.00	e2.0
8	.00	.00	.00	20	12	34	8.4	5.2	17	.00	.00	e1.0
9	.00	.00	.00	28	6.7	21	23	6.2	7.5	.00	.00	.00
10	.00	.00	.00	656	2.1	14	27	e5.0	1.2	.00	.00	.00
11	.00	.00	.00	326	1.2	85	13	e4.0	e.70	.00	.00	.00
12	.00	.00	.00	146	6.0	149	5.4	e3.0	1.2	.00	.00	.00
13	.00	.00	.00	e82	35	135	4.4	e2.0	.00	.00	.00	.00
14	.00	.00	.00	e22	21	107	3.3	e2.0	.00	e.80	.00	.00
15	.00	.00	.00	15	21	79	2.7	.00	.00	e2.0	.00	.00
16	.00	.00	.00	10	13	47	6.6	.00	.00	.00	.00	95
17	.00	.00	.00	8.9	8.4	41	9.4	19	.00	.00	.00	17
18	.00	.00	.00	7.8	64	50	8.4	49	.00	.00	.00	e4.0
19	.00	.00	.00	8.6	77	82	11	80	.00	.00	.00	e2.0
20	.00	.00	.00	177	41	61	5.1	87	226	.00	.00	.00
21	.00	.00	.00	183	7.9	41	3.3	98	45	110	.00	.00
22	.00	.00	.00	107	72	48	3.0	111	207	504	.00	.00
23	.00	.00	.00	49	137	29	1.9	105	116	42	e50	3.4
24	.00	.00	.00	31	89	19	3.5	105	20	e4.0	e260	e2.0
25	.00	.00	.00	28	57	14	2.7	106	.00	e2.0	e340	.00
26	.00	.00	.00	21	46	18	2.0	99	.00	.00	e380	.00
27	.00	.00	.00	16	28	18	4.9	91	.00	.00	e420	.00
28	.00	.00	.00	16	19	14	6.4	94	.00	e.10	e460	.00
29	.00	.00	.00	13	---	42	4.8	120	.00	.00	e480	.00
30	.00	.00	.00	7.0	---	107	6.2	132	.00	.00	670	.00
31	.00	---	.00	6.4	---	103	---	118	---	.00	771	---
TOTAL	0.00	0.00	0.00	2170.07	787.2	1502.8	484.4	1625.40	1142.60	664.90	3831.00	841.40
MEAN	.000	.000	.000	70.0	23.1	48.5	16.1	52.4	38.1	21.4	124	28.0
MAX	.00	.00	.00	656	137	149	111	132	226	504	771	543
MIN	.00	.00	.00	.55	1.2	6.8	1.9	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	4300	1560	2980	961	3220	2270	1320	7600	1670

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1993, BY WATER YEAR (WY)

	MEAN	53.5	7.53	1.29	2.62	16.7	19.7	15.9	44.2	18.8	66.2	193	89.2
MAX	586	100	26.6	70.0	142	208	179	885	203	362	922	584	
(WY)	1942	1987	1985	1993	1979	1960	1973	1941	1941	1955	1957	1972	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.92	.000
(WY)	1952	1940	1940	1940	1942	1942	1944	1950	1945	1942	1986	1956	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1940 - 1993

ANNUAL TOTAL	10670.33	13049.77	
ANNUAL MEAN	29.2	35.8	44.1
HIGHEST ANNUAL MEAN			171
LOWEST ANNUAL MEAN			5.47
HIGHEST DAILY MEAN	743	Aug 27	5980
LOWEST DAILY MEAN	.00	Jun 20	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 20	.00
INSTANTANEOUS PEAK FLOW			1400
INSTANTANEOUS PEAK STAGE			9.07
ANNUAL RUNOFF (AC-FT)	21160	25880	31980
10 PERCENT EXCEEDS	70	98	70
50 PERCENT EXCEEDS	8.0	2.0	.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.  
 SPECIFIC CONDUCTANCE: July 1956 to current year.  
 WATER TEMPERATURE: October 1964 to current year.  
 SUSPENDED-SEDIMENT DISCHARGE: October 1947 to current year.

REMARKS.--Daily suspended-sediment samples are collected when flow is observed on this ephemeral stream.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 11,400 microsiemens, June 10, 1968; minimum daily, 238 microsiemens, July 30, 1969.  
 WATER TEMPERATURE: Maximum daily, 32.0 °C, July 29, 1977; minimum daily, 0.0 °C, Dec. 30, 1971, Mar. 3, 1985.  
 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, 127,000 mg/L, Aug. 25; minimum daily mean, no flow on many days.  
 SEDIMENT LOAD: Maximum daily, 151,000 tons, Jan. 10; minimum daily, 0 ton on many days.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 OF (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											
11...	1200	238	1330	7.8	10.5	4.0	--	--	--	290	--
MAR											
10...	1035	15	2130	8.5	15.0	7.0	645	10.1	99	470	270
APR											
06...	1355	12	--	8.1	--	16.0	660	10.0	116	570	--
MAY											
05...	0920	37	1620	8.6	--	18.0	635	8.2	105	400	300
JUN											
09...	1315	8.6	1770	8.3	29.0	23.0	639	7.6	107	430	330
23...	1045	123	1340	8.1	30.5	18.5	639	8.1	104	310	220
JUL											
21...	1345	550	1680	7.6	35.0	18.0	640	5.3	67	450	370
22...	1300	620	1590	7.9	26.0	18.5	641	7.9	101	540	480
SEP											
02...	0840	119	1300	7.9	--	19.0	643	7.0	90	370	290

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- 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										
11...	85	20	180	5	4.9	--	--	--	147	510
MAR										
10...	130	35	300	6	6.2	181	29	196	194	760
APR										
06...	150	47	310	6	6.8	--	--	--	186	970
MAY										
05...	110	30	180	4	4.3	112	1	93	153	650
JUN										
09...	120	32	220	5	4.9	127	0	104	133	740
23...	88	23	160	4	7.3	114	0	93	96	430
JUL										
21...	130	31	170	3	9.2	105	0	86	180	610
22...	160	33	120	2	8.4	71	0	58	108	670
SEP										
02...	110	23	120	3	7.0	100	0	82	105	520

## RIO GRANDE BASIN

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 DIS- SOLVED (MG/L AS N) (00623)
JAN 11...	28	0.60	10	--	927	--	--	--	--	--
MAR 10...	110	0.80	9.4	1490	1480	0.800	0.060	0.860	0.110	0.40
APR 06...	130	--	10	1710	1740	--	<0.010	0.400	0.030	0.30
MAY 05...	43	0.90	7.1	1190	1080	--	<0.010	0.200	0.010	0.40
JUN 09...	59	0.90	9.4	1280	1250	--	<0.010	0.190	0.030	0.20
23...	65	0.70	7.2	808	843	1.15	0.050	1.20	0.050	0.30
JUL 21...	110	0.60	7.3	1190	1120	--	--	--	--	--
22...	44	0.60	6.7	1130	1090	1.68	0.020	1.70	0.020	0.40
SEP 02...	40	0.70	22	860	897	0.920	0.030	0.950	0.050	0.20

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	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)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	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)
JAN 11...	--	--	--	--	--	--	--	130	<3	--
MAR 10...	0.29	15	6.50	--	0.080	5.1	2.3	230	540	14
APR 06...	0.27	0.20	0.020	0.030	0.020	7.5	--	310	250	6
MAY 05...	0.39	0.30	0.030	<0.010	<0.010	--	--	--	5	<1
JUN 09...	0.17	<0.20	0.030	<0.010	<0.010	--	--	--	42	2
23...	0.25	0.30	0.030	0.020	<0.010	--	--	--	10	2
JUL 21...	--	--	--	--	--	--	--	--	18	50
22...	0.38	6.1	3.90	<0.010	<0.010	--	--	--	45	6
SEP 02...	0.15	0.20	11.0	<0.010	0.010	--	--	--	910	13

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO, WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)
JAN 11...	1200	7.3	6.1	5.1	4.3	2300	3000	1800	7.5	2.3

DATE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR/ YT-90 (PCI/L) (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP. TOT DRY CS-137 (PCI/L) (76005)	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)
JAN 11...	5.6	1.7	3000	2900	880	0.23	0.050	4.1	<1.0



## RIO GRANDE BASIN

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- FIUM BOT MAT <63U WS FIELD (UG/G) (34855)	
JAN 14...	1100	10	2	<10	0.1	78	41	13	23	43	
DATE		GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)
JAN 14...	15	<8	<4	2.8	31	30	0.98	400	<.02	<2	
DATE		NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)
JAN 14...	37	17	11	0.07	1.9	9	0.4	0.10	0.93	200	
DATE		SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	
JAN 14...		0.05	<40	17	<10	4	77	22	2	86	
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)		
JAN 11...	1200	238	1330	4.0	81200	52200	77	--	--		
JAN 14...	1100	20	--	--	--	--	--	49	100		
MAR 10...	1035	15	2130	7.0	124000	4960	--	--	--		
MAR 20...	1005	59	1920	8.5	60000	9560	96	--	--		
APR 06...	1355	12	--	16.0	95600	3100	--	--	--		
MAY 05...	0920	37	1620	18.0	185000	18300	99	--	--		
JUN 09...	1315	8.6	1770	23.0	42100	983	100	--	--		
JUN 23...	1045	123	1340	18.5	40000	13300	92	--	--		
JUL 21...	1345	550	1680	18.0	147000	218000	--	--	--		
JUL 22...	1300	620	1590	18.5	19700	33000	--	--	--		
AUG 30...	1030	666	1780	19.5	217000	390000	95	--	--		
SEP 02...	0840	119	1300	19.0	39100	12600	--	--	--		

## RIO GRANDE BASIN

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	0	.00	0	.00	39600	59	15800	200	43700	1420
2	0	.00	0	.00	0	.00	58100	129	17400	263	35700	963
3	0	.00	0	.00	0	.00	68300	6270	17000	179	26600	488
4	0	.00	0	.00	0	.00	55700	6460	14500	82	25200	1430
5	0	.00	0	.00	0	.00	53100	8030	11500	53	29300	869
6	0	.00	0	.00	0	.00	62100	5200	9870	32	37400	4440
7	0	.00	0	.00	0	.00	35500	1920	9310	93	50200	5420
8	0	.00	0	.00	0	.00	27000	1460	16600	536	55700	5120
9	0	.00	0	.00	0	.00	26200	1980	24600	444	60600	3440
10	0	.00	0	.00	0	.00	71900	151000	25000	142	57400	2170
11	0	.00	0	.00	0	.00	64300	59500	23200	75	55600	12800
12	0	.00	0	.00	0	.00	47700	18800	17500	284	67400	27100
13	0	.00	0	.00	0	.00	39000	8640	53800	5080	78200	28500
14	0	.00	0	.00	0	.00	32400	1920	60700	3440	91500	26400
15	0	.00	0	.00	0	.00	28300	1140	56900	3220	68400	14600
16	0	.00	0	.00	0	.00	23000	620	50800	1780	62600	7940
17	0	.00	0	.00	0	.00	20200	486	43100	978	60500	6690
18	0	.00	0	.00	0	.00	19500	410	29800	5160	58800	7940
19	0	.00	0	.00	0	.00	18700	434	21900	4540	53400	11800
20	0	.00	0	.00	0	.00	51300	24500	21800	2410	55400	9130
21	0	.00	0	.00	0	.00	60000	29600	19200	410	59100	6550
22	0	.00	0	.00	0	.00	56100	16200	16700	3250	65100	8430
23	0	.00	0	.00	0	.00	44300	5860	31700	11700	60900	4770
24	0	.00	0	.00	0	.00	35700	2990	60700	14600	56300	2890
25	0	.00	0	.00	0	.00	32500	2450	65200	10000	53400	2020
26	0	.00	0	.00	0	.00	29800	1690	65600	8150	51700	2510
27	0	.00	0	.00	0	.00	27700	1190	59900	4530	55500	2700
28	0	.00	0	.00	0	.00	29000	1250	50000	2560	50900	1920
29	0	.00	0	.00	0	.00	29800	1050	---	---	53500	6070
30	0	.00	0	.00	0	.00	22600	427	---	---	80900	23400
31	0	.00	---	---	0	.00	18100	313	---	---	74900	20800
TOTAL	---	0.00	---	0.00	---	0.00	---	361978	---	84191	---	260720

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	74100	22200	76700	2280	89500	23200	0	.00	0	.0	37100	54500
2	79800	18700	70100	2840	82500	19400	0	.00	0	.0	36700	12200
3	63700	8430	67600	8400	73000	15200	0	.00	0	.0	30600	2720
4	58200	3930	62100	8390	71200	15000	0	.00	0	.0	21300	517
5	54000	2330	62000	5860	73000	14200	0	.00	0	.0	17500	189
6	48000	1820	64400	3300	72100	10500	0	.00	0	.0	11400	93
7	47700	2060	67800	1460	70800	7070	0	.00	0	.0	5350	29
8	47900	1090	64500	906	71400	3280	0	.00	0	.0	484	1.3
9	58100	3610	70000	1170	74100	1500	0	.00	0	.0	0	.00
10	66100	4820	61100	825	82300	267	0	.00	0	.0	0	.00
11	60600	2130	58300	630	76700	145	0	.00	0	.0	0	.00
12	52800	771	60700	492	104000	337	0	.00	0	.0	0	.00
13	48300	574	58800	318	0	.0	0	.00	0	.0	0	.00
14	43400	386	61800	334	0	.0	11400	25	0	.0	0	.00
15	39600	289	0	.0	0	.0	17300	94	0	.0	0	.00
16	61700	1100	0	.0	0	.0	0	.00	0	.0	63900	16400
17	71000	1800	95300	4890	0	.0	0	.00	0	.0	40000	1830
18	71100	1610	81100	10700	0	.0	0	.00	0	.0	22500	243
19	75900	2250	48100	10400	0	.0	0	.00	0	.0	17200	93
20	60000	826	66600	15600	22700	13900	0	.00	0	.0	0	.00
21	56100	500	82800	21900	42000	5100	22400	6660	0	.0	0	.00
22	50600	410	91300	27400	76000	42500	18200	24800	0	.0	0	.00
23	43900	225	92800	26300	32800	10300	11200	1270	0	.0	27400	251
24	62700	592	86500	24500	35000	1890	8100	88	101000	70700	24900	135
25	61000	445	87000	24900	0	.0	0	.00	127000	117000	0	.00
26	55400	299	83900	22400	0	.0	0	.00	102000	105000	0	.00
27	79300	1050	84000	20600	0	.0	0	.00	83600	94800	0	.00
28	79300	1370	86300	21900	0	.0	7480	2.0	79700	99000	0	.00
29	77000	998	88600	28700	0	.0	0	.00	70200	91000	0	.00
30	78500	1310	93200	33200	0	.0	0	.00	77600	140000	0	.00
31	---	---	92700	29500	---	---	0	.00	43000	89500	---	---
TOTAL	---	87925	---	360095.0	---	183789.0	---	32939.00	---	807000.0	---	89201.30

TOTAL LOAD FOR YEAR: 2267838.30 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.--WSP 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	.00	.00	.00	.00	46	214	257	252	277	268	101
2	243	.00	.00	.00	.00	77	223	260	226	279	153	96
3	245	.00	.00	.00	.00	90	220	250	239	281	165	96
4	245	.00	.00	.00	.00	94	230	264	249	280	181	105
5	238	.00	.00	.00	.00	103	235	274	249	270	181	109
6	230	.00	.00	.00	.00	102	244	264	248	265	180	173
7	230	.00	.00	.00	.00	105	208	257	257	274	179	169
8	236	.00	.00	.00	.00	115	189	288	255	278	179	183
9	236	.00	.00	.00	.00	128	201	269	262	276	182	196
10	236	.00	.00	.00	.00	149	191	269	269	274	183	209
11	237	.00	.00	.00	.00	151	197	279	268	275	189	213
12	235	.00	.00	.00	.00	144	207	277	274	271	195	204
13	241	.00	.00	.00	.00	139	214	281	270	277	208	216
14	228	.00	.00	.00	.00	136	220	286	264	271	e155	219
15	225	.00	.00	.00	.00	132	219	294	269	267	e140	221
16	235	.00	.00	.00	.00	128	221	297	277	263	e120	223
17	233	.00	.00	.00	.00	136	203	284	283	254	184	206
18	228	.00	.00	.00	.00	132	209	287	292	261	184	201
19	216	.00	.00	.00	.00	129	223	281	282	266	184	213
20	212	.00	.00	.00	.00	128	220	262	301	268	181	213
21	216	.00	.00	.00	.00	129	223	267	279	272	184	214
22	219	.00	.00	.00	.00	129	219	256	292	175	179	234
23	225	.00	.00	.00	.00	113	233	251	285	240	191	240
24	224	.00	.00	.00	.00	130	229	253	277	272	e160	240
25	215	.00	.00	.00	.00	137	241	250	275	268	e120	240
26	216	.00	.00	.00	.00	135	255	250	279	270	e105	246
27	195	.00	.00	.00	.00	135	240	250	278	270	e103	248
28	186	.00	.00	.00	.00	174	240	273	287	272	e107	265
29	130	.00	.00	.00	---	174	255	276	287	266	e105	261
30	.00	.00	.00	.00	---	171	259	261	281	260	e102	268
31	.00	---	.00	.00	---	178	---	264	---	275	e100	---
TOTAL	6486.00	0.00	0.00	0.00	0.00	3969	6682	8331	8106	8267	5047	6022
MEAN	209	.000	.000	.000	.000	128	223	269	270	267	163	201
MAX	245	.00	.00	.00	.00	178	259	297	301	281	268	268
MIN	.00	.00	.00	.00	.00	46	189	250	226	175	100	96
AC-FT	12860	.00	.00	.00	.00	7870	13250	16520	16080	16400	10010	11940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

MEAN	116	9.93	8.57	7.84	5.78	141	193	192	184	164	139	121
MAX	229	86.0	79.0	56.7	52.4	191	246	269	270	267	209	223
(WY)	1992	1989	1976	1976	1979	1977	1989	1993	1993	1993	1992	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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1964 - 1993

ANNUAL TOTAL	54221.00	52910.00	
ANNUAL MEAN	148	145	107
HIGHEST ANNUAL MEAN			150
LOWEST ANNUAL MEAN			63.7
HIGHEST DAILY MEAN	303	301	306
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
ANNUAL RUNOFF (AC-FT)	107500	104900	77830
10 PERCENT EXCEEDS	268	274	226
50 PERCENT EXCEEDS	199	182	114
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 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. 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 ft³/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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	1.0	.00	.00	.00	.00	.00	.01	.01	.07	.00	.00
2	3.6	.05	.00	.00	.00	.00	.00	.00	.11	.06	.02	.00
3	3.4	.00	.00	.00	.00	.00	.00	.00	.16	.07	.00	.00
4	3.5	.00	.00	.00	.00	.00	.00	.00	.14	.07	.00	.00
5	3.6	.00	.00	.00	.00	.00	.00	.00	.06	.02	.00	.00
6	3.5	.00	.00	.00	.00	.00	.00	.00	.04	.05	.00	.00
7	3.6	.00	.00	.00	.00	.00	.00	.00	.01	.04	.00	.00
8	3.4	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00
9	3.2	.00	.00	.00	.00	.00	.00	.01	.00	.07	.00	.00
10	3.2	.00	.00	.00	.74	.00	.00	.01	.02	.13	.00	.00
11	3.2	.00	.00	.00	1.1	.00	.00	.00	.01	.07	.00	.00
12	3.2	.00	.00	.00	.76	.00	.00	.02	.00	.07	.00	.00
13	3.2	.00	.00	.00	.63	.00	.00	.00	.00	.05	.00	.00
14	3.1	.00	.00	.00	.61	.00	.00	.00	.00	.00	.00	.00
15	3.2	.00	.00	.00	.42	.00	.00	.00	.00	.04	.00	.00
16	3.3	.00	.00	.00	.26	.00	.00	.00	.00	.00	.00	.00
17	3.3	.00	.00	.00	.68	.00	.00	.00	.00	.00	.00	.00
18	3.2	.00	.00	.00	.34	.00	.00	.01	.00	.00	.00	.00
19	3.2	.00	.00	.00	.33	.00	.00	.00	.00	.00	.00	.00
20	3.0	.00	.00	.00	.27	.00	.00	.00	.04	.00	.00	.00
21	3.2	.00	.00	.00	.13	.00	.00	.00	.09	.00	.00	.00
22	3.5	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00
23	4.0	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00
24	3.8	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00
25	3.6	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00
26	3.3	.00	.00	.00	.32	.00	.00	.00	.05	.00	.00	.00
27	3.4	.00	.00	.00	.01	.00	.00	.03	.01	.00	.00	.00
28	3.2	.00	.00	.00	.00	.00	.00	.11	.09	.00	.00	.00
29	2.9	.00	.00	.00	---	.00	.00	.01	.10	.00	.00	.00
30	2.4	.00	.00	.00	---	.00	.00	.00	.10	.00	.00	.00
31	2.3	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	102.2	1.05	0.00	0.00	6.60	0.00	0.00	0.21	1.20	0.84	0.02	0.00
MEAN	3.30	.035	.000	.000	.24	.000	.000	.007	.040	.027	.001	.000
MAX	4.0	1.0	.00	.00	1.1	.00	.00	.11	.16	.13	.02	.00
MIN	2.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	203	2.1	.00	.00	13	.00	.00	.4	2.4	1.7	.04	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1993, BY WATER YEAR (WY)

MEAN	139	660	672	546	553	438	406	524	398	213	192	138
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	.007	.000	.000	.000	.000
(WY)	1988	1988	1986	1988	1987	1991	1991	1993	1986	1987	1987	1987

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1959 - 1993

ANNUAL TOTAL	520.71	112.12	
ANNUAL MEAN	1.42	.31	
HIGHEST ANNUAL MEAN			405
LOWEST ANNUAL MEAN			1033
HIGHEST DAILY MEAN	4.9 Apr 7	4.0 Oct 23	.049 1973
LOWEST DAILY MEAN	.00 Jan 1	.00 Nov 3	1950 May 12 1966
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Nov 3	.00 Jul 22 1959
ANNUAL RUNOFF (AC-FT)	1030	222	.00 Jul 20 1963
10 PERCENT EXCEEDS	3.9	.65	293700
50 PERCENT EXCEEDS	.65	.00	1360
90 PERCENT EXCEEDS	.00	.00	41
			.00

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM

(Surveillance network station)

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. 18 years (water years 1974-92), 1,450 ft<sup>3</sup>/s, 1,051,000 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, 6,350 ft<sup>3</sup>/s, June 7; minimum daily, 65 ft<sup>3</sup>/s, July 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	340	e710	694	1220	1160	2120	2690	4220	5860	2430	e185	2780
2	333	e760	714	1160	1120	2320	2400	4390	5500	2450	e402	2820
3	279	e830	693	1260	1050	1840	2020	4440	5770	2300	e522	2730
4	276	922	726	1170	1020	1410	1710	4390	5880	2170	e699	2840
5	239	e820	767	1090	977	1630	1910	4600	6070	2220	e473	2710
6	232	e850	780	1180	1040	1430	2360	4540	6190	2050	e383	2450
7	247	e960	724	1230	1070	1040	2620	3330	6350	1890	e403	1850
8	265	e880	815	1130	1090	1070	2700	3420	5810	1810	e416	1500
9	291	e850	866	1220	1120	1000	2640	3790	5860	1640	e471	1400
10	292	e890	888	1540	1080	963	2570	3850	5860	1510	e361	1070
11	306	978	1010	1360	1040	1100	2360	3710	5790	1110	e370	1000
12	320	909	1140	1120	1040	1340	2530	3310	5510	605	e322	619
13	325	887	1200	1080	1180	1270	2750	2610	4760	465	e307	562
14	256	791	1090	1030	1180	1280	3370	2320	4220	648	e347	565
15	239	819	1060	1020	1190	1460	3580	2630	3820	514	e690	622
16	242	845	986	1040	1290	1370	3630	3290	3590	482	e765	657
17	271	832	965	1030	1140	1260	3570	3890	3600	656	e660	705
18	297	914	935	1010	1220	1120	3330	4230	4030	511	e700	700
19	278	707	997	1050	1190	1100	3440	4540	4310	449	e1150	535
20	280	840	1000	1290	1220	1100	3250	4860	4310	280	e3060	340
21	283	717	940	1210	788	1180	3160	5020	4350	361	e2920	461
22	289	783	953	1160	584	1420	3030	4960	4590	1470	e1170	490
23	315	810	970	1150	572	1410	3060	5030	4400	569	e1240	329
24	321	751	846	1070	670	1400	3060	5030	3350	566	e1470	348
25	387	725	863	1040	1190	1560	3290	5010	3110	461	e1100	405
26	405	797	956	1050	1470	1950	3780	5200	3090	324	e1360	296
27	404	780	940	1100	1730	1790	3720	5340	3000	129	e3700	360
28	361	720	1020	1060	1940	2450	3720	5240	2890	99	e2900	284
29	448	740	1100	1020	---	2750	3640	5320	2640	95	e2110	265
30	604	697	1120	1070	---	3200	3970	5520	2530	e65	e2110	276
31	750	---	1110	1120	---	3090	---	5730	---	e125	2660	---
TOTAL	10175	24514	28868	35280	31361	49423	89860	133760	137040	30454	35426	31969
MEAN	328	817	931	1138	1120	1594	2995	4315	4568	982	1143	1066
MAX	750	978	1200	1540	1940	3200	3970	5730	6350	2450	3700	2840
MIN	232	697	693	1010	572	963	1710	2320	2530	65	185	265
AC-FT	20180	48620	57260	69980	62200	98030	178200	265300	271800	60410	70270	63410
(†)	33240	48620	57260	69980	62200	105900	191400	281800	287900	76810	80280	75350
CAL YR 1992	TOTAL 506952	MEAN 1385	MAX 5720	MIN 32	AC-FT 1006000	(†) MEAN 1534	AC-FT 1115000					
WTR YR 1993	TOTAL 638130	MEAN 1748	MAX 6350	MIN 65	AC-FT 1266000	(†) MEAN 1893	AC-FT 1371000					

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, May 17, 1942.

WATER TEMPERATURE: (1947-56, 1959-62, 1964-93): 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, 1,230 microsiemens, Aug. 23, 24; minimum daily, 315 microsiemens, June 3.

WATER TEMPERATURE: Maximum daily, 29.0 °C, July 24; minimum daily, 2.0 °C, Dec. 20.

SEDIMENT CONCENTRATION: Maximum daily mean, 44,300 mg/L, Aug. 21; minimum daily mean, 89 mg/L, July 29.

SEDIMENT LOAD: Maximum daily, 349,000 tons, Aug. 21; minimum daily, 23 ton on July 29.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
NOV 04...	1200	940	650	8.5	11.5	10.0	675	9.2	92	37	1100
APR 22...	1045	3000	432	8.3	21.0	14.5	645	8.7	101	28	210
MAY 20...	1030	4720	373	8.4	25.0	20.0	640	7.4	97	--	310
AUG 30...	1230	2110	860	8.0	27.0	24.5	644	6.4	92	250	--

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 (00453)	CAR- BONATE WATER DIS IT FIELD CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD CACO3 (39086)
NOV 04...	2100	200	35	61	11	61	2	4.7	198	0	162
APR 22...	330	130	19	42	7.2	31	1	3.8	127	7	116
MAY 20...	520	130	24	38	7.4	27	1	3.2	116	4	101
AUG 30...	16000	200	90	59	13	98	3	5.1	135	0	111

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 TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV 04...	165	120	34	0.50	26	420	0.780	0.020	0.020	0.790
APR 22...	106	68	14	0.40	21	260	--	--	<0.010	--
MAY 20...	101	68	11	0.30	18	237	--	--	<0.010	--
AUG 30...	182	260	29	0.70	14	550	--	--	<0.010	--

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

[illegible]

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

		DATE	TIME	2,4-D, (UG/L) (39730)	2,4,5-T (UG/L) (39740)	SILVEX, (UG/L) (39760)	2,4-DP (UG/L) (82183)				
		APR	22...	1045	<0.01	<0.01	<0.01	<0.01			
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 D (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE D (T/DAY) (80155)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY) (80156)	
OCT	08...	1045	257	86.0	1.8	1.69	--	12.0	93	65	
NOV	04...	1200	940	--	--	3.89	650	10.0	2520	6400	
04...	1330	941	170	1.4	3.89	--	10.0	2270	5770	7900	
DEC	11...	1115	1030	160	1.7	3.88	--	6.0	1170	3250	
JAN	06...	1100	1180	158	2.5	2.96	--	5.0	1630	5190	
FEB	04...	1130	979	141	<1.0	3.64	--	6.5	603	1590	
MAR	08...	1445	1080	150	3.2	2.24	--	9.5	2240	6530	
APR	19...	1500	3670	160	7.6	4.09	--	16.0	2860	28300	
22...	1045	3000	--	--	--	432	14.5	820	6640	36200	
MAY	20...	1030	4720	165	6.1	4.20	373	20.0	1720	21900	
JUN	16...	1115	3620	162	5.6	3.96	--	20.5	906	8860	
JUL	21...	1150	251	78.0	1.7	1.85	--	24.5	683	463	
AUG	11...	1345	351	88.0	1.3	3.16	--	26.0	734	696	
30...	1230	2110	162	2.0	6.45	860	24.5	38400	219000	257000	
DATE		SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	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)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)
OCT	08...	92	--	--	--	--	--	--	--	--	25
NOV	04...	62	--	--	--	--	--	--	--	--	--
04...	--	--	15	16	17	22	68	92	100	--	1
DEC	11...	--	--	--	--	--	24	35	82	100	0
JAN	06...	--	48	58	67	74	84	95	99	100	18
FEB	04...	--	--	--	--	--	68	89	99	100	44
MAR	08...	--	48	55	60	69	92	99	100	--	0
APR	19...	32	--	--	--	--	--	--	--	--	0
22...	40	--	--	--	--	--	--	--	--	--	--
MAY	20...	62	--	--	--	--	--	--	--	--	1
JUN	16...	26	--	--	--	--	--	--	--	--	1
JUL	21...	81	--	--	--	--	--	--	--	--	6
AUG	11...	--	--	--	--	--	36	41	78	100	0
30...	81	46	58	62	69	86	94	98	100	100	3



## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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									
08...	66	95	99	99	100	--	--	--	--
NOV									
04...	--	--	--	--	--	--	--	--	--
04...	11	75	100	--	--	--	--	--	--
DEC									
11...	2	58	93	99	99	100	--	--	--
JAN									
06...	52	93	100	--	--	--	--	--	--
FEB									
04...	74	97	100	--	--	--	--	--	--
MAR									
08...	1	4	7	8	9	11	18	35	59
APR									
19...	4	48	79	91	92	93	95	96	100
22...	--	--	--	--	--	--	--	--	--
MAY									
20...	14	94	100	--	--	--	--	--	--
JUN									
16...	2	33	92	96	97	98	99	100	--
JUL									
21...	34	83	98	100	--	--	--	--	--
AUG									
11...	1	68	100	--	--	--	--	--	--
30...	16	74	99	99	99	99	100	--	--



## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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	184	169	5050	9690	1010	1890	177	583	534	1670	856	4900
2	154	138	3350	6880	674	1300	658	2060	527	1590	975	6110
3	154	116	2260	5060	577	1080	1050	3580	500	1420	740	3680
4	198	148	1910	4760	603	1180	2020	6370	553	1520	673	2560
5	265	171	1640	3640	593	1230	1920	5660	518	1370	800	3520
6	163	102	1350	3090	605	1270	1270	4060	470	1320	1550	5980
7	121	81	1260	3260	370	723	1280	4260	477	1380	1620	4530
8	131	94	1760	4190	269	592	1130	3450	540	1590	1410	4070
9	124	97	1580	3620	298	697	1090	3580	569	1720	1430	3870
10	115	91	1590	3820	364	873	19200	79900	844	2460	1200	3110
11	102	84	1210	3190	337	919	15000	55200	470	1320	1210	3580
12	127	110	1050	2580	1180	3630	6380	19300	462	1300	3220	11600
13	121	106	1150	2740	330	1070	5150	15000	1380	4390	3250	11200
14	91	63	1450	3110	2610	7690	2100	5850	1470	4690	2860	9880
15	95	61	1520	3360	2360	6770	2110	5820	1320	4240	2660	10500
16	104	68	345	787	297	791	1740	4890	1050	3660	1760	6500
17	102	75	248	557	277	722	1610	4470	985	3030	1520	5160
18	105	84	1110	2750	315	795	937	2560	901	2970	1470	4440
19	105	79	1810	3460	473	1270	1140	3240	731	2350	1470	4370
20	109	82	1880	4270	434	1170	1530	5330	712	2350	1380	4100
21	118	90	2030	3920	208	528	1730	5650	528	1120	1360	4340
22	144	112	2100	4440	186	479	2380	7440	455	717	1400	5360
23	218	185	1590	3470	197	516	2220	6900	476	735	827	3150
24	250	217	1440	2920	195	445	1660	4800	3290	5950	718	2710
25	1100	1150	1530	2990	169	394	1470	4110	2660	8550	742	3130
26	1930	2110	1670	3600	157	405	1450	4100	1590	6290	705	3710
27	368	401	977	2060	169	429	1120	3320	1440	6720	665	3210
28	289	282	701	1360	176	485	1010	2880	1370	7180	909	6010
29	416	503	711	1420	177	526	667	1840	---	---	1220	9060
30	1050	1710	888	1670	189	572	648	1870	---	---	1550	13400
31	3990	8080	---	---	207	620	634	1920	---	---	1300	10800
TOTAL	---	16859	---	102664	---	41061	---	279993	---	83602	---	178540

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	1220	8850	1030	11800	1250	19700	215	1410	226	113	22900	172000
2	759	4920	1120	13200	1230	18300	210	1390	6690	7260	15600	119000
3	742	4050	1440	17300	1290	20100	221	1370	4560	6420	5000	36800
4	790	3650	1190	14100	1250	19900	203	1190	6330	11900	2320	17800
5	660	3400	912	11300	848	13900	192	1150	13300	17000	2290	16800
6	741	4720	860	10500	846	14100	135	747	2230	2310	1420	9400
7	1170	8300	903	8120	844	14500	114	582	1780	1940	860	4300
8	1340	9770	733	6770	410	6430	135	660	744	836	434	1760
9	1110	7900	660	6750	465	7360	187	828	433	551	313	1180
10	585	4060	592	6150	449	7100	184	750	363	354	244	705
11	572	3640	527	5280	457	7140	178	533	277	277	206	556
12	469	3200	1560	14000	454	6750	162	265	359	312	292	488
13	508	3770	677	4770	378	4860	114	143	322	267	269	408
14	762	6930	282	1770	386	4400	142	248	6410	6010	175	267
15	704	6800	336	2390	297	3060	187	260	26400	49100	696	1170
16	660	6470	374	3320	311	3010	1420	1840	6480	13400	11400	20200
17	835	8050	854	8970	314	3050	1290	2290	2420	4310	4640	8840
18	828	7440	1030	11800	343	3730	182	251	1810	3410	2190	4140
19	768	7130	1230	15100	262	3050	159	193	39600	123000	1590	2290
20	556	4880	1210	15900	614	7150	152	115	39200	324000	707	649
21	493	4210	1600	21700	1700	20000	712	694	44300	349000	273	340
22	417	3410	1950	26100	964	11900	6670	26500	37000	117000	205	271
23	355	2930	2100	28500	2060	24500	4730	7260	34300	115000	189	168
24	525	4340	1670	22700	907	8200	344	526	27700	110000	221	208
25	603	5360	1660	22500	271	2280	257	320	6390	19000	223	244
26	574	5860	1580	22200	262	2190	167	146	9700	35600	187	149
27	679	6820	1470	21200	232	1880	107	37	11300	112000	195	190
28	732	7350	1340	19000	227	1770	106	28	23100	181000	149	114
29	696	6840	1850	26600	218	1550	89	23	35800	204000	130	93
30	705	7560	1900	28200	195	1330	11100	1950	25900	148000	106	79
31	---	---	1770	27300	---	---	1960	662	21500	154000	---	---
TOTAL	---	172610	---	455290	---	263190	---	54361	---	2117370	---	420609

TOTAL LOAD FOR YEAR: 4186149 TONS.

## RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM  
(National stream-quality accounting network, surveillance network, and radiochemical network station)

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 U.S. Bureau of Reclamation). Prior to Apr. 29, 1958, at datum 4.19 ft higher.

REMARKS.--Water-discharge records good. 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. U.S. Bureau of Reclamation satellite telemeter at station. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	302	392	245	251	240	254	340	437	453	374	315	318
2	345	362	250	254	243	280	353	486	430	367	435	300
3	324	309	258	254	244	322	365	493	433	354	322	309
4	343	271	262	251	246	328	376	461	417	367	299	301
5	346	259	263	253	243	331	381	448	452	381	326	300
6	325	266	257	250	235	334	349	437	459	326	321	287
7	316	265	256	256	234	330	331	442	460	292	317	272
8	325	265	256	265	237	327	354	437	406	325	317	301
9	389	266	252	246	242	336	365	497	365	329	289	319
10	351	265	249	244	241	343	364	493	345	330	266	327
11	352	263	254	247	240	352	369	459	375	339	280	327
12	371	260	254	251	240	342	398	404	389	330	325	333
13	362	262	251	249	242	349	335	421	429	352	329	333
14	383	266	252	254	245	344	355	431	437	384	323	278
15	378	263	259	250	247	353	383	454	384	402	354	271
16	373	259	278	244	242	359	354	458	387	451	307	274
17	360	228	271	244	250	341	370	510	407	432	306	286
18	346	236	266	245	247	322	382	467	419	435	349	323
19	372	233	256	255	248	337	399	482	437	425	349	317
20	367	244	250	252	247	327	344	521	433	410	332	329
21	361	251	245	251	241	309	337	513	488	368	339	298
22	357	250	236	262	238	319	344	533	461	352	340	259
23	339	258	233	285	246	286	363	520	462	297	336	267
24	402	274	235	262	239	258	358	541	438	322	331	304
25	398	257	240	253	239	269	378	505	432	373	319	347
26	431	246	241	246	248	279	407	483	434	326	301	335
27	459	245	242	236	251	293	350	457	439	306	306	345
28	429	244	246	226	255	296	364	445	423	273	344	324
29	412	242	250	242	---	328	377	428	368	270	336	303
30	408	246	244	241	---	356	424	460	378	292	321	297
31	399	---	248	240	---	367	---	486	---	283	329	---
TOTAL	11425	7947	7799	7759	6810	9971	10969	14609	12640	10867	10063	9184
MEAN	369	265	252	250	243	322	366	471	421	351	325	306
MAX	459	392	278	285	255	367	424	541	488	451	435	347
MIN	302	228	233	226	234	254	331	404	345	270	266	259
AC-FT	22660	15760	15470	15390	13510	19780	21760	28980	25070	21550	19960	18220

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

	MEAN	247	559	550	453	445	440	477	568	491	335	280	246
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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1965 - 1993

ANNUAL TOTAL	123527	120043	
ANNUAL MEAN	338	329	424
HIGHEST ANNUAL MEAN			1137
LOWEST ANNUAL MEAN			.000
HIGHEST DAILY MEAN	530	541	2200
LOWEST DAILY MEAN	199	226	.00
ANNUAL SEVEN-DAY MINIMUM	237	238	.00
ANNUAL RUNOFF (AC-FT)	245000	238100	307100
10 PERCENT EXCEEDS	459	437	1220
50 PERCENT EXCEEDS	322	325	264
90 PERCENT EXCEEDS	246	244	.00

## 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.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1954 to current year.

WATER TEMPERATURE: March 1954 to current year.

SUSPENDED-SEDIMENT DISCHARGE: March 1954 to current year.

REMARKS.--Water samples for chemical and biological analyses collected at this station when all flow is diverted from the station 08358400 Rio Grande Floodway at San Marcial, NM. Sediment total-load (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: Maximum daily, 2,860 microsiemens, Oct. 25, 1956; minimum daily, 298 microsiemens, May 25, 1984.

WATER TEMPERATURE: Maximum daily, 38.0 °C, June 26, 1989; minimum daily, 0.0 °C on many days during December and January of most years.

SEDIMENT CONCENTRATION: Maximum daily mean, 144,000 mg/L, Sept. 19, 1971; minimum daily mean, no flow on many days during most years.

SEDIMENT LOAD: Maximum daily, 638,000 tons, Aug. 28, 1972; minimum daily, 0 ton on many days during most years.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,060 microsiemens, July 29; minimum daily, 455 microsiemens, July 8, 9.

WATER TEMPERATURE: Maximum daily, 29.0 °C, July 25-28; minimum daily, 1.0 °C, Dec. 6.

SEDIMENT CONCENTRATION: Maximum daily mean, 4,290 mg/L, Mar. 12; minimum daily mean, 29 mg/L, Dec. 26, 27.

SEDIMENT LOAD: Maximum daily, 3,960 tons, Mar. 12; minimum daily, 19 tons, Dec. 26, 27.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
NOV 05...	1400	265	1050	8.2	12.0	12.0	48	675	8.8	93	K37	64	
FEB 17...	1200	258	1040	8.1	--	12.0	--	652	9.8	107	--	--	
17...	1200	258	1040	8.1	--	12.0	--	652	9.8	107	--	--	
MAR 25...	1315	291	984	8.4	--	16.5	--	652	8.3	100	--	--	
APR 27...	1200	348	830	8.3	--	17.0	--	646	7.8	96	--	--	
MAY 28...	0900	468	912	8.4	--	18.0	--	649	6.8	85	--	--	
JUN 24...	1001	443	809	8.2	31.0	19.5	--	647	7.2	93	--	--	
JUL 29...	0810	269	867	8.3	24.0	21.0	--	653	6.8	90	61	--	
AUG 25...	1100	329	844	8.2	30.5	21.5	--	648	7.2	97	--	--	
SEP 20...	1330	331	842	8.2	--	17.0	--	650	8.2	100	--	--	
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)
NOV 05...	230	38	70	14	110	3	6.3	238	0	195	203	190	
FEB 17...	--	--	--	--	--	--	--	249	0	204	--	--	
17...	--	--	--	--	--	--	--	249	0	204	--	--	
MAR 25...	220	22	68	13	110	3	5.6	232	7	202	196	130	
APR 27...	220	42	68	12	100	3	5.6	217	0	178	176	160	
MAY 28...	200	33	62	12	100	3	5.3	209	0	171	175	140	
JUN 24...	--	--	--	--	--	--	--	203	0	166	--	--	
JUL 29...	220	30	67	12	97	3	5.8	228	0	187	185	150	
AUG 25...	210	38	66	12	170	5	5.5	215	0	176	176	150	
SEP 20...	200	29	62	12	92	3	5.7	214	0	176	168	140	

## RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
NOV 05...	92	0.50	24	646	626	0.160	0.020	0.010	0.170	0.170	0.040	0.040
FEB 17...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 25...	84	0.30	23	608	557	0.260	--	0.020	--	0.280	--	0.030
APR 27...	76	0.50	23	580	554	--	--	<0.010	--	0.180	--	0.010
MAY 28...	74	0.40	23	507	521	--	--	<0.010	--	0.180	--	0.070
JUN 24...	--	--	--	--	--	0.190	--	0.010	--	0.200	--	0.040
JUL 29...	67	0.50	25	530	538	--	--	<0.010	--	0.200	--	0.040
AUG 25...	55	0.50	25	524	592	--	--	<0.010	--	0.400	--	0.020
SEP 20...	55	0.50	24	465	498	--	--	<0.010	--	0.300	--	0.020

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	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 TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 05...	--	--	0.40	0.150	0.070	0.070	0.070	--	--	--	4	8
FEB 17...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 25...	<0.20	--	0.50	0.280	0.080	--	0.080	2.5	1.7	190	5	4
APR 27...	<0.20	--	0.20	0.120	0.070	--	0.060	3.1	2.1	170	7	4
MAY 28...	<0.20	--	0.20	0.080	0.050	--	0.070	3.3	4.1	--	6	3
JUN 24...	<0.20	--	<0.20	0.070	0.070	--	0.070	--	--	--	--	--
JUL 29...	<0.20	--	0.30	0.120	0.060	--	0.060	3.6	1.2	--	4	<1
AUG 25...	<0.20	--	0.30	0.120	0.090	--	0.090	--	--	--	6	<1
SEP 20...	0.30	0.28	<0.20	0.100	0.100	--	0.100	6.2	2.5	--	<3	1

DATE	TIME	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)	LYTHIUM, DIS- SOLVED (UG/L AS LI) (01130)	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)
NOV 05...	1400	<10	75	<3	100	<10	<1	<1	<1.0	820	<6
MAY 28...	0900	--	--	--	--	--	--	2	--	--	--

## RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	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 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)
NOV 05...	<2.0	1.1	30	85	2	<1	1	<5	<1	740	<10
MAY 28...	--	--	--	--	--	--	--	--	--	--	--
DATE	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)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)
NOV 05...	670	<0.01	3	2.8	3.3	2.0	2.4	8.9	7.2	3.2	8.6
MAY 28...	--	--	--	--	--	--	--	--	--	--	--
DATE	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L CS-137) (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP. TOT DRY CS-137 (PCI/L) (76005)	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)	
NOV 05...	2.1	6.5	1.6	4.6	4.1	1.1	0.08	0.020	1.8	<1.0	
MAY 28...	--	--	--	--	--	--	--	--	--	--	
DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <63U WS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	
FEB 17...	1200	12	2	<10	1	71	53	13	23	40	
DATE		GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)
FEB 17...		19	<8	<4	2.9	21	40	1.0	3700	0.04	<2

## RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NEODYMIUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOSPHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTASSIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCANDIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELENIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	STRONTIUM BOT MAT <63U WS FIELD (UG/G) (34965)
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FEB 17...	36	19	10	0.09	1.8	9	0.4	0.3	0.89	270
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DATE	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	TANTALUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANADIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTERBIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
FEB 17...	0.11	<40	13	<10	4	72	23	2	71

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (000061)	STREAM WIDTH (FT) (000004)	STREAM DEPTH, MEAN (FT) (000064)	STREAM VELOCITY, MEAN (F/S) (000055)	SPECIFIC CONDUCTANCE (US/CM) (000095)	TEMPERATURE WATER (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
OCT 06...	1245	328	54.0	2.8	2.17	--	18.0	214	190
NOV 05...	1400	265	54.0	2.5	1.99	1050	12.0	133	95
DEC 09...	1250	251	52.0	2.4	2.04	--	9.5	59	40
JAN 07...	1200	250	54.0	2.3	2.03	--	6.5	67	45
FEB 05...	1350	242	52.0	2.1	2.18	--	6.5	190	124
MAR 09...	1545	349	54.0	3.0	2.18	--	12.0	1360	1280
MAR 25...	1315	291	--	--	--	984	16.5	390	306
MAR 25...	1316	291	53.5	2.7	2.00	--	16.5	384	302
APR 27...	0830	348	54.0	2.7	2.60	--	--	209	196
APR 27...	1200	348	--	--	--	830	17.0	242	227
MAY 24...	1335	554	60.0	3.5	2.65	--	25.0	586	877
MAY 28...	0900	468	--	--	--	912	18.0	428	541
JUN 24...	0915	443	53.0	3.6	2.30	--	19.5	752	899
JUN 24...	1001	443	--	--	--	809	19.5	881	1050
JUL 29...	0810	269	53.0	2.5	2.05	867	21.0	249	181
AUG 25...	1100	329	55.0	2.7	2.20	844	21.5	1620	1440
SEP 20...	1330	331	57.0	2.7	2.20	842	17.0	502	449



## RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SEDI- MENT, DISCH, SUSP. + BED MA- (T/DAY) (80156)	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)
OCT 06...	366	--	--	--	--	--	70	74	92
NOV 05...	195	89	--	--	--	--	86	94	100
DEC 09...	89	63	--	--	--	--	--	--	--
JAN 07...	99	--	--	--	--	--	62	73	94
FEB 05...	249	--	--	--	--	--	45	68	94
MAR 09...	2070	--	--	--	--	--	39	47	84
25...	--	90	--	--	--	--	--	--	--
25...	558	--	51	55	61	71	92	96	99
APR 27...	394	--	--	--	--	--	81	90	96
27...	--	85	--	--	--	--	--	--	--
MAY 24...	1470	--	67	72	73	83	92	95	99
28...	--	89	--	--	--	--	--	--	--
JUN 24...	1530	--	57	68	71	78	78	79	79
24...	--	91	--	--	--	--	--	--	--
JUL 29...	350	85	--	--	--	--	95	98	100
AUG 25...	2300	86	60	74	86	93	98	98	100
SEP 20...	799	--	--	--	--	--	90	93	98

DATE	SED. SUSP. FALL DIAM. % FINER THAN (70345)	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)
OCT 06...	100	0	1	17	91	100	--	--
NOV 05...	--	--	0	15	86	99	100	--
DEC 09...	--	0	3	14	81	99	100	--
JAN 07...	100	--	0	11	78	96	99	100
FEB 05...	100	0	1	8	75	97	100	--
MAR 09...	100	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--
25...	100	--	0	10	82	98	99	100
APR 27...	100	--	0	8	83	99	100	--
27...	--	--	--	--	--	--	--	--
MAY 24...	100	0	1	11	87	98	100	--
28...	--	--	--	--	--	--	--	--
JUN 24...	100	--	0	8	78	99	100	--
24...	--	--	--	--	--	--	--	--
JUL 29...	--	--	0	8	76	97	99	100
AUG 25...	--	--	0	8	83	99	100	--
SEP 20...	100	0	1	6	80	99	100	--

## RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## CROSS SECTION ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	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 1993						
20...	1230	2.90	833	8.2	17.5	8.2
20...	1237	3.50	842	8.1	17.5	8.2
20...	1242	3.20	841	8.2	18.0	8.2
20...	1248	2.60	843	8.2	18.0	8.2
20...	1253	2.80	844	8.2	18.0	8.2
20...	1257	2.50	846	8.2	18.0	8.0

# RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	878	927	1020	1000	1020	906	928	847	987	747	949	862
2	881	1020	1020	1010	992	906	916	817	974	748	824	847
3	874	1020	1020	1000	982	905	913	813	950	748	855	847
4	876	991	1010	1000	997	905	914	854	859	748	857	846
5	876	992	1020	1020	1010	903	913	833	868	750	495	847
6	913	993	1020	1020	1020	905	977	814	866	636	472	848
7	913	994	1010	1020	1010	921	971	809	745	463	464	847
8	868	982	1020	1040	1020	920	964	831	745	455	464	756
9	869	999	1020	1020	1010	920	977	860	747	455	456	748
10	874	979	1010	1020	1010	922	980	865	743	456	477	752
11	871	977	1020	1020	1050	861	942	861	745	463	831	735
12	865	993	983	1020	1050	868	947	860	745	458	836	728
13	867	977	982	1020	1050	862	926	859	746	683	845	764
14	898	977	981	1030	1050	860	924	861	749	701	848	754
15	898	976	983	1040	1050	862	829	860	750	854	852	748
16	899	978	1000	1040	1050	862	837	826	749	858	751	748
17	873	977	996	1040	1050	907	842	827	750	855	764	751
18	874	987	998	1030	1020	908	846	827	751	852	768	751
19	872	988	1000	1040	1020	908	851	826	749	853	767	743
20	881	987	1010	1000	1030	907	848	826	749	862	758	832
21	883	989	1020	1010	1020	974	852	826	752	866	764	829
22	888	998	1020	1000	1020	973	851	826	749	854	767	832
23	892	988	1020	1010	1020	972	848	982	751	861	862	831
24	890	987	1010	1010	1020	976	855	980	755	861	862	831
25	882	988	1010	1010	995	974	852	984	751	852	862	845
26	878	988	1000	1010	997	974	851	982	749	862	858	858
27	841	984	1010	1010	995	974	849	981	749	851	861	858
28	930	1000	1000	1010	987	977	849	985	750	826	861	856
29	932	999	1010	1020	---	929	852	983	749	1060	861	857
30	928	1000	1000	1010	---	930	850	980	748	825	859	856
31	931	---	1010	1020	---	929	---	982	---	827	863	---
MEAN	887	988	1010	1020	1020	919	892	880	782	748	762	807
MAX	932	1020	1020	1040	1050	977	980	985	987	1060	949	862
MIN	841	927	981	1000	982	860	829	809	743	455	456	728
WTR YR 1993	MEAN 892	MAX 1060	MIN 455									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	14.0	4.0	6.0	8.0	12.0	16.0	17.0	20.0	25.0	25.0	21.0
2	23.0	14.0	3.0	9.0	11.0	12.0	16.0	17.0	19.0	25.0	26.0	22.0
3	23.0	13.0	4.0	10.0	11.0	13.0	15.0	16.0	19.0	24.0	26.0	21.0
4	24.0	13.0	3.0	10.0	10.0	14.0	15.0	17.0	19.0	25.0	25.0	22.0
5	24.0	13.0	2.0	9.0	10.0	13.0	15.0	15.5	18.0	24.0	25.0	22.0
6	22.0	12.0	1.0	9.0	10.0	13.0	15.0	17.0	17.0	24.0	25.0	22.0
7	22.0	12.0	2.0	8.0	10.0	14.0	15.0	17.0	17.0	25.0	26.0	21.0
8	22.0	11.0	3.0	10.0	11.0	13.0	15.0	16.0	17.0	25.0	26.0	22.0
9	22.0	8.0	3.0	10.0	12.0	14.0	15.0	15.0	18.0	26.0	26.0	22.0
10	21.0	8.0	2.0	9.0	12.0	15.0	16.0	17.0	19.0	24.0	26.0	21.0
11	21.0	7.0	2.0	8.0	12.0	15.0	16.0	19.0	21.0	25.0	25.0	21.0
12	20.0	7.0	4.0	8.0	11.0	12.0	16.0	19.0	20.0	26.0	26.0	20.0
13	20.0	7.0	4.0	12.0	--	12.0	16.0	18.0	20.0	26.0	26.0	21.0
14	20.0	9.0	7.0	12.0	12.0	14.0	16.0	18.0	21.0	26.0	26.0	20.0
15	19.0	10.0	8.0	12.0	12.0	14.0	16.0	19.0	21.0	26.0	25.0	20.0
16	19.0	13.0	10.0	13.0	11.0	14.0	16.0	18.0	21.0	26.0	26.0	21.0
17	18.0	14.0	7.0	12.0	11.0	14.0	16.0	19.0	21.0	25.0	25.0	22.0
18	18.0	7.0	6.0	11.0	11.0	14.0	16.0	20.0	22.0	24.0	25.0	21.0
19	18.0	8.0	6.0	12.0	12.0	15.0	17.0	20.0	23.0	25.0	24.0	20.0
20	17.0	7.0	5.0	13.0	12.0	14.0	17.0	19.0	24.0	26.0	24.0	20.0
21	17.0	6.0	6.0	13.0	11.0	14.0	17.0	20.0	23.0	25.0	23.0	21.0
22	18.0	7.0	5.0	11.0	11.0	14.0	18.0	21.0	24.0	26.0	24.0	21.0
23	18.0	7.0	5.0	11.0	11.0	14.0	18.0	21.0	23.0	26.0	24.0	22.0
24	20.0	7.0	4.0	12.0	12.0	14.0	18.0	21.0	24.0	27.0	23.0	22.0
25	17.0	7.0	4.0	12.0	12.0	14.0	17.0	23.0	25.0	27.0	23.0	22.0
26	16.0	8.0	4.0	12.0	11.0	15.0	17.0	22.0	26.0	27.0	23.0	21.0
27	16.0	7.0	3.0	11.0	10.0	13.0	18.0	22.0	25.0	28.0	24.0	22.0
28	13.0	6.0	7.0	11.0	10.0	13.0	18.0	23.0	26.0	29.0	24.0	20.0
29	14.0	4.0	10.0	12.0	---	14.0	18.0	23.0	27.0	27.0	23.0	22.0
30	13.0	3.0	13.0	12.0	---	14.0	18.0	23.0	25.0	26.0	22.0	20.0
31	14.0	---	13.0	12.0	---	15.0	---	24.0	---	25.0	22.0	---
MEAN	19.1	9.0	5.2	10.7	11.2	13.7	16.4	19.2	21.5	25.6	24.6	21.2
MAX	24.0	14.0	13.0	13.0	12.0	15.0	18.0	24.0	27.0	29.0	26.0	22.0
MIN	13.0	3.0	1.0	6.0	8.0	12.0	15.0	15.0	17.0	24.0	22.0	20.0
WTR YR 1993	MEAN	16.5	MAX	29.0	MIN	1.0						

## RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	176	144	191	202	48	32	40	27	48	31	84	58
2	183	170	83	81	48	32	35	24	168	110	223	169
3	144	126	67	56	46	32	49	34	76	50	375	326
4	137	127	65	48	46	33	37	25	70	46	374	331
5	136	127	63	44	42	30	34	23	55	36	368	329
6	143	125	61	44	39	27	40	27	49	31	366	330
7	149	127	63	45	45	31	35	24	52	33	403	359
8	149	131	67	48	45	31	34	24	61	39	418	369
9	148	155	82	59	57	39	34	23	69	45	421	382
10	130	123	72	52	60	40	35	23	70	46	425	394
11	111	105	68	48	67	46	37	25	89	58	2640	2510
12	128	128	76	53	53	36	38	26	105	68	4290	3960
13	135	132	60	42	48	33	37	25	92	60	1970	1850
14	108	112	55	40	46	31	32	22	81	54	1540	1430
15	98	100	54	38	47	33	38	26	84	56	1600	1530
16	101	102	58	41	33	25	36	24	92	60	1420	1380
17	106	103	54	33	30	22	32	21	109	74	504	464
18	111	104	53	34	31	22	32	21	115	77	467	406
19	110	110	66	42	31	21	37	25	103	69	477	434
20	121	120	50	33	30	20	69	47	107	71	448	396
21	128	125	55	37	32	21	45	30	113	74	260	217
22	454	438	66	45	34	22	53	37	111	71	239	206
23	854	782	56	39	34	21	45	35	128	85	250	193
24	551	598	57	42	30	19	48	34	118	76	239	166
25	536	576	60	42	36	23	49	33	65	42	243	176
26	1300	1510	50	33	29	19	32	21	67	45	239	180
27	1470	1820	44	29	29	19	37	24	74	50	243	192
28	213	247	51	34	32	21	40	24	81	56	251	201
29	191	212	53	35	32	22	42	27	---	---	370	328
30	201	221	56	37	33	22	86	56	---	---	408	392
31	193	208	---	---	34	23	35	23	---	---	405	401
TOTAL	---	9208	---	1456	---	848	---	860	---	1613	---	20059

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	402	369	310	366	360	440	153	154	1500	1270	400	343
2	389	371	331	434	366	425	158	157	1550	1820	263	213
3	393	387	330	439	378	442	156	149	575	500	220	184
4	391	397	379	472	369	415	158	157	470	379	238	193
5	402	414	395	478	397	484	161	166	1190	1050	225	182
6	362	341	382	451	376	466	268	236	1210	1050	219	170
7	415	371	373	445	218	271	545	430	1190	1020	227	167
8	244	233	368	434	141	155	515	452	1170	1000	270	219
9	206	203	289	388	158	156	266	236	1160	907	246	212
10	217	213	287	382	162	151	584	520	1150	827	275	243
11	231	230	239	296	157	159	954	873	788	596	268	237
12	241	259	221	241	165	173	1510	1340	374	328	266	239
13	245	222	222	252	168	195	713	678	469	417	254	228
14	249	239	227	264	170	201	505	524	471	411	211	158
15	277	286	284	348	173	179	472	512	400	382	206	151
16	296	283	454	561	178	186	462	563	948	786	211	156
17	293	293	495	682	177	195	463	540	1440	1190	199	154
18	294	303	511	644	176	199	467	548	1480	1390	200	174
19	319	344	502	653	183	216	459	527	1460	1380	207	177
20	312	290	505	710	174	203	460	509	1470	1320	165	147
21	314	286	498	690	177	233	470	467	1450	1330	137	110
22	315	293	429	617	180	224	481	457	1430	1310	147	103
23	324	318	394	553	170	212	462	370	738	670	150	108
24	324	313	383	559	176	208	470	409	443	396	150	123
25	341	348	367	500	178	208	467	470	459	395	149	140
26	339	373	375	489	177	207	474	417	458	372	142	128
27	322	304	384	474	160	190	633	523	446	368	127	118
28	316	311	386	464	150	171	1270	935	445	413	132	115
29	315	321	368	425	158	157	1520	1110	446	405	132	108
30	318	364	356	442	159	162	1530	1200	473	410	134	107
31	---	---	356	467	---	---	1520	1160	451	401	---	---
TOTAL	---	9279	---	14620	---	7283	---	16789	---	24493	---	5107

TOTAL LOAD FOR YEAR: 111615 TONS.

## RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM

(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 33°40'50", Long 106°59'30", Socorro County, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 33, on pier of the Atchison, Topeka, and Santa Fe Railway Co. bridge, 1.1 mi 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 good except for estimated daily discharges, which are fair. 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 U.S. Bureau of Reclamation). U.S. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--29 years (water years 1965-93), 776 ft<sup>3</sup>/s, 562,200 acre-ft/yr. Total flow of river, 98 years (water years 1895-1993), 1,269 ft<sup>3</sup>/s, 919,400 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, 5,590 ft<sup>3</sup>/s, June 23; no flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	295	583	581	914	2040	3480	3460	5270	2100	e.00	2140
2	.00	371	578	827	875	2560	2790	3710	5250	2120	e.00	2440
3	.00	382	598	899	837	2300	2150	3920	5370	2140	e479	2000
4	.00	502	571	976	805	1780	1450	3750	5160	1910	e158	1700
5	.00	552	652	934	841	1330	1390	3860	5210	2100	e250	1680
6	.00	630	683	980	867	1400	1530	4220	5240	2160	e297	1340
7	.00	654	686	882	864	983	2140	3610	4980	1860	e350	1140
8	.00	634	615	736	852	767	2540	2500	5340	1780	e379	1060
9	.00	614	636	621	864	e800	2270	2560	5410	1750	298	775
10	.00	584	606	717	860	e750	2230	2890	5350	1400	183	612
11	.00	581	622	e1000	904	e870	1780	2690	5290	1250	137	417
12	.00	599	582	e950	946	e1000	1720	2480	5440	810	103	e500
13	.00	613	634	e900	1010	e1200	1890	1660	5380	e202	75	e400
14	.00	714	714	e850	1020	e950	2460	1010	5240	e225	46	182
15	.00	609	742	e830	1040	e980	3500	846	4210	e158	167	140
16	.00	687	752	e820	1060	e1000	4050	1350	2030	e799	210	141
17	.00	870	683	e820	1330	e1110	4410	1810	1890	e282	219	420
18	.00	1000	675	e810	1040	e950	4180	2480	2080	e818	248	e240
19	.00	e900	626	e800	1060	e940	3660	2990	3070	e171	249	e260
20	.82	e800	707	e880	1110	e990	3570	e3000	3210	e143	590	e210
21	16	e700	780	e860	934	e950	3100	e3100	4040	e77	1970	179
22	47	e600	669	e840	525	e1260	2950	e3300	4730	e33	1780	54
23	58	e650	820	e820	412	e1240	2520	e3600	5590	e184	556	52
24	60	e700	801	e830	359	e1300	2230	e3900	4560	e52	584	37
25	102	736	647	e840	430	e1280	2020	e4400	3080	e184	700	40
26	122	715	560	e870	1130	1360	2700	e4820	2770	e3.7	456	26
27	132	776	594	991	1680	1570	3280	e4980	2920	e.00	628	12
28	146	720	647	918	1930	1550	3260	e4900	2800	e.00	2470	8.5
29	134	656	614	924	---	2600	3100	e4890	2740	e.00	2670	4.9
30	168	615	561	916	---	2880	3040	5030	2470	e.00	1920	.83
31	255	---	512	947	---	3880	---	5110	---	e.00	2500	---
TOTAL	1240.82	19459	20150	26569	26499	44570	81390	102826	126120	24711.70	20672.00	18211.23
MEAN	40.0	649	650	857	946	1438	2713	3317	4204	797	667	607
MAX	255	1000	820	1000	1930	3880	4410	5110	5590	2160	2670	2440
MIN	.00	295	512	581	359	750	1390	846	1890	.00	.00	.83
AC-FT	2460	38600	39970	52700	52560	88400	161400	204000	250200	49020	41000	36120
(†)	25120	54360	55440	68090	66070	108200	183200	233000	275300	70570	60960	54340

CAL YR 1992 TOTAL 420855.44 MEAN 1150 MAX 5570 MIN .00 AC-FT 834800 MEAN 1488 AC-FT 1080000  
WIR YR 1993 TOTAL 512418.75 MEAN 1404 MAX 5590 MIN .00 AC-FT 1016000 MEAN 1733 AC-FT 1254000  
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 current year.

SUSPENDED-SEDIMENT DISCHARGE: July 1946 to current year.

REMARKS.--Records of chemical analyses and sediment discharge for years prior to 1946 have been published in Water Bulletins of International Boundary and Water Commission. 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 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: Maximum daily, 2,730 microsiemens, Apr. 8, 1953; minimum daily, 277 microsiemens, June 12, 1983.

WATER TEMPERATURE: Maximum daily, 37.0 °C, July 22, 27, Aug. 7; minimum daily, 0.0 °C on many days during winter periods.

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, 1,150 microsiemens, Aug. 12; minimum daily, 293 microsiemens, June 14.

WATER TEMPERATURE: Maximum daily, 29.0 °C, July 25-28; minimum daily 1.0 °C Dec. 5-6.

SEDIMENT CONCENTRATION: Maximum daily mean, 38,200 mg/L, Jan. 6; minimum daily mean, no flow on many days.

SEDIMENT LOAD: Maximum daily, 210,000 tons, Aug. 29; minimum daily, 0 ton on many days.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	
MAY 25...	1040	4710	375	8.4	--	23.0	450	648	7.1	98	230	
JUN 25...	0800	3210	395	8.5	31.0	23.0	--	649	7.2	99	--	
AUG 26...	1015	378	756	8.2	22.5	22.0	--	660	6.8	90	--	
SEP 21...	1030	179	495	8.5	--	17.0	1100	649	8.1	99	330	
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)
MAY 25...	670	110	20	35	6.6	24	1	3.2	116	0	95	
JUN 25...	--	120	22	37	6.9	25	1	3.5	121	0	99	
AUG 26...	--	240	110	75	13	73	2	5.0	160	0	131	
SEP 21...	560	160	11	48	8.4	43	2	4.5	176	0	144	
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 (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. (MG/L AS N) (00623)
MAY 25...	97	65	9.7	0.40	18	228	221	<0.010	0.310	0.030	<0.20	
JUN 25...	103	60	11	0.30	19	229	224	<0.010	0.290	0.040	<0.20	
AUG 26...	157	200	21	0.70	18	495	489	<0.010	1.10	0.020	0.20	
SEP 21...	138	87	18	0.50	20	315	320	<0.010	0.620	0.010	0.20	

## RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	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)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
MAY 25...	--	<0.20	0.100	0.070	0.080	5.3	3.6	<0.010	72	3
JUN 25...	--	<0.20	0.100	0.070	0.070	26	4.8	--	16	2
AUG 26...	0.18	0.40	0.070	0.050	0.050	--	--	--	6	<1
SEP 21...	0.19	0.30	0.170	0.150	0.150	--	--	<0.010	5	<1

DATE	TIME	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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)
MAY 25...	1040	430	51	<3	24	<10	1	<1	<1.0	320
SEP 21...	1030	20	55	<3	38	20	<1	<1	<1.0	500

[illegible][illegible]

## RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET) (81903)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC- ITY, MEAN (F/S) (00055)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE D (MG/L) (80154)
NOV									
05...	1200	--	552	202	1.4	2.02	--	--	2160
DEC									
09...	1200	--	629	210	1.2	2.43	--	0.0	891
JAN									
07...	1100	--	897	200	1.4	3.31	--	6.0	3110
FEB									
05...	1231	--	807	204	1.3	3.14	--	6.5	1120
MAR									
09...	1345	--	738	210	1.5	2.35	--	12.0	3290
25...	1145	--	1050	--	--	--	534	15.0	3040
25...	1146	--	1050	172	1.8	3.40	--	15.0	2880
APR									
26...	1500	--	2870	182	3.2	5.00	--	--	2120
MAY									
25...	1040	--	4710	--	--	--	375	23.0	1610
25...	1200	--	4710	269	3.6	5.00	--	23.0	3690
JUN									
25...	0800	--	3210	293	2.8	4.00	395	23.0	1640
AUG									
26...	1015	--	378	155	0.92	2.70	756	22.0	19500
SEP									
21...	0956	1.98	179	170	0.90	1.20	494	17.0	2120
21...	1030	--	179	--	--	--	495	17.0	1360

DATE	SEDI- MENT, DIS- CHARGE, SUS- PENDE D (T/DAY) (80155)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY) (80156)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	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)
NOV									
05...	3220	4360	--	45	53	65	81	93	97
DEC									
09...	1510	2180	--	--	--	--	--	90	97
JAN									
07...	7530	9510	--	42	43	55	62	78	91
FEB									
05...	2440	3380	--	30	36	40	52	83	92
MAR									
09...	6560	8380	--	44	49	53	58	69	82
25...	8520	--	67	--	--	--	--	--	--
25...	8160	10200	--	35	39	43	45	70	87
APR									
26...	16400	19400	--	15	18	23	27	49	78
MAY									
25...	20500	--	89	--	--	--	--	--	--
25...	46900	50900	--	22	27	28	33	47	74
JUN									
25...	14200	17000	47	26	28	31	35	52	79
AUG									
26...	19900	23200	100	81	85	93	96	98	99
SEP									
21...	1020	1520	--	43	91	95	96	99	100
21...	659	--	--	--	--	--	--	--	--



## RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	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 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)
NOV 05...	100	--	0	2	53	98	100	--	--
DEC 09...	100	--	1	10	90	100	--	--	--
JAN 07...	100	--	0	8	75	99	100	--	--
FEB 05...	100	--	19	40	71	100	--	--	--
MAR 09...	94	95	0	7	82	99	100	95	100
25...	--	--	--	--	--	--	--	--	--
25...	100	--	--	--	--	--	--	--	--
APR 26...	99	100	6	16	89	100	--	--	--
MAY 25...	--	--	--	--	--	--	--	--	--
25...	98	100	3	24	82	100	--	--	--
JUN 25...	100	--	15	21	91	100	--	--	--
AUG 26...	100	--	2	18	92	100	--	--	--
SEP 21...	--	--	2	13	91	100	--	--	--
21...	--	--	--	--	--	--	--	--	--

## CROSS SECTION ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET) (81903)	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)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
SEP 1993								
21...	0950	0.64	179	495	8.5	17.5	8.0	--
21...	0952	0.68	179	495	8.5	17.0	8.1	--
21...	0954	0.80	179	493	8.5	17.5	8.1	--
21...	0956	1.98	179	494	8.5	17.0	8.0	2120
21...	0958	1.25	179	496	8.5	17.0	8.1	--

## RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	575	586	592	569	570	534	503	437	342	366	---	925
2	573	650	592	569	537	521	505	397	335	366	---	452
3	590	648	593	569	538	521	505	397	357	365	---	472
4	591	624	592	570	549	522	505	381	334	366	---	442
5	592	621	591	1060	557	514	505	382	335	369	539	432
6	603	619	594	1060	559	521	467	377	336	372	538	433
7	601	619	593	1060	558	551	465	373	346	432	540	434
8	595	616	592	1060	557	552	435	376	346	445	539	370
9	567	618	593	1060	558	556	440	367	350	433	538	391
10	588	615	590	1060	556	552	425	367	348	432	541	361
11	583	615	592	558	537	574	442	367	349	460	538	415
12	583	615	572	560	536	577	453	367	346	467	1150	376
13	584	574	573	559	536	571	449	366	350	462	1120	369
14	583	582	570	556	536	573	431	351	293	438	1140	449
15	610	577	573	560	536	570	381	347	324	430	1100	453
16	610	576	578	561	639	570	391	344	299	450	1090	453
17	597	575	576	561	640	564	362	350	304	418	1110	437
18	593	563	575	560	662	565	390	352	306	707	1110	440
19	598	563	578	562	638	564	424	350	317	694	736	465
20	576	564	553	595	639	565	430	351	308	714	753	536
21	581	564	553	588	641	558	432	349	357	731	884	503
22	572	563	555	587	639	558	430	349	358	711	729	497
23	573	592	552	586	474	558	460	349	361	695	725	501
24	579	592	572	588	474	560	424	351	355	688	738	482
25	334	594	576	586	475	559	425	349	359	693	729	479
26	617	592	576	570	477	560	420	342	358	700	934	---
27	617	594	576	571	475	559	422	343	366	687	930	---
28	587	580	562	570	475	558	417	343	368	691	923	---
29	586	574	562	570	---	502	452	343	366	---	935	---
30	581	597	561	571	---	504	436	344	366	---	934	---
31	585	---	561	571	---	503	---	344	---	---	924	---
MEAN	581	595	576	665	556	549	441	361	341	528	832	463
MAX	617	650	594	1060	662	577	505	437	368	731	1150	925
MIN	334	563	552	556	474	502	362	342	293	365	538	361
WTR YR 1993	MEAN	539	MAX	1150	MIN	293						

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
ONCE-DAILY

[illegible]

## RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION		MEAN CONCEN- TRATION	
	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)	(MG/L)	LOADS (T/DAY)
OCTOBER												
1	0	.00	1540	1220	1110	1750	2270	3560	1750	4320	3010	16600
2	0	.00	2090	2100	1150	1790	2360	5270	2990	7070	3210	22200
3	0	.00	2490	2570	1170	1890	2500	6070	5420	12300	2430	15100
4	0	.00	3070	4170	1770	2730	2220	5850	1270	2750	2320	11100
5	0	.00	7330	10900	2100	3700	33200	83700	1340	3050	2370	8530
NOVEMBER												
6	0	.00	1770	3010	2150	3960	38200	101000	6300	14700	2170	8210
7	0	.00	1490	2630	2520	4670	34700	82600	2140	4980	1910	5080
8	0	.00	1430	2450	2450	4070	35100	69700	1440	3300	1850	3820
9	0	.00	1360	2260	2510	4310	34600	58000	1370	3180	1810	3920
10	0	.00	1350	2120	2110	3450	30600	59200	1260	2930	1850	3740
DECEMBER												
11	0	.00	1290	2030	1390	2340	4980	13500	4040	9860	6900	16200
12	0	.00	1310	2120	1480	2320	5280	13500	4770	12200	5830	15700
13	0	.00	1540	2540	1590	2730	6940	16900	4500	12300	4620	15000
14	0	.00	2410	4640	1620	3120	4080	9360	8190	22600	5700	14600
15	0	.00	2140	3520	1680	3370	2400	5370	8640	24300	4770	12600
JANUARY												
16	0	.00	2070	3840	1670	3390	1870	4140	2820	8080	5420	14600
17	0	.00	5770	13600	1820	3360	1870	4130	2510	9020	3740	11200
18	0	.00	6450	17400	1830	3340	1850	4040	2330	6550	3160	8110
19	0	.00	1970	4780	1630	2750	1900	4110	899	2570	3180	8070
20	156	.35	2060	4440	1460	2780	3560	8470	751	2250	3030	8100
FEBRUARY												
21	143	6.2	2050	3880	1600	3380	3560	8260	2460	6190	2190	5600
22	323	41	1980	3210	1540	2780	5610	12700	1210	1720	2040	6930
23	1580	247	1180	2080	1840	4070	8010	17700	3110	3460	2010	6740
24	685	111	1110	2100	842	1820	6910	15500	6020	5830	2050	7210
25	2340	643	1180	2340	953	1660	3730	8460	6170	7170	2070	7160
MARCH												
26	2320	764	1100	2120	916	1380	4690	11000	7130	21700	2110	7730
27	2230	796	1070	2240	852	1370	7490	20000	7690	34900	1980	8390
28	1570	619	1240	2410	796	1390	3040	7530	3060	15900	1890	7910
29	1470	533	1220	2160	847	1400	1470	3660	---	---	2470	17400
30	1500	679	1740	2890	817	1240	1520	3760	---	---	2640	20500
31	1520	1050	---	---	817	1130	3180	8130	---	---	2700	28300
TOTAL	---	5489.55	---	117770	---	83440	---	675170	---	265180	---	346350

DAY	MEAN CONCEN- TRATION	LOADS	MEAN CONCEN- TRATION	LOADS	MEAN CONCEN- TRATION	LOADS	MEAN CONCEN- TRATION	LOADS	MEAN CONCEN- TRATION	LOADS	MEAN CONCEN- TRATION	LOADS
	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)	(MG/L)	(T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1930	18100	6400	59800	2990	42500	1890	10700	0	0	27700	160000
2	1750	13200	3650	36600	4240	60000	368	2110	0	0	18400	121000
3	1900	11000	3510	37100	2710	39200	4320	25000	8500	11000	17900	96700
4	2130	8330	2830	28700	10700	150000	2560	13200	5350	2280	6650	30500
5	2310	8680	3150	32900	11500	161000	473	2680	2530	1710	14400	65400
6	2510	10400	8070	91900	12400	176000	1050	6090	1540	1230	18700	67600
7	3070	17800	6740	65600	5190	69800	2490	12500	1790	1690	7370	22700
8	9840	67500	5400	36400	4320	62300	3620	17400	1650	1690	3360	9620
9	12900	79100	5600	38700	4490	65500	2540	12000	1510	1210	2100	4400
10	16100	96700	6300	49200	4320	62400	2790	10600	1550	764	1910	3160
11	38100	183000	5970	43400	6400	91400	1240	4170	1600	591	2170	2450
12	37900	176000	6310	42200	7470	110000	321	702	19400	5410	2350	3170
13	23800	122000	5340	23900	7500	109000	312	170	34000	6890	4600	4970
14	17200	114000	2080	5670	1990	28100	598	363	33200	4120	1430	701
15	4240	40100	1800	4120	1370	15600	7770	3310	33800	15200	4660	1760
16	3970	43400	1810	6600	3440	18900	16800	36200	33400	18900	7720	2940
17	3590	42800	1830	8920	8080	41300	11000	8390	33200	19600	3860	4370
18	5280	59600	1990	13300	8310	46700	4400	9730	34200	22900	1480	956
19	5850	57800	1830	14700	11800	97500	2160	999	20800	14000	5550	3890
20	6160	59400	1780	14400	15700	136000	5300	2050	14100	22400	2030	1150
21	7930	66400	1800	15100	15000	163000	4490	933	15300	81400	1630	788
22	5310	42300	1800	16000	13300	169000	2480	221	14800	71100	6620	965
23	12200	82700	2150	20900	12800	193000	1390	689	14500	21700	6430	902
24	10100	60900	1880	19800	5710	70300	656	92	14600	23000	1920	192
25	6830	37200	1760	20900	6310	52400	683	339	14600	27600	4250	459
26	3800	27700	1560	20300	3020	22600	531	5.3	27400	33700	5320	373
27	2900	25700	1600	21500	1850	14600	0	.0	28900	48900	2460	80
28	2680	23600	1590	21100	929	7020	0	.0	29200	195000	1860	43
29	6010	50300	1540	20400	457	3380	0	.0	29100	210000	1490	20
30	6470	53100	1570	21300	4180	27900	0	.0	31500	163000	1070	2.4
31	---	---	1580	21800	---	---	0	.0	30700	207000	---	---
TOTAL	---	1698810	---	873210	---	2306400	---	180643.3	---	1233985	---	611261.4

TOTAL LOAD FOR YEAR: 8397709.25 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 U.S. Bureau of Reclamation. A 50,000-acre-ft permanent pool is authorized for recreational purposes.

COOPERATION.--Records provided by U.S. 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, 2,019,200 acre-ft, June 25, gage height, 4,405.74 ft; minimum contents, 1,765,200 acre-ft, Sept. 26, gage height, 4,398.35 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 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1776400	1778300	1807700	1856500	1922800	1913400	1883100	1892300	1970900	2009800	1911000	1815400
2	1776400	1778700	1808700	1858200	1923800	1914500	1883400	1894100	1972700	2009500	1906800	1814700
3	1776400	1780000	1810400	1859900	1924500	1915500	1882400	1895800	1975500	2008000	1901600	1817400
4	1776700	1779300	1812100	1861200	1924900	1917200	1881400	1899200	1977700	2006600	1899900	1815700
5	1776700	1778700	1814100	1862900	1924900	1916200	1880700	1902000	1979100	2005200	1894400	1813700
6	1776700	1780300	1816100	1865300	1925200	1915800	1878600	1904800	1980900	2004100	1891000	1812100
7	1777000	1781600	1818700	1867300	1925900	1915500	1877600	1906500	1982700	2003000	1887200	1810100
8	1775700	1782900	1819700	1868000	1926600	1914800	1875900	1908200	1983700	2000500	1883400	1810700
9	1775000	1783900	1821100	1870800	1927300	1914100	1875900	1910000	1985900	1999400	1880000	1804400
10	1775400	1785200	1823100	1873500	1927300	1913400	1875900	1912000	1990500	1996600	1876200	1802400
11	1775700	1787500	1824800	1875900	1927000	1911300	1875900	1914500	1993000	1993400	1871400	1797800
12	1776000	1786900	1826100	1878600	1928400	1911000	1875900	1918300	1996200	1990500	1867000	1793100
13	1776000	1787500	1827400	1882000	1927300	1909600	1875900	1919000	1999400	1987600	1862600	1788500
14	1775400	1788200	1828500	1884100	1926600	1908200	1875200	1919000	2002300	1983000	1858500	1784900
15	1775400	1789500	1829500	1886500	1925900	1906500	1874500	1918600	2003700	1978700	1854400	1780300
16	1775700	1790800	1831500	1888600	1924900	1906800	1876200	1918300	2002300	1975500	1850400	1775700
17	1774700	1792500	1832800	1890600	1924200	1907200	1878300	1918300	2002700	1972400	1848700	1773400
18	1773400	1794100	1834200	1893000	1924200	1906800	1880300	1922100	2003700	1969500	1844900	1770800
19	1772100	1795500	1835500	1895400	1922800	1903700	1882000	1921800	2005900	1966700	1842200	1768200
20	1771100	1795800	1836900	1897900	1922500	1901300	1881700	1924900	2008000	1962400	1838900	1765600
21	1770500	1796500	1838500	1900600	1921800	1898900	1884800	1927000	2010600	1957500	1837200	1765200
22	1770500	1797100	1840600	1903000	1921100	1896500	1883400	1930800	2012400	1952600	1835200	1766500
23	1772100	1798100	1841900	1905500	1918600	1893400	1884100	1934300	2014500	1949400	1833200	1767800
24	1773400	1798800	1843600	1907500	1915800	1891300	1884400	1938200	2016300	1945900	1829100	1767800
25	1774700	1800800	1845300	1909600	1913800	1888900	1885100	1942700	2019200	1942000	1826100	1767500
26	1775700	1802100	1847000	1911700	1912000	1886800	1885800	1946600	2018100	1938500	1823400	1767500
27	1776000	1803100	1848700	1913800	1912400	1884800	1886800	1950800	2017000	1934700	1820400	1767200
28	1777000	1804400	1850000	1915800	1913100	1883100	1888900	1954300	2016300	1930500	1819700	1767800
29	1777000	1805700	1851000	1918600	---	1881400	1891700	1958600	2015200	1923200	1818700	1768200
30	1777300	1807100	1852700	1920000	---	1880700	1890600	1962800	2011300	1918600	1817700	1767800
31	1778000	---	1855100	1921400	---	1881400	---	1967000	---	1915200	1818100	---
MAX	1778000	1807100	1855100	1921400	1928400	1917200	1891700	1967000	2019200	2009800	1911000	1817400
MIN	1770500	1778300	1807700	1856500	1912000	1880700	1874500	1892300	1970900	1915200	1817700	1765200
(†)	4398.74	4399.62	4401.05	4402.97	4402.74	4401.82	4402.09	4404.28	4405.52	4403.81	4399.95	4398.43
(††)	+2000	+29100	+48000	+66300	-8300	-31700	+9200	+76400	+44300	-96100	+97100	-50300
CAL YR 1992	MAX 2018100	MIN 1715200	(††)	+141200								
WTR YR 1993	MAX 2019200	MIN 1765200	(††)	+186000								

(†) 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. Bureau of Reclamation satellite telemeter at station. No flow at times prior to 1929, Mar. 2-4, 1979.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	15	35	8.1	121	1530	2360	2390	2870	2450	2360	e2330
2	58	22	9.6	7.9	586	1520	2360	2390	3140	2450	2350	e2330
3	56	44	9.5	7.7	590	1530	2360	2390	3430	2450	2350	e2340
4	56	60	9.9	8.5	630	1530	2360	2390	4080	2440	2350	e2340
5	57	58	9.4	8.5	651	1530	2360	2380	4240	2450	2350	e2330
6	58	58	9.0	8.5	654	1540	2350	2380	4200	2450	2340	e2340
7	55	58	9.0	8.5	652	1530	e2350	2380	4130	2450	2340	e2340
8	56	54	9.0	8.5	652	1540	e2350	2380	4090	2460	2330	e2340
9	56	56	9.0	8.5	658	1530	e2340	2380	4110	2450	2330	e2330
10	56	54	9.3	8.5	685	1530	e2340	2370	4090	2450	2340	e2330
11	54	55	9.0	9.5	704	1530	e2330	2370	4080	2450	2340	e2340
12	54	55	8.6	8.5	1210	1540	e2340	2360	4100	2360	2330	e2340
13	33	55	8.6	8.5	1490	1540	e2330	2360	4120	2450	2340	e2330
14	37	52	8.6	8.5	1490	1540	e2300	2350	4090	2440	2350	e2330
15	430	49	8.6	8.4	1500	1560	e2310	2350	4000	2450	2340	e2340
16	610	51	8.8	8.1	1490	1560	e2310	2340	3210	2380	e2350	1750
17	607	50	8.6	8.1	1490	1590	e2300	2270	2480	2440	e2350	1520
18	605	51	8.7	8.0	1490	2010	e2300	2320	2450	2440	e2340	1550
19	603	51	8.1	8.3	1510	2380	e2300	2320	2440	2430	e2350	1570
20	603	51	8.1	7.7	1520	2390	2290	2330	2450	2420	e2360	1090
21	603	49	8.1	7.7	1520	2390	2310	2340	2450	2420	e2360	316
22	211	49	8.1	7.7	1520	2390	2320	2350	2720	2420	e2370	15
23	13	49	8.1	7.9	1520	2400	2330	2360	2960	2410	e2360	9.8
24	11	52	8.1	7.8	1530	2410	2340	2370	3150	2400	e2360	10
25	11	51	8.1	7.7	1520	2410	2350	2380	3270	2390	e2360	9.4
26	11	49	8.1	7.8	1520	2410	2360	2390	3380	2190	e2370	9.4
27	11	51	8.1	7.7	1520	2400	2370	2350	3380	2360	e2350	9.6
28	11	51	8.1	7.9	1530	2390	2380	2330	3380	2360	e2350	9.9
29	11	48	8.1	7.8	---	2380	2380	2340	3370	2360	e2350	9.3
30	12	51	8.1	8.1	---	2370	2390	2340	2950	2360	e2330	9.2
31	17	---	8.1	7.9	---	2370	---	2340	---	2360	e2360	---
TOTAL	5130	1499	293.5	252.8	31953	59270	70170	73090	102810	74790	72810	42917.6
MEAN	165	50.0	9.47	8.15	1141	1912	2339	2358	3427	2413	2349	1431
MAX	610	60	35	9.5	1530	2410	2390	2390	4240	2460	2370	2340
MIN	11	15	8.1	7.7	121	1520	2290	2270	2440	2190	2330	9.2
AC-FT	10180	2970	582	501	63380	117600	139200	145000	203900	148300	144400	85130

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1993, BY WATER YEAR (WY)

	MEAN	293	28.6	8.86	10.7	612	1658	1693	1827	2529	1878	1419	1062
MAX	420	50.0	9.47	12.2	1141	1912	2339	2358	3427	2413	2349	1431	1431
(WY)	1992	1993	1993	1992	1993	1993	1993	1993	1993	1993	1993	1993	1993
MIN	165	7.30	8.25	8.15	260	1347	1348	1517	1924	1451	632	815	815
(WY)	1993	1992	1992	1993	1992	1991	1992	1991	1991	1991	1991	1991	1991

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1986 - 1993

ANNUAL TOTAL	347934.2	534985.9	
ANNUAL MEAN	951	1466	1217
HIGHEST ANNUAL MEAN			1466
LOWEST ANNUAL MEAN			969
HIGHEST DAILY MEAN	3090	4240	4240
LOWEST DAILY MEAN	7.7	7.7	6.4
ANNUAL SEVEN-DAY MINIMUM	8.1	7.8	6.9
ANNUAL RUNOFF (AC-FT)	690100	1061000	881500
10 PERCENT EXCEEDS	1970	2450	2360
50 PERCENT EXCEEDS	1200	1750	1340
90 PERCENT EXCEEDS	9.6	8.5	8.8

e Estimated

## RIO GRANDE BASIN

## 08362000 CABALLO RESERVOIR NEAR ARREY, NM

LOCATION.--Lat 32°53'47", long 107°17'30", in SE/SW 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 U.S. Bureau of Reclamation.

COOPERATION.--Records provided by U.S. 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, 24,859 acre-ft, Sept. 20, 21, gage height, 4,174.23 ft; minimum contents, 23,480 acre-ft, Jan. 1, gage height, 4,140.36 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 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42780	24810	30250	34800	36020	67220	64780	95930	123000	123000	190580	224340
2	40860	24930	30440	34970	35810	67270	65010	96570	124290	177620	190410	227010
3	38760	25130	30520	35140	36380	67320	65970	97270	126070	178180	190740	230530
4	36760	25150	30630	35290	36910	67410	66940	98040	128280	178740	191410	232120
5	34820	25300	30970	35460	37520	67320	67920	98450	131280	179300	191820	233810
6	33050	25510	31320	35400	38200	67360	68870	99110	134320	179870	192410	235420
7	31350	25710	31680	35580	38880	67410	70300	99400	137380	180270	193410	237030
8	29360	25910	31760	35520	39610	67460	70830	100180	140180	180510	194420	238840
9	27500	26080	31870	35870	40180	67550	71800	100960	142930	180750	195430	238640
10	25000	26250	32060	36290	41120	67320	73810	101740	145920	180590	197040	239500
11	22600	26450	32170	36670	41810	66900	75770	102590	148420	180590	197380	240270
12	20340	26670	32360	37430	42550	66290	77750	103440	151970	180590	198050	241040
13	18190	26850	32550	37640	44140	65010	79870	103750	155550	181320	198650	242000
14	16770	27020	32720	37670	46240	63740	80550	104540	159320	181240	198990	243150
15	16210	27200	32720	37640	48450	62540	80970	105770	162280	181720	199330	243830
16	16270	27380	32830	37550	50730	61440	81440	107020	164810	182290	199670	245960
17	17040	27580	32970	37460	51680	60570	82610	108330	165580	183590	201130	246740
18	17840	27780	33020	37340	53280	59530	83780	109590	165340	184810	201980	247320
19	18680	27960	33130	37220	55160	59320	84910	110350	165650	186120	203620	247910
20	19400	28170	33240	37370	56960	59960	86000	111300	165960	187190	205130	248520
21	20410	28320	3330	37370	59150	60610	87040	112390	166340	188010	206740	248590
22	21740	28470	33440	37310	61310	61310	87760	113680	166650	188670	208310	247030
23	22950	28650	33550	37220	63380	61610	88530	114970	167350	189250	209890	245090
24	23250	28890	33720	37130	64560	61830	89590	116280	168430	190080	211030	243150
25	23550	29150	33800	37000	65790	62050	90660	117590	169820	190910	212800	240750
26	23880	29280	33890	36880	66900	62230	91790	118380	171460	191910	212710	238360
27	24070	29440	33970	36790	66990	62670	92930	119050	173110	192240	214580	235980
28	24210	29650	34060	36610	67130	63120	93790	119780	174690	191990	216270	234660
29	24430	29880	34110	36580	---	63560	94880	120580	176350	191490	217980	230810
30	24620	30120	34310	36410	---	64010	95290	121380	177620	191070	219870	230720
31	24720	---	34620	36230	---	64420	---	122190	---	190830	222050	---
MAX	42780	30120	34620	37670	67130	67550	95290	122190	177620	192240	222050	248590
MIN	16210	24810	3330	34800	35810	59320	64780	95930	123000	123000	190410	224340
(†)	4136.52	4138.66	4140.30	4140.85	4149.02	4148.43	4154.40	4158.69	4166.21	4167.83	4171.42	4172.36
(††)	-20290	+5400	+4500	+1610	+30900	-2710	+30870	+26900	+55430	+13210	+31220	+8670

CAL YR 1992 MAX 97860 MIN 3330 (††) -3640  
WTR YR 1993 MAX 248590 MIN 3330 (††) +185710

(†) 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. U.S. Bureau of Reclamation satellite telemeter at station.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--54 years, 908 ft<sup>3</sup>/s, 657,800 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, 2,530 ft<sup>3</sup>/s, June 16, 17; minimum daily 2.0 ft<sup>3</sup>/s, Dec. 9 to Jan. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1180	4.0	3.0	2.0	152	1440	2170	1870	1900	2480	2320	1050
2	1140	4.0	3.0	2.0	228	1450	1970	1870	2020	2140	2070	1140
3	1110	4.0	3.0	2.0	287	1460	1760	1870	2020	1870	1960	1130
4	1100	4.0	3.0	2.0	289	1450	1770	1920	2020	1880	2030	1140
5	1100	4.0	3.0	2.0	290	1460	1780	1950	2030	1880	1960	1150
6	1030	4.0	3.0	2.0	289	1460	1780	1950	2040	1990	1900	1140
7	985	4.0	3.0	2.0	301	1460	1770	1810	2040	2100	1780	1420
8	999	4.0	3.0	2.0	304	1460	1770	1690	2150	2110	1680	1870
9	1110	4.0	2.0	2.0	307	1600	1420	1680	2250	2260	1820	1890
10	1330	4.0	2.0	2.0	304	1750	1160	1690	2260	2420	1870	1760
11	1300	3.0	2.0	2.0	301	1810	1170	1820	2030	2420	1860	1660
12	1180	3.0	2.0	81	298	2030	1180	1910	1800	2190	1870	1660
13	1050	3.0	2.0	144	298	2240	1650	1910	1520	2150	1920	1660
14	659	3.0	2.0	150	301	2240	1990	1680	1750	2130	1950	1440
15	209	3.0	2.0	150	304	2220	2010	1440	2190	1920	1960	1330
16	264	3.0	2.0	150	700	2150	1780	1450	2530	1670	1950	1340
17	272	3.0	2.0	150	752	2100	1610	1450	2530	1570	1900	1130
18	272	3.0	2.0	150	510	2100	1630	1560	2250	1580	1850	951
19	272	3.0	2.0	150	515	2080	1610	1710	2040	1590	1450	951
20	108	3.0	2.0	150	519	2090	1720	1710	2060	1710	1440	942
21	3.0	3.0	2.0	150	519	2090	1810	1600	2040	1810	1440	977
22	3.0	3.0	2.0	150	515	2090	1830	1500	2110	1820	1430	1070
23	3.0	3.0	2.0	150	756	2180	1760	1500	2180	1750	1510	1120
24	3.0	3.0	2.0	150	927	2250	1730	1500	2180	1680	1720	1080
25	3.0	3.0	2.0	150	920	2250	1740	1720	2220	1690	1770	1040
26	3.0	3.0	2.0	150	1200	2020	1760	1890	2280	1690	1770	1040
27	3.0	3.0	2.0	150	1430	2000	1800	1880	2290	2110	1680	1040
28	3.0	3.0	2.0	150	1440	2140	1850	1860	2290	2440	1550	1030
29	3.0	3.0	2.0	150	---	2040	1850	1820	2360	2450	1560	1010
30	3.0	3.0	2.0	150	---	2080	1860	1820	2470	2360	1560	1010
31	3.0	---	2.0	150	---	2160	---	1810	---	2310	1280	---
TOTAL	16703.0	100.0	70.0	2947.0	14956	59350	51690	53840	63850	62170	54810	37171
MEAN	539	3.33	2.26	95.1	534	1915	1723	1737	2128	2005	1768	1239
MAX	1330	4.0	3.0	150	1440	2250	2170	1950	2530	2480	2320	1890
MIN	3.0	3.0	2.0	2.0	152	1440	1160	1440	1520	1570	1280	942
AC-FT	33130	198	139	5850	29670	117700	102500	106800	126600	123300	108700	73730
(†)	23	0	0	0	0	81	58	73	77	100	6	77

CAL YR 1992 TOTAL 370495.0 MEAN 1012 MAX 2320 MIN 2.0 AC-FT 734900  
WTR YR 1993 TOTAL 417657.0 MEAN 1144 MAX 2530 MIN 2.0 AC-FT 828400

(†) 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 1992 TO SEPTEMBER 1993

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) (00301)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV												
10...	1020	235	1750	8.5	16.0	13.5	11	670	8.9	98	3700	270
DEC												
16...	1200	133	1990	8.3	--	10.0	--	666	10.4	106	--	--
16...	1201	133	1990	8.3	--	10.0	--	666	10.4	106	--	--
16...	1202	133	1990	8.4	--	10.0	--	666	10.4	106	--	--
16...	1203	133	1990	8.3	--	10.0	--	666	10.4	106	--	--
JAN												
27...	1430	230	1660	--	--	10.5	40	--	--	--	--	--
FEB												
23...	1020	410	1240	8.7	13.0	9.5	44	670	8.9	89	150	840
MAR												
31...	0815	1130	789	8.5	--	13.0	--	638	8.5	97	--	--
APR												
29...	0755	950	989	8.7	--	20.0	--	666	7.9	99	--	--
MAY												
18...	0745	795	1070	8.3	--	23.0	28	666	8.7	117	110	170
JUN												
17...	0820	1070	1080	8.1	--	23.0	--	664	7.0	94	--	--
JUL												
21...	0800	1190	948	8.2	22.5	24.0	79	666	6.7	92	K46000	660
AUG												
24...	0830	946	1040	8.2	27.5	26.0	--	664	6.6	95	--	--
SEP												
15...	0915	900	995	7.4	--	19.0	47	670	7.4	91	320	360

DATE	HARD- NESS TOTAL (MG/L AS CaCO <sub>3</sub> ) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CaCO <sub>3</sub> (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 HCO <sub>3</sub> ) (00453)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO <sub>3</sub> ) (00452)	ALKA- LITY WAT DIS TOT IT FIELD (MG/L AS CaCO <sub>3</sub> ) (39086)	ALKA- LITY LAB AS (MG/L CaCO <sub>3</sub> ) (90410)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)
NOV												
10...	380	120	110	25	230	5	10	286	12	254	252	390
DEC												
16...	--	--	--	--	--	--	--	337	0	276	--	--
16...	--	--	--	--	--	--	--	337	0	276	--	--
16...	--	--	--	--	--	--	--	337	0	276	--	--
16...	--	--	--	--	--	--	--	337	0	276	--	--
JAN												
27...	370	--	110	23	210	5	9.3	--	--	--	230	330
FEB												
23...	270	81	79	18	150	4	7.7	216	8	190	187	210
MAR												
31...	190	35	55	13	85	3	6.4	181	5	156	152	150
APR												
29...	230	63	68	15	110	3	7.2	184	11	169	164	150
MAY												
18...	240	67	71	16	120	3	7.6	216	0	177	179	200
JUN												
17...	230	46	67	15	120	3	7.4	223	0	183	174	210
JUL												
21...	220	52	66	14	110	3	6.6	209	0	171	169	200
AUG												
24...	250	71	74	15	120	3	6.3	214	0	176	174	210
SEP												
15...	240	59	69	15	120	3	6.9	202	6	175	176	200



## RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TX -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
NOV 10...	190	0.70	21	1210	1140	0.860	0.110	0.110	0.970	0.970	0.100	0.110
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 27...	190	0.70	20	1040	1040	1.05	--	0.050	--	1.10	--	0.110
FEB 23...	150	0.60	16	712	749	0.720	--	0.010	--	0.730	--	0.020
MAR 31...	62	0.50	11	479	478	--	--	<0.010	--	0.081	--	<0.010
APR 29...	62	0.50	9.2	496	525	--	--	<0.010	--	0.130	--	0.010
MAY 18...	81	0.60	8.4	586	613	--	--	<0.010	--	0.130	--	0.010
JUN 17...	92	0.60	11	636	633	--	--	<0.010	--	0.130	--	0.030
JUL 21...	81	0.60	11	598	594	--	--	<0.010	--	0.290	--	0.050
AUG 24...	96	0.60	14	648	643	0.360	--	0.010	--	0.370	--	0.040
SEP 15...	86	0.60	12	640	617	--	--	<0.010	--	0.220	--	0.040

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	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 TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 10...	--	--	0.60	0.170	0.130	0.130	0.120	--	--	--	<3	13
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 27...	--	--	0.60	0.210	0.130	--	0.140	--	--	--	<3	34
FEB 23...	--	--	0.60	0.250	0.110	--	0.110	--	--	--	--	--
MAR 31...	0.20	--	0.30	0.060	<0.010	--	0.010	3.3	2.7	140	4	1
APR 29...	0.20	0.19	0.30	0.070	0.030	--	0.020	3.3	2.0	160	11	<1
MAY 18...	0.20	0.19	0.30	0.030	0.010	--	0.020	3.5	1.7	--	<3	1
JUN 17...	0.30	0.27	0.60	0.200	0.100	--	0.020	4.4	1.8	--	5	4
JUL 21...	0.30	0.25	0.30	0.090	0.040	--	0.030	3.5	2.3	--	<3	<1
AUG 24...	0.30	0.26	0.30	0.100	0.070	--	0.060	--	2.9	--	<3	<1
SEP 15...	0.20	0.16	0.30	0.070	0.030	--	0.030	3.5	2.1	--	38	2

RIO GRANDE BASIN  
08364000 RIO GRANDE AT EL PASO, TX -- Continued  
WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
NOV 10...	1020	10	--	83	--	--	<3	--	--
JAN 27...	1430	<10	4	78	<1.0	<1	<3	<1	<1
MAY 18...	0745	<10	--	68	--	--	<3	--	--
JUL 21...	0800	<10	--	66	--	--	<3	--	--
SEP 15...	0915	<10	--	67	--	--	<3	--	--

DATE	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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)
NOV 10...	160	--	<10	1	<1	<1.0	1500	<6	--
JAN 27...	150	<0.1	10	<1	<1	<1.0	1300	<6	<10
MAY 18...	100	--	<10	1	<1	<1.0	910	<6	--
JUL 21...	88	--	10	<1	<1	<1.0	810	<6	--
SEP 15...	100	--	<10	3	<1	<1.0	840	<6	--

DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (UG/G) (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
DEC 16...	1200	9	2	<10	1	7.0	64	50	11	55	37
16...	1201	11	2	<10	1	--	69	54	12	98	39
16...	1201	11	2	<10	1	7.1	69	54	12	98	--
16...	1202	8	2	<10	<1	--	65	48	11	52	37
16...	1202	8	2	<10	<1	7.4	65	48	11	52	--
16...	1203	9	2	<10	1	--	66	51	11	60	39
16...	1203	9	2	<10	1	7.3	66	51	11	60	--

DATE	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (UG/G) (34880)	LANTHA- NIUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (UG/G) (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)
DEC 16...	16	<8	<4	2.8	37	30	40	1.2	2300	0.05
16...	17	<8	<4	2.9	--	34	40	1.2	2800	0.13
16...	17	<8	<4	2.9	39	34	40	1.2	2800	0.13
16...	16	<8	<4	2.8	--	24	40	1.1	2200	0.04
16...	16	<8	<4	2.8	37	24	40	1.1	2200	0.04
16...	16	<8	<4	2.9	--	31	40	1.2	2100	0.09
16...	16	<8	<4	2.9	39	31	40	1.2	2100	0.09

## RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TX -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)
DEC										
16...	<2	34	18	8	0.13	1.7	8	0.4	0.2	1.0
16...	<2	35	19	10	0.14	1.7	8	0.5	0.3	1.1
16...	<2	35	19	10	0.14	1.7	8	0.5	0.3	1.1
16...	<2	35	18	10	0.13	1.8	8	0.4	0.2	1.0
16...	<2	35	18	10	0.13	1.8	8	0.4	0.2	1.0
16...	<2	37	18	10	0.12	1.7	8	0.4	0.2	1.0
16...	<2	37	18	10	0.12	1.7	8	0.4	0.2	1.0

DATE	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
DEC										
16...	450	0.27	<40	13	<10	4	68	21	2	94
16...	470	0.31	<40	13	<10	4	70	21	2	110
16...	470	0.31	<40	12	<10	--	70	21	2	110
16...	470	0.24	<40	13	<10	4	68	20	2	90
16...	470	0.24	<40	12	<10	--	68	20	2	90
16...	470	0.26	<40	13	<10	4	71	21	2	94
16...	470	0.26	<40	13	<10	--	71	21	2	94

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET) (81903)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	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)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)
NOV											
10...	1020	--	--	235	1750	13.5	45	29	60	--	--
DEC											
16...	1200	--	--	133	--	10.0	--	--	--	45	100
FEB											
23...	1020	--	--	410	1240	9.5	382	423	66	--	--
MAR											
31...	0815	--	--	1130	789	13.0	1070	3260	18	--	--
APR											
29...	0755	--	--	950	989	20.0	509	1310	20	--	--
MAY											
18...	0745	--	--	795	1070	23.0	592	1270	16	--	--
JUN											
17...	0820	--	--	1070	1080	23.0	173	500	72	--	--
JUL											
21...	0800	--	--	1190	948	24.0	1900	6100	--	--	--
AUG											
24...	0830	--	--	946	1040	26.0	756	1930	--	--	--
SEP											
15...	0915	--	--	900	995	19.0	695	1690	--	--	--

RIO GRANDE BASIN  
08364000 RIO GRANDE AT EL PASO, TX -- Continued  
WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
SEP 1993									
15...	0800	160	3.10	905	8.0	19.0	7.1	317	56
15...	0805	140	2.50	910	8.0	19.0	7.1	509	30
15...	0809	120	3.80	990	8.2	19.0	7.3	264	60
15...	0812	100	4.50	1040	8.3	19.0	7.3	443	41
15...	0820	80.0	2.30	1060	8.3	19.0	7.4	597	33
15...	0826	60.0	2.60	1060	8.3	19.0	7.2	277	59
15...	0830	40.0	3.20	1060	8.3	19.0	7.4	246	68
15...	0836	20.0	2.40	1070	8.4	19.0	7.3	244	62

## RIO GRANDE BASIN

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX  
(National stream-quality accounting network)

## WATER-QUALITY RECORDS

LOCATION.--Lat 31°05'05", long 105°36'25", Hudspeth County, Hydrologic Unit 13040201, at gaging station on the rectified channel of the Rio Grande, 1.5 mi downstream from Old Fort Quitman, and 81.7 mi downstream from the American Dam at El Paso.

DRAINAGE AREA.--34,930 mi<sup>2</sup>, approximately, United States and Mexico; from International Boundary and Water Commission Bulletin No. 46 (including 2,940 mi<sup>2</sup> in closed basin in San Luis Valley, CO).

PERIOD OF RECORD.--Water years 1930 to current year. (discontinued).

