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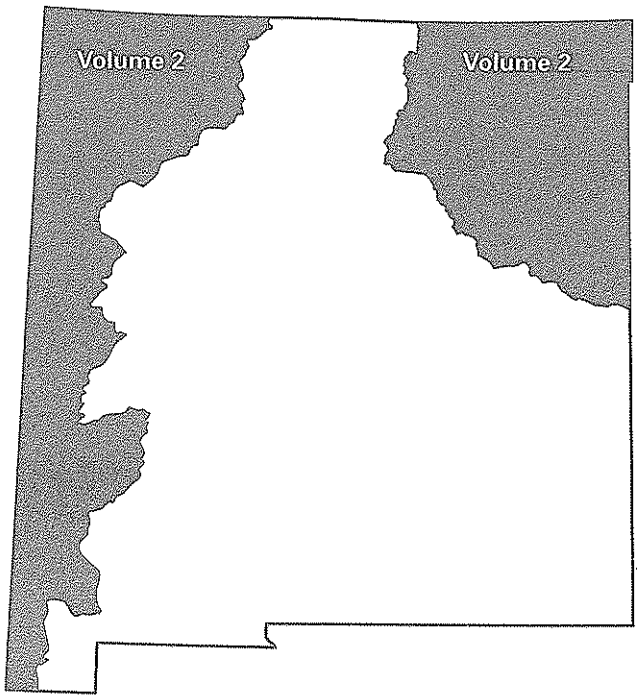
Water Resources Data New Mexico Water Year 1998

Volume 2. The Arkansas River Basin, the San Juan River Basin, the Gila River Basin, and Ground-Water Wells

Water-Data Report NM-98-2



U.S. Department of the Interior
U.S. Geological Survey

Prepared in cooperation with the
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CALENDAR FOR WATER YEAR 1998

1997

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1998

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By David Ortiz, Kathy Lange, and Linda Beal

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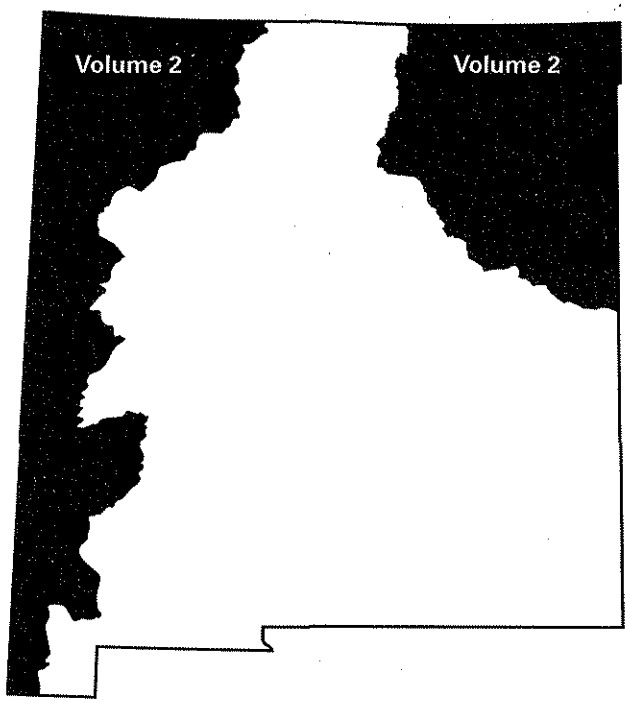

Prepared in cooperation with the
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U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, *Secretary*

U.S. GEOLOGICAL SURVEY

Charles G. Groat, *Director*

For additional information on the
water program in New Mexico write to
District Chief, Water Resources Division
U.S. Geological Survey
5338 Montgomery Blvd. NE, Suite 400
Albuquerque, New Mexico 87109-1311

1999

PREFACE

This annual hydrologic data report of New Mexico is one of a series of annual reports that documents 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 the quality of water 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.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey of the New Mexico District 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 U.S. Geological Survey policies and guidelines.

The following personnel are recognized for their significant contributions to this report:

C.G. Abeyta	B.J. Henson	D.M. Roark
S.K. Anderholm	G.F. Huff	O.C. Romero
P. Blanchard	S.A. Kimball	R.D. Ross
R.R. Cruz	S.H. Lewandowski	R.G. Roybal
R.K. Dewees	R.M. McBreen	J.D. Schaer
W.T. Evans	L.C. Madrid	M.L. Shewmake
D.E. Funderburg	J.A. Medina	G.H. Sieber
B.M Garcia	D.J. Milewski	D.E. Straka
A.C. Gellis	L.K. Miller	C.L. Thomas
R.L. Gold	R.L. Moquino	G.A. Todd
K.C. Grabenhorst	E.L. Nickerson	J.E. Veenhuis
T.M. Kelly	T.J. Quintana	S.D. Waltemeyer
K.L. Hamilton	D.R. Rankin	R.W. Wilcox

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Water-resources data for the 1998 water year for New Mexico consist of records of discharge and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality in wells and springs. This report contains discharge records for 158 gaging stations; stage and contents for 26 lakes and reservoirs; water quality for 34 gaging stations, 23 wells, and 41 partial-record stations and miscellaneous sites; and water levels at 122 observation wells. Also included are 36 crest-stage, partial-record stations. Additional water data were collected at various sites not involved in the systematic data-collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating Federal, State, and local agencies in New Mexico.

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CONTENTS

ILLUSTRATIONS

TABLES

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

[Letters after station names designate type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (r) radiochemical, (s) sediment, (t) daily water temperature, (e) elevation, (v) contents]

Page

GROUND-WATER LEVELS

Page

GROUND-WATER LEVELS

GROUND-WATER LEVELS

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^2)	Period of record
ARKANSAS RIVER BASIN			
Bennett Spring near Capulin, NM	07153410	--	1977-81
Dry Cimarron River near Guy, NM	07153500	545	1942-73
Dry Cimarron River near Folsom, NM	07154000	895	1927-33
Canadian River near Hebron, NM	07199000	229	1946-86
Chicorica Creek below Lake Maloya, NM	07199500	26	1945-51
Chicorica Creek near Yankee, NM	07199600	32.5	1975-79, 1984-87
Vermejo River at Vermejo Park, NM	07202400	36.7	1985-93
Vermejo River near Maxwell, NM	07203525	486	1983-94
East Fork Chicorica Creek near Yankee, NM	07199650	23.9	1984-87
Chicorica Creek below East Fork near Raton, NM	07200000	71	1945-51
Chicorica Creek near Raton, NM	07200500	87	1910-14, 1984-87
Una de Gato Creek near Raton, NM	07201400	80	1910
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

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record
ARKANSAS RIVER BASIN--Continued			
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	956-63
Mora River at Weber, NM	07216000	--	1903-04
Coyote Creek below Black Lake, NM	07217000	48	1952-63
Coyote Creek at Guadalupita, NM	07217500	90	1920-23
Mora River near Watrous, NM	07218100	521	1956-63,
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
Mora River near Shoemaker, NM	07221000	6,015	1912-14 1935-96
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
Conchas River at Verjadero, NM	07225000	523	1936-96
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	072271401	2,616	1969-73
Tramperos Creek near Stead, NM	07227200*	556	1966-73
SAN JUAN BASIN			
San Juan River at Rosa, NM	09350500	1,990	1895-99, 1910-65
Los Pinos River at Ignacio, CO	09354000	--	1910-61
Martinez ditch near Archuleta, NM	09355200	--	1955-57
Citizens ditch near Turley, NM	09356000	--	1938, 1951-58
San Juan River near Blanco, NM	09356500	3,560	1907-09, 1910, 1927-55

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record
SAN JUAN BASIN--Continued			
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
Chaco Wash at Chaco Culture National Monument, NM	09367800*	578	1976-90
Gallo Wash at Chaco National Monument, NM	09367682	36.2	1978-81
Chaco Wash near Pueblo Bonito at bridge at Chaco Canyon National Monument, NM	09367683	619	1980-83
Ah-shi-sle-pah Wash near Kimbeto, NM	09367685	8.2	1977-84
Kim-me-ni-oli Wash near Crownpoint, NM	09367687	228	1982-83
Kim-me-ni-oli Wash near Lake Valley, NM	09367689	400	1982-83
De-na-zin Wash near Bisti Trading Post, NM	09367710	184	1975-82
Black Springs Wash near Mexican Springs, NM	09367900*	7.55	1979-82
Hunter Wash at Bisti Trading Post, NM	09367930*	45.6	1975-82
Teec-ni-di-tso Wash near Burnham Trading Post, NM	09367934	7.2	1978-82
Burnham Wash near Burnham, NM	09367936	8.6	1978-82
Chaco River near Burnham, NM	09367938	3,640	1978-82
Chaco River near Waterflow, NM	09367950	4,350	1975-94
LITTLE COLORADO RIVER BASIN			
Largo Creek near Mangas, NM	09386050	63	1959-66
Zuni River at Black Rock, NM	09387000	828	1910-30
Zuni River at New Mexico-Arizona State line	09387300	1,314	1985-87, 1987-89, 1990-94
Puerco River near Church Rock, NM	09395350	193	1978-82, 1989-91
Puerco River at Gallup, NM	09395500*	558	1940-46, 1977-82
Puerco River near Manuelito, NM	09395630	990	1989-93
Whitewater Arroyo near Cheechilgeetho, NM	09395700	78.5	1964-67

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record
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
Tularosa River above Aragon, NM	09442692	94	1966-96
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, (b) biological, (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^2)	Type of record	Period of record
Dry Cimarron River near Guy, NM	07153500	545	c,s,t	1964-74
Canadian River near Hebron, NM	07199000	229	c	1966-81
Chicorica Creek near Yankee, NM	07199600	32.5		1975-79
Una de Gato Creek below Throttle Dam near Raton, NM	07201420	49.5	c,s	1975-84
Chicorica Creek near Hebron, NM	07202000	381	c	1975-81
Vermejo River near Dawson, NM	07203000	301	c,s	1964-84
Cimarron River below Eagle Nest Dam, NM	07206000	167	c,s	1975-84
Ponil Creek near Cimarron, NM	07207500	171	c	1981-95
Rayado Creek at Sauble Ranch, near Cimarron, NM	07208500	85	c	1981-95
Canadian River near Taylor Springs, NM	07211500	2,850	b,c,s	1966-75
Mora River at La Cueva, NM	07215500	173	c	1981-95
Conchas Canal below Conchas Dam, NM	07223300	--	c	1964-77
Plaza Largo canal below Barranca Creek near Tucumcari, NM	07227073	602	c	1965-66
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
Rio Blanco near Pagosa Springs, CO	09343000	58		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

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record
Animas River near Cedar Hill, NM	09363500	1,090	c,m,s	1943-45 1958-59 1969-73 1975; 1987-98
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
San Juan River near Fruitland, NM	09367540	8,010	c	1978-95
De-na-zin Wash near Bisti Trading Post, NM	09367710	184	c,s	1975-82
Black Springs Wash near Mexican Springs, NM	09367900	7.05	c,s	1981-82
Hunter Wash at Bisti Trading Post, NM	09367930	45.6	c,s	1975-82
Teec-ni-di-tso Wash near Burnham, NM	09367934	7.2	c,m,s,t	1978-82
Burnham Wash near Burnham, NM	09367936	8.6	c,m,s,t	1978-82
Chaco River near Burnham, NM	09367938	3,640	c,m,s,t	1978-82
Chaco River near Waterflow, NM	09367950	4,350	c,s	1976-89
San Juan River near Bluff, UT	09379500	23,000	c,s,t	1962-68
Puerco River near Church Rock, NM	09395350	193	c,s	1979
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
Puerco River near Manuelito, NM	09395630	990	c,s	1989-93
Gila River near Gila, NM	09430500	1,864	c,s,t	1963-67
Mangas Creek below Mangas Springs, NM	09431100		c,m,s	1970-86

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Type of record	Period of record
San Francisco River at Clifton, AZ	09445000	2,766	s	1963-67
Dry Beaver Creek near Rimrock, AZ	09505350	139	s	1964-65
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

VOLUME 2: ARKANAS RIVER BASIN, SAN JUAN BASIN, GILA RIVER BASIN, AND GROUND-WATER RECORDS

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."

Volumes 1 and 2 of this report include 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 158 gaging stations and contents for 26 lakes and reservoirs; water quality for 34 gaging stations, 23 wells, and 41 partial-record stations and miscellaneous sites, and water levels at 122 observation wells. Also included are 36 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. Four seepage investigations were 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 groundwater were combined in reports published annually for each State. These reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NM-98-2." 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 Office of the State Engineer
New Mexico Interstate Stream Commission
Pecos River Commission
New Mexico State Highway and Transportation Department
Canadian River Municipal Water Authority
Costilla Creek Compact Commission
Albuquerque Metropolitan Arroyo Flood Control Authority
City of Albuquerque
Rio San Jose Flood Control District
City of Santa Rosa
City of Raton
Village of Ruidoso
New Mexico Environment Department, Surface-Water, Quality Bureau

Financial assistance for the collection of water-resources data published in this report was provided by the Corps of Engineers, U.S. Army, for 31 gaging stations; by the Bureau of Reclamation, U.S. Department of Interior, for 29 gaging stations; by the Bureau of Indian Affairs, U.S. Department of Interior, for 5 gaging stations; and by the Bureau of Land Management, U.S. Department of Interior, for 1 gaging station.

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.

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.

The quantity of water in the hydrologic system, as evidenced by precipitation records, was generally moderate throughout the State at the beginning of water year 1998. This was followed by moderate to major increases in precipitation, but as the year went on precipitation declined greatly, and the year ended with well below normal values. Specifically, precipitation varied greatly from area to area in New Mexico at the beginning of water year 1998. In October, for example, precipitation was 198 percent of normal in Carlsbad, 36 percent of normal in Albuquerque, 45 percent of normal in Farmington, and only 5 percent of normal in Las Cruces. This variability continued through November. By December precipitation was well above normal in most areas of the State; recorded precipitation ranged from 95 to 651 percent of normal at most sites. January witnessed a major decrease in precipitation totals when most stations recorded amounts less than one-half of normal. Measurements of snowpack at the beginning of February were generally normal or above normal in most areas with the exception of the San Juan River Basin where snowpack was only 69 percent of normal. The streamflow forecast made at this time predicted near-normal flows in the Canadian, Pecos, and Rio Grande Basins; below-normal flows in all other areas; and a sufficient supply of water for irrigation. Precipitation rebounded to near-normal amounts in February, then increased dramatically in March; for example, Carlsbad recorded 523 percent of normal and Albuquerque recorded 431 percent of normal. The streamflow forecast made at the beginning of April predicted near-normal to well above normal streamflows for most of the State. Following the plentiful precipitation totals in March, precipitation dropped off greatly and remained well below normal until the end of the water year.

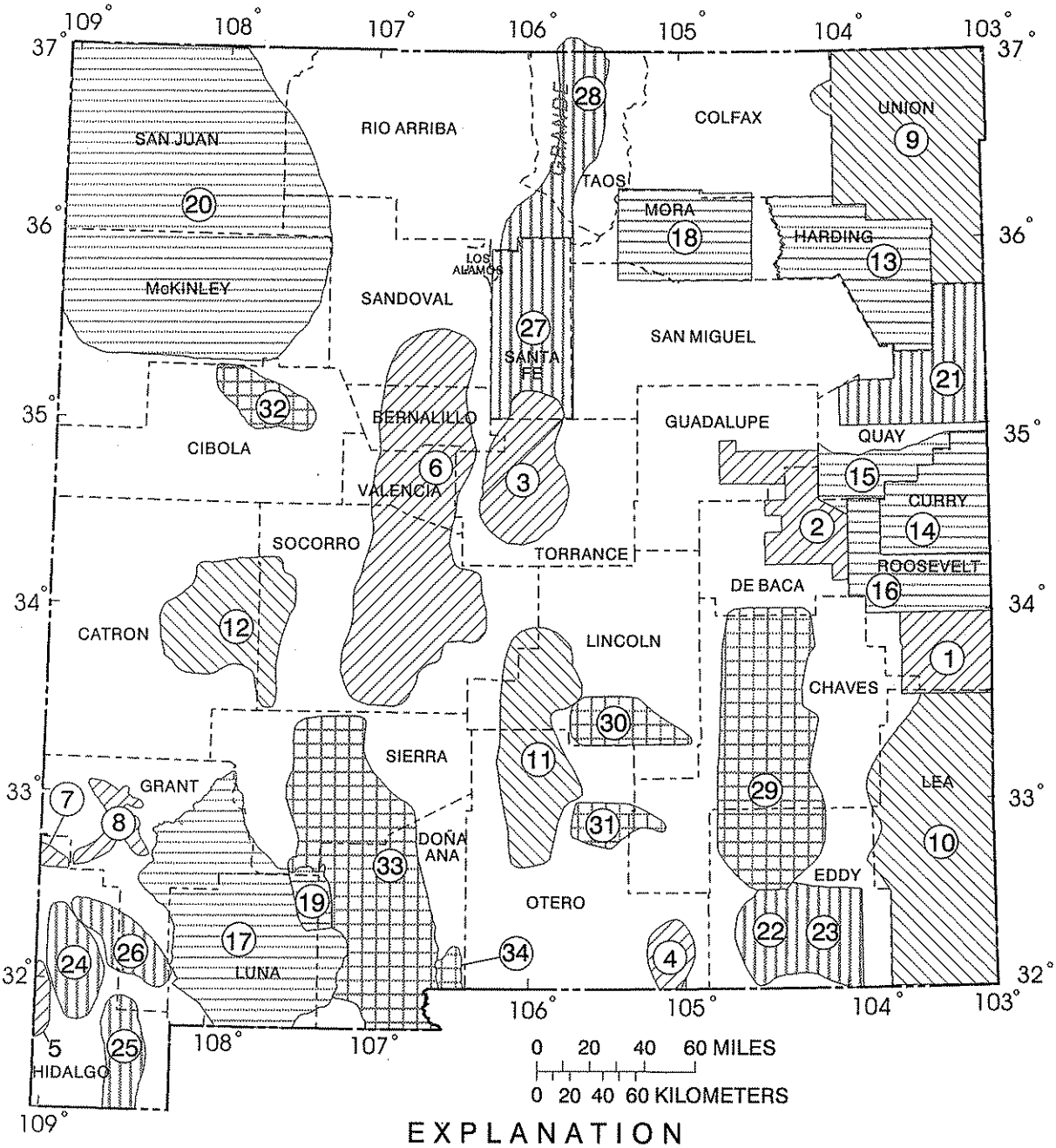
The quantity of water stored in New Mexico's reservoirs often does not represent natural hydrologic conditions because operators of those reservoirs need to meet demands such as irrigation, flood control, legal compacts, and recreation. During periods of heavy storm activity, for example, reservoir operators can reduce the amount of water in storage. With this in mind a review of water storage during water year 1998 indicates various trends. Storage at Brantley, Cochiti, Ute, and Abiquiu Reservoirs varied only slightly; storage at Brantley ranged from 2 to 4 percent of capacity, at Cochiti ranged from 11 to 12 percent of capacity, at Ute ranged from 71 to 73 percent of capacity, and at Abiquiu ranged from 13 to 15 percent of capacity. Storage in other reservoirs, however, did partly reflect hydrologic conditions during water year 1998. In El Vado Reservoir, for example, the quantity of water stored in March (65 percent of normal) represented the precipitation trends. By the end of the water year storage had decreased to 41 percent of normal because of the lack of precipitation. Water storage in Eagle Nest and Conchas Reservoirs had an overall decrease in storage between the beginning and the end of the water year. Storage in Elephant Butte-Caballo and Sumner-Santa Rosa Reservoirs increased and decreased at various times during water year 1998 in response to water demands, but these resevoirs also had less water in storage at the end of the water year than they had at the beginning of the water year. Reservoir storage in most of the State's reservoirs at the end of water year 1998 generally was at lower levels than at the beginning of the water year. Specifically, the combined storage of 13 major reservoirs in the State decreased by 543,000 acre-feet during water year 1998, totaling 4,194,000 acre-feet by September 30, 1998. The combined capacity of these 13 reservoirs is 8,530,000 acre-feet.

Streamflow in New Mexico has been normal or above normal since 1979. Continuing this trend, streamflows recorded at the index gaging stations were near-normal or above normal at the beginning of water year 1998. The index sites with near-normal or above-normal streamflow at the beginning of the water year generally had lower levels of streamflow at the end of the water year. For example, streamflow at Rio Grande at Taos Junction Bridge (station 08276500) was 492 percent of normal in October, decreased to 47 percent of normal in June, and recovered to 83 percent of normal at the end of water year 1998. Streamflow at Gila River near Gila (station 09430500) was 191 percent of normal at the beginning of the water year and continued to be well above normal until it decreased dramatically to 55 percent of normal in September. In contrast, streamflow at Pecos River near Pecos (station 08378500) was 122 percent of normal at the beginning of water year 1998 and increased to 177 percent of normal at the end of water year 1998.

Ground-Water Levels

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

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



1. CAUSEY-LINGO
2. FT. SUMNER
3. ESTANCIA
4. SALT BASIN
5. SAN SIMON
6. MIDDLE RIO GRANDE
7. VIRDEN
8. GILA RIVER

09. NORTHERN HIGH PLAINS
10. LEA COUNTY
11. TULAROSA BASIN
12. SAN AGUSTIN PLAINS

13. HARDING COUNTY
14. CURRY COUNTY
15. HOUSE
16. PORTALES
17. MIMBRES BASIN
18. MORA
19. NUTT-HOCKETT
20. SAN JUAN BASIN

21. LOWER CANADIAN
22. CARLSBAD
23. CAPITAN REEF
24. ANIMAS
25. PLAYAS
26. LORDSBURG
27. SANTA FE COUNTY
28. UPPER RIO GRANDE

29. ROSWELL BASIN
30. RIO HONDO
31. RIO PEÑASCO
32. GRANTS-BLUEWATER
33. LOWER RIO GRANDE
34. HUECO

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

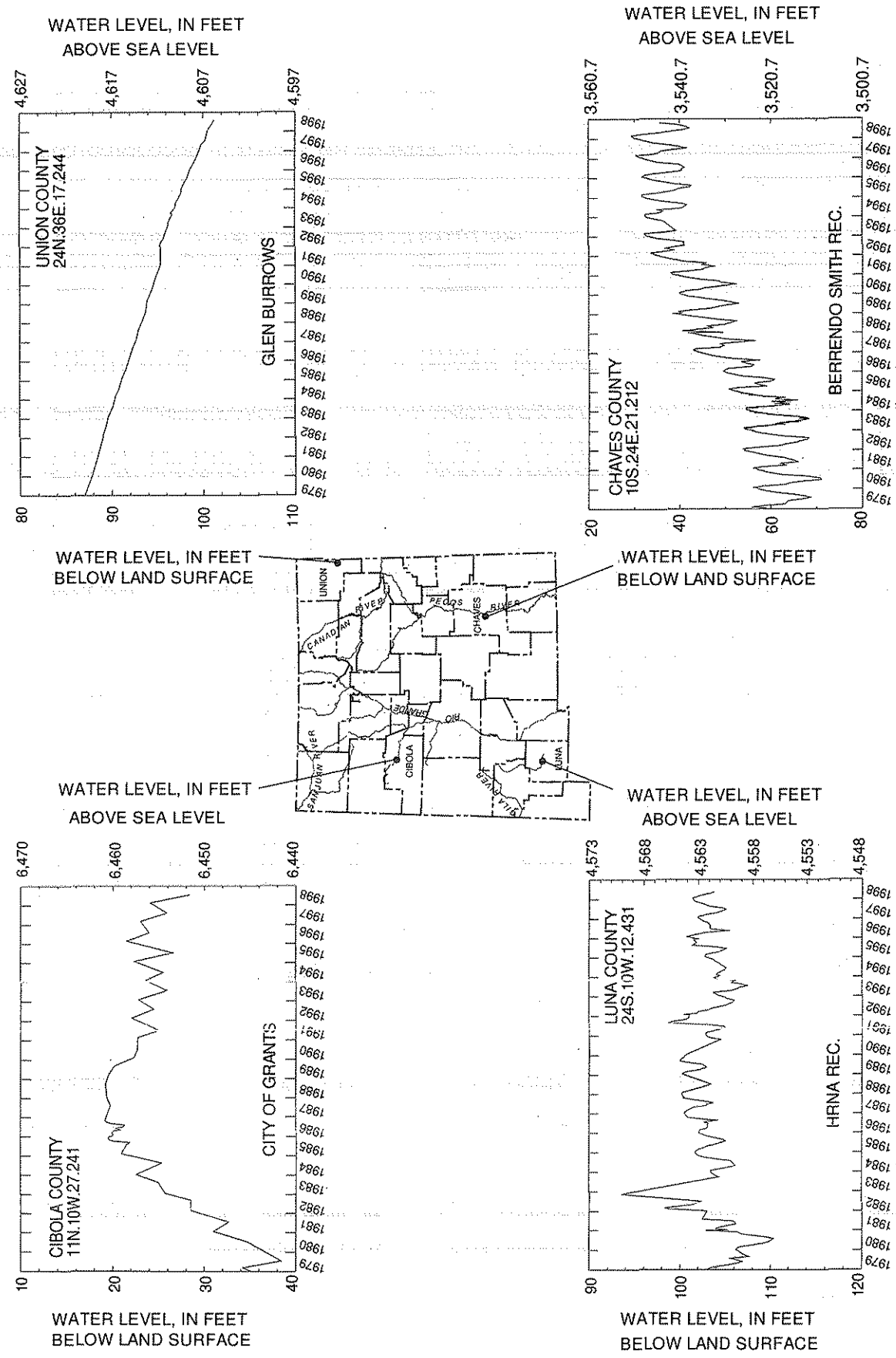


Figure 2.--Ground-water-level trends for the last 20 years or period of record.

Discharges for water year 1998 at four index streamflow-gaging stations compared to median annual discharge for water years 1968-97 at the same stations are listed below:

Station number	Station name	Median annual discharge in acre-ft water years 1968-97	Annual mean discharge in acre-ft water year 1998	1998 discharge as a percentage of median
08276500	Rio Grande below Taos Junction Bridge	564,500	566,200	100
08378500	Pecos River near Pecos	74,990	98,070	131
08408500	Delaware River near Red Bluff	3,960	1,140	29
09430500	Gila River near Gila	132,900	147,800	111

Surface-Water Quality

Suspended-sediment loads for water year 1988 at three index stations and median suspended-Sediment loads for water years 1988-97 at the same stations are listed below:

Station number	Station name	Median suspended-sediment load for water years 1988-97 in tons	Suspended-sediment load for water year 1998, in tons	1998 load as a percentage of 1988-97 median
08313000	Rio Grande at Otowi Bridge	1,917,300	1,176,564	61
08330000	Rio Grande at Albuquerque	511,280	391,641	77
08358400	Rio Grande Floodway at San Marcial	3,527,832	4,382,422	124

SPECIAL NETWORKS AND PROGRAMS

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

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

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) To provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites. (2) To provide the mechanism to evaluate the effectiveness of the significant reduction in SO_2 emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred. (3) To provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO_2 and NO_x scheduled to begin in 2000.

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

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

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

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

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

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

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

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 also are obtained at a number of precipitation stations. The purpose of collecting tritium data at 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 water year 1998, which began October 1, 1997 and ended September 30, 1998. 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 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 in this report, whether a stream site or well, in this report is assigned a unique identification number. 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. Generally, the "downstream-order" system is used for surface-water stations, the "latitude-longitude" system is used for wells and, in New Mexico, 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 with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention shows 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 in 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 all 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; for example, Part "08" is the Rio Grande basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of north latitude, the next seven digits denote degrees, minutes, and seconds of west longitude, and the last two digits (assigned sequentially) identify the order of sites if more than one within a 1-second grid. This site-identification number, once assigned, is arbitrary and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below.)

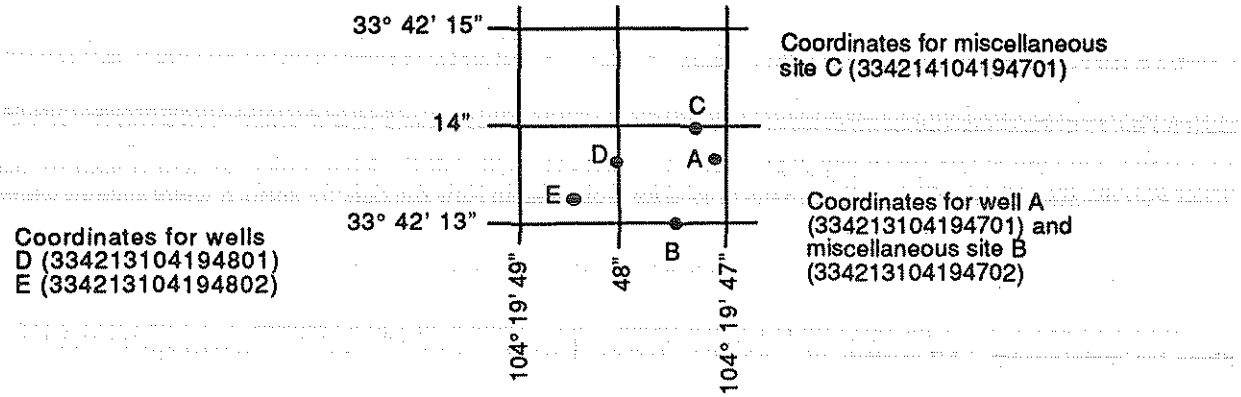


Figure 3.--System for assigning latitude longitude numbers to wells, springs, and miscellaneous sites.

Local Well Numbers

In New Mexico, 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 figure 4.

The well numbering system in Texas was developed by the Texas Water Development Board for use throughout the State. Under this system, each 1-degree quadrangle is given a number consisting of two digits. These are the first two digits in the well number. Each 1-degree quadrangle is divided into 7-1/2-minute quadrangles which are given two digit numbers from 01 to 64. These are the third and fourth digits of the well number. Each 7-1/2-minute quadrangle is divided into 2-1/2-minute quadrangles which are given a single-digit number from 1 to 9. This is the fifth digit of the well number. Finally, each well within a 2-1/2-minute quadrangle is given a two-digit number in the order in which it was inventoried, starting with 01. These are the last two digits of the well number. In addition to this seven-digit well number, a two-letter prefix is used to identify the county. An example of the Texas well-numbering system is provided in figure 5.

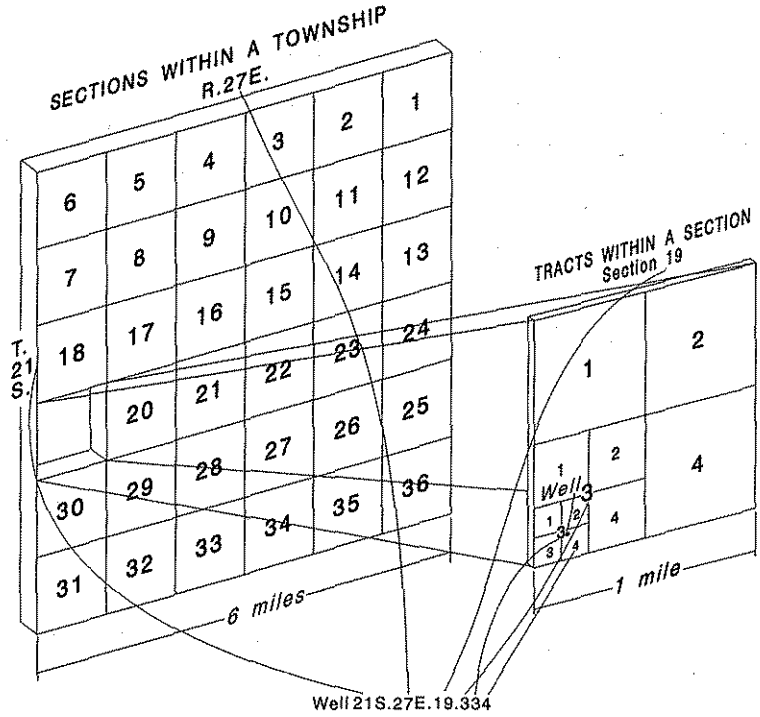


Figure 4.--New Mexico well numbering system.

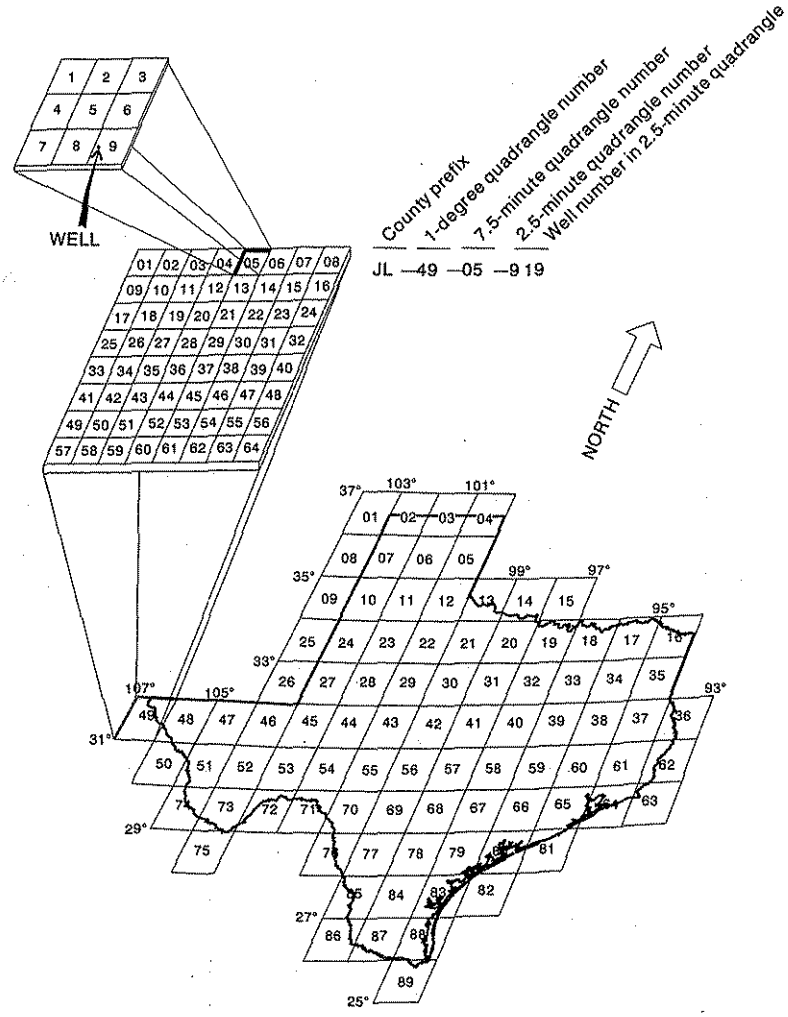


Figure 5.--Texas well-numbering system.

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 reservoir storage 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 table titles. Records of miscellaneous discharge measurements or of measurements from special studies may be considered as partial records, but they are presented separately in this report. Location of all complete-record stations and partial-record stations for which data are given in this report are shown in figures 6 and 7.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

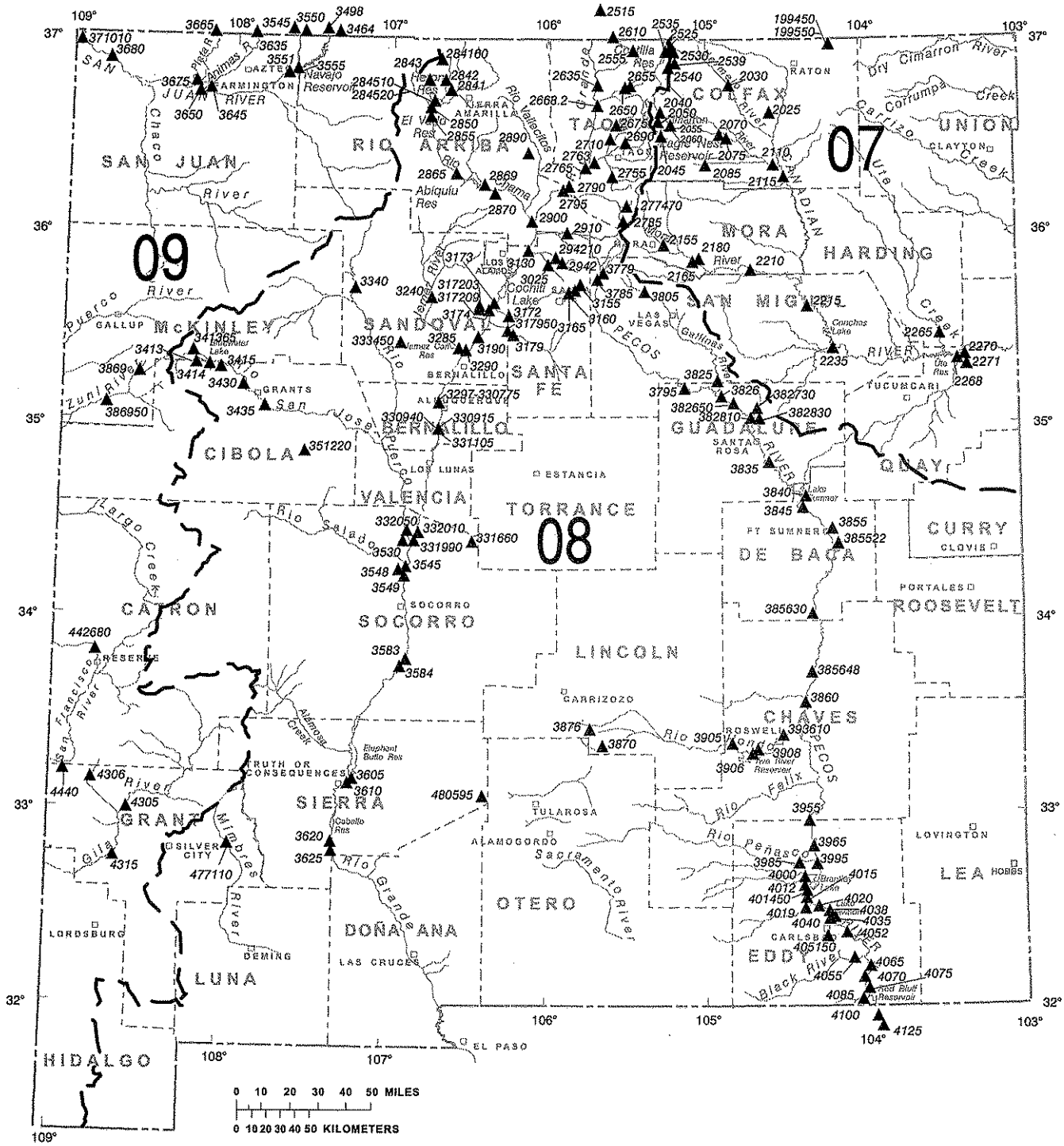
Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals, or with satellite data collection platform that transmit real time data at selected time intervals to office computers. Measurements of discharge are made with current meters using methods adopted 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.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. 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 determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage- discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some streamgaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available (from surveys) curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly incorrect as the lapsed time since the last survey



U.S. Geological Survey base

EXPLANATION

07 LOWER MISSISSIPPI RIVER BASIN NUMBER

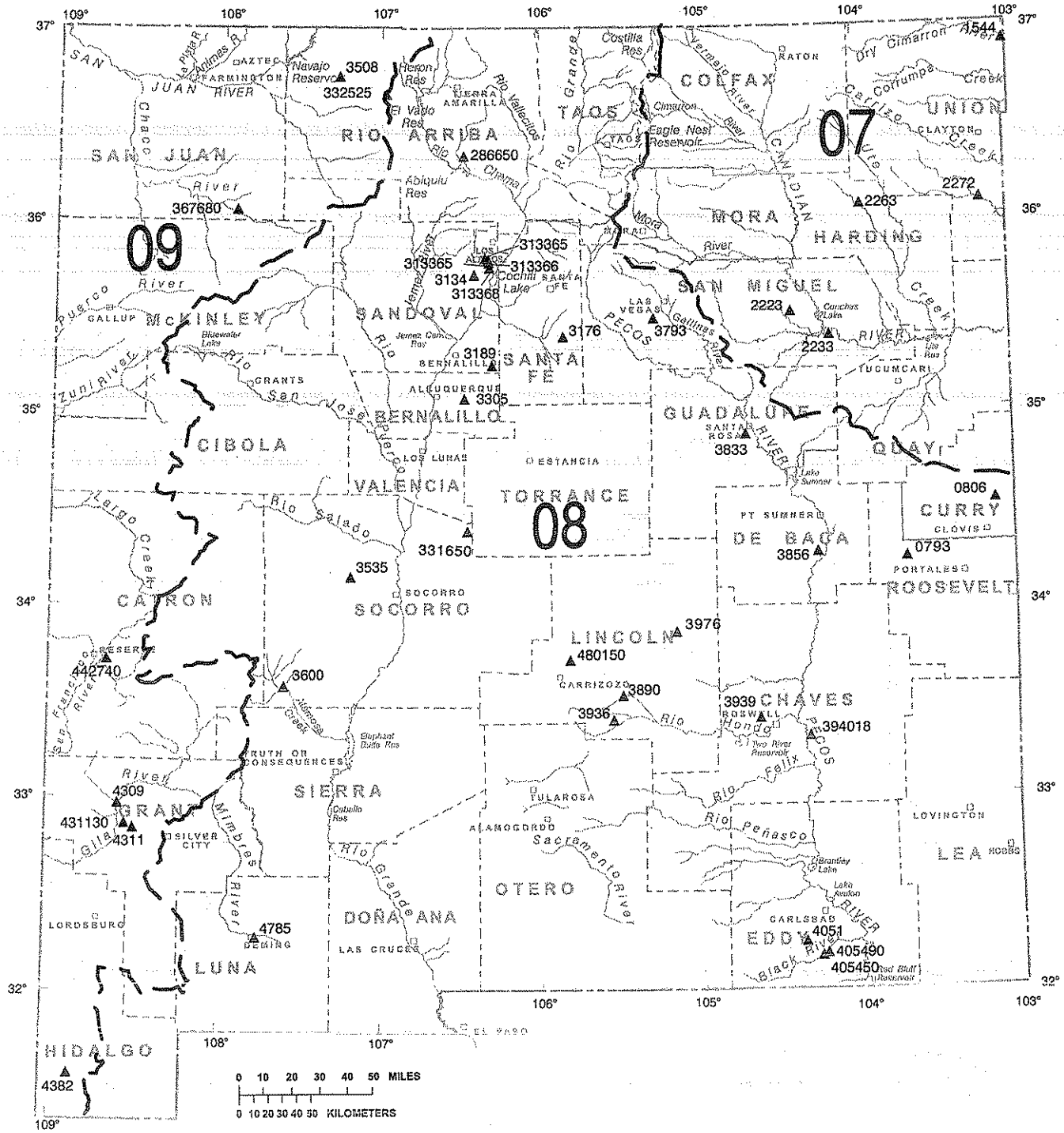
08 WESTERN GULF OF MEXICO BASIN NUMBER

09 COLORADO RIVER BASIN NUMBER

— — RIVER BASIN BOUNDARY

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

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



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

4051 CREST-STAGE STATION AND ABBREVIATED NUMBER--
Complete national station number is: 08 405100
Basin number + station number

Figure 7.--Location of partial-record stations.

increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so incorrect 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 from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily- discharge values are identified in station records is included in sections "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

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

The records published for each continuous-record surface-water discharge station (gaging station) consist of five parts: the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; a hydrograph.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record, record accuracy, and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gaging station 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 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. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which records have been published 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 flow at it reasonably can be considered equivalent to flow at the present station.

REVISED RECORDS.--Because of new information, published records 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 will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph also is used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition,

information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and 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 U.S. Geological Survey by a cooperating organization are identified here.

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.

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 (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. Of course, if the data for a discontinued station were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data always is accompanied by revision of the corresponding data in computer storage.

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

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

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

"ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

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

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

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

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

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

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

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

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

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

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

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

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

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

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

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

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

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

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

Hydrograph

A hydrograph for the current year follows the table for most stations. Streamflow hydrograph are semi-log plot of mean daily values with no flow day showing as blanks.

Data collected at partial-record stations follow the information for continuous-record sites. The tables of partial-record stations are followed by listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought of flood to give better areal coverage of those events. Those measurements and others collected for some special reason are called miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote (e-- Estimated) or 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 interpretation 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 their true values; "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 less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. No rounding rules apply to discharges listed for partial-record stations and miscellaneous sites. Listed discharges are those actually computed.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff because of the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation from artificial causes, or to other factors. For such stations, figures for cubic feet per second per square mile and for runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. 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 Records Available

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the New Mexico district office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained at the address given on the back of the title page of this report.

Records of Surface-Water Quality

Records of surface-water quality in this report represent a variety of data types and measurement frequencies. Whenever possible, records of surface-water quality are obtained at or near streamgaging stations because interpretation of surface-water quality and seasonal variation is enhanced by knowledge of corresponding discharge data. Location of surface-water-quality are shown in figure 8.

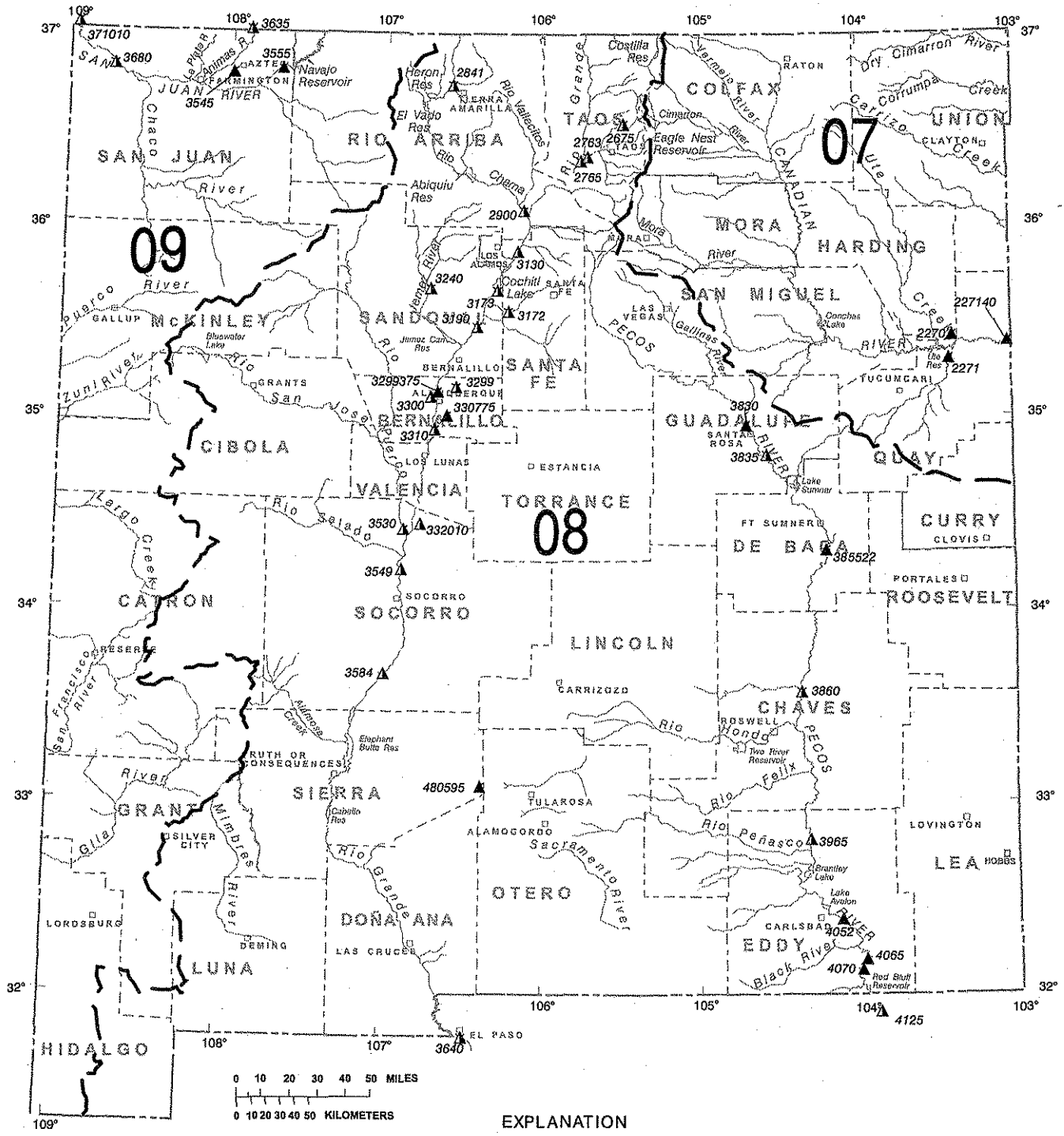


Figure 8.--Location of active surface-water-quality stations.

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 water-quality data are collected systematically over a period of years, but frequency of sampling usually is less than quarterly. A miscellaneous sampling site is a location where samples are collected one time or intermittently to provide better areal coverage for defining water-quality conditions over a broad area in a river basin.

A distinction needs to be made between "continuing records", as used in reference to data for continuing-record stations, and "continuous record," which refers to a continuous graph over time or a series of discrete values recorded at short time intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, most water-quality data are obtained on a monthly or less frequent basis.

On-site Measurements and Sample Collection

When obtaining water-quality data, a major concern is assuring that on-site water-quality measurements and the samples collected for laboratory analysis are representative of the actual quality of the water. Measurements such as water temperature, pH, and dissolved oxygen are made on site when the samples are collected because of the potential for significant change with time. To assure that measurements made in the laboratory also represent the actual environmental concentrations of constituents, prescribed procedures need to be followed in collection and processing of samples. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," (TWRI) Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Also, detailed information on collecting, treating, and shipping samples may be obtained from other references and from the New Mexico 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 Special Networks andPrograms) 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 which must be evaluated by the sampler.

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 a 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 measuremnt of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For water-quality stations equipped with electronic monitors and digital recorders, the record consists of a 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 of the individual hourly values (unit values) may be obtained from the New Mexico district office.

Water Temperature

Water temperatures are measured at water-quality stations at the time of sampling. In addition, water temperatures are taken at the time of discharge measurements at streamgaging stations. For stations where water temperatures are measured manually once daily, the water temperatures are taken at about the same time each day for consistency in the record. Deep streams commonly have a small diurnal temperature change, whereas shallow streams may have a daily range of several degrees, which closely follows the changes in air temperature. The water temperature in some streams may be affected by industrial discharges of warm water.

For stations where recording instruments are used, the record consisting of either daily mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements and those taken manually once-daily are on file in the New Mexico district office.

Sediment

Suspended-sediment concentrations are determined from samples collected using depth-integrating samplers. Samples usually are obtained from several verticals in the cross section. At daily sediment stations, daily samples may be obtained from a single vertical and a coefficient applied to determine the mean concentration in the cross section. Daily mean suspended-sediment concentrations are computed using sample concentrations and the continuous streamflow record according the methods described in TWRI Book 3, Chap. C3. Daily suspended-sediment discharge then is computed as the product of stream discharge times the daily mean concentration times a unit conversion factor of 0.0027.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration 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 was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

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

In addition to the records of suspended-sediment discharge, records of particle-size distribution of the suspended sediment and bed material for periodic samples are included for some stations.

Laboratory Analyses

Samples for indicator bacteria are analyzed locally. Samples for suspended-sediment are analysed at the U.S. Geological Survey laboratory in Albuquerque, New Mexico. Samples for all other constituents are analyzed at the Geological Survey National Water-Quality Laboratory in Arvada, Colorado,. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1 and C3. Methods used by the National Water-Quality Laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

In March 1989, the National Water-Quality Laboratory identified a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989.

New protocols have been established by the U.S. Geological Survey for the collection and processing of surface-water samples that are analyzed for dissolved inorganic constituents[1]. These protocols are designed to produce trace-element data that are free of potential contamination associated with sample collection and filtration procedures. Because of the very low concentrations of some trace constituents in the environment, special precautions are necessary to protect the sample from the introduction of trace constituents during processing that could lead to a positive bias in reported concentrations. The protocols have been tested to assure reliable results at the microgram per liter (parts per billion) level. Dissolved trace-element data published prior to implementation of the protocols in 1994 may have a potential positive bias ranging from negligible to several micrograms per liter, depending on the procedures and sampling equipment used at the site.

Data Presentation

Water-quality records collected at a streamgaging station are published immediately following the daily discharge record. Station number and name are the same for both records. Where a daily discharge record is not available or where

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[1] Horowitz, A.J., Demas, C.R., Fitzgerald, K.K., Miller, T.L., and Rickert, D.A., 1994, U.S. Geological Survey Protocol for the Collection and Processing of Surface-Water Samples for the Subsequent Determination of Inorganic Constituents in Filtered Water: U.S. Geological Survey Open-File Report 94-539, 57 p.

the location of the water quality station differs significantly from that of the nearby streamgaging station, the water-quality record is published with its own station number and name in the standard downstream-order sequence.

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, cooperating agencies, and extremes for parameters measured on a daily basis. Tables of chemical, physical, biological, and radiochemical data obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, water temperature, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the streamgaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuing 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 monitor, 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 for the current water 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, 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 insure the most recent updates.

Remark Codes

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

PRINTED OUTPUT	REMARK
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 acceptable range (non- ideal colony count)
L	Biological organism count less than 0.5 percent than 0.5 percent
D	Biological organisam count equal to or greater than 15 percent (dominant).
&	Biological organisam estimated as dominant.
V	Analyte was detected in both the environmental sample and the associated blanks.

Water Quality-Control Data

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this district are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collectionprocess. The types of blank samples collect in this district are:

Field blank - a blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank - a blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank - a blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank - a blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank - a blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank - a blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank - a blank solution that is treated with the sampler preservatives used for an environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory whose composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. There are many types of replicate samples possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are: Sequential samples - a type of replicate sample in which the samples are collected one after the other, typically over a short time. Split sample - a type of replicate sample in which a sample is split into subsamples contemporaneous in time and space.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

Dissolved Trace-Element Concentrations

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

Change in National Trends Network Procedures

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

Records of Ground-Water Levels

Only selected water-level data from New Mexico 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 more important aquifers. Locations of the observation wells in this network in New Mexico are shown in figure 9.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of 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 to the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number derived from the township-range location of the well.

Water-level records are obtained from direct measurements using a steel tape or from the graph or digital water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). 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 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 of 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 to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of two parts, the station description and 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 comment 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.