REMARKS.--Records of discharge are given in International Boundary and Water Commission Water Bulletins.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
NOV 11...	1135	400	2770	8.1	21.0	14.5	37	676	6.3	70	1100
FEB 24...	1150	292	2680	8.2	16.0	12.0	68	672	8.1	86	350
MAY 19...	1100	1230	3310	8.5	--	24.0	83	672	8.9	122	87
JUL 20...	1015	904	1710	8.0	25.5	26.0	180	674	5.4	76	3200
SEP 14...	1045	1230	2680	8.0	--	22.0	290	676	6.1	80	K570

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 11...	>20000	530	250	150	36	410	8	12	333	0	273
FEB 24...	1100	510	300	150	34	370	7	10	260	0	213
MAY 19...	140	570	390	160	41	450	8	11	202	7	177
JUL 20...	4800	330	140	95	21	220	5	8.7	223	0	183
SEP 14...	2100	530	340	150	37	360	7	10	232	0	190

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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV 11...	243	470	440	<0.10	27	1800	1730	2.51	0.100	0.090	2.60
FEB 24...	207	400	440	0.70	23	1590	1570	2.30	--	0.100	--
MAY 19...	228	530	590	0.80	15	2050	1910	0.410	--	0.010	--
JUL 20...	182	300	240	0.60	15	1030	1020	0.910	--	0.050	--
SEP 14...	226	460	460	0.80	20	1710	1620	1.56	--	0.040	--

## RIO GRANDE BASIN

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 11...	2.60	2.80	2.70	4.2	2.20	1.60	1.70	1.70	<10	90
FEB 24...	2.40	--	0.490	1.6	1.00	0.710	--	0.760	--	--
MAY 19...	0.420	--	0.020	0.50	0.370	0.240	--	0.150	<10	20
JUL 20...	0.960	--	0.110	0.90	0.450	0.160	--	0.150	<5	<1
SEP 14...	1.60	--	0.080	0.50	0.320	0.300	--	0.300	20	<10

DATE	TIME	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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)
NOV 11...	1135	<10	<100	<1	190	10	2	<1	<1.0	2400	13
MAY 19...	1100	<10	<100	<1	190	11	2	<1	<1.0	2700	18
JUL 20...	1015	<10	68	<3	110	<10	2	<1	<1.0	1400	<6
SEP 14...	1045	<10	<100	<1	180	8	3	<1	<1.0	2300	14

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET) (81903)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SED- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV									
11...	1135	--	--	400	2770	14.5	870	940	34
FEB									
24...	1150	--	--	292	2680	12.0	277	218	56
MAY									
19...	1100	--	--	1230	3310	24.0	297	990	68
JUL									
20...	1015	--	--	904	1710	26.0	2030	4940	--
SEP									
14...	1045	--	--	1230	2680	22.0	991	3300	--

CROSS SECTION ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
SEP 1993	0955	10.0	4.70	2670	8.0	22.0	6.2	795	62
14...	1003	30.0	2.90	2680	8.0	22.0	6.1	985	54
14...	1010	50.0	2.10	2680	8.0	22.0	6.1	1020	52
14...	1017	70.0	1.90	2680	8.0	22.0	6.1	1300	40
14...	1023	90.0	1.70	2680	8.0	22.0	6.1	1010	52

## RIO GRANDE BASIN

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX  
(National stream-quality accounting network)

## WATER-QUALITY RECORDS

LOCATION.--Lat 31°05'05", long 105°36'25", Hudspeth County, Hydrologic Unit 13040201, at gaging station on the rectified channel of the Rio Grande, 1.5 mi downstream from Old Fort Quitman, and 81.7 mi downstream from the American Dam at El Paso.

DRAINAGE AREA.--34,930 mi<sup>2</sup>, approximately, United States and Mexico; from International Boundary and Water Commission Bulletin No. 46 (including 2,940 mi<sup>2</sup> in closed basin in San Luis Valley, CO).

PERIOD OF RECORD.--Water years 1930 to current year. (discontinued).

REMARKS.--Records of discharge are given in International Boundary and Water Commission Water Bulletins.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
NOV											
11...	1135	400	2770	8.1	21.0	14.5	37	676	6.3	70	1100
FEB											
24...	1150	292	2680	8.2	16.0	12.0	68	672	8.1	86	350
MAY											
19...	1100	1230	3310	8.5	--	24.0	83	672	8.9	122	87
JUL											
20...	1015	904	1710	8.0	25.5	26.0	180	674	5.4	76	3200
SEP											
14...	1045	1230	2680	8.0	--	22.0	290	676	6.1	80	K570

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											
11...	>20000	530	250	150	36	410	8	12	333	0	273
FEB											
24...	1100	510	300	150	34	370	7	10	260	0	213
MAY											
19...	140	570	390	160	41	450	8	11	202	7	177
JUL											
20...	4800	330	140	95	21	220	5	8.7	223	0	183
SEP											
14...	2100	530	340	150	37	360	7	10	232	0	190

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, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV											
11...	243	470	440	<0.10	27	1800	1730	2.51	0.100	0.090	2.60
FEB											
24...	207	400	440	0.70	23	1590	1570	2.30	--	0.100	--
MAY											
19...	228	530	590	0.80	15	2050	1910	0.410	--	0.010	--
JUL											
20...	182	300	240	0.60	15	1030	1020	0.910	--	0.050	--
SEP											
14...	226	460	460	0.80	20	1710	1620	1.56	--	0.040	--

## RIO GRANDE BASIN

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,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 TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV	11...	2.60	2.80	2.70	4.2	2.20	1.60	1.70	1.70	<10	90
FEB	24...	2.40	--	0.490	1.6	1.00	0.710	--	0.760	--	--
MAY	19...	0.420	--	0.020	0.50	0.370	0.240	--	0.150	<10	20
JUL	20...	0.960	--	0.110	0.90	0.450	0.160	--	0.150	<5	<1
SEP	14...	1.60	--	0.080	0.50	0.320	0.300	--	0.300	20	<10

DATE	TIME	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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)
NOV	1135	<10	<100	<1	190	10	2	<1	<1.0	2400	13
MAY	1900	<10	<100	<1	190	11	2	<1	<1.0	2700	18
JUL	2015	<10	68	<3	110	<10	2	<1	<1.0	1400	<6
SEP	1045	<10	<100	<1	180	8	3	<1	<1.0	2300	14

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET) (81903)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV	1135	--	--	400	2770	14.5	870	940	34
FEB	24...	1150	--	292	2680	12.0	277	218	56
MAY	19...	1100	--	1230	3310	24.0	297	990	68
JUL	20...	1015	--	904	1710	26.0	2030	4940	--
SEP	1045	--	--	1230	2680	22.0	991	3300	--

## CROSS SECTION ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
SEP 1993									
14...	0955	10.0	4.70	2670	8.0	22.0	6.2	795	62
14...	1003	30.0	2.90	2680	8.0	22.0	6.1	985	54
14...	1010	50.0	2.10	2680	8.0	22.0	6.1	1020	52
14...	1017	70.0	1.90	2680	8.0	22.0	6.1	1300	40
14...	1023	90.0	1.70	2680	8.0	22.0	6.1	1010	52



## RIO GRANDE BASIN

08377900 RIO MORA NEAR TERRERO, NM

(Hydrologic bench-mark station)

LOCATION.--Lat 35°46'38", long 105°39'27", in SW/NE¼ 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	6.8	e3.5	e7.0	8.2	e6.5	21	102	337	39	27	47
2	6.8	6.5	e4.0	e6.0	7.9	e7.0	23	90	335	36	24	42
3	6.6	6.2	e5.0	e6.0	7.7	e7.0	25	85	315	33	22	37
4	6.6	4.9	e8.0	e5.5	7.6	e8.0	23	89	276	31	21	33
5	6.4	4.8	e6.0	e5.0	7.5	e9.0	27	101	248	28	20	31
6	6.4	4.8	e5.5	e6.0	7.7	e10	29	101	219	26	30	29
7	6.2	4.8	e5.0	e5.5	7.3	e9.0	25	99	187	24	22	27
8	6.2	4.8	e6.0	e5.5	7.3	e11	23	92	163	22	22	25
9	6.3	6.0	e5.0	e5.5	7.8	e13	23	81	146	21	20	23
10	6.3	6.6	e5.5	e5.5	7.3	e16	29	74	133	20	19	22
11	6.2	6.3	e6.0	e6.0	7.0	e18	44	81	120	20	17	22
12	6.1	7.7	e6.0	e6.0	6.9	e16	54	101	113	30	16	21
13	6.0	7.2	e6.0	e5.0	7.0	e16	48	118	113	35	24	20
14	5.9	7.3	e6.0	e5.5	7.1	e16	45	120	129	27	43	21
15	5.8	7.5	e5.0	e5.5	7.2	e15	38	134	140	27	29	19
16	6.0	7.5	e5.0	e6.0	7.0	e14	32	156	135	21	23	17
17	6.0	7.2	e5.5	e6.0	7.0	e14	29	207	129	22	26	16
18	5.9	6.8	e5.5	e6.0	7.4	e15	34	236	124	25	29	16
19	5.9	7.5	e5.5	e6.0	8.0	e19	44	244	112	22	29	15
20	5.8	7.1	e5.0	e6.0	9.1	e22	46	284	102	24	30	15
21	5.8	5.9	e5.0	e6.0	7.9	e25	50	297	94	26	32	14
22	5.9	e5.0	e5.0	7.1	9.2	e27	62	320	85	21	35	14
23	6.0	e6.0	e5.0	7.3	e7.0	e30	77	324	78	19	29	13
24	5.9	e6.5	e5.0	e7.0	e7.0	e34	78	325	72	17	25	14
25	6.6	e5.0	e5.0	e7.0	e7.0	e36	69	314	65	16	23	13
26	6.1	e4.0	e5.0	e7.0	e6.5	e39	75	328	61	15	22	12
27	6.0	e3.0	e5.5	8.7	e6.5	e42	84	341	57	14	47	12
28	6.0	e3.0	e5.5	8.5	e6.0	e39	93	340	51	26	43	12
29	6.5	e3.0	e5.5	8.5	---	e35	103	335	47	43	43	11
30	6.3	e3.0	e6.5	8.8	---	e30	109	323	43	32	43	11
31	7.5	---	e7.0	8.0	---	e20	---	320	---	28	54	---
TOTAL	192.8	172.7	169.0	199.4	207.1	618.5	1462	6162	4229	790	889	624
MEAN	6.22	5.76	5.45	6.43	7.40	20.0	48.7	199	141	25.5	28.7	20.8
MAX	7.5	7.7	8.0	8.8	9.2	42	109	341	337	43	54	47
MIN	5.8	3.0	3.5	5.0	6.0	6.5	21	74	43	14	16	11
AC-FT	382	343	335	396	411	1230	2900	12220	8390	1570	1760	1240

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

	1964	1965	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
MEAN	14.4	9.89	7.05	5.94	6.06	11.6	36.5	121	81.1	29.6	43.9	27.4																		
MAX	25.2	20.5	13.3	9.82	9.97	41.3	88.4	319	256	73.1	159	84.5																		
(WY)	1986	1987	1985	1986	1979	1989	1985	1973	1979	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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1964 - 1993

ANNUAL TOTAL	14047.1	15715.5	
ANNUAL MEAN	38.4	43.1	
HIGHEST ANNUAL MEAN			33.0
LOWEST ANNUAL MEAN			65.3
HIGHEST DAILY MEAN	310	May 26	11.6
LOWEST DAILY MEAN	3.0	Nov 27	726
ANNUAL SEVEN-DAY MINIMUM	3.4	Nov 26	.90
INSTANTANEOUS PEAK FLOW			.97
INSTANTANEOUS PEAK STAGE			937
INSTANTANEOUS LOW FLOW			3.09
ANNUAL RUNOFF (AC-FT)	27860	31170	4.15
10 PERCENT EXCEEDS	144	113	.90
50 PERCENT EXCEEDS	11	16	
90 PERCENT EXCEEDS	5.8	5.5	
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 1992 TO SEPTEMBER 1993

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 HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)
NOV 23...	1100	10	138	7.6	-1.0	0.0	0.70	626	11.9	99	<1
APR 01...	1330	19	118	7.5	10.0	12.0	6.9	565	8.8	111	<1
MAY 27...	1345	328	60	6.8	22.0	7.5	8.1	568	8.7	98	K1
JUL 28...	1515	23	110	7.2	14.0	11.5	1.2	--	--	--	390

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)
NOV 23...	<1	64	4	22	2.2	1.9	0.1	0.70	73	0	60
APR 01...	<1	59	13	20	2.2	2.1	0.1	0.70	56	0	46
MAY 27...	K12	27	5	9.1	0.94	0.80	0.1	0.40	26	0	22
JUL 28...	>2500	49	0	17	1.6	1.3	0.1	0.60	62	0	51

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 TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV 23...	55	9.9	0.60	0.20	6.3	75	80	0.073	<0.010	0.020	0.094
APR 01...	52	8.5	1.0	0.20	8.3	79	71	--	--	0.020	--
MAY 27...	25	3.7	0.50	0.10	5.6	46	34	--	--	<0.010	--
JUL 28...	46	6.2	0.50	0.10	6.0	66	64	--	--	<0.010	--

3~4~4~ DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA SOLVED (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC SOLVED (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 SOLVED (MG/L AS P) (70507)	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)
NOV 23...	0.093	<0.010	<0.010	<0.20	<0.010	<0.010	0.020	<0.010	10	27	<3
APR 01...	<0.050	--	0.040	<0.20	<0.010	<0.010	--	<0.010	210	28	<3
MAY 27...	<0.050	--	0.030	<0.20	<0.010	<0.010	--	<0.010	240	15	<3
JUL 28...	<0.050	--	0.020	<0.20	0.040	<0.010	--	<0.010	30	24	<3

## RIO GRANDE BASIN

08377900 RIO MORA NEAR TERRERO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	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)	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)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)
NOV 23...	11	<4	3	<10	<1	<1	<1.0	49	<6	1.8
APR 01...	110	<4	4	<10	<1	<1	<1.0	46	<6	--
MAY 27...	91	<4	2	<10	<1	<1	<1.0	22	<6	0.9
JUL 28...	16	<4	3	<10	<1	<1	<1.0	41	<6	--
DATE	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO, WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, DIS- SOLVED AS (PCI/L) CS-137 (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED AS (PCI/L) YT-90 (80050)	BETA, 2 SIGMA WATER, DISS, AS AS SR90 /Y90 (PCI/L) (75988)
NOV 23...	0.93	1.2	0.60	<0.6	<0.6	0.17	0.8	0.54	0.7	0.45
APR 01...	--	--	--	--	--	--	--	--	--	--
MAY 27...	0.57	<0.6	0.35	0.8	0.8	0.58	<0.6	0.44	<0.6	0.41
JUL 28...	--	--	--	--	--	--	--	--	--	--
DATE	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP. TOT DRY CS-137 (PCI/L) (76005)	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 23...	<0.6	<0.6	0.48	0.02	0.010	0.59	<1.0	2	0.05	59
APR 01...	--	--	--	--	--	--	--	7	0.36	60
MAY 27...	0.8	0.8	0.55	0.05	0.010	0.07	<1.0	16	14	49
JUL 28...	--	--	--	--	--	--	--	8	0.49	90

## RIO GRANDE BASIN

08378500 PECOS RIVER NEAR PECOS, NM

LOCATION.--Lat 35°42'30", long 105°40'55", in NE¼ 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	34	e32	e26	42	34	82	355	917	191	94	142
2	39	33	e31	e26	42	35	89	293	915	180	88	128
3	38	e30	e32	e27	41	38	95	271	867	170	78	118
4	37	e25	e30	e25	38	39	90	281	770	162	75	110
5	36	e26	e25	e23	41	44	100	317	711	153	74	103
6	35	e28	e23	e24	47	44	113	312	665	145	111	100
7	34	e28	e21	e30	41	41	102	307	603	137	83	100
8	34	e28	e20	e29	34	45	93	285	531	130	95	93
9	34	e29	e21	e23	31	52	91	252	484	123	77	88
10	34	e29	e22	e31	30	59	108	232	435	118	74	84
11	34	e30	e21	e27	29	57	149	251	391	120	67	85
12	33	33	e20	e34	32	51	178	297	381	134	64	77
13	33	32	e20	e30	37	49	166	342	387	160	81	78
14	33	32	e19	e26	31	50	157	377	442	140	123	89
15	32	32	e20	e25	39	45	135	427	479	145	90	76
16	31	32	e20	e29	34	46	121	e470	477	120	76	70
17	31	31	e20	e33	31	57	112	e500	457	122	81	66
18	31	29	e20	e35	37	70	128	e550	446	122	89	63
19	31	29	e20	e27	31	82	155	e600	412	112	91	61
20	30	31	e19	e30	37	87	155	e675	392	113	96	58
21	30	28	e19	e30	33	96	162	769	374	113	117	57
22	32	28	e20	e29	48	111	193	813	351	100	118	57
23	32	28	e20	e33	45	117	249	832	323	93	98	54
24	31	27	e20	e27	39	126	256	824	300	88	87	54
25	32	e24	e21	e31	37	138	212	810	278	84	80	51
26	31	e26	e22	e34	33	143	236	848	257	80	78	49
27	30	e28	e24	e31	31	133	295	895	243	76	134	48
28	30	e29	e25	e35	33	111	337	933	228	90	158	46
29	30	e30	e26	e39	---	107	367	983	214	118	143	46
30	28	e32	e28	e37	---	93	371	912	203	99	140	45
31	28	---	e29	e35	---	84	---	901	---	94	170	---
TOTAL	1010	881	710	921	1024	2284	5097	16914	13933	3832	3030	2296
MEAN	32.6	29.4	22.9	29.7	36.6	73.7	170	546	464	124	97.7	76.5
MAX	39	34	32	39	48	143	371	983	917	191	170	142
MIN	28	24	19	23	29	34	82	232	203	76	64	45
AC-FT	2000	1750	1410	1830	2030	4530	10110	33550	27640	7600	6010	4550

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1993, BY WATER YEAR (WY)

	MEAN	52.0	37.4	29.3	26.2	26.4	40.0	134	335	245	96.6	109	75.9
MAX	217	138	61.9	49.7	42.3	95.5	366	1158	950	299	402	284	
(WY)	1942	1942	1942	1942	1920	1989	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 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1920 - 1993
ANNUAL TOTAL	48145	51932	
ANNUAL MEAN	132	142	101
HIGHEST ANNUAL MEAN			267
LOWEST ANNUAL MEAN			30.7
HIGHEST DAILY MEAN	631	May 24	1980
LOWEST DAILY MEAN	19	Dec 14	6.0
ANNUAL SEVEN-DAY MINIMUM	20	Dec 14	6.7
INSTANTANEOUS PEAK FLOW		1140	4500
INSTANTANEOUS PEAK STAGE		3.91	6.20
INSTANTANEOUS LOW FLOW		19	2.0
ANNUAL RUNOFF (AC-FT)	95500	103000	73210
10 PERCENT EXCEEDS	453	383	250
50 PERCENT EXCEEDS	49	66	47
90 PERCENT EXCEEDS	26	26	21

e Estimated

## 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 fair. 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 MEASUREMENTS, IN CUBIC FEET PER SECOND, OF DITCH, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Discharge	Date	Discharge	Date	Discharge
Oct. 15	4.50	Apr. 21	20.6	July 29	11.0
Jan. 13	1.66	May 18	15.5	Aug. 25	35.8

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

		DAILY MEAN VALUES										
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	16	5.8	e24	32	79	245	519	787	137	49	179
2	13	16	6.0	e24	32	78	234	528	776	114	50	151
3	13	18	9.3	e23	31	79	232	451	752	105	15	121
4	13	18	7.6	e22	30	80	241	412	707	96	1330	114
5	12	17	e8.0	23	31	83	225	416	651	79	112	90
6	12	17	e7.0	21	31	82	242	417	604	71	248	67
7	12	16	e7.0	18	28	82	274	401	559	53	256	60
8	12	16	e5.0	18	27	86	260	393	512	50	144	73
9	12	16	e4.0	15	30	92	232	361	455	44	96	59
10	12	18	e5.0	9.7	29	121	211	312	439	45	40	55
11	12	18	e6.0	31	30	159	221	267	396	46	32	53
12	11	17	e7.0	32	29	163	280	279	357	182	28	33
13	16	17	e7.0	36	30	153	340	325	323	83	169	25
14	15	17	e8.0	40	33	127	327	375	317	750	276	28
15	18	16	e8.0	44	34	128	313	421	419	299	193	37
16	12	14	e7.5	37	32	121	264	471	425	94	203	39
17	17	12	e7.6	34	31	119	241	540	564	69	111	37
18	17	9.9	e6.5	29	30	150	212	583	446	82	485	33
19	12	12	e5.0	25	28	201	212	623	394	92	108	30
20	9.8	13	e5.0	23	30	257	233	642	685	639	414	39
21	9.7	13	e7.0	22	121	268	226	686	545	337	250	42
22	5.2	11	e5.0	27	129	290	206	738	365	126	127	45
23	3.3	9.1	e4.0	33	94	317	229	766	304	80	108	49
24	3.0	8.6	e4.5	33	87	316	305	773	275	e30	82	45
25	11	7.9	e4.5	29	84	336	323	764	252	e20	201	41
26	14	7.4	e6.0	25	80	369	284	917	235	e19	110	44
27	17	5.1	e8.0	25	76	393	298	791	213	e18	162	33
28	14	3.3	e9.0	27	74	381	363	806	175	e17	165	21
29	19	3.1	e15	30	---	324	426	880	158	16	194	19
30	17	2.4	e30	33	---	313	460	865	153	18	156	20
31	18	---	50	32	---	272	---	813	---	21	138	---
TOTAL	395.0	384.8	275.3	844.7	1353	6019	8159	17535	13243	3832	6052	1682
MEAN	12.7	12.8	8.88	27.2	48.3	194	272	566	441	124	195	56.1
MAX	19	18	50	44	129	393	460	917	787	750	1330	179
MIN	3.0	2.4	4.0	9.7	27	78	206	267	153	16	15	19
AC-FT	783	763	546	1680	2680	11940	16180	34780	26270	7600	12000	3340

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1993, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1929	64.2	500	1942	.000	1957
1930	37.7	279	1942	.000	1957
1931	27.0	103	1942	.000	1957
1932	24.6	78.3	1942	1.82	1957
1933	23.7	78.5	1987	.92	1957
1934	58.4	249	1985	.29	1971
1935	182	854	1942	1.54	1981
1936	363	2031	1941	2.86	1971
1937	255	1150	1941	4.17	1934
1938	130	507	1941	3.81	1934
1939	197	928	1991	13.0	1964
1940	123	679	1941	.000	1956

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1929 - 1993

ANNUAL TOTAL	49587.1	59774.8	
ANNUAL MEAN	135	164	124
HIGHEST ANNUAL MEAN			489
LOWEST ANNUAL MEAN			23.4
HIGHEST DAILY MEAN	732	May 25	1330
LOWEST DAILY MEAN	2.4	Nov 30	2.4
ANNUAL SEVEN-DAY MINIMUM	4.7	Nov 26	4.7
INSTANTANEOUS PEAK FLOW			9550
INSTANTANEOUS PEAK STAGE			11.33
INSTANTANEOUS LOW FLOW			.50
ANNUAL RUNOFF (AC-FT)	98360	118600	90020
10 PERCENT EXCEEDS	490	448	338
50 PERCENT EXCEEDS	51	55	38
90 PERCENT EXCEEDS	8.9	8.8	5.0

e Estimated

## RIO GRANDE BASIN

08380500 GALLINAS CREEK NEAR MONTEZUMA, NM

LOCATION.--Lat 35°39'07", long 105°19'06", San Miguel County, Hydrologic Unit 13060001, in Las Vegas Grant, on left bank 2.4 mi west of Montezuma, 6.9 mi northwest of Las Vegas, and at mile 74.4.

DRAINAGE AREA.--84 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--March to September 1915, June 1916 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1964, published as Gallinas River near Montezuma.

REVISED RECORDS.--WSP 898: Drainage area. WSP 1562: 1951(P), 1952(M), 1955(P), 1957. WSP 1632: 1931-32, 1933(M), 1934, 1935(M), 1938, 1939-40(M), 1941-42, 1945, 1949-50(M).

GAGE.--Water-stage recorder. Elevation of gage is 6,880 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 21, 1934, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 80 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year. 1916-1925 not included in statistics.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since about 1900 occurred the night of Sept. 29, 1904 (discharge not determined), from information by local residents and G. B. Monk's report on floods.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	4.9	7.8	e8.0	9.8	13	30	63	63	5.6	13	40
2	4.5	5.0	6.1	e8.1	9.0	14	30	57	59	5.2	18	33
3	4.4	5.1	5.8	e8.1	9.0	14	31	55	55	5.0	12	28
4	4.6	5.4	5.8	e7.9	9.5	15	29	57	51	4.1	12	24
5	4.6	4.8	e4.0	e7.9	12	14	30	60	45	4.2	10	21
6	4.5	5.0	e3.8	e8.0	11	14	34	59	40	4.7	19	19
7	4.5	5.4	e3.8	e8.0	10	14	33	55	35	4.1	14	19
8	4.6	6.0	e5.0	e8.1	8.6	15	30	53	32	3.7	13	17
9	4.6	5.9	e9.0	e8.1	9.8	17	28	48	30	3.7	21	16
10	4.8	5.7	e9.4	e8.9	10	19	27	41	30	3.6	27	14
11	4.9	6.8	e9.0	9.6	9.4	20	32	38	26	3.2	16	13
12	4.9	6.4	e8.7	10	8.4	22	39	40	23	4.0	13	12
13	4.7	e6.0	e7.9	15	9.2	16	39	44	21	5.8	15	11
14	4.6	e6.1	6.9	13	9.7	17	38	51	21	6.7	33	12
15	4.5	e6.5	e7.8	9.6	9.0	16	34	57	24	8.7	28	11
16	4.6	e6.3	e7.0	10	9.3	16	31	63	22	5.9	19	9.0
17	4.7	e6.2	e7.6	9.7	9.7	19	29	81	21	5.1	18	8.8
18	4.5	6.4	e6.9	10	8.7	24	30	89	21	10	19	8.7
19	4.5	5.7	e7.0	10	12	30	35	92	18	9.1	19	8.1
20	4.6	5.8	e6.9	9.3	22	29	34	90	17	15	22	7.7
21	4.3	6.1	e6.8	11	21	31	34	95	16	14	33	7.6
22	4.4	4.8	e6.9	11	17	34	36	96	14	9.8	26	7.3
23	4.4	6.9	e6.8	14	19	34	45	93	13	7.8	22	7.3
24	4.4	5.6	e6.5	11	15	35	52	87	11	6.8	18	7.1
25	4.7	6.6	e6.6	14	14	37	45	80	10	6.6	15	6.3
26	4.9	8.4	e7.0	13	13	38	42	80	9.0	5.5	15	6.2
27	4.8	9.6	e6.5	10	13	43	50	82	8.5	5.2	39	6.4
28	4.6	11	e7.2	9.9	13	38	57	82	8.0	5.1	36	6.1
29	4.8	8.7	e7.6	10	---	38	61	79	6.7	25	35	5.8
30	5.1	8.4	e7.0	9.7	---	34	62	73	6.1	15	35	5.7
31	4.9	---	e7.6	9.6	---	32	---	66	---	12	45	---
TOTAL	143.7	191.5	212.7	310.5	331.1	752	1127	2106	756.3	230.2	680	398.1
MEAN	4.64	6.38	6.86	10.0	11.8	24.3	37.6	67.9	25.2	7.43	21.9	13.3
MAX	5.1	11	9.4	15	22	43	62	96	63	25	45	40
MIN	4.3	4.8	3.8	7.9	8.4	13	27	38	6.1	3.2	10	5.7
AC-FT	285	380	422	616	657	1490	2240	4180	1500	457	1350	790

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1993, BY WATER YEAR (WY)

	MEAN	12.7	9.28	6.55	5.47	5.84	12.1	35.8	53.4	21.4	16.0	31.4	21.1
MAX	108	57.5	21.3	13.7	20.5	64.7	184	380	118	105	225	185	185
(WY)	1942	1942	1958	1989	1987	1987	1958	1941	1979	1991	1991	1991	1991
MIN	.38	.49	.80	1.83	1.49	2.36	3.11	1.96	.74	1.24	1.08	.40	.40
(WY)	1957	1957	1957	1957	1957	1955	1967	1967	1956	1956	1934	1956	1956

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1926 - 1993
ANNUAL TOTAL	7986.3	7239.1	
ANNUAL MEAN	21.8	19.8	19.3
HIGHEST ANNUAL MEAN			80.7
LOWEST ANNUAL MEAN			2.53
HIGHEST DAILY MEAN	179	May 27	1580
LOWEST DAILY MEAN	3.8	Dec 6	.20
ANNUAL SEVEN-DAY MINIMUM	4.4	Oct 18	.21
INSTANTANEOUS PEAK FLOW			7120
INSTANTANEOUS PEAK STAGE			9.70
INSTANTANEOUS LOW FLOW			.20
ANNUAL RUNOFF (AC-FT)	15840	14360	14010
10 PERCENT EXCEEDS	66	46	43
50 PERCENT EXCEEDS	9.9	11	7.5
90 PERCENT EXCEEDS	4.9	4.8	2.7

e Estimated

# RIO GRANDE BASIN

08382500 GALLINAS RIVER NEAR COLONIAS, NM

LOCATION.--Lat 35°10'55", long 104°53'59", 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, 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.

DRAINAGE AREA.--610 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,940 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.47	1.9	4.3	7.2	5.5	6.5	9.0	2.3	17	.85	21	21
2	.55	2.8	3.5	7.3	5.4	6.8	7.9	2.9	14	.46	9.3	15
3	.60	3.6	3.4	6.6	5.6	6.6	6.9	4.9	12	.22	8.6	13
4	.53	4.2	3.9	6.0	5.6	6.9	6.5	13	11	.05	622	11
5	.87	3.8	4.9	5.4	5.6	6.5	6.4	8.9	8.9	.00	158	8.7
6	.92	4.2	3.7	5.1	5.6	6.0	5.2	7.4	7.2	.00	715	7.7
7	.85	4.4	3.8	5.3	5.6	5.6	4.8	6.2	5.3	.00	626	177
8	1.1	4.3	4.6	6.2	5.6	5.4	5.2	5.9	4.0	.00	115	23
9	1.1	4.0	8.0	6.6	5.9	5.1	5.3	5.7	4.7	.00	71	11
10	1.2	4.1	8.4	6.0	6.2	4.9	6.3	5.9	4.0	.00	53	8.8
11	1.7	4.5	7.9	5.8	6.5	4.7	6.6	6.5	4.0	26	33	7.3
12	1.7	4.8	8.5	5.4	6.5	4.9	5.4	5.4	6.1	273	25	6.1
13	1.8	5.0	9.2	4.3	6.2	5.1	4.2	5.3	7.7	69	112	5.6
14	1.7	4.7	8.2	4.9	6.3	5.5	3.4	5.2	4.8	99	64	5.6
15	1.7	4.9	5.7	9.8	7.5	6.9	3.4	4.1	2.8	355	33	5.6
16	1.6	4.9	6.1	7.6	8.0	6.0	3.4	4.8	6.5	90	26	12
17	1.9	4.4	6.9	7.5	8.7	5.9	4.0	5.7	18	23	25	7.8
18	2.4	4.1	5.7	7.3	11	5.5	5.4	5.3	37	16	234	5.4
19	2.7	3.5	6.2	8.0	9.2	5.1	4.8	13	11	12	79	4.0
20	2.6	3.5	5.8	8.6	9.7	4.9	4.3	17	13	167	100	3.6
21	2.3	4.4	5.7	8.8	9.4	4.4	4.0	27	13	317	617	3.2
22	2.7	4.0	5.5	9.1	10	4.4	4.4	31	9.7	50	91	3.0
23	2.8	4.0	5.1	8.1	9.7	4.7	4.7	36	6.5	26	46	3.1
24	3.2	3.9	4.9	7.6	7.9	4.9	4.5	34	6.8	18	28	4.6
25	3.6	3.5	5.0	7.4	7.2	4.7	4.4	30	4.9	14	20	3.3
26	3.4	3.5	6.2	7.6	6.7	4.9	5.2	36	3.4	11	183	2.3
27	3.1	4.0	5.0	6.1	6.5	5.6	6.1	33	2.3	9.0	22	2.0
28	2.3	3.9	4.1	5.8	6.5	5.5	5.3	28	1.5	7.9	52	1.8
29	2.5	3.6	6.7	5.8	---	5.4	4.0	22	1.1	7.0	26	1.7
30	3.2	3.7	6.4	5.8	---	5.3	3.1	21	1.1	6.7	28	1.6
31	3.0	---	6.0	5.8	---	6.1	---	21	---	5.8	34	---
TOTAL	60.09	120.1	179.3	208.8	200.1	170.7	154.1	454.4	249.3	1603.98	4276.9	385.8
MEAN	1.94	4.00	5.78	6.74	7.15	5.51	5.14	14.7	8.31	51.7	138	12.9
MAX	3.6	5.0	9.2	9.8	11	6.9	9.0	36	37	355	715	177
MIN	.47	1.9	3.4	4.3	5.4	4.4	3.1	2.3	1.1	.00	8.6	1.6
AC-FT	119	238	356	414	397	339	306	901	494	3180	8480	765

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

MEAN	12.8	4.93	3.06	2.76	3.63	4.48	17.1	17.7	17.0	40.9	65.0	23.5
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

### SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

## WATER YEARS 1951 - 1993

ANNUAL TOTAL	5206.71		8063.57				
ANNUAL MEAN	14.2		22.1			18.1	
HIGHEST ANNUAL MEAN						66.6	1958
LOWEST ANNUAL MEAN						.85	1978
HIGHEST DAILY MEAN	507	Aug 20	715	Aug 6		2640	Aug 11 1981
LOWEST DAILY MEAN	.06	Jul 16	.00	Jul 5		.00	Jan 1 1951
ANNUAL SEVEN-DAY MINIMUM	.32	Jul 10	.01	Jul 4		.00	Jan 1 1951
INSTANTANEOUS PEAK FLOW			5880	Aug 6		13700	Jul 11 1982
INSTANTANEOUS PEAK STAGE			13.10	Aug 6		19.67	Jul 11 1982
INSTANTANEOUS LOW FLOW			.00	Jul 5			
ANNUAL RUNOFF (AC-FT)	10330		15990			13090	
10 PERCENT EXCEEDS	26		29			26	
50 PERCENT EXCEEDS	8.8		5.7			.05	
90 PERCENT EXCEEDS	1.7		2.3			.00	

## 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 good. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	4.7	4.1	3.0	3.6	26	203	436	796	53	38	52
2	6.4	4.4	4.1	3.0	3.2	28	186	488	757	48	106	55
3	5.7	4.7	4.3	2.3	3.1	28	175	406	734	41	46	43
4	7.7	4.7	4.3	2.1	3.6	27	169	358	711	36	1570	36
5	5.9	4.8	4.3	2.3	3.4	28	167	371	652	35	176	29
6	4.9	5.0	4.1	2.6	3.7	28	161	362	587	34	304	16
7	5.0	4.7	4.4	2.5	4.0	27	190	372	512	34	975	198
8	4.1	4.7	4.3	2.6	4.1	28	208	362	469	35	188	34
9	4.0	4.7	3.3	2.6	4.0	27	176	362	393	35	63	21
10	4.1	5.1	3.0	2.4	3.7	29	150	291	351	36	66	14
11	4.2	4.7	3.1	2.7	4.1	53	136	231	335	35	31	12
12	4.1	5.0	3.0	2.1	3.8	83	161	202	285	396	12	12
13	3.9	4.7	3.2	2.6	3.8	87	230	231	247	237	45	12
14	3.8	5.0	3.0	2.5	4.3	75	264	283	224	64	104	13
15	3.6	5.3	3.0	2.3	4.1	58	256	353	213	806	110	13
16	3.6	4.8	3.0	2.1	3.6	55	224	417	417	274	51	13
17	3.7	4.9	3.0	2.4	3.6	51	177	466	373	128	85	13
18	3.9	5.2	3.0	2.2	3.6	54	165	503	763	205	447	12
19	4.1	5.0	3.0	2.1	3.7	73	132	555	413	53	130	11
20	4.0	5.0	3.2	1.9	3.3	139	145	582	323	526	203	11
21	4.7	5.3	2.8	2.1	2.8	178	188	634	778	751	657	12
22	4.7	4.4	2.6	2.5	46	205	201	718	320	189	151	12
23	4.7	4.4	2.7	2.5	54	228	221	714	248	74	77	11
24	4.9	4.8	2.6	2.4	36	251	266	747	196	41	46	11
25	4.8	4.1	2.7	2.9	35	268	301	762	171	36	31	11
26	5.0	4.1	2.7	3.0	31	285	254	878	146	36	248	11
27	5.1	4.0	2.6	3.3	29	323	231	785	126	38	39	11
28	5.3	3.9	2.8	3.6	28	318	263	788	80	38	94	11
29	4.7	4.1	3.0	3.6	---	291	332	849	53	38	72	9.9
30	4.4	4.1	3.0	3.6	---	261	385	912	52	38	71	10
31	4.5	---	2.6	3.6	---	228	---	851	---	38	49	---
TOTAL	145.9	140.3	100.8	81.4	336.1	3840	6317	16269	11725	4428	6285	729.9
MEAN	4.71	4.68	3.25	2.63	12.0	124	211	525	391	143	203	24.3
MAX	7.7	5.3	4.4	3.6	54	323	385	912	796	806	1570	198
MIN	3.6	3.9	2.6	1.9	2.8	26	132	202	52	34	12	9.9
AC-FT	289	278	200	161	667	7620	12530	32270	23260	8780	12470	1450

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	23.0	17.3	6.26	3.94	6.25	34.0	112	300	241	102	178	94.5						
MAX	139	137	42.0	19.0	73.4	192	382	736	1001	418	1062	660						
(WY)	1986	1987	1987	1987	1987	1985	1987	1979	1979	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1976 - 1993

ANNUAL TOTAL	38585.8	50398.4	
ANNUAL MEAN	105	138	
HIGHEST ANNUAL MEAN			97.4
LOWEST ANNUAL MEAN			245
HIGHEST DAILY MEAN	728	May 31	13.3
LOWEST DAILY MEAN	2.6	Dec 22	2960
ANNUAL SEVEN-DAY MINIMUM	2.7	Dec 21	.00
INSTANTANEOUS PEAK FLOW			.00
INSTANTANEOUS PEAK STAGE			12400
INSTANTANEOUS LOW FLOW			10.36
ANNUAL RUNOFF (AC-FT)	76530	99970	.00
10 PERCENT EXCEEDS	422	415	310
50 PERCENT EXCEEDS	12	31	6.5
90 PERCENT EXCEEDS	4.1	3.0	.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

(National stream-quality accounting network station)

LOCATION.--Lat 35°03'35", long 104°45'41", in NE¼SE¼SE¼ 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	29	25	23	23	39	e220	e480	863	92	54	140
2	37	30	24	24	23	40	e200	e540	840	78	159	142
3	38	28	25	23	23	39	e183	e475	828	59	91	118
4	38	29	25	23	23	39	e175	e410	807	52	2040	90
5	36	28	26	23	23	41	176	e390	740	49	294	76
6	33	28	25	23	23	43	e182	e390	678	47	374	55
7	33	28	25	23	23	43	e205	e392	613	46	1180	297
8	32	27	25	24	23	39	e230	e383	571	44	268	153
9	33	28	25	24	23	40	e200	e375	504	43	137	e50
10	33	28	25	23	23	41	155	e365	453	49	121	e35
11	32	28	24	24	23	63	137	e320	439	40	67	e32
12	32	28	25	23	22	98	151	e260	381	364	48	e33
13	31	28	25	24	23	108	e250	e300	336	305	77	e34
14	32	28	24	24	24	98	e280	e360	294	108	178	e34
15	32	28	24	24	24	82	e260	e420	291	958	229	34
16	31	27	25	24	22	79	230	e460	485	345	137	37
17	30	27	24	24	22	72	e210	e510	486	163	169	36
18	33	26	24	23	23	69	e185	536	940	286	463	34
19	33	26	24	24	22	91	e165	612	500	100	244	35
20	32	26	24	23	22	137	e160	645	399	466	286	43
21	32	28	24	23	22	176	e200	715	1080	820	761	35
22	31	26	24	23	57	e220	e230	786	396	258	255	36
23	31	26	24	22	78	e245	e260	839	328	132	175	38
24	29	26	24	21	59	e270	e300	842	274	77	116	38
25	28	26	24	21	52	e292	e340	836	240	75	79	37
26	27	25	24	22	46	e333	e285	972	216	70	299	39
27	28	25	24	22	44	e345	e255	860	192	71	110	e39
28	30	26	25	22	41	e330	e300	886	144	56	164	e37
29	29	26	25	22	---	e305	e350	928	111	57	146	e38
30	26	25	24	21	---	e280	e415	980	97	54	172	e38
31	28	---	23	23	---	e255	---	921	---	54	146	---
TOTAL	987	814	758	712	856	4352	6889	18188	14526	5418	9039	1883
MEAN	31.8	27.1	24.5	23.0	30.6	140	230	587	484	175	292	62.8
MAX	38	30	26	24	78	345	415	980	1080	958	2040	297
MIN	26	25	23	21	22	39	137	260	97	40	48	32
AC-FT	1960	1610	1500	1410	1700	8630	13660	36080	28810	10750	17930	3730

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

	40.8	34.4	23.1	20.9	22.8	49.0	126	319	273	129	224	127
MEAN	147	152	68.7	46.1	106	207	415	768	945	440	1077	683
MAX	1986	1987	1987	1987	1987	1985	1987	1985	1979	1991	1991	1991
(WY)	6.50	9.53	7.77	7.74	6.40	5.69	4.99	7.93	8.87	18.6	16.1	6.12
MIN	1979	1982	1978	1978	1978	1978	1978	1981	1977	1980	1978	1978
(WY)												

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1976 - 1993
ANNUAL TOTAL	45378	64422	
ANNUAL MEAN	124	176	120
HIGHEST ANNUAL MEAN			265
LOWEST ANNUAL MEAN			26.1
HIGHEST DAILY MEAN	708	May 26	3210
LOWEST DAILY MEAN	23	Dec 31	4.5
ANNUAL SEVEN-DAY MINIMUM	24	Dec 17	4.7
INSTANTANEOUS PEAK FLOW		8670	Aug 4
INSTANTANEOUS PEAK STAGE		15.70	Aug 4
INSTANTANEOUS LOW FLOW		20	Feb 20
ANNUAL RUNOFF (AC-FT)	90010	127800	87180
10 PERCENT EXCEEDS	419	477	337
50 PERCENT EXCEEDS	39	47	28
90 PERCENT EXCEEDS	26	23	8.7

e Estimated

a-From rating curve extended above 1,500 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.  
b-From floodmarks.

## 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 1992 TO SEPTEMBER 1993

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 HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT OF SATUR- ATION) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
NOV 17...	0845	27	930	8.2	11.0	3.0	0.90	648	10.4	91	<10	K9
JAN 23...	1125	23	1010	8.2	12.0	5.0	0.90	652	11.0	101	--	--
MAR 05...	1715	45	910	8.2	7.0	12.0	48	739	9.2	88	--	>600
MAY 06...	1430	357	250	8.0	21.5	15.5	99	642	8.5	102	--	K32
JUL 21...	1430	1040	260	7.8	29.0	20.0	2200	639	6.2	82	--	>6000
SEP 15...	1155	37	770	8.2	24.5	13.5	3.7	644	9.4	107	<10	K8

DATE	STREP- TOCOCO 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 17...	40	430	290	140	18	11	0.2	1.3	164	0	134	134
JAN 23...	--	480	340	160	20	11	0.2	1.2	176	0	144	128
MAR 05...	K2	360	210	120	15	16	0.4	1.4	183	0	150	143
MAY 06...	31	180	79	58	7.4	5.4	0.2	1.6	118	0	97	87
JUL 21...	5300	110	22	37	4.6	9.9	0.4	2.6	109	0	89	161
SEP 15...	24	420	270	140	17	10	0.2	1.4	188	0	154	134

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV 17...	300	6.8	0.30	11	598	571	0.150	0.010	0.020	0.160	0.170	<0.010
JAN 23...	340	6.6	0.20	11	650	637	--	--	<0.010	--	0.170	--
MAR 05...	210	9.8	0.20	10	467	473	0.120	--	0.010	--	0.130	--
MAY 06...	41	2.8	0.20	24	352	210	--	--	0.020	--	<0.050	--
JUL 21...	43	5.5	0.20	8.0	168	166	--	--	<0.010	--	0.290	--
SEP 15...	--	--	--	11	--	--	--	--	<0.010	--	0.190	--

## RIO GRANDE BASIN

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	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 TOTAL (MG/L AS P) (70507)	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)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 17...	<0.010	<0.20	<0.010	<0.010	<0.010	<0.010	0.4	<10	83	<3	6
JAN 23...	0.020	<0.20	<0.010	<0.010	--	<0.010	--	--	--	--	--
MAR 05...	0.020	0.40	0.020	0.200	--	0.010	--	--	--	--	--
MAY 06...	0.030	0.20	0.040	0.020	--	0.030	--	7400	140	<3	3100
JUL 21...	0.080	10	<0.010	0.040	--	0.030	--	150	110	<3	54
SEP 15...	0.020	<0.20	0.020	<0.010	--	0.010	0.6	10	120	<3	5

DATE	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)	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)	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)
NOV 17...	9	14	<10	<1	<1	<1.0	1400	<6	18	1.3	90
JAN 23...	--	--	--	--	--	--	--	--	25	1.6	42
MAR 05...	--	--	--	--	--	--	--	--	100	12	91
MAY 06...	10	210	<10	5	<1	<1.0	260	8	476	459	66
JUL 21...	5	2	<10	<1	<1	<1.0	260	<6	9810	27600	86
SEP 15...	7	25	<10	<1	<1	<1.0	1300	<6	61	6.1	49

## 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. 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 1992 TO SEPTEMBER 1993  
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	e.00	.03	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.62	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	a177	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e532	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	3.2	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.97	21
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	5.1	260
8	.00	.00	.01	.30	.00	.00	.00	.00	.00	e.00	1.5	2.9
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.29	.46
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	e15	.17	.17
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	11	.08	.06
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.5	.03	.01
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.0	.00	.01
14	.00	.00	.00	.00	.02	.00	.00	.00	.00	.16	.00	.02
15	.00	.00	.00	.00	.08	.00	.00	.00	.00	.03	7.8	.01
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.39	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.06	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.20	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.08	.12	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.27	.04	.00
22	.00	.10	.00	.00	.00	.00	.00	.00	e.00	.09	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.01
24	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	e.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	e.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.10	0.01	0.30	0.10	0.00	0.00	0.00	0.00	34.13	729.75	284.65
MEAN	.000	.003	.000	.010	.004	.000	.000	.000	.000	1.10	23.5	9.49
MAX	.00	.10	.01	.30	.08	.00	.00	.00	.00	15	532	260
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.2	.02	.6	.2	.00	.00	.00	.00	68	1450	565

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1993, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1973	.36	5.20	1986	.000	1974
1974	.22	2.26	1979	.000	1974
1975	.001	.007	1979	.000	1974
1976	.004	.028	1987	.000	1974
1977	.20	3.74	1987	.000	1974
1978	.004	.045	1987	.000	1974
1979	.061	1.57	1985	.000	1974
1980	.26	2.54	1987	.000	1974
1981	2.64	20.4	1988	.000	1974
1982	3.20	33.7	1976	.000	1980
1983	7.27	48.1	1977	.000	1979
1984	2.30	18.1	1988	.000	1973

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1973 - 1993
ANNUAL TOTAL	7.72	1049.04	
ANNUAL MEAN	.021	2.87	1.45
HIGHEST ANNUAL MEAN			5.41
LOWEST ANNUAL MEAN			.021
HIGHEST DAILY MEAN	7.4 Jul 4	532 Aug 4	753 Jul 24 1976
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	.00 Jul 27 1973
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 8	.00 Oct 1	.00 Aug 4 1973
INSTANTANEOUS PEAK FLOW		9200 Aug 3	a9200 Aug 3 1993
INSTANTANEOUS PEAK STAGE		13.22 Aug 3	13.22 Aug 3 1993
INSTANTANEOUS LOW FLOW		.00 Oct 1	.00 Jul 1 1973
ANNUAL RUNOFF (AC-FT)	15	2080	1050
10 PERCENT EXCEEDS	.00	.03	.04
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, 447,100 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. 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, 101,530 acre-ft, June 21, elevation, 4,746.21 ft; minimum, 80,770 acre-ft, July 27, elevation, 4,740.24 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97090	90040	90350	91330	92450	93890	98890	82200	91740	98520	80830	98040
2	97090	89970	90350	91360	92480	93970	98330	82520	92480	98300	81060	98150
3	97020	89940	90350	91360	92480	94070	97710	82920	93010	97780	81420	98300
4	97090	89870	90350	91360	92520	94070	97130	82920	93400	97130	87720	98480
5	97060	89870	90390	91360	92550	94210	96470	82920	93930	96510	88500	98520
6	97020	89900	90460	91470	92620	94290	95900	83020	94210	95720	89250	98590
7	96950	89900	90600	91470	92690	94320	95280	82980	94390	94530	91780	99180
8	96840	89940	90670	91610	92760	94390	94460	83050	94640	93470	92660	98480
9	96800	89940	90770	91680	92800	94390	92830	83180	94820	92340	93010	97570
10	96760	90010	90800	91710	92830	94430	91150	83310	95070	91260	93360	96440
11	96800	89940	90910	91780	92830	94430	89390	83310	95430	90180	93430	95390
12	96840	89900	90910	91850	92870	94610	87820	83150	95640	89840	93470	94390
13	96730	89970	90840	91880	92900	94820	86500	82980	95790	89110	93470	93820
14	96690	90040	90800	91950	93010	95030	85160	83110	95860	88670	93860	93750
15	96660	90040	90740	92020	93110	95320	84300	83380	95900	89320	94320	93720
16	96580	90040	90840	92060	93110	95430	83580	83740	96260	88840	94430	93790
17	96620	90080	90940	92060	93110	95500	83150	84300	96910	87850	94860	93820
18	96620	90080	91010	92090	93190	95680	82820	84500	98520	87180	95680	93790
19	95900	90110	91010	92160	93220	95830	82430	84700	99030	86030	96260	93750
20	94180	90110	90980	92090	93260	96080	82200	84870	99360	85570	96730	93750
21	92200	90250	91010	92230	93260	96440	82200	85360	101530	86070	98440	93790
22	90560	90210	91010	92270	93290	96910	82360	85830	101000	85330	98960	93750
23	90110	90210	91050	92270	93400	97310	82260	86430	99850	84200	99070	93890
24	90150	90180	91050	92270	93500	97860	82040	86700	98960	83020	98440	93970
25	90180	90210	91080	92270	93570	98260	82070	87240	98810	81840	97420	93930
26	90080	90280	91120	92340	93720	98960	82040	87920	98810	81030	97130	93890
27	90110	90280	91150	92300	93790	99630	82040	88330	98810	80770	97060	93930
28	90180	90320	91220	92300	93860	100290	81940	88940	98780	80870	97240	93890
29	90180	90350	91260	92340	---	100520	82170	89700	98740	80870	97490	93890
30	90180	90350	91290	92340	---	99920	82170	90560	98630	80870	97670	93890
31	90110	---	91290	92410	---	99250	---	91260	---	80830	97780	---
MAX	97090	90350	91290	92410	93860	100520	98890	91260	101530	98520	99070	99180
MIN	90080	89870	90350	91330	92450	93890	81940	82200	91740	80770	80830	93720
(†)	4743.04	4743.11	4743.38	4743.70	4744.11	4743.60	4740.67	4743.37	4745.43	4740.26	4745.20	4744.12
(††)	-6950	+240	+940	+1120	+1450	+5390	-17080	+9090	+7370	-17800	+16950	-3890
CAL YR 1992	MAX	99180	MIN	89870	(††)	-1300						
WTR YR 1993	MAX	101530	MIN	80770	(††)	-3170						

(†) 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.78	e.04	e.10	e.09	.21	379	339	449	82	2.6	3.9
2	.26	.78	e.03	e.10	e.10	.21	434	341	421	197	2.6	4.4
3	.32	.73	e.03	e.10	e.10	.19	431	342	369	272	2.6	4.6
4	.45	.68	e.03	e.08	e.10	.16	432	344	368	273	2.2	4.6
5	.38	.68	e.0	e.08	e.10	.11	433	308	368	272	.36	4.6
6	.42	.62	e.03	e.08	e.10	.11	433	252	369	409	.51	4.6
7	.39	.51	e.04	e.08	e.10	.13	431	252	367	560	.24	131
8	.39	.51	e.04	e.07	.11	.14	662	250	300	559	.11	450
9	.47	.39	e.04	e.07	.11	.18	998	251	252	557	.04	521
10	.46	.32	e.04	e.07	.13	.18	1020	253	220	555	.04	519
11	.43	.31	e.03	e.07	.15	.17	1020	254	196	554	.05	520
12	.43	.26	e.04	e.06	.19	.17	942	254	197	551	.04	520
13	.39	.26	e.03	e.06	.19	.17	896	227	197	552	.04	236
14	.31	.19	e.04	e.06	.21	.17	885	197	199	618	.04	1.3
15	.31	.15	e.10	e.06	.20	.18	787	198	171	652	.04	1.3
16	.31	.17	.15	e.06	e.18	.21	481	199	134	653	.04	1.3
17	.31	.17	e.10	e.06	e.17	.21	328	242	150	641	.05	1.3
18	.31	.14	.16	e.05	e.17	.21	330	369	158	631	.08	1.2
19	417	.13	.14	e.05	.15	.21	264	463	158	626	.24	1.1
20	946	.12	.13	e.05	.17	.21	162	461	159	622	.20	.93
21	1030	.18	.13	e.05	.18	.20	83	461	332	623	.20	.89
22	832	.17	.16	.05	.21	.49	97	461	816	623	.23	.89
23	224	.17	.18	e.06	.20	.70	171	460	936	633	127	.91
24	1.1	.17	.17	e.06	.21	.61	233	520	601	635	425	.78
25	1.1	.24	.14	e.07	.19	.43	234	600	241	632	515	.78
26	1.1	.17	.13	e.07	.19	.47	235	516	156	455	366	.78
27	.89	.17	.14	e.08	.19	.47	237	451	157	108	103	.63
28	.89	e.10	.11	e.08	.21	.37	237	449	120	2.2	2.8	.62
29	.89	e.05	.12	e.08	---	231	237	449	86	2.6	2.8	.60
30	.79	e.04	.06	e.08	---	593	293	449	86	2.6	2.8	.59
31	.78	---	e.05	e.09	---	591	---	448	---	2.6	2.8	---
TOTAL	3463.09	9.36	7.63	2.18	4.40	1422.27	13805	11060	8733	13555.0	1559.75	2939.60
MEAN	112	.31	.25	.070	.16	45.9	460	357	291	437	50.3	98.0
MAX	1030	.78	5.0	.10	.21	593	1020	600	936	653	515	521
MIN	.21	.04	.03	.05	.09	.11	83	197	86	2.2	.04	.59
AC-FT	6870	19	15	4.3	8.7	2820	27380	21940	17320	26890	3090	5830

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1993, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	18.9	15.7	10.9	7.43	11.2	19.4	123	301	192	193	173	151		
MAX	112	145	59.0	28.9	97.7	197	655	672	509	561	519	649		
(WY)	1993	1987	1987	1986	1987	1987	1989	1989	1987	1983	1991	1988		
MIN	.018	.041	.081	.068	.059	.064	.072	.98	2.05	.047	.069	.040		
(WY)	1990	1990	1990	1990	1990	1990	1983	1982	1984	1989	1989	1989		

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1980 - 1993

ANNUAL TOTAL	38789.38	56561.28	
ANNUAL MEAN	106	155	
HIGHEST ANNUAL MEAN			106
LOWEST ANNUAL MEAN			185
HIGHEST DAILY MEAN	1110	1030	35.8
LOWEST DAILY MEAN	.00	.03	1910
ANNUAL SEVEN-DAY MINIMUM	.00	.04	.00
ANNUAL RUNOFF (AC-FT)	76940	112200	76930
10 PERCENT EXCEEDS	403	533	419
50 PERCENT EXCEEDS	1.1	.68	1.6
90 PERCENT EXCEEDS	.05	.06	.05

e Estimated



## RIO GRANDE BASIN

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM  
(Surveillance network station)

LOCATION.--Lat 34°43'48", long 104°31'28", in NE¼SE¼NW¼ sec.20, T.6 N., R.23 E., Guadalupe County, Hydrologic Unit 13060001, on left bank 9.0 mi southeast of Puerto de Luna, 17.5 mi upstream from Sumner 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, except for estimated daily discharges, which are poor. Flow regulated by Santa Rosa Lake (station 08382810) 37.7 mi upstream since April 1980. Diversions for irrigation of about 12,500 acres, 1959 determination, upstream from station. Discharge represents inflow to Lake Sumner. Several observations of water temperature were made during the year. U.S. 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 Sumner 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	91	82	79	87	85	480	403	511	212	195	e58
2	63	89	81	81	88	86	471	429	499	183	393	e60
3	65	89	82	80	87	84	498	428	446	291	165	59
4	67	92	87	78	86	83	502	424	426	323	510	59
5	70	96	100	79	87	83	510	420	432	321	e250	58
6	68	94	121	79	86	84	510	360	432	323	e150	59
7	67	89	87	79	88	85	507	329	429	535	e200	364
8	69	85	85	82	87	83	517	325	425	588	e100	463
9	67	85	83	86	88	82	896	327	332	592	e97	573
10	68	86	82	81	87	82	1000	324	318	598	e96	579
11	78	87	81	82	85	84	1030	324	275	600	95	585
12	79	86	80	82	86	85	1010	324	258	614	83	586
13	77	86	78	78	86	87	931	323	253	636	81	582
14	76	85	80	78	88	87	949	280	254	1050	91	e271
15	75	85	81	77	99	85	958	259	252	1440	94	e98
16	71	83	81	77	93	84	766	286	221	694	87	87
17	68	82	91	79	87	84	490	301	214	670	79	82
18	68	85	83	80	88	86	450	322	213	668	73	78
19	68	86	83	83	88	84	440	463	213	657	76	74
20	615	88	83	82	85	84	343	502	216	728	114	70
21	917	94	83	80	83	84	252	503	281	847	83	69
22	1010	90	81	79	83	87	182	512	1090	675	73	67
23	620	86	81	81	83	88	195	503	977	662	67	85
24	251	76	80	80	84	84	282	580	960	660	195	107
25	120	82	78	82	85	86	329	620	463	662	520	78
26	96	83	78	82	84	88	326	637	288	662	547	72
27	88	83	78	82	84	112	325	511	263	382	e350	74
28	84	82	79	84	85	106	322	502	238	195	e160	70
29	86	82	81	82	---	94	321	510	222	133	e60	65
30	86	82	79	85	---	382	321	515	236	116	e59	65
31	89	---	78	88	---	694	---	507	---	111	e59	---
TOTAL	5391	2589	2587	2507	2427	3592	16113	13053	11637	16828	5202	5597
MEAN	174	86.3	83.5	80.9	86.7	116	537	421	388	543	168	187
MAX	1010	96	121	88	99	694	1030	637	1090	1440	547	586
MIN	63	76	78	77	83	82	182	259	213	111	59	58
AC-FT	10690	5140	5130	4970	4810	7120	31960	25890	23080	33380	10320	11100

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1993, BY WATER YEAR (WY)

	MEAN	110	100	97.2	93.3	92.4	97.2	192	273	301	285	285
	MAX	225	232	147	123	167	265	685	744	725	597	948
	(WY)	1986	1987	1987	1987	1987	1987	1989	1989	1983	1991	1988
	MIN	73.1	79.5	73.5	80.9	76.7	73.5	67.9	64.0	72.9	117	66.4
	(WY)	1988	1983	1991	1993	1984	1989	1984	1982	1991	1989	1990

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1980 - 1993

ANNUAL TOTAL	68360	87523	
ANNUAL MEAN	187	240	192
HIGHEST ANNUAL MEAN			265
LOWEST ANNUAL MEAN			122
HIGHEST DAILY MEAN	1140	May 28	1440
LOWEST DAILY MEAN	62	Sep 25	58
ANNUAL SEVEN-DAY MINIMUM	64	Sep 24	59
INSTANTANEOUS PEAK FLOW			4180
INSTANTANEOUS PEAK STAGE			5.49
INSTANTANEOUS LOW FLOW			47
ANNUAL RUNOFF (AC-FT)	135600	173600	139100
10 PERCENT EXCEEDS	465	590	507
50 PERCENT EXCEEDS	90	88	86
90 PERCENT EXCEEDS	71	76	67

e Estimated

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 1992 TO SEPTEMBER 1993

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)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	
NOV 16...	1315	84	3310	8.1	20.0	8.0	660	10.5	104	<10	K3	
MAR 04...	1415	82	3350	8.0	10.0	15.0	--	10.6	108	14	K47	
MAY 10...	1615	320	1100	8.1	22.0	20.5	656	8.3	108	<10	>600	
SEP 15...	1615	67	2020	8.1	24.0	17.5	653	11.8	145	<10	K9	
DATE		STREP-TOCOCCI, 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 16...	K4	1600	1500	520	70	99	1	2.3	146	0	120	
MAR 04...	K4	1600	1500	540	71	98	1	2.3	137	0	112	
MAY 10...	K1	590	470	200	23	31	0.6	2.0	154	0	126	
SEP 15...	K14	1200	1000	390	48	68	0.9	3.1	171	0	140	
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 TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV 16...	95	1600	150	0.50	12	2530	0.020	0.020	<0.050	<0.050	0.030	
MAR 04...	102	1600	150	0.60	14	2540	--	<0.010	--	<0.050	--	
MAY 10...	97	390	36	0.30	8.9	767	--	<0.010	--	<0.050	--	
SEP 15...	100	1000	97	0.50	12	1700	--	<0.010	--	0.063	--	
DATE		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 ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
NOV 16...	0.020	<0.20	<0.010	0.020	<0.010	0.6	<1	<1	120	<1	1.0	
MAR 04...	0.010	<0.20	<0.010	--	<0.010	0.7	--	--	120	--	--	
MAY 10...	0.020	<0.20	<0.010	--	<0.010	2.7	--	--	50	--	--	
SEP 15...	0.090	0.30	0.070	--	<0.010	2.2	--	1	80	<1	<1.0	

## RIO GRANDE BASIN

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)
NOV 16...	<1	2	2	1	20	<1	<1	<0.10	<0.1	<1
MAR 04...	--	--	--	--	<10	--	--	--	--	--
MAY 10...	--	--	--	--	<3	--	--	--	--	--
SEP 15...	<1	<1	2	<1	<10	<1	<1	<0.10	<0.1	--

DATE	SELENIUM, DIS- SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITROGEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOSPHORUS 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)	CHROMIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)
NOV 16...	<1	20	<10	9.0	2.1	50	53	2	<1	1
MAR 04...	--	--	--	--	--	--	--	--	--	--
MAY 10...	--	--	--	--	--	--	--	--	--	--
SEP 15...	<1	10	<10	--	--	--	--	--	--	--

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)	MANGANESE, 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)	SEDIMENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 16...	<5	2	1300	<10	410	<0.01	<1	9	2.0	79
MAR 04...	--	--	--	--	--	--	--	20	4.4	89
MAY 10...	--	--	--	--	--	--	--	107	92	45
SEP 15...	--	--	--	--	--	--	--	136	25	80

## RIO GRANDE BASIN

08384000 LAKE SUMNER NEAR FORT SUMNER, NM

LOCATION.--Lat 34°36'30", Long 104°23'04", in SE¼SW¼ sec. 34, T.5 N., R.24 E., DeBaca County, Hydrologic Unit 13060001, near center of dam on Pecos River, 5.0 mi 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 U.S. 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 January 1989, 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. U.S. Bureau of Reclamation satellite telemeter at station.

COOPERATION.--Records provided by U.S. 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, 44,190 acre-ft, June 25, elevation, 4,261.15 ft; minimum, 12,170 acre-ft, October 21, elevation, 4,244.84 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21480	14310	18830	23860	28590	32900	34480	30150	39160	43090	32140	34600
2	21260	14450	18920	24020	28760	32900	35440	30420	39270	43150	32140	34500
3	21040	14570	19100	24170	28890	32900	36090	30670	39270	42920	32610	34330
4	20810	14690	19260	24270	29070	32870	36060	30950	39140	42700	32710	34210
5	20610	14840	19480	24420	29180	32800	36240	30880	39160	42540	33470	34120
6	20590	14980	19630	24570	29310	32800	36260	31110	39320	42230	33560	34000
7	20440	15160	19770	24740	29490	32730	36140	31290	39430	42150	33610	33950
8	20070	15330	19940	24890	29660	32730	35860	31610	39430	41490	34260	34500
9	19920	15470	20320	25070	29910	32710	35140	31910	39610	40840	34290	35070
10	19720	15610	20490	25160	30040	32610	34920	31980	39640	40170	34210	35990
11	19560	15770	20660	25340	30090	32500	34700	32280	39720	39610	34070	36870
12	19440	15870	20850	25530	30220	32450	34550	32570	39880	39010	33920	37660
13	19350	16020	20980	25650	30420	32260	34070	32830	39930	38430	33710	38540
14	19250	16170	21100	25850	30580	32240	33850	33130	39960	37890	33610	39350
15	19100	16330	21280	26030	30790	32280	33420	33400	40010	38410	33510	39560
16	18890	16490	21400	26210	30900	32240	33040	33660	40060	39480	33440	39510
17	18190	16670	21520	26350	31040	32070	32210	33750	40140	38800	33370	39450
18	16820	16820	21710	26470	31220	32000	30830	34070	40250	37990	33280	39350
19	14930	16970	21880	26630	31380	32000	30040	34360	40600	37220	33180	39190
20	13100	17120	22020	26840	31660	31890	29460	34870	40680	36410	33090	39060
21	12170	17370	22200	27000	31800	31840	29350	35310	40980	35960	33010	39030
22	12310	17450	22360	27090	31840	31750	29420	35790	41680	35540	32940	38900
23	13130	17630	22480	27270	32030	31680	29440	36310	43090	34770	32800	38720
24	14100	17770	22590	27340	32190	31680	29350	36590	44140	33950	32680	36940
25	14420	17880	22800	27500	32350	31680	29380	37350	44190	33040	32750	36040
26	14460	18020	22890	27650	32400	31680	29580	37990	43680	32210	33540	35960
27	14440	18180	23070	27820	32590	31820	29750	38380	42790	32030	34380	35760
28	14420	18330	23250	27970	32730	31930	29750	38560	42900	32330	34800	35660
29	14360	18490	23430	28140	---	32100	29980	38720	43040	32380	34920	35590
30	14330	18640	23620	28310	---	32260	30020	38930	43060	32350	34870	35390
31	14290	---	23730	28460	---	33040	---	39060	---	32260	34720	---
MAX	21480	18640	23730	28460	32730	33040	36260	39060	44190	43150	34920	39560
MIN	12170	14310	18830	23860	28590	31680	29350	30150	39140	32030	32140	33950
(†)	4246.53	4249.50	4252.47	4254.84	4256.73	4256.86	4255.55	4259.27	4260.75	4256.53	4257.56	4257.83
(††)	-7840	+4350	+5090	+4730	+4270	+310	-3020	+9040	+4000	-10800	+2460	+670

CAL YR 1992 MAX 64040 MIN 12170  
WTR YR 1993 MAX 44190 MIN 12170

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

## RTO GRANDE BASTIN

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 Summer 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 (U.S. 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 estimated daily discharges, 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. U.S. 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 Summer Dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	.61	.28	.45	.05	e50	2.3	233	415	145	143	107
2	173	.28	.32	.43	.17	e78	98	234	435	182	142	108
3	173	.43	.32	.43	.21	e78	353	265	434	370	142	108
4	172	.64	.32	.39	.21	79	405	313	406	371	142	107
5	159	.64	.32	.32	.21	85	463	276	357	370	141	107
6	140	.64	.32	.36	.11	98	494	213	357	369	142	107
7	159	.64	.32	.29	.15	98	529	193	333	693	141	107
8	149	.64	.32	.21	.21	98	736	178	305	876	142	107
9	143	.70	.32	.05	.26	99	960	176	284	873	145	107
10	143	.54	.32	.03	.32	99	1080	169	238	870	143	107
11	137	.32	.32	.20	.32	99	1080	160	211	885	142	108
12	133	.32	.32	.26	.32	98	1080	160	206	896	152	109
13	133	.32	.26	.21	.32	98	1070	155	206	894	131	109
14	131	.32	.21	.21	.32	99	1060	150	196	965	117	108
15	130	.30	.21	.14	.32	99	1060	149	178	1100	109	108
16	275	.24	.21	.17	.32	99	1060	149	168	1110	108	107
17	620	.21	.21	.21	.32	99	1050	149	155	1110	108	106
18	938	.22	.21	.21	.32	99	874	150	147	1110	108	106
19	996	.21	.21	.31	.32	99	644	182	147	1110	107	106
20	996	.21	.30	.19	.32	99	401	237	146	1110	107	106
21	884	.20	.32	.15	.32	100	228	265	146	1110	107	103
22	714	.21	.32	.22	.32	87	182	265	146	1110	107	97
23	230	.21	.32	.14	.32	77	182	265	278	1120	107	718
24	84	.21	.32	.12	.32	77	182	269	687	1120	107	787
25	92	.21	.32	.21	.32	77	182	269	938	1110	107	100
26	98	.21	.32	.21	.32	78	191	342	870	908	108	100
27	98	.21	.32	.26	.32	61	218	403	283	384	108	101
28	99	.21	.32	.25	.32	1.7	229	407	145	149	109	101
29	98	.21	.32	.09	---	1.8	229	403	145	142	109	101
30	98	.21	.32	.04	---	1.9	233	401	145	142	107	292
31	90	---	.32	.05	---	2.0	---	401	---	142	107	---
TOTAL	8710	10.52	9.14	6.81	7.66	2414.4	16555.3	7581	9107	22846	3795	4645
MEAN	281	.35	.29	.22	.27	77.9	552	245	304	737	122	155
MAX	996	.70	.32	.45	.32	100	1080	407	938	1120	152	787
MIN	84	.20	.21	.03	.05	1.7	2.3	149	145	142	107	97
AC-FT	17280	21	18	14	15	4790	32840	15040	18060	45320	7530	9210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	
MEAN	122	34.1	14.4	20.6	19.8	229	289	349	428	323	274	275
MAX	1184	910	170	143	193	605	1317	1404	2905	970	796	2789
(WY)	1942	1943	1942	1942	1942	1944	1942	1973	1937	1983	1956	1941
MIN	29.7	.21	.086	.20	.22	2.05	45.6	61.5	61.5	47.4	50.9	36.7
(WY)	1975	1989	1989	1954	1954	1948	1957	1956	1963	1991	1991	1972

### SUMMARY STATISTICS

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1937 - 1993	
ANNUAL TOTAL	72551.26		75687.83			
ANNUAL MEAN	198		207		199	
HIGHEST ANNUAL MEAN					710	1941
LOWEST ANNUAL MEAN					91.9	1954
HIGHEST DAILY MEAN	1270	May 30	1120	Jul 23	26400	Sep 1 1942
LOWEST DAILY MEAN	.20	Nov 21	.03	Jan 10	.00	Sep 1 1937
ANNUAL SEVEN-DAY MINIMUM	.21	Nov 19	.12	Jan 29	.00	Feb 18 1952
INSTANTANEOUS PEAK FLOW			1160	Jul 22	42800	Sep 1 1942
INSTANTANEOUS PEAK STAGE			4.13	Jul 22	13.58	Sep 22 1941
ANNUAL RUNOFF (AC-FT)	143900		150100		144000	
10 PERCENT EXCEEDS	502		756		758	
50 PERCENT EXCEEDS	146		107		82	
90 PERCENT EXCEEDS	.32		.21		.51	

e Estimated

a-From computation of flow over spillway and through outlet gates of Sumner Dam by U.S. 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 SE¼SW¼SW¼ 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 (U.S. 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 fair except for estimated daily discharges, which are poor. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	.36	.00	.00	.00	.00	.00	99	101	e92	55	92
2	83	.00	.00	.00	.00	39	.00	99	100	e92	71	91
3	83	.00	.00	.00	.00	78	.00	99	99	e99	87	90
4	84	.00	.00	.00	.00	82	.00	101	97	e99	76	90
5	84	.00	.00	.00	.00	75	62	100	95	e98	88	89
6	83	.00	.00	.00	.00	86	83	97	95	e97	97	89
7	84	.00	.00	.00	.00	85	82	96	94	e96	98	87
8	84	.00	.00	.00	.00	85	84	95	93	e96	97	86
9	84	.00	.00	.00	.00	85	83	95	93	e95	95	83
10	84	.00	.00	.00	.00	84	78	95	91	e95	93	84
11	84	.00	.00	.00	.00	84	90	96	92	e94	92	85
12	84	.00	.00	.00	.00	83	111	94	102	e94	85	85
13	84	.00	.00	.00	.00	84	102	94	102	e94	82	85
14	84	.00	.00	.00	.00	84	94	96	102	93	88	84
15	84	.00	.00	.00	.00	83	94	96	101	89	81	84
16	85	.00	.00	.00	.00	83	93	96	100	84	82	84
17	87	.00	.00	.00	.00	83	93	97	100	80	86	81
18	86	.00	.00	.00	.00	83	92	99	99	80	76	80
19	86	.00	.00	.00	.00	82	88	99	99	79	94	81
20	86	.00	.00	.00	.00	82	97	100	99	98	91	80
21	85	.00	.00	.00	.00	82	102	102	97	105	89	79
22	84	.00	.00	.00	.00	81	99	102	95	86	88	78
23	80	.00	.00	.00	.00	69	99	101	96	35	86	69
24	82	.00	.00	.00	.00	63	98	103	97	.03	95	56
25	85	.00	.00	.00	.00	62	97	104	e90	.02	92	70
26	85	.00	.00	.00	.00	62	98	103	e92	20	88	79
27	85	.00	.00	.00	.00	77	98	104	e85	55	88	79
28	85	.00	.00	.00	.00	49	97	103	e80	55	95	80
29	85	.00	.00	.00	---	3.4	100	102	e82	55	94	79
30	84	.00	.00	.00	---	.00	99	102	e92	55	93	83
31	79	---	.00	.00	---	.00	---	101	---	55	92	---
TOTAL	2605	0.36	0.00	0.00	0.00	2078.40	2413.00	3070	2860	2365.05	2714	2462
MEAN	84.0	.012	.000	.000	.000	67.0	80.4	99.0	95.3	76.3	87.5	82.1
MAX	87	.36	.00	.00	.00	86	111	104	102	105	98	92
MIN	79	.00	.00	.00	.00	.00	.00	94	80	.02	55	56
AC-FT	5170	.7	.00	.00	.00	4120	4790	6090	5670	4690	5380	4880

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1993, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1939	66.5	98.0	1974	.000	1942
1940	.92	3.57	1983	.000	1942
1941	.46	19.6	1940	.000	1941
1942	8.31	43.5	1967	.000	1940
1943	4.35	46.2	1988	.000	1940
1944	53.2	95.8	1988	.000	1942
1945	74.4	98.6	1987	35.4	1942
1946	78.1	105	1989	.000	1942
1947	84.3	108	1973	46.8	1941
1948	80.1	108	1942	29.6	1972
1949	78.4	99.9	1955	31.3	1990
1950	72.2	101	1955	1.33	1942

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1939 - 1993

ANNUAL TOTAL	20443.90	20567.81	
ANNUAL MEAN	55.9	56.4	50.7
HIGHEST ANNUAL MEAN			59.7
LOWEST ANNUAL MEAN			25.3
HIGHEST DAILY MEAN	100	111	174
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
ANNUAL RUNOFF (AC-FT)	40550	40800	36740
10 PERCENT EXCEEDS	94	99	97
50 PERCENT EXCEEDS	85	83	70
90 PERCENT EXCEEDS	.00	.00	.00

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, which are poor. Flow partly regulated by Sumner 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, 1,170 ft<sup>3</sup>/s, July 21, 1993; minimum daily, 14 ft<sup>3</sup>/s, Feb. 12, 13, 1993.

EXTREMES FOR AUGUST TO SEPTEMBER 1992.--Maximum daily discharge, 935 ft<sup>3</sup>/s, Sept. 26; minimum daily, 120 ft<sup>3</sup>/s, Aug. 13.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,170 ft<sup>3</sup>/s, July 21; minimum daily, 14 ft<sup>3</sup>/s, Feb. 12, 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	158
2	---	---	---	---	---	---	---	---	---	---	---	153
3	---	---	---	---	---	---	---	---	---	---	---	151
4	---	---	---	---	---	---	---	---	---	---	---	156
5	---	---	---	---	---	---	---	---	---	---	---	155
6	---	---	---	---	---	---	---	---	---	---	---	129
7	---	---	---	---	---	---	---	---	---	---	---	133
8	---	---	---	---	---	---	---	---	---	---	---	136
9	---	---	---	---	---	---	---	---	---	---	---	126
10	---	---	---	---	---	---	---	---	---	---	---	122
11	---	---	---	---	---	---	---	---	---	---	---	131
12	---	---	---	---	---	---	---	---	---	---	---	129
13	---	---	---	---	---	---	---	---	---	---	144	127
14	---	---	---	---	---	---	---	---	---	---	120	130
15	---	---	---	---	---	---	---	---	---	---	125	127
16	---	---	---	---	---	---	---	---	---	---	167	133
17	---	---	---	---	---	---	---	---	---	---	140	135
18	---	---	---	---	---	---	---	---	---	---	150	130
19	---	---	---	---	---	---	---	---	---	---	169	130
20	---	---	---	---	---	---	---	---	---	---	158	128
21	---	---	---	---	---	---	---	---	---	---	158	128
22	---	---	---	---	---	---	---	---	---	---	151	127
23	---	---	---	---	---	---	---	---	---	---	152	127
24	---	---	---	---	---	---	---	---	---	---	149	140
25	---	---	---	---	---	---	---	---	---	---	165	610
26	---	---	---	---	---	---	---	---	---	---	158	935
27	---	---	---	---	---	---	---	---	---	---	148	e900
28	---	---	---	---	---	---	---	---	---	---	168	e880
29	---	---	---	---	---	---	---	---	---	---	149	859
30	---	---	---	---	---	---	---	---	---	---	125	626
31	---	---	---	---	---	---	---	---	---	---	123	---
TOTAL	---	---	---	---	---	---	---	---	---	---	145	8051
MEAN	---	---	---	---	---	---	---	---	---	---	---	268
MAX	---	---	---	---	---	---	---	---	---	---	---	935
MIN	---	---	---	---	---	---	---	---	---	---	---	122
AC-FT	---	---	---	---	---	---	---	---	---	---	---	15970

e Estimated

## RIO GRANDE BASIN

08385522 PECOS RIVER BELOW TAIBAN CREEK NEAR FORT SUMNER, NM -- Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	99	23	21	15	17	23	158	301	106	55	92
2	201	54	22	19	15	17	21	166	313	95	61	78
3	154	42	23	20	15	38	90	163	317	158	74	83
4	141	39	23	20	15	32	361	202	321	252	275	72
5	145	38	47	20	15	29	366	249	295	259	133	80
6	142	35	36	19	15	25	423	189	274	274	139	74
7	133	34	36	19	14	30	421	162	272	296	130	107
8	133	32	29	20	14	32	561	144	236	716	114	156
9	126	31	23	20	15	35	792	135	221	751	141	104
10	139	30	23	21	15	34	1050	159	197	774	123	108
11	121	29	23	21	15	34	1050	139	165	783	108	114
12	117	29	22	21	14	35	1040	125	141	804	112	102
13	120	29	22	20	14	35	1030	120	126	814	126	123
14	119	29	22	20	15	38	1040	92	128	836	112	139
15	116	28	22	19	15	40	1020	97	120	1100	102	120
16	117	28	21	19	15	38	1030	116	106	1090	91	107
17	934	27	21	19	15	39	1030	130	107	1070	174	101
18	796	26	20	18	15	40	983	115	108	1070	144	89
19	1050	25	20	20	16	39	721	135	126	1100	129	99
20	1080	25	19	19	15	42	445	162	110	1080	108	103
21	1070	27	19	18	15	39	250	233	119	1170	97	86
22	911	26	19	17	15	48	143	232	109	1110	78	94
23	583	26	19	17	15	49	110	226	109	1130	74	106
24	174	26	19	17	16	45	106	185	236	1120	89	e800
25	99	25	18	18	16	51	111	206	756	1120	73	e450
26	91	25	18	17	16	56	112	176	859	1090	78	e300
27	76	24	18	16	16	65	131	266	643	569	86	e100
28	67	24	18	16	17	66	142	287	206	154	92	e80
29	67	24	17	16	---	43	155	301	164	70	85	e70
30	77	23	17	16	---	30	151	299	131	57	73	e70
31	88	---	17	16	---	25	---	294	---	56	87	---
TOTAL	8967	959	696	579	423	1186	14908	5663	7316	21074	3363	4207
MEAN	289	32.0	22.5	18.7	15.1	38.3	497	183	244	680	108	140
MAX	1080	99	47	21	17	66	1050	301	859	1170	275	890
MIN	67	23	17	16	14	17	21	92	106	56	55	70
AC-FT	17790	1900	1380	1150	839	2350	29570	11230	14510	41800	6670	8340

WTR YR 1993 TOTAL 69341 MEAN 190 MAX 1170 MIN 14 AC-FT 137500

e Estimated

## RIO GRANDE BASIN

08385522 PECOS RIVER BELOW TAIBAN CREEK NEAR FORT SUMNER, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1992 to September 1993.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
DEC 14...	1135	23	3170	8.1	-1.0	4.5	1.9	--	--	--
JAN 19...	1400	21	3070	7.4	4.5	2.0	3.5	669	12.2	102
MAR 04...	0745	30	3100	8.0	-3.0	4.5	7.1	676	11.0	97
MAY 03...	1615	168	1680	8.1	31.0	24.0	7.8	656	7.4	103
JUL 19...	1715	1070	1130	8.1	26.0	22.0	23	663	7.4	98
SEP 16...	1500	106	1770	8.1	29.0	20.0	22	662	9.3	119

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 TOT IT FIELD MG/L AS CACO3 (39086)
DEC 14...	1400	1200	420	96	150	2	2.8	261	0	214
JAN 19...	1400	--	400	91	140	2	2.5	--	--	--
MAR 04...	1400	910	410	82	120	1	2.8	207	0	170
MAY 03...	880	750	280	43	61	0.9	2.7	160	0	131
JUL 19...	560	450	180	26	35	0.6	2.4	131	0	107
SEP 16...	860	730	270	46	68	1	3.5	164	0	134

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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	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 14...	135	1300	160	0.50	0.19	14	2270	240	<10
JAN 19...	143	1200	160	0.40	0.19	12	2090	230	10
MAR 04...	145	1200	150	0.50	0.16	14	2250	190	10
MAY 03...	110	830	98	0.50	0.070	10	1400	110	68
JUL 19...	107	500	38	0.40	0.030	11	857	70	4
SEP 16...	124	780	79	0.50	0.070	12	1340	130	4



## 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 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, 1,020 ft<sup>3</sup>/s, Oct. 21, 1993; minimum daily, 8.7 ft<sup>3</sup>/s, Feb. 24, 1993.

EXTREMES FOR PERIOD AUGUST TO SEPTEMBER 1992.--Maximum daily discharge, 900 ft<sup>3</sup>/s, Sept. 27; minimum daily, 60 ft<sup>3</sup>/s, Sept. 13.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,020 ft<sup>3</sup>/s, Oct. 21; minimum daily, 8.7 ft<sup>3</sup>/s, Feb. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	168
2	---	---	---	---	---	---	---	---	---	---	---	170
3	---	---	---	---	---	---	---	---	---	---	---	112
4	---	---	---	---	---	---	---	---	---	---	---	93
5	---	---	---	---	---	---	---	---	---	---	---	93
6	---	---	---	---	---	---	---	---	---	---	---	83
7	---	---	---	---	---	---	---	---	---	---	---	87
8	---	---	---	---	---	---	---	---	---	---	---	60
9	---	---	---	---	---	---	---	---	---	---	---	60
10	---	---	---	---	---	---	---	---	---	---	---	65
11	---	---	---	---	---	---	---	---	---	---	---	62
12	---	---	---	---	---	---	---	---	---	---	---	62
13	---	---	---	---	---	---	---	---	---	---	---	60
14	---	---	---	---	---	---	---	---	---	---	---	69
15	---	---	---	---	---	---	---	---	---	---	---	93
16	---	---	---	---	---	---	---	---	---	---	---	88
17	---	---	---	---	---	---	---	---	---	---	---	81
18	---	---	---	---	---	---	---	---	---	---	99	76
19	---	---	---	---	---	---	---	---	---	---	107	71
20	---	---	---	---	---	---	---	---	---	---	152	69
21	---	---	---	---	---	---	---	---	---	---	125	65
22	---	---	---	---	---	---	---	---	---	---	115	62
23	---	---	---	---	---	---	---	---	---	---	94	61
24	---	---	---	---	---	---	---	---	---	---	98	63
25	---	---	---	---	---	---	---	---	---	---	97	64
26	---	---	---	---	---	---	---	---	---	---	110	490
27	---	---	---	---	---	---	---	---	---	---	142	e900
28	---	---	---	---	---	---	---	---	---	---	127	e800
29	---	---	---	---	---	---	---	---	---	---	109	708
30	---	---	---	---	---	---	---	---	---	---	91	575
31	---	---	---	---	---	---	---	---	---	---	64	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	5510
MEAN	---	---	---	---	---	---	---	---	---	---	---	184
MAX	---	---	---	---	---	---	---	---	---	---	---	900
MIN	---	---	---	---	---	---	---	---	---	---	---	60
AC-FT	---	---	---	---	---	---	---	---	---	---	---	10930

e Estimated

## RIO GRANDE BASIN

08385648 PECOS RIVER ABOVE ACME, NM -- Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	433	97	24	21	14	15	45	128	291	113	150	47
2	320	110	23	23	14	12	33	128	303	75	158	42
3	235	122	23	24	14	11	25	129	309	51	118	47
4	173	94	23	23	13	11	21	124	346	48	e700	49
5	158	76	25	21	13	10	19	110	347	49	217	41
6	137	64	29	19	13	11	268	150	356	164	314	40
7	130	57	26	18	13	22	382	220	270	167	342	213
8	119	52	30	18	13	23	499	162	222	199	372	163
9	106	48	42	19	13	18	517	127	209	481	225	170
10	111	44	44	17	13	17	e840	121	168	e520	149	184
11	99	41	34	17	12	19	e860	121	155	e550	172	122
12	111	39	30	17	12	22	e880	130	136	e590	151	90
13	98	36	26	16	12	24	e900	123	95	e630	121	99
14	88	35	23	17	12	25	e900	104	71	e670	112	139
15	85	33	23	19	14	24	e900	97	58	e700	121	172
16	88	31	22	17	14	23	e900	90	51	810	118	156
17	85	31	22	16	14	26	e900	86	47	e860	109	125
18	86	29	21	16	15	27	786	83	37	e870	119	109
19	632	29	20	21	15	29	722	90	32	e870	169	88
20	1020	29	21	21	13	31	418	84	34	e870	145	79
21	907	32	21	20	11	28	301	111	47	e900	e115	68
22	838	33	20	19	9.7	27	221	137	60	e880	e95	86
23	636	36	19	17	8.8	30	163	222	53	e870	89	65
24	456	30	19	15	8.7	30	117	208	41	e870	77	72
25	246	27	19	15	8.9	42	113	196	40	e870	59	e730
26	139	26	18	14	8.9	42	113	141	310	867	54	285
27	128	25	18	14	9.4	49	104	148	e700	887	51	130
28	117	25	18	15	11	77	94	129	e450	546	48	108
29	110	25	18	15	---	63	108	254	e250	348	47	73
30	99	24	19	15	---	66	116	292	e160	217	53	55
31	96	---	18	15	---	61	---	299	---	194	58	---
TOTAL	8086	1380	738	554	342.4	915	12265	4544	5648	16736	4828	3847
MEAN	261	46.0	23.8	17.9	12.2	29.5	409	147	188	540	156	128
MAX	1020	122	44	24	15	77	900	299	700	900	700	730
MIN	85	24	18	14	8.7	10	19	83	32	48	47	40
AC-FT	16040	2740	1460	1100	679	1810	24330	9010	11200	33200	9580	7630

e Estimated

LOCATION.--Lat 33°32'10", long 104°22'34", in SW/4NW/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).

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 fair. Flow regulated by Lake Sumner (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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	845	144	25	23	14	12	44	184	299	149	185	e70
2	683	171	25	26	14	11	33	190	280	75	174	e66
3	589	181	24	27	13	6.9	24	195	288	46	125	e63
4	341	152	24	26	11	6.6	18	183	307	37	1250	e60
5	223	87	16	25	11	5.4	14	158	333	28	559	e57
6	156	62	24	22	11	4.0	138	180	336	86	636	e56
7	139	50	23	20	11	7.1	320	282	288	158	443	188
8	123	48	24	19	10	21	448	246	204	194	476	186
9	95	46	38	20	11	21	486	166	175	205	317	115
10	107	42	48	18	11	14	734	147	167	640	237	175
11	84	40	41	17	9.7	16	807	122	125	653	205	141
12	83	39	34	18	9.6	19	893	104	113	763	187	92
13	84	37	30	18	9.4	23	922	103	63	841	160	87
14	59	35	26	17	8.7	25	949	70	46	1060	146	119
15	49	34	24	18	11	24	931	53	39	2060	144	144
16	50	33	24	19	11	22	920	48	34	1350	144	148
17	53	32	22	17	12	23	930	51	33	1140	140	119
18	53	27	23	16	13	27	963	47	30	1070	134	100
19	386	28	21	23	14	30	980	48	27	1050	147	83
20	1210	28	20	28	12	31	724	47	23	1730	136	71
21	1270	32	21	24	7.7	29	518	45	27	1410	136	57
22	1350	35	21	22	5.5	28	357	49	35	1000	120	58
23	1230	36	19	20	4.3	27	273	128	28	1010	103	58
24	1140	35	18	16	2.4	29	233	186	23	999	93	49
25	789	30	19	14	2.4	32	224	189	18	933	e90	602
26	518	27	19	14	1.9	39	176	126	14	916	e80	485
27	325	27	19	14	2.6	42	158	112	531	911	e75	302
28	243	26	19	14	4.9	65	133	109	611	786	e65	215
29	220	27	18	14	---	61	150	169	378	669	e67	180
30	195	26	19	15	---	49	160	299	234	392	e70	118
31	166	---	19	15	---	55	---	307	---	249	e60	---
TOTAL	12858	1617	747	599	259.1	805.0	13660	4343	5109	22610	6904	4264
MEAN	415	53.9	24.1	19.3	9.25	26.0	455	140	170	729	223	142
MAX	1350	181	48	28	14	65	980	307	611	2060	1250	602
MIN	49	26	16	14	1.9	4.0	14	45	14	28	60	49
AC-FT	25500	3210	1480	1190	514	1600	27090	8610	10130	44850	13690	8460

STATISTICS OF MONTHLY MEAN DATA FOR		1950, BY MONTH (1950-1954)										
	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	
MEAN	146	55.3	26.5	25.9	25.0	161	221	288	299	329	252	307
MAX	2200	858	236	190	234	595	1217	2680	2186	1611	726	3527
(WY)	1942	1943	1942	1942	1987	1941	1942	1941	1941	1960	1941	1941
MIN	.000	.000	.000	.000	.000	.16	3.58	1.81	.000	.19	.90	.000
(WY)	1948	1948	1948	1948	1953	1954	1967	1946	1947	1954	1947	1947

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1938 - 1993	
ANNUAL TOTAL	77514		73775.1			
ANNUAL MEAN	212		202		179	
HIGHEST ANNUAL MEAN					964	1941
LOWEST ANNUAL MEAN					56.8	1964
HIGHEST DAILY MEAN	1350	Oct 22	2060	Jul 15	29500	Sep 23 1941
LOWEST DAILY MEAN	11	Jul 20	1.9	Feb 26	.00	May 23 1938
ANNUAL SEVEN-DAY MINIMUM	16	Jul 14	3.4	Feb 22	.00	May 23 1938
INSTANTANEOUS PEAK FLOW			3540	Jul 15	a45000	Sep 23 1941
INSTANTANEOUS PEAK STAGE			7.15	Jul 15	b13.71	Sep 23 1941
INSTANTANEOUS LOW FLOW			.00	Dec 5	.00	Dec 5 1992
ANNUAL RUNOFF (AC-FT)	153700		146300		129400	
10 PERCENT EXCEEDS	684		699		670	
50 PERCENT EXCEEDS	85		59		22	
90 PERCENT EXCEEDS	25		14		.41	

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 1992 TO SEPTEMBER 1993

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 CAC03) (00900)
NOV 18...	0815	27	3660	8.2	8.0	4.0	681	--	--	<10	1300
MAR 09...	1515	20	5190	8.1	27.0	16.0	658	8.8	105	23	1800
MAY 11...	1450	126	2030	8.1	29.0	23.0	673	8.0	107	<10	970
SEP 07...	1200	66	4560	7.9	26.0	18.5	763	9.2	100	24	1200

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 (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT (MG/L AS CAC03) (39086)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 18...	1200	370	81	270	3	3.6	118	0	97	97	1300
MAR 09...	1700	490	130	470	5	5.1	126	0	103	99	1800
MAY 11...	880	300	54	100	1	3.0	112	0	92	80	960
SEP 07...	1200	360	83	560	7	--	84	0	69	67	1100

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 TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
NOV 18...	350	0.50	12	2450	0.160	0.010	0.020	0.200	0.180	0.020	0.020
MAR 09...	630	0.60	11	3600	--	--	<0.010	--	0.100	--	0.020
MAY 11...	130	0.70	10	1610	--	--	<0.010	--	<0.050	--	0.030
SEP 07...	760	0.40	11	2910	--	--	<0.010	--	0.220	--	0.060

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
NOV 18...	<0.20	<0.010	<0.010	0.010	1.0	<1	<1	240	<1	<1.0
MAR 09...	<0.20	<0.010	--	<0.010	2.4	--	--	350	--	--
MAY 11...	<0.20	<0.010	--	<0.010	2.7	--	--	120	--	--
SEP 07...	0.50	0.090	--	<0.010	4.3	1	1	220	<1	<1.0

## RIO GRANDE BASIN.

08386000 PECOS RIVER NEAR ACME, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
NOV 18...	1	<1	2	<1	30	<1	<1	0.20	--	<1
MAR 09...	--	--	--	--	<10	--	--	--	--	--
MAY 11...	--	--	--	--	<10	--	--	--	--	--
SEP 07...	3	<1	4	<1	<10	<1	<1	0.10	<0.1	1

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	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)
NOV 18...	<1	10	<10	6.0	9.9	320	345	3	<1	4
MAR 09...	--	--	--	--	--	--	--	--	--	--
MAY 11...	--	--	--	--	--	--	--	--	--	--
SEP 07...	1	20	<10	--	--	--	--	--	--	--

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)	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 18...	<5	5	6000	20	200	0.01	50	24	1.7	72
MAR 09...	--	--	--	--	--	--	--	33	1.7	100
MAY 11...	--	--	--	--	--	--	--	117	40	80
SEP 07...	--	--	--	--	--	--	--	174	31	95

## RIO GRANDE BASIN

08387000 RIO RUIDOSO AT HOLLYWOOD, NM

LOCATION.--Lat 33°19'36", long 105°37'38", in SE¼SE¼NE¼ sec.25, T.11 S., R.13 E., Lincoln County, Hydrologic Unit 13060008, on center pier on downstream side of bridge on Blooming Dale Road in Ruidoso Downs, 0.1 mi north of U.S. Highway 70, 0.7 mi downstream from Gavilan Canyon, 1.7 mi downstream from Carrizo Creek, and at mile 24.4.

DRAINAGE AREA.--120 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 6,420 ft above National Geodetic Vertical Datum of 1929, from topographic map. Mar. 14, 1953 to Mar. 28, 1985, at site 0.95 mi downstream at different datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Village of Ruidoso diverts from right bank 7.0 mi upstream for municipal use and returns a portion of this water as effluent from sewage disposal plant downstream from the gage.

AVERAGE DISCHARGE.--28 years (1954-81), 14.9 ft<sup>3</sup>/s, 10,800 acre-ft/yr, for period when sewage disposal plant effluent was discharged upstream from gage.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29, 1941, is probably the highest since at least 1904 (discharge not determined).

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	8.0	e17	22	30	47	69	31	18	22	33
2	13	11	8.0	e21	22	28	47	58	29	18	36	31
3	12	11	11	e22	22	27	49	49	27	15	27	29
4	12	11	9.4	e21	21	32	51	47	25	13	75	26
5	12	10	7.8	e23	20	36	54	49	23	13	44	25
6	12	11	8.4	e22	20	32	60	47	21	12	66	28
7	12	9.7	9.9	e22	18	23	58	46	20	11	48	26
8	12	9.6	11	e20	18	24	55	45	18	11	35	23
9	12	9.9	10	e27	20	27	50	43	17	12	34	22
10	12	11	10	e35	20	33	49	42	17	13	28	20
11	13	11	11	e35	19	43	54	42	16	13	25	20
12	12	10	11	e42	19	44	62	43	15	14	30	20
13	12	10	11	e43	18	36	63	50	15	13	26	20
14	12	9.9	10	e40	18	38	62	53	16	18	22	21
15	12	9.7	10	e37	26	39	55	59	16	22	20	18
16	12	10	11	e35	21	37	49	61	18	18	21	18
17	11	9.5	e11	e35	20	41	45	55	16	17	22	18
18	11	8.6	e11	e33	20	51	47	53	15	19	24	17
19	12	7.4	e11	e35	23	57	54	50	14	24	40	17
20	12	7.4	e12	e47	42	61	56	49	17	20	35	16
21	11	7.6	e12	e43	42	66	55	47	22	19	31	16
22	14	7.4	e12	e39	43	70	56	48	18	16	31	15
23	11	7.6	e12	e33	33	71	66	45	15	15	30	17
24	12	7.5	e12	e30	26	78	66	41	14	15	28	16
25	11	7.5	e12	e30	27	86	60	38	14	14	27	15
26	11	7.7	e14	e28	28	99	59	35	14	14	26	15
27	10	7.7	e14	e26	28	90	65	34	13	14	26	17
28	11	7.8	e14	e26	29	72	72	34	13	20	26	18
29	14	8.1	e14	e24	---	64	73	34	13	21	27	17
30	14	8.1	e12	e24	---	58	75	34	13	21	33	16
31	12	---	e15	e25	---	50	---	32	---	19	36	---
TOTAL	372	276.7	345.5	940	685	1543	1714	1432	535	502	1001	610
MEAN	12.0	9.22	11.1	30.3	24.5	49.8	57.1	46.2	17.8	16.2	32.3	20.3
MAX	14	12	15	47	43	99	75	69	31	34	75	33
MIN	10	7.4	7.8	17	18	23	45	32	13	11	20	15
AC-FT	738	549	685	1860	1360	3060	3400	2840	1060	996	1990	1210

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1993, BY WATER YEAR (WY)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	25.5	18.7	26.0	20.7	25.3	39.9	52.3	43.1	23.0	21.3	44.6	30.7
MAX	80.8	69.0	130	61.5	58.6	91.2	104	101	52.3	49.9	162	63.4
(WY)	1987	1987	1985	1985	1985	1992	1992	1992	1986	1986	1984	1988
MIN	9.40	7.43	6.59	7.74	8.49	14.9	19.9	11.4	5.96	7.94	8.25	12.5
(WY)	1982	1982	1982	1982	1990	1990	1984	1989	1982	1982	1983	1983

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1982 - 1993
ANNUAL TOTAL	13995.2	9956.2	
ANNUAL MEAN	38.2	27.3	31.0
HIGHEST ANNUAL MEAN			49.7
LOWEST ANNUAL MEAN			13.7
HIGHEST DAILY MEAN	244	May 24	1130
LOWEST DAILY MEAN	7.4	Nov 19	2.3
ANNUAL SEVEN-DAY MINIMUM	7.5	Nov 19	3.1
INSTANTANEOUS PEAK FLOW		219	Aug 6
INSTANTANEOUS PEAK STAGE		2.84	Aug 6
INSTANTANEOUS LOW FLOW		7.3	Nov 25
ANNUAL RUNOFF (AC-FT)	27760	19750	22430
10 PERCENT EXCEEDS	86	55	64
50 PERCENT EXCEEDS	24	21	19
90 PERCENT EXCEEDS	11	11	8.8

e Estimated

a-From rating curve extended above 510 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

b-Site and datum then in use.

## 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 1992 TO SEPTEMBER 1993

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)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV 18...	1110	9.8	1560	8.4	15.5	5.0	--	14.7	128	<10	K11
MAR 10...	1715	35	790	8.4	9.5	6.0	--	11.4	101	27	24
MAY 26...	1645	34	580	8.0	23.5	15.5	--	--	--	11	22
SEP 09...	0930	22	910	8.2	13.0	7.0	606	9.8	102	<10	170

DATE	STREP-TOCOCCEI, KF AGAR (COLS. PER 100 ML) (31673)	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)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV 18...	100	650	180	49	58	1	1.7	147	460	68	0.30
MAR 10...	K5	330	95	22	34	0.8	1.1	123	230	42	0.20
MAY 26...	K99	210	61	15	24	0.7	0.90	82	160	38	0.20
SEP 09...	250	420	120	28	40	0.9	1.8	128	290	59	0.30

DATE	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 TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
NOV 18...	13	919	0.220	0.020	0.030	0.230	0.250	0.010	0.010	<0.20	<0.010
MAR 10...	12	511	--	--	<0.010	--	0.120	--	0.010	0.30	<0.010
MAY 26...	11	360	--	--	<0.010	--	0.210	--	0.030	<0.20	0.020
SEP 09...	13	629	--	--	<0.010	--	0.110	--	0.020	<0.20	0.020

DATE	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	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)	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)
NOV 18...	<0.010	<0.010	1.9	30	4	<2.0	1.4	50	44	<1	<1
MAR 10...	--	<0.010	3.5	20	5	--	--	--	--	--	--
MAY 26...	--	<0.010	2.6	20	14	--	--	--	--	--	--
SEP 09...	--	<0.010	1.8	20	5	--	--	--	--	--	--

## RIO GRANDE BASIN

08387000 RIO RUIDOSO AT HOLLYWOOD, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	CHROMIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CO (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS CU (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS FE (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G) AS PB (01052)	MANGANESE, 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)	SEDIMENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SEDIMENT, SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 18...	<1	<5	<1	900	<10	140	<0.01	<1	12	0.32	66
MAR 10...	--	--	--	--	--	--	--	--	28	2.6	58
MAY 26...	--	--	--	--	--	--	--	--	28	2.5	74
SEP 09...	--	--	--	--	--	--	--	--	12	0.70	94



## RIO GRANDE BASIN

08387600 EAGLE CREEK BELOW SOUTH FORK, NEAR ALTO, NM

LOCATION.--Lat 33°23'33", long 105°43'16", in SE/4SW/4 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 fair except for estimated daily discharges, which are poor. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	e.43	.20	2.3	1.2	3.6	4.6	8.4	2.4	1.0	2.9	5.5
2	.25	e.38	.20	1.7	1.2	3.6	4.3	6.6	2.2	3.7	7.7	4.8
3	.28	e.31	e.20	e1.7	1.2	3.2	4.5	5.1	1.9	2.0	7.5	4.3
4	.23	e.31	e.20	1.7	1.2	2.9	5.1	4.9	1.7	1.3	16	3.8
5	.22	e.30	e.20	1.5	1.1	2.8	5.3	5.3	1.5	.87	12	3.5
6	.23	e.30	e.40	1.4	1.0	2.9	6.0	5.2	1.5	.65	10	3.4
7	.16	e.30	.39	1.3	.97	2.9	5.8	5.1	1.4	.46	8.9	3.7
8	.15	e.30	.54	8.4	1.0	3.0	5.1	4.9	1.4	.33	6.5	3.3
9	.22	e.25	.60	6.4	1.2	3.5	4.7	4.6	1.3	.25	6.0	2.8
10	.20	e.41	.63	4.5	1.2	4.5	4.3	4.2	1.3	.36	5.3	2.5
11	.22	e.40	.64	e4.0	1.1	5.5	4.6	3.9	1.2	.22	4.5	2.3
12	.23	e.39	.56	e3.5	1.0	5.6	5.5	4.1	1.2	1.7	3.8	2.1
13	.21	e.35	.46	3.2	.86	5.3	6.0	4.5	1.1	2.9	3.3	2.1
14	.20	e.25	.39	2.8	.96	4.8	6.1	4.4	1.1	2.7	3.1	2.1
15	.27	e.25	.34	2.4	1.2	4.4	5.3	4.7	1.1	8.3	2.7	1.9
16	.27	e.24	.35	2.1	1.1	4.1	4.6	4.8	1.1	6.1	2.5	1.7
17	.25	e.24	e.34	2.1	1.3	4.3	3.9	4.9	1.0	2.8	2.6	1.6
18	.24	.19	.33	2.2	2.1	5.7	3.7	5.0	1.0	2.1	3.0	1.5
19	.23	.18	.35	3.7	4.3	7.4	4.9	4.4	1.0	1.5	5.4	1.4
20	.27	.21	.31	3.0	14	7.4	5.7	4.5	1.7	1.2	4.0	1.3
21	.24	.38	.30	2.8	10	8.2	5.3	4.1	1.8	1.0	3.3	1.3
22	.36	.28	.30	2.6	7.2	8.2	5.4	4.1	1.6	.90	2.8	1.3
23	.46	.28	.30	2.3	5.7	8.2	7.0	3.6	1.3	.73	2.7	1.4
24	.63	.29	.33	1.9	5.1	8.4	7.4	3.3	1.3	.60	2.6	1.6
25	e.58	.23	.43	1.7	4.4	8.8	6.7	3.1	1.2	.50	4.5	1.6
26	e.20	.22	.36	1.6	4.0	9.2	6.4	2.7	1.1	.41	4.3	1.7
27	e.30	e.16	.35	1.5	3.7	9.0	7.2	2.6	1.0	.38	3.7	1.5
28	e.50	e.10	1.4	1.5	3.6	7.5	8.3	2.8	.87	1.7	3.4	1.3
29	e.80	e.16	2.6	1.4	---	6.3	8.8	2.8	.74	.98	3.4	1.3
30	e.82	e.18	3.0	1.3	---	6.0	8.5	2.8	.73	1.2	4.5	1.2
31	e.62	---	1.6	1.2	---	5.1	---	2.7	---	1.4	7.5	---
TOTAL	10.16	8.27	18.60	79.7	82.89	172.3	171.0	134.1	39.74	50.24	160.4	69.8
MEAN	.33	.28	.60	2.57	2.96	5.56	5.70	4.33	1.32	1.62	5.17	2.33
MAX	.82	.43	3.0	8.4	14	9.2	8.8	8.4	2.4	8.3	16	5.5
MIN	.15	.10	.20	1.2	.86	2.8	3.7	2.6	.73	.22	2.5	1.2
AC-FT	20	16	37	158	164	342	339	266	79	100	318	138

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	MEAN	2.67	2.27	2.27	1.92	2.59	4.30	5.91	4.54	1.57	1.98	4.11	4.22
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	1973	1979	1990	1988	1974	
MIN	.29	.22	.22	.22	.36	.33	.24	.16	.050	.10	1.28	.38	
(WY)	1990	1990	1990	1990	1971	1971	1971	1971	1990	1971	1978	1970	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1970 - 1993

ANNUAL TOTAL	1425.09	997.20	
ANNUAL MEAN	3.89	2.73	3.14
HIGHEST ANNUAL MEAN			8.48
LOWEST ANNUAL MEAN			.39
HIGHEST DAILY MEAN	38	May 25	170
LOWEST DAILY MEAN	.10	Nov 28	.00
ANNUAL SEVEN-DAY MINIMUM	.17	Nov 27	.00
INSTANTANEOUS PEAK FLOW		45	a206
INSTANTANEOUS PEAK STAGE		6.19	b3.79
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (AC-FT)	2830	1980	2280
10 PERCENT EXCEEDS	11	6.1	7.8
50 PERCENT EXCEEDS	1.5	1.7	1.5
90 PERCENT EXCEEDS	.26	.25	.31
e Estimated			

a-From rating curve extended above 2.1 ft<sup>3</sup>/s.  
b-Site and datum then in use.