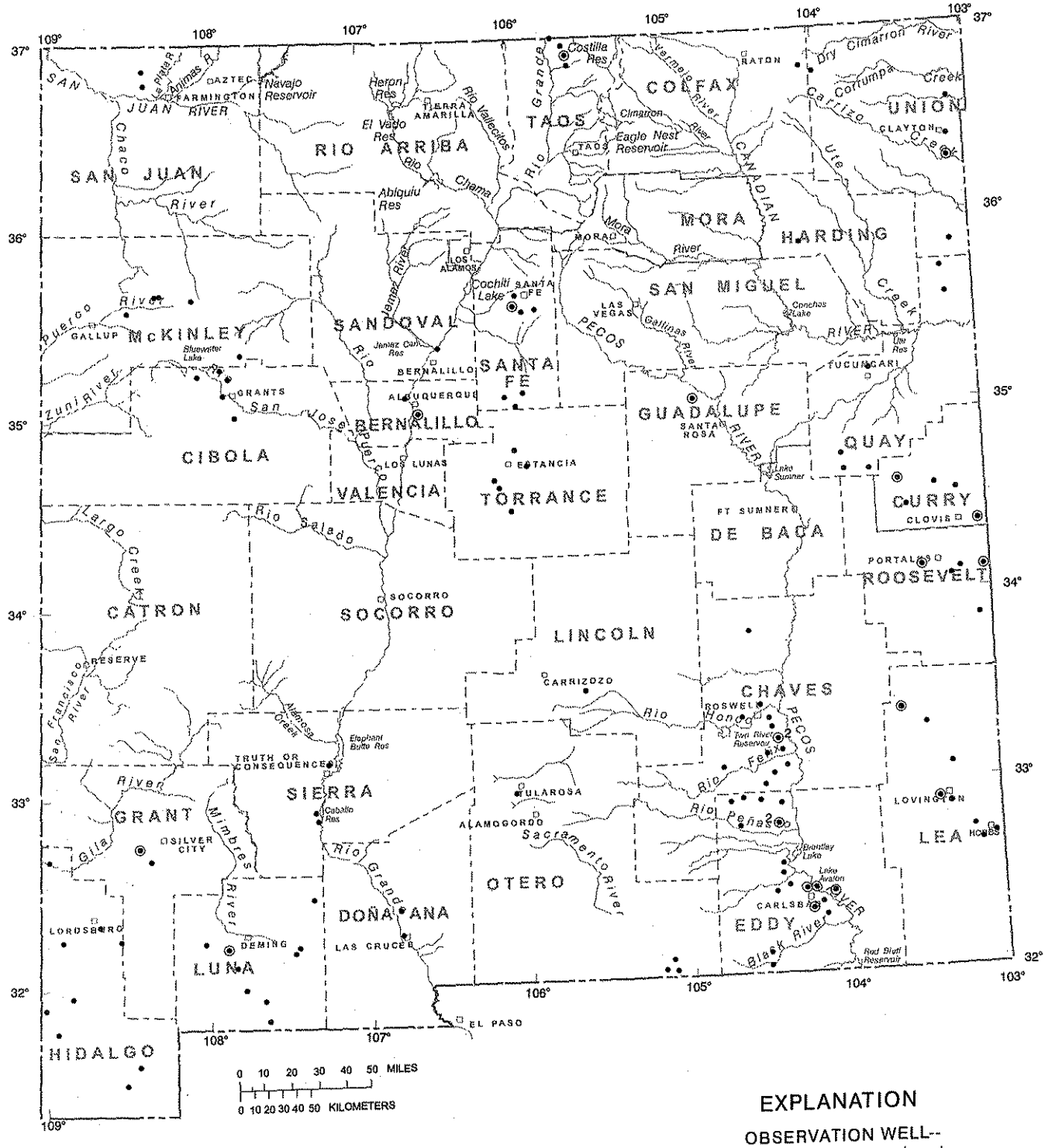


Figure 9.--Location of observation wells.

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 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 maybe values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

Publications

Publication of ground-water level data for the United States in water-supply papers was begun by the U.S. Geological Survey in 1935. From 1935 through 1939, a single water-supply paper for each year covering the entire nation was issued (Water-Supply Papers---777, 817, 840, 845, and 886). From 1940 through 1974, separate water-supply papers were issued for 6 sections of the United States. Information about reports and other data on ground water in New Mexico may be obtained from the New Mexico district office.

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 USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (WWW). These data may be accessed at: http://www.water.usgs.gov

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (See address on the back of the title page.)

DEFINITION OF TERMS

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

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid.

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 formed into colonies. Some bacteria cause disease, 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.

Escherichia coli (E. coli) also are present in the digestive tract of warm-blooded animals. In the laboratory, E. coli is defined as all organisms that produce orange/yellow colonies when incubated for two hours at 35°C ± or - 0.2°C and transferred to 44.5°C ± or - 0.2°C for 22-24 hours on mTEC agar (nutrient medium for E. coli growth), and stained with phenol red solution. Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine and feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 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 also are bacteria found in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C plus or minus 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.

Non-ideal colony count (K) is a remark code used in reporting bacteria densities when plate counts fall outside of an ideal range. The lower limit of 20 colonies is set as the number below which statistically valid results become in-

creasingly questionable. The upper limit, which differs according to type of bacteria, represents numbers above which interference from colony crowding, deposition of extraneous material, and other factors appear to result in increasingly questionable results.

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

Bottom material: See Bed material.

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 BOD or with carbonaceous organic pollution from sewage or industrial wastes.

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.

Continuing-record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.

2. When water temperature records include observations taken one or more times daily.

3. When sediment discharge records include periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

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

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

Cubic-foot-per-second day (cfs-day) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.

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.

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.)

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

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

Dissolved refers to that material in a representative water sample which passes through a 0.45 micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determination 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 0.493 to reflect the change.

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 specified.

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 ($CaCO_3$).

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

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Micrograms per gram (UG/G, µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

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

Microsiemens per centimeter at 25 degrees Celsius (US/CM, µS/cm) is a unit for reporting specific electrical conductance.

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 of 1929) 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.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a 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 a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine all 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 the recommendation 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 matter 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.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH indicates the degree of acidity or alkalinity of water and is expressed in logarithmic units. The pH value of a solution is the negative logarithm of the hydrogen-ion concentration, in moles per liter.

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

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

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 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.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

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

Sea level in this report refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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 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 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 period

.Suspended-sediment discharge (tons/day) is the rate at which a quantity of sediment, as measured by dry mass or volume, passes a stream section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to the total mass of material in suspension. It is not synonymous with sediment discharge, which is a rate of transport.

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 mass 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 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.

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 degrees Celsius. 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 60 to 65 percent of the specific conductance (in microsiemens per centimeter at 25 degrees Celsius). This relation is not constant from stream to stream, and 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.

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 in acres. In localities not covered by topographic maps, the areas are computed from the best maps available. All areas shown are those for the stage when the map was made.

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

Suspended (as pertains to 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 µm 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 are 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-micrometer 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.

Synoptic Studies Short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

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, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentration 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, in tons, of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the 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" indicates 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 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 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. 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 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 are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Turbidity of a sample is the reduction of transparency because of the presence of particulate matter. In this report it is expressed in Nephelometric turbidity units (NTU), obtained from the nephelometric method for turbidity determination which measures the intensity of light scattered by suspended particles at 90 degrees from the path of an incident light source.

Volatile Organic Compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOCs are man-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens (U.S. Environmental Protection Agency, 1996).

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through the following 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, 1990, is called "water year 1990."

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).

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

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

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

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-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. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

2-E2. *Borehole geophysics applied to ground-water investigations*, by W. S. 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 W. 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 measurement 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 the 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*, Revised, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 34 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.

3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F. A. Kilpatrick, R. E. Rathbun, Nobuhiro Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.

3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 31 pages.

3-A20. *Simulation of soluable waste transport and buildup in surface waters using tracers*, by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.

3-A21 *Stream-gaging cableways*, by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS-- TWRI Book 3, Chapter B2. 1976. 172 pages.

3-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 R. L. Cooley and R. L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.

3-B4. *Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R. L. Cooley: USGS--TWRI Book 3, Chapter B4. 1993. 8 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. 190 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L. C. Friedman, editors: 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. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages

6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages.

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L. J. Torak: USGS--TWRI Book 6, Chapter A5, 1993. 243 pages.

6-A6. A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction, by Eric D. Swain and Eliezer J. Wexler. 1995. 125 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.

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^2.

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-ft, from Lake Maloya for municipal supply for City of Raton and releases to Vermejo Conservancy District.

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,790 acre-ft, Apr. 12, May 3, elevation, 7,511.84 ft; minimum contents, 3,310 acre-ft, Sept. 24-28 elevation 7,507.82 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3610	3700	3620	3700	3710	3710	3760	3770	3720	3540	3510	3440
2	3610	3700	3620	3700	3710	3710	3750	3780	3710	3530	3510	3430
3	3610	3700	3620	3710	3710	3710	3750	3790	3710	3520	3510	3430
4	3610	3700	3630	3710	3710	3710	3750	3780	3710	3520	3510	3420
5	3610	3700	3630	3710	3710	3720	3750	3780	3700	3520	3510	3420
6	3610	3700	3640	3710	3710	3720	3760	3770	3710	3520	3510	3410
7	3610	3700	3640	3710	3710	3720	3760	3770	3710	3530	3510	3400
8	3620	3690	3640	3710	3710	3710	3750	3760	3710	3530	3500	3400
9	3620	3690	3650	3710	3710	3710	3750	3760	3710	3540	3500	3390
10	3620	3690	3660	3710	3710	3710	3750	3770	3700	3540	3500	3390
11	3630	3680	3670	3710	3710	3710	3760	3760	3700	3540	3500	3380
12	3650	3680	3680	3710	3710	3710	3790	3750	3710	3540	3500	3370
13	3650	3680	3680	3710	3710	3720	3780	3750	3700	3530	3500	3370
14	3660	3680	3690	3710	3710	3720	3770	3740	3690	3530	3490	3360
15	3660	3670	3690	3700	3710	3730	3760	3740	3690	3530	3490	3360
16	3660	3670	3700	3700	3710	3730	3760	3740	3680	3530	3480	3350
17	3670	3660	3700	3700	3710	3730	3750	3740	3680	3520	3480	3350
18	3670	3660	3700	3700	3710	3730	3750	3740	3670	3510	3480	3340
19	3670	3650	3700	3700	3710	3720	3750	3740	3660	3510	3490	3330
20	3680	3650	3700	3700	3710	3720	3750	3730	3660	3500	3480	3330
21	3680	3650	3700	3700	3710	3730	3750	3730	3650	3500	3480	3320
22	3690	3640	3700	3700	3710	3730	3750	3720	3640	3500	3480	3320
23	3690	3630	3700	3700	3710	3750	3760	3720	3630	3490	3470	3320
24	3690	3630	3700	3700	3720	3760	3770	3720	3610	3490	3470	3310
25	3690	3620	3700	3700	3720	3780	3780	3720	3600	3480	3460	3310
26	3680	3620	3700	3700	3720	3790	3770	3720	3590	3480	3460	3310
27	3690	3610	3700	3700	3720	3780	3760	3720	3580	3500	3460	3310
28	3690	3630	3700	3700	3720	3780	3760	3720	3570	3500	3450	3310
29	3700	3620	3700	3700	---	3780	3760	3720	3550	3500	3450	3320
30	3700	3620	3700	3700	---	3760	3770	3720	3540	3500	3450	3320
31	3700	---	3700	3700	---	3760	---	3720	---	3500	3440	---
MAX	3700	3700	3700	3710	3720	3790	3790	3790	3720	3540	3510	3440
MIN	3610	3610	3620	3700	3710	3710	3750	3720	3540	3480	3440	3310
(+)	7511.11	7510.42	7511.08	7511.12	7511.21	7511.56	7511.67	7511.35	7509.79	7509.45	7508.92	7507.92
(++)	+60	-80	+80	0	+20	+40	+10	-50	-180	-40	-60	-120
(+++)	0	0	72	0	0	62	137	250	291	213	134	46
(++++)	0	0	0	0	0	0	0	0	0	0	0	e50

CAL YR 1997 MAX 3790 MIN 3320 (++) +380 (+++) 754 (++++) 0
WTR YR 1998 MAX 3790 MIN 3310 (++) -320 (+++) 1130 (++++) e50

e Estimated

(+) ELEVATION, IN FEET, AT END OF MONTH
(++) CHANGE IN CONTENTS, IN ACRE-FEET
(+++) DIVERSION FOR LAKE MALOYA, IN ACRE-FEET
(++++) RELEASE, IN ACRE-FEET, TO VERMEJO CONSERVANCY DISTRICT

07202500 EAGLE TAIL DITCH NEAR MAXWELL, NM

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

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,110 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 1975, at site about 200 ft upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Eagle Tail ditch diverts water from Chicorica Creek for use near Maxwell. No diversions upstream from station. No flow at times most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	12	e6.9	e10	12	.35	.00	79	14	.26	31	4.8
2	.86	13	e6.8	e10	13	.34	.00	80	12	1.0	9.9	6.5
3	.55	11	e6.2	e10	12	.35	2.9	79	10	1.9	4.3	6.3
4	.43	8.7	e6.1	e11	12	.35	.03	82	9.3	3.6	2.6	3.2
5	.62	7.5	e6.0	e11	11	.35	.00	84	8.2	3.6	1.6	2.3
6	.73	8.3	e5.8	e11	11	.35	.00	76	5.9	1.4	1.2	2.1
7	1.6	10	e5.6	e11	9.6	.33	.00	75	5.4	3.7	1.0	1.8
8	8.1	10	e5.6	e11	8.8	.40	.00	66	6.7	10	.89	1.7
9	7.6	8.2	e5.6	e12	8.9	.30	.00	60	8.9	18	2.3	1.6
10	3.1	e7.9	e5.8	e12	9.0	.29	.00	59	7.7	9.7	2.7	1.5
11	3.6	e7.5	e6.0	e11	9.1	.71	.00	59	7.9	6.7	7.6	1.0
12	8.8	e7.4	e6.4	e12	9.0	12	.00	58	7.0	5.1	30	.69
13	19	e7.1	e7.0	e12	8.8	11	.00	50	5.3	2.8	30	.63
14	8.1	e6.9	e8.2	e12	8.6	11	.96	46	4.0	2.0	5.6	1.6
15	3.1	e6.8	e8.6	e11	8.6	12	17	44	2.5	1.7	3.6	.91
16	2.1	e6.3	e9.3	e11	9.2	14	15	39	2.3	2.3	2.3	.90
17	3.0	e6.2	e9.5	e11	10	14	11	35	2.1	11	2.0	.40
18	3.0	e6.0	e9.6	e11	11	.82	6.8	33	1.7	3.3	6.5	.26
19	2.8	e5.7	e9.6	e12	12	.02	11	30	1.0	2.0	2.7	.19
20	2.5	5.1	e9.6	e11	12	.00	15	33	1.0	1.2	12	.03
21	4.5	4.2	e9.8	e11	12	.00	17	27	1.1	.93	23	.00
22	7.2	4.7	e9.7	e10	11	.00	19	27	1.0	.61	13	.00
23	3.2	4.4	e9.5	e11	11	.00	36	25	.82	5.0	5.2	2.3
24	2.6	5.6	e9.2	e11	10	.00	59	23	.48	2.4	2.6	2.8
25	3.9	6.0	e9.2	e12	10	.00	79	22	.32	2.1	7.8	.44
26	4.9	6.2	e9.3	11	.75	.00	88	21	.19	1.6	7.8	.14
27	12	6.3	e9.5	11	.36	.00	91	22	.10	3.3	5.9	.03
28	11	6.4	e9.7	12	.38	.00	80	21	.17	3.7	6.0	.00
29	8.3	6.3	e9.9	13	---	.00	70	17	.28	2.9	2.6	.05
30	8.8	6.4	e9.9	13	---	.00	69	16	.00	2.9	1.9	2.1
31	10	---	e10	12	---	.00	---	15	---	40	2.1	---
TOTAL	157.09	218.1	249.9	350	261.09	78.96	687.69	1403	127.36	156.70	237.69	46.27
MEAN	5.07	7.27	8.06	11.3	9.32	2.55	22.9	45.3	4.25	5.05	7.67	1.54
MAX	19	13	10	13	13	14	91	84	14	40	31	6.5
MIN	.43	4.2	5.6	10	.36	.00	.00	15	.00	.26	.89	.00
AC-FT	312	433	496	694	518	157	1360	2780	253	311	471	92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1998, BY WATER YEAR (WY)

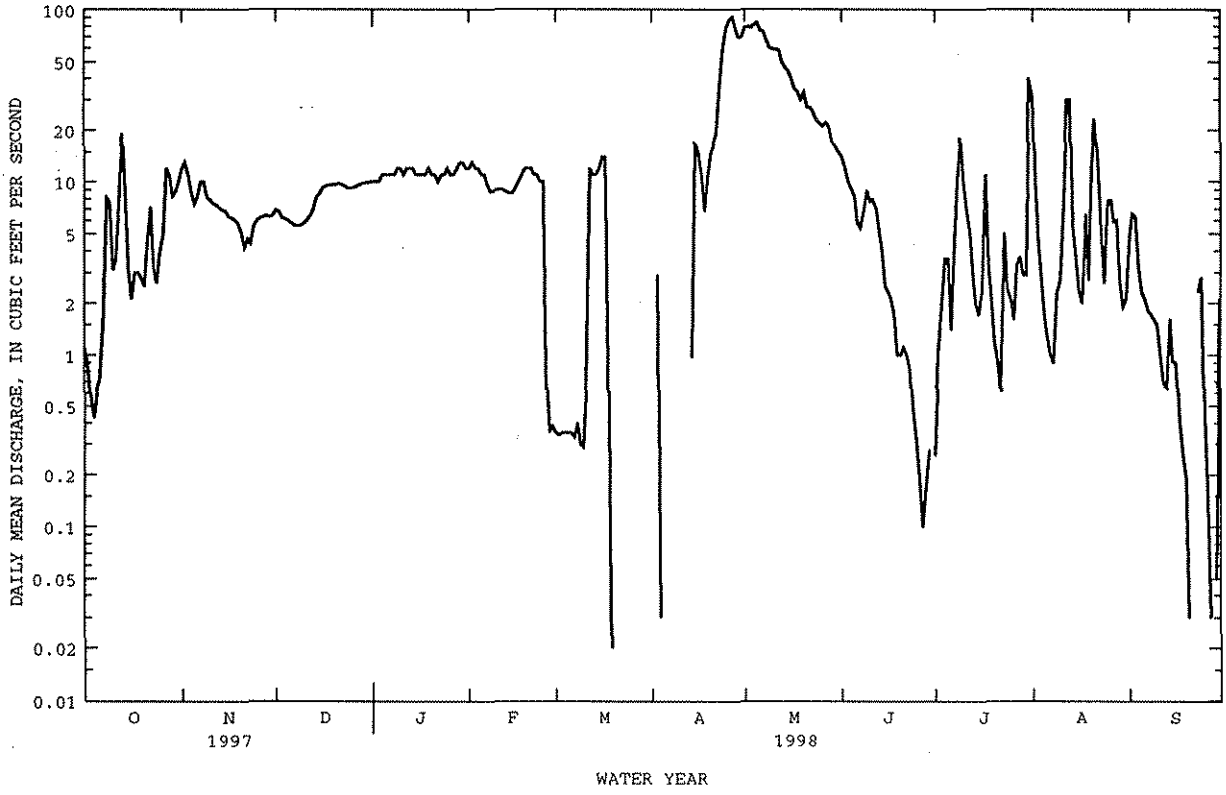
MEAN	2.11	2.54	2.35	2.39	3.08	5.93	11.5	21.2	10.7	6.52	10.2	4.34
MAX	7.06	7.27	8.06	11.3	13.5	26.9	68.7	91.0	46.9	32.0	43.9	12.8
(WY)	1985	1998	1998	1998	1993	1997	1984	1993	1949	1949	1981	1989
MIN	.000	.000	.000	.000	.000	.000	.000	.032	.000	.097	.039	.000
(WY)	1976	1946	1946	1946	1981	1986	1978	1950	1946	1945	1980	1946

07202500 EAGLE TAIL DITCH NEAR MAXWELL, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1945 - 1998	
ANNUAL TOTAL	4176.75		3973.85			
ANNUAL MEAN	11.4		10.9		7.26	
HIGHEST ANNUAL MEAN					17.8	1984
LOWEST ANNUAL MEAN					1.51	1978
HIGHEST DAILY MEAN	165	Apr 25	91	Apr 27	[a]217	Aug 27 1946
LOWEST DAILY MEAN	.00	Jun 25	.00	Mar 20	.00	May 16 1945
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 25	.00	Mar 20	.00	May 16 1945
INSTANTANEOUS PEAK FLOW			97	Apr 27	375	May 30 1995
INSTANTANEOUS PEAK STAGE			3.04	Apr 27	5.15	May 30 1995
ANNUAL RUNOFF (AC-FT)	8280		7880		5260	
10 PERCENT EXCEEDS	23		23		17	
50 PERCENT EXCEEDS	6.4		6.5		1.8	
90 PERCENT EXCEEDS	.17		.19		.00	

e Estimated

[a] From rating curve extended above 85 ft^3/s.



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^2.

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

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

GAGE.--Water-stage recorder with satellite telemetry. 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 good 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.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	10	e8.1	e20	e12	4.3	7.4	16	13	5.4	55	24
2	7.6	10	e8.7	e18	e10	6.1	7.8	20	9.8	9.4	35	25
3	6.9	11	e7.5	e15	e7.5	7.3	8.5	21	7.9	12	27	25
4	6.9	9.6	e7.5	e12	e7.0	8.3	6.9	24	9.2	8.3	48	19
5	6.8	10	e5.1	e9.0	e4.8	6.6	8.2	26	10	14	46	17
6	6.6	11	e3.1	e11	8.1	e4.7	8.2	26	9.6	15	40	16
7	8.5	10	e4.7	e8.7	7.0	e4.0	8.1	21	9.1	11	32	16
8	14	e7.0	e7.0	e7.5	9.7	e5.6	8.6	17	8.8	47	27	15
9	11	e7.5	e5.6	e6.5	6.7	9.1	10	17	7.0	44	24	13
10	10	e8.1	e4.7	e8.1	5.4	7.7	8.6	16	6.5	39	41	13
11	12	e8.7	e3.7	e10	5.0	6.4	8.4	16	6.1	30	30	14
12	11	e9.0	e4.4	e11	4.2	7.4	8.3	16	5.2	24	29	14
13	12	e9.0	e5.1	e10	5.4	7.9	8.9	14	4.8	20	22	13
14	11	e9.5	e5.6	e9.0	5.4	6.2	8.9	15	4.5	19	18	13
15	11	e9.0	e8.1	e10	5.9	8.3	9.4	16	5.1	17	19	14
16	11	e8.1	e10	e11	6.5	11	11	19	4.6	16	25	15
17	12	e7.2	e13	e12	e4.7	8.5	12	21	4.5	18	20	13
18	11	e6.0	e14	e11	7.1	8.6	11	20	4.4	14	20	13
19	12	e6.6	e14	e11	7.0	8.0	10	17	4.3	12	17	12
20	12	e5.3	e13	e11	5.1	6.6	8.3	17	3.7	23	69	11
21	14	e4.7	e10	e10	5.9	6.7	8.3	19	3.0	17	62	9.8
22	13	e4.4	e9.0	e8.1	6.2	6.7	6.3	22	3.1	13	55	9.2
23	11	e3.7	e11	e7.0	5.5	6.4	5.7	25	2.3	14	34	9.1
24	10	e4.4	e8.1	e7.0	5.8	6.1	6.0	24	2.0	16	29	8.9
25	11	e5.0	e9.3	e8.7	5.4	6.3	6.6	23	2.1	20	e24	8.5
26	13	e6.2	e10	e10	4.6	6.6	12	23	2.1	26	26	7.6
27	13	e8.0	e11	e12	3.9	8.2	17	21	1.8	31	28	7.3
28	12	e7.8	e13	e12	3.3	9.2	15	19	1.7	28	53	7.9
29	12	e7.0	e14	e12	---	8.6	15	15	1.7	21	28	8.2
30	12	e6.7	e17	e11	---	8.9	15	14	1.8	22	25	13
31	10	---	e20	e12	---	11	---	13	---	64	23	---
TOTAL	331.8	230.5	285.3	331.6	175.1	227.3	285.4	593	159.7	670.1	1031	404.5
MEAN	10.7	7.68	9.20	10.7	6.25	7.33	9.51	19.1	5.32	21.6	33.3	13.5
MAX	14	11	20	20	12	11	17	26	13	64	69	25
MIN	6.6	3.7	3.1	6.5	3.3	4.0	5.7	13	1.7	5.4	17	7.3
AC-FT	658	457	566	658	347	451	566	1180	317	1330	2040	802

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1998, BY WATER YEAR (WY)

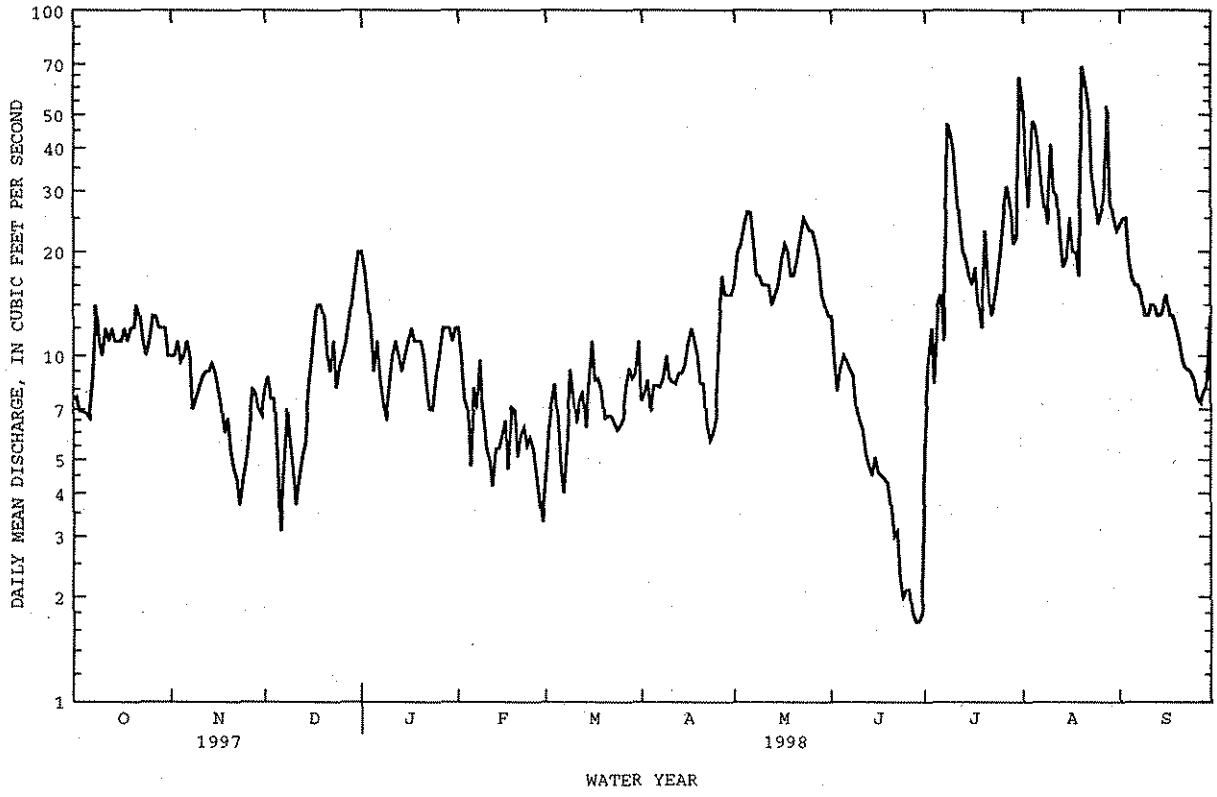
MEAN	8.84	6.87	5.70	5.49	6.34	6.73	21.1	49.4	35.9	29.4	40.3	17.2
MAX	51.6	30.5	25.5	15.5	16.7	34.8	370	372	179	138	147	78.4
(WY)	1942	1942	1995	1921	1920	1987	1942	1941	1965	1919	1955	1942
MIN	.15	.040	.59	.65	1.20	.80	1.21	.96	.65	1.85	4.50	.37
(WY)	1952	1952	1952	1975	1952	1951	1955	1967	1946	1963	1951	1951

07203000 VERMEJO RIVER NEAR DAWSON, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1916 - 1998	
ANNUAL TOTAL	8310.8		4725.3			
ANNUAL MEAN	22.8		12.9		19.1	
HIGHEST ANNUAL MEAN					89.0	1942
LOWEST ANNUAL MEAN					2.05	1951
HIGHEST DAILY MEAN	210	Jun 10	69	Aug 20	2340	Apr 23 1942
LOWEST DAILY MEAN	2.5	Feb 6	1.7	Jun 28	.00	Nov 21 1931
ANNUAL SEVEN-DAY MINIMUM	3.3	Feb 5	1.9	Jun 24	.00	Nov 21 1931
INSTANTANEOUS PEAK FLOW			649	Aug 20	[a]12600	Jun 17 1965
INSTANTANEOUS PEAK STAGE			5.62	Aug 20	15.25	Jun 17 1965
ANNUAL RUNOFF (AC-FT)	16480		9370		13800	
10 PERCENT EXCEEDS	62		24		45	
50 PERCENT EXCEEDS	11		10		7.9	
90 PERCENT EXCEEDS	4.2		5.0		1.8	

e Estimated

[a] From rating curve extended above 400 ft^3/s on basis of slope-area measurement of peak flow.



07204000 MORENO CREEK AT EAGLE NEST, NM

LOCATION.--Lat 36°33'14", long 105°16'03", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank 175 ft upstream from U.S. Highway 64, 250 ft northwest of intersection of U.S. Highway 64 and State Highway 38, about 1,000 ft upstream from high-water line of Eagle Nest Lake at Eagle Nest.

DRAINAGE AREA.--73.8 mi^2.

PERIOD OF RECORD.--April 1928 to October 1955 and June 1964 to current year (seasonal records except water year 1932). Monthly discharge only for some periods, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

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

GAGE.--Water-stage recorder. Concrete control since Oct. 3, 1952. Datum of gage is 8,197.39 ft above National Geodetic Vertical Datum of 1929. See WSP 1921 for history of changes prior to Oct. 26, 1955. Oct. 26, 1955 to Nov. 12, 1974, water-stage recorder at site 160 ft downstream at datum 1.41 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,200 acres upstream from station.

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

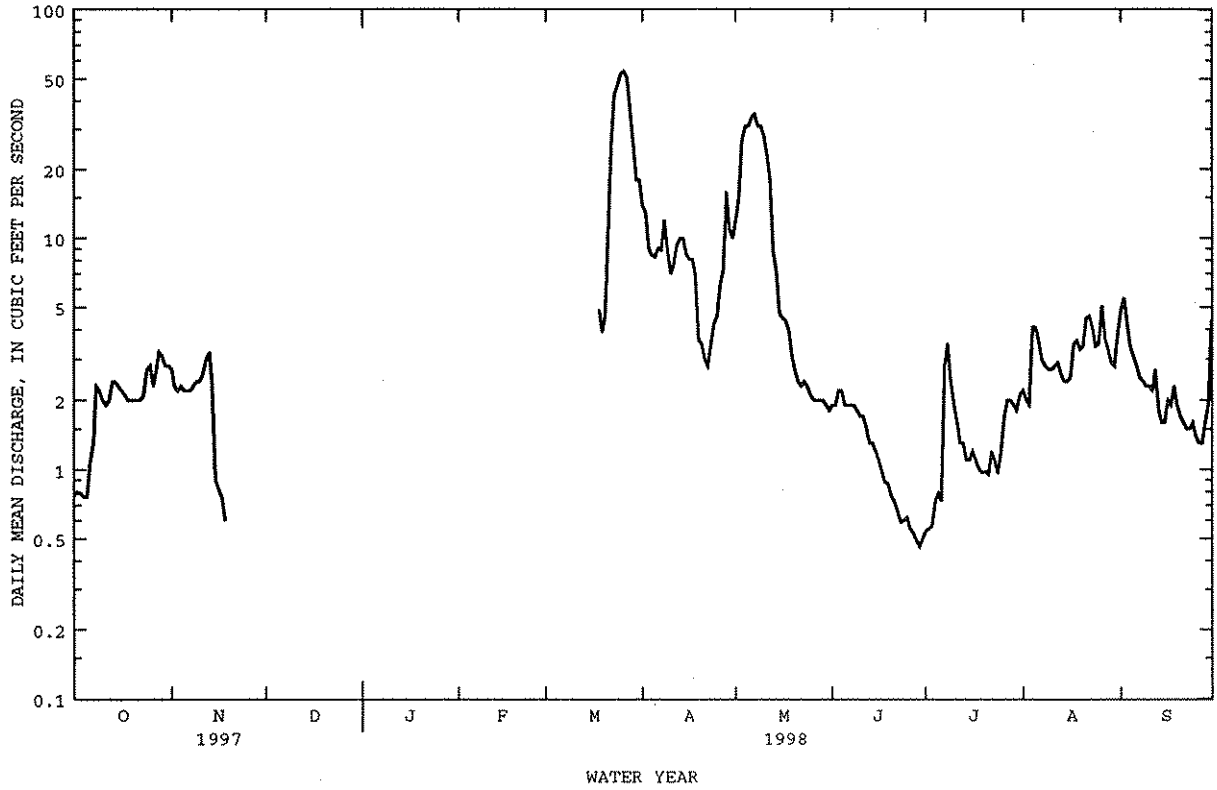
EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 136 ft^3/s, at 2246 hours, Mar. 23, gage height, 2.97 ft; minimum daily discharge, .46 ft^3/s, June 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	2.7	---	---	---	---	14	12	e1.9	.54	2.2	4.9
2	.80	2.3	---	---	---	---	13	15	e1.9	.55	2.0	5.5
3	.79	2.2	---	---	---	---	9.1	27	e2.2	.57	1.9	4.3
4	.76	2.3	---	---	---	---	8.4	31	2.2	.73	4.1	3.4
5	.76	2.2	---	---	---	---	8.3	31	1.9	.79	4.1	3.1
6	1.1	2.2	---	---	---	---	9.1	34	1.9	.73	3.6	2.8
7	1.3	2.2	---	---	---	---	8.9	35	1.9	2.8	3.0	2.5
8	2.3	2.3	---	---	---	---	12	31	1.9	3.5	2.8	2.4
9	2.2	2.4	---	---	---	---	8.8	31	1.8	2.4	2.7	2.3
10	2.0	2.4	---	---	---	---	7.0	28	1.7	1.9	2.7	2.3
11	1.9	2.6	---	---	---	---	7.7	23	1.7	1.6	2.8	2.2
12	2.0	3.0	---	---	---	---	9.4	18	1.5	1.3	2.9	2.7
13	2.4	3.2	---	---	---	---	10	8.8	1.3	1.3	2.6	1.8
14	2.4	2.3	---	---	---	---	10	7.2	1.3	1.1	2.4	1.6
15	2.3	.90	---	---	---	---	8.6	e4.7	1.2	1.1	2.4	1.6
16	2.2	e.82	---	---	---	---	8.1	e4.5	1.1	1.2	2.5	2.0
17	2.1	e.76	---	---	---	---	8.1	e4.4	.99	1.1	3.5	1.9
18	2.0	e.60	---	---	---	---	4.9	6.9	e4.0	.88	1.0	3.6	2.3
19	2.0	---	---	---	---	---	3.9	3.6	e3.1	.87	.97	3.3	1.9
20	2.0	---	---	---	---	---	4.6	3.5	e2.7	.77	.98	3.4	1.7
21	2.0	---	---	---	---	---	11	3.0	e2.4	.73	.95	4.5	1.6
22	2.0	---	---	---	---	---	26	2.8	e2.3	.66	1.2	4.6	1.5
23	2.1	---	---	---	---	---	43	3.5	e2.4	.59	1.1	4.1	1.5
24	2.7	---	---	---	---	---	47	4.3	e2.3	.60	.96	3.4	1.6
25	2.8	---	---	---	---	---	53	4.6	e2.1	.62	1.2	3.5	1.4
26	2.3	---	---	---	---	---	54	6.3	e2.0	.55	1.7	5.1	1.3
27	2.7	---	---	---	---	---	51	7.3	e2.0	.53	2.0	3.7	1.3
28	3.2	---	---	---	---	---	36	16	e2.0	.49	2.0	3.3	1.6
29	3.1	---	---	---	---	---	26	11	e2.0	.46	1.9	2.9	1.9
30	2.8	---	---	---	---	---	18	10	e1.9	.50	1.8	2.8	4.4
31	2.8	---	---	---	---	---	18	---	e1.8	---	2.1	3.8	---
TOTAL	62.59	---	---	---	---	---	243.3	378.6	36.64	43.07	100.2	71.3
MEAN	2.02	---	---	---	---	---	8.11	12.2	1.22	1.39	3.23	2.38
MAX	3.2	---	---	---	---	---	16	35	2.2	3.5	5.1	5.5
MIN	.76	---	---	---	---	---	2.8	1.8	.46	.54	1.9	1.3
AC-FT	124	---	---	---	---	---	483	751	73	85	199	141

e Estimated

07204000 MORENO CREEK AT EAGLE NEST, NM--Continued



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^2.

PERIOD OF RECORD.--April 1928 to September 1955 and June 1964 to current year (seasonal records except in water years 1932, 1948 and 1951). Monthly discharge only for some periods, published in WSP 1311 and 1731. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

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

GAGE.--Water-stage recorder. Concrete control since Sept. 25, 1947. Elevation of gage is 8,200 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 8, 1928, nonrecording gage, and May 8, 1928 to Sept. 1, 1934, water-stage recorder at site 0.2 mi downstream at different datums.

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

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

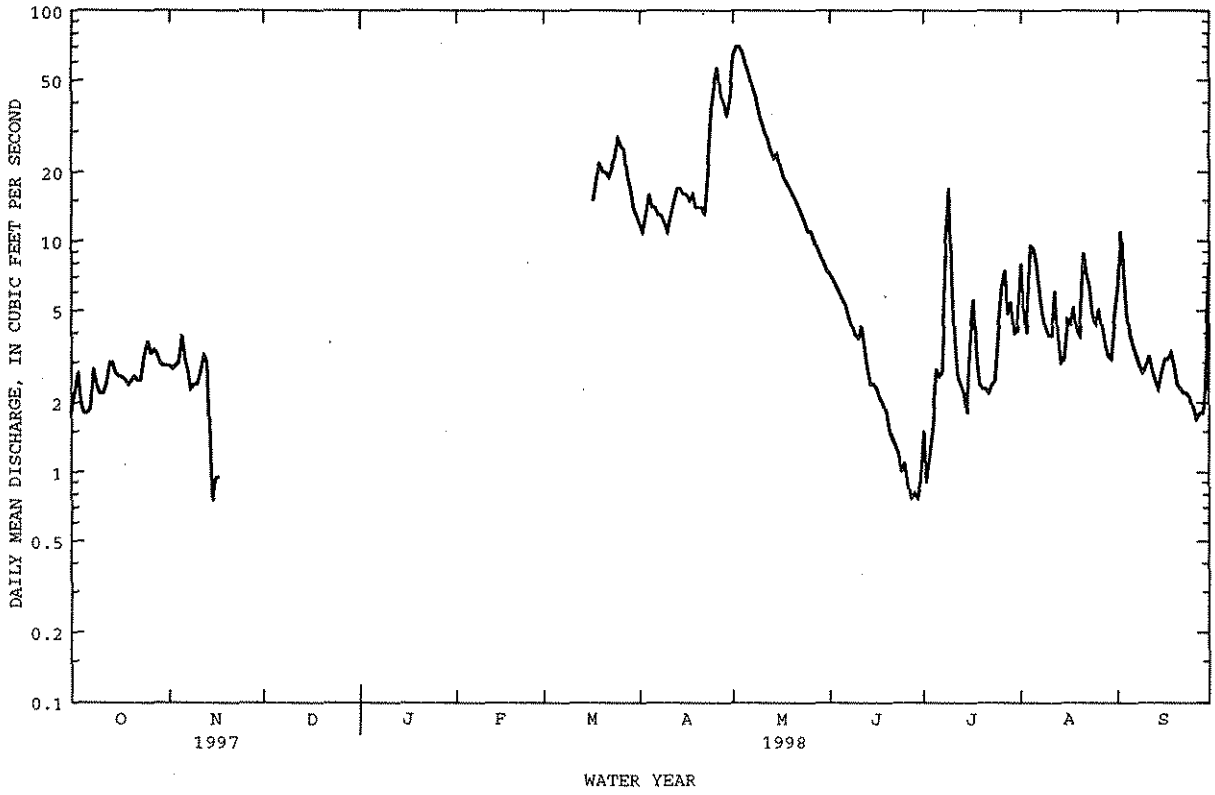
EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 86 ft^3/s, at 0100 hours, May 2, gage height, 4.13 ft; minimum daily discharge .77 ft^3/s, June 27, 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.9	---	---	---	---	12	64	e7.2	1.5	8.0	6.3
2	2.2	2.8	---	---	---	---	11	70	e6.8	.90	5.1	11
3	2.7	2.9	---	---	---	---	13	70	e6.4	1.2	4.0	7.2
4	2.0	3.0	---	---	---	---	16	66	e6.0	1.6	9.5	4.9
5	1.8	3.9	---	---	---	---	14	59	5.6	2.8	9.3	3.9
6	1.8	3.1	---	---	---	---	14	54	5.3	2.6	8.0	3.5
7	1.9	2.7	---	---	---	---	13	47	4.7	2.7	6.2	3.2
8	2.8	2.3	---	---	---	---	13	43	4.3	9.9	4.9	2.9
9	2.4	2.4	---	---	---	---	12	37	3.9	17	4.2	2.7
10	2.2	2.4	---	---	---	---	11	33	3.8	6.7	3.9	2.9
11	2.2	2.7	---	---	---	---	13	30	4.3	3.7	3.9	3.2
12	2.4	3.2	---	---	---	---	15	28	3.4	2.6	6.1	2.8
13	3.0	3.0	---	---	---	---	17	25	2.8	2.4	3.9	2.5
14	3.0	1.6	---	---	---	---	17	23	2.4	2.2	3.0	2.3
15	2.7	.75	---	---	---	---	16	24	2.4	1.8	3.1	2.7
16	2.6	.94	---	---	---	---	16	21	2.3	3.9	4.6	3.1
17	2.6	.95	---	---	---	---	e15	15	19	2.1	5.6	4.4
18	2.5	---	---	---	---	---	e19	16	18	2.0	3.2	5.2
19	2.4	---	---	---	---	---	e22	14	17	1.8	2.4	4.1
20	2.5	---	---	---	---	---	e20	14	16	1.5	2.3	3.9
21	2.6	---	---	---	---	---	e20	14	15	1.4	2.3	8.9
22	2.5	---	---	---	---	---	e19	13	14	1.3	2.2	7.2
23	2.5	---	---	---	---	---	e21	21	13	1.2	2.4	6.4
24	3.2	---	---	---	---	---	23	38	12	1.0	2.5	4.8
25	3.7	---	---	---	---	---	28	49	11	1.1	4.3	4.4
26	3.3	---	---	---	---	---	26	57	11	.88	6.4	5.1
27	3.4	---	---	---	---	---	25	43	10	.77	7.5	4.3
28	3.3	---	---	---	---	---	19	40	9.2	.81	4.8	3.6
29	3.0	---	---	---	---	---	17	35	8.5	.77	5.5	3.2
30	2.9	---	---	---	---	---	14	42	8.0	.90	4.0	3.1
31	2.9	---	---	---	---	---	13	---	e7.4	---	4.1	4.6
TOTAL	80.8	---	---	---	---	---	---	634	883.1	89.13	123.00	160.9
MEAN	2.61	---	---	---	---	---	---	21.1	28.5	2.97	3.97	5.19
MAX	3.7	---	---	---	---	---	---	57	70	7.2	17	9.5
MIN	1.8	---	---	---	---	---	---	11	7.4	.77	.90	3.0
AC-FT	160	---	---	---	---	---	---	1260	1750	177	244	319

e Estimated

07204500 CIENEGUILLA CREEK NEAR EAGLE NEST, NM--Continued



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^2.

PERIOD OF RECORD.--April 1928 to September 1955 (seasonal records in water years 1929-31, 1933-55), July 1958 to current year (seasonal records subsequent to water year 1975). Prior to October 1930 monthly discharge only, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

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

GAGE.--Water-stage recorder. Concrete control Sept. 11, 1931 to May 1933, and since Sept. 13, 1934. Datum of gage is 8,195.16 ft above National Geodetic Vertical Datum of 1929. Prior to May 18, 1928, nonrecording gage at site 88 ft upstream at datum 0.98 ft higher. May 18, 1928 to Sept. 11, 1938, water-stage recorder at site 88 ft pstream at datum 0.43 ft higher.

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

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

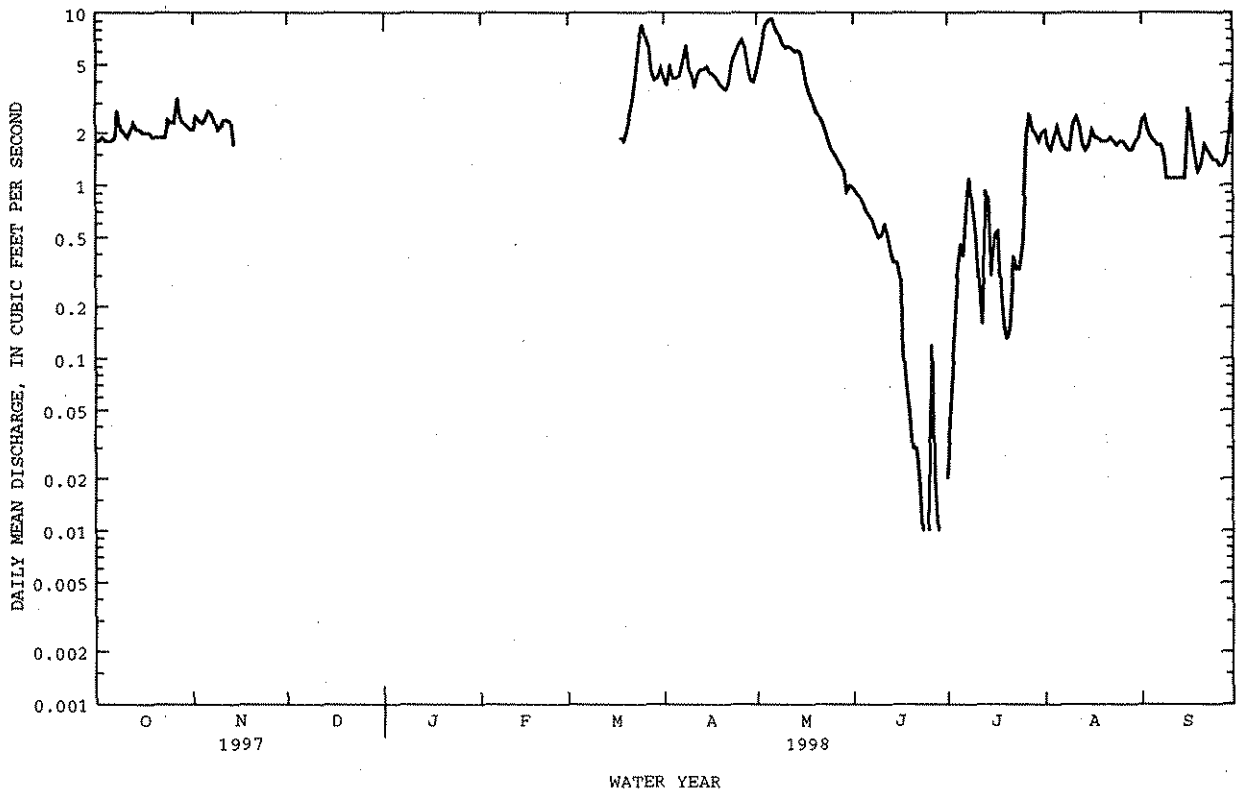
EXTREMES FOR PERIOD OF RECORD (1930-55 and SINCE 1957).--Maximum discharge, 128 ft^3/s, Aug. 5, 1969, gage height, 2.86 ft, from rating curve extended above 32 ft^3/s; maximum gage height recorded, 3.38 ft, Apr. 2, 1937 (ice jam), site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 13 ft^3/s, at 1700 hours, Mar. 24, gage height 1.13 ft; minimum daily discharge no flow June 24, 29-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.1	---	---	---	---	4.2	4.7	.97	.02	2.1	2.4
2	1.8	2.5	---	---	---	---	3.8	5.9	.91	.05	1.7	2.5
3	1.9	2.4	---	---	---	---	5.0	7.5	.86	.12	1.6	2.1
4	1.8	2.3	---	---	---	---	4.2	8.6	.80	.29	1.9	1.9
5	1.8	2.4	---	---	---	---	4.2	9.1	.70	.46	2.2	1.8
6	1.8	2.7	---	---	---	---	4.3	9.3	.67	.39	1.9	1.7
7	1.9	2.6	---	---	---	---	5.2	8.2	.63	.76	1.7	1.7
8	2.7	2.4	---	---	---	---	6.5	7.5	.55	1.1	1.6	1.5
9	2.1	2.1	---	---	---	---	4.7	6.7	.50	.72	1.6	1.1
10	2.0	2.2	---	---	---	---	4.4	6.3	.52	.50	2.3	1.1
11	1.9	2.4	---	---	---	---	3.7	6.4	.60	.27	2.5	1.1
12	2.1	2.4	---	---	---	---	4.5	6.3	.49	.16	2.2	1.1
13	2.3	2.3	---	---	---	---	4.7	6.0	.41	.94	1.7	1.1
14	2.1	1.7	---	---	---	---	4.7	6.1	.36	.82	1.6	1.1
15	2.1	---	---	---	---	---	4.9	5.9	.36	.30	1.7	1.1
16	2.0	---	---	---	---	---	4.5	4.6	.29	.52	2.1	2.8
17	2.0	---	---	---	---	---	4.4	3.9	.11	.54	1.9	2.0
18	2.0	---	---	---	---	1.9	4.2	3.4	.07	.24	1.9	1.5
19	1.9	---	---	---	---	1.8	3.9	3.1	.05	.15	1.8	1.2
20	1.9	---	---	---	---	2.1	3.7	2.7	.03	.13	1.8	1.3
21	1.9	---	---	---	---	2.6	3.6	2.5	.03	.15	1.8	1.7
22	1.9	---	---	---	---	3.1	3.9	2.3	.02	.39	1.9	1.6
23	1.9	---	---	---	---	4.5	5.2	2.0	.01	.33	1.8	1.5
24	2.4	---	---	---	---	7.1	5.9	1.8	.00	.33	1.7	1.4
25	2.3	---	---	---	---	8.6	6.6	1.6	.01	.48	1.8	1.4
26	2.3	---	---	---	---	7.3	7.0	1.5	.12	2.0	1.8	1.3
27	3.2	---	---	---	---	6.4	6.3	1.4	.02	2.6	1.7	1.3
28	2.5	---	---	---	---	4.6	5.1	1.3	.01	2.1	1.6	1.4
29	2.3	---	---	---	---	4.1	4.1	1.2	.00	2.0	1.6	1.9
30	2.2	---	---	---	---	4.2	4.0	.92	.00	1.8	1.8	3.3
31	2.1	---	---	---	---	4.8	---	1.0	---	2.0	1.9	---
TOTAL	64.9	---	---	---	---	---	141.4	139.72	10.10	22.66	57.2	48.9
MEAN	2.09	---	---	---	---	---	4.71	4.51	.34	.73	1.85	1.63
MAX	3.2	---	---	---	---	---	7.0	9.3	.97	2.6	2.5	3.3
MIN	1.8	---	---	---	---	---	3.6	.92	.00	.02	1.6	1.1
AC-FT	129	---	---	---	---	---	280	277	20	45	113	97

07205000 SIXMILE CREEK NEAR EAGLE NEST, NM--Continued



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^2.

PERIOD OF RECORD.--December 1927 to December 1944 (monthend contents only, published in WSP 1311), May 1950 to September 1965 (monthend contents only), October 1965 to 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 with satellite telemetry. Datum of gage is 8,056.8 ft above National Geodetic Vertical Datum of 1929. Prior to October 1964 gage heights were raised by addition of 8,000 ft and called elevations.

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 69,400 acre-ft, May 17, gage height, 132.84 ft; minimum, 57,000 acre-ft, Sept. 28, gage height, 127.01 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64700	63400	63500	63900	64200	64800	66800	68300	68300	64200	61800	59400
2	64700	63300	63500	63900	64200	64900	66800	68400	68300	63700	61800	59200
3	64700	63300	63600	63900	64200	64800	66900	68500	68100	63400	61700	59000
4	64600	63200	63300	64000	64200	64900	66900	68700	68100	63200	61800	58900
5	64600	63200	63100	64000	64300	e64900	67000	68900	68000	62900	61800	58800
6	64600	63200	63700	64000	64300	e65000	67000	69000	67800	62800	61800	58700
7	64500	63200	63600	64000	64300	e65000	67100	69100	67700	e62800	61800	58600
8	64500	63200	63800	64100	64300	e65100	67100	69100	67500	e62900	61800	58500
9	64500	63200	63700	64100	64300	65100	67200	69300	67500	62900	61700	58400
10	64500	63300	63700	64100	64300	65200	67100	69300	67400	62800	61700	58300
11	64200	63200	63700	64100	64400	65200	67200	69300	67200	62800	61600	58100
12	64200	63300	63700	64100	64400	65200	67300	69300	67200	62700	61600	58000
13	64200	63200	63700	64100	64400	65300	67300	69300	67100	62700	61600	58000
14	64200	63300	63700	64100	64400	65400	67300	69200	67200	62600	61500	57800
15	64000	63300	63800	64100	64400	65500	67300	69300	66900	62400	61500	57700
16	64100	63700	63700	64100	64600	65700	67300	69300	66900	62500	61500	57700
17	64100	63300	63700	64100	64600	65800	67300	69400	66800	62400	61400	57700
18	64100	63300	63800	64100	64700	65900	67300	69200	66500	62300	61300	57600
19	64000	63300	63800	64100	64700	65900	67400	69200	66400	62200	61100	57500
20	64000	63400	63800	64100	64700	65900	67400	69100	66200	62100	61000	57500
21	63900	63400	63800	64200	64700	66000	67400	69200	66200	62000	60900	57400
22	63900	63300	63800	64200	64800	66200	67400	69100	66100	62000	60800	57400
23	63800	63200	63800	64100	64700	66200	67500	69100	66000	61900	60700	57300
24	63800	63400	63800	64200	64900	66200	67500	68900	65700	61800	60600	57300
25	63800	63400	63900	64200	64800	66400	67600	68900	65500	61800	60500	57200
26	63700	63400	63900	64200	64800	66600	67800	68900	65300	61800	60400	57100
27	63600	63400	63800	64400	64800	66600	67900	68800	65300	61800	60300	57100
28	63600	63500	63800	64200	64800	66700	68000	68700	65000	e61800	60100	57000
29	63500	63500	63900	64200	---	66800	68100	68700	64700	e61800	60000	57100
30	63500	63500	63900	64200	---	66700	68100	68600	64300	61800	59800	57200
31	63500	---	63900	64200	---	66800	---	68500	---	61800	59600	---
MAX	64700	63700	63900	64400	64900	66800	68100	69400	68300	64200	61800	59400
MIN	63500	63200	63100	63900	64200	64800	66800	68300	64300	61800	59600	57000
(+)	130.15	130.13	130.32	130.49	130.76	131.67	132.29	132.44	130.53	129.37	128.30	127.09
(++)	-1300	0	+400	+300	+600	+2000	+1300	+400	-4200	-2500	-2200	-2400

CAL YR 1997 MAX 73100 MIN 55600 (++) +8300
WTR YR 1998 MAX 69400 MIN 57000 (++) -7600

e Estimated

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

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^2.

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 with satellite telemetry. 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 except for estimated daily discharges, which are poor. 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 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	23	2.6	3.3	3.3	2.0	1.5	1.1	36	149	26	114
2	7.0	23	2.7	3.2	3.3	2.0	1.5	.56	47	150	25	108
3	7.0	19	2.7	3.0	3.3	2.0	1.5	.45	50	153	22	104
4	6.9	15	2.7	3.0	3.2	1.9	1.4	.45	50	153	22	70
5	7.0	12	2.8	3.0	3.2	1.9	1.5	5.6	49	113	14	49
6	7.0	6.2	2.7	3.0	3.3	1.8	1.4	8.7	49	62	9.7	43
7	7.0	4.2	2.7	2.9	3.3	1.8	1.5	8.7	42	62	9.7	39
8	7.0	4.2	2.8	3.0	3.3	1.9	1.5	8.8	39	e34	15	39
9	7.0	3.9	2.9	3.0	3.3	1.8	1.4	11	36	34	22	44
10	7.5	3.8	3.0	3.1	3.1	1.7	1.4	22	34	30	24	47
11	9.9	3.8	2.8	3.2	2.8	1.7	1.5	22	32	28	28	47
12	17	3.6	2.9	3.1	2.7	1.7	1.6	22	24	28	28	47
13	25	3.6	3.0	3.1	2.7	1.7	8.7	22	24	28	23	47
14	31	3.6	3.0	3.0	2.7	1.7	14	22	23	34	20	47
15	27	3.6	3.0	3.1	2.7	1.7	14	22	35	38	20	46
16	24	3.6	3.0	3.1	2.7	1.7	14	23	40	38	23	39
17	23	3.6	3.0	3.3	2.5	1.7	14	32	40	38	49	32
18	23	3.6	3.0	3.1	2.6	1.7	14	32	40	38	59	24
19	23	3.4	2.9	3.2	2.7	1.5	14	32	40	38	59	22
20	23	3.0	2.8	3.3	2.7	1.7	9.9	32	40	38	59	22
21	23	3.0	3.0	3.5	2.6	1.7	7.4	32	39	38	59	22
22	23	2.8	3.0	3.6	2.5	1.7	7.4	32	39	38	59	22
23	23	2.7	3.0	3.6	2.5	1.7	11	32	45	38	59	22
24	23	2.7	3.0	3.6	2.5	1.8	13	32	61	38	59	22
25	23	2.7	3.0	3.6	2.5	1.9	13	32	61	37	64	22
26	31	2.7	3.0	3.6	2.2	1.7	12	31	60	40	66	15
27	35	2.5	3.0	3.4	1.9	1.7	6.4	31	60	22	57	10
28	35	2.5	3.0	3.3	1.9	1.5	2.1	31	108	11	53	6.6
29	35	2.6	2.9	3.3	---	1.6	1.7	31	143	11	52	6.6
30	28	2.5	3.0	3.4	---	1.5	1.2	32	149	15	92	3.9
31	23	---	3.1	3.4	---	1.5	---	32	---	17	114	---
TOTAL	598.3	176.4	90.0	100.3	78.0	53.9	195.5	676.36	1535	1591	1291.4	1182.1
MEAN	19.3	5.88	2.90	3.24	2.79	1.74	6.52	21.8	51.2	51.3	41.7	39.4
MAX	35	23	3.1	3.6	3.3	2.0	14	32	149	153	114	114
MIN	6.9	2.5	2.6	2.9	1.9	1.5	1.2	.45	23	11	9.7	3.9
AC-FT	1190	350	179	199	155	107	388	1340	3040	3160	2560	2340

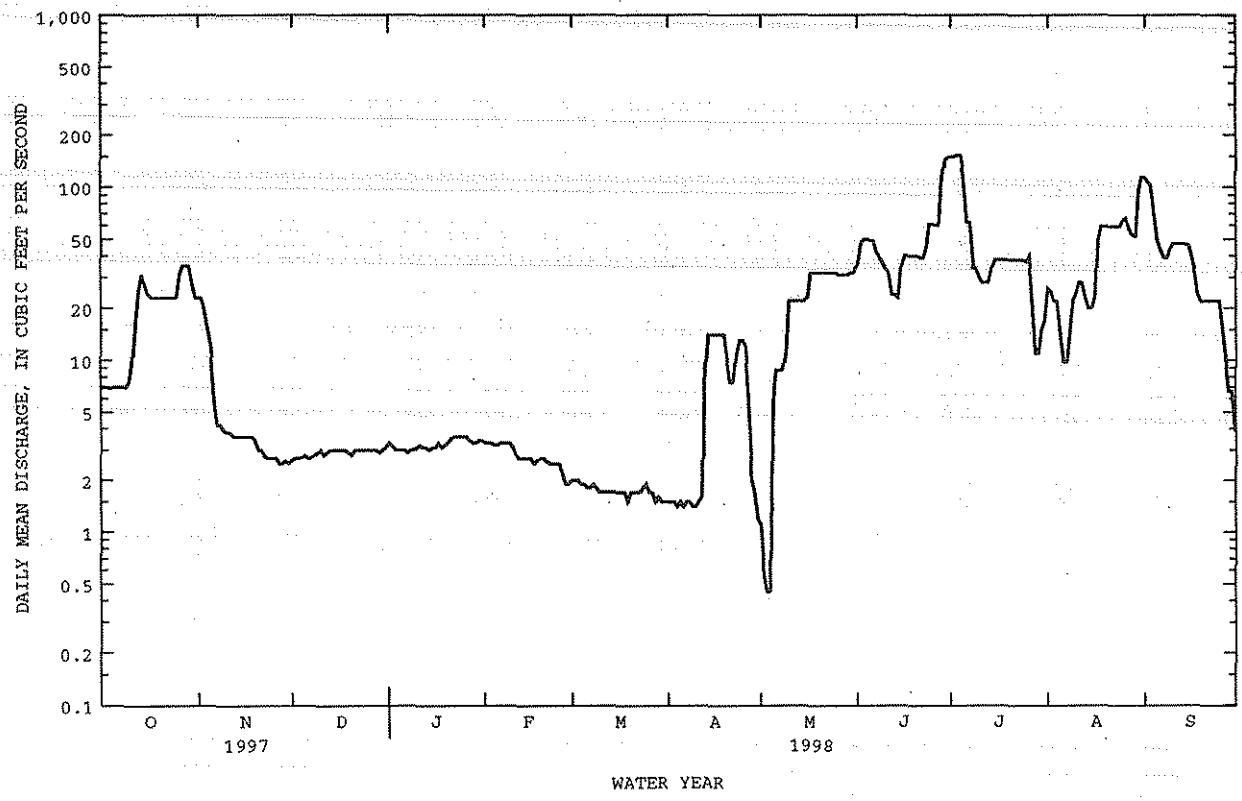
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1998, BY WATER YEAR (WY)

MEAN	15.9	5.36	1.01	.92	2.36	9.78	23.4	36.2	32.6	37.0	22.1	16.4
MAX	50.3	25.9	20.4	19.1	47.0	146	171	212	112	73.3	85.6	51.3
(WY)	1976	1982	1986	1992	1992	1987	1994	1994	1994	1950	1995	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

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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1950 - 1998	
ANNUAL TOTAL	5094.67		7568.26			
ANNUAL MEAN	14.0		20.7		16.8	
HIGHEST ANNUAL MEAN					56.5	1994
LOWEST ANNUAL MEAN					5.85	1955
HIGHEST DAILY MEAN	114	Sep 2	153	Jul 3	303	May 24 1994
LOWEST DAILY MEAN	.00	Apr 16	.45	May 3	.00	May 1 1950
ANNUAL SEVEN-DAY MINIMUM	.00	Apr 26	1.1	Apr 28	.00	May 1 1950
INSTANTANEOUS LOW FLOW			.30	May 3	.30	May 3 1998
ANNUAL RUNOFF (AC-FT)	10110		15010		12160	
10 PERCENT EXCEEDS	50		49		46	
50 PERCENT EXCEEDS	3.4		8.7		6.6	
90 PERCENT EXCEEDS	.16		1.7		.00	

e Estimated



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^2.

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 with satellite telemetry. 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 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	25	e7.0	e6.8	e6.9	e9.1	e8.7	34	e74	e114	24	103
2	7.4	25	7.5	e6.6	e6.9	e9.0	e8.5	36	e68	e109	30	102
3	7.1	24	7.1	5.2	e6.7	e8.8	e8.3	39	e65	e99	22	100
4	7.0	19	e7.2	4.6	e5.7	e6.5	8.0	40	68	e87	23	91
5	6.7	18	e7.5	e4.5	e6.2	e5.8	7.9	40	68	e75	21	58
6	6.7	14	e7.3	e2.9	e5.5	5.8	9.7	45	68	e73	10	52
7	7.1	9.7	e7.6	e.80	e5.7	5.7	11	44	64	e70	8.8	45
8	7.8	7.8	e7.4	e1.7	e5.1	e6.0	11	42	56	88	7.5	42
9	7.2	7.5	e7.6	e3.7	e4.3	e6.2	11	40	54	54	15	41
10	7.5	7.0	e7.7	e6.9	e4.1	e6.0	9.5	47	49	45	17	47
11	7.7	6.7	7.8	e8.2	e4.7	e5.3	8.1	51	48	38	22	47
12	12	6.7	7.6	e9.7	e5.1	e5.2	8.8	53	39	36	23	46
13	18	6.5	e7.9	e6.8	e4.7	e5.2	9.7	54	36	36	21	45
14	28	7.1	e8.1	6.8	e5.1	e5.7	18	55	34	37	16	45
15	29	6.6	e10	e12	5.5	7.1	20	55	34	43	15	45
16	26	e7.8	e9.7	e8.2	5.0	9.6	21	53	41	45	16	44
17	25	e8.1	e9.3	e7.4	e4.3	8.6	22	57	41	e45	30	39
18	25	e8.5	e7.4	6.5	e4.5	8.2	22	59	42	e41	49	32
19	25	e8.2	e5.1	e6.7	e5.3	7.1	20	e62	e41	e39	51	24
20	25	8.3	e4.7	6.5	e5.1	7.5	20	e70	e37	e36	55	22
21	24	7.9	e4.5	e6.7	e5.3	7.7	16	e75	e39	e34	55	22
22	24	7.7	e4.5	e7.7	e5.1	8.4	15	e80	e40	e33	54	21
23	24	e7.7	e4.5	e8.8	e5.2	9.2	16	e88	e48	e31	54	20
24	25	7.7	e3.0	e9.1	5.3	11	24	e90	53	e29	54	20
25	25	7.4	e1.1	e9.1	5.4	e12	29	e94	56	e27	59	19
26	27	7.4	e.30	e9.0	e4.7	e10	37	e96	56	e25	65	18
27	36	7.6	e1.7	e9.0	e4.3	e11	34	e99	56	e23	61	14
28	36	7.3	e2.2	e8.8	e4.7	e10	30	e102	72	e22	56	10
29	35	e7.1	e4.7	e8.8	---	e9.9	28	e108	112	19	54	8.2
30	33	e7.4	e6.9	e8.0	---	e9.4	30	e92	e124	17	68	10
31	26	---	e6.9	e6.7	---	e8.9	---	e83	---	20	99	---
TOTAL	607.6	306.7	191.80	214.20	146.4	245.9	522.2	1983	1683	1490	1155.3	1232.2
MEAN	19.6	10.2	6.19	6.91	5.23	7.93	17.4	64.0	56.1	48.1	37.3	41.1
MAX	36	25	10	12	6.9	12	37	108	124	114	99	103
MIN	6.7	6.5	.30	.80	4.1	5.2	7.9	34	34	17	7.5	8.2
AC-FT	1210	608	380	425	290	488	1040	3930	3340	2960	2290	2440
(+)	0	0	0	0	0	0	0	0	163	80	256	0
(++)	0	0	0	0	0	0	0	0	0	0	263	255

CAL YR 1997 AC-FT (+) 588 (++) .40
WTR YR 1998 AC-FT (+) 499 (++) 518

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1998, BY WATER YEAR (WY)

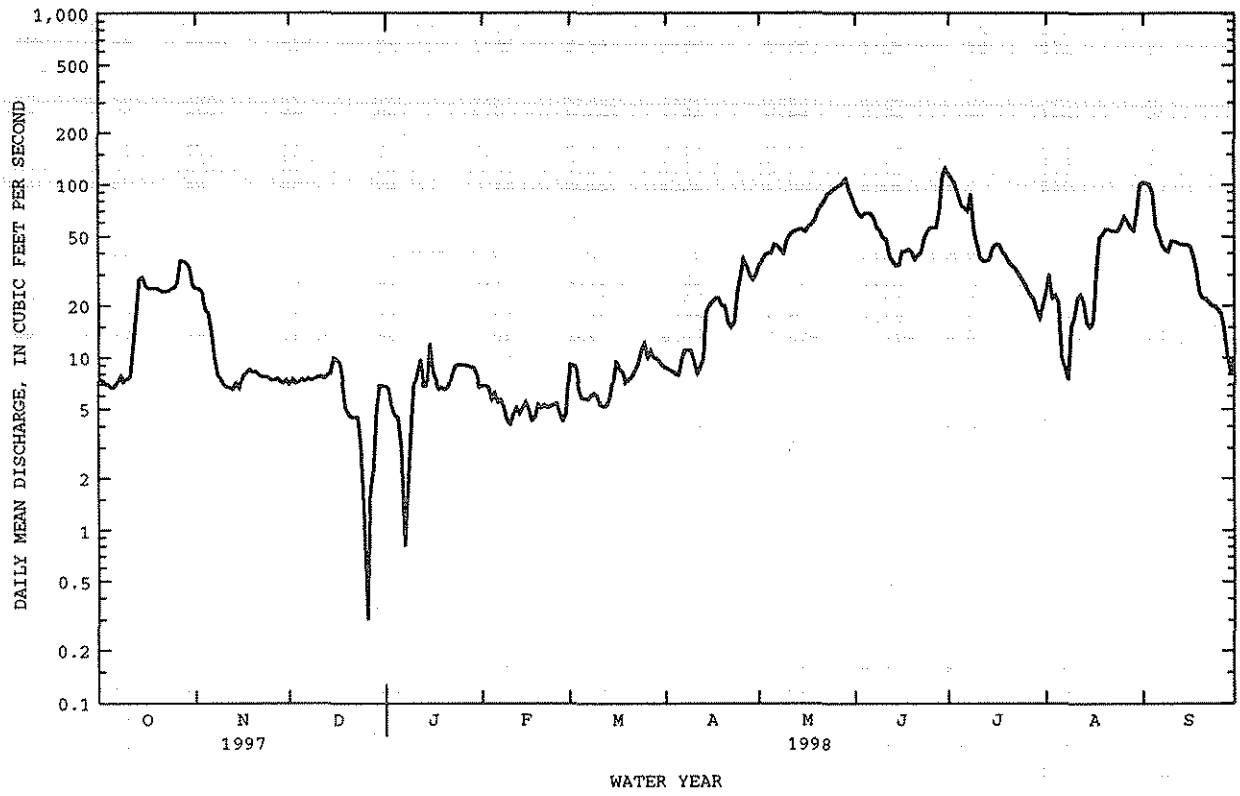
MEAN	18.0	10.2	5.02	4.23	5.13	13.1	36.0	67.1	50.5	38.8	27.2	19.2
MAX	44.9	26.7	18.5	18.5	43.7	149	237	329	158	79.5	81.0	50.4
(WY)	1976	1982	1995	1992	1992	1987	1994	1994	1994	1995	1995	1968
MIN	.14	1.80	1.32	1.13	1.11	1.65	2.70	23.5	8.55	6.13	1.95	.12
(WY)	1957	1993	1957	1957	1997	1955	1955	1957	1956	1956	1954	1956

07207000 CIMARRON RIVER NEAR CIMARRON, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1950 - 1998	
ANNUAL TOTAL	9843.00		9778.30			
ANNUAL MEAN	27.0		26.8		24.5	
HIGHEST ANNUAL MEAN					80.7	1994
LOWEST ANNUAL MEAN					9.09	1956
HIGHEST DAILY MEAN	107	Sep 3	124	Jun 30	1240	Jun 17 1965
LOWEST DAILY MEAN	.30	Dec 26	.30	Dec 26	.00	Sep 14 1956
ANNUAL SEVEN-DAY MINIMUM	.87	Feb 15	2.5	Dec 22	.00	Sep 14 1956
INSTANTANEOUS PEAK FLOW			127	Jun 30	[a]15500	Jun 17 1965
INSTANTANEOUS PEAK STAGE			2.08	Jun 30	[b]12.42	Jun 17 1965
INSTANTANEOUS LOW FLOW			.28	Dec 26	.00	Sep 14 1956
ANNUAL RUNOFF (AC-FT)	19520		19400		17720	
10 PERCENT EXCEEDS	70		64		57	
50 PERCENT EXCEEDS	15		16		14	
90 PERCENT EXCEEDS	1.5		5.3		2.7	

e Estimated

[a] From rating curve extended above 800 ft^3/s on basis of slope-area measurements at gage heights 4.88 ft and 12.4 ft.
[b] From floodmarks.



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^2.

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.--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^3/s by New Mexico State Engineer.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.8	e1.8	e4.9	2.6	e2.8	9.6	70	14	.85	e43	9.4
2	2.1	1.7	e1.7	e3.8	3.8	e2.7	9.2	69	12	1.4	e30	10
3	2.0	1.7	e1.6	e3.6	3.8	e2.5	7.2	66	11	1.5	e19	9.4
4	1.9	1.6	e1.5	e3.1	4.6	e2.3	7.7	65	10	1.7	e25	7.2
5	1.8	1.6	e1.6	e3.6	1.9	2.4	8.3	64	9.9	2.6	e24	6.3
6	1.8	1.6	e1.8	e3.5	2.1	2.6	9.5	62	9.5	2.3	e20	5.8
7	1.8	1.6	e1.9	e3.0	1.5	e2.7	9.7	57	9.2	5.9	e16	5.2
8	1.8	1.6	e1.7	e3.7	1.4	e2.6	9.3	52	8.5	43	e14	5.0
9	1.8	1.6	e1.8	e3.3	1.4	e2.5	8.4	47	7.4	31	e12	4.6
10	1.8	1.6	e1.7	e3.4	1.4	e2.4	7.9	44	6.7	24	e17	4.4
11	1.8	1.6	e1.9	e3.3	1.2	e2.5	8.3	43	6.4	16	e14	4.6
12	1.8	1.7	e2.2	e3.5	1.3	2.6	12	44	5.9	11	e13	4.4
13	1.7	1.8	e2.6	e3.4	1.2	3.0	14	43	5.1	8.5	e9.6	4.3
14	1.7	1.9	e2.5	e3.6	1.4	3.2	14	42	4.6	7.3	e7.8	3.9
15	1.8	1.9	e2.4	e3.6	1.3	3.9	13	42	4.5	5.7	e8.2	4.4
16	1.8	1.9	e2.0	e3.7	1.9	5.1	13	39	4.0	5.1	e12	4.4
17	1.8	2.0	e1.9	e3.8	1.8	4.6	12	35	3.6	8.9	e10	5.0
18	1.8	2.1	e1.8	e2.6	1.9	4.3	12	33	3.2	5.7	e10	4.6
19	1.8	2.2	e1.7	e2.7	1.9	3.6	8.9	33	2.9	4.3	e8.2	4.1
20	1.8	2.1	e1.7	e2.5	1.9	3.7	11	33	2.5	3.7	e60	3.5
21	1.8	1.8	e1.5	e2.3	2.1	3.7	9.3	33	2.3	4.8	e50	3.2
22	1.8	2.1	e1.7	e2.0	2.0	4.3	9.8	32	2.1	4.3	e43	2.9
23	1.7	2.0	e2.2	e1.8	1.9	6.1	13	30	1.9	4.4	e24	3.0
24	1.7	2.4	e2.1	e2.1	1.9	8.2	18	26	1.6	9.7	e13	3.0
25	1.7	2.1	e2.3	1.7	2.1	11	24	23	1.5	11	e9.4	2.8
26	1.7	1.6	e3.0	2.2	2.0	14	30	22	1.3	9.0	13	2.4
27	1.7	1.7	e3.7	2.5	1.9	15	28	20	1.1	12	9.4	2.4
28	1.7	1.7	e3.6	2.8	e2.5	14	31	18	.91	15	8.0	2.2
29	1.8	1.8	e3.9	2.2	---	13	37	16	.74	12	7.2	2.4
30	1.8	1.9	e3.7	3.5	---	12	57	15	.70	29	6.7	4.1
31	1.8	---	e4.6	3.1	---	9.9	---	14	---	e50	8.5	---
TOTAL	56.0	54.7	70.1	94.8	56.7	173.2	462.1	1232	155.05	351.65	565.0	138.9
MEAN	1.81	1.82	2.26	3.06	2.03	5.59	15.4	39.7	5.17	11.3	18.2	4.63
MAX	2.2	2.4	4.6	4.9	4.6	15	57	70	14	50	60	10
MIN	1.7	1.6	1.5	1.7	1.2	2.3	7.2	14	.70	.85	6.7	2.2
AC-FT	111	108	139	188	112	344	917	2440	308	697	1120	276

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1998, BY WATER YEAR (WY)

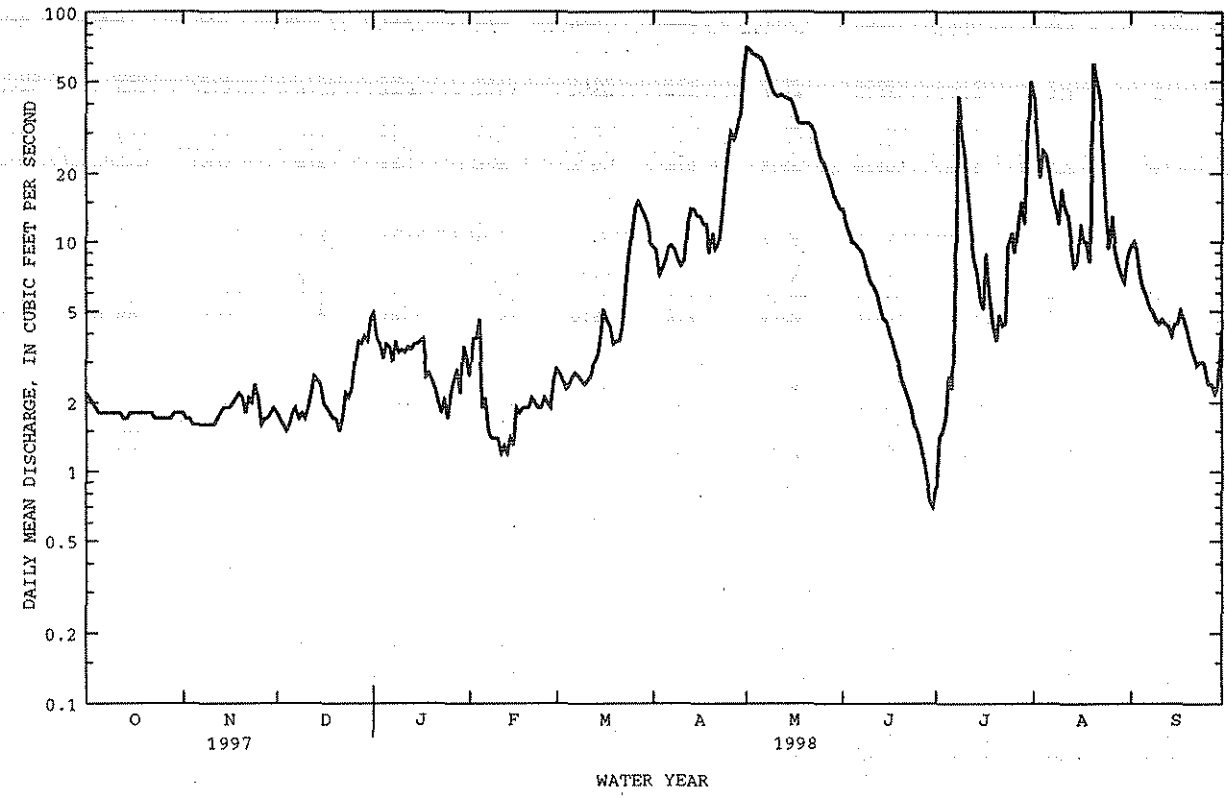
MEAN	3.69	3.31	2.41	2.15	2.30	5.18	25.2	47.1	18.7	7.34	14.9	5.56
MAX	23.2	12.3	8.80	8.04	7.35	25.5	126	196	122	31.9	159	51.7
(WY)	1961	1920	1920	1920	1987	1987	1924	1924	1979	1921	1991	1991
MIN	.000	.000	.13	.029	.14	.33	1.94	.97	.18	.003	.31	.000
(WY)	1952	1952	1957	1957	1957	1955	1925	1963	1963	1964	1974	1951

07207500 PONIL CREEK NEAR CIMARRON, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1916 - 1998	
ANNUAL TOTAL	5080.6		3410.20			
ANNUAL MEAN	13.9		9.34		11.6	
HIGHEST ANNUAL MEAN					34.5	1924
LOWEST ANNUAL MEAN					1.38	1974
HIGHEST DAILY MEAN	130	May 23	70	May 1	819	Jun 17 1965
LOWEST DAILY MEAN	1.3	Jan 28	.70	Jun 30	.00	Jun 23 1951
ANNUAL SEVEN-DAY MINIMUM	1.4	Jan 25	1.0	Jun 26	.00	Jun 23 1951
INSTANTANEOUS PEAK FLOW			341	Jul 30	[a]5630	Jun 17 1965
INSTANTANEOUS PEAK STAGE			4.02	Jul 30	11.13	Jun 17 1965
INSTANTANEOUS LOW FLOW			.42	Jan 21	.00	Jun 23 1951
ANNUAL RUNOFF (AC-FT)	10080		6760		8420	
10 PERCENT EXCEEDS	45		28		28	
50 PERCENT EXCEEDS	3.9		3.6		3.1	
90 PERCENT EXCEEDS	1.7		1.7		.44	

e Estimated

[a] From rating curve extended above 230 ft^3/s on basis of slope-area measurements at gage heights 3.56 ft, 5.80 ft, 7.15 ft and 11.13 ft.



07208500 RAYADO CREEK NEAR CIMARRON, NM

(Formerly 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 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^2.

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. From September 1952 to September 1997 as Rayado Creek at Sauble Rnach near Cimarron, NM.

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

GAGE.--Water-stage recorder with satellite telemetry. Concrete control since Oct. 13, 1976. Elevation of gage is 6,720 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1921 for history of changes prior to Oct. 1, 1954. Oct. 1, 1954 to June 16, 1965, at site 270 ft downstream at datum 2.79 ft lower.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--The major flood of June 10, 1913, destroyed the gage (stage and discharge not determined). Another major flood probably occurred Sept. 29 or 30, 1904.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	5.4	e4.7	4.9	4.9	e6.4	16	51	20	5.8	18	15
2	6.1	4.9	e4.6	5.0	e4.9	e5.5	15	51	18	5.7	14	24
3	5.5	e5.0	e4.4	5.2	e4.8	e4.2	13	53	17	7.1	13	18
4	5.5	e5.0	e4.4	5.0	4.7	e4.5	16	55	16	9.3	19	15
5	5.3	e5.0	e5.5	4.8	4.4	e4.5	21	57	15	9.9	24	14
6	5.2	e5.1	e6.0	e4.7	4.4	e3.7	23	57	15	8.0	23	13
7	5.1	e5.1	e5.8	e4.5	4.3	e3.3	22	54	14	8.2	22	12
8	e5.2	e5.1	e5.8	e4.4	e4.3	5.8	19	52	13	22	18	11
9	e5.2	e5.2	e5.2	e6.4	e4.4	5.8	16	48	12	20	17	10
10	e5.3	e5.2	e5.2	5.7	4.4	5.6	15	46	12	13	17	10
11	e5.2	e5.2	e5.8	4.9	e4.4	5.5	20	46	12	11	18	9.8
12	e5.3	e5.2	e5.8	e4.8	e4.3	5.9	28	46	11	9.2	15	9.1
13	e5.3	e4.7	e5.5	e4.7	e4.2	6.1	28	45	10	8.4	13	8.6
14	e5.3	e4.0	e5.3	5.1	e4.1	6.4	27	45	9.6	8.2	12	8.1
15	e5.5	e3.4	e5.2	e5.1	e4.1	7.0	25	45	9.4	7.6	12	8.4
16	e5.8	e3.6	e5.0	4.6	e3.9	6.0	22	41	8.9	7.8	11	9.1
17	e5.7	e3.8	5.0	4.8	e3.6	8.1	19	39	8.5	9.5	10	9.4
18	e5.8	e4.0	5.0	5.0	e4.2	7.7	18	39	8.2	7.3	14	9.0
19	e5.9	e5.3	e5.0	5.4	4.8	6.9	17	41	7.8	6.4	11	7.6
20	e5.5	e5.7	e5.0	4.9	4.7	6.9	17	42	7.6	6.1	13	6.9
21	e5.5	e5.5	e5.0	e5.0	e4.6	7.6	17	41	7.3	6.0	24	6.5
22	e5.5	e4.7	e5.0	e5.1	4.4	9.4	20	41	7.2	6.2	24	6.4
23	e5.4	e4.8	e5.0	e5.0	e4.1	12	27	38	6.8	6.2	20	6.2
24	e5.3	e5.2	e4.9	e5.0	e3.8	15	35	34	6.6	5.8	18	5.9
25	e5.4	e5.4	e4.9	e4.8	e3.9	22	42	31	6.6	6.3	18	5.7
26	e5.4	e5.3	e5.5	e4.7	e4.2	28	43	30	6.2	11	17	5.3
27	e5.4	e5.2	e5.5	4.7	e5.1	29	40	28	5.9	15	16	5.2
28	e5.4	e5.1	e5.2	e4.7	e6.4	25	43	25	5.8	23	14	5.2
29	e5.4	e4.9	e4.9	e4.7	---	25	43	23	5.8	26	12	7.0
30	e5.5	e4.8	5.3	e4.6	---	22	45	22	5.6	18	12	15
31	5.4	---	e4.9	4.6	---	19	---	21	---	17	12	---
TOTAL	170.1	146.8	160.3	152.8	124.3	329.8	752	1287	308.8	331.0	501	296.4
MEAN	5.49	4.89	5.17	4.93	4.44	10.6	25.1	41.5	10.3	10.7	16.2	9.88
MAX	6.8	5.7	6.0	6.4	6.4	29	45	57	20	26	24	24
MIN	5.1	3.4	4.4	4.4	3.6	3.3	13	21	5.6	5.7	10	5.2
AC-FT	337	291	318	303	247	654	1490	2550	613	657	994	588

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1998, BY WATER YEAR (WY)

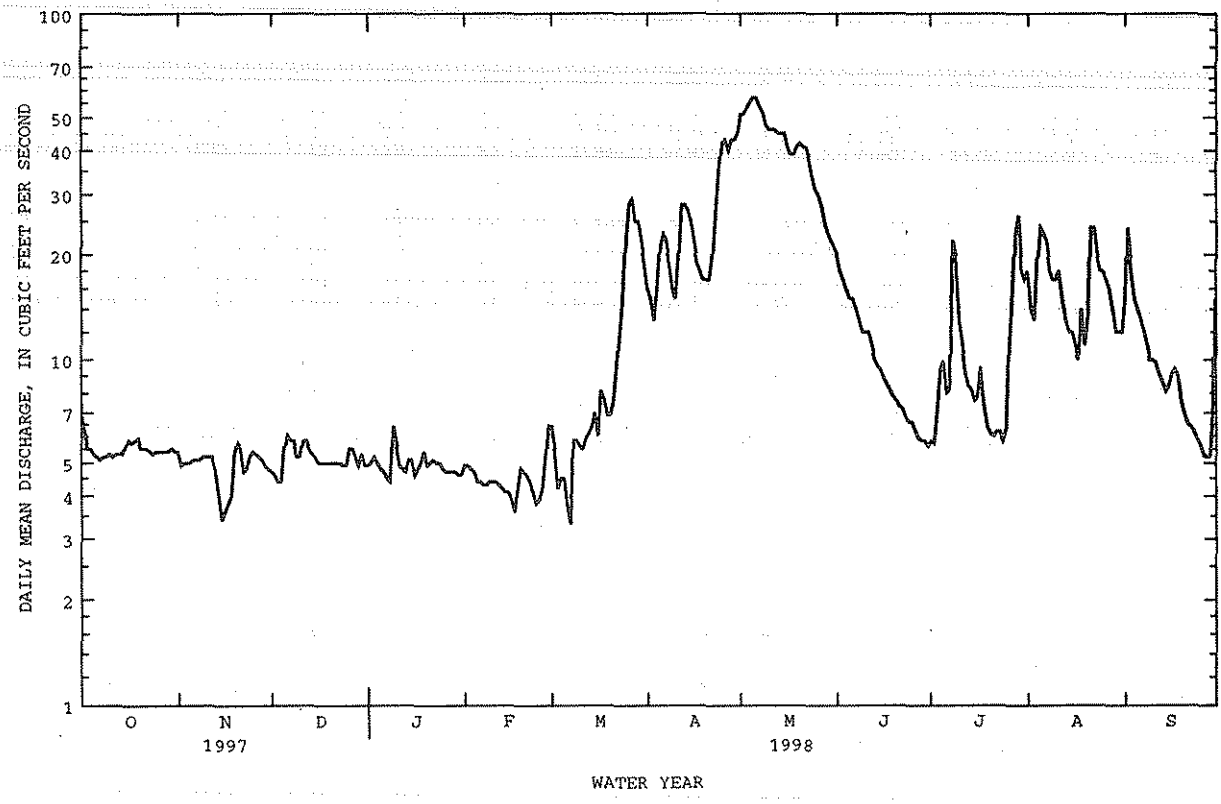
MEAN	5.82	4.99	3.96	3.63	4.05	7.83	31.1	52.7	23.1	10.4	11.5	7.32
MAX	30.4	20.0	12.4	8.01	8.68	23.7	144	287	231	54.7	71.5	33.0
(WY)	1942	1942	1987	1942	1987	1939	1987	1941	1965	1969	1965	1991
MIN	1.23	1.40	1.27	1.58	1.95	2.98	5.20	3.65	1.79	1.42	2.10	.88
(WY)	1957	1957	1957	1957	1951	1951	1956	1967	1956	1956	1956	1956

07208500 RAYADO CREEK NEAR CIMARRON, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1912 - 1998	
ANNUAL TOTAL	7748.9		4560.3			
ANNUAL MEAN	21.2		12.5		13.9	
HIGHEST ANNUAL MEAN					41.6	1965
LOWEST ANNUAL MEAN					2.83	1956
HIGHEST DAILY MEAN	143	May 1	57	May 5	2000	Jun 18 1965
LOWEST DAILY MEAN	3.0	Jan 12	3.3	Mar 7	.40	Nov 16 1956
ANNUAL SEVEN-DAY MINIMUM	3.4	Jan 6	4.1	Feb 12	.67	Sep 15 1956
INSTANTANEOUS PEAK FLOW			59	May 5	[a]9000	Jun 17 1965
INSTANTANEOUS PEAK STAGE			3.01	May 5	[b]11.50	Jun 17 1965
INSTANTANEOUS LOW FLOW			1.7	Feb 20	[c].03	Dec 3 1950
ANNUAL RUNOFF (AC-FT)	15370		9050		10060	
10 PERCENT EXCEEDS	56		28		30	
50 PERCENT EXCEEDS	6.1		6.4		5.4	
90 PERCENT EXCEEDS	4.1		4.6		2.7	

e Estimated

[a] From rating curve extended above 70 ft3/s on basis of filed estimate of peak flow.
[b] From floodmarks.
[c] Also may have been less during periods of ice effect.



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^2.

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

REVISED RECORDS.--WSP 827: 1934-36(M). WSP 1281: 1942, 1945-46(M).

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1954. Elevation of gage is 5,770 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1311 or 1731 for history of changes prior to July 17, 1942.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	8.4	20	e19	16	8.7	15	20	10	.04	12	10
2	1.8	8.1	22	e21	14	9.0	15	18	7.6	.24	5.5	10
3	1.7	16	22	e23	15	9.9	14	17	4.6	.67	4.1	14
4	1.9	28	18	24	15	11	13	17	3.2	.11	9.1	12
5	1.4	26	17	20	16	10	13	17	3.2	.02	8.3	10
6	1.4	26	e20	17	16	11	13	15	3.2	.00	8.8	9.8
7	2.9	31	e24	e15	15	10	13	18	3.5	.62	7.5	10
8	3.0	28	e26	e13	15	9.1	13	20	4.2	1.1	6.2	10
9	3.2	26	e23	e13	14	10	13	19	5.5	12	19	7.0
10	2.7	27	e24	e16	13	11	12	18	2.8	8.2	7.0	1.6
11	3.0	27	e22	e18	11	9.9	7.2	20	2.1	3.4	5.0	1.4
12	15	26	e27	e17	11	10	6.0	21	1.7	2.5	5.5	1.4
13	8.2	26	e25	e19	10	9.9	5.4	22	1.5	2.5	6.2	1.6
14	8.2	27	e27	e21	11	9.5	2.3	21	2.3	1.9	3.6	1.6
15	5.5	26	e31	e19	12	16	2.0	20	2.8	1.2	4.7	1.5
16	4.7	22	e23	18	14	55	9.2	17	2.6	1.7	4.2	1.3
17	4.7	21	e27	e17	15	39	5.7	16	1.4	1.7	3.1	1.5
18	4.8	27	e24	e18	15	24	8.2	15	.64	1.4	3.5	1.7
19	7.5	28	e21	18	16	19	8.2	14	.53	.96	5.8	1.5
20	11	28	e19	e17	17	16	7.0	6.9	.29	.56	5.3	.55
21	11	29	e20	15	16	15	7.6	6.3	.16	.52	4.5	.39
22	11	26	18	15	14	14	9.1	5.8	.11	.62	9.0	.19
23	11	22	21	15	13	14	10	5.8	.05	.42	7.0	.06
24	8.8	22	19	14	12	15	9.1	6.5	.02	.33	5.1	.00
25	8.6	23	16	14	12	13	9.2	7.9	.01	.31	4.1	.00
26	7.5	22	e13	17	11	8.5	12	9.5	.00	.69	4.8	.00
27	7.5	22	e15	15	11	7.7	23	9.3	.00	.71	3.7	.00
28	7.5	22	e17	17	10	7.4	17	7.4	.00	2.3	11	.00
29	8.0	21	e20	16	---	7.2	18	6.1	.00	6.0	12	1.2
30	9.7	20	e21	15	---	11	19	4.4	.00	5.5	12	8.5
31	8.1	---	e20	17	---	15	---	7.3	---	4.3	12	---
TOTAL	193.2	711.5	662	533	380	435.8	329.2	428.2	64.01	62.52	219.6	118.79
MEAN	6.23	23.7	21.4	17.2	13.6	14.1	11.0	13.8	2.13	2.02	7.08	3.96
MAX	15	31	31	24	17	55	23	22	10	12	19	14
MIN	1.4	8.1	13	13	10	7.2	2.0	4.4	.00	.00	3.1	.00
AC-FT	383	1410	1310	1060	754	864	653	849	127	124	436	236

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1998, BY WATER YEAR (WY)

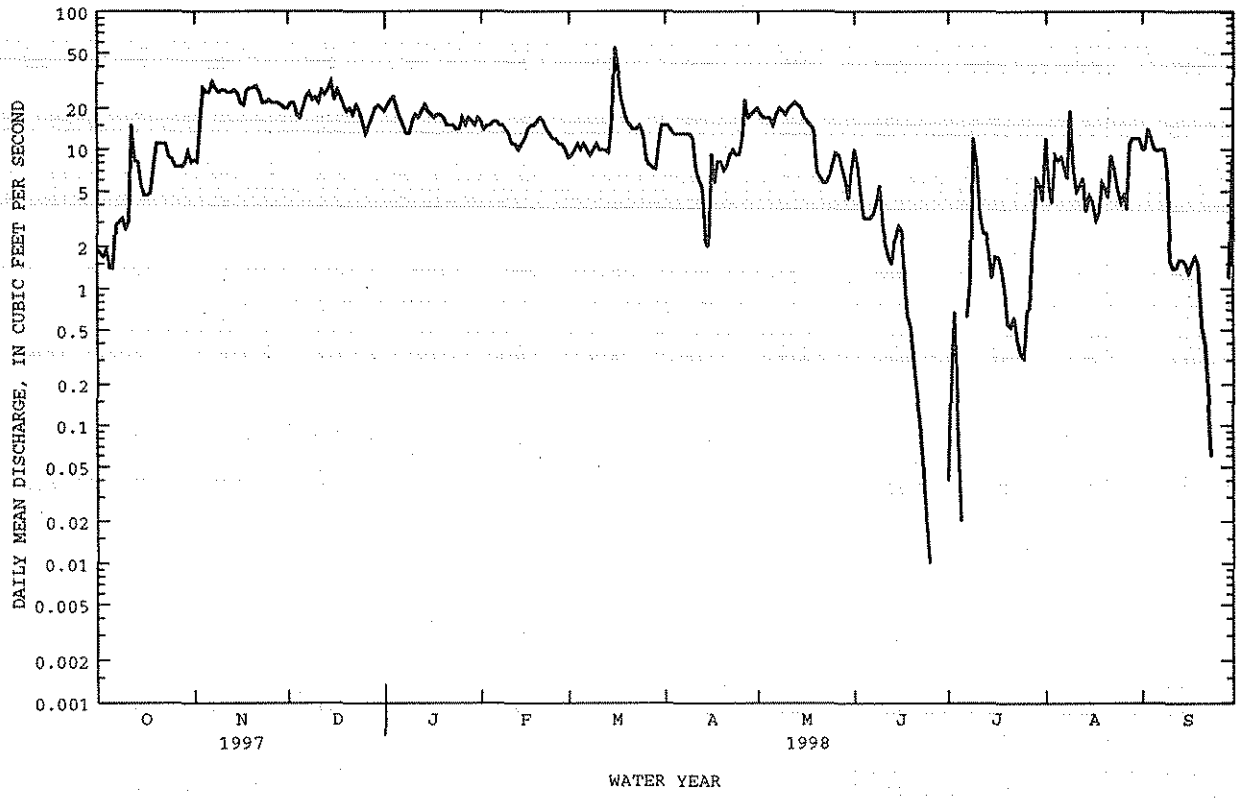
MEAN	8.75	8.63	7.82	7.90	8.22	10.9	33.4	86.0	44.7	11.9	17.2	12.6
MAX	98.0	68.3	59.0	62.3	63.8	242	506	928	699	146	154	118
(WY)	1942	1942	1987	1987	1992	1987	1987	1941	1965	1965	1991	1942
MIN	.039	.23	.28	.33	.33	.35	.50	.73	1.01	.39	.17	.007
(WY)	1957	1957	1957	1957	1957	1957	1957	1956	1925	1974	1978	1956

07211000 CIMARRON RIVER AT SPRINGER, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1908 - 1998	
ANNUAL TOTAL	13344.00		4137.82			
ANNUAL MEAN	36.6		11.3		21.7	
HIGHEST ANNUAL MEAN					139	1994
LOWEST ANNUAL MEAN					.90	1957
HIGHEST DAILY MEAN	315	May 1	55	Mar 16	10500	Jun 18 1965
LOWEST DAILY MEAN	.33	Aug 29	.00	Jun 26	.00	Sep 2 1954
ANNUAL SEVEN-DAY MINIMUM	.54	Aug 29	.00	Jun 24	.00	Sep 16 1954
INSTANTANEOUS PEAK FLOW			82	Sep 30	[a]29500	Jun 18 1965
INSTANTANEOUS PEAK STAGE			3.87	Sep 30	[b]19.96	Jun 18 1965
ANNUAL RUNOFF (AC-FT)	26470		8210		15750	
10 PERCENT EXCEEDS	147		22		29	
50 PERCENT EXCEEDS	8.5		10		4.0	
90 PERCENT EXCEEDS	2.3		.70		1.2	

e Estimated

[a] From rating curve extended above 1,800 ft^3/s on basis of contracted-opening meansurement of peak flow.
[b] From floodmarks.



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^2.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	25	37	36	29	24	182	102	20	.06	46	22
2	13	24	38	43	26	25	169	100	16	.30	80	244
3	12	27	28	57	27	29	163	99	11	.42	24	52
4	10	39	20	52	29	30	145	96	9.0	1.2	18	35
5	11	39	23	43	27	29	136	98	7.4	1.2	23	27
6	11	40	34	34	27	30	131	97	5.5	.68	18	26
7	22	45	41	28	27	29	142	104	5.8	1.0	17	22
8	31	44	43	28	25	22	131	101	7.2	13	16	21
9	21	41	36	29	25	36	119	90	6.8	41	25	19
10	17	41	32	38	24	30	111	88	8.2	40	49	12
11	18	42	29	42	25	30	98	77	7.3	14	29	8.5
12	58	42	34	37	29	28	104	72	6.7	7.8	78	7.9
13	48	44	32	37	29	25	143	55	4.7	13	37	8.8
14	37	46	27	35	28	27	139	41	3.0	20	26	9.1
15	28	41	30	29	29	34	96	36	4.2	5.4	22	9.8
16	24	32	36	37	36	92	119	36	4.7	9.1	20	7.7
17	21	35	36	35	39	92	116	32	3.6	12	19	10
18	20	41	43	37	39	103	115	34	2.7	9.8	14	8.2
19	20	46	38	36	42	82	104	39	e1.0	7.1	15	5.7
20	25	47	33	34	41	63	103	27	e.70	4.2	15	3.6
21	26	48	42	29	40	57	128	22	e.50	2.4	13	2.5
22	25	41	35	27	38	72	136	18	e.55	9.9	16	2.0
23	25	33	42	27	34	80	109	17	e.50	8.3	37	1.8
24	25	33	42	25	31	88	98	20	.23	1.9	e20	405
25	28	34	29	24	29	116	71	21	.14	1.5	16	48
26	25	39	19	26	29	175	52	22	.52	1.3	15	20
27	24	39	22	24	32	203	67	26	.34	5.5	20	12
28	25	38	24	27	29	211	95	23	.13	7.1	184	9.0
29	25	37	19	24	---	195	103	20	.07	7.6	44	6.9
30	26	33	28	24	---	187	106	17	.05	39	32	16
31	25	---	35	27	---	209	---	15	---	81	26	---
TOTAL	740	1156	1007	1031	865	2453	3531	1645	138.53	366.76	1014	1082.5
MEAN	23.9	38.5	32.5	33.3	30.9	79.1	118	53.1	4.62	11.8	32.7	36.1
MAX	58	48	43	57	42	211	182	104	20	81	184	405
MIN	10	24	19	24	24	22	52	15	.05	.06	13	1.8
AC-FT	1470	2290	2000	2040	1720	4870	7000	3260	275	727	2010	2150

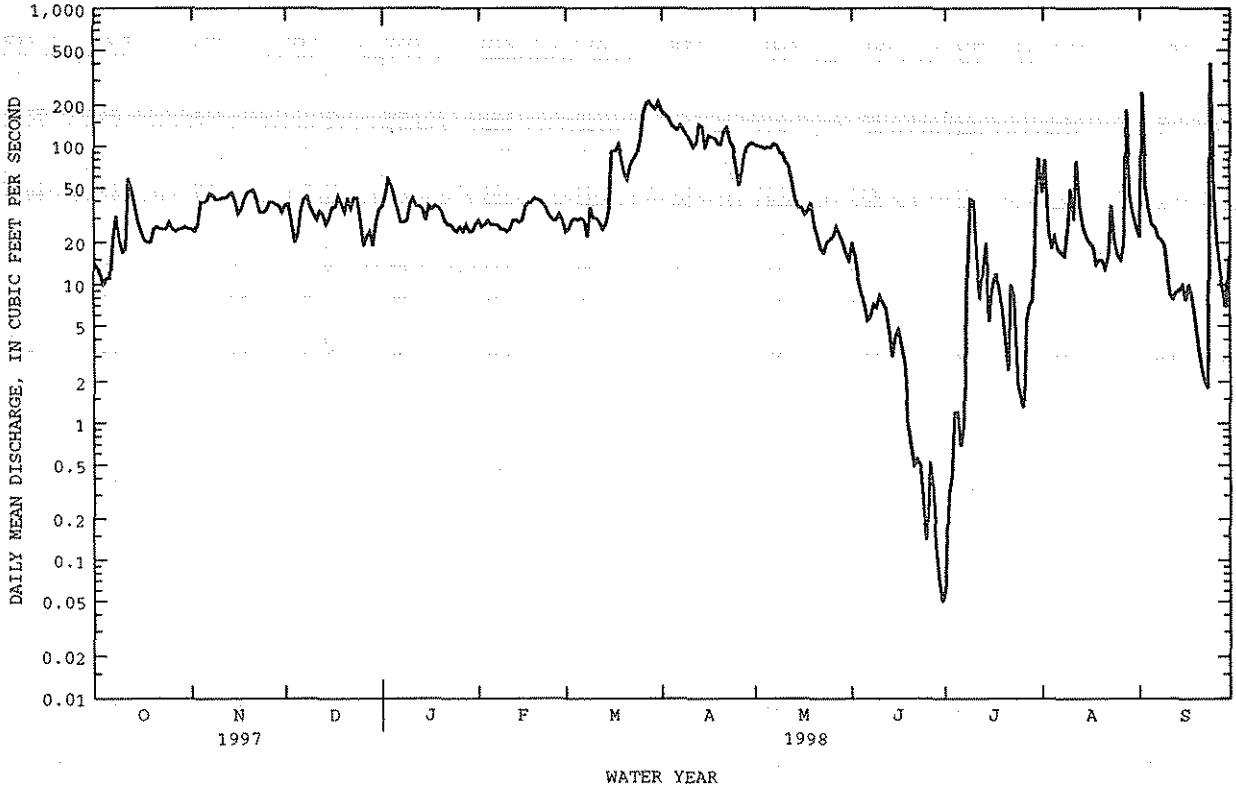
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1998, BY WATER YEAR (WY)

MEAN	38.5	23.6	20.9	21.5	25.4	28.7	126	241	144	90.9	117	78.8
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

07211500 CANADIAN RIVER NEAR TAYLOR SPRINGS, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1940 - 1998	
ANNUAL TOTAL	24193.6		15029.79			
ANNUAL MEAN	66.3		41.2		80.5	
HIGHEST ANNUAL MEAN					564	1942
LOWEST ANNUAL MEAN					7.60	1975
HIGHEST DAILY MEAN	878	Aug 13	405	Sep 24	43000	Jun 18 1965
LOWEST DAILY MEAN	3.2	Jul 18	.05	Jun 30	.00	Jun 29 1946
ANNUAL SEVEN-DAY MINIMUM	5.0	Jul 16	.19	Jun 25	.00	Jun 24 1953
INSTANTANEOUS PEAK FLOW			1400	Sep 24	[a]162000	Jun 18 1965
INSTANTANEOUS PEAK STAGE			4.35	Sep 24	[b]47.40	Jun 18 1965
INSTANTANEOUS LOW FLOW			.00	Jul 22	.00	Jul 22 1998
ANNUAL RUNOFF (AC-FT)	47990		29810		58300	
10 PERCENT EXCEEDS	231		101		128	
50 PERCENT EXCEEDS	26		29		15	
90 PERCENT EXCEEDS	14		5.5		2.9	

e Estimated
[a] From rating curve extended above 7,000 ft^3/s on basis of slope-area measurement of peak flow.
[b] From floodmarks.



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^2.

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

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

GAGE.--Water-stage recorder. Elevation of gage is 7,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. Mar. 10, 1915 to June 4, 1921 water-stage recorder at site 2.8 mi upstream at different datum. July 6, 1921 to Jan. 5, 1929, nonrecording gage or water-stage recorder at site 0.7 mi downstream at datum about 14 ft lower and Jan. 6, 1929 to Apr. 1, 1972, water-stage recorder at site 0.7 mi downstream at datum about 15 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 7,000 acres, part of which are downstream from station. See tabulation below for monthly and yearly diversion of La Cueva Canal, which bypasses gage on left bank. Several observations of water temperature were made during the year. No flow at times.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	11	7.4	6.6	7.3	6.2	18	17	60	29	86	64
2	21	11	8.2	7.5	7.2	5.6	19	21	57	36	86	67
3	20	9.3	7.8	8.2	7.1	3.5	14	21	57	41	80	59
4	21	9.3	8.4	6.7	7.7	3.8	15	18	58	56	112	51
5	20	12	e8.6	6.0	8.1	3.6	15	23	51	55	115	47
6	23	12	8.7	5.7	8.3	3.6	16	26	48	55	120	46
7	23	12	8.0	e5.9	8.6	2.6	18	25	43	103	109	42
8	23	12	8.4	e5.7	8.0	2.6	16	26	45	170	98	40
9	22	13	7.7	6.0	8.2	2.5	15	28	47	114	91	39
10	22	14	6.3	5.0	5.2	2.3	15	26	47	114	95	40
11	22	14	7.1	5.3	2.7	2.2	15	25	46	83	90	41
12	21	14	e6.8	5.3	2.3	2.2	16	22	46	66	86	39
13	22	12	e6.3	6.1	2.4	2.2	18	21	56	53	79	37
14	23	13	e6.5	5.9	2.5	2.5	19	21	52	46	70	33
15	22	e11	6.4	e6.2	2.3	8.8	18	20	46	38	65	34
16	21	e11	6.3	5.9	2.2	24	19	16	38	37	75	35
17	22	13	5.3	6.0	2.0	31	17	14	37	54	68	31
18	23	11	5.4	6.8	1.9	13	21	21	37	42	64	31
19	23	12	5.2	6.7	1.8	8.0	16	22	38	40	85	26
20	21	12	5.1	e6.8	1.8	7.1	17	32	35	35	79	22
21	22	12	5.1	e6.6	1.9	9.1	20	48	36	33	179	21
22	20	12	5.3	e7.0	1.8	11	11	46	35	33	128	19
23	22	11	e5.9	e6.8	1.8	12	9.4	41	37	34	101	20
24	23	11	e6.5	e6.5	1.8	13	9.4	39	35	39	86	18
25	24	6.9	e7.0	6.9	2.5	19	15	46	33	47	83	18
26	24	5.9	e7.2	e6.8	3.1	23	23	47	33	54	97	19
27	24	7.1	7.0	e7.2	3.9	25	27	44	30	66	80	19
28	23	7.1	8.2	6.9	5.5	22	24	43	26	101	75	19
29	21	7.0	e7.8	6.9	---	20	23	48	27	87	71	24
30	19	6.9	e6.7	7.0	---	19	20	58	25	82	71	36
31	16	---	e6.3	7.3	---	18	---	61	---	90	69	---
TOTAL	674	325.5	212.9	200.2	119.9	328.4	518.8	966	1261	1933	2793	1037
MEAN	21.7	10.9	6.87	6.46	4.28	10.6	17.3	31.2	42.0	62.4	90.1	34.6
MAX	24	14	8.7	8.2	8.6	31	27	61	60	170	179	67
MIN	16	5.9	5.1	5.0	1.8	2.2	9.4	14	25	29	64	18
AC-FT	1340	646	422	397	238	651	1030	1920	2500	3830	5540	2060
(+)	634	638	734	550	629	582	240	360	1290	3460	1460	294

(+) DIVERSION, IN ACRE-FEET, BY LA CUEVA CANAL
CAL YR 1997 (+) 4900 WTR YR 1998 (+) 10,600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 1998, BY WATER YEAR (WY)

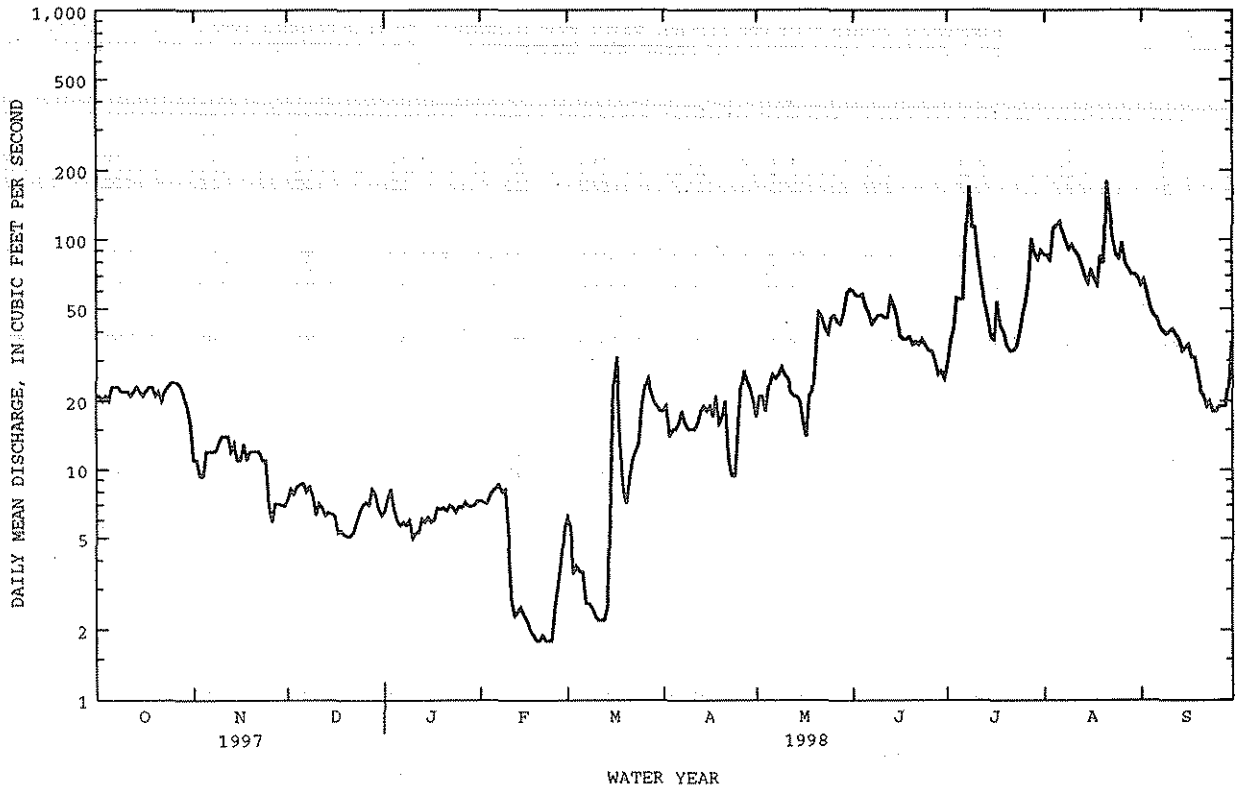
MEAN	17.4	11.3	8.78	8.18	7.91	11.1	33.9	79.1	66.9	34.8	45.0	29.0
MAX	87.6	60.7	39.4	21.9	25.5	51.2	244	555	314	142	182	111
(WY)	1942	1942	1907	1907	1907	1987	1942	1941	1941	1911	1961	1991
MIN	.64	.38	.55	.000	.52	1.05	2.05	1.53	1.11	3.02	1.43	.46
(WY)	1957	1957	1957	1908	1957	1957	1933	1967	1956	1934	1956	1956

07215500 MORA RIVER AT LA CUEVA, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1906 - 1998	
ANNUAL TOTAL	17243.7		10369.7			
ANNUAL MEAN	47.2		28.4		29.4	
HIGHEST ANNUAL MEAN					113	1941
LOWEST ANNUAL MEAN					3.12	1956
HIGHEST DAILY MEAN	448	Jun 8	179	Aug 21	1060	Apr 23 1942
LOWEST DAILY MEAN	4.4	Mar 18	1.8	Feb 19	.00	Dec 22 1907
ANNUAL SEVEN-DAY MINIMUM	5.3	Dec 17	1.8	Feb 18	.00	Dec 22 1907
INSTANTANEOUS PEAK FLOW			280	Jul 7	[a]1530	Sep 23 1941
INSTANTANEOUS PEAK STAGE			3.67	Jul 7	[b]7.58	Sep 23 1941
INSTANTANEOUS LOW FLOW			.21	Feb 27	.00	Dec 22 1907
ANNUAL RUNOFF (AC-FT)	34200		20570		21330	
10 PERCENT EXCEEDS	136		69		75	
50 PERCENT EXCEEDS	21		20		12	
90 PERCENT EXCEEDS	8.3		5.3		1.7	

e Estimated

[a] From rating curve extended above 400 ft^3/s.
[b] Site and datum then in use.