## 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	8.1	31	43	52	42	27	67	20	.00	.00	47
2	.00	14	31	47	52	35	29	72	16	.00	.00	36
3	.00	18	30	48	53	29	26	63	13	.00	.00	29
4	.00	15	30	47	53	32	22	55	12	.00	56	25
5	.00	15	36	49	56	37	28	43	11	.00	68	26
6	.00	15	37	48	55	44	33	36	9.1	.00	55	27
7	.00	16	35	48	54	47	33	32	8.6	.00	86	34
8	.00	18	35	46	56	39	18	28	2.1	.00	77	22
9	.00	20	36	53	55	25	22	29	.78	.00	59	21
10	.00	19	36	61	54	20	29	33	.06	.00	49	15
11	.00	15	36	61	54	20	32	31	.00	.00	39	11
12	.00	16	36	68	53	26	31	29	.00	.00	29	11
13	.00	17	36	69	51	33	33	29	.00	.00	22	12
14	.00	14	36	66	53	29	e40	29	.00	.00	24	9.4
15	.00	14	36	64	51	31	56	28	.00	8.6	21	8.4
16	.00	16	36	62	56	29	47	38	.00	.97	57	8.0
17	.00	20	36	62	54	24	40	41	.00	5.8	122	6.6
18	.00	20	36	60	e48	23	41	38	.00	.45	42	5.6
19	.00	20	36	62	43	29	35	35	.00	.54	43	5.4
20	.00	15	36	74	41	34	40	34	.00	.00	59	5.0
21	11	16	37	70	59	43	46	33	.00	1.2	58	4.9
22	52	27	37	66	65	46	43	36	.00	6.5	56	3.6
23	17	25	37	61	57	44	36	38	.00	1.8	52	2.7
24	11	19	37	59	54	44	53	38	.00	.00	41	40
25	13	19	37	58	41	42	63	35	.00	.12	32	44
26	16	21	39	57	e36	54	51	31	.00	.09	31	29
27	10	21	39	54	36	66	43	23	.00	.00	24	28
28	9.5	22	39	54	38	87	46	22	.00	.00	24	21
29	10	32	39	52	---	66	58	23	.00	.00	36	17
30	8.2	32	38	52	---	41	72	23	.00	.00	49	11
31	8.2	---	41	53	---	38	---	21	---	.00	38	---
TOTAL	165.90	559.1	1117	1774	1430	1199	1173	1113	92.64	26.07	1349.00	565.6
MEAN	5.35	18.6	36.0	57.2	51.1	38.7	39.1	35.9	3.09	.84	43.5	18.9
MAX	52	32	41	74	65	87	72	72	20	8.6	122	47
MIN	.00	8.1	30	43	36	20	18	21	.00	.00	.00	2.7
AC-FT	329	1110	2220	3520	2640	2360	2330	2210	184	52	2680	1120

## 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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1940 - 1993

ANNUAL TOTAL	20437.30	10564.31	
ANNUAL MEAN	55.8	28.9	26.5
HIGHEST ANNUAL MEAN			181
LOWEST ANNUAL MEAN			1.30
HIGHEST DAILY MEAN	414	May 25	122
LOWEST DAILY MEAN	.00	Jul 4	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 9	.00
INSTANTANEOUS PEAK FLOW			845
INSTANTANEOUS PEAK STAGE			13.64
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (AC-FT)	40540	20950	19230
10 PERCENT EXCEEDS	119	57	67
50 PERCENT EXCEEDS	37	30	.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 NW¼SE¼NE¼sec.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, no storage during year; Rocky Arroyo Reservoir, no storage during year; no contents both reservoirs most of time.

## RIO GRANDE BASIN

08390800 RIO HONDO BELOW DIAMOND A DAM, NEAR ROSWELL, NM

LOCATION.--Lat 33°18'05", long 104°43'12", in NE¼SE¼NE¼ sec.4, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, on left bank, 500 ft 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	25	38	43	37	19	32	.20	.00	.00	24
2	.00	.00	24	41	44	32	19	29	.02	.00	.00	18
3	.00	6.0	25	40	45	23	16	27	.00	.00	.00	17
4	.00	9.3	24	39	46	25	17	18	.00	.00	18	11
5	.00	7.7	32	42	47	28	23	14	.00	.00	22	9.7
6	.00	6.9	36	42	47	38	22	5.9	.00	.00	24	16
7	.00	7.2	36	39	46	41	26	5.0	.00	.00	24	18
8	.00	8.2	34	37	47	34	33	1.9	.00	.00	38	12
9	.00	11	32	42	45	20	30	5.1	.00	.00	22	3.4
10	.00	8.0	32	53	45	15	25	10	.00	.00	10	2.4
11	.00	6.2	31	55	45	10	24	9.2	.00	.00	5.7	.00
12	.00	5.3	30	58	43	16	26	9.6	.00	.00	.49	.00
13	.00	7.6	30	60	43	24	25	9.7	.00	.00	.00	.00
14	.00	6.0	33	58	45	21	41	6.4	.00	.00	.00	.00
15	.00	4.0	34	56	44	23	39	4.1	.00	.00	.00	.00
16	.00	8.3	33	54	48	17	32	8.9	.00	.00	.00	.00
17	.00	9.9	33	52	47	9.7	26	13	.00	.00	67	.00
18	.00	8.8	33	51	42	6.4	23	9.2	.00	.00	25	.00
19	.00	8.9	32	54	36	9.7	20	8.0	.00	.00	16	.00
20	.00	7.4	32	60	32	15	21	6.7	.00	.00	34	.00
21	.00	6.1	34	59	45	22	29	5.9	.00	.00	35	.00
22	9.0	17	34	56	56	29	22	7.3	.00	.00	35	.00
23	9.7	21	32	53	52	23	18	7.8	.00	.00	28	.00
24	3.8	14	33	51	48	25	20	9.0	.00	.00	18	.17
25	2.1	12	35	50	37	19	32	6.9	.00	.00	8.9	36
26	3.5	15	35	49	28	29	24	5.5	.00	.00	8.6	14
27	2.5	16	34	46	31	38	15	.87	.00	.00	3.0	14
28	.00	17	32	45	33	57	15	.00	.00	.00	2.1	7.7
29	.00	27	31	43	---	52	20	.79	.00	.00	7.0	2.9
30	.00	27	30	44	---	30	32	.85	.00	.00	25	.53
31	.00	---	33	44	---	29	---	.14	---	.00	17	---
TOTAL	30.60	308.80	984	1511	1210	797.8	734	277.75	0.22	0.00	493.79	206.80
MEAN	.99	10.3	31.7	48.7	43.2	25.7	24.5	8.96	.007	.000	15.9	6.89
MAX	9.7	27	36	60	56	57	41	32	.20	.00	67	36
MIN	.00	.00	24	37	28	6.4	15	.00	.00	.00	.00	.00
AC-FT	61	613	1950	3000	2400	1580	1460	551	.4	.00	979	410

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

	MEAN	15.8	12.6	15.6	17.5	15.8	16.3	23.7	17.8	9.35	8.03	26.8	28.4
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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1964 - 1993

ANNUAL TOTAL	15863.58	6554.76	
ANNUAL MEAN	43.3	18.0	17.3
HIGHEST ANNUAL MEAN			85.6
LOWEST ANNUAL MEAN			.24
HIGHEST DAILY MEAN	277	May 31	459
LOWEST DAILY MEAN	.00	May 25	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 9	.00
INSTANTANEOUS PEAK FLOW			206
INSTANTANEOUS PEAK STAGE			3.20
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (AC-FT)	31470	13000	12530
10 PERCENT EXCEEDS	100	45	61
50 PERCENT EXCEEDS	33	14	.00
90 PERCENT EXCEEDS	.00	.00	.00

## RIO GRANDE BASIN

08393500 RIO HONDO AT ROSWELL, NM

LOCATION.--Lat 33°22'19", long 104°32'42", in NE¼SE¼ sec.7, T.11 S., R.24 E., Chaves County, Hydrologic Unit 13060008, on left bank, 0.3 mi 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 fair except for estimated daily discharges, which are 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	e7.6	28	18	7.5	1.3	6.4	.00	.00	.00	e5.0
2	.00	.00	12	32	17	e3.7	.00	5.2	.00	.00	.00	e1.0
3	.00	.00	12	34	21	e3.0	.00	5.9	.00	.00	.00	e.00
4	.00	.00	13	33	21	e3.2	.00	3.0	.00	.00	.13	e.00
5	.00	.00	22	37	21	e3.3	.00	2.6	.00	.00	3.8	e.00
6	.00	.00	51	38	23	e6.2	.39	.66	.00	.00	6.4	e.00
7	.00	.00	31	31	21	e10	3.1	.00	.00	.00	4.5	e.00
8	.00	.00	30	19	21	e8.2	5.1	.00	.00	.00	9.6	.00
9	.00	2.4	27	17	21	5.4	2.7	.00	.00	.00	11	.00
10	.00	e.80	24	48	20	.98	.48	.00	.00	.00	3.9	.00
11	.00	.00	21	48	20	.47	6.1	.00	.00	.00	.08	.00
12	.00	.00	20	42	20	.23	e5.8	.00	.00	.00	.00	.00
13	.00	.00	20	55	17	2.3	e3.0	.00	.00	.00	.00	.00
14	.00	.00	22	52	21	5.2	e1.0	.00	.00	.01	.00	.00
15	.00	.00	22	50	18	5.0	7.9	.00	.00	.00	.00	.00
16	.00	.00	20	46	19	1.2	4.3	.00	.00	.00	.00	.00
17	.00	.00	23	44	17	.00	3.2	.00	.00	.00	15	.00
18	.00	.00	20	45	15	.00	3.8	.00	.00	.00	e10	.00
19	.00	.00	18	47	11	.00	3.3	.00	.00	.00	e5.0	.00
20	.00	.00	17	53	9.1	.00	2.0	.00	.00	.00	e10	.00
21	.00	.00	19	55	14	.00	5.9	.00	.00	.00	e8.0	.00
22	29	3.4	21	52	20	.65	6.3	.00	.00	.00	e8.0	.00
23	12	14	20	39	15	1.5	3.2	.00	.00	.00	e5.0	.00
24	3.1	6.0	21	27	12	.07	1.7	.00	.00	.00	e1.0	.00
25	.00	2.6	25	27	11	.19	6.8	.00	.00	.00	e.00	6.0
26	.00	e.00	26	25	5.8	.00	5.4	.00	.00	.00	e.00	7.8
27	.00	e.00	26	21	4.7	7.8	2.5	.00	.00	.00	e.00	2.3
28	.00	e.00	23	24	5.1	13	.33	.00	.00	.00	e.00	.57
29	.00	e2.2	19	23	---	18	.58	.00	.00	.00	e.00	.00
30	.00	e4.3	18	22	---	7.7	5.1	.00	.00	.00	e6.0	.00
31	.00	---	20	22	---	1.9	---	.00	---	.00	e1.0	---
TOTAL	44.10	35.70	670.6	1136	458.7	116.89	91.28	23.76	0.00	0.01	108.41	22.67
MEAN	1.42	1.19	21.6	36.6	16.4	3.77	3.04	.77	.000	.000	3.50	.76
MAX	29	14	51	55	23	18	7.9	6.4	.00	.01	15	7.8
MIN	.00	.00	7.6	17	4.7	.00	.00	.00	.00	.00	.00	.00
AC-FT	87	71	1330	2250	910	232	181	47	.00	.02	215	45

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1993, BY WATER YEAR (WY)

	MEAN	22.5	13.1	26.3	27.4	22.8	20.7	26.7	23.0	12.7	13.9	31.2	24.9
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	.000
(WY)	1982	1982	1982	1982	1982	1981	1981	1982	1982	1982	1983	1992	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1981 - 1993

ANNUAL TOTAL	12135.62	2708.12	
ANNUAL MEAN	33.2	7.42	22.8
HIGHEST ANNUAL MEAN			74.5
LOWEST ANNUAL MEAN			2.46
HIGHEST DAILY MEAN	235	May 31	363
LOWEST DAILY MEAN	.00	Jun 23	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 1	.00
INSTANTANEOUS PEAK FLOW			56
INSTANTANEOUS PEAK STAGE			3.69
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (AC-FT)	24070	5370	16510
10 PERCENT EXCEEDS	97	23	81
50 PERCENT EXCEEDS	19	.01	.00
90 PERCENT EXCEEDS	.00	.00	.00
e Estimated			

a-From rating curve extended above 360 ft/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 SW¼ 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 fair except for estimated daily discharges, which are poor. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	708	149	79	108	117	82	62	152	193	273	157	52
2	590	140	83	112	114	84	67	156	196	188	123	59
3	450	135	83	123	110	87	57	158	190	147	99	58
4	360	140	82	125	108	81	52	154	186	115	212	49
5	274	140	87	127	109	74	45	150	187	92	1140	50
6	235	129	90	129	107	69	39	147	197	61	413	54
7	199	117	87	134	107	58	35	140	212	49	413	52
8	177	114	89	134	107	56	158	153	210	80	325	75
9	171	110	99	126	108	55	295	191	180	127	281	e178
10	165	107	108	122	108	55	386	167	160	143	215	e123
11	152	105	113	128	104	58	715	130	159	509	147	105
12	153	99	119	154	101	55	886	122	134	597	113	123
13	141	96	122	156	101	54	902	118	116	687	102	104
14	141	86	114	153	99	56	967	117	105	806	90	87
15	133	81	112	162	99	60	1070	116	89	1310	82	81
16	120	78	108	156	101	60	1020	101	72	1710	75	100
17	111	77	110	152	99	58	1030	100	64	1310	72	117
18	113	75	108	146	98	60	1040	92	50	947	67	115
19	116	74	107	146	102	59	1010	90	51	841	67	104
20	284	73	106	162	102	60	996	83	45	960	68	97
21	775	72	106	163	96	61	748	84	49	1720	91	83
22	806	73	105	168	87	64	567	84	40	1800	90	73
23	819	76	108	162	88	59	435	85	43	1030	95	e63
24	703	78	109	154	95	60	308	95	47	905	76	61
25	584	79	108	136	90	55	252	137	28	943	65	67
26	400	81	108	127	86	54	196	145	25	964	57	459
27	283	75	111	124	82	54	172	146	17	967	51	412
28	227	73	113	122	81	59	160	122	306	929	43	290
29	200	73	115	118	---	65	149	121	612	609	48	211
30	180	74	110	118	---	68	142	125	417	385	52	186
31	164	---	108	116	---	84	---	160	---	210	47	---
TOTAL	9934	2879	3207	4263	2806	1964	13961	3941	4380	21414	4976	3688
MEAN	320	96.0	103	138	100	63.4	465	127	146	691	161	123
MAX	819	149	122	166	117	87	1070	191	612	1000	1140	452
MIN	111	72	79	108	81	54	35	83	17	49	43	49
AC-FT	19700	5710	6360	8460	5570	3900	27690	7820	8690	42470	9870	7320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

	MEAN	249	123	96.3	95.1	83.3	174	237	322	312	347	262	381
MAX	3701	983	546	451	446	682	1308	3673	2436	1521	913	5407	
(WY)	1942	1942	1942	1942	1942	1941	1942	1941	1941	1960	1941	1941	
MIN	3.89	32.0	29.9	34.5	26.6	16.6	7.35	11.9	4.78	1.02	.42	1.30	
(WY)	1965	1968	1967	1965	1965	1967	1967	1975	1977	1954	1964	1964	

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1938 - 1993
ANNUAL TOTAL	84887	77413	
ANNUAL MEAN	232	212	224
HIGHEST ANNUAL MEAN			1314
LOWEST ANNUAL MEAN			62.2
HIGHEST DAILY MEAN	1180	1800	39800
LOWEST DAILY MEAN	18	17	.00
ANNUAL SEVEN-DAY MINIMUM	32	36	.10
INSTANTANEOUS PEAK FLOW		2190	a49600
INSTANTANEOUS PEAK STAGE		8.47	21.90
INSTANTANEOUS LOW FLOW		13	.00
ANNUAL RUNOFF (AC-FT)	168400	153500	162300
10 PERCENT EXCEEDS	639	593	658
50 PERCENT EXCEEDS	134	113	69
90 PERCENT EXCEEDS	73	58	14

e Estimated

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 1953, 1954, 1962, 1964.

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."

REMARKS.--Water-discharge records good 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)												
MEAN	255	135	108	107	94.1	182	237	368	371	345	255	379
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1937 - 1993	
ANNUAL TOTAL	88831		76604			
ANNUAL MEAN	243		210		237	
HIGHEST ANNUAL MEAN					1378	1941
LOWEST ANNUAL MEAN					64.8	1964
HIGHEST DAILY MEAN	1150	Jun 2	1430	Jul 22	44300	Sep 25 1941
LOWEST DAILY MEAN	30	Jul 23	40	Jul 8	.00	Aug 14 1946
ANNUAL SEVEN-DAY MINIMUM	42	Jul 17	54	Apr 2	.00	Aug 14 1946
INSTANTANEOUS PEAK FLOW			1490	Jul 22	a51500	May 30 1937
INSTANTANEOUS PEAK STAGE			10.10	Jul 22	b14.70	May 30 1937
INSTANTANEOUS LOW FLOW			34	Apr 8	.00	Oct 1 1934
ANNUAL RUNOFF (AC-FT)	176200		151900		171600	
10 PERCENT EXCEEDS	664		604		654	
50 PERCENT EXCEEDS	134		110		75	
90 PERCENT EXCEEDS	79		64		15	

a-From a slope-area measurement made at a point 15 mi upstream.  
b-Site and datum then in use.

## RIO GRANDE BASIN

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1937 to September 1993 (discontinued).

WATER TEMPERATURE: April 1949 to September 1993 (discontinued).

SUSPENDED-SEDIMENT DISCHARGE: January 1949 to September 1993 (discontinued).

REMARKS--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: Maximum daily, 28,800 microsiemens, June 24, 1977; minimum daily, 111 microsiemens, Aug. 31, 1982.

WATER TEMPERATURE: Maximum daily, 36.0 °C, July 27, 1966, July 25, 1969; minimum daily, 0.0 °C on many days during winter months of most years.

SEDIMENT CONCENTRATION: Maximum daily mean, 21,300 mg/L, Aug. 1, 1962; minimum daily mean, 0 mg/L on several days in 1982, 1984, and 1986.

SEDIMENT LOAD: Maximum daily, 183,000 tons, Sept. 26, 1955; minimum daily, 0 ton on many days during 1953-54, 1957, 1964, 1982, 1984.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 10,600 microsiemens, Mar. 11; minimum daily, 1,340 microsiemens, July 29.

WATER TEMPERATURE: Maximum daily, 34.0 °C, June 28; minimum daily, 1.5 °C, Dec. 6.

SEDIMENT CONCENTRATION: Maximum daily mean, 5,550 mg/L, Sept. 27; minimum daily mean, 4 mg/L, Mar. 7.

SEDIMENT LOAD: Maximum daily, 12,100 tons, July 17; minimum daily, .77 tons, Mar. 7.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 09...	1145	117	5840	8.0	25.5	9.0	684	14.8	146	23	34
MAR 15...	1000	66	8100	8.1	19.0	9.0	685	10.2	101	74	K9
APR 07...	1520	46	7900	8.4	24.0	19.0	672	8.2	103	--	43
JUN 08...	1100	210	2030	8.0	30.0	20.5	673	8.4	107	12	140
AUG 11...	1345	238	3050	8.0	40.5	28.0	682	7.0	101	36	270

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 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)
NOV 09...	42	1400	1300	460	70	580	7	5.5	204	0	167
MAR 15...	K8	2500	2300	590	240	1300	11	9.3	192	0	157
APR 07...	K3	2400	--	620	200	--	--	9.6	--	--	--
JUN 08...	>2500	950	870	290	56	190	3	3.6	98	0	80
AUG 11...	400	1000	710	290	66	300	4	5.4	354	0	290

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 TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV 09...	161	1400	930	0.60	15	3570	1.32	0.090	0.080	1.40
MAR 15...	157	2100	2300	4.7	8.8	6650	0.140	--	0.020	--
APR 07...	102	73	1800	0.80	7.7	--	--	--	<0.010	--
JUN 08...	80	960	310	0.60	11	1870	--	--	<0.010	--
AUG 11...	103	800	420	0.50	12	2070	0.690	--	0.020	--



RIO GRANDE BASIN

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	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)
NOV 09...	1.40	0.220	0.210	0.60	0.140	0.120	0.100	2.8	290	30
MAR 15...	0.160	--	0.050	0.30	<0.010	--	<0.010	3.5	520	20
APR 07...	<0.050	--	0.020	0.40	0.030	--	<0.010	4.8	520	20
JUN 08...	<0.050	--	0.030	<0.20	0.020	--	<0.010	5.3	140	<10
AUG 11...	0.710	--	0.050	1.1	0.690	--	0.020	11	230	2800

DATE	TIME	ARSENIC	ARSENIC	CADMIUM	CADMIUM	CHRO-	CHRO-	COPPER,	COPPER,	LEAD,	LEAD,
		TOTAL (UG/L AS AS) (01002)	DIS- SOLVED (UG/L AS AS) (01000)	TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	DIS- SOLVED (UG/L AS CD) (01025)	M-IUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	M-IUM, DIS- SOLVED (UG/L AS CR) (01030)	TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	DIS- SOLVED (UG/L AS CU) (01040)	TOTAL RECOV- ERABLE (UG/L AS FB) (01051)	DIS- SOLVED (UG/L AS FB) (01049)
NOV 09...	1145	1	1	--	<1.0	31	1	--	2	--	<1
AUG 11...	1345	3	2	<1	<1.0	10	3	12	6	7	8

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)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	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)
NOV 09...	0.10	<0.1	1	1	--	<10	<2.0	1.2	50	46
AUG 11...	0.10	0.1	1	<1	30	20	--	--	--	--

[illegible]

## RIO GRANDE BASIN

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV							
09...	1145	117	5840	9.0	92	29	78
MAR							
15...	1000	66	8100	9.0	690	123	98
APR							
07...	1520	46	7900	19.0	75	9.3	80
JUN							
08...	1100	210	2030	20.5	279	158	74
AUG							
11...	1345	238	3050	28.0	1320	848	96



RIO GRANDE BASIN  
08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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	2270	4760	126	53	10	2.1	13	3.7	12	3.8	5	1.1
2	1850	3470	88	35	8	1.7	9	2.5	13	4.1	6	1.3
3	1230	1910	85	32	8	1.8	10	3.0	13	4.0	9	2.1
4	1050	1250	71	28	7	1.5	9	2.8	36	10	11	2.6
5	769	635	76	30	11	2.5	10	3.2	11	3.3	9	2.0
6	577	377	231	93	10	2.3	10	3.2	11	3.2	6	1.2
7	417	231	58	21	13	2.9	13	4.3	10	2.9	4	1.77
8	285	123	48	16	9	2.0	18	6.0	12	3.5	11	1.9
9	259	101	39	13	15	3.5	12	3.9	13	3.8	21	3.5
10	237	86	42	12	27	6.7	10	2.9	14	4.0	16	2.6
11	248	87	764	223	16	4.4	10	3.0	13	3.7	7	1.2
12	185	60	27	7.6	15	4.2	13	4.4	10	2.7	9	1.6
13	155	48	23	6.2	20	6.0	15	5.2	8	2.2	6	1.0
14	125	36	15	3.9	36	10	17	5.9	9	2.4	8	1.3
15	103	30	21	4.9	16	4.4	14	5.1	11	3.0	7	1.2
16	56	16	16	3.7	14	3.8	12	4.3	8	2.1	15	2.8
17	52	14	32	7.2	14	3.8	19	6.7	7	1.9	9	1.6
18	54	15	30	6.6	11	3.0	19	6.6	8	2.1	6	1.1
19	62	19	13	2.8	15	4.1	26	9.8	6	1.6	10	1.8
20	49	15	21	4.5	14	3.8	23	8.8	10	2.6	18	3.1
21	2020	3300	20	4.3	13	3.5	18	7.7	12	3.1	9	1.6
22	2140	3950	12	2.5	12	3.2	16	6.7	9	2.2	10	1.8
23	1580	3200	52	11	12	3.2	24	10	8	1.9	14	2.6
24	1600	3110	14	3.0	11	3.0	18	7.2	7	1.7	9	1.6
25	1730	3240	18	3.9	14	3.8	16	6.2	7	1.7	12	2.1
26	990	1420	12	2.7	9	2.5	15	5.1	8	1.9	13	2.1
27	416	340	9	2.0	10	2.8	18	6.1	8	1.9	12	1.9
28	275	174	7	1.5	14	4.0	16	5.4	6	1.4	12	1.9
29	238	121	8	1.6	11	3.2	15	4.9	---	---	17	3.0
30	196	96	6	1.2	12	3.5	14	4.5	---	---	15	2.7
31	138	63	---	---	11	3.2	12	3.8	---	---	15	3.1
TOTAL	---	32297	---	637.1	---	110.4	---	162.9	---	82.7	---	60.17
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	18	3.8	102	42	96	52	728	586	534	464	27	4.7
2	16	2.8	106	47	294	167	509	256	351	252	26	4.8
3	25	4.6	105	45	339	189	239	90	318	183	22	4.3
4	19	2.9	100	42	189	99	186	54	2090	1100	22	3.9
5	20	2.9	103	43	177	93	73	18	2890	6740	104	17
6	34	4.4	90	36	188	99	42	7.3	4640	8820	33	5.3
7	32	3.6	88	34	191	109	46	6.1	2420	3200	29	4.9
8	81	10	86	34	207	118	68	7.3	2110	2740	34	5.5
9	152	59	176	82	205	112	76	21	1600	1590	101	32
10	93	68	182	91	163	75	42	14	1810	1740	101	36
11	803	1470	130	51	127	57	1110	937	1420	971	60	17
12	1310	2790	113	40	115	49	1700	2480	892	458	240	75
13	1650	3880	108	38	98	35	1720	2770	636	288	438	135
14	1200	2990	87	30	66	22	1260	2110	428	176	128	32
15	1110	2960	89	31	53	16	1280	2770	300	114	48	11
16	1130	2970	106	34	43	11	2130	7120	201	72	76	17
17	1780	4590	72	22	48	11	3440	12100	100	33	72	20
18	1600	4190	65	19	40	8.3	3700	10600	48	15	76	22
19	1490	3880	67	19	53	9.2	3250	8390	48	14	59	15
20	1930	4980	58	16	35	6.3	2330	5900	38	10	53	13
21	1220	2390	56	16	30	5.1	2150	6670	47	13	43	9.8
22	722	1160	48	13	19	3.4	2120	8130	40	12	40	8.2
23	694	821	49	13	20	3.0	3160	9540	59	18	40	7.7
24	370	314	57	17	28	4.3	3540	9400	80	23	40	7.1
25	338	242	83	30	22	3.6	1800	4610	82	20	58	10
26	353	221	111	48	11	1.5	2200	5690	24	5.2	2530	1820
27	224	121	100	45	15	1.8	1710	4340	24	4.7	5550	6490
28	162	78	83	34	94	84	1270	3220	23	4.2	3270	2920
29	142	64	80	29	1320	1930	1780	4080	21	3.5	1970	1040
30	112	47	78	30	1310	1740	1070	1900	23	4.3	1150	501
31	---	---	72	29	---	---	786	966	39	7.5	---	---
TOTAL	---	40320.0	---	1100	---	5114.5	---	114782.7	---	29095.4	---	13289.2

TOTAL LOAD FOR YEAR: 237052.07 TONS.

## 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. 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>3</sup>/s, for peak of Oct. 6 or 7, 1954.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	DAILY MEAN VALUES											
	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 1951 - 1993, BY WATER YEAR (WY)

MEAN	5.80	1.74	.000	.000	.000	.000	.020	1.37	14.0	9.98	17.9	12.1
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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1951 - 1993

ANNUAL TOTAL	95.37											
ANNUAL MEAN	.26											
HIGHEST ANNUAL MEAN									5.37			
LOWEST ANNUAL MEAN									43.4			1986
HIGHEST DAILY MEAN	93	Jun 8							.000			1959
LOWEST DAILY MEAN	.00	Jan 1					.00	Oct 1	9490		Aug 23	1966
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1					.00	Oct 1	.00		Apr 1	1951
INSTANTANEOUS PEAK FLOW									.00		Apr 1	1951
INSTANTANEOUS PEAK STAGE									a29800		Aug 23	1966
ANNUAL RUNOFF (AC-FT)	189								b16.40		Aug 23	1966
10 PERCENT EXCEEDS	.00						.00		3890			
50 PERCENT EXCEEDS	.00						.00		.00			
90 PERCENT EXCEEDS	.00						.00		.00			

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.

LOCATION.--Lat 32°41'22", long 104°17'53", in NW¼SE¼ sec.5, T.19 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on left bank 3.0 mi upstream from high-water line of former Lake McMillan, 6.0 mi northeast of Lakewood, 12 mi southeast of Artesia, and at mile 492.1.

GAGE.--Water-stage recorder. Elevation of gage is 3,268.53 ft above National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). Prior to Mar. 23, 1955, at site 3.0 mi downstream at datum 7.83 ft lower. Mar. 23, 1955 to Sept. 30, 1963, at present site at datum 2.00 ft higher.

REMARKS.--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 170,000 acres, 1959 determination, upstream from station. Above about 1,500 ft<sup>3</sup>/s, flow will begin bypassing station and depending on the magnitude and duration of flow, may reach Lake McMillan (station 08400500). Several observations of water temperature were made during the year. No flow at times.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	718	151	70	96	107	80	71	144	184	338	252	e54
2	610	142	74	97	106	78	57	151	213	230	201	e56
3	487	142	79	101	105	80	58	156	218	162	171	e58
4	364	139	79	109	101	81	50	155	203	123	152	e56
5	244	140	81	110	100	77	45	150	203	97	376	e50
6	175	143	82	112	103	72	40	156	202	74	358	e50
7	146	134	84	114	101	67	34	168	207	e50	274	e53
8	126	123	83	117	101	59	30	161	216	e35	281	e52
9	116	116	86	115	101	58	157	180	215	64	223	e90
10	113	107	92	107	100	56	245	208	170	104	239	e135
11	109	102	99	106	99	55	514	176	158	187	196	101
12	102	101	102	112	98	58	714	143	154	449	174	93
13	100	98	106	125	94	57	818	130	123	488	142	105
14	94	93	110	127	94	54	852	124	111	512	129	90
15	94	86	102	126	95	55	900	125	96	609	115	78
16	87	81	101	131	93	58	915	118	83	1180	111	72
17	82	78	97	128	95	60	886	106	71	1360	110	86
18	79	76	98	124	93	58	895	103	64	1070	105	100
19	81	74	97	133	93	60	885	97	50	891	98	97
20	81	74	96	134	96	58	883	94	50	841	90	89
21	577	72	97	148	91	59	781	90	47	1050	79	81
22	757	72	97	147	88	59	642	90	52	1400	95	69
23	839	72	94	147	83	61	484	89	40	1200	91	60
24	790	71	95	141	82	58	359	89	42	929	89	55
25	726	74	96	138	86	56	281	104	46	880	66	50
26	529	75	96	124	84	50	228	144	34	890	e60	169
27	309	77	98	121	81	49	188	152	27	874	e54	427
28	223	74	100	118	79	49	172	148	21	863	e52	286
29	176	72	102	115	---	51	161	123	314	763	e52	183
30	166	71	102	109	---	55	151	126	485	560	e54	158
31	161	---	98	108	---	58	---	130	---	386	e56	---
TOTAL	9260	2930	2893	3740	2649	1886	12496	4130	4099	18659	4545	3103
MEAN	299	97.7	93.3	121	94.6	60.8	417	133	137	602	147	103
MAX	839	151	110	148	107	81	915	208	485	1400	376	427
MIN	79	71	70	96	79	49	30	89	21	35	52	50
AC-FT	18370	5810	5740	7420	5250	3740	24790	8190	8130	37010	9020	6150

MEAN	132	83.5	78.0	78.6	70.5	145	162	250	218	280	234	195
MAX	695	306	272	307	291	417	489	1220	547	886	600	800
(WY)	1955	1987	1987	1987	1987	1987	1987	1973	1992	1960	1966	1988
MIN	.000	26.1	29.2	31.4	25.3	19.2	8.12	15.3	1.86	.041	.000	.000
(WY)	1965	1968	1965	1965	1972	1971	1967	1964	1977	1990	1964	1964

ANNUAL TOTAL	86058		70390				
ANNUAL MEAN	235		193			161	
HIGHEST ANNUAL MEAN						353	1987
LOWEST ANNUAL MEAN						64.1	1964
HIGHEST DAILY MEAN	1150	Jun 2	1400	Jul 22	2920		Jul 12 1960
LOWEST DAILY MEAN	24	Jul 23	21	Jun 28	.00		Aug 21 1951
ANNUAL SEVEN-DAY MINIMUM	36	Jul 18	37	Jun 22	.00		Jun 29 1953
ANNUAL RUNOFF (AC-FT)	170700		139600		116400		
10 PERCENT EXCEEDS	667		513		568		
50 PERCENT EXCEEDS	131		102		57		
90 PERCENT EXCEEDS	74		56		9.2		

e Estimated

LOCATION.--Lat 32°40'20", long 104°22'07", in SW1/4NW1/4 sec.10, T.19 S., R.26 E., Eddy County, Hydrologic Unit 13060011, in left side of channel 360 ft downstream from ford on Lakewood-Dayton road, 1.9 mi downstream from U.S. Highway 285, 2.8 mi north of Lakewood, 3.8 mi upstream from mouth, and 11.5 mi south of Artesia. Mouth at Pecos River mile 490.6.

REVISED RECORDS.--WDR NM-68-1: 1967.

GAGE.--Water-stage recorder. Elevation of gage is 3,299.14 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1951 to June 19, 1962, at site 1.8 mi upstream at datum 30.61 ft higher. June 19, 1962 to Oct. 12, 1966, at site 410 ft upstream at datum 6.08 ft higher.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

[illegible]

MEAN	1.94	.000	.000	.000	.000	.000	.001	.94	10.3	3.18	18.2	11.0
MAX	73.0	.003	.000	.000	.000	.000	.047	35.2	403	78.0	488	424
(WY)	1955	1959	1952	1952	1952	1952	1982	1979	1986	1968	1966	1974
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1952	1952	1952	1952	1952	1952	1952	1952	1953	1954	1952	1952

ANNUAL MEAN						3.90		
HIGHEST ANNUAL MEAN						41.6		1966
LOWEST ANNUAL MEAN						.000		1969
HIGHEST DAILY MEAN						13000	Aug 23	1966
LOWEST DAILY MEAN	.00	Jan 1		.00	Oct 1	.00	Oct 1	1951
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1		.00	Oct 1	.00	Oct 1	1951
INSTANTANEOUS PEAK FLOW						a29300	Aug 23	1966
INSTANTANEOUS PEAK STAGE						b19.90	Aug 23	1966
ANNUAL RUNOFF (AC-FT)						2820		
10 PERCENT EXCEEDS	.00			.00		.00		
50 PERCENT EXCEEDS	.00			.00		.00		
90 PERCENT EXCEEDS	.00			.00		.00		

a-From rating curve extended above 5,000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

b-From floodmarks, present datum.

## RIO GRANDE BASIN

08401200 SOUTH SEVEN RIVERS NEAR LAKEWOOD, NM

LOCATION.--Lat 32°35'19", long 104°25'17", in SE¼SE¼NW¼ sec.7, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on downstream side of center pier of bridge on U.S. Highway 285, 0.4 mi south of Seven Rivers, 2.6 mi upstream from mouth, and 4.0 mi southwest of Lakewood. Mouth at Pecos River mile 480.9.

DRAINAGE AREA.--220 mi<sup>2</sup>, approximately.

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

GAGE.--Water-stage recorder. Elevation of gage is 3,280 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 8, 1965, at site 400 ft upstream at datum 0.52 ft higher.

REMARKS.--Records good. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
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
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.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	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 1964 - 1993, BY WATER YEAR (WY)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
MEAN	1.01	.068	.000	.000	.000	.000	.006	2.96	10.5	2.00	19.1	13.2
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

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1964 - 1993

ANNUAL TOTAL	32.00		
ANNUAL MEAN	.087		
HIGHEST ANNUAL MEAN		4.09	
LOWEST ANNUAL MEAN		31.5	1966
HIGHEST DAILY MEAN	22	.000	1989
LOWEST DAILY MEAN	.00	9300	Aug 23 1966
ANNUAL SEVEN-DAY MINIMUM	.00	.00	Oct 1 1963
INSTANTANEOUS PEAK FLOW	.00	.00	Oct 1 1963
INSTANTANEOUS PEAK STAGE		a25500	May 30 1965
INSTANTANEOUS LOW FLOW		b20.00	May 30 1965
ANNUAL RUNOFF (AC-FT)	63	.00	Oct 1 1963
10 PERCENT EXCEEDS	.00	2960	
50 PERCENT EXCEEDS	.00	.00	
90 PERCENT EXCEEDS	.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 U.S. 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 U.S. 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, 33,330 acre-ft, May 1, elevation, 3,250.54 ft; minimum, 8,910 acre-ft, October 18, elevation, 3,236.23 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 07:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15270	14720	18220	21730	26510	29280	25150	33330	26310	18240	29620	22890
2	16260	14880	18270	21890	26640	29330	24820	33180	26100	18300	29230	22890
3	16990	15090	18320	22020	26740	29440	24570	33250	25950	18390	28870	22890
4	17380	15270	18450	22130	26830	29560	24250	33200	25930	18350	28350	22750
5	17330	15430	18580	22250	26960	29620	23840	33060	25870	18240	27910	22600
6	17170	15610	18680	22440	27070	29650	23560	32960	25780	17940	29050	22290
7	16730	15740	18780	22540	27200	29760	23210	32790	25820	17660	29650	22020
8	15360	15950	18930	22730	27350	29830	22890	32790	25470	17010	29830	21850
9	14090	16080	18930	22950	27460	29860	22440	32180	25030	16480	29990	21430
10	13040	16210	19050	23010	27640	29880	22290	31910	24820	16020	30250	21040
11	11790	16350	19190	23110	27730	29930	22270	31650	24430	15590	30390	20670
12	10640	16450	19310	23260	27820	29950	23110	31240	24290	15360	30320	20310
13	9340	16620	19450	23340	27950	29980	23780	30630	24110	15580	30060	19930
14	9460	16690	19590	23520	27970	29930	24590	30130	23940	15980	29790	19740
15	9180	16790	19750	23720	28110	30040	25360	29830	23380	15740	29350	19370
16	9090	16880	19910	23840	28170	30090	26440	29530	22640	15710	28960	19020
17	9010	16980	19950	24000	28240	30020	27330	29280	22000	16730	28550	18690
18	8910	17110	20110	24150	28330	29900	28370	29030	21410	17690	27930	18490
19	8920	17170	20200	24330	28490	29650	29490	28600	20760	18120	27400	18220
20	8950	17250	20330	24470	28510	29190	30480	28130	20360	18290	26870	18000
21	8980	17350	20490	24720	28760	28680	31570	27750	20020	18370	26440	17710
22	10060	17400	20560	24900	28780	28310	32250	27460	19790	19040	26140	17330
23	11060	17540	20710	25050	28830	27910	32610	27350	19510	21430	25930	16880
24	12040	17640	20760	25320	28890	27600	32760	27400	19100	22950	25660	16650
25	13020	17660	20970	25420	28940	27310	32760	27330	18780	24390	25240	16450
26	13770	17790	21000	25590	29050	27090	32740	27240	18570	25760	24680	16110
27	14310	17870	21120	25800	29120	26920	32830	26790	18220	27110	24250	16310
28	14510	17970	21250	25950	29140	26660	32980	26550	17970	28130	23760	16880
29	14650	18020	21400	26140	---	26530	33080	26420	17750	29050	23260	17230
30	14330	18090	21510	26210	---	26120	33110	26360	18070	29580	22970	17150
31	14470	---	21620	26360	---	25660	---	26360	---	29740	22870	---
MAX	17380	18090	21620	26360	29140	30090	33110	33330	26310	29740	30390	22890
MIN	8910	14720	18220	21730	26510	25660	22270	26360	17750	15360	22870	16110
(†)	3240.82	3243.18	3245.17	3247.52	3248.78	3247.19	3250.45	3247.52	3243.17	3249.04	3245.82	3242.61
(††)	+210	+3620	+3530	+4740	+2780	-3480	+7450	-6750	-8290	+11670	-6870	-5720
CAL YR 1992	MAX 50130	MIN 8910	(††)	+990								
WTR YR 1993	MAX 33330	MIN 8910	(††)	+2890								

(†) 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 (U.S. 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. U.S. Bureau of Reclamation satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	e26	21	19	24	19	261	88	196	242	396	49
2	e120	e24	21	19	24	20	240	100	227	157	409	62
3	e160	e23	21	19	24	20	240	130	195	139	408	88
4	e250	e22	20	20	25	20	239	145	178	138	407	137
5	e290	e22	20	19	25	20	238	145	179	198	405	152
6	e290	e22	20	19	25	20	237	182	180	271	347	189
7	755	22	20	19	25	20	237	230	277	328	272	171
8	888	22	20	19	22	20	236	279	331	345	226	223
9	827	22	20	20	21	20	277	297	332	343	185	286
10	839	22	21	20	21	21	299	296	331	343	168	321
11	849	22	21	20	22	22	199	336	272	405	191	315
12	880	22	22	20	22	22	286	384	237	382	240	299
13	e450	22	21	20	23	21	387	397	237	315	296	269
14	e250	22	21	20	22	22	407	339	301	434	315	252
15	e210	22	20	20	19	22	339	263	399	774	314	249
16	e185	22	21	21	21	51	303	239	432	759	335	250
17	e160	22	21	21	22	76	264	239	429	768	385	250
18	e140	21	21	22	22	175	245	276	429	775	405	249
19	e135	20	20	23	21	231	215	333	331	799	405	214
20	e135	20	21	22	19	281	199	317	254	833	334	229
21	e170	21	20	22	18	306	233	259	237	825	264	290
22	e220	20	20	22	20	269	250	179	238	633	220	312
23	e245	20	20	23	20	248	250	84	237	160	209	270
24	e225	21	19	23	20	214	250	106	237	111	283	246
25	e200	20	19	23	20	193	217	204	201	65	347	213
26	e160	21	20	23	20	165	133	239	180	87	327	194
27	e115	20	19	24	19	146	99	238	153	202	313	132
28	e115	20	20	24	20	146	99	209	162	292	312	94
29	e190	20	20	24	---	208	98	158	250	345	270	153
30	392	20	19	23	---	279	79	140	320	367	188	217
31	e30	---	19	23	---	299	---	141	---	368	79	---
TOTAL	9995	645	628	656	606	3596	7056	6972	7962	12203	9255	6375
MEAN	322	21.5	20.3	21.2	21.6	116	235	225	265	394	299	212
MAX	888	26	22	24	25	306	407	397	432	833	409	321
MIN	30	20	19	19	18	19	79	84	153	65	79	49
AC-FT	19830	1280	1250	1300	1200	7130	14000	13830	15790	24200	16360	12640

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1993, 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
MEAN	128	47.0	55.0	49.6	54.8	67.6	226	212	208	195	191	173										
MAX	322	222	460	297	300	120	307	1058	641	402	299	500										
(WY)	1993	1992	1992	1987	1987	1989	1986	1973	1992	1992	1993	1991										
MIN	22.6	5.92	5.13	8.84	20.6	19.1	136	79.9	66.5	11.3	18.4	50.9										
(WY)	1979	1989	1989	1989	1978	1990	1981	1976	1977	1976	1981	1976										

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1972 - 1993

ANNUAL TOTAL	85250	65949	
ANNUAL MEAN	233	181	139
HIGHEST ANNUAL MEAN			282
LOWEST ANNUAL MEAN			69.5
HIGHEST DAILY MEAN	1200	Jun 3	2050
LOWEST DAILY MEAN	19	Dec 24	.31
ANNUAL SEVEN-DAY MINIMUM	19	Dec 24	.33
INSTANTANEOUS PEAK FLOW			a4160
INSTANTANEOUS PEAK STAGE		8.84	c8.84
INSTANTANEOUS LOW FLOW		16	.29
ANNUAL RUNOFF (AC-FT)	169100	130800	100300
10 PERCENT EXCEEDS	684	367	316
50 PERCENT EXCEEDS	174	162	76
90 PERCENT EXCEEDS	21	20	22

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 1992 TO SEPTEMBER 1993

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 13...	1030	22	4540	8.2	11.5	7.5	695	11.3	105	1400	390	95
JAN 04...	1505	21	6360	7.1	10.5	3.5	691	11.0	94	--	--	--
MAR 16...	1015	37	--	8.0	23.5	9.0	692	10.8	--	2000	500	190
APR 01...	1450	236	6900	8.1	21.5	15.0	678	9.1	104	1700	450	150
JUN 04...	1315	179	4320	8.1	29.0	22.0	676	8.2	108	1500	430	97
AUG 12...	1410	261	2080	7.7	34.0	25.0	679	7.4	102	750	230	42

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 13...	360	4	5.4	124	1300	530	0.60	12	2770	230	30
JAN 04...	--	--	--	--	--	--	--	--	--	--	--
MAR 16...	1000	10	7.1	142	1700	1700	--	9.7	5200	360	<10
APR 01...	740	8	6.6	116	1500	1200	0.80	6.6	4120	320	<10
JUN 04...	410	5	5.6	96	1400	680	1.0	8.3	3090	220	<10
AUG 12...	170	3	3.8	73	700	250	0.50	10	1450	110	<10

## RIO GRANDE BASIN

08401900 ROCKY ARROYO AT HIGHWAY BRIDGE, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'23", long 104°22'28", in SE¼SE¼ sec.3, T.21 S., R.25 E., Eddy County, Hydrologic Unit 13060011, at downstream end of bridge pier nearest left bank on U.S. Highway 285, 2.1 mi 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 1992 TO SEPTEMBER 1993  
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 1964 - 1993, BY WATER YEAR (WY)

	MEAN	10.3	.28	.019	.000	.000	.000	.069	2.53	19.0	2.94	26.5	22.5
MAX	185	7.67	.56	.002	.000	.000	.000	1.50	37.6	468	19.3	616	335
(WY)	1975	1975	1975	1975	1964	1964	1964	1965	1979	1986	1964	1966	1974
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1965	1964	1964

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1964 - 1993
ANNUAL TOTAL	645.67		
ANNUAL MEAN	1.76		7.02
HIGHEST ANNUAL MEAN			53.9
LOWEST ANNUAL MEAN			.000
HIGHEST DAILY MEAN	202	Jun 2	13900
LOWEST DAILY MEAN	.00	Jan 1	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00
INSTANTANEOUS PEAK FLOW			a31600
INSTANTANEOUS PEAK STAGE			15.35
ANNUAL RUNOFF (AC-FT)	1280		5090
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.

## RIO GRANDE BASIN

## 08402000 PECOS RIVER AT DAMSITE 3, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'40", long 104°19'58", sec.6, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank at damsite 3 of Carlsbad Project of Bureau of Reclamation, about 1 mi upstream from flow line of Lake Avalon, 1.3 mi downstream from Rocky Arroyo, 8.0 mi northwest of Carlsbad, and at mile 473.8.

DRAINAGE AREA.--17,980 mi<sup>2</sup>, approximately (contributing area).

PERIOD OF RECORD.--August 1939 to December 1940, August 1944 to current year.

REVISED RECORDS.--WSP 1512: 1946-47(M), 1948(P), 1949, 1950(P). WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,171.31 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Aug. 10, 1944, at site 1,000 ft downstream at datum 1.00 ft higher. Aug. 10, 1944 to Dec. 31, 1966, at present datum 1.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Brantley Lake (station 08401450) 4.8 mi upstream and other reservoirs and diversion dams. Diversions and ground-water withdrawals for irrigation of about 17,300 acres, 1959 determination, upstream from station. Discharge represents inflow to Lake Avalon. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks that probably exceeded 40,000 ft<sup>3</sup>/s occurred in Aug. 1893, Oct. 2, 1904, July 25, 1905, Apr. 17, 1915, Aug. 7, 1916, and May 30, 1937, based primarily on records for station "at Carlsbad." Peak of May 22, 1941, was estimated at 60,000 ft<sup>3</sup>/s. Floods of 1893 and 1904 originated upstream from McMillan Dam and contributed to the two failures of Avalon Dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	28	22	18	20	18	253	e86	e198	258	382	34
2	111	27	22	19	20	20	222	e98	e226	158	402	52
3	149	27	22	20	21	20	223	e126	e190	133	402	68
4	233	27	22	20	20	20	223	e144	185	132	395	112
5	271	28	23	20	22	19	222	e145	187	180	396	137
6	272	28	23	20	23	20	223	e181	186	262	348	168
7	673	23	22	19	21	20	225	e229	264	317	274	176
8	854	23	21	20	21	21	217	e278	337	342	221	194
9	796	23	20	21	19	20	255	e296	340	340	180	259
10	795	24	23	21	18	21	285	e295	337	336	158	313
11	815	25	22	19	20	20	204	323	288	393	178	306
12	846	24	21	19	20	21	248	376	238	389	232	279
13	466	24	21	19	21	19	368	392	236	317	297	259
14	253	24	21	19	21	19	387	345	289	388	318	229
15	205	24	20	19	17	20	333	267	390	812	311	229
16	184	23	22	19	19	35	289	235	433	787	331	227
17	161	23	22	19	19	64	258	235	426	795	378	226
18	142	23	22	20	19	146	232	271	421	810	404	226
19	122	23	22	22	19	225	210	332	347	834	399	204
20	125	22	22	19	16	268	183	310	256	876	346	207
21	154	23	22	21	16	296	212	272	236	872	271	263
22	212	22	22	20	19	264	237	191	235	479	222	292
23	243	21	21	21	20	238	238	e83	235	139	202	261
24	224	23	20	20	19	208	238	e105	232	126	257	232
25	203	22	20	21	19	181	212	e203	203	57	330	207
26	165	21	20	22	19	157	135	e238	173	71	328	181
27	112	21	21	22	19	133	e96	e237	153	171	305	133
28	115	21	21	22	20	133	e96	e208	153	283	302	81
29	141	21	20	23	---	184	e96	e157	232	333	269	126
30	370	21	19	21	---	264	e76	e140	314	360	204	194
31	34	---	19	21	---	287	---	e140	---	364	94	---
TOTAL	9556	709	660	626	547	3381	6696	6938	7940	12114	9136	5875
MEAN	308	23.6	21.3	20.2	19.5	109	223	224	265	391	295	196
MAX	854	28	23	23	23	296	387	392	433	876	404	313
MIN	34	21	19	18	16	18	76	83	153	57	94	34
AC-FT	18950	1410	1310	1240	1080	6710	13280	13760	15750	24030	18120	11650

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1993, BY WATER YEAR (WY)

	MEAN	188	76.2	76.0	66.3	68.7	84.1	251	192	221	237	266	217
MAX	2609	464	421	284	293	382	345	1055	1892	794	2267	1156	
(WY)	1955	1987	1992	1987	1987	1987	1945	1973	1986	1960	1966	1974	
MIN	9.91	5.71	3.87	6.26	19.5	17.7	133	46.4	18.6	10.8	21.5	12.3	
(WY)	1965	1989	1989	1989	1993	1965	1981	1946	1946	1976	1947	1964	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1939 - 1993

ANNUAL TOTAL	82924	64178											
ANNUAL MEAN	227	176											
HIGHEST ANNUAL MEAN										162			
LOWEST ANNUAL MEAN										395			1955
HIGHEST DAILY MEAN	1260	Jun 4	876	Jul 20	39000	Aug 23	1966						
LOWEST DAILY MEAN	18	Mar 5	16	Feb 20	.00	Dec 21	1988						
ANNUAL SEVEN-DAY MINIMUM	20	Dec 25	18	Feb 15	.46	Dec 15	1988						
INSTANTANEOUS PEAK FLOW			916	Jul 20	a69000	Aug 23	1966						
INSTANTANEOUS PEAK STAGE			3.72	Jul 20	b21.32	Aug 23	1966						
INSTANTANEOUS LOW FLOW			8.9	Feb 20	.00	Dec 21	1988						
ANNUAL RUNOFF (AC-FT)	164500	127300								117600			
10 PERCENT EXCEEDS	672	362								334			
50 PERCENT EXCEEDS	156	157								91			
90 PERCENT EXCEEDS	22	20								22			

e Estimated

a-From rating curve extended above 25,000 ft<sup>3</sup>/s, on basis of slope-area measurement at gage height 19.53 ft.

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 U.S. Bureau of Reclamation). Prior to March 1951, at site 20 ft upstream at datum 0.9 ft higher.

REMARKS.--Records good. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	193	.00	.00	.00	.00	.00	227	122	206	201	322	113
2	174	.00	.00	.00	.00	.00	240	106	189	148	334	87
3	205	.00	.00	.00	.00	.00	221	92	177	131	365	104
4	187	.00	.00	.00	.00	.00	205	110	173	122	375	118
5	186	.00	.00	.00	.00	.00	218	134	145	206	362	99
6	174	.00	.00	.00	.00	.00	232	177	176	240	305	125
7	184	.00	.00	.00	.00	.00	256	229	270	277	228	145
8	177	.00	.00	.00	.00	1.3	273	235	315	328	162	210
9	132	.00	.00	.00	.00	.00	276	205	341	338	167	227
10	110	.00	.00	.00	.00	.00	214	240	318	346	189	260
11	113	.00	.00	.00	.00	.00	182	303	277	347	227	249
12	162	.00	.00	.00	.00	.00	301	345	225	311	230	226
13	207	.00	.00	.00	.00	.00	328	326	214	252	245	209
14	216	.00	.00	.00	.00	.00	330	281	322	221	253	222
15	215	.00	.00	.00	80	86	319	242	367	208	238	280
16	197	.00	.00	.00	94	129	306	241	385	185	339	279
17	177	.00	.00	.00	148	168	264	277	388	126	345	281
18	142	.00	.00	.00	90	185	206	312	386	87	343	235
19	172	.00	.00	.00	68	198	195	314	311	170	313	193
20	196	.00	.00	.00	67	207	243	296	276	178	282	211
21	232	.00	.00	.00	22	197	240	267	255	134	251	238
22	214	.00	.00	.00	.00	205	203	163	223	130	202	228
23	208	.00	.00	.00	.00	199	193	105	205	158	245	216
24	170	.00	.00	.00	.00	216	176	135	191	144	285	186
25	144	.00	.00	.00	.00	205	119	196	165	123	277	155
26	149	.00	.00	.00	.00	202	116	196	156	157	245	113
27	196	.00	.00	.00	.00	200	137	179	149	191	245	116
28	195	.00	.00	.00	.00	226	124	171	202	238	258	164
29	146	.00	.00	.00	---	251	97	162	293	267	187	229
30	122	.00	.00	.00	---	250	98	134	270	298	174	232
31	71	---	.00	.00	---	234	---	164	---	317	153	---
TOTAL	5366	0.00	0.00	0.00	569.00	3359.30	6539	6459	7570	6579	8146	5750
MEAN	173	.000	.000	.000	20.3	108	218	208	252	212	263	192
MAX	232	.00	.00	.00	148	251	330	345	388	347	375	281
MIN	71	.00	.00	.00	.00	.00	97	92	145	87	153	87
AC-FT	10640	.00	.00	.00	1130	6660	12970	12810	15020	13050	16160	11410

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1993, BY WATER YEAR (WY)

	MEAN	77.5	3.81	7.94	12.3	23.4	72.5	247	128	154	198	202	141
MAX	212	112	172	120	208	227	386	222	297	391	463	298	
(WY)	1980	1955	1947	1956	1950	1940	1943	1973	1942	1940	1943	1939	
MIN	.000	.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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1939 - 1993

ANNUAL TOTAL	49665.85	50337.30	
ANNUAL MEAN	136	138	
HIGHEST ANNUAL MEAN			104
LOWEST ANNUAL MEAN			174
HIGHEST DAILY MEAN	400	Aug 13	51.8
LOWEST DAILY MEAN	.00	Jan 1	1964
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	526
ANNUAL RUNOFF (AC-FT)	98510	99840	75650
10 PERCENT EXCEEDS	291	297	292
50 PERCENT EXCEEDS	152	157	64
90 PERCENT EXCEEDS	.00	.00	.00

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 NW/4SW 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 U.S. 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, 2,560 acre-ft, October 8, gage height, 3,175.3 ft; minimum, 616 acre-ft, November 1, gage height, 3,172.3 ft.

RESERVOIR STORAGE (ACRE-Feet), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992  
DAILY OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3620	1210	1470	1410	2180	2480	864	1150	5000	2400	1090	1150
2	3620	1540	1280	1410	2180	2480	975	1090	5000	2190	1150	1090
3	3620	1610	1150	1410	2180	2480	919	975	5000	1960	1150	1090
4	3620	1610	1090	1470	2180	2480	864	864	5000	1610	975	1090
5	3450	1750	1030	1470	2180	2560	811	811	5000	1090	975	1090
6	3190	919	975	1540	2250	2560	760	760	5000	975	1090	1150
7	3110	811	975	1540	2250	2560	760	760	5000	919	1090	1210
8	2950	760	975	1610	2250	2560	864	864	5000	975	1090	864
9	2790	1610	975	1610	2250	2560	919	975	5000	1030	1150	864
10	2560	1610	919	1610	2330	2560	975	1030	5000	1090	1280	919
11	2400	1610	975	1680	2330	2560	975	975	5000	1090	1210	919
12	2250	1680	1030	1680	2030	2330	975	864	4900	1150	1090	917
13	2250	1680	975	1680	1960	2100	975	864	4900	1210	1030	1090
14	2180	1680	975	1750	2030	2480	1030	864	4900	1150	975	1150
15	1960	1680	975	1750	2030	2710	1030	1030	4710	1150	975	1090
16	1680	1750	975	1750	2030	3030	1090	1090	4900	2100	919	1030
17	1470	1750	975	1750	2030	3280	1210	1150	4900	2790	1150	975
18	1280	1820	975	1820	2100	3280	1150	1210	4800	2790	1210	975
19	1090	1820	975	1820	2250	2710	1090	1540	4800	2790	1150	1090
20	975	1890	975	1820	2250	3450	1090	1890	4910	2710	1090	1150
21	919	1890	975	1890	2180	2400	975	2250	4910	2100	1150	1150
22	864	1890	1030	1890	2180	3030	975	2730	4900	1210	1090	1090
23	864	1890	1030	1960	2180	2790	975	3530	4330	1280	1090	1030
24	811	1960	1030	1260	2180	2560	975	4430	3710	1280	1030	975
25	811	1960	1030	1260	2250	2250	1030	4900	3030	1470	1030	975
26	710	1960	1030	2030	2330	1960	1090	4900	2710	1540	1030	1090
27	710	1960	1280	2030	2400	1680	1150	5000	2630	1610	1030	1210
28	811	2030	1280	2030	2400	1280	1150	5000	2400	1280	1090	1210
29	811	2030	1340	2100	2480	1090	1210	5000	2400	1030	1090	1210
30	616	1610	1340	2100	---	864	1210	5000	2400	975	1150	1210
31	573	---	1340	2180	---	760	---	5000	---	1030	1210	---
MAX	3620	2030	1470	2180	2480	3450	1210	5000	5000	2790	1280	1210
MIN	573	760	919	1260	1960	760	760	760	2400	919	919	864
(†)	3172.20	3174.00	3173.60	3174.80	3175.20	3172.60	3173.40	3178.10	3175.10	3173.10	3173.40	3173.40
(††)	-3050	+1040	-270	+840	+300	-1720	+450	+3790	-2600	-1370	+180	0
CAL YR 1991	MAX 3620	MIN 573	(††)	-360								
WTR YR 1992	MAX 5000	MIN 573	(††)	-2410								

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

(††) CHANGE IN CONTENTS, IN ACRE-Feet.

NOTE: Contents for period Jan. 26 to May 9 has been revised.

## RIO GRANDE BASIN

08403800 LAKE AVALON NEAR CARLSBAD, NM -- Continued

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	616	1280	1890	2330	1540	1030	975	919	1030	1030	1280
2	919	616	1340	1890	2330	1540	1030	864	919	1090	1090	1030
3	811	662	1340	1890	2330	1540	1030	864	975	1090	1150	975
4	710	662	1410	1890	2400	1540	1030	919	975	1090	1090	919
5	811	662	1410	1890	2400	1610	1030	919	1030	1090	1090	919
6	1030	662	1410	1890	2400	1610	1150	864	1090	1030	1150	919
7	1280	710	1470	1890	2480	1610	1030	811	1030	1030	1210	1030
8	2560	710	1470	1890	2480	1610	975	864	1030	1030	1280	975
9	2480	760	1540	1960	2480	1680	864	919	1030	1090	1280	975
10	2400	760	1540	1960	2480	1680	864	975	975	975	1210	975
11	2400	811	1540	1960	2480	1680	1030	975	975	919	1150	1030
12	2400	864	1540	1960	2480	1680	975	975	1030	1030	1030	1150
13	2400	864	1610	1960	2480	1680	864	975	975	1150	975	1280
14	1340	919	1610	2030	2480	1680	975	1090	975	1210	1030	1340
15	1030	919	1610	2100	2480	1680	1030	1150	919	1750	1090	1280
16	1090	919	1680	2100	2250	1470	975	1150	919	1610	1090	1150
17	1090	975	1680	2100	1960	1280	1030	1090	975	1470	975	1090
18	1090	975	1680	2100	1750	1030	975	975	975	1540	975	1090
19	1150	975	1680	2100	1610	975	1090	864	1030	1610	1030	1090
20	1090	1030	1750	2180	1470	1090	1030	919	975	1540	1090	1030
21	975	1030	1750	2180	1340	1210	975	919	975	1610	1090	975
22	864	1090	1750	2180	1340	1340	975	919	975	1680	1090	975
23	919	1090	1750	2180	1410	1410	975	919	975	1470	1090	1090
24	1030	1150	1750	2180	1410	1540	1090	919	1030	1470	975	1150
25	1090	1150	1820	2180	1470	1470	1210	811	1150	1410	919	1210
26	1150	1210	1820	2250	1470	1410	1340	811	1150	1150	975	1340
27	1150	1210	1820	2250	1470	1280	1280	864	1210	975	1030	1470
28	975	1210	1820	2250	1540	1150	1150	975	1150	919	1090	1410
29	811	1280	1820	2250	---	975	1090	1030	1030	975	1210	1210
30	975	1280	1820	2330	---	864	1090	1030	919	1030	1340	1030
31	811	---	1820	2330	---	919	---	1030	---	1030	1470	---
MAX	2560	1280	1820	2330	2480	1680	1340	1150	1210	1750	1470	1470
MIN	710	616	1280	1890	1340	864	864	811	919	919	919	919
(†)	3172.7	3173.5	3174.3	3175.0	3173.9	3172.9	3173.2	3173.1	3172.9	3173.1	3173.8	3173.1
(††)	-399	+469	+540	+510	-790	-621	+171	-60	-111	+111	+440	-440

CAL YR 1992 MAX 5000 MIN 59  
WTR YR 1993 MAX 2560 MIN 616(†) ELEVATION, IN FEET, AT END OF MONTH.  
(††) CHANGE IN CONTENTS, IN ACRE-FEET.



LOCATION.--Lat 32°28'55", long 104°15'47", in SW¼SW¼NE¼ sec.14, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 4,800 ft 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. 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	.55	.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	414	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	661	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	661	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	661	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	655	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	636	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	424	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	2.7	.00	.00	.00	.00	.00	.00	.00	.00	314	.00	.00
16	.30	.00	.00	.00	.00	.00	.00	.00	.00	574	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	563	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	575	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	589	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	584	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	586	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	396	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.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	175	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	4400.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4182.40	0.00	0.00
MEAN		.018	.000	.000	.000	.000	.000	.000	.000	.135	.000	.000
MAX	661	.55	.00	.00	.00	.00	.00	.00	.00	589	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	8730	1.1	.00	.00	.00	.00	.00	.00	.00	8300	.00	.00

MEAN	97.8	23.9	25.1	11.0	12.4	4.96	1.42	42.7	61.8	27.5	64.6	57.9
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

ANNUAL TOTAL	25936.92		8582.95				
ANNUAL MEAN	70.9		23.5		36.5		
HIGHEST ANNUAL MEAN					206		1955
LOWEST ANNUAL MEAN					.000		1953
HIGHEST DAILY MEAN	1000	Jun 2	661	Oct 9	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 1	.00		Jun 1 1951
INSTANTANEOUS PEAK FLOW			667	Oct 8	a55500		Aug 23 1966
INSTANTANEOUS PEAK STAGE			6.31	Oct 8	b26.40		Aug 23 1966
INSTANTANEOUS LOW FLOW			.00	Oct 1	.00		Oct 1 1992
ANNUAL RUNOFF (AC-FT)	51450		17020		26460		
10 PERCENT EXCEEDS	320		.00		.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.

## 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 except for estimated daily discharges, which are poor. 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 most of time

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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	e.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	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	e.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	e.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	e.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 - 1993, BY WATER YEAR (WY)

MEAN	9.79	.99	.000	.000	.000	.000	.000	.53	18.6	.59	7.80	31.8
MAX	196	19.7	.000	.000	.000	.000	.000	8.81	386	12.4	162	331
(WY)	1975	1979	1974	1973	1973	1973	1973	1979	1986	1981	1984	1980
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1974	1974	1974	1973	1973	1973	1973	1973	1973	1973	1973	1973

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1973 - 1993

ANNUAL MEAN	6.06
HIGHEST ANNUAL MEAN	31.7
LOWEST ANNUAL MEAN	.000
HIGHEST DAILY MEAN	8750
LOWEST DAILY MEAN	.00
ANNUAL SEVEN-DAY MINIMUM	.00
INSTANTANEOUS PEAK FLOW	.00
INSTANTANEOUS PEAK STAGE	a27000
ANNUAL RUNOFF (AC-FT)	b12.53
10 PERCENT EXCEEDS	4390
50 PERCENT EXCEEDS	.00
90 PERCENT EXCEEDS	.00
e Estimated	.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 except for estimated daily discharge, which is poor. 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. U.S. 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 1992 TO SEPTEMBER 1993

DAILY MEAN VALUES											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	SEP
1	28	44	28	29	40	9.2	18	18	16	16	e21
2	29	30	27	26	40	2.3	27	17	15	17	23
3	30	e30	27	26	41	1.8	37	23	15	17	22
4	28	e30	29	42	39	1.6	29	24	15	20	24
5	29	e28	27	70	39	1.6	29	22	16	19	22
6	29	28	28	75	39	1.6	24	14	18	17	20
7	30	28	26	74	39	1.6	17	15	20	13	15
8	292	30	29	79	40	1.6	18	14	e19	17	15
9	702	30	26	81	41	1.7	16	14	e18	18	14
10	685	29	27	69	41	1.6	18	16	e18	16	15
11	687	29	27	68	40	2.7	19	20	e17	19	16
12	689	26	28	60	40	11	18	20	e19	29	18
13	665	27	29	49	40	8.5	19	18	e19	18	16
14	544	27	26	48	40	11	23	15	e18	17	15
15	72	27	27	46	42	12	15	16	e17	184	16
16	32	27	27	46	39	12	15	16	e19	581	17
17	31	27	26	44	40	12	15	20	e21	574	15
18	31	27	27	46	39	14	15	22	e23	581	13
19	32	27	29	49	40	14	17	17	e23	588	13
20	34	28	27	44	43	12	16	15	e23	589	13
21	37	31	27	44	37	14	17	16	e22	592	13
22	39	26	27	43	38	15	14	17	e21	510	14
23	38	29	27	42	39	13	16	19	e21	40	17
24	38	29	26	41	39	14	20	16	16	25	14
25	36	27	28	41	38	13	18	14	15	26	13
26	37	28	26	42	26	19	13	16	16	24	13
27	37	27	27	42	3.8	22	12	16	17	21	15
28	34	28	27	42	3.3	23	13	16	17	19	16
29	33	29	28	42	---	22	13	17	16	16	36
30	104	27	29	40	---	15	13	19	17	16	e31
31	217	---	28	40	---	19	---	17	---	15	e26
TOTAL	5349	860	847	1530	1026.1	322.8	554	539	547	4654	545
MEAN	173	28.7	27.3	49.4	36.6	10.4	18.5	17.4	18.2	150	17.6
MAX	702	44	29	81	43	23	37	24	23	592	36
MIN	28	26	26	26	3.3	1.6	12	14	15	13	13
AC-FT	10610	1710	1680	3030	2040	640	1100	1070	1080	9230	1080

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	MEAN	65.5	57.9	51.9	40.3	42.7	33.2	21.3	65.9	134	41.7	43.4	136
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	0.87	1.11	.34	.080	.18	3.22	
(WY)	1978	1978	1991	1978	1978	1978	1972	1972	1974	1977	1976	1977	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1970 - 1993

ANNUAL TOTAL	36236.4	17275.9	
ANNUAL MEAN	99.0	47.3	62.2
HIGHEST ANNUAL MEAN			242
LOWEST ANNUAL MEAN			10.9
HIGHEST DAILY MEAN	945	702	22800
LOWEST DAILY MEAN	2.7	1.6	.00
ANNUAL SEVEN-DAY MINIMUM	14	1.6	.00
INSTANTANEOUS PEAK FLOW		741	a26300
INSTANTANEOUS PEAK STAGE		3.95	b15.22
INSTANTANEOUS LOW FLOW		1.6	
ANNUAL RUNOFF (AC-FT)	71870	34270	45080
10 PERCENT EXCEEDS	361	43	48
50 PERCENT EXCEEDS	30	22	18
90 PERCENT EXCEEDS	24	13	3.8

e Estimated

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 1992 TO SEPTEMBER 1993

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 06...	0900	32	4270	8.9	9.0	10.5	698	11.4	113	1400	370	110
JAN 08...	0900	75	3990	7.1	5.0	6.0	688	11.6	105	1300	320	110
MAR 16...	1250	15	3990	8.0	28.0	14.5	695	8.4	92	1300	320	130
APR 06...	1510	20	3550	8.1	27.0	17.0	673	8.1	96	1200	310	99
MAY 28...	1300	15	3560	7.9	29.0	22.0	682	8.1	105	1200	310	110
AUG 04...	0900	16	3310	7.7	26.5	25.0	688	7.7	105	1100	310	90

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 06...	350	4	4.9	147	1200	560	0.60	13	2700	240	30
JAN 08...	330	4	4.6	147	960	510	0.50	16	2340	230	<10
MAR 16...	400	5	4.9	164	1100	660	0.70	12	2730	270	<10
APR 06...	320	4	4.8	127	970	510	0.60	12	2300	220	<10
MAY 28...	360	4	5.2	147	1100	590	0.70	14	2580	230	20
AUG 04...	300	4	5.2	93	990	380	0.70	16	2150	210	<10

## RIO GRANDE BASIN

08405500 BLACK RIVER ABOVE MALAGA, NM

LOCATION.--Lat 32°13'44", long 104°09'02", in SW1/4NW1/4SW1/4 sec.12, T.24 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on right bank 0.6 mi upstream from Black River diversion dam, 4.6 mi west of Malaga, and 7.1 mi upstream from mouth. Mouth at Pecos River mile 436.3.

DRAINAGE AREA.--343 mi<sup>2</sup>.

PERIOD OF RECORD.--March to December 1940, December 1946 to current year.

REVISED RECORDS.--WSP 1632: 1948, 1949-50(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 3,070 ft above National Geodetic Vertical Datum of 1929, from topographic map. March to December 1940, water-stage recorder and Cippoletti weir at site 0.3 mi downstream at different datum.

REMARKS.--Records good. Diversions and ground-water withdrawals for irrigation of about 1,000 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 20 or 21, 1941, reached a stage of 19.0 ft, present site and datum, determined in 1947 from well-defined floodmarks, discharge, 33,000 ft<sup>3</sup>/s, from rating curve extended above 1,400 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 8.41 ft and 12.60 ft.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	DAILY MEAN VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	12	16	10	13	15	12	9.7	19	7.3	29
2	11	11	13	15	10	12	15	12	9.6	13	8.3	14
3	11	11	14	14	10	12	15	12	9.5	13	9.1	12
4	11	11	14	14	9.9	12	14	12	9.5	12	9.5	11
5	11	11	15	14	9.9	13	15	12	9.8	12	9.5	11
6	11	11	14	14	9.9	14	15	12	9.9	11	10	11
7	11	11	14	15	9.9	15	14	12	9.6	11	14	11
8	11	11	15	15	9.9	15	13	11	9.4	11	12	11
9	11	11	15	11	10	15	13	11	9.4	11	11	11
10	11	11	14	8.7	10	15	13	11	9.7	12	11	11
11	11	11	14	8.0	9.9	15	13	11	10	13	11	11
12	11	11	15	8.1	9.9	15	13	12	9.8	13	11	11
13	11	11	14	8.2	9.9	15	12	12	9.6	13	11	11
14	11	11	15	9.2	10	16	14	12	10	12	11	11
15	11	11	15	9.6	11	16	14	11	13	12	12	11
16	10	11	14	9.5	10	16	13	11	13	12	12	11
17	10	11	14	9.6	11	16	13	11	13	12	12	11
18	10	11	14	9.5	11	16	12	11	14	11	12	9.1
19	11	11	14	10	11	16	11	11	15	9.0	12	7.8
20	11	11	14	9.9	12	16	10	11	18	8.5	12	7.5
21	11	12	14	9.7	11	16	11	10	14	8.9	9.1	7.7
22	11	12	15	9.5	11	16	11	9.7	14	8.1	10	7.6
23	11	12	15	9.4	11	16	11	9.6	13	7.6	12	7.5
24	11	12	14	9.2	11	16	11	9.5	13	7.4	9.5	7.9
25	11	11	14	9.2	11	16	10	9.5	11	7.5	7.8	8.1
26	11	11	14	9.2	12	16	11	9.6	10	7.3	7.6	8.0
27	10	11	14	9.5	12	16	11	9.5	10	7.1	8.0	7.6
28	11	11	14	9.8	12	15	11	9.5	10	6.5	7.9	9.2
29	11	12	14	10	---	15	11	9.4	11	6.3	8.4	10
30	11	12	14	10	---	15	11	9.3	20	6.3	17	10
31	11	---	15	10	---	15	---	9.5	---	6.1	214	---
TOTAL	337	336	440	333.8	296.2	465	376	335.1	347.5	319.6	529.0	317.0
MEAN	10.9	11.2	14.2	10.8	10.6	15.0	12.5	10.8	11.6	10.3	17.1	10.6
MAX	11	12	15	16	12	16	15	12	20	19	214	29
MIN	10	11	12	8.0	9.9	12	10	9.3	9.4	6.1	7.3	7.5
AC-FT	668	666	873	662	588	922	746	665	689	634	1050	629

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1993, BY WATER YEAR (WY)

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
MEAN	13.2	9.45	9.65	10.6	10.2	6.51	10.5	12.7	14.7	14.6	25.4	19.8
MAX	80.4	33.0	17.5	18.7	19.7	15.0	55.5	106	87.8	111	553	121
(WY)	1955	1966	1989	1987	1987	1993	1954	1965	1986	1960	1966	1955
MIN	2.54	1.15	3.79	2.82	4.11	2.01	4.67	4.27	2.82	3.06	3.26	3.42
(WY)	1980	1978	1964	1964	1960	1978	1978	1974	1974	1974	1965	1977

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1948 - 1993

ANNUAL TOTAL	4531.3	4432.2	
ANNUAL MEAN	12.4	12.1	13.1
HIGHEST ANNUAL MEAN			58.3
LOWEST ANNUAL MEAN			6.82
HIGHEST DAILY MEAN	29	May 8	12000
LOWEST DAILY MEAN	8.4	Jun 25	72
ANNUAL SEVEN-DAY MINIMUM	9.1	Jun 20	1.0
INSTANTANEOUS PEAK FLOW			688
INSTANTANEOUS PEAK STAGE			3.60
INSTANTANEOUS LOW FLOW			6.1
ANNUAL RUNOFF (AC-FT)	8990	8790	9510
10 PERCENT EXCEEDS	15	15	14
50 PERCENT EXCEEDS	12	11	8.0
90 PERCENT EXCEEDS	11	9.2	4.0
a-From rating curve extended above 5,900 ft <sup>3</sup> /s, on basis of slope-area measurements at gage heights 12.60 ft and 21.7 ft.			
b-From floodmarks.			

## RIO GRANDE BASIN

08406500 PECOS RIVER NEAR MALAGA, NM

LOCATION.--Lat 32°12'26", long 104°01'22", in SW/4NW/4NE/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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	268	91	93	100	56	54	56	52	62	52	111
2	83	125	91	94	100	53	55	54	54	64	50	84
3	75	101	92	91	99	52	52	55	53	58	53	60
4	80	96	93	88	97	46	53	47	49	60	60	57
5	94	95	93	88	96	52	54	50	52	56	64	51
6	91	95	94	123	96	55	59	49	53	48	61	49
7	85	95	93	142	96	56	61	48	50	46	66	57
8	87	95	92	142	96	56	55	46	50	50	76	56
9	408	96	93	142	97	56	51	47	45	49	63	50
10	738	96	92	148	97	56	62	44	46	53	58	48
11	742	95	91	134	96	55	59	46	51	54	60	53
12	758	94	91	127	92	49	55	46	51	54	56	53
13	762	93	92	127	94	46	57	46	55	62	47	55
14	723	93	91	118	95	48	61	55	53	63	46	53
15	492	94	90	112	96	52	77	57	49	58	47	52
16	146	94	90	109	100	53	71	49	52	240	57	45
17	105	94	90	107	125	62	58	45	50	704	55	55
18	99	94	90	107	126	58	50	49	53	676	53	66
19	94	94	89	110	98	55	48	50	55	651	54	55
20	93	94	89	116	96	56	56	54	71	627	52	48
21	95	96	89	108	99	58	56	59	60	652	61	52
22	90	98	89	103	100	55	65	64	56	697	55	57
23	95	95	89	102	86	63	57	64	56	524	52	52
24	91	94	87	99	83	64	50	58	57	149	60	52
25	91	93	87	96	82	61	47	53	53	89	56	58
26	85	91	87	98	81	63	51	56	57	77	49	51
27	95	91	87	99	80	56	54	59	55	67	56	51
28	104	91	88	100	69	54	53	66	66	62	61	51
29	100	92	89	102	---	53	52	56	59	59	52	48
30	99	93	89	102	---	59	53	58	55	58	49	49
31	153	---	89	100	---	60	---	54	---	55	131	---
TOTAL	6932	3035	2797	3427	2672	1718	1686	1640	1618	6224	1812	1679
MEAN	224	101	90.2	111	95.4	55.4	56.2	52.9	53.9	201	58.5	56.0
MAX	762	268	94	148	126	64	77	66	71	704	131	111
MIN	75	91	87	88	69	46	47	44	45	46	46	45
AC-FT	13750	6020	5550	6800	5300	3410	3340	3250	3210	12350	3590	3330

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

	MEAN	272	146	123	112	95.4	65.8	56.7	227	179	102	157	291
MAX	5302	1338	822	738	557	290	697	6887	2983	1171	4200	6975	
(WY)	1942	1942	1942	1942	1942	1987	1942	1941	1941	1941	1966	1941	
MIN	8.49	7.82	7.87	10.5	11.9	9.41	8.80	7.85	8.93	6.70	6.20	8.27	
(WY)	1978	1978	1978	1978	1965	1978	1965	1978	1977	1977	1977	1977	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1938 - 1993

ANNUAL TOTAL	60401	35240	
ANNUAL MEAN	165	96.5	153
HIGHEST ANNUAL MEAN			1652
LOWEST ANNUAL MEAN			16.8
HIGHEST DAILY MEAN	1240	762	68000
LOWEST DAILY MEAN	40	44	3.7
ANNUAL SEVEN-DAY MINIMUM	49	46	4.5
INSTANTANEOUS PEAK FLOW		879	a120000
INSTANTANEOUS PEAK STAGE		6.69	b42.10
INSTANTANEOUS LOW FLOW		41	3.7
ANNUAL RUNOFF (AC-FT)	119800	69900	110500
10 PERCENT EXCEEDS	427	109	199
50 PERCENT EXCEEDS	90	63	51
90 PERCENT EXCEEDS	66	50	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 1992 TO SEPTEMBER 1993

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)
NOV												
06...	1205	100	6680	9.3	14.0	7.5	704	13.9	129	1800	450	170
JAN												
07...	1200	93	6160	7.0	17.5	6.0	693	11.0	99	1900	470	170
MAR												
17...	1315	57	--	8.0	12.5	14.5	705	9.6	104	2100	500	210
APR												
05...	1015	51	--	7.9	12.0	16.0	684	10.2	118	2200	510	230
JUN												
02...	1100	53	7260	8.0	35.5	25.0	682	7.7	107	2100	510	200
AUG												
09...	1025	64	5820	8.0	30.5	28.0	691	7.3	105	1800	460	160

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											
06...	740	8	12	130	1600	1200	0.90	5.0	4260	400	30
JAN											
07...	670	7	8.3	191	1500	1100	0.60	12	4050	380	<10
MAR											
17...	870	8	14	175	1600	1400	0.80	13	4710	440	140
APR											
05...	900	8	13	139	1800	1500	1.0	8.0	5050	480	<10
JUN											
02...	910	9	12	122	1900	1300	1.1	10	4920	460	20
AUG											
09...	700	7	11	106	1600	960	1.0	17	3970	370	<10

## RIO GRANDE BASIN

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM

LOCATION.--Lat 32°11'19", long 103°58'43", in SW¼SW¼NW¼ sec.27, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, on right bank 550 ft upstream from Pierce Canyon Crossing, 6.0 mi southeast of Malaga, and at mile 425.7.

DRAINAGE AREA.--19,260 mi<sup>2</sup>, approximately (contributing area).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to September 1941, August 1951 to current year.

REVISED RECORDS.--WSP 898: 1938(M). WSP 1712: 1959.

GAGE.--Water-stage recorder. Elevation of gage is 2,889.18 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). July 1938 to Sept. 1941, at datum 1.19 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	290	86	91	93	57	54	44	42	50	49	126
2	71	172	85	94	93	52	53	48	40	56	45	93
3	72	113	86	91	92	51	51	50	44	53	44	71
4	69	96	87	89	91	48	50	46	40	50	50	65
5	78	93	88	87	90	48	50	45	39	53	55	62
6	89	93	91	103	90	53	52	46	41	43	54	58
7	84	93	90	129	90	54	56	46	43	40	57	61
8	82	92	89	133	90	51	55	44	46	40	64	61
9	256	93	89	130	90	50	52	45	44	44	58	51
10	684	93	90	136	90	53	53	44	42	47	53	51
11	683	93	87	129	90	51	57	42	45	51	52	52
12	691	92	87	121	87	47	52	44	46	48	53	55
13	700	90	88	120	87	45	50	42	43	49	47	57
14	683	89	88	113	88	43	55	45	49	56	44	62
15	539	89	87	107	90	50	60	53	44	56	44	60
16	222	90	87	104	90	52	72	47	45	92	50	57
17	121	90	87	101	99	54	62	43	47	545	55	57
18	104	90	86	101	122	60	53	43	47	573	56	69
19	95	90	87	102	97	57	49	47	51	574	55	65
20	89	90	87	108	89	55	52	52	58	584	55	58
21	91	92	87	105	89	55	42	54	62	579	57	57
22	87	95	86	99	93	56	54	63	53	593	57	61
23	92	93	87	98	81	57	61	64	52	514	50	61
24	89	90	85	96	76	61	51	60	51	187	53	58
25	88	89	85	93	75	58	45	52	46	95	60	64
26	84	86	84	93	74	60	44	46	46	76	51	60
27	86	86	85	93	73	58	47	52	48	67	55	57
28	109	86	86	93	70	53	49	53	50	57	57	57
29	105	86	88	94	---	52	58	50	56	51	59	56
30	96	87	88	95	---	52	47	47	48	51	55	56
31	110	---	89	93	---	57	---	46	---	50	91	---
TOTAL	6520	3021	2702	3241	2479	1650	1586	1503	1408	5424	1685	1878
MEAN	210	101	87.2	105	88.5	53.2	52.9	48.5	46.9	175	54.4	62.6
MAX	700	290	91	136	122	61	72	64	62	593	91	126
MIN	69	86	84	87	70	43	42	42	39	40	44	51
AC-FT	12930	5990	5360	6430	4920	3270	3150	2980	2790	10760	3340	3730

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

MEAN	173	91.7	91.4	78.8	70.7	50.9	37.7	237	181	96.5	171	283
MAX	2718	544	519	359	358	299	149	7108	3040	1184	4182	7129
(WY)	1955	1987	1992	1987	1987	1987	1987	1941	1941	1941	1966	1941
MIN	8.70	6.77	9.39	10.6	12.6	10.1	7.46	6.35	7.78	4.43	6.18	5.73
(WY)	1978	1978	1978	1965	1965	1978	1978	1978	1971	1966	1964	1977

### SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

## WATER YEARS 1938 - 1993

ANNUAL TOTAL	58367			33097				
ANNUAL MEAN	159			90.7			131	
HIGHEST ANNUAL MEAN							1694	1941
LOWEST ANNUAL MEAN							18.7	1977
HIGHEST DAILY MEAN	1230	Jun	5	700	Oct	13	65000	Aug 23 1966
LOWEST DAILY MEAN	43	May	3	39	Jun	5	2.1	Jun 22 1978
ANNUAL SEVEN-DAY MINIMUM	54	May	1	41	Jun	1	2.6	Sep 26 1977
INSTANTANEOUS PEAK STAGE							a31.60	Aug 23 1966
INSTANTANEOUS LOW FLOW							.54	May 30 1965
ANNUAL RUNOFF (AC-FT)	115800			65650			94980	
10 PERCENT EXCEEDS	410			104			138	
50 PERCENT EXCEEDS	87			61			43	
90 PERCENT EXCEEDS	71			45			12	



## 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 1992 TO SEPTEMBER 1993

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 06...	1435	91	8940	8.4	15.5	8.5	702	13.0	124	2000	480	190
JAN 07...	1335	132	8660	7.1	17.5	6.0	692	10.6	97	2000	480	190
MAR 18...	1415	60	9300	8.0	30.5	16.5	--	--	--	2200	520	220
APR 05...	1345	49	9300	8.2	29.0	16.0	681	8.2	96	2400	530	250
JUN 02...	1415	41	11000	8.0	38.5	26.0	681	7.8	112	2200	520	220
AUG 09...	1315	58	8610	8.2	38.0	28.0	691	7.8	114	1800	450	170

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)
NOV 06...	1200	12	33	125	1700	2100	0.70	6.5	5790	500	50
JAN 07...	1000	10	25	187	1500	1700	0.70	12	5020	460	10
MAR 18...	1700	16	54	170	1600	2700	0.90	12	6910	590	130
APR 05...	1800	16	55	144	2100	3000	1.0	8.0	7830	690	<10
JUN 02...	1600	15	51	135	2000	2400	1.2	10	6880	620	<10
AUG 09...	1300	13	36	93	1700	1600	0.80	16	5330	490	20

## RIO GRANDE BASIN

08407500 PECOS RIVER AT RED BLUFF, NM

(National stream-quality accounting network station)

LOCATION.--Lat 32°04'30", long 104°02'21", in SW¼NW¼NE¼ sec.1, T.26 S., R.28 E., Eddy County, Hydrologic Unit 13060011, on right bank at Red Bluff, 0.2 mi 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).

## WATER-DISCHARGE RECORDS

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.--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. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	235	87	90	97	68	57	45	42	44	47	136
2	68	225	85	92	97	55	52	43	38	50	45	109
3	70	140	86	91	97	52	52	50	40	53	42	84
4	67	106	86	89	95	51	49	51	41	47	43	68
5	69	98	87	86	93	47	50	45	36	48	51	64
6	84	97	89	91	93	52	51	46	37	44	55	59
7	83	97	91	126	93	54	55	46	38	35	79	57
8	79	97	89	137	93	55	58	45	41	31	107	65
9	81	95	89	137	93	49	55	43	43	33	63	49
10	576	95	89	139	94	52	52	43	39	39	53	49
11	681	95	87	139	94	53	59	41	50	45	49	47
12	691	93	86	129	93	48	58	42	44	47	51	51
13	706	92	86	125	91	45	51	42	41	41	47	52
14	710	90	87	121	93	43	56	42	43	48	41	60
15	633	91	86	113	94	43	58	50	45	52	39	60
16	337	91	86	108	94	51	75	52	41	51	39	58
17	149	91	86	105	97	52	72	45	44	369	47	54
18	115	91	87	104	126	59	60	41	43	633	52	62
19	102	91	87	106	116	60	53	43	64	627	52	69
20	93	91	87	109	96	54	50	50	49	645	53	60
21	93	93	87	111	94	54	55	54	63	644	52	55
22	93	95	87	103	95	56	41	60	56	653	57	57
23	91	97	86	100	88	55	70	70	51	661	50	61
24	95	90	86	98	82	61	60	66	49	325	46	59
25	91	89	85	95	80	61	48	57	45	135	50	60
26	91	87	84	94	80	59	44	48	40	88	54	63
27	86	86	84	96	78	60	47	49	44	76	47	56
28	107	86	85	96	77	55	51	51	43	65	48	55
29	117	86	86	97	---	52	55	56	53	50	52	55
30	105	86	87	98	---	50	61	47	54	51	56	53
31	107	---	87	98	---	55	---	47	---	49	63	---
TOTAL	6539	3096	2687	3323	2613	1661	1655	1510	1357	5779	1620	1897
MEAN	211	103	86.7	107	93.3	53.6	55.2	48.7	45.2	186	52.6	62.9
MAX	710	235	91	139	126	68	75	70	64	661	107	136
MIN	67	86	84	86	77	43	41	41	36	31	39	47
AC-FT	12970	6140	5330	6590	5180	3290	3280	3000	2690	11460	3230	3740

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

	MEAN	279	152	128	115	99.0	71.1	59.3	230	190	111	165	300
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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1938 - 1993

ANNUAL TOTAL	61383	33737		
ANNUAL MEAN	168	92.4		
HIGHEST ANNUAL MEAN			159	1941
LOWEST ANNUAL MEAN			1655	1977
HIGHEST DAILY MEAN	1370	Jun 6	710	Oct 14
LOWEST DAILY MEAN	45	May 4	31	Jul 8
ANNUAL SEVEN-DAY MINIMUM	59	May 2	39	Jun 2
INSTANTANEOUS PEAK FLOW			721	Oct 14
INSTANTANEOUS PEAK STAGE			6.24	Oct 14
INSTANTANEOUS LOW FLOW			31	Jul 9
ANNUAL RUNOFF (AC-FT)	121800	66920		
10 PERCENT EXCEEDS	397	109		
50 PERCENT EXCEEDS	87	63		
90 PERCENT EXCEEDS	75	43		

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

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
NOV													
12...	1130	92	9710	8.3	15.5	7.0	3.5	--	10.1	106	22	K62	
FEB													
23...	0930	82	9280	8.2	15.0	10.5	14	695	10.5	107	K4	20	
APR													
02...	1200	52	--	8.1	23.0	16.5	33	683	8.8	--	>600	K550	
JUN													
01...	1100	42	10500	8.0	32.0	25.5	20	684	7.3	103	73	>2500	
29...	1130	52	11900	8.0	34.0	26.0	25	684	7.5	108	28	500	
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)
NOV													
12...	1900	1700	450	180	1200	12	32	164	0	134	126	1600	
FEB													
23...	2000	1800	480	200	1200	12	30	217	0	178	166	--	
APR													
02...	--	--	--	--	--	--	--	207	0	170	150	2000	
JUN													
01...	1900	1800	450	190	1600	16	46	146	0	120	127	2100	
29...	2400	2300	530	250	1700	15	51	110	0	90	95	2200	
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 TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV													
12...	1900	0.80	3.1	5420	5460	0.880	0.920	0.060	0.060	0.940	0.980	0.040	
FEB													
23...	--	--	--	--	--	2.05	2.05	--	0.050	--	2.10	--	
APR													
02...	3200	1.1	9.8	8880	--	0.780	0.780	--	0.050	--	0.830	--	
JUN													
01...	2400	0.90	8.6	7610	6880	0.320	0.320	--	0.030	--	0.350	--	
29...	2300	0.50	5.8	8470	7100	--	--	--	<0.010	--	<0.050	--	

## RIO GRANDE BASIN

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	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)
NOV 12...	0.020	1.7	1.7	2.6	0.070	0.010	0.020	<0.010	20	<100	<1	50
FEB 23...	0.070	0.53	0.60	2.7	<0.010	<0.010	--	<0.010	--	--	--	--
APR 02...	0.150	0.75	0.90	1.7	0.120	0.020	--	0.020	<10	--	<1	<10
JUN 01...	0.100	0.70	0.80	1.2	0.060	0.020	--	<0.010	--	<100	<1	10
29...	0.090	1.6	1.7	1.7	0.090	0.030	--	0.020	750	<100	<1	560

DATE	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)	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)	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 12...	70	20	--	2	2	<1.0	4500	51	39	9.7	95
FEB 23...	--	--	--	--	--	--	--	--	92	20	54
APR 02...	--	<10	--	<1	<1	<1.0	--	76	131	18	89
JUN 01...	90	40	4	1	1	<1.0	7600	62	94	11	84
29...	100	130	2	<2	1	<1.0	8600	45	141	20	95

## RIO GRANDE BASIN

08408500 DELAWARE RIVER NEAR RED BLUFF, NM

LOCATION.--Lat 32°01'23", long 104°03'15", in NE¼SW¼SE¼ sec.23, T.26 S., R.28 E., Eddy County, Hydrologic Unit 13070002, near center of channel on downstream side of pier of bridge on U.S. Highway 285, 2.1 mi north of the New Mexico-Texas State line, 3.6 mi southwest of Red Bluff, 3.7 mi upstream from mouth and 14 mi south of Malaga. Mouth at Pecos River mile 405.6.

DRAINAGE AREA.--689 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1912 to September 1913, May 1914 to June 1915, October 1937 to current year. Published as "near Malaga" 1912-13, and as "near Angeles, Tex." 1914-15.

GAGE.--Water-stage recorder. Elevation of gage is 2,900.66 ft above National Geodetic Vertical Datum of 1929 (U.S. Boundary Commission post). Prior to May 1914, at site 3.0 mi upstream at different datum. May 1914 to June 1915, at site 2.5 mi downstream at different datum.

REMARKS.--Records good. One small upstream diversion. Several observations of water temperature were made during the year. No flow for many days most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.5	3.8	3.8	3.6	.28	.24	.34	.06	10	.00	13
2	1.7	2.4	3.8	3.7	3.5	.24	.22	.18	.01	2.7	.00	7.4
3	1.7	2.4	3.7	3.8	2.6	.26	.20	.21	.00	.28	.00	3.4
4	1.7	2.5	3.7	3.8	2.6	.31	.20	.22	.00	.01	.00	1.7
5	1.7	2.7	3.8	3.7	.67	.27	.21	.11	.04	.00	.00	1.4
6	1.7	3.1	3.7	3.5	.65	.21	.20	.08	.45	.00	.00	1.2
7	1.7	3.0	3.7	3.6	3.2	.21	.21	.06	.45	.00	.00	1.1
8	1.7	3.1	3.9	3.5	3.4	.23	.24	.13	.38	.00	.00	1.0
9	1.8	3.2	3.8	3.5	3.5	.24	.25	.07	.31	.55	1.1	1.0
10	1.9	3.1	3.7	3.1	3.5	.24	.24	.09	.28	1.6	1.4	.94
11	1.9	3.1	3.7	3.0	3.3	.24	.24	.13	5.6	.15	.21	.96
12	2.0	3.0	3.8	3.1	3.1	.24	.23	.15	.31	.47	.01	.98
13	2.0	2.9	3.8	3.3	3.2	.24	.24	.25	.00	.65	.00	.93
14	2.0	3.0	3.7	3.7	3.2	.24	.44	.87	.00	.00	.00	1.1
15	1.8	3.1	3.7	3.8	3.4	.27	.46	.41	.00	.00	.00	1.1
16	1.7	3.3	3.7	3.8	2.9	.39	.34	.17	.00	.00	.00	.96
17	1.8	3.5	3.7	3.7	.54	.78	.32	.14	.00	.00	.00	.88
18	2.0	3.5	3.8	3.6	.34	2.7	.30	.13	.00	.00	.00	.79
19	2.1	3.4	3.9	3.9	.30	2.5	.25	.10	.00	.00	.00	.62
20	2.2	3.4	3.9	3.9	.39	.40	.26	.14	.00	.00	.00	.50
21	2.2	3.5	3.9	3.7	.41	.24	.30	.11	.00	.45	.00	.43
22	2.2	3.4	3.9	3.4	.36	.19	.28	.32	.00	.00	.00	.43
23	2.2	3.4	3.9	3.3	.34	.18	.24	.32	.00	.06	.00	.43
24	2.3	3.3	3.6	3.2	.34	.19	.23	.14	.00	.00	.00	.40
25	2.3	3.2	3.6	3.2	.36	.27	.19	.11	.00	.00	.00	.51
26	2.4	3.3	3.6	3.3	.41	.32	.21	.14	.00	.35	.00	.47
27	2.3	3.4	3.6	3.4	.36	.27	.24	.20	.00	.00	.00	.41
28	2.4	3.6	3.7	3.5	.28	.24	.26	.14	.00	.00	.00	.32
29	2.5	3.7	3.7	3.8	---	.25	.27	.12	.00	.04	.00	.23
30	2.7	3.8	3.7	3.7	---	.22	.52	.20	.00	.00	.00	.18
31	2.6	---	3.6	3.7	---	.22	---	.12	.00	.00	114	---
TOTAL	62.9	94.8	116.1	110.0	50.75	13.08	8.03	5.90	7.89	17.31	116.72	44.77
MEAN	2.03	3.16	3.75	3.55	1.81	.42	.27	.19	.26	.56	3.77	1.49
MAX	2.7	3.8	3.9	3.9	3.6	2.7	.52	.87	5.6	10	114	13
MIN	1.7	2.4	3.6	3.0	.28	.18	.19	.06	.00	.00	.00	.18
AC-FT	125	188	230	218	101	26	16	12	16	34	232	89

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

	30.9	3.63	3.30	3.40	3.19	2.82	5.98	10.0	19.1	14.8	23.0	23.1
MEAN	30.9	3.63	3.30	3.40	3.19	2.82	5.98	10.0	19.1	14.8	23.0	23.1
MAX	748	18.9	7.99	8.57	8.77	9.44	135	233	281	166	326	303
(WY)	1956	1979	1987	1987	1987	1987	1954	1941	1938	1952	1966	1978
MIN	.000	.030	.17	.41	.12	.42	.23	.003	.000	.000	.000	.000
(WY)	1952	1965	1966	1965	1966	1993	1968	1950	1950	1947	1983	1953

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1938 - 1993

ANNUAL TOTAL	1845.58	648.25	
ANNUAL MEAN	5.04	1.78	12.0
HIGHEST ANNUAL MEAN			66.1
LOWEST ANNUAL MEAN			1.78
HIGHEST DAILY MEAN	154	114	22000
LOWEST DAILY MEAN	.94	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.98	.00	.00
INSTANTANEOUS PEAK FLOW		358	a81400
INSTANTANEOUS PEAK STAGE		4.86	b27.00
ANNUAL RUNOFF (AC-FT)	3660	1290	8690
10 PERCENT EXCEEDS	4.4	3.7	7.2
50 PERCENT EXCEEDS	3.4	.43	2.3
90 PERCENT EXCEEDS	1.7	.00	.00

a-From rating curve extended above 6,500 ft<sup>3</sup>/s, on basis of slope-area measurements at gage heights, 12.84 ft, 17.55 ft, and 27.0 ft.

b-From floodmarks.

## 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, 162,700 acre-ft, Mar. 10, 11, gage height, 2,827.98 ft; minimum observed, 96,480 acre-ft, Sept. 30, gage height, 2,816.96 ft.

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

2,812.0	74,090	2,818.0	101,700	2,824.0	135,800
2,814.0	82,630	2,820.0	112,200	2,826.0	148,900
2,816.0	91,830	2,822.0	123,600	2,828.0	162,800

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144500	149800	151700	154600	159300	162200	151900	141600	132000	120700	115800	100700
2	144400	149800	151700	154900	159300	162200	151300	141400	131700	119900	115300	100800
3	144500	149900	151800	155200	159400	162300	150600	141300	131500	119200	114900	100900
4	144500	149900	152000	155300	159500	162400	149900	140900	131200	118500	114100	101000
5	144500	149900	152100	155400	159600	162500	149200	140400	131000	117800	113300	101000
6	144500	150000	152200	155600	159800	162500	148500	139900	130700	117000	113100	100800
7	144500	150000	152400	155700	159900	162500	148100	139600	130500	116000	112800	100600
8	143800	150100	152500	155900	160000	162600	147600	139300	130200	115100	112500	100400
9	144100	150200	152600	156000	160200	162600	147300	139000	129900	114200	112200	100200
10	144300	150200	152600	156200	160300	162700	146900	138700	129400	113300	111800	99940
11	144600	150400	152700	156300	160500	162700	146600	138300	129100	112400	111500	99690
12	145700	150500	152800	156400	160600	162600	146300	138000	128900	111700	111200	99430
13	146700	150600	152800	156600	160800	162600	146100	137700	128700	111300	110800	99180
14	147800	150700	152900	156700	160900	162500	145800	137400	128500	111200	110400	98930
15	149000	150900	153000	156900	161000	162500	145500	137100	128400	111100	110000	98730
16	149300	150900	153000	157200	161200	162500	145400	136700	127900	111000	109600	98580
17	149700	151000	153100	157400	161300	161700	145100	136400	127400	110800	109000	98580
18	149700	151200	153100	157600	161400	161000	144900	136100	127000	111500	108300	98430
19	149700	151300	153200	157900	161500	160400	144700	135800	126600	112200	107500	98280
20	149700	151500	153200	158100	161500	159800	144600	135500	126200	113000	106700	98130
21	149700	151600	153300	158300	161600	159100	144300	135100	125800	115100	105900	97930
22	149800	151700	153400	158400	161700	158500	144000	134800	125500	115800	105100	97680
23	149800	151900	153500	158600	161800	157800	143700	134500	125100	116800	104300	97430
24	149800	152000	153500	158700	161800	157200	143300	134100	124600	117100	103600	97180
25	149800	152200	153600	158800	161900	156600	143000	133900	124200	117300	102800	96930
26	149800	152100	153700	158800	162000	155900	142700	133600	117800	117500	102000	96680
27	149800	152000	153700	158900	162000	155300	142300	133300	117800	117300	101300	96630
28	149800	152000	153800	159000	162100	154700	141900	133000	122400	117100	100900	96580
29	149800	151900	153900	159100	---	154000	141800	132700	121800	116800	100600	96530
30	149800	151800	154100	159100	---	153300	141700	132500	121200	116500	100600	96480
31	149800	---	154300	159200	---	152600	---	132200	---	116200	100700	---
MAX	149800	152200	154300	159200	162100	162700	151900	141600	132000	120700	115800	101000
MIN	143800	149800	151700	154600	159300	152600	141700	132200	117800	110800	100600	96480
(†)	2826.14	2826.43	2826.79	2827.49	2827.90	2826.55	2824.92	2834.43	2821.60	2820.71	2817.80	2816.96
(††)	+4900	+2000	+2500	+4900	+2900	-9500	-10900	-9500	-11000	-5000	-15500	-4220

CAL YR 1992 MAX 157100 MIN 119500 (††) -48420  
WTR YR 1993 MAX 162700 MIN 96480 (††) +31300

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

(††) CHANGE IN CONTENTS, IN ACRE-FEET.

LOCATION.--Lat 31°52'21", long 103°49'52", Reeves County, Hydrologic Unit 1300001, on right bank at bridge on Farm Road 652, 5.5 mi downstream from Salt Creek (Screw Bean Arroyo), 5.9 mi northeast of Orla, and 8.5 mi downstream from Red Bluff Reservoir.

WATER-DISCHARGE RECORDS

REVISID RECORDS.--WSP 928: 1937.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Most of flow is releases from storage in Red Bluff Reservoir (station 08410000) 8.5 mi upstream. Occasional runoff occurs from draws between dam and station. There are many diversions above Red Bluff Reservoir for irrigation.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e60	12	47	13	15	16	358	100	153	499	176	32
2	e16	12	14	13	15	15	359	102	135	502	174	4.5
3	14	12	14	13	17	15	359	106	73	501	174	3.3
4	14	12	13	13	16	15	358	209	58	498	171	2.7
5	13	12	13	12	15	15	339	213	70	495	147	41
6	13	12	13	13	15	14	232	207	71	495	157	120
7	64	12	12	13	15	14	230	98	72	492	160	130
8	232	13	17	12	15	14	230	91	83	490	160	131
9	66	13	17	12	15	14	185	89	190	489	161	130
10	63	12	14	11	15	14	140	90	188	487	161	129
11	29	12	14	11	15	15	139	88	76	486	161	129
12	15	12	15	11	15	14	139	99	70	479	161	130
13	14	11	14	11	15	14	140	149	71	157	162	130
14	14	11	14	11	16	14	141	149	73	6.4	162	128
15	14	11	14	12	17	15	141	149	161	67	163	80
16	63	11	15	11	16	44	115	147	227	89	175	8.3
17	256	11	14	12	16	349	84	147	221	139	419	1.4
18	86	11	14	12	16	364	78	147	230	3.1	443	56
19	70	11	14	14	16	364	23	147	250	1.2	441	64
20	69	12	15	14	16	364	146	146	226	.84	442	78
21	22	14	15	14	16	365	147	88	220	43	445	129
22	15	14	14	14	16	365	146	84	211	90	446	154
23	15	14	15	14	16	365	147	83	212	90	447	155
24	63	13	15	13	16	365	144	87	217	124	446	155
25	83	15	14	13	15	367	e142	143	339	189	449	155
26	67	58	14	14	15	367	e142	145	353	193	450	106
27	66	59	14	14	15	368	e142	146	353	182	425	2.0
28	67	59	14	14	15	367	e100	148	354	181	139	1.0
29	67	59	14	14	---	368	97	148	354	182	126	5.7
30	64	58	14	15	---	363	98	151	381	180	134	121
31	18	---	13	15	---	359	---	152	---	176	141	---
TOTAL	1732	598	473	398	435	5722	5241	4048	5692	8006.54	8018	2511.9
MEAN	55.9	19.9	15.3	12.8	15.5	185	175	131	190	258	259	83.7
MAX	256	59	47	15	17	368	359	213	381	502	450	155
MIN	13	11	12	11	15	14	23	83	58	.84	126	1.0
AC-FT	3440	1190	938	789	863	11350	10400	8030	11290	15880	15900	4980

MEAN	164	71.8	44.6	41.5	47.5	91.4	204	203	234	240	200	247
MAX	5717	1474	838	712	617	288	601	2717	3481	1425	686	6515
(WY)	1942	1942	1942	1942	1942	1955	1942	1941	1941	1941	1941	1941
MIN	1.78	1.38	1.77	.76	.46	.84	1.05	5.86	17.1	8.11	.74	8.70
(WY)	1948	1960	1962	1965	1965	1965	1965	1978	1953	1984	1965	1953

ANNUAL TOTAL	26725		42875.44				
ANNUAL MEAN	73.0		117		149		
HIGHEST ANNUAL MEAN					1284		1941
LOWEST ANNUAL MEAN					13.1		1953
HIGHEST DAILY MEAN	454	May 23	502	Jul 2	23700	Sep 28	1941
LOWEST DAILY MEAN	11	Nov 13	.84	Jul 20	.00	Sep 9	1946
ANNUAL SEVEN-DAY MINIMUM	11	Nov 13	11	Nov 13	.00	Jul 7	1965
ANNUAL RUNOFF (AC-FT)	53010		85040		108200		
10 PERCENT EXCEEDS	171		363		380		
50 PERCENT EXCEEDS	20		70		35		
90 PERCENT EXCEEDS	13		12		5.1		

e Estimated

## RIO GRANDE BASIN

08412500 PECOS RIVER NEAR ORLA, TX -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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, 15,800 microsiemens Jan. 4; minimum daily, 6,900 microsiemens Mar. 30.