07216500 MORA RIVER NEAR GOLONDRINAS, NM

LOCATION.--Lat 35°53'27", long 105°09'47", Mora County, Hydrologic Unit 11080004, in Mora Grant, on right bank 0.7 mi upstream from bridge on State Highway 161, 1.2 mi east of Golondrinas, 1.9 mi upstream from Coyote Creek, 4.7 mi downstream from Rito Cebolla, and at mile 75.8.

DRAINAGE AREA.--267 mi^2.

PERIOD OF RECORD.--March 1915 to May 1921, October 1921 to March 1922, May, August, September 1922, July 1923 to July 1924, December 1924 to September 1986, March 1988 to current year. Monthly discharge only 1915-30, published in WSP 1311.

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

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

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 12,000 acres upstream from station. Off-channel lakes make it possible to divert and store water during non-irrigation season. Several observations of water temperature were made during the year. 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^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	18	12	e11	12	8.3	25	24	51	24	96	64
2	24	20	14	e10	12	8.4	26	27	43	29	93	66
3	23	16	14	e13	12	8.7	24	29	44	28	81	59
4	23	13	14	e12	11	8.6	21	24	47	48	133	48
5	24	14	14	e11	11	8.0	20	19	39	50	142	43
6	25	16	18	e10	12	7.8	21	24	37	40	143	41
7	29	17	14	11	12	8.3	23	25	36	71	131	38
8	29	17	15	12	12	7.4	20	26	33	260	110	36
9	26	17	17	11	12	8.0	20	27	33	142	99	35
10	26	19	13	11	11	8.5	19	27	34	138	104	35
11	27	18	12	12	7.3	8.1	17	28	35	96	96	35
12	26	19	13	11	6.9	7.6	16	24	32	73	96	31
13	25	17	15	11	6.3	7.9	20	22	42	56	86	33
14	23	19	13	12	6.8	8.7	17	17	40	49	73	29
15	24	18	12	e13	7.0	21	17	17	39	35	66	29
16	24	20	13	e12	6.2	43	20	14	32	32	74	31
17	25	22	e11	11	6.2	55	22	14	32	51	69	26
18	26	20	13	11	7.0	45	30	17	26	41	63	26
19	26	20	12	12	7.3	25	27	19	28	37	83	23
20	24	19	11	13	6.8	25	26	24	25	32	80	21
21	24	18	10	12	6.8	25	27	38	23	28	221	18
22	22	17	e11	11	6.7	30	22	41	22	28	171	16
23	23	16	e10	12	6.5	32	18	35	24	27	128	16
24	24	17	e11	12	6.2	34	17	33	24	30	98	16
25	26	14	e10	12	5.8	33	20	36	22	43	89	13
26	26	12	e11	12	6.3	33	26	37	20	47	115	13
27	27	12	e10	12	7.8	36	39	36	18	67	87	14
28	27	13	e11	11	7.4	31	33	31	13	103	77	14
29	25	12	e12	12	---	28	31	35	15	102	72	16
30	23	12	e13	12	---	27	28	45	17	83	72	25
31	22	---	e12	13	---	26	---	51	---	104	69	---
TOTAL	773	502	391	361	238.3	663.3	692	866	926	1994	3117	910
MEAN	24.9	16.7	12.6	11.6	8.51	21.4	23.1	27.9	30.9	64.3	101	30.3
MAX	29	22	18	13	12	55	39	51	51	260	221	66
MIN	22	12	10	10	5.8	7.4	16	14	13	24	63	13
AC-FT	1530	996	776	716	473	1320	1370	1720	1840	3960	6180	1800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1998, BY WATER YEAR (WY)

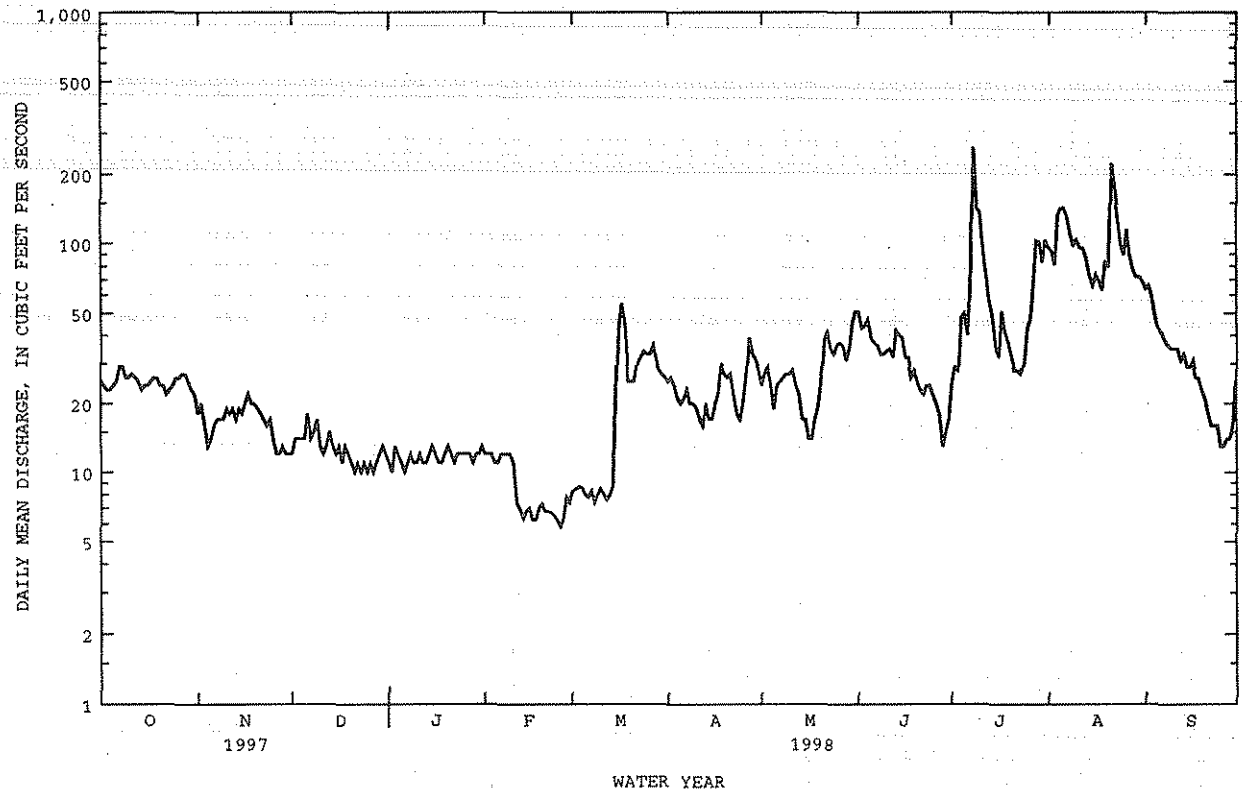
MEAN	22.0	14.7	12.1	12.2	11.5	13.2	44.7	92.8	75.6	41.2	57.1	34.5
MAX	119	86.8	38.9	29.7	27.2	68.8	361	661	377	321	307	153
(WY)	1942	1942	1942	1942	1919	1985	1942	1941	1941	1919	1961	1991
MIN	.21	.40	.52	.65	.55	.58	.25	1.01	.030	1.63	.000	.27
(WY)	1957	1957	1957	1957	1957	1957	1955	1971	1934	1934	1934	1956

07216500 MORA RIVER NEAR GOLONDRINAS, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1915 - 1998	
ANNUAL TOTAL	21276.4		11433.6			
ANNUAL MEAN	58.3		31.3		35.3	
HIGHEST ANNUAL MEAN					144	1941
LOWEST ANNUAL MEAN					3.42	1956
HIGHEST DAILY MEAN	557	Jun 8	260	Jul 8	1750	Apr 23 1942
LOWEST DAILY MEAN	7.4	Feb 16	5.8	Feb 25	.00	May 4 1917
ANNUAL SEVEN-DAY MINIMUM	7.7	Feb 13	6.4	Feb 20	.00	Aug 4 1917
INSTANTANEOUS PEAK FLOW			405	Jul 8	[a]14000	Aug 22 1952
INSTANTANEOUS PEAK STAGE			2.81	Jul 8	[b]14.40	Aug 22 1952
INSTANTANEOUS LOW FLOW			.72	Mar 2		
ANNUAL RUNOFF (AC-FT)	42200		22680		25540	
10 PERCENT EXCEEDS	173		71		90	
50 PERCENT EXCEEDS	25		23		14	
90 PERCENT EXCEEDS	11		10		2.1	

e Estimated

[a] From rating curve extended above 660 ft^3/s on basis of slope-area measurements of peak flow.
[b] Site and datum then in use.



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 Golondrinas, and at mile 2.7.

DRAINAGE AREA.--215 mi^2.

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

REVISED RECORDS.--WSP 1281: 1939-40(M), 1941-42, 1945-47. WSP 1511: Drainage area.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

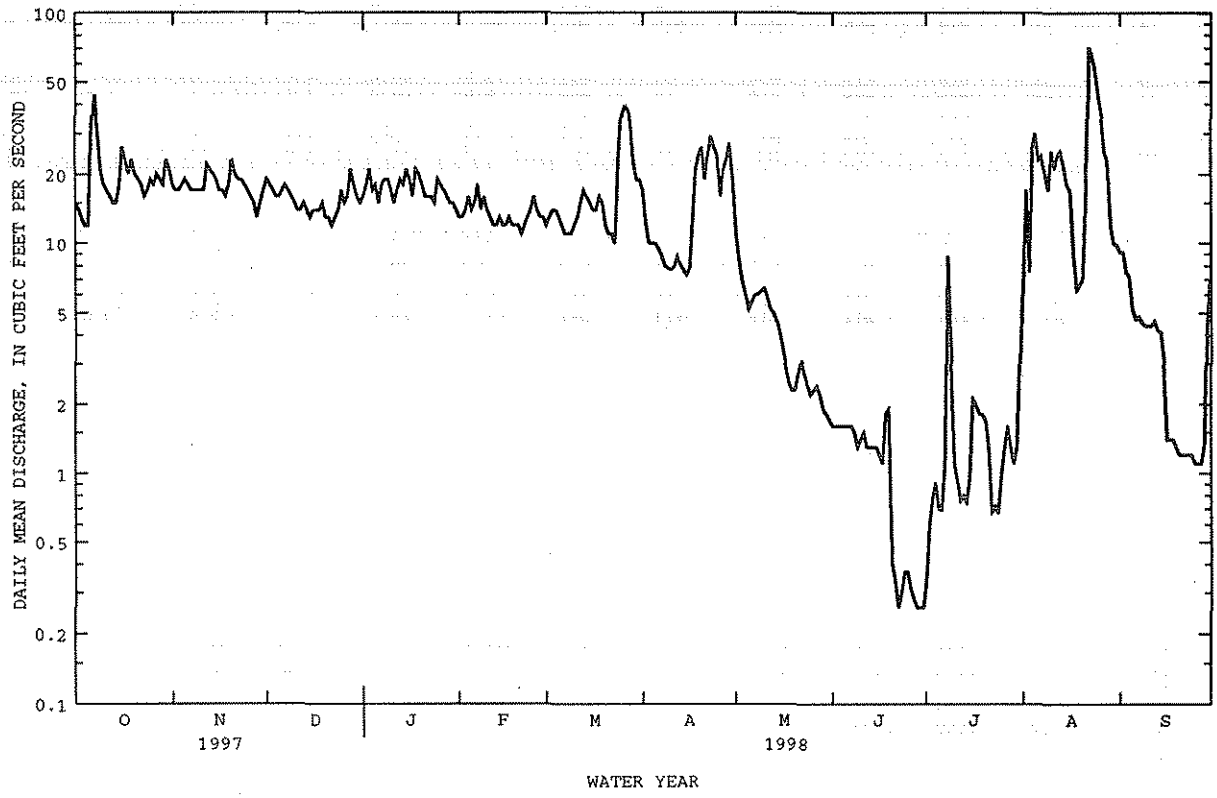
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	e18	e19	e16	e13	e12	17	11	e1.6	.35	7.1	9.2
2	14	e17	e18	e18	e13	e13	12	e8.4	e1.6	.60	17	9.2
3	13	e17	e17	e21	e14	e14	10	e6.8	1.6	.79	7.5	7.5
4	12	e18	e16	e17	e16	e14	10	e6.0	1.6	.91	26	7.2
5	12	e19	e16	e18	14	e13	10	e5.2	1.6	.70	30	5.2
6	32	e18	e17	e15	15	e12	9.5	e5.6	1.6	.69	23	4.7
7	44	e17	e18	e18	18	e11	8.9	e6.0	1.6	1.1	24	4.8
8	31	e17	e17	e19	14	e11	8.0	e6.0	1.5	8.8	20	4.5
9	21	e17	e16	e19	16	e11	7.8	e6.2	1.3	3.1	17	4.4
10	e18	e17	e15	e17	14	e12	7.7	e6.4	1.4	1.1	25	4.4
11	e17	e17	e14	e15	13	e13	7.9	e5.8	1.5	.93	21	4.4
12	e16	e22	e14	e17	12	e15	8.8	e5.2	1.3	.76	24	4.6
13	e15	e21	e15	e19	e12	e17	8.1	e5.0	1.3	.80	25	4.2
14	e15	e20	e14	e18	e13	e16	7.7	e4.6	1.3	.75	22	4.1
15	e18	e19	e13	e21	e12	e15	7.3	e4.1	1.3	.95	18	3.0
16	e26	e17	e14	e19	e12	e14	7.8	e3.4	1.2	2.1	17	1.4
17	e23	e17	e14	e16	e13	e14	13	e2.9	1.1	2.0	9.0	1.4
18	e20	e16	e14	e21	e12	e16	21	e2.5	1.8	1.8	6.3	1.4
19	e23	e18	e15	e20	e12	15	24	e2.3	1.9	1.8	6.6	1.3
20	e20	e23	e13	e18	e12	12	26	e2.3	.41	1.7	7.0	1.2
21	e19	e20	e13	e16	e11	11	19	e2.7	.34	1.3	15	1.2
22	e18	e19	e12	e16	e12	11	24	e3.1	.26	.68	71	1.2
23	e16	e19	e13	e16	e13	10	29	e2.7	.30	.72	65	1.2
24	e17	e18	e14	e15	e14	22	26	e2.4	.37	.67	54	1.2
25	e19	e17	e17	e19	e16	36	24	e2.2	.37	1.0	42	1.1
26	e18	e16	e15	e18	e14	39	16	e2.3	.31	1.3	35	1.1
27	e20	e15	e16	e17	e13	38	21	e2.4	.28	1.6	25	1.1
28	e19	e13	e21	e16	e13	34	23	e2.2	.26	1.3	23	1.3
29	e18	e15	e18	e15	---	23	27	e1.9	.26	1.1	12	4.4
30	e23	e17	e16	e15	---	19	19	e1.8	.26	1.3	10	7.0
31	e21	---	e15	e14	---	19	---	e1.7	---	3.3	9.9	---
TOTAL	613	534	479	539	376	532	460.5	131.1	31.52	46.00	714.4	108.9
MEAN	19.8	17.8	15.5	17.4	13.4	17.2	15.4	4.23	1.05	1.48	23.0	3.63
MAX	44	23	21	21	18	39	29	11	1.9	8.8	71	9.2
MIN	12	13	12	14	11	10	7.3	1.7	.26	.35	6.3	1.1
AC-FT	1220	1060	950	1070	746	1060	913	260	63	91	1420	216
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1998, BY WATER YEAR (WY)												
MEAN	9.34	9.10	8.09	7.67	8.02	9.77	20.8	31.1	16.6	9.32	16.9	12.0
MAX	80.4	53.9	24.2	19.7	19.4	77.6	195	219	181	67.0	150	150
(WY)	1942	1942	1942	1992	1985	1987	1987	1941	1995	1941	1991	1991
MIN	.72	1.71	1.59	1.64	1.13	1.02	.32	.53	.23	.83	.78	.65
(WY)	1957	1935	1955	1957	1955	1967	1978	1967	1940	1963	1956	1956

07218000 COYOTE CREEK NEAR GOLONDRINAS, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1930 - 1998	
ANNUAL TOTAL	8574.1		4565.42			
ANNUAL MEAN	23.5		12.5		13.2	
HIGHEST ANNUAL MEAN					52.9	1942
LOWEST ANNUAL MEAN					2.33	1978
HIGHEST DAILY MEAN	289	Jun 8	71	Aug 22	1290	Sep 10 1991
LOWEST DAILY MEAN	2.6	Jul 26	.26	Jun 22	.00	Aug 4 1945
ANNUAL SEVEN-DAY MINIMUM	3.5	Mar 29	.30	Jun 25	.10	Jul 20 1939
INSTANTANEOUS PEAK FLOW			104	Oct 6	[a]4050	Aug 17 1961
INSTANTANEOUS PEAK STAGE			2.63	Oct 6	[b]10.10	Aug 30 1936
INSTANTANEOUS LOW FLOW			.21	Jun 28	.00	Aug 4 1945
ANNUAL RUNOFF (AC-FT)	17010		9060		9600	
10 PERCENT EXCEEDS	57		22		24	
50 PERCENT EXCEEDS	16		13		5.7	
90 PERCENT EXCEEDS	5.8		1.2		1.2	

e Estimated

[a] From rating curve extended above 250 ft3/s on basis of slope-area measurements at gage heights 5.54 ft, 7.74 ft and 9.60 ft.
[b] Site and datum then in use.



07221500 CANADIAN RIVER NEAR SANCHEZ, NM

LOCATION.--Lat 35°39'08", long 104°22'39", in SW¼ sec.34, T.17 N., R.24 E., San Miguel County, Hydrologic Unit 11080003, on right bank 1,000 ft downstream from bridge on State Highway 419, 0.9 mi upstream from Lagartija Creek, 3.2 mi northeast of Sanchez, 10 mi downstream from Mora River, 25 mi southwest of Mosquero, and at mile 777.0.

DRAINAGE AREA.--6,015 mi^2, of which 303 mi^2 is probably noncontributing.

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

REVISED RECORDS.--WSP 1177: Drainage area. WSP 1281: 1939, 1940(P), 1942, 1946. WSP 1731: 1956-57(M). WDR NM-82-1: 1965(M), 1979(M). The revised figures of discharge for September 1942, as published in WSP 1281, supersede those published in WSP 1311.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,500 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 2121 for history of changes prior to November 1966.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 56,000 acres upstream from station. No flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29, or 30, 1904, probably exceeded 100,000 ft^3/s, but is believed to have been less than the peak of June 18, 1965.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	76	87	e86	e72	73	358	223	41	3.5	445	149
2	99	72	e87	e87	e73	73	326	218	34	3.4	236	134
3	105	67	e86	e88	e73	69	295	207	28	4.6	269	139
4	128	65	e85	e90	e73	71	273	187	26	4.3	304	198
5	98	70	e83	e85	e74	72	244	182	26	3.7	500	144
6	83	68	e80	e83	e74	72	215	187	26	3.0	345	113
7	83	69	81	e81	e74	78	184	188	22	3.9	242	88
8	122	75	80	e79	e74	78	178	187	21	85	223	75
9	105	77	e77	e76	e74	78	185	172	17	49	191	69
10	100	83	e74	e78	e74	73	176	165	15	e32	164	60
11	110	89	e71	e81	e74	65	167	150	14	e26	147	59
12	102	91	69	e85	73	75	152	141	14	e21	155	52
13	100	98	69	e90	72	73	136	136	12	e16	176	50
14	95	106	67	e90	72	68	125	129	11	e55	170	48
15	117	108	e68	96	77	85	159	121	9.7	e66	174	41
16	109	101	e71	91	82	499	158	97	8.4	52	149	35
17	95	97	e72	89	86	377	137	94	7.4	44	126	38
18	82	91	e72	88	86	309	142	87	6.0	42	116	33
19	82	90	e74	e84	87	304	142	80	4.8	49	118	29
20	82	94	e75	e82	88	297	136	78	4.5	50	104	30
21	69	103	e73	e80	91	237	129	75	5.5	41	109	29
22	68	110	e72	e78	93	211	128	72	7.5	32	106	26
23	64	110	e70	e77	90	200	148	69	7.0	26	165	23
24	67	107	e68	e75	86	224	154	64	6.1	19	210	24
25	69	103	e66	73	81	252	138	60	5.3	16	181	21
26	65	97	64	e72	81	223	129	56	4.6	17	206	116
27	72	94	e65	e70	81	329	122	54	3.7	160	227	89
28	84	93	e68	73	78	383	118	50	2.6	303	235	59
29	91	89	71	e72	---	403	145	48	2.9	130	180	43
30	83	87	e78	e72	---	383	209	44	3.4	150	225	36
31	77	---	85	e72	---	357	---	43	---	950	181	---
TOTAL	2815	2680	2308	2523	2213	6091	5308	3664	396.4	2457.4	6379	2050
MEAN	90.8	89.3	74.5	81.4	79.0	196	177	118	13.2	79.3	206	68.3
MAX	128	110	87	96	93	499	358	223	41	950	500	198
MIN	64	65	64	70	72	65	118	43	2.6	3.0	104	21
AC-FT	5580	5320	4580	5000	4390	12080	10530	7270	786	4870	12650	4070

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1998, BY WATER YEAR (WY)

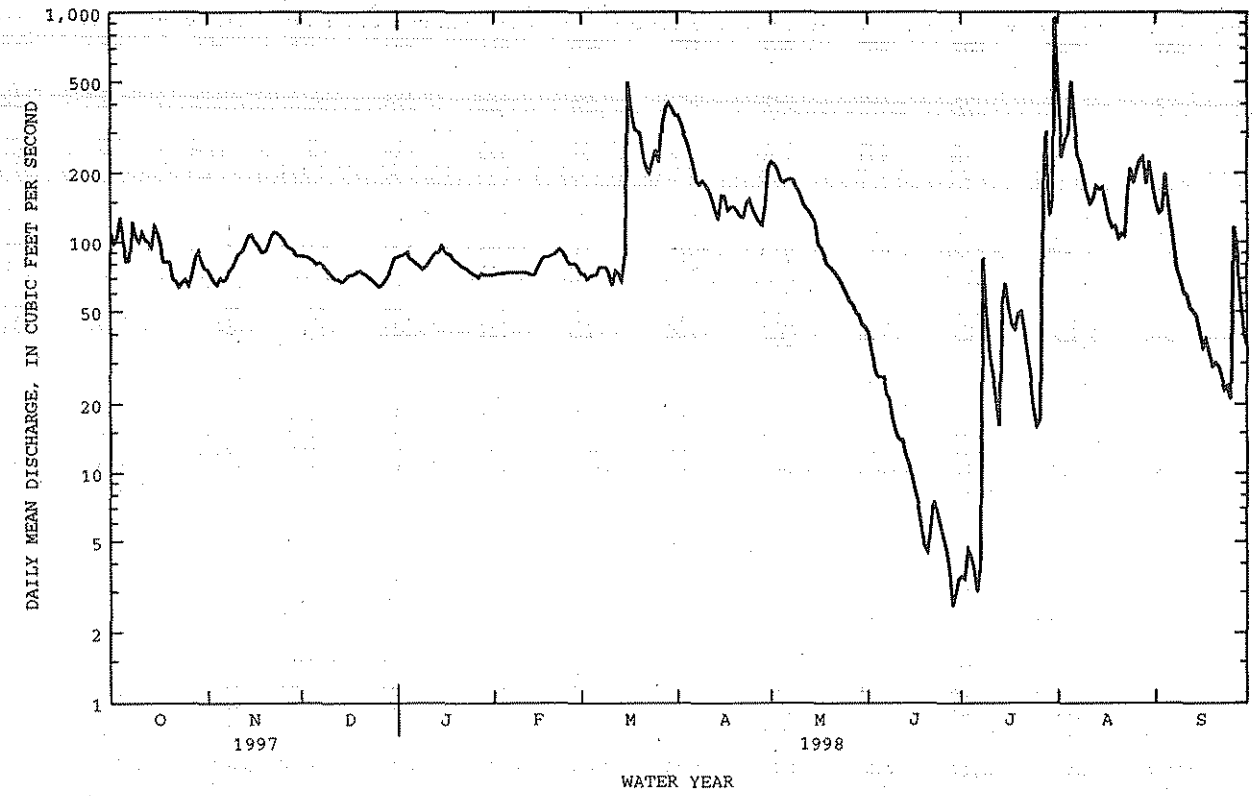
MEAN	109	59.5	51.3	53.6	63.9	62.3	214	399	396	234	318	245
MAX	870	506	252	183	363	737	5573	4721	4260	1129	1173	4079
(WY)	1942	1942	1942	1943	1961	1987	1942	1941	1965	1914	1946	1942
MIN	.000	1.43	1.97	1.42	1.46	.74	.000	.000	.000	.000	8.39	.97
(WY)	1957	1957	1957	1957	1957	1957	1936	1967	1974	1964	1980	1956

07221500 CANADIAN RIVER NEAR SANCHEZ, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1913 - 1998	
ANNUAL TOTAL	75219		38884.8			
ANNUAL MEAN	206		107		186	
HIGHEST ANNUAL MEAN					1191	1942
LOWEST ANNUAL MEAN					19.7	1954
HIGHEST DAILY MEAN	2480	Jun 8	950	Jul 31	50000	Jun 13 1913
LOWEST DAILY MEAN	11	Jul 25	2.6	Jun 28	.00	Apr 1 1936
ANNUAL SEVEN-DAY MINIMUM	17	Jul 19	3.4	Jun 26	.00	Apr 1 1936
INSTANTANEOUS PEAK FLOW			2370	Jul 31	[a]145000	Jun 18 1965
INSTANTANEOUS PEAK STAGE			7.11	Jul 31	[b]36.60	Jun 18 1965
INSTANTANEOUS LOW FLOW			2.2	Jun 28	1.7	May 24 1996
ANNUAL RUNOFF (AC-FT)	149200		77130		134600	
10 PERCENT EXCEEDS	553		210		348	
50 PERCENT EXCEEDS	87		82		45	
90 PERCENT EXCEEDS	42		22		4.5	

e Estimated

[a] From rating curve extended above 91,000 ft3/s on basis of slope-area measurement of peak flow.
[b] From floodmarks, present site and datum.



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^2, of which 433 mi^2, is probably noncontributing.

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

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

REMARKS.--Lake is formed by dam consisting of concrete main section and earthfill wings, completed Sept. 15, 1939; storage began Dec. 29, 1938. Capacity, 315,700 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, 310,960 acre-ft, Apr. 12, 13, elevation, 4,200.50 ft; minimum, 234,560 acre-ft, Sept. 30, elevation, 4,191.52 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292780	282770	285330	290070	294050	297150	308310	305590	289350	262540	248650	249920
2	292600	282680	285690	290250	294140	297150	308680	305400	288810	261630	248970	249850
3	291870	282680	285860	290340	294230	297240	309060	305300	288000	260800	249050	249770
4	291510	282680	286040	290520	294410	297340	309440	304840	287110	259980	249850	249690
5	291150	282680	286130	290700	294600	297340	309630	304460	286220	259400	250640	249530
6	290790	282680	286220	290880	294690	297430	310010	303990	285330	258670	251120	249290
7	290520	282770	286400	291060	294770	297610	310200	303620	284440	257930	251440	248890
8	290070	282770	286490	291330	294770	297790	310390	302780	283470	257280	251440	248410
9	289620	282860	286490	291510	295050	297980	310480	302130	282500	256620	251440	248170
10	289350	282940	286490	291600	295050	297980	310670	302230	281620	255970	251280	247230
11	288990	283030	286490	291780	295140	297890	310770	301670	280660	255400	251050	246510
12	288720	283120	286580	291780	295230	298070	310960	300930	279610	254990	250960	245960
13	288450	283210	286580	291870	295230	298530	310960	300470	278660	254590	250800	245260
14	288180	283730	286660	291960	295420	299180	310670	299820	277700	254020	250560	244790
15	287910	283830	286660	292050	295600	299540	310480	299360	276920	253460	250480	244000
16	287740	284000	286750	292150	295780	300650	310290	298810	275970	252890	250160	243380
17	287470	283830	286930	292330	295960	301490	310010	298160	275190	251930	249850	242680
18	287110	283910	287020	292500	296150	302230	309440	297430	274080	250800	249450	241980
19	286660	284000	287200	292600	296330	302690	309250	297240	273050	250080	250800	241280
20	286310	284180	287380	292680	296510	303250	308870	296510	272200	249370	251600	240430
21	286130	284270	287650	292870	296600	303620	308590	295960	271520	248650	251280	239590
22	285770	284440	288450	292960	296700	304180	308400	295320	270590	247700	250880	238890
23	285420	284530	288900	293140	296790	304370	308120	294690	269910	246910	250720	238360
24	284800	284530	289170	293230	296970	304740	307560	294050	268900	246200	250000	237750
25	284360	284530	289350	293320	296970	305110	307180	293410	267970	245410	249770	236910
26	283910	284620	289350	293320	296970	305490	306990	293050	266960	244790	249850	236230
27	283650	284710	289440	293590	296970	305860	306620	292600	266120	244320	249920	235690
28	283210	284800	289530	293690	297060	306430	306150	292150	265120	244630	250000	235240
29	282940	284890	289620	293770	---	306620	305960	291240	264120	244390	250080	234640
30	282770	284980	289710	293960	---	307370	305680	290970	263200	245330	250080	234560
31	282770	---	289890	294050	---	307840	---	290160	---	247380	250000	---
MAX	292780	284980	289890	294050	297060	307840	310960	305590	289350	262540	251600	249920
MIN	282770	282680	285330	290070	294050	297150	305680	290160	263200	244320	248650	234560
(+)	4197.42	4197.67	4198.22	4198.68	4199.01	4200.17	4199.94	4198.25	4195.13	4193.18	4193.51	4191.52
(++)	-10280	+2210	+4910	+4160	+3010	+10780	-2160	-15520	-26960	-15820	+2620	-15440

CAL YR 1997 MAX 324010 MIN 279090 (++) +10980
WTR YR 1998 MAX 310960 MIN 234560 (++) -58500

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

07226500 UTE CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°26'18", long 103°31'31", in NW¼SE¼ sec.15, T.14 N., R.32 E., Harding County, Hydrologic Unit 11090007, on right bank 1.9 mi downstream from Alamosa Creek, 4.5 mi upstream from State Road 155, 4.7 mi upstream from high-water line of Ute Reservoir, 8.2 mi northwest of Logan, and at mile 10.0.

DRAINAGE AREA.--2,060 mi^2, of which 617 mi^2 is probably noncontributing.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
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	60	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	107	.00
3	.00	.00	.00	14	.00	.00	.00	.00	.00	.00	14	.00
4	.00	.00	.00	17	.00	.00	.00	.00	.00	.00	136	.00
5	.00	.00	.00	12	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	8.9	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	6.5	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	4.7	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	2.1	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	2.5	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	1.7	.00	.00	.00	.00	.00	.00	673	.00
12	.00	.00	.00	1.2	.00	.00	.00	.00	.00	.00	80	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	6.7	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	26	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	17	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	1.2	11	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	3.2	5.4	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	2.8	2.4	.00	.00	.00	.00	66	.00
21	.00	.00	.00	.00	2.6	2.4	.00	.00	.00	.00	4.0	.00
22	.00	.00	.00	.00	1.2	2.1	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.59	1.1	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.20	.52	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00	223	.00
26	.00	.00	.00	.00	.00	.03	.00	18	.00	.00	31	.00
27	.00	.00	.00	.00	.00	.00	.00	1.4	.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	282	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	122	.00	---
TOTAL	0.00	0.00	0.00	70.60	11.79	74.80	0.00	19.40	0.00	404.00	1394.00	0.00
MEAN	.000	.000	.000	2.28	.42	2.41	.000	.63	.000	13.0	45.0	.000
MAX	.00	.00	.00	17	3.2	26	.00	18	.00	282	673	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	140	23	148	.00	38	.00	801	2760	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1998, BY WATER YEAR (WY)

MEAN	10.0	3.31	1.83	2.57	2.10	1.81	10.6	36.9	28.1	52.3	71.3	29.3
MAX	139	92.5	39.9	39.7	26.3	23.7	459	351	191	317	520	261
(WY)	1955	1979	1943	1942	1942	1948	1942	1955	1965	1950	1981	1969
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.027	.000
(WY)	1945	1946	1946	1946	1946	1946	1943	1945	1953	1946	1983	1948

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1942 - 1998	
ANNUAL TOTAL	1677.26		1974.59			
ANNUAL MEAN	4.60		5.41		20.0	
HIGHEST ANNUAL MEAN					57.2	1958
LOWEST ANNUAL MEAN					.084	1974
HIGHEST DAILY MEAN	261	Aug 13	673	Aug 11	7420	May 28 1946
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jul 17 1942
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Mar 18 1943
INSTANTANEOUS PEAK FLOW			6970	Aug 11	[a]24500	May 28 1946
INSTANTANEOUS PEAK STAGE			6.62	Aug 11	[b]9.94	Aug 11 1981
ANNUAL RUNOFF (AC-FT)	3330		3920		14470	
10 PERCENT EXCEEDS	4.9		1.2		18	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

[a] From rating curve extended above 7,700 ft^3/s on basis of slope-area measurements at gage heights 5.2 ft and 7.2 ft.
[b] Site and datum then in use.

07226800 UTE RESERVOIR NEAR LOGAN, NM

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

DRAINAGE AREA.--11,110 mi^2, of which 1,110 mi^2 is probably noncontributing.

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

REVISED RECORDS.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Interstate Stream Commission). Prior to Feb. 25, 1974, nonrecording gage at same site and datum.

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 185,700 acre-ft, Oct. 29, 1997, elevation, 3,778.76 ft; minimum, 171,600 acre-ft, July 26-27, elevation, 3,776.41 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181200	178800	178500	180100	180700	181000	183400	182200	179600	174900	175500	178500
2	181100	178800	178800	180200	180300	181000	183500	181900	179400	174800	175900	178500
3	181100	178800	178800	180400	180300	181100	183300	182200	179100	174600	175900	178300
4	181000	178800	178800	180400	180300	180800	183300	182200	178900	174600	176300	178300
5	181200	178700	178700	180600	180400	180800	183100	182000	178700	174400	176200	178100
6	181200	178700	178800	180700	180300	181000	183100	182000	178600	174400	176200	178000
7	181500	178700	178900	180600	181000	181100	183100	181900	178700	174400	176200	177800
8	182100	178500	180000	180700	181000	181100	183100	181800	178500	174200	176100	177600
9	182100	178300	180000	180700	180400	181100	183000	181700	178400	174200	176000	177500
10	181800	178300	180000	181200	180400	181000	183000	181800	178300	174100	175900	177400
11	182100	178200	180000	181200	180300	180500	183100	181600	178200	174000	176300	177200
12	182900	178300	180000	181100	180100	180600	182900	181500	178100	173700	177400	177100
13	181000	178400	180000	180800	180200	180700	182700	181400	177900	173800	177400	177100
14	181200	178200	180000	180800	180200	180600	182500	181200	177300	173500	177300	176900
15	181300	178300	180000	181000	179900	181200	182300	181000	177500	173400	177300	176800
16	181100	178300	178500	180800	180100	182000	182400	181000	177500	173400	177300	176700
17	181300	178300	178600	180800	180000	182700	182500	180900	177300	173200	177200	176600
18	181800	178200	178700	180800	180400	182900	182500	180900	177100	173100	177000	176600
19	182000	178300	178600	181200	180400	183100	182400	180800	176900	172800	176900	176500
20	182300	178100	178900	181200	180400	183200	182300	180800	176900	172600	176900	176300
21	185600	178200	179000	181200	180300	183200	182300	180700	176700	172400	177400	176000
22	185200	178100	179200	181200	180500	183300	182300	180700	176400	172300	177600	175800
23	184400	178000	179700	181200	180300	183300	182500	180500	176400	172100	177500	175800
24	183600	178000	179700	181200	181600	183300	182600	180500	176200	171900	177400	175800
25	183300	178100	179900	181200	181400	183500	182200	180200	175900	171700	178000	175500
26	183000	177900	179900	180200	181300	183400	182300	180200	175700	171600	178600	175400
27	182500	178700	180100	180800	181200	183100	182000	180200	175600	171600	178700	175300
28	185200	178700	180100	180700	181200	183500	182200	180100	175500	172600	178800	175200
29	185700	178700	180100	180700	---	183800	182200	180100	175300	171800	178800	175100
30	178800	178600	179900	180900	---	183700	182200	179900	175000	173900	178700	175300
31	179000	---	180100	180700	---	183500	---	179600	---	175000	178700	---
MAX	185700	178800	180100	181200	181600	183800	183500	182200	179600	175000	178800	178500
MIN	178800	177900	178500	180100	179900	180500	182000	179600	175000	171600	175500	175100
(+)	3777.64	3777.58	3777.83	3777.92	3778.01	3778.39	3778.17	3777.74	3776.97	3776.97	3777.59	3777.03
(++)	-2240	-400	+1500	+600	+500	+2300	-1300	-2600	-4600	0	+3700	-3400

CAL YR 1997 MAX 215000 MIN 176700 (++) +2650
WTR YR 1998 MAX 185700 MIN 171600 (++) -5940

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

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^2, of which 1,110 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	e2.8	3.0	3.4	3.3	3.6	2.8	2.4	e2.6	2.6	2.9	3.1
2	5.5	e2.8	2.8	3.4	3.2	3.6	5.6	2.7	e2.6	2.5	2.9	3.1
3	4.5	e2.8	2.6	3.6	3.3	3.7	3.7	3.3	e2.6	2.5	3.2	3.0
4	3.9	e2.6	2.6	3.6	3.3	3.7	3.4	2.3	e2.6	4.0	4.9	3.0
5	3.8	e2.6	2.7	3.7	3.3	3.7	3.4	e2.5	e2.4	2.7	3.6	2.8
6	3.7	2.7	2.6	3.6	3.3	3.6	3.2	e2.5	e2.4	2.2	2.9	2.8
7	e3.7	2.7	2.7	3.6	3.3	3.7	3.1	e2.5	e2.4	2.4	2.9	2.9
8	e3.7	2.7	2.8	3.5	3.2	3.5	3.3	e2.4	e2.4	2.8	3.0	2.9
9	e3.5	2.8	2.7	3.5	3.2	3.4	3.2	e2.4	e2.5	2.1	3.0	2.9
10	e3.5	2.8	2.9	3.5	3.2	3.4	2.8	e2.4	e2.5	2.0	3.2	2.9
11	e3.5	2.9	2.9	3.5	3.3	3.5	3.3	e2.5	e2.6	2.1	4.9	2.9
12	e3.3	2.9	3.0	3.5	3.4	3.5	3.0	e2.5	e2.6	2.3	4.5	3.0
13	e3.3	2.9	3.0	3.5	3.2	3.4	2.9	e2.5	e2.7	2.3	3.3	3.0
14	e3.3	2.9	3.1	3.4	3.2	3.4	2.5	e2.5	e2.8	2.3	3.2	2.9
15	e3.1	2.8	3.1	3.4	3.2	3.9	2.8	e2.4	e2.9	2.5	3.3	2.9
16	e3.1	2.7	3.1	3.5	3.3	3.8	2.8	e2.4	e3.1	3.2	3.2	2.9
17	e3.1	2.7	3.1	3.4	3.3	4.0	2.7	e2.4	2.5	2.4	3.3	2.9
18	e3.0	2.6	3.1	3.5	3.9	2.5	2.7	e2.3	2.7	2.4	3.3	2.9
19	e3.0	2.7	3.1	3.4	3.8	2.3	3.6	e2.3	3.2	2.9	3.3	2.9
20	e3.0	2.6	3.4	3.4	3.2	3.5	2.5	e2.3	3.2	2.3	3.4	2.9
21	e2.9	2.6	3.6	3.5	3.1	3.3	2.6	e2.5	3.4	2.4	3.3	2.8
22	e2.9	2.6	3.5	3.5	3.0	3.3	2.7	e2.5	3.2	2.5	3.1	2.9
23	e2.9	2.6	3.8	3.5	3.0	3.3	2.6	e2.5	2.9	2.5	3.1	2.9
24	e3.0	2.6	3.5	3.5	3.3	3.3	2.6	e2.6	3.0	2.5	3.1	2.8
25	e3.0	2.5	3.5	3.4	3.7	3.3	2.5	e2.6	2.9	3.7	3.2	2.8
26	e3.0	2.6	3.6	3.3	3.9	3.3	2.8	e2.4	2.8	2.9	3.8	2.8
27	e2.9	2.5	3.5	3.2	3.8	3.1	2.7	e2.4	2.9	2.5	3.2	2.8
28	e2.9	2.5	3.5	3.3	3.8	5.5	2.7	e2.5	3.0	2.4	3.3	2.9
29	e2.9	2.5	3.5	3.3	---	3.0	3.3	e2.5	2.7	2.5	3.1	2.9
30	e2.8	2.6	3.4	3.3	---	2.7	2.5	e2.3	2.5	3.3	3.0	3.4
31	e2.8	---	3.5	3.3	---	2.7	---	e2.3	---	4.1	3.0	---
TOTAL	108.6	80.6	97.2	107.0	94.0	106.5	90.3	76.6	82.6	81.8	103.4	87.6
MEAN	3.50	2.69	3.14	3.45	3.36	3.44	3.01	2.47	2.75	2.64	3.34	2.92
MAX	9.1	2.9	3.8	3.7	3.9	5.5	5.6	3.3	3.4	4.1	4.9	3.4
MIN	2.8	2.5	2.6	3.2	3.0	2.3	2.5	2.3	2.4	2.0	2.9	2.8
AC-FT	215	160	193	212	186	211	179	152	164	162	205	174

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1998, BY WATER YEAR (WY)

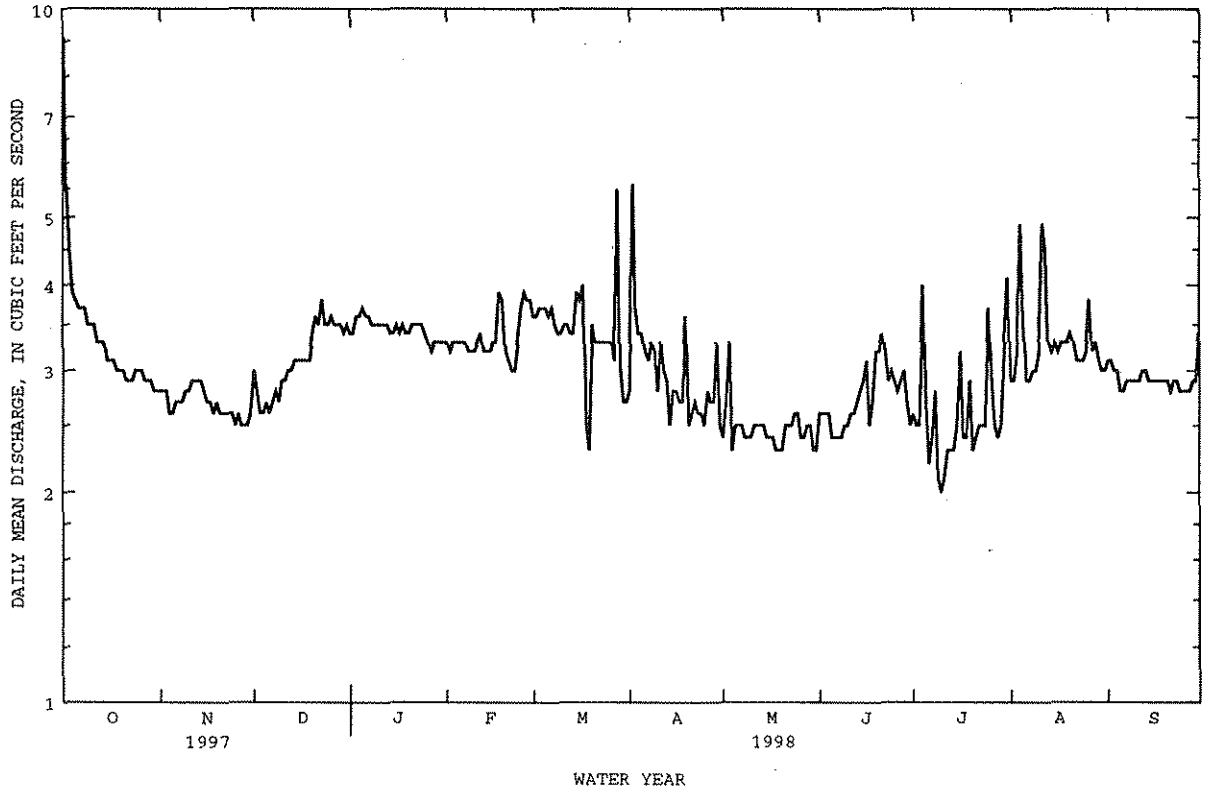
MEAN	29.7	25.1	6.73	7.35	9.13	3.18	16.3	33.9	60.1	87.0	97.5	106
MAX	325	287	84.1	62.7	174	11.4	239	767	575	608	720	838
(WY)	1966	1983	1983	1992	1980	1983	1987	1987	1969	1982	1981	1969
MIN	1.30	1.19	1.24	.86	1.13	.63	.26	.64	.62	.65	1.19	1.36
(WY)	1964	1984	1984	1963	1987	1963	1963	1963	1963	1963	1963	1983

07227000 CANADIAN RIVER AT LOGAN, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1963 - 1998	
ANNUAL TOTAL	26394.8		1116.2			
ANNUAL MEAN	72.3		3.06		[a]40.3	
HIGHEST ANNUAL MEAN					145	1969
LOWEST ANNUAL MEAN					1.62	1964
HIGHEST DAILY MEAN	280	Aug 18	9.1	Oct 1	6860	Jun 18 1969
LOWEST DAILY MEAN	2.5	Nov 25	2.0	Jul 10	.10	Jan 12 1963
ANNUAL SEVEN-DAY MINIMUM	2.5	Nov 23	2.2	Jul 9	.10	Apr 16 1963
INSTANTANEOUS PEAK FLOW					[b]219000	Sep 22 1941
INSTANTANEOUS PEAK STAGE					[c]29.30	Sep 22 1941
ANNUAL RUNOFF (AC-FT)	52350		2210		29200	
10 PERCENT EXCEEDS	255		3.6		67	
50 PERCENT EXCEEDS	3.6		3.0		2.7	
90 PERCENT EXCEEDS	2.8		2.5		1.7	

e Estimated

[a] Average discharge for 15 years (water years 1909, 1912-13, 1927-38), 392 ft^3/s, 284,000 acre-ft/yr, prior to completion of Conchas dam. 24 years (water years 1939-62), 257 ft^3/s, 186,200 acre-ft/yr, prior to completion of Ute Dam.
[b] From rating curve extended above 75,000.
[c] From floodmarks.



07227000 CANADIAN RIVER AT LOGAN, NM--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
DEC												
11...	1250	2.9	8510	8.0	3.5	3.5	675	11.9	105	580	130	65
MAR												
17...	1130	3.9	7950	--	11.5	12.0	662	9.7	107	520	110	60
JUN												
22...	1145	3.1	7510	8.0	34.0	26.0	670	7.4	107	500	100	58
AUG												
18...	1115	3.3	8180	8.0	31.5	26.5	672	7.2	105	500	110	57

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
DEC											
11...	1500	27	8.4	330	490	2400	1.1	11	4790	382	<100
MAR											
17...	1400	27	7.0	303	480	2300	.9	10	4530	308	<50
JUN											
22...	1300	24	1.0	324	480	2000	1.1	12	4130	324	<50
AUG											
18...	1400	26	8.5	325	500	2300	1.1	12	4530	350	<50

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^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with satellite telemeter. 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 fair except for estimated daily discharges, which are poor. Low flows supplemented by surface and ground-water return from irrigation in vicinity of Tucumcari. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD (1941-47).--Maximum discharge determined, about 13,400 ft^3/s, Sept. 18, 1946, gage height, 9.04 ft, at site 180 ft downstream at different datum, from unpublished records collected by Bureau of Reclamation. A peak of 26,100 ft^3/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 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	17	e.18	e38	e2.4	e.80	.00	67	.00	e2.2	601	e17
2	12	5.0	14	e21	e2.8	e.86	.00	24	e.00	e2.7	230	e11
3	4.0	12	e82	e39	e3.2	e.92	.00	31	e.00	e2.7	116	e10
4	29	9.8	e13	e24	e3.5	e.85	e.20	28	e.00	e3.0	508	e9.0
5	33	32	e11	e21	e3.9	e.49	e.20	24	.00	325	443	e8.9
6	29	6.0	e9.5	e17	e4.1	e.40	e.20	16	.00	47	e60	e7.8
7	28	16	e7.2	e12	e4.3	e.36	e.19	12	.00	20	e10	e13
8	111	.30	e5.1	e19	e4.1	e.42	e.26	4.1	3.2	6.6	e9.5	e14
9	63	e.32	e4.7	e24	e3.3	e38	.49	18	24	112	e7.2	e9.0
10	39	e.33	e3.6	e20	e2.1	24	e.35	32	.00	12	e6.7	e7.0
11	39	e.24	e2.1	e19	e1.7	6.4	e.29	39	2.1	e3.2	85	e6.5
12	375	43	e1.9	e22	.74	9.4	.00	17	.11	e3.1	673	e7.2
13	77	16	e2.1	9.1	e.00	3.0	.00	20	.54	e3.0	458	e8.3
14	61	.10	e2.3	2.1	e.00	4.4	.00	27	.38	e2.9	e187	e8.3
15	51	e.50	e2.5	3.2	e.00	96	.00	17	e.29	e2.9	e108	e7.9
16	21	.74	e3.1	2.2	e.00	444	.00	18	4.5	e3.0	e40	e8.1
17	36	e.40	e4.7	e2.1	.00	429	e.22	.64	e2.0	e3.1	e13	e8.1
18	21	e.33	e5.6	e1.9	e1.5	204	e.40	8.3	e2.7	e5.0	e12	e8.3
19	8.9	e.28	e5.0	.98	e1.8	91	43	2.7	e1.9	e3.0	e13	e9.2
20	13	e.25	e4.9	e1.0	e2.1	46	181	.21	e2.1	e2.9	e10	e9.1
21	24	e.25	e4.6	e1.7	e1.8	10	162	.03	e1.9	e3.1	e14	e9.3
22	23	e.20	e8.8	2.7	e.76	.40	114	.00	e2.0	e3.0	e13	e10
23	28	e.20	e32	e2.1	e.76	.00	92	.00	e2.1	e2.9	e15	e9.7
24	38	e.20	e27	e1.7	e.48	.00	46	.00	e2.2	e2.7	e12	e9.7
25	54	e.20	e21	1.4	e.29	.00	21	.00	e1.9	e2.9	e13	e8.7
26	52	e.25	e18	e1.6	e.54	.00	36	.00	e1.8	e3.7	1920	e7.2
27	45	e.20	e16	e1.5	e.57	.00	389	.00	e1.5	e4.2	788	e8.3
28	e38	e.18	e17	e1.6	e.80	.00	223	.00	e1.5	e5.2	607	e7.9
29	e25	e.19	e15	e1.9	---	.00	139	.00	e1.6	e7.1	259	e7.6
30	e13	e.19	e13	2.2	---	.00	90	.00	e2.0	55	129	180
31	9.4	---	e11	e2.1	---	.00	---	.00	---	908	64	---
TOTAL	1411.3	162.65	367.88	319.08	47.54	1410.70	1538.80	405.98	62.32	1563.1	7424.4	446.1
MEAN	45.5	5.42	11.9	10.3	1.70	45.5	51.3	13.1	2.08	50.4	239	14.9
MAX	375	43	82	39	4.3	444	389	67	24	908	1920	180
MIN	4.0	.10	.18	.98	.00	.00	.00	.00	.00	2.2	6.7	6.5
AC-FT	2800	323	730	633	94	2800	3050	805	124	3100	14730	885

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1998, BY WATER YEAR (WY)

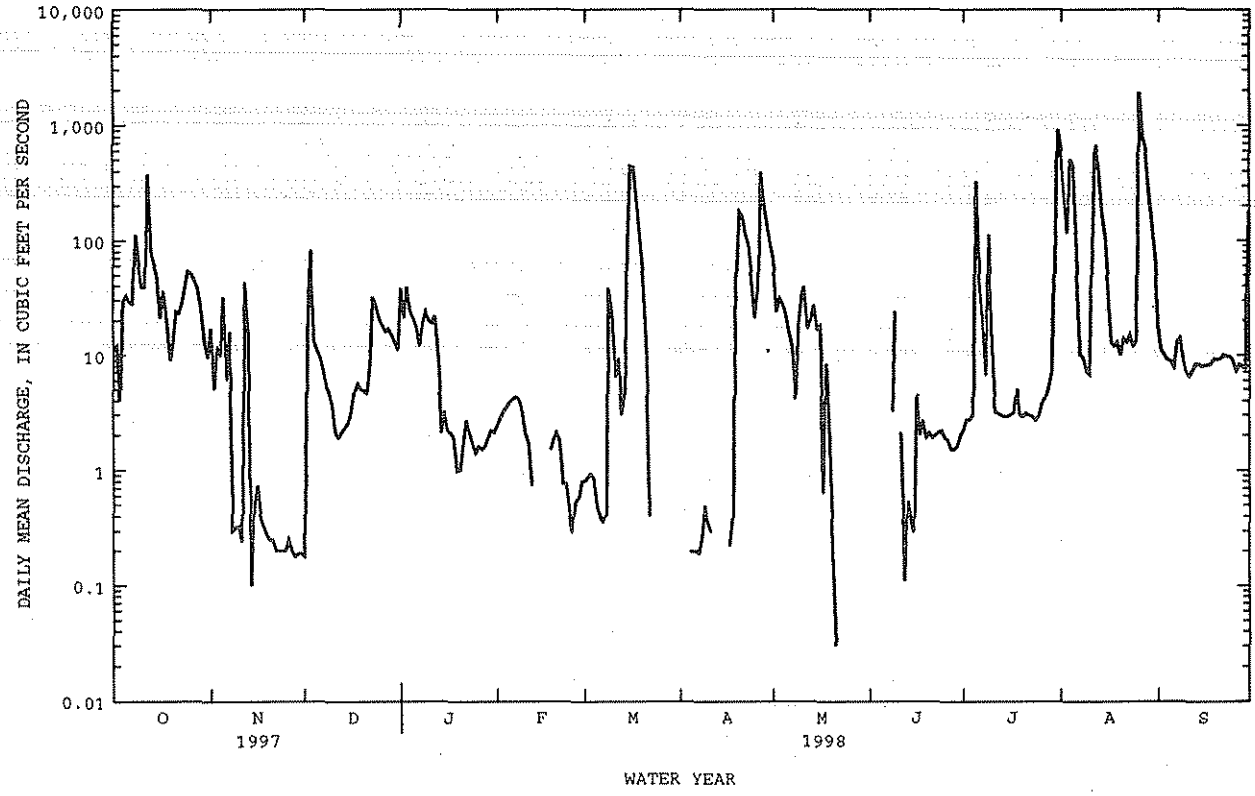
MEAN	34.7	8.97	10.2	5.67	7.26	7.47	28.0	45.0	79.2	120	128	72.0
MAX	320	34.1	129	27.9	42.5	52.1	346	203	492	1203	575	515
(WY)	1961	1962	1960	1990	1983	1985	1970	1991	1960	1960	1981	1969
MIN	.000	.056	.001	.000	.000	.003	.32	.085	.89	.42	.93	1.72
(WY)	1965	1978	1976	1965	1965	1980	1981	1976	1990	1983	1978	1978

07227100 REVUELTO CREEK NEAR LOGAN, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1959 - 1998	
ANNUAL TOTAL	28422.42		15159.85			
ANNUAL MEAN	77.9		41.5		45.4	
HIGHEST ANNUAL MEAN					204	1960
LOWEST ANNUAL MEAN					4.72	1964
HIGHEST DAILY MEAN	1080	Apr 26	1920	Aug 26	13800	Jul 9 1960
LOWEST DAILY MEAN	.10	Nov 14	.00	Feb 13	.00	Oct 20 1959
ANNUAL SEVEN-DAY MINIMUM	.20	Nov 25	.00	Mar 23	.00	Oct 20 1959
INSTANTANEOUS PEAK FLOW			5380	Aug 26	[a]26700	Jul 9 1960
INSTANTANEOUS PEAK STAGE			6.91	Aug 26	14.30	Jul 9 1960
INSTANTANEOUS LOW FLOW			.00	Feb 13	.00	Oct 20 1959
ANNUAL RUNOFF (AC-FT)	56380		30070		32860	
10 PERCENT EXCEEDS	272		71		63	
50 PERCENT EXCEEDS	14		5.0		5.2	
90 PERCENT EXCEEDS	1.7		.00		.00	

e Estimated

[a] From slope-area measurement of peak flow.



WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
DEC												
11...	1400	E2.1	2250	8.3	3.5	4.5	675	11.7	103	350	69	44
MAR												
17...	1345	336	760	7.8	15.5	10.5	660	9.6	100	53	12	5.4
JUN												
22...	1400	E2.0	1430	8.4	36.5	35.0	670	6.2	103	340	64	44
AUG												
18...	1245	E12	1210	8.5	30.5	30.0	683	7.0	104	260	54	30

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
DEC											
11...	320	7	3.4	271	470	280	.7	9.4	1370	282	<30
MAR											
17...	130	8	1.9	--	180	27	.4	8.7	--	141	86
JUN											
22...	170	4	6.5	208	430	34	.6	6.7	876	222	<10
AUG											
18...	140	4	5.1	219	350	53	.5	11	774	217	<10

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 1997 TO SEPTEMBER 1998

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
DEC												
12...	0905	20	8320	--	7.0	2.0	680	11.6	97	670	150	73
MAR												
18...	0900	221	1370	8.3	9.0	9.0	665	--	--	100	23	11
JUN												
23...	0930	5.4	6450	8.4	27.5	21.0	672	7.8	102	460	81	63
AUG												
19...	0900	12	5430	8.3	24.0	23.0	675	7.2	97	390	80	46

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
DEC											
12...	1500	26	8.3	318	510	2500	.6	14	4940	398	<100
MAR											
18...	240	10	2.5	207	220	200	.4	5.7	824	160	<10
JUN											
23...	1100	22	9.1	217	520	1600	.7	9.1	3560	331	<40
AUG											
19...	910	20	7.4	222	410	1400	.6	12	3000	313	<50

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^2, approximately.

PERIOD OF RECORD.--Streamflow records, October 1961 to current year. Water-quality data available, July 1969 to August 1973. Sediment data available, August 1973. Statistical summary computed for 1971 to current year.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 6,090 ft above sea level, from river-profile map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 11,000 acres upstream from station. Highwater diversions upstream from station into Rio Grande basin through Azotea tunnel (station 08284160) began in March 1971. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911; June 29, 1927.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	401	392	336	e220	e190	e155	729	1360	2040	659	380	225
2	369	371	e320	e230	e180	163	810	1410	2150	629	469	282
3	369	348	e315	e245	e190	167	662	1580	2190	576	364	265
4	387	344	e290	e265	e200	226	861	1830	1910	574	341	230
5	330	334	e250	e250	e190	291	813	1870	1500	550	554	193
6	306	326	e250	e230	e190	337	818	1680	1230	503	531	176
7	293	319	e265	e185	e190	289	720	1480	1140	494	391	164
8	781	310	e290	e190	e190	230	686	1400	1100	520	324	160
9	531	313	e310	e200	e190	213	608	1270	1100	593	292	155
10	463	329	e280	e210	e180	218	577	1340	1060	697	273	152
11	971	342	e260	e230	e175	239	664	1550	959	773	283	147
12	1100	403	e230	e240	e175	307	914	1590	894	571	287	148
13	844	411	e200	e220	e175	396	900	1630	994	498	271	148
14	778	390	e240	e210	e180	477	808	1790	1010	433	267	142
15	721	352	e260	e195	e190	526	702	1550	995	382	260	133
16	650	295	e260	e180	e185	599	639	1420	1010	339	352	128
17	610	283	e250	e215	e180	732	605	1390	1020	324	218	130
18	589	295	e250	e200	e180	829	618	1590	914	301	199	127
19	551	299	e260	e190	e180	547	548	1850	877	282	192	118
20	517	323	e250	e190	e175	550	576	2100	942	262	190	113
21	496	318	e240	e200	e185	568	632	2230	960	256	265	110
22	468	300	e240	e170	e185	697	758	2470	1000	250	284	107
23	444	286	e255	e180	185	925	990	2100	976	237	237	108
24	471	292	e260	e180	e185	1360	1240	1950	924	243	194	108
25	452	294	e245	e190	e180	1590	1430	1830	836	270	186	105
26	409	314	e230	e190	e175	1520	1290	1850	788	355	240	100
27	418	366	e180	e180	e165	1400	1070	1920	766	456	243	98
28	424	355	e180	e190	e150	1190	1050	2090	767	453	204	98
29	410	335	e195	e190	---	1080	1010	2290	764	496	182	99
30	392	317	e190	e190	---	797	1140	2360	724	437	174	117
31	397	---	e210	e200	---	758	---	2080	---	348	174	---
TOTAL	16342	9956	7791	6355	5095	19376	24868	54850	33540	13761	8821	4386
MEAN	527	332	251	205	182	625	829	1769	1118	444	285	146
MAX	1100	411	336	265	200	1590	1430	2470	2190	773	554	282
MIN	293	283	180	170	150	155	548	1270	724	237	174	98
AC-FT	32410	19750	15450	12610	10110	38430	49330	108800	66530	27290	17500	8700

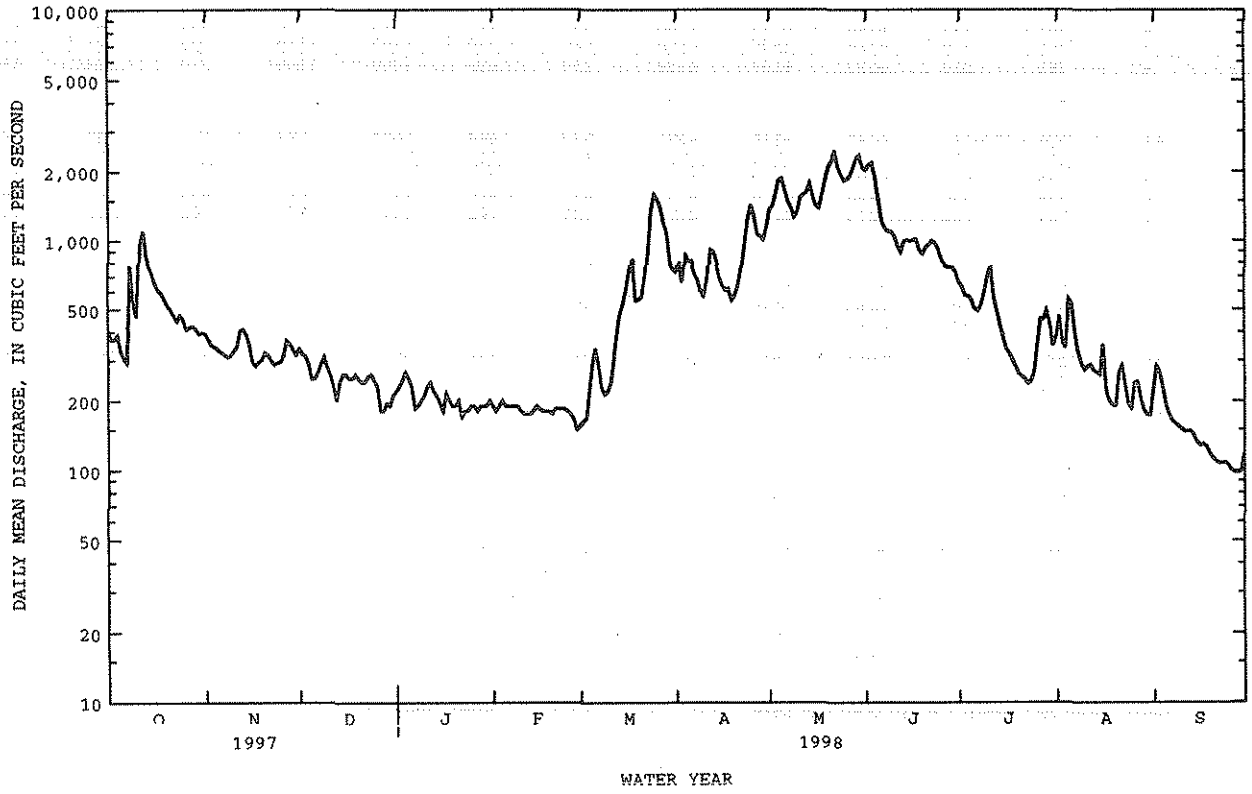
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1998, BY WATER YEAR (WY)

MEAN	317	248	178	161	201	626	1097	1772	1857	676	331	294
MAX	932	983	406	296	481	1369	2524	3195	4039	2427	733	880
(WY)	1987	1987	1987	1987	1986	1995	1979	1973	1985	1995	1993	1982
MIN	106	104	72.9	74.7	85.0	134	233	395	251	132	69.0	61.2
(WY)	1979	1990	1990	1990	1990	1977	1977	1977	1977	1972	1972	1978

09346400 SAN JUAN RIVER NEAR CARRACAS, CO--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1971 - 1998	
ANNUAL TOTAL	268276		205141			
ANNUAL MEAN	735		562		[a]647	
HIGHEST ANNUAL MEAN					[b]1191	1985
LOWEST ANNUAL MEAN					[b]200	1977
HIGHEST DAILY MEAN	3820	Jun 2	2470	May 22	[b]6700	Mar 12 1985
LOWEST DAILY MEAN	e130	Jan 15	[c]98	Sep 27	[d]28	Sep 14 1974
ANNUAL SEVEN-DAY MINIMUM	144	Jan 9	102	Sep 23	39	Sep 14 1978
INSTANTANEOUS PEAK FLOW			2790	May 22	[f]8590	Mar 6 1995
INSTANTANEOUS PEAK STAGE			[g]4.80	May 22	[h]8.10	Mar 6 1995
ANNUAL RUNOFF (AC-FT)	532100		406900		468900	
10 PERCENT EXCEEDS	1930		1390		1740	
50 PERCENT EXCEEDS	409		334		290	
90 PERCENT EXCEEDS	170		175		113	

e Estimated
[a] Average discharge for 9 years (water years 1962-70), 632 ft3/s; 457900 acre-ft/yr, prior to completion of Azotea tunnel.
[b] Also the highest (or lowest, as is appropriate) for the period of record.
[c] Also occurred Sep 28.
[d] Also minimum daily discharge for period of record, (corrected).
[f] Maximum discharge for period of record, 9730 ft3/s, Sep 6, 1970, gage height, 8.34 ft, from rating curve extended above 6000 ft^3/s, on basis of slope-area measurement of peak flow.
[g] Maximum gage height, 8.94 ft, Dec 31, backwater from ice.
[h] Maximum gage height for statistical period, and period of record, 9.63 ft, Jan 4, 1994, backwater from ice.



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 2.5 mi upstream from Navajo Reservoir, 3.0 mi downstream from Ignacio Creek, and 4.6 mi northeast of Arboles Post Office.

DRAINAGE AREA.--629 mi^2.

PERIOD OF RECORD.--August 1962 to current year. Gage operated 1895-99 and 1910-27 at site 7.5 mi downstream at elevation 6,000 ft. Low-flow records probably not equivalent. Water-quality data available, July 1969 to August 1973, December 1988 to May 1989.

GAGE.--Water-stage recorder with satellite telemetry, and crest-stage gage. Datum of gage is 6,147.52 ft above sea level, Colorado State Highway Department benchmark.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,800 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909, and Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	438	187	134	e105	76	e78	566	1180	1270	344	447	188
2	367	174	137	e110	76	e83	652	1250	1350	311	535	245
3	377	170	135	114	79	87	541	1360	1370	281	404	235
4	342	167	119	117	83	93	643	1500	1180	278	351	206
5	296	163	105	115	83	96	710	1500	932	256	372	179
6	267	157	109	99	83	111	725	1360	784	240	317	157
7	251	153	116	88	85	109	610	1220	733	250	268	142
8	345	149	144	e87	82	99	548	1170	691	312	233	131
9	302	147	128	e90	82	104	494	1020	665	431	205	125
10	291	157	121	e96	79	106	462	1020	628	530	187	119
11	661	164	113	105	76	113	563	1140	569	546	177	121
12	675	173	93	101	76	122	732	1160	520	419	170	122
13	523	169	86	98	77	137	657	1160	573	354	153	138
14	476	156	e105	95	85	166	608	1210	580	293	155	129
15	427	140	e115	86	86	193	560	1030	575	256	160	115
16	388	109	e120	e80	84	238	529	946	589	227	166	111
17	357	114	e110	e88	83	298	498	920	599	214	146	109
18	330	119	e115	91	81	321	496	1050	550	197	151	101
19	305	131	e115	90	77	250	442	1180	535	186	139	95
20	282	138	e110	e88	79	262	471	1260	587	160	125	87
21	262	128	e110	85	e80	271	514	1340	599	159	154	82
22	247	121	109	80	e79	343	630	1390	603	150	247	81
23	235	112	115	e77	e79	544	857	1260	583	144	177	80
24	247	115	111	82	e80	873	1150	1190	526	150	158	79
25	222	119	108	79	e80	1180	1290	1080	458	302	180	76
26	207	135	96	77	80	1270	1180	1110	433	337	220	73
27	220	144	78	78	70	1210	986	1180	423	458	227	68
28	218	141	e86	76	72	1060	973	1300	412	431	187	67
29	209	134	e88	75	---	844	953	1420	395	452	157	68
30	197	127	e95	76	---	649	1030	1460	373	415	149	75
31	193	---	e100	78	---	568	---	1290	---	341	148	---
TOTAL	10157	4313	3426	2806	2232	11878	21070	37656	20085	9424	6865	3604
MEAN	328	144	111	90.5	79.7	383	702	1215	670	304	221	120
MAX	675	187	144	117	86	1270	1290	1500	1370	546	535	245
MIN	193	109	78	75	70	78	442	920	373	144	125	67
MED	296	143	110	88	80	238	620	1190	585	293	177	113
AC-FT	20150	8550	6800	5570	4430	23560	41790	74690	39840	18690	13620	7150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1998, BY WATER YEAR (WY)

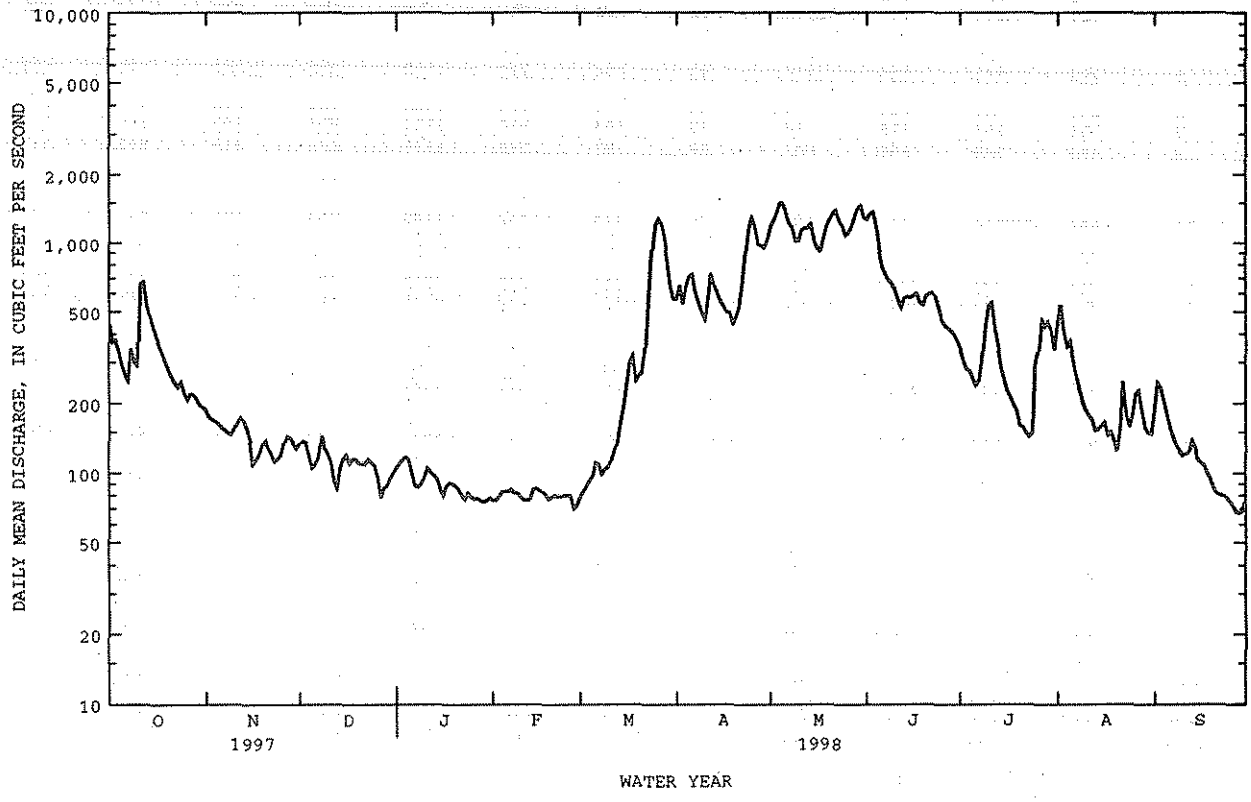
MEAN	178	127	91.1	76.4	95.2	334	886	1315	1071	353	213	214
MAX	618	517	257	153	244	895	2126	2926	2526	1133	551	943
(WY)	1973	1987	1987	1987	1986	1995	1979	1979	1979	1975	1968	1970
MIN	51.2	48.4	31.2	31.2	34.7	47.4	126	168	121	69.8	37.0	35.3
(WY)	1979	1968	1990	1990	1964	1964	1977	1977	1977	1972	1972	1978

09349800 PIEDRA RIVER NEAR ARBOLES, CO--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1963 - 1998	
ANNUAL TOTAL	230760		133516			
ANNUAL MEAN	632		366		413	
HIGHEST ANNUAL MEAN					822	1979
LOWEST ANNUAL MEAN					94.0	1977
HIGHEST DAILY MEAN	3080	May 22	[a]1500	May 4	5360	Sep 6 1970
LOWEST DAILY MEAN	e,[b]70	Jan 14	67	Sep 28	19	Nov 29 1989
ANNUAL SEVEN-DAY MINIMUM	74	Jan 9	72	Sep 24	26	Dec 11 1989
INSTANTANEOUS PEAK FLOW			1620	May 5	[c]8370	Sep 6 1970
INSTANTANEOUS PEAK STAGE			3.46	May 5	[d]6.38	Sep 6 1970
ANNUAL RUNOFF (AC-FT)	457700		264800		299500	
10 PERCENT EXCEEDS	1730		1050		1210	
50 PERCENT EXCEEDS	296		187		152	
90 PERCENT EXCEEDS	94		80		55	

e Estimated

[a] Also occurred May 5.
[b] Also occurred Jan 15.
[c] From rating curve extended above 4,400 ft^3/s, on basis of slope-area measurement of peak flow.
[d] Gage height, 6.38 ft, recorded, 7.55 ft, from floodmarks.



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, 0.5 mi upstream from Spring Creek, and 2 mi upstream from maximum elevation of Navajo Reservoir.

DRAINAGE AREA.--510 mi^2, 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 with satellite telemetry. Datum of gage is 6,143.59 ft above sea level.

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 55,000 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on Oct. 5, 1911 has not yet been exceeded.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	550	115	148	e150	e64	e92	309	224	148	141	219	178
2	532	274	e160	e155	e68	e96	331	230	138	183	218	167
3	532	344	e150	e155	e69	99	394	234	134	113	186	161
4	520	353	e145	e150	e72	132	405	254	149	138	164	152
5	487	336	e150	e145	e72	167	346	197	261	143	176	147
6	473	331	e155	e135	e72	161	336	213	244	151	174	141
7	452	331	e160	e130	e68	161	318	168	175	296	163	138
8	489	331	e150	e130	e66	131	300	150	155	276	153	134
9	490	331	e150	e135	e69	147	322	164	165	233	142	138
10	481	340	e150	e140	69	135	313	150	165	370	149	143
11	538	331	e145	e145	e65	123	326	191	171	209	144	156
12	561	280	e135	e145	e64	127	375	176	174	181	127	158
13	544	263	e135	145	64	135	380	126	167	171	146	178
14	528	255	e140	145	e67	142	358	147	161	147	159	158
15	484	245	e140	140	e64	152	336	143	146	135	149	149
16	540	238	e135	142	e68	170	325	178	138	133	155	152
17	550	207	e135	100	e70	195	318	168	139	141	150	157
18	550	185	e140	89	73	202	304	153	135	142	139	156
19	544	182	e145	81	71	171	295	138	138	140	131	149
20	544	182	e140	81	77	170	295	134	138	133	130	141
21	550	182	e135	76	85	330	308	131	140	129	414	139
22	550	188	143	e72	105	405	339	132	135	123	262	136
23	562	188	145	e70	112	367	389	136	131	134	179	144
24	558	188	e135	e72	132	294	445	141	132	146	161	132
25	355	185	e130	e68	130	335	468	137	128	195	159	134
26	367	182	e125	e68	113	362	446	136	126	179	171	134
27	363	192	e125	e74	105	807	396	125	126	202	174	141
28	363	192	e130	e76	e100	706	343	123	128	348	151	143
29	363	159	e140	e74	---	618	288	119	126	198	145	143
30	214	148	e145	67	---	460	230	132	123	166	149	232
31	128	---	e145	71	---	320	---	140	---	167	143	---
TOTAL	14762	7258	4406	3426	2254	7912	10338	4990	4536	5563	5282	4531
MEAN	476	242	142	111	80.5	255	345	161	151	179	170	151
MAX	562	353	160	155	132	807	468	254	261	370	414	232
MIN	128	115	125	67	64	92	230	119	123	113	127	132
AC-FT	29280	14400	8740	6800	4470	15690	20510	9900	9000	11030	10480	8990

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1998, BY WATER YEAR (WY)

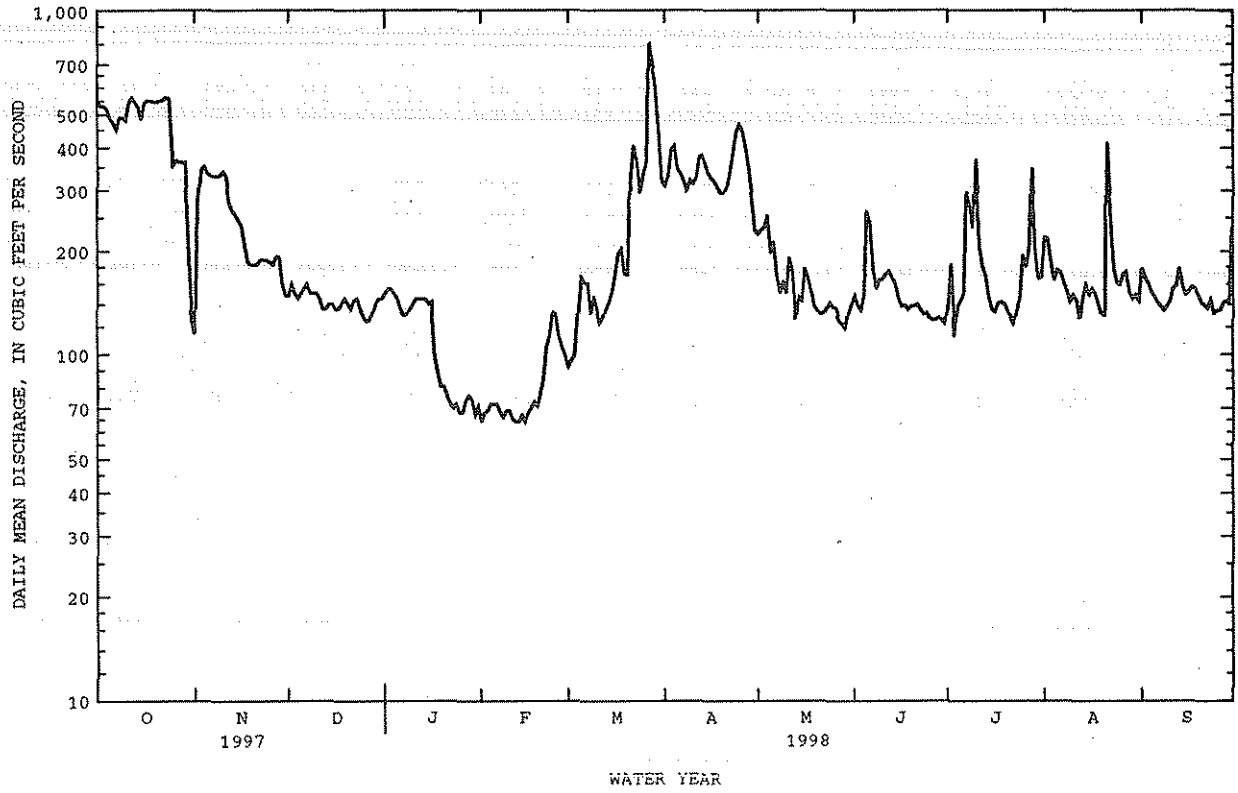
MEAN	198	139	103	76.3	99.5	225	353	439	512	305	220	213
MAX	672	709	396	182	362	972	1339	1719	1555	1381	878	725
(WY)	1987	1987	1983	1985	1993	1993	1979	1958	1979	1957	1957	1997
MIN	47.9	32.1	33.8	33.9	38.6	45.1	22.8	44.3	74.5	81.6	80.4	58.3
(WY)	1978	1960	1964	1978	1978	1977	1951	1951	1977	1959	1977	1951

09354500 LOS PINOS RIVER AT LA BOCA, CO--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1951 - 1998	
ANNUAL TOTAL	163742		75258			
ANNUAL MEAN	449		206		244	
HIGHEST ANNUAL MEAN					582	1973
LOWEST ANNUAL MEAN					77.4	1959
HIGHEST DAILY MEAN	[a]1980	Jun 8	807	Mar 27	4560	Jul 27 1957
LOWEST DAILY MEAN	e43	Jan 15	e,[c]64	Feb 1	6.1	May 1 1977
ANNUAL SEVEN-DAY MINIMUM	[b]48	Jan 9	66	Feb 10	8.3	Apr 30 1977
INSTANTANEOUS PEAK FLOW			873	Mar 27	[d]6400	Jul 27 1957
INSTANTANEOUS PEAK STAGE			5.38	Mar 27	[f]8.95	Jul 27 1957
INSTANTANEOUS LOW FLOW					6.1	May 1 1977
ANNUAL RUNOFF (AC-FT)	324800		149300		176800	
10 PERCENT EXCEEDS	935		391		550	
50 PERCENT EXCEEDS	331		150		134	
90 PERCENT EXCEEDS	56		94		50	

e Estimated

[a] Also occurred Jul 31.
[b] Also occurred Feb 7.
[c] Also occurred Feb 12, 13 (not estimated), and 15.
[d] From rating curve extended above 5100 ft^3/s.
[f] Maximum gage height, 9.00 ft, backwater from ice, sometime during period, Dec 23, 1990 to Jan 17, 1991.



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^2, approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733. Water-quality data available May 1974, January 1988 to September 1991.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,160 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Part of flow is return waste from irrigation. Nearly all irrigation in this basin is water diverted from Los Pinos River which causes a considerable change in the annual pattern and natural flow. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

REVISIONS.--Revised figures of discharge for water year 1997, superseding those publised in the report for 1997 are given below.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e10	e7.3	e8.0	e7.0	e7.8	e8.7	13	e28	73	56	28	69
2	e11	e7.0	e7.6	e6.6	e8.2	e8.4	14	e27	74	53	24	59
3	e13	e7.7	e7.4	e8.0	e8.5	8.0	12	e24	78	53	20	55
4	e20	e11	e7.2	e11	e8.0	9.8	20	e26	78	58	29	55
5	e27	e8.8	e7.0	e10	e7.6	11	e18	e32	74	55	49	53
6	e20	e7.0	e7.6	e9.2	e6.7	e11	e16	e38	66	58	34	53
7	e17	e6.2	e8.8	e8.2	e6.4	10	e14	e44	103	61	30	51
8	e15	e5.6	e8.0	e6.6	e6.6	22	e13	e46	106	58	31	49
9	e14	e5.4	e8.0	e6.6	e7.2	40	e13	e47	74	61	33	48
10	e14	e5.8	e8.0	e6.8	e7.6	59	e13	e48	72	65	65	55
11	e13	e5.8	e9.6	e7.4	e8.0	92	e12	e47	58	65	43	54
12	13	e5.8	e9.8	e7.6	e8.0	105	e11	e45	57	67	38	67
13	13	e5.8	e8.0	e7.0	e8.4	112	e10	e48	68	64	48	57
14	17	e6.0	e5.6	e6.2	e8.0	72	e9.5	e56	68	59	42	69
15	22	e6.6	e4.8	e6.2	e8.2	41	e9.5	e64	66	52	35	58
16	22	e11	e4.5	e7.0	e8.6	30	e10	e72	69	52	35	68
17	e22	e9.0	e4.5	e7.0	e9.6	30	e13	e73	67	56	36	56
18	e17	e8.0	e4.4	e6.7	e11	25	e16	e73	66	56	42	52
19	e13	e8.6	e4.8	e7.2	e11	22	e19	e72	66	70	38	54
20	e8.0	e9.0	e6.0	e7.8	e11	25	e23	e70	63	106	39	54
21	e8.7	e8.6	e7.0	e8.2	e11	32	e28	e70	62	93	42	260
22	e7.8	e8.4	e7.6	e8.2	e10	32	e31	e77	61	96	49	117
23	e7.2	e11	e7.8	e8.0	9.5	27	e32	e81	63	87	52	39
24	7.1	e11	e7.2	e7.7	9.4	25	e31	e76	61	76	48	34
25	6.3	e9.4	e6.6	e7.4	e9.5	18	e29	e70	58	71	48	36
26	5.5	e8.6	e6.8	e7.2	e9.0	14	e26	e60	59	67	68	33
27	7.1	e8.0	e7.0	e7.2	e9.0	13	e22	e54	62	72	56	30
28	e11	e7.6	e7.2	e7.5	e8.8	13	e22	e57	65	124	49	31
29	e15	e7.4	e7.0	e7.5	---	15	e26	59	65	259	54	33
30	e11	e8.6	e6.8	e7.5	---	12	e27	58	62	253	55	28
31	e8.6	---	e6.6	e7.5	---	12	---	65	---	210	61	---
TOTAL	416.3	236.0	217.2	234.0	242.6	954.9	553.0	1707	2064	2633	1321	1777
MEAN	13.4	7.87	7.01	7.55	8.66	30.8	18.4	55.1	68.8	84.9	42.6	59.2
MAX	27	11	9.8	11	11	112	32	81	106	259	68	260
MIN	5.5	5.4	4.4	6.2	6.4	8.0	9.5	24	57	52	20	28
AC-FT	826	468	431	464	481	1890	1100	3390	4090	5220	2620	3520

CAL YR 1996 TOTAL 14231.4 MEAN 38.9 MAX 222 MIN 1.8 AC-FT 28230
WTR YR 1997 TOTAL 12356.0 MEAN 33.9 MAX 260 MIN 4.4 AC-FT 24510

e Estimated

09355000 SPRING CREEK AT LA BOCA, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

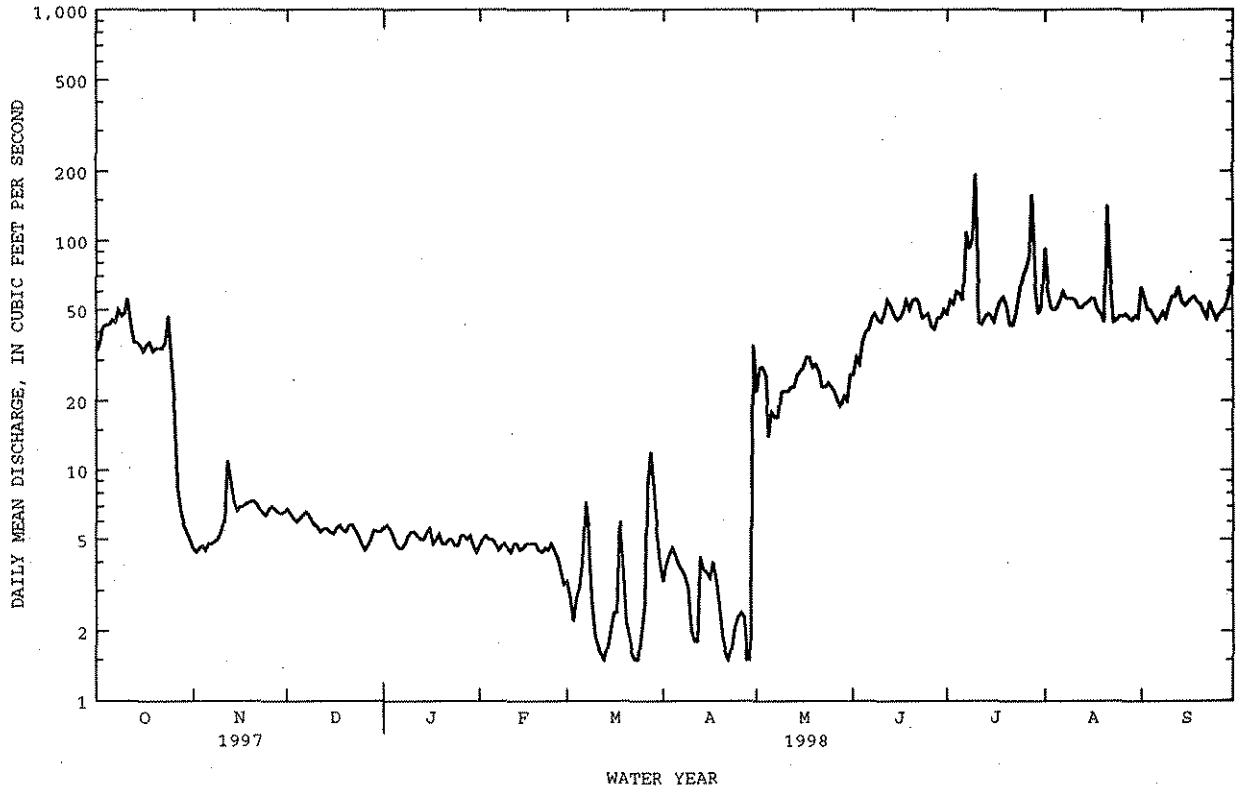
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	4.6	e6.8	e5.6	e4.7	3.3	3.3	22	26	48	93	63
2	36	4.4	e6.5	e5.8	e5.0	2.8	3.9	28	31	55	61	57
3	42	4.6	e6.2	e5.6	e5.2	2.2	4.3	28	29	53	51	50
4	43	4.7	e6.0	e5.3	e5.0	2.8	4.6	26	36	60	50	50
5	43	4.5	e6.2	e4.8	e5.0	3.1	4.3	14	40	59	51	47
6	45	4.8	e6.4	e4.6	e4.8	4.0	3.9	18	41	55	55	44
7	44	4.8	e6.6	e4.6	e4.5	7.3	3.7	17	46	109	60	46
8	50	4.9	e6.4	e4.8	e4.7	5.5	3.5	17	48	92	56	49
9	47	5.0	e6.0	e5.2	e4.8	2.7	3.1	22	45	102	56	46
10	48	5.4	e5.8	e5.4	e4.6	1.9	2.0	22	44	194	56	52
11	56	6.1	e5.7	e5.4	e4.4	1.7	1.8	22	48	44	55	57
12	43	11	e5.4	e5.2	e4.8	1.6	1.8	23	55	43	51	57
13	36	9.0	e5.6	e5.0	e4.8	1.5	4.2	23	52	46	51	63
14	36	7.3	e5.6	e5.0	e4.5	1.7	3.7	26	48	48	53	54
15	35	6.7	e5.4	e5.4	e4.6	2.0	3.6	27	45	47	54	52
16	33	e7.0	e5.3	e5.6	e4.8	2.4	3.4	28	46	44	56	54
17	35	e7.0	e5.6	e4.8	e4.8	2.4	4.0	31	49	50	56	56
18	36	e7.2	e5.8	e5.0	e4.8	6.0	3.4	31	55	55	50	57
19	33	7.3	e5.5	e5.3	e4.8	4.0	2.6	28	50	57	48	54
20	34	7.4	e5.4	e4.8	e4.5	2.2	1.9	29	55	52	44	53
21	34	7.2	e5.8	e4.8	e4.4	1.9	1.6	27	56	43	142	49
22	34	e6.8	e5.8	e5.0	e4.6	1.6	1.5	23	54	43	67	46
23	36	e6.6	e5.5	e5.0	4.5	1.5	1.7	23	46	48	44	54
24	47	e6.4	e5.2	e4.7	e4.8	1.5	2.1	24	47	58	45	49
25	30	e6.8	e4.8	e4.7	e4.5	2.0	2.3	23	48	70	47	45
26	18	e7.0	e4.5	e5.2	e4.2	2.6	2.4	22	42	76	47	48
27	8.2	e6.8	e4.7	e5.2	e3.7	9.0	2.3	20	41	85	48	49
28	6.6	e6.6	e5.0	e5.0	3.2	12	1.5	19	46	158	46	52
29	5.8	e6.5	e5.5	e5.2	---	8.2	1.5	21	46	65	45	57
30	5.4	e6.6	e5.4	e4.7	---	5.4	35	20	50	48	47	72
31	5.0	---	e5.4	e4.4	---	4.0	---	26	---	52	46	---
TOTAL	1038.0	191.0	175.8	157.1	129.0	110.8	118.9	730	1365	2059	1731	1582
MEAN	33.5	6.37	5.67	5.07	4.61	3.57	3.96	23.5	45.5	66.4	55.8	52.7
MAX	56	11	6.8	5.8	5.2	12	35	31	56	194	142	72
MIN	5.0	4.4	4.5	4.4	3.2	1.5	1.5	14	26	43	44	44
AC-FT	2060	379	349	312	256	220	236	1450	2710	4080	3430	3140
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1998, BY WATER YEAR (WY)												
MEAN	34.8	10.6	5.54	4.77	10.1	19.0	13.6	39.5	57.7	67.6	66.7	59.2
MAX	87.9	29.6	20.4	19.3	54.8	89.7	41.1	64.5	79.3	111	132	92.0
(WY)	1973	1956	1985	1980	1980	1979	1979	1992	1986	1996	1996	1983
MIN	5.25	3.68	1.74	2.04	2.24	2.52	3.77	15.7	24.4	21.2	32.1	26.5
(WY)	1978	1978	1960	1973	1996	1996	1978	1978	1977	1977	1977	1951

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1951 - 1998	
ANNUAL TOTAL	12891.3		9387.6			
ANNUAL MEAN	35.3		25.7		32.8	
HIGHEST ANNUAL MEAN					47.7	1987
LOWEST ANNUAL MEAN					15.6	1977
HIGHEST DAILY MEAN	260	Sep 21	194	Jul 10	918	Mar 6 1995
LOWEST DAILY MEAN	4.4	Nov 2	[a]1.5	Mar 13	1.0	Feb 25 1951
ANNUAL SEVEN-DAY MINIMUM	4.6	Nov 1	1.8	Mar 10	1.0	Dec 7 1959
INSTANTANEOUS PEAK FLOW			362	Jul 10	[b]1980	Sep 6 1970
INSTANTANEOUS PEAK STAGE			3.14	Jul 10	[c]4.62	Sep 6 1970
ANNUAL RUNOFF (AC-FT)	25570		18620		23790	
10 PERCENT EXCEEDS	70		55		72	
50 PERCENT EXCEEDS	30		9.0		23	
90 PERCENT EXCEEDS	6.0		3.3		3.3	

e Estimated

[a] Also occurred Mar 23, 24, Apr 22, 28, and 29.
[b] From rating curve extended above 160 ft^3/s, on the basis of field estimate of peak flow.
[c] Maximum gage height, 5.98 ft, Mar 9, 1960, backwater from ice.

09355000 SPRING CREEK AT LA BOCA, CO--Continued



09355100 NAVAJO RESERVOIR NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'28", long 107°36'31", in SW¼SE¼ sec.18, T.30 N., R.7 W., San Juan County, Hydrologic Unit 14080101, in gate shaft of outlet works structure near right abutment of Navajo Dam on San Juan River, 5.5 mi east of Archuleta, 33 mi east of Farmington, and at mile 298.6.

DRAINAGE AREA.--3,230 mi^2, approximately.

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

PERIOD OF RECORD.--June 1962 to current year. Prior to October 1968 dead storage included.

REMARKS.--Reservoir is formed by earth rock-fill dam, completed in June 1963; storage began June 27, 1962. Capacity, 1,708,600 acre-ft between elevation 5,720 ft upstream toe of dam and 6,085 ft crest of spillway. Usable capacity 1,696,000 acre-ft above elevation 5,774.9 ft minimum operating level. Dead storage below elevation 5,774.9 ft is 12,600 acre-ft. Figures given herein are usable contents. Reservoir is used for irrigation storage, river regulation, desilting, flood control, and recreation.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,731,000 acre-ft, July 2-4, 1973, elevation, 6,087.25 ft; minimum contents after June 1964 (initial filling period), 234,300 acre-ft, Mar. 10, 11, 1965, elevation, 5,906.36 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,583,800 acre-ft, Nov. 11, 14, 15, elevation, 6,062.51 ft; minimum contents, 1,380,000 acre-ft, Sept. 30, elevation, 6,062.51 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1543600	1581900	1580000	1557200	1525900	1498800	1534000	1570800	1500800	1437500	1431300	1408400
2	1544500	1581900	1579900	1556100	1524900	1498500	1537000	1570200	1497800	1437000	1431400	1406900
3	1545800	1581900	1579900	1555100	1523900	1497800	1538700	1569800	1494000	1436500	1431300	1405200
4	1547100	1582100	1579400	1554100	1523200	1496800	1540700	1570100	1486800	1436400	1430800	1403500
5	1547900	1582500	1579000	1553100	1522200	1496400	1543300	1570500	1477000	1436000	1430800	1402000
6	1549100	1582700	1578400	1552100	1521800	1496300	1545300	1569900	1471000	1435900	1430500	1401200
7	1549700	1582700	1578100	1551100	1521200	1496000	1547100	1569700	1464300	1436100	1430000	1400700
8	1551800	1582800	1577700	1550100	1520300	1495700	1547900	1570400	1465700	1436700	1428900	1399600
9	1553100	1583000	1577700	1549100	1519200	1495200	1549900	1570400	1458700	1438000	1428300	1398300
10	1554400	1583100	1577800	1548100	1518100	1494900	1551100	1570100	1452400	1440500	1427000	1397000
11	1557300	1583800	1577200	1547100	1517100	1494600	1552000	1568800	1445900	1441800	1426300	1395700
12	1560500	1583700	1576400	1546100	1515500	1494500	1554600	1566700	1442400	1441800	1424700	1395400
13	1562700	1583700	1575100	1545000	1514400	1494500	1557600	1564100	1439100	1441500	1423700	1394700
14	1564800	1583800	1574300	1544000	1513600	1494700	1558600	1561800	1436100	1441300	1423100	1393900
15	1566600	1583800	1573300	1543000	1512600	1495200	1560100	1558900	1433700	1441000	1422100	1392700
16	1568300	1583400	1572400	1542000	1511600	1496000	1561100	1555400	1432900	1439900	1420900	1391500
17	1570100	1583100	1571500	1541200	1510700	1497100	1562700	1551800	1432900	1438700	1419800	1390700
18	1571700	1583000	1570700	1540200	1509600	1498100	1563700	1548400	1433400	1438200	1418500	1389800
19	1572900	1582500	1569800	1539300	1508300	1498500	1564700	1546300	1434300	1437400	1417700	1389000
20	1574500	1582100	1568900	1538300	1507200	1499100	1565300	1542500	1435300	1436400	1417000	1387900
21	1575600	1582100	1567900	1537300	1506500	1499900	1566200	1539300	1436700	1435100	1417300	1387100
22	1576700	1581600	1566900	1536300	1505100	1501300	1567600	1536700	1437500	1434000	1417300	1386000
23	1578100	1581300	1566000	1535300	1504500	1503600	1568800	1533200	1437800	1432400	1417000	1384700
24	1579300	1581200	1565400	1534300	1503400	1506100	1570500	1529600	1438600	1431300	1416300	1383500
25	1579700	1580800	1564600	1533300	1502900	1510300	1572900	1525600	1438600	1430600	1415300	1382600
26	1580200	1580300	1563300	1532300	1502000	1515700	1574900	1521300	1437500	1430200	1414600	1382100
27	1580600	1580600	1562100	1531300	1500900	1520800	1576100	1517400	1437400	1430500	1413900	1381200
28	1581200	1580600	1561100	1530300	1499800	1525000	1575300	1513700	1437600	1431000	1413100	1380600
29	1581500	1580300	1559800	1529200	---	1528400	1573700	1510300	1437600	1431800	1412200	1380600
30	1581800	1580300	1558900	1528000	---	1530400	1572000	1507800	1437600	1431700	1411300	1380000
31	1581900	---	1558000	1527000	---	1532400	---	1504700	---	1431000	1410100	---
MAX	1581900	1583800	1580000	1557200	1525900	1532400	1576100	1570800	1500800	1441800	1431400	1408400
MIN	1543600	1580300	1558000	1527000	1499800	1494500	1534000	1504700	1432900	1430200	1410100	1380000
(+)	6077.11	6077.00	6075.47	6072.21	6071.28	6072.69	6076.43	6071.72	6066.86	6066.37	6064.80	6062.51
(++)	+39200	-1600	-22300	-31000	-27200	+32600	+39600	-67300	-67100	-6600	-20900	-30100

CAL YR 1997 MAX 1583800 MIN 1187600 (++) +370700
WTR YR 1998 MAX 1583800 MIN 1380000 (++) -162700

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

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'05", long 107°41'51", in 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^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1954 to current year.

REVISED RECORDS.--The annual runoff for the 1958 water year as published in table 2, WSP 1733, is 455,000 acre-ft. The correct value is 1,455,000 acre-ft.

GAGE.--Water-stage recorder with satellite telemetry. 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^2 intervening drainage area. High-water diversions through Azotea tunnel (station 08284160) into Rio Grande basin began in March 1971. Diversions for irrigation of about 47,000 acres upstream from station. Releases from Navajo Reservoir, beginning in January 1976, for use on Navajo Indian Irrigation Project bypass gage in tunnel on left bank. See tabulation below for monthly and annual releases as furnished by Bureau of Reclamation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	613	622	607	853	845	802	600	2860	5020	639	590	572
2	613	620	608	854	844	805	600	2880	5030	637	590	578
3	612	620	607	865	843	806	600	2890	5050	640	588	576
4	610	621	604	865	845	807	600	2960	5080	661	588	575
5	611	621	605	865	848	806	598	3010	5110	636	588	575
6	611	621	602	859	845	722	599	3010	5120	640	588	574
7	610	621	605	859	848	617	604	3000	5120	652	584	576
8	610	622	731	860	850	613	602	3000	5100	638	587	571
9	626	623	663	859	849	612	601	3010	5120	624	590	570
10	628	624	266	861	850	612	600	3010	4670	589	590	574
11	624	631	419	859	859	612	608	3220	3580	575	591	577
12	620	632	859	859	863	612	613	3410	3000	572	592	578
13	619	634	859	859	863	611	612	3650	2990	562	592	560
14	622	626	861	860	865	612	610	3890	2990	562	593	578
15	625	625	860	858	878	614	608	3900	2310	562	586	574
16	627	608	855	859	864	615	608	3920	1540	563	587	569
17	627	623	852	857	858	613	609	3920	885	563	587	570
18	627	620	858	856	855	613	611	4150	658	564	587	571
19	627	618	852	855	887	607	603	4420	653	563	587	571
20	628	619	852	857	887	608	599	4640	655	566	589	573
21	622	617	853	854	884	607	598	4740	654	577	597	543
22	616	616	861	851	883	606	611	4970	652	580	592	506
23	616	619	862	850	857	607	884	4970	651	581	587	527
24	623	612	861	850	824	608	1350	4970	649	589	584	536
25	622	609	862	849	812	602	1570	4970	647	590	585	535
26	621	611	858	850	807	606	1530	4970	633	592	586	535
27	624	610	857	847	807	611	1760	4980	631	589	585	535
28	624	603	854	846	800	606	2190	4980	640	591	584	536
29	622	604	853	847	---	602	2540	5000	644	588	583	543
30	623	605	853	850	---	601	2860	5020	638	589	582	545
31	624	---	860	847	---	603	---	5030	---	598	587	---
TOTAL	19227	18557	23459	26520	23820	19978	27978	123350	76120	18472	18226	16803
MEAN	620	619	757	855	851	644	933	3979	2537	596	588	560
MAX	628	634	862	865	887	807	2860	5030	5120	661	597	578
MIN	610	603	266	846	800	601	598	2860	631	562	582	506
AC-FT	38140	36810	46530	52600	47250	39630	55490	244700	151000	36640	36150	33330
(+)	1100	0	0	0	0	2900	9700	26200	39700	35200	32000	17700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1998, BY WATER YEAR (WY)

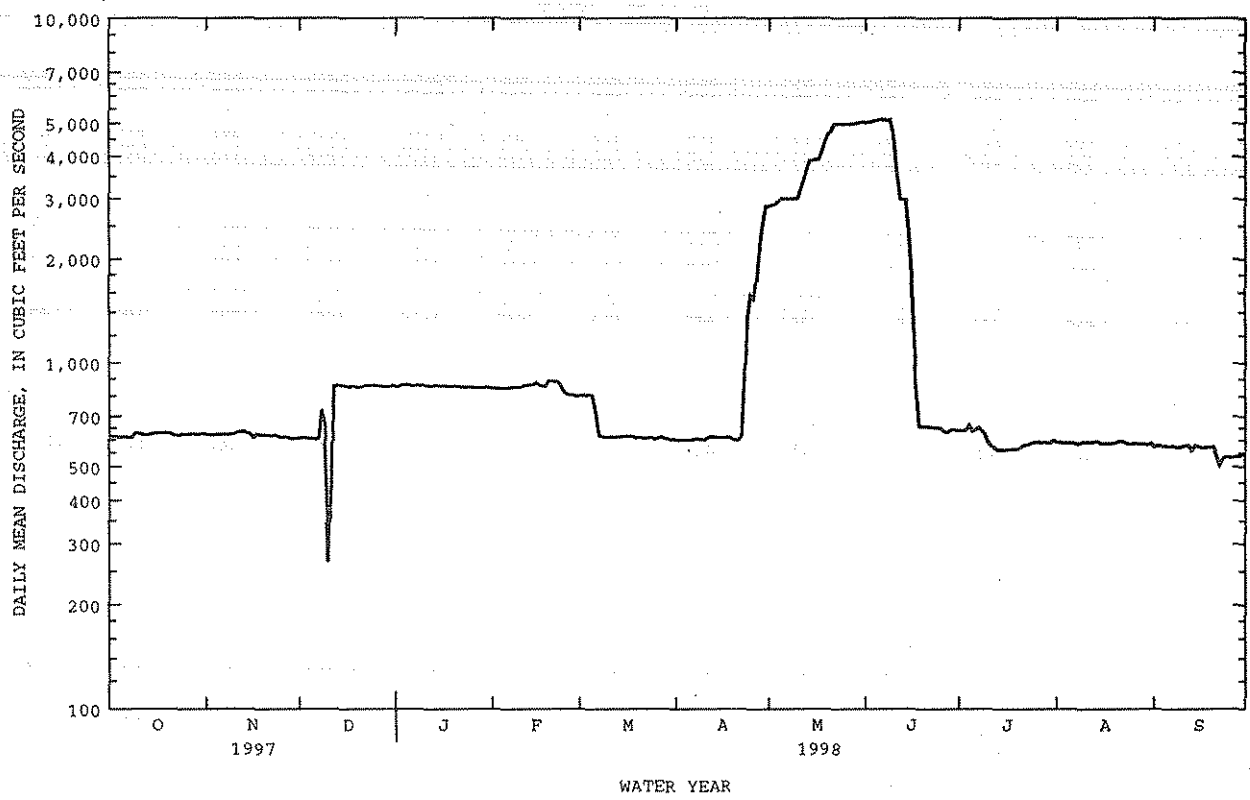
MEAN	872	899	1019	1070	1074	1162	1425	1827	1868	1263	953	905
MAX	2131	3018	2886	2768	2382	4216	4768	4962	5169	5126	3508	2674
(WY)	1966	1966	1966	1986	1987	1993	1979	1985	1979	1979	1973	1973
MIN	298	240	162	115	149	207	244	279	300	320	353	338
(WY)	1963	1963	1963	1963	1963	1964	1964	1967	1967	1967	1963	1963

(+) DISCHARGE, IN ACRE-FT, THROUGH NAVAJO INDIAN IRRIGATION TUNNEL.