WATER TEMPERATURE: Maximum daily, 27.5 °C, July 19; minimum daily 3.5 °C, Dec. 6.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD 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 (MG/L) (00301)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CAC03 (MG/L AS CA) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
02...	1800	15	9200	8.1	--	22.0	--	--	--	1900	--	480
DEC												
29...	1440	14	13600	7.9	24.5	7.0	700	12.5	119	2500	2400	650
FEB												
02...	1230	15	15100	8.1	14.5	9.0	703	11.2	111	2500	--	640
MAR												
17...	0900	354	7900	8.2	7.0	10.0	712	10.5	102	2000	--	490
30...	1150	350	6900	8.3	23.5	14.5	685	9.6	107	2000	1900	490
MAY												
27...	1350	148	8900	7.9	31.0	22.0	691	8.8	115	2100	2000	510
AUG												
06...	1025	156	9200	7.9	28.0	24.5	692	8.4	115	2100	2000	520

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)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT												
02...	170	1400	14	31	--	--	--	1700	2100	0.70	10	--
DEC												
29...	220	2400	21	33	153	0	125	2300	3100	0.70	9.5	8790
FEB												
02...	230	2500	22	33	--	--	--	2300	3100	0.70	8.7	--
MAR												
17...	190	1300	13	35	--	--	--	1700	2100	0.80	11	--
30...	190	1300	13	31	146	0	120	1700	2000	0.90	9.3	5790
MAY												
27...	190	1300	12	34	129	0	105	1900	2000	1.2	11	6010
AUG												
06...	200	1400	13	17	123	0	101	2000	1900	0.80	13	6110





## MIMBRES RIVER BASIN

08477110 MIMBRES RIVER AT MIMBRES, NM

LOCATION.--Lat 32°51'17", long 107°58'23", in NW¼SW¼ 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 except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	5.0	4.9	45	e62	e70	43	26	13	8.3	5.3	26
2	4.3	5.1	5.0	37	e60	e60	43	25	13	7.9	5.1	24
3	4.3	5.1	5.6	31	e70	e58	44	24	12	6.8	5.4	17
4	4.3	5.0	7.7	27	e72	56	44	24	13	7.3	5.4	14
5	4.2	5.0	11	23	e74	54	43	23	12	7.4	6.1	12
6	4.0	5.1	9.7	21	e76	52	44	22	13	7.8	7.8	12
7	4.2	5.2	10	23	e74	53	43	20	13	7.3	7.7	13
8	4.2	5.4	11	495	e72	57	38	17	13	6.8	7.0	13
9	4.2	5.4	11	337	e70	66	35	18	12	8.0	6.5	12
10	4.1	5.4	12	270	e72	70	32	18	9.6	7.3	7.1	11
11	4.1	5.4	12	e450	e76	e68	30	19	10	7.0	7.1	11
12	4.2	5.8	13	e200	e75	e70	31	20	10	7.2	6.7	11
13	4.3	5.8	13	e290	e74	e74	31	18	10	9.2	6.4	11
14	4.4	5.8	14	e200	e70	e72	32	18	11	9.5	9.7	11
15	4.4	5.9	14	e190	e73	e78	30	19	11	9.1	13	10
16	4.4	5.9	15	e200	e71	e82	28	19	10	8.3	8.9	9.8
17	4.3	5.9	16	e250	e70	e80	26	18	10	7.4	11	9.8
18	4.3	5.9	17	e200	e72	e90	26	18	10	6.9	11	9.8
19	4.4	5.7	17	e580	e74	91	26	19	9.4	7.4	14	9.5
20	4.5	5.5	18	e250	e200	83	27	18	10	7.3	13	9.2
21	4.7	5.4	19	e300	e110	80	28	17	10	7.0	10	9.2
22	4.9	5.5	20	e100	e74	77	27	16	10	6.3	11	9.5
23	4.9	5.4	20	e70	e68	73	28	16	9.3	5.8	9.8	9.9
24	5.0	5.4	21	e50	e70	68	30	17	7.5	5.4	9.2	9.7
25	4.9	5.3	22	e60	e70	64	30	16	7.9	5.3	9.2	9.3
26	4.9	5.3	23	e63	e74	66	29	16	8.0	4.9	15	8.9
27	5.0	5.1	24	e61	e76	68	29	16	8.5	4.7	25	9.0
28	5.1	5.1	136	e60	e80	63	28	15	8.8	5.2	19	9.1
29	5.2	5.2	408	e62	---	58	27	14	8.6	5.8	69	9.0
30	5.0	5.1	111	e60	---	51	27	14	8.4	5.4	41	9.0
31	4.9	---	63	e58	---	46	---	13	---	5.3	26	---
TOTAL	140.2	162.1	1103.9	5063	2179	2098	979	573	312.0	215.3	408.4	348.7
MEAN	4.52	5.40	35.6	163	77.8	67.7	32.6	18.5	10.4	6.95	13.2	11.6
MAX	5.2	5.9	408	580	200	91	44	26	13	9.5	69	26
MIN	4.0	5.0	4.9	21	60	46	26	13	7.5	4.7	5.1	8.9
AC-FT	278	322	2190	10040	4320	4160	1940	1140	619	427	810	692

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1993, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
MEAN	15.2	13.2	35.4	32.6	30.2	38.4	27.5	18.2	9.53	12.8	33.8	12.5				
MAX (WY)	67.5	43.5	166	163	93.1	93.2	99.5	64.9	23.0	52.1	224	69.6				
MIN (WY)	2.72	2.47	3.65	4.24	3.10	2.16	2.34	1.84	3.17	4.79	3.61	2.64				

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1978 - 1993

ANNUAL TOTAL	15278.0	13582.6	
ANNUAL MEAN	41.7	37.2	23.5
HIGHEST ANNUAL MEAN			45.1
LOWEST ANNUAL MEAN			5.08
HIGHEST DAILY MEAN	408	Dec 29	580
LOWEST DAILY MEAN	4.0	Oct 6	4.0
ANNUAL SEVEN-DAY MINIMUM	4.1	Oct 5	4.1
INSTANTANEOUS PEAK FLOW			2210
INSTANTANEOUS PEAK STAGE			6.22
INSTANTANEOUS LOW FLOW			
ANNUAL RUNOFF (AC-FT)	30300	26940	17000
10 PERCENT EXCEEDS	95	74	55
50 PERCENT EXCEEDS	20	13	9.5
90 PERCENT EXCEEDS	5.0	5.1	3.1

e Estimated

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

08481500 TULAROSA CREEK NEAR BENT, NM

(National stream-quality accounting network station)

LOCATION.--Lat 33°08'41", long 105°53'50", in SE¼NW¼ sec.32, T.13 S., R.11 E., Otero County, Hydrologic Unit 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.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1947 to current year. 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.--Water-discharge 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	19	21	23	25	25	21	22	19	15	17	e26
2	20	19	20	22	25	24	20	21	21	15	21	e24
3	20	19	21	22	25	23	20	20	21	14	18	e22
4	20	18	21	21	25	24	18	19	22	14	19	e22
5	19	18	20	21	25	23	19	21	22	14	16	e21
6	19	18	20	21	25	23	19	22	21	14	16	e21
7	20	18	20	22	26	21	20	21	21	14	17	e20
8	21	18	20	24	26	21	21	21	21	14	14	e20
9	21	18	20	22	26	21	20	21	22	14	14	22
10	21	18	20	21	25	22	20	21	21	14	16	23
11	21	17	22	24	24	22	20	21	21	33	16	23
12	21	17	22	24	24	22	20	21	20	e24	17	24
13	21	17	21	25	25	21	20	22	17	e22	17	24
14	21	17	21	26	26	21	20	21	17	e20	17	24
15	20	18	21	25	28	21	20	21	18	e28	16	24
16	21	17	21	26	25	22	20	e28	21	e18	18	23
17	21	17	21	26	25	23	21	e27	21	18	20	23
18	19	18	22	25	25	22	18	e26	21	18	20	23
19	21	19	21	27	26	22	19	e23	21	21	21	20
20	21	19	21	27	28	22	19	e23	21	20	30	20
21	22	19	21	27	27	20	21	e23	22	19	21	21
22	22	20	22	26	27	20	21	e23	21	19	21	21
23	20	20	21	26	26	20	22	e22	21	19	20	22
24	20	20	21	25	26	22	22	e22	21	19	19	23
25	20	20	22	25	26	22	21	e22	21	15	20	24
26	20	20	23	26	26	22	21	e21	21	15	20	23
27	20	21	23	25	25	22	23	e21	13	16	22	24
28	19	21	23	25	25	22	23	21	13	21	e21	24
29	20	21	22	25	---	22	24	22	14	16	e21	24
30	19	21	22	25	---	21	23	18	15	16	e20	23
31	19	---	22	25	---	21	---	18	---	16	e18	---
TOTAL	629	562	658	754	717	679	616	675	591	555	583	678
MEAN	20.3	18.7	21.2	24.3	25.6	21.9	20.5	21.8	19.7	17.9	18.8	22.6
MAX	22	21	23	27	28	25	24	28	22	33	30	26
MIN	19	17	20	21	24	20	18	18	13	14	14	20
AC-FT	1250	1110	1310	1500	1420	1350	1220	1340	1170	1100	1160	1340

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1993, BY WATER YEAR (WY)

	MEAN	12.2	13.1	13.5	13.7	13.8	13.4	12.8	11.5	10.2	11.6	13.8	12.6
MAX	26.0	26.9	26.5	26.3	26.1	24.5	24.7	24.3	21.1	25.9	38.8	36.0	
(WY)	1991	1992	1992	1992	1992	1992	1992	1992	1988	1989	1988	1990	
MIN	6.88	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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1948 - 1993

ANNUAL TOTAL	8113	7697	
ANNUAL MEAN	22.2	21.1	12.7
HIGHEST ANNUAL MEAN			23.6
LOWEST ANNUAL MEAN			8.19
HIGHEST DAILY MEAN	36	Aug 14	33
LOWEST DAILY MEAN	13	Jun 30	13
ANNUAL SEVEN-DAY MINIMUM	15	Jul 10	14
INSTANTANEOUS PEAK FLOW			989
INSTANTANEOUS PEAK STAGE			3.44
INSTANTANEOUS LOW FLOW			11
ANNUAL RUNOFF (AC-FT)	16090	15270	9190
10 PERCENT EXCEEDS	27	25	22
50 PERCENT EXCEEDS	22	21	11
90 PERCENT EXCEEDS	18	17	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.

## TULAROSA VALLEY BASIN

08481500 TULAROSA CREEK NEAR BENT, NM -- Continued

## WATER-QUALITY RECORDS

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 18...	1500	19	1430	8.3	21.0	7.0	0.50	630	11.2	112	<10	42	
MAR 11...	1115	22	1520	8.2	13.0	5.0	5.1	634	10.6	100	--	73	
MAY 12...	1500	22	1230	8.1	23.0	18.0	2.8	625	8.2	107	--	29	
27...	0930	23	527	--	--	15.0	--	--	--	--	<10	--	
JUL 28...	1000	20	1130	8.1	24.0	11.5	78	627	8.9	100	13	--	
SEP 09...	1345	22	1300	8.0	28.0	12.5	7.4	628	8.8	101	<10	49	
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-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)
NOV 18...	110	620	440	170	48	41	0.7	1.2	210	7	184	178	
MAR 11...	K17	700	450	190	54	47	0.8	1.1	303	0	248	189	
MAY 12...	>2500	630	410	170	49	42	0.7	1.0	268	0	220	151	
27...	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 28...	--	660	450	180	50	--	--	--	253	0	207	190	
SEP 09...	200	660	480	180	51	44	0.7	1.7	225	0	184	166	
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) (00610)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV 18...	420	57	0.40	14	914	866	0.490	0.010	0.010	0.480	0.500	0.010	
MAR 11...	440	64	0.30	14	934	962	--	--	<0.010	--	0.540	--	
MAY 12...	460	59	0.40	13	902	930	--	--	<0.010	--	0.390	--	
27...	--	--	--	--	--	--	--	--	--	--	--	--	
JUL 28...	--	--	--	--	924	--	--	--	--	--	--	--	
SEP 09...	430	60	0.40	15	904	897	--	--	<0.010	--	0.470	--	

## TULAROSA VALLEY BASIN

08481500 TULAROSA CREEK NEAR BENT, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	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 TOTAL (MG/L AS P) (70507)	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)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 18...	0.020	<0.20	<0.010	<0.010	<0.010	<0.010	1.5	<10	21	<3	5
MAR 11...	<0.010	<0.20	<0.010	<0.010	--	<0.010	--	--	--	--	--
MAY 12...	0.020	<0.20	<0.010	<0.010	--	<0.010	--	10	21	<1	4
MAY 27...	--	--	--	--	--	--	1.9	--	--	--	--
JUL 28...	--	--	--	--	--	--	5.7	<10	30	<1	6
SEP 09...	0.020	0.30	0.040	<0.010	--	<0.010	2.1	<10	25	<3	6

DATE	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)	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)	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 18...	11	12	<10	<1	1	<1.0	2000	<6	37	1.9	51
MAR 11...	--	--	--	--	--	--	--	--	34	2.0	58
MAY 12...	11	11	<1	1	<1	<1.0	2100	2	86	5.2	79
MAY 27...	--	--	--	--	--	--	--	--	5	0.31	94
JUL 28...	13	20	<1	<1	<1	<1.0	2100	2	217	11	86
SEP 09...	15	18	<10	<1	1	<1.0	2100	<6	55	3.2	72

## SAN JUAN RIVER BASIN

09346400 SAN JUAN RIVER NEAR CARRACAS, CO

LOCATION.--Lat 37°00'49", long 107°18'42", in SE¼SW¼ sec.17, T.32 N., R.4 W., Archuleta County, Hydrologic Unit 14080101, on right bank just upstream from flow line of Navajo Reservoir, 3 mi 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 good 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	298	120	180	240	310	1240	1920	4160	2170	279	1460
2	191	215	110	180	240	331	1380	1670	3970	1980	263	1200
3	181	205	170	160	230	361	1370	1430	3580	1820	240	954
4	177	181	170	150	220	385	1360	1470	2740	1780	226	854
5	172	161	170	160	190	362	1620	1560	2380	1480	230	745
6	167	170	160	180	200	461	1970	1450	2290	1350	272	725
7	164	149	140	180	230	546	1460	1330	2220	1250	240	691
8	161	158	120	180	260	647	1150	1290	1870	1240	230	716
9	155	170	160	180	260	797	1150	1170	1610	1180	230	596
10	158	173	160	170	260	903	1410	1130	1410	1070	336	520
11	158	180	150	170	250	948	1670	1280	1460	991	355	477
12	155	187	150	150	230	755	1730	1630	1720	950	237	444
13	155	167	140	160	210	574	1580	2130	2280	989	221	503
14	155	170	130	180	240	541	1400	2650	2820	864	520	854
15	149	180	120	190	240	704	1200	2740	3100	771	664	630
16	149	198	130	190	230	1010	1300	2860	3330	734	373	528
17	149	209	140	200	220	1130	1300	3360	3180	675	306	491
18	149	198	140	200	230	1230	1400	2920	2720	618	264	444
19	146	195	140	200	310	1430	1300	2810	2330	549	235	417
20	137	191	140	190	290	1560	1500	2880	2370	491	526	386
21	137	191	140	190	270	1680	1700	3030	2380	444	500	345
22	140	177	150	180	270	1890	2000	3250	2400	405	607	322
23	149	174	150	170	270	1990	2170	2930	2500	368	520	305
24	149	170	150	170	270	2080	1850	2830	2470	350	407	279
25	149	135	150	170	270	2150	1580	2670	2230	322	334	273
26	155	126	140	190	270	2450	1510	3560	2210	305	300	263
27	161	130	140	210	280	2890	1880	5010	2190	284	366	253
28	158	150	140	220	280	2000	1900	5250	2220	254	4740	244
29	170	180	150	230	---	1440	2090	4290	2290	249	4340	239
30	204	140	160	230	---	1200	2110	3970	2430	299	2480	217
31	202	---	180	230	---	1210	---	3940	---	310	1880	---
TOTAL	5007	5328	4510	5740	6960	35965	47280	80410	74860	26542	22721	16375
MEAN	162	178	145	185	249	1160	1576	2594	2495	856	733	546
MAX	205	298	180	230	310	2890	2170	5250	4160	2170	4740	1460
MIN	137	126	110	150	190	310	1150	1130	1410	249	221	217
AC-FT	9930	10570	8950	11390	13810	71340	93780	159500	148500	52650	45070	32480

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, 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
MEAN	322	246	170	155	191	588	1162	1792	1866	655	337	290											
MAX	932	983	406	296	481	1319	2524	3195	4080	1677	733	880											
(WY)	1987	1987	1987	1987	1986	1985	1979	1973	1985	1979	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 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1971 - 1993
ANNUAL TOTAL	232859	331698	
ANNUAL MEAN	636	909	a649
HIGHEST ANNUAL MEAN			1201
LOWEST ANNUAL MEAN			200
HIGHEST DAILY MEAN	3620	5250	b6700
LOWEST DAILY MEAN	110	110	c28
ANNUAL SEVEN-DAY MINIMUM	134	134	39
INSTANTANEOUS PEAK FLOW		8200	d8200
INSTANTANEOUS PEAK STAGE		7.00	e7.00
ANNUAL RUNOFF (AC-FT)	461900	657900	469900
10 PERCENT EXCEEDS	1720	2390	1750
50 PERCENT EXCEEDS	288	322	290
90 PERCENT EXCEEDS	150	150	110

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.

e-Maximum gage height for statistical period, and period of record, 9.55 ft, Dec 28, 1984, 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 good 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 "Water resources data for Colorado."

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	116	91	72	86	184	920	2020	2290	867	102	1120
2	112	91	82	72	86	194	960	1740	2190	774	93	845
3	109	91	73	72	82	181	1000	1570	1950	717	89	629
4	106	79	75	66	88	190	1100	1630	1650	657	85	507
5	104	77	78	64	80	194	1200	1700	1480	564	88	417
6	102	78	79	66	78	218	1200	1510	1400	529	97	384
7	99	73	73	74	84	264	1100	1370	1330	514	99	359
8	95	69	64	80	90	333	1000	1310	1160	425	99	330
9	81	75	65	74	94	392	1100	1170	1060	395	97	286
10	80	80	65	75	88	453	1300	1140	908	364	99	257
11	79	84	65	75	88	492	1400	1370	930	330	118	230
12	79	84	65	68	88	427	1500	1780	1120	312	109	212
13	77	81	65	60	85	369	1400	2120	1430	316	104	259
14	77	80	65	70	78	344	1330	2370	1680	286	173	356
15	75	75	65	75	82	408	1240	2470	1850	261	251	279
16	71	75	65	76	93	520	1280	2500	1940	241	170	253
17	71	75	65	78	87	552	1230	2760	1860	230	142	234
18	69	75	62	81	86	664	1470	2450	1590	206	124	208
19	69	75	62	80	109	835	1390	2370	1390	188	134	201
20	69	71	62	79	285	901	1280	2370	1430	170	308	188
21	69	74	62	80	199	931	1370	2480	1480	162	286	175
22	69	71	62	80	149	1120	1630	2570	1480	153	381	162
23	69	74	62	77	139	1200	1840	2290	1470	148	313	153
24	69	73	62	74	141	1290	1880	2190	1430	138	254	145
25	69	80	62	66	134	1400	1540	2140	1310	129	205	137
26	78	85	62	70	136	1500	1550	2320	1240	121	198	134
27	80	90	65	75	145	1500	1810	2610	1190	112	236	131
28	77	95	68	76	168	1300	1910	2560	1120	104	1470	126
29	78	95	70	76	---	1100	2090	2300	1060	99	2430	121
30	90	90	74	80	---	1000	2140	2180	1050	101	1900	116
31	104	---	74	84	---	950	---	2210	---	108	1380	---
TOTAL	2592	2431	2109	2295	3148	21406	42160	63570	43468	9721	11634	8954
MEAN	83.6	81.0	68.0	74.0	112	691	1405	2051	1449	314	375	298
MAX	116	116	91	84	285	1500	2140	2760	2290	867	2430	1120
MIN	69	69	62	60	78	181	920	1140	908	99	85	116
AC-FT	5140	4820	4180	4550	6240	42460	83620	126100	86220	19280	23080	17760

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

	1963	1964	1965	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
MEAN	179	126	91.6	75.9	93.2	305	917	1326	1071	348	215	211																			
MAX	618	517	257	153	244	706	2126	2926	2526	1133	551	943																			
(WY)	1973	1987	1987	1987	1986	1989	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 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1963 - 1993
ANNUAL TOTAL	157317	213488	
ANNUAL MEAN	430	585	414
HIGHEST ANNUAL MEAN			822
LOWEST ANNUAL MEAN			94.0
HIGHEST DAILY MEAN	2030	Apr 14	2760
LOWEST DAILY MEAN	a62	Dec 18	60
ANNUAL SEVEN-DAY MINIMUM	62	Dec 18	62
INSTANTANEOUS PEAK FLOW			3280
INSTANTANEOUS PEAK STAGE			4.67
ANNUAL RUNOFF (AC-FT)	312000	423500	299800
10 PERCENT EXCEEDS	1280	1720	1210
50 PERCENT EXCEEDS	167	162	152
90 PERCENT EXCEEDS	73	70	54

a-Also occurred Dec. 19-26.

b-From rating curve extended above 4,400 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

c-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 good 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 observations of specific conductance and water temperature were obtained and are published in "Water resources data for Colorado."

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	143	75	80	80	267	727	508	1140	698	199	339
2	179	113	75	80	80	242	705	453	1280	606	196	268
3	179	101	80	75	80	244	553	378	1320	476	173	221
4	182	91	80	70	80	805	568	319	1250	416	176	220
5	173	87	85	75	80	857	627	280	990	350	192	217
6	170	83	80	75	80	935	669	275	500	261	189	213
7	159	83	80	80	80	983	558	235	407	211	188	203
8	155	83	80	80	89	1100	491	210	390	197	212	182
9	150	81	80	80	162	1170	513	190	363	202	213	158
10	140	80	80	75	182	1200	590	190	332	202	199	161
11	128	91	80	70	211	1360	672	258	389	206	209	182
12	130	103	75	70	362	1240	684	275	395	206	203	185
13	130	97	70	70	349	1050	617	334	405	206	223	472
14	135	91	65	75	347	977	563	335	694	196	274	335
15	145	87	60	80	340	1130	509	322	1430	189	287	222
16	143	83	65	90	327	1440	526	318	1650	199	260	203
17	166	81	70	93	271	1350	520	331	1660	209	259	199
18	173	79	70	89	140	1290	590	347	1670	199	255	182
19	182	78	70	90	333	1240	568	313	1430	192	252	176
20	156	83	70	85	512	941	533	278	1120	185	290	188
21	124	81	70	80	352	881	544	271	979	199	299	188
22	127	87	70	75	835	935	590	255	968	202	339	162
23	127	83	70	75	831	936	633	241	991	196	288	153
24	127	80	70	75	799	936	646	217	1020	192	256	145
25	132	80	70	75	796	975	540	256	1090	192	224	140
26	172	75	70	75	796	1010	469	282	1060	189	230	145
27	131	70	70	75	796	1180	369	388	954	179	351	145
28	128	75	70	75	759	1050	534	635	799	185	864	135
29	150	75	70	75	---	891	585	1210	714	185	1020	140
30	158	75	75	79	---	764	533	1720	685	209	561	147
31	173	---	80	81	---	754	---	1310	---	199	758	---
TOTAL	4703	2599	2275	2422	10149	30133	17226	12934	28075	7733	9639	6026
MEAN	152	86.6	73.4	78.1	362	972	574	417	936	249	311	201
MAX	182	143	85	93	835	1440	727	1720	1670	698	1020	472
MIN	124	70	60	70	80	242	369	190	332	179	173	135
AC-FT	9330	5160	4510	4800	20130	59770	34170	25650	55690	15340	19120	11950

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

	197	141	104	76.3	99.4	207	351	450	503	308	218	206
MEAN	197	141	104	76.3	99.4	207	351	450	503	308	218	206
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 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1951 - 1993

ANNUAL TOTAL	77943	133914	
ANNUAL MEAN	213	367	
HIGHEST ANNUAL MEAN			243
LOWEST ANNUAL MEAN			582
HIGHEST DAILY MEAN	703	Jun 10	1720
LOWEST DAILY MEAN	45	Jan 5	60
ANNUAL SEVEN-DAY MINIMUM	50	Jan 1	67
INSTANTANEOUS PEAK FLOW			2000
INSTANTANEOUS PEAK STAGE			6.34
ANNUAL RUNOFF (AC-FT)	154600	265600	175700
10 PERCENT EXCEEDS	443	976	532
50 PERCENT EXCEEDS	176	203	132
90 PERCENT EXCEEDS	65	75	50

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.

GAGE.--Water-stage recorder. Elevation of gage is 6,160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	25	8.0	6.8	16	55	24	33	62	63	64	74
2	43	13	7.2	6.6	16	54	23	30	60	56	63	55
3	45	10	6.4	6.2	12	51	22	26	56	60	59	48
4	48	9.5	5.8	6.0	9.4	41	22	17	61	61	57	45
5	47	9.0	5.6	6.4	8.4	37	25	39	64	57	64	45
6	42	8.5	5.8	7.0	8.0	41	27	34	67	51	64	46
7	40	8.5	6.0	7.4	8.0	67	23	35	68	52	61	44
8	39	8.5	7.0	7.2	8.8	136	22	39	64	52	61	44
9	41	8.5	7.6	6.8	16	170	22	38	67	57	60	44
10	40	8.0	6.4	6.4	27	159	22	31	60	57	60	43
11	40	8.9	5.8	6.2	37	150	25	34	65	57	64	44
12	42	9.0	5.8	6.0	34	83	28	33	61	57	64	49
13	40	8.5	5.4	6.4	15	41	24	38	63	55	74	179
14	43	7.6	5.2	6.8	6.1	35	23	51	63	61	132	101
15	43	7.6	5.4	7.0	3.6	42	22	48	61	67	111	51
16	46	7.2	5.2	7.4	2.5	46	20	64	61	67	92	51
17	42	7.2	5.0	7.4	2.7	43	19	77	67	69	81	50
18	43	7.2	5.0	7.2	3.0	34	18	94	66	63	75	49
19	40	6.8	5.0	7.0	7.5	45	17	87	67	61	77	48
20	40	8.0	5.2	6.8	90	36	16	72	64	68	92	44
21	40	8.5	5.6	6.6	120	30	15	69	67	65	103	36
22	39	8.0	6.0	6.4	44	32	14	71	64	63	103	36
23	40	7.6	6.0	6.4	17	28	15	69	61	67	75	38
24	40	7.2	6.0	6.4	10	29	16	65	59	64	69	40
25	39	7.0	6.0	6.6	5.7	29	33	68	62	64	71	41
26	33	6.2	6.0	7.0	4.9	32	12	86	63	61	82	43
27	25	6.6	6.0	7.2	4.5	72	13	107	62	60	135	45
28	23	7.4	6.2	7.6	23	74	14	89	60	59	301	44
29	28	8.0	6.2	7.4	---	47	17	89	65	58	229	42
30	33	8.0	6.4	8.0	---	34	28	67	64	70	73	46
31	33	---	6.6	9.2	---	30	---	73	---	61	177	---
TOTAL	1219	261.0	185.8	213.8	560.1	1803	621	1773	1894	1883	2893	1565
MEAN	39.3	8.70	5.99	6.90	20.0	58.2	20.7	57.2	63.1	60.7	93.3	52.2
MAX	48	25	8.0	9.2	120	170	33	107	68	70	301	179
MIN	23	6.2	5.0	6.0	2.5	28	12	17	56	51	57	36
AC-FT	2420	518	369	424	1110	3580	1230	3520	3760	3730	5740	3100

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

	MEAN	35.4	10.7	5.48	4.58	10.3	18.8	14.1	39.6	57.3	65.8	66.2	58.6
MAX	87.9	29.6	20.4	19.3	54.8	89.7	41.1	64.5	79.3	90.1	105	92.0	
(WY)	1973	1956	1985	1980	1980	1979	1979	1992	1986	1987	1987	1983	
MIN	5.25	3.68	1.74	2.04	2.55	3.03	3.77	15.7	24.4	21.2	32.1	26.5	
(WY)	1978	1978	1960	1973	1960	1972	1978	1978	1977	1977	1977	1951	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1951 - 1993

ANNUAL TOTAL	13841.2	14871.7	
ANNUAL MEAN	37.8	40.7	32.7
HIGHEST ANNUAL MEAN			47.7
LOWEST ANNUAL MEAN			15.6
HIGHEST DAILY MEAN	236	301	778
LOWEST DAILY MEAN	3.8	2.5	1.0
ANNUAL SEVEN-DAY MINIMUM	4.8	5.1	1.0
INSTANTANEOUS PEAK FLOW		458	a1980
INSTANTANEOUS PEAK STAGE		2.83	b4.62
ANNUAL RUNOFF (AC-FT)	27450	29500	23660
10 PERCENT EXCEEDS	71	72	71
50 PERCENT EXCEEDS	35	39	24
90 PERCENT EXCEEDS	5.9	6.3	3.3

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 U.S. 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, 1,634,400 acre-ft, Sept. 15, elevation, 6,080.96 ft; minimum contents, 1,396,700 acre-ft, May 11, elevation, 6,064.13 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 1992 TO SEPTEMBER 1993  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1578500	1559800	1543500	1527900	1519000	1516500	1457700	1417500	1555700	1604700	1599000	1626900
2	1578100	1559400	1543100	1527400	1518800	1511800	1455500	1416000	1561400	1607400	1597600	1628100
3	1577500	1558900	1542500	1527000	1518600	1506500	1453300	1413500	1564600	1609700	1596300	1629300
4	1577100	1558000	1542200	1526500	1518300	1501900	1451900	1410500	1564200	1611500	1594800	1630200
5	1576200	1557600	1542100	1525700	1517700	1497000	1451200	1409300	1563800	1613100	1593900	1630800
6	1575000	1557300	1541700	1525400	1517400	1492800	1451300	1406800	1563500	1614300	1592200	1631100
7	1574400	1556600	1540800	1525700	1516900	1489400	1449000	1405000	1561400	1615200	1590700	1630300
8	1573700	1556200	1540500	1526500	1516900	1487300	1446100	1402500	1557900	1615500	1589600	1630800
9	1573200	1555700	1539600	1526500	1517000	1485200	1443100	1399600	1553800	1615600	1587900	1630300
10	1572800	1555100	1539300	1526700	1517400	1483600	1442000	1397100	1549300	1616300	1587300	1630800
11	1572100	1554800	1538700	1526500	1517700	1481900	1441400	1396700	1546300	1616400	1586400	1630800
12	1571200	1554400	1538300	1526100	1518000	1479400	1440600	1398000	1543100	1616600	1585000	1630300
13	1570200	1554100	1537900	1525700	1518300	1475700	1439300	1402500	1542500	1616700	1583700	1632900
14	1569400	1553500	1537000	1525300	1518400	1471800	1436800	1408000	1544000	1617200	1584100	1633500
15	1568600	1553200	1536600	1525000	1519000	1468600	1434400	1414900	1547500	1616600	1584100	1634400
16	1568300	1553100	1535800	1525000	1519400	1467300	1432000	1422600	1552500	1616300	1583200	1634000
17	1567400	1552600	1535500	1525000	1519400	1464800	1429900	1431500	1557400	1616000	1582400	1634000
18	1566900	1552000	1534800	1524900	1519400	1463000	1427700	1438900	1561400	1615300	1581500	1633500
19	1566000	1551300	1534100	1525000	1521200	1461700	1426200	1446600	1564800	1614600	1580900	1633500
20	1565200	1550800	1533700	1524600	1523900	1460300	1423800	1454300	1567300	1613500	1581200	1633100
21	1564500	1550400	1532800	1524400	1526500	1459100	1422300	1464200	1570200	1612600	1582400	1632500
22	1563500	1550100	1532000	1523600	1528800	1458900	1421700	1472900	1573500	1611800	1582800	1632000
23	1563100	1549100	1531600	1523200	1529100	1458800	1420600	1478200	1576900	1610300	1583100	1631300
24	1562500	1548500	1530700	1522800	1528400	1459700	1419600	1485200	1578800	1609100	1581900	1629900
25	1561800	1547800	1529900	1522100	1526000	1460700	1418600	1492000	1580600	1608000	1581200	1629300
26	1561300	1547000	1529500	1521500	1523700	1463500	1416500	1500900	1581900	1606500	1580600	1628500
27	1561000	1546100	1529100	1521200	1521900	1467700	1415800	1512100	1585500	1604900	1582800	1627400
28	1560400	1545400	1529100	1520700	1519800	1468600	1416000	1521800	1588100	1603800	1596900	1626800
29	1560400	1544600	1528800	1520200	---	1466100	1416800	1530600	1598100	1602200	1609800	1625900
30	1560400	1544200	1528200	1519800	---	1463100	1417100	1538900	1602000	1601300	1617000	1624800
31	1560000	---	1528200	1519400	---	1460300	---	1547500	---	1600300	1623800	---
MAX	1578500	1559800	1543500	1527900	1529100	1516500	1457700	1547500	1602000	1617200	1623800	1634400
MIN	1560000	1544200	1528200	1519400	1516900	1458800	1415800	1396700	1542500	1600300	1580600	1624800
(†)	6075.93	6074.87	6073.73	6073.10	6073.13	6068.87	6065.65	6075.10	6078.80	6078.69	6080.25	6080.32
(††)	-19400	-15800	-16000	-8800	+400	-59500	-43200	+130400	+54500	-1700	+23500	+1000

CAL YR 1992 MAX 1644300 MIN 1528200 (†) -23700  
WTR YR 1993 MAX 1634400 MIN 1396700 (†) +45400

(†) 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 U.S. Bureau of Reclamation. National Weather Service satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	620	588	550	575	585	2800	4480	4440	3000	1410	580	678
2	616	586	553	576	572	3310	4490	4440	3690	1180	584	671
3	612	573	557	578	559	3690	4460	4440	4100	867	572	666
4	607	551	564	569	553	4060	4460	4390	4430	873	569	664
5	604	532	565	572	543	4240	4450	4140	4410	868	582	664
6	597	520	566	569	531	4140	4440	3980	4400	860	593	657
7	597	514	565	577	529	4150	4440	3970	4380	845	598	652
8	591	501	563	588	530	4090	4440	3960	4380	841	605	645
9	594	500	573	573	535	4020	4440	3940	4360	841	613	631
10	593	497	574	569	535	4060	4420	3750	4370	848	598	630
11	589	496	578	574	529	4030	4440	3290	4440	836	618	611
12	593	492	575	567	529	4020	4450	2900	4070	736	638	617
13	594	496	572	566	529	4020	4440	2590	4050	638	676	634
14	590	496	574	566	529	4030	4440	2470	4040	645	637	619
15	600	494	572	572	526	4210	4440	2480	4030	646	636	606
16	601	500	572	572	529	4470	4460	2470	3980	644	638	604
17	608	501	572	583	529	4510	4440	2260	3790	633	640	604
18	610	514	572	577	529	4510	4440	1900	3250	630	647	611
19	606	526	574	588	529	4510	4450	1740	2790	627	652	616
20	602	527	566	580	530	4540	4430	1710	2770	623	653	613
21	600	532	568	583	529	4500	4440	1710	2770	617	649	610
22	604	532	561	575	609	4480	4440	1700	2580	613	650	605
23	600	538	565	577	1010	4480	4440	1700	2160	608	655	605
24	603	541	566	574	1460	4470	4440	1690	1950	604	661	612
25	595	535	566	576	1830	4480	4440	1670	1940	599	666	615
26	596	543	566	575	2220	4470	4440	1720	1940	597	664	605
27	597	542	566	578	2540	4490	4440	2250	1920	597	673	601
28	597	547	570	583	2580	4480	4440	2800	1910	592	678	599
29	598	553	570	583	---	4470	4440	2820	1670	591	673	601
30	591	547	572	585	---	4480	4440	2830	1400	588	671	601
31	593	---	573	588	---	4480	---	2850	---	579	683	---
TOTAL	18598	15814	17600	17868	23538	130690	133350	89000	98970	22676	19652	18747
MEAN	600	527	568	576	841	4216	4445	2871	3299	731	634	625
MAX	620	588	578	588	2580	4540	4490	4440	4440	1410	683	678
MIN	589	492	550	566	526	2800	4420	1670	1400	579	569	599
AC-FT	36890	31370	34910	35440	46690	259200	264500	176500	196300	44980	38980	37180
(†)	8400	0	0	0	0	2000	13700	23300	32600	3900	28300	21600

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

	1963	1964	1965	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
MEAN	907	946	1084	1153	1161	1210	1468	1626	1606	1290	1002	947																			
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)	1963	1963	1963	1963	1963	1964	1964	1967	1967	1967	1963	1963																			

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1963 - 1993

ANNUAL TOTAL	421719	606503	
ANNUAL MEAN	1152	1662	
HIGHEST ANNUAL MEAN			2686
LOWEST ANNUAL MEAN			280
HIGHEST DAILY MEAN	4460	Jun 4	4540
LOWEST DAILY MEAN	469	Jul 21	492
ANNUAL SEVEN-DAY MINIMUM	496	Nov 9	496
INSTANTANEOUS PEAK FLOW			108
INSTANTANEOUS PEAK STAGE			b18900
INSTANTANEOUS LOW FLOW			c11.00
ANNUAL RUNOFF (AC-FT)	836500	1203000	869400
10 PERCENT EXCEEDS	3360	4440	2610
50 PERCENT EXCEEDS	612	617	696
90 PERCENT EXCEEDS	515	540	400

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 1992 TO SEPTEMBER 1993

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)
NOV 17...	1145	483	290	8.9	15.5	6.5	2.2	620	13.4
JAN 05...	1330	574	282	8.2	8.0	6.0	4.1	620	14.0
MAR 11...	1200	4020	263	8.3	10.0	5.5	9.8	620	11.8
MAY 03...	1230	4440	270	8.3	18.5	7.5	8.0	620	12.4
JUN 01...	1100	2880	240	8.7	28.0	7.0	10	620	12.1
AUG 31...	1300	682	286	8.0	20.0	10.5	5.2	620	11.8

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)
NOV 17...	134	100	24	31	6.5	15	0.6	1.9	90
JAN 05...	139	100	20	30	6.2	15	0.7	1.8	98
MAR 11...	115	96	13	29	5.8	14	0.6	1.8	92
MAY 03...	127	100	21	30	6.9	14	0.6	1.8	100
JUN 01...	123	96	14	28	6.3	14	0.6	1.9	90
AUG 31...	130	100	26	30	6.8	16	0.7	1.8	94

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)
NOV 17...	4	80	84	54	2.2	0.10	11	191	170
JAN 05...	0	80	83	48	1.9	0.20	11	170	162
MAR 11...	5	83	84	42	2.1	0.10	11	185	156
MAY 03...	0	82	82	51	2.1	0.20	11	170	166
JUN 01...	5	82	81	47	2.3	0.20	11	167	160
AUG 31...	0	77	84	53	1.9	0.10	10	164	166

## SAN JUAN RIVER BASIN

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM

LOCATION.--Lat 37°02'17", long 107°52'25", in sec.7, T.32 N., R.9 W., La Plata County, Colorado, Hydrologic Unit 14080104, on right bank 0.8 mi 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.

DRAINAGE AREA.--1,090 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for October and November 1933, published in WSP 1313.

REVISED RECORDS.--WSP 1563: 1940 and 1946 (monthly figures only).

GAGE.--Water-stage recorder. Elevation of gage is 5,960 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 14, 1937, at datum between 1.52 ft and 1.36 ft higher. Sept. 15, 1937, to Sept. 30, 1946, at datum 1.36 ft higher.

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.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	DAILY MEAN VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	405	340	268	e276	282	473	1020	2820	6310	3330	734	1540
2	387	292	272	e286	287	477	1070	2420	6190	3080	678	1270
3	380	300	280	268	261	471	1100	2390	5650	2990	647	1100
4	373	285	282	280	265	464	1140	2640	4580	2760	623	964
5	355	288	290	272	268	478	1280	2820	3660	2190	637	869
6	348	288	280	278	244	517	1300	2570	3430	1960	668	808
7	346	290	278	330	249	587	1140	2260	3240	1970	611	773
8	349	291	268	302	281	689	1050	2110	2860	2010	613	732
9	342	296	272	259	389	819	1070	1890	2510	1890	645	684
10	362	292	270	254	342	916	1230	1760	2280	1780	659	656
11	361	298	270	259	325	1080	1450	1860	2350	1680	678	612
12	341	296	278	250	304	991	1540	2470	2980	1660	664	589
13	299	285	280	250	335	782	1420	3180	4140	1680	628	865
14	287	289	275	248	335	736	1320	3670	5070	1570	661	790
15	283	290	272	260	339	882	1240	4290	5540	1480	782	670
16	282	291	278	263	342	1190	1200	4470	5990	1430	733	640
17	281	289	290	263	341	1180	1280	4900	6030	1300	657	617
18	278	298	302	260	331	1240	1440	4490	4860	1230	624	597
19	279	303	e290	e262	374	1470	1460	4460	3740	1150	607	577
20	284	300	e285	257	653	1280	1400	4590	3830	1060	645	564
21	281	298	e251	251	542	1250	1490	5300	4460	1020	720	541
22	296	278	e251	255	422	1380	1730	5910	4910	940	810	530
23	291	274	e272	255	398	1410	2130	5350	4870	903	772	518
24	287	260	e280	246	395	1480	2300	5080	4650	868	685	497
25	289	250	e298	284	398	1590	1950	5540	4080	815	628	477
26	300	278	e299	e255	386	1730	1920	6220	3990	784	598	467
27	296	282	e296	250	394	1810	2360	6880	3920	772	684	444
28	287	272	e288	255	448	1510	2730	7130	3690	742	1020	426
29	310	275	e273	258	---	1310	3100	6240	3330	714	1860	409
30	323	264	e304	265	---	1100	3240	5730	3610	747	2130	393
31	356	---	e304	275	---	1050	---	5930	---	797	2110	---
TOTAL	9938	8632	8696	8226	9930	32342	48100	127370	126750	47302	25211	20619
MEAN	321	288	281	265	355	1043	1603	4109	4225	1526	813	687
MAX	405	340	304	330	653	1810	3240	7130	6310	3330	2130	1540
MIN	278	250	251	246	244	464	1020	1760	2280	714	598	393
AC-FT	19710	17120	17250	16320	19700	64150	95410	252600	251400	93820	50010	40900

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1993, BY WATER YEAR (WY)

	MEAN	339	376	289	295	330	654	1255	2891	2755	1014	657	701
	MAX	369	482	323	335	355	1043	1603	4109	4225	1526	813	937
(WY)	1988	1988	1992	1988	1988	1993	1993	1993	1993	1993	1993	1993	1991
	MIN	321	288	264	265	282	454	733	1485	2094	746	531	501
(WY)	1993	1993	1988	1993	1992	1992	1988	1988	1988	1988	1988	1991	1992

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1985 - 1993

ANNUAL TOTAL	339044	473116	
ANNUAL MEAN	926	1296	984
HIGHEST ANNUAL MEAN			1296
LOWEST ANNUAL MEAN			719
HIGHEST DAILY MEAN	4800	7130	7250
LOWEST DAILY MEAN	236	244	109
ANNUAL SEVEN-DAY MINIMUM	265	254	119
INSTANTANEOUS PEAK FLOW		8600	13100
INSTANTANEOUS PEAK STAGE		9.97	11.45
INSTANTANEOUS LOW FLOW			63
ANNUAL RUNOFF (AC-FT)	672500	938400	712600
10 PERCENT EXCEEDS	2610	3710	2700
50 PERCENT EXCEEDS	443	640	586
90 PERCENT EXCEEDS	276	271	272

e Estimated

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

NOV	17...	1500	286	590	8.8	12.5	7.5	610	12.4	130	<10	K20	K12
MAR	11...	1430	925	516	8.3	9.5	6.5	610	9.9	101	57	K43	180
MAY	03...	1500	2400	311	8.1	18.0	10.0	610	10.2	113	20	K120	25
AUG	31...	1500	2220	360	8.0	21.0	15.5	615	8.6	107	--	3900	7000

[illegible]

NOV	17...	18	0.30	8.0	358	0.030	<0.010	0.170	0.160	0.030	0.020	0.20	0.020
MAR	11...	10	0.20	8.1	321	--	<0.010	--	0.290	--	0.070	1.2	0.660
MAY	03...	3.6	0.20	6.8	180	--	<0.010	--	0.120	--	0.030	0.30	0.070
AUG	31...	--	--	--	--	--	<0.010	--	0.200	--	0.030	0.20	0.050

[illegible]

## SAN JUAN RIVER BASIN

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	CHROMIUM, RECOV. FM BOT- TOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MATERIAL (UG/G) AS CO (01038)	COPPER, RECOV. FM BOT- TOM MATERIAL (UG/G) AS CU (01043)	IRON, RECOV. FM BOT- TOM MATERIAL (UG/G) AS FE (01170)	LEAD, RECOV. FM BOT- TOM MATERIAL (UG/G) AS PB (01052)	MANGANESE, RECOV. FM BOT- TOM MATERIAL (UG/G) (01053)	MERCURY, RECOV. FM BOT- TOM MATERIAL (UG/G) AS HG (71921)	ZINC, RECOV. FM BOT- TOM MATERIAL (UG/G) AS ZN (01093)	SEDIMENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 17...	2	<5	50	8400	340	97	0.02	1300	17	13	81
MAR 11...	--	--	--	--	--	--	--	--	--	--	--
MAY 03...	--	--	--	--	--	--	--	--	85	551	60
AUG 31...	--	--	--	--	--	--	--	--	2400	14400	96

## SAN JUAN RIVER BASIN

09364500 ANIMAS RIVER AT FARMINGTON, NM  
(National stream-quality accounting network station)

LOCATION.--Lat 36°43'17", long 108°12'05", in SW/4 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.

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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	275	390	297	301	299	502	1010	2630	6440	3140	525	1790
2	259	358	309	311	303	486	1040	2210	6490	2830	478	1340
3	255	333	315	319	294	485	1110	1950	5970	2690	414	1150
4	251	330	333	292	280	485	1120	2110	5000	2560	375	983
5	258	321	337	314	308	487	1220	2350	3750	2110	387	878
6	257	317	317	282	282	507	1310	2310	3520	1710	416	791
7	256	317	293	328	274	563	1200	2000	3330	1650	411	742
8	254	317	288	e390	291	621	1100	1850	2920	1660	368	677
9	276	315	307	e350	385	749	1050	1720	2510	1590	390	620
10	266	323	304	e315	416	857	1110	1580	2250	1480	453	579
11	269	326	297	e270	358	989	1280	1560	2180	1390	455	554
12	266	317	317	e260	335	1040	1360	1980	2710	1300	463	545
13	256	317	310	e255	340	793	1340	2680	3860	1310	497	890
14	232	320	310	e255	351	713	1220	3250	5040	1240	606	953
15	226	318	291	e260	352	726	1160	3920	5660	1170	607	749
16	221	315	290	e258	354	1020	1110	4390	6220	1100	665	669
17	219	318	301	e260	355	1190	1150	4890	6490	1030	566	642
18	216	315	355	e265	335	913	1240	4840	5650	922	520	607
19	229	316	315	e270	365	1460	1290	4670	3860	887	498	582
20	233	333	310	e265	545	1230	1180	4660	3560	811	516	554
21	235	326	276	e270	641	1100	1210	5110	4240	744	579	531
22	243	308	276	e275	486	1250	1320	5780	4890	715	625	516
23	239	294	297	e270	406	1250	1610	5560	4930	672	679	495
24	254	287	305	e265	412	1340	1850	5000	4770	646	605	437
25	262	267	323	266	411	1450	1730	5240	4170	632	537	414
26	290	281	324	267	410	1610	1500	5860	3920	571	489	394
27	287	311	321	277	393	1790	1710	6650	3840	559	576	378
28	272	314	318	284	432	1590	2070	7390	3640	544	888	348
29	284	310	298	287	---	1420	2420	6930	3200	523	1700	309
30	325	308	329	300	---	1160	2690	5950	3330	513	2330	292
31	353	---	329	293	---	1080	---	5940	---	545	2140	---
TOTAL	8018	9522	9592	8874	10413	30856	41710	122960	128340	39244	20758	20409
MEAN	259	317	309	286	372	995	1390	3966	4278	1266	670	680
MAX	353	390	355	390	641	1790	2690	7390	6490	3140	2330	1790
MIN	216	267	276	255	274	485	1010	1560	2180	513	368	292
AC-FT	15900	18890	19030	17600	20650	61200	62730	243900	254600	77840	41170	40480

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1993, BY WATER YEAR (WY)

	MEAN	431	351	295	275	298	446	1008	2421	2998	1118	489	435
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	49.8	10.6	
(WY)	1957	1935	1964	1964	1964	1977	1977	1977	1934	1934	1950	1956	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1914 - 1993

ANNUAL TOTAL	285490	450696	
ANNUAL MEAN	780	1235	881
HIGHEST ANNUAL MEAN			1733
LOWEST ANNUAL MEAN			239
HIGHEST DAILY MEAN	4040	May 28	11000
LOWEST DAILY MEAN	174	Aug 22	2.4
ANNUAL SEVEN-DAY MINIMUM	216	Aug 17	6.4
INSTANTANEOUS PEAK FLOW			7790
INSTANTANEOUS PEAK STAGE			9.16
INSTANTANEOUS LOW FLOW			May 28
ANNUAL RUNOFF (AC-FT)	566300	894000	b25000
10 PERCENT EXCEEDS	2140	3680	a8.50
50 PERCENT EXCEEDS	367	525	1.0
90 PERCENT EXCEEDS	266	270	638400
e Estimated			2330
			375
			186

a--Site and datum then in use.

b--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.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1941 to September 1993 (discontinued).

WATER TEMPERATURE: December 1950 to September 1993 (discontinued).

SUSPENDED-SEDIMENT DISCHARGE: December 1950 to September 1993 (discontinued).

REMARKS--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 observer.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,980 microsiemens, Aug. 19, 1944; minimum daily, 89 microsiemens, June 15, 1985.

WATER TEMPERATURE: Maximum daily, 32.0 °C, Aug. 26, 1966 and July 16, 1977; minimum daily, 0.0 °C, on many days during winter months each year.

SEDIMENT CONCENTRATION: Maximum daily mean, 36,800 mg/L, July 23, 1954; minimum daily mean, 1 mg/L on several days during 1956, 1958, and 1974.

SEDIMENT LOAD: Maximum daily, 337,000 tons, July 23, 1954; minimum daily, less than .50 ton on many days during 1955-57, 1959-60, 1963, 1972, 1974, and 1978.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 823 microsiemens, Jan. 9; minimum daily, 184 microsiemens, June 17.

WATER TEMPERATURE: Maximum daily, 27.0 °C, July 31; minimum daily, 2.0 °C, Dec. 15, 18-20, Jan. 11, 12.

SEDIMENT CONCENTRATION: Maximum daily mean, 4,030 mg/L, Mar. 19; minimum daily mean, 12 mg/L, Sept. 25.

SEDIMENT LOAD: Maximum daily, 20,600 tons, Aug. 29; minimum daily, 13 tons, Sept. 25, 29, 30.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
NOV 19...	1000	311	720	8.6	10.5	5.0	2.9	630	13.9	132	46
MAR 09...	1300	760	565	8.2	17.0	8.5	1400	630	9.8	102	<10
MAY 05...	0900	2260	334	8.1	7.0	8.5	43	630	9.8	102	270
SEP 01...	1045	1810	374	8.3	22.5	17.0	600	631	7.8	98	2400

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)
NOV 19...	57	290	130	91	14	35	0.9	3.0	170	10	155
MAR 09...	440	180	39	54	9.5	38	1	2.7	166	0	136
MAY 05...	190	150	47	48	7.5	9.2	0.3	1.4	127	0	104
SEP 01...	>1000	160	53	49	7.8	15	0.5	2.5	124	0	102

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 TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV 19...	151	180	21	0.40	4.3	441	444	<0.010	<0.010	<0.050
MAR 09...	142	130	12	0.30	6.6	361	337	--	<0.010	--
MAY 05...	102	61	5.6	0.20	6.4	208	203	--	<0.010	--
SEP 01...	104	75	7.7	0.30	7.2	228	227	--	<0.010	--

SAN JUAN RIVER BASIN  
09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued  
WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, 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 TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 19...	<0.050	0.020	0.010	0.20	0.030	<0.010	<0.010	<0.010	<3	38
MAR 09...	0.250	--	0.060	1.3	0.490	<0.010	--	0.020	12	23
MAY 05...	0.140	--	0.040	0.50	0.170	<0.010	--	<0.010	12	13
SEP 01...	0.220	--	0.060	0.40	0.120	0.020	--	0.030	8	4

DATE	TIME	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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)
NOV 19...	1000	30	69	<3	44	<10	<1	<1	<1.0	1200	<6
MAR 09...	1300	20	140	<3	21	<10	<1	2	<1.0	870	<6
MAY 05...	0900	30	71	<3	10	<10	1	<1	<1.0	450	<6
SEP 01...	1045	10	89	<3	20	<10	<1	<1	<1.0	570	<6

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 19...	1000	311	720	5.0	20	17	55
MAR 09...	1300	760	565	8.5	3530	7240	88
MAY 05...	0900	2260	334	8.5	240	1460	60
SEP 01...	1045	1810	374	17.0	734	3590	83



## SAN JUAN RIVER BASIN

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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	58	43	82	86	81	65	91	74	478	386	1020	1380
2	35	24	78	75	77	64	107	90	311	254	1090	1430
3	23	16	78	70	88	75	74	64	189	150	814	1070
4	30	20	79	70	42	38	110	87	154	116	762	998
5	30	21	77	67	23	21	100	85	124	103	822	1080
6	29	20	76	65	21	18	90	69	115	88	1060	1440
7	37	26	78	67	20	16	80	71	109	81	3040	4630
8	52	36	77	66	41	32	3310	3490	114	90	2640	4420
9	62	46	80	68	32	27	3040	2870	326	339	3470	7020
10	58	42	80	70	27	22	191	162	456	512	3410	7880
11	42	31	94	83	53	43	142	104	375	362	2300	6140
12	24	17	93	80	67	57	175	123	299	270	1060	2970
13	29	20	75	64	67	56	368	253	223	205	730	1560
14	41	26	73	63	68	57	358	246	199	189	822	1580
15	70	43	74	64	66	52	327	230	155	147	844	1650
16	82	49	72	61	70	55	336	234	147	141	1150	3180
17	66	39	78	67	69	56	406	285	157	150	1040	3350
18	64	37	97	82	66	63	416	298	147	133	847	2090
19	66	41	116	99	60	51	372	271	177	174	4030	15900
20	66	42	121	109	62	52	318	228	284	418	3340	11100
21	78	49	99	87	62	46	182	133	423	732	2040	6060
22	84	55	89	74	64	48	131	97	291	382	1860	6280
23	83	54	102	81	69	55	139	101	223	244	1630	5500
24	85	58	84	65	74	61	129	92	205	228	1330	4800
25	79	56	55	40	80	70	118	85	217	241	840	3290
26	94	74	51	39	70	61	132	95	253	280	500	2170
27	79	61	62	52	65	56	119	89	151	160	538	2600
28	72	53	59	50	60	52	110	84	292	341	492	2110
29	70	54	64	54	65	52	128	99	---	---	481	1840
30	76	67	83	69	70	62	565	458	---	---	491	1540
31	77	73	---	---	80	71	576	456	---	---	494	1440
TOTAL	---	1293	---	2087	---	1554	---	11123	---	6916	---	118498

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	407	1110	407	2890	477	8290	334	2830	54	77	802	3880
2	331	929	217	1290	790	13800	200	1530	50	65	204	738
3	387	1160	153	806	543	8750	69	501	57	64	161	500
4	369	1120	211	1200	521	7030	57	394	63	64	145	385
5	405	1330	232	1470	526	5330	58	330	58	61	129	306
6	469	1660	141	879	482	4580	72	332	52	58	103	220
7	252	816	108	583	528	4750	151	673	46	51	74	148
8	189	561	123	614	302	2380	167	748	106	105	60	110
9	201	570	105	488	91	617	135	580	195	205	45	75
10	261	792	255	1090	74	450	91	364	78	95	28	44
11	373	1290	408	1720	66	388	78	293	44	54	18	27
12	369	1350	352	1880	87	637	58	204	39	49	33	49
13	289	1050	320	2320	138	1440	50	177	65	87	2310	5550
14	218	718	325	2850	231	3140	41	137	360	589	2260	5820
15	203	636	520	5500	213	3260	40	126	230	377	458	926
16	309	926	699	8290	229	3850	31	92	211	379	104	188
17	297	922	719	9490	260	4560	23	64	104	159	72	125
18	265	887	703	9190	424	6470	23	57	73	102	40	66
19	320	1110	463	5840	615	6410	32	77	73	98	26	41
20	364	1160	379	4770	896	8610	26	57	138	192	30	45
21	346	1130	439	6060	1170	13400	26	52	144	225	28	40
22	322	1150	361	5630	975	12900	29	56	102	172	20	28
23	307	1330	285	4280	427	5680	76	138	77	141	17	23
24	565	2820	298	4020	140	1800	106	185	40	65	13	15
25	537	2510	251	3550	96	1080	54	92	19	28	12	13
26	449	1820	614	9710	111	1170	31	48	26	34	15	16
27	525	2420	704	12600	106	1100	32	48	43	67	17	17
28	742	4150	731	14600	356	3500	37	54	1180	2830	18	17
29	659	4310	791	14800	416	3590	39	55	2450	11300	15	13
30	470	3410	731	11700	430	3870	51	71	3280	20600	16	13
31	---	---	604	9690	---	---	56	82	2940	17000	---	---
TOTAL	---	45137	---	159800	---	142832	---	10447	---	55393	---	19438

TOTAL LOAD FOR YEAR: 574518 TONS.

## SAN JUAN RIVER BASIN

09365000 SAN JUAN RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'22", long 108°13'30", in NW¼ sec.17, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on left bank 360 ft downstream from highway bridge on State Highway 371 in Farmington, 4,000 ft downstream from Animas River, 2.3 mi upstream from La Plata River, and at mile 251.4.

DRAINAGE AREA.--7,240 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--June to December 1904, January 1905 to September 1906 (gage heights and discharge measurements only), September 1912 to current year. Monthly discharge only for some periods, published in WSP 1313.

Discharge records for January to December 1905, published in WSP 175, are unreliable and should not be used.

REVISED RECORDS.--WSP 1119: Drainage area. WSP 1243: 1938. WSP 1313: 1905, 1914. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 5,230.37 ft above National Geodetic Vertical Datum of 1929. See WSP 1313 or 1733 for history of changes prior to Nov. 19, 1933.

REMARKS.--Records good except for estimated daily discharges, which are fair. Since June 1962 flow is partly controlled by operation of Navajo Reservoir (station 09355100) 50 mi upstream. Diversions upstream from station for irrigation of about 86,000 acres, 4,000 of which is irrigated by Farmers Mutual ditch, which diverts from Animas River and bypasses this station; ditch flow not included in record. At times this ditch may be supplied partly or entirely by diversion from San Juan River downstream from this station. National Weather Service gage-height telemeter and U.S. Bureau of Reclamation satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911. Flood of Sept. 6, 1909, reached a stage of about 12.3 ft, site and datum in use May to September 1906.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	722	997	841	843	908	3660	5210	7170	8930	4390	1050	2450
2	720	946	852	864	908	3940	5190	6740	9640	4120	949	1960
3	705	898	866	878	891	4150	5210	6470	9770	3550	883	1730
4	688	859	891	772	869	4450	5200	6600	9260	3370	832	1580
5	713	847	939	758	937	4660	5270	6590	7920	3000	825	1470
6	708	773	921	758	903	4570	5370	6220	7390	2630	859	1460
7	725	785	888	898	943	4690	5250	5850	7310	2560	866	1340
8	697	773	869	2100	1060	4830	5130	5680	7000	2530	829	1260
9	721	760	859	2260	1210	5010	5080	5560	6700	2460	834	1190
10	707	764	894	1310	1290	5180	5200	5140	6480	2340	893	1120
11	757	771	863	1240	1280	5410	5420	4510	6390	2260	922	1080
12	773	772	875	1040	1220	5440	5540	4440	6500	2200	878	1040
13	789	781	881	967	1290	5050	5550	4840	7840	2010	893	1590
14	711	750	887	1000	1310	4880	5450	5290	9170	1930	1400	1810
15	770	744	876	1020	1370	4930	5360	5900	9810	1810	1170	1370
16	792	759	851	1040	1420	5650	5290	6400	10400	1720	1210	1230
17	776	771	813	1300	1450	5980	5310	7010	10600	1650	1040	1200
18	790	781	854	1350	1440	5620	5410	6240	9320	1520	952	1140
19	848	820	846	1710	1520	6300	5600	5630	6880	1470	922	1140
20	788	852	810	1400	2050	5910	5430	5620	6480	1360	952	1100
21	822	847	766	1070	2380	5690	5430	6010	7190	1270	1150	1070
22	823	827	760	997	1920	5840	5600	6730	7750	1250	1200	1050
23	754	815	779	967	2040	5850	5940	6670	7300	1190	1210	1020
24	743	808	777	922	2600	5880	6290	5990	6660	1170	967	946
25	761	781	796	906	2790	5980	6140	6090	6010	1170	878	1020
26	785	790	791	906	3040	6050	5920	6620	5750	1100	834	943
27	789	842	784	878	3400	6300	6210	7880	5680	1060	1060	898
28	797	874	840	908	3470	5970	6610	9400	5520	1060	2070	886
29	896	868	904	893	---	5780	7020	9200	5030	1040	2980	874
30	994	850	933	922	---	5440	7220	8320	4610	1020	2870	826
31	985	---	877	908	---	5330	---	8350	---	1080	2830	---
TOTAL	24049	24505	26383	33785	45909	164420	168850	199160	225290	61290	37208	37793
MEAN	776	817	851	1090	1640	5304	5628	6425	7510	1977	1200	1260
MAX	994	997	939	2260	3470	6300	7220	9400	10600	4390	2980	2450
MIN	688	744	760	758	869	3660	5080	4440	4610	1020	825	826
AC-FT	47700	48610	52330	67010	91060	326100	334900	395000	446900	121600	73800	74960

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1993, BY WATER YEAR (WY)

	MEAN	1209	1004	986	1020	1160	1591	3123	5055	5405	2236	1276	1142
MAX	7271	3549	3381	3271	3032	5304	9133	18830	14990	8639	4938	3331	
(WY)	1942	1987	1966	1986	1987	1993	1932	1941	1941	1957	1957	1970	
MIN	286	315	362	329	374	349	391	576	517	192	166	170	
(WY)	1957	1951	1957	1963	1964	1964	1964	1977	1934	1934	1939	1956	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1931 - 1993

ANNUAL TOTAL	682791	1048642	
ANNUAL MEAN	1866	2873	2101
HIGHEST ANNUAL MEAN			5054
LOWEST ANNUAL MEAN			728
HIGHEST DAILY MEAN	8210	May 28	10600
LOWEST DAILY MEAN	595	Aug 21	688
ANNUAL SEVEN-DAY MINIMUM	636	Aug 17	708
INSTANTANEOUS PEAK FLOW			10900
INSTANTANEOUS PEAK STAGE			6.94
INSTANTANEOUS LOW FLOW			652
ANNUAL RUNOFF (AC-FT)	1354000	2080000	1522000
10 PERCENT EXCEEDS	5300	6540	5080
50 PERCENT EXCEEDS	938	1270	1120
90 PERCENT EXCEEDS	736	781	440

e Estimated

a-Site and datum then in use.

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 NW/SE¼ 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.

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. No flow at times in many years.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	11	7.0	12	17	32	202	315	335	64	14	39
2	4.3	8.6	8.0	12	16	29	226	215	281	62	13	22
3	3.6	8.0	9.0	13	15	29	225	184	200	67	11	17
4	3.9	7.8	9.4	12	15	37	256	169	140	54	11	15
5	4.2	7.5	9.0	14	15	38	279	180	97	48	12	14
6	4.0	7.3	7.0	14	15	41	291	159	68	48	11	15
7	3.6	7.2	6.0	15	14	41	255	135	55	43	10	13
8	4.1	7.1	7.0	15	17	45	238	132	48	42	9.9	12
9	4.4	6.8	8.0	15	34	52	240	109	44	41	13	9.9
10	4.2	6.4	7.0	15	28	58	261	89	43	35	13	8.7
11	4.2	7.5	8.0	15	24	67	298	87	49	40	14	8.2
12	4.3	7.1	9.6	12	21	91	315	119	69	46	11	8.3
13	4.3	6.8	10	13	20	90	274	181	86	41	12	41
14	4.1	6.8	9.0	14	19	84	257	211	103	37	13	31
15	4.0	6.9	8.0	14	19	80	238	190	125	32	14	19
16	4.3	7.1	8.0	13	20	87	241	220	131	26	8.9	17
17	4.6	7.0	6.0	15	19	106	252	325	153	24	6.9	15
18	5.3	7.0	8.0	17	18	112	292	293	85	21	5.4	14
19	4.7	7.0	7.0	24	26	181	273	253	62	21	3.5	13
20	4.2	7.2	5.0	17	42	196	247	254	61	21	4.2	13
21	3.8	7.0	6.0	17	35	175	251	320	70	16	8.2	12
22	4.4	7.0	6.0	16	27	208	287	432	92	16	12	11
23	4.2	7.2	6.0	15	26	216	334	383	78	15	6.5	10
24	4.2	7.0	6.0	15	26	237	407	307	82	14	4.9	10
25	6.4	7.0	6.0	15	25	253	338	303	79	17	4.1	10
26	6.9	7.0	6.0	14	26	275	296	344	77	19	4.8	10
27	6.2	7.0	6.0	14	27	302	343	399	68	19	9.5	10
28	5.7	7.0	8.0	13	29	248	320	419	70	17	20	9.9
29	6.8	7.0	9.0	13	---	220	360	337	65	14	43	10
30	7.7	7.0	9.0	14	---	200	351	265	92	14	31	10
31	9.9	---	9.0	15	---	198	---	289	---	15	66	---
TOTAL	152.1	218.3	233.0	452	635	4028	8447	7618	3008	989	420.8	448.0
MEAN	4.91	7.28	7.52	14.6	22.7	130	282	246	100	31.9	13.6	14.9
MAX	9.9	11	10	24	42	302	407	432	335	67	66	41
MIN	3.6	6.4	5.0	12	14	29	202	87	43	14	3.5	8.2
AC-FT	302	433	462	897	1260	7990	16750	15110	5970	1960	835	889

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1993, BY WATER YEAR (WY)

	14.0	11.8	12.0	11.5	16.9	35.6	110	113	67.1	20.3	12.0	11.4
MEAN	14.0	11.8	12.0	11.5	16.9	35.6	110	113	67.1	20.3	12.0	11.4
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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1921 - 1993

ANNUAL TOTAL	13385.09	26649.2	
ANNUAL MEAN	36.6	73.0	36.3
HIGHEST ANNUAL MEAN			109
LOWEST ANNUAL MEAN			4.44
HIGHEST DAILY MEAN	353	May 28	1120
LOWEST DAILY MEAN	.56	Aug 21	.00
ANNUAL SEVEN-DAY MINIMUM	1.2	Aug 16	.00
INSTANTANEOUS PEAK FLOW			4750
INSTANTANEOUS PEAK STAGE			11.36
ANNUAL RUNOFF (AC-FT)	26550	52860	26290
10 PERCENT EXCEEDS	107	256	87
50 PERCENT EXCEEDS	12	17	12
90 PERCENT EXCEEDS	4.0	6.0	1.6

a-No flow at times in many years.

b-Present datum, from rating curve extended above 750 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

## SAN JUAN RIVER BASIN

09367500 LA PLATA RIVER NEAR FARMINGTON, NM

LOCATION.--Lat 36°44'23", long 108°14'51", in NE¼SW¼ sec.7, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on right bank 1,300 ft 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 good 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.5	21	25	45	65	199	352	456	12	1.2	14
2	.00	1.9	18	26	40	63	218	195	350	5.7	e1.0	8.9
3	.00	1.7	18	22	32	54	247	142	192	6.5	e.70	5.0
4	.00	1.2	21	13	27	52	276	119	132	10	.55	4.2
5	.00	1.8	19	17	26	54	299	120	87	5.4	.53	4.1
6	.00	1.6	19	20	25	58	347	114	52	6.2	.57	3.8
7	.00	1.7	20	68	27	64	314	101	28	6.6	.58	4.5
8	.01	1.5	22	839	29	69	235	89	23	6.4	.87	2.5
9	.02	2.4	20	86	153	82	232	65	23	5.7	2.7	2.0
10	.02	5.5	21	45	102	90	258	53	23	5.1	3.2	2.1
11	.02	7.8	21	36	57	96	301	38	24	3.9	3.7	2.0
12	.04	6.9	23	27	42	111	397	38	24	4.9	4.0	5.2
13	.05	6.9	22	24	34	106	366	69	26	3.8	5.4	e5.6
14	.05	7.5	20	27	31	101	285	127	34	2.9	4.6	e6.0
15	.05	8.3	15	26	30	97	232	123	47	2.4	4.7	e6.4
16	.05	9.0	18	26	30	95	237	120	60	1.7	3.4	e6.8
17	.05	9.4	13	92	31	112	268	212	62	1.8	2.0	e7.2
18	.05	9.6	20	113	29	108	319	300	58	1.4	1.0	e7.6
19	.07	9.7	20	327	38	190	357	294	28	1.5	.85	e8.0
20	.07	9.9	16	70	184	233	295	261	24	1.1	.88	e8.4
21	.07	9.9	12	38	136	211	285	286	34	1.0	1.4	e8.8
22	.07	9.5	9.3	31	59	235	361	337	42	.84	4.2	e9.2
23	.07	9.9	13	30	44	263	502	712	40	.80	4.7	e9.6
24	.07	9.4	20	23	41	291	598	436	32	.95	3.2	e10
25	.12	8.5	35	24	37	354	403	359	27	.97	2.2	e10
26	.96	11	52	22	38	386	301	424	17	.84	2.0	e10
27	.47	15	60	23	36	486	319	595	14	.90	4.8	e11
28	.21	20	70	23	46	332	333	679	e12	1.6	13	e11
29	1.9	18	68	23	---	282	361	580	e12	1.4	13	e11
30	1.1	20	41	27	---	213	397	337	e11	1.1	14	e12
31	1.3	---	28	28	---	202	---	321	---	1.1	14	---
TOTAL	6.89	237.0	795.3	2221	1449	5155	9542	7998	1994	106.50	118.93	216.9
MEAN	.22	7.90	25.7	71.6	51.7	166	318	258	66.5	3.44	3.84	7.23
MAX	1.9	20	70	839	184	486	598	712	456	12	14	14
MIN	.00	1.2	9.3	13	25	52	199	38	11	.80	.53	2.0
AC-FT	14	470	1580	4410	2870	10220	18930	15860	3960	211	236	430

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

	MEAN	21.2	12.5	13.5	17.7	24.2	34.2	94.6	71.2	34.6	9.18	12.1	11.6
MAX	537	141	73.1	100	89.2	166	408	783	252	117	64.5	170	
(WY)	1942	1987	1987	1979	1979	1993	1980	1941	1957	1986	1957	1941	
MIN	.000	.000	.000	.032	1.00	.16	.000	.000	.000	.000	.000	.000	
(WY)	1947	1955	1956	1957	1957	1959	1951	1939	1939	1948	1960	1955	

SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1938 - 1993

ANNUAL TOTAL	9335.11	29840.52	
ANNUAL MEAN	25.5	81.8	29.6
HIGHEST ANNUAL MEAN			134
LOWEST ANNUAL MEAN			48
HIGHEST DAILY MEAN	590 May 28	839 Jan 8	2370 May 13 1941
LOWEST DAILY MEAN	.00 Aug 15	.00 Oct 1	.00 Mar 1 1938
ANNUAL SEVEN-DAY MINIMUM	.00 Sep 30	.00 Oct 1	.00 Mar 1 1938
INSTANTANEOUS PEAK FLOW		3050 Jan 8	b5770 Aug 21 1990
INSTANTANEOUS PEAK STAGE		5.93 Jan 8	a13.60 Aug 21 1990
ANNUAL RUNOFF (AC-FT)	18520	59190	21430
10 PERCENT EXCEEDS	70	299	68
50 PERCENT EXCEEDS	9.4	22	4.0
90 PERCENT EXCEEDS	.02	.86	.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 current year.

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 1992 TO SEPTEMBER 1993

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)
NOV 19...	1330	E820	616	8.9	12.0	7.0	7.7	630	13.5
JAN 07...	1115	E910	670	8.2	8.5	3.5	67	630	11.4
MAR 11...	0830	E5500	418	8.2	10.0	5.5	530	630	10.2
MAY 05...	1430	E6600	340	8.1	17.5	9.0	29	630	9.8
JUN 03...	0830	E9610	230	7.8	18.5	10.0	47	630	9.0
AUG 31...	1500	E2830	422	8.3	27.5	19.0	980	636	7.6

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)
NOV 19...	135	210	92	66	12	41	1	2.4	133
JAN 07...	104	230	99	69	14	47	1	2.4	160
MAR 11...	98	140	40	43	8.8	27	1	2.2	126
MAY 05...	103	130	39	40	8.0	16	0.6	1.7	114
JUN 03...	97	98	25	30	5.5	10	0.4	1.5	88
AUG 31...	99	150	51	47	7.8	27	1	2.1	120

DATE	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
NOV 19...	8	123	128	170	13	0.30	7.4	394	385
JAN 07...	0	131	132	180	14	0.30	9.3	415	415
MAR 11...	0	103	107	93	5.7	0.20	10	280	252
MAY 05...	0	94	95	66	4.4	0.20	8.9	210	201
JUN 03...	0	72	78	48	3.3	0.20	7.2	155	149
AUG 31...	0	98	103	100	7.7	0.30	8.4	267	259



## SAN JUAN RIVER BASIN

09367950 CHACO RIVER NEAR WATERFLOW, NM

LOCATION.--Lat 36°43'28", long 108°35'27", in SW¼SW¼ sec.13, T.29 N., R.17 W., San Juan County, Hydrologic Unit 14080106, on downstream end of right bridge pier, 4.2 mi upstream from Dead Mans Wash, 5.3 mi downstream from the Hogback, 6.6 mi southwest of Waterflow, 7.2 mi southeast of Shiprock, and at mile 4.5.

DRAINAGE AREA.--4,350 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1959-69 (annual maximum only), November 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,980 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to 1975 at site 1.8 mi upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Base flow is mostly wastewater from Four Corners Power Plant. No flow at times.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	e2.5	e.90	61	e.34	21	.29	e.30	17	1.4	.00	1280
2	e.00	.00	e.80	25	e.36	19	.26	e.15	18	1.2	.00	18
3	e.00	.00	e.70	16	e.40	19	.23	e.00	19	1.1	.00	3.8
4	e.00	.00	e.60	15	.40	19	.19	e.00	20	.91	.00	.44
5	e.00	.00	e.50	5.8	.62	18	.39	e.00	20	e.60	.00	e.31
6	e.00	.00	e.40	9.3	8.3	18	.37	.62	22	e.30	6.8	e.29
7	e.00	.00	e.30	25	8.3	17	.19	e.25	20	e.00	1.4	e.27
8	e.00	.00	e.14	30	9.3	16	.16	e.00	20	.00	.35	e.25
9	e.00	.00	e.16	761	9.8	15	.35	e.00	20	.00	.00	e.23
10	e.35	1.8	e.15	389	10	14	1.5	e.00	20	.00	.00	e.21
11	e.50	18	e.15	82	12	13	.84	e.00	19	.00	.00	e.20
12	e1.0	18	e.14	e9.0	13	13	.90	.42	19	.00	.00	e.22
13	e1.5	18	e.15	e8.5	11	12	3.3	6.1	18	.00	2.4	4.6
14	2.0	17	e.16	e8.0	13	11	13	6.5	18	.00	369	116
15	1.5	18	e.16	e8.5	23	11	6.7	6.9	18	.00	71	106
16	1.0	17	e.14	e8.0	21	10	5.3	7.0	18	.00	14	e4.0
17	.76	18	e.16	e7.5	17	10	6.3	7.3	18	.00	5.5	e2.0
18	1.3	18	e.17	e1020	17	9.5	8.4	7.3	18	.00	3.3	e1.5
19	.96	18	e.15	1240	16	9.1	12	7.9	19	.00	2.1	e1.0
20	.72	19	e.15	1230	17	9.0	14	8.3	18	.00	1.6	e.50
21	1.7	19	e.15	519	26	8.8	5.6	8.5	18	.00	9.5	e.30
22	1.3	18	e.14	180	33	8.6	4.1	8.5	15	.00	1160	e.12
23	1.8	19	e.16	76	24	8.3	5.4	8.7	15	.00	350	e.08
24	1.2	20	e.16	e.18	22	8.0	11	9.8	14	.00	43	e.02
25	1.0	19	e.17	e.20	31	7.3	8.2	14	15	.00	33	e.00
26	.80	e9.5	e.19	e.22	27	.82	6.3	15	15	.00	138	e.00
27	1.2	e4.0	e.20	e.24	21	.63	e1.5	15	15	.00	58	e.00
28	1.3	e3.0	e.20	e.26	19	.55	e.90	16	16	.00	1030	e.00
29	2.6	e2.0	e.35	e.28	---	.47	e.70	16	16	.00	e3500	e.00
30	5.6	e1.0	13	e.30	---	.40	e.45	16	12	.00	1010	e.00
31	12	---	146	e.32	---	.34	---	16	---	.00	1210	---
TOTAL	42.09	297.80	166.90	5735.60	410.82	327.81	118.82	202.54	530	5.51	9018.95	1540.34
MEAN	1.36	9.93	5.38	185	14.7	10.6	3.96	6.53	17.7	.18	291	51.3
MAX	12	20	146	1240	33	21	14	16	22	1.4	3500	1280
MIN	.00	.00	.14	.18	.34	.34	.16	.00	12	.00	.00	.00
AC-FT	83	591	331	11380	815	650	236	402	1050	11	17890	3060

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

	40.4	60.3	21.5	35.5	72.5	30.6	27.1	31.7	21.3	57.6	114	59.6
MEAN	40.4	60.3	21.5	35.5	72.5	30.6	27.1	31.7	21.3	57.6	114	59.6
MAX	117	430	107	217	277	177	161	110	136	487	434	272
(WY)	1987	1987	1992	1979	1979	1987	1985	1990	1988	1986	1988	1988
MIN	.076	.35	.14	.16	6.35	4.88	.13	2.26	.83	.000	7.09	6.00
(WY)	1989	1985	1986	1986	1990	1991	1991	1992	1989	1987	1981	1989

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1976 - 1993

ANNUAL TOTAL	10926.33	18397.18	
ANNUAL MEAN	29.9	50.4	49.1
HIGHEST ANNUAL MEAN			97.5
LOWEST ANNUAL MEAN			20.8
HIGHEST DAILY MEAN	1630	Jul 13	3500
LOWEST DAILY MEAN	.00	Jan 4	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 21	.00
INSTANTANEOUS PEAK FLOW			4710
INSTANTANEOUS PEAK STAGE			9.05
ANNUAL RUNOFF (AC-FT)	21670	36490	7300
10 PERCENT EXCEEDS	20	22	56
50 PERCENT EXCEEDS	2.3	2.4	16
90 PERCENT EXCEEDS	.00	.00	.23
e Estimated			

a-Site and datum then in use.

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM

(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 36°47'32", long 108°43'54", in NW¼ sec.27, T.30 N., R.18 W., San Juan County, Hydrologic Unit 14080105, on left bank 3 mi west of Shiprock, 6 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 4,848.68 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.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	781	1120	907	e875	897	3500	5450	7510	8340	4130	632	3410
2	759	1100	918	e895	902	3740	5450	7130	9300	3870	596	2050
3	741	1030	965	e920	873	4030	5580	6720	9470	3390	544	1660
4	709	1010	969	945	815	4210	5660	6650	9130	3220	544	1320
5	687	974	1000	911	812	4290	5730	6750	7780	2880	485	1210
6	658	949	971	868	822	4400	5890	6490	6870	2290	465	1120
7	654	888	939	969	778	4490	5840	6160	6660	2120	484	991
8	634	904	922	1780	900	4570	5720	5950	6410	2120	474	907
9	616	907	953	3040	1110	4590	5610	5770	6120	2180	480	822
10	704	918	929	1810	1280	4670	5590	5480	5830	2060	501	701
11	684	993	911	1330	1170	4940	5690	4910	5770	1940	515	685
12	687	951	911	1100	1130	5300	5880	4620	5850	1810	526	620
13	708	879	938	957	1070	5200	5910	4780	6440	1640	581	1150
14	644	860	990	897	1040	4900	5820	5080	7690	1520	1290	2200
15	604	844	959	846	978	4720	5720	5630	8620	1400	1530	1680
16	713	855	956	888	990	4960	5740	6130	9200	1300	1240	1280
17	788	855	894	1120	991	5280	5800	6400	9550	1230	887	1170
18	785	857	e884	1690	932	5240	5780	6360	9130	1100	752	1100
19	767	874	e875	2450	938	5650	5910	5650	6620	1050	673	1000
20	770	921	e840	2300	1160	5480	5920	5570	5570	948	662	975
21	760	943	e810	1620	2250	5350	5800	5650	5900	819	760	846
22	794	930	e790	1340	1850	5450	5880	6280	6580	798	1330	750
23	803	974	e810	1150	1620	5540	6120	6590	6520	725	1350	709
24	765	947	e800	1040	2150	5580	6480	6010	5940	695	956	645
25	740	931	e820	946	2740	5780	6560	5810	5440	685	718	634
26	814	877	e825	883	3060	5990	6340	6100	5060	758	603	663
27	881	849	e870	813	3320	6330	6320	6930	4980	717	795	609
28	896	887	e930	822	3450	6460	6620	8860	4890	669	2040	584
29	950	879	e960	835	---	6100	6930	9830	4590	614	4010	608
30	1070	869	e965	856	---	5760	7350	8390	4230	637	3510	623
31	1090	---	e900	863	---	5560	---	7810	---	628	2890	---
TOTAL	23656	27775	28111	37759	40028	158060	179090	198000	204480	49943	32823	32722
MEAN	763	926	907	1218	1430	5099	5970	6387	6816	1611	1059	1091
MAX	1090	1120	1000	3040	3450	6460	7350	9830	9550	4130	4010	3410
MIN	604	844	790	813	778	3500	5450	4620	4230	614	465	584
AC-FT	46920	55090	55760	74890	79400	313500	355200	392700	405600	99060	65100	64900

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1993, BY WATER YEAR (WY)

	MEAN	1281	1108	1075	1092	1250	1659	3155	4953	5328	2233	1326	1200
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 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1935 - 1993

ANNUAL TOTAL	727544	1012447	
ANNUAL MEAN	1988	2774	
HIGHEST ANNUAL MEAN			2139
LOWEST ANNUAL MEAN			5324
HIGHEST DAILY MEAN	9290	May 28	702
LOWEST DAILY MEAN	326	Aug 22	33300
ANNUAL SEVEN-DAY MINIMUM	379	Aug 17	8.0
INSTANTANEOUS PEAK FLOW			13
INSTANTANEOUS PEAK FLOW			80000
INSTANTANEOUS LOW FLOW			a5.70
ANNUAL RUNOFF (AC-FT)	1443000	2008000	b8.0
10 PERCENT EXCEEDS	5410	6380	5070
50 PERCENT EXCEEDS	1060	1120	1160
90 PERCENT EXCEEDS	647	685	448

e Estimated

a-Site and datum then in use.

b-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.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1941 to September 1945, July 1957 to September 1986, October 1989 to current year.

WATER TEMPERATURE: December 1950 to September 1986, October 1989 to current year.

INSTRUMENTATION.--Water-temperature and specific-conductance monitor.

REMARKS.--Water-temperature and specific-conductance monitor inoperable due to vandalism.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: (water years, 1957-86, 1990-91) Maximum, 4,360 microsiemens July 31, 1959; minimum, 138 microsiemens, Nov. 1, 1981.

WATER TEMPERATURE: Maximum 34.0 °C, July 20, 1968; minimum, 0.0 °C on many days during winter months each year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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											
18...	1230	843	685	8.6	13.0	7.5	9.1	640	13.4	134	K7
MAR											
10...	0930	4720	320	8.2	13.0	8.0	850	640	10.0	101	K63
MAY											
04...	1330	6560	343	8.6	24.0	12.0	31	630	9.1	102	93
SEP											
01...	1000	4040	650	8.0	--	17.5	7400	640	8.4	105	>1200

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)
NOV											
18...	79	240	120	74	14	46	1	2.6	146	5	128
MAR											
10...	350	130	37	40	7.8	26	1	2.2	116	0	95
MAY											
04...	170	140	43	41	8.5	17	0.6	1.7	104	6	95
SEP											
01...	1800	94	1	32	3.2	95	4	4.2	113	0	93

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, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV											
18...	132	200	16	0.30	5.9	444	437	0.110	0.020	0.020	0.150
MAR											
10...	101	89	5.4	0.20	9.9	263	239	--	--	<0.010	--
MAY											
04...	95	71	4.1	0.20	8.8	212	210	--	--	<0.010	--
SEP											
01...	133	180	9.3	0.60	11	411	399	1.58	--	0.020	--

SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,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 TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 18...	0.130	0.020	0.020	0.30	0.020	0.010	0.010	0.030	70	<3	4
MAR 10...	0.160	--	0.020	0.60	0.310	<0.010	--	0.020	30	<3	2
MAY 04...	<0.050	--	0.020	0.50	0.110	<0.010	--	<0.010	--	4	3
SEP 01...	1.60	--	0.030	2.9	1.50	0.020	--	0.020	--	33	1

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BAR- IUM, DIS- SOLVED (UG/L AS BA) (01005)	COBAL- T, DIS- SOLVED (UG/L AS CO) (01035)	LITHI- UM, DIS- SOLVED (UG/L AS LI) (01130)	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)
NOV 18...	1230	10	61	<3	30	<10	<1	<1	<1.0	940	<6
MAR 10...	0930	<10	74	<3	16	<10	<1	1	<1.0	480	<6
MAY 04...	1330	30	61	<3	15	<10	<1	<1	<1.0	410	<6
SEP 01...	1000	130	54	<3	19	10	1	3	<1.0	510	<6

[illegible][illegible]

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 (PCI/L /Y90) (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP. TOT DRY CS-137 (PCI/L) (76005)	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)	
NOV 18...	1.3	3.5	0.98	1.5	1.4	0.70	0.07	0.020	2.1	<1.0	
MAR 10...	--	--	--	--	--	--	--	--	--	--	
MAY 04...	0.88	2.1	0.69	4.2	3.9	1.2	0.10	0.020	0.89	<1.0	
SEP 01...	--	--	--	--	--	--	--	--	--	--	
DATE	TIME	CHLOR- DYRIFOS TOTAL RECOVER (UG/L) (38932)	DI- SYSTON TOTAL (UG/L) (29011)	PHORATE TOTAL (UG/L) (39023)	PER- THANE TOTAL (UG/L) (39034)	DEF TOTAL (UG/L) (39040)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)
MAY 04...	1330	--	--	--	--	--	--	--	--	--	--
SEP 01...	1000	<0.01	<0.01	<0.01	<0.1	<0.01	<0.10	<0.010	<0.010	<0.1	<0.010
DATE	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, 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)
MAY 04...	--	--	--	--	--	--	--	--	--	--	--
SEP 01...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<1	<0.010	<0.010	<0.01	<0.1
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)
MAY 04...	--	--	--	--	<0.01	<0.01	--	<0.01	--	<0.01	--
SEP 01...	<0.01	<0.01	<0.01	<0.01	--	--	<0.01	--	<0.01	--	<0.01
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	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 18...	1230	843	685	7.5	33	75	65				
MAR 10...	0930	4720	320	8.0	5710	72800	30				
MAY 04...	1330	6560	343	12.0	205	3630	58				
SEP 01...	1000	4040	650	17.5	16700	182000	98				

## SAN JUAN RIVER BASIN

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO

LOCATION.--Loc 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 fair except for estimated daily discharges, which are poor. Flow partly regulated by Navajo Reservoir (09355100).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	793	1150	853	e990	930	3510	5730	7530	9480	4650	e636	4350
2	846	1110	886	e995	971	3860	5690	7380	10000	4280	e637	2750
3	751	1030	928	e1000	944	4170	5650	6990	10300	3840	e639	2340
4	722	969	963	e1010	911	4490	5680	7100	10000	3510	614	1860
5	696	960	e960	e1020	868	4650	5750	7430	9130	3260	588	1690
6	680	966	e965	e1020	911	4830	5920	7200	8310	2690	548	1540
7	683	909	e970	1030	882	4780	6020	6820	8060	2360	557	1440
8	670	927	e950	1930	908	4900	5850	6610	7800	2260	583	1280
9	657	934	937	3490	1340	5010	5690	6550	7430	2230	577	1210
10	757	877	947	2440	1530	4980	5740	6280	7220	2150	589	1070
11	705	912	895	1580	1360	5180	5990	5870	7050	2080	641	987
12	750	1010	870	1360	1300	5200	6310	5580	7090	1960	615	933
13	739	907	910	1090	1180	4970	6160	5900	7410	1820	673	1770
14	750	885	911	1030	1190	4870	6080	6270	8160	1630	1010	2530
15	671	854	946	976	1100	4940	6000	6560	8590	1500	1850	2090
16	735	849	951	1020	1110	5490	5920	7090	8950	1390	1590	1590
17	808	812	889	1280	1130	5700	5870	7660	9250	1290	1190	1360
18	829	862	914	1830	1130	5550	6040	7740	9260	1240	1000	1310
19	819	832	1120	2510	1100	6200	6130	6990	7910	1160	901	1190
20	859	870	1010	2600	1580	6110	6060	6880	6830	1110	849	1190
21	805	882	e1010	1940	2480	6020	5930	6840	7050	990	1590	1100
22	843	856	e1000	1320	2180	6280	6050	7400	7360	909	1870	973
23	862	892	e995	1190	1770	6290	6370	7830	7260	881	2250	945
24	865	884	e990	1070	1950	6310	6700	7230	6890	808	1630	884
25	807	880	e985	993	2480	6450	7030	6950	6460	802	1320	777
26	936	885	e980	947	2810	6530	6670	7260	5910	819	1170	847
27	1020	851	e975	853	3110	6720	6680	7970	5790	e762	1260	777
28	1090	820	e970	847	3450	6600	6970	9200	5640	e656	2050	732
29	1150	846	e975	854	---	6420	7220	9800	5290	e650	4240	731
30	1190	862	e980	889	---	6120	7430	9680	4750	e645	4700	719
31	1110	---	e985	933	---	5930	---	9240	---	e640	3350	---
TOTAL	25598	27283	29620	42037	42605	169060	185330	225830	230630	54972	41717	42965
MEAN	826	909	955	1356	1522	5454	6178	7285	7688	1773	1346	1432
MAX	1190	1150	1120	3490	3450	6720	7430	9800	10300	4650	4700	4350
MIN	657	812	853	847	868	3510	5650	5580	4750	640	548	719
AC-FT	50770	54120	58750	83380	84510	335300	367600	447900	457500	109000	82750	85220

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1993, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
MEAN	1317	1470	1537	1664	1803	2316	3420	4773	5093	2488	1455	1379
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	613	1030	1236	743	259	467
(WY)	1978	1980	1990	1990	1990	1990	1990	1981	1989	1989	1978	1989

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1978 - 1993

ANNUAL TOTAL	747115	1117647	2392
ANNUAL MEAN	2041	3062	4180
HIGHEST ANNUAL MEAN			991
LOWEST ANNUAL MEAN			1990
HIGHEST DAILY MEAN	8900	May 29	10300
LOWEST DAILY MEAN	409	Aug 21	548
ANNUAL SEVEN-DAY MINIMUM	461	Aug 16	579
INSTANTANEOUS PEAK FLOW			10600
INSTANTANEOUS PEAK STAGE			5.10
INSTANTANEOUS LOW FLOW			Jun 2
ANNUAL RUNOFF (AC-FT)	1482000	2217000	1733000
10 PERCENT EXCEEDS	5860	7140	5610
50 PERCENT EXCEEDS	1010	1320	1610
90 PERCENT EXCEEDS	674	777	729
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 1992 TO SEPTEMBER 1993

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)
NOV 18...	0830	850	752	8.5	3.5	5.0	21	650	12.3
JAN 06...	1345	955	775	8.2	3.5	2.0	240	644	12.4
MAR 10...	1330	4850	353	8.2	18.0	8.0	870	645	10.0
MAY 04...	1100	7170	359	8.1	16.0	10.5	83	635	9.6
JUN 02...	1130	9870	260	7.7	23.0	21.0	87	640	8.2
SEP 01...	1200	4980	549	8.2	26.0	19.0	--	642	7.6

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)
NOV 18...	113	260	130	75	17	51	1	2.6	144
JAN 06...	106	270	130	77	18	55	1	2.7	172
MAR 10...	100	150	48	43	10	31	1	2.3	123
MAY 04...	104	140	42	41	9.2	17	0.6	1.7	120
JUN 02...	110	110	33	33	6.6	12	0.5	1.5	93
SEP 01...	98	--	--	--	--	--	--	--	179

DATE	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)
NOV 18...	7	130	134	220	15	0.30	5.8	482	465
JAN 06...	0	141	141	220	15	0.30	10	490	483
MAR 10...	0	101	105	110	5.7	0.20	10	255	273
MAY 04...	0	98	96	77	4.6	0.20	9.1	224	219
JUN 02...	0	76	80	58	3.5	0.20	7.1	178	168
SEP 01...	0	147	--	--	--	--	--	--	--

## 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 mi².

## WATER-DISCHARGE RECORDS

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.--Water-discharge records good except for estimated daily discharges, which are fair. Several observations of water temperature were made during the year. No flow Oct. 1-20, 1969.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.29	.19	1.1	e9.6	44	81	3.7	1.4	.00	.06	.13
2	.14	.21	.14	1.9	e8.5	57	71	3.7	1.2	.00	.00	.13
3	.14	.21	.11	.95	e7.8	55	57	3.3	1.1	.00	.01	.10
4	.13	.19	.16	e.80	e7.3	55	48	3.3	1.0	.01	.03	.10
5	.13	.17	.11	e.60	e7.0	50	45	3.0	.94	.03	.03	.10
6	.14	.15	.03	e.50	7.1	56	48	2.9	.89	.00	.02	.10
7	.13	.16	.02	109	e7.4	75	47	3.0	.82	.00	.06	.09
8	.13	.15	.07	46	e7.5	110	34	3.1	.77	.00	.07	.08
9	.14	.14	.13	27	e8.0	155	29	2.9	.73	.00	.08	.08
10	.14	.16	.05	20	e9.0	173	27	2.5	.73	.00	.16	.08
11	.14	.23	.08	e8.1	e11	157	26	2.4	.66	.00	.14	.08
12	.14	.17	.20	e5.8	e15	126	25	2.2	.57	.00	.08	.07
13	.14	.16	.12	e5.9	18	105	23	2.1	.74	.00	.08	.14
14	.14	.16	e.04	e6.0	e17	81	22	2.4	.70	.00	.20	.23
15	.14	.17	e.08	e6.0	e16	116	19	2.4	.62	.00	.24	.14
16	.15	.18	e.10	8.7	14	217	17	2.7	.59	.00	.12	.13
17	.15	.17	e.12	33	15	252	16	2.8	.59	.00	.11	.11
18	.15	.18	e.14	48	18	271	14	2.6	.35	.00	.12	.11
19	.14	.18	e.16	39	75	284	12	2.6	.11	.00	.11	.10
20	.14	.23	e.20	27	150	223	10	2.6	.00	.00	.34	.10
21	.15	.22	e.40	21	81	217	8.1	74	.00	.01	.65	.08
22	.16	.21	e.50	27	75	177	7.3	14	.01	.03	1.2	.08
23	.16	.23	e.60	28	87	150	6.4	5.9	.06	.03	.15	.07
24	.17	.20	e.80	18	72	145	5.1	3.8	.09	.02	.11	.06
25	.21	.17	e.90	16	52	124	4.4	2.9	.00	.01	.11	.04
26	.16	.16	e1.0	15	42	110	4.3	2.7	.00	.03	.18	.03
27	.16	.16	e1.5	e16	47	104	4.0	2.4	.00	.04	.23	.01
28	.21	.19	2.0	e14	48	131	3.8	2.0	.00	.06	.93	.02
29	.35	.24	66	13	---	134	3.8	2.0	.00	.07	.29	.01
30	.28	.22	23	e12	---	130	3.7	1.8	.00	.06	.21	.01
31	.75	---	3.7	e10	---	107	---	1.5	---	.08	.15	---
TOTAL	5.55	5.66	102.65	585.35	932.2	4191	721.9	169.2	14.67	0.48	6.27	2.61
MEAN	.18	.19	3.31	18.9	33.3	135	24.1	5.46	.49	.015	.20	.087
MAX	.75	.29	.66	109	150	284	81	74	1.4	.08	1.2	.23
MIN	.13	.14	.02	.50	7.0	44	3.7	1.5	.00	.00	.00	.01
AC-FT	11	11	204	1160	1850	8310	1430	336	29	1.0	12	5.2

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1970	.43	2.43	1973	.031	1974
1971	.49	4.05	1987	.023	1978
1972	.93	3.76	1984	.019	1978
1973	1.37	18.9	1993	.058	1976
1974	4.76	33.3	1993	.084	1971
1975	30.8	135	1993	.11	1972
1976	38.1	187	1973	.12	1976
1977	3.98	33.8	1973	.087	1976
1978	.36	1.33	1973	.031	1984
1979	.64	3.52	1982	.015	1993
1980	1.22	7.15	1992	.038	1971
1981	.40	1.90	1984	.033	1983

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1970 - 1993

ANNUAL TOTAL	1873.34	6737.54	
ANNUAL MEAN	5.12	18.5	6.95
HIGHEST ANNUAL MEAN			22.4
LOWEST ANNUAL MEAN			.13
HIGHEST DAILY MEAN	130	284	460
LOWEST DAILY MEAN	.01	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.01	.00	.00
INSTANTANEOUS PEAK FLOW		362	b782
INSTANTANEOUS PEAK STAGE		7.70	a5.58
ANNUAL RUNOFF (AC-FT)	3720	13360	5030
10 PERCENT EXCEEDS	14	61	9.6
50 PERCENT EXCEEDS	.16	.40	.18
90 PERCENT EXCEEDS	.03	.02	.05
a Estimated			

a-Datum then in use.

b-From rating curve extended above 470 ft³/s; maximum gage height, 7.90 ft, Mar. 12, 1985.



## LITTLE COLORADO RIVER BASIN

09386900 RIO NUTRIA NEAR RAMAH, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978, 1980, 1987-92, March to August 1993.

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR 23...	1530	104	253	12.0	29	8.1	83
MAY 25...	1345	2.9	403	15.0	13	0.10	80
AUG 05...	1155	0.03	358	13.5	124	0.01	89

## 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.

## WATER-DISCHARGE RECORDS

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.--Water-discharge records good 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.58	.10	e2.5	32	82	235	5.2	.00	.00	.00	.00
2	.00	.67	.01	e2.1	30	81	202	4.4	.00	.00	.00	.00
3	.00	.38	.09	e1.3	32	86	167	3.8	.00	.00	.00	.00
4	.00	.12	.54	e1.0	33	84	142	3.5	.00	.00	.00	.00
5	.00	.50	.61	e.65	33	82	121	3.1	.00	.00	.00	.00
6	.00	.54	.83	1.2	32	81	102	2.8	.00	.00	.00	.00
7	.00	.54	.83	26	30	82	93	2.6	.00	.00	.00	.00
8	.00	.54	.75	113	29	86	89	2.4	.00	.00	.00	.00
9	.00	.53	.55	44	28	116	83	2.1	.00	.00	.00	.00
10	.00	.60	.48	14	29	178	69	2.4	.00	.00	.00	.00
11	.00	.72	.58	e14	40	245	58	2.3	.00	.00	.00	.00
12	.00	.83	.57	e15	53	276	45	1.9	.00	.00	.00	.00
13	.00	.78	.56	e14	56	261	38	1.8	.00	.00	.00	.00
14	.00	.57	.52	e14	52	233	37	2.1	.00	.00	.00	.00
15	.00	.48	.44	e14	50	211	33	2.3	.00	.00	.00	.00
16	.00	.46	.41	26	50	201	31	2.2	.00	.00	.00	.00
17	.00	.43	.23	90	50	230	29	2.0	.00	.00	.00	.00
18	.00	.37	.38	105	47	320	24	1.7	.00	.00	.00	.00
19	.00	.34	.39	118	44	424	18	1.5	.00	.00	.00	.00
20	.00	.66	.36	114	46	504	16	1.4	.00	.00	.00	.00
21	.00	.64	.23	90	88	462	16	1.1	.00	.00	.00	.00
22	.00	.75	.17	69	163	410	13	.96	.00	.00	.00	.00
23	.00	.74	.03	54	157	373	12	1.1	.00	.00	.00	.00
24	.22	.58	.01	51	131	326	9.9	.95	.00	.00	.00	.00
25	.08	.45	.00	63	120	287	8.7	.67	.00	.00	.00	.00
26	.00	.26	.00	57	113	252	7.8	.65	.00	.00	.00	.00
27	.00	.15	e.00	46	101	228	7.3	.39	.00	.00	.00	.00
28	.00	.18	e.00	39	89	212	7.1	.27	.00	.00	.00	.00
29	.13	.27	e.63	35	---	214	6.7	.12	.00	.00	.00	.00
30	.92	.21	e5.0	33	---	236	6.2	.00	.00	.00	.00	.00
31	.89	---	e4.0	32	---	245	---	.00	---	.00	.00	---
TOTAL	2.24	14.87	19.30	1298.75	1758	7108	1726.7	57.71	0.00	0.00	0.00	0.00
MEAN	.072	.50	.62	41.9	62.8	229	57.6	1.86	.000	.000	.000	.000
MAX	.92	.83	5.0	118	163	504	235	5.2	.00	.00	.00	.00
MIN	.00	.12	.00	.65	28	81	6.2	.00	.00	.00	.00	.00
AC-FT	4.4	29	38	2580	3490	14100	3420	114	.00	.00	.00	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, 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
MEAN	1.82	1.57	1.41	3.29	12.1	48.9	61.7	6.22	.22	3.42	6.90	2.91												
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	.010	.000	.000	.000	.000												
(WY)	1974	1971	1971	1977	1972	1971	1972	1971	1970	1971	1986	1979												

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1970 - 1993

ANNUAL TOTAL	539.52	11985.57	
ANNUAL MEAN	1.47	32.8	12.5
HIGHEST ANNUAL MEAN			46.9
LOWEST ANNUAL MEAN			.50
HIGHEST DAILY MEAN	39	504	1530
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		541	a5200
INSTANTANEOUS PEAK STAGE		4.60	6.61
ANNUAL RUNOFF (AC-FT)	1070	23770	9050
10 PERCENT EXCEEDS	2.7	108	12
50 PERCENT EXCEEDS	.44	.44	.85
90 PERCENT EXCEEDS	.00	.00	.00
e Estimated			

a-From rating curve extended above 670 ft<sup>3</sup>/s on basis of slope-area measurement at gage heights 4.05 ft, 3.95 ft and 6.61 ft.

## LITTLE COLORADO RIVER BASIN

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978-92, March to May 1993.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
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MAR 24...	1415	320	230	7.9	15.0	13.0	600	8.3	101	110	2	28
MAY 25...	1730	0.60	760	8.0	26.0	22.5	600	6.8	101	230	0	55

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)
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MAR 24...	8.7	8.2	0.3	2.4	126	0	103	110	16	3.4	<0.10	11
MAY 25...	23	83	2	3.5	392	0	321	304	76	21	0.40	2.4

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
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MAR 24...	140	1	<1	30	<1	<1.0	2	<1	2	1	30
MAY 25...	457	1	<1	120	<1	<1.0	<1	<1	2	3	16

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	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)
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MAR 24...	2	<1	<0.10	<0.1	<1	<1	<10	7	29	25	69
MAY 25...	1	<1	<0.10	<0.1	<1	<1	<10	30	39	0.06	74

## LITTLE COLORADO RIVER BASIN

## 09387300 ZUNI RIVER AT NEW MEXICO-ARIZONA STATE LINE

LOCATION.--Lat 34°52'35", long 109°02'29", in SW¼SW¼ sec.34, T.7 N., R.21 W., Cibola County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on the left bank 0.2 mi upstream from the New Mexico-Arizona State line, 5 mi southwest of Ojo Caliente, and 14 mi southwest of Zuni.

DRAINAGE AREA.--1,314 mi<sup>2</sup>, of which 13 mi<sup>2</sup> is non contributing.

PERIOD OF RECORD.--October 1983 to April 1987 (annual maximum only), May 1987 to September 1989, September 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,020 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 12, 1987 crest-stage gage at site 200 ft upstream at same datum.

REMARKS.--Records good. Flow partly regulated by Black Rock Reservoir 18 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	21	5.4	204	40	.00	.00	.00	12
2	.00	.00	.00	.00	19	13	217	.00	.00	.00	.00	e.39
3	.00	.00	.00	.00	18	35	200	.00	.00	.00	.00	e.29
4	.00	.00	.00	.00	18	44	166	.00	.00	.00	.00	e.17
5	.00	.00	.00	.00	17	41	133	.00	.00	.00	.00	e.08
6	.00	.00	.00	.00	16	35	109	.00	.00	.00	.00	e.04
7	.00	.00	.00	.00	17	45	89	.00	.00	.00	.00	.00
8	.00	.00	.00	26	17	48	73	.00	.00	.00	.00	.00
9	.00	.00	.00	6.8	18	46	63	.00	.00	.00	.00	.00
10	.00	.00	.00	18	19	44	57	.00	.00	.00	.00	.00
11	.00	.00	.00	27	22	48	41	.00	.00	.00	.00	.00
12	.00	.00	.00	16	25	60	30	.00	.00	.00	.00	.00
13	.00	.00	.00	7.5	24	91	31	.00	.00	.00	.00	.00
14	.00	.00	.00	6.1	19	136	29	.00	.00	.00	.00	e2.5
15	.00	.00	.00	7.2	21	165	25	.00	.00	.00	.00	e.20
16	.00	.00	.00	7.4	28	158	23	.00	.00	.00	.00	.00
17	.00	.00	.00	8.0	30	139	21	.00	.00	.00	.00	.00
18	.00	.00	.00	7.3	31	132	e15	.00	.00	.00	.00	.00
19	.00	.00	.00	7.0	35	150	e10	.00	.00	.00	.00	.00
20	.00	.00	.00	8.0	34	230	e8.0	.00	.00	.00	.00	.00
21	.00	.00	.00	7.5	32	410	e7.5	.00	.00	.00	.00	.00
22	.00	.00	.00	8.8	33	553	e7.0	.00	.00	.00	2.0	.00
23	.00	.00	.00	10	32	533	e6.5	.00	.00	.00	.00	.00
24	.00	.00	.00	18	44	476	e5.0	.00	.00	.00	.00	.00
25	1.8	.00	.00	26	65	412	e4.5	.00	.00	.00	.00	.00
26	1.9	.00	.00	27	52	344	e4.0	.00	.00	.00	.00	.00
27	1.8	.00	.00	27	12	299	e3.5	.00	.00	.00	1.5	.00
28	1.8	.00	.00	26	5.7	249	e3.0	.00	.00	.00	9.8	.00
29	2.0	.00	.00	27	---	213	1.1	.00	.00	.00	e1.0	.00
30	1.9	.00	.00	27	---	194	1.3	.00	.00	.00	e.00	.00
31	5.4	---	.00	24	---	185	---	.00	---	.00	6.3	---
TOTAL	16.60	0.00	0.00	380.60	724.7	5533.4	1587.4	40.00	0.00	0.00	20.60	15.67
MEAN	.54	.000	.000	12.3	25.9	178	52.9	1.29	.000	.000	.66	.52
MAX	5.4	.00	.00	27	65	553	217	40	.00	.00	9.8	12
MIN	.00	.00	.00	.00	5.7	5.4	1.1	.00	.00	.00	.00	.00
AC-FT	33	.00	.00	755	1440	10980	3150	79	.00	.00	41	31

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1993, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1988	1989	1990	1991	1992	1993
MEAN	.13	.16	.000	2.46	5.10	35.7	10.6	.36	.000	3.55	1.27	.22
MAX	.54	.79	.000	12.3	25.9	178	52.9	1.29	.000	11.2	2.51	.52
(WY)	1993	1988	1988	1993	1993	1993	1993	1993	1988	1992	1989	1993
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.030	.000
(WY)	1989	1989	1988	1988	1988	1988	1988	1988	1988	1988	1991	1991

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1988 - 1993

ANNUAL TOTAL	448.78	8318.97	
ANNUAL MEAN	1.23	22.8	4.99
HIGHEST ANNUAL MEAN			22.8
LOWEST ANNUAL MEAN			.015
HIGHEST DAILY MEAN	85	Jul 26	553
LOWEST DAILY MEAN	.00	Jan 1	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00
INSTANTANEOUS PEAK FLOW			583
INSTANTANEOUS PEAK STAGE			5.24
ANNUAL RUNOFF (AC-FT)	890	16500	3610
10 PERCENT EXCEEDS	.07	44	.34
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00
e Estimated			

a-From rating curve extended above 1.0 ft/s on basis of step-backwater analysis.

## LITTLE COLORADO RIVER BASIN

09395630 PUERCO RIVER NEAR MANUELITO, NM

LOCATION.--Lat 35°27'42", long 108°56'42", in SE¼NW¼ sec.10, T.14 N., R.20 W., McKinley County, Hydrologic Unit 150200006, on right bank on downstream side of Atchison, Topeka and Santa Fe Railway bridge, 200 ft upstream from Interstate Highway 40, 1.2 mi upstream from Hunting Canyon, and 12.6 mi west of Gallup.

DRAINAGE AREA.-- 990 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1989 to current year.

GAGE.--Water-stage recorder, crest stage gage, and concrete control. Elevation of gage is 6,290 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.4	e1.0	e.98	e.80	e1.2	e25	e3.6	e.64	1.3	1.4	1.2	55
2	e1.4	e1.0	e.98	e.80	e1.2	e32	e3.6	e.62	1.3	1.6	1.2	18
3	e1.4	e1.0	e1.0	e.80	e1.2	e21	e22	e.54	1.3	1.4	1.5	13
4	e1.4	e1.0	e1.0	e.80	e1.3	e14	e18	e.48	1.4	1.3	1.7	12
5	e1.4	e1.0	e1.0	e.80	e1.3	e11	e13	e.70	1.4	1.1	1.0	11
6	e1.4	e1.0	e.98	e9.5	e2.5	e10	7.9	e.94	1.4	1.2	.30	9.6
7	e1.4	e1.0	e.98	e2.0	e4.0	e10	7.9	e.60	1.4	1.3	.11	9.6
8	e1.4	e1.0	e.98	e.90	e4.4	11	7.9	.54	1.4	1.1	e.25	7.5
9	e1.4	e.98	e.98	e.90	e2.0	e25	8.1	e.58	1.5	1.2	e1.0	9.1
10	e1.4	e.98	e.98	e.90	e1.9	36	7.6	e.62	1.5	1.2	3.4	7.7
11	e1.4	e.98	e.98	e.90	e2.3	50	5.8	e.64	1.4	1.5	12	4.9
12	e1.4	e.98	e.96	e.90	e2.7	45	3.7	e.66	1.4	1.1	e14	4.8
13	e1.5	e.98	e.96	e.90	e3.2	24	4.6	e.68	1.4	.87	e17	67
14	e1.5	e.98	e.94	e.90	e4.0	e3.7	3.5	e.68	1.4	1.3	21	97
15	e1.5	e.98	e.94	e.90	e4.0	e3.8	3.6	e.70	1.6	1.1	e18	27
16	e1.5	e.98	e.92	e.88	e3.4	e3.8	3.2	e.72	1.6	1.3	e6.0	e20
17	e1.5	e1.0	e.91	e.88	e.50	e3.8	3.0	e.74	1.6	1.4	3.4	4.3
18	e1.5	e1.0	e.91	e.88	e8.5	e3.7	2.0	e.76	1.6	1.5	3.2	4.3
19	e1.5	e1.0	e.90	e.88	e7.0	e3.7	2.3	e.77	1.6	1.3	4.4	4.3
20	e1.5	e1.0	e.90	e72	e5.0	e3.8	2.4	e.78	1.7	1.1	e15	4.5
21	e1.5	e.98	e.88	e1.3	e3.4	e3.8	1.4	e.78	1.8	1.3	e50	4.2
22	e1.5	e.98	e.88	e1.2	e3.4	e3.7	2.0	e1.0	1.8	.42	e70	4.4
23	e1.5	e.98	e.88	e1.2	e3.4	e3.7	1.6	e1.3	1.7	1.3	e30	4.3
24	e1.5	e.98	e.86	e1.2	e3.4	e42	e1.7	e1.9	1.2	.70	e15	4.0
25	e1.5	e.98	e.86	e1.2	e3.4	e15	1.7	e2.5	1.4	1.4	e5.4	4.3
26	e1.5	e.98	e.84	e1.2	e3.4	e3.7	e1.7	e2.8	.81	.71	e5.8	3.8
27	e1.5	e.98	e.82	e1.2	e3.4	e3.6	e1.8	e1.5	1.2	.87	35	3.7
28	e1.5	e.98	e.82	e1.2	e3.4	e3.7	e1.5	e1.4	1.2	1.1	208	3.7
29	e35	e.98	e.81	e1.2	---	e3.6	e.80	e1.4	1.3	1.3	213	3.7
30	e1.3	e.98	e.81	e1.2	---	e3.6	e.68	e1.4	1.2	1.6	79	3.7
31	e1.2	---	e.80	e1.2	---	e3.7	---	e1.4	---	1.7	35	---
TOTAL	78.3	29.64	28.44	111.52	88.80	430.4	148.58	30.77	42.81	37.67	871.86	430.4
MEAN	2.53	.99	.92	3.60	3.17	13.9	4.95	.99	1.43	1.22	28.1	14.3
MAX	35	1.0	1.0	72	8.5	50	22	2.8	1.8	1.7	213	97
MIN	1.2	.98	.80	.80	.50	3.6	.68	.48	.81	.42	.11	3.7
AC-FT	155	59	56	221	176	854	295	61	85	75	1730	854

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993
MEAN	8.51	3.14	1.17	2.10	3.58
MAX	27.8	8.38	1.60	3.60	7.80
(WY)	1991	1992	1990	1993	1992
MIN	1.48	.99	.55	1.60	1.60
(WY)	1992	1993	1992	1990	1990

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1989 - 1993

ANNUAL TOTAL	5726.58	2329.19	
ANNUAL MEAN	15.6	6.38	9.81
HIGHEST ANNUAL MEAN			16.1
LOWEST ANNUAL MEAN			6.38
HIGHEST DAILY MEAN	1050	Aug 24	1050
LOWEST DAILY MEAN	.80	Dec 31	.00
ANNUAL SEVEN-DAY MINIMUM	.82	Dec 25	.00
INSTANTANEOUS PEAK FLOW			a7900
INSTANTANEOUS PEAK STAGE			9.26
ANNUAL RUNOFF (AC-FT)	11360	4620	7110
10 PERCENT EXCEEDS	30	13	15
50 PERCENT EXCEEDS	3.4	1.4	1.6
90 PERCENT EXCEEDS	.98	.81	1.0
e Estimated			

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

## LITTLE COLORADO RIVER BASIN

09395630 PUERCO RIVER NEAR MANUELITO, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1988 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	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)
OCT 29...	0900	42	632	7.6	8.5	6.0	110	35	5.9	88	4	4.2
JAN 20...	1125	88	621	7.7	--	3.5	97	29	5.9	90	4	3.7
MAR 24...	0945	42	--	--	--	11.0	--	--	--	--	--	--
AUG 28...	1500	83	E700	--	--	21.5	160	48	8.7	66	2	5.9

DATE	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)	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)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
OCT 29...	--	180	110	28	0.70	9.4	409	390	2	52	<0.5	<1.0
JAN 20...	20	141	120	31	0.50	7.6	342	373	2	35	<0.5	<1.0
MAR 24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	--	156	180	17	0.80	7.3	412	428	--	56	<0.5	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)
OCT 29...	<5	<3	<10	110	<10	8	31	0.10	10	<10	<1	<1.0
JAN 20...	<5	<3	<10	30	<10	12	<1	0.20	<10	<10	1	1.0
MAR 24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	<5	<3	<10	9	<10	11	7	--	<10	<10	1	<1.0

DATE	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)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO, WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY TH-230 (PCI/G) (75955)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY NAT U (UG/G) (75965)	ALPHA SED BOT MAT WGT AS TH-230 (PCI/G) (04125)	GROSS BETA, DIS- SOLVED AS (PCI/L) CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)
OCT 29...	440	<6	<3	2.5	0.95	1.7	0.66	7.2	9.9	13	7.0	1.6
JAN 20...	470	<6	<3	3.4	1.0	3.1	0.97	--	--	--	7.8	1.6
MAR 24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	590	<6	<3	5.9	1.8	4.3	1.3	9.6	12	20	9.9	1.8

## LITTLE COLORADO RIVER BASIN

09395630 PUERCO RIVER NEAR MANUELITO, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, (PCI/L AS SR90 /Y90) (75988)	BETA, 2 SIGMA BOT MAT TOT DRY SR-90/ Y-90 (PCI/G) (75966)	BETA, 2 SIGMA BOT MAT TOT DRY SR-90/ Y-90 (PCI/G) (04102)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	RA-226 2 SIGMA SED, SUSP, TOTAL, DRY WGT (PCI/G) (75944)	RA-226 2 SIGMA SED, SUSP, TOTAL, DRY WGT (PCI/G) (75943)	URANIUM -238 WATER DISSOLV (PCI/L) (22603)	U-238 2 SIGMA WATER, DISS, (PCI/L) (75991)	U-238 SED, SUSP, TOTAL, DRY WGT (PCI/G) (75940)
OCT 29...	5.3	1.2	4.1	24	--	0.06	0.020	1.7	0.30	0.80	0.12	1.5
JAN 20...	5.8	1.2	--	--	0.1	--	0.119	--	--	--	--	--
MAR 24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	7.5	1.4	4.1	25	0.2	--	0.141	1.8	0.32	1.3	0.17	1.7

DATE	U-238 2 SIGMA SED, SUSP, TOTAL, DRY WGT (PCI/G) (04113)	URANIUM -234 WATER DISSOLV (PCI/L) (22610)	U-234 2 SIGMA WATER, DISS, (PCI/L) (75992)	U-234 SED, SUSP, TOTAL, DRY WGT (PCI/G) (75942)	U-234 2 SIGMA SED, SUSP, TOTAL, DRY WGT (PCI/G) (75941)	URANIUM -235 WATER, DISS, (PCI/L) (22620)	U-235 2 SIGMA WATER, DISS, (PCI/L) (75994)	U-235 SED, SUSP, TOTAL, DRY WGT (PCI/L) (75975)	U-235 2 SIGMA SED, SUSP, TOTAL, DRY WGT (PCI/G) (75947)	TH-232 2 SIGMA SED, SUSP, TOTAL, DRY WGT (PCI/G) (75936)	TH-230 SED, SUSP, TOTAL, DRY WGT (PCI/G) (75939)
OCT 29...	0.20	1.3	0.2	1.4	0.18	<0.1	0.02	<0.1	0.03	0.20	1.3
JAN 20...	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	0.41	1.6	0.2	1.7	0.41	<0.1	0.02	<0.1	0.05	0.21	2.0

DATE	TH-230 2 SIGMA SED, SUSP, TOTAL, DRY WGT (PCI/G) (75952)	TH-232 SED, SUSP, TOTAL, DRY WGT (PCI/G) (75953)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	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)
OCT 29...	0.17	1.5	--	--	--	--	--	--	--	--	--
JAN 20...	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	--	--	6710	761	53	59	73	73	96	100	--
AUG 28...	0.25	1.6	44500	9970	57	71	75	82	92	98	100

## GILA RIVER BASIN

09430500 GILA RIVER NEAR GILA, NM

LOCATION.--Lat 33°03'40", long 108°32'12", in NE¼NW¼ sec.30, T.14 S., R.16 W., Grant County, Hydrologic Unit 15040001, on left bank at Hooker damsite, 1.6 mi upstream from Mogollon Creek, 7 mi northeast of Gila, and at mile 572.5.

DRAINAGE AREA.--1,364 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 4,655.8 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 same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 500 acres upstream from station. Several observations of water temperature were made during the year. National Weather Service gage height and rain gage 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 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	68	61	e820	420	970	501	321	181	72	38	321
2	47	70	62	e740	438	757	488	318	174	70	42	304
3	48	66	64	e700	416	755	485	301	168	60	109	257
4	49	64	84	e660	375	747	470	284	159	60	213	205
5	49	65	448	e700	343	697	447	276	152	67	329	165
6	52	63	424	e740	308	644	439	276	143	72	187	143
7	54	63	274	e800	283	607	440	276	134	73	134	131
8	53	64	242	e7000	270	587	417	264	129	75	101	122
9	55	65	232	e4000	335	614	378	253	126	78	88	111
10	55	64	208	e2400	673	663	340	246	121	76	101	103
11	56	63	191	e3350	648	685	320	238	117	63	76	97
12	56	61	182	e2900	567	669	325	234	112	69	73	94
13	55	61	171	e2300	513	623	345	248	107	72	64	93
14	55	61	152	e1800	485	587	355	265	101	76	82	95
15	55	61	134	e1470	693	590	338	267	100	76	133	94
16	56	62	125	1150	679	571	309	266	92	71	126	98
17	56	61	116	1480	649	600	289	263	94	86	136	97
18	56	61	109	3400	666	682	277	264	94	89	122	95
19	56	61	105	5460	913	797	273	259	87	73	108	92
20	57	60	102	2920	8210	813	291	264	84	67	180	92
21	62	61	99	2010	6640	772	302	263	82	53	137	91
22	61	62	95	1660	2550	747	296	253	78	47	136	89
23	64	63	92	1460	1780	711	305	245	74	44	137	86
24	67	65	90	1250	1360	685	347	237	70	40	108	84
25	70	64	88	1030	1090	655	358	233	67	36	90	84
26	71	63	87	876	905	640	328	225	60	33	85	85
27	68	61	86	741	779	655	309	212	60	31	110	84
28	66	61	402	688	733	631	318	211	64	27	242	83
29	68	61	e3000	610	---	602	334	217	60	27	621	82
30	70	61	e1100	543	---	565	341	208	60	29	572	84
31	70	---	e980	466	---	517	---	195	---	36	386	---
TOTAL	1804	1886	9605	56124	33721	20838	10765	7882	3150	1848	5066	3661
MEAN	58.2	62.9	310	1810	1204	672	359	254	105	59.6	163	122
MAX	71	70	3000	7000	8210	970	501	321	181	89	621	321
MIN	47	60	61	466	270	517	273	195	60	27	38	82
AC-FT	3580	3740	19050	111300	66890	41330	21350	15630	6250	3670	10050	7260

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1993, BY WATER YEAR (WY)

MEAN	121	89.9	165	176	238	324	226	146	61.4	65.6	143	144
MAX	994	581	1632	1810	1204	1049	903	716	249	225	901	960
(WY)	1973	1979	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	38.2	23.5	22.3	37.5	24.0
(WY)	1957	1951	1954	1954	1954	1971	1971	1959	1974	1971	1956	1956

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1928 - 1993

ANNUAL TOTAL	116642											
ANNUAL MEAN	319											
HIGHEST ANNUAL MEAN									159			
LOWEST ANNUAL MEAN									477			1979
HIGHEST DAILY MEAN	3000								23400			1956
LOWEST DAILY MEAN	47								15			Dec 28 1984
ANNUAL SEVEN-DAY MINIMUM	49								16			Jul 14 1971
INSTANTANEOUS PEAK FLOW									a35200			Dec 28 1984
INSTANTANEOUS PEAK STAGE									b13.00			Dec 28 1984
INSTANTANEOUS LOW FLOW									14			Jul 15 1971
ANNUAL RUNOFF (AC-FT)	231400								115000			
10 PERCENT EXCEEDS	720								318			
50 PERCENT EXCEEDS	182								74			
90 PERCENT EXCEEDS	60								41			

e Estimated

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 fair. No flow at times. See tabulation below for monthly precipitation in inches.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.43	5.1	2.9	147	87	103	180	105	17	1.1	.63	32
2	.40	3.4	3.0	112	88	100	198	86	15	1.1	.36	47
3	.40	2.5	3.3	95	87	116	202	77	13	1.0	.03	29
4	.40	2.1	120	77	85	121	172	78	12	.90	5.7	20
5	.40	2.1	226	66	77	115	169	78	10	.82	21	15
6	.40	2.1	81	67	70	117	167	73	9.3	.71	5.7	13
7	.40	2.1	60	289	66	128	133	61	9.1	.61	8.1	10
8	.40	2.1	68	1460	72	170	104	58	8.5	.39	6.2	8.2
9	.50	2.1	60	603	175	221	94	56	7.5	.26	2.8	7.1
10	.52	2.1	69	317	183	230	108	53	6.7	1.1	1.7	6.3
11	.52	2.2	67	522	144	203	132	57	5.9	2.2	1.1	5.8
12	.52	2.3	57	322	123	169	148	66	5.3	3.4	.69	5.8
13	.53	2.3	39	218	108	148	137	66	4.9	2.4	.57	8.2
14	.61	2.3	26	196	106	147	112	61	4.5	4.0	11	8.3
15	.55	2.2	21	203	125	134	89	58	4.3	2.9	35	6.9
16	.38	2.3	17	197	120	155	80	59	5.2	2.1	11	5.7
17	.41	2.3	15	514	130	224	71	56	4.4	2.4	72	4.7
18	.47	2.3	12	825	150	315	93	50	3.7	1.7	29	4.3
19	.53	2.3	10	669	270	333	123	48	3.2	1.1	16	3.9
20	.56	2.5	8.8	366	1400	275	115	47	3.0	.86	183	3.8
21	.84	2.8	7.7	306	623	247	109	44	3.6	.58	58	3.6
22	.98	2.9	7.3	301	342	237	129	42	2.8	.31	33	3.3
23	1.8	3.2	7.0	265	231	244	152	37	2.3	.19	21	3.3
24	2.4	3.4	6.9	215	178	256	130	32	2.1	.07	15	3.2
25	5.0	4.4	6.9	171	142	245	104	30	1.8	.00	11	3.0
26	2.5	3.8	6.9	147	118	241	106	29	1.6	.00	11	2.7
27	1.5	5.2	7.0	137	106	225	119	29	1.6	.00	10	2.6
28	1.6	5.8	713	123	109	161	126	28	1.5	.00	19	2.5
29	3.6	4.7	e2000	116	---	151	119	24	1.3	.00	35	2.4
30	3.7	3.1	e960	101	---	146	104	20	1.2	.00	45	2.1
31	2.7	---	e260	88	---	166	---	18	---	.73	32	---

TOTAL	35.95	88.0	4948.7	9235	5515	5843	3825	1626	172.3	32.93	701.58	273.7
MEAN	1.16	2.93	160	298	197	188	127	52.5	5.74	1.06	22.6	9.12
MAX	5.0	5.8	2000	1460	1400	333	202	105	17	4.0	183	47
MIN	.38	2.1	2.9	66	66	100	71	18	1.2	.00	.03	2.1
AC-FT	71	175	9820	18320	10940	11590	7590	3230	342	65	1390	543
(†)	1.12	0.00	3.24	1.12	1.00	1.18	0.06	0.09	0.20	0.73	4.23	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

MEAN	24.3	15.4	49.0	39.4	61.2	74.6	61.4	31.5	3.88	5.51	16.4	16.9
MAX	237	166	410	298	211	272	182	160	24.1	24.5	56.8	120
(WY)	1973	1979	1979	1993	1968	1978	1973	1992	1992	1986	1967	1975
MIN	.14	1.07	1.03	1.14	1.44	1.33	.90	.26	.000	.000	1.02	.33
(WY)	1980	1971	1974	1971	1971	1971	1971	1971	1971	1980	1975	1987

## SUMMARY STATISTICS

FOR 1992 CALENDAR YEAR

FOR 1993 WATER YEAR

WATER YEARS 1967 - 1993

ANNUAL TOTAL	25698.95	32297.16	
ANNUAL MEAN	70.2	88.5	33.5
HIGHEST ANNUAL MEAN			97.0
LOWEST ANNUAL MEAN			1.83
HIGHEST DAILY MEAN	2000	Dec 29	6000
LOWEST DAILY MEAN	.38	Oct 16	.00
ANNUAL SEVEN-DAY MINIMUM	.40	Oct 2	.01
INSTANTANEOUS PEAK FLOW			2970
INSTANTANEOUS PEAK STAGE			7.22
ANNUAL RUNOFF (AC-FT)	50970	64060	24300
10 PERCENT EXCEEDS	178	219	89
50 PERCENT EXCEEDS	23	18	7.0
90 PERCENT EXCEEDS	1.3	.62	.41
e Estimated			

a-From floodmarks.

b-From rating curve extended above 400 ft/s on basis of slope-area measurement of peak flow.

(†) Total rainfall accumulation in inches.

## 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 1992 TO SEPTEMBER 1993

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)
FEB 01...	1725	86	93	8.5	5.0	5.0	5.3	627
APR 13...	1530	133	55	7.7	18.0	8.0	4.2	620
MAY 18...	1530	47	50	7.9	28.0	16.0	2.5	630
AUG 24...	1330	15	100	7.4	33.0	21.0	0.80	622

DATE	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (PER-CENT) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	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)
FEB 01...	10.6	101	K1	K1	35	7	9.8	2.5	4.9	0.4
APR 13...	9.5	99	K2	K16	19	2	5.5	1.3	3.5	0.3
MAY 18...	7.9	97	K3	K14	18	0	5.4	1.1	3.4	0.3
AUG 24...	7.3	101	--	--	42	0	12	2.9	5.6	0.4

DATE	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
FEB 01...	0.80	34	0	28	32	13	1.4	0.30	20	75
APR 13...	0.70	21	0	18	20	--	--	--	18	--
MAY 18...	0.60	27	0	22	20	8.7	0.60	0.20	17	47
AUG 24...	1.3	51	0	42	41	11	1.5	0.20	23	83

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, 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)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
FEB 01...	70	0.030	<0.050	0.020	<0.20	0.020	<0.010	0.020	130	2
APR 13...	--	<0.010	<0.050	0.020	0.20	0.040	0.020	0.010	130	2
MAY 18...	51	<0.010	<0.050	0.020	<0.20	0.060	0.020	0.010	40	1
AUG 24...	83	<0.010	<0.050	0.020	<0.20	0.020	0.030	0.020	18	3

## GILA RIVER BASIN

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	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)
FEB 01...	1725	540	4	<3	<4	<10	1	<1	<1.0	56
APR 13...	1530	650	3	<3	<4	<10	<1	<1	<1.0	30
MAY 18...	1530	140	2	<3	<4	<10	<1	<1	<1.0	28
AUG 24...	1330	40	4	<3	7	<10	<1	<1	<1.0	62

DATE	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	GROSS ALPHA, COUNT, 2 SIGMA WAT DIS DISS (UG/L AS U-NAT) (80030)	ALPHA, COUNT, 2 SIGMA WAT DIS DISS (UG/L AS U-NAT) (75986)	ALPHA RADIO. WATER DISS (PCI/L AS TH-230) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS DISS (PCI/L AS TH-230) (75987)	GROSS ALPHA, SUSP TOTAL (UG/L AS U-NAT) (80040)	ALPHA SED SUSP TOTAL (UG/L AS TH-230) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS (PCI/L AS TH-230) (76004)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS AS (PCI/L AS CS-137) (75989)
FEB 01...	<6	1.5	0.79	1.1	0.56	1.5	1.0	0.66	1.5	0.67
APR 13...	<6	--	--	--	--	--	--	--	--	--
MAY 18...	<6	1.3	0.70	0.9	0.49	0.9	<0.6	0.39	1.3	0.60
AUG 24...	<6	--	--	--	--	--	--	--	--	--

DATE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS (PCI/L AS SR/ YT-90) (75988)	GROSS BETA, SUSP TOTAL (PCI/L AS SR/ YT-90) (03516)	GROSS BETA, SUSP TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP TOT DRY (PCI/L AS SR/ YT-90) (76005)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L AS SR/ YT-90) (09511)	RA-226 2 SIGMA WATER, DISS (PCI/L AS SR/ YT-90) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS (UG/L AS U) (75990)
FEB 01...	1.3	0.54	0.7	0.7	0.56	0.04	0.010	0.17	<1.0
MAY 18...	1.2	0.51	<0.6	<0.6	0.53	0.03	0.010	0.14	<1.0

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB 01...	1725	86		93	5.0	5	1.2
APR 13...	1530	133		55	8.0	7	2.5
MAY 18...	1530	47		50	16.0	<20	--
AUG 24...	1330	15		100	21.0	37	1.5

## GILA RIVER BASIN

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## CROSS SECTION ANALYSES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	SAMPLE LOC- ATION, CROSS SECTION (FT FM R BK) (72103)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET) (81903)	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)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB 1993											
01...	1704	--	33.0	1.40	5.5	100	8.5	6.0	10.6	10	100
01...	1705	--	30.0	1.20	4.6	100	8.5	6.0	10.6	3	100
01...	1706	--	27.0	1.10	4.1	100	8.5	6.0	10.6	14	81
01...	1707	--	24.0	0.92	3.0	100	8.5	6.0	10.6	9	68
01...	1708	--	21.0	0.74	2.7	100	8.5	6.0	10.6	4	100
01...	1709	--	18.0	0.74	3.1	100	8.5	6.0	10.6	21	100
01...	1711	--	15.0	0.72	3.4	100	8.5	6.0	10.6	8	86
01...	1712	--	9.0	0.84	3.0	99	8.5	6.0	10.6	29	47
01...	1713	--	6.0	1.02	3.3	100	8.5	6.0	10.6	19	95
AUG											
24...	1400	4.00	--	0.36	0.28	102	8.2	--	7.3	--	--
24...	1401	8.00	--	0.52	0.50	98	8.2	--	7.4	--	--
24...	1402	12.0	--	0.90	0.88	100	8.2	--	7.3	--	--
24...	1403	16.0	--	1.00	1.2	100	7.8	--	7.0	--	--
24...	1404	20.0	--	1.00	1.2	100	8.2	--	7.1	--	--
24...	1405	24.0	--	1.00	0.86	100	8.1	--	7.3	--	--
24...	1406	26.0	--	0.30	0.17	100	8.1	--	7.2	--	--

## GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM  
(National stream-quality accounting network and radiochemical network station)

LOCATION.--Lat 32°43'37", long 108°40'30", in W/4 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 mi<sup>2</sup>.

## 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 fair. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	86	97	936	e680	e1500	953	459	229	51	25	628
2	61	84	98	861	e300	e1300	948	441	210	50	24	547
3	56	86	94	811	e180	e1160	938	400	193	51	26	486
4	49	88	111	811	e150	1130	909	363	174	49	89	380
5	51	88	274	841	e140	1220	853	354	167	54	428	302
6	61	90	393	883	e120	1120	827	364	153	49	373	251
7	60	91	271	785	e200	1090	798	390	151	38	276	216
8	59	87	214	10400	e500	1100	713	371	145	38	215	201
9	60	90	222	7580	e800	1110	628	333	147	34	155	183
10	61	89	197	3000	e1150	1170	559	310	131	36	127	166
11	62	87	188	e5000	1350	1280	527	303	123	76	96	151
12	63	86	183	e4200	1020	1290	509	289	108	81	70	133
13	67	85	187	e3500	822	1120	530	303	97	89	50	133
14	71	84	189	e2800	717	980	527	342	96	117	52	136
15	67	82	185	e2300	1340	889	482	353	88	105	98	125
16	65	84	180	e2000	1520	775	437	361	104	97	148	121
17	63	81	170	e4000	1220	814	399	339	106	151	182	128
18	60	80	163	5850	1220	1110	395	308	106	114	185	122
19	66	85	153	e16000	1347	1300	395	307	99	103	164	118
20	77	83	148	5400	9120	1360	415	307	89	82	179	117
21	90	80	148	2600	9530	1250	443	300	89	69	328	104
22	76	83	142	2130	3530	1200	437	307	81	59	214	105
23	77	92	140	1920	2370	1180	463	308	74	51	189	98
24	72	95	139	1580	2150	1180	505	302	62	38	168	106
25	68	97	136	1250	2000	1160	526	287	48	29	133	105
26	76	99	140	e1000	e1500	1130	486	271	26	25	118	98
27	85	94	132	e960	e1300	1170	458	258	35	26	143	97
28	86	88	638	e860	e1100	1120	467	255	53	26	288	91
29	92	71	7050	e800	---	1050	481	255	52	22	827	83
30	86	80	2990	e780	---	1040	490	256	56	24	1210	88
31	85	---	1250	e760	---	963	---	246	---	24	758	---
TOTAL	2130	2595	16622	92598	47369	35261	17498	10042	3292	1858	7338	5619
MEAN	68.7	86.5	536	2987	1692	1137	583	324	110	59.9	237	187
MAX	92	99	7050	16000	9530	1500	953	459	229	151	1210	628
MIN	49	71	94	760	120	775	395	246	26	22	24	83
AC-FT	4220	5150	32970	183700	93960	69940	34710	19920	6530	3690	14550	11150
(†)	0.87	0.00	3.67	4.68	1.68	0.63	0.00	0.25	0.00	0.59	3.06	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

	1963	1964	1965	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
MEAN	220	133	345	330	431	519	329	209	64.8	76.2	218	230																			
MAX	1768	674	2200	2987	1692	1438	1155	1068	278	287	1182	1315																			
(WY)	1973	1979	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	27.2	12.0	15.6	47.5	22.2																			
(WY)	1974	1974	1981	1971	1971	1971	1971	1971	1974	1978	1969	1978																			

## SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1963 - 1993
ANNUAL TOTAL	185008	242222	
ANNUAL MEAN	505	664	258
HIGHEST ANNUAL MEAN			664
LOWEST ANNUAL MEAN			57.2
HIGHEST DAILY MEAN	7050	Dec 29	34000
LOWEST DAILY MEAN	49	Oct 4	22
ANNUAL SEVEN-DAY MINIMUM	57	Oct 1	24
INSTANTANEOUS PEAK FLOW			25500
INSTANTANEOUS PEAK STAGE			20.20
INSTANTANEOUS LOW FLOW			Jan 19
ANNUAL RUNOFF (AC-FT)	367000	480400	187100
10 PERCENT EXCEEDS	1100	1280	570
50 PERCENT EXCEEDS	195	185	99
90 PERCENT EXCEEDS	73	60	35

a Estimated

a-In gage well, 34.1 ft from floodmarks.

b-From rating curve extended above 9,500 ft/s on basis of slope-area measurement of peak flow.

(†) Total rainfall accumulation in inches.

## 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 1992 TO SEPTEMBER 1993

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 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 18...	1545	81	353	8.3	20.0	11.5	6.6	656	11.1	119	11	K11
DEC 22...	1040	142	326	8.6	17.0	9.5	7.4	661	10.7	108	<10	29
FEB 01...	1155	678	240	8.1	15.0	10.5	28	660	10.0	104	160	41
MAR 03...	1215	1160	203	7.6	14.0	8.5	39	663	10.2	100	17	22
APR 12...	1400	522	187	8.4	25.5	16.5	13	685	8.7	99	15	49
MAY 17...	1430	332	212	8.2	28.0	20.0	6.2	655	6.8	87	14	35
JUN 17...	1130	105	298	8.4	31.5	24.0	0.30	655	10.2	142	18	22
JUL 15...	1100	51	360	7.9	26.5	23.5	130	659	7.3	100	25	200
AUG 25...	1000	140	298	8.4	23.5	22.0	24	658	9.1	121	21	--
SEP 29...	1100	97	360	8.0	21.0	15.0	3.4	664	9.3	106	<10	22

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)	ALKA- LITY LAB (MG/L AS CACO3) (90410)
NOV 18...	89	110	0	34	6.7	29	1	1.8	143	8	131	131
DEC 22...	K6	110	0	33	6.6	27	1	1.7	134	2	114	115
FEB 01...	30	83	2	24	5.5	15	0.7	1.5	98	0	80	83
MAR 03...	24	76	6	22	5.2	13	0.6	1.4	86	0	70	73
APR 12...	33	72	1	21	4.8	14	0.7	1.4	85	1	72	72
MAY 17...	39	83	2	25	5.0	18	0.9	1.6	99	0	81	82
JUN 17...	39	110	0	33	6.6	24	1	2.1	120	10	114	112
JUL 15...	260	120	0	38	7.1	28	1	2.5	159	0	130	143
AUG 25...	--	110	0	32	6.7	27	1	2.1	144	0	118	119
SEP 29...	K7	120	0	37	7.3	27	1	2.0	159	0	130	137

## GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV 18...	29	12	2.1	31	222	224	29	--	0.020	0.020	<0.050
DEC 22...	30	12	1.7	36	208	218	22	0.480	--	0.010	--
FEB 01...	27	7.5	1.0	29	164	161	58	0.440	--	0.020	--
MAR 03...	24	5.0	0.70	--	140	114	130	--	--	--	--
APR 12...	23	5.5	1.0	--	155	114	30	--	--	--	--
MAY 17...	23	6.5	1.3	33	162	164	9	--	--	<0.010	--
JUN 17...	34	8.8	1.6	--	199	180	7	--	--	<0.010	--
JUL 15...	37	9.0	1.6	--	247	205	1230	--	--	<0.010	--
AUG 25...	30	10	1.7	35	226	217	72	--	--	<0.010	--
SEP 29...	32	9.7	1.6	--	236	197	8	--	--	<0.010	--

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,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 TOTAL (MG/L AS P) (70507)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
NOV 18...	<0.050	<0.010	<0.010	0.40	0.040	0.020	0.030	0.010	50	5	3
DEC 22...	0.490	--	<0.010	<0.20	0.070	0.040	--	0.040	30	10	10
FEB 01...	0.460	--	0.020	<0.20	0.140	0.050	--	0.050	20	20	2
MAR 03...	--	--	--	0.30	0.200	--	--	--	20	44	2
APR 12...	--	--	--	0.20	0.070	--	--	--	20	24	1
MAY 17...	0.280	--	0.030	<0.20	0.040	0.040	--	0.040	30	6	1
JUN 17...	0.180	--	0.030	<0.20	0.030	--	--	0.010	30	<3	2
JUL 15...	0.730	--	0.050	0.50	0.290	--	--	0.060	50	6	<1
AUG 25...	0.400	--	0.020	<0.20	0.060	0.060	--	0.040	50	29	2
SEP 29...	0.360	--	0.030	<0.20	0.040	--	--	0.020	40	8	3

## GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, TOTAL (UG/L AS SB) (01097)	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)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
NOV 18...	1545	<10	--	2	1	15	--	<1	<1.0	<1
DEC 22...	1040	--	--	1	2	<100	--	<1	<1.0	6
FEB 01...	1155	70	1	<1	1	10	<10	<1	<1.0	4
MAR 03...	1215	--	2	<1	<1	9	<10	<1	<1.0	<1
APR 12...	1400	--	<1	<1	<1	18	<10	<1	<1.0	<1
MAY 17...	1430	30	--	1	1	9	--	<1	<1.0	1
JUN 17...	1130	--	2	1	1	12	<10	<1	<1.0	<1
JUL 15...	1100	--	1	2	2	14	<10	<1	<1.0	6
AUG 25...	1000	<10	--	2	2	16	--	<1	<1.0	14
SEP 29...	1100	--	<1	2	2	16	<10	<1	<1.0	<1

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
NOV 18...	<1	<3	7	2	370	2	<1	23	30	<0.10
DEC 22...	<1	--	6	2	480	1	<1	--	20	<0.10
FEB 01...	<1	<3	6	3	1700	3	<1	11	60	<0.10
MAR 03...	<1	--	6	2	2300	5	<1	--	100	<0.10
APR 12...	<1	--	3	1	540	2	<1	--	20	<0.10
MAY 17...	<1	<3	2	2	310	<1	<1	14	<10	<0.10
JUN 17...	<1	--	2	1	60	<1	<1	--	10	<0.10
JUL 15...	<1	--	120	5	7100	9	<1	--	230	<0.10
AUG 25...	<1	<3	24	5	1600	4	<1	16	70	<0.10
SEP 29...	<1	--	2	2	240	<1	<1	--	10	<0.10



DATE	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
NOV 18...	<0.1	<10	--	<1	<1	<1	<1.0	140	6	20
DEC 22...	--	--	--	--	<1	<1	<1.0	--	--	<10
FEB 01...	0.1	<10	4	<1	<1	<1	<1.0	110	<6	<10
MAR 03...	--	--	5	--	<1	<1	<1.0	--	--	20
APR 12...	--	--	1	--	<1	<1	<1.0	--	--	10
MAY 17...	<0.1	<10	--	<1	<1	<1	<1.0	100	<6	<10
JUN 17...	--	--	2	--	<1	<1	<1.0	--	--	<10
JUL 15...	--	--	11	--	3	<1	<1.0	--	--	40
AUG 25...	0.2	<10	--	<1	<1	<1	<1.0	140	<6	<10
SEP 29...	--	--	1	--	<1	<1	<1.0	--	--	<10

[illegible]

## GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 (PCI/L (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP, TOT DRY CS-137 (PCI/L) (76005)	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)
DEC 22...	2.3	0.89	1.4	1.3	0.63	0.03	0.010	1.3	<1.0
MAY 17...	2.3	0.65	1.1	1.1	0.56	0.03	0.010	0.77	<1.0
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	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 18...	1545	81	353	11.5	17	3.7	99		
DEC 22...	1040	142	326	9.5	1210	464	2		
FEB 01...	1155	678	240	10.5	179	328	41		
MAR 03...	1215	1160	203	8.5	195	611	67		
APR 12...	1400	522	187	16.5	40	56	74		
MAY 17...	1430	332	212	20.0	23	21	83		
JUN 17...	1130	105	298	24.0	7	2.0	61		
AUG 25...	1000	140	298	22.0	83	31	95		
SEP 29...	1100	97	360	15.0	11	2.9	81		

## GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (000009)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET) (81903)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (000400)	TEMPER- ATURE WATER (DEG C) (000010)	OXYGEN, DIS- SOLVED (MG/L) (000300)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC 1992									
22...	6.00	0.64	--	324	8.6	9.5	10.7	41	75
22...	10.0	0.92	--	325	8.6	9.0	10.8	36	85
22...	14.0	1.18	--	326	8.6	9.0	10.7	41	92
22...	18.0	1.42	--	326	8.6	9.0	10.7	42	90
22...	22.0	1.70	--	326	8.6	9.0	10.6	34	91
22...	26.0	2.00	--	328	8.6	9.0	10.7	77	43
22...	30.0	2.14	--	324	8.6	9.0	10.7	38	90
22...	34.0	2.42	--	328	8.6	9.0	10.7	47	90
22...	38.0	2.52	--	328	8.6	9.0	10.6	44	86
22...	42.0	1.44	--	329	8.6	9.0	10.8	36	94
AUG 1993									
25...	6.00	1.28	7.7	292	8.4	22.0	9.1	--	--
25...	12.0	1.38	7.7	298	8.4	22.0	9.1	--	--
25...	18.0	1.42	7.2	300	8.4	22.0	9.2	--	--
25...	24.0	1.58	6.9	300	8.4	22.0	9.2	--	--
25...	30.0	1.76	6.6	300	8.5	22.0	9.2	--	--
25...	36.0	1.60	6.0	300	8.4	22.0	9.2	--	--
25...	42.0	1.48	5.8	300	8.5	22.0	9.2	--	--
25...	48.0	1.40	6.8	300	8.5	22.0	9.1	--	--
25...	54.0	1.10	4.3	300	8.5	22.0	9.1	--	--

## GILA RIVER BASIN

09442680 SAN FRANCISCO RIVER NEAR RESERVE, NM

LOCATION.--Lat 33°44'12", long 108°46'14", in NE¼NW¼SE¼ sec.35, T.6 S., R.19 W., Catron County, Hydrologic Unit 15040004, on left bank 1,300 ft 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 good except for estimated daily discharges, which are fair. 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.

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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	10	9.9	59	112	197	304	e52	15	11	6.2	85
2	4.5	9.5	9.2	50	103	167	261	e48	14	11	7.9	50
3	7.7	8.4	8.2	47	92	144	228	e46	12	11	6.6	31
4	11	9.3	41	27	84	156	198	e44	11	12	6.2	23
5	13	9.9	39	24	74	152	180	e42	12	12	14	19
6	14	9.1	17	21	67	158	169	e40	12	10	11	19
7	15	9.3	13	28	63	177	167	e42	12	10	10	17
8	16	9.2	15	567	70	249	154	e38	12	10	8.7	14
9	17	8.4	13	410	214	337	126	e34	11	9.8	4.9	9.3
10	17	8.2	9.7	229	268	397	110	e32	11	9.7	7.4	13
11	17	9.9	8.9	255	198	385	103	e30	11	9.5	4.8	13
12	17	9.9	8.5	127	165	333	101	e29	11	9.0	3.4	18
13	17	9.3	7.9	101	146	299	100	e27	11	14	4.5	26
14	17	9.2	6.8	89	156	315	95	e25	11	15	7.0	16
15	15	8.5	5.0	83	174	266	85	e24	11	11	5.6	17
16	16	8.8	5.6	73	142	352	79	e23	10	12	6.4	13
17	18	9.0	5.3	211	129	423	e84	e23	10	12	6.6	12
18	17	9.0	3.8	375	138	433	e82	e21	10	8.6	6.9	13
19	17	9.0	4.3	419	200	512	e84	e20	11	7.8	6.7	11
20	15	9.5	3.8	246	1360	470	e80	e20	11	8.1	3.3	11
21	12	9.9	2.7	195	687	397	e76	22	11	7.0	9.9	10
22	11	10	2.3	194	427	349	e74	20	12	4.7	12	9.9
23	11	11	3.1	195	325	318	e70	21	12	5.8	9.3	9.1
24	12	10	2.2	160	268	288	e72	21	11	4.5	8.6	8.5
25	28	10	2.1	135	216	263	e70	21	11	4.6	7.5	8.2
26	17	9.3	1.9	117	188	261	e68	18	11	5.3	7.5	8.6
27	13	7.8	1.3	114	181	303	e66	18	11	5.3	13	8.4
28	11	9.6	29	107	215	306	e64	20	10	6.3	28	8.6
29	12	9.7	171	99	---	280	e60	24	10	5.0	139	7.1
30	11	10	262	94	---	285	e56	20	10	5.3	119	8.4
31	10	---	112	87	---	401	---	16	---	5.9	74	---
TOTAL	433.2	280.7	824.5	4938	6462	9373	3466	881	338	273.2	565.9	517.1
MEAN	14.0	9.36	26.6	159	231	302	116	28.4	11.3	8.81	18.3	17.2
MAX	23	11	262	567	1360	512	304	52	15	15	139	85
MIN	4.0	7.8	1.3	21	63	144	56	16	10	4.5	3.3	7.1
AC-FT	859	557	1640	9790	12820	18590	6870	1750	670	542	1120	1030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1993, BY WATER YEAR (WY)

	MEAN	32.1	17.7	22.2	22.6	41.7	85.1	60.7	22.0	6.99	9.21	16.9	20.3
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	4.24	3.38	2.75	1.39	1.80	4.55	4.87	
(WY)	1983	1976	1978	1970	1964	1971	1967	1967	1990	1971	1961	1992	

## SUMMARY STATISTICS

## FOR 1992 CALENDAR YEAR

## FOR 1993 WATER YEAR

## WATER YEARS 1960 - 1993

ANNUAL TOTAL	16054.2	28352.6	
ANNUAL MEAN	43.9	77.7	
HIGHEST ANNUAL MEAN			29.7
LOWEST ANNUAL MEAN			101
HIGHEST DAILY MEAN	668	May 7	1973
LOWEST DAILY MEAN	1.3	Dec 27	1971
ANNUAL SEVEN-DAY MINIMUM	2.2	Dec 21	5000
INSTANTANEOUS PEAK FLOW			6.07
INSTANTANEOUS PEAK STAGE			1971
INSTANTANEOUS LOW FLOW			1972
ANNUAL RUNOFF (AC-FT)	31840	56240	21540
10 PERCENT EXCEEDS	128	257	60
50 PERCENT EXCEEDS	17	16	8.7
90 PERCENT EXCEEDS	4.5	6.7	3.8

e Estimated

a-11.3 ft from outside floodmarks.

b-From rating curve extended above 1,400 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.

## 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 current year. 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. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.2	3.2	3.4	3.5	5.1	4.7	3.6	3.3	3.4	3.3	3.3
2	3.0	3.2	3.2	3.4	3.3	4.7	3.9	3.6	3.3	3.4	3.3	3.2
3	3.0	3.2	3.4	3.5	3.2	5.4	3.8	3.6	3.3	3.4	3.4	3.2
4	2.9	3.2	3.6	3.4	3.1	5.1	3.8	3.6	3.3	3.4	3.4	3.2
5	3.0	3.2	3.4	3.4	3.0	4.1	3.9	3.6	3.3	3.4	3.3	3.1
6	3.0	3.2	3.3	3.4	3.0	3.8	3.8	3.6	3.3	3.4	3.3	3.1
7	3.0	3.2	3.3	3.5	3.0	3.6	3.8	3.6	3.2	3.4	3.3	3.1
8	3.0	3.2	3.4	53	3.0	3.5	3.8	3.5	3.3	3.4	3.3	3.1
9	3.0	3.2	3.3	15	3.2	3.5	3.8	3.5	3.2	3.4	3.4	3.1
10	3.1	3.3	3.3	7.3	4.1	3.4	3.7	3.5	3.2	3.4	3.3	3.1
11	3.0	3.3	3.3	6.7	3.9	3.4	3.7	3.5	3.2	3.4	3.3	3.1
12	3.1	3.2	3.3	5.2	3.4	3.3	3.7	3.5	3.2	3.4	3.3	3.2
13	3.0	3.2	3.3	4.8	3.3	3.3	3.9	3.5	3.4	3.5	3.9	3.2
14	3.0	3.2	3.3	4.7	3.3	3.5	3.8	3.5	3.4	3.4	3.6	3.1
15	3.0	3.2	3.3	6.8	4.1	3.4	3.8	3.5	3.4	3.4	3.5	3.1
16	3.1	3.2	3.3	6.3	4.1	3.3	3.9	3.6	3.4	3.4	3.8	3.1
17	3.0	3.2	3.3	55	4.6	15	3.8	3.5	3.4	3.4	3.6	3.1
18	3.1	3.2	3.5	32	6.1	21	3.8	3.5	3.4	3.4	3.6	3.1
19	3.1	3.2	3.4	23	11	28	3.8	3.5	3.4	3.4	3.6	3.1
20	3.1	3.3	3.3	15	116	20	3.8	3.5	3.4	3.3	3.5	3.0
21	3.1	3.3	3.4	12	25	14	3.8	3.5	3.3	3.3	3.5	3.0
22	3.2	3.2	3.3	11	13	7.3	3.8	3.4	3.4	3.3	3.5	3.0
23	3.2	3.3	3.3	8.6	9.1	6.4	3.7	3.4	3.4	3.3	3.3	3.0
24	3.4	3.3	3.4	5.9	7.2	4.7	3.7	3.4	3.3	3.3	3.2	3.0
25	3.4	3.2	3.4	4.7	6.3	4.0	3.7	3.3	3.3	3.3	3.2	3.0
26	3.2	3.2	3.4	4.3	5.7	3.7	3.7	3.3	3.3	3.3	3.2	3.0
27	3.2	3.2	3.4	4.1	5.2	3.6	3.7	3.4	3.3	3.3	3.3	3.0
28	3.3	3.2	3.5	3.9	5.1	3.6	3.6	3.4	3.4	3.3	3.4	3.0
29	3.3	3.3	3.6	3.6	---	3.8	3.6	3.4	3.4	3.3	3.3	3.0
30	3.2	3.2	3.4	3.5	---	3.7	3.6	3.3	3.4	3.3	3.3	3.0
31	3.2	---	3.4	3.3	---	7.7	---	3.3	---	3.3	3.4	---
TOTAL	96.2	96.7	104.2	323.7	268.8	208.9	113.9	107.9	99.8	104.3	105.6	92.6
MEAN	3.10	3.22	3.36	10.4	9.60	6.74	3.80	3.48	3.33	3.36	3.41	3.09
MAX	3.4	3.3	3.6	55	116	28	4.7	3.6	3.4	3.5	3.9	3.3
MIN	2.9	3.2	3.2	3.3	3.0	3.3	3.6	3.3	3.2	3.3	3.2	3.0
AC-FT	191	192	207	642	533	414	226	214	198	207	209	184

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

	3.37	3.00	3.46	3.31	4.11	5.19	5.07	3.01	2.88	3.04	2.97	2.98
MEAN	3.37	3.00	3.46	3.31	4.11	5.19	5.07	3.01	2.88	3.04	2.97	2.98
MAX	10.6	3.87	7.72	10.4	10.8	17.2	24.2	3.64	3.33	5.12	3.41	3.65
(WY)	1984	1973	1985	1993	1968	1985	1973	1992	1993	1992	1987	1976
MIN	2.59	2.62	2.63	2.32	2.49	2.41	2.33	2.66	2.41	2.45	2.47	2.49
(WY)	1983	1984	1984	1984	1984	1984	1984	1984	1985	1986	1986	1968

SUMMARY STATISTICS FOR 1992 CALENDAR YEAR FOR 1993 WATER YEAR WATER YEARS 1966 - 1993

ANNUAL TOTAL	1499.5	1722.6	
ANNUAL MEAN	4.10	4.72	3.53
HIGHEST ANNUAL MEAN			5.74
LOWEST ANNUAL MEAN			2.73
HIGHEST DAILY MEAN	40	Mar 30	116
LOWEST DAILY MEAN	2.8	Jun 27	2.9
ANNUAL SEVEN-DAY MINIMUM	2.9	Jun 14	3.0
INSTANTANEOUS PEAK FLOW			265
INSTANTANEOUS PEAK STAGE			3.08
INSTANTANEOUS LOW FLOW			
ANNUAL RUNOFF (AC-FT)	2970	3420	2560
10 PERCENT EXCEEDS	5.4	5.1	3.5
50 PERCENT EXCEEDS	3.2	3.4	3.0
90 PERCENT EXCEEDS	3.0	3.1	2.6

a-In gage well, 4.23 ft from floodmarks.

b-From rating curve extended above 80 ft<sup>3</sup>/s on basis of slope-area measurements at gage height 3.13 ft and 3.90 ft.

## 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 good except for estimated daily discharges, which are fair. 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 1992 TO SEPTEMBER 1993  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	76	43	391	432	627	597	290	95	28	21	184
2	23	72	42	316	418	542	571	271	86	27	21	274
3	22	67	43	286	356	502	496	252	82	25	20	169
4	27	64	64	278	335	488	538	243	75	27	27	116
5	26	60	280	234	316	472	516	235	64	27	27	93
6	24	60	239	222	298	441	504	228	54	26	24	80
7	24	57	158	459	280	424	487	215	51	23	27	68
8	29	54	147	e3500	272	446	452	201	46	22	26	63
9	32	58	209	e4000	387	539	408	191	49	23	24	60
10	27	56	151	1420	754	628	379	182	49	26	24	47
11	25	51	129	5220	613	676	370	184	47	27	21	42
12	36	49	118	2390	484	647	371	190	41	28	23	43
13	37	49	112	1130	414	566	379	193	e38	34	22	48
14	32	49	102	1080	396	566	372	190	e37	34	22	49
15	34	49	95	1150	839	531	351	183	e36	27	21	55
16	31	50	86	878	640	490	321	186	e35	26	20	51
17	31	e44	78	2050	517	570	293	184	e34	27	23	44
18	34	42	71	5100	460	683	278	173	e34	26	23	43
19	33	42	67	6630	714	814	294	175	e33	25	24	39
20	36	37	64	2770	7630	844	299	179	e33	25	23	37
21	40	39	62	1650	5000	765	288	178	e33	22	23	37
22	47	42	58	1400	2140	729	292	162	e33	23	25	35
23	54	45	55	1240	1350	691	321	152	34	22	28	33
24	53	e44	53	959	1040	649	235	141	33	20	27	37
25	167	e44	52	795	889	608	228	129	32	18	23	35
26	101	e44	51	682	741	600	292	118	29	18	24	33
27	94	e44	51	553	640	647	288	116	30	19	24	31
28	88	e43	257	524	599	628	296	116	27	19	32	30
29	102	e43	1820	447	---	580	302	108	26	20	39	33
30	92	e43	1130	426	---	568	298	105	27	22	233	26
31	82	---	598	438	---	580	---	100	---	20	207	---
TOTAL	1510	1517	6485	48618	28954	18541	11116	5570	1323	756	1148	1935
MEAN	48.7	50.6	209	1568	1034	598	371	180	44.1	24.4	37.0	64.5
MAX	167	76	1820	6630	7630	844	597	290	95	34	233	274
MIN	22	37	42	222	272	424	228	100	26	18	20	26
AC-FT	3000	3010	12860	96430	57430	36780	22050	11050	2620	1500	2280	3840

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1993, BY WATER YEAR (WY)

	MEAN	88.3	44.9	87.3	101	129	200	149	79.5	29.1	38.2	78.7	60.3
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 1992 CALENDAR YEAR

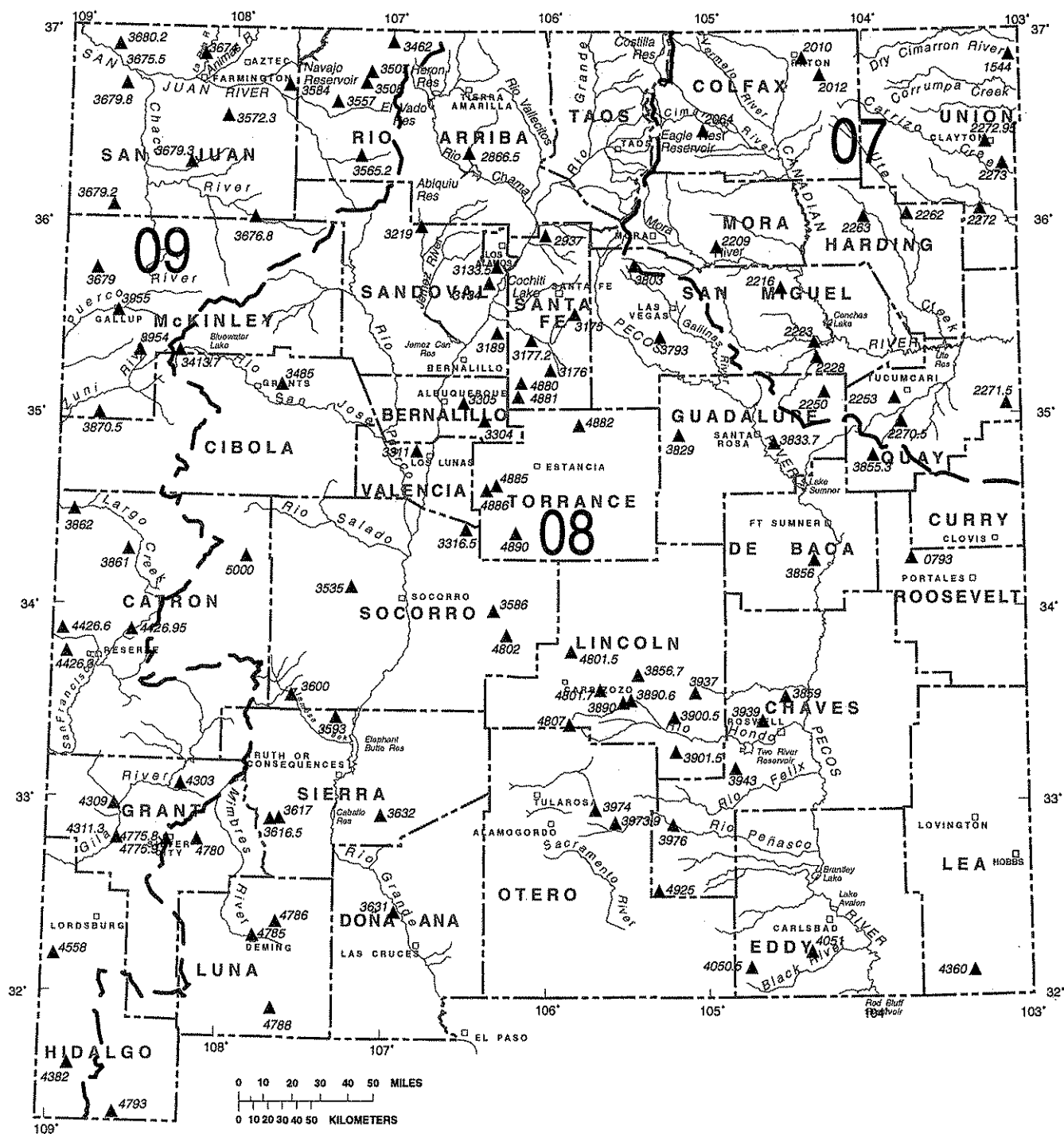
## FOR 1993 WATER YEAR

## WATER YEARS 1928 - 1993

ANNUAL TOTAL	72283	127473	
ANNUAL MEAN	197	349	
HIGHEST ANNUAL MEAN			90.4
LOWEST ANNUAL MEAN			351
HIGHEST DAILY MEAN	1820	Dec 29	7630
LOWEST DAILY MEAN	22	Oct 3	18
ANNUAL SEVEN-DAY MINIMUM	25	Oct 1	19
INSTANTANEOUS PEAK FLOW			12700
INSTANTANEOUS PEAK STAGE			11.53
INSTANTANEOUS LOW FLOW			Jan 19
ANNUAL RUNOFF (AC-FT)	143400	252800	
10 PERCENT EXCEEDS	516	682	
50 PERCENT EXCEEDS	102	82	
90 PERCENT EXCEEDS	36	24	
e Estimated			

a-Recorded, 20.80 ft from outside floodmarks.

b-From rating curve extended above 4,200 ft<sup>3</sup>/s on basis of slope



U.S. Geological Survey base

**EXPLANATION**

- 07 LOWER MISSISSIPPI RIVER BASIN NUMBER  
 08 WESTERN GULF OF MEXICO BASIN NUMBER  
 09 COLORADO RIVER BASIN NUMBER  
 --- RIVER BASIN BOUNDARY
- ▲ CREST-STAGE STATION AND ABBREVIATED NUMBER--  
 Complete national station number is: 08 405100  
 Basin number + station number

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 1993 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-	07-17-93	2.09	214	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-	07-15-93	0.73	84	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-	- -93	---	0	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-	05-01-93	2.03	27	06-18-65	3.05	151
Dog Creek near Shoemaker. (07220900)	Lat 36°49'32", long 104°53'28", Mora County, Hydrologic Unit 11080004, 0.5 mi upstream from Valmore-Shoemaker road, and 1.8 mi northwest of Shoemaker. Drainage area is 18.4 mi2.	1954-	07-08-93	7.34	398	07-08-82	14.90	7,180
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-	- -93	---	(k)	07-07-82	5.42	1,130
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-	07-15-93	2.96	250	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 1993 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-	07-15-93	8.52	580	08-29-77	17.37	7,020
Pajarito Creek at Newkirk. (07225000)	Lat 35°04'20", long 104°14'50", Guadalupe County, Hydrologic Unit 11080006, downstream side of bridge on old U.S. Highway 66, 1 mi east of Newkirk. Drainage area is 55.0 mi2.	1954-	07-15-93	2.47	447	09-16-62	8.09	3,550
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-	06-22-93	7.94	611	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-	06-19-93	5.87	1,580	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-	07-09-93	3.99	407	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-	07-15-93	6.98	220	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-	08-04-93	4.41	125	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-	06-18-93	8.85	2,120	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-	07-17-93	0.61	31	07-16-56	7.33	388
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 a42 mi2.	1953-	- -93	---	(k)	08-03-91	3.02	82

## 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 1993 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)
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 mi2.	1963-	06-19-93	0.33	3	- -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 mi2.	1953-56 1957-64* 1965-	06-18-93	2.67	10	07-24-72	---	8,000
RIO GRANDE BASIN								
Canjilon Creek above Abiquiu Reservoir. (08286650)	Lat 36°18'55", long 106°29'05", Rio Arriba County, Hydrologic Unit 13020102, in Piedra Lumbre Grant, 300 ft upstream from bridge on U.S. Highway 84, 0.2 mi northwest of entrance to Ghost Ranch, and about 12 mi northwest of Abiquiu. Drainage area is 144 mi2.	1965-	08-15-93	4.79	522	07-23-70	8.10	2,450
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 mi2.	1971-	- -93	---	(k)	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 mi2.	1962-	02-28-93	1.26	6	08-10-85	3.54	243
Galisteo Creek at Canoncito. (08317500)	Lat 35°33'02", long 105°49'20", Santa Fe County, Hydrologic Unit 13020201, upstream from railroad bridge, 0.2 mi upstream from Apache Canyon at Canoncito. Drainage area is 11.3 mi2.	1955-56 1959-	08-13-93	2.75	660	08-23-66	5.35	2,000
San Cristobal Arroyo near Galisteo. (08317600)	Lat 35°22'55", long 105°51'05", Santa Fe County, Hydrologic Unit 13020201, at bridge on U.S. Highway 285, 5.5 mi east of Galisteo. Drainage area is 116 mi2.	1955-	08-04-93	4.91	(+)	08-17-61	13.34	9,500
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 mi2.	1970-	08-04-93	2.27	53	09-18-82	4.78	919

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 1993 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								
San Pedro Creek near Golden. (08318900)	Lat 35°13'45", long 106°18'00", Sandoval County, Hydrologic Unit 13020201, 1 mi down- stream from bridge on State Highway 14, and 5.5 mi southwest of Golden. Drainage area is 45.2 mi2.	1953-	07-30-93	0.29	<80	09-24-55	12.45	10,800
Rio de las Vacas near Senorita. (08321900)	Lat 35°59'35", long 106°47'45", Sandoval County, Hydrologic Unit 13020204, at bridge on side road, 0.1 mi south of State Highway 126, and 6.5 mi east of Senorita. Drainage area is 26.8 mi2.	1957-	03-01-93	4.05	302	05-23-58	5.05	590
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 Cedro, and 4.5 mi northwest of Miera. Drainage area is 1.57 mi2.	1959-	- -93	(m)	(m)	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 mi2.	1943-48* 1958-	- -93	<1.83	<250	06-24-67	6.85	6,500
Belen Highline Canal tributary near Los Lunas. (08331100)	Lat 30°49'20", long 106°49'10", Valencia County, Hydrologic Unit 13020203, upstream from culvert on State Highway 6, 5.0 mi west of Los Lunas. Drainage area is 0.16 mi2.	1952-53 1955-	08-11-93	5.58	280	07-11-65	9.52	754
Canada Montoso near Scholle. (08331650)	Lat 34°23'11", long 106°28'37", Socorro County, Hydrologic Unit 13020203, 130 ft upstream from dip on abandoned highway, 500 ft upstream from bridge on U.S. Highway 60, and 3.6 mi southwest of Scholle. Drainage area is 35 mi2.	1961-	08-27-93	2.16	330	08-09-67	7.02	4,700
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 mi2.	1969-	08-27-93	3.56	195	08-27-93	3.56	195
Encinal Creek near Casa Blanca. (08348500)	Lat 35°08'35", long 107°27'55", Cibola County, Hydrologic Unit 13020207, 1.8 mi north of village of Encinal, and 6.8 mi north of Casa Blanca. Drainage area is 6.19 mi2.	1937-39* 1959-	- -93	--	(k)	09-09-67	11.50	4,330
La Jencia Creek near Magdalena. (08353500)	Lat 34°09'45", long 107°12'35", Socorro County, Hydrologic Unit 13020209, 3.5 mi north- east of Magdalena. Drainage area is 195 mi2.	1957-	06-21-93	4.27	2,200	09- -62	10.85	4,830
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 mi2.	1961-	08-02-93	1.43	72	09-10-80	4.75	620

## 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 1993 maximum		Period of record maximum		Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
			Date	Gage height (ft)	Date	Gage height (ft)			
RIO GRANDE BASIN -- Continued									
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 mi2.	1959-	- -93	<1.52	<914	06-10-88	6.09	5,070	
Alamosa Creek near Monticello. (08360000)	Lat 33°34'09", long 107°35'33", Socorro County, Hydrologic Unit 13020211, on left bank at Alamosa damsite and downstream from Old Fort Ojo Caliente, just downstream from Wildhorse Creek, 15 mi northwest of Monticello. Drainage area is 403 mi2.	1931-42* 1956-58 1958-71* 1973-	10-23-92	3.69	380	08-13-64	14.04	10,800	
Percha Creek near Kingston. (08361650)	Lat 32°55'05", long 107°38'55", Sierra County, Hydrologic Unit 13030101, at bridge on State Highway 152, 3.3 mi east of Kingston. Drainage area is 21.5 mi2.	1953-	08-16-93	6.40	970	09-03-72	15.80	3,740	
Percha Creek near Hillsboro. (08361700)	Lat 32°54'55", long 107°36'05", Sierra County, Hydrologic Unit 13030101, 150 ft south of State Highway 152, and 2 mi west of Hillsboro. Drainage area is 35.4 mi2.	1957-78 1980-	08-16-93	8.51	5,900	09-03-72	11.70	12,200	
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 mi2.	1955-	- -93	(m)	(m)	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 mi2.	1959-	08-29-93	2.43	160	08-07-67	19.10	16,400	
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-	07-20-93	7.02	1,560	08-1/-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-	07-20-93	0.95	15	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-	- -93	---	(k)	07-19-71	4.80	6,600	

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 1993 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								
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 mi <sup>2</sup> .	1961-	07-14-93	14.64	1,350	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-	07-15-93	4.31	448	07-11-72	6.86	2,850
Yeso Creek near Fort Sumner. (08385600)	Lat 34°16'32", long 104°17'28", De Baca County, Hydrologic Unit 13060003, at abandoned bridge 1 mi downstream from State Highway 20, and 14.5 mi south of Fort Sumner. Drainage area is 242 mi <sup>2</sup> .	1937-	03-29-93	1.58	620	10-07-54	11.60	14,800
Aragon Creek tributary near Encinosa. (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 Encinosa. Drainage area is 6.07 mi <sup>2</sup> .	1961-	08-04-93	5.05	1,500	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 mi <sup>2</sup> .	1952-	07-14-93	0.52	11	08-11-77	3.75	73
Rio Bonito near Fort Stanton. (08389000)	Lat 33°31'05", long 105°29'10", Lincoln County, Hydrologic Unit 13060008, at bridge on U.S. Highway 380, 2.5 mi northeast of Fort Stanton. Drainage area is 885 mi <sup>2</sup> .	1955-	- -93	<3.80	<230	05-17-79	7.20	4,100
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 mi <sup>2</sup> .	1955-	- -93	<2.88	(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 mi <sup>2</sup> .	1971-	- -93	<2.95	(k)	09-07-72	10.80	420
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 Arabela. Drainage area is 1.32 mi <sup>2</sup> .	1962-	06-16-93	3.18	20	09-10-73	9.19	2,400

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 1993 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								
Fancho 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-	07-14-93	1.97	350	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-	- -93	<12.42	(k)	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-	07-14-93	2.55	157	06-25-86	7.75	3,600
Curtis Canyon near Mayhill. (08397390)	Lat 32°51'52", long 105°31'05", Otero County, Hydrologic Unit 13060010, 0.26 mi upstream from SCS dam, 0.4 mi west of State Highway 130, and 2.5 mi southwest of Mayhill. Drainage area is 10.3 mi2.	1959-	- -93	-1.51	(+)	08-23-87	0.58	23
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-	10-23-92	1.63	88	10-23-92	1.63	88
Rio Penasco near Dunken. (08397600)	Lat 33°52'55", long 105°10'40", Chavez County, Hydrologic Unit 13060010, on bridge on State Highway 24, 5 mi north of Dunken. Drainage area is 583 mi2.	1952-56 1956-62* 1963-	- -93	9.97	2,150	07-06-58	13.36	10,200
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-	- -93	<1.01	(k)	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-	08-30-93	3.23	500	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-	11-18-93	1.06	13	10-21-69	4.40	395

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 1993 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)
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-	08-02-93	4.94	2,100	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-	- -93	<0.78	<50	09-03-72	4.09	3,700
Cameron Creek at Central. (08478000)	Lat 32°47'38", long 108°08'58", Grant County, Hydrologic Unit 13030202, 0.5 mi upstream from culvert on U.S. Highway 180, at north edge of Central. Drainage area is 18.8 mi2.	1954-	01-08-93	3.24	620	08-28-59	7.30	2,200
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 mi2.	1954-79 1983-	01-18-93	10.06	1,850	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 mi2.	1959-	07-01-93	2.77	205	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 mi2.	1967-	07-01-93	1.42	<25	08-04-67	7.30	222
PLAYAS BASIN								
Deer Creek tributary near Antelope Wells. (08479300)	Lat 31°23'00", long 108°42'15", Hidalgo County, Hydrologic Unit 13030201, 0.1 mi downstream from dip on State Highway 81, 2.5 mi east of San Luis Pass, and 12 mi west of Antelope Wells. Drainage area is 4.3 mi2.	1959-	08-02-93	2.41	415	08-05-60	4.59	1,680
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 mi2.	1959- 1961-	- -93	<2.26	<860	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 mi2.	1968-	08-19-93	3.20	36	08-10-77	8.45	655

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 1993 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)
TULAROSA BASIN -- Continued								
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 mi2.	1961-	06-21-93	1.10	62	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 mi2.	1956-58* 1959-	08-19-93	6.44	440	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 mi2.	1955 1961-	08-14-93	6.85	(+)	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 mi2.	1962-	- -93	---	(k)	08-01-89	2.48	150
Osita Draw near Clines Corners. (08488200)	Lat 35°00'18", long 105°48'00", Torrance County, Hydrologic Unit 13050001, 100 ft upstream from culvert on Interstate Highway 40, 7.5 mi west of Clines Corners. Drainage area is a10 mi2.	1961-	- -93	---	(k)	06-09-69	7.41	2,000
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-	08-27-93 05-10-92 07-21-91	2.16 3.01 2.18	835 2,200(h) 840(h)	08-09-67	4.23	4,310
Arroyo del Cuervo near Torreon. (08488600)	Lat 34°41'35", long 106°18'27", Torrance County, Hydrologic Unit 13050001, in Town of Torreon Grant, about 0.3 mi upstream from culvert on State Highway 55, and 2 mi south of Torreon. Drainage area is 11.8 mi2.	1969-	08-27-93	2.79	305	10-02-83	5.34	1,320
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-	07-30-93	4.00	30	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-	- -93	<3.81	(k)	- -69	8.75	5,800



## 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 1993 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 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-	- -93	<3.40	(k)	07-16-77	5.73	900
SAN JUAN RIVER BASIN								
Rio Amargo at Dulce. (09346200)	Lat 36°56'00", long 107°00'00", Rio Arriba County, Hydrologic Unit 14080101, under bridge on U.S. Highway 64, at Dulce. Drainage area is 168 mi2.	1956-	04-06-93	6.30	1,080	07-31-68	10.57	2,860
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-	02-20-93	4.33	57	08-17-88	5.89	380
Vaqueros Canyon near Gobernador. (09350800)	Lat 36°43'23", long 107°16'47", Rio Arriba County, Hydrologic Unit 14080101, 100 ft east of U.S. Highway 64, and 4.2 mi east of Gobernador. Drainage area is 60.5 mi2.	1956-	- -93	<1.62	<42	08-02-65	10.37	2,520
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-	09-13-93	1.91	209	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-	- -93	<1.48	<200	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-	09-13-93	13.61	145	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-	- -93	<2.65	(k)	07-26-76	4.61	74
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-	03-01-93	2.18	24	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-	09-13-93 05-10-92 09-06-91	12.73 11.57 15.09	360 0(h) 1,550(h)	09-06-91	15.09	1,550

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 1993 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									
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-	- 93	(m)	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-	- 93	<1.46	(k)	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-	08-27-93	2.49	(+)	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-	09-13-93	4.50	815	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-	09-13-93	2.19	55	09-10-80	6.19	3,100	
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-	09-13-93	2.44	295	09-13-93	2.44	295	
LITTLE COLORADO RIVER BASIN									
Largo Creek near Quemado. (09386100)	Lat 34°19'25", long 108°31'40", Catron County, Hydrologic Unit 15020003, on downstream side of bridge on ranch road, 2.5 mi southwest of Quemado. Drainage area is 151 mi2.	1954-	05-21-93	2.20	(+)	08-06-54	4.70	1,320	
Carrizo Wash near Salt Lake. (09386200)	Lat 34°30'39", long 109°01'35", Catron County, Hydrologic Unit 15020003, on left downstream wingwall of bridge, 1.3 mi east of New Mexico-Arizona State line, and 15 mi west of Salt Lake. Drainage area is af560 mi2.	1957-	09-13-93	4.27	1,600	08-25-59	7.82	8,380	
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 a19 mi2.	1957-	01-08-93	1.86	64	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 1993 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)
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-	01-08-93	0.53	110	- -49	4.20	1,360
Fuero River at Gallup. (09395500)	Lat 35°31'45", long 108°44'41", McKinley County, Hydrologic Unit 15020006, near center of span on downstream side of Third St. bridge in Gallup. Drainage area is 558 mi2.	1940-46* 1957-77 1977-82* 1983-	01-08-93	2.74	28	07-17-72	15.30	12,000
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-	02-09-93	5.54	110	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-	01-18-93	11.76	7,400	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-	01-08-93	5.64	190	09-07-90	5.04	1,400
Animas Creek near Cloverdale. (09438200)	Lat 31°34'15", long 108°52'30", Hidalgo County, Hydrologic Unit 15040003, near head of small box canyon, 0.1 mi west of State Highway 338, and 11 mi north of Cloverdale. Drainage area is 157 mi2.	1959-	12-05-92	4.19	440	10-13-74	7.78	3,400
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-	10-27-92	2.78	51	10-02-83	4.35	264
Trout Creek at Luna. (09442660)	Lat 33°50'50", long 108°59'38", Catron County, Hydrologic Unit 15040004, 500 ft downstream from bridge on Luna-Red Hill road, and 2.6 mi north of Luna. Drainage area is 31.9 mi2.	1954-	05-20-93	2.26	270	10-02-83	4.93	2,790
Negro Canyon at Aragon. (09442695)	Lat 33°52'47", long 108°33'08", Catron County, Hydrologic Unit 15040004, upstream from culvert on State Highway 12, at west edge of Aragon. Drainage area is 9.62 mi2.	1958-	02-22-93	2.14	330	07-28-59	11.60	5,200

## 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 1993 maximum		Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)

## GILA RIVER BASIN -- Continued

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 mi <sup>2</sup> .	1959-	-	-93	<1.64	(k)	09-03-65	4.80	317
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&lt; 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.

Measurements of streamflow at points other than gaging stations are given in the following table.

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						
Santa Clara Creek above Turkey Creek	Rio Grande	Lat 35°58'53", long 106°23'53", Sandoval County, Hydrologic Unit 13020101, on Santa Clara Indian Reservation 100 ft above confluence with Turkey Creek, 500 ft downstream from Grant Boundary, 7.5 mi west of Santa Clara Ranger Station and 19 mi southwest of Espanola.	5.98	1990-	05-03-93 06-16-93	2.69 0.81
Turkey Creek 08291900	Santa Clara Creek	Lat 35°58'53", long 106°23'57", Sandoval County, Hydrologic Unit 13020101, on Santa Clara Indian Reservation, at mouth, 400 ft downstream from Grant Boundary, 7.5 mi west of Santa Clara Ranger Station and 19 mi southwest of Espanola.	3.28	1984-87 1990-	05-07-93 06-16-93	3.65 1.41
Santa Clara Creek below Turkey Creek 08291950	Rio Grande	Lat 35°58'43", long 106°23'37", Sandoval County, Hydrologic Unit 13020101, on Santa Clara Indian Reservation, 700 ft below confluence with Turkey Creek, 0.3 mi downstream from Grant Boundary, 7.5 mi west of Santa Clara Ranger Station and 19 mi southwest of Espanola.	10.5	1984-87 1990-	05-07-93 06-16-93	6.14 2.25
La Cienega Stream	Santa Fe River	Lat 35°34'35", long 106°05'45", in SW¼NE¼ 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-	06-15-93	0.44
Lea Lake Drain 08394018	Pecos River	Lat 33°18'56", long 104°19'56", in SW¼SE¼SW¼ sec. 34, T. 11 S., R. 26 E., Chaves County, Hydrologic Unit 13060007, on downstream side of road crossing at Bottomless Lakes State Park near Roswell.	---	1976-	10-09-92 01-26-93 04-13-93 07-14-93	4.15 5.32 4.56 4.16
Blue Springs 08405450	Black River	Lat 32°11'07", long 104°16'50", in SW¼NE¼SW¼ sec. 27, T. 24 S., R. 26 E., Eddy County, Hydrologic Unit 13060011, upstream from all diversions, 5.5 mi east of Whites City.	---	1907 1919-20 1923 1935 1952-70 1974-	10-23-92 01-12-93 04-15-93 07-26-93 08-10-93	14.3 14.4 14.2 14.0 11.7
Castle Springs 08405490	Black River	Lat 32°11'59", long 104°15'13", in SW¼SW¼SW¼ 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-	10-23-92 01-12-93 04-15-93 08-10-93	0.76 1.37 0.68 0.59
GILA RIVER BASIN						
Mangas Creek 09431100	Gila River	Lat 32°50'48", long 108°30'57", in NW¼NE¼ sec. 8, T. 17 S., R. 16 W., Grant County, Hydrologic Unit 15040002, 0.4 mi northwest of Mangas Springs.	177	1970-	12-01-92 03-03-93 07-14-93	4.89 5.15 4.68

## 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 0.0.

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, and 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.

DATE.--January 26-27, 1993.

WEATHER.--Weather was favorable for the seepage investigation; no precipitation occurred. Temperature extremes at Las Cruces, New Mexico ranged from a low of -2 degrees Celsius on January 26 to a high of 14 degrees Celsius on January 27.

STREAMFLOW.--The seepage investigation was conducted during a period of constant base flow. Discharge measurements indicate a net seepage loss of 59.0 cubic feet per second 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 on the basis of steady streamflow conditions. Precipitation did occur prior to the seepage investigation with 0.55-inch reported at Las Cruces, New Mexico on January 19, 1993. Individual discharge measurements were rated good (within 5 percent) to fair (within 8 percent); accuracy of discharge measurements should 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 26, 1993								
1,312.3	Rio Grande	Below Leasburg Dam near Radium Springs, NM	0955	6.0	1,120	189.		--
		Lat 32°28'41", long 106°55'10"						
1,310.2	Rio Grande	Near Leasburg, NM	1115	6.0	1,120	181.		-8
		Lat 32°27'21", long 106°54'08"						
*1,307.6	Selden Drain	Near Leasburg, NM	1135	--	--		0	--
		Lat 32°25'38", long 106°52'50"						
1,306.3	Rio Grande	Near Hill, NM	1225	9.0	1,140	184.		+3
		Lat 32°25'05", long 106°52'01"						
1,302.7	Rio Grande	At Shalem Bridge near Dona Ana, NM	1400	10.0	1,170	174.		-10
		Lat 32°22'34", long 106°51'16"						
*1,301.2	Wasteway no. 5	Near Dona Ana, NM	1425	--	--		0	--
		Lat 32°22'14", long 106°50'14"						
1,298.8	Rio Grande	Near Picacho, NM	1110	5.0	1,180	178.		+4
		Lat 32°20'18", long 106°50'09"						
1,295.6	Rio Grande	Below Picacho Bridge near Las Cruces, NM	1210	7.5	1,210	189.		+11
		Lat 32°17'45", long 106°49'25"						
*1,295.4	Wastewater inflow	City of Las Cruces, NM	1215	16.5	1,340		14.8	--
		Lat 32°17'35", long 106°49'26"						
1,293.1	Rio Grande	At NM-359 Bridge near Mesilla, NM	1405	10.5	1,200	193.		-11
		Lat 32°15'49", long 106°49'29"						
*1,291.8	Picacho Drain	Above Mesilla Dam	1535	8.0	1,530		2.24	--
		Lat 32°14'34", long 106°48'56"						
1,291.7	Rio Grande	Below Picacho Drain	1630	9.5	1,200	103.		-12
		Lat 32°14'30", long 106°48'49"						
1,289.5	Rio Grande	Below Mesilla Dam	1057	5.4	1,240	167.		-16
		Lat 30°13'17", long 106°47'15"						
1,287.3	Rio Grande	At NM-28 Bridge near San Pablo, NM	1255	8.0	1,220	166.		-1
		Lat 32°12'24", long 106°45'32"						
*1,286.6	Santo Tomas River Drain	Near San Miguel, NM	1330	--	--		0	
		Lat 32°10'16", long 106°43'11"						
1,282.7	Rio Grande	At NM-228 Bridge near San Miguel, NM	1405	10.1	1,230	177.		+11
		Lat 32°09'43", long 106°42'58"						
1,277.8	Rio Grande	At NM-227 Bridge near Vado, NM	1555	11.0	1,260	155.		-22
		Lat 32°06'48", long 106°40'05"						

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 27, 1993								
1,277.8	Rio Grande	At NM-227 Bridge near Vado, NM Lat 32°06'48", long 106°40'05"	0915	6.0	1,240	146.		--
*1,276.6	Del Rio Drain	Near Vado, NM Lat 32°06'09", long 106°39'27"	1040	10.5	1,350		29.4	--
1,273.8	Rio Grande	At NM-226 Bridge near Berino, NM Lat 32°03'56", long 106°39'45"	1220	9.0	1,230			+10
*1,271.6	La Mesa Drain	Near Chamberino, NM Lat 32°02'15", long 106°39'23"	1410	11.0	1,970		11.1	--
1,271.5	Rio Grande	Below La Mesa Frain near Chamberino, NM Lat 32°02'12", long 106°39'18"	1515	11.0	1,360	218.		+22
1,268.5	Rio Grande	At NM-225 Bridge near Anthony, NM Lat 31°59'58", long 106°38'07"	0945	8.0	1,300	201.		-17
1,268.5	Pipe Inflow	At NM-225 Bridge near Anthony, NM Lat 31°59'58", long 106°38'07"	1000	--	--		-0.02	--
*1,265.4	East Drain	Near Vinton, Tx Lat 31°58'09", long 106°36'17"	1100	10.0	3,070		7.66	--
1,264.7	Rio Grande	At Vinton Bridge near Vinton, TX Lat 31°57'33", long 106°36'16"	1200	9.0	1,430	216.		+7
1,261.6	Rio Grande	At TX-259 Bridge, Canutillo, TX Lat 31°54'54", long 106°36'06"	1345	9.0	1,420	200.		-16
1,259.3	Rio Grande	At Borderland Bridge near Borderland, TX Lat 31°53'09", long 106°35'55"	1445	10.0	1,380	213.		+13
1,256.2	Rio Grande	At TX-260 Bridge near Santa Teresa, NM Lat 31°50'46", long 106°36'18"	1130	7.5	1,400	188.		-25
1,252.8	Rio Grande	Near Sunland Park, NM Lat 31°48'24", long 106°34'57"	1220	9.1	1,410	197.		+9
*1,251.0	Wastewater Inflow	Sunland Plant, City of Sunland Park, NM Lat 31°45'55", long 106°33'25"	1350	--	1,890		0.77	--
1,250.9	Rio Grande	At Sunland Park Bridge, Sunland Park, NM Lat 31°47'56", long 106°33'16"	1515	9.5	1,410	190.		-11
*1,250.3	Montoya Drain	Near Sunland Park, NM Lat 31°48'10", long 106°32'47"	1540	13.3	3,030		39.4	--
*1,250.1	Keystone Reservoir Outlet	Near El Paso, TX Lat 31°48'18", long 106°32'39"	1550	13.0	5,800		0.3	--
1,249.9	Rio Grande	At Courchesne Bridge, El Paso, TX Lat 31°48'09", long 106°32'26"	1700	10.5	1,660	230.		0

\* River mile at mouth of drain or point of discharge.

## 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.

The projects or programs for which partial or miscellaneous water-quality data were collected were the Department of Interior's Irrigation Water Quality Program, the National Water Quality Assessment Program, the Water-Quality Investigation of the Rio Grande downstream from Albuquerque's Wastewater Treatment Plant, and the Investigation of Water-Quality in Storm Runoff from Metropolitan Albuquerque.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## ARKANSAS RIVER BASIN

## CHICORICA CREEK AT HEADING OF EAGLE TAIL CANAL, NR RATON, NM (364328104263910)

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)
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APR 06...	1330	25	429	7.7	12.5	10.5	610	9.5	106	170	41
SEP 08...	0900	12	1650	8.0	--	15.0	610	8.6	107	640	130

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY 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)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
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APR 06...	17	28	0.9	2.8	108	100	7.7	0.20	276	262	<1
SEP 08...	77	150	3	4.9	224	760	18	0.30	1290	1270	<1

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)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
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APR 06...	20	<1.0	<1	2	<1	<0.1	1	1	2	39
SEP 08...	120	<1.0	<1	2	<1	<0.1	3	2	2	9

## CANADIAN RIVER ABOUT 8.0 MILES NORTH OF MAXWELL, NM (363903104291510)

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, (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)
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APR 06...	1115	E400	457	7.7	8.0	610	8.9	94	160	37	17
AUG 30...	1345	22	648	8.1	19.5	610	7.1	96	220	53	22



## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## ARKANSAS RIVER BASIN -- Continued

## CANADIAN RIVER ABOUT 8.0 MILES NORTH OF MAXWELL, NM (363903104291510) -- Continued

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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
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APR 06...	33	1	2.6	134	110	6.1	0.20	316	286	2
AUG 30...	54	2	3.1	175	160	5.9	0.30	424	403	<1

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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
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APR 06...	30	<1.0	<1	2	<1	<0.1	2	2	2	5
AUG 30...	40	<1.0	<1	3	<1	<0.1	<1	1	2	<3

NORTH DRAIN CANAL NEAR MAXWELL, NM (363452104323010)  
(VERMEJO IRRIGATION PROJECT)

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)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
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APR 07...	1515	5810	8.1	8.5	11.5	610	10.5	124	2000	260	340
AUG 31...	0830	6140	7.8	--	14.0	610	6.6	82	2500	370	380

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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
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APR 07...	800	8	8.3	489	3300	180	0.70	5970	5180	2
AUG 31...	870	8	9.3	625	3500	220	1.1	6100	5730	2

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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
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APR 07...	90	<1.0	<1	1	<1	<0.1	4	19	9	<10
AUG 31...	1200	<1.0	<1	2	<1	<0.1	3	7	12	<10

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## ARKANSAS RIVER BASIN -- Continued

MIDDLE DRAIN CANAL NEAR MAXWELL, NM (363252104323010)  
(VERMEJO IRRIGATION PROJECT)

DATE	TIME	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 (PER-CENT 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)
APR 07...	1600	--	7.8	14.5	610	10.2	--	4700	400	910
AUG 31...	0915	4560	7.9	16.5	610	8.3	108	1900	200	350

DATE	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	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)	SOLIDS, RESIDUE AT 180 DEG C (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)
APR 07...	930	6	2.3	462	5800	160	0.30	10100	8480	1
AUG 31...	520	5	17	234	2800	94	0.20	4510	4120	3

DATE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
APR 07...	370	<1.0	<1	3	<2	<0.1	24	2	8	<10
AUG 31...	280	<1.0	<1	4	<1	<0.1	13	2	8	<10

## CANADIAN RIVER AB BRIDGE AT CHICO ROAD NR MAXWELL, NM (363203104315210)

DATE	TIME	DISCHARGE, 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)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)
APR 05...	1500	142	627	8.0	22.0	10.5	610	9.0	101	260	57
AUG 30...	1530	29	905	8.1	--	21.5	610	6.8	97	210	46

DATE	MAGNESIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	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)	SOLIDS, RESIDUE AT 180 DEG C (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)
APR 05...	29	42	1	3.2	139	190	6.2	0.20	399	411	2
AUG 30...	24	57	2	3.2	155	310	11	0.30	641	545	<1

DATE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
APR 05...	30	<1.0	<1	2	<1	<0.1	2	1	2	8
AUG 30...	60	<1.0	<1	3	<1	<0.1	1	<2	2	3

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## ARKANSAS RIVER BASIN -- Continued

NATURAL PLAYA NEAR MAXWELL, NM (363306104360010)  
(MAXWELL NATIONAL WILDLIFE REFUGE)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH WATER WHOLE FIELD	TEMPER- ATURE WATER	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, (PER- CENT DIS- SOLVED	OXYGEN, (PER- CENT SATUR- ATION)	HARD- NESS TOTAL	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED
		(US/CM) (00095)	(STAND- ARD UNITS) (00400)	(DEG C) (00010)	(MM OF HG) (00025)	(MG/L) (00300)	(MG/L) (00301)	(MG/L AS CACO3) (00900)	(MG/L AS CA) (00915)	(MG/L AS MG) (00925)	
APR 06...	1630	20000	8.5	13.0	610	8.4	107	6600	330	1400	
AUG 30...	1645	15000	9.9	21.0	610	10.2	151	4700	280	980	
DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	
		(00931)	(00935)	(90410)	(00945)	(00940)	(00950)	(70300)	(70301)	(01000)	
APR 06...	3700	20	70	272	11000	2500	0.80	22300	19200	7	
AUG 30...	2600	16	43	117	7300	1900	0.40	14400	13200	2	
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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	
		(01025)	(01030)	(01040)	(01049)	(71890)	(01060)	(01145)	(01085)	(01090)	
APR 06...	640	<1.0	10	<1	<2	<0.1	12	1	76	<10	
AUG 30...	490	<1.0	<1	2	<1	<0.1	2	<1	86	<10	

HALF PLAYA NEAR MAXWELL, NM (363340104341510)  
(MAXWELL NATIONAL WILDLIFE REFUGE)

DATE	TIME	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 (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)
APR 08...	1100	22800	8.4	10.0	610	8.4	101	12000	350	2600
SEP 08...	1045	25700	9.4	17.5	610	6.8	98	15000	440	3300
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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
APR 08...	3900	16	38	453	18000	1100	0.80	32100	26300	21
SEP 08...	4900	18	42	257	22000	1200	0.90	37400	32000	<1
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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
APR 08...	1300	<1.0	<1	<1	<2	<0.1	5	14	43	<10
SEP 08...	1500	<1.0	<1	5	<1	<0.1	1	23	42	<10

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

ARKANSAS RIVER BASIN -- Continued

SOUTH DRAIN CANAL NEAR MAXWELL, NM (363122104330310)

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, (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)
APR 08...	1230	0.68	6300	8.1	15.5	610	9.5	122	2500	240	460
AUG 31...	1245	0.14	5110	8.3	19.5	610	9.5	132	2300	250	400

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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
APR 08...	820	7	10	316	3100	220	0.50	6720	5040	2
AUG 31...	680	6	11	333	3200	210	0.90	5160	4950	5

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)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
APR 08...	780	<1.0	<1	2	<1	<0.1	12	2	9	<10
AUG 31...	870	<1.0	<1	2	<1	<0.1	3	3	12	<10

CANADIAN RIVER ABOVE VERMEJO RIVER NEAR MAXWELL, NM (362912104323710)

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)
APR 05...	1730	163	690	8.0	18.0	11.0	610	8.7	99	290	60
SEP 07...	1630	15	1500	8.1	--	20.5	610	8.1	114	530	100

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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
APR 05...	33	49	1	3.3	141	220	7.9	0.20	467	458	1
SEP 07...	68	140	3	4.1	210	620	21	0.30	1120	1080	<1

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)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
APR 05...	30	<1.0	<1	3	<1	<0.1	3	2	2	7
SEP 07...	100	<1.0	<1	2	<1	<0.1	4	2	1	16

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

ARKANSAS RIVER BASIN -- Continued

VERMEJO RIVER ABOVE VERMEJO CANAL DIVERSION DAM, NR COLFAX, NM (363634104451110)

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)
APR 07...	1130	29	479	8.0	16.0	8.0	610	9.6	102	180	50
SEP 07...	1230	17	462	8.0	--	19.5	610	7.8	106	160	46

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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
APR 07...	14	41	1	2.0	174	74	6.6	0.50	304	292	<1
SEP 07...	12	38	1	2.4	160	75	5.0	0.60	292	275	<1

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)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
APR 07...	20	<1.0	<1	2	<1	<0.1	1	1	<1	3
SEP 07...	30	<1.0	<1	1	<1	<0.1	1	<1	<1	4

07203525 VERMEJO RIVER NEAR MAXWELL, 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)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
APR 05...	1230	5.8	--	7.8	21.0	11.0	610	8.8	--	930	190
SEP 07...	1430	20	1130	8.0	--	20.0	610	8.0	111	460	110

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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
APR 05...	110	160	2	3.0	245	940	24	0.50	1670	1570	<1
SEP 07...	45	81	2	3.1	228	380	9.9	0.60	820	766	<1

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)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
APR 05...	100	<1.0	<1	1	<1	<0.1	1	2	<1	<10
SEP 07...	60	<1.0	<1	1	<1	<0.1	2	<1	<1	<3

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN

## 08313350 RITO DE LOS FRIJOLES IN BANDLIER NATIONAL MONUMENT, NM

		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)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	
PR	02...	1030	8.4	103	8.5	14.5	6.0	606	9.8	99	32	0	8.4
AY	25...	1400	2.3	107	8.1	--	17.5	615	7.9	103	32	0	8.4
UN	23...	1330	0.96	--	8.3	--	17.0	608	7.6	--	35	0	9.4
UL	26...	1330	0.71	113	8.1	--	25.0	611	6.8	104	32	0	8.5
UG	24...	1300	1.1	114	8.2	--	20.0	612	7.0	96	--	--	--
EP	22...	1315	0.90	115	8.3	--	16.5	611	7.5	96	35	0	8.9
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)	
APR	02...	2.6	7.8	0.6	2.7	41	0	34	37	4.8	7.2	<0.10	
MAY	25...	2.7	8.7	0.7	2.2	66	0	54	42	3.3	4.8	0.10	
JUN	23...	2.8	9.8	0.7	2.1	46	0	38	46	2.8	4.5	0.10	
JUL	26...	2.7	9.7	0.7	2.4	41	0	34	49	2.4	3.6	0.20	
AUG	24...	--	--	--	--	59	0	48	--	--	--	--	
SEP	22...	3.0	9.6	0.7	2.0	72	0	59	54	2.4	3.1	0.20	
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, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	
APR	02...	44	--	98	0.036	0.020	0.056	0.030	0.30	0.27	0.50	0.070	
MAY	25...	52	110	115	--	0.010	<0.050	0.030	0.20	0.17	0.20	0.050	
JUN	23...	54	115	108	--	<0.010	<0.050	0.030	<0.20	--	<0.20	0.030	
JUL	26...	56	120	106	--	<0.010	<0.050	0.020	<0.20	--	<0.20	0.040	
AUG	24...	--	--	--	--	<0.010	<0.050	0.020	<0.20	--	<0.20	0.040	
SEP	22...	61	105	126	--	<0.010	<0.050	0.010	<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 DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	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)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	
APR	02...	0.070	0.030	7.9	0.4	10	300	10	56	23	0.52	--	
MAY	25...	0.040	0.020	3.8	0.9	--	180	9	--	16	0.10	72	
JUN	23...	0.040	0.030	2.8	1.5	--	99	5	--	17	0.04	--	
JUL	26...	0.030	0.030	2.7	0.5	--	84	5	--	15	0.03	--	
AUG	24...	0.030	0.020	--	0.5	--	--	--	--	8	0.02	--	
SEP	22...	0.030	0.030	2.2	--	--	110	9	--	7	0.02	--	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

RITA DE LOS FRIJOLAS BELOW FRIJOLAS FALLS, NM (354511106151010)

		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)				
NOV											
09...	1200	--	--	--	--	--	--				
09...	1200	0.71	110	8.0	6.0	623	10.4				
09...	1201	0.71	110	8.0	6.0	623	10.4				
09...	1202	0.71	110	8.0	6.0	623	10.1				
09...	1203	0.71	110	8.0	6.0	623	10.4				
09...	1203	0.71	110	8.0	6.0	623	10.4				
		OXYGEN, DIS- SOLVED (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)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)				
NOV											
09...		--	--	--	--	13	100				
09...		102	63	0	51	--	--				
09...		102	63	0	51	--	--				
09...		99	63	0	51	--	--				
09...		102	63	0	51	--	--				
09...		102	63	0	51	--	--				
		ARSENIC BOT MAT	BERYL- LIUM BOT MAT	BISMUTH BOT MAT	CADMIUM BOT MAT	CALCIUM BOT MAT	CERIUM BOT MAT	CHRO- MIUM BOT MAT	COBALT BOT MAT	COPPER BOT MAT	EURO- PIUM BOT
		<63U WS	<63U WS	<180UWS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U
DATE		TIME	FIELD (UG/G) (34800)	FIELD (UG/G) (34810)	FIELD (UG/G) (34816)	FIELD (UG/G) (34825)	FIELD PERCENT (34830)	FIELD (UG/G) (34835)	FIELD (UG/G) (34840)	FIELD (UG/G) (34845)	FIELD (UG/G) (34850)
NOV											
09...	1200	3	4	<10	0.2	0.75	110	27	8	13	
		GALLIUM BOT MAT	GOLD BOT MAT	HOLMIUM BOT MAT	IRON BOT MAT	LANTHA- NUM BOT MAT	LEAD BOT MAT	LITHIUM BOT MAT	MAGNE- SIUM BOT MAT	MANGA- NESE BOT MAT	MERCURY BOT MAT
		<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS
DATE		FIELD (UG/G) (34860)	FIELD (UG/G) (34870)	FIELD (UG/G) (34875)	FIELD PERCENT (34880)	FIELD (UG/G) (34885)	FIELD (UG/G) (34890)	FIELD (UG/G) (34895)	FIELD PERCENT (34900)	FIELD (UG/G) (34905)	FIELD (UG/G) (34910)
NOV											
09...		19	<8	<4	2.4	57	28	40	0.42	1000	0.03
		MOLYB- DENUM BOT MAT	NEODYM- IUM BOT MAT	NICKEL BOT MAT	NIOBIUM BOT MAT	PHOS- PHORUS BOT MAT	POTAS- SIUM BOT MAT	SCAN- DIUM BOT MAT	SELE- NIUM BOT MAT	SILVER BOT MAT	SODIUM BOT MAT
		<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS
DATE		FIELD (UG/G) (34915)	FIELD (UG/G) (34920)	FIELD (UG/G) (34925)	FIELD (UG/G) (34930)	FIELD PERCENT (34935)	FIELD PERCENT (34940)	FIELD (UG/G) (34945)	FIELD (UG/G) (34950)	FIELD (UG/G) (34955)	FIELD PERCENT (34960)
NOV											
09...		<2	42	13	45	0.08	2.0	6	1	0.2	1.4
		STRON- TIUM BOT MAT	SULFUR BOT MAT	TANTA- LUM BOT MAT	THORIUM BOT MAT	TIN BOT MAT	URANIUM BOT MAT	VANA- DIUM BOT MAT	YTTRIUM BOT MAT	YTTER- BIUM BOT MAT	ZINC BOT MAT
		<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS	<63U WS
DATE		FIELD (UG/G) (34965)	PERCENT (34970)	FIELD (UG/G) (34975)	FIELD (UG/G) (34980)	FIELD (UG/G) (34985)	FIELD (UG/G) (35000)	FIELD (UG/G) (35005)	FIELD (UG/G) (35010)	FIELD (UG/G) (35015)	FIELD (UG/G) (35020)
NOV											
09...		110	0.08	<40	19	<10	6	38	47	5	98

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

08329500 RIO GRANDE NEAR BERNALILLO, NM

		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 OF WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)				
DATE	TIME										
FEB 23...	1000	1260	351	8.3	4.0	635	10.6				
FEB 23...	1000	1260	--	--	--	--	--				
		OXYGEN, DIS-SOLVED (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)	ALKA-LINITY WAT DIS TOT IT FIELD CACO3 (39086)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)				
DATE	TIME										
FEB 23...		97	155	0	127	--	--				
FEB 23...		--	--	--	--	52	100				
		ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL-LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO-MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO-PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	
DATE	TIME										
3...	1000	6	2	<10	1	68	47	12	21	39	
		GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE-SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA-NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB-DENUM BOT MAT <63U WS FIELD (UG/G) (34915)
DATE	TIME										
3...	14	<8	<4	2.8	19	40	1.1	680	0.03	<2	
		NEODYM-IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS-PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS-SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN-DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	STRON-TIUM BOT MAT <63U WS FIELD (UG/G) (34965)
DATE	TIME										
3...	35	20	10	0.08	1.7	9	0.4	0.1	0.85	260	
		SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	TANTA-LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA-DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER-BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	
DATE	TIME										
FEB 23...		0.05	<40	14	<10	4	74	22	2	65	



## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

## 08329800 ARROYO DEL EMBUDO INLET TO FLOODWAY CHANNEL AT 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 AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCHI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
DEC 16...	1700	10	1820	7.8	2.0	3.0	636	--	--	--	130
APR 29...	1042	1.2	443	9.2	20.0	19.5	631	33	68	200	130
MAY 26...	1045	1.2	419	9.3	26.0	23.5	631	200	>6000	>10000	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-RINE, TOTAL RESI-DUAL (MG/L) (50060)	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 16...	47	3.4	270	10	14	97	61	--	420	0.30	6.4
APR 29...	42	5.6	40	2	4.4	130	56	<0.02	26	--	--
MAY 26...	48	5.4	33	1	5.4	132	48	<0.02	25	--	--

DATE	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)	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, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
DEC 16...	--	880	--	--	--	--	--	--	--	27	--
APR 29...	328	252	<1	<0.010	<0.050	0.020	0.70	0.240	0.190	7.2	<0.010
MAY 26...	348	244	25	<0.010	<0.050	0.050	1.6	0.150	0.130	54	<0.010

DATE	PHENOLS TOTAL (UG/L) (32730)	OIL AND GREASE, TOTAL RECOV. GRAVI-METRIC (MG/L) (00556)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)
DEC 16...	--	--	3	400	--	2	19	29	7800	41	75
APR 29...	<1	<1	3	--	<10	<1	<10	5	--	--	2
MAY 26...	7	<1	5	--	<10	<1	1	9	--	--	4

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

08329800 ARROYO DEL EMBUDO INLET TO FLOODWAY CHANNEL AT ALBUQUERQUE, NM -- Continued

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, TOTAL RECOVERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	THALLIUM, TOTAL (UG/L AS TL) (01059)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	SEDIMENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC 16...	360	58	<0.10	--	--	--	--	370	463	13	99
APR 29...	--	--	<0.10	1	<2	<1	<10	10	--	--	--
MAY 26...	--	--	<0.10	3	<2	<1	<10	20	19	0.06	85

DATE	TIME	DI-BROMOMETHANE WHOLE RECOVER (UG/L) (30217)	DI-CHLOROBROMOMETHANE TOTAL (UG/L) (32101)	CARBON-TETRACHLORIDE TOTAL (UG/L) (32102)	1,2-DI-CHLOROETHANE TOTAL (UG/L) (32103)	BROMOFORM TOTAL (UG/L) (32104)	CHLORO-DI-BROMOMETHANE TOTAL (UG/L) (32105)	CHLORO-ETHYLENE TOTAL (UG/L) (32106)	PHENOLS TOTAL (UG/L) (32730)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	ACE-NAPHTHYLENE TOTAL (UG/L) (34200)
APR 29...	1042	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.2	<0.2	<5.0
MAY 26...	1045	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	7	<0.2	<0.2	<5.0

DATE	ACE-NAPHTHYLENE TOTAL (UG/L) (34205)	ACROLEIN TOTAL (UG/L) (34210)	ACRYLO-NITRILE TOTAL (UG/L) (34215)	ANTHRACENE TOTAL (UG/L) (34220)	BENZO B FLUOR-ANTHENE TOTAL (UG/L) (34230)	BENZO K FLUOR-ANTHENE TOTAL (UG/L) (34242)	BENZO-A-PYRENE TOTAL (UG/L) (34247)	DELTA BENZENE HEXA-CHLORIDE TOTAL (UG/L) (34259)	BIS-2-CHLORO-ETHYL ETHER TOTAL (UG/L) (34273)	BIS-(2-CHLORO-ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS-(2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L) (34283)	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L) (34292)
APR 29...	<5.0	<20	<20	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0	<5.0
MAY 26...	<5.0	<20	<20	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0	<5.0

DATE	CHLORO-BENZENE TOTAL (UG/L) (34301)	CHLORO-ETHANE TOTAL (UG/L) (34311)	CHRYSENE TOTAL (UG/L) (34320)	DIETHYL PHTHALATE TOTAL (UG/L) (34336)	DI-METHYL PHTHALATE TOTAL (UG/L) (34341)	ENDO-SULFAN-SULFATE TOTAL (UG/L) (34351)	ENDO-SULFAN-BETA TOTAL (UG/L) (34356)	ENDO-SULFAN-TOTAL WATER WHOLE REC (UG/L) (34361)	ENDRIN ALDEHYDE TOTAL (UG/L) (34366)	ETHYL-BENZENE TOTAL (UG/L) (34371)	FLUOR-ANTHENE TOTAL (UG/L) (34376)	FLUOR-ENE TOTAL (UG/L) (34381)
APR 29...	<0.20	<0.2	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	<0.2	<5.0	<5.0
MAY 26...	<0.20	<0.2	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	<0.2	<5.0	<5.0