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1963 - 1998	
ANNUAL TOTAL	422409		412510			
ANNUAL MEAN	1157		1130		[a]1195	
HIGHEST ANNUAL MEAN					2686	1987
LOWEST ANNUAL MEAN					280	1963
HIGHEST DAILY MEAN	5620	Jun 4	5120	Jun 6	6420	Jun 21 1965
LOWEST DAILY MEAN	224	Feb 4	266	Dec 10	30	Mar 12 1964
ANNUAL SEVEN-DAY MINIMUM	246	Jan 30	530	Sep 22	108	Jan 10 1963
INSTANTANEOUS PEAK FLOW					[b]18900	Jul 27 1957
INSTANTANEOUS PEAK STAGE					[c]11.00	Jul 27 1957
INSTANTANEOUS LOW FLOW					8.0	Feb 28 1963
ANNUAL RUNOFF (AC-FT)	837800		818200		865500	
10 PERCENT EXCEEDS	3660		3000		2640	
50 PERCENT EXCEEDS	620		624		668	
90 PERCENT EXCEEDS	264		576		401	

[a] Average discharge for 7 years (water year 1956-62), 1,304 ft^3/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^3/s, June 20, 1965, gage height 4.75 ft.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)
DEC									
08...	1405	785	254	7.4	4.5	8.0	13	610	9.4
FEB									
11...	0805	856	208	8.2	-1.5	4.0	3.2	622	9.4
MAY									
04...	1435	3000	208	8.0	29.5	8.0	2.7	618	10.9
AUG									
12...	0745	594	223	7.8	11.0	7.5	1.5	627	9.4

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)
DEC									
08...	99	82	8	25	4.8	11	.5	1.5	90
FEB									
11...	88	79	--	24	4.5	10	.5	1.5	--
MAY									
04...	114	76	8	23	4.4	10	.5	1.4	82
AUG									
12...	96	79	15	24	4.6	9.9	.5	1.4	78

DATE	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC UNFLTRD TIT 4.5 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)
DEC									
08...	0	74	77	43	2.0	.2	11	155	143
FEB									
11...	--	--	69	32	1.4	.2	12	130	127
MAY									
04...	0	67	71	31	1.6	.1	12	130	124
AUG									
12...	0	64	72	33	2.0	.2	11	139	125

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^2, 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 with satellite telemetry. 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).

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in October 1911 at this location.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1240	536	334	e300	255	218	690	1500	3580	1900	924	473
2	1180	504	346	304	238	210	684	1680	3970	1880	1020	611
3	1190	505	344	328	271	254	663	2060	4310	1740	893	685
4	1130	494	321	365	285	307	633	2360	3700	1850	772	593
5	1040	470	297	350	286	332	610	2460	2640	1810	746	559
6	988	452	318	302	284	364	620	2270	2090	1670	707	477
7	921	454	330	269	285	365	656	2040	1940	1690	630	435
8	1020	450	350	e250	261	293	626	1820	1860	1890	566	447
9	986	442	326	e245	249	244	584	1720	1790	1780	488	413
10	924	432	319	e255	267	259	552	1670	1820	1810	487	396
11	1070	453	314	303	255	279	547	1860	1710	1820	517	396
12	1270	500	303	313	236	307	635	2000	1570	1570	509	410
13	1170	453	e320	319	243	323	715	2040	1780	1440	499	496
14	1110	430	e315	296	266	344	690	2190	1870	1290	517	547
15	1080	401	311	291	272	333	672	2000	1850	1150	527	523
16	1010	343	303	290	253	348	656	1760	1910	1040	479	540
17	959	347	287	311	265	422	609	1740	1870	985	440	512
18	875	356	285	276	261	464	559	2050	1690	970	455	484
19	841	364	302	264	265	409	508	2390	1680	953	498	452
20	812	372	292	290	258	389	493	2550	2060	891	458	375
21	810	366	284	288	258	395	548	2890	2140	850	528	345
22	787	349	289	259	244	428	667	3250	2270	828	709	356
23	764	338	311	272	248	517	896	2830	2320	784	590	356
24	777	339	300	277	286	722	1240	2740	2230	815	493	343
25	734	341	292	264	291	915	1470	2520	2020	838	485	326
26	698	340	281	253	270	1080	1390	2580	1970	1050	558	312
27	686	367	269	282	249	1100	1260	2870	2070	1060	592	284
28	659	360	e260	284	236	957	1200	3280	2110	1140	525	278
29	614	345	e270	283	---	881	1150	3760	2080	1070	481	313
30	575	332	e284	285	---	722	1260	3980	2010	961	414	387
31	557	---	e290	290	---	685	---	3690	---	885	395	---
TOTAL	28477	12235	9447	8958	7337	14866	23483	74550	66910	40410	17902	13124
MEAN	919	408	305	289	262	480	783	2405	2230	1304	577	437
MAX	1270	536	350	365	291	1100	1470	3980	4310	1900	1020	685
MIN	557	332	269	245	236	210	493	1500	1570	784	395	278
AC-FT	56480	24270	18740	17770	14550	29490	46580	147900	132700	80150	35510	26030

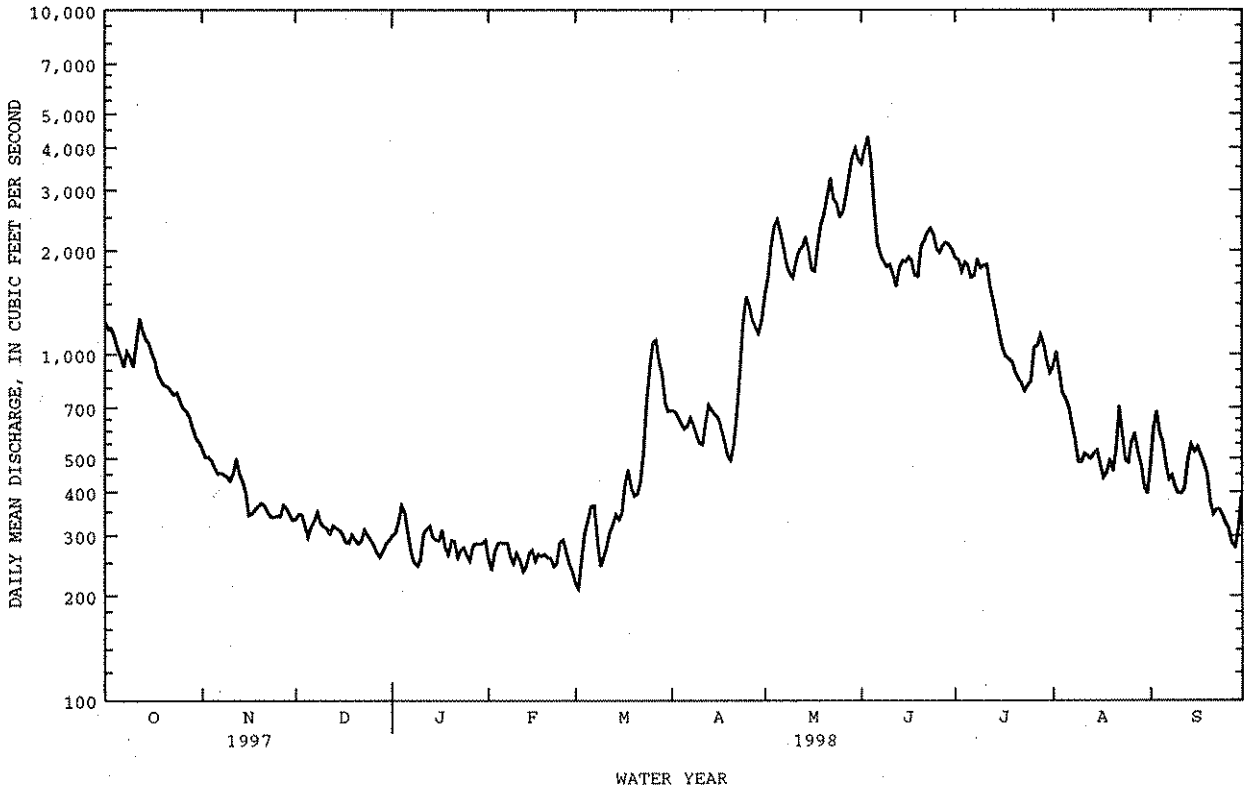
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1998, BY WATER YEAR (WY)

MEAN	472	343	269	247	262	433	1084	2530	3034	1272	623	531
MAX	2479	1069	555	388	467	1043	2192	5686	6145	3710	1681	1922
(WY)	1942	1942	1987	1973	1987	1993	1985	1941	1957	1957	1957	1970
MIN	169	158	159	169	151	141	273	449	458	223	222	155
(WY)	1957	1934	1957	1954	1964	1977	1977	1977	1934	1934	1996	1956

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1934 - 1998	
ANNUAL TOTAL	536809		317699			
ANNUAL MEAN	1471		870		934	
HIGHEST ANNUAL MEAN					1713	1941
LOWEST ANNUAL MEAN					340	1977
HIGHEST DAILY MEAN	7770	Jun 2	4310	Jun 3	11800	Jun 19 1949
LOWEST DAILY MEAN	260	Dec 28	210	Mar 2	.00	Nov 1 1933
ANNUAL SEVEN-DAY MINIMUM	278	Dec 25	247	Feb 25	.00	Nov 1 1933
INSTANTANEOUS PEAK FLOW			4820	Jun 3	13100	Jun 19 1949
INSTANTANEOUS PEAK STAGE			8.35	Jun 3	11.45	Jun 19 1949
INSTANTANEOUS LOW FLOW			185	Mar 1	63	Jan 21 1935
ANNUAL RUNOFF (AC-FT)	1065000		630200		676900	
10 PERCENT EXCEEDS	4030		2010		2430	
50 PERCENT EXCEEDS	960		517		412	
90 PERCENT EXCEEDS	330		271		210	

e Estimated



09363500 ANIMAS RIVER NEAR CEDAR HILL, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1943, 1945, 1958-59, 1969-73, 1975, 1987 to August 1998 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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)
DEC												
09...	0830	431	531	7.7	1.0	1.0	607	11.4	101	220	92	69
FEB												
11...	1100	304	586	8.2	4.0	3.0	613	11.8	109	250	110	80
MAY												
05...	0810	2880	246	7.5	8.5	7.0	611	9.5	98	110	34	36
AUG												
12...	0915	654	475	8.3	25.0	16.5	621	9.6	121	190	68	59

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)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
DEC												
09...	12	18	.5	2.5	159	0	130	134	120	17	.3	6.8
FEB												
11...	13	22	.6	3.2	173	0	142	146	140	18	.4	7.7
MAY												
05...	5.2	4.1	.2	.9	94	0	77	85	35	2.6	.2	5.7
AUG												
12...	9.3	18	.6	2.5	143	0	117	129	86	16	.4	8.5

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)
DEC												
09...	322	--	<.01	.11	<.02	--	<.1	<.1	.03	.02	.03	1.4
FEB												
11...	367	--	<.01	.16	.02	.11	.1	.1	.01	<.01	.01	1.6
MAY												
05...	136	--	<.010	.090	<.010	--	.41	<.20	.090	<.020	<.010	1.7
AUG												
12...	271	.136	.01	.15	.02	--	.21	<.20	<.02	<.02	<.01	.6

DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
DEC												
09...	18	<1	<1	74	<1	55.2	<1	2	<1	1	<10	<1
FEB												
11...	16	<1	<1	72	<1	74.1	<1	2	<1	2	<10	<1
MAY												
05...	35	<1	<1	58	<1	16.5	<1	1	<1	2	38	<1
AUG												
12...	20	<1	<1	74	<1	63.8	<1	2	<1	2	<10	<1

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (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)
DEC												
09...	103	<.1	1	<1	<1	<1	<1	51	14	11	100	200
FEB												
11...	89	<.1	1	1	<1	<1	<1	39	--	--	--	--
MAY												
05...	28	<.1	<1	<1	<1	<1	<1	12	--	--	--	--
AUG												
12...	18	<.1	1	1	<1	<1	<1	6	--	--	--	--

DATE	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
DEC											
09...	7	1	10	7	56	35000	130	1800	<.1	600	1
FEB											
11...	--	--	--	--	--	--	--	--	--	--	1
MAY											
05...	--	--	--	--	--	--	--	--	--	--	<1
AUG											
12...	--	--	--	--	--	--	--	--	--	--	1

09364500 ANIMAS RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'17", long 108°12'05", in SW¼SW¼ sec.15, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080104, in Boyd City Park, on right bank 900 ft upstream from bridge on Miller Ave., 0.4 mi downstream from bridge on U.S. Highway 64 in Farmington, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--1,360 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1904 to October 1905 (published as "near Farmington"), September 1912 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1931. WSP 1313: 1913.

GAGE.--Water-stage recorder with satellite telemetry. 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. 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^3/s).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	515	382	319	307	225	616	1160	3090	1790	678	248
2	993	502	404	316	279	203	619	1460	3340	1780	836	320
3	1010	485	410	327	272	190	616	1730	3710	1670	755	446
4	1000	502	393	353	301	227	571	2230	3410	1670	606	426
5	878	468	369	359	311	259	563	2420	2470	1830	531	385
6	824	459	364	331	304	270	550	2270	1800	1610	486	355
7	770	448	393	294	309	307	585	1980	1530	1690	432	304
8	797	456	412	276	317	281	558	1720	1490	1880	364	280
9	872	462	407	278	295	230	509	1570	1380	1850	322	294
10	813	458	368	293	283	203	479	1440	1400	1870	296	286
11	846	474	347	307	292	221	462	1570	1370	1920	288	297
12	1100	564	331	324	282	232	498	1780	1230	1600	292	317
13	1100	528	307	322	271	238	614	1850	1250	1400	278	368
14	993	483	323	320	279	269	598	1970	1520	1190	281	432
15	967	466	332	301	333	282	571	1940	1490	1010	277	381
16	906	426	333	299	302	279	559	1560	1500	854	293	372
17	852	394	324	311	284	301	516	1440	1550	752	274	375
18	775	408	317	317	297	364	487	1650	1470	717	253	359
19	726	404	332	289	295	365	453	2060	1300	723	254	350
20	706	413	335	285	300	369	393	2250	1630	661	252	314
21	687	422	320	300	298	363	374	2470	1890	604	316	272
22	676	406	320	291	299	372	405	2880	1990	588	458	263
23	657	389	327	272	282	396	554	2620	2110	571	453	289
24	712	385	327	292	272	495	851	2380	2080	606	362	274
25	708	390	327	297	269	674	1150	2270	1910	811	320	267
26	646	386	302	287	267	840	1190	2180	1800	845	357	261
27	636	397	290	285	252	985	1030	2440	1870	1080	406	253
28	629	413	265	302	230	853	891	2740	1980	1350	367	233
29	578	390	265	303	---	784	862	3140	1990	1040	337	239
30	535	382	297	301	---	670	885	3370	1920	812	289	328
31	518	---	324	305	---	588	---	3240	---	712	235	---
TOTAL	25010	13275	10547	9456	8082	12335	19009	65780	57470	37486	11948	9588
MEAN	807	443	340	305	289	398	634	2122	1916	1209	385	320
MAX	1100	564	412	359	333	985	1190	3370	3710	1920	836	446
MIN	518	382	265	272	230	190	374	1160	1230	571	235	233
AC-FT	49610	26330	20920	18760	16030	24470	37700	130500	114000	74350	23700	19020

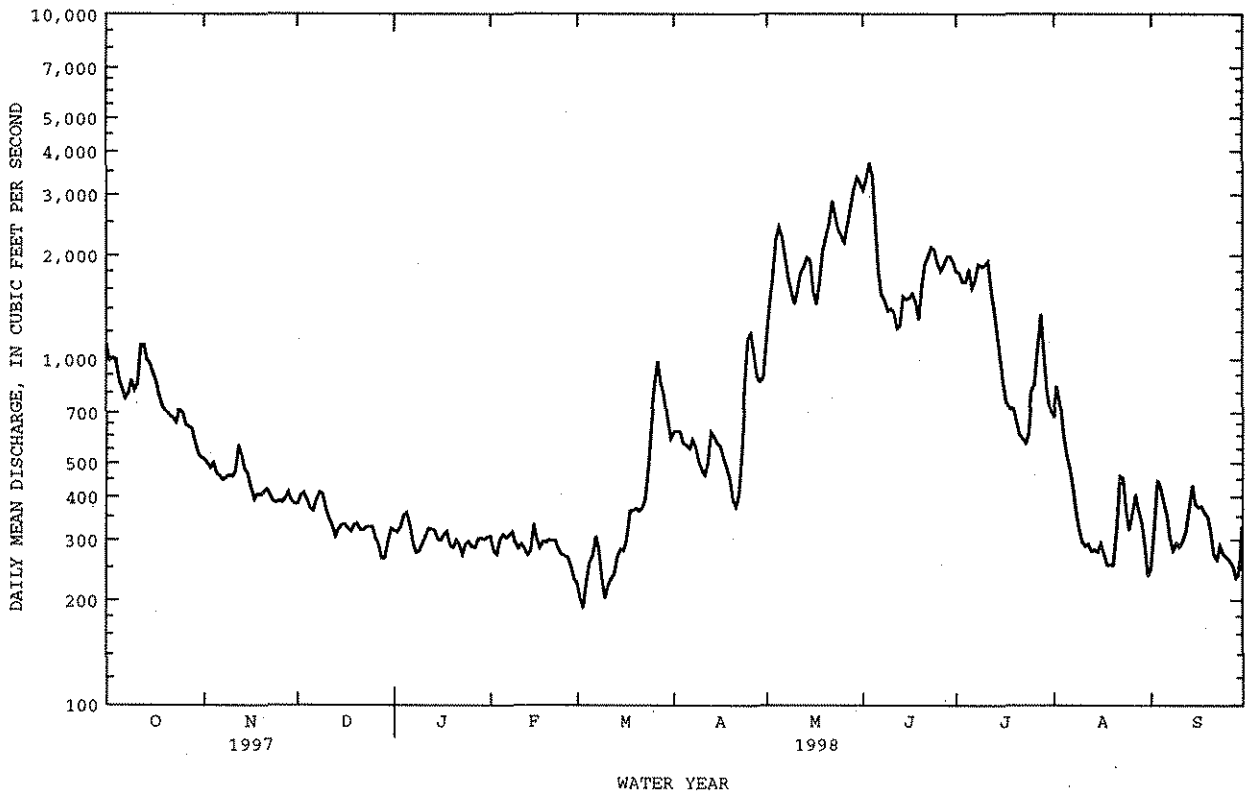
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1998, BY WATER YEAR (WY)

MEAN	436	354	296	276	300	459	993	2411	3003	1136	494	444
MAX	2726	1140	609	554	675	1242	2489	6126	6930	3609	1971	2182
(WY)	1942	1942	1987	1920	1920	1997	1979	1920	1920	1957	1921	1925
MIN	87.0	152	174	163	162	112	54.1	195	235	46.4	40.2	10.6
(WY)	1957	1935	1964	1996	1964	1977	1977	1977	1934	1934	1996	1956

09364500 ANIMAS RIVER AT FARMINGTON, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1914 - 1998	
ANNUAL TOTAL	539831		279986			
ANNUAL MEAN	1479		767		884	
HIGHEST ANNUAL MEAN					1734	1920
LOWEST ANNUAL MEAN					239	1977
HIGHEST DAILY MEAN	7560	Jun 3	3710	Jun 3	11000	Jun 19 1949
LOWEST DAILY MEAN	265	Dec 28	190	Mar 3	.00	Aug 8 1996
ANNUAL SEVEN-DAY MINIMUM	296	Dec 25	227	Feb 27	.00	Aug 13 1996
INSTANTANEOUS PEAK FLOW			4260	Jun 3	[a]25000	Jun 29 1927
INSTANTANEOUS PEAK STAGE			7.67	Jun 3	9.32	Jun 18 1995
INSTANTANEOUS LOW FLOW			123	Sep 29	.00	Aug 8 1996
ANNUAL RUNOFF (AC-FT)	1071000		555400		640700	
10 PERCENT EXCEEDS	3920		1860		2330	
50 PERCENT EXCEEDS	872		432		379	
90 PERCENT EXCEEDS	337		275		188	

[a] Site and datum then in use, from rating curve extended above 10,000 ft^3/s.



09364500 ANIMAS RIVER AT FARMINGTON, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1940 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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)
DEC												
09...	1215	403	658	8.4	2.0	3.0	626	11.0	100	250	100	79
FEB												
10...	1225	285	657	8.5	9.0	5.5	631	11.2	108	270	--	85
MAY												
05...	1220	2420	268	7.8	20.0	10.0	627	9.3	100	120	39	39
AUG												
11...	1200	296	596	8.5	32.0	22.0	636	8.6	119	220	93	70

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
DEC												
09...	13	26	.7	2.4	164	7	146	145	160	17	.4	4.5
FEB												
10...	14	33	.9	2.7	--	--	--	147	170	19	.4	5.4
MAY												
05...	5.5	6.0	.2	1.1	99	0	81	89	44	3.0	.2	5.8
AUG												
11...	11	27	.8	2.4	148	2	124	133	140	19	.4	7.3

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
DEC												
09...	385	<.01	.08	<.02	--	.1	<.1	.04	<.01	<.01	1.6	19
FEB												
10...	417	<.01	.12	.02	.12	.2	.1	.01	<.01	.01	2.1	12
MAY												
05...	154	<.010	.120	<.010	--	.48	<.20	.190	<.020	<.010	1.4	41
AUG												
11...	347	<.01	<.02	<.01	--	<.20	<.20	.04	<.02	<.01	.7	12

DATE	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
DEC												
09...	<1	<1	69	<1	56.7	2	2	<1	2	12	<1	90
FEB												
10...	<1	<1	66	<1	71.8	<1	3	<1	1	<10	<1	89
MAY												
05...	<1	<1	58	<1	20.9	<1	1	<1	2	30	<1	13
AUG												
11...	<1	<1	91	<1	66.1	<1	1	<1	5	12	<1	14

09364500 ANIMAS RIVER AT FARMINGTON, NM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	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)
DEC											
09...	<.1	1	<1	<1	<1	<1	14	8	5.2	110	120
FEB											
10...	<.1	1	<1	<1	<1	<1	10	--	--	--	--
MAY											
05...	<.1	<1	<1	<1	<1	<1	6	--	--	--	--
AUG											
11...	<.1	2	1	<1	<1	<1	3	--	--	--	--

DATE	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
DEC											
09...	5	1	20	5	22	18000	60	720	<.1	290	2
FEB											
10...	--	--	--	--	--	--	--	--	--	--	2
MAY											
05...	--	--	--	--	--	--	--	--	--	--	<1
AUG											
11...	--	--	--	--	--	--	--	--	--	--	2

09365000 SAN JUAN RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'22", long 108°13'30", in NW¼SE¼ sec.17, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on left bank 360 ft 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^2, 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 with satellite telemetry. 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 fair except for estimated daily discharges, which are poor. 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.

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 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1900	e1200	1090	e1210	1120	1270	1470	3740	7270	1600	e1000	740
2	e1700	e1150	1120	e1220	1110	1230	1470	4340	8590	1630	e1700	870
3	e1750	e1150	1110	e1250	1100	1190	1450	7590	9820	1530	e1600	992
4	e1800	1230	1100	e1280	1100	1250	1370	7870	9670	1630	e1400	936
5	e1700	1190	1100	e1300	1160	1370	1360	6580	7870	2020	e1250	864
6	e1600	1180	1060	e1250	1140	1380	1370	5290	6550	1690	e1150	837
7	e1500	1190	1120	e1210	1150	1140	1430	5800	6500	1960	1070	745
8	e1480	1120	1180	e1180	1140	1080	1410	4670	6810	2590	933	656
9	e1600	1180	e1110	e1180	1180	1030	1320	4320	6810	3520	843	638
10	e1500	1180	e800	e1200	1230	993	1140	3660	6820	3260	831	619
11	e1600	1160	e1100	e1210	1230	1040	1110	3950	5120	2640	760	649
12	e1850	1290	e1300	e1180	1240	1070	1290	4820	4840	2200	685	726
13	e1800	1250	e1260	e1150	1210	1020	1810	5070	5310	1890	722	816
14	e1750	1200	e1230	e1210	1230	1060	1890	5990	5690	1590	701	835
15	e1700	1160	e1230	e1210	1360	1110	1480	6200	4240	1270	657	833
16	e1600	1110	e1240	e1210	1350	1170	1510	6190	2330	991	661	795
17	e1520	1040	e1250	e1200	1260	1130	1320	5410	1410	875	635	789
18	e1480	1080	e1240	e1220	1210	1270	1210	5950	698	954	585	770
19	e1400	1050	e1240	e1250	1280	1220	1070	7390	417	1030	589	718
20	e1380	1100	e1230	1290	1330	1140	945	8230	914	995	e700	635
21	e1350	1140	e1230	1230	1300	1130	775	9080	1390	991	e850	576
22	e1340	1080	e1150	1150	1300	1160	824	10200	1590	975	e1010	483
23	e1330	1070	e1240	1130	1290	1280	1420	9520	1800	970	e980	489
24	e1500	1050	e1250	1150	1290	1370	3570	8970	1750	1060	e880	508
25	e1480	1050	e1250	1150	1310	1550	5130	8730	1490	1360	984	461
26	e1400	1050	e1230	1130	1280	1770	5020	8500	1370	e1400	877	446
27	e1350	1070	e1210	1080	1260	1990	5100	9130	1550	e2000	958	427
28	e1310	1050	e1200	1110	1260	1810	5420	9920	1770	e2800	887	411
29	e1280	1090	e1200	1130	---	1710	6190	11000	1840	e2100	811	451
30	e1230	1090	e1210	1180	---	1550	7100	11500	1780	e1600	710	1310
31	e1200	---	e1220	1130	---	1420	---	11000	---	e1250	634	---
TOTAL	47380	33950	36500	36980	34420	39903	67974	220610	124009	52371	28053	21025
MEAN	1528	1132	1177	1193	1229	1287	2266	7116	4134	1689	905	701
MAX	1900	1290	1300	1300	1360	1990	7100	11500	9820	3520	1700	1310
MIN	1200	1040	800	1080	1100	993	775	3660	417	875	585	411
AC-FT	93980	67340	72400	73350	68270	79150	134800	437600	246000	103900	55640	41700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1998, BY WATER YEAR (WY)

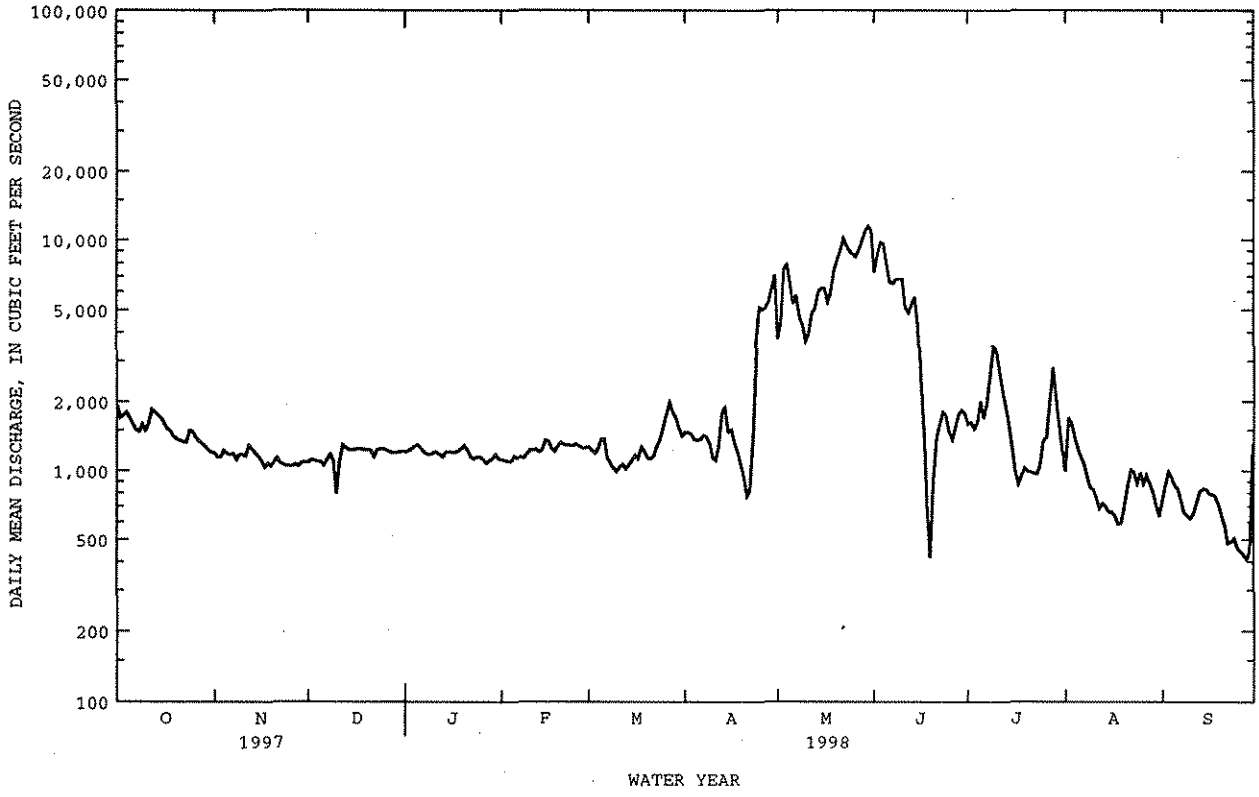
MEAN	1210	1010	991	1013	1145	1588	3040	5086	5485	2244	1272	1145
MAX	7271	3549	3381	3271	3032	5304	9133	18830	14990	8639	4938	3331
(WY)	1942	1987	1966	1986	1987	1993	1932	1941	1941	1957	1957	1970
MIN	286	315	362	329	374	349	391	576	517	192	166	170
(WY)	1957	1951	1957	1963	1964	1964	1964	1977	1934	1934	1939	1956

09365000 SAN JUAN RIVER AT FARMINGTON, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1931 - 1998	
ANNUAL TOTAL	973124		743175			
ANNUAL MEAN	2666		2036		2103	
HIGHEST ANNUAL MEAN					5054	1941
LOWEST ANNUAL MEAN					728	1963
HIGHEST DAILY MEAN	12300	Jun 3	11500	May 30	30000	May 14 1941
LOWEST DAILY MEAN	588	Jan 18	411	Sep 28	27	Aug 22 1939
ANNUAL SEVEN-DAY MINIMUM	623	Jan 15	456	Sep 23	37	Jul 1 1934
INSTANTANEOUS PEAK FLOW			12600	May 30	[a]68000	Jun 29 1927
INSTANTANEOUS PEAK STAGE			7.59	May 30	[b]10.20	Jun 29 1927
INSTANTANEOUS LOW FLOW			275	Jun 19	14	Aug 22 1939
ANNUAL RUNOFF (AC-FT)	1930000		1474000		1524000	
10 PERCENT EXCEEDS	7600		5350		5100	
50 PERCENT EXCEEDS	1610		1230		1130	
90 PERCENT EXCEEDS	736		798		450	

e Estimated

[a] Site and datum then in use.
[b] From rating curve extended above 37,000 ft^3/s.



09366500 LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 36°59'59", long 108°11'17", in NW¼SE¼ sec.10, T.32 N., R.13 W., La Plata County, CO, Hydrologic Unit 14080105, on right bank at Colorado-New Mexico State line, 0.5 mi downstream from Johnny Pond Arroyo, and 4.9 mi north of La Plata, NM.

DRAINAGE AREA.--331 mi^2.

PERIOD OF RECORD.--January 1920 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1934 (M), 1936 (M).

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,972.03 ft above sea level. See WSP 1713 or 1733 for history of changes prior to Mar. 17, 1934. Mar. 17, 1934 to July 1, 1996, water-stage recorder at same site, and at datum 3.12 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 15,000 acres, mostly upstream from station.

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

REVISIONS.--Revised figures of discharge for water year 1997, superseding those published in the report for 1997 are given below.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	8.7	11	17	34	25	149	101	323	50	72	11
2	6.2	8.0	e10	17	32	27	136	95	378	47	55	7.2
3	22	8.1	e10	20	32	32	109	79	243	43	92	5.6
4	16	9.0	e10	23	29	29	147	73	212	41	73	5.2
5	9.5	8.3	e10	22	30	22	153	94	187	38	90	5.7
6	7.8	8.0	e10	23	32	26	136	125	146	30	63	5.9
7	7.3	7.6	11	22	26	28	138	155	135	26	48	5.4
8	7.1	6.9	10	e22	e24	28	156	172	153	25	45	4.8
9	7.1	7.0	10	e20	e22	31	187	133	119	22	39	3.9
10	6.7	6.9	13	23	e24	35	182	114	80	22	42	3.9
11	8.7	6.9	20	e22	e20	38	134	93	66	22	60	3.4
12	15	6.9	15	30	e22	45	109	83	78	20	34	4.2
13	19	6.7	13	26	e24	54	92	103	93	19	28	12
14	16	6.8	12	26	26	77	81	171	75	22	24	16
15	15	7.4	e12	e24	27	91	76	212	76	30	22	17
16	15	8.2	e12	e20	27	98	75	238	77	28	19	52
17	16	7.8	e12	e18	28	117	82	233	60	26	18	22
18	15	7.4	e10	e16	27	148	87	264	48	24	17	15
19	15	7.4	e10	e16	28	176	112	269	73	24	14	13
20	14	7.4	e10	e18	29	214	143	209	81	29	12	13
21	12	8.0	e12	e22	27	312	172	194	62	23	9.0	83
22	11	8.6	e12	e20	26	358	201	211	74	19	6.1	247
23	10	9.4	e10	e22	30	370	186	169	91	19	5.5	118
24	11	8.4	e10	e24	29	355	198	133	81	19	5.6	61
25	9.6	8.6	e10	e24	31	262	163	142	67	14	6.9	31
26	9.0	8.9	e12	e26	27	227	129	113	53	12	8.2	36
27	10	9.7	e14	28	30	230	106	85	60	9.6	5.5	30
28	14	10	e16	26	30	225	96	68	62	10	5.8	25
29	18	13	17	31	---	229	105	54	57	18	6.3	21
30	12	13	17	30	---	200	101	67	52	44	7.0	16
31	9.8	---	17	32	---	185	---	233	---	90	8.2	---
TOTAL	370.8	249.0	378	710	773	4294	3941	4485	3362	865.6	941.1	894.2
MEAN	12.0	8.30	12.2	22.9	27.6	139	131	145	112	27.9	30.4	29.8
MAX	22	13	20	32	34	370	201	269	378	90	92	247
MIN	6.0	6.7	10	16	20	22	75	54	48	9.6	5.5	3.4
AC-FT	735	494	750	1410	1530	8520	7820	8900	6670	1720	1870	1770

CAL YR 1996 TOTAL 5125.68 MEAN 14.0 MAX 76 MIN .98 AC-FT 10170
WTR YR 1997 TOTAL 21263.7 MEAN 58.3 MAX 378 MIN 3.4 AC-FT 42180

e Estimated

09366500 LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	17	32	e24	18	20	93	43	79	23	11	1.9
2	15	17	33	25	19	19	94	44	87	21	8.7	1.8
3	21	17	32	26	19	20	83	72	80	20	6.1	1.7
4	21	16	25	28	21	22	101	90	84	20	6.4	1.9
5	17	15	25	27	21	22	100	88	79	19	5.7	2.8
6	14	16	25	26	21	23	100	76	62	17	4.8	3.2
7	14	20	27	e26	22	23	94	69	50	17	4.6	3.0
8	19	22	29	e26	21	20	92	55	34	24	4.8	3.1
9	20	23	27	28	21	21	89	49	43	38	5.7	3.1
10	15	24	26	25	20	22	75	46	46	25	6.0	3.3
11	14	27	27	24	19	30	73	53	43	21	6.2	3.7
12	15	34	25	24	19	36	85	54	40	14	6.4	3.7
13	18	33	e25	23	19	37	89	52	38	12	5.8	3.9
14	17	32	e25	22	21	34	85	53	35	12	5.4	3.7
15	16	34	e25	23	21	36	71	51	35	11	5.2	3.7
16	16	33	e25	24	19	46	65	57	34	8.5	4.6	3.9
17	15	33	e24	23	19	58	59	55	42	6.8	3.7	3.8
18	14	30	e23	23	19	66	54	53	35	6.1	3.1	3.4
19	14	33	23	23	19	48	49	73	33	5.8	3.1	3.2
20	14	34	e22	22	19	49	45	68	32	5.6	2.8	3.0
21	14	33	e22	21	19	46	43	79	31	6.0	4.0	3.0
22	14	32	23	21	20	65	43	72	30	6.6	3.9	3.1
23	14	32	22	22	20	66	43	47	28	6.0	3.1	3.1
24	17	32	22	20	21	68	54	66	26	6.9	2.9	2.9
25	19	34	e22	19	21	92	66	76	29	6.4	2.9	2.8
26	17	34	e20	19	19	155	62	79	27	17	2.8	2.6
27	16	34	e18	19	19	144	60	76	27	18	2.0	2.8
28	16	35	e20	19	19	135	52	74	26	22	1.8	2.8
29	17	33	e20	19	---	121	47	71	23	12	2.5	4.2
30	18	31	e22	20	---	101	43	67	26	8.3	1.9	7.9
31	18	---	e22	19	---	95	---	67	---	7.4	1.7	---
TOTAL	503	840	758	710	555	1740	2109	1975	1284	443.4	139.6	97.0
MEAN	16.2	28.0	24.5	22.9	19.8	56.1	70.3	63.7	42.8	14.3	4.50	3.23
MAX	21	35	33	28	22	155	101	90	87	38	11	7.9
MIN	14	15	18	19	18	19	43	43	23	5.6	1.7	1.7
AC-FT	998	1670	1500	1410	1100	3450	4180	3920	2550	879	277	192

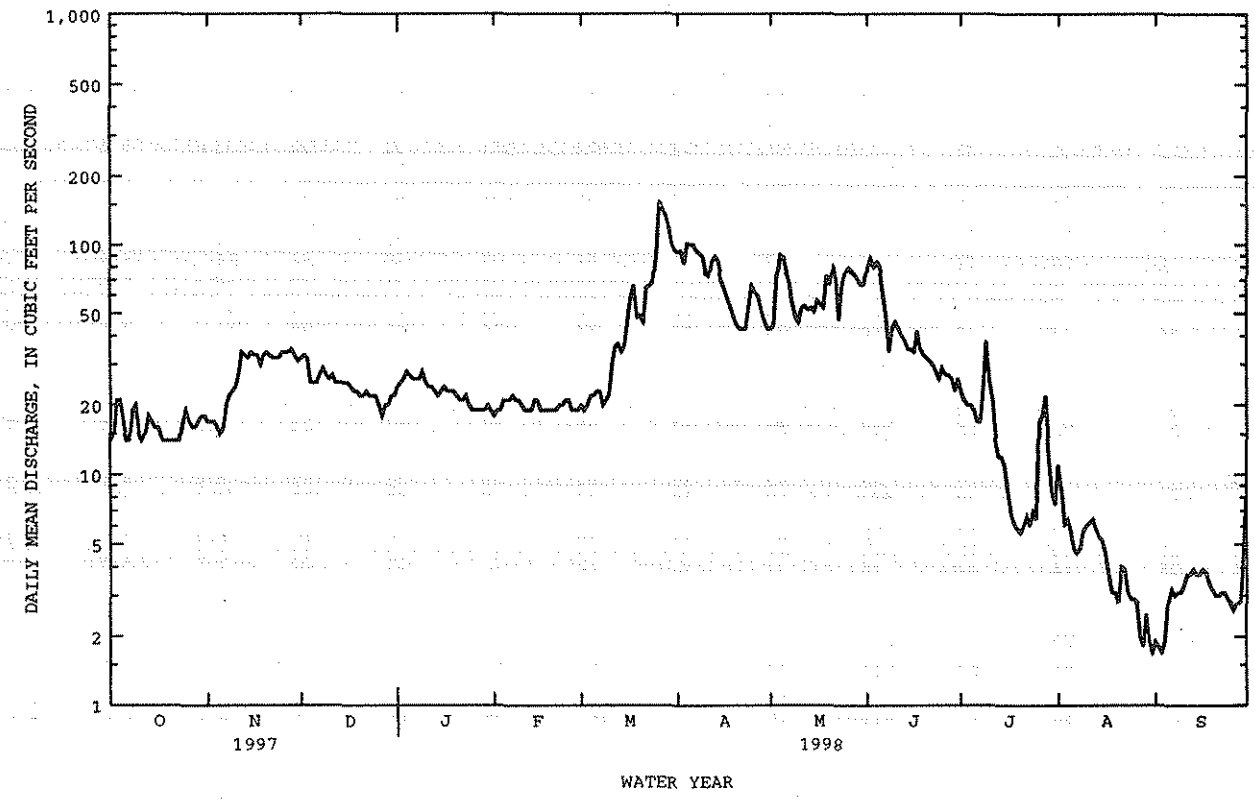
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1998, BY WATER YEAR (WY)

MEAN	13.9	12.1	12.3	12.0	17.2	37.9	107	110	67.5	20.3	12.0	11.3
MAX	260	99.2	53.9	38.3	53.9	139	364	506	306	99.4	65.1	126
(WY)	1942	1942	1987	1942	1924	1997	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 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1921 - 1998	
ANNUAL TOTAL	22366.9		11154.0			
ANNUAL MEAN	61.3		30.6		36.1	
HIGHEST ANNUAL MEAN					109	1973
LOWEST ANNUAL MEAN					4.44	1977
HIGHEST DAILY MEAN	378	Jun 2	155	Mar 26	1120	May 4 1941
LOWEST DAILY MEAN	3.4	Sep 11	[a]1.7	Aug 31	[b].00	Jul 3 1922
ANNUAL SEVEN-DAY MINIMUM	4.5	Sep 6	1.9	Aug 28	.00	Jul 3 1922
INSTANTANEOUS PEAK FLOW			173	Mar 26	[c]4750	Aug 24 1927
INSTANTANEOUS PEAK STAGE			4.10	Mar 26	11.36	Aug 24 1927
ANNUAL RUNOFF (AC-FT)	44360		22120		26180	
10 PERCENT EXCEEDS	170		72		86	
50 PERCENT EXCEEDS	29		22		12	
90 PERCENT EXCEEDS	14		3.7		1.7	

e Estimated
[a] Also occurred Sep 3.
[b] No flow at times in many years.
[c] From rating curve extended above 750 ft^3/s, on basis of slope-area measurement of peak flow, at datum then in use.

09366500 LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE--Continued



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 U.S. Highway 64 in Farmington, and 1,800 ft upstream from mouth.

DRAINAGE AREA.--583 mi^2.

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 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	20	46	e34	e17	25	72	3.1	1.9	.85	4.0	4.4
2	35	20	46	e38	e15	26	71	2.7	5.3	.87	3.8	3.9
3	24	20	48	e43	e14	26	65	2.7	7.5	.84	3.3	3.3
4	8.0	20	44	e38	e16	27	63	11	3.6	.89	3.2	3.2
5	8.1	20	39	e36	e22	29	69	15	3.7	.82	e1.5	3.2
6	8.1	20	39	e37	e31	29	69	15	3.9	.90	e1.2	3.3
7	8.0	21	40	e35	e27	33	70	12	3.9	.91	e.87	3.5
8	8.3	22	49	e34	e25	29	64	9.7	4.7	.91	e.53	3.5
9	8.3	23	e44	e32	e26	26	53	4.7	3.7	.91	e.46	3.7
10	8.4	24	e37	e34	e27	25	46	3.7	3.2	.91	e.31	3.7
11	7.4	40	e37	e36	e27	30	40	2.8	3.4	.83	e.27	3.1
12	7.1	39	e40	e34	27	42	45	2.4	4.9	.82	.44	2.9
13	7.5	40	e42	e30	27	50	59	2.3	6.1	.82	.51	3.3
14	9.9	39	e40	e33	27	44	45	2.3	4.8	.82	.60	3.4
15	12	41	e37	e35	42	45	37	2.2	4.6	.83	.80	4.0
16	11	41	e35	e38	32	51	31	2.0	5.5	.74	.90	4.5
17	9.4	42	e33	e35	28	63	26	1.9	4.6	.74	.91	5.1
18	9.1	41	e35	e31	27	70	22	1.8	3.4	.72	.99	5.9
19	8.1	43	e37	e29	26	64	20	1.8	3.6	.67	.98	6.0
20	8.0	45	e36	e26	27	53	16	3.8	2.6	e.51	1.1	5.6
21	8.6	46	e34	e24	27	48	12	2.4	1.4	e.63	6.9	4.2
22	8.4	46	e32	e24	27	61	11	2.7	.96	e.91	1.5	4.5
23	9.3	45	e31	e25	28	68	7.1	3.2	.81	e2.1	2.5	4.6
24	10	45	e30	e22	28	67	5.4	2.1	.73	e3.2	2.5	5.4
25	17	46	e29	e19	29	73	5.1	3.0	.68	5.9	2.2	5.7
26	18	47	e28	e20	27	116	7.8	2.5	.53	1.8	2.0	5.9
27	18	48	e27	e20	25	129	7.1	5.2	.74	3.7	2.3	5.7
28	21	48	e28	e21	23	115	5.4	2.5	.76	33	2.6	5.5
29	19	47	e30	e22	---	105	4.5	3.8	.78	10	2.7	55
30	19	45	e30	e20	---	88	3.7	2.3	.77	6.0	3.6	36
31	20	---	e31	e19	---	80	---	1.9	---	4.6	4.6	---
TOTAL	407.0	1084	1134	924	724	1737	1052.1	134.5	93.06	88.15	60.07	212.0
MEAN	13.1	36.1	36.6	29.8	25.9	56.0	35.1	4.34	3.10	2.84	1.94	7.07
MAX	35	48	49	43	42	129	72	15	7.5	33	6.9	55
MIN	7.1	20	27	19	14	25	3.7	1.8	.53	.51	.27	2.9
AC-FT	807	2150	2250	1830	1440	3450	2090	267	185	175	119	421

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1998, BY WATER YEAR (WY)

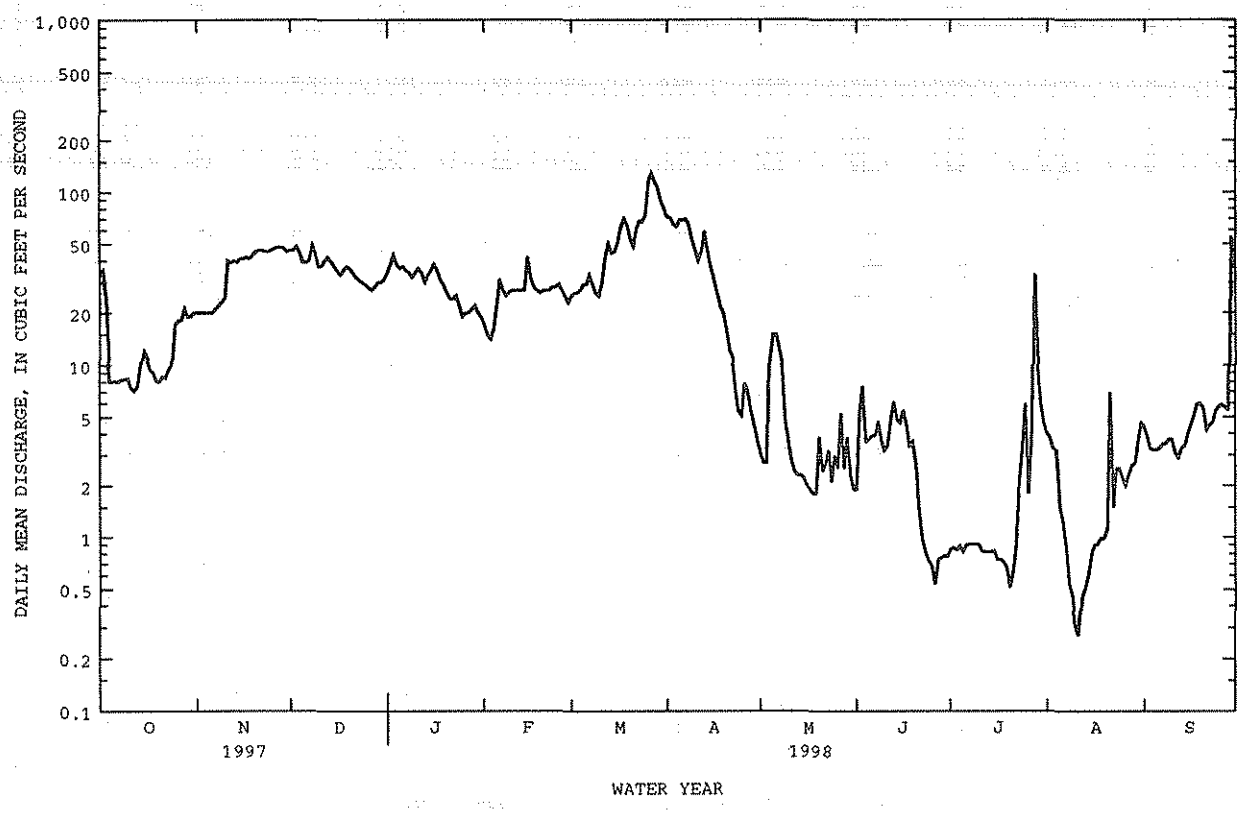
MEAN	20.3	13.3	14.6	18.6	24.6	36.5	89.9	67.8	34.8	8.89	11.6	11.3
MAX	537	141	73.1	100	89.3	166	408	783	252	117	64.5	170
(WY)	1942	1987	1987	1979	1979	1993	1980	1941	1957	1986	1957	1941
MIN	.000	.000	.000	.032	1.00	.16	.000	.000	.000	.000	.000	.000
(WY)	1947	1955	1956	1957	1957	1959	1951	1939	1939	1948	1960	1955

09367500 LA PLATA RIVER NEAR FARMINGTON, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1938 - 1998	
ANNUAL TOTAL	18943.5		7649.88			
ANNUAL MEAN	51.9		21.0		29.2	
HIGHEST ANNUAL MEAN					134	1941
LOWEST ANNUAL MEAN					.48	1956
HIGHEST DAILY MEAN	290	Jun 2	129	Mar 27	2370	May 13 1941
LOWEST DAILY MEAN	1.1	Sep 12	.27	Aug 11	.00	Mar 1 1938
ANNUAL SEVEN-DAY MINIMUM	1.3	Jul 3	.45	Aug 8	.00	Mar 1 1938
INSTANTANEOUS PEAK FLOW			963	Sep 29	[a]5770	Aug 21 1990
INSTANTANEOUS PEAK STAGE			4.82	Sep 29	[b]13.60	Aug 21 1990
INSTANTANEOUS LOW FLOW			.00	Jun 26	.00	Aug 1 1996
ANNUAL RUNOFF (AC-FT)	37570		15170		21160	
10 PERCENT EXCEEDS	144		46		67	
50 PERCENT EXCEEDS	36		15		4.3	
90 PERCENT EXCEEDS	4.7		.91		.00	

e Estimated

[a] From rating curve extended on basis of slope-area measurement of peak flow.
[b] From floodmarks.



09368000 SAN JUAN RIVER AT SHIPROCK, NM

LOCATION.--Lat 36°46'52", long 108°41'23", in SE¼ sec.25, T.30 N., R.18 W., San Juan County, Hydrologic Unit 14080105, on right bank 500 ft upstream from bridge on U.S. Highway 666 in Shiprock, 3 mi downstream from Chaco River, and at mile 215.0.

DRAINAGE AREA.--12,900 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to October 1911, February 1927 to current year. Monthly or yearly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1931, 1934-38, 1951. WSP 1313: 1911, 1933. WDR NM-78-1: 1977.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,890 ft above National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Apr. 6, 1922, nonrecording gage and Apr. 7, 1922, to Oct. 25, 1933, water-stage recorder, at site 3 mi upstream at different datum. Oct. 26, 1933, to Sept. 30, 1936, water-stage recorder at present site at datum 3.31 ft higher and Oct. 1, 1936, to Sept. 30, 1952, at datum 1.77 ft higher. Supplementary water-stage recorders at nearby sites, same datum, used at times. Water-stage recorder, at site 4 mi upstream Sept. 1994.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are fair. Since 1962 flow partly regulated by Navajo Reservoir (station 09355100). Diversions for irrigation of about 118,000 acres upstream from station. Ungaged canals bypass station on both right and left banks, though some of bypass flow is returned to river downstream from gage.