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

## 08329800 ARROYO DEL EMBUDO INLET TO FLOODWAY CHANNEL AT ALBUQUERQUE, NM -- Continued

DATE	HEXA- CHLORO- CYCLO- PENT- ADIENE TOTAL (UG/L) (34386)	HEXA- CHLORO- ETHANE TOTAL (UG/L) (34396)	INDENO (1,2,3- CD) TOTAL (UG/L) (34403)	ISO- PHORONE TOTAL (UG/L) (34408)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L) (34428)	N-NITRO -SODI- PHENYL- LAMINE TOTAL (UG/L) (34433)	N-NITRO -SODI- METHY- LAMINE TOTAL (UG/L) (34438)	NITRO- BENZENE TOTAL (UG/L) (34447)	PARA- CHLORO- META CRESOL TOTAL (UG/L) (34452)
APR 29...	<5.0	<5.0	<10.0	<5.0	<0.2	<0.2	<0.2	<5.0	<5.0	<5.0	<5.0	<30.0
MAY 26...	<5.0	<5.0	<10.0	<5.0	<0.2	<0.2	<0.2	<5.0	<5.0	<5.0	<5.0	<30.0
DATE	PHENAN- THRENE TOTAL (UG/L) (34461)	PYRENE TOTAL (UG/L) (34469)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC TOTAL (UG/L) (34516)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L) (34521)	BENZO A ANTHRAC ENE1,2- BENZANT HRACENE TOTAL (UG/L) (34526)	BENZENE O- CHLORO- WATER UNFLTRD REC TOTAL (UG/L) (34536)
APR 29...	<5.0	<5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<10.0	<10.0	<0.20
MAY 26...	<5.0	<5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<10.0	<10.0	<5.0
DATE	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANSDI CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC TOTAL (UG/L) (34551)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC TOTAL (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC TOTAL (UG/L) (34571)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L) (34576)	2- CHLORO- NAPH- THALENE TOTAL (UG/L) (34581)	2- CHLORO- PHENOL TOTAL (UG/L) (34586)	2- NITRO- PHENOL TOTAL (UG/L) (34591)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L) (34596)	2,4-DI- CHLORO- PHENOL TOTAL (UG/L) (34601)
APR 29...	<0.2	<0.2	<0.20	<10.0	<0.20	<0.20	<1.0	<5.0	<5.0	<5.0	<10.0	<5.0
MAY 26...	<0.2	<0.2	<5.0	<10.0	<5.0	<5.0	<1.0	<5.0	<5.0	<5.0	<10.0	<5.0
DATE	2,4-DI- METHYL- PHENOL TOTAL (UG/L) (34606)	2,4-DI- NITRO- TOLUENE TOTAL (UG/L) (34611)	2,4,- DI- NITRO- PHENOL TOTAL (UG/L) (34616)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L) (34621)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L) (34626)	3,3'- DI- CHLORO- BENZIZ- DINE TOTAL (UG/L) (34631)	4- BROMO- PHENYL ETHER TOTAL (UG/L) (34636)	4- CHLORO- PHENYL ETHER TOTAL (UG/L) (34641)	4- NITRO- PHENOL TOTAL (UG/L) (34646)	4,6- DINITRO -ORTHO- CRESOL TOTAL (UG/L) (34657)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	ROCLOR 1016 PCB TOTAL (UG/L) (34671)
APR 29...	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	<0.2	<0.1
MAY 26...	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	<0.2	<0.1
DATE	PHENOL (C6H- 5OH) TOTAL (UG/L) (34694)	NAPHTH- ALENE TOTAL (UG/L) (34696)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	PENTA- CHLORO- PHENOL TOTAL (UG/L) (39032)	CHLOR- DANE CIS WATER WHOLE TOTAL (UG/L) (39062)	CHLOR- DANE TRANS WATER WHOLE TOTAL (UG/L) (39065)	BIS(2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L) (39100)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L) (39110)	BENZI- DINE TOTAL (UG/L) (39120)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)
APR 29...	<5.0	<0.2	<0.2	<0.2	<30.0	<0.10	<0.10	<5.0	<5.0	<40.0	<0.2	<0.2
MAY 26...	<5.0	<5.0	<0.2	<0.2	<30.0	<0.10	<0.10	<5.0	<5.0	<40.0	<0.2	<0.2

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

08329800 ARROYO DEL EMBUDO INLET TO FLOODWAY CHANNEL AT ALBUQUERQUE, NM -- Continued

DATE	P,P' DDT, TOTAL (UG/L) (39300)	P,P' DDD, TOTAL (UG/L) (39310)	P,P' DDE, TOTAL (UG/L) (39320)	ALDRIN, TOTAL (UG/L) (39330)	ALPHA BHC TOTAL (UG/L) (39337)	BETA BENZENE HEXA- CHLOR- IDE TOTAL (UG/L) (39338)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TOTAL (UG/L) (39350)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	TOX- APHENE, TOTAL (UG/L) (39400)	HEPTA- CHLOR, TOTAL (UG/L) (39410)
APR 29...	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	<0.1	<0.020	<0.060	<2	<0.030
MAY 26...	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	<0.1	0.030	<0.060	<2	<0.030

DATE	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	AROCLOR 1221 PCB TOTAL (UG/L) (39488)	AROCLOR 1232 PCB TOTAL (UG/L) (39492)	AROCLOR 1242 PCB TOTAL (UG/L) (39496)	AROCLOR 1248 PCB TOTAL (UG/L) (39500)	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1260 PCB TOTAL (UG/L) (39508)	HEXA- CHLORO- BENZENE TOTAL (UG/L) (39700)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	CIS-1,2 -DI- CHLORO- ETHENE WATER TOTAL (UG/L) (77093)	STYRENE TOTAL (UG/L) (77128)
APR 29...	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<0.2	<0.2	<0.2
MAY 26...	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<5.0	<0.2	<0.2

DATE	1,1-DI CHLORO- PRO- PENE, WAT, WH TOTAL (UG/L) (77168)	2,2-DI CHLORO- PRO- PANE WAT, WH TOTAL (UG/L) (77170)	1,3-DI- CHLORO- PROPANE WAT, WH TOTAL (UG/L) (77173)	PSEUDO- CUMENE WATER UNFLTRD REC (UG/L) (77222)	ISO- PROPYL- BENZENE WATER WHOLE REC (UG/L) (77223)	BENZENE N-PROPY WATER UNFLTRD REC (UG/L) (77224)	MESIT- YLENE WATER UNFLTRD REC (UG/L) (77226)	O- CHLORO- TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	METHANE BROMO CHLORO- WAT UNFLTRD REC (UG/L) (77297)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)
APR 29...	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20
MAY 26...	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20

DATE	BENZENE SEC BUTYL- WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT- BUTYL- WATER UNFLTRD REC (UG/L) (77353)	P-ISO- PROPYL- TOLUENE WATER WHOLE REC (UG/L) (77356)	123-TRI CHLORO- PROPANE WATER WHOLE TOTAL (UG/L) (77443)	ETHANE, 1112- TETRA- CHLORO- WAT UNF REC (UG/L) (77562)	1,2,3- TRI- CHLORO BENZENE WAT, WH REC (UG/L) (77613)	1,2- DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	XYLENE WATER UNFLTRD REC (UG/L) (81551)	BROMO- BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	DIBROMO CHLORO- PROPANE WATER WHOLE TOT REC (UG/L) (82625)	1,2-DI- PHENYL- HYDRA- ZINE WATER TOT REC (UG/L) (82626)
APR 29...	<0.20	<0.20	<0.20	<0.2	<0.2	<0.20	<0.2	<0.20	<0.2	<1.0	<5.0
MAY 26...	<0.20	<0.20	<0.20	<0.2	<0.2	<0.20	<0.2	<0.20	<0.2	<1.0	<5.0

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

083299375 MARAPOSA DIVERSION OF SAN ANTONIO ARROYO AT ALBUQUERQUE, NM

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	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)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	STREP- TOCOCOCI FECAL (MPN) (31677)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
AUG												
01-01	2005	2245	27	--	102	8.4	--	60	14	--	--	--
01...	2010	--	--	14	84	8.3	23.5	--	--	7100	80000	--
09...	2140	--	--	2.5	90	8.6	22.0	--	--	>80000	500000	<0.02
AUG												
09-10	2140	0040	13	--	100	8.1	--	290	42	--	--	<0.02
27...	1455	--	--	6.7	129	8.5	23.5	--	--	15000	80000	<0.02
AUG												
27-27	1500	1800	7.8	--	80	9.0	--	58	10	--	--	<0.02

08330050 CITY OF ALBUQUERQUE LIFT STATION 41 AT ALBUQUERQUE, NM

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	STREP- TOCOCOCI FECAL (MPN) (31677)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
AUG											
01-01	1948	2041	46	--	104	7.3	280	28	--	--	--
26...	2000	--	--	24	130	7.4	--	--	1800	80000	<0.02

DATE	TIME	ENDING TIME	DI- BROMO- METHANE WATER WHOLE RECOVER (UG/L) (30217)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L) (32101)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	PHENOLS TOTAL (UG/L) (32730)	TOLUENE TOTAL (UG/L) (34010)
OCT											
28-28	1443	1537	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	8	0.6

DATE	BENZENE TOTAL (UG/L) (34030)	ACRO- LEIN TOTAL (UG/L) (34210)	ACRYLO- NITRILE TOTAL (UG/L) (34215)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)
OCT											
28-28	<0.2	<20	<20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

DATE	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANSDI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)
OCT											
28-28	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20	<0.20	<0.20

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

08330050 CITY OF ALBUQUERQUE LIFT STATION 41 AT ALBUQUERQUE, NM -- Continued

DATE	2-CHLORO-ETHYL-VINYL ETHER TOTAL (UG/L) (34576)	DI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34668)	NAPHTH-ALENE TOTAL (UG/L) (34696)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	CIS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)	CIS-1,2-DI-CHLORO-ETHENE TOTAL (UG/L) (77093)	STYRENE TOTAL (UG/L) (77128)
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OCT 28-28	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
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DATE	1,1-DI-CHLORO-PRO-PENE, WAT, WH TOTAL (UG/L) (77168)	2,2-DI-CHLORO-PRO-PANE, WAT, WH TOTAL (UG/L) (77170)	1,3-DI-CHLORO-PROPANE, WAT, WH TOTAL (UG/L) (77173)	PSEUDO-CUMENE WATER UNFLTRD TOTAL (UG/L) (77222)	ISO-PROPYL-BENZENE WATER WHOLE REC TOTAL (UG/L) (77223)	BENZENE N-PROPY WATER UNFLTRD TOTAL (UG/L) (77224)	MESIT-YLENE WATER UNFLTRD TOTAL (UG/L) (77226)	O-CHLORO-TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	TOLUENE P-CHLOR WATER UNFLTRD TOTAL (UG/L) (77277)	BENZENE N-BUTYL WATER UNFLTRD TOTAL (UG/L) (77342)
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OCT 28-28	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20
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DATE	BENZENE SEC BUTYL-WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT-BUTYL-WATER UNFLTRD REC (UG/L) (77353)	P-ISO-PROPYL-TOLUENE WATER WHOLE REC (UG/L) (77356)	123-TRI-CHLORO-PROPANE WATER WHOLE TOTAL (UG/L) (77443)	ETHANE, 1112-TETRA-CHLORO-WAT UNF REC (UG/L) (77562)	1,2,3-TRI-CHLORO-BENZENE WAT, WH REC (UG/L) (77613)	1,2-DIBROMO-ETHANE WATER WHOLE TOTAL (UG/L) (77651)	XYLENE WATER UNFLTRD REC (UG/L) (81551)	BROMO-BENZENE WATER, WHOLE TOTAL (UG/L) (81555)	DIBROMO-CHLORO-PROPANE WATER WHOLE TOT.REC (UG/L) (82625)
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OCT 28-28	<0.20	<0.20	0.60	<0.2	<0.2	<0.20	<0.2	<0.20	<0.2	<1.0
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08330075 CITY OF ALBUQUERQUE LIFT STATION 32 AT ALBUQUERQUE, NM

DATE	TIME	ENDING TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	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)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./100 ML) (31616)	STREP-TOCOCOCCI FECAL (MPN) (31677)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
OCT 28-28	1443	1537	107	--	227	8.2	18.0	--	--	--	--	--
JAN 18-19	2240	0032	147	--	204	7.5	--	--	--	--	--	49
JUL 28...	1517	--	--	84	297	7.2	--	--	--	300000	5400000	--
JUL 28-28	1517	1715	43	--	302	7.2	--	480	99	--	--	--
AUG 26-26	2010	2200	101	--	165	7.2	--	170	26	--	--	--
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-RINE, TOTAL RESI-DUAL (MG/L) (50060)	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)
JAN 18-19	17	1.7	19	1	3.7	64	18	--	18	129	119	268
JUL 28...	--	--	--	--	--	--	--	<0.02	--	--	--	--
JUL 28-28	--	--	--	--	--	--	--	<0.02	--	--	--	--
AUG 26-26	--	--	--	--	--	--	--	<0.02	--	--	--	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

08330075 CITY OF ALBUQUERQUE LIFT STATION 32 AT ALBUQUERQUE, NM -- Continued

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)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	OIL AND GREASE, TOTAL RECOV. GRAVI- METRIC (MG/L) (00556)	ARSENIC TOTAL (UG/L AS AS) (01002)
OCT 28-28	--	--	--	--	--	--	--	--	<0.010	8	1	--
JAN 18-19	0.520	0.090	0.610	0.650	2.7	0.650	0.210	55	--	--	--	4

DATE	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	THAL- LIUM, TOTAL RECOV- ERABLE (UG/L AS TL) (01059)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
JAN 18-19	<10	2	19	37	130	<0.10	9	<2	<1	<10	260

DATE	TIME	ENDING TIME	ACE- NAPHTH- YLENE TOTAL (UG/L) (34200)	ACE- NAPHTH- ENE TOTAL (UG/L) (34205)	ANTHRA- CENE TOTAL (UG/L) (34220)	BENZO B FLUOR- AN- THENE TOTAL (UG/L) (34230)	BENZO K FLUOR- AN- THENE TOTAL (UG/L) (34242)	BENZO- A- PYRENE TOTAL (UG/L) (34247)	DELTA BENZENE HEXA- CHLOR- IDE TOTAL (UG/L) (34259)	BIS 2- CHLORO- ETHYL ETHER TOTAL (UG/L) (34273)	BIS (2- CHLORO- ETHOXY) METHANE TOTAL (UG/L) (34278)
JAN 18-19	2240	0032	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0

DATE	BIS (2- CHLORO- ISO- PROPYL) ETHER TOTAL (UG/L) (34283)	N-BUTYL BENZYL PHTHAL- ATE TOTAL (UG/L) (34292)	CHRY- SENE TOTAL (UG/L) (34320)	DIETHYL PHTHAL- ATE TOTAL (UG/L) (34336)	DI- METHYL PHTHAL- ATE TOTAL (UG/L) (34341)	ENDO- SULFAN SULFATE TOTAL (UG/L) (34351)	ENDO- SULFAN BETA TOTAL (UG/L) (34356)	ENDO- SULFAN- I WATER WHOLE REC TOTAL (UG/L) (34361)	ENDRIN ALDE- HYDE TOTAL (UG/L) (34366)	FLUOR- ANTHENE TOTAL (UG/L) (34376)	FLUOR- ENE TOTAL (UG/L) (34381)
JAN 18-19	<5.0	<5.0	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	<5.0	<5.0

DATE	HEXA- CHLORO- CYCLO- PENT- ADIENE TOTAL (UG/L) (34386)	HEXA- CHLORO- ETHANE TOTAL (UG/L) (34396)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L) (34403)	ISO- PHORONE TOTAL (UG/L) (34408)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L) (34428)	N-NITRO -SODI- PHENY- LAMINE TOTAL (UG/L) (34433)	N-NITRO -SODI- METHY- LAMINE TOTAL (UG/L) (34438)	NITRO- BENZENE TOTAL (UG/L) (34447)	PARA- CHLORO- META CRESOL TOTAL (UG/L) (34452)	PHENAN- THRENE TOTAL (UG/L) (34461)	PYRENE TOTAL (UG/L) (34469)
JAN 18-19	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0	<5.0	<5.0

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

08330075 CITY OF ALBUQUERQUE LIFT STATION 32 AT ALBUQUERQUE, NM -- Continued

DATE	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L) (34521)	BENZO A ANTHRAC ENE1,2- BENZANT HRACENE TOTAL (UG/L) (34526)	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	BENZENE 1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	2- CHLORO- NAPH- THALENE TOTAL (UG/L) (34581)	2- CHLORO- PHENOL TOTAL (UG/L) (34586)	2- NITRO- PHENOL TOTAL (UG/L) (34591)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L) (34596)
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JAN 18-19	<10.0	<10.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0
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DATE	2,4-DI- CHLORO- PHENOL TOTAL (UG/L) (34601)	2,4-DI- METHYL- PHENOL TOTAL (UG/L) (34606)	2,4-DI- NITRO- TOLUENE TOTAL (UG/L) (34611)	2,4,- DI- NITRO- PHENOL TOTAL (UG/L) (34616)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L) (34621)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L) (34626)	3,3'- DI- CHLORO- BENZI- DINE TOTAL (UG/L) (34631)	4- BROMO- PHENYL ETHER TOTAL (UG/L) (34636)	4- CHLORO- PHENYL ETHER TOTAL (UG/L) (34641)	4- NITRO- PHENOL TOTAL (UG/L) (34646)	4,6- DINITRO- -ORTHO- CRESOL TOTAL (UG/L) (34657)
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JAN 18-19	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0
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DATE	AROCLOR 1016 PCB TOTAL (UG/L) (34671)	PHENOL (C6H- 5OH) TOTAL (UG/L) (34694)	NAPHTH- ALENE TOTAL (UG/L) (34696)	PENTA- CHLORO- PHENOL TOTAL (UG/L) (39032)	CHLOR- DANE CIS WATER WHOLE TOTAL (UG/L) (39062)	CHLOR- DANE TRANS WATER WHOLE TOTAL (UG/L) (39065)	BIS(2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L) (39100)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L) (39110)	BENZI- DINE TOTAL (UG/L) (39120)	P,P' DDT, TOTAL (UG/L) (39300)	P,P' DDD, TOTAL (UG/L) (39310)
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JAN 18-19	<0.1	<5.0	<5.0	<30.0	<0.10	<0.10	11.0	<5.0	<40.0	<0.10	<0.10
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DATE	P,P' DDE, TOTAL (UG/L) (39320)	ALDRIN, TOTAL (UG/L) (39330)	ALPHA BHC TOTAL (UG/L) (39337)	BETA BENZENE HEXA- CHLOR- IDE TOTAL (UG/L) (39338)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TOTAL (UG/L) (39350)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	TOX- APHENE, TOTAL (UG/L) (39400)	HEPTA- CHLOR, TOTAL (UG/L) (39410)
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JAN 18-19	<0.04	<0.040	<0.03	<0.03	<0.030	0.3	<0.020	<0.060	<2	<0.030
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DATE	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	AROCLOR 1221 PCB TOTAL (UG/L) (39488)	AROCLOR 1232 PCB TOTAL (UG/L) (39492)	AROCLOR 1242 PCB TOTAL (UG/L) (39496)	AROCLOR 1248 PCB TOTAL (UG/L) (39500)	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1260 PCB TOTAL (UG/L) (39508)	HEXA- CHLORO- BENZENE TOTAL (UG/L) (39700)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	1,2-DI- PHENYL- HYDRA- ZINE WATER TOT.REC (UG/L) (82626)
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JAN 18-19	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<5.0	<5.0
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## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

RIO GRANDE 1.5 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345956106411210)  
(CITY R-14)

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)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT 01...	0900	464	424	8.1	11.5	15.5	641	7.2	86	0.30
NOV 19...	0905	779	487	8.1	6.0	7.0	639	9.5	94	0.05
DEC 17...	0946	750	532	7.9	-2.0	0.5	643	11.8	97	0.25

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CYANIDE TOTAL (MG/L AS CN) (00720)	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 01...	0.110	0.170	1.50	2.1	0.540	0.490	<0.010	393	492	--
NOV 19...	0.100	0.530	0.280	0.90	0.230	0.170	<0.010	136	286	54
DEC 17...	0.070	0.400	0.800	1.1	0.300	0.280	0.010	202	409	--

RIO GRANDE NR LEFT EDGE OF WATER 1.5 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345956106411211)  
(CITY R-14A)

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	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)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT 01...	0943	1.14	462	8.0	11.5	16.0	641	7.0	85	0.35
NOV 19...	0948	0.68	523	7.6	6.0	7.0	639	9.3	92	0.30
DEC 17...	0945	1.14	563	7.9	-2.0	1.0	643	11.5	96	0.30

RIO GRANDE NR CENTER OF FLOW 1.5 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345956106411212)  
(CITY R-14B)

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	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)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT 01...	0930	1.02	456	8.1	11.5	16.0	641	6.8	82	0.30
NOV 19...	0939	0.98	509	7.9	6.0	7.5	639	9.5	95	0.20
DEC 17...	0955	0.64	549	7.9	-2.0	0.5	643	11.8	97	0.20

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

RIO GRANDE NR RIGHT EDGE OF WATER 1.5 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345956106411213)  
(CITY R-14C)

DATE	TIME	SAM- PLING DEPTH (FEET) (000003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	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)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT 01...	0922	2.54	401	8.3	11.5	15.0	641	7.7	91	0.18
NOV 19...	0930	3.10	486	8.1	6.0	6.5	639	9.8	95	0.08
DEC 17...	1005	1.60	525	7.9	-2.0	0.0	643	12.2	99	0.05

RIO GRANDE 2.5 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345908106411010)  
(CITY R-15)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	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)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT 01...	1005	495	438	8.1	16.0	16.0	641	6.2	75	0.16
NOV 19...	0925	803	487	7.9	9.0	7.0	639	9.6	95	0.06
DEC 17...	1021	750	535	8.0	-1.0	0.5	643	11.6	96	0.10

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CYANIDE TOTAL (MG/L AS CN) (00720)	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 01...	0.220	0.330	1.80	2.4	0.670	0.600	<0.010	167	223	--
NOV 19...	0.070	0.250	0.150	0.60	0.130	0.080	<0.010	162	351	50
DEC 17...	0.070	0.410	0.830	1.2	0.320	0.290	0.010	109	219	--

RIO GRANDE NR LEFT EDGE OF WATER 2.5 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345908106411011)  
(CITY R-15A)

DATE	TIME	SAM- PLING DEPTH (FEET) (000003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	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)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT 01...	1027	2.20	442	8.0	16.0	16.5	641	5.5	67	0.20
NOV 19...	1035	1.10	503	7.9	9.0	7.5	639	9.4	94	0.19
DEC 17...	1115	0.88	563	7.9	-1.0	0.5	643	11.3	93	0.25

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

RIO GRANDE NR CENTER OF FLOW 2.5 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345908106411012)  
(CITY R-15B)

DATE	TIME	SAM- PLING DEPTH (FEET) (000003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	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) (00301)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT 01...	1020	0.60	428	8.1	16.0	16.0	641	5.9	71	0.15
NOV 19...	1025	1.10	483	8.1	9.0	7.0	639	9.6	95	0.10
DEC 17...	1106	1.02	547	7.9	-1.0	0.5	643	11.8	97	0.15

RIO GRANDE NR RIGHT EDGE OF WATER 2.5 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345908106411013)  
(CITY R-15C)

DATE	TIME	SAM- PLING DEPTH (FEET) (000003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	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) (00301)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT 01...	1012	0.80	416	8.2	16.0	16.0	641	7.2	87	0.15
NOV 19...	1010	1.00	480	8.2	9.0	7.0	639	9.8	97	0.05
DEC 17...	1055	1.38	520	8.1	-1.0	0.5	643	11.7	96	0.05

RIO GRANDE 4.9 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345705106405210)  
(CITY R-02)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	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) (00301)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT 01...	1130	434	428	8.2	27.0	17.5	641	7.3	91	0.10
NOV 19...	1100	823	491	7.9	11.5	8.0	638	9.3	94	0.07
DEC 17...	1107	750	527	8.1	-1.0	0.5	643	12.1	100	0.06

DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	CYANIDE TOTAL (MG/L AS CN) (00720)	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 01...	0.230	0.540	1.40	2.1	0.640	0.570	<0.010	927	1090	--
NOV 19...	0.140	0.960	0.390	1.0	0.330	0.280	<0.010	121	269	61
DEC 17...	0.060	0.400	0.690	1.0	0.270	0.240	0.010	182	369	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

RIO GRANDE NR LEFT EDGE OF WATER 4.9 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345705106405211)  
(CITY R-02A)

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	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)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT										
01...	1136	3.90	429	8.1	27.0	18.5	641	7.3	93	0.12
NOV										
19...	1135	1.40	498	7.8	11.5	9.0	638	9.2	95	0.07
DEC										
17...	1115	3.22	524	8.1	-1.0	2.0	643	12.1	104	0.07

RIO GRANDE NR CENTER OF FLOW 4.9 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345705106405212)  
(CITY R-02B)

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	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)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT										
01...	1128	0.58	425	8.0	27.0	18.0	641	7.4	93	0.10
NOV										
19...	1125	3.00	486	8.0	11.5	8.0	638	9.5	96	0.15
DEC										
17...	1105	0.70	522	8.1	-1.0	0.5	643	12.0	99	0.08

RIO GRANDE NR RIGHT EDGE OF WATER 4.9 MI BL ALB. WASTE WATER TREATMENT PLANT, NM (345705106405213)  
(CITY R-02C)

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	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)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT										
01...	1121	0.74	424	8.1	27.0	16.5	641	7.1	87	0.10
NOV										
19...	1115	2.60	480	8.1	11.5	7.5	638	9.3	93	0.10
DEC										
17...	1055	1.30	522	8.1	-1.0	0.5	643	12.2	101	0.07

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

08330200 SAN JOSE DRAIN AT WOODWARD ROAD AT ALBUQUERQUE, NM

DATE	TIME	ENDING TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	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 DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)
OCT 28...	1500	--	--	19	145	8.5	15.5	--	--	--	--
OCT 28-28	1500	1800	22	--	--	--	--	--	--	--	32000
28...	1501	--	--	19	145	8.5	15.5	--	--	--	--
OCT 28-28	1501	1801	22	--	--	--	--	--	350	44	43000
JUL 14...	2005	--	--	11	280	7.7	27.0	636	--	--	260000
JUL 14-14	2018	2318	12	--	212	7.7	--	--	290	13	--
JUL 28-28	1447	1453	--	9.9	--	--	--	--	--	--	90000
JUL 28-28	1502	1723	9.6	--	--	--	--	--	440	48	--
AUG 05...	1500	--	--	19	--	--	--	--	--	--	230000
AUG 05-05	1525	1740	4.5	--	263	8.1	--	--	160	18	--

DATE	STREP- TOCOCCHI FECAL (MPN) (31677)	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)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RINE, TOTAL RESI- DUAL (MG/L) (50060)
OCT 28-28	130000	50	17	1.9	11	0.7	5.3	76	15	<0.02
OCT 28-28	120000	50	17	1.9	11	0.7	5.3	76	15	<0.02
JUL 14...	1600000	--	--	--	--	--	--	--	--	--
JUL 28-28	460000	--	--	--	--	--	--	--	--	--
AUG 05...	170000	--	--	--	--	--	--	--	--	--
AUG 05-05	--	62	21	2.3	23	1	7.0	102	19	--

DATE	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)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
OCT 28-28	10	127	106	240	--	--	--	--	--	--
OCT 28-28	11	126	107	239	--	0.080	--	0.630	--	0.580
AUG 05-05	25	178	163	1050	0.820	--	0.050	--	0.870	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

## 08330200 SAN JOSE DRAIN AT WOODWARD ROAD AT ALBUQUERQUE, NM -- Continued

DATE	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)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	OIL AND GREASE, TOTAL RECOV- GRAVI- METRIC (MG/L) (00556)	ARSENIC TOTAL (UG/L AS AS) (01002)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)
OCT 28-28	--	--	--	--	62	0.010	11	2	5	<10
OCT 28...	--	--	--	--	--	0.020	11	1	--	--
OCT 28-28	--	2.3	0.560	0.320	--	0.020	11	1	5	<10
AUG 05...	--	--	--	--	--	<0.010	5	4	--	--
AUG 05-05	0.430	1.8	0.560	0.360	42	--	--	--	8	<10

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	THAL- LIUM, TOTAL RECOV- ERABLE (UG/L AS TL) (01059)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT 28-28	1	8	18	85	<0.10	9	<2	<1	<10	230
OCT 28-28	1	9	13	93	<0.10	10	<2	<1	<5	230
AUG 05-05	2	5	33	130	<0.10	15	<2	<1	--	310

DATE	TIME	ENDING TIME	DI- BROMO- METHANE WATER WHOLE RECOVER (UG/L) (30217)	DI- CHLORO- BROMO- METHANE TOTAL (UG/L) (32101)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	PHENOLS TOTAL (UG/L) (32730)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)
OCT 28...	1500	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	0.2	<0.2
OCT 28-28	1500	1800	--	--	--	--	--	--	--	11	--	--
OCT 28...	1501	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	11	0.2	<0.2
OCT 28-28	1501	1801	--	--	--	--	--	--	--	11	--	--
AUG 05...	1500	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	5	<0.2	<0.2
AUG 05-05	1525	1740	--	--	--	--	--	--	--	--	--	--

DATE	ACE- NAPHTH- YLENE TOTAL (UG/L) (34200)	ACE- NAPHTH- ENE TOTAL (UG/L) (34205)	ACRO- LEIN TOTAL (UG/L) (34210)	ACRYLO- NITRILE TOTAL (UG/L) (34215)	ANTHRA- CENE TOTAL (UG/L) (34220)	BENZO B FLUOR- AN- THENE TOTAL (UG/L) (34230)	BENZO K FLUOR- AN- THENE TOTAL (UG/L) (34242)	BENZO- A- PYRENE TOTAL (UG/L) (34247)	DELTA BENZENE HEXA- CHLO- RIDE TOTAL (UG/L) (34259)	BIS- 2- CHLORO- ETHYL ETHER TOTAL (UG/L) (34273)	BIS (2- CHLORO- ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS (2- CHLORO- ISO- ETHYL) ETHER TOTAL (UG/L) (34283)
OCT 28...	--	--	<20	<20	--	--	--	--	--	--	--	--
OCT 28-28	<5.0	<5.0	--	--	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0
OCT 28...	--	--	<20	<20	--	--	--	--	--	--	--	--
OCT 28-28	<5.0	<5.0	--	--	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0
AUG 05...	--	--	<20	<20	--	--	--	--	--	--	--	--
AUG 05-05	<5.0	<5.0	--	--	<5.0	<10.0	<10.0	<10.0	<0.09	<5.0	<5.0	<5.0

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

08330200 SAN JOSE DRAIN AT WOODWARD ROAD AT ALBUQUERQUE, NM -- Continued

DATE	N-BUTYL BENZYL PHTHAL- ATE TOTAL (UG/L) (34292)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	CHRY- SENE TOTAL (UG/L) (34320)	DIETHYL PHTHAL- ATE TOTAL (UG/L) (34336)	DI- METHYL PHTHAL- ATE TOTAL (UG/L) (34341)	ENDO- SULFAN SULFATE TOTAL (UG/L) (34351)	ENDO- SULFAN BETA TOTAL (UG/L) (34356)	ENDO- SULFAN- I WATER WHOLE REC (UG/L) (34361)	ENDRIN ALDE- HYDE TOTAL (UG/L) (34366)	ETHYL- BENZENE TOTAL (UG/L) (34371)	FLUOR- ANTHENE TOTAL (UG/L) (34376)
OCT 28...	--	<0.20	<0.2	--	--	--	--	--	--	--	<0.2	--
OCT 28-28	<5.0	--	--	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	--	<5.0
OCT 28...	--	<0.20	<0.2	--	--	--	--	--	--	--	<0.2	--
OCT 28-28	<5.0	--	--	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	--	<5.0
AUG 05...	--	<0.20	<0.2	--	--	--	--	--	--	--	<0.2	--
AUG 05-05	<5.0	--	--	<10.0	<5.0	<5.0	<0.60	<0.04	<0.10	<0.20	--	<5.0

DATE	FLUOR- ENE TOTAL (UG/L) (34381)	HEXA- CHLORO- CYCLO- PENT- ADIENE TOTAL (UG/L) (34386)	HEXA- CHLORO- ETHANE TOTAL (UG/L) (34396)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L) (34403)	ISO- PHORONE TOTAL (UG/L) (34408)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L) (34428)	N-NITRO- SODI- PHENY- LAMINE TOTAL (UG/L) (34433)	N-NITRO- SODI- METHY- LAMINE TOTAL (UG/L) (34438)	NITRO- BENZENE TOTAL (UG/L) (34447)
OCT 28...	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	--	--
OCT 28-28	<5.0	<5.0	<5.0	<10.0	<5.0	--	--	--	<5.0	<5.0	<5.0	<5.0
OCT 28...	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	--	--
OCT 28-28	<5.0	<5.0	<5.0	<10.0	<5.0	--	--	--	<5.0	<5.0	<5.0	<5.0
AUG 05...	--	--	--	--	--	<0.2	<0.2	<0.2	--	--	--	--
AUG 05-05	<5.0	<5.0	<5.0	<10.0	<5.0	--	--	--	<5.0	<5.0	<5.0	<5.0

DATE	PARA- CHLORO- META CRESOL TOTAL (UG/L) (34452)	PHENAN- THRENE TOTAL (UG/L) (34461)	PYRENE TOTAL (UG/L) (34469)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L) (34521)	BENZO A ANTHRAC ENE1,2- BENZANT HRACENE TOTAL (UG/L) (34526)
OCT 28...	--	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--
OCT 28-28	<30.0	<5.0	<5.0	--	--	--	--	--	--	--	<10.0	<10.0
OCT 28...	--	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--
OCT 28-28	<30.0	<5.0	<5.0	--	--	--	--	--	--	--	<10.0	<10.0
AUG 05...	--	--	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	--	--
AUG 05-05	<30.0	<5.0	<5.0	--	--	--	--	--	--	--	<10.0	<10.0

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

## 08330200 SAN JOSE DRAIN AT WOODWARD ROAD AT ALBUQUERQUE, NM -- Continued

DATE	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANSDI CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	2- CHLORO- ETHYL- VINYL- ETHER TOTAL (UG/L) (34576)	2- CHLORO- NAPH- THALENE TOTAL (UG/L) (34581)	2- CHLORO- PHENOL TOTAL (UG/L) (34586)	2- NITRO- PHENOL TOTAL (UG/L) (34591)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L) (34596)
OCT 28...	<5.0	<0.2	<0.2	<5.0	--	<5.0	<5.0	<1.0	--	--	--	--
OCT 28-28	--	--	--	--	<10.0	--	--	--	<5.0	<5.0	<5.0	<10.0
OCT 28...	<5.0	<0.2	<0.2	<5.0	--	<5.0	<5.0	<1.0	--	--	--	--
OCT 28-28	--	--	--	--	<10.0	--	--	--	<5.0	<5.0	<5.0	<10.0
AUG 05...	<0.20	<0.2	<0.2	<0.20	--	<0.20	<0.20	<1.0	--	--	--	--
AUG 05-05	<5.0	--	--	<5.0	<10.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<10.0
DATE	2,4-DI- CHLORO- PHENOL TOTAL (UG/L) (34601)	2,4-DI- METHYL- PHENOL TOTAL (UG/L) (34606)	2,4-DI- NITRO- TOLUENE TOTAL (UG/L) (34611)	2,4- DI- NITRO- PHENOL TOTAL (UG/L) (34616)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L) (34621)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L) (34626)	3,3'- DI- CHLORO- BENZIDINE TOTAL (UG/L) (34631)	4- BROMO- PHENYL ETHER TOTAL (UG/L) (34636)	4- CHLORO- PHENYL ETHER TOTAL (UG/L) (34641)	4- NITRO- PHENOL TOTAL (UG/L) (34646)	4,6- DINITRO- -ORTHO- CRESOL TOTAL (UG/L) (34657)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)
OCT 28...	--	--	--	--	--	--	--	--	--	--	--	<0.2
OCT 28-28	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	--
OCT 28...	--	--	--	--	--	--	--	--	--	--	--	<0.2
OCT 28-28	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	--
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	<0.2
AUG 05-05	<5.0	<5.0	<5.0	<20.0	<20.0	<5.0	<20.0	<5.0	<5.0	<30.0	<30.0	--
DATE	AROCLOR 1016 PCB TOTAL (UG/L) (34671)	PHENOL (C6H- 5OH) TOTAL (UG/L) (34694)	NAPHTH- ALENE TOTAL (UG/L) (34696)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	PENTA- CHLORO- PHENOL TOTAL (UG/L) (39032)	CHLOR- DANE CIS WATER WHOLE TOTAL (UG/L) (39062)	CHLOR- DANE TRANS WATER WHOLE TOTAL (UG/L) (39065)	BIS(2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L) (39100)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L) (39110)	BENZI- DINE TOTAL (UG/L) (39120)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)
OCT 28...	--	--	<5.0	<0.2	<0.2	--	--	--	--	--	--	<0.2
OCT 28-28	<0.1	<5.0	--	--	--	<30.0	<0.10	<0.10	20.0	<5.0	<40.0	--
OCT 28...	--	--	<5.0	<0.2	<0.2	--	--	--	--	--	--	<0.2
OCT 28-28	<0.1	<5.0	--	--	--	<30.0	<0.10	<0.10	18.0	<5.0	<40.0	--
AUG 05...	--	--	<0.2	<0.2	<0.2	--	--	--	--	--	--	<0.2
AUG 05-05	<0.1	<5.0	<5.0	--	--	<30.0	<0.10	<0.10	<5.0	<5.0	<40.0	--



## RIO GRANDE BASIN -- Continued

08330200 SAN JOSE DRAIN AT WOODWARD ROAD AT ALBUQUERQUE. NM -- Continued

DATE	TRI-CHLORO-ETHYLENE TOTAL (UG/L) (39180)	P,P' DDT, TOTAL (UG/L) (39300)	P,P' DDD, TOTAL (UG/L) (39310)	P,P' DDE, TOTAL (UG/L) (39320)	ALDRIN, TOTAL (UG/L) (39330)	ALPHA BHC TOTAL (UG/L) (39337)	BETA BENZENE HEXA-CHLOR- IDE TOTAL (UG/L) (39338)	LINDANE TOTAL (UG/L) (39340)	CHLOR-DANE, TOTAL (UG/L) (39350)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	TOX-APHENE, TOTAL (UG/L) (39400)
	OCT 28...	<0.2	--	--	--	--	--	--	--	--	--	--
OCT 28-28	--	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.040	0.1	<0.020	<0.060	<2
OCT 28...	<0.2	--	--	--	--	--	--	--	--	--	--	--
OCT 28-28	--	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.040	0.1	<0.020	<0.060	<2
AUG 05...	<0.2	--	--	--	--	--	--	--	--	--	--	--
AUG 05-05	--	<0.10	<0.10	<0.04	<0.040	<0.03	<0.03	<0.030	0.1	0.020	<0.060	<2

DATE	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	AROCLOR 1221 PCB TOTAL (UG/L) (39488)	AROCLOR 1232 PCB TOTAL (UG/L) (39492)	AROCLOR 1242 PCB TOTAL (UG/L) (39496)	AROCLOR 1248 PCB TOTAL (UG/L) (39500)	AROCLOR 1254 PCB TOTAL (UG/L) (39504)	AROCLOR 1260 PCB TOTAL (UG/L) (39508)	HEXA-CHLORO- BENZENE TOTAL (UG/L) (39700)	HEXA-CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	CIS-1,2 -DI- CHLORO- ETHENE WATER TOTAL (UG/L) (77093)	STYRENE TOTAL (UG/L) (77128)
	OCT 28...	--	--	--	--	--	--	--	--	--	<5.0	<0.2
OCT 28-28	<0.030	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	--	--	--
OCT 28...	--	--	--	--	--	--	--	--	--	<5.0	<0.2	<0.2
OCT 28-28	<0.030	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--	<0.2	<0.2	<0.2
AUG 05-05	<0.030	<0.80	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<5.0	<5.0	--	--

DATE	1,1-DI CHLORO- PRO- PENE, WAT, WH TOTAL (UG/L) (77168)	2,2-DI CHLORO- PRO- PANE WAT, WH TOTAL (UG/L) (77170)	1,3-DI- CHLORO- PROPANE WAT, WH TOTAL (UG/L) (77173)	PSEUDO- CUMENE WATER UNFLTRD REC (UG/L) (77222)	ISO- PROPYL- BENZENE WATER WHOLE REC (UG/L) (77223)	BENZENE N-PROPY WATER UNFLTRD REC (UG/L) (77224)	MESIT- YLENE WATER UNFLTRD REC (UG/L) (77226)	O- CHLORO- TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	METHANE BROMO CHLORO- WAT UNFLTRD REC (UG/L) (77297)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)
	OCT 28...	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.2	<0.20	--	<0.20
OCT 28-28	--	--	--	--	--	--	--	--	--	--	--
OCT 28...	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20	<0.2	<0.20	--	<0.20
OCT 28-28	--	--	--	--	--	--	--	--	--	--	--
AUG 05...	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20
AUG 05-05	--	--	--	--	--	--	--	--	--	--	--

DATE	BENZENE SEC BUTYL- WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT- BUTYL- WATER UNFLTRD REC (UG/L) (77353)	P-ISO- PROPYL- TOLUENE WATER WHOLE REC (UG/L) (77356)	123-TRI- CHLORO- PROPANE WATER WHOLE TOTAL (UG/L) (77443)	ETHANE, 1112- TETRA- CHLORO- WAT UNF REC (UG/L) (77562)	1,2,3- TRI- CHLORO BENZENE WAT, WH REC (UG/L) (77613)	1,2- DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	XYLENE WATER UNFLTRD REC (UG/L) (81551)	BROMO- BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	DIBROMO CHLORO- PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	1,2-DI- PHENYL- HYDRA- ZINE WATER TOT.REC (UG/L) (82626)
	OCT 28...	<0.20	<0.20	<0.20	<0.2	<0.2	<0.20	<0.2	<0.20	<0.2	<1.0
OCT 28-28	--	--	--	--	--	--	--	--	--	--	<5.0
OCT 28...	<0.20	<0.20	<0.20	<0.2	<0.2	<0.20	<0.2	0.20	<0.2	<1.0	--
OCT 28-28	--	--	--	--	--	--	--	--	--	--	<5.0
AUG 05...	<0.20	<0.20	<0.20	<0.2	<0.2	<0.20	<0.2	<0.20	<0.2	<1.0	--
AUG 05-05	--	--	--	--	--	--	--	--	--	--	<5.0

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

## 08363500 RIO GRANDE AT LEASBURG DAM, NM

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET) (81903)	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)
MAR	30...	1250	--	1600	704	8.6	--	12.5	658	11.2	122	180
APR	28...	0900	--	1170	741	9.3	--	18.0	659	8.0	98	190
MAY	20...	0900	--	1130	760	8.7	--	21.0	658	7.3	95	190
JUN	16...	1400	--	1830	668	8.3	--	23.0	657	7.6	103	170
JUL	28...	1115	--	1780	726	8.3	30.0	24.5	663	6.9	96	170
AUG	23...	1445	--	E930	719	8.4	35.0	27.0	658	7.3	106	180
SEP	16...	0900	--	903	724	8.5	--	21.0	662	7.5	97	190
	16...	0921	155	1.80	--	730	8.5	--	21.0	662	8.0	104
	16...	0927	125	2.90	--	728	8.6	--	21.0	662	8.0	104
	16...	0930	95.0	1.30	--	727	8.5	--	21.0	662	8.0	104
	16...	0933	65.0	<1.80	--	727	8.6	--	21.0	662	8.0	104
	16...	0936	35.0	1.90	--	730	8.5	--	21.0	662	8.0	104
	16...	0938	5.00	2.00	--	733	8.6	--	21.0	662	7.9	103

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)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
MAR 30...	33	50	12	73	2	5.7	163	5	142	143	140	52
APR 28...	45	56	12	74	2	5.7	160	8	145	144	150	50
MAY 20...	40	56	13	81	3	5.9	165	11	153	149	120	44
JUN 16...	27	50	11	71	2	5.5	164	5	142	138	140	52
JUL 28...	27	49	12	74	2	5.9	170	3	114	136	120	44
AUG 23...	72	54	12	74	2	5.3	135	1	113	138	140	47
SEP 16...	40	53	13	80	3	5.8	164	7	146	144	140	53

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 DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
MAR 30...	0.50	10	419	430	<0.010	0.260	0.010	<0.20	--	0.60	0.260
APR 28...	0.60	8.3	469	444	<0.010	<0.050	0.010	0.20	0.19	0.20	0.020
MAY 20...	0.50	7.2	384	420	<0.010	<0.050	<0.010	<0.20	--	0.30	0.050
JUN 16...	0.60	8.2	441	424	<0.010	<0.050	0.030	0.30	0.27	0.20	0.090
JUL 28...	0.50	5.2	376	397	<0.010	<0.050	0.020	0.30	0.28	0.50	0.080
AUG 23...	0.50	7.5	448	408	<0.010	0.055	0.030	0.30	0.27	0.30	0.060
SEP 16...	0.60	7.1	448	440	<0.010	<0.050	0.030	0.30	0.27	0.30	0.060

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

## 08363500 RIO GRANDE AT LEASBURG DAM, NM -- Continued

DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	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)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	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)
MAR 30...	0.040	<0.010	3.4	1.0	130	<3	3	650	85	367	71
APR 28...	0.010	<0.010	3.6	0.8	160	3	2	650	105	332	25
MAY 20...	<0.010	<0.010	3.6	1.4	--	4	1	--	165	501	55
JUN 16...	0.110	0.030	4.5	0.9	--	<3	3	--	235	1160	27
JUL 28...	0.030	0.020	3.9	1.5	--	3	2	--	166	796	--
AUG 23...	0.030	0.030	--	0.9	--	4	2	--	139	--	--
SEP 16...	0.050	0.050	3.9	1.0	--	<3	<1	--	104	254	--

## RIO GRANDE BELOW LEASBURG DAM, NM (322841106551010)

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)	TUR- BID- ITY (NTU) (00076)	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)	
JAN 26...	0945	189	1120	8.4	6.0	32	290	100	86	17	
DATE		SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE 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 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)
JAN 26...	130	3	7.2	212	5	182	190	200	140	0.70	
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, 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 26...	13	726	705	0.110	0.010	0.120	0.020	0.40	0.060	0.010	
DATE		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 26...	<0.010	<10	3	77	<1.0	<1	<3	1	<3	<1	
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 26...	110	2	0.2	<10	1	<1	<1.0	1000	<6	<10	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

RIO GRANDE AT LEASBURG DAM NEAR LAS CRUCES, NM (322948106551910)

DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
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DEC	15...	1500	4	2	<10	<1	6.0	90	89	16	24	51
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DATE	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)
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DEC	15...	15	<8	<4	4.2	51	20	50	1.2	860	<.02
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DATE	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)
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DEC	15...	<2	46	23	13	0.10	1.8	9	0.2	<0.10	1.1
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DATE	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
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DEC	15...	370	0.07	<40	19	<10	6	120	25	3	85
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## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## RIO GRANDE BASIN -- Continued

## RIO GRANDE BELOW PICACHO BRIDGE NR LAS CRUCES, NM (321745106492510)

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)	TUR-BID-ITY (NTU) (00076)	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)	
JAN 26...	1240	189	1210	8.4	8.5	35	270	88	81	17	
DATE		SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE 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)
JAN 26...	120		3	6.6	212	7	186	182	180	130	0.70
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, 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 26...	13		676	661	0.089	0.010	0.099	0.020	0.30	0.060	0.010
DATE		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 26...	<0.010		<10	3	83	<1.0	<1	<3	1	7	<1
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 26...	110		6	0.2	<10	1	<1	<1.0	1000	<6	<10

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

RIO GRANDE BELOW MESILLA DAM NR SANTO TOMAS, NM (321317106471510)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	TUR-BID-ITY (NTU)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS)
CACO3)		(00061)	(00095)	(00010)	(00076)	(00900)	(00915)	(00925)	(00930)	(00931)	(00935)	
(90410)												
JAN 26...	1430	167	1240	10.5	38	300	89	18	130	3	7.9	194
DATE		SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
		(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(00618)	(00613)	(00631)	(00608)	(00625)
JAN 26...		210	140	0.70	14	732	730	0.420	0.040	0.460	0.310	0.70
DATE		PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
		(00665)	(00666)	(00671)	(01106)	(01000)	(01005)	(01025)	(01030)	(01035)	(01040)	(01046)
JAN 26...		0.140	0.090	0.090	<10	3	79	<1.0	<1	<3	1	<3
DATE		LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
		(01049)	(01130)	(01056)	(71890)	(01060)	(01065)	(01145)	(01075)	(01080)	(01085)	(01090)
JAN 26...		<1	110	6	<0.1	<10	1	<1	<1.0	1100	<6	10

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

RIO GRANDE AT NM 227 BRIDGE NEAR VADO, NM (320648106400510)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT- ANCE (US/CM) (00095)	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)	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)
JAN 27...	1000	146	1240	7.0	34	330	100	20	160	4	9.4	187
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)
JAN 27...		270	150	0.70	17	882	846	1.03	0.070	1.10	0.200	0.70
DATE		PHOS- PHORUS TOTAL (UG/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)	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)
JAN 27...		0.240	0.150	0.160	<10	3	82	<1.0	<1	<3	1	4
DATE		LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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 27...		<1	130	3	<0.1	<10	1	<1	<1.0	1200	<6	<10

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

RIO GRANDE BASIN -- Continued

RIO GRANDE AT TX 259 BRIDGE AT CANUTILLO, TX (315454106360610)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	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)	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)
JAN 27...	1150	200	1420	8.0	47	290	87	18	130	3	8.0	186

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)
JAN 27...	200	150	0.70	15	736	727	1.04	0.060	1.10	0.270	0.80

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)	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)
JAN 27...	0.260	0.150	0.150	<10	3	87	<1.0	<1	<3	<1	7

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	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 27...	<1	120	3	<0.1	<10	<1	<1	<1.0	1000	<6	<10

08379187 TECOLOTE CREEK BL WRIGHT CANYON NR EL PORVENIR, NM

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 08...	1050	228	2.5	1	71



## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SAN JUAN RIVER BASIN

## CUDEI IRRIGATION PROJECT DRAINWATER NR CUDEI, NM (365210108475310)

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)
AUG 11...	1200	0.52	1520	7.5	29.0	19.5	625	4.6	62	650	200	37

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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
AUG 11...	77	1	8.1	312	560	22	0.60	0.090	1120	1090	1	170

DATE	TIME	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)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 11...		<1.0	<1	3	<1	<0.1	1	<1	2	6	-93.7	-12.60

## SAN JUAN R 300 FT BL NAVAJO DAM NR ARCHULETA, NM (364817107365810)

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 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)
AUG 23...	1015	268	7.5	23.5	7.0	625	6.6	67	99	29	6.5	14

DATE	TIME	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)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (MG/L AS AS) (01000)	BORON, DIS-SOLVED (MG/L AS B) (01020)
AUG 23...		0.6	1.8	84	46	1.9	0.20	<0.010	165	150	<1	30

DATE	TIME	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)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 23...		<1.0	<1	1	<1	<0.1	<1	<1	2	<3	-94.5	-13.14

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SAN JUAN RIVER BASIN -- Continued

WETLAND POND NORTH OF SAN JUAN RIVER 0.6 MI BL  
NAVAJO DAM NR ARCHULETA, NM (364835107370410)

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)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
AUG 25...	1000	3100	7.1	17.0	17.0	625	0.1	2	2000	610	120	110
DATE		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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
AUG 25...	1		4.1	158	1900	24	0.70	0.31	3020	2860	<1	130
DATE		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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 25...		<1.0	2	<1	<1	<0.1	14	<1	2	<10	-93.8	-12.69

WETLAND ON S BANK SAN JUAN R 0.9 MI BL NAVAJO DAM, NR ARCHULETA, NM (364820107373410)

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)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
AUG												
24...	0845	300	7.4	23.0	16.5	625	2.8	35	160	48	8.8	18
24...	0900	283	7.5	23.0	17.0	625	1.2	15	150	47	8.7	19
DATE		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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
AUG												
24...	0.6	1.8	91	98	2.1	<0.10	0.010	253	231	<1	20	
24...	0.7	1.8	91	98	2.1	<0.10	<0.010	244	231	1	10	
DATE		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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG												
24...	<1.0	<1	<1	<1	<1	<0.1	--	<1	2	<3	-93.8	-12.81
24...	<1.0	<1	<1	<1	<1	<0.1	<1	<1	2	<3	-93.3	-12.83

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

SAN JUAN RIVER BASIN -- Continued

SAN JUAN R 3.1 MI BL NAVAJO DAM, NR ARCHULETA, NM (364919107385710)

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 (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)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
AUG 23...	1430	290	8.8	26.0	26.5	625	7.3	112	110	34	6.9

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- 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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
AUG 23...	14	0.6	2.0	85	60	1.8	0.10	0.030	185	170	2

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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
AUG 23...	20	<1.0	<1	3	<1	<0.1	1	<1	3	4

DRAIN ABOUT 8.0 MILES E OF NM HWY 44, NM (364203107502410)  
(HAMMOND IRRIGATION PROJECT)

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 (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)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
AUG 19...	0845	9720	7.0	21.5	18.5	625	0.4	5	1200	370	69	2000

DATE	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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
AUG 19...	25	7.5	438	5300	54	2.4	0.070	8210	8070	2	580

DATE	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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 19...	<1.0	<1	<1	<1	<0.1	<1	<1	3	<10	-75.7	-9.64

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

SAN JUAN RIVER BASIN -- Continued

SUPPLY CANAL 0.3 MI AB BLOOMFIELD REFINERY, NR BLOOMFIELD, NM (364155107574210)  
(HAMMOND IRRIGATION PROJECT)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE OF (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (MG/L) (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)
SEP 28...	1630	30	283	8.6	27.5	13.5	625	11.0	130	110	32	7.0

DATE	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (MG/L AS AS) (01000)	BORON, DIS-SOLVED (MG/L AS B) (01020)
SEP 28...	16	0.7	1.7	86	55	2.0	0.20	0.020	184	166	<1	20

DATE	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)	LEAD, DIS-SOLVED (UG/L AS Pb) (01049)	MERCURY DIS-SOLVED (UG/L AS Hg) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS Mo) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS Se) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS Zn) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
SEP 28...	<1.0	<1	1	<1	<0.1	<1	<1	2	<3	-95.3	-13.02

SUPPLY CANAL 100 FT BL BLOOMFIELD REFINERY NR BLOOMFIELD, NM (364148107584310)  
(HAMMOND IRRIGATION PROJECT)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE OF (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (MG/L) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)
SEP 28...	1400	30	284	8.4	27.0	13.0	625	12.3	143	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)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	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)
SEP 28...	33	6.9	16	0.7	1.6	89	1	20	<1.0	<1

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS Pb) (01049)	MERCURY DIS-SOLVED (UG/L AS Hg) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS Mo) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS Se) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS Zn) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
SEP 28...	1	<1	<0.1	1	<1	2	<3	-96.0	-13.06

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SAN JUAN RIVER BASIN -- Continued

SUPPLY CANAL 0.3 MI WEST OF NM HWY 44, NR BLOOMFIELD, NM (364128107594410)  
(HAMMOND IRRIGATION PROJECT)

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)
SEP												
30...	0900	28	269	7.8	16.5	10.0	625	9.8	106	110	34	6.8
30...	1000	28	272	8.2	18.0	10.5	625	10.4	113	110	34	7.1

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)
SEP												
30...	17	0.7	1.8	89	53	1.8	0.20	<0.010	177	168	1	30
30...	17	0.7	1.8	89	54	0.50	0.20	<0.010	180	168	1	20

DATE	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)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
SEP											
30...	<1.0	<1	4	<1	<0.1	<1	<1	1	<3	-94.6	-13.04
30...	<1.0	<1	1	<1	<0.1	<1	<1	1	<3	-96.1	-13.10

DRAIN AT MANHOLE 800 FT AB WEST HAMMOND POND NR BLOOMFIELD, NM (364108108020310)  
(HAMMOND IRRIGATION PROJECT)

DATE	TIME	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)	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)
MAR											
17...	1500	1710	7.2	8.0	0.7	420	140	17	300	6	3.0
17...	1515	1870	7.2	8.0	1	420	140	16	290	6	3.2

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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
MAR										
17...	633	310	79	0.30	0.26	1270	1230	<1	350	<1.0
17...	587	330	76	0.30	0.27	1270	1210	<1	360	<1.0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR										
17...	<1	150	<1	<0.1	<1	1	2	200	-89.0	-12.05
17...	<1	150	<1	<0.1	<1	1	3	190	-88.6	-12.09

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SAN JUAN RIVER BASIN -- Continued

DRAIN AT MANHOLE 500 FT AB WEST HAMMOND POND NR BLOOMFIELD, NM (364112108015810)  
(HAMMOND IRRIGATION PROJECT)

		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 (PER- CENT SATUR- ATION) (00301)	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)	
DATE	TIME											
MAR 17...	1000	2340	7.1	8.5	625	1.4	15	810	270	33	330	
AUG 19...	1550	2070	7.0	16.5	625	1.4	17	720	240	29	210	
DATE	TIME	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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
MAR 17...	5	3.2	203	1000	27	0.40	0.20	1950	1790	<1	310	
AUG 19...	3	1.6	397	720	10	0.60	0.14	1510	1450	<1	380	
DATE	TIME	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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 17...	<1.0	<1	2	<1	<0.1	<1	3	<1	20	-89.9	-12.31	
AUG 19...	<1.0	1	2	<1	<0.1	<1	3	2	4	-91.3	-12.29	

DRAIN AT MANHOLE 200 FT AB WEST HAMMOND POND NR BLOOMFIELD, NM (364115108015810)  
(HAMMOND IRRIGATION PROJECT)

DATE	TIME	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 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)	
MAR 17...	1100	2250	7.1	8.5	625	2.2	23	840	280	35	220	
AUG 19...	1530	2070	6.9	16.5	625	0.9	12	690	230	28	220	
DATE	TIME	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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
MAR 17...	3	2.7	274	960	23	0.60	0.15	1840	1690	<1	260	
AUG 19...	4	1.8	415	680	11	0.70	0.14	1510	1420	<1	380	
DATE	TIME	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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 17...	<1.0	<1	1	<1	<0.1	4	5	<1	<10	-90.1	-12.42	
AUG 19...	<1.0	1	1	<1	<0.1	<1	3	2	<3	-90.3	-12.27	

## SAN JUAN RIVER BASIN -- Continued

EAST DRAIN AT WEST HAMMOND POND NR BLOOMFIELD, NM (364122108015810)  
(HAMMOND IRRIGATION PROJECT)

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 (PER- CENT 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)
MAR 17...	1230	<0.10	1630	7.4	10.0	625	3.1	33	470	150	22	200
AUG 19...	1100	0.43	1690	7.0	14.5	625	3.3	40	560	180	27	180

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT- LAB (MG/L AS CAO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)
	(00931)	(00935)	(90410)	(00945)	(00940)	(00950)	(71870)	(70300)	(70301)	(01000)	(01020)
MAR 17...	4	2.6	234	590	7.1	0.40	0.070	1220	1110	<1	140
AUG 19...	3	3.2	310	620	7.5	0.50	0.080	1290	1200	<1	160

DATE	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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 17...	<1.0	<1	1	<1	<0.1	<1	1	<1	<3	-88.1	-11.65
AUG 19...	<1.0	<1	2	<1	<0.1	<1	1	1	<3	-89.2	-11.84

WEST DRAIN AT WEST HAMMOND POND NR BLOOMFIELD, NM (364121108015710)  
(HAMMOND IRRIGATION PROJECT)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
		(00061)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00900)	(00915)	(00925)	(00930)
MAR 17...	1345	<0.10	2180	7.2	8.5	625	4.5	47	860	290	34	220
AUG 19...	1310	0.03	2060	7.0	16.5	625	3.4	43	--	--	--	--

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00931)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
MAR 17...	3	2.6	255	980	22	0.50	0.15	1840	1700	<1	270

[illegible]

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SAN JUAN RIVER BASIN -- Continued

WEST HAMMOND POND, ABOUT 2.5 MI WEST OF NM HIGHWAY 44, NM (364121108020010)  
(HAMMOND IRRIGATION PROJECT)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH WATER WHOLE FIELD	TEMPER- ATURE WATER	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED	HARD- NESS TOTAL	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED	SODIUM, DIS- SOLVED
		(US/CM) (00095)	(STAND- ARD UNITS) (00400)	(DEG C) (00010)	(MM OF HG) (00025)	(PER- CENT SATUR- ATION) (00300)	(MG/L AS CACO3) (00301)	(MG/L AS CA) (00900)	(MG/L AS CA) (00915)	(MG/L AS MG) (00925)	(MG/L AS NA) (00930)	
MAR 17...	1315	2580	7.5	9.0	625	8.2	87	940	300	47	260	
AUG 19...	1410	1880	7.4	19.5	625	10.3	137	620	200	29	200	
DATE		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED	ALKA- LITY LAB	SULFATE DIS- SOLVED	CHLO- RIDE, DIS- SOLVED	FLUO- RIDE, DIS- SOLVED	BROMIDE DIS- SOLVED	SOLIDS, RESIDUE AT 180 DEG. C	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED	ARSENIC DIS- SOLVED	BORON, DIS- SOLVED
		(MG/L AS K) (00931)	(MG/L AS CACO3) (00935)	(MG/L AS CACO3) (90410)	(MG/L AS SO4) (00945)	(MG/L AS CL) (00940)	(MG/L AS F) (00950)	(MG/L AS BR) (71870)	(MG/L) (70300)	(MG/L) (70301)	(UG/L AS AS) (01000)	(UG/L AS B) (01020)
MAR 17...	4	3.4	199	1200	16	0.40	0.11	2100	1950	<1	230	
AUG 19...	3	3.1	302	670	8.6	0.50	0.10	1400	1290	<1	190	
DATE		CADMIUM DIS- SOLVED	CHRO- MIUM, DIS- SOLVED	COPPER, DIS- SOLVED	LEAD, DIS- SOLVED	MERCURY DIS- SOLVED	MOLYB- DENUM, DIS- SOLVED	SELE- NIUM, DIS- SOLVED	VANA- DIUM, DIS- SOLVED	ZINC, DIS- SOLVED	H-2 / H-1 STABLE ISOTOPE RATIO	O-18 / O-16 STABLE ISOTOPE RATIO
		(UG/L AS CD) (01025)	(UG/L AS CR) (01030)	(UG/L AS CU) (01040)	(UG/L AS PB) (01049)	(UG/L AS HG) (71890)	(UG/L AS MO) (01060)	(UG/L AS SE) (01145)	(UG/L AS V) (01085)	(UG/L AS ZN) (01090)	PER MIL (82082)	PER MIL (82085)
MAR 17...	<1.0	<1	<1	<1	<1	<0.1	<1	6	<1	<10	-89.4	-12.00
AUG 19...	<1.0	<1	1	<1	<1	<0.1	<1	2	2	<3	-89.3	-11.83

SUPPLY CANAL 0.2 MI SOUTH OF HWY N3003 NR BLOOMFIELD, NM (363625108052510)  
(NAVAJO INDIAN IRRIGATION PROJECT)

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 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)
AUG 20...	0950	248	8.0	23.0	13.0	625	8.7	101	94	28	5.9	12
DATE	TIME	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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
AUG 20...	0.5	1.7	79	40	1.6	0.10	0.020	149	137	<1	20	
DATE	TIME	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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 20...	<1.0	<1	<1	<1	<0.1	<1	<1	<1	2	7	-96.2	-13.29



## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

SAN JUAN RIVER BASIN -- Continued

09357245 GALLEGOS CANYON NR CARSON TRADING POST, NM

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)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	
AUG 20...	1100	825	9.3	23.0	20.0	625	3.7	50	110	32	8.5	
DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	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)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
AUG 20...	200	8	5.2	292	120	23	1.8	7630*	567	2	570*	
DATE	TIME	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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 20...	<1.0	20*	200*	47*	<0.1	1	11*	390*	140*	-46.6	-6.17	

\* Sample observed in field to contain colloidal particles that passed through 0.45 micron filter

SOUTHEAST SEEP TO POND AT GALLEGOS CANYON DRAINAGE NR FARMINGTON, NM (363841108070010)  
(NAVAJO INDIAN IRRIGATION PROJECT)

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)	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)	SODIUM AD- SORP- TION RATIO (00931)	
MAR 18...	1115	E0.20	2040	7.7	10.0	8.6	720	240	29	250	4	
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
MAR 18...	1.3	176	830	100	0.40	0.94	1690	1560	<1	330	<1.0	
DATE		CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	
MAR 18...		<1	1	<1	<0.1	1	24	3	<10	-83.7	-10.62	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

SAN JUAN RIVER BASIN -- Continued

SOUTH SEEP TO POND AT GALLEGOS CANYON DRAINAGE NR FARMINGTON (363841108070110)  
(NAVAJO INDIAN IRRIGATION PROJECT)

DATE	TIME	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)	HARD- NESS TOTAL (MG/L) AS (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)
MAR 18...	1030	1860	7.9	7.5	8.9	480	160	20	300	6	0.90

DATE	ALKA- LINITY LAB (MG/L) AS (00410)	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F (00950)	BROMIDE DIS- SOLVED (MG/L) AS BR (71870)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L) AS AS (01000)	BORON, DIS- SOLVED (UG/L) AS B (01020)	CADMIUM DIS- SOLVED (UG/L) AS CD (01025)
MAR 18...	221	670	84	0.80	0.76	1550	1370	<1	340	<1.0

DATE	CHRO- MIUM, DIS- SOLVED (UG/L) AS CR (01030)	COPPER, DIS- SOLVED (UG/L) AS CU (01040)	LEAD, DIS- SOLVED (UG/L) AS PB (01049)	MERCURY DIS- SOLVED (UG/L) AS HG (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L) AS MO (01060)	SELE- NIUM, DIS- SOLVED (UG/L) AS SE (01145)	VANA- DIUM, DIS- SOLVED (UG/L) AS V (01085)	ZINC, DIS- SOLVED (UG/L) AS ZN (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 18...	<1	<1	<1	<0.1	5	24	2	<10	-85.3	-10.81

MIDDLE POND-GALLEGOS CANYON DRAINAGE, 0.5 MI NORTH OF HIGHWAY 3003, NM (363841108070210)  
(NAVAJO INDIAN IRRIGATION PROJECT)

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 OF HG (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	HARD- NESS TOTAL (MG/L) AS (00900)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA (00930)
MAR 18...	1000	0.20	2420	7.6	8.0	625	6.5	67	750	250	30	280

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)	ALKA- LINITY LAB (MG/L) AS (00410)	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F (00950)	BROMIDE DIS- SOLVED (MG/L) AS BR (71870)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L) AS AS (01000)	BORON, DIS- SOLVED (UG/L) AS B (01020)
MAR 18...	4	1.6	119	910	110	0.40	0.96	1820	1650	<1	320

DATE	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)	LEAD, DIS- SOLVED (UG/L) AS PB (01049)	MERCURY DIS- SOLVED (UG/L) AS HG (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L) AS MO (01060)	SELE- NIUM, DIS- SOLVED (UG/L) AS SE (01145)	VANA- DIUM, DIS- SOLVED (UG/L) AS V (01085)	ZINC, DIS- SOLVED (UG/L) AS ZN (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 18...	<1.0	<1	1	<1	<0.1	4	26	4	<10	-83.8	-10.44

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

SAN JUAN RIVER BASIN -- Continued

09357255 GALLEGOS CANYON NEAR FARMINGTON, NM  
(NAVAJO INDIAN IRRIGATION PROJECT)

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)
AUG 17...	1300	4.6	1310	8.4	29.5	28.5	625	--	--	290	95	14
17...	1330	4.6	1310	8.4	29.5	28.5	625	--	--	300	96	14
SEP 29...	0830	--	615	7.9	--	8.0	625	10.9	112	--	--	--

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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
AUG												
17...	160	4	4.0	137	460	33	0.50	0.35	836	849	1	150
17...	160	4	<0.10	136	470	33	0.50	0.34	902	--	1	150

DATE	TIME	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)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 17...		<1.0	<1	2	<1	<0.1	2	4	4	<3	-79.8	-9.67
17...		<1.0	<1	2	<1	<0.1	2	5	4	<3	-79.3	-9.55
SEP 29...		--	--	--	--	--	--	2	--	--	--	--

SECONDARY CHANNEL OF SAN JUAN RIVER NR KIRTLAND, NM (364345108222210)

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)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
AUG 12...	0900	708	7.8	27.0	19.0	625	6.4	84	250	79	13

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	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)	SOLIDS, RESIDUE AT 180 DEG. C	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	
									DIS-			DIS-
									DIS-			DIS-
									DIS-			DIS-

DATE	TIME	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)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 12...		<1.0	<1	2	<1	<0.1	<1	<1	2	<3	-101.0	-13.68

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

SAN JUAN RIVER BASIN -- Continued

NORTHEAST SEEP TO POND AT OJO AMARILLO DRAINAGE NR FARMINGTON, NM (363941108190410)  
(NAVAJO INDIAN IRRIGATION PROJECT)

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, (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)
MAR 18...	1340	<0.20	2040	8.2	18.5	625	10.9	143	650	200	37	210
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)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)
MAR 18...	4		1.5	133	580	180	0.50	0.78	1510	1290	<1	270
DATE		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)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 18...		<1.0	<1	1	<1	<0.1	<1	9	6	10	-77.9	-9.81

EAST SEEP TO POND AT OJO AMARILLO DRAINAGE NR FARMINGTON, NM (363947108190310)  
(NAVAJO INDIAN IRRIGATION PROJECT)

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, (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)
MAR 18...	1310	<0.10	1870	7.8	10.5	625	8.9	98	570	180	29	200
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)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)
MAR 18...	4		1.8	220	520	150	0.70	2.2	1340	1220	<1	350
DATE		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)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 18...		<1.0	<1	1	<1	<0.1	1	22	5	<3	-82.4	-10.18

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SAN JUAN RIVER BASIN -- Continued

SOUTHWEST POND-OJO AMARILLO CANYON TRIBUTARY DRAINAGE 1.0 MI NORTH OF HIGHWAY 3003, NM  
(363943108190610)  
(NAVAJO INDIAN IRRIGATION PROJECT)

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)	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)	SODIUM AD-SORP-TION RATIO (00931)
MAR 18...	1230	0.07	2120	8.5	9.5	15.5	690	210	40	220	4

DATE	POTAS-SIUM, DIS-SOLVED (MG/L) AS K (00935)	ALKA-LINITY LAB (MG/L) AS CACO3 (90410)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	CHLO-RIDE, DIS-SOLVED (MG/L) AS CL (00940)	FLUO-RIDE, DIS-SOLVED (MG/L) AS F (00950)	BROMIDE DIS-SOLVED (MG/L) AS BR (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L) AS AS (01000)	BORON, DIS-SOLVED (UG/L) AS B (01020)	CADMIUM DIS-SOLVED (UG/L) AS CD (01025)
MAR 18...	3.2	164	660	190	0.40	1.4	1560	1420	<1	250	<1.0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L) AS CR (01030)	COPPER, DIS-SOLVED (UG/L) AS CU (01040)	LEAD, DIS-SOLVED (UG/L) AS PB (01049)	MERCURY DIS-SOLVED (UG/L) AS HG (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L) AS MO (01060)	SELE-NIUM, DIS-SOLVED (UG/L) AS SE (01145)	VANA-DIUM, DIS-SOLVED (UG/L) AS V (01085)	ZINC, DIS-SOLVED (UG/L) AS ZN (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 18...	<1	<1	<1	<0.1	<1	6	6	<10	-77.0	-9.41

09367536 OJO AMARILLO CANYON NR FRUITLAND, NM  
(NAVAJO INDIAN IRRIGATION PROJECT)

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 10...	1530	2.8	1510	8.3	34.5	25.0	625	7.0	105	390	110	28
SEP 29...	1335	--	1560	8.3	--	15.0	625	9.9	121	--	--	--

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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L) AS AS (01000)	BORON, DIS-SOLVED (UG/L) AS B (01020)
AUG 10...	180	4	1.6	172	540	58	0.70	0.41	1110	1020	<1	160

DATE	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)	LEAD, DIS-SOLVED (UG/L) AS PB (01049)	MERCURY DIS-SOLVED (UG/L) AS HG (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L) AS MO (01060)	SELE-NIUM, DIS-SOLVED (UG/L) AS SE (01145)	VANA-DIUM, DIS-SOLVED (UG/L) AS V (01085)	ZINC, DIS-SOLVED (UG/L) AS ZN (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 10...	<1.0	<1	2	<1	<0.1	2	10	3	<3	-89.7	-11.66
SEP 29...	--	--	--	--	--	--	13	--	--	--	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

SAN JUAN RIVER BASIN -- Continued

HOGBACK IRRIGATION SUPPLY CANAL NR WATERFLOW, NM (364545108350610)

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)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	
AUG 13...	1220	66	598	7.3	27.5	20.5	625	7.3	99	220	67	12	
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 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)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)
AUG 13...	38	1	3.0	138	150	12	0.30	0.060	378	365	<1	60	
DATE		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)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	
AUG 13...		<1.0	<1	3	<1	<0.1	<1	<1	1	<3	-98.0	-13.41	

DRAIN 2.5 MI WEST OF THE HOGBACK, 0.25 MILE ABOVE WETLAND, NM (364532108350210)  
(HOGBACK IRRIGATION PROJECT)

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)	
MAR 19...	1130	<0.50	2090	7.4	--	12.0	--	9.0	--	1000	220	110	
AUG 13...	1330	0.25	2560	7.3	28.5	17.5	625	5.1	65	1200	280	130	
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)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)
MAR 19...	130	2	4.8	259	920	19	0.30	0.080	1700	1560	<1	310	
AUG 13...	150	2	7.2	335	1200	22	0.40	0.11	2220	1990	<1	370	
DATE		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)	LEAD, DIS-SOLVED (UG/L AS Pb) (01049)	MERCURY DIS-SOLVED (UG/L AS Hg) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS Mo) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS Se) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS Zn) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	
MAR 19...		<1.0	<1	<1	<1	<0.1	2	12	1	<3	-95.3	-12.96	
AUG 13...		<1.0	<1	1	<1	<0.1	1	14	1	40	-95.9	-13.15	

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SAN JUAN RIVER BASIN -- Continued

EAST DITCH 0.6 MI AB SAN JUAN RIVER NR WATERFLOW, NM (364527108352010)  
(HOGBACK IRRIGATION PROJECT)

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)
MAR 19...	1030	<0.50	2400	7.8	--	12.0	--	10.6	--	1100	240	110
AUG 13...	0830	0.82	2170	7.5	25.0	16.5	625	4.4	56	1000	230	110
13...	0900	0.82	2200	7.5	23.5	16.5	625	4.6	59	960	220	100
SEP 29...	1700	0.51	1810	7.9	31.0	20.5	625	11.5	157	840	200	82

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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)
MAR 19...	240	3	3.7	240	1100	79	0.40	0.15	2150	1920	2	320
AUG 13...	150	2	6.1	306	990	26	0.50	0.10	1860	1700	<1	300
13...	150	2	6.1	303	980	26	0.50	0.080	1850	1660	<1	290
SEP 29...	120	2	4.8	235	780	20	0.50	0.070	1460	1350	<1	250

DATE	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)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 19...	<1.0	<1	<1	<1	<0.1	5	16	2	<10	-95.7	-12.89
AUG 13...	<1.0	<1	<1	<1	<0.1	2	9	2	130	-95.6	-12.99
13...	<1.0	<1	<1	<1	<0.1	2	9	2	130	-96.6	-13.07
SEP 29...	<1.0	<1	<1	<1	<0.1	7	8	2	<3	-96.3	-13.12

EAST DITCH 0.2 MI AB SAN JUAN RIVER NR WATERFLOW, NM (364524108353210)  
(HOGBACK IRRIGATION PROJECT)

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)	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)	SODIUM AD-SORP-TION RATIO (00931)
MAR 19...	1000	<0.50	2390	7.8	12.5	10.9	1100	240	110	200	3

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
MAR 19...	3.6	235	1000	48	0.40	0.12	1910	1740	1	290	<1.0

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 19...	<1	1	<1	<0.1	1	15	1	<10	-94.0	-12.75

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SAN JUAN RIVER BASIN -- Continued

EAST DITCH 300 FT AB SAN JUAN R NR WATERFLOW, NM (364524108354110)  
(HOGBACK IRRIGATION PROJECT)

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)
AUG 13...	1030	0.81	2150	7.7	27.0	18.5	625	7.4	97	950	220	98

DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)
AUG 13...	150	2	5.6	303	940	25	0.50	0.080	1790	1620	<1	290	

DATE	TIME	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)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 13...		<1.0	<1	1	<1	<0.1	1	8	2	110	-96.3	-13.08

WETLAND SOUTH SIDE OF SAN JUAN RIVER 2.0 MI UPSTREAM FROM FRUITLAND BRIDGE, NM (364333108223410)  
(FRUITLAND IRRIGATION PROJECT)

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)
AUG 18...	1215	0.85	3150	8.1	28.5	19.5	625	8.8	119	450	130	31

DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)
AUG 18...	530	11	4.5	304	1200	79	0.80	0.13	2220	2160	3	210	

DATE	TIME	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)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 18...		<1.0	<1	1	<1	<0.1	2	<1	7	10	-94.6	-12.51



## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SAN JUAN RIVER BASIN -- Continued

## MARSH DRAINING FRUITLAND IRRIGATION PROJECT AT HOGBACK NR WATERFLOW, NM (364439108320610)

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)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
AUG 12...	1400	1450	7.5	33.0	21.5	625	4.9	68	650	180	48	72
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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
AUG 12...	1	4.7	302	490	19	0.40	0.080	1070	995	<1	120	
DATE		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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 12...	<1.0	<1	1	<1	<0.1	<1	<1	2	<3	-94.0	-12.65	

## SAN JUAN RIVER POOL NEAR BANK AT HOGBACK DIVERSION DAM NR WATERFLOW, NM (364442108315910)

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)	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)	
AUG 12...	1230	E1730	7.7	30.5	23.5	625	5.6	730	210	51	120	
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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
AUG 12...	2	4.9	244	630	62	0.40	0.19	1280	1220	<1	130	
DATE		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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
AUG 12...	<1.0	<1	3	<1	<0.1	<1	<1	<1	2	13	-96.5	-12.90

## SAN JUAN RIVER BASIN -- Continued

SEEP AT COTTONWOOD SPRING NR NEWCOMB, NM (363209108242510)

POND AT COTTONWOOD SPRING NR NEWCOMB, NM (363209108242410)

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- SATUR- ATION (PER- CENT AS CACO3) (00301)	HARD- NESS TOTAL (MG/L AS CA) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
MAR 18... AUG 17...	1530 1030	2840 8170	9.3 8.7	-- 26.5	11.5 20.0	625 625	10.1 --	115 --	48 --	12 --	4.4 --	640 --
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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
MAR 18...	40		3.9	536	500	270	7.6	0.17	1800	1760	5	480
DATE		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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 18... AUG 17...	<1.0 --		<1 --	10 --	<1 --	<0.1 --	7 --	3 --	11 --	<10 --	-51.9 --	-4.90 --

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

SAN JUAN RIVER BASIN -- Continued

STOCK TANK AT COTTONWOOD SPRING NR NEWCOMB, NM (363209108242411)

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 (PER- CENT SATUR- ATION) (00301)	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)
SEP 29...	1200	1910	8.6	23.5	15.5	625	9.8	121	41	9.5	4.2	430	
DATE		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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	
SEP 29...	29	0.60	373	350	160	6.1	0.27	1180	1180	<1	370		
DATE		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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	
SEP 29...	<1.0	<1	<1	<1	<0.1	11	2	4	25	-53.2	-5.92		

SALT CREEK AT HIGHWAY BRIDGE NR SHIPROCK, NM (364932108433210)

DATE	TIME	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)	
MAR 19...	1245	1780	7.9	12.0	625	10.4	118	910	230	81	120	
DATE		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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)
MAR 19...	2	4.3	192	810	30	0.50	0.16	1530	1390	<1	190	
DATE		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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
MAR 19...	<1.0	<1	<1	<1	<0.1	5	37	<1	<3	-95.6	-13.00	

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

SAN JUAN RIVER BASIN -- Continued

CUDEI IRRIGATION DITCH AT TURNOUT FROM SAN JUAN R NR CUDEI, NM (365021108444710)

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)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
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MAR	15...	1630	14	405	8.0	--	8.0	625	9.7	100	--	160	47
AUG	11...	0900	48	625	8.3	25.5	21.0	625	7.0	95	--	220	65

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY 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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
------	---	---	--	--	--	--	--	---	---	---	--	---

MAR	15...	11	25	0.9	1.9	102	92	--	0.20	0.020	259	--	<1
AUG	11...	13	40	1	2.8	134	160	20	0.40	0.090	406	382	<1

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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
------	---	--	--	---	---	---	--	--	---	---	---	---

MAR	15...	30	<1.0	<1	1	<1	<0.1	<1	1	<1	<3	-96.1	-13.04
AUG	11...	40	<1.0	<1	2	<1	<0.1	<1	<1	<1	4	-98.3	-13.24

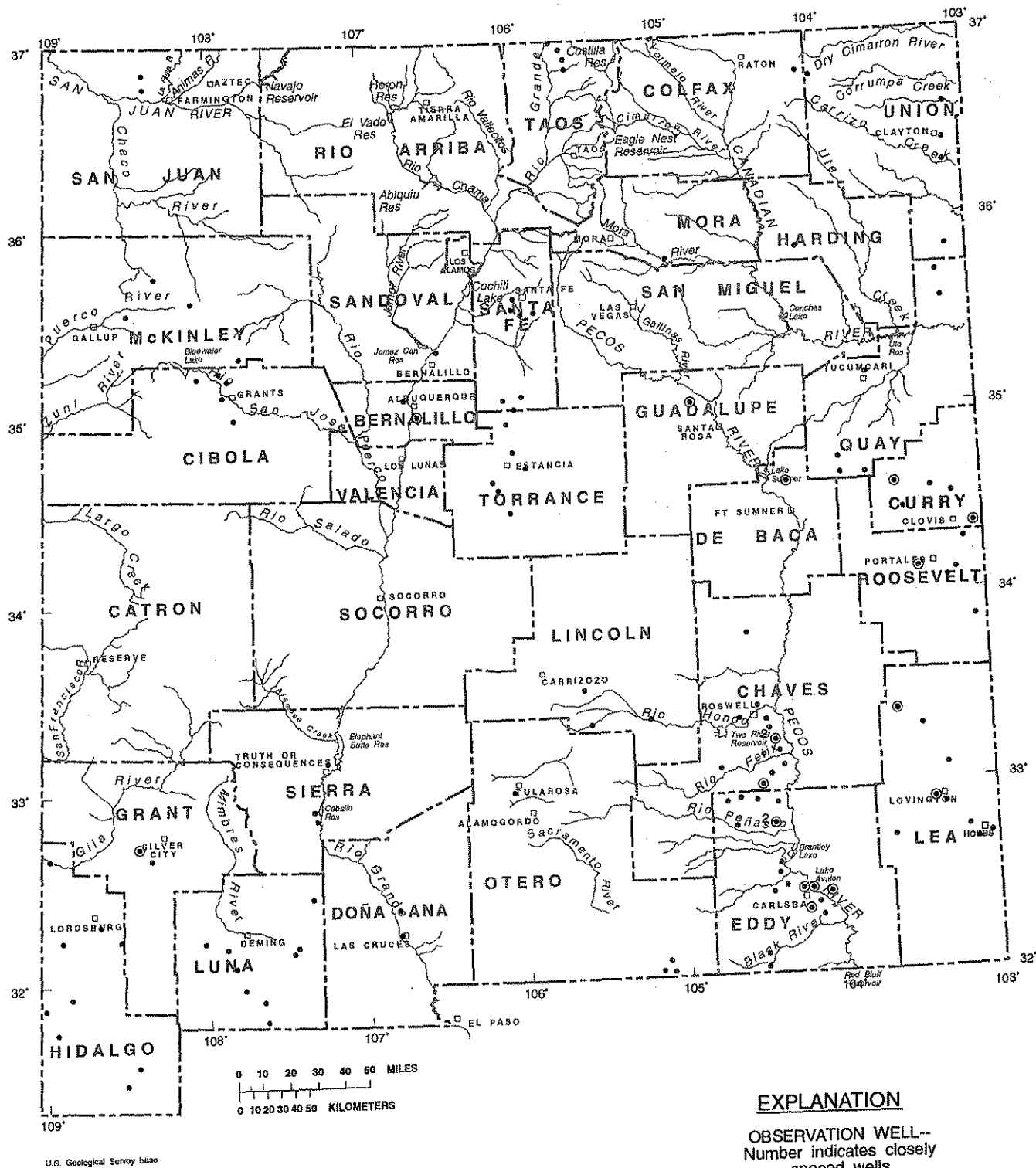


Figure 8.--Location of observation wells.

## 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.--Records good.

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, 42.81 ft below land-surface datum, July 29, 1993.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.12	33.04	33.22	32.43	32.36	32.37	33.89	36.53	39.68	40.93	41.66	38.39
10	35.92	33.00	33.87	32.60	32.52	31.71	35.93	37.39	39.77	41.76	41.86	39.01
15	35.07	33.02	32.72	32.75	32.31	32.17	36.23	38.21	40.01	41.44	41.09	39.19
20	35.59	33.97	32.68	32.48	32.37	32.07	36.79	38.25	40.75	40.97	40.76	40.45
25	35.27	33.33	32.30	32.69	32.31	32.34	37.78	38.70	39.41	42.03	39.71	40.20
ECM	34.23	32.88	31.77	32.00	33.42	32.86	37.97	39.55	39.82	42.11	37.52	40.54

WTR YEAR 1993 HIGHEST 31.59 DEC 29, 1992 LOWEST 42.81 JUL 29, 1993

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, 40.24 ft below land-surface datum, July 27, 1993.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	38.18	NOV 25	36.86	DEC 29	36.89	JAN 28	36.69	FEB 26	36.55	MAR 30	36.95
APR 29	37.38	MAY 27	37.45	JUNE 29	39.16	JULY 27	40.24	AUG 27	40.06	SEP 27	39.19

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 25	260.56
Aug. 2	261.58

## 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.

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	38.20	NOV 25	35.10	DEC 24	33.70	JAN 25	32.50	FEB 25	32.40	MAR 25	36.80
APR 26	39.30	MAY 25	38.80	JUNE 25	42.10	JULY 26	40.80	AUG 25	42.60	SEP 24	40.40

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 26	172.03
Aug. 26	176.90

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 27	13.27
Aug. 25	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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 27	65.70
Aug. 25	67.49

## 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 several days of 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 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	59.35	23.85	12.93	7.82	5.09	28.22	95.80	93.10	126.74	130.11	112.73	109.63
10	50.03	20.84	11.99	7.31	5.65	35.18	105.06	85.95	125.83	145.17	110.32	105.82
15	48.59	19.00	10.51	6.94	6.50	41.01	103.67	103.99	133.16	137.97	114.66	93.29
20	41.23	17.64	9.89	---	6.43	70.69	103.74	103.12	128.79	119.61	121.84	79.73
25	32.14	16.09	9.31	---	10.57	94.62	101.26	105.73	135.42	111.46	121.19	81.88
EOB	27.71	15.15	8.43	5.52	11.52	108.08	105.06	106.30	132.10	126.29	116.14	73.40

WTR YEAR 1993 HIGHEST 4.97 FEB 9, 1993 LOWEST 151.47 JULY 8, 1993

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, 102.79 ft below land-surface datum, Apr. 6, 1969;  
lowest measured, 111.17 below land-surface datum, Sep. 22, 1980.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	104.71	104.61	104.44	104.08	103.69	---	102.85	102.94	103.07	103.30	103.57	103.86
10	104.77	104.58	104.43	104.00	103.59	103.23	102.91	103.00	103.19	103.40	103.63	103.99
15	104.73	104.58	104.38	103.95	103.42	103.17	102.94	102.94	103.18	103.43	103.69	103.97
20	104.75	104.44	104.38	103.92	---	103.11	102.99	102.95	103.22	103.47	103.76	104.05
25	104.70	104.56	104.16	103.83	---	103.08	103.02	103.08	103.27	103.54	103.82	104.06
EOB	104.63	104.47	104.17	103.74	---	103.02	102.84	103.06	103.29	103.57	103.86	104.07

WTR YEAR 1993 HIGHEST 102.81 APR 22, 1993 LOWEST 104.89 OCT 16, 1993

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.

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 11	78.00
Aug. 25	86.78



## 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, 0.05 ft above land-surface datum, Jan. 24, 1992;  
lowest measured, 198.30 ft below land-surface datum, July 18, 1980.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	30.00	NOV 25	10.20	DEC 24	0.75	JAN 25	3.50	FEB 25	3.00	MAR 25	117.11
APR 26	116.61	MAY 25	122.96	JUNE 25	167.47	JULY 26	138.06	AUG 25	143.14	SEP 24	103.73

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 11	282.56
Aug. 25	286.16

330646104173301. (formerly 330640104174501) Local number, 14S.26E.12.431331.

LOCATION.--Lat 33°06'40", long 104°17'45", Hydrologic Unit 13060007. Owner: C. B. Donaghay.

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 11	17.24
Aug. 25	14.86

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, 261.75 ft below land-surface datum, Aug. 18, 1988.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 11	58.10
Aug. 25	257.62

## GROUND-WATER LEVELS

CHAVES COUNTY  
Roswell Basin

325845104295501. Local number, 15S.24E.25.433.

LOCATION.--Lat 32°58'45", long 104°29'55", Hydrologic Unit 13060007. Owner: Pecos Valley Artesian Conservancy District.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 5/8 in., depth 910 ft, casing 0-548 ft.

INSTRUMENTATION.--Periodic steel-tape, pressure measurements, and Digital recorder with 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,528.92 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, for steel-tape measurements, 1.45 ft above land surface.

REMARKS.--Water levels and pressure readings provided by N.M. State Engineer Office and Pecos Valley Artesian Conservancy District.

PERIOD OF RECORD.--Jan. 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.68 ft above land-surface datum, Jan. 20, 1993; lowest measured, 102.30 ft below land-surface datum, July 17, 1971.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	+ 13.62	+ 21.02	+ 24.25	+ 27.48	+ 22.63	2.19	42.40	6.30	0.59	29.99	39.26	91.48
10	-- --	+ 23.44	+ 27.37	-- --	+ 21.13	8.20	-- --	12.54	35.12	-- --	51.40	91.58
15	+ 17.71	+ 23.10	+ 26.33	+ 27.95	-- --	7.49	34.18	18.46	43.76	56.04	-- --	11.04
20	-- --	+ 25.75	-- --	+ 29.68	-- --	-- --	-- --	31.13	41.80	-- --	-- --	-- --
25	+ 19.10	+ 24.71	+ 26.56	+ 27.95	-- --	25.36	16.82	40.75	43.76	-- --	50.83	-- --
BOM	-- --	+ 26.90	+ 28.98	-- --	-- --	-- --	4.59	23.10	-- --	33.89	13.58	-- --

WTR YEAR 1993 HIGHEST +29.68 JAN 20, 1993 LOWEST 56.04 July 15, 1993

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 5	28.78
Aug. 2	29.40

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 5	22.74
Aug. 2	25.96

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 5	81.15
Aug. 2	80.54

## GROUND-WATER LEVELS

CIBOLA COUNTY  
Grants-Bluewater Area

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	97.67	NOV 21	98.09	DEC 17	98.55	JAN 29	99.15	FEB 19	99.49	MAR 26	99.62
APR 23	99.85	MAY 21	99.38	JUNE 24	99.34	JULY 29	99.44	AUG 20	98.54	SEP 24	98.67

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, Sept. 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 5	85.84
Aug. 2	85.66

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 10	7.91
July 23	8.45

## GROUND-WATER LEVELS

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 26	136.90
Aug. 5	137.03

CURRY COUNTY  
Clovis area

341825103031301. Local number, 01N.37E.15.13311.

LOCATION.--Lat 34°18'25", long 103°03'13", Hydrologic Unit 12050002. Owner: Levi Robbins.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 16 in., depth 248 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 4,109 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Edge of recorder shelter, 3.56 ft above land surface datum.

PERIOD OF RECORD.--Feb. 1954, Jan. 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 137.43 ft above land-surface datum, Feb. 17, 1954;

lowest measured, 233.30 ft below land-surface datum, Sep. 13, 1992.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 8	229.30
July	dry

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 7	283.26
July 14	pumping

## GROUND-WATER LEVELS

CURRY COUNTY  
Clovis area

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, 358.70 ft below land-surface datum, Aug. 9, 1989.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 5	358.04
July 14	358.17

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 several days, due to recorder malfunction.  
 PERIOD OF RECORD.--Jan. 1980 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 298.14 ft above land-surface datum, Apr. 23, 1993;  
 lowest measured, 309.92 ft below land-surface datum, Jan. 9, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	299.10	298.76	298.58	298.61	298.35	298.60	298.20	298.43	298.42	298.52	298.32	---
10	299.13	298.86	298.81	298.44	298.61	298.47	298.41	298.70	298.60	298.50	298.43	---
15	299.00	298.79	298.40	298.55	298.79	---	298.55	298.38	298.45	298.43	298.38	298.44
20	298.87	298.37	298.77	298.63	298.49	---	298.74	298.35	298.48	298.37	298.45	298.48
25	298.66	298.99	298.72	298.49	298.74	---	298.80	298.65	298.55	298.52	298.46	298.28
EOB	298.72	298.72	298.80	298.33	298.17	---	298.16	298.40	298.43	298.45	298.46	298.22

WTR YEAR 1993 HIGHEST 298.14 APR 23, 1993 LOWEST 299.84 OCT 24, 1992

343745103201501. (formerly 343743103201501) Local number, 05N.34E.21.44344.  
 LOCATION.--Lat 34°37'45", long 103°20'15", Hydrologic Unit 12050005. Owner: Garrett Farms.  
 AQUIFER.--Ogallala formation.  
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 510 ft.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 4,632 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of 4 ft X 4 ft concrete pump base, 0.50 ft above land-surface datum.  
 PERIOD OF RECORD.--Jan. 1971 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 437.48 ft below land-surface datum, July 14, 1993;  
 lowest measured, 448.41 ft below land-surface datum, Jan. 6, 1978.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 6	437.70
July 14	437.48

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.  
 REMARKS.--"r" indicates well pumped recently.  
 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, 445.17 ft below land-surface datum, Jan. 4, 1992.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 6	445.61
July 14	446.58

## GROUND-WATER LEVELS

DEBACA COUNTY  
Ft. Sumner Area

343657104162501. Local number, 05N.25E.34.232.

LOCATION.--Lat 34°36'57", long 104°16'25", Hydrologic Unit 13060003. Owner: Dunn Land and Cattle Co.

AQUIFER.--Santa Rosa Sandstone.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 16 in., 0-200 ft, 14 in., 194-326 ft, depth 326 ft.

INSTRUMENTATION.--Continuous strip-chart recorder.

DATUM.--Elevation of land-surface datum is 4,392.2 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.80 ft above land-surface datum.

REMARKS.--Lost record, several days, due to recorder malfunction.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 252.14 ft above land-surface datum, Sept. 28, 1971; lowest measured, 274.63 ft below land-surface datum, Jan. 4, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	270.65	270.74		---	270.83	270.55	270.77	---	270.43	270.40	270.10	270.08
10	270.63	270.75		---	270.32	270.43	270.86	---	270.28	270.24	270.02	269.80
15	270.63	270.79		---	270.28	270.82	270.73	270.45	270.18	270.21	270.08	269.77
20	270.74	270.35		---	270.15	270.55	270.47	270.46	270.21	270.16	269.98	269.83
25	270.86	270.82		270.94	270.30	270.71	270.53	270.24	270.27	270.16	270.02	269.82
EOY	270.64	---		270.85	270.43	270.67	270.73	270.31	270.41	270.06	269.90	269.73

WTR YEAR 1993 HIGHEST 269.59 SEP 27, 1993 LOWEST 271.04 OCT 24, 1992

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. Wortheim.

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 4	11.79
July 23	9.67

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 3	19.59
July 23	18.53

## GROUND-WATER LEVELS

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.--Yeso 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 10	231.81
Aug. 26	235.50

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, 57.23 ft below land-surface datum, Jan. 25, 1991;  
 lowest measured, 100.54 ft below land-surface datum, Aug. 27, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 10	53.66
Aug. 26	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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	56.20	NOV 19	54.27	DEC 22	53.07	JAN --	-- --	FEB 22	51.91	MAR 25	52.14
APR 22	53.30	MAY 25	55.67	JUNE 28	55.59	JULY 28	56.39	AUG 29	56.86	SEP 28	56.86

## 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 11	100.98
Aug. 26	pumping

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 29	542.31
Aug. 26	pumping

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 several days of 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 1992 TO SEPTEMBER 1993

## DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	112.06	88.81	78.94	74.18	68.01	72.40	113.62	105.87	127.27	144.79	149.81	154.69
10	106.48	86.81	77.53	72.56	67.72	78.57	119.90	106.27	129.08	148.45	147.06	148.49
15	100.63	85.05	76.08	71.61	66.89	84.69	119.64	118.64	133.68	149.10	156.12	145.11
20	97.43	83.47	75.86	70.70	66.18	94.30	118.83	---	---	145.92	161.77	142.19
25	94.60	82.02	75.94	69.94	65.33	100.41	119.52	---	---	144.03	161.55	144.22
EOM	90.61	80.50	74.81	68.86	66.97	108.83	116.00	130.53	146.36	146.90	159.50	140.46

WTR YEAR 1993 HIGHEST 64.30 FEB 22, 1993 LOWEST 164.79 AUG 27, 1993



## 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.--Records good.

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, 140.59 ft below land-surface datum, Sep. 13, 1983.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	127.83	122.60	118.18	114.80	112.31	110.59	118.07	122.49	125.57	130.99	133.73	136.27
10	127.01	121.81	117.69	114.43	111.75	110.78	119.34	122.46	127.35	131.65	134.24	136.42
15	126.05	121.08	116.81	113.92	111.29	111.30	120.86	123.17	127.99	132.24	134.64	136.36
20	125.27	120.07	116.48	113.51	110.94	113.04	121.94	124.43	129.00	132.72	135.38	136.59
25	124.36	119.82	115.94	113.14	110.82	114.58	122.44	124.66	129.80	132.93	135.97	136.61
EOB	123.43	118.92	115.44	112.61	110.61	116.68	122.55	125.17	130.31	133.35	136.50	136.32

WTR YEAR 1993 HIGHEST 110.45 MAR 1, 1993 LOWEST 136.87 SEP 26, 1993

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.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	122.73	NOV --	-- --	DEC 22	123.25	JAN 19	123.22	FEB 19	123.21	MAR 25	123.11
APR 22	122.64	MAY 25	123.24	JUNE 28	123.16	JULY 21	123.19	AUG 26	-- --	SEP 22	123.36

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 10	36.70
Aug. 30	39.31

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	34.72	NOV 23	33.53	DEC 22	32.79	JAN --	-- --	FEB 22	30.04	MAR 25	29.92
APR --	-- --	MAY 19	30.42	JUNE 28	32.71	JULY 21	33.65	AUG 30	32.83	SEP 22	33.95

## 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.--Lost several days of record, due to recorder malfunction.  
 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 1992 TO SEPTEMBER 1993  
 DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.08	20.78	21.01	21.08	21.98	22.32	22.18	22.52	22.97	23.12	23.11	22.95
10	20.94	20.79	---	21.45	21.87	22.22	22.22	22.78	23.29	23.22	23.02	23.06
15	20.86	20.93	---	21.54	21.88	21.98	22.35	22.82	23.30	22.97	23.12	23.04
20	20.93	20.74	---	21.67	21.90	22.05	22.45	22.70	23.01	22.56	23.27	23.07
25	20.86	21.01	21.06	21.81	22.19	22.07	22.47	22.79	22.91	22.63	23.33	22.99
EOM	20.72	21.01	21.08	21.92	22.28	22.28	22.39	22.87	22.95	23.03	23.15	23.10

WTR YEAR 1993 HIGHEST 20.68 NOV 2, 1992 LOWEST 23.44 AUG 27, 1993

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 10	12.45
Aug. 30	14.18

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 1992 TO SEPTEMBER 1993  
 DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	92.30	92.03	92.31	92.37	93.18	93.56	93.55	93.73	94.13	94.44	94.41	94.22
10	92.23	92.04	92.34	92.65	93.07	93.52	93.60	94.09	94.42	94.63	94.29	94.31
15	92.07	92.20	92.17	92.75	93.09	93.28	93.73	94.10	94.56	94.42	94.39	94.32
20	92.20	92.01	92.39	92.90	93.11	93.37	93.77	94.08	94.33	94.01	94.49	94.30
25	92.10	92.30	92.40	93.04	93.32	93.39	93.72	93.95	94.20	93.91	94.58	94.29
EOM	91.96	92.31	92.39	93.12	93.47	93.63	93.71	93.99	94.34	94.28	94.48	94.38

WTR YEAR 1993 HIGHEST 91.91 NOV 2, 1992 LOWEST 94.69 JUL 8, 1993

## 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 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	157.27	152.97	147.26	144.25	143.29	142.92	148.12	153.53	158.30	163.06	164.52	164.65
10	157.56	151.73	146.64	143.99	142.88	143.00	149.32	154.26	158.98	163.69	165.14	165.26
15	157.84	150.80	145.80	143.73	142.76	143.39	150.63	154.90	159.69	164.21	165.40	166.41
20	156.82	149.48	145.51	143.54	142.72	144.53	151.74	155.78	160.56	164.31	165.44	167.00
25	155.55	148.92	145.11	143.49	142.78	145.73	152.25	156.85	161.54	164.37	165.45	167.45
EOM	154.04	148.03	144.65	143.36	142.84	147.30	153.04	157.93	162.33	164.39	165.58	167.90

WTR YEAR 1993 HIGHEST 142.72 FEB 20, 1993 LOWEST 168.18 SEP 29, 1992

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 10	29.95
Aug. 27	28.12

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.--Lost record, several days, due to recorder malfunction.

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 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	398.62	398.48	398.49	398.65	399.31	399.90	400.25	400.40	400.86	401.10	401.50	400.74
10	398.62	398.40	398.48	398.83	399.18	400.03	400.21	400.51	401.13	401.26	401.30	400.83
15	398.49	398.47	398.39	398.92	399.30	399.90	399.98	400.76	401.22	---	401.73	400.76
20	398.59	398.24	398.57	399.02	399.31	400.01	400.15	400.48	401.03	---	401.77	401.02
25	398.57	398.42	398.71	399.15	399.60	400.20	400.08	400.42	400.92	400.95	401.85	400.82
EOM	398.41	398.48	398.71	399.25	399.60	400.34	400.22	400.43	401.01	401.57	401.17	400.81

WTR YEAR 1993 HIGHEST 398.24 NOV 20, 1992 LOWEST 401.97 AUG 25, 1993

## 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 10	55.43
Aug. 27	53.28

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 11	53.89
Aug. 27	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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 11	37.04
Aug. 27	38.81

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.

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, 386.40 ft below land-surface datum, Jan. 5, 1990.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 27	385.92
July 8	384.89

## 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.--Records good.

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 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	291.99	291.80	291.45	291.41	291.35	291.35	291.14	291.21	291.42	291.77	291.93	291.66
10	292.03	291.76	291.71	291.14	291.13	291.18	291.36	291.55	291.61	291.75	291.94	291.78
15	292.03	291.87	291.37	291.44	290.97	291.15	291.25	291.31	291.60	291.82	291.84	291.73
20	291.96	291.35	291.67	291.46	291.02	291.26	291.35	291.32	291.69	291.76	291.86	291.72
25	291.90	291.80	291.56	291.41	291.20	291.20	291.33	291.55	291.73	291.94	291.78	291.69
EOB	291.80	291.85	291.53	291.32	291.06	291.30	291.11	291.43	291.72	292.02	291.79	291.68

WTR YEAR 1993 HIGHEST 290.83 JAN 8, 1993 LOWEST 292.23 OCT 22, 1992

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 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	346.57	347.61	348.65	349.33	349.86	349.94	349.01	347.92	346.19	345.82	345.55	345.79
10	346.79	347.85	348.89	349.44	349.84	349.86	348.95	347.82	346.07	345.45	345.59	345.93
15	346.92	348.07	348.80	349.51	349.90	349.68	348.80	347.50	345.81	345.83	345.63	345.41
20	347.10	348.11	349.09	349.57	350.03	349.62	348.75	347.20	345.67	345.45	345.68	345.52
25	347.24	348.42	349.14	349.72	349.99	349.46	348.51	346.91	345.53	345.47	345.71	345.67
EOB	347.43	348.55	349.32	349.78	349.94	349.29	348.14	346.48	345.25	345.65	345.81	345.82

WTR YEAR 1993 HIGHEST 345.15 JUL 3, 1993 LOWEST 350.87 FEB 17, 1993

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 27	54.60
Aug. 12	50.72

## 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 11	7.50
July 12	11.86

## 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 13	163.05
July 12	170.70

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 25	88.24
July 13	88.24

## GROUND-WATER LEVELS

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, 53.64 ft below land-surface datum, Jan. 12, 1993.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 12	53.64
July 13	53.24

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 datum, July 29, 1949;  
 lowest measured, 198.50 ft below land-surface datum, Aug. 1, 1978.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 12	177.59
July 13	pumping

## 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, 126.20 ft below land-surface datum, July 9, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 14	125.51
July 14	125.70

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 14	122.09
July 14	122.56

## GROUND-WATER LEVELS

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 11	46.84
July 12	46.79

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.

REMARKS.--"p" indicates pumping water level.

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, 129.10p ft below land-surface datum, Aug. 20, 1962.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 11	86.56
July 12	86.59

## 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.--Lost several days of record, due to recorder malfunction.

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 1992 TO SEPTEMBER 1993

## DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	62.42	62.47	62.48	62.47	62.50	62.52	62.57	62.51	62.32	62.18	62.22	62.24
10	62.43	62.47	62.50	62.48	62.52	62.60	62.47	62.30	62.17	62.22	62.21	62.21
15	62.44	62.47	62.50	62.50	62.50	62.57	62.60	62.45	62.26	62.19	62.23	---
20	62.46	62.46	62.53	62.50	62.51	62.56	62.60	62.42	62.24	62.20	62.23	---
25	62.46	62.50	62.52	62.50	62.53	62.58	62.59	62.39	62.15	62.21	62.23	---
EOY	62.46	62.49	62.50	62.49	62.50	62.58	62.54	62.35	62.18	62.22	62.24	---

WTR YEAR 1993 HIGHEST 62.15 JUN 25, 1993 LOWEST 62.67 APR 19, 1993

331713103285301. (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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 2	31.70
Aug. 19	31.36



## GROUND-WATER LEVELS

LEA COUNTY  
Tatum-Lovington-Hobbs Area

330428103251001. (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, 43.09 ft below land-surface datum, Jan. 6, 1982;  
 lowest measured, 43.80 ft below land-surface datum, Sept. 3, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 2	43.80
Aug. 19	43.25

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, 70.07 ft below land-surface datum, Jan. 14, 1971.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 7	67.18
July 15	67.05

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.--Lost several days of record, due to recorder malfunction.  
 PERIOD OF RECORD.--Aug. 1971 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.79 ft below land-surface datum, Mar. 26, 1993;  
 lowest measured, 67.11 ft below land-surface datum, Aug. 24, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	58.26	58.10	57.98	57.90		57.86	57.82	57.90	58.05	58.29	58.38	58.24
10	58.24	58.07	57.98	---		57.84	57.83	57.98	58.11	58.38	58.36	58.25
15	58.21	58.06	57.95	---		57.82	57.85	57.97	58.15	58.42	58.33	58.22
20	58.19	58.00	57.95	---		57.84	57.89	57.99	58.19	58.46	58.31	58.18
25	58.17	58.04	57.94	---		57.82	57.89	58.02	58.24	58.44	58.30	58.15
EOM	58.11	58.00	57.94	---		57.83	57.87	58.02	58.25	58.42	58.29	58.14

WTR YEAR 1993 HIGHEST 57.79 MAR 26, 1993 LOWEST 58.50 JUL 18, 1993

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 7	65.31
July 15	66.23

## GROUND-WATER LEVELS

LEA COUNTY  
Tatum-Lovington-Hobbs Area

324940103365801. (formerly 324947103371001) Local number, 17S.33E.13.34122.

LOCATION.--Lat 32°49'47", long 103°37'10", Hydrologic Unit 12080003. Owner: Potash Co. of America.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in., depth 252 ft, cased to 252 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,124 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing 1.10 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 146.00 ft below land-surface datum, Jan. 21, 1953;  
lowest measured, 179.10 ft below land-surface datum, Jan. 8, 1992.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 4	177.80
July 15	176.27

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 5	66.32
July 15	68.54

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, 63.92 ft below land-surface datum, July 15, 1993.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 5	62.97
July 15	63.92

## GROUND-WATER LEVELS

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 28	36.56
Aug. 24	36.93

332102105333601. (formerly 332145105333001) Local number, 11S.14E.15.432334.  
 LOCATION.--Lat 33°21'08", long 105°33'30", Hydrologic Unit 13060008. Owner: E. H. Fuchs.  
 AQUIFER.--Alluvium.  
 WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 8 in., depth 90 ft, casing information not available.  
 INSTRUMENTATION.--Periodic steel-tape measurements.  
 DATUM.--Elevation of land-surface datum is 6,200 ft above National Geodetic Vertical Datum of 1929.  
 Measuring point: Top of casing 1.00 ft above land-surface datum.  
 PERIOD OF RECORD.--July 1955 to current year.  
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.16 ft below land-surface datum, Mar. 26, 1958;  
 lowest measured, 63.75 ft below land-surface datum, Aug. 10, 1970.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 28	59.61
Aug. 24	pumping

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 27	46.93
Aug. 24	45.19

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, 199.95 ft below land-surface datum, July 2, 1992.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 25	197.22
July 7	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.--Monthly steel-tape measurements.

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 removed June 30, 1986.

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	106.03	NOV 20	105.24	DEC 21	104.93	JAN 21	104.20	FEB 22	103.90	MAR 19	103.67
APR 21	105.68	MAY 21	106.29	JUNE 22	106.62	JULY 21	107.48	AUG 20	106.78	SEP 21	105.65

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 4	170.19
July 6	180.36

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 4	20.51
July 6	36.22

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 4	83.64
July 6	82.46

## 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 electric-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, 210.07 ft below land-surface datum, Aug. 20, 1993.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT --	-- --	NOV --	-- --	DEC --	-- --	JAN --	-- --	FEB --	-- --	MAR --	-- --
APR 21	199.79	MAY 21	206.59	JUNE 22	207.87	JULY --	-- --	AUG 20	210.07	SEP 21	206.29

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 4	74.18
July 6	75.56

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 4	38.57
July 6	38.76

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 6	11.28
July 1	11.24

## 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	79.21	NOV --	-- --	DEC 2	80.63	JAN 20	80.93	FEB 23	81.06	MAR 25	81.34
APR 27	81.36	MAY 25	82.04	JUNE 23	81.65	JULY 21	81.86	AUG 31	81.84	SEP 22	82.15

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.

REMARKS.--"p" indicates well pumping.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 265.10 ft below land-surface datum, July 10, 1959;  
lowest measured, 318.28 ft below land-surface datum, July 21, 1982.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Mar. 18	289.78p
Aug. 2	291.56p

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.

REMARKS.--"r" indicates well pumped recently, "p" indicates well pumping.

PERIOD OF RECORD.--Oct. 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 131.61 ft below land-surface datum, Oct. 8, 1986;  
lowest measured, 160.64 ft below land-surface datum, Feb. 20, 1985.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Mar. 18	146.19r
Aug. 2	159.97p

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, 255.44 ft below land-surface datum, Aug 2, 1993;  
lowest measured, 350.38 ft below land-surface datum, Oct. 8, 1986.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Mar. 18	257.24
Aug. 2	255.44

## 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, 125.72 ft below land-surface datum, Mar. 18, 1993.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Mar. 18	125.72
Aug. 2	126.11

MORA COUNTY  
Watrous Area

354819104290401. (formerly 354840104590301) Local number, 18N.18E.01.333.

LOCATION.--Lat 35°48'40", long 104°59'03", Hydrologic Unit 11080004. Owner: Sellman Bros.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 14 in., depth 100 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,420 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Hole in southeast corner of pump base, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.21 ft below land-surface datum, July 17, 1984;  
lowest measured, 6.74 ft below land-surface datum, Feb. 14, 1984.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 29	4.41
July 26	3.24

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 9	85.86
July 30	85.63

## GROUND-WATER LEVELS

OTERO COUNTY  
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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 11	88.55
Aug. 27	89.69

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 11	53.83
Aug. 27	64.22

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 11	48.80
Aug. 27	pumping



## GROUND-WATER LEVELS

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.

REMARKS.--"r" indicates well pumped recently.

PERIOD OF RECORD.--Jan. 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 74.59 ft below land-surface datum, Sep. 15, 1993;  
lowest measured, 84.22r ft below land-surface datum, Feb. 18, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Mar. 12	74.66
Sep. 15	74.59

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Mar. 12	49.55
Sep. 15	45.28

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, 119.37 ft below land-surface datum, Sep. 15, 1993.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Mar. 12	119.15
Sep. 15	119.37

## 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 26	45.25
July 22	72.00

## 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, 89.59 ft below land-surface datum, July 12, 1989;  
lowest measured, 114.67 ft below land-surface datum, Feb. 5, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 26	90.14
July 22	89.67

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 26	159.54
July 22	159.32

## 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.

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 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	83.41	83.37	83.28	83.22	83.09	83.01	82.95	82.98	---	83.10	83.14	83.17
10	83.42	83.36	83.32	83.19	83.05	82.99	82.98	83.00	---	83.15	83.14	83.21
15	83.37	83.35	83.24	83.17	83.03	82.97	82.97	---	---	83.18	83.12	---
20	83.41	83.28	83.27	83.16	83.01	82.97	83.01	---	83.16	83.18	83.12	---
25	83.36	83.37	83.23	83.14	83.04	82.97	83.01	---	83.08	83.16	83.13	---
EOB	83.36	83.31	83.24	83.09	83.00	83.01	82.97	---	83.12	83.17	83.20	---

WTR YEAR 1993 HIGHEST 82.93 APR 18, 1993 LOWEST 83.48 OCT 7, 1992

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, July 21, 1954.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 5	50.76
July 14	51.16

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 5	71.44
July 14	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, 110.90 ft below land-surface datum, Sept. 5, 1993.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	107.56	107.03	106.48	106.13	105.70	105.06	105.16	105.55	106.78	108.72	107.71	110.79
10	107.44	107.19	106.45	106.02	105.60	105.02	105.06	105.48	106.75	108.93	108.86	110.80
15	107.54	107.03	106.34	105.91	105.50	104.94	104.93	105.35	107.00	109.47	109.66	---
20	107.17	106.83	106.30	105.86	105.33	104.86	104.74	104.91	106.66	107.79	110.14	---
25	107.02	106.78	106.24	105.81	105.27	104.85	105.41	105.84	107.12	108.40	110.12	---
EOB	107.03	106.63	106.24	105.76	105.18	104.72	104.98	106.16	108.18	107.73	108.74	---

WTR YEAR 1993 HIGHEST 104.59 APR 2, 1993 LOWEST 110.90 SEP 5, 1993

## 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 7	93.69
July 15	93.10

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 1	23.26
July 27	21.84

SAN JUAN COUNTY  
San Juan Basin

364543108292701. Local number, 29N.16W.02.232.  
 LOCATION.--Lat 36°45'34", long 108°29'27", 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, 8.39 ft below land-surface datum, Apr. 29, 1992;  
 lowest measured, 10.02 ft below land-surface datum, Sep. 7, 1993.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Mar. 15	9.33
Sep. 7	10.02

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, 153.08 ft below land-surface datum, Sep. 7, 1993.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Mar. 15	151.72
Sep. 7	153.08

## 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.  
 REMARKS.-- "p" indicates pumping water level.  
 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Mar. 12	139.07
July 27	152.45

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, 124.46 ft below land-surface datum, Aug. 12, 1988.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 8	111.43
Aug. 3	122.55

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, 133.11 ft below land-surface datum, Aug. 3, 1993.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 8	132.43
Aug. 3	133.11

## 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, 262.91 ft below land-surface datum, Aug. 31, 1990 and Aug. 11, 1992.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan.	not measured
Aug. 24	262.87

## 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.--Periodic steel-tape measurements.

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, 129.96 ft below land-surface datum, Sep. 26, 1993.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	129.35	129.39	129.43	129.49	129.55	129.55	129.52	129.63	129.62	129.67	129.70	129.75
10	129.36	129.41	129.46	129.47	129.53	129.53	129.61	129.60	129.63	129.65	129.70	129.78
15	129.35	129.41	129.43	129.54	129.49	129.59	129.57	129.61	129.60	129.65	129.72	129.79
20	129.37	129.35	129.47	129.55	129.50	129.55	129.59	129.61	129.63	129.66	129.74	129.81
25	129.35	129.49	129.47	129.53	129.59	129.57	129.63	129.62	129.63	129.69	129.76	129.81
EOM	129.39	129.44	129.52	129.48	129.49	129.59	129.55	129.59	129.63	129.69	129.75	129.78

WTR YEAR 1993 HIGHEST 129.28 OCT 1, 1992 LOWEST 129.96 SEP 26, 1993

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, 228.62 ft below land-surface datum, Aug. 30, 1991.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 19	226.28
Aug. 24	224.78

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 2.40 ft above 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, 227.80 ft below land-surface datum, Aug. 11, 1992.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 7	226.74
Aug.	not measured

## GROUND-WATER LEVELS

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 5	49.31
July 16	49.98

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 5	28.35
July 16	31.69

## 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 5	22.17
July 16	22.68

## GROUND-WATER LEVELS

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, 66.52 ft below land-surface datum, Jan. 21, 1985;  
lowest measured, 77.33 ft below land-surface datum, Aug. 9, 1978.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 26	70.17
Aug. 5	70.00

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 many days of record, due to recorder malfunction.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 185.15 ft below land-surface datum, Sep. 12, 1993;  
lowest measured, 213.53 ft below land-surface datum, Aug. 10, 1965.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	186.44			---	185.94	---	185.30	185.34	185.54	185.50	185.79	185.44
10	186.38			---	185.42	---	185.46	185.85	185.74	185.74	185.75	185.55
15	186.31			---	185.28	---	185.46	185.73	185.74	185.70	185.62	185.49
20	186.40			---	185.22	185.64	185.67	185.63	185.80	185.74	185.69	185.49
25	---			---	185.42	185.60	185.65	185.81	185.82	185.77	185.48	185.37
EOM	---			185.87	---	185.74	185.41	185.67	185.64	185.91	185.52	185.38

WTR YEAR 1993 HIGHEST 185.15 SEP 12, 1993 LOWEST 186.54 OCT 11, 1992

365410105345601. (formerly 365410105354501) Local number, 02S.73W.05.244.

LOCATION.--Lat 36°54'10", long 105°34'56", Hydrologic Unit 13020101. Owner: Unknown.

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, 0.10 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.52 ft below land-surface datum, Aug. 5, 1993;  
lowest measured, 84.78 ft below land-surface datum, Jan. 27, 1977.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 28	71.19
Aug. 5	67.52



## GROUND-WATER LEVELS

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, 93.91 ft below land-surface datum, Aug. 11, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 28	84.88
Aug. 3	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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 8	121.33
Aug. 3	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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 8	78.66
Aug. 3	pumping

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, 28.25 ft below land-surface datum, July 19, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 8	15.37
Aug. 3	pumping

## GROUND-WATER LEVELS

TORRANCE COUNTY  
Estancia Valley

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.

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 8	51.98
Aug. 3	63.59

345908106024901. (formerly 345900106034301) Local number, 09N.08E.24.332.

LOCATION.--Lat 34°59'08", long 106°02'49", Hydrologic Unit 13050001. Owner: Unknown.

AQUIFER.--Valley Fill

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 16 in., depth unknown.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,205 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Anchor bolt hole, northwest corner, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 72.08 ft below land-surface datum, Jan. 30, 1980;  
lowest measured, 91.08 ft below land-surface datum, Aug. 3, 1993.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Feb. 8	86.92
Aug. 3	91.08

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.

REMARKS.--"s" indicates nearby well pumping during measurement.

PERIOD OF RECORD.--Nov. 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 145.22 ft below land-surface datum, Mar. 17, 1971;  
lowest measured, 158.58s ft below land-surface datum, Aug. 19, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 26	149.70
July 22	154.28

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.--Periodic steel-tape measurements.

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.

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, 96.68 ft below land-surface datum, Sep. 21, 1993.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	95.97	NOV --	-- --	DEC --	-- --	JAN 26	96.19	FEB --	-- --	MAR --	-- --
APR 13	96.24	MAY --	-- --	JUNE --	-- --	JULY 22	96.49	AUG --	-- --	SEP 21	96.68

DATE	WATER LEVEL
Jan. 26	96.19
Sep. 21	96.68

## GROUND-WATER LEVELS

UNION COUNTY  
Clayton Area

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 26	94.87
July 22	95.04

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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 26	97.44
July 22	91.59

## 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 1992 TO SEPTEMBER 1993

DATE	WATER LEVEL
Jan. 25	33.89
July 23	29.78

## QUALITY OF GROUND WATER

EXPLANATION OF GEOLOGIC UNIT (AQUIFER) CODES (LISTED FROM YOUNGEST TO OLDEST AGE) U-UPPER, M-MIDDLE, L-LOWER:  
 110 ALVM-Cenozoic, Quaternary, Alluvium; 110 AVMB-Cenozoic, Quaternary, Alluvium, Bolson Deposits and other  
 Surface Deposits; 110 BLSN-Cenozoic, Quaternary, Bolson Fill; 112 SNTF-Cenozoic, Quaternary, Pleistocene, Santa  
 Fe Group; 210 MNCS-Mesozoic, Cretaceous, Mancos Shale; 325 MDER-Paleozoic, Middle Pennsylvanian, Des Moinesian,  
 Madera Limestone; 325 MDERU-Paleozoic, Middle Pennsylvanian; Des Moinesian, Madera Limestone, Upper Arkosic  
 Limestone Member; 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- IFIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
08N.02E.01.133	JARAMILLO	345659106413101	001	GW	04-14-93	1310	--	3.10	180.00	4899
			001	GW	09-07-93	1917	--	--	180.00	4899
08N.02E.01.3223		345711106411001	001	GW	08-05-93	1010	110ALVM	4.08	16.72	4900
			001	GW	08-05-93	1015	110ALVM	4.08	16.72	4900
08N.02E.02.221	CHAVEZ	345723106414401	001	GW	04-14-93	1606	--	--	72.00	4899
08N.02E.03.221	JARVIES	345724106424601	001	GW	04-27-93	1448	--	7.82	180.00	4898
08N.07E.29.324A	DOW	345319106135101	001	GW	10-16-92	1010	325MDER	20.89	100.00	6790
			001	GW	11-13-92	0924	325MDER	20.37	100.00	6790
			001	GW	01-05-93	1008	325MDER	--	100.00	6790
			001	GW	01-21-93	0946	325MDER	19.56	100.00	6790
			001	GW	02-18-93	1103	325MDER	--	100.00	6790
			001	GW	03-18-93	1150	325MDER	19.50	100.00	6790
			001	GW	04-15-93	1012	325MDER	--	100.00	6790
			001	GW	05-11-93	1220	325MDER	19.61	100.00	6790
			001	GW	06-17-93	0920	325MDER	--	100.00	6790
09N.02E.01.4122		350212106404001	001	GW	08-16-93	1420	110ALVM	8.67	17.50	4935
			001	GW	08-16-93	1425	110ALVM	8.67	17.50	4935
09N.02E.02.331P	RUSSELL	350154106423101	001	GW	05-27-93	1752	--	9.98	157.00	4935
09N.02E.10.443		350054106424401	001	GW	08-10-93	1010	110ALVM	6.62	18.62	4925
			001	GW	08-10-93	1015	110ALVM	6.62	18.62	4925
09N.02E.13.431	PHELAN	350005106405401	001	GW	05-21-93	1812	112SNTF	--	50.00	--
			001	GW	09-08-93	1730	112SNTF	--	50.00	--
09N.02E.14.1344		350029106422101	001	GW	08-17-93	1420	110ALVM	7.29	12.50	4925
			001	GW	08-17-93	1425	110ALVM	7.29	12.50	4925
09N.02E.15.214	BENEVIDEZ	350043106425501	001	GW	05-25-93	1220	--	13.74	--	4928
09N.02E.22.412P	CLIBON	345935106425101	001	GW	05-04-93	1130	--	6.50	48.00	4915
09N.02E.23.233	MORA	345939106415901	001	GW	04-29-93	1318	110AVMB	--	140.00	4915
			001	GW	09-08-93	1835	110AVMB	--	140.00	4915
09N.02E.24.241	BOWLIN	345943106404001	001	GW	05-21-93	1416	--	5.43	--	4918
09N.02E.24.3311		345919106412801	001	GW	08-13-93	1020	110ALVM	--	18.50	4905
			001	GW	08-13-93	1025	110ALVM	--	18.50	4905
09N.02E.26.412P	STONE	345841106414901	001	GW	05-07-93	1610	--	5.54	135.00	4908
09N.02E.35.233	SIMMONS	345758106420201	001	GW	04-30-93	1520	--	6.78	200.00	4905
			001	GW	09-07-93	2004	--	--	200.00	4905
09N.02E.36.223P	STANDFIER	345808106404201	001	GW	05-05-93	1608	--	3.87	230.00	4907
09N.03E.07.114A		350138106401102	001	GW	11-10-92	1230	110AVMB	--	22.00	4930
09N.03E.07.221	FURROWS B	350142106393401	001	GW	04-26-93	1811	--	11.71	--	4929
09N.03E.08.213	UPCO PET	350135106374801	001	GW	04-26-93	1420	--	81.77	320.00	4975
09N.03E.16.242		350037106392701	001	GW	05-24-93	1650	112SNTF	60.49	103.00	--
09N.03E.19.144	DUNCAN	345939106400201	001	GW	05-24-93	1325	--	29.83	--	4939
09N.03E.19.243		345940106393401	001	GW	05-07-93	1130	--	72.22	125.00	4976
09N.03E.19.243A	GUZMAN NO	345935106393701	001	GW	09-02-93	1440	--	--	--	4980
09N.03E.29.111	AUGE	345909106392001	001	GW	04-30-93	1815	--	--	260.00	5035
			001	GW	09-01-93	1340	--	--	260.00	5035
09N.03E.31.112	SCHULMEIS	345814106401501	001	GW	05-05-93	1655	--	4.66	--	4910
09N.03E.31.223	EIDSON ST	345812106393201	001	GW	05-05-93	1235	--	--	255.00	4980
09N.05E.12.241	STANTON	350119106210901	001	GW	10-21-92	0837	--	31.86	--	7060
			001	GW	11-18-92	0822	--	31.87	--	7060
			001	GW	12-23-92	0900	--	31.61	--	7060
			001	GW	01-25-93	1040	--	30.12	--	7060
			001	GW	02-18-93	0930	--	--	--	7060
			001	GW	03-17-93	1123	--	30.00	--	7060
			001	GW	04-16-93	0848	--	30.50	--	7060
			001	GW	05-18-93	0900	--	--	--	7060
			001	GW	06-22-93	0825	--	31.46	--	7060
09N.06E.19.413	CLAYTON	345918106202001	001	GW	10-19-92	1300	325MDER	428.00	680.00	7660
			001	GW	11-13-92	1430	325MDER	409.00	680.00	7660
			001	GW	01-05-93	1320	325MDER	--	680.00	7660
			001	GW	01-25-93	1117	325MDER	--	680.00	7660
			001	GW	02-19-93	1319	325MDER	--	680.00	7660

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	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)	BARO- METRIC PRES- SURE OF (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
08N.02E.01.133	J 04-14-93	16	5.0	354	7.9	19.0	17.0	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
08N.02E.01.3223	08-05-93	--	0.7	400	8.0	--	16.0	641	0.1	130
	08-05-93	--	0.7	400	8.0	--	16.0	641	0.1	--
08N.02E.02.221	C 04-14-93	6	10	672	7.8	17.5	16.0	--	--	--
08N.02E.03.221	J 04-27-93	11	3.0	438	8.0	31.5	17.0	--	--	--
08N.07E.29.324A	DO 10-16-92	12	3.0	700	7.3	9.5	13.0	--	--	--
	11-13-92	10	2.5	720	7.3	7.0	12.0	--	--	--
	01-05-93	13	3.0	720	7.4	4.5	10.5	--	--	--
	01-21-93	11	3.0	730	7.4	3.5	10.0	--	--	--
	02-18-93	5	3.0	720	7.4	10.5	11.5	--	--	--
	03-18-93	12	3.0	753	7.3	14.0	11.5	--	--	--
	04-15-93	12	3.0	740	7.4	8.0	11.5	--	--	--
	05-11-93	10	3.0	745	7.3	23.0	12.0	--	--	--
	06-17-93	12	4.0	700	7.3	21.0	13.0	--	--	--
09N.02E.01.4122	08-16-93	--	0.8	2400	7.2	--	17.5	639	0.1	590
	08-16-93	--	0.8	2400	7.2	--	17.5	639	0.1	--
09N.02E.02.331P	R 05-27-93	7	40	278	8.3	30.0	17.0	--	--	--
09N.02E.10.443	08-10-93	--	--	1200	7.5	27.0	17.5	642	0.1	370
	08-10-93	--	--	1200	7.5	27.0	17.5	642	0.1	--
09N.02E.13.431	PHE 05-21-93	8	6.0	446	7.8	23.0	15.0	--	--	130
	09-08-93	--	--	--	--	--	--	--	--	--
09N.02E.14.1344	08-17-93	--	0.4	982	7.3	31.0	23.5	638	0.9	330
	08-17-93	--	0.4	982	7.3	31.0	23.5	638	0.9	--
09N.02E.15.214	B 05-25-93	--	7.0	495	7.9	27.0	18.5	--	--	--
09N.02E.22.412P	C 05-04-93	12	1.0	496	7.9	30.5	18.0	--	--	--
09N.02E.23.233	MOR 04-29-93	7	10	494	8.0	32.5	16.0	--	--	--
	09-08-93	--	--	--	--	--	--	--	--	--
09N.02E.24.241	B 05-21-93	--	15	3200	8.1	34.0	16.5	--	--	--
09N.02E.24.3311	08-13-93	--	0.8	800	7.3	--	18.0	640	0.1	370
	08-13-93	--	0.8	800	7.3	--	18.0	640	0.1	--
09N.02E.26.412P	S 05-07-93	21	6.0	545	7.9	24.0	15.5	--	--	--
09N.02E.35.233	S 04-30-93	9	6.0	330	8.0	28.0	17.0	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
09N.02E.36.223P	S 05-05-93	8	5.0	349	7.9	22.0	15.5	--	--	--
09N.03E.07.114A	11-10-92	--	--	445	8.4	--	15.5	641	--	--
09N.03E.07.221	F 04-26-93	6	2.0	406	8.0	29.0	19.0	--	--	--
09N.03E.08.213	U 04-26-93	20	5.0	351	7.9	32.0	23.5	--	--	--
09N.03E.18.242	05-24-93	9	1.2	592	7.6	24.0	20.5	--	--	230
09N.03E.19.144	D 05-24-93	--	12	829	7.6	33.0	19.0	--	--	--
09N.03E.19.243	05-07-93	23	60	992	7.7	28.0	20.5	--	--	--
09N.03E.19.243A	G 09-02-93	--	1.0	850	7.5	--	24.5	--	--	--
09N.03E.29.111	A 04-30-93	5	5.0	356	7.9	30.0	23.0	--	--	--
	09-01-93	--	--	355	7.7	--	23.0	--	--	--
09N.03E.31.112	S 05-05-93	8	5.0	1800	7.5	22.0	15.5	--	--	--
09N.03E.31.223	E 05-05-93	31	3.0	534	9.0	27.5	25.0	--	--	--
09N.05E.12.241	STA 10-21-92	11	5.6	1110	7.1	10.5	11.0	--	--	--
	11-18-92	11	10	1120	7.1	2.5	11.0	--	--	--
	12-23-92	15	6.0	1130	7.1	-5.0	11.0	--	--	--
	01-25-93	12	5.5	1120	7.1	3.0	11.5	--	--	--
	02-18-93	11	6.0	1140	7.1	5.5	11.5	--	--	--
	03-17-93	8	6.0	1140	7.1	14.5	11.5	--	--	--
	04-16-93	9	8.0	1190	7.2	12.0	11.0	--	--	--
	05-18-93	10	4.5	1190	7.3	12.5	11.5	--	--	--
	06-22-93	5	9.0	1200	7.2	20.5	12.0	--	--	--
09N.06E.19.413	CLA 10-19-92	5	8.0	740	8.1	17.0	14.5	--	--	--
	11-13-92	8	12	730	8.2	6.5	15.0	--	--	--
	01-05-93	8	12	725	8.1	4.0	14.5	--	--	--
	01-25-93	6	12	740	8.2	2.0	15.5	--	--	--
	02-19-93	5	10	715	8.3	7.0	14.0	--	--	--

## QUALITY OF GROUND WATER

WATER-QUALITY DATA. WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

LOCAL IDENTIFIER	DATE	HARDNESS 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)
08N.02E.01.133	J 04-14-93	--	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
08N.02E.01.3223	08-05-93	4	41	5.5	32	1	3.5	148	0	121
	08-05-93	--	--	--	--	--	--	148	0	121
08N.02E.02.221	C 04-14-93	--	--	--	--	--	--	--	--	--
08N.02E.03.221	J 04-27-93	--	--	--	--	--	--	--	--	--
08N.07E.29.324A	DO 10-16-92	--	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--	--
	03-18-93	--	--	--	--	--	--	--	--	--
	04-15-93	--	--	--	--	--	--	--	--	--
	05-11-93	--	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--	--
09N.02E.01.4122	08-16-93	110	180	35	300	5	3.0	588	0	482
	08-16-93	--	--	--	--	--	--	588	0	482
09N.02E.02.331P	R 05-27-93	--	--	--	--	--	--	93	0	76
09N.02E.10.443	08-10-93	5	120	17	110	2	7.7	445	0	364
	08-10-93	--	--	--	--	--	--	445	0	364
09N.02E.13.431	PHE 05-21-93	--	43	6.4	38	1	4.4	--	--	--
	09-08-93	--	--	--	--	--	--	--	--	--
09N.02E.14.1344	08-17-93	36	110	13	76	2	8.8	356	0	292
	08-17-93	--	--	--	--	--	--	356	0	292
09N.02E.15.214	B 05-25-93	--	--	--	--	--	--	--	--	--
09N.02E.22.412P	C 05-04-93	--	--	--	--	--	--	--	--	--
09N.02E.23.233	MOR 04-29-93	--	--	--	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--	--
09N.02E.24.241	B 05-21-93	--	--	--	--	--	--	--	--	--
09N.02E.24.3311	08-13-93	61	120	17	47	1	10	376	0	308
	08-13-93	--	--	--	--	--	--	376	0	308
09N.02E.26.412P	S 05-07-93	--	--	--	--	--	--	--	--	--
09N.02E.35.233	S 04-30-93	--	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
09N.02E.36.223P	S 05-05-93	--	--	--	--	--	--	--	--	--
09N.03E.07.114A	11-10-92	--	--	--	--	--	--	--	--	136
09N.03E.07.221	F 04-26-93	--	--	--	--	--	--	--	--	--
09N.03E.08.213	U 04-26-93	--	--	--	--	--	--	--	--	--
09N.03E.18.242	05-24-93	--	73	11	22	0.6	7.4	--	--	--
09N.03E.19.144	D 05-24-93	--	--	--	--	--	--	--	--	--
09N.03E.19.243	05-07-93	--	--	--	--	--	--	--	--	--
09N.03E.19.243A	G 09-02-93	--	--	--	--	--	--	--	--	--
09N.03E.29.111	A 04-30-93	--	--	--	--	--	--	--	--	--
	09-01-93	--	--	--	--	--	--	--	--	--
09N.03E.31.112	S 05-05-93	--	--	--	--	--	--	--	--	--
09N.03E.31.223	E 05-05-93	--	--	--	--	--	--	103	14	108
09N.05E.12.241	STA 10-21-92	--	--	--	--	--	--	--	--	--
	11-18-92	--	--	--	--	--	--	--	--	--
	12-23-92	--	--	--	--	--	--	--	--	--
	01-25-93	--	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--	--
	03-17-93	--	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--	--
	05-18-93	--	--	--	--	--	--	--	--	--
	06-22-93	--	--	--	--	--	--	--	--	--
09N.06E.19.413	CLA 10-19-92	--	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--	--
	01-25-93	--	--	--	--	--	--	--	--	--
	02-19-93	--	--	--	--	--	--	--	--	--

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	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)	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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)
08N.02E.01.133	J 04-14-93	--	--	11	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
08N.02E.01.3223	08-05-93	120	65	<0.10	0.40	0.030	25	274	--	--
	08-05-93	--	--	--	--	--	--	--	--	--
08N.02E.02.221	C 04-14-93	--	--	28	--	--	--	--	--	--
08N.02E.03.221	J 04-27-93	--	--	19	--	--	--	--	--	--
08N.07E.29.324A	DO 10-16-92	--	--	15	--	--	--	--	--	--
	11-13-92	--	--	16	--	--	--	--	--	--
	01-05-93	--	--	18	--	--	--	--	--	1.07
	01-21-93	--	--	23	--	--	--	--	--	--
	02-18-93	--	--	24	--	--	--	--	--	--
	03-18-93	--	--	22	--	--	--	--	--	--
	04-15-93	--	--	21	--	--	--	--	--	--
	05-11-93	--	--	16	--	--	--	--	--	--
	06-17-93	--	--	17	--	--	--	--	--	--
09N.02E.01.4122	08-16-93	475	610	140	1.2	0.47	42	1650	1600	--
	08-16-93	--	--	--	--	--	--	--	--	--
09N.02E.02.331P	R 05-27-93	--	--	29	--	--	--	--	--	--
09N.02E.10.443	08-10-93	362	240	31	0.70	0.16	42	820	789	--
	08-10-93	--	--	--	--	--	--	--	--	--
09N.02E.13.431	PHE 05-21-93	134	68	18	0.50	--	32	--	293	--
	09-08-93	--	--	--	--	--	--	--	--	--
09N.02E.14.1344	08-17-93	288	180	30	0.80	0.14	37	658	636	--
	08-17-93	--	--	--	--	--	--	--	--	--
09N.02E.15.214	B 05-25-93	--	--	18	--	--	--	--	--	--
09N.02E.22.412P	C 05-04-93	--	--	13	--	--	--	--	--	--
09N.02E.23.233	MOR 04-29-93	--	--	24	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--	--
09N.02E.24.241	B 05-21-93	--	--	8.9	--	--	--	--	--	--
09N.02E.24.3311	08-13-93	315	130	28	0.70	0.11	31	602	579	1.65
	08-13-93	--	--	--	--	--	--	--	--	--
09N.02E.26.412P	S 05-07-93	--	--	19	--	--	--	--	--	--
09N.02E.35.233	S 04-30-93	--	--	10	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
09N.02E.36.223P	S 05-05-93	--	--	13	--	--	--	--	--	--
09N.03E.07.114A	11-10-92	--	--	--	--	--	--	--	--	--
09N.03E.07.221	F 04-26-93	--	--	37	--	--	--	--	--	--
09N.03E.08.213	U 04-26-93	--	--	24	--	--	--	--	--	--
09N.03E.18.242	05-24-93	161	79	43	0.30	--	66	--	399	--
09N.03E.19.144	D 05-24-93	--	--	50	--	--	--	--	--	--
09N.03E.19.243	05-07-93	--	--	75	--	--	--	--	--	--
09N.03E.19.243A	G 09-02-93	--	--	18	--	--	--	--	--	--
09N.03E.29.111	A 04-30-93	--	--	25	--	--	--	--	--	--
	09-01-93	--	--	--	--	--	--	--	--	--
09N.03E.31.112	S 05-05-93	--	--	160	--	--	--	--	--	--
09N.03E.31.223	E 05-05-93	--	--	35	--	--	--	--	--	--
09N.05E.12.241	STA 10-21-92	--	--	140	--	--	--	--	--	--
	11-18-92	--	--	150	--	--	--	--	--	--
	12-23-92	--	--	160	--	--	--	--	--	3.78
	01-25-93	--	--	170	--	--	--	--	--	7.18
	02-18-93	--	--	180	--	--	--	--	--	--
	03-17-93	--	--	160	--	--	--	--	--	--
	04-16-93	--	--	160	--	--	--	--	--	--
	05-18-93	--	--	150	--	--	--	--	--	--
	06-22-93	--	--	140	--	--	--	--	--	--
09N.06E.19.413	CLA 10-19-92	--	--	30	--	--	--	--	--	--
	11-13-92	--	--	31	--	--	--	--	--	--
	01-05-93	--	--	30	--	--	--	--	--	0.032
	01-25-93	--	--	36	--	--	--	--	--	--
	02-19-93	--	--	33	--	--	--	--	--	--

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)
08N.02E.01.133	J 04-14-93	--	<0.010	--	<0.050	--	0.120	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
08N.02E.01.3223	08-05-93	--	<0.010	--	<0.050	--	0.130	<0.20	--	--
	08-05-93	--	--	--	--	--	--	--	--	--
08N.02E.02.221	C 04-14-93	--	0.010	--	<0.050	--	<0.010	--	--	--
08N.02E.03.221	J 04-27-93	--	<0.010	--	<0.050	--	<0.010	--	--	--
08N.07E.29.324A	DO 10-16-92	<0.010	--	0.700	--	0.030	--	--	<0.20	--
	11-13-92	<0.010	--	0.760	--	<0.010	--	--	<0.20	--
	01-05-93	--	0.030	--	1.10	--	<0.010	--	--	--
	01-21-93	--	<0.010	--	1.30	--	<0.010	--	--	--
	02-18-93	--	<0.010	--	1.30	--	<0.010	--	--	--
	03-18-93	--	<0.010	--	1.20	--	0.010	--	--	--
	04-15-93	--	<0.010	--	1.10	--	<0.010	--	--	--
	05-11-93	--	<0.010	--	0.750	--	0.010	--	--	--
	06-17-93	--	<0.010	--	0.510	--	0.020	<0.20	--	--
09N.02E.01.4122	08-16-93	--	<0.010	--	<0.050	--	0.180	0.50	--	0.32
	08-16-93	--	--	--	--	--	--	--	--	--
09N.02E.02.331P	R 05-27-93	--	<0.010	--	<0.050	--	0.030	--	--	--
09N.02E.10.443	08-10-93	--	<0.010	--	<0.050	--	0.130	0.30	--	0.17
	08-10-93	--	--	--	--	--	--	--	--	--
09N.02E.13.431	PHE 05-21-93	--	<0.010	--	<0.050	--	0.070	--	--	--
	09-08-93	--	--	--	--	--	--	--	--	--
09N.02E.14.1344	08-17-93	--	<0.010	--	0.980	--	0.020	<0.20	--	--
	08-17-93	--	--	--	--	--	--	--	--	--
09N.02E.15.214	B 05-25-93	--	<0.010	--	<0.050	--	0.030	--	--	--
09N.02E.22.412P	C 05-04-93	--	<0.010	--	0.250	--	<0.010	--	--	--
09N.02E.23.233	MOR 04-29-93	--	--	--	--	--	--	--	--	--
	09-08-93	--	<0.010	--	<0.050	--	0.050	--	--	--
09N.02E.24.241	B 05-21-93	--	<0.010	--	<0.050	--	0.030	--	--	--
09N.02E.24.3311	08-13-93	--	0.050	--	1.70	--	0.020	<0.20	--	--
	08-13-93	--	--	--	--	--	--	--	--	--
09N.02E.26.412P	S 05-07-93	--	<0.010	--	<0.050	--	0.080	--	--	--
09N.02E.35.233	S 04-30-93	--	--	--	--	--	--	--	--	--
	09-07-93	--	<0.010	--	<0.050	--	0.040	--	--	--
09N.02E.36.223P	S 05-05-93	--	<0.010	--	0.110	--	<0.010	--	--	--
09N.03E.07.114A	11-10-92	--	--	--	--	--	--	--	--	--
09N.03E.07.221	F 04-26-93	--	<0.010	--	0.430	--	<0.010	--	--	--
09N.03E.08.213	U 04-26-93	--	<0.010	--	0.150	--	<0.010	--	--	--
09N.03E.18.242	05-24-93	--	<0.010	--	0.130	--	0.020	--	--	--
09N.03E.19.144	D 05-24-93	--	<0.010	--	4.80	--	0.010	--	--	--
09N.03E.19.243	05-07-93	--	<0.010	--	42.0	--	<0.010	--	--	--
09N.03E.19.243A	G 09-02-93	--	<0.010	--	<0.050	--	0.050	--	--	--
09N.03E.29.111	A 04-30-93	--	--	--	--	--	--	--	--	--
	09-01-93	--	<0.010	--	0.099	--	0.020	--	--	--
09N.03E.31.112	S 05-05-93	--	<0.010	--	0.570	--	<0.010	--	--	--
09N.03E.31.223	E 05-05-93	--	<0.010	--	<0.050	--	0.020	--	--	--
09N.05E.12.241	STA 10-21-92	<0.010	--	3.50	--	0.030	--	--	<0.20	--
	11-18-92	0.040	--	3.40	--	0.030	--	--	<0.20	--
	12-23-92	--	0.020	--	3.80	--	<0.010	--	--	--
	01-25-93	--	0.020	--	7.20	--	<0.010	--	--	--
	02-18-93	--	<0.010	--	5.40	--	<0.010	--	--	--
	03-17-93	--	<0.010	--	5.50	--	0.010	--	--	--
	04-16-93	--	<0.010	--	3.90	--	<0.010	--	--	--
	05-18-93	--	<0.010	--	3.20	--	0.010	--	--	--
	06-22-93	--	<0.010	--	3.40	--	0.020	<0.20	--	--
09N.06E.19.413	CLA 10-19-92	<0.010	--	<0.050	--	0.060	--	--	<0.20	--
	11-13-92	<0.010	--	<0.050	--	0.050	--	--	<0.20	--
	01-05-93	--	0.020	--	0.052	--	0.040	--	--	--
	01-25-93	--	0.020	--	<0.050	--	<0.010	--	--	--
	02-19-93	--	0.010	--	<0.050	--	0.060	--	--	--



QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	PHENOLS TOTAL (UG/L) (32730)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
08N.02E.01.133	J 04-14-93	--	--	--	0.030	--	--	--	0.13	--
	09-07-93	--	--	--	--	--	--	--	--	--
08N.02E.01.3223	08-05-93	0.400	--	--	0.390	--	2.5	<1	0.06	--
	08-05-93	--	--	--	--	--	--	--	--	4
08N.02E.02.221	C 04-14-93	--	--	--	0.010	--	--	--	0.01	--
08N.02E.03.221	J 04-27-93	--	--	--	<0.010	--	--	--	0.01	--
08N.07E.29.324A	DO 10-16-92	--	0.030	0.030	--	2.2	--	--	0.03	--
	11-13-92	--	0.030	0.040	--	2.4	--	--	0.02	--
	01-05-93	--	--	--	0.030	--	--	--	--	--
	01-21-93	--	--	--	0.030	--	--	--	--	--
	02-18-93	--	--	--	0.030	--	--	--	--	--
	03-18-93	--	--	--	0.030	--	--	--	0.03	--
	04-15-93	--	--	--	0.030	--	--	--	--	--
	05-11-93	--	--	--	0.030	--	--	--	--	--
	06-17-93	--	--	--	0.030	--	--	--	--	--
09N.02E.01.4122	08-16-93	0.110	--	--	0.120	--	5.8	6	0.11	--
	08-16-93	--	--	--	--	--	--	--	--	4
09N.02E.02.331P	R 05-27-93	--	--	--	<0.010	--	--	--	--	--
09N.02E.10.443	08-10-93	<0.010	--	--	0.020	--	3.8	<1	0.03	--
	08-10-93	--	--	--	--	--	--	--	--	1
09N.02E.13.431	PHE 05-21-93	--	--	--	0.450	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--	--
09N.02E.14.1344	08-17-93	0.160	--	--	0.160	--	2.3	1	0.02	--
	08-17-93	--	--	--	--	--	--	--	--	4
09N.02E.15.214	B 05-25-93	--	--	--	<0.010	--	--	--	--	--
09N.02E.22.412P	C 05-04-93	--	--	--	<0.010	--	--	--	--	--
09N.02E.23.233	MOR 04-29-93	--	--	--	--	--	--	--	0.01	--
	09-08-93	--	--	--	0.020	--	--	--	--	--
09N.02E.24.241	B 05-21-93	--	--	--	<0.010	--	--	--	--	--
09N.02E.24.3311	08-13-93	0.040	--	--	0.040	--	2.4	<1	<0.02	--
	08-13-93	--	--	--	--	--	--	--	--	4
09N.02E.26.412P	S 05-07-93	--	--	--	0.020	--	--	--	--	--
09N.02E.35.233	S 04-30-93	--	--	--	--	--	--	--	0.01	--
	09-07-93	--	--	--	0.020	--	--	--	--	--
09N.02E.36.223P	S 05-05-93	--	--	--	<0.010	--	--	--	--	--
09N.03E.07.114A	11-10-92	--	--	--	--	--	--	--	--	--
09N.03E.07.221	F 04-26-93	--	--	--	<0.010	--	--	--	0.02	--
09N.03E.08.213	U 04-26-93	--	--	--	<0.010	--	--	--	0.01	--
09N.03E.18.242	05-24-93	--	--	--	0.010	--	--	--	0.02	--
09N.03E.19.144	D 05-24-93	--	--	--	0.020	--	--	--	--	--
09N.03E.19.243	05-07-93	--	--	--	<0.010	--	--	--	--	--
09N.03E.19.243A	G 09-02-93	--	--	--	0.020	--	--	--	--	--
09N.03E.29.111	A 04-30-93	--	--	--	--	--	--	--	0.01	--
	09-01-93	--	--	--	<0.010	--	--	--	--	--
09N.03E.31.112	S 05-05-93	--	--	--	<0.010	--	--	--	--	--
09N.03E.31.223	E 05-05-93	--	--	--	<0.010	--	--	--	--	--
09N.05E.12.241	STA 10-21-92	--	0.010	<0.010	--	1.8	--	--	0.08	--
	11-18-92	--	0.030	0.010	--	3.4	--	--	0.06	--
	12-23-92	--	--	--	0.020	--	--	--	--	--
	01-25-93	--	--	--	0.010	--	--	--	--	--
	02-18-93	--	--	--	0.020	--	--	--	--	--
	03-17-93	--	--	--	<0.010	--	--	--	0.09	--
	04-16-93	--	--	--	<0.010	--	--	--	--	--
	05-18-93	--	--	--	<0.010	--	--	--	--	--
	06-22-93	--	--	--	0.010	--	--	--	--	--
09N.06E.19.413	CLA 10-19-92	--	<0.010	<0.010	--	0.5	--	--	0.02	--
	11-13-92	--	<0.010	<0.010	--	0.7	--	--	<0.01	--
	01-05-93	--	--	--	<0.010	--	--	--	--	--
	01-25-93	--	--	--	<0.010	--	--	--	--	--
	02-19-93	--	--	--	<0.010	--	--	--	--	--

## BERNALILLO COUNTY -- Continued

[illegible]

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	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)	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)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)
08N.02E.01.133	J 04-14-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
08N.02E.01.3223	08-05-93	--	600	--	--	--	--	--	--
	08-05-93	<1	600	5	2	<1	<1.0	2	<0.6
08N.02E.02.221	C 04-14-93	--	--	--	--	--	--	--	--
08N.02E.03.221	J 04-27-93	--	--	--	--	--	--	--	--
08N.07E.29.324A	DO 10-16-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-18-93	--	--	--	--	--	--	--	--
	04-15-93	--	--	--	--	--	--	--	--
	05-11-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
09N.02E.01.4122	08-16-93	--	1600	--	--	--	--	--	24
	08-16-93	<1	>1000	17	7	<1	<1.0	8	--
09N.02E.02.331P	R 05-27-93	--	--	--	--	--	--	--	--
09N.02E.10.443	08-10-93	--	1500	--	--	--	--	--	6.8
	08-10-93	<1	>1000	12	2	<1	<1.0	3	--
09N.02E.13.431	PHE 05-21-93	--	560	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
09N.02E.14.1344	08-17-93	--	230	--	--	--	--	--	7.9
	08-17-93	<1	250	11	26	<1	<1.0	5	--
09N.02E.15.214	B 05-25-93	--	--	--	--	--	--	--	--
09N.02E.22.412P	C 05-04-93	--	--	--	--	--	--	--	--
09N.02E.23.233	MOR 04-29-93	--	--	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
09N.02E.24.241	B 05-21-93	--	--	--	--	--	--	--	--
09N.02E.24.3311	08-13-93	--	2400	--	--	--	--	--	8.3
	08-13-93	--	--	--	--	--	--	--	--
09N.02E.26.412P	S 05-07-93	--	--	--	--	--	--	--	--
09N.02E.35.233	S 04-30-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
09N.02E.36.223P	S 05-05-93	--	--	--	--	--	--	--	--
09N.03E.07.114A	11-10-92	--	--	--	--	--	--	--	--
09N.03E.07.221	F 04-26-93	--	--	--	--	--	--	--	--
09N.03E.08.213	U 04-26-93	--	--	--	--	--	--	--	--
09N.03E.18.242	05-24-93	--	2	--	--	--	--	--	--
09N.03E.19.144	D 05-24-93	--	--	--	--	--	--	--	--
09N.03E.19.243	05-07-93	--	--	--	--	--	--	--	--
09N.03E.19.243A	G 09-02-93	--	--	--	--	--	--	--	--
09N.03E.29.111	A 04-30-93	--	--	--	--	--	--	--	--
	09-01-93	--	--	--	--	--	--	--	--
09N.03E.31.112	S 05-05-93	--	--	--	--	--	--	--	--
09N.03E.31.223	E 05-05-93	--	--	--	--	--	--	--	--
09N.05E.12.241	STA 10-21-92	--	--	--	--	--	--	--	--
	11-18-92	--	--	--	--	--	--	--	--
	12-23-92	--	--	--	--	--	--	--	--
	01-25-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-17-93	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--
	05-18-93	--	--	--	--	--	--	--	--
	06-22-93	--	--	--	--	--	--	--	--
09N.06E.19.413	CLA 10-19-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--
	01-25-93	--	--	--	--	--	--	--	--
	02-19-93	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L) AS U-NAT) (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, DIS- SOLVED AS (PCI/L) CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)
08N.02E.01.133	J 04-14-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
08N.02E.01.3223	08-05-93	0.92	<0.6	0.67	<0.6	<0.6	0.12	4.9	1.4
	08-05-93	--	--	--	--	--	--	--	--
08N.02E.02.221	C 04-14-93	--	--	--	--	--	--	--	--
08N.02E.03.221	J 04-27-93	--	--	--	--	--	--	--	--
08N.07E.29.324A	DO 10-16-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-18-93	--	--	--	--	--	--	--	--
	04-15-93	--	--	--	--	--	--	--	--
	05-11-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
09N.02E.01.4122	08-16-93	14	17	9.8	7.9	5.0	1.9	23	5.3
	08-16-93	--	--	--	--	--	--	--	--
09N.02E.02.331P	R 05-27-93	--	--	--	--	--	--	--	--
09N.02E.10.443	08-10-93	5.7	4.9	4.1	<0.6	<0.6	0.29	9.2	2.5
	08-10-93	--	--	--	--	--	--	--	--
09N.02E.13.431	PHE 05-21-93	--	--	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
09N.02E.14.1344	08-17-93	4.9	5.7	3.5	<0.6	<0.6	0.19	13	2.7
	08-17-93	--	--	--	--	--	--	--	--
09N.02E.15.214	B 05-25-93	--	--	--	--	--	--	--	--
09N.02E.22.412P	C 05-04-93	--	--	--	--	--	--	--	--
09N.02E.23.233	MOR 04-29-93	--	--	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
09N.02E.24.241	B 05-21-93	--	--	--	--	--	--	--	--
09N.02E.24.3311	08-13-93	4.6	5.8	3.2	<0.6	<0.6	0.20	15	2.8
	08-13-93	--	--	--	--	--	--	--	--
09N.02E.26.412P	S 05-07-93	--	--	--	--	--	--	--	--
09N.02E.35.233	S 04-30-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
09N.02E.36.223P	S 05-05-93	--	--	--	--	--	--	--	--
09N.03E.07.114A	11-10-92	--	--	--	--	--	--	--	--
09N.03E.07.221	F 04-26-93	--	--	--	--	--	--	--	--
09N.03E.08.213	U 04-26-93	--	--	--	--	--	--	--	--
09N.03E.18.242	05-24-93	--	--	--	--	--	--	--	--
09N.03E.19.144	D 05-24-93	--	--	--	--	--	--	--	--
09N.03E.19.243	05-07-93	--	--	--	--	--	--	--	--
09N.03E.19.243A	G 09-02-93	--	--	--	--	--	--	--	--
09N.03E.29.111	A 04-30-93	--	--	--	--	--	--	--	--
	02-01-93	--	--	--	--	--	--	--	--
09N.03E.31.112	S 05-05-93	--	--	--	--	--	--	--	--
09N.03E.31.223	E 05-05-93	--	--	--	--	--	--	--	--
09N.05E.12.241	STA 10-21-92	--	--	--	--	--	--	--	--
	11-18-92	--	--	--	--	--	--	--	--
	12-23-92	--	--	--	--	--	--	--	--
	01-25-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-17-93	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--
	05-18-93	--	--	--	--	--	--	--	--
	06-22-93	--	--	--	--	--	--	--	--
09N.06E.19.413	CLA 10-19-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--
	01-25-93	--	--	--	--	--	--	--	--
	02-19-93	--	--	--	--	--	--	--	--

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP, TOT DRY SR90Y90 (PCI/L) (76005)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
08N.02E.01.133	J 04-14-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
08N.02E.01.3223	08-05-93	3.6	0.86	<0.6	<0.6	0.52	660	100	--
	08-05-93	--	--	--	--	--	--	--	<1.0
08N.02E.02.221	C 04-14-93	--	--	--	--	--	--	--	--
08N.02E.03.221	J 04-27-93	--	--	--	--	--	--	--	--
08N.07E.29.324A	DO 10-16-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-18-93	--	--	--	--	--	--	--	--
	04-15-93	--	--	--	--	--	--	--	--
	05-11-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
09N.02E.01.4122	08-16-93	17	4.0	3.9	3.8	0.95	390	42	--
	08-16-93	--	--	--	--	--	--	--	11
09N.02E.02.331P	R 05-27-93	--	--	--	--	--	--	--	--
09N.02E.10.443	08-10-93	7.0	1.9	2.1	2.0	0.73	460	59	--
	08-10-93	--	--	--	--	--	--	--	6.0
09N.02E.13.431	PHE 05-21-93	--	--	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
09N.02E.14.1344	08-17-93	9.6	2.0	1.4	1.3	0.59	380	50	--
	08-17-93	--	--	--	--	--	--	--	6.0
09N.02E.15.214	B 05-25-93	--	--	--	--	--	--	--	--
09N.02E.22.412P	C 05-04-93	--	--	--	--	--	--	--	--
09N.02E.23.233	MOR 04-29-93	--	--	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
09N.02E.24.241	B 05-21-93	--	--	--	--	--	--	--	--
09N.02E.24.3311	08-13-93	11	2.1	1.6	1.6	0.68	--	--	--
	08-13-93	--	--	--	--	--	--	--	--
09N.02E.26.412P	S 05-07-93	--	--	--	--	--	--	--	--
09N.02E.35.233	S 04-30-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
09N.02E.36.223P	S 05-05-93	--	--	--	--	--	--	--	--
09N.03E.07.114A	11-10-92	--	--	--	--	--	--	--	--
09N.03E.07.221	F 04-26-93	--	--	--	--	--	--	--	--
09N.03E.08.213	U 04-26-93	--	--	--	--	--	--	--	--
09N.03E.18.242	05-24-93	--	--	--	--	--	--	--	--
09N.03E.19.144	D 05-24-93	--	--	--	--	--	--	--	--
09N.03E.19.243	05-07-93	--	--	--	--	--	--	--	--
09N.03E.19.243A	G 09-02-93	--	--	--	--	--	--	--	--
09N.03E.29.111	A 04-30-93	--	--	--	--	--	--	--	--
	09-01-93	--	--	--	--	--	--	--	--
09N.03E.31.112	S 05-05-93	--	--	--	--	--	--	--	--
09N.03E.31.223	E 05-05-93	--	--	--	--	--	--	--	--
09N.05E.12.241	STA 10-21-92	--	--	--	--	--	--	--	--
	11-18-92	--	--	--	--	--	--	--	--
	12-23-92	--	--	--	--	--	--	--	--
	01-25-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-17-93	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--
	05-18-93	--	--	--	--	--	--	--	--
	06-22-93	--	--	--	--	--	--	--	--
09N.06E.19.413	CLA 10-19-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--
	01-25-93	--	--	--	--	--	--	--	--
	02-19-93	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
09N.06E.19.413 CLAYTON	345918106202001	001	001	GW	03-18-93	1041	325MDER	404.00	680.00	7660
		001		GW	04-20-93	0906	325MDER	406.66	680.00	7660
		001		GW	05-12-93	0910	325MDER	--	680.00	7660
		001		GW	06-17-93	1355	325MDER	--	680.00	7660
09N.06E.20.333 BUSTER	345858106194601	001	001	GW	10-16-92	1153	325MDERU	29.91	100.00	7490
		001		GW	11-13-92	1258	325MDERU	30.66	100.00	7490
		001		GW	01-06-93	1125	325MDERU	30.22	100.00	7490
		001		GW	01-21-93	1334	325MDERU	28.13	100.00	7490
		001		GW	02-18-93	1320	325MDERU	--	100.00	7490
		001		GW	03-19-93	1113	325MDERU	27.80	100.00	7490
		001		GW	04-16-93	1409	325MDERU	--	100.00	7490
		001		GW	05-12-93	1020	325MDERU	26.92	100.00	7490
		001		GW	06-17-93	1240	325MDERU	28.88	100.00	7490
		001		GW	10-19-92	1059	325MDER	150.37	315.00	7420
09N.06E.29.244 MOSIER	345833106185101	001	001	GW	11-13-92	1125	325MDER	151.30	315.00	7420
		001		GW	01-05-93	1146	325MDER	--	315.00	7420
		001		GW	01-21-93	1145	325MDER	151.80	315.00	7420
		001		GW	02-18-93	1207	325MDER	--	315.00	7420
		001		GW	03-20-93	0945	325MDER	150.00	315.00	7420
		001		GW	04-16-93	1220	325MDER	149.50	315.00	7420
		001		GW	05-11-93	1403	325MDER	150.04	315.00	7420
		001		GW	06-17-93	1105	325MDER	--	315.00	7420
		001		GW	07-30-93	1000	110ALVM	13.92	27.50	4965
		001		GW	07-30-93	1005	110ALVM	13.92	27.50	4965
10N.02E.01.2241	350758106403201	001	001	GW	08-04-93	1040	110ALVM	14.70	26.50	4965
		001		GW	08-04-93	1045	110ALVM	14.70	26.50	4965
10N.02E.12.4124	350639106410001	001	001	GW	08-04-93	1040	110ALVM	14.70	26.50	4965
		001		GW	08-04-93	1045	110ALVM	14.70	26.50	4965
10N.02E.14.4244	350534106413101	001	001	GW	08-04-93	1045	110ALVM	14.70	26.50	4965
		001		GW	08-04-93	1045	110ALVM	14.70	26.50	4965
10N.02E.24.33221	350436106411701	001	001	GW	08-04-93	1045	110ALVM	14.70	26.50	4965
		001		GW	08-04-93	1045	110ALVM	14.70	26.50	4965
10N.02E.25.434P RODGERS	350331106404301	001	001	GW	05-04-93	1422	--	--	55.00	4941
		001		GW	09-07-93	1541	--	--	55.00	4941
10N.02E.26.344P GAILARD	350334106420501	001	001	GW	06-08-93	1430	--	35.03	105.00	4958
		001		GW	09-28-93	1000	110ALVM	9.57	28.30	4935
10N.02E.35.3443	350241106420701	001	001	GW	09-28-93	1005	110ALVM	9.57	28.30	4935
		001		GW	09-28-93	1005	110ALVM	9.57	28.30	4935
10N.02E.36.131P ABEYTA	350317106412401	001	001	GW	05-28-93	1845	--	9.57	235.00	4937
		001		GW	06-02-93	1400	--	--	--	4936
10N.02E.36.332P GIRAUDO	350250106411901	001	001	GW	08-15-93	1420	110ALVM	28.48	39.45	4960
		001		GW	08-15-93	1425	110ALVM	28.48	39.45	4960
10N.03E.07.1232	350653106400601	001	001	GW	08-03-93	1430	110ALVM	33.64	42.50	4960
		001		GW	08-03-93	1430	110ALVM	33.64	42.50	4960
10N.03E.08.3133	350622106392301	001	001	GW	08-03-93	1435	110ALVM	33.64	42.50	4960
		001		GW	08-03-93	1435	110ALVM	33.64	42.50	4960
10N.03E.17.324	350534106385801	001	001	GW	08-15-93	0930	110ALVM	34.34	52.50	4955
		001		GW	08-15-93	0935	110ALVM	34.34	52.50	4955
10N.03E.19.2333	350447106395201	001	001	GW	08-04-93	1550	110ALVM	7.69	18.00	4945
		001		GW	08-04-93	1555	110ALVM	7.69	18.00	4945
10N.03E.29.3342	350344106391201	001	001	GW	08-11-93	1030	110ALVM	12.10	27.50	4940
		001		GW	08-11-93	1035	110ALVM	12.10	27.50	4940
10N.03E.30.413P POWER	350349106395601	001	001	GW	06-04-93	1700	--	7.16	--	4941
		001		GW	08-16-93	0940	110ALVM	10.46	19.50	--
10N.03E.31.	350316106402001	001	001	GW	08-16-93	0945	110ALVM	10.46	19.50	--
		001		GW	08-16-93	0945	110ALVM	10.46	19.50	--
10N.05E.02.233A SOUTHWICK	350721106222101	001	001	GW	10-15-92	0850	--	56.00	200.00	6765
		001		GW	11-16-92	1015	--	47.60	200.00	6765
		001		GW	12-15-92	0845	--	40.80	200.00	6765
		001		GW	01-26-93	0830	--	--	200.00	6765
		001		GW	02-16-93	1342	--	--	200.00	6765
		001		GW	03-16-93	0847	--	20.60	200.00	6765
		001		GW	04-13-93	0926	--	--	200.00	6765
		001		GW	05-18-93	0720	--	18.70	200.00	6765
		001		GW	06-18-93	0900	--	19.30	200.00	6765
		001		GW	10-15-92	1410	210MNCS	14.92	80.00	6580

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	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)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)
09N.06E.19.413 CLA	03-18-93	6	15	737	8.3	10.5	14.5	--	--	--
	04-20-93	4	15	760	8.3	7.5	14.0	--	--	--
	05-12-93	5	12	760	8.2	14.0	13.5	--	--	--
	06-17-93	5	12	750	8.0	24.0	14.0	--	--	--
09N.06E.20.333 BUS	10-16-92	9	6.0	910	7.1	14.5	10.5	--	--	--
	11-13-92	13	6.0	930	7.1	7.0	10.0	--	--	--
	01-06-93	8	8.0	970	7.1	4.0	10.0	--	--	--
	01-21-93	9	7.0	920	7.1	5.5	10.5	--	--	--
	02-18-93	6	12	910	7.2	10.5	10.5	--	--	--
	03-19-93	9	8.0	900	7.2	12.0	11.0	--	--	--
	04-16-93	9	9.0	920	7.1	9.0	10.0	--	--	--
	05-12-93	10	6.0	1010	7.0	--	11.5	--	--	--
	06-17-93	10	9.0	1170	7.1	27.5	12.0	--	--	--
09N.06E.29.244 MOS	10-19-92	7	10	1530	7.2	14.5	13.5	--	--	--
	11-13-92	10	13	1480	7.2	7.5	13.0	--	--	--
	01-05-93	5	12	1400	7.2	3.5	13.0	--	--	--
	01-21-93	5	15	2400	7.1	5.0	12.5	--	--	--
	02-18-93	4	15	2080	7.2	9.5	13.0	--	--	--
	03-20-93	5	16	2430	7.2	10.0	13.5	--	--	--
	04-16-93	6	12	1980	7.1	12.0	13.0	--	--	--
	05-11-93	8	12	1730	7.1	22.5	13.5	--	--	--
	06-17-93	5	12	1700	7.2	24.5	14.0	--	--	--
10N.02E.01.2241	07-30-93	--	1.0	880	7.2	31.0	14.5	640	1.5	340
	07-30-93	--	1.0	880	7.2	31.0	14.5	640	1.5	--
10N.02E.12.4124	08-04-93	--	2.0	500	7.8	26.5	16.0	641	0.1	180
	08-04-93	--	2.0	500	7.8	26.5	16.0	641	0.1	--
10N.02E.14.4244	08-17-93	--	0.5	574	7.5	26.5	19.0	640	0.2	210
	08-17-93	--	0.5	574	7.5	26.5	19.0	640	0.2	--
10N.02E.24.33221	08-10-93	--	0.7	750	7.2	40.0	18.5	639	0.2	260
	08-10-93	--	0.7	750	7.2	40.0	18.5	639	0.2	--
10N.02E.25.434P R	05-04-93	7	100	1420	7.4	34.0	16.5	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.26.344P G	06-08-93	20	4.0	457	7.9	28.0	20.5	--	--	--
10N.02E.35.3443	09-28-93	--	0.2	479	7.7	14.0	18.0	642	2.7	160
	09-28-93	--	0.2	479	7.7	14.0	18.0	642	2.7	--
10N.02E.36.131P A	05-28-93	10	2.5	505	8.2	23.0	17.5	--	--	--
10N.02E.36.332P G	06-02-93	20	4.0	1140	7.6	32.0	17.5	--	--	--
10N.03E.07.1232	08-15-93	--	0.1	1500	7.1	--	20.5	638	0.2	650
	08-15-93	--	0.1	1500	7.1	--	20.5	638	0.2	--
10N.03E.08.3133	08-03-93	--	1.0	1180	7.1	32.0	20.0	639	0.0	560
	08-03-93	--	1.0	1180	7.1	32.0	20.0	639	0.0	--
10N.03E.17.324	08-15-93	--	0.3	1300	7.6	--	20.5	638	0.1	470
	08-15-93	--	0.3	1300	7.6	--	20.5	638	0.1	--
10N.03E.19.2333	08-04-93	--	0.6	490	7.5	31.0	17.5	641	0.1	190
	08-04-93	--	0.6	490	7.5	31.0	17.5	641	0.1	--
10N.03E.29.3342	08-11-93	--	1.0	420	7.6	--	17.0	640	0.0	150
	08-11-93	--	1.0	420	7.6	--	17.0	640	0.0	--
10N.03E.30.413P P	06-04-93	--	1.0	349	8.1	29.0	18.0	--	--	--
10N.03E.31.	08-16-93	--	0.5	711	7.3	--	16.5	639	0.0	270
	08-16-93	--	0.5	711	7.3	--	16.5	639	0.0	--
10N.05E.02.233A SO	10-15-92	6	8.0	690	9.3	14.0	14.0	--	--	--
	11-16-92	8	6.0	730	9.3	12.5	14.0	--	--	--
	12-15-92	--	--	720	9.4	-4.5	13.5	--	--	--
	01-26-93	5	8.0	740	9.5	-2.0	13.5	--	--	--
	02-16-93	5	10	720	9.5	5.5	13.5	--	--	--
	03-16-93	5	7.0	720	9.5	10.5	14.0	--	--	--
	04-13-93	5	10	--	9.5	9.5	14.0	--	--	--
	05-18-93	5	8.0	740	9.5	13.0	13.5	--	--	--
	06-18-93	5	12	730	9.5	20.5	14.0	--	--	--
10N.05E.11.324 CUS	10-15-92	--	3.0	720	7.2	20.0	14.5	--	--	--

## BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	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- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
09N.06E.19.413 CLA	03-18-93	--	--	--	--	--	--	--	--	--
	04-20-93	--	--	--	--	--	--	--	--	--
	05-12-93	--	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--	--
09N.06E.20.333 BUS	10-16-92	--	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--	--
	01-06-93	--	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--	--
	03-19-93	--	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--	--
	05-12-93	--	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--	--
09N.06E.29.244 MOS	10-19-92	--	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--	--
	03-20-93	--	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--	--
	05-11-93	--	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--	--
10N.02E.01.2241	07-30-93	0	110	16	53	1	5.9	448	--	367
	07-30-93	--	--	--	--	--	--	448	--	367
10N.02E.12.4124	08-04-93	18	60	8.0	35	1	4.9	201	--	165
	08-04-93	--	--	--	--	--	--	201	--	165
10N.02E.14.4244	08-17-93	26	68	10	30	0.9	4.5	226	--	185
	08-17-93	--	--	--	--	--	--	226	--	185
10N.02E.24.33221	08-10-93	33	85	11	61	2	7.4	274	--	225
	08-10-93	--	--	--	--	--	--	274	--	225
10N.02E.25.434P R	05-04-93	--	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.26.344P G	06-08-93	--	--	--	--	--	--	--	--	--
10N.02E.35.3443	09-28-93	4	51	7.9	35	1	5.4	190	--	156
	09-28-93	--	--	--	--	--	--	190	--	156
10N.02E.36.131P A	05-28-93	--	--	--	--	--	--	--	--	--
10N.02E.36.332P G	06-02-93	--	--	--	--	--	--	--	--	--
10N.03E.07.1232	08-15-93	320	210	31	75	1	16	410	--	336
	08-15-93	--	--	--	--	--	--	410	--	336
10N.03E.08.3133	08-03-93	260	170	32	58	1	11	359	--	293
	08-03-93	--	--	--	--	--	--	359	--	



QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	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)	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, NITRATE DIS- SOLVED (MG/L AS N) (00618)
09N.06E.19.413 CLA	03-18-93	--	--	34	--	--	--	--	--	--
	04-20-93	--	--	35	--	--	--	--	--	--
	05-12-93	--	--	33	--	--	--	--	--	--
	06-17-93	--	--	34	--	--	--	--	--	--
09N.06E.20.333 BUS	10-16-92	--	--	100	--	--	--	--	--	--
	11-13-92	--	--	110	--	--	--	--	--	--
	01-06-93	--	--	110	--	--	--	--	--	4.58
	01-21-93	--	--	100	--	--	--	--	--	--
	02-18-93	--	--	100	--	--	--	--	--	--
	03-19-93	--	--	83	--	--	--	--	--	--
	04-16-93	--	--	76	--	--	--	--	--	--
	05-12-93	--	--	95	--	--	--	--	--	--
	06-17-93	--	--	140	--	--	--	--	--	--
09N.06E.29.244 MOS	10-19-92	--	--	200	--	--	--	--	--	--
	11-13-92	--	--	200	--	--	--	--	--	--
	01-05-93	--	--	190	--	--	--	--	--	1.88
	01-21-93	--	--	330	--	--	--	--	--	3.79
	02-18-93	--	--	320	--	--	--	--	--	2.79
	03-20-93	--	--	350	--	--	--	--	--	--
	04-16-93	--	--	290	--	--	--	--	--	--
	05-11-93	--	--	240	--	--	--	--	--	--
	06-17-93	--	--	220	--	--	--	--	--	--
10N.02E.01.2241	07-30-93	362	140	13	0.60	0.060	33	581	593	--
	07-30-93	--	--	--	--	--	--	--	--	--
10N.02E.12.4124	08-04-93	162	83	<0.10	0.40	0.050	23	346	--	2.88
	08-04-93	--	--	--	--	--	--	--	--	--
10N.02E.14.4244	08-17-93	181	99	12	0.40	0.050	24	351	361	--
	08-17-93	--	--	--	--	--	--	--	--	--
10N.02E.24.33221	08-10-93	228	150	24	0.80	0.17	31	519	506	0.080
	08-10-93	--	--	--	--	--	--	--	--	--
10N.02E.25.434P	R 05-04-93	--	--	77	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.26.344P	G 06-08-93	--	--	20	--	--	--	--	--	--
10N.02E.35.3443	09-28-93	158	79	8.6	0.60	0.12	36	317	318	--
	09-28-93	--	--	--	--	--	--	--	--	--
10N.02E.36.131P	A 05-28-93	--	--	14	--	--	--	--	--	--
10N.02E.36.332P	G 06-02-93	--	--	51	--	--	--	--	--	--
10N.03E.07.1232	08-15-93	314	360	49	0.50	0.23	28	964	974	--
	08-15-93	--	--	--	--	--	--	--	--	--
10N.03E.08.3133	08-03-93	245	420	17	0.60	0.15	51	968	944	--
	08-03-93	--	--	--	--	--	--	--	--	--
10N.03E.17.324	08-15-93	146	470	29	0.30	0.13	51	832	1050	--
	08-15-93	--	--	--	--	--	--	--	--	--
10N.03E.19.2333	08-04-93	171	69	14	0.40	0.040	25	322	316	--
	08-04-93	--	--	--	--	--	--	--	--	--
10N.03E.29.3342	08-11-93	138	67	10	0.40	0.040	26	281	270	--
	08-11-93	--	--	--	--	--	--	--	--	--
10N.03E.30.413P	P 06-04-93	--	--	8.7	--	--	--	--	--	--
10N.03E.31.	08-16-93	--	100	14	0.70	0.080	34	461	459	--
	08-16-93	--	--	--	--	--	--	--	--	--
10N.05E.02.233A	SO 10-15-92	--	--	14	--	--	--	--	--	--
	11-16-92	--	--	13	--	--	--	--	--	--
	12-15-92	--	--	13	--	--	--	--	--	0.230
	01-26-93	--	--	14	--	--	--	--	--	0.180
	02-16-93	--	--	14	--	--	--	--	--	0.260
	03-16-93	--	--	13	--	--	--	--	--	0.240
	04-13-93	--	--	14	--	--	--	--	--	0.210
	05-18-93	--	--	13	--	--	--	--	--	0.150
	06-18-93	--	--	12	--	--	--	--	--	0.310
10N.05E.11.324	CUS 10-15-92	--	--	11	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)
09N.06E.19.413 CLA	03-18-93	--	<0.010	--	<0.050	--	0.060	--	--	--
	04-20-93	--	<0.010	--	<0.050	--	0.020	--	--	--
	05-12-93	--	<0.010	--	<0.050	--	0.040	--	--	--
	06-17-93	--	<0.010	--	<0.050	--	0.050	<0.20	--	--
09N.06E.20.333 BUS	10-16-92	<0.010	--	4.40	--	0.050	--	--	<0.20	--
	11-13-92	<0.010	--	5.00	--	0.020	--	--	<0.20	--
	01-06-93	--	0.020	--	4.60	--	<0.010	--	--	--
	01-21-93	--	<0.010	--	3.60	--	<0.010	--	--	--
	02-18-93	--	<0.010	--	3.30	--	<0.010	--	--	--
	03-19-93	--	<0.010	--	2.60	--	0.010	--	--	--
	04-16-93	--	<0.010	--	2.70	--	<0.010	--	--	--
	05-12-93	--	<0.010	--	5.10	--	0.030	--	--	--
	06-17-93	--	<0.010	--	9.00	--	0.010	0.20	--	0.19
09N.06E.29.244 MOS	10-19-92	<0.010	--	3.20	--	0.020	--	--	0.30	--
	11-13-92	<0.010	--	3.10	--	0.200	--	--	0.30	--
	01-05-93	--	0.020	--	1.90	--	0.010	--	--	--
	01-21-93	--	0.010	--	3.80	--	<0.010	--	--	--
	02-18-93	--	0.010	--	2.80	--	<0.010	--	--	--
	03-20-93	--	<0.010	--	4.60	--	0.060	--	--	--
	04-16-93	--	<0.010	--	3.00	--	<0.010	--	--	--
	05-11-93	--	<0.010	--	3.10	--	0.020	--	--	--
	06-17-93	--	<0.010	--	3.30	--	0.010	0.30	--	0.29
10N.02E.01.2241	07-30-93	--	<0.010	--	0.220	--	0.020	<0.20	--	--
	07-30-93	--	--	--	--	--	--	--	--	--
10N.02E.12.4124	08-04-93	--	0.020	--	2.90	--	0.030	<0.20	--	--
	08-04-93	--	--	--	--	--	--	--	--	--
10N.02E.14.4244	08-17-93	--	<0.010	--	<0.050	--	0.170	0.30	--	0.13
	08-17-93	--	--	--	--	--	--	--	--	--
10N.02E.24.33221	08-10-93	--	0.020	--	0.100	--	0.010	<0.20	--	--
	08-10-93	--	--	--	--	--	--	--	--	--
10N.02E.25.434P R	05-04-93	--	<0.010	--	0.098	--	0.070	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.26.344P G	06-08-93	--	<0.010	--	0.720	--	<0.010	--	--	--
10N.02E.35.3443	09-28-93	--	<0.010	--	<0.050	--	0.070	<0.20	--	--
	09-28-93	--	--	--	--	--	--	--	--	--
10N.02E.36.131P A	05-28-93	--	<0.010	--	0.750	--	0.020	--	--	--
10N.02E.36.332P G	06-02-93	--	<0.010	--	<0.050	--	0.120	--	--	--
10N.03E.07.1232	08-15-93	--	<0.010	--	<0.050	--	0.040	<0.20	--	--
	08-15-93	--	--	--	--	--	--	--	--	--
10N.03E.08.3133	08-03-93	--	<0.010	--	<0.050	--	0.140	<0.20	--	--
	08-03-93	--	--	--	--	--	--	--	--	--
10N.03E.17.324	08-15-93	--	<0.010	--	<0.050	--	0.110	<0.20	--	--
	08-15-93	--	--	--	--	--	--	--	--	--
10N.03E.19.2333	08-04-93	--	<0.010	--	0.120	--	0.070	<0.20	--	--
	08-04-93	--	--	--	--	--	--	--	--	--
10N.03E.29.3342	08-11-93	--	<0.010	--	<0.050	--	0.140	0.20	--	0.06
	08-11-93	--	--	--	--	--	--	--	--	--
10N.03E.30.413P P	06-04-93	--	<0.010	--	0.150	--	0.020	--	--	--
10N.03E.31.	08-16-93	--	<0.010	--	<0.050	--	0.270	0.30	--	0.03
	08-16-93	--	--	--	--	--	--	--	--	--
10N.05E.02.233A SO	10-15-92	<0.010	--	0.370	--	0.020	--	--	<0.20	--
	11-16-92	0.020	--	0.330	--	0.020	--	--	<0.20	--
	12-15-92	--	0.020	--	0.250	--	<0.010	--	--	--
	01-26-93	--	0.040	--	0.220	--	<0.010	--	--	--
	02-16-93	--	0.020	--	0.280	--	<0.010	--	--	--
	03-16-93	--	0.040	--	0.280	--	<0.010	--	--	--
	04-13-93	--	0.020	--	0.230	--	<0.010	--	--	--
	05-18-93	--	0.020	--	0.170	--	0.020	--	--	--
	06-18-93	--	0.020	--	0.330	--	<0.010	0.50	--	--
10N.05E.11.324 CUS	10-15-92	<0.010	--	0.550	--	0.030	--	--	<0.20	--

QUALITY OF GROUND WATER  
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
 BERNALILLO COUNTY --- Continued

LOCAL IDENT- IFIER	DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	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)	PHENOLS TOTAL (UG/L) (32730)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
09N.06E.19.413 CLA	03-18-93	--	--	--	<0.010	--	--	--	0.01	--
	04-20-93	--	--	--	<0.010	--	--	--	--	--
	05-12-93	--	--	--	<0.010	--	--	--	--	--
	06-17-93	--	--	--	<0.010	--	--	--	--	--
09N.06E.20.333 BUS	10-16-92	--	0.030	0.040	--	2.9	--	--	0.09	--
	11-13-92	--	0.040	0.030	--	2.8	--	--	0.07	--
	01-06-93	--	--	--	0.030	--	--	--	--	--
	01-21-93	--	--	--	0.040	--	--	--	--	--
	02-18-93	--	--	--	0.030	--	--	--	--	--
	03-19-93	--	--	--	0.030	2.2	--	--	0.05	--
	04-16-93	--	--	--	0.030	--	--	--	--	--
	05-12-93	--	--	--	0.040	--	--	--	--	--
	06-17-93	--	--	--	0.030	--	--	--	--	--
09N.06E.29.244 MOS	10-19-92	--	0.020	0.010	--	5.1	--	--	0.10	--
	11-13-92	--	0.020	0.200	--	6.1	--	--	0.08	--
	01-05-93	--	--	--	<0.010	--	--	--	--	--
	01-21-93	--	--	--	0.030	--	--	--	--	--
	02-18-93	--	--	--	0.030	--	--	--	--	--
	03-20-93	--	--	--	0.050	11	--	--	0.13	--
	04-16-93	--	--	--	0.020	--	--	--	--	--
	05-11-93	--	--	--	0.020	--	--	--	--	--
	06-17-93	--	--	--	0.020	--	--	--	--	--
10N.02E.01.2241	07-30-93	0.020	--	--	0.010	--	3.5	--	0.02	--
10N.02E.12.4124	07-30-93	--	--	--	--	--	--	--	--	4
	08-04-93	0.020	--	--	0.030	--	1.4	<1	0.03	--
	08-04-93	--	--	--	--	--	--	--	--	3
10N.02E.14.4244	08-17-93	0.090	--	--	0.090	--	2.4	1	0.02	--
	08-17-93	--	--	--	--	--	--	--	--	2
10N.02E.24.33221	08-10-93	0.080	--	--	0.090	--	2.2	<1	0.02	--
	08-10-93	--	--	--	--	--	--	--	--	3
10N.02E.25.434P R	05-04-93	--	--	--	0.030	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.26.344P G	06-08-93	--	--	--	<0.010	--	--	--	--	--
10N.02E.35.3443	09-28-93	0.060	--	--	0.040	--	1.6	<1	<0.02	--
	09-28-93	--	--	--	--	--	--	--	--	10
10N.02E.36.131P A	05-28-93	--	--	--	<0.010	--	--	--	--	--
10N.02E.36.332P G	06-02-93	--	--	--	0.010	--	--	--	--	--
10N.03E.07.1232	08-15-93	<0.010	--	--	<0.010	--	2.7	<1	0.02	--
	08-15-93	--	--	--	--	--	--	--	--	3
10N.03E.08.3133	08-03-93	<0.010	--	--	<0.010	--	1.9	<1	0.03	--
	08-03-93	--	--	--	--	--	--	--	--	5
10N.03E.17.324	08-15-93	<0.010	--	--	0.020	--	3.3	<1	0.02	--
	08-15-93	--	--	--	--	--	--	--	--	2
10N.03E.19.2333	08-04-93	0.020	--	--	0.040	--	2.6	<1	0.04	--
	08-04-93	--	--	--	--	--	--	--	--	3
10N.03E.29.3342	08-11-93	0.230	--	--	0.240	--	2.8	<1	0.03	--
	08-11-93	--	--	--	--	--	--	--	--	3
10N.03E.30.413P P	06-04-93	--	--	--	<0.010	--	--	--	--	--
10N.03E.31.1314	08-16-93	0.050	--	--	0.050	--	1.9	6	0.02	--
	08-16-93	--	--	--	--	--	--	--	--	2
10N.05E.02.233A SO	10-15-92	--	0.010	0.010	--	0.5	--	--	0.02	--
	11-16-92	--	<0.010	<0.010	--	0.3	--	--	0.01	--
	12-15-92	--	--	--	0.010	--	--	--	--	--
	01-26-93	--	--	--	<0.010	--	--	--	--	--
	02-16-93	--	--	--	<0.010	--	--	--	--	--
	03-16-93	--	--	--	<0.010	--	--	--	<0.01	--
	04-13-93	--	--	--	<0.010	--	--	--	--	--
	05-18-93	--	--	--	<0.010	--	--	--	--	--
	06-18-93	--	--	--	0.010	--	--	--	--	--
10N.05E.11.324 CUS	10-15-92	--	0.020	0.030	--	1.2	--	--	0.02	--

LOCAL IDENT- I- FIER	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)	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)
09N.06E.19.413 CLA	03-18-93	--	--	--	--	--	--	--	--	--
	04-20-93	--	--	--	--	--	--	--	--	--
	05-12-93	--	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--	--
09N.06E.20.333 BUS	10-16-92	--	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--	--
	01-06-93	--	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--	--
	03-19-93	--	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--	--
	05-12-93	--	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--	--
09N.06E.29.244 MOS	10-19-92	--	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--	--
	03-20-93	--	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--	--
	05-11-93	--	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--	--
10N.02E.01.2241	07-30-93	--	--	--	--	--	--	--	--	5
	07-30-93	<1	3	75	<1	<1.0	<1	<1	5	--
10N.02E.12.4124	08-04-93	--	--	--	--	--	--	--	--	11
	08-04-93	<1	4	120	<1	<1.0	<1	<1	2	--
10N.02E.14.4244	08-17-93	--	--	--	--	--	--	--	--	9
	08-17-93	<1	5	140	<1	<1.0	<1	<1	4	--
10N.02E.24.33221	08-10-93	--	--	--	--	--	--	--	--	32
	08-10-93	<1	10	110	<1	<1.0	<1	1	3	--
10N.02E.25.434P R	05-04-93	--	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.26.344P G	06-08-93	--	--	--	--	--	--	--	--	--
10N.02E.35.3443	09-28-93	--	--	--	--	--	--	--	--	110
	09-28-93	<1	4	62	<1	<1.0	1	<1	1	--
10N.02E.36.131P A	05-28-93	--	--	--	--	--	--	--	--	--
10N.02E.36.332P G	06-02-93	--	--	--	--	--	--	--	--	--
10N.03E.07.1232	08-15-93	--	--	--	--	--	--	--	--	590
	08-15-93	<1	1	75	<1	<1.0	<1	<1	4	--
10N.03E.08.3133	08-03-93	--	--	--	--	--	--	--	--	3800
	08-03-93	<1	4	48	<1	<1.0	<1	<1	5	--
10N.03E.17.324	08-15-93	--	--	--	--	--	--	--	--	240
	08-15-93	<1	6	44	<1	<1.0	<1	<1	5	--
10N.03E.19.2333	08-04-93	--	--	--	--	--	--	--	--	120
	08-04-93	<1	4	130	<1	<1.0	<1	<1	2	--
10N.03E.29.3342	08-11-93	--	--	--	--	--	--	--	--	210
	08-11-93	<1	6	62	<1	<1.0	<1	<1	2	--
10N.03E.30.413P P	06-04-93	--	--	--	--	--	--	--	--	--
10N.03E.31.	08-16-93	--	--	--	--	--	--	--	--	2200
	08-16-93	<1	9	66	<1	<1.0	<1	<1	1	--
10N.05E.02.233A SO	10-15-92	--	--	--	--	--	--	--	--	--
	11-16-92	--	--	--	--	--	--	--	--	--
	12-15-92	--	--	--	--	--	--	--	--	--
	01-26-93	--	--	--	--	--	--	--	--	--
	02-16-93	--	--	--	--	--	--	--	--	--
	03-16-93	--	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--	--
	05-18-93	--	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--	--
10N.05E.11.324 CUS	10-15-92	--	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	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)	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)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)
09N.06E.19.413 CLA	03-18-93	--	--	--	--	--	--	--	--
	04-20-93	--	--	--	--	--	--	--	--
	05-12-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
09N.06E.20.333 BUS	10-16-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-06-93	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-19-93	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--
	05-12-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
09N.06E.29.244 MOS	10-19-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-20-93	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--
	05-11-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
10N.02E.01.2241	07-30-93	--	36	--	--	--	--	--	21
	07-30-93	<1	46	7	5	1	<1.0	12	--
10N.02E.12.4124	08-04-93	--	710	--	--	--	--	--	6.0
	08-04-93	<1	710	5	2	<1	<1.0	3	--
10N.02E.14.4244	08-17-93	--	1200	--	--	--	--	--	3.2
	08-17-93	<1	>1000	4	2	<1	<1.0	4	--
10N.02E.24.33221	08-10-93	--	410	--	--	--	--	--	7.3
	08-10-93	<1	420	10	3	<1	<1.0	4	--
10N.02E.25.434P R	05-04-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
10N.02E.26.344P G	06-08-93	--	--	--	--	--	--	--	--
10N.02E.35.3443	09-28-93	--	570	--	--	--	--	--	0.9
	09-28-93	<1	500	5	<1	<1	<1.0	4	--
10N.02E.36.131P A	05-28-93	--	--	--	--	--	--	--	--
10N.02E.36.332P G	06-02-93	--	--	--	--	--	--	--	--
10N.03E.07.1232	08-15-93	--	1600	--	--	--	--	--	17
	08-15-93	<1	>1000	6	4	<1	<1.0	5	--
10N.03E.08.3133	08-03-93	--	3600	--	--	--	--	--	4.8
	08-03-93	<1	>1000	7	3	<1	<1.0	4	--
10N.03E.17.324	08-15-93	--	1700	--	--	--	--	--	98
	08-15-93	<1	1600	8	4	<1	<1.0	6	--
10N.03E.19.2333	08-04-93	--	810	--	--	--	--	--	2.5
	08-04-93	<1	820	4	2	<1	<1.0	3	--
10N.03E.29.3342	08-11-93	--	230	--	--	--	--	--	1.2
	08-11-93	<1	240	7	3	<1	<1.0	12	--
10N.03E.30.413P F	06-04-93	--	--	--	--	--	--	--	--
10N.03E.31.	08-16-93	--	1000	--	--	--	--	--	3.6
	08-16-93	<1	>1000	6	2	<1	<1.0	4	--
10N.05E.02.233A SO	10-15-92	--	--	--	--	--	--	--	--
	11-16-92	--	--	--	--	--	--	--	--
	12-15-92	--	--	--	--	--	--	--	--
	01-26-93	--	--	--	--	--	--	--	--
	02-16-93	--	--	--	--	--	--	--	--
	03-16-93	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--
	05-18-93	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--
10N.05E.11.324 CUS	10-15-92	--	--	--	--	--	--	--	--

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L) AS U-NAT (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, DIS- SOLVED AS CS-137 (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (75989)
09N.06E.19.413 CLA	03-18-93	--	--	--	--	--	--	--	--
	04-20-93	--	--	--	--	--	--	--	--
	05-12-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
09N.06E.20.333 BUS	10-16-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-06-93	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-19-93	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--
	05-12-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
09N.06E.29.244 MOS	10-19-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-20-93	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--
	05-11-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
10N.02E.01.2241	07-30-93	7.7	13	5.0	<0.6	<0.6	0.16	14	2.8
	07-30-93	--	--	--	--	--	--	--	--
10N.02E.12.4124	08-04-93	3.1	4.2	2.2	<0.6	<0.6	0.17	7.7	1.5
	08-04-93	--	--	--	--	--	--	--	--
10N.02E.14.4244	08-17-93	2.5	2.5	1.9	<0.6	<0.6	0.31	5.8	1.4
	08-17-93	--	--	--	--	--	--	--	--
10N.02E.24.33221	08-10-93	4.1	5.4	3.1	<0.6	<0.6	0.21	11	2.2
	08-10-93	--	--	--	--	--	--	--	--
10N.02E.25.434P R	05-04-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
10N.02E.26.344P G	06-08-93	--	--	--	--	--	--	--	--
10N.02E.35.3443	09-28-93	1.7	<0.6	1.1	<0.6	1.0	0.68	5.4	1.2
	09-28-93	--	--	--	--	--	--	--	--
10N.02E.36.131P A	05-28-93	--	--	--	--	--	--	--	--
10N.02E.36.332P G	06-02-93	--	--	--	--	--	--	--	--
10N.03E.07.1232	08-15-93	9.5	11	6.0	<0.6	<0.6	0.24	18	3.8
	08-15-93	--	--	--	--	--	--	--	--
10N.03E.08.3133	08-03-93	6.0	3.1	3.9	<0.6	<0.6	0.27	16	3.4
	08-03-93	--	--	--	--	--	--	--	--
10N.03E.17.324	08-15-93	23	76	17	<0.6	<0.6	0.24	36	5.9
	08-15-93	--	--	--	--	--	--	--	--
10N.03E.19.2333	08-04-93	2.0	1.8	1.4	<0.6	<0.6	0.18	5.5	1.3
	08-04-93	--	--	--	--	--	--	--	--
10N.03E.29.3342	08-11-93	1.6	1.0	1.2	<0.6	<0.6	0.21	4.0	1.2
	08-11-93	--	--	--	--	--	--	--	--
10N.03E.30.413P P	06-04-93	--	--	--	--	--	--	--	--
10N.03E.31.	08-16-93	2.9	2.5	2.0	<0.6	<0.6	0.27	6.8	1.7
	08-16-93	--	--	--	--	--	--	--	--
10N.05E.02.233A SO	10-15-92	--	--	--	--	--	--	--	--
	11-16-92	--	--	--	--	--	--	--	--
	12-15-92	--	--	--	--	--	--	--	--
	01-26-93	--	--	--	--	--	--	--	--
	02-16-93	--	--	--	--	--	--	--	--
	03-16-93	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--
	05-18-93	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--
10N.05E.11.324 CUS	10-15-92	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP. TOT DRY SR90Y90 (PCI/L) (76005)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
09N.06E.19.413 CLA	03-18-93	--	--	--	--	--	--	--	--
	04-20-93	--	--	--	--	--	--	--	--
	05-12-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
09N.06E.20.333 BUS	10-16-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-06-93	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-19-93	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--
	05-12-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
09N.06E.29.244 MOS	10-19-92	--	--	--	--	--	--	--	--
	11-13-92	--	--	--	--	--	--	--	--
	01-05-93	--	--	--	--	--	--	--	--
	01-21-93	--	--	--	--	--	--	--	--
	02-18-93	--	--	--	--	--	--	--	--
	03-20-93	--	--	--	--	--	--	--	--
	04-16-93	--	--	--	--	--	--	--	--
	05-11-93	--	--	--	--	--	--	--	--
	06-17-93	--	--	--	--	--	--	--	--
10N.02E.01.2241	07-30-93	10	2.0	1.1	1.1	0.57	--	--	--
	07-30-93	--	--	--	--	--	--	--	14
10N.02E.12.4124	08-04-93	5.8	1.2	0.7	0.7	0.51	700	120	--
	08-04-93	--	--	--	--	--	--	--	5.0
10N.02E.14.4244	08-17-93	4.4	1.1	<0.6	<0.6	0.46	480	51	--
	08-17-93	--	--	--	--	--	--	--	<1.0
10N.02E.24.33221	08-10-93	8.0	1.7	1.5	1.5	0.68	450	58	--
	08-10-93	--	--	--	--	--	--	--	4.0
10N.02E.25.434P R	05-04-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
10N.02E.26.344P G	06-08-93	--	--	--	--	--	--	--	--
10N.02E.35.3443	09-28-93	4.2	0.96	1.6	1.6	0.69	540	35	--
	09-28-93	--	--	--	--	--	--	--	<1.0
10N.02E.36.131P A	05-28-93	--	--	--	--	--	--	--	--
10N.02E.36.332P G	06-02-93	--	--	--	--	--	--	--	--
10N.03E.07.1232	08-15-93	13	2.8	1.7	1.7	0.64	360	41	--
	08-15-93	--	--	--	--	--	--	--	50
10N.03E.08.3133	08-03-93	12	2.6	<0.6	<0.6	0.52	390	86	--
	08-03-93	--	--	--	--	--	--	--	4.0
10N.03E.17.324	08-15-93	27	4.4	9.5	9.0	1.6	390	43	--
	08-15-93	--	--	--	--	--	--	--	11
10N.03E.19.2333	08-04-93	4.1	0.97	<0.6	<0.6	0.50	650	110	--
	08-04-93	--	--	--	--	--	--	--	<1.0
10N.03E.29.3342	08-11-93	2.9	1.2	<0.6	<0.6	0.49	410	50	--
	08-11-93	--	--	--	--	--	--	--	21
10N.03E.30.413P P	06-04-93	--	--	--	--	--	--	--	--
10N.03E.31.	08-16-93	5.1	1.2	<0.6	<0.6	0.56	340	43	--
	08-16-93	--	--	--	--	--	--	--	2.0
10N.05E.02.233A SO	10-15-92	--	--	--	--	--	--	--	--
	11-16-92	--	--	--	--	--	--	--	--
	12-15-92	--	--	--	--	--	--	--	--
	01-26-93	--	--	--	--	--	--	--	--
	02-16-93	--	--	--	--	--	--	--	--
	03-16-93	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--
	05-18-93	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--
10N.05E.11.324 CUS	10-15-92	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)
10N.05E.11.324 CUSHING	350615106223301	001		GW	11-16-92	1325	210MNCS	14.24	80.00
		001		GW	01-07-93	1225	210MNCS	--	80.00
		001		GW	01-26-93	1143	210MNCS	12.86	80.00
		001		GW	02-16-93	1238	210MNCS	--	80.00
		001		GW	03-16-93	1410	210MNCS	14.00	80.00
		001		GW	04-13-93	1354	210MNCS	--	80.00
		001		GW	05-14-93	1355	210MNCS	--	80.00
		001		GW	06-21-93	1355	210MNCS	15.47	80.00
		001		GW	10-15-92	1240	--	42.61	160.00
		001		GW	11-17-92	1245	--	41.53	160.00
10N.05E.14.312 AESCHLIMEN	350531106224301	001		GW	01-05-93	1517	--	--	160.00
		001		GW	01-22-93	1138	--	39.94	160.00
		001		GW	02-17-93	1457	--	--	160.00
		001		GW	03-16-93	1217	--	40.52	160.00
		001		GW	04-20-93	1435	--	41.64	160.00
		001		GW	05-14-93	1245	--	--	160.00
		001		GW	06-21-93	1215	--	43.15	160.00
		001		GW	10-14-92	1225	--	28.44	73.00
		001		GW	11-17-92	1109	--	28.74	73.00
		001		GW	12-21-92	1220	--	--	73.00
10N.05E.14.413A CZERNY	350522106222501	001		GW	01-22-93	1306	--	--	73.00
		001		GW	02-17-93	1357	--	--	73.00
		001		GW	03-17-93	1305	--	--	73.00
		001		GW	04-20-93	1040	--	--	73.00
		001		GW	05-12-93	1150	--	--	73.00
10N.05E.19.322 LEIB	350423106263301	001		GW	06-22-93	1345	--	--	73.00
		001		GW	12-22-92	1158	110AVMB	43.58	146.00
		001		GW	03-23-93	1024	110AVMB	42.20	146.00
		001		GW	06-23-93	1300	110AVMB	--	146.00
		001		GW	12-22-92	1020	--	25.94	--
10N.05E.22.234 TIJERAS PO	350449106231901	001		GW	03-23-93	0848	--	24.60	--
		001		GW	06-23-93	1045	--	27.81	--
		001		GW	12-22-92	1340	110AVMB	69.91	120.00
		001		GW	03-23-93	1136	110AVMB	69.00	120.00
		001		GW	06-23-93	1210	110AVMB	--	120.00
10N.05E.30.213 MCIVER	350410106262601	001		GW	03-23-93	1136	110AVMB	69.00	120.00
		001		GW	06-23-93	1210	110AVMB	--	120.00
		001		GW	10-20-92	1210	--	--	300.00
		001		GW	11-17-92	0928	--	--	300.00
		001		GW	12-21-92	1040	--	--	300.00
10N.06E.05.441 MCCRAKEN	350655106185601	001		GW	01-22-93	1011	--	--	300.00
		001		GW	02-22-93	1340	--	--	300.00
		001		GW	03-18-93	1323	--	--	300.00
		001		GW	04-20-93	1304	--	--	300.00
		001		GW	05-17-93	1438	--	--	300.00
10N.06E.07.331 FOSTER	350604106205801	001		GW	06-22-93	1125	--	--	300.00
		001		GW	10-20-92	1024	--	--	85.00
		001		GW	11-18-92	1213	--	26.98	85.00
		001		GW	01-07-93	1055	--	24.38	85.00
		001		GW	01-25-93	1425	--	21.63	85.00
		001		GW	02-22-93	1230	--	--	85.00
		001		GW	03-19-93	1248	--	22.00	85.00
		001		GW	04-20-93	1155	--	24.54	85.00
		001		GW	05-12-93	1245	--	25.82	85.00
		001		GW	06-22-93	1235	--	35.46	85.00
10N.06E.13.321 TOLMAN	350525106151701	001		GW	10-21-92	1233	325MDER	142.19	275.00
		001		GW	11-18-92	1037	325MDER	143.13	275.00
		001		GW	12-15-92	1249	325MDER	143.48	275.00
		001		GW	01-22-93	0838	325MDER	143.70	275.00
		001		GW	02-23-93	0904	325MDER	--	275.00
		001		GW	03-18-93	1418	325MDER	142.50	275.00
		001		GW	04-16-93	1031	325MDER	--	275.00



QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	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)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
10N.05E.11.324 CUS	11-16-92	6580	--	--	710	7.3	14.0	13.0	11
	01-07-93	6580	8	4.0	740	7.3	8.5	9.5	15
	01-26-93	6580	--	4.0	770	7.3	10.5	11.5	18
	02-16-93	6580	5	3.0	700	7.3	5.5	10.5	14
	03-16-93	6580	--	3.0	840	7.3	15.0	11.5	17
	04-13-93	6580	--	3.0	850	7.3	14.5	13.0	16
	05-14-93	6580	--	3.0	860	7.3	24.0	16.0	17
	06-21-93	6580	5	3.0	795	7.2	26.5	16.0	12
	10-15-92	6540	8	6.0	1020	7.2	19.5	14.0	73
	11-17-92	6540	11	7.0	1020	7.2	15.0	13.5	74
10N.05E.14.312 AES	01-05-93	6540	11	6.0	1060	7.1	7.0	13.5	75
	01-22-93	6540	8	8.0	1100	7.2	9.0	13.5	78
	02-17-93	6540	13	6.0	1130	7.2	10.0	13.5	93
	03-16-93	6540	10	6.0	1300	7.2	15.5	14.0	100
	04-20-93	6540	10	6.5	1380	7.1	--	14.0	120
	05-14-93	6540	10	5.5	1390	7.1	24.0	14.0	120
	06-21-93	6540	7	9.0	1390	7.2	27.0	14.5	110
	10-14-92	6400	17	3.0	1390	7.3	19.0	13.0	180
	11-17-92	6400	7	4.0	1420	7.3	12.0	12.0	180
	12-21-92	6400	10	5.0	1400	7.3	0.0	11.5	180
10N.05E.14.413A CZ	01-22-93	6400	11	4.0	1410	7.3	11.0	11.5	210
	02-17-93	6400	14	3.0	1520	7.3	9.5	11.5	210
	03-17-93	6400	10	1.0	1640	7.3	17.5	11.5	230
	04-20-93	6400	11	1.3	1710	7.3	12.0	13.0	210
	05-12-93	6400	10	3.0	1670	7.2	--	13.0	220
	06-22-93	6400	6	9.0	1720	7.2	29.0	13.5	210
	12-22-92	6255	11	5.0	560	7.7	6.0	15.5	10
	03-23-93	6255	13	9.0	580	7.7	14.5	17.0	9.5
	06-23-93	6255	6	6.0	585	7.6	32.0	17.0	9.4
	12-22-92	6355	16	11	990	7.7	2.0	13.5	160
10N.05E.22.234 TIJ	03-23-93	6355	16	8.0	1100	7.6	9.5	14.5	160
	06-23-93	6355	14	6.0	1260	7.3	27.0	14.5	170
	12-22-92	6030	15	5.5	1160	7.5	5.0	15.0	98
	03-23-93	6030	10	9.0	1120	7.6	19.0	15.0	110
	06-23-93	6030	12	3.0	1240	7.3	31.0	17.5	120
10N.06E.05.441 MCC	10-20-92	6880	9	8.0	1780	7.3	25.0	14.0	330
	11-17-92	6880	8	6.5	1770	7.2	10.0	14.0	320
	12-21-92	6880	10	10	1790	7.2	-0.5	13.0	400
	01-22-93	6880	11	9.0	1660	7.2	7.0	11.5	290
	02-22-93	6880	10	8.0	1720	7.2	8.0	12.5	340
	03-18-93	6880	7	12	1940	7.1	19.0	13.5	350
	04-20-93	6880	10	10	2130	7.2	16.0	14.5	400
	05-17-93	6880	8	12	1900	7.2	24.0	14.0	360
	06-22-93	6880	6	6.0	1880	7.2	24.5	14.5	290
	10-20-92	6520	23	10	1580	7.3	21.0	13.5	280
10N.06E.07.331 FOS	11-18-92	6520	8	8.0	1510	7.2	14.0	13.5	280
	01-07-93	6520	10	6.0	1440	7.3	5.0	13.0	270
	01-25-93	6520	10	6.0	1500	7.3	6.0	13.5	290
	02-22-93	6520	5	6.0	1500	7.2	8.0	13.5	310
	03-19-93	6520	7	7.0	1680	7.3	16.0	14.0	290
	04-20-93	6520	9	10	1740	7.3	13.5	14.0	280
	05-12-93	6520	5	7.5	1650	7.1	22.0	13.5	270
	06-22-93	6520	5	9.0	1590	7.1	26.0	14.0	240
	10-21-92	6775	8	8.0	1880	7.3	15.5	14.0	530
	11-18-92	6775	7	9.0	1820	7.3	11.5	114.5	400
10N.06E.13.321 TOL	12-15-92	6775	15	7.0	1820	7.4	-1.0	14.0	470
	01-22-93	6775	12	7.0	1820	7.3	4.5	14.5	440
	02-23-93	6775	6	12	1890	7.3	4.0	14.5	320
	03-18-93	6775	5	12	2070	7.3	18.0	14.5	440
	04-16-93	6775	11	4.0	2160	7.3	12.0	14.0	430

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
10N.05E.11.324 CUS	11-16-92	--	<0.010	--	0.710	--	0.030	--
	01-07-93	5.08	--	0.020	--	5.10	--	<0.010
	01-26-93	5.38	--	0.020	--	5.40	--	<0.010
	02-16-93	--	--	<0.010	--	3.40	--	<0.010
	03-16-93	--	--	<0.010	--	5.30	--	<0.010
	04-13-93	--	--	<0.010	--	4.90	--	<0.010
	05-14-93	--	--	<0.010	--	5.00	--	0.010
	06-21-93	--	--	<0.010	--	2.30	--	0.020
10N.05E.14.312 AES	10-15-92	--	<0.010	--	<0.050	--	0.080	--
	11-17-92	--	0.010	--	<0.050	--	0.030	--
	01-05-93	0.061	--	0.020	--	0.081	--	<0.010
	01-22-93	0.045	--	0.020	--	0.065	--	<0.010
	02-17-93	--	--	<0.010	--	0.057	--	<0.010
	03-16-93	--	--	<0.010	--	0.210	--	0.020
	04-20-93	--	--	<0.010	--	0.082	--	0.010
	05-14-93	--	--	<0.010	--	0.076	--	0.010
	06-21-93	--	--	<0.010	--	0.081	--	0.020
10N.05E.14.413A CZ	10-14-92	--	<0.010	--	2.40	--	0.020	--
	11-17-92	--	0.010	--	2.50	--	0.030	--
	12-21-92	2.69	--	0.010	--	2.70	--	<0.010
	01-22-93	1.77	--	0.030	--	1.80	--	<0.010
	02-17-93	--	--	<0.010	--	2.90	--	<0.010
	03-17-93	--	--	<0.010	--	3.10	--	0.020
	04-20-93	--	--	<0.010	--	3.20	--	0.010
	05-12-93	--	--	<0.010	--	3.30	--	0.020
	06-22-93	--	--	<0.010	--	3.20	--	0.020
10N.05E.19.322 LEI	12-22-92	0.820	--	0.020	--	0.840	--	<0.010
	03-23-93	--	--	<0.010	--	0.790	--	<0.010
	06-23-93	--	--	<0.010	--	0.850	--	0.020
10N.05E.22.234 TIJ	12-22-92	0.790	--	0.060	--	0.850	--	<0.010
	03-23-93	--	--	<0.010	--	1.00	--	0.020
	06-23-93	--	--	<0.010	--	1.90	--	0.020
10N.05E.30.213 MCI	12-22-92	14.0	--	0.020	--	14.0	--	<0.010
	03-23-93	--	--	<0.010	--	14.0	--	0.020
	06-23-93	--	--	<0.010	--	15.0	--	0.010
10N.06E.05.441 MCC	10-20-92	--	<0.010	--	8.00	--	0.020	--
	11-17-92	--	<0.010	--	8.90	--	0.030	--
	12-21-92	8.58	--	0.020	--	8.60	--	<0.010
	01-22-93	8.47	--	0.030	--	8.50	--	<0.010
	02-22-93	8.19	--	0.010	--	8.20	--	<0.010
	03-18-93	--	--	<0.010	--	9.90	--	0.020
	04-20-93	--	--	<0.010	--	11.0	--	0.010
	05-17-93	--	--	<0.010	--	9.80	--	0.020
	06-22-93	--	--	<0.010	--	9.80	--	0.020
10N.06E.07.331 FOS	10-20-92	--	<0.010	--	11.0	--	0.020	--
	11-18-92	--	0.030	--	12.0	--	0.020	--
	01-07-93	9.58	--	0.020	--	9.60	--	<0.010
	01-25-93	9.48	--	0.020	--	9.50	--	<0.010
	02-22-93	8.39	--	0.010	--	8.40	--	<0.010
	03-19-93	--	--	<0.010	--	9.90	--	0.010
	04-20-93	--	--	<0.010	--	9.60	--	0.010
	05-12-93	--	--	<0.010	--	10.0	--	0.020
	06-22-93	--	--	<0.010	--	14.0	--	0.010
10N.06E.13.321 TOL	10-21-92	--	<0.010	--	6.80	--	0.030	--
	11-18-92	--	0.020	--	7.00	--	0.020	--
	12-15-92	--	--	<0.010	--	6.80	--	<0.010
	01-22-93	7.18	--	0.020	--	7.20	--	<0.010
	02-23-93	--	--	<0.010	--	7.50	--	<0.010
	03-18-93	--	--	<0.010	--	7.70	--	0.020
	04-16-93	--	--	<0.010	--	7.60	--	<0.010