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 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670	1220	982	1260	1150	1080	1310	3500	7220	2100	1620	639
2	1620	1180	992	1260	1150	1090	1340	3700	7260	1860	1510	699
3	1630	1150	1030	1280	1150	1050	1310	3860	7550	1840	1330	803
4	1600	1150	988	1330	1160	1080	1280	4310	7610	1700	1140	858
5	1480	1130	983	1340	1180	1140	1330	4590	6930	2020	1100	741
6	1350	1120	929	1340	1160	1160	e1280	4500	6140	e2400	1110	668
7	e1240	1140	965	1280	1170	1080	e1180	4250	5850	e2700	864	609
8	e1190	1100	1080	1220	1190	990	e1050	3990	5830	e2650	699	552
9	e1280	1130	1270	1210	1200	943	e1200	3870	5740	e2500	617	549
10	1290	1130	1090	1260	1160	887	1060	3730	5640	2370	543	583
11	1210	1140	777	1260	1200	918	1020	3790	4980	2100	502	590
12	1360	1310	993	1260	1190	985	1070	4300	4010	1980	415	537
13	1490	1310	1360	1240	1180	973	1230	4480	3720	1870	417	855
14	1350	1200	1340	1250	1160	1000	1240	4940	3930	1870	444	869
15	1330	1150	1360	1220	1250	1020	1170	5190	3840	1540	523	841
16	1390	1120	1360	1230	1260	1030	1130	4940	3060	e1400	481	643
17	1370	1050	1360	1220	1180	1050	1080	4830	2710	e1250	451	640
18	1210	1090	1360	1240	1190	1130	1020	4930	2070	e1120	388	636
19	1140	1090	1320	1240	1170	1130	1000	5590	1650	e1000	326	655
20	1110	1100	1300	1240	1210	1010	969	5900	1720	e900	340	642
21	1110	1080	1290	1250	1170	1050	901	6180	2220	e800	1390	584
22	1090	1050	1280	1210	1190	1040	787	6800	2200	791	4680	475
23	1090	1010	1310	1160	1210	1080	810	6780	2340	790	2700	498
24	1180	1010	1300	1180	1160	1120	1350	6410	2310	835	1150	566
25	1350	1010	1300	1180	1180	1240	2210	6350	2200	1200	950	454
26	1300	1000	1260	1160	1190	1410	2360	6160	2020	1420	775	423
27	1250	1000	1250	1170	1160	1750	2330	6380	2000	1750	719	412
28	1230	1030	1270	1190	1080	1620	2550	6660	2140	2000	706	403
29	1220	1000	1250	1200	---	1560	2920	7100	2130	1930	682	474
30	1240	989	1210	1200	---	1450	3270	7380	2090	1570	613	1420
31	1220	---	1240	1170	---	1290	---	7370	---	1370	532	---
TOTAL	40590	33189	36799	38250	33000	35356	42757	162760	119110	51626	29717	19318
MEAN	1309	1106	1187	1234	1179	1141	1425	5250	3970	1665	959	644
MAX	1670	1310	1360	1340	1260	1750	3270	7380	7610	2700	4680	1420
MIN	1090	989	777	1160	1080	887	787	3500	1650	790	326	403
AC-FT	80510	65830	72990	75870	65460	70130	84810	322800	236300	102400	58940	38320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1998, BY WATER YEAR (WY)

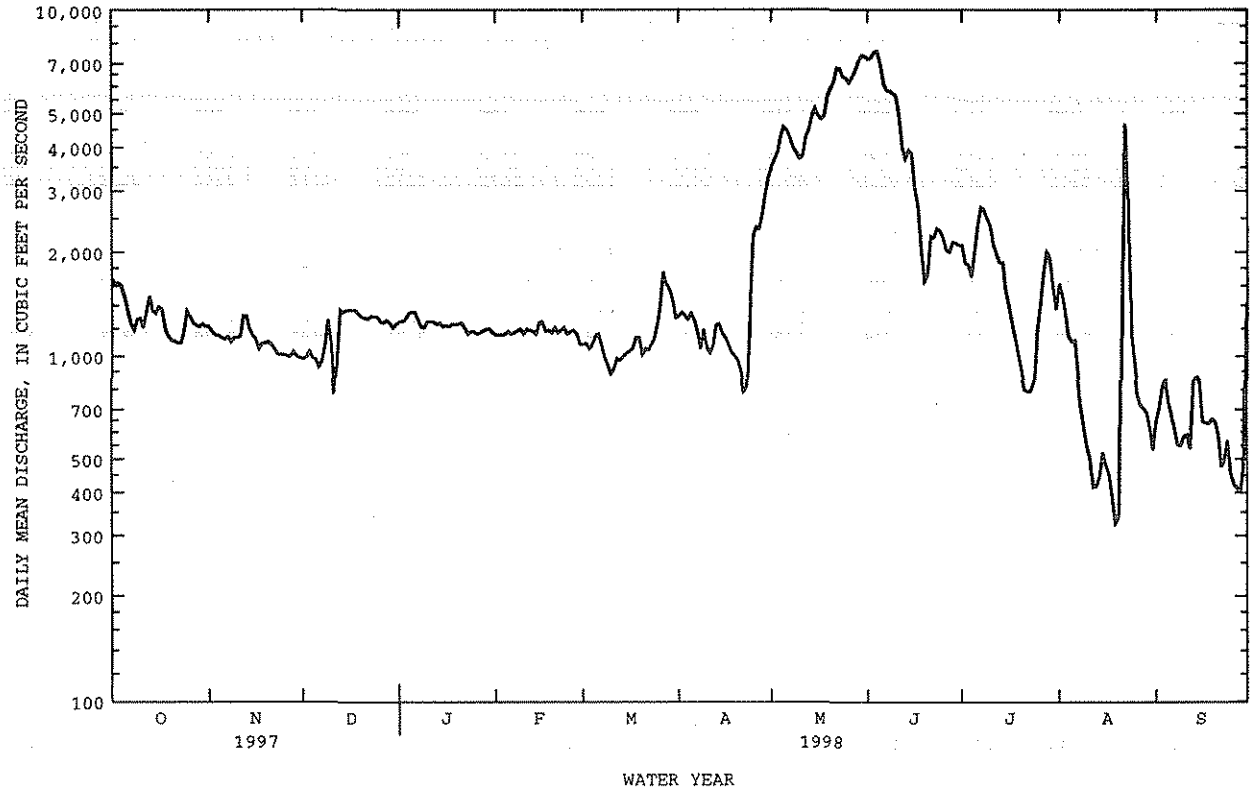
MEAN	1267	1103	1068	1078	1223	1648	3042	4936	5389	2234	1312	1195
MAX	8370	3997	3420	3169	3314	5099	9275	19790	15540	8869	5171	3329
(WY)	1942	1987	1966	1966	1987	1993	1937	1941	1941	1957	1957	1938
MIN	247	365	386	390	395	359	274	268	630	185	126	44.4
(WY)	1957	1935	1957	1963	1964	1964	1977	1977	1977	1963	1939	1956

09368000 SAN JUAN RIVER AT SHIPROCK, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1935 - 1998	
ANNUAL TOTAL	931992		642472			
ANNUAL MEAN	2553		1760		2125	
HIGHEST ANNUAL MEAN					5324	1941
LOWEST ANNUAL MEAN					702	1963
HIGHEST DAILY MEAN	12400	Jun 3	7610	Jun 4	33300	Oct 14 1941
LOWEST DAILY MEAN	500	Jan 15	326	Aug 19	8.0	Aug 25 1939
ANNUAL SEVEN-DAY MINIMUM	533	Jan 13	422	Aug 14	13	Jul 24 1959
INSTANTANEOUS PEAK FLOW			8090	Jun 4	80000	Aug 11 1929
INSTANTANEOUS PEAK STAGE			12.17	Jun 4	14.02	Jun 19 1995
INSTANTANEOUS LOW FLOW			326	Aug 19	[a]8.0	Aug 25 1939
ANNUAL RUNOFF (AC-FT)	1849000		1274000		1540000	
10 PERCENT EXCEEDS	7270		4110		5060	
50 PERCENT EXCEEDS	1470		1210		1150	
90 PERCENT EXCEEDS	624		676		454	

e Estimated

[a] Also occurred Aug. 26, 1939.



09368000 SAN JUAN RIVER AT SHIPROCK, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1941-45, 1951 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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, DISSOLVED (MG/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
DEC 10...	1055	1130	575	8.2	3.0	3.0	640	11.0	98	200	81	58
FEB 12...	1105	1140	508	8.2	5.5	4.0	642	11.6	105	170	65	52
MAY 06...	1010	4550	277	7.8	6.5	10.0	638	9.2	98	110	30	35
AUG 13...	1115	380	565	8.4	22.0	20.5	647	7.7	101	190	78	59

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
DEC 10...	12	39	1	2.2	140	0	115	119	150	12	.3	9.1
FEB 12...	11	33	1	2.1	134	0	110	108	130	13	.3	9.8
MAY 06...	5.8	13	.5	1.5	98	0	81	86	51	3.3	.2	9.0
AUG 13...	10	34	1	2.2	137	0	112	124	140	14	.3	9.0

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)
DEC 10...	354	<.01	.23	<.02	.3	.1	.04	<.01	<.01	4.8	8	<1
FEB 12...	319	<.01	.26	.04	.3	<.1	.08	<.01	.02	4	6	<1
MAY 06...	167	<.010	.130	<.010	.44	<.20	.310	<.020	<.010	2.4	17	<1
AUG 13...	335	<.01	.06	<.01	.27	<.20	.05	<.02	.02	1.8	15	<1

DATE	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)
DEC 10...	<1	63	<1	63.7	1	2	<1	2	<3	<1	13	<.1
FEB 12...	<1	63	<1	50.5	<1	3	<1	1	<10	<1	6	<.1
MAY 06...	<1	59	<1	24.1	<1	1	<1	2	23	<1	5	<.1
AUG 13...	<1	86	<1	60.6	<1	1	<1	2	<10	<1	7	<.1

09368000 SAN JUAN RIVER AT SHIPROCK, NM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	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)
DEC												
10...	2	1	<1	<1	<1	8	7	26	270	240	3	<1
FEB												
12...	1	<1	<1	<1	<1	<1	--	--	--	--	--	--
MAY												
06...	<1	<1	<1	<1	<1	2	--	--	--	--	--	--
AUG												
13...	2	1	<1	<1	<1	2	--	--	--	--	--	--

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)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
DEC											
10...	10	<5	8	13000	10	270	<.1	45	2	--	--
FEB											
12...	--	--	--	--	--	--	--	--	2	--	--
MAY											
06...	--	--	--	--	--	--	--	--	<1	4420	54300
AUG											
13...	--	--	--	--	--	--	--	--	2	--	--

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO

LOCATION.--Lat 37°00'20", long 109°02'00", SE¼NE¼ sec.21, T.32 N., R.20 W., Montezuma County, Hydrologic Unit 14080201, on left bank 1,300 ft upstream from bridge on U.S. Highway 160, 0.1 mi north of New Mexico-Colorado State line, 1.0 mi east of Four Corners Monument, 3.0 mi downstream from Mancos River, and at mile 187.2.

DRAINAGE AREA.--14,600 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,900 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow partly regulated by Navajo Reservoir (09355100).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	1350	994	e1220	1180	1070	1630	4480	7660	2410	e1530	499
2	1650	1340	1000	e1180	1180	1090	1670	4630	7700	2130	e1480	589
3	1680	1290	1040	e1190	1160	1090	1650	4790	8160	2140	e1450	648
4	1640	1290	1000	e1250	1170	1070	1610	5160	8580	2010	e1410	765
5	1510	1280	995	e1280	1230	1140	1620	5400	7950	2110	e1360	728
6	1410	1240	947	e1270	1230	1270	1590	5340	7100	2230	e1310	597
7	1260	1230	964	e1190	1220	1260	1650	5000	6640	1930	e1270	560
8	1250	1250	1030	e1130	1260	1030	1700	4820	6560	2160	983	482
9	1290	1160	1250	e1080	1290	981	1660	4680	6450	2730	800	483
10	1370	1220	1350	e1140	1240	944	1450	4560	6330	e2890	680	484
11	1260	1210	901	e1200	1230	889	1340	4620	5860	2760	609	499
12	1300	1370	757	e1190	1220	899	1320	5060	4840	2620	494	520
13	1600	1430	e1230	e1180	1230	930	1580	5260	4310	2230	466	656
14	1550	1360	e1320	e1260	1210	943	1740	5480	4460	1890	458	856
15	1470	1250	e1280	1220	1260	992	1690	5660	4530	1610	525	794
16	1490	1180	e1280	1240	1480	1040	1490	5400	3890	e1180	583	601
17	1550	1110	e1300	1230	1280	1140	1470	5190	3420	e1120	539	562
18	1360	1080	e1290	1230	1260	1190	1380	5240	2840	e1000	466	558
19	1260	1120	e1270	1290	1220	1330	1360	5730	2270	e920	407	566
20	1200	1110	e1240	1280	1260	1150	1300	6140	2110	e875	345	546
21	1180	1120	e1200	1270	1270	1050	1250	6320	2430	e850	484	519
22	1170	1100	e1220	1250	1270	1040	1170	7060	2510	750	e2000	496
23	1170	1040	e1250	1160	1280	1080	1150	7420	2620	703	e5200	480
24	1220	1030	e1240	1160	1270	1190	1560	6920	2650	757	e3000	463
25	1470	1010	e1220	1180	1220	1370	2820	6890	2570	1110	e1600	458
26	1480	1010	e1240	1180	1230	1720	3430	6720	2390	1330	872	453
27	1400	1010	e1160	1170	1200	2180	3490	6760	2320	2110	658	450
28	1360	1030	e1210	1180	1130	2260	3620	7040	2370	2700	663	450
29	1390	1040	e1230	1230	---	2140	3840	7430	2400	2710	611	450
30	1420	1000	e1180	1220	---	2020	4060	7740	2330	2160	522	e1000
31	1360	---	e1180	1210	---	1780	---	7810	---	1740	500	---
TOTAL	43520	35260	35768	37460	34680	39278	57290	180750	136250	55865	33275	17212
MEAN	1404	1175	1154	1208	1239	1267	1910	5831	4542	1802	1073	574
MAX	1800	1430	1350	1290	1480	2260	4060	7810	8580	2890	5200	1000
MIN	1170	1000	757	1080	1130	889	1150	4480	2110	703	345	450
AC-FT	86320	69940	70950	74300	68790	77910	113600	358500	270300	110800	66000	34140

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1998, BY WATER YEAR (WY)

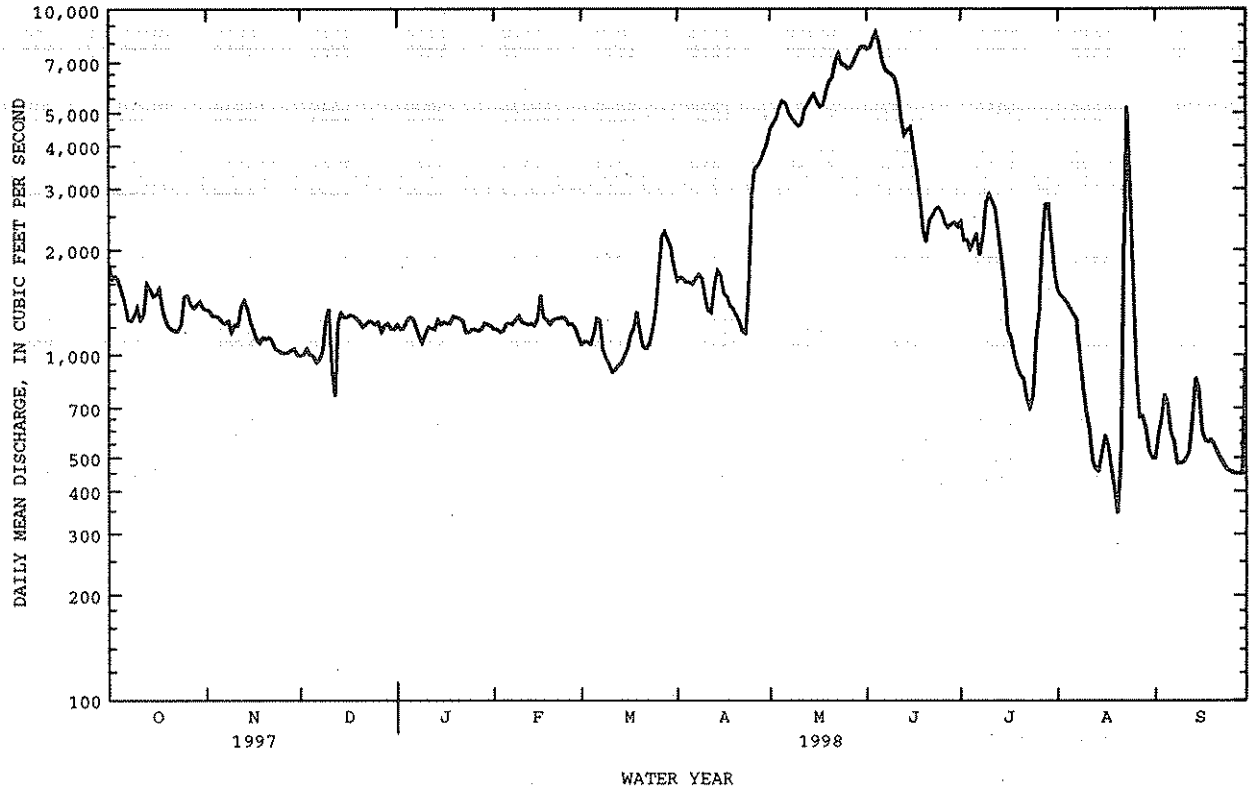
MEAN	1280	1381	1411	1494	1600	2146	3058	4843	5429	2504	1392	1341
MAX	2959	3732	3466	3300	3365	5454	7893	10220	10370	6846	3016	3243
(WY)	1987	1987	1987	1987	1987	1993	1979	1979	1979	1979	1986	1986
MIN	634	838	700	760	695	707	606	1030	1236	714	259	467
(WY)	1978	1980	1997	1990	1997	1990	1996	1981	1989	1996	1978	1989

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1978 - 1998	
ANNUAL TOTAL	976782		706608			
ANNUAL MEAN	2676		1936		2323	
HIGHEST ANNUAL MEAN					4180	1987
LOWEST ANNUAL MEAN					991	1990
HIGHEST DAILY MEAN	11900	Jun 4	8580	Jun 4	16400	May 29 1979
LOWEST DAILY MEAN	603	Feb 16	345	Aug 20	110	Aug 17 1978
ANNUAL SEVEN-DAY MINIMUM	618	Feb 11	458	Sep 23	126	Aug 14 1978
INSTANTANEOUS PEAK FLOW			9200	Jun 3	16900	May 29 1979
INSTANTANEOUS PEAK STAGE			4.90	Jun 3	[a]6.25	May 29 1979
INSTANTANEOUS LOW FLOW			316	Aug 19	110	Aug 19 1978
ANNUAL RUNOFF (AC-FT)	1937000		1402000		1683000	
10 PERCENT EXCEEDS	7730		4900		5610	
50 PERCENT EXCEEDS	1560		1260		1450	
90 PERCENT EXCEEDS	703		610		706	

e Estimated

[a] Maximum gage height, 14.43 ft, Dec. 12, 1978, (backwater from ice).



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 1997 TO SEPTEMBER 1998

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)
DEC									
10...	0805	1410	712	8.0	.000	2.5	580	645	11.0
FEB									
12...	0820	1200	560	8.4	1.5	3.0	72	648	10.8
MAY									
06...	0750	1770	281	7.8	12.0	10.0	110	643	9.3
AUG									
13...	0745	504	640	8.4	20.5	21.0	24	653	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)
DEC									
10...	96	200	78	60	13	54	2	2.2	152
FEB									
12...	95	190	75	53	13	37	1	2.0	129
MAY									
06...	98	110	25	32	6.0	13	.5	1.4	97
AUG									
13...	100	210	94	61	13	43	1	2.4	136

DATE	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC UNFLTRD TIT 4.5 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)
DEC									
10...	0	124	132	210	14	.4	7.9	469	437
FEB									
12...	3	110	112	150	12	.3	9.6	365	348
MAY									
06...	0	79	85	54	3.4	.2	9.0	172	166
AUG									
13...	2	115	128	170	15	.3	9.8	422	385

09386900 RIO NUTRIA NEAR RAMAH, NM

LOCATION.--Lat 35°16'57", long 108°33'10", in NW¼SW¼ sec.8, T.12 N., R.16 W., McKinley County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on left bank at mouth of Nutria Canyon, 0.9 mi upstream from Nutria diversion dam, 1.3 mi northeast of Upper Nutria, and 10.4 mi northwest of Ramah.

DRAINAGE AREA.--71.4 mi^2.

PERIOD OF RECORD.--October 1969 to current year.

REVISED RECORDS.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder and concrete control. Concrete control raised 1.0 ft June 6, 1975. Control raised 2.35 ft June 28, 1984. Elevation of gage is 6,860 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.16	.41	e.13	.22	7.8	116	5.2	e.12	.04	.59	.08
2	.15	.16	.59	e.13	.20	5.8	115	3.6	e.12	.06	.21	.09
3	.17	.16	1.7	e.15	.22	3.6	114	e.60	e.12	.07	.13	.13
4	.15	.19	1.5	e.15	.46	11	127	e.90	e.13	.07	.10	.12
5	.12	.21	1.1	e.15	.54	29	106	e.60	e.14	.09	.10	.12
6	.12	.21	.66	e.13	.48	32	92	e.40	e.15	.28	.10	.10
7	.20	.20	.80	e.12	.70	22	66	e.34	e.17	1.4	.09	.08
8	.60	.21	e.27	e.15	.95	17	59	e.33	e.18	2.2	.08	.08
9	.18	.23	e.27	e.14	1.0	19	41	e.22	e.19	6.8	.08	.07
10	.16	.27	e.21	.17	1.2	17	42	e.21	e.20	1.7	.08	.09
11	.13	.27	e.21	.16	1.1	22	53	e.22	e.16	.26	.10	.08
12	.12	.34	e.21	.18	1.4	38	53	e.31	e.12	.09	.19	.12
13	.14	.42	e.20	.21	1.4	44	38	e.40	e.10	.07	.23	.11
14	.12	.36	e.17	.22	1.7	63	28	e.31	e.08	.06	.14	.10
15	.12	.47	e.15	.21	2.3	190	23	e.34	e.08	.05	.17	.09
16	.12	.31	e.15	.21	2.3	221	26	e.34	e.07	.04	.20	.08
17	.13	.27	e.18	.23	2.1	175	26	e.31	e.08	.05	.13	.11
18	.16	.27	e.17	.36	2.4	180	24	e.42	e.08	.05	.10	.16
19	.16	.41	e.17	.60	2.3	189	16	e.44	e.08	.05	.09	.14
20	.16	.41	e.16	1.1	2.6	241	12	e.53	e.10	.07	.61	.10
21	.16	.40	e.16	1.4	2.4	313	11	e.51	e.07	.07	1.2	.08
22	.25	.35	e.14	1.2	2.4	412	11	e.41	e.06	.10	3.1	.10
23	.28	.33	e.13	.51	2.7	605	10	e.41	e.05	.12	.23	.09
24	.19	.33	e.12	.32	4.7	632	9.5	e.33	.03	.13	.14	.05
25	.26	.28	e.12	.32	6.7	597	7.4	e.34	.04	.18	.24	.05
26	.21	.32	e.12	.33	8.8	404	8.0	e.24	.04	.13	.25	.07
27	.21	.39	e.12	.36	8.4	208	14	e.25	.03	.17	.13	.07
28	.21	.48	e.10	.32	8.1	143	11	e.25	.04	.13	1.3	.09
29	.21	.48	e.11	.32	---	109	9.7	e.20	.05	.11	.48	.15
30	.21	.41	e.12	.40	---	98	7.4	e.20	.05	.10	.11	.21
31	.17	---	e.12	.31	---	106	---	e.17	---	.29	.08	---
TOTAL	5.75	9.30	10.64	10.69	69.77	5154.2	1276.0	19.33	2.93	15.03	10.78	3.01
MEAN	.19	.31	.34	.34	2.49	166	42.5	.62	.098	.48	.35	.10
MAX	.60	.48	1.7	1.4	8.8	632	127	5.2	.20	6.8	3.1	.21
MIN	.12	.16	.10	.12	.20	3.6	7.4	.17	.03	.04	.08	.05
AC-FT	11	18	21	21	138	10220	2530	38	5.8	30	21	6.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1998, BY WATER YEAR (WY)

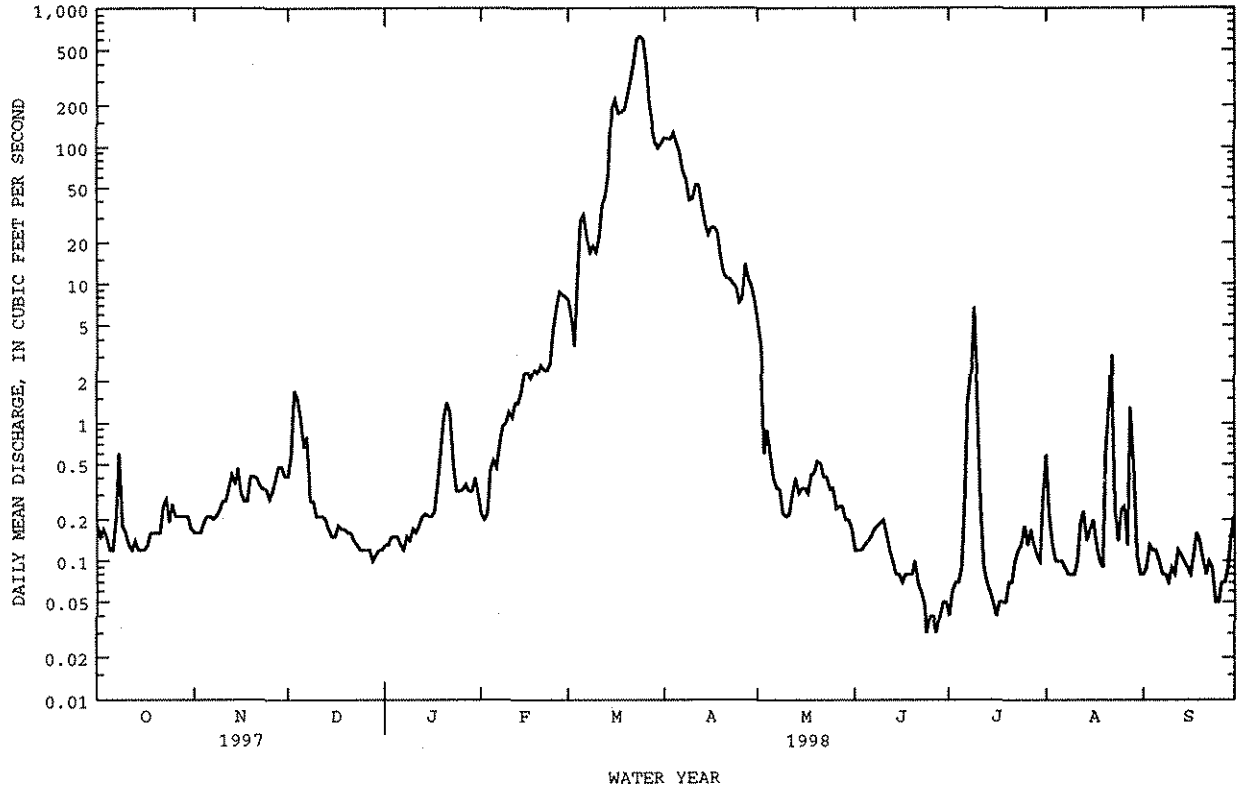
MEAN	.39	.65	.85	1.20	6.18	37.2	33.8	3.49	.34	.62	1.71	.67
MAX	2.43	5.43	3.76	18.9	57.1	166	187	33.8	1.33	3.52	14.0	6.04
(WY)	1973	1995	1984	1993	1995	1998	1973	1973	1973	1982	1997	1997
MIN	.028	.023	.019	.058	.084	.11	.12	.087	.031	.015	.038	.033
(WY)	1994	1978	1978	1976	1971	1972	1976	1976	1984	1993	1971	1983

09386900 RIO NUTRIA NEAR RAMAH, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1970 - 1998	
ANNUAL TOTAL	2244.36		6587.43			
ANNUAL MEAN	6.15		18.0		7.25	
HIGHEST ANNUAL MEAN					22.4	1980
LOWEST ANNUAL MEAN					.13	1976
HIGHEST DAILY MEAN	150	Aug 5	632	Mar 24	1030	Mar 6 1995
LOWEST DAILY MEAN	.10	Jan 1	.03	Jun 24	.00	Oct 1 1969
ANNUAL SEVEN-DAY MINIMUM	.10	Jan 1	.04	Jun 23	.00	Oct 1 1969
INSTANTANEOUS PEAK FLOW			1130	Mar 23	[a]1850	Mar 5 1995
INSTANTANEOUS PEAK STAGE			8.71	Mar 23	[b]9.34	Mar 5 1995
INSTANTANEOUS LOW FLOW			.02	Aug 30	.02	Aug 30 1998
ANNUAL RUNOFF (AC-FT)	4450		13070		5250	
10 PERCENT EXCEEDS	18		27		9.7	
50 PERCENT EXCEEDS	.28		.22		.18	
90 PERCENT EXCEEDS	.12		.08		.05	

e Estimated

[a] From rating curve extended above 470 ft^3/s, maximum gage height, 7.90 ft, Mar. 12, 1985.
[b] Datum then in use.



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^2, of which 13 mi^2 is non-contributing.

PERIOD OF RECORD.--October 1969 to current year. Prior to October 1974 published as "above Zuni Reservoir."

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 6,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.35	.88	.77	e.72	1.1	56	12	.14	.00	.00	.00
2	.00	.42	e.81	.98	e.79	1.2	51	11	.13	.00	.00	.00
3	.00	.17	e.87	1.1	.75	1.3	43	11	.07	.00	.00	.00
4	.00	.26	e.94	1.4	.88	1.3	39	12	.10	.00	.00	.00
5	.00	.26	e.92	1.3	.96	1.3	42	11	.04	.00	.00	.00
6	.00	.47	e.81	1.2	.99	1.2	47	10	.03	.00	.00	.00
7	.00	.37	e.80	.80	1.1	2.9	47	9.5	.02	.00	.00	.00
8	.00	.53	e.88	.74	1.2	2.4	45	8.9	.01	.44	.00	.00
9	.00	.48	e.94	.70	1.8	2.2	42	8.0	.01	1.5	.00	.00
10	.00	.62	.98	.81	2.1	2.4	37	6.2	.01	1.0	.00	.00
11	.00	1.8	.56	1.0	2.1	1.5	33	4.8	.01	.32	.00	.00
12	.00	2.3	.66	1.5	1.6	.86	29	3.5	.01	.20	.00	.00
13	.00	3.9	.54	2.0	1.3	.89	29	2.8	.02	.12	.00	.00
14	.00	3.5	.48	1.7	1.2	1.0	30	2.5	.02	.03	.00	.00
15	.00	2.9	.77	1.1	1.5	10	28	2.6	.01	.00	.00	.00
16	.00	3.7	.85	.99	2.1	13	27	2.1	.00	.00	.00	.00
17	.00	2.1	.80	1.2	1.7	10	25	1.7	.00	.00	.00	.00
18	.00	1.5	.92	1.6	1.8	7.8	23	1.2	.00	.00	.00	.00
19	.00	1.3	.90	1.7	1.7	5.4	21	.99	.00	.00	.00	.00
20	.00	2.1	1.1	1.4	2.1	20	19	.94	.00	.00	.00	.00
21	.00	3.5	.90	1.1	1.8	20	17	1.4	.00	.00	.00	.00
22	.00	5.7	1.0	.88	2.1	18	16	.99	.00	.00	.00	.00
23	.00	2.2	1.1	.75	2.0	18	15	.67	.00	.00	.00	.00
24	.84	2.3	1.1	.64	3.1	18	13	.45	.00	.00	.00	.00
25	.62	2.0	.83	e.68	2.5	67	11	.31	.00	.00	.00	.00
26	.73	.66	.70	e.57	2.0	180	9.6	.23	.00	.00	.00	.00
27	.51	.79	.49	e.59	1.8	212	9.8	.21	.00	.00	.39	.00
28	.30	1.3	.56	e.55	1.3	150	9.4	.17	.00	.00	.32	.00
29	.27	1.7	.60	e.60	---	97	9.7	.14	.00	.00	.06	.00
30	.31	.99	.61	e.69	---	78	11	.19	.00	.00	.01	.00
31	.24	---	.64	e.73	---	63	---	.16	---	.00	.00	---
TOTAL	3.82	50.17	24.94	31.77	44.99	1008.75	834.5	127.65	0.63	3.61	0.78	0.00
MEAN	.12	1.67	.80	1.02	1.61	32.5	27.8	4.12	.021	.12	.025	.000
MAX	.84	5.7	1.1	2.0	3.1	212	56	12	.14	1.5	.39	.00
MIN	.00	.17	.48	.55	.72	.86	9.4	.14	.00	.00	.00	.00
AC-FT	7.6	100	49	63	89	2000	1660	253	1.2	7.2	1.5	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1998, BY WATER YEAR (WY)

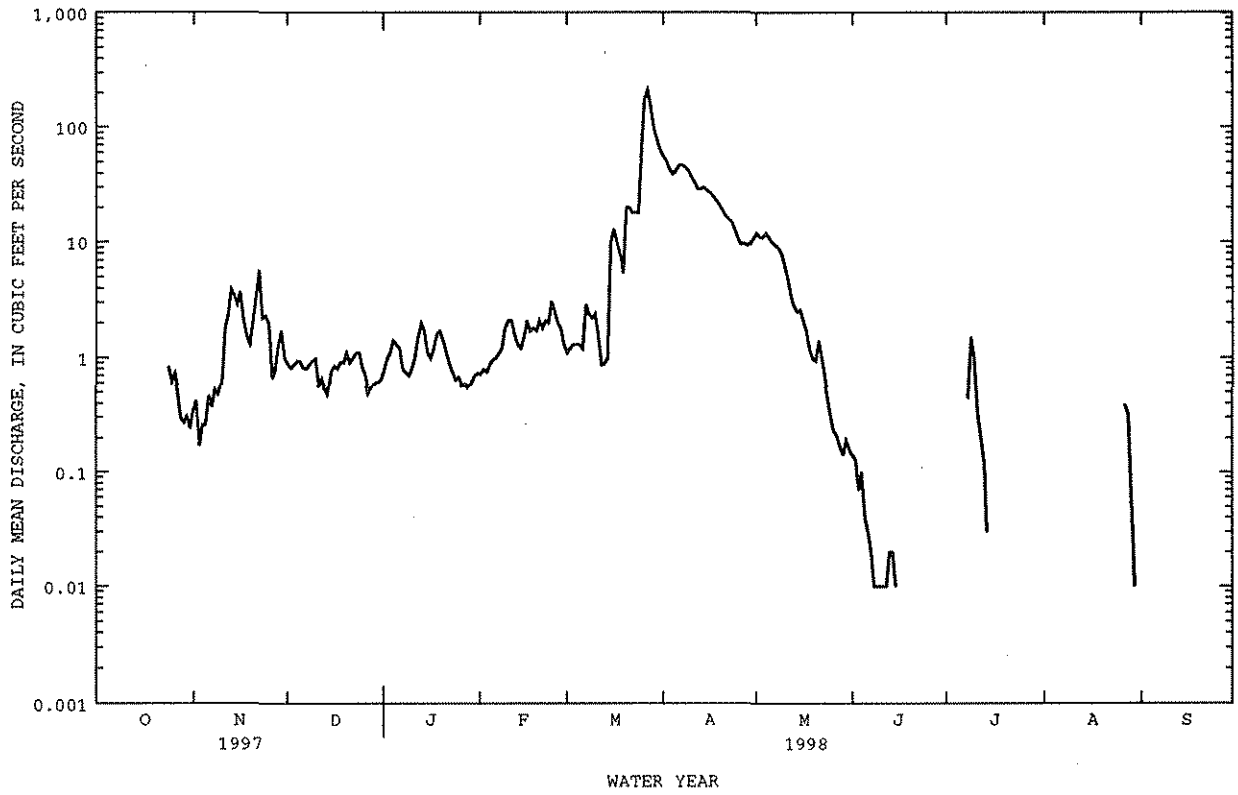
MEAN	1.56	1.44	1.32	2.98	10.4	44.0	52.4	5.45	.18	2.84	5.84	2.50
MAX	12.6	13.7	5.87	41.9	73.4	263	308	65.3	1.97	25.6	23.6	17.5
(WY)	1984	1984	1984	1993	1980	1985	1973	1973	1979	1977	1977	1984
MIN	.000	.000	.013	.11	.33	.66	.009	.000	.000	.000	.000	.000
(WY)	1974	1971	1971	1977	1972	1971	1972	1997	1970	1971	1986	1979

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1970 - 1998	
ANNUAL TOTAL	383.26		2131.61			
ANNUAL MEAN	1.05		5.84		10.9	
HIGHEST ANNUAL MEAN					46.9	1973
LOWEST ANNUAL MEAN					.50	1990
HIGHEST DAILY MEAN	16	Mar 16	212	Mar 27	1530	Mar 13 1985
LOWEST DAILY MEAN	.00	Apr 26	.00	Oct 1	.00	May 22 1970
ANNUAL SEVEN-DAY MINIMUM	.00	Apr 26	.00	Oct 1	.00	May 22 1970
INSTANTANEOUS PEAK FLOW			240	Mar 27	[a]5200	Aug 4 1974
INSTANTANEOUS PEAK STAGE			4.33	Mar 27	6.61	Aug 4 1974
INSTANTANEOUS LOW FLOW					.00	Oct 1 1995
ANNUAL RUNOFF (AC-FT)	760		4230		7880	
10 PERCENT EXCEEDS	3.1		13		10	
50 PERCENT EXCEEDS	.47		.67		.78	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

[a] From rating curve extended above 670 ft^3/s, on basis of slope-area measurements at gage heights 4.05 ft, 3.95 ft, and 6.61 ft.



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.--1,864 mi^2.

PERIOD OF RECORD.--April to December 1914, December 1927 to current year. Monthly discharge only December 1927 to September 1930, published in WSP 1313.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1944 (M), 1949 (M). WDR NM-78-1: 1977.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,654.8 ft above National Geodetic Vertical Datum of 1929, (river-profile survey). Prior to Dec. 31, 1928, at site 5 mi upstream at different datum. Dec. 31, 1928, to Jan. 7, 1942, at site 200 ft upstream at datum 1.00 ft higher. Prior to Feb. 28, 1994 at datum 1.00 ft higher.

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

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 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	118	100	148	106	282	940	257	145	31	144	66
2	191	115	110	150	104	262	910	242	138	37	223	61
3	190	113	109	130	110	251	839	252	131	48	209	57
4	187	111	103	138	118	252	768	278	125	55	155	63
5	171	108	102	155	128	268	712	293	121	57	139	65
6	160	107	101	166	123	306	679	300	117	54	216	68
7	147	106	122	162	120	353	653	299	111	61	180	66
8	157	105	353	151	119	359	604	291	100	86	156	63
9	152	104	483	142	138	328	549	278	94	70	125	63
10	144	105	309	138	166	315	504	256	91	67	112	61
11	135	105	233	135	174	308	478	232	92	62	100	59
12	128	114	191	129	173	315	487	229	90	57	93	57
13	123	121	167	124	168	339	520	236	84	54	106	54
14	121	121	152	119	166	368	501	232	76	53	111	50
15	118	116	143	118	170	471	470	230	71	47	96	48
16	116	111	135	112	178	598	446	221	67	42	103	53
17	112	108	129	111	174	680	412	202	61	42	86	66
18	109	106	124	110	185	789	374	194	57	48	67	74
19	108	104	121	108	187	922	336	195	55	55	62	66
20	105	103	121	107	198	774	309	207	52	58	59	60
21	107	102	122	114	224	720	289	225	50	56	72	56
22	113	101	126	117	242	721	291	232	47	54	131	52
23	128	101	138	119	270	772	323	236	47	76	144	50
24	133	100	137	119	305	864	366	223	45	132	124	48
25	137	99	141	116	367	944	419	202	43	132	118	46
26	133	99	137	113	362	1060	441	184	42	143	107	45
27	127	101	130	112	334	1830	430	174	39	125	91	45
28	123	103	125	111	309	1680	379	169	37	161	83	45
29	122	101	123	111	---	1400	319	162	34	211	84	45
30	121	99	127	111	---	1210	282	156	31	148	82	46
31	119	---	130	109	---	1030	---	152	---	117	70	---
TOTAL	4222	3207	4844	3905	5418	20771	15030	7039	2293	2439	3648	1698
MEAN	136	107	156	126	194	670	501	227	76.4	78.7	118	56.6
MAX	191	121	483	166	367	1830	940	300	145	211	223	74
MIN	105	99	100	107	104	251	282	152	31	31	59	45
AC-FT	8370	6360	9610	7750	10750	41200	29810	13960	4550	4840	7240	3370

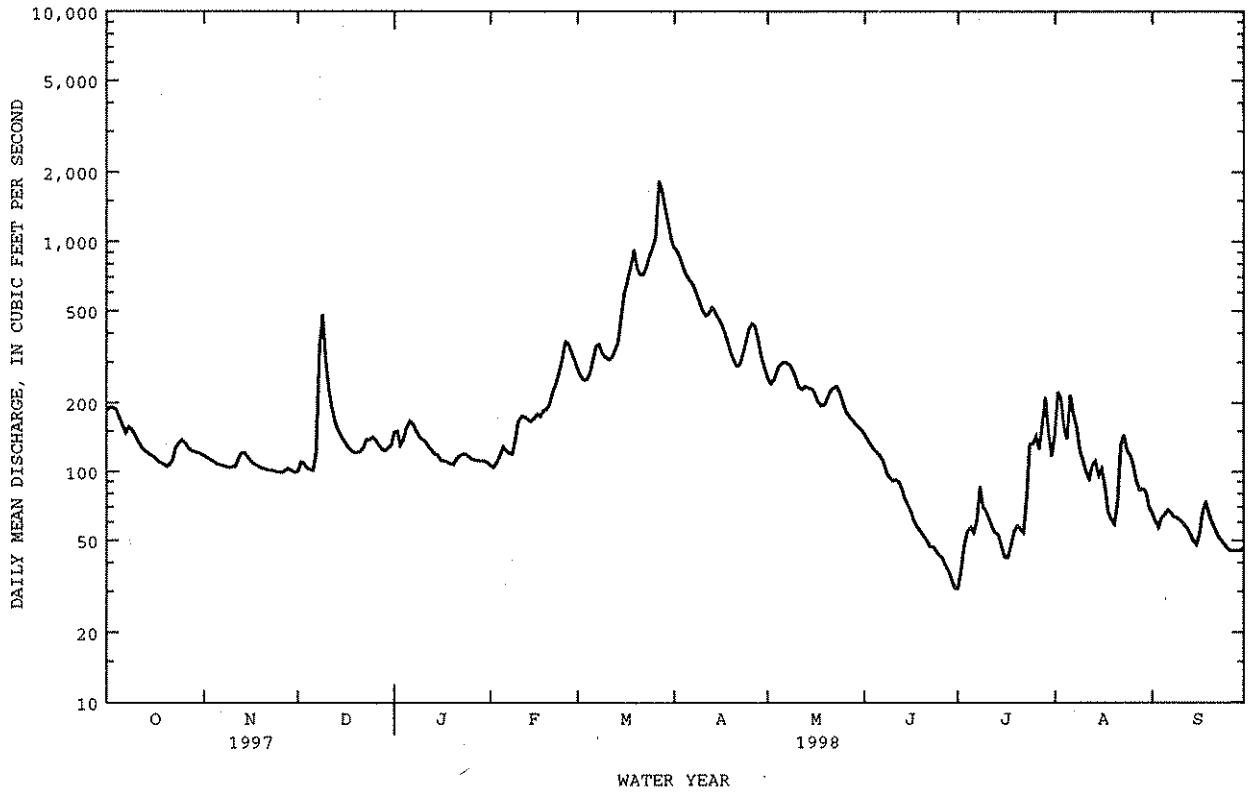
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1998, BY WATER YEAR (WY)

MEAN	120	99.8	169	176	240	325	224	144	60.7	65.2	141	153
MAX	994	726	1632	1810	1204	1049	903	716	249	225	901	960
(WY)	1973	1995	1979	1993	1993	1985	1973	1973	1992	1986	1988	1988
MIN	29.1	47.8	50.1	50.0	50.9	53.9	49.2	33.1	23.5	22.3	37.5	24.0
(WY)	1957	1951	1954	1954	1954	1971	1971	1996	1974	1971	1956	1956

09430500 GILA RIVER NEAR GILA, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1928 - 1998	
ANNUAL TOTAL	75973		74514			
ANNUAL MEAN	208		204		160	
HIGHEST ANNUAL MEAN					477	1979
LOWEST ANNUAL MEAN					47.8	1956
HIGHEST DAILY MEAN	11200	Sep 22	1830	Mar 27	23400	Dec 28 1984
LOWEST DAILY MEAN	23	Jul 9	31	Jun 30	15	Jul 16 1971
ANNUAL SEVEN-DAY MINIMUM	25	Jul 6	36	Jun 26	16	Jul 14 1971
INSTANTANEOUS PEAK FLOW			2120	Mar 27	[a]35200	Dec 28 1984
INSTANTANEOUS PEAK STAGE			4.13	Mar 27	[b]13.00	Dec 28 1984
INSTANTANEOUS LOW FLOW			29	Jul 1	14	Jul 15 1971
ANNUAL RUNOFF (AC-FT)	150700		147800		116000	
10 PERCENT EXCEEDS	311		423		319	
50 PERCENT EXCEEDS	127		125		75	
90 PERCENT EXCEEDS	48		55		41	

[a] From rating curve extended above 7,000 ft^3/s, on basis of slope-area measurement at gage height 12.5 ft, maximum gage height, 17.2 ft, from floodmarks, Sept. 29, 1941.
[b] From floodmarks.



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^2.

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.--Records good.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	5.1	5.1	54	16	70	157	54	17	.42	19	3.5
2	15	4.8	9.6	62	15	67	141	73	16	1.2	14	3.4
3	11	4.5	10	62	15	72	114	76	15	1.2	21	3.1
4	9.5	4.4	11	63	21	89	105	76	13	2.4	10	16
5	8.1	4.0	10	60	21	108	120	72	12	1.6	13	22
6	7.1	3.9	10	51	21	124	135	66	11	2.1	25	12
7	6.9	3.6	51	43	23	109	110	58	9.6	11	28	8.4
8	10	3.6	140	37	26	87	85	52	8.8	21	20	6.7
9	7.3	3.6	102	33	45	80	76	41	8.0	36	12	5.9
10	6.2	3.6	60	30	46	75	89	41	7.9	13	8.6	5.2
11	5.4	4.2	39	28	46	82	131	46	9.1	7.1	7.5	4.5
12	4.9	5.9	27	25	43	96	161	44	6.8	4.9	6.3	3.9
13	4.9	8.5	24	23	39	113	116	40	5.4	3.8	6.6	3.5
14	4.5	12	21	22	37	124	105	38	4.5	3.2	5.2	3.2
15	4.2	12	22	20	42	159	99	32	4.0	2.5	4.6	2.7
16	3.9	8.7	25	19	41	171	77	29	3.4	2.3	4.8	4.3
17	3.7	7.5	25	20	38	243	60	31	2.9	3.6	3.7	10
18	3.5	6.8	26	22	40	311	50	34	2.4	2.9	3.1	6.9
19	3.3	6.3	24	26	44	295	47	39	2.2	2.7	2.8	4.5
20	3.2	6.0	23	26	60	207	60	37	1.9	2.6	3.9	3.5
21	3.1	5.9	20	27	60	197	94	35	1.7	2.1	29	3.0
22	10	5.4	25	24	76	223	124	33	1.6	2.1	13	2.6
23	13	5.1	26	22	105	271	142	28	1.5	14	8.7	2.3
24	7.9	4.9	25	20	129	319	153	26	1.4	23	7.6	2.0
25	8.7	4.5	23	20	138	341	136	25	1.2	26	5.7	1.8
26	8.2	4.4	23	19	110	511	102	25	.94	11	4.8	1.5
27	8.2	4.8	26	20	96	447	69	24	.73	7.1	4.2	1.4
28	7.5	4.8	29	20	81	309	52	23	.62	6.8	7.8	1.3
29	6.7	4.4	32	19	---	252	47	21	.42	5.4	7.9	1.2
30	6.1	4.3	41	19	---	190	45	20	.26	9.9	4.9	1.2
31	5.6	---	47	18	---	154	---	18	---	33	4.0	---
TOTAL	221.6	167.5	981.7	954	1474	5896	3002	1257	171.27	265.92	316.7	151.5
MEAN	7.15	5.58	31.7	30.8	52.6	190	100	40.5	5.71	8.58	10.2	5.05
MAX	15	12	140	63	138	511	161	76	17	36	29	22
MIN	3.1	3.6	5.1	18	15	67	45	18	.26	.42	2.8	1.2
AC-FT	440	332	1950	1890	2920	11690	5950	2490	340	527	628	301

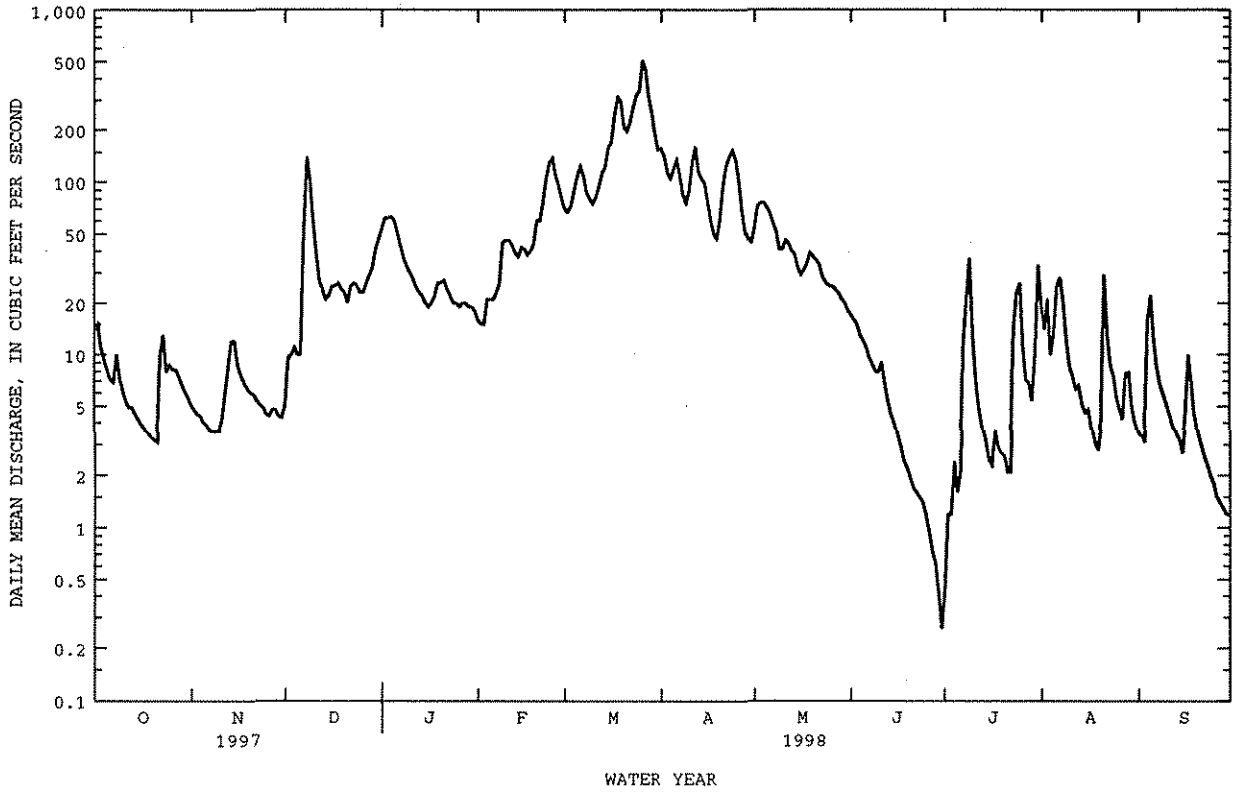
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1998, BY WATER YEAR (WY)

MEAN	22.5	18.5	47.0	37.9	60.2	75.6	57.2	28.9	3.63	7.70	17.3	17.0
MAX	237	166	410	298	211	272	182	160	24.1	57.0	83.7	120
(WY)	1973	1979	1979	1993	1968	1978	1973	1992	1992	1996	1996	1975
MIN	.14	1.07	1.03	1.14	1.44	1.33	.90	.057	.000	.000	1.02	.34
(WY)	1980	1971	1974	1971	1971	1971	1971	1996	1971	1980	1975	1987

09430600 MOGOLLON CREEK NEAR CLIFF, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1967 - 1998	
ANNUAL TOTAL	9672.77		14859.19			
ANNUAL MEAN	26.5		40.7		33.0	
HIGHEST ANNUAL MEAN					97.0	1979
LOWEST ANNUAL MEAN					1.83	1971
HIGHEST DAILY MEAN	678	Sep 21	511	Mar 26	6000	Dec 19 1978
LOWEST DAILY MEAN	.63	Jul 24	.26	Jun 30	.00	Jun 17 1967
ANNUAL SEVEN-DAY MINIMUM	.76	Jul 9	.66	Jun 25	.00	Jun 23 1967
INSTANTANEOUS PEAK FLOW			750	Mar 26	[a]10800	Aug 12 1967
INSTANTANEOUS PEAK STAGE			4.82	Mar 26	[b]13.70	Aug 12 1967
INSTANTANEOUS LOW FLOW			.22	Jun 30	.00	Oct 13 1995
ANNUAL RUNOFF (AC-FT)	19190		29470		23880	
10 PERCENT EXCEEDS	60		110		88	
50 PERCENT EXCEEDS	12		19		7.1	
90 PERCENT EXCEEDS	1.4		2.9		.45	

[a] From rating curve extended above 220 ft^3/s, on basis of slope-area measurements of peak flow.
[b] From floodmarks.



09431500 GILA RIVER NEAR REDROCK, NM

LOCATION.--Lat 32°43'37", long 108°40'30", in W1/4 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^2.

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 with satellite telemetry. 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. Diversions for irrigation of about 5,000 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	388	147	108	209	146	477	1260	367	148	51	195	89
2	375	140	112	232	142	430	1240	361	153	55	223	82
3	327	139	119	242	138	401	1180	352	142	51	241	77
4	302	133	133	235	145	390	1080	383	133	45	222	81
5	272	126	133	248	152	405	1010	389	126	43	228	86
6	237	121	130	259	150	451	970	391	121	77	203	82
7	214	120	137	259	149	504	946	393	120	96	240	75
8	202	120	209	243	149	532	904	380	117	129	214	82
9	192	120	609	229	162	498	831	371	111	226	180	79
10	187	119	506	215	195	461	761	359	110	114	142	77
11	179	120	369	209	229	435	735	329	112	99	125	75
12	163	124	295	200	231	437	745	322	107	91	121	68
13	159	133	261	192	219	470	761	309	98	83	122	64
14	153	135	223	185	212	524	727	295	83	78	128	62
15	150	137	214	178	211	629	685	285	96	64	126	62
16	144	135	204	174	229	806	658	284	88	59	122	58
17	141	133	198	167	235	936	614	286	82	59	123	59
18	138	129	192	163	250	1140	563	262	79	48	111	58
19	135	127	189	148	275	1310	521	249	72	45	104	60
20	133	126	190	148	309	1160	500	233	68	59	102	58
21	133	125	187	163	410	1050	470	235	68	65	122	57
22	140	113	191	164	563	1030	473	230	64	87	121	56
23	183	113	206	164	479	1060	507	220	59	181	129	55
24	165	109	237	163	518	1150	539	226	59	366	130	56
25	166	102	235	163	584	1240	566	213	56	756	123	56
26	167	100	224	159	633	1320	597	205	55	216	114	55
27	160	103	213	156	583	1840	563	194	51	208	104	55
28	155	105	201	155	527	1790	500	188	47	232	101	47
29	151	106	194	153	---	1600	422	178	51	229	99	49
30	150	109	192	149	---	1510	381	158	50	229	92	50
31	149	---	198	147	---	1370	---	154	---	200	90	---
TOTAL	5910	3669	6809	5871	8225	27356	21709	8801	2726	4341	4497	1970
MEAN	191	122	220	189	294	882	724	284	90.9	140	145	65.7
MAX	388	147	609	259	633	1840	1260	393	153	756	241	89
MIN	133	100	108	147	138	390	381	154	47	43	90	47
AC-FT	11720	7280	13510	11650	16310	54260	43060	17460	5410	8610	8920	3910

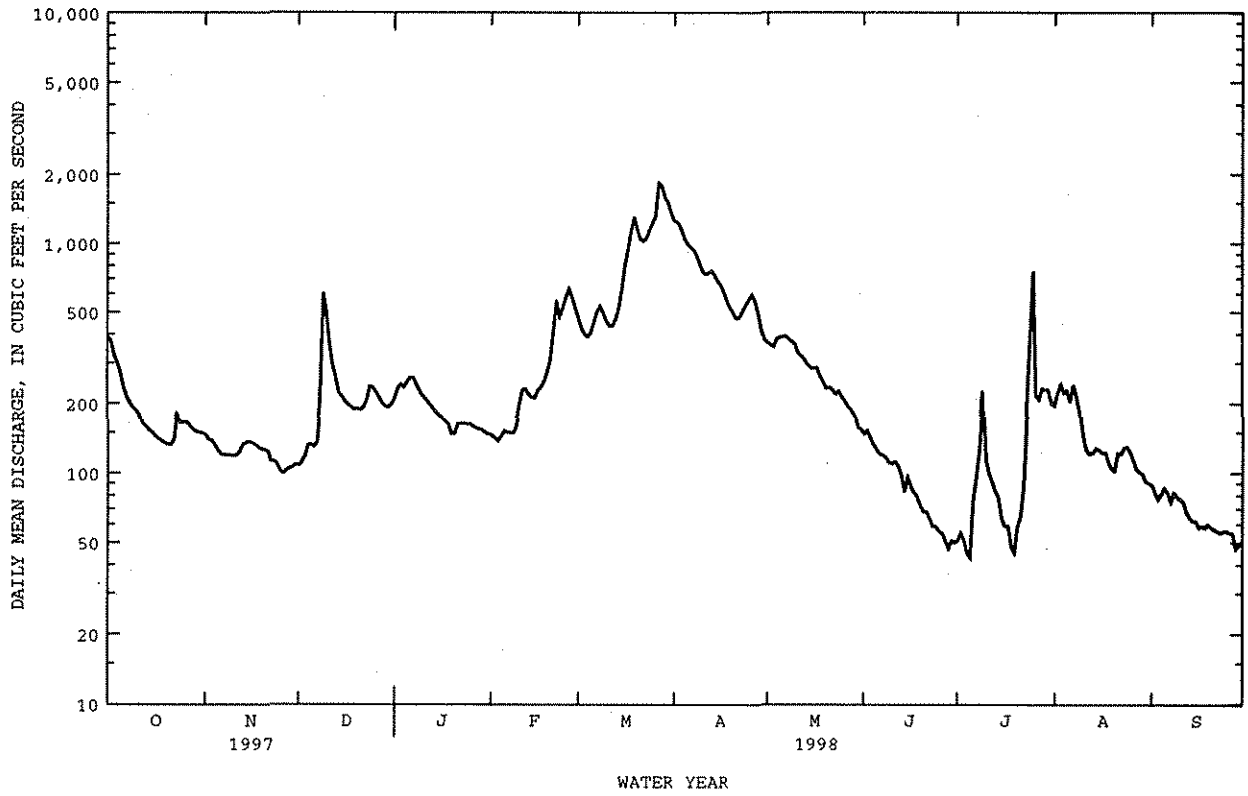
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1998, BY WATER YEAR (WY)

MEAN	207	155	345	328	427	514	322	200	63.1	77.2	210	242
MAX	1768	912	2200	2987	1692	1438	1155	1068	278	287	1182	1315
(WY)	1973	1995	1979	1993	1993	1978	1973	1992	1992	1986	1988	1975
MIN	27.6	55.1	60.0	64.9	53.8	40.0	41.2	25.1	12.0	15.6	40.9	22.2
(WY)	1974	1974	1981	1971	1971	1971	1971	1996	1974	1978	1994	1978

09431500 GILA RIVER NEAR REDROCK, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1963 - 1998	
ANNUAL TOTAL	98513		101884			
ANNUAL MEAN	270		279		257	
HIGHEST ANNUAL MEAN					664	1993
LOWEST ANNUAL MEAN					57.2	1971
HIGHEST DAILY MEAN	12700	Sep 22	1840	Mar 27	34000	Dec 19 1978
LOWEST DAILY MEAN	24	Jul 6	43	Jul 5	3.6	Jul 20 1978
ANNUAL SEVEN-DAY MINIMUM	32	Jul 5	49	Jun 29	4.9	Jul 16 1971
INSTANTANEOUS PEAK FLOW			5970	Jul 25	[a]48800	Dec 19 1978
INSTANTANEOUS PEAK STAGE			11.34	Jul 25	[b]29.80	Dec 19 1978
INSTANTANEOUS LOW FLOW			37	Jul 4	2.2	Aug 5 1947
ANNUAL RUNOFF (AC-FT)	195400		202100		186200	
10 PERCENT EXCEEDS	484		611		560	
50 PERCENT EXCEEDS	165		166		101	
90 PERCENT EXCEEDS	47		64		35	

[a] From rating curve extended above 9,500 ft^3/s, on basis of slope-area measurement of peak flow.
[b] In gage well, and 34.10 from floodmarks.