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)
10N.05E.11.324 CUS	11-16-92	--	<0.20	0.030	0.020	--	0.8	0.01
	01-07-93	--	--	--	--	0.020	--	--
	01-26-93	--	--	--	--	0.020	--	--
	02-16-93	--	--	--	--	0.020	--	--
	03-16-93	--	--	--	--	0.020	1.3	0.05
	04-13-93	--	--	--	--	0.030	--	--
	05-14-93	--	--	--	--	0.020	--	--
	06-21-93	<0.20	--	--	--	0.030	--	--
10N.05E.14.312 AES	10-15-92	--	<0.20	0.010	<0.010	--	1.3	0.03
	11-17-92	--	<0.20	0.010	<0.010	--	1.4	0.02
	01-05-93	--	--	--	--	<0.010	--	--
	01-22-93	--	--	--	--	<0.010	--	--
	02-17-93	--	--	--	--	<0.010	--	--
	03-16-93	--	--	--	--	<0.010	--	0.04
	04-20-93	--	--	--	--	<0.010	--	--
	05-14-93	--	--	--	--	<0.010	--	--
	06-21-93	<0.20	--	--	--	<0.010	--	--
10N.05E.14.413A CZ	10-14-92	--	<0.20	0.010	0.010	--	1.1	0.06
	11-17-92	--	<0.20	0.010	<0.010	--	1.1	0.06
	12-21-92	--	--	--	--	<0.010	--	--
	01-22-93	--	--	--	--	<0.010	--	--
	02-17-93	--	--	--	--	<0.010	--	--
	03-17-93	--	--	--	--	0.010	1.1	0.07
	04-20-93	--	--	--	--	<0.010	--	--
	05-12-93	--	--	--	--	<0.010	--	--
	06-22-93	<0.20	--	--	--	<0.010	--	--
10N.05E.19.322 LEI	12-22-92	--	--	--	--	<0.010	--	--
	03-23-93	--	--	--	--	<0.010	0.5	0.01
	06-23-93	<0.20	--	--	--	<0.010	--	--
10N.05E.22.234 TIJ	12-22-92	--	--	--	--	<0.010	--	--
	03-23-93	--	--	--	--	<0.010	--	0.04
	06-23-93	<0.20	--	--	--	0.010	--	--
10N.05E.30.213 MCI	12-22-92	--	--	--	--	<0.010	--	--
	03-23-93	--	--	--	--	<0.010	--	0.14
	06-23-93	<0.20	--	--	--	<0.010	--	--
10N.06E.05.441 MCC	10-20-92	--	<0.20	<0.010	<0.010	--	2.8	0.16
	11-17-92	--	<0.20	<0.010	<0.010	--	3.6	0.13
	12-21-92	--	--	--	--	<0.010	--	--
	01-22-93	--	--	--	--	<0.010	--	--
	02-22-93	--	--	--	--	<0.010	--	--
	03-18-93	--	--	--	--	<0.010	--	0.14
	04-20-93	--	--	--	--	<0.010	--	--
	05-17-93	--	--	--	--	<0.010	--	--
	06-22-93	<0.20	--	--	--	<0.010	--	--
10N.06E.07.331 FOS	10-20-92	--	<0.20	0.020	0.020	--	1.8	0.14
	11-18-92	--	<0.20	0.040	0.040	--	3.0	0.13
	01-07-93	--	--	--	--	0.020	--	--
	01-25-93	--	--	--	--	0.020	--	--
	02-22-93	--	--	--	--	0.020	--	--
	03-19-93	--	--	--	--	0.030	1.9	0.09
	04-20-93	--	--	--	--	0.020	--	--
	05-12-93	--	--	--	--	0.020	--	--
	06-22-93	<0.20	--	--	--	<0.010	--	--
10N.06E.13.321 TOL	10-21-92	--	<0.20	0.020	0.010	--	31	0.15
	11-18-92	--	0.30	0.030	0.020	--	1.8	0.14
	12-15-92	--	--	--	--	0.020	--	--
	01-22-93	--	--	--	--	0.010	--	--
	02-23-93	--	--	--	--	0.010	--	--
	03-18-93	--	--	--	--	0.020	--	0.14
	04-16-93	--	--	--	--	0.010	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
10N.06E.13.321 TOLMAN	350525106151701	001	GW	05-17-93	1220	325MDER	--	275.00	6775	
		001	GW	06-22-93	0915	325MDER	141.34	275.00	6775	
11N.02E.24.223	351019106404001	001	GW	09-03-93	1340	112SNTF	--	274.00	5064	
11N.02E.25.234 KATZ	350911106404801	001	GW	08-27-93	1800	--	13.83	--	4988	
11N.03E.02.33142	351221106360601	001	GW	08-18-93	1100	110ALVM	11.15	15.80	5004	
		001	GW	08-18-93	1105	110ALVM	11.15	15.80	5004	
11N.03E.05.111 GOSS	351300106392201	001	GW	08-26-93	1515	--	155.76	--	5135	
11N.03E.08.332 GRISCOE	351128106391401	001	GW	09-04-93	1515	--	--	148.00	5032	
11N.03E.09.123 TIFFANY	351204106380501	001	GW	08-28-93	1527	--	9.63	--	4998	
11N.03E.09.414 WILSON	351134106373501	001	GW	08-24-93	1150	--	14.36	--	4995	
		001	GW	09-09-93	1200	--	--	--	4995	
11N.03E.10.123 WOODARD	351203106365901	001	GW	08-24-93	1800	--	11.38	--	4998	
11N.03E.10.222 CAUDILL	351211106361701	001	GW	08-28-93	1200	--	15.60	--	4988	
11N.03E.10.3442	351125106364601	001	GW	08-01-93	1410	110ALVM	15.17	31.50	4995	
		001	GW	08-01-93	1415	110ALVM	15.17	31.50	4995	
11N.03E.10.423 DANLAR	351135106362802	001	GW	08-18-93	1450	--	32.00	--	5000	
11N.03E.13.231 SCHUMACKE	351106106343601	001	GW	12-10-92	1135	--	290.04	364.00	5230	
11N.03E.13.332 TUFF SHED	351034106345601	001	GW	02-24-93	1449	--	261.20	--	5190	
11N.03E.15.1234	351109106365501	001	GW	08-01-93	1040	110ALVM	17.36	27.08	4995	
		001	GW	08-01-93	1045	110ALVM	17.36	27.08	4995	
11N.03E.15.211 SCHOFIELD	351116106364101	001	GW	09-02-93	1900	--	--	130.00	4998	
11N.03E.16.143 DILLON	351004106401001	001	GW	08-26-93	1800	--	--	--	4985	
11N.03E.16.214 GARCIA	351114106373501	001	GW	08-31-93	1835	--	19.91	190.00	4995	
11N.03E.17.233D	351057106384204	001	GW	08-02-93	1400	110ALVM	10.60	23.00	4990	
		001	GW	08-02-93	1405	110ALVM	10.60	23.00	4990	
11N.03E.17.313 COLE	351043106392301	001	GW	08-27-93	1545	--	7.20	--	4988	
		001	GW	09-09-93	1104	--	--	--	4988	
11N.03E.22.213 WORTH	351018106364001	001	GW	08-23-93	1540	--	68.05	--	5015	
11N.03E.22.332 THATCHER	350944106370601	001	GW	09-04-93	1130	--	--	--	5005	
11N.03E.28.123 HINMAN	350927106375701	001	GW	08-31-93	1335	--	37.63	75.00	4985	
		001	GW	09-07-93	1719	--	--	75.00	4985	
11N.03E.32.113 ROMERO	350831106392001	001	GW	09-09-93	1405	--	--	--	4975	
11N.04E.15.244 LEYBA	351055106295401	001	GW	12-10-92	1543	--	426.32	632.00	6040	
11N.04E.15.321 VANDERMAY	351049106303801	001	GW	02-17-93	1124	--	315.39	660.00	5865	
11N.04E.17.434 NAZARENE	351029106322001	001	GW	02-19-93	0930	--	--	670.00	5500	
11N.04E.18.124 SPANISH A	351108106333601	001	GW	02-25-93	1014	--	--	575.00	5385	
11N.04E.21.411 GRACE LUT	351001106312201	001	GW	02-26-93	1221	--	--	930.00	5745	
11N.04E.22.244 WARNER	351005106295701	001	GW	02-23-93	1500	--	--	515.00	6020	
11N.04E.22.312 LACY	350957106304301	001	GW	02-26-93	1347	--	--	655.00	5868	
11N.04E.22.444 ST CHAD	350935106295801	001	GW	02-24-93	1200	--	--	480.00	6010	
11N.04E.24.124P ELLENA GA	351020106282001	001	GW	09-09-93	0915	--	--	--	6455	
11N.05E.23.222B MATHEWS	351011106220401	001	GW	10-13-92	1210	--	15.39	--	7100	
		001	GW	11-12-92	1348	--	14.85	--	7100	
		001	GW	01-08-93	1318	--	--	--	7100	
		001	GW	01-20-93	1313	--	11.09	--	7100	
		001	GW	02-11-93	1352	--	10.74	--	7100	
		001	GW	03-15-93	1356	--	10.80	--	7100	
		001	GW	04-13-93	1249	--	--	--	7100	
		001	GW	05-13-93	1315	--	12.54	--	7100	
		001	GW	06-16-93	1130	--	13.67	--	7100	
11N.05E.24.412 ANISON	350949106211801	001	GW	10-15-92	1058	--	186.93	260.00	6940	
		001	GW	11-16-92	1208	--	187.25	260.00	6940	
		001	GW	12-15-92	1050	--	187.45	260.00	6940	
		001	GW	01-26-93	1017	--	187.59	260.00	6940	
		001	GW	02-16-93	1134	--	--	260.00	6940	
		001	GW	03-15-93	1512	--	186.71	260.00	6940	
		001	GW	04-13-93	1119	--	--	260.00	6940	
		001	GW	05-14-93	1023	--	--	260.00	6940	
		001	GW	06-18-93	1210	--	183.75	260.00	6940	
11N.05E.24.443 WESTBROOK	350930106210701	001	GW	10-13-92	1317	--	--	120.00	6860	

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	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)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)
10N.06E.13.321 TOL	05-17-93	--	12	2170	7.4	21.0	15.0	--	--	--
	06-22-93	5	10	2140	7.3	21.0	14.5	--	--	--
11N.02E.24.223	09-03-93	--	--	433	7.7	--	--	--	--	--
11N.02E.25.234 K	08-27-93	10	12	414	8.0	18.5	15.0	--	--	--
11N.03E.02.33142	08-18-93	--	0.3	765	7.1	23.0	17.5	637	0.2	330
	08-18-93	--	0.3	765	7.1	23.0	17.5	637	0.2	--
11N.03E.05.111 G	08-26-93	7	1.0	907	7.6	31.0	19.0	--	--	--
11N.03E.08.332 G	09-04-93	--	--	468	7.9	--	--	--	--	--
11N.03E.09.123 T	08-28-93	7	4.0	429	8.0	26.5	15.0	--	--	--
11N.03E.09.414 W	08-24-93	35	10	530	7.9	32.5	16.0	--	--	--
	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.10.123 W	08-24-93	40	6.0	491	8.0	31.5	14.5	--	--	--
11N.03E.10.222 C	08-28-93	8	10	434	8.0	23.5	12.0	--	--	--
11N.03E.10.3442	08-01-93	--	1.0	700	7.3	--	18.5	--	0.2	290
	08-01-93	--	1.0	700	7.3	--	18.5	--	0.2	--
11N.03E.10.423 D	08-18-93	22	6.0	290	8.1	31.0	15.0	--	--	--
11N.03E.13.231 S	12-10-92	5	6.0	500	7.9	5.5	16.0	--	--	--
11N.03E.13.332 T	02-24-93	8	6.0	540	7.9	13.5	16.0	--	--	--
11N.03E.15.1234	08-01-93	--	--	800	7.2	--	19.5	640	1.8	370
	08-01-93	--	--	800	7.2	--	19.5	640	1.8	--
11N.03E.15.211 S	09-02-93	--	--	--	--	--	--	--	--	--
11N.03E.16.143 D	08-26-93	8	10	538	7.8	20.5	15.0	--	--	--
11N.03E.16.214 G	08-31-93	12	16	687	7.7	22.0	15.5	--	--	--
11N.03E.17.233D	08-02-93	--	--	680	7.2	35.0	16.0	639	0.4	290
	08-02-93	--	--	680	7.2	35.0	16.0	639	0.4	--
11N.03E.17.313 C	08-27-93	12	3.0	421	8.0	20.0	15.5	--	--	--
	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.22.213 W	08-23-93	16	4.0	869	7.6	37.0	17.0	--	--	--
11N.03E.22.332 T	09-04-93	--	--	735	7.6	--	--	--	--	--
11N.03E.28.123 H	08-31-93	5	10	1340	7.4	24.0	16.0	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
11N.03E.32.113 R	09-09-93	--	--	841	--	--	--	--	--	--
11N.04E.15.244 L	12-10-92	9	4.0	390	7.6	6.5	19.5	--	--	--
11N.04E.15.321 V	02-17-93	14	7.0	280	8.0	9.0	20.5	--	--	--
11N.04E.17.434 N	02-19-93	--	--	600	7.9	11.0	--	--	--	--
11N.04E.18.124 S	02-25-93	10	6.0	330	8.0	8.0	19.0	--	--	--
11N.04E.21.411 G	02-26-93	6	7.0	299	8.0	13.0	--	--	--	--
11N.04E.22.244 W	02-23-93	6	--	428	7.9	16.5	16.5	--	--	--
11N.04E.22.312 L	02-26-93	11	83.5	325	7.8	11.0	20.5	--	--	--
11N.04E.22.444 S	02-24-93	5	2.0	380	7.9	13.0	15.5	--	--	--
11N.04E.24.124P E	09-09-93	--	--	577	7.1	--	--	--	--	--
11N.05E.23.222B MA	10-13-92	9	9.0	830	7.2	21.5	11.5	--	--	--
	11-12-92	8	9.0	810	7.2	7.0	11.0	--	--	--
	01-06-93	8	8.0	810	7.1	8.0	11.0	--	--	--
	01-20-93	8	9.0	800	7.2	4.0	10.5	--	--	--
	02-11-93	7	15	810	7.2	7.5	10.0	--	--	--
	03-15-93	8	8.0	860	7.2	11.0	9.0	--	--	--
	04-13-93	9	9.0	840	7.2	13.5	9.0	--	--	--
	05-13-93	6	10	816	7.2	20.5	11.0	--	--	--
	06-16-93	10	8.0	850	7.2	22.5	11.0	--	--	--
11N.05E.24.412 ANI	10-15-92	13	7.0	590	7.3	16.5	12.5	--	--	--
	11-16-92	11	10	595	7.3	12.5	11.5	--	--	--
	12-15-92	9	5.5	550	7.3	-3.0	11.5	--	--	--
	01-26-93	10	10	570	7.3	6.5	10.5	--	--	--
	02-16-93	10	11	600	7.4	4.0	10.5	--	--	--
	03-15-93	7	8.0	668	7.4	13.0	10.5	--	--	--
	04-13-93	10	6.0	680	7.3	9.0	11.5	--	--	--
	05-14-93	8	6.0	690	7.4	19.5	12.0	--	--	--
	06-18-93	5	10	700	7.3	24.5	13.0	--	--	--
11N.05E.24.443 WES	10-13-92	12	9.0	1070	7.2	22.5	13.5	--	--	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## BERNALILLO COUNTY -- Continued

LOCAL IDENTIFIER	DATE	HARDNESS 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- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
10N.06E.13.321 TOL	05-17-93	--	--	--	--	--	--	--	--	--
	06-22-93	--	--	--	--	--	--	--	--	--
11N.02E.24.223	09-03-93	--	--	--	--	--	--	--	--	--
11N.02E.25.234 K	08-27-93	--	--	--	--	--	--	--	--	--
11N.03E.02.33142	08-18-93	35	110	14	33	0.8	5.1	362	0	297
	08-18-93	--	--	--	--	--	--	362	0	297
11N.03E.05.111	G 08-26-93	--	--	--	--	--	--	--	--	--
11N.03E.08.332	G 09-04-93	--	--	--	--	--	--	--	--	--
11N.03E.09.123	T 08-28-93	--	--	--	--	--	--	--	--	--
11N.03E.09.414	W 08-24-93	--	--	--	--	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.10.123	W 08-24-93	--	--	--	--	--	--	--	--	--
11N.03E.10.222	C 08-28-93	--	--	--	--	--	--	--	--	--
11N.03E.10.3442	08-01-93	87	95	12	35	0.9	5.1	244	0	200
	08-01-93	--	--	--	--	--	--	244	0	200
11N.03E.10.423	D 08-18-93	--	--	--	--	--	--	124	0	102
11N.03E.13.231	S 12-10-92	--	--	--	--	--	--	--	--	--
11N.03E.13.332	T 02-24-93	--	--	--	--	--	--	--	--	--
11N.03E.15.1234	08-01-93	96	130	12	36	0.8	6.1	339	0	278
	08-01-93	--	--	--	--	--	--	339	0	278
11N.03E.15.211	S 09-02-93	--	--	--	--	--	--	--	--	--
11N.03E.16.143	D 08-26-93	--	--	--	--	--	--	--	--	--
11N.03E.16.214	G 08-31-93	--	--	--	--	--	--	--	--	--
11N.03E.17.233D	08-02-93	33	95	13	40	1	7.4	314	0	257
	08-02-93	--	--	--	--	--	--	314	0	257
11N.03E.17.313	C 08-27-93	--	--	--	--	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.22.213	W 08-23-93	--	--	--	--	--	--	--	--	--
11N.03E.22.332	T 09-04-93	--	--	--	--	--	--	--	--	--
11N.03E.28.123	H 08-31-93	--	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
11N.03E.32.113	R 09-09-93	--	--	--	--	--	--	--	--	--
11N.04E.15.244	L 12-10-92	--	--	--	--	--	--	--	--	--
11N.04E.15.321	V 02-17-93	--	--	--	--	--	--	--	--	--
11N.04E.17.434	N 02-19-93	--	--	--	--	--	--	--	--	--
11N.04E.18.124	S 02-25-93	--	--	--	--	--	--	--	--	--
11N.04E.21.411	G 02-26-93	--	--	--	--	--	--	--	--	--
11N.04E.22.244	W 02-23-93	--	--	--	--	--	--	--	--	--
11N.04E.22.312	L 02-26-93	--	--	--	--	--	--	--	--	--
11N.04E.22.444	S 02-24-93	--	--	--	--	--	--	--	--	--
11N.04E.24.124P	E 09-09-93	--	--	--	--	--	--	--	--	--
11N.05E.23.222B MA	10-13-92	--	--	--	--	--	--	--	--	--
	11-12-92	--	--	--	--	--	--	--	--	--
	01-06-93	--	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--	--
	05-13-93	--	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--	--
11N.05E.24.412 ANI	10-15-92	--	--	--	--	--	--	--	--	--
	11-16-92	--	--	--	--	--	--	--	--	--
	12-15-92	--	--	--	--	--	--	--	--	--
	01-26-93	--	--	--	--	--	--	--	--	--
	02-16-93	--	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--	--
	05-14-93	--	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--	--
11N.05E.24.443 WES	10-13-92	--	--	--	--	--	--	--	--	--

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	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, 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)
10N.06E.13.321 TOL	05-17-93	--	--	470	--	--	--	--	--	--
	06-22-93	--	--	290	--	--	--	--	--	--
11N.02E.24.223	09-03-93	--	--	15	--	--	--	--	--	--
11N.02E.25.234 K	08-27-93	--	--	11	--	--	--	--	--	--
11N.03E.02.33142	08-18-93	293	66	44	0.50	0.12	33	493	486	--
	08-18-93	--	--	--	--	--	--	--	--	--
11N.03E.05.111 G	08-26-93	--	--	13	--	--	--	--	--	--
11N.03E.08.332 G	09-04-93	--	--	15	--	--	--	--	--	--
11N.03E.09.123 T	08-28-93	--	--	12	--	--	--	--	--	--
11N.03E.09.414 W	08-24-93	--	--	14	--	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.10.123 W	08-24-93	--	--	14	--	--	--	--	--	--
11N.03E.10.222 C	08-28-93	--	--	9.0	--	--	--	--	--	--
11N.03E.10.3442	08-01-93	192	160	21	0.50	0.090	32	500	483	--
	08-01-93	--	--	--	--	--	--	--	--	--
11N.03E.10.423 D	08-18-93	--	--	7.9	--	--	--	--	--	--
11N.03E.13.231 S	12-10-92	--	--	16	--	--	--	--	--	--
11N.03E.13.332 T	02-24-93	--	--	16	--	--	--	--	--	--
11N.03E.15.1234	08-01-93	272	160	22	0.70	0.080	22	580	556	--
	08-01-93	--	--	--	--	--	--	--	--	--
11N.03E.15.211 S	09-02-93	--	--	11	--	--	--	--	--	--
11N.03E.16.143 D	08-26-93	--	--	17	--	--	--	--	--	--
11N.03E.16.214 G	08-31-93	--	--	61	--	--	--	--	--	--
11N.03E.17.233D	08-02-93	258	100	17	0.70	0.070	22	467	453	--
	08-02-93	--	--	--	--	--	--	--	--	--
11N.03E.17.313 C	08-27-93	--	--	12	--	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.22.213 W	08-23-93	--	--	22	--	--	--	--	--	2.13
11N.03E.22.332 T	09-04-93	--	--	18	--	--	--	--	--	--
11N.03E.28.123 H	08-31-93	--	--	33	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
11N.03E.32.113 R	09-09-93	--	--	10	--	--	--	--	--	--
11N.04E.15.244 L	12-10-92	--	--	15	--	--	--	--	--	--
11N.04E.15.321 V	02-17-93	--	--	4.4	--	--	--	--	--	--
11N.04E.17.434 N	02-19-93	--	--	86	--	--	--	--	--	0.150
11N.04E.18.124 S	02-25-93	--	--	9.6	--	--	--	--	--	--
11N.04E.21.411 G	02-26-93	--	--	5.4	--	--	--	--	--	0.300
11N.04E.22.244 W	02-23-93	--	--	6.3	--	--	--	--	--	--
11N.04E.22.312 L	02-26-93	--	--	5.2	--	--	--	--	--	0.280
11N.04E.22.444 S	02-24-93	--	--	5.5	--	--	--	--	--	--
11N.04E.24.124P E	09-09-93	--	--	7.6	--	--	--	--	--	--
11N.05E.23.222B MA	10-13-92	--	--	77	--	--	--	--	--	--
	11-12-92	--	--	78	--	--	--	--	--	--
	01-06-93	--	--	76	--	--	--	--	--	0.170
	01-20-93	--	--	82	--	--	--	--	--	--
	02-11-93	--	--	91	--	--	--	--	--	0.150
	03-15-93	--	--	81	--	--	--	--	--	--
	04-13-93	--	--	74	--	--	--	--	--	--
	05-13-93	--	--	67	--	--	--	--	--	--
	06-16-93	--	--	67	--	--	--	--	--	--
11N.05E.24.412 ANI	10-15-92	--	--	45	--	--	--	--	--	--
	11-16-92	--	--	40	--	--	--	--	--	--
	12-15-92	--	--	34	--	--	--	--	--	0.550
	01-26-93	--	--	40	--	--	--	--	--	0.580
	02-16-93	--	--	49	--	--	--	--	--	--
	03-15-93	--	--	50	--	--	--	--	--	--
	04-13-93	--	--	53	--	--	--	--	--	--
	05-14-93	--	--	54	--	--	--	--	--	--
	06-18-93	--	--	56	--	--	--	--	--	--
11N.05E.24.443 WES	10-13-92	--	--	150	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)
10N.06E.13.321 TOL	05-17-93	--	<0.010	--	6.10	--	0.020	--	--	--
	06-22-93	--	<0.010	--	7.60	--	0.020	0.20	--	0.18
11N.02E.24.223	09-03-93	--	<0.010	--	<0.050	--	0.030	--	--	--
11N.02E.25.234 K	08-27-93	--	<0.010	--	<0.050	--	0.020	--	--	--
11N.03E.02.33142	08-18-93	--	<0.010	--	<0.050	--	0.090	0.20	--	0.11
	08-18-93	--	--	--	--	--	--	--	--	--
11N.03E.05.111 G	08-26-93	--	<0.010	--	0.120	--	0.020	--	--	--
11N.03E.08.332 G	09-04-93	--	<0.010	--	<0.050	--	0.090	--	--	--
11N.03E.09.123 T	08-28-93	--	<0.010	--	<0.050	--	0.070	--	--	--
11N.03E.09.414 W	08-24-93	--	<0.010	--	<0.050	--	0.080	--	--	--
	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.10.123 W	08-24-93	--	<0.010	--	<0.050	--	0.050	--	--	--
11N.03E.10.222 C	08-28-93	--	<0.010	--	<0.050	--	0.030	--	--	--
11N.03E.10.3442	08-01-93	--	<0.010	--	<0.050	--	0.160	0.20	--	0.04
	08-01-93	--	--	--	--	--	--	--	--	--
11N.03E.10.423 D	08-18-93	--	<0.010	--	<0.050	--	0.030	--	--	--
11N.03E.13.231 S	12-10-92	--	<0.010	--	<0.050	--	<0.010	--	--	--
11N.03E.13.332 T	02-24-93	--	<0.010	--	0.051	--	0.010	--	--	--
11N.03E.15.1234	08-01-93	--	<0.010	--	0.055	--	0.020	<0.20	--	--
	08-01-93	--	--	--	--	--	--	--	--	--
11N.03E.15.211 S	09-02-93	--	<0.010	--	<0.050	--	0.030	--	--	--
11N.03E.16.143 D	08-26-93	--	<0.010	--	<0.050	--	0.020	--	--	--
11N.03E.16.214 G	08-31-93	--	<0.010	--	39.0	--	0.020	--	--	--
11N.03E.17.233D	08-02-93	--	<0.010	--	0.410	--	0.070	0.30	--	0.23
	08-02-93	--	--	--	--	--	--	--	--	--
11N.03E.17.313 C	08-27-93	--	<0.010	--	<0.050	--	0.090	--	--	--
	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.22.213 W	08-23-93	--	0.070	--	2.20	--	0.020	--	--	--
11N.03E.22.332 T	09-04-93	--	<0.010	--	<0.050	--	0.030	--	--	--
11N.03E.28.123 H	08-31-93	--	<0.010	--	<0.050	--	0.120	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
11N.03E.32.113 R	09-09-93	--	<0.010	--	<0.050	--	0.030	--	--	--
11N.04E.15.244 L	12-10-92	--	<0.010	--	2.80	--	<0.010	--	--	--
11N.04E.15.321 V	02-17-93	--	<0.010	--	0.210	--	<0.010	--	--	--
11N.04E.17.434 N	02-19-93	--	0.010	--	0.160	--	<0.010	--	--	--
11N.04E.18.124 S	02-25-93	--	<0.010	--	<0.050	--	0.020	--	--	--
11N.04E.21.411 G	02-26-93	--	0.010	--	0.310	--	<0.010	--	--	--
11N.04E.22.244 W	02-23-93	--	<0.010	--	2.60	--	<0.010	--	--	--
11N.04E.22.312 L	02-26-93	--	0.010	--	0.290	--	<0.010	--	--	--
11N.04E.22.444 S	02-24-93	--	<0.010	--	2.50	--	<0.010	--	--	--
11N.04E.24.124P E	09-09-93	--	<0.010	--	0.140	--	0.020	--	--	--
11N.05E.23.222B MA	10-13-92	<0.010	--	0.190	--	0.010	--	--	<0.20	--
	11-12-92	<0.010	--	0.200	--	<0.010	--	--	<0.20	--
	01-06-93	--	0.010	--	0.180	--	<0.010	--	--	--
	01-20-93	--	<0.010	--	0.200	--	<0.010	--	--	--
	02-11-93	--	0.020	--	0.170	--	<0.010	--	--	--
	03-15-93	--	<0.010	--	0.190	--	0.020	--	--	--
	04-13-93	--	<0.010	--	0.190	--	<0.010	--	--	--
	05-13-93	--	<0.010	--	0.240	--	0.020	--	--	--
	06-16-93	--	<0.010	--	0.240	--	0.020	<0.20	--	--
11N.05E.24.412 ANI	10-15-92	<0.010	--	0.610	--	0.020	--	--	<0.20	--
	11-16-92	<0.010	--	0.590	--	0.020	--	--	<0.20	--
	12-15-92	--	0.010	--	0.560	--	<0.010	--	--	--
	01-26-93	--	0.010	--	0.590	--	<0.010	--	--	--
	02-16-93	--	<0.010	--	0.650	--	<0.010	--	--	--
	03-15-93	--	<0.010	--	0.700	--	0.010	--	--	--
	04-13-93	--	<0.010	--	0.700	--	<0.010	--	--	--
	05-14-93	--	<0.010	--	0.680	--	<0.010	--	--	--
	06-18-93	--	<0.010	--	0.660	--	0.020	<0.20	--	--
11N.05E.24.443 WES	10-13-92	<0.010	--	19.0	--	0.020	--	--	<0.20	--



QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC SOLVED (MG/L AS C) (00681)	PHENOLS TOTAL (UG/L) (32730)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
10N.06E.13.321 TOL	05-17-93	--	--	--	0.020	--	--	--	--	--
	06-22-93	--	--	--	0.020	--	--	--	--	--
11N.02E.24.223	09-03-93	--	--	--	<0.010	--	--	--	--	--
11N.02E.25.234 K	08-27-93	--	--	--	0.010	--	--	--	--	--
11N.03E.02.33142	08-18-93	0.030	--	--	<0.010	--	4.6	2	0.06	--
	08-18-93	--	--	--	--	--	--	--	--	2
11N.03E.05.111 G	08-26-93	--	--	--	0.020	--	--	--	--	--
11N.03E.08.332 G	09-04-93	--	--	--	0.050	--	--	--	--	--
11N.03E.09.123 T	08-28-93	--	--	--	0.040	--	--	--	--	--
11N.03E.09.414 W	08-24-93	--	--	--	0.040	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.10.123 W	08-24-93	--	--	--	0.030	--	--	--	--	--
11N.03E.10.222 C	08-28-93	--	--	--	0.050	--	--	--	--	--
11N.03E.10.3442	08-01-93	0.040	--	--	0.020	--	2.2	2	0.04	--
	08-01-93	--	--	--	--	--	--	--	--	5
11N.03E.10.423 D	08-18-93	--	--	--	0.010	--	--	--	--	--
11N.03E.13.231 S	12-10-92	--	--	--	<0.010	--	--	--	0.03	--
11N.03E.13.332 T	02-24-93	--	--	--	0.010	1.2	--	--	0.01	--
11N.03E.15.1234	08-01-93	0.010	--	--	<0.010	--	2.0	2	0.03	--
	08-01-93	--	--	--	--	--	--	--	--	3
11N.03E.15.211 S	09-02-93	--	--	--	0.020	--	--	--	--	--
11N.03E.16.143 D	08-26-93	--	--	--	0.010	--	--	--	--	--
11N.03E.16.214 G	08-31-93	--	--	--	0.010	--	--	--	--	--
11N.03E.17.233D	08-02-93	0.020	--	--	0.010	--	2.3	2	0.04	--
	08-02-93	--	--	--	--	--	--	--	--	2
11N.03E.17.313 C	08-27-93	--	--	--	0.040	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.22.213 W	08-23-93	--	--	--	0.030	--	--	--	--	--
11N.03E.22.332 T	09-04-93	--	--	--	<0.010	--	--	--	--	--
11N.03E.28.123 H	08-31-93	--	--	--	0.020	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--	--
11N.03E.32.113 R	09-09-93	--	--	--	0.010	--	--	--	--	--
11N.04E.15.244 L	12-10-92	--	--	--	<0.010	--	--	--	--	--
11N.04E.15.321 V	02-17-93	--	--	--	<0.010	0.1	--	--	0.01	--
11N.04E.17.434 N	02-19-93	--	--	--	<0.010	0.3	--	--	0.03	--
11N.04E.18.124 S	02-25-93	--	--	--	<0.010	--	--	--	0.01	--
11N.04E.21.411 G	02-26-93	--	--	--	<0.010	--	--	--	0.01	--
11N.04E.22.244 W	02-23-93	--	--	--	<0.010	--	--	--	0.03	--
11N.04E.22.312 L	02-26-93	--	--	--	<0.010	--	--	--	0.01	--
11N.04E.22.444 S	02-24-93	--	--	--	<0.010	--	--	--	0.02	--
11N.04E.24.124P E	09-09-93	--	--	--	<0.010	--	--	--	--	--
11N.05E.23.222B MA	10-13-92	--	<0.010	0.020	--	1.5	--	--	0.02	--
	11-12-92	--	<0.010	<0.010	--	1.2	--	--	0.02	--
	01-06-93	--	--	--	<0.010	--	--	--	--	--
	01-20-93	--	--	--	<0.010	--	--	--	--	--
	02-11-93	--	--	--	<0.010	--	--	--	--	--
	03-15-93	--	--	--	<0.010	1.8	--	--	0.03	--
	04-13-93	--	--	--	<0.010	--	--	--	--	--
	05-13-93	--	--	--	<0.010	--	--	--	--	--
	06-16-93	--	--	--	<0.010	--	--	--	--	--
11N.05E.24.412 ANI	10-15-92	--	<0.010	<0.010	--	0.9	--	--	0.02	--
	11-16-92	--	<0.010	<0.010	--	0.5	--	--	0.01	--
	12-15-92	--	--	--	0.010	--	--	--	--	--
	01-26-93	--	--	--	<0.010	--	--	--	--	--
	02-16-93	--	--	--	<0.010	0.5	--	--	--	--
	03-15-93	--	--	--	<0.010	0.5	--	--	0.02	--
	04-13-93	--	--	--	<0.010	1.8	--	--	--	--
	05-14-93	--	--	--	<0.010	2.5	--	--	--	--
	06-18-93	--	--	--	0.010	--	--	--	--	--
11N.05E.24.443 WES	10-13-92	--	0.020	0.030	--	1.3	--	--	0.17	--

[illegible]

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	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)	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)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)
10N.06E.13.321 TOL	05-17-93	--	--	--	--	--	--	--	--
	06-22-93	--	--	--	--	--	--	--	--
11N.02E.24.223	09-03-93	--	--	--	--	--	--	--	--
11N.02E.25.234 K	08-27-93	--	--	--	--	--	--	--	--
11N.03E.02.33142	08-18-93	--	2300	--	--	--	--	--	4.1
	08-18-93	<1	>1000	8	5	<1	<1.0	6	--
11N.03E.05.111 G	08-26-93	--	--	--	--	--	--	--	--
11N.03E.08.332 G	09-04-93	--	--	--	--	--	--	--	--
11N.03E.09.123 T	08-28-93	--	--	--	--	--	--	--	--
11N.03E.09.414 W	08-24-93	--	--	--	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--
11N.03E.10.123 W	08-24-93	--	--	--	--	--	--	--	--
11N.03E.10.222 C	08-28-93	--	--	--	--	--	--	--	--
11N.03E.10.3442	08-01-93	--	1100	--	--	--	--	--	<0.6
	08-01-93	<1	>1000	6	1	<1	<1.0	6	--
11N.03E.10.423 D	08-18-93	--	--	--	--	--	--	--	--
11N.03E.13.231 S	12-10-92	--	--	--	--	--	--	--	--
11N.03E.13.332 T	02-24-93	--	--	--	--	--	--	--	--
11N.03E.15.1234	08-01-93	--	130	--	--	--	--	--	65
	08-01-93	<1	150	9	5	10	<1.0	5	--
11N.03E.15.211 S	09-02-93	--	--	--	--	--	--	--	--
11N.03E.16.143 D	08-26-93	--	--	--	--	--	--	--	--
11N.03E.16.214 G	08-31-93	--	--	--	--	--	--	--	--
11N.03E.17.233D	08-02-93	--	1000	--	--	--	--	--	11
	08-02-93	<1	1000	8	4	<1	<1.0	3	--
11N.03E.17.313 C	08-27-93	--	--	--	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--
11N.03E.22.213 W	08-23-93	--	--	--	--	--	--	--	--
11N.03E.22.332 T	09-04-93	--	--	--	--	--	--	--	--
11N.03E.28.123 H	08-31-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
11N.03E.32.113 R	09-09-93	--	--	--	--	--	--	--	--
11N.04E.15.244 L	12-10-92	--	--	--	--	--	--	--	--
11N.04E.15.321 V	02-17-93	--	--	--	--	--	--	--	--
11N.04E.17.434 N	02-19-93	--	--	--	--	--	--	--	--
11N.04E.18.124 S	02-25-93	--	--	--	--	--	--	--	--
11N.04E.21.411 G	02-26-93	--	--	--	--	--	--	--	--
11N.04E.22.244 W	02-23-93	--	--	--	--	--	--	--	--
11N.04E.22.312 L	02-26-93	--	--	--	--	--	--	--	--
11N.04E.22.444 S	02-24-93	--	--	--	--	--	--	--	--
11N.04E.24.124P E	09-09-93	--	--	--	--	--	--	--	--
11N.05E.23.222B MA	10-13-92	--	--	--	--	--	--	--	--
	11-12-92	--	--	--	--	--	--	--	--
	01-06-93	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--
	05-13-93	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--
11N.05E.24.412 ANI	10-15-92	--	--	--	--	--	--	--	--
	11-16-92	--	--	--	--	--	--	--	--
	12-15-92	--	--	--	--	--	--	--	--
	01-26-93	--	--	--	--	--	--	--	--
	02-16-93	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--
	05-14-93	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--
11N.05E.24.443 WES	10-13-92	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L) AS U-NAT) (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, DIS- SOLVED AS (PCI/L) CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)
10N.06E.13.321 TOL	05-17-93	--	--	--	--	--	--	--	--
	06-22-93	--	--	--	--	--	--	--	--
11N.02E.24.223	09-03-93	--	--	--	--	--	--	--	--
11N.02E.25.234 K	08-27-93	--	--	--	--	--	--	--	--
11N.03E.02.33142	08-18-93	2.8	2.9	2.0	<0.6	<0.6	0.21	8.3	2.0
	08-18-93	--	--	--	--	--	--	--	--
11N.03E.05.111	G 08-26-93	--	--	--	--	--	--	--	--
11N.03E.08.332	G 09-04-93	--	--	--	--	--	--	--	--
11N.03E.09.123	T 08-28-93	--	--	--	--	--	--	--	--
11N.03E.09.414	W 08-24-93	--	--	--	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--
11N.03E.10.123	W 08-24-93	--	--	--	--	--	--	--	--
11N.03E.10.222	C 08-28-93	--	--	--	--	--	--	--	--
11N.03E.10.3442	08-01-93	1.7	<0.6	1.2	<0.6	<0.6	0.21	8.1	1.8
	08-01-93	--	--	--	--	--	--	--	--
11N.03E.10.423	D 08-18-93	--	--	--	--	--	--	--	--
11N.03E.13.231	S 12-10-92	--	--	--	--	--	--	--	--
11N.03E.13.332	T 02-24-93	--	--	--	--	--	--	--	--
11N.03E.15.1234	08-01-93	14	46	9.6	<0.6	<0.6	0.16	22	3.6
	08-01-93	--	--	--	--	--	--	--	--
11N.03E.15.211	S 09-02-93	--	--	--	--	--	--	--	--
11N.03E.16.143	D 08-26-93	--	--	--	--	--	--	--	--
11N.03E.16.214	G 08-31-93	--	--	--	--	--	--	--	--
11N.03E.17.233D	08-02-93	4.5	8.1	3.3	<0.6	0.6	0.18	12	2.3
	08-02-93	--	--	--	--	--	--	--	--
11N.03E.17.313	C 08-27-93	--	--	--	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--
11N.03E.22.213	W 08-23-93	--	--	--	--	--	--	--	--
11N.03E.22.332	T 09-04-93	--	--	--	--	--	--	--	--
11N.03E.28.123	H 08-31-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
11N.03E.32.113	R 09-09-93	--	--	--	--	--	--	--	--
11N.04E.15.244	L 12-10-92	--	--	--	--	--	--	--	--
11N.04E.15.321	V 02-17-93	--	--	--	--	--	--	--	--
11N.04E.17.434	N 02-19-93	--	--	--	--	--	--	--	--
11N.04E.18.124	S 02-25-93	--	--	--	--	--	--	--	--
11N.04E.21.411	G 02-26-93	--	--	--	--	--	--	--	--
11N.04E.22.244	W 02-23-93	--	--	--	--	--	--	--	--
11N.04E.22.312	L 02-26-93	--	--	--	--	--	--	--	--
11N.04E.22.444	S 02-24-93	--	--	--	--	--	--	--	--
11N.04E.24.124P	E 09-09-93	--	--	--	--	--	--	--	--
11N.05E.23.222B	MA 10-13-92	--	--	--	--	--	--	--	--
	11-12-92	--	--	--	--	--	--	--	--
	01-06-93	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--
	05-13-93	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--
11N.05E.24.412 ANI	10-15-92	--	--	--	--	--	--	--	--
	11-16-92	--	--	--	--	--	--	--	--
	12-15-92	--	--	--	--	--	--	--	--
	01-26-93	--	--	--	--	--	--	--	--
	02-16-93	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--
	05-14-93	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--
11N.05E.24.443 WES	10-13-92	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 /Y90 (PCI/L (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP, TOT DRY SR90Y90 (PCI/L) (76005)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
10N.06E.13.321 TOL	05-17-93	--	--	--	--	--	--	--	--
	06-22-93	--	--	--	--	--	--	--	--
11N.02E.24.223	09-03-93	--	--	--	--	--	--	--	--
11N.02E.25.234 K	08-27-93	--	--	--	--	--	--	--	--
11N.03E.02.33142	08-18-93	6.2	1.5	<0.6	<0.6	0.47	380	63	--
	08-18-93	--	--	--	--	--	--	--	2.0
11N.03E.05.111 G	08-26-93	--	--	--	--	--	--	--	--
11N.03E.08.332 G	09-04-93	--	--	--	--	--	--	--	--
11N.03E.09.123 T	08-28-93	--	--	--	--	--	--	--	--
11N.03E.09.414 W	08-24-93	--	--	--	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--
11N.03E.10.123 W	08-24-93	--	--	--	--	--	--	--	--
11N.03E.10.222 C	08-28-93	--	--	--	--	--	--	--	--
11N.03E.10.3442	08-01-93	6.1	1.4	<0.6	<0.6	0.53	470	51	--
	08-01-93	--	--	--	--	--	--	--	<1.0
11N.03E.10.423 D	08-18-93	--	--	--	--	--	--	--	--
11N.03E.13.231 S	12-10-92	--	--	--	--	--	--	--	--
11N.03E.13.332 T	02-24-93	--	--	--	--	--	--	--	--
11N.03E.15.1234	08-01-93	16	2.7	2.1	2.0	0.75	620	55	--
	08-01-93	--	--	--	--	--	--	--	57
11N.03E.15.211 S	09-02-93	--	--	--	--	--	--	--	--
11N.03E.16.143 D	08-26-93	--	--	--	--	--	--	--	--
11N.03E.16.214 G	08-31-93	--	--	--	--	--	--	--	--
11N.03E.17.233D	08-02-93	9.2	1.7	1.0	1.0	0.55	440	50	--
	08-02-93	--	--	--	--	--	--	--	9.0
11N.03E.17.313 C	08-27-93	--	--	--	--	--	--	--	--
	09-09-93	--	--	--	--	--	--	--	--
11N.03E.22.213 W	08-23-93	--	--	--	--	--	--	--	--
11N.03E.22.332 T	09-04-93	--	--	--	--	--	--	--	--
11N.03E.28.123 H	08-31-93	--	--	--	--	--	--	--	--
	09-07-93	--	--	--	--	--	--	--	--
11N.03E.32.113 R	09-09-93	--	--	--	--	--	--	--	--
11N.04E.15.244 L	12-10-92	--	--	--	--	--	--	--	--
11N.04E.15.321 V	02-17-93	--	--	--	--	--	--	--	--
11N.04E.17.434 N	02-19-93	--	--	--	--	--	--	--	--
11N.04E.18.124 S	02-25-93	--	--	--	--	--	--	--	--
11N.04E.21.411 G	02-26-93	--	--	--	--	--	--	--	--
11N.04E.22.244 W	02-23-93	--	--	--	--	--	--	--	--
11N.04E.22.312 L	02-26-93	--	--	--	--	--	--	--	--
11N.04E.22.444 S	02-24-93	--	--	--	--	--	--	--	--
11N.04E.24.124P E	09-09-93	--	--	--	--	--	--	--	--
11N.05E.23.222B MA	10-13-92	--	--	--	--	--	--	--	--
	11-12-92	--	--	--	--	--	--	--	--
	01-06-93	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--
	05-13-93	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--
11N.05E.24.412 ANI	10-15-92	--	--	--	--	--	--	--	--
	11-16-92	--	--	--	--	--	--	--	--
	12-15-92	--	--	--	--	--	--	--	--
	01-26-93	--	--	--	--	--	--	--	--
	02-16-93	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	04-13-93	--	--	--	--	--	--	--	--
	05-14-93	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--
11N.05E.24.443 WES	10-13-92	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
11N.05E.24.443 WESTBROOK	350930106210701	001	GW	11-12-92	1056	--	--	46.58	120.00	6860
		001	GW	12-11-92	1010	--	--	46.45	120.00	6860
		001	GW	01-20-93	1010	--	--	43.07	120.00	6860
		001	GW	02-11-93	1122	--	--	43.41	120.00	6860
		001	GW	03-16-93	1049	--	--	42.12	120.00	6860
		001	GW	04-12-93	1145	--	--	--	120.00	6860
		001	GW	05-14-93	1131	--	--	--	120.00	6860
		001	GW	06-18-93	1050	--	--	--	120.00	6860
		001	GW	10-13-92	1043	--	--	41.72	--	6798
		001	GW	11-12-92	1225	--	--	42.56	--	6798
11N.06E.19.122 LIEBLING	351014106202801	001	GW	12-11-92	1130	--	--	43.17	--	6798
		001	GW	01-20-93	1143	--	--	41.41	--	6798
		001	GW	02-11-93	1240	--	--	42.05	--	6798
		001	GW	03-15-93	1230	--	--	39.34	--	6798
		001	GW	04-12-93	1320	--	--	--	--	6798
		001	GW	05-13-93	1215	--	--	37.11	--	6798
		001	GW	06-16-93	0938	--	--	36.17	--	6798
		001	GW	12-11-92	1215	--	--	154.04	280.00	6700
		001	GW	03-15-93	1054	--	--	154.15	280.00	6700
		001	GW	06-16-93	1245	--	--	--	280.00	6700
11N.06E.21.133 PAVEL	350949106184501	001	GW	05-11-93	0945	112SNTF	--	--	38.40	4931
		001	GW	06-09-93	1110	112SNTF	--	--	--	--
		001	GW	09-08-93	1415	112SNTF	--	--	--	--
		001	GW	06-09-93	1700	112SNTF	90.81	--	--	--
		001	GW	06-04-93	1230	112SNTF	31.60	--	--	--
		001	GW	09-08-93	1930	112SNTF	--	--	--	--
		001	GW	06-11-93	1506	112SNTF	106.96	--	--	--
		001	GW	08-19-93	0950	110ALVM	39.65	50.20	4975	4975
		001	GW	08-19-93	0955	110ALVM	39.65	50.20	4975	4975
		001	GW	05-27-93	1430	112SNTF	--	59.00	--	--
ATRISCO LAND GRANT, (35013 ELENA GALLEGOS GRANT 35080 ELENA GALLEGOS GRANT 35081 ELENA GALLEGOS GRANT 35085 ELENA GALLEGOS GRANT 35090 ELENA GALLEGOS LAND GRANT, TOWN OF ATRISCO GRANT(3500 TOWN OF ATRISCO GRANT(3502	350137106410503 350807106403301 350815106372201 350858106383501 350902106370201 350821106383703 350035106413401 350223106420801	001	GW	05-11-93	0945	112SNTF	--	--	38.40	4931
		001	GW	06-09-93	1110	112SNTF	--	--	--	--
		001	GW	09-08-93	1415	112SNTF	--	--	--	--
		001	GW	06-09-93	1700	112SNTF	90.81	--	--	--
		001	GW	06-04-93	1230	112SNTF	31.60	--	--	--
		001	GW	09-08-93	1930	112SNTF	--	--	--	--
		001	GW	06-11-93	1506	112SNTF	106.96	--	--	--
		001	GW	08-19-93	0950	110ALVM	39.65	50.20	4975	4975
		001	GW	08-19-93	0955	110ALVM	39.65	50.20	4975	4975
		001	GW	05-27-93	1430	112SNTF	--	59.00	--	--
TOWN OF ATRISCO GRANT(3502	350223106420801	001	GW	09-08-93	1545	112SNTF	--	59.00	--	--
		001	GW	05-25-93	1530	112SNTF	17.67	70.00	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	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)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)
11N.05E.24.443 WES	11-12-92	10	12	1100	7.2	6.0	13.0	--	--	--
	12-11-92	7	8.0	1100	7.2	5.0	12.5	--	--	--
	01-20-93	8	12	1110	7.2	2.0	13.0	--	--	--
	02-11-93	12	9.5	1100	7.1	5.0	13.0	--	--	--
	03-16-93	14	10	1200	7.2	12.0	13.5	--	--	--
	04-12-93	13	10	1190	7.1	14.5	11.5	--	--	--
	05-14-93	9	10	1210	7.3	22.0	13.5	--	--	--
	06-18-93	20	5.0	1230	7.2	24.0	13.5	--	--	--
	10-13-92	10	2.0	640	7.5	24.0	14.5	--	--	--
	11-12-92	10	2.0	620	7.5	6.5	11.5	--	--	--
11N.06E.19.122 LIE	12-11-92	10	2.0	620	7.5	6.5	9.0	--	--	--
	01-20-93	8	3.0	670	7.6	3.5	10.5	--	--	--
	02-11-93	8	2.0	690	7.5	6.0	9.5	--	--	--
	03-15-93	--	--	730	7.6	11.5	9.0	--	--	--
	04-12-93	10	3.0	810	7.5	18.5	12.0	--	--	--
	05-13-93	10	2.0	830	7.6	22.0	15.5	--	--	--
	06-16-93	10	3.0	820	7.2	21.5	15.0	--	--	--
	12-11-92	6	--	630	7.5	8.0	13.0	--	--	--
	03-15-93	5	--	720	7.5	9.0	13.5	--	--	--
	06-16-93	5	8.0	715	7.4	26.0	14.0	--	--	--
11N.06E.21.133 PAV	05-11-93	--	--	--	--	--	--	--	--	--
	06-09-93	14	15	673	7.8	33.0	13.5	--	--	240
	09-08-93	--	--	--	--	--	--	--	--	--
	06-09-93	39	1.0	418	8.0	23.0	17.5	--	--	140
	06-04-93	20	20	1530	7.5	29.0	16.0	--	--	590
	09-08-93	--	--	--	--	--	--	--	--	--
	06-11-93	27	5.0	1180	7.6	32.0	16.5	--	--	430
	08-19-93	--	0.6	1370	7.1	--	17.5	639	0.1	590
	08-19-93	--	0.6	1370	7.1	--	17.5	639	0.1	--
	05-27-93	--	25	1120	7.5	39.0	15.5	--	--	390
TOWN OF ATRISCO GR	09-08-93	--	--	--	--	--	--	--	--	--
	05-25-93	12	5.0	872	7.7	31.0	17.0	--	--	280

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	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)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L) AS CACO3 (90410)
11N.05E.24.443 WES	11-12-92	--	--	--	--	--	--	--	--	--
	12-11-92	--	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--	--
	03-16-93	--	--	--	--	--	--	--	--	--
	04-12-93	--	--	--	--	--	--	--	--	--
	05-14-93	--	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--	--
11N.06E.19.122 LIE	10-13-92	--	--	--	--	--	--	--	--	--
	11-12-92	--	--	--	--	--	--	--	--	--
	12-11-92	--	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--	--
	04-12-93	--	--	--	--	--	--	--	--	--
	05-13-93	--	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--	--
11N.06E.21.133 PAV	12-11-92	--	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--	--
ATRISCO LAND GRANT	05-11-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-09-93	--	75	13	41	1	5.6	--	--	241
	09-08-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-09-93	--	44	7.8	20	0.7	3.8	--	--	79
ELENA GALLEGOS GRA	06-04-93	--	190	29	120	2	9.2	--	--	173
	09-08-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-11-93	--	140	19	89	2	4.9	--	--	260
ELENA GALLEGOS LAN	08-19-93	230	180	34	78	1	10	444	364	358
	08-19-93	--	--	--	--	--	--	444	364	--
TOWN OF ATRISCO GR	05-27-93	--	130	16	93	2	8.3	--	--	264
	09-08-93	--	--	--	--	--	--	--	--	--
TOWN OF ATRISCO GR	05-25-93	--	92	13	75	2	7.1	--	--	299



QUALITY OF GROUND WATER  
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
 BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	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 TOTAL (MG/L AS N) (00615)
11N.05E.24.443 WES	11-12-92	--	150	--	--	--	--	--	--	<0.010
	12-11-92	--	150	--	--	--	--	--	--	--
	01-20-93	--	150	--	--	--	--	--	--	--
	02-11-93	--	160	--	--	--	--	--	20.0	--
	03-16-93	--	160	--	--	--	--	--	--	--
	04-12-93	--	150	--	--	--	--	--	--	--
	05-14-93	--	140	--	--	--	--	--	--	--
	06-18-93	--	150	--	--	--	--	--	--	--
	10-13-92	--	72	--	--	--	--	--	--	<0.010
	11-12-92	--	71	--	--	--	--	--	--	<0.010
11N.06E.19.122 LIE	12-11-92	--	76	--	--	--	--	--	--	--
	01-20-93	--	85	--	--	--	--	--	2.69	--
	02-11-93	--	89	--	--	--	--	--	2.59	--
	03-15-93	--	96	--	--	--	--	--	--	--
	04-12-93	--	120	--	--	--	--	--	--	--
	05-13-93	--	120	--	--	--	--	--	--	--
	06-16-93	--	120	--	--	--	--	--	--	--
	12-11-92	--	20	--	--	--	--	--	--	--
	03-15-93	--	28	--	--	--	--	--	--	--
	06-16-93	--	26	--	--	--	--	--	--	--
11N.06E.21.133 PAV	05-11-93	67	10	0.50	--	30	--	--	--	--
	06-09-93	99	15	0.50	--	37	--	432	--	--
	09-08-93	--	--	--	--	--	--	--	--	--
	06-09-93	67	36	0.30	--	39	--	267	--	--
	06-04-93	390	43	0.40	--	44	--	935	--	--
	09-08-93	--	--	--	--	--	--	--	--	--
	06-11-93	340	15	0.20	--	32	--	796	--	--
	08-19-93	420	27	0.20	0.10	41	1030	1010	--	--
	08-19-93	--	--	--	--	--	--	--	--	--
	05-27-93	220	48	0.70	--	33	--	710	--	--
TOWN OF ATRISCO GR	09-08-93	--	--	--	--	--	--	--	--	--
	05-25-93	140	15	0.50	--	40	--	563	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
11N.05E.24.443 WES	11-12-92	--	19.0	--	0.010	--	--	<0.20	--	0.020
	12-11-92	<0.010	--	19.0	--	<0.010	--	--	--	--
	01-20-93	<0.010	--	19.0	--	<0.010	--	--	--	--
	02-11-93	0.020	--	20.0	--	<0.010	--	--	--	--
	03-16-93	<0.010	--	19.0	--	0.020	--	--	--	--
	04-12-93	<0.010	--	20.0	--	0.020	--	--	--	--
	05-14-93	<0.010	--	20.0	--	0.020	--	--	--	--
	06-18-93	<0.010	--	19.0	--	0.020	<0.20	--	--	--
11N.06E.19.122 LIE	10-13-92	--	2.40	--	0.010	--	--	<0.20	--	0.010
	11-12-92	--	2.40	--	<0.010	--	--	<0.20	--	0.010
	12-11-92	<0.010	--	2.60	--	<0.010	--	--	--	--
	01-20-93	0.010	--	2.70	--	<0.010	--	--	--	--
	02-11-93	0.010	--	2.60	--	<0.010	--	--	--	--
	03-15-93	<0.010	--	2.60	--	0.010	--	--	--	--
	04-12-93	<0.010	--	2.40	--	0.010	--	--	--	--
	05-13-93	<0.010	--	2.40	--	0.010	--	--	--	--
	06-16-93	<0.010	--	2.50	--	0.010	<0.20	--	--	--
11N.06E.21.133 PAV	12-11-92	<0.010	--	1.10	--	<0.010	--	--	--	--
	03-15-93	<0.010	--	1.50	--	<0.010	--	--	--	--
	06-16-93	<0.010	--	1.40	--	0.020	<0.20	--	--	--
ATRISCO LAND GRANT	05-11-93	<0.010	--	<0.050	--	0.040	--	--	--	--
ELENA GALLEGOS GRA	06-09-93	<0.010	--	<0.050	--	0.070	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-09-93	<0.010	--	0.440	--	0.010	--	--	--	--
ELENA GALLEGOS GRA	06-04-93	<0.010	--	<0.050	--	0.240	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-11-93	<0.010	--	<0.050	--	0.030	--	--	--	--
ELENA GALLEGOS LAN	08-19-93	<0.010	--	<0.050	--	0.080	<0.20	--	<0.010	--
	08-19-93	--	--	--	--	--	--	--	--	--
TOWN OF ATRISCO GR	05-27-93	<0.010	--	<0.050	--	0.260	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--	--
TOWN OF ATRISCO GR	05-25-93	<0.010	--	<0.050	--	0.090	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	PHENOLS TOTAL (UG/L) (32730)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)
11N.05E.24.443 WES	11-12-92	0.030	--	1.4	--	--	0.17	--	--
	12-11-92	--	0.020	--	--	--	--	--	--
	01-20-93	--	0.020	--	--	--	--	--	--
	02-11-93	--	0.020	--	--	--	--	--	--
	03-16-93	--	0.020	--	--	--	0.19	--	--
	04-12-93	--	0.020	--	--	--	--	--	--
	05-14-93	--	0.020	--	--	--	--	--	--
	06-18-93	--	0.020	--	--	--	--	--	--
11N.06E.19.122 LIE	10-13-92	0.030	--	1.6	--	--	0.05	--	--
	11-12-92	0.010	--	1.3	--	--	0.04	--	--
	12-11-92	--	0.010	--	--	--	--	--	--
	01-20-93	--	0.010	--	--	--	--	--	--
	02-11-93	--	0.010	--	--	--	--	--	--
	03-15-93	--	<0.010	--	--	--	0.05	--	--
	04-12-93	--	0.020	--	--	--	--	--	--
	05-13-93	--	<0.010	--	--	--	--	--	--
	06-16-93	--	0.010	--	--	--	--	--	--
11N.06E.21.133 FAV	12-11-92	--	0.010	--	--	--	--	--	--
	03-15-93	--	0.010	--	--	--	0.03	--	--
	06-16-93	--	0.020	--	--	--	--	--	--
ATRISCO LAND GRANT	05-11-93	--	0.030	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-09-93	--	0.020	--	--	--	0.02	--	--
	09-08-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-09-93	--	<0.010	--	--	--	0.02	--	--
ELENA GALLEGOS GRA	06-04-93	--	0.030	--	--	--	0.03	--	--
	09-08-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-11-93	--	0.020	--	--	--	0.02	--	--
ELENA GALLEGOS LAN	08-19-93	--	<0.010	--	2.4	2	<0.02	--	--
	08-19-93	--	--	--	--	--	--	3	<1
TOWN OF ATRISCO GR	05-27-93	--	0.020	--	--	--	0.04	--	--
	09-08-93	--	--	--	--	--	--	--	--
TOWN OF ATRISCO GR	05-25-93	--	0.030	--	--	--	0.03	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	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)	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)
11N.05E.24.443 WES	11-12-92	--	--	--	--	--	--	--	--
	12-11-92	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--
	03-16-93	--	--	--	--	--	--	--	--
	04-12-93	--	--	--	--	--	--	--	--
	05-14-93	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--
11N.06E.19.122 LIE	10-13-92	--	--	--	--	--	--	--	--
	11-12-92	--	--	--	--	--	--	--	--
	12-11-92	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	04-12-93	--	--	--	--	--	--	--	--
	05-13-93	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--
11N.06E.21.133 PAV	12-11-92	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--
ATRISCO LAND GRANT	05-11-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-09-93	--	--	--	--	--	--	--	42
	09-08-93	--	--	--	--	--	--	--	18
ELENA GALLEGOS GRA	06-09-93	--	--	--	--	--	--	--	1100
ELENA GALLEGOS GRA	06-04-93	--	--	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-11-93	--	--	--	--	--	--	--	<3
ELENA GALLEGOS LAN	08-19-93	--	--	--	--	--	--	--	700
	08-19-93	4	42	<1	1.0	1	<1	3	--
TOWN OF ATRISCO GR	05-27-93	--	--	--	--	--	--	--	630
	09-08-93	--	--	--	--	--	--	--	--
TOWN OF ATRISCO GR	05-25-93	--	--	--	--	--	--	--	75

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	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)	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)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)
11N.05E.24.443 WES	11-12-92	--	--	--	--	--	--	--	--
	12-11-92	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--
	03-16-93	--	--	--	--	--	--	--	--
	04-12-93	--	--	--	--	--	--	--	--
	05-14-93	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--
11N.06E.19.122 LIE	10-13-92	--	--	--	--	--	--	--	--
	11-12-92	--	--	--	--	--	--	--	--
	12-11-92	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	04-12-93	--	--	--	--	--	--	--	--
	05-13-93	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--
11N.06E.21.133 FAV	12-11-92	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--
ATRISCO LAND GRANT	05-11-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-09-93	--	990	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-09-93	--	12	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-04-93	--	3700	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-11-93	--	130	--	--	--	--	--	--
ELENA GALLEGOS LAN	08-19-93	--	3300	--	--	--	--	--	120
	08-19-93	<1	>1000	4	4	2	<1.0	4	--
TOWN OF ATRISCO GR	05-27-93	--	1700	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
TOWN OF ATRISCO GR	05-25-93	--	930	--	--	--	--	--	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## BERNALILLO COUNTY -- Continued

[illegible]

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 (PCI/L /Y90) (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	BETA, 2 SIGMA SED, SUSP, TOT DRY SR90Y90 (PCI/L) (76005)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
11N.05E.24.443 WES	11-12-92	--	--	--	--	--	--	--	--
	12-11-92	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--
	03-16-93	--	--	--	--	--	--	--	--
	04-12-93	--	--	--	--	--	--	--	--
	05-14-93	--	--	--	--	--	--	--	--
	06-18-93	--	--	--	--	--	--	--	--
11N.06E.19.122 LIE	10-13-92	--	--	--	--	--	--	--	--
	11-12-92	--	--	--	--	--	--	--	--
	12-11-92	--	--	--	--	--	--	--	--
	01-20-93	--	--	--	--	--	--	--	--
	02-11-93	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	04-12-93	--	--	--	--	--	--	--	--
	05-13-93	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--
11N.06E.21.133 PAV	12-11-92	--	--	--	--	--	--	--	--
	03-15-93	--	--	--	--	--	--	--	--
	06-16-93	--	--	--	--	--	--	--	--
ATRISCO LAND GRANT	05-11-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-09-93	--	--	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-09-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-04-93	--	--	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	06-11-93	--	--	--	--	--	--	--	--
ELENA GALLEGOS LAN	08-19-93	22	3.9	17	16	2.3	420	63	--
	08-19-93	--	--	--	--	--	--	--	89
TOWN OF ATRISCO GR	05-27-93	--	--	--	--	--	--	--	--
	09-08-93	--	--	--	--	--	--	--	--
TOWN OF ATRISCO GR	05-25-93	--	--	--	--	--	--	--	--

[illegible]



## BERNALILLO COUNTY -- Continued

## ORGANIC COMPOUND DATA

ORGANIC COMPOUND DATA											
LOCAL IDENT- I- FIER	DATE	ALPHA BHC DIS- SOLVED (UG/L) (34253)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	
08N.02E.01.133	J 09-07-93	<0.007	--	--	--	--	--	--	--	--	
08N.02E.01.3223	08-05-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
09N.02E.01.4122	08-16-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
09N.02E.10.443	08-10-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
09N.02E.13.431 PHE	09-08-93	<0.007	--	--	--	--	--	--	--	--	
09N.02E.14.1344	08-17-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
09N.02E.24.3311	08-13-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
09N.02E.35.233 S	09-07-93	<0.007	--	--	--	--	--	--	--	--	
10N.02E.01.2241	07-30-93	--	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
10N.02E.12.4124	08-04-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
10N.02E.14.4244	08-17-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
10N.02E.24.33221	08-10-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
10N.02E.25.434P R	09-07-93	<0.007	--	--	--	--	--	--	--	--	
10N.02E.35.3443	09-28-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
10N.03E.07.1232	08-15-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
10N.03E.08.3133	08-03-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
10N.03E.17.324	08-15-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
10N.03E.19.2333	08-04-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
10N.03E.29.3342	08-11-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
10N.03E.31.	08-16-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
11N.03E.02.33142	08-18-93	--	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
11N.03E.09.414 W	09-09-93	<0.007	--	--	--	--	--	--	--	--	
11N.03E.10.3442	08-01-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
11N.03E.15.1234	08-01-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
11N.03E.17.233D	08-02-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
11N.03E.17.313 C	09-09-93	<0.007	--	--	--	--	--	--	--	--	
11N.03E.28.123 H	09-07-93	<0.007	--	--	--	--	--	--	--	--	
ELENA GALLEGOS GRA	09-08-93	<0.007	--	--	--	--	--	--	--	--	
ELENA GALLEGOS GRA	09-08-93	<0.007	--	--	--	--	--	--	--	--	
ELENA GALLEGOS LAN	08-19-93	<0.007	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
TOWN OF ATRISCO GR	09-08-93	<0.007	--	--	--	--	--	--	--	--	

	LOCAL IDENT- I- FIER	DATE	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	1,2- TRANSDI CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)
08N.02E.01.133	J	09-07-93	--	--	--	--	--	--	--	--	--
08N.02E.01.3223		08-05-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
09N.02E.01.4122		08-16-93	0.5	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
09N.02E.10.443		08-10-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
09N.02E.13.431	PHE	09-08-93	--	--	--	--	--	--	--	--	--
09N.02E.14.1344		08-17-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
09N.02E.24.3311		08-13-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
09N.02E.35.233	S	09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.01.2241		07-30-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
10N.02E.12.4124		08-04-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
10N.02E.14.4244		08-17-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
10N.02E.24.33221		08-10-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
10N.02E.25.434P	R	09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.35.3443		09-28-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
10N.03E.07.1232		08-15-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
10N.03E.08.3133		08-03-93	0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
10N.03E.17.324		08-15-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
10N.03E.19.2333		08-04-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
10N.03E.29.3342		08-11-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
10N.03E.31.		08-16-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
11N.03E.02.33142		08-18-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
11N.03E.09.414	W	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.10.3442		08-01-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
11N.03E.15.1234		08-01-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
11N.03E.17.233D		08-02-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
11N.03E.17.313	C	09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.28.123	H	09-07-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA		09-08-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA		09-08-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS LAN		08-19-93	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	<0.20
TOWN OF ATRISCO GR		09-08-93	--	--	--	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
BERNALILLO COUNTY -- Continued

ORGANIC COMPOUND DATA

LOCAL IDENT- IFIER	DATE	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L)	P, P' DDE DISSOLV (UG/L)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L)	NAPHTH- ALENE TOTAL (UG/L)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	CHLOR- PYRIFOS DIS- SOLVED (UG/L)
08N.02E.01.133	J 09-07-93	--	--	<0.01	--	--	--	--	--	<0.005
08N.02E.01.3223	08-05-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.06	<0.005
09N.02E.01.4122	08-16-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.11	<0.005
09N.02E.10.443	08-10-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.03	<0.005
09N.02E.13.431	PHE 09-08-93	--	--	<0.01	--	--	--	--	--	<0.005
09N.02E.14.1344	08-17-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.02	<0.005
09N.02E.24.3311	08-13-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	<0.02	<0.005
09N.02E.35.233	S 09-07-93	--	--	<0.01	--	--	--	--	--	<0.005
10N.02E.01.2241	07-30-93	<0.20	<0.20	--	<0.2	<0.2	<0.2	<0.2	0.02	--
10N.02E.12.4124	08-04-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.03	<0.005
10N.02E.14.4244	08-17-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.02	<0.005
10N.02E.24.33221	08-10-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.02	<0.005
10N.02E.25.434P	R 09-07-93	--	--	<0.01	--	--	--	--	--	<0.005
10N.02E.35.3443	09-28-93	<0.20	<0.20	<0.01	<0.2	<0.2	<0.2	<0.2	<0.02	<0.005
10N.03E.07.1232	08-15-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.02	<0.005
10N.03E.08.3133	08-03-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.03	<0.005
10N.03E.17.324	08-15-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.02	<0.005
10N.03E.19.2333	08-04-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.04	<0.005
10N.03E.29.3342	08-11-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.03	<0.005
10N.03E.31.1314	08-16-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.02	<0.005
11N.03E.02.33142	08-18-93	<0.20	<0.20	--	<0.2	<0.2	<0.2	<0.2	0.06	--
11N.03E.09.414	W 09-09-93	--	--	<0.01	--	--	--	--	--	<0.005
11N.03E.10.3442	08-01-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.04	<0.005
11N.03E.15.1234	08-01-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.03	<0.005
11N.03E.17.233D	08-02-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	0.04	<0.005
11N.03E.17.313	C 09-09-93	--	--	0.002	--	--	--	--	--	<0.005
11N.03E.28.123	H 09-07-93	--	--	<0.01	--	--	--	--	--	<0.005
ELENA GALLEGOS GRA	09-08-93	--	--	<0.01	--	--	--	--	--	<0.005
ELENA GALLEGOS GRA	09-08-93	--	--	<0.01	--	--	--	--	--	<0.005
ELENA GALLEGOS LAN	08-19-93	<0.20	<0.20	<0.02	<0.2	<0.2	<0.2	<0.2	<0.02	<0.005
TOWN OF ATRISCO GR	09-08-93	--	--	<0.01	--	--	--	--	--	<0.005

LOCAL IDENT- IFIER	DATE	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	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)
08N.02E.01.133	J 09-07-93	--	--	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	0.001
08N.02E.01.3223	08-05-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
09N.02E.01.4122	08-16-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
09N.02E.10.443	08-10-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	0.02
09N.02E.13.431	PHE 09-08-93	--	--	<0.01	<0.02	<0.009	<0.01	<0.02	0.009	0.004
09N.02E.14.1344	08-17-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
09N.02E.24.3311	08-13-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
09N.02E.35.233	S 09-07-93	--	--	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	0.001
10N.02E.01.2241	07-30-93	<0.2	<0.2	--	--	--	--	--	--	--
10N.02E.12.4124	08-04-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
10N.02E.14.4244	08-17-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
10N.02E.24.33221	08-10-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
10N.02E.25.434P	R 09-07-93	--	--	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	0.001
10N.02E.35.3443	09-28-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.02
10N.03E.07.1232	08-15-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
10N.03E.08.3133	08-03-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
10N.03E.17.324	08-15-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
10N.03E.19.2333	08-04-93	<0.2	1.1	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
10N.03E.29.3342	08-11-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
10N.03E.31.	08-16-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
11N.03E.02.33142	08-18-93	<0.2	<0.2	--	--	--	--	--	--	--
11N.03E.09.414	W 09-09-93	--	--	<0.01	<0.02	<0.009	<0.01	<0.02	0.02	<0.02
11N.03E.10.3442	08-01-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
11N.03E.15.1234	08-01-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
11N.03E.17.233D	08-02-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
11N.03E.17.313	C 09-09-93	--	--	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	0.002
11N.03E.28.123	H 09-07-93	--	--	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	0.001
ELENA GALLEGOS GRA	09-08-93	--	--	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.02
ELENA GALLEGOS GRA	09-08-93	--	--	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	0.002
ELENA GALLEGOS LAN	08-19-93	<0.2	<0.2	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	<0.006
TOWN OF ATRISCO GR	09-08-93	--	--	<0.01	<0.02	<0.009	<0.01	<0.02	<0.008	0.004

LOCAL IDENT- I- FIER	DATE	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L) (39702)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	CIS-1,2 -DI- CHLORO- ETHENE WATER TOTAL (UG/L) (77093)	STYRENE TOTAL (UG/L) (77128)	1,1-DI CHLORO- PRO- PENE, WAT, WH TOTAL (UG/L) (77168)	2,2-DI CHLORO- PRO- PANE WAT, WH TOTAL (UG/L) (77170)	1,3-DI- CHLORO- PROPANE WAT, WH TOTAL (UG/L) (77173)	PSEUDO- CUMENE WATER UNFLTRD REC (UG/L) (77222)	ISO- PROPYL- BENZENE WATER WHOLE REC (UG/L) (77223)
08N.02E.01.133	J 09-07-93	--	<0.009	--	--	--	--	--	--	--
08N.02E.01.3223	08-05-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
09N.02E.01.4122	08-16-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
09N.02E.10.443	08-10-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
09N.02E.13.431	PHE 09-08-93	--	<0.009	--	--	--	--	--	--	--
09N.02E.14.1344	08-17-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
09N.02E.24.3311	08-13-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
09N.02E.35.233	S 09-07-93	--	<0.009	--	--	--	--	--	--	--
10N.02E.01.2241	07-30-93	<0.2	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
10N.02E.12.4124	08-04-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
10N.02E.14.4244	08-17-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
10N.02E.24.33221	08-10-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
10N.02E.25.434P	R 09-07-93	--	<0.009	--	--	--	--	--	--	--
10N.02E.35.3443	09-28-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
10N.03E.07.1232	08-15-93	<0.2	<0.009	0.3	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
10N.03E.08.3133	08-03-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
10N.03E.17.324	08-15-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
10N.03E.19.2333	08-04-93	<0.2	<0.009	0.3	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
10N.03E.29.3342	08-11-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
10N.03E.31.	08-16-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
11N.03E.02.33142	08-18-93	<0.2	--	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
11N.03E.09.414	W 09-09-93	--	<0.009	--	--	--	--	--	--	--
11N.03E.10.3442	08-01-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
11N.03E.15.1234	08-01-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
11N.03E.17.233D	08-02-93	<0.2	<0.009	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
11N.03E.17.313	C 09-09-93	--	<0.009	--	--	--	--	--	--	--
11N.03E.28.123	H 09-07-93	--	<0.009	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	09-08-93	--	<0.009</							

LOCAL IDENT- I- FIER	DATE	BENZENE N-PROPYL WATER UNFLTRD REC (UG/L) (77224)	MESIT- YLENE WATER UNFLTRD REC (UG/L) (77226)	O- CHLORO- TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	METHANE BROMO CHLORO- WAT UNFLTRD REC (UG/L) (77297)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)	BENZENE SEC BUTYL- WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT- BUTYL- WATER UNFLTRD REC (UG/L) (77353)	P-ISO- PROPYL- TOLUENE WATER WHOLE REC (UG/L) (77356)
08N.02E.01.133	J 09-07-93	--	--	--	--	--	--	--	--	--
08N.02E.01.3223	08-05-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
09N.02E.01.4122	08-16-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
09N.02E.10.443	08-10-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
09N.02E.13.431	PHE 09-08-93	--	--	--	--	--	--	--	--	--
09N.02E.14.1344	08-17-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
09N.02E.24.3311	08-13-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	0.40
09N.02E.35.233	S 09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.01.2241	07-30-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
10N.02E.12.4124	08-04-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
10N.02E.14.4244	08-17-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
10N.02E.24.33221	08-10-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
10N.02E.25.434P	R 09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.35.3443	09-28-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
10N.03E.07.1232	08-15-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
10N.03E.08.3133	08-03-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
10N.03E.17.324	08-15-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
10N.03E.19.2333	08-04-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
10N.03E.29.3342	08-11-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
10N.03E.31.	08-16-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
11N.03E.02.33142	08-18-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
11N.03E.09.414	W 09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.10.3442	08-01-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
11N.03E.15.1234	08-01-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
11N.03E.17.233D	08-02-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
11N.03E.17.313	C 09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.28.123	H 09-07-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	09-08-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	09-08-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS LAN	08-19-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TOWN OF ATRISCO GR	09-08-93	--	--	--	--	--	--	--	--	--

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

## ORGANIC COMPOUND DATA

LOCAL IDENT- IFIER	DATE	123-TRI- CHLORO- PROPANE WATER WHOLE (UG/L) (77443)	ETHANE, 1112- TETRA- CHLORO- WAT UNF REC (UG/L) (77562)	1,2,3- TRI- CHLORO BENZENE WAT, WH REC (UG/L) (77613)	1,2- DIBROMO ETHANE WATER WHOLE (UG/L) (77651)	FREON- 113 WATER UNFLTRD REC (UG/L) (77652)	METHYL ETHER TERT- BUTYL WAT UNF REC (UG/L) (78032)	XYLENE WATER UNFLTRD REC (UG/L) (81551)	BROMO- BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	DIBROMO CHLORO- PROPANE WATER WHOLE TOT.REC (UG/L) (82625)
08N.02E.01.133	J 09-07-93	--	--	--	--	--	--	--	--	--
08N.02E.01.3223	08-05-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
09N.02E.01.4122	08-16-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
09N.02E.10.443	08-10-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
09N.02E.13.431	PHE 09-08-93	--	--	--	--	--	--	--	--	--
09N.02E.14.1344	08-17-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
09N.02E.24.3311	08-13-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
09N.02E.35.233	S 09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.01.2241	07-30-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
10N.02E.12.4124	08-04-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
10N.02E.14.4244	08-17-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
10N.02E.24.33221	08-10-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
10N.02E.25.434P	R 09-07-93	--	--	--	--	--	--	--	--	--
10N.02E.35.3443	09-28-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
10N.03E.07.1232	08-15-93	<0.2	<0.2	<0.20	<0.2	<0.2	7.9	<0.20	<0.2	<1.0
10N.03E.08.3133	08-03-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
10N.03E.17.324	08-15-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
10N.03E.19.2333	08-04-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
10N.03E.29.3342	08-11-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
10N.03E.31.	08-16-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
11N.03E.02.33142	08-18-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
11N.03E.09.414	W 09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.10.3442	08-01-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
11N.03E.15.1234	08-01-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
11N.03E.17.233D	08-02-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
11N.03E.17.313	C 09-09-93	--	--	--	--	--	--	--	--	--
11N.03E.28.123	H 09-07-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	09-08-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS GRA	09-08-93	--	--	--	--	--	--	--	--	--
ELENA GALLEGOS LAN	08-19-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<1.0
TOWN OF ATRISCO GR	09-08-93	--	--	--	--	--	--	--	--	--

LOCAL IDENT- IFIER	DATE	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANALINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	DIMETH- OATE WATER FLTRD 0.7 U GG, REC (UG/L) (82662)	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)
08N.02E.01.133	J 09-07-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
08N.02E.01.3223	08-05-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
09N.02E.01.4122	08-16-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
09N.02E.10.443	08-10-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
09N.02E.13.431	PHE 09-08-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
09N.02E.14.1344	08-17-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
09N.02E.24.3311	08-13-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
09N.02E.35.233	S 09-07-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
10N.02E.01.2241	07-30-93	--	--	--	--	--	--	--	--
10N.02E.12.4124	08-04-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
10N.02E.14.4244	08-17-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
10N.02E.24.33221	08-10-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
10N.02E.25.434P	R 09-07-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
10N.02E.35.3443	09-28-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
10N.03E.07.1232	08-15-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
10N.03E.08.3133	08-03-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
10N.03E.17.324	08-15-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
10N.03E.19.2333	08-04-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
10N.03E.29.3342	08-11-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
10N.03E.31.	08-16-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
11N.03E.02.33142	08-18-93	--	--	--	--	--	--	--	--
11N.03E.09.414	W 09-09-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
11N.03E.10.3442	08-01-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
11N.03E.15.1234	08-01-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
11N.03E.17.233D	08-02-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
11N.03E.17.313	C 09-09-93	<0.01	<0.006	0.003	<0.02	<0.01	<0.02	<0.03	<0.04
11N.03E.28.123	H 09-07-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
ELENA GALLEGOS GRA	09-08-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
ELENA GALLEGOS GRA	09-08-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
ELENA GALLEGOS LAN	08-19-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
TOWN OF ATRISCO GR	09-08-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## BERNALILLO COUNTY -- Continued

## ORGANIC COMPOUND DATA

LOCAL IDENT- I- FIER	DATE	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)
08N.02E.01.133	J 09-07-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
08N.02E.01.3223	08-05-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
09N.02E.01.4122	08-16-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
09N.02E.10.443	08-10-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
09N.02E.13.431	PHE 09-08-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
09N.02E.14.1344	08-17-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
09N.02E.24.3311	08-13-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
09N.02E.35.233	S 09-07-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
10N.02E.01.2241	07-30-93	--	--	--	--	--	--	--	--
10N.02E.12.4124	08-04-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
10N.02E.14.4244	08-17-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
10N.02E.24.33221	08-10-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
10N.02E.25.434P	R 09-07-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
10N.02E.35.3443	09-28-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
10N.03E.07.1232	08-15-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	0.01
10N.03E.08.3133	08-03-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
10N.03E.17.324	08-15-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
10N.03E.19.2333	08-04-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
10N.03E.29.3342	08-11-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
10N.03E.31.	08-16-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
11N.03E.02.33142	08-18-93	--	--	--	--	--	--	--	--
11N.03E.09.414	W 09-09-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
11N.03E.10.3442	08-01-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
11N.03E.15.1234	08-01-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
11N.03E.17.233D	08-02-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
11N.03E.17.313	C 09-09-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
11N.03E.28.123	H 09-07-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
ELENA GALLEGOS GRA	09-08-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
ELENA GALLEGOS GRA	09-08-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
ELENA GALLEGOS LAN	08-19-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
TOWN OF ATRISCO GR	09-08-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
LOCAL IDENT- I- FIER	DATE	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)	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)
08N.02E.01.133	J 09-07-93	<0.01	<0.009	<0.02	<0.008	<0.02	<0.05	<0.008	<0.004
08N.02E.01.3223	08-05-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
09N.02E.01.4122	08-16-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
09N.02E.10.443	08-10-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
09N.02E.13.431	PHE 09-08-93	<0.01	<0.009	<0.02	<0.008	<0.02	<0.05	<0.008	<0.004
09N.02E.14.1344	08-17-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
09N.02E.24.3311	08-13-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
09N.02E.35.233	S 09-07-93	<0.01	<0.009	<0.02	<0.008	<0.02	<0.05	<0.008	<0.004
10N.02E.01.2241	07-30-93	--	--	--	--	--	--	--	--
10N.02E.12.4124	08-04-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
10N.02E.14.4244	08-17-93	<0.01	<0.009	<0.02	<0.004	<0.02	0.02	<0.008	<0.005
10N.02E.24.33221	08-10-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
10N.02E.25.434P	R 09-07-93	<0.01	<0.009	<0.02	<0.008	<0.02	<0.05	<0.008	<0.004
10N.02E.35.3443	09-28-93	<0.01	<0.009	<0.02	<0.008	<0.02	<0.05	<0.008	<0.004
10N.03E.07.1232	08-15-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
10N.03E.08.3133	08-03-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
10N.03E.17.324	08-15-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
10N.03E.19.2333	08-04-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
10N.03E.29.3342	08-11-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
10N.03E.31.	08-16-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
11N.03E.02.33142	08-18-93	--	--	--	--	--	--	--	--
11N.03E.09.414	W 09-09-93	<0.01	<0.009	<0.02	<0.008	<0.02	<0.05	<0.008	<0.004
11N.03E.10.3442	08-01-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
11N.03E.15.1234	08-01-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
11N.03E.17.233D	08-02-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
11N.03E.17.313	C 09-09-93	<0.01	<0.009	<0.02	<0.008	<0.02	<0.05	<0.008	<0.004
11N.03E.28.123	H 09-07-93	<0.01	<0.009	<0.02	<0.008	<0.02	<0.05	<0.008	<0.004
ELENA GALLEGOS GRA	09-08-93	<0.01	<0.009	<0.02	<0.008	<0.02	<0.05	<0.008	<0.004
ELENA GALLEGOS GRA	09-08-93	<0.01	<0.009	<0.02	<0.008	0.002	<0.05	<0.008	<0.004
ELENA GALLEGOS LAN	08-19-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
TOWN OF ATRISCO GR	09-08-93	<0.01	<0.009	<0.02	<0.008	<0.02	<0.05	<0.008	<0.004

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

BERNALILLO COUNTY -- Continued

## ORGANIC COMPOUND DATA

LOCAL IDENT- I- FIER	DATE	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L)
08N.02E.01.133	J 09-07-93	<0.02	<0.01	<0.01	<0.04	<0.02
08N.02E.01.3223	08-05-93	<0.02	<0.01	<0.01	<0.08	<0.02
09N.02E.01.4122	08-16-93	<0.02	<0.01	<0.01	<0.08	<0.02
09N.02E.10.443	08-10-93	<0.02	<0.01	<0.01	<0.08	<0.02
09N.02E.13.431 PHE	09-08-93	<0.02	<0.01	<0.01	<0.04	<0.02
09N.02E.14.1344	08-17-93	<0.02	<0.01	<0.01	<0.08	<0.02
09N.02E.24.3311	08-13-93	<0.02	<0.01	<0.01	<0.08	<0.02
09N.02E.35.233	S 09-07-93	<0.02	<0.01	<0.01	<0.04	<0.02
10N.02E.01.2241	07-30-93	--	--	--	--	--
10N.02E.12.4124	08-04-93	<0.02	<0.01	<0.01	<0.08	<0.02
10N.02E.14.4244	08-17-93	<0.02	<0.01	<0.01	<0.08	<0.02
10N.02E.24.33221	08-10-93	<0.02	<0.01	<0.01	<0.04	<0.02
10N.02E.25.434P R	09-07-93	<0.02	<0.01	<0.01	<0.04	<0.02
10N.02E.35.3443	09-28-93	<0.02	<0.01	<0.01	<0.04	<0.02
10N.03E.07.1232	08-15-93	<0.02	<0.01	<0.01	<0.08	<0.02
10N.03E.08.3133	08-03-93	<0.02	<0.01	<0.01	<0.08	<0.02
10N.03E.17.324	08-15-93	<0.02	<0.01	<0.01	<0.08	<0.02
10N.03E.19.2333	08-04-93	<0.02	<0.01	<0.01	<0.08	<0.02
10N.03E.29.3342	08-11-93	<0.02	<0.01	<0.01	<0.04	<0.02
10N.03E.31.	08-16-93	<0.02	<0.01	<0.01	<0.08	<0.02
11N.03E.02.33142	08-18-93	--	--	--	--	--
11N.03E.09.414	W 09-09-93	<0.02	<0.01	<0.01	<0.04	<0.02
11N.03E.10.3442	08-01-93	<0.02	<0.01	<0.01	<0.08	<0.02
11N.03E.15.1234	08-01-93	<0.02	<0.01	<0.01	<0.08	<0.02
11N.03E.17.233D	08-02-93	<0.02	<0.01	<0.01	<0.08	<0.02
11N.03E.17.313	C 09-09-93	<0.02	<0.01	<0.01	<0.04	<0.02
11N.03E.28.123	H 09-07-93	<0.02	<0.01	<0.01	<0.04	<0.02
ELENA GALLEGOS GRA	09-08-93	<0.02	<0.01	<0.01	<0.04	<0.02
ELENA GALLEGOS GRA	09-08-93	<0.02	<0.01	<0.01	<0.04	<0.02
ELENA GALLEGOS LAN	08-19-93	<0.02	<0.01	<0.01	<0.08	<0.02
TOWN OF ATRISCO GR	09-08-93	<0.02	<0.01	<0.01	<0.04	<0.02

## COLFAX COUNTY

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LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
28N.22E.16.422.PROJECTED	363920104354701	007	GW	08-30-93	1130	6.24	20.00	6157	
Maxwell NWR-North well, so	363348104342001	007	GW	06-04-93	1215	0.0	6.70	5978	
		007	GW	08-31-93	1130	--	6.70	5978	

LOCAL IDENT- I- FIER	DATE	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	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)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
28N.22E.16.422.PRO	08-30-93	--	--	2550	7.1	--	13.5	610	990
Maxwell NWR-North	06-04-93	10	0.2	5880	7.5	24.0	10.5	610	3600
	08-31-93	--	--	5940	7.3	--	14.0	610	3500

LOCAL IDENT- I- FIER	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)
28N.22E.16.422.PRO	08-30-93	240	94	250	3	1.9	308	1200	35
Maxwell NWR-North	06-04-93	490	580	500	4	1.6	452	3800	51
	08-31-93	470	570	500	4	1.7	463	4100	53

LOCAL IDENT- I- FIER	DATE	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)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	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)
28N.22E.16.422.PRO	08-30-93	0.60	2020	2010	<1	120	<1.0	<1
Maxwell NWR-North	06-04-93	1.1	6120	5700	4	540	<1.0	<1
	08-31-93	0.80	6270	5970	4	660	<1.0	<1

LOCAL IDENT- I- FIER	DATE	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
28N.22E.16.422.PRO	08-30-93	4	<1	<0.1	<1	12	<1	20
Maxwell NWR-North	06-04-93	2	<1	<0.1	5	36	22	<10
	08-31-93	1	<1	<0.1	4	36	24	<10

## DONA ANA COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT
21S.05E.32.222 T-13	322635106264401	013	GW	08-26-93	0907	110BLSN	
22S.04E.01.431 T-9	322503106290801	013	GW	08-25-93	1340	110BLSN	
22S.04E.11.224 T-8	322434106295001	013	GW	08-26-93	1100	110BLSN	
		013	GW	08-26-93	1115	110BLSN	
22S.04E.14.133 T-6	322339106304301	013	GW	08-26-93	1230	110BLSN	
22S.04E.23.214 OS-12	322250106302501	013	GW	08-25-93	1300	110BLSN	
22S.05E.05.313 T-10	322510106274101	013	GW	08-26-93	0950	110BLSN	
22S.05E.07.342 T-7	322415106281801	013	GW	08-25-93	1410	110BLSN	
		013	GW	08-25-93	1420	110BLSN	
22S.05E.15.221 T-14	321401106245201	013	GW	08-25-93	1012	110BLSN	
22S.05E.16.111 T-4	322403106263901	013	GW	08-25-93	1130	110BLSN	
22S.05E.20.111 T-5	322311106274101	013	GW	08-25-93	1047	110BLSN	
22S.05E.29.412 T-11	322155106270201	013	GW	08-25-93	--	110BLSN	
22S.05E.33.244 T-15	322108106254701	013	GW	08-24-93	0900	110BLSN	
23S.05E.05.321 T-18	322010106272701	013	GW	08-25-93	--	110BLSN	
23S.05E.10.413 T-16	321910106250701	013	GW	08-24-93	0830	110BLSN	
23S.05E.27.142 T-17	321647106251301	013	GW	08-24-93	0810	110BLSN	

LOCAL IDENT- I- FIER	DATE	SAM- PLING DEPTH (FEET) (00003)	DEPTH OF WELL TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)
21S.05E.32.222T-13	08-26-93	320	522.00	4057	479	7.8
22S.04E.01.431T-9	08-25-93	580	598.00	4410	834	7.8
22S.04E.11.224T-8	08-26-93	620	1060.00	4442	709	7.7
	08-26-93	915	1060.00	4442	667	7.9
22S.04E.14.133T-6	08-26-93	350	515.00	4507	449	7.4
22S.04E.23.214OS12	08-25-93	350	570.00	4369	463	7.8
22S.05E.05.313T-10	08-26-93	513	555.00	4160	330	8.1
22S.05E.07.342T-7	08-25-93	440	970.00	4185	352	7.9
	08-25-93	960	970.00	4185	399	8.1
22S.05E.15.221T-14	08-25-93	250	370.00	3950	1680	9.1
22S.05E.16.111T-4	08-25-93	310	336.00	4051	317	8.0
22S.05E.20.111T-5	08-25-93	330	351.00	4150	385	8.1
22S.05E.29.412T-11	08-25-93	570	576.00	4000	273	8.1
22S.05E.33.244T-15	08-24-93	448	670.00	3990	276	8.1
23S.05E.05.321T-18	08-25-93	635	704.00	4065	744	8.1
23S.05E.10.413T-16	08-24-93	480	710.00	3980	324	8.1
23S.05E.27.142T-17	08-24-93	440	564.00	4020	258	7.9



## SANDOVAL COUNTY

LOCAL IDENTIFIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEOLOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
12N.03E.27.4122	351421106363201	043	GW	09-27-93	1020	110ALVM	20.63	40.60	5025	
		043	GW	09-27-93	1025	110ALVM	20.63	40.60	5025	
12N.03E.34.1141	351347106370301	043	GW	08-12-93	1420	110ALVM	17.94	28.00	5015	
		043	GW	08-12-93	1425	110ALVM	17.94	28.00	5015	
12N.03E.34.4413	351311106362801	043	GW	08-12-93	1000	110ALVM	5.90	17.46	5005	
		043	GW	08-12-93	1005	110ALVM	5.90	17.46	5005	
LOCAL IDENTIFIER	DATE	FLOW RATE, INSTANTANEOUS (G/M) (00059)	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, DISSOLVED (MG/L) (00300)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARBONATE DISSOLVED (MG/L AS CaCO3) (00904)
12N.03E.27.4122	09-27-93	0.7	751	7.2	11.5	17.0	643	4.1	300	33
	09-27-93	0.7	751	7.2	11.5	17.0	643	4.1	--	--
12N.03E.34.1141	08-12-93	--	900	7.2	39.5	16.0	636	3.8	--	--
	08-12-93	--	900	7.2	39.5	16.0	636	3.8	--	--
12N.03E.34.4413	08-12-93	1.0	420	7.8	--	16.0	637	0.0	--	--
	08-12-93	1.0	420	7.8	--	16.0	637	0.0	--	--
LOCAL IDENTIFIER	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 DIS-TOT FIELD (MG/L AS HCO3) (00453)	ALKALINITY WAT DIS-TOT FIELD (MG/L AS CaCO3) (39086)	ALKALINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
12N.03E.27.4122	09-27-93	100	12	28	0.7	4.1	324	266	266	95
	09-27-93	--	--	--	--	--	324	266	--	--
12N.03E.34.1141	08-12-93	--	--	--	--	--	514	421	--	--
	08-12-93	--	--	--	--	--	514	421	--	--
12N.03E.34.4413	08-12-93	--	--	--	--	--	170	139	--	--
	08-12-93	--	--	--	--	--	170	139	--	--
LOCAL IDENTIFIER	DATE	CHLORIDE DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	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)
12N.03E.27.4122	09-27-93	8.9	0.50	0.070	30	439	446	<0.010	1.80	<0.010
	09-27-93	--	--	--	--	--	--	--	--	--
12N.03E.34.1141	08-12-93	--	--	--	--	--	--	<0.010	0.360	<0.010
	08-12-93	--	--	--	--	--	--	--	--	--
12N.03E.34.4413	08-12-93	--	--	--	--	--	--	<0.010	<0.050	<0.010
	08-12-93	--	--	--	--	--	--	--	--	--
LOCAL IDENTIFIER	DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	PHENOLS TOTAL (UG/L) (32730)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L) (38260)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTIMONY, DIS-SOLVED (UG/L AS SE) (01095)	
12N.03E.27.4122	09-27-93	<0.20	0.060	0.030	1.5	3	--	--	--	
	09-27-93	--	--	--	--	--	--	2	--	<1
12N.03E.34.1141	08-12-93	<0.20	0.030	0.030	1.2	3	<0.01	--	--	
	08-12-93	--	--	--	--	--	--	--	--	
12N.03E.34.4413	08-12-93	<0.20	0.030	0.030	1.3	1	<0.01	--	--	
	08-12-93	--	--	--	--	--	--	2	--	<1

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SANDOVAL COUNTY -- Continued

LOCAL IDENT- IFIER	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)	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)
12N.03E.27.4122	09-27-93	--	--	--	--	--	--	--	4
	09-27-93	3	160	<1	<1.0	<1	<1	1	--
12N.03E.34.1141	08-12-93	--	--	--	--	--	--	--	--
	08-12-93	--	--	--	--	--	--	--	--
12N.03E.34.4413	08-12-93	--	--	--	--	--	--	--	--
	08-12-93	3	130	<1	<1.0	<1	<1	<1	--

LOCAL IDENT- IFIER	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)	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)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)
12N.03E.27.4122	09-27-93	--	<1	--	--	--	--	--	8.7
	09-27-93	<1	<1	5	<1	<1	<1.0	2	--
12N.03E.34.1141	08-12-93	--	--	--	--	--	--	--	36
	08-12-93	--	--	--	--	--	--	--	--
12N.03E.34.4413	08-12-93	--	--	--	--	--	--	--	2.7
	08-12-93	<1	280	4	<1	<1	<1.0	3	--

LOCAL IDENT- IFIER	DATE	ALPHA, COUNT, 2 SIGMA WAT DIS AS NAT U (UG/L) (75986)	ALPHA RADIO, WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	ALPHA SED SUSP DRY WGH AS TH-230 (PCI/L) (04127)	ALPHA, 2 SIGMA SED SUS TOT DRY AS TH-230 (PCI/L) (76004)	GROSS BETA, 2 SIGMA DIS- SOLVED AS CS-137 (PCI/L) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)
12N.03E.27.4122	09-27-93	4.4	6.7	3.4	<0.6	<0.6	0.20	8.7	1.9
	09-27-93	--	--	--	--	--	--	--	--
12N.03E.34.1141	08-12-93	9.2	27	6.8	<0.6	<0.6	0.13	12	2.5
	08-12-93	--	--	--	--	--	--	--	--
12N.03E.34.4413	08-12-93	2.0	2.0	1.4	<0.6	<0.6	0.26	5.7	1.3
	08-12-93	--	--	--	--	--	--	--	--

LOCAL IDENT- IFIER	DATE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	BETA, 2 SIGMA WATER, DISS, AS SR90 (PCI/L AS SR/ YT-90) (75988)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)	BETA, 2 SIGMA SED, SUSP, TOT DRY SR90Y90 (PCI/L) (76005)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
12N.03E.27.4122	09-27-93	6.5	1.4	<0.6	<0.6	0.54	510	34	--
	09-27-93	--	--	--	--	--	--	--	5.0
12N.03E.34.1141	08-12-93	9.1	1.9	0.8	0.7	0.51	470	61	--
	08-12-93	--	--	--	--	--	--	--	--
12N.03E.34.4413	08-12-93	4.4	0.98	1.1	1.0	0.59	480	63	--
	08-12-93	--	--	--	--	--	--	--	3.0

## ORGANIC COMPOUND DATA

LOCAL IDENT- IFIER	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)	DI- BROMO- METHANE WATER WHOLE RECOVER (UG/L) (30217)
12N.03E.27.4122	09-27-93	1020	<0.02	<0.008	<0.01	<0.008	<0.02	<0.01	<0.008	<0.2
12N.03E.34.1141	08-12-93	1420	<0.02	<0.008	<0.01	<0.008	<0.02	<0.01	<0.008	<0.2
12N.03E.34.4413	08-12-93	1000	<0.02	<0.008	<0.01	<0.008	<0.02	<0.01	<0.008	<0.2

## SANDOVAL COUNTY -- Continued

ORGANIC COMPOUND DATA

[illegible]

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
SANDOVAL COUNTY -- Continued

ORGANIC COMPOUND DATA

LOCAL IDENT- I- FIER	DATE	BENZENE N-PROPYL WATER UNFLTRD REC (UG/L) (77224)	MESIT- YLENE WATER UNFLTRD REC (UG/L) (77226)	O- CHLORO- TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	METHANE BROMO CHLORO- WAT UNFLTRD REC (UG/L) (77297)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)	BENZENE SEC BUTYL- WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT- BUTYL- WATER UNFLTRD REC (UG/L) (77353)	P-ISO- PROPYL- TOLUENE WATER WHOLE REC (UG/L) (77356)	
		12N.03E.27.4122	09-27-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20
		12N.03E.34.1141	08-12-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20
12N.03E.34.4413	08-12-93	<0.20	<0.20	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
LOCAL IDENT- I- FIER	DATE	123-TRI CHLORO- PROPANE WATER WHOLE TOTAL (UG/L) (77443)	ETHANE, 1112- TETRA- CHLORO- WAT UNF REC (UG/L) (77562)	1,2,3- TRI- CHLORO BENZENE WAT, WH REC (UG/L) (77613)	1,2- DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	FREON- 113 WATER UNFLTRD REC (UG/L) (77652)	METHYL ETHER TERT- BUTYL WAT UNF REC (UG/L) (78032)	XYLENE WATER UNFLTRD REC (UG/L) (81551)	BROMO- BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	DIBROMO CHLORO- PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	
		12N.03E.27.4122	09-27-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2
		12N.03E.34.1141	08-12-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2
12N.03E.34.4413	08-12-93	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.20	<0.2	<0.2	
LOCAL IDENT- I- FIER	DATE	METRI- BUZIN SENSOR WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANALINE WAT FLT GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT GF, REC (UG/L) (82661)	DIMETH- OATE WATER FLTRD GG, REC (UG/L) (82662)	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)		
		12N.03E.27.4122	09-27-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
		12N.03E.34.1141	08-12-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04
12N.03E.34.4413	08-12-93	<0.01	<0.006	<0.01	<0.02	<0.01	<0.02	<0.03	<0.04	<0.04	
LOCAL IDENT- I- FIER	DATE	METHYL PARA- THION WAT FLT GF, REC (UG/L) (82667)	EPTC WATER FLTRD GF, REC (UG/L) (82668)	PEB- ULATE WATER FLTRD GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLD GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD GF, REC (UG/L) (82674)		
		12N.03E.27.4122	09-27-93	<0.03	<0.005	<0.009	<0.02	<0.007	<0.01	<0.01	<0.01
		12N.03E.34.1141	08-12-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01
12N.03E.34.4413	08-12-93	<0.03	<0.01	<0.009	<0.02	<0.007	<0.01	<0.009	<0.01	<0.01	
LOCAL IDENT- I- FIER	DATE	TER- BUFOS WATER FLTRD GF, REC (UG/L) (82675)	PRON- AMIDE WATER FLTRD GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD GF, REC (UG/L) (82677)	TRIAL- LATE WATER FLTRD GF, REC (UG/L) (82678)	PRO- PANIL WATER FLTRD GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD GF, REC (UG/L) (82681)	DCPA WATER FLTRD GF, REC (UG/L) (82682)		
		12N.03E.27.4122	09-27-93	<0.01	<0.009	<0.02	<0.008	<0.02	<0.05	<0.008	<0.004
		12N.03E.34.1141	08-12-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005
12N.03E.34.4413	08-12-93	<0.01	<0.009	<0.02	<0.004	<0.02	<0.05	<0.008	<0.005	<0.005	
LOCAL IDENT- I- FIER	DATE	PENDI- METH- ALIN WAT FLT GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD GF, REC (UG/L) (82684)	PRO- FARGITE WATER FLTRD 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)	DIAZ- INON D10 SRG WAT FLT GF, REC (91063)	TERBUTH YLAZINE SURROGT WAT FLT GF, REC (91064)	HCH ALPHA D6 SRG WAT FLT GF, REC (91065)		
		12N.03E.27.4122	09-27-93	<0.02	<0.01	<0.01	<0.04	<0.02	81	88	87
		12N.03E.34.1141	08-12-93	<0.02	<0.01	<0.01	<0.08	<0.02	90	100	80
12N.03E.34.4413	08-12-93	<0.02	<0.01	<0.01	<0.08	<0.02	70	120	90	90	

## QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

## SAN JUAN COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF HOLE, TOTAL (FEET) (72001)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)
GW AT GALLEGOS CAN AT UPST	362723108001501	045		GW	08-20-93	1200	1.00	2.0	2700
GW AT GOBERNADOR WASH AT H	364747107423001	045		GW	08-23-93	1600	--	--	--
GW AT PUMP CANYON AT HWY 1	364704107440701	045		GW	08-24-93	1330	--	--	--
GW AT SIMON CAN WASH AT SJ	364923107393501	045		GW	08-24-93	1130	--	--	--

LOCAL IDENT- IFIER	DATE	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)	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)
GW AT GALLEGOS CAN	08-20-93	8.0	23.0	20.0	E625	4.1	94	35	1.7
GW AT GOBERNADOR W	08-23-93	7.8	31.0	21.5	E625	4.1	470	150	23
GW AT PUMP CANYON	08-24-93	7.6	29.5	23.5	E625	1.6	1300	420	68
GW AT SIMON CAN WA	08-24-93	7.1	27.0	21.5	E625	1.3	410	140	14

LOCAL IDENT- IFIER	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)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)
GW AT GALLEGOS CAN	08-20-93	600	27	4.3	460	900	30	2.1	0.27
GW AT GOBERNADOR W	08-23-93	84	2	2.6	122	550	2.9	0.80	0.010
GW AT PUMP CANYON	08-24-93	710	8	8.9	234	2600	45	0.10	0.080
GW AT SIMON CAN WA	08-24-93	65	1	4.2	262	260	4.6	0.40	<0.010

LOCAL IDENT- IFIER	DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	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)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
GW AT GALLEGOS CAN	08-20-93	1850	1850	3	230	<1.0	<1	6	<1
GW AT GOBERNADOR W	08-23-93	938	887	2	90	<1.0	<1	3	<1
GW AT PUMP CANYON	08-24-93	4270	3990	4	150	<1.0	<1	<1	<1
GW AT SIMON CAN WA	08-24-93	696	645	16	80	<1.0	<1	<1	<1

LOCAL IDENT- IFIER	DATE	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
GW AT GALLEGOS CAN	08-20-93	<0.1	11	3	8	<10	-72.0	-8.99
GW AT GOBERNADOR W	08-23-93	<0.1	4	<1	3	4	-58.2	-8.17
GW AT PUMP CANYON	08-24-93	<0.1	6	<1	5	<10	-55.7	-7.90
GW AT SIMON CAN WA	08-24-93	<0.1	7	<1	4	<3	-28.8	-6.00

QUALITY OF GROUND WATER  
WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993  
SANTA FE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
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19N.08E.12.343	355309106025801	049	GW	04-06-93	1400	112SNTF	50.50	5745
19N.08E.13.133	355257106023701	049	GW	04-06-93	1300	112SNTF	59.00	5785

LOCAL IDENT- I- FIER	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED AS (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED AS (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED AS (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)
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19N.08E.12.343	04-06-93	498	8.3	13.5	46	18	0.29	91	6
19N.08E.13.133	04-06-93	1520	7.5	14.0	360	120	14	160	4

LOCAL IDENT- I- FIER	DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	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)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)
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19N.08E.12.343	04-06-93	21	--	<0.010	2.40	<0.010	<0.010	9	<0.5
19N.08E.13.133	04-06-93	25	46.9	0.070	47.0	0.090	<0.010	28	<0.5

LOCAL IDENT- I- FIER	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
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19N.08E.12.343	04-06-93	<1.0	<5	<3	<10	15	10	170
19N.08E.13.133	04-06-93	<1.0	<5	<3	<10	6	<10	170

LOCAL IDENT- I- FIER	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, 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)
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19N.08E.12.343	04-06-93	2	<10	<10	<1.0	100	25	<3
19N.08E.13.133	04-06-93	62	70	<10	<1.0	2500	<6	<3

ORGANIC COMPOUND DATA

LOCAL IDENT- I- FIER	DATE	TIME	DI- CHLORO- BROMO- METHANE TOTAL (UG/L) (32101)	CARBON- TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)
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19N.08E.12.343	04-06-93	1400	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
19N.08E.13.133	04-06-93	1300	<0.2	<0.2	<0.2	<0.2	<0.2	1.0	0.3

[illegible]





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## CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	$2.54 \times 10^1$	millimeter
	$2.54 \times 10^{-2}$	meter
foot (ft)	$3.048 \times 10^{-1}$	meter
mile (mi)	$1.609 \times 10^0$	kilometer
<i>Area</i>		
acre	$4.047 \times 10^3$	square meter
	$4.047 \times 10^{-1}$	square hectometer
	$4.047 \times 10^{-3}$	square kilometer
square mile (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometer
<i>Volume</i>		
gallon (gal)	$3.785 \times 10^0$	liter
	$3.785 \times 10^0$	cubic decimeter
	$3.785 \times 10^{-3}$	cubic meter
million gallons (Mgal)	$3.785 \times 10^3$	cubic meter
	$3.785 \times 10^{-3}$	cubic hectometer
cubic foot (ft <sup>3</sup> )	$2.832 \times 10^1$	cubic decimeter
	$2.832 \times 10^{-2}$	cubic meter
cubic-foot-per-second day [(ft <sup>3</sup> /s) d]	$2.447 \times 10^3$	cubic meter
	$2.447 \times 10^{-3}$	cubic hectometer
acre-foot (acre-ft)	$1.233 \times 10^3$	cubic meter
	$1.233 \times 10^{-3}$	cubic hectometer
	$1.233 \times 10^{-6}$	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liter per second
	$2.832 \times 10^1$	cubic decimeter per second
	$2.832 \times 10^{-2}$	cubic meter per second
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second
	$6.309 \times 10^{-2}$	cubic decimeter per second
	$6.309 \times 10^{-5}$	cubic meter per second
million gallons per day (Mgal/d)	$4.381 \times 10^1$	cubic decimeter per second
	$4.381 \times 10^{-2}$	cubic meter per second
<i>Mass</i>		
ton (short)	$9.072 \times 10^{-1}$	megagram or metric ton

*Sea level:* In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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