09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM

LOCATION.--Lat 32°38'53", long 108°50'43", in SE¼SW¼ sec.18, T.19 S., R.19 W., Grant County, Hydrologic Unit 15040002, on left bank at head of canyon, 1.4 mi downstream from Blue Creek, 10 mi east of Virden, and 16 mi upstream from New Mexico-Arizona State line.

DRAINAGE AREA.--3,203 mi^2, excluding Animas River basin.

PERIOD OF RECORD.--May to November 1914, March to September 1915, July 1927 to current year. July 1927 to May 1931 monthly discharge only, published in WSP 1313, computed as sum of flow at Virden Bridge, 9 mi downstream, and in Sunset Canal. Published as "Gila River near Duncan, Ariz.," 1914-15 and as "Gila River at Fuller's Ranch, near Duncan, Ariz.," 1931-38.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1929, 1931-32(M).

GAGE.--Water-stage recorder. Elevation of gage is 3,875 ft above sea level, from river-profile map. May 11, 1914, to Sept. 30, 1915, at site 6 mi downstream, 1,000 ft upstream from intake of Sunset Canal. June 1 to July 7, 1931, nonrecording gage at present site and datum. Since April 18, 1980, supplementary gage on left bank 800 ft downstream at same datum. Since June 1980, crest-stage gages at supplementary gage site. Since Nov. 1990, water-stage recorder at supplementary gage.

REMARKS.--Records fair. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres above station.

AVERAGE DISCHARGE.--71 (water years 1928-98), 217 ft^3/s, 157,200 acre-ft/yr; median of yearly mean discharges, 160 ft^3/s, 116,000 acre-ft/yr.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	455	162	121	204	168	535	1390	380	163	42	198	78
2	326	159	125	216	165	492	1370	357	154	45	205	76
3	296	154	125	227	163	459	1270	335	156	48	220	72
4	248	152	136	225	166	448	1150	347	151	57	203	76
5	229	146	141	229	173	458	1030	348	146	43	203	81
6	200	140	142	237	176	504	961	352	142	42	187	82
7	196	136	148	240	177	570	918	352	139	85	206	74
8	186	136	156	234	177	625	876	352	136	113	180	76
9	180	134	457	222	191	607	801	347	132	196	155	78
10	178	132	541	211	214	577	733	339	125	144	132	78
11	171	137	420	203	247	556	696	323	117	117	109	76
12	160	139	335	198	258	558	694	303	110	109	101	68
13	154	143	285	191	254	591	726	291	104	103	102	57
14	151	145	256	184	248	656	706	285	95	97	103	54
15	147	144	237	178	248	774	665	281	91	92	107	69
16	144	143	225	174	262	945	634	275	91	81	103	66
17	141	141	216	e182	271	1210	599	269	85	77	100	67
18	140	138	211	e177	282	1500	555	260	82	69	94	66
19	139	135	206	e167	328	1770	511	254	82	60	85	67
20	138	133	206	e153	352	1610	475	243	76	58	82	66
21	138	133	201	161	595	1400	446	234	71	72	86	64
22	146	125	214	166	680	1320	428	229	68	77	101	65
23	173	120	244	169	563	1350	437	229	63	136	103	62
24	170	118	248	170	568	1450	462	230	58	362	104	65
25	171	115	241	170	628	1560	496	225	55	664	98	66
26	172	111	229	171	711	1640	532	210	52	249	93	65
27	174	111	220	170	668	1930	538	191	51	211	87	65
28	172	112	210	170	596	1970	504	180	47	241	82	63
29	168	115	202	171	---	1750	445	173	45	215	84	50
30	164	117	199	169	---	1580	407	172	43	236	80	48
31	164	---	200	169	---	1470	---	167	---	206	76	---
TOTAL	5791	4026	7097	5908	9529	32865	21455	8533	2930	4347	3869	2040
MEAN	187	134	229	191	340	1060	715	275	97.7	140	125	68.0
MAX	455	162	541	240	711	1970	1390	380	163	664	220	82
MIN	138	111	121	153	163	448	407	167	43	42	76	48
AC-FT	11490	7990	14080	11720	18900	65190	42560	16930	5810	8620	7670	4050
CFSM	.06	.04	.07	.06	.11	.33	.22	.09	.03	.04	.04	.02
IN.	.07	.05	.08	.07	.11	.38	.25	.10	.03	.05	.04	.02

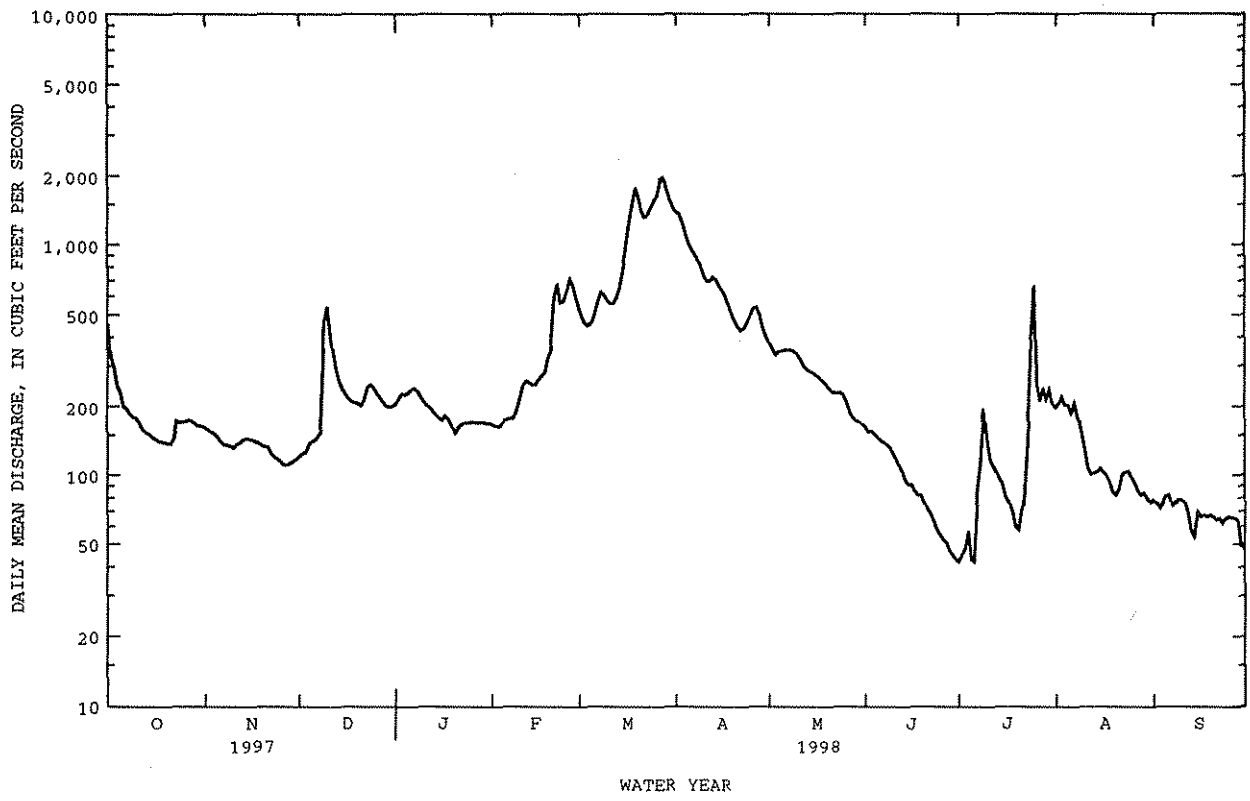
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1998, BY WATER YEAR (WY)

MEAN	161	131	254	317	366	439	277	154	52.0	75.6	202	206
MAX	1667	1040	2485	4158	1752	1464	1138	977	298	366	1164	1507
(WY)	1973	1995	1979	1993	1993	1973	1973	1992	1992	1986	1988	1975
MIN	5.39	34.9	47.6	64.0	61.1	45.1	27.7	13.5	4.43	4.85	9.35	4.89
(WY)	1957	1957	1957	1981	1971	1971	1955	1956	1956	1951	1951	1953

09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1932 - 1998	
ANNUAL TOTAL	107588		108390			
ANNUAL MEAN	295		297		214	
HIGHEST ANNUAL MEAN					746	1993
LOWEST ANNUAL MEAN					43.1	1956
HIGHEST DAILY MEAN	15300	Sep 22	1970	Mar 28	33100	Dec 19 1978
LOWEST DAILY MEAN	13	Jul 13	42	Jul 1	1.7	Jul 11 1956
ANNUAL SEVEN-DAY MINIMUM	14	Jul 9	46	Jun 30	2.0	Sep 26 1956
ANNUAL RUNOFF (AC-FT)	213400		215000		155000	
ANNUAL RUNOFF (CFSM)	.092		.093		.067	
ANNUAL RUNOFF (INCHES)	1.25		1.26		.91	
10 PERCENT EXCEEDS	519		659		462	
50 PERCENT EXCEEDS	172		173		93	
90 PERCENT EXCEEDS	44		69		23	

e Estimated



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^2, 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 with satellite telemetry. Elevation of gage is 5,820 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 15, 1972 at site 1,800 ft upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Possible minor regulation by Luna Lake, 27 mi upstream. Diversions for irrigation of about 280 acres upstream from station. Several observations of water temperature were made during the year.

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^3/s at Alma (downstream). See WSP 1313.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	6.9	8.3	9.4	8.6	12	108	23	4.1	3.9	61	10
2	17	7.0	11	9.4	8.4	13	88	20	3.6	4.2	15	9.0
3	13	7.4	9.6	9.6	8.3	12	75	18	4.0	4.3	12	7.8
4	11	6.6	9.0	10	9.9	13	60	16	3.9	5.6	8.8	8.5
5	10	7.4	8.6	10	9.6	14	52	12	3.6	6.0	65	9.3
6	9.4	6.8	8.6	9.3	8.8	22	47	9.3	3.3	6.6	5.6	7.7
7	11	5.9	11	8.9	8.9	30	42	5.2	3.7	6.4	5.2	6.4
8	16	6.3	12	8.7	8.8	24	38	7.6	5.1	7.7	4.1	5.4
9	12	6.6	11	7.8	9.0	22	33	9.2	5.6	16	3.9	5.6
10	10	6.5	10	10	9.0	23	29	8.5	5.8	8.2	3.5	5.8
11	9.1	6.9	9.7	9.8	8.4	25	27	7.1	5.5	6.1	3.7	6.7
12	7.8	7.8	8.2	9.4	8.4	29	25	7.0	4.2	4.9	3.9	4.2
13	8.0	9.6	e6.4	9.3	7.9	38	25	10	3.3	4.7	4.1	4.1
14	7.8	9.1	e10	9.2	7.9	47	21	10	3.2	4.1	4.0	4.8
15	7.6	8.4	8.2	8.7	8.4	92	20	9.9	3.7	3.6	3.7	4.2
16	7.6	7.9	8.2	8.7	8.9	91	19	8.2	2.9	3.2	4.2	5.6
17	6.9	7.8	7.8	9.3	9.4	199	21	7.7	2.9	1.5	4.2	6.3
18	7.0	7.4	8.0	9.0	11	166	21	8.6	3.4	.92	4.3	5.4
19	7.0	7.7	8.1	8.7	11	94	19	8.4	3.9	.92	4.3	3.4
20	6.2	8.1	9.3	8.8	11	86	17	6.7	4.5	.99	4.3	1.9
21	7.6	7.8	9.6	9.6	11	90	15	6.6	5.1	2.3	5.0	2.8
22	7.1	7.6	10	9.4	11	123	12	6.4	4.9	2.6	5.2	2.1
23	9.9	7.7	9.2	9.0	12	156	12	6.5	4.8	2.9	5.2	1.9
24	8.1	7.5	9.1	9.1	12	186	14	6.7	4.0	15	5.4	1.1
25	9.6	7.5	8.2	8.9	15	186	15	4.9	2.7	8.5	5.5	1.4
26	9.0	7.6	7.0	8.4	15	208	19	3.3	2.4	7.1	5.4	1.6
27	8.8	8.4	5.9	8.5	15	264	28	2.8	2.3	29	5.3	.92
28	8.3	8.5	7.4	8.5	13	164	31	3.2	2.5	12	6.5	.99
29	8.1	8.3	8.2	8.5	---	130	28	3.5	2.6	14	48	1.7
30	7.9	8.0	9.4	8.5	---	118	25	3.7	2.6	10	15	3.1
31	7.5	---	8.8	8.4	---	96	---	3.9	---	16	13	---
TOTAL	286.3	227.0	275.8	280.8	285.6	2773	986	263.9	114.1	219.23	344.3	139.71
MEAN	9.24	7.57	8.90	9.06	10.2	89.5	32.9	8.51	3.80	7.07	11.1	4.66
MAX	17	9.6	12	10	15	264	108	23	5.8	29	65	10
MIN	6.2	5.9	5.9	7.8	7.9	12	12	2.8	2.3	.92	3.5	.92
AC-FT	568	450	547	557	566	5500	1960	523	226	435	683	277

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1998, BY WATER YEAR (WY)

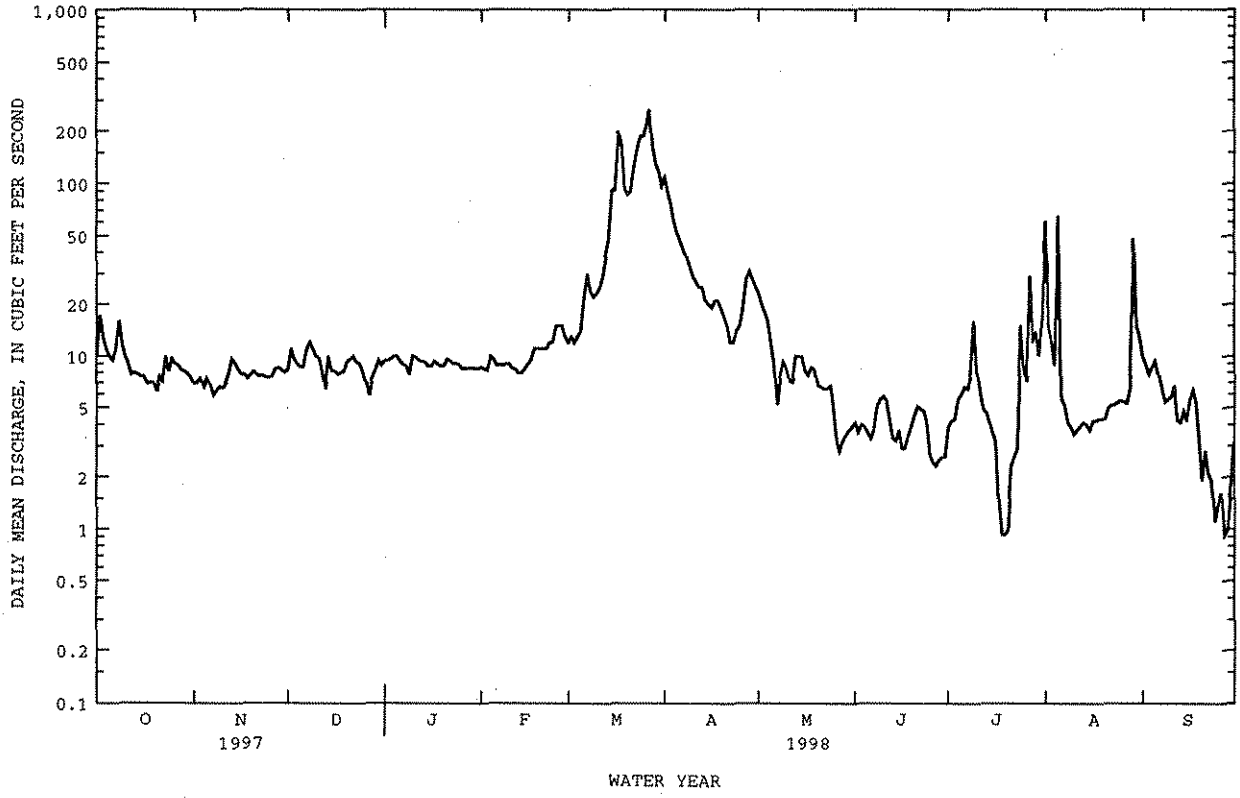
MEAN	29.3	19.1	21.0	21.7	40.3	79.7	53.6	19.8	6.55	8.47	15.8	18.5
MAX	430	211	159	159	231	336	398	162	39.7	28.3	79.2	172
(WY)	1984	1979	1979	1993	1993	1985	1973	1973	1992	1967	1967	1983
MIN	3.27	5.18	5.11	5.68	5.14	4.04	3.38	2.70	1.39	1.34	4.55	3.09
(WY)	1983	1976	1978	1970	1964	1959	1967	1959	1990	1995	1961	1959

09442680 SAN FRANCISCO RIVER NEAR RESERVE, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1959 - 1998	
ANNUAL TOTAL	6586.26		6195.74			
ANNUAL MEAN	18.0		17.0		28.1	
HIGHEST ANNUAL MEAN					101	1973
LOWEST ANNUAL MEAN					5.94	1996
HIGHEST DAILY MEAN	239	Mar 14	264	Mar 27	5000	Oct 20 1972
LOWEST DAILY MEAN	.24	Jul 18	.92	Jul 18	.24	Jul 18 1997
ANNUAL SEVEN-DAY MINIMUM	.44	Jul 14	1.4	Sep 23	.44	Jul 14 1997
INSTANTANEOUS PEAK FLOW			1240	Aug 5	[a]9830	Oct 1 1983
INSTANTANEOUS PEAK STAGE			3.68	Aug 5	[b]11.71	Oct. 1 1983
INSTANTANEOUS LOW FLOW			.81	Jul 18	.69	Jul 24 1995
ANNUAL RUNOFF (AC-FT)	13060		12290		20360	
10 PERCENT EXCEEDS	27		28		55	
50 PERCENT EXCEEDS	9.0		8.4		8.6	
90 PERCENT EXCEEDS	1.2		3.5		3.5	

e Estimated

[a] From rating curve extended above 1,400 ft^3/s, on basis of slope-area measurement of peak flow.
[b] Recorded, 11.30 ft, from floodmarks.



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 White- water Creek, and at mile 511.5.

DRAINAGE AREA.--1,653 mi^2.

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 with satellite telemetry and crest-stage gage. Elevation of gage is 4,560 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Feb. 15, 1934, at site 4.5 mi upstream at datum 98.82 ft higher.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,000 acres upstream from station. Gage height and rain gage satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916 when discharges of 60,000 ft^3/s or greater were computed for station at Clifton, AZ. On Nov. 26, 1905, a peak of 25,000 ft^3/s was measured (by float-area method) at station at Alma (about 12 mi upstream, drainage area, 1,560 mi^2); a similar measurement of 21,000 ft^3/s was made at the Alma station for peak of Dec. 3, 1906.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	37	45	43	40	45	574	125	52	19	92	72
2	25	38	47	44	42	43	649	135	51	23	118	49
3	27	39	46	44	44	43	630	160	50	36	99	41
4	27	34	47	44	48	42	557	175	47	51	68	40
5	24	34	48	44	47	42	519	187	43	28	53	43
6	22	39	48	42	44	42	470	181	38	27	45	35
7	24	36	49	41	44	44	410	160	30	58	64	31
8	67	34	51	42	43	45	342	114	27	42	63	25
9	28	34	52	42	44	51	282	117	25	38	47	21
10	22	33	52	41	44	50	231	108	27	104	37	21
11	21	35	51	41	43	45	218	113	29	58	33	20
12	25	44	53	41	43	42	258	115	28	48	32	20
13	27	45	e51	42	42	45	265	111	27	36	29	20
14	27	45	e48	42	42	66	244	114	29	31	26	21
15	26	43	49	42	43	111	222	104	29	27	24	23
16	26	45	48	43	43	318	207	90	28	26	22	24
17	24	45	48	42	43	477	177	90	29	22	21	23
18	25	48	48	41	44	768	149	99	31	22	21	22
19	27	47	48	41	43	741	126	112	28	21	21	21
20	26	46	49	42	44	485	115	126	27	20	22	19
21	27	45	47	43	46	440	117	131	25	25	40	20
22	35	44	52	42	46	397	146	133	25	36	33	19
23	34	44	51	42	45	444	192	113	25	31	30	23
24	40	44	50	42	45	520	261	98	26	118	33	24
25	36	43	50	42	47	584	301	87	26	67	30	23
26	34	44	51	42	46	717	286	82	25	41	29	24
27	39	44	64	42	46	1240	245	76	23	49	28	26
28	42	44	45	42	46	1030	183	65	23	46	29	22
29	40	44	46	40	---	693	157	63	21	37	309	21
30	43	44	45	38	---	591	135	62	19	47	94	22
31	39	---	44	38	---	506	---	59	---	49	73	---
TOTAL	953	1241	1523	1297	1237	10707	8668	3505	913	1283	1665	815
MEAN	30.7	41.4	49.1	41.8	44.2	345	289	113	30.4	41.4	53.7	27.2
MAX	67	48	64	44	48	1240	649	187	52	118	309	72
MIN	21	33	44	38	40	42	115	59	19	19	21	19
AC-FT	1890	2460	3020	2570	2450	21240	17190	6950	1810	2540	3300	1620

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1998, BY WATER YEAR (WY)

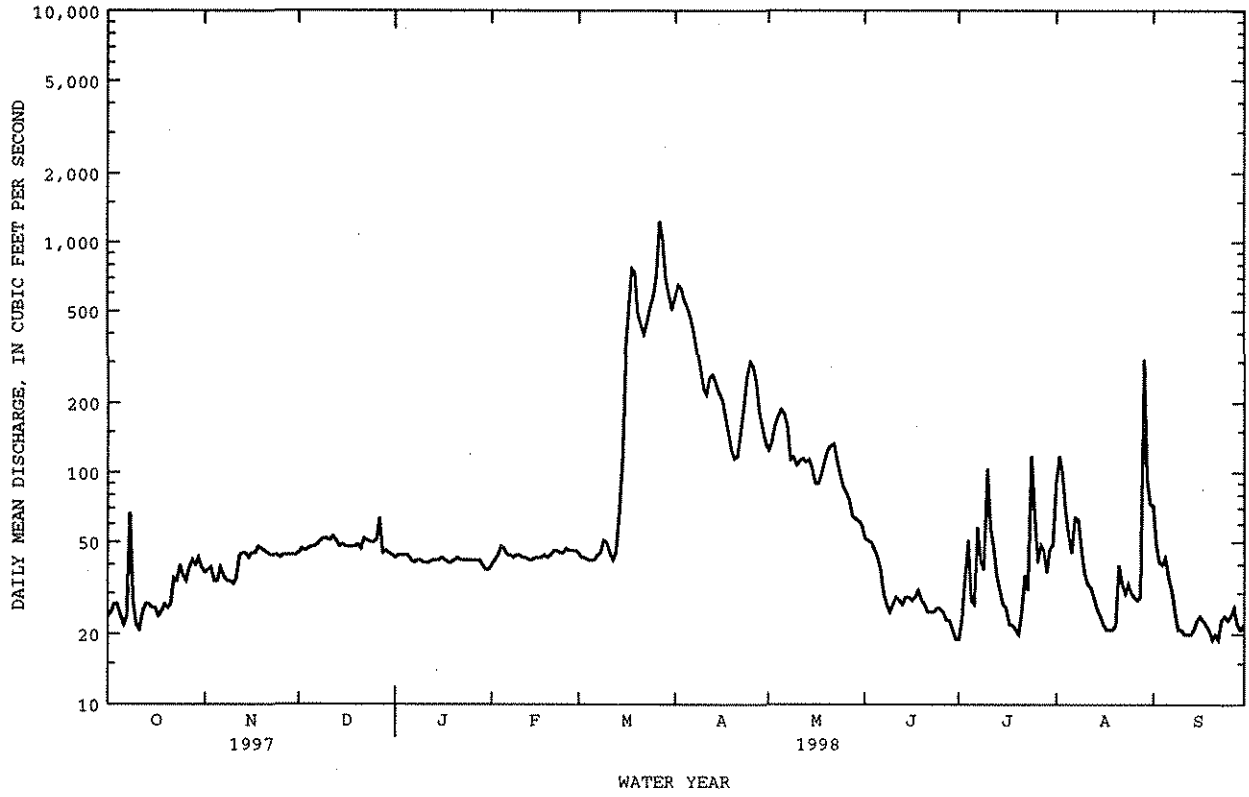
MEAN	84.6	49.6	87.4	101	130	199	146	77.6	29.0	37.6	76.0	58.3
MAX	2026	520	1068	1568	1034	1036	1049	593	146	108	392	368
(WY)	1984	1979	1979	1993	1993	1985	1973	1973	1992	1930	1957	1988
MIN	9.77	10.8	12.9	13.5	14.9	11.3	10.3	8.65	5.70	13.2	13.7	7.66
(WY)	1966	1957	1954	1956	1956	1959	1957	1956	1956	1963	1960	1956

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM--Continued

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1928 - 1998	
ANNUAL TOTAL	18424.6		33807			
ANNUAL MEAN	50.5		92.6		89.6	
HIGHEST ANNUAL MEAN					351	1979
LOWEST ANNUAL MEAN					13.9	1956
HIGHEST DAILY MEAN	236	Sep 21	1240	Mar 27	27500	Oct 2 1983
LOWEST DAILY MEAN	8.2	Sep 30	19	Jun 30	2.5	Jun 25 1956
ANNUAL SEVEN-DAY MINIMUM	11	Jul 21	21	Sep 9	3.9	Jun 22 1956
INSTANTANEOUS PEAK FLOW			1590	Mar 27	[a]37100	Oct 2 1983
INSTANTANEOUS PEAK STAGE			4.71	Mar 27	[b]18.15	Oct 2 1983
INSTANTANEOUS LOW FLOW			15	Jun 30	1.5	Dec 3 1906
ANNUAL RUNOFF (AC-FT)	36550		67060		64890	
10 PERCENT EXCEEDS	89		211		175	
50 PERCENT EXCEEDS	42		44		32	
90 PERCENT EXCEEDS	15		24		15	

e Estimated

[a] From rating curve extended above 4,200 ft^3/s, on basis of slope-area measurements at gage heights 10.74, 15.6 ft, and 20.8 ft.
[b] 20.80 ft from outside floodmarks.



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 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/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 mi^2.	1953-	08-27-98	3.72	860	07-06-58	12.22	15,600
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 mi^2.	1959-	07-27-98 [h]06-08-97	3.52 7.32[h]	1,360 [h]7,300	09-11-65	12.00	14,100
Carrizo Creek near Roy. (07226300)	Lat 36°02'58", long 103°57'48", Harding County, Hydrologic Unit 11080007, 800 ft downstream from State Highway 120, and 15 mi northeast of Roy. Drainage area is a68 mi^2.	1954-	07-27-98	4.35	502	08-11-81	[n]7.11	n1,800
Tramperos Creek near Stead. (07227200)	Lat 36°04'15", long 103°12'10", in $NW^1/2NW^1/2$ 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 mi^2.	1966-73* 1974-	08-27-98	5.36	370	10-17-65	16.5	12,300
SAN JUAN RIVER BASIN								
Vaqueros Canyon near Gobernador (09350800)	Lat 36o43'23", long 107o16'47", 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 mi^2.	1956-	- -98	<1.64	<42	08-02-65	10.37	2,520

Station name and number	Location and drainage area	Period of record	Water year 1998 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/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 mi^2.	1976-90* 1991-	08-21-98	7.35	1,520	09-02-88	8.55	1,920
		GILA RIVER BASIN						
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 a228 mi^2.	1957-	07-24-98	10.02	6,000	01-18-93	11.76	7,400
Mangas Creek near Cliff. (09431130)	Lat 32°51'39", long 108°34'01", Grant County, Hydrologic Unit 1504002, 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-	07-24-98	4.36	94	09-07-90	5.04	1,400
Animas Creek near Cloverdale (09438200)	Lat 31°34'15", long 108°52'30", Hidalgo County, near head of small bov canyon 0.1 mi west of State Highway 338, and 11 mi north of Cloverdale. Drainage area is 157 mi^2.	1959-	12-20-97	5.94	1,390	10-13-74	7.78	3,400
Tularosa River near Reserve (09442740)	Lat 33°44'00", long 108°52'15", Catron County, 150 ft west of Eagle Peak Lookout road and 3.3 mi northeast of Reserve. Drainage area is 426 mi^2.	1956-87 1997-	07-09-98 09-20-97	3.72 4.71	350 n530	10-02-83	9.80	3,020

< 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 at Miscellaneous Sites

Measurements of streamflow at points other than gaging stations are given in the following table.

Discharge Measurements Made at Miscellaneous Sites during Water Year 1998

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
ARKANSAS BASIN						
Conchas Canal 07223300	Canadian River	Lat 35°22'51", long 104°10'58", in San Miguel County, Hydrologic Unit 11080006, in Pablo Montoya Grant, in Conchas Canal Operations building downstream from Conchas Dam, and 21.5 mi north of New Kirk.	---	1997-	05-06-98	e325
					06-03-98	324
					07-07-98	357
					08-10-98	205
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	11-07-97	5.07
				1997	02-03-98	4.32
					04-30-98	4.79
					06-19-98	4.42

e estimated

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 measurement.
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, 45.23 ft below land-surface datum, July 16, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.71	36.52	32.40	31.77	31.94	30.79	31.92	35.93	39.76	38.23	37.89	38.78
10	36.84	35.68	32.31	31.82	31.92	31.16	32.12	36.17	38.02	38.15	39.34	38.60
15	36.26	34.50	32.11	31.71	31.61	31.51	32.16	36.34	37.27	38.00	38.62	38.61
20	36.08	33.13	32.10	31.70	31.01	31.61	32.00	36.36	37.49	37.41	38.66	38.75
25	36.70	32.83	32.06	31.83	30.79	31.57	34.36	36.45	37.38	38.42	39.60	38.96
EOM	36.45	32.60	31.83	31.77	30.80	31.61	35.94	39.07	37.84	36.85	37.93	38.49

WTR YEAR 1998 HIGHEST 30.72 FEB. 24, 1998 LOWEST 39.93 JUNE 5, 1998

351051106395304. Local number, 11N.03E.18.411D.
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, 44.64 ft below land-surface datum, Aug. 28, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	42.61	NOV 28	41.79	DEC 31	41.37	JAN 30	41.53	FEB	---	MAR 31	41.74
APR 30	41.94	MAY 28	43.08	JUNE	---	JULY 30	44.29	AUG 28	44.64	SEP	---

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 1997 TO SEPTEMBER 1998

WATER DATE	LEVEL
Jan. 14	not measured
Aug. 5	267.72

CHAVES COUNTY
Roswell Basin--Continued

332615104303601. Local number, 10S.24E.21.212222.
LOCATION.--Lat 33°26'15", long 104°30'36", Hydrologic Unit 13060008. Owner: Pecos Valley Artesian Conservancy District.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled artesian observation well completed in San Andres Limestone, diameter 10 in., depth 324 ft.
INSTRUMENTATION.--Monthly steel-tape measurements.
DATUM.--Elevation of land-surface datum is 3,580.65 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.60 ft above land-surface datum.
REMARKS.--Recorder removed Nov. 26, 1990. Monthly steel-tape measurements.
PERIOD OF RECORD.--June 1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.06 ft below land-surface datum, Jan. 19, 1946; lowest measured, 74.40 ft below land-surface datum, July 30, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	34.30	NOV 25	32.50	DEC 29	30.95	JAN 16	29.90	FEB 25	29.45	MAR 25	31.40
APR 24	35.30	MAY 26	37.90	JUNE 25	40.50	JULY 25	42.10	AUG 25	41.35	SEP 25	39.70

332255104360401. Local number, 11S.23E.03.342223.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 14	171.51
Aug. 5	178.27

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 14	13.62
Aug. 5	15.96

331705104262801. (formerly 332200104270001) Local number, 12S.25E.09.42230.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 14	66.20
Aug. 5	68.82

CHAVES COUNTY
Roswell Basin--Continued

331525104245201. (formerly 331205104245101) Local number, 12S.25E.23.344412.
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 measurement.
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.--Rcords good.
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 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	49.22	22.73	12.75	8.92	7.24	21.25	90.02	85.84	126.81	134.43	133.12	104.18
10	40.05	18.20	12.75	8.92	5.12	29.27	100.22	70.18	116.94	139.97	119.69	108.68
15	36.36	17.99	12.61	7.47	5.52	31.52	90.56	87.16	122.50	144.48	113.59	101.42
20	32.34	17.31	12.53	6.78	13.02	36.28	90.65	96.65	134.64	137.89	116.48	78.29
25	29.13	12.74	12.52	5.72	10.39	61.12	93.77	105.23	139.24	146.07	106.52	72.93
EOM	28.27	12.64	10.18	5.53	11.78	85.43	90.32	121.72	135.73	137.41	101.74	79.06

WTR YEAR 1998 HIGHEST 4.95 FEB. 9, 1998 LOWEST 152.24 JULY 17, 1998

331524104245101. Local number, 12S.25E.23.344234A.
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 measurement.
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.--Records good.
PERIOD OF RECORD.--1942 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 100.14 ft below land-surface datum, Apr. 11, 1998; lowest measured, 111.17 below land-surface datum, Sep. 22, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	101.72	101.63	101.37	101.16	100.73	100.44	100.22	100.19	100.39	100.62	100.98	101.24
10	101.74	101.56	101.37	101.12	100.72	100.45	100.29	100.18	100.37	100.67	100.97	101.25
15	101.77	101.64	101.33	101.08	100.52	100.34	100.20	100.28	100.40	100.76	101.02	101.31
20	101.70	101.47	101.31	101.04	100.52	100.38	100.35	100.31	100.44	100.77	101.17	101.32
25	101.66	101.42	101.27	100.85	100.47	100.31	100.22	100.32	100.48	100.84	101.14	101.31
EOM	101.57	101.39	101.21	100.76	100.53	100.31	100.25	100.34	100.58	100.91	101.19	101.40

WTR YEAR 1998 HIGHEST 100.14 APR. 11, 1998 LOWEST 101.92 OCT. 14, 1997

331213104241601. (formerly 331216104241701) Local number, 13S.25E.12.311134.
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, 91.56 ft below land-surface datum, Aug. 5, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WATER DATE	LEVEL
Jan. 16	81.20
Aug. 5	91.56

CHAVES COUNTY
Roswell Basin--Continued

331002104254701. (formerly 331002104272001) Local number, 13S.25E.27.211144.
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, 2.99 ft above land-surface datum, Jan. 16, 1998; lowest measured, 198.30 ft below land-surface datum, July 18, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	31.43	NOV 24	13.80	DEC 29	1.10	JAN 16	-2.99	FEB 25	6.35	MAR 25	85.01
APR 24	135.86	MAY 26	131.81	JUNE 25	176.01	JULY 25	178.30	AUG 25	125.20	SEP 25	85.37

330702104402401. (formerly 330700104402501) Local number, 14S.23E.08.144344.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 14	not measured
Aug. 6	286.50

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 16	17.50
Aug. 5	16.61

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, 292.45 ft below land-surface datum, Aug. 5, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 16	68.70
Aug. 5	292.45

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 24	28.99
July 21	29.68

350923107522701. (formerly 350925107523001) Local number, 11N.10W.27.241.
LOCATION.--Lat 35°09'25", long 107°52'30", Hydrologic Unit 13020207. Owner: City of Grants.
AQUIFER.--San Andres Limestone.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 24	24.07
July 21	28.42

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 24	81.58
July 21	81.14

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.--Periodic 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 24	105.75
July 21	100.28

CIBOLA COUNTY
Grants-Bluewater Area--Continued

351630107572801. (formerly 351637107584501) Local number, 12N.11W.14.213.
LOCATION.--Lat 35°16'37", long 107°58'45", Hydrologic Unit 13020207. Owner: Duane Berryhill.
AQUIFER.--San Andres Limestone and Yeso Formation of Permian Age.
WELL CHARACTERISTICS.--Drilled test well, diameter 4 in., depth 130.4 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 6,605 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.70 ft above land-surface datum.
PERIOD OF RECORD.--June 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 81.74 ft below land-surface datum, Sep. 25, 1986; lowest measured, 101.39 ft below land-surface datum, June 10, 1954.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 24	86.43
July 21	86.64

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 22	7.97
July 13	8.50

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 3	137.40
Aug. 20	136.73

CURRY COUNTY
Clovis Area

341836103052001. Local number, 01N.37E.17.113133
LOCATION.--Lat 34°18'53", long 103°05'26", Hydrologic Unit 12050002. Owner: Don Oppliger.
AQUIFER.--Ogallala.
WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 16 in., depth 373 ft, screened 293-373 ft.
INSTRUMENTATION.--Digital recorder, 1-hour punch.
DATUM.--Elevation of land-surface datum is 4,113 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of recorder shelter apron, 3.93 ft above land-surface datum.
REMARKS.--Lost record due to recorder malfunction.
PERIOD OF RECORD.--Jan. 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 158.17 ft below land-surface datum, Jan. 28, 1972; lowest measured, 266.60 ft below land-surface datum, June 22, 1998

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	262.79	262.69	262.42	261.81	261.19	261.14	261.34	263.00	265.03	---	---	---
10	262.72	262.89	262.57	261.78	261.22	261.36	261.82	263.38	264.95	---	---	---
15	262.59	263.02	262.00	261.39	261.19	260.95	261.64	263.96	265.63	---	---	---
20	262.73	262.43	261.97	261.28	261.22	261.25	262.74	---	266.24	---	---	---
25	262.73	262.42	262.16	261.34	260.94	260.86	262.53	263.98	---	---	---	---
EOM	262.50	262.44	261.96	261.25	261.43	261.19	262.65	264.78	---	---	---	---

WTR YEAR 1998 HIGHEST 260.83 FEB. 24, 1998 LOWEST 266.60 JUNE 22, 1998

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.
REMARKS.--"R" indicates well recently pumped.
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, 302.46R ft below land-surface datum, Aug. 12, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	
Jan. 6	290.33	
Aug. 12	302.46	R

342736103203701. (formerly 342815103270001) Local number, 03N.34E.23.433133.
LOCATION.--Lat 34°27'36", long 103°20'37", Hydrologic Unit 12050001. Owner: Archie Baker.
AQUIFER.--Ogallala formation.
WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 16 in., depth 418 ft, cased to 418 ft, perforated 365-418 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 4,432 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.40 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 340.62 ft below land-surface datum, Mar. 16, 1957; lowest measured, 359.69 ft below land-surface datum, July 22, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 5	359.65
Mar. 20	359.87
July 23	359.68
Aug. 12	359.90

CURRY COUNTY
Clovis Area--Continued

343347103345001. Local number, 04N.32E.22.111114.
LOCATION.--Lat 34°33'47", long 103°34'50", Hydrologic Unit 12050001. Owner: Noel Dougherty.
AQUIFER.--Ogallala formation.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 16 in., depth 401 ft.
INSTRUMENTATION.--Continuous strip-chart recorder.
DATUM.--Elevation of land-surface datum is 4,587 ft above National Geodetic Vertical Datum of 1929. Measuring point: Edge of recorder shelter, 3.50 ft above land surface datum.
REMARKS.--Recorder installed Aug. 1988. Lost record due to recorder malfunction.
PERIOD OF RECORD.--Jan. 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 296.24 ft above land-surface datum, June 5, 1998; lowest measured, 309.92 ft below land-surface datum, Jan. 9, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	296.97	---	---	296.79	---	---	296.95	296.93	296.24	---	---	---
10	297.15	---	---	296.92	---	---	296.65	296.71	296.53	---	---	---
15	297.30	---	---	296.69	---	---	296.92	296.71	296.64	---	---	---
20	---	---	296.80	296.61	---	297.07	296.69	296.87	296.55	---	---	---
25	---	---	296.99	---	---	296.78	297.09	296.40	---	---	---	---
EOM	---	---	296.99	---	---	296.77	296.92	296.45	---	---	---	---

WTR YEAR 1998 HIGHEST 296.24 JUNE 5, 1998 LOWEST 297.30 OCT. 16, 1997

343615103123801. Local number, 05N.35E.35.31324.
LOCATION.--Lat 34°36'15", long 103°12'38", Hydrologic Unit 12050005. Owner: S. W. Pipkin.
AQUIFER.--Ogallala formation.
WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 527 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 4,504 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 0.50 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 376.40 ft below land-surface datum, Mar. 26, 1954; lowest measured, 452.91 ft below land-surface datum, Aug. 12, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 5	452.20
Aug. 12	452.91

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.
INSTRUMENTATION.--Periodic steel-tape measurements.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 10	11.98
July 28	10.36

DONA ANA COUNTY
Rincon and Mesilla Valleys--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 10	20.13
July 28	19.12

EDDY COUNTY
Roswell Basin

325702104352801. (formerly 325735104360701) Local number, 16S.24E.04.411341.
LOCATION.--Lat 32°57'35", long 104°36'07", Hydrologic Unit 13060007. Owner: Ellis Hunlic.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled artesian irrigation well, diameter not available, depth 610 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 3,624 ft above National Geodetic Vertical Datum of 1929. Measuring point: Southwest side of pump, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.48 ft below land-surface datum, Jan. 29, 1996; lowest measured, 100.54 ft below land-surface datum, Aug. 27, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 13	54.73
Aug. 6	not measured

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	61.10	NOV 25	60.07	DEC 22	59.56	JAN 23	59.18	FEB 17	58.96	MAR 13	60.80
APR 20	60.59	MAY 21	61.65	JUNE	---	JULY 1	62.06	AUG 13	62.30	SEP 2	62.30

EDDY COUNTY
Roswell Basin--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 13	102.74
Aug. 6	119.72

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, 508.63 ft below land-surface datum, Jan. 27, 1988; lowest measured, 553.18 ft below land-surface datum, Aug. 11, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 13	not measured
Aug. 6	540.37

324620104255001. (formerly 324624104244501) Local number, 18S.26E.06.442221A.
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 measurement.
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.--Records good.
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 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	118.26	98.94	88.89	81.18	76.18	78.17	115.45	113.91	133.05	149.61	162.03	153.44
10	112.17	96.30	87.37	80.15	75.18	79.71	121.03	114.46	135.34	152.80	161.62	151.40
15	108.76	94.54	86.27	79.00	73.30	84.64	125.91	121.32	135.42	156.41	165.40	146.29
20	105.64	92.73	84.73	77.84	73.59	90.81	129.92	126.97	145.17	158.17	167.12	143.84
25	102.52	91.69	83.59	76.91	74.62	97.09	126.28	134.84	150.04	163.26	164.73	145.61
EOM	99.83	90.21	82.76	76.55	75.63	104.98	120.83	133.30	152.44	164.41	158.25	141.54

WTR YEAR 1998 HIGHEST 73.19 FEB. 16, 1998 LOWEST 168.35 AUG. 20, 1998

EDDY COUNTY
Roswell Basin--Continued

324620104255101. Local number, 18S.26E.06.442212B.
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 measurement.
DATUM.--Elevation of land-surface datum is 3,402 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.70 ft above land-surface datum.
REMARKS.--Lost record due to recorder malfunction.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 106.83 ft below land-surface datum, Jan. 7, 1974; lowest measured, 142.88 ft below land-surface datum, Sept. 4, 5, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	133.19	128.61	125.00	121.99	119.74	---	130.11	133.93	137.46	140.55	142.75
10	---	132.29	128.13	124.59	121.51	119.86	125.61	130.24	134.27	137.68	140.75	142.37
15	---	131.38	127.16	124.02	120.62	119.68	126.70	130.54	134.48	138.14	141.25	142.12
20	---	130.49	126.59	123.52	120.46	120.54	128.21	131.18	135.16	138.73	142.01	141.65
25	135.15	129.91	126.28	123.22	120.00	121.12	129.09	132.19	135.97	139.43	142.63	141.41
EOM	134.08	129.21	125.62	122.44	120.13	122.47	129.97	133.36	136.81	140.10	142.67	141.30

WTR YEAR 1998 HIGHEST 119.56 MAR. 4, 1998 LOWEST 142.88 SEPT. 4, 1998

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, 125.66 ft below land-surface datum, Sept. 3, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	125.34	NOV 24	125.38	DEC 22	125.35	JAN 23	125.38	FEB 17	125.31	MAR 13	125.33
APR 20	125.38	MAY 5	125.35	JUNE	---	JULY 1	125.42	AUG 12	125.52	SEP 3	125.66

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 12	38.80
Aug. 12	39.80

EDDY COUNTY
Roswell Basin--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	33.36	NOV 24	35.30	DEC 23	35.29	JAN 23	34.64	FEB	---	MAR	---		
APR 20	31.42	MAY 21	33.55	JUNE	---	JULY 1	33.48	AUG 12	33.87	SEP 3	34.66		

EDDY COUNTY
Carlsbad Area

322637104142301. (formerly 322652104141901) Local number, 21S.26E.36.22110.
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 measurement.
DATUM.--Elevation of land-surface datum is 3,121.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 4.14 ft above land-surface datum.
REMARKS.--Records good.
PERIOD OF RECORD.--April 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.98 ft below land-surface datum, June 14, 1987; lowest measured, 26.07 ft below land-surface datum, Aug. 2, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.90	21.82	21.68	21.81	22.56	22.87	23.51	24.26	24.11	24.12	23.87	23.43
10	22.56	21.67	21.69	22.04	22.64	23.08	23.70	24.33	23.97	24.19	23.87	23.57
15	22.58	21.69	21.62	22.21	22.57	22.93	23.75	24.23	23.83	24.25	23.65	23.58
20	22.35	21.35	21.65	22.26	22.74	23.07	23.92	24.09	24.11	23.99	23.77	23.45
25	22.18	21.55	21.67	22.44	22.76	23.30	24.10	24.01	24.03	23.91	23.49	23.57
EOM	21.88	21.62	21.88	22.51	22.91	23.40	24.23	24.06	24.14	23.84	23.37	23.55

WTR YEAR 1998 HIGHEST 21.34 NOV. 21, 1997 LOWEST 24.44 MAY 10, 1998

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 measurement.
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.--Lost record due to recorder malfunction.
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 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	93.70	92.69	92.45	92.56	93.33	93.62	---	95.21	95.02	95.05	---	94.31
10	93.48	92.54	92.42	92.66	93.36	93.78	94.39	95.35	94.96	95.06	---	94.38
15	93.42	92.38	92.52	92.92	93.38	93.76	94.52	95.42	94.76	95.04	---	94.49
20	93.26	92.22	92.36	93.04	93.47	93.73	94.70	95.38	94.93	94.96	94.69	94.39
25	92.97	92.25	92.34	93.19	93.53	93.95	94.92	94.98	94.96	94.96	94.45	94.46
EOM	92.79	92.31	92.54	93.29	93.54	94.07	95.14	94.92	94.95	94.97	94.37	94.49

WTR YEAR 1998 HIGHEST 92.18 NOV. 22, 1997 LOWEST 95.45 MAY 15, 1998

EDDY COUNTY
Carlsbad Area--Continued

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 measurement.
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 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	153.52	148.31	144.58	143.20	142.64	142.66	145.28	153.49	157.10	161.54	161.73	158.23
10	153.26	147.40	144.24	143.16	142.64	143.26	146.38	154.41	156.93	162.29	161.34	157.60
15	152.38	146.90	143.94	142.86	142.45	143.52	147.79	154.52	157.49	161.96	160.57	156.87
20	151.18	145.78	143.70	142.73	142.57	143.94	150.24	154.85	158.23	162.43	160.47	156.88
25	150.06	145.38	143.55	142.78	142.47	143.98	151.77	155.59	158.70	162.42	159.75	156.57
EOM	148.96	144.88	143.54	142.64	142.69	144.61	152.80	156.92	160.25	161.96	158.97	155.77

WTR YEAR 1998 HIGHEST 142.45 FEB. 15, 1998 LOWEST 162.75 JULY 22, 1998

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 6	28.49
Aug. 10	27.54

321741104204901. (formerly 321721104204801) Local number, 23S.25E.24.21433.
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 measurement.
DATUM.--Elevation of land-surface datum is 3,501.7 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.17 ft above land-surface datum.
REMARKS.--Records good.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 369.53 ft below land-surface datum, June 27, 1986; lowest measured, 404.06 ft below land-surface datum, July 10, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	400.98	400.09	399.83	399.94	400.49	400.74	402.00	402.99	403.26	402.72	402.36	402.06
10	400.11	399.93	399.85	400.02	400.58	400.97	402.26	403.10	403.07	402.70	402.48	402.10
15	400.57	399.88	399.93	400.17	400.47	401.27	402.34	402.78	402.83	402.78	402.33	402.05
20	400.48	399.71	399.88	400.21	400.62	401.41	402.53	403.11	402.63	402.68	402.36	401.87
25	400.25	399.76	399.88	400.42	400.63	401.63	402.65	403.10	402.67	402.57	402.09	401.90
EOM	400.14	399.74	400.06	400.42	400.77	401.76	402.83	403.11	402.75	402.51	401.92	401.93

WTR YEAR 1998 HIGHEST 399.61 NOV. 27, 1997 LOWEST 403.34 JUNE 5, 1998

EDDY COUNTY
Carlsbad Area--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 12	55.57
Aug. 10	54.10

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 9	56.55
Aug. 11	60.88

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 14	45.84
Aug. 11	47.12

GRANT COUNTY
Mimbres Basin

324245108175603. Local number, 18S.14W.28.143B.
LOCATION.--Lat 32°42'45", long 108°17'56", Hydrologic Unit 13030202. Owner: Exxon Corp.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 6 in., depth unknown.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 5,800 ft above National Geodetic Vertical Datum of 1929. Measuring point: 3/4 in. hole in cover plate, at land-surface datum.
REMARKS.--"S" indicates nearby well pumping..
PERIOD OF RECORD.--Mar. 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 268.84 ft below land-surface datum, Jan. 14, 1986; lowest measured, 404.60S ft below land-surface datum, Jan. 6, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 22	386.92
July 2	354.64

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 measurement.
DATUM.--Elevation of land-surface datum is 5,845 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 12 in. casing, 1.50 ft above land-surface datum.
REMARKS.--Lost several months of record, due to recorder malfunction.
PERIOD OF RECORD.--Mar. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 262.34 ft below land-surface datum, Mar. 3, 1962; lowest measured, 302.42 ft below land-surface datum, Sept. 4, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	296.14	295.85	295.57	295.97	297.61	300.13	301.74	302.01	302.12
10	---	---	---	296.20	295.83	295.77	296.43	298.27	300.39	302.01	302.11	302.18
15	---	---	296.45	296.11	295.44	295.38	296.44	298.82	300.58	302.04	302.23	302.08
20	---	---	296.30	295.86	295.63	295.46	296.93	299.20	300.90	302.11	302.08	302.24
25	---	---	296.25	296.05	295.51	295.40	296.89	299.49	301.14	302.07	302.22	302.25
EOM	---	---	296.47	295.78	295.72	295.81	297.44	300.00	301.39	302.07	302.18	302.21

WTR YEAR 1998 HIGHEST 295.34 MAR.7, 1998 LOWEST 302.42 SEPT. 4, 1998

GUADALUPE COUNTY
Santa Rosa Area

350414104485101. Local number, 10N.20E.28.2241.
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 measurement.
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 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	346.65	346.82	346.92	347.26	347.68	348.38	348.00	347.23	346.07	346.68	346.60	345.62
10	346.67	346.87	347.04	347.22	347.85	348.53	347.99	346.98	345.89	346.61	346.13	345.92
15	346.67	346.96	346.95	347.25	347.84	348.59	347.87	346.86	345.85	346.55	346.17	345.66
20	346.64	346.84	347.08	347.26	348.05	348.42	347.87	346.64	345.89	346.48	346.16	346.04
25	346.54	346.87	347.14	347.49	348.06	348.32	347.61	346.51	346.03	346.57	346.34	346.32
EOM	346.65	346.89	347.30	347.59	348.27	348.16	347.45	346.23	346.27	346.45	345.68	346.06

WTR YEAR 1998 HIGHEST 345.58 SEPT. 12, 1998 LOWEST 349.37 MAR. 11, 1998

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 22	49.68
Aug. 12	50.24

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 12	11.46
July 8	13.73

HIDALGO COUNTY
Lordsburg Area

321849108392001. (formerly 321848108391401) Local number, 23S.18W.12.333.
LOCATION.--Lat 32°18'49", long 108°39'20", Hydrologic Unit 15040003. Owner: R. I. McDonald.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 12 in., depth 220 ft, perforations 100-220 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 4,240 ft above National Geodetic Vertical Datum of 1929. Measuring point: End of entry port pipe, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 100.02 ft below land-surface datum, Jan. 11, 1958; lowest measured, 190.45 ft below land-surface datum, Aug. 7, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 13	154.55
July 8	156.85

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.
REMARKS.--"S" indicates nearby well pumping. "P" indicates well pumping.
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, 181.44S ft below land-surface datum, July 7, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	
Jan. 12	90.76	P
July 8	91.48	

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, 55.50 ft below land-surface datum, July 8, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 9	53.80
July 7	54.37

HIDALGO COUNTY
Animas Valley--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 13	181.94
July 7	pumping

HIDALGO COUNTY
San Simon Valley

315738109004001. Local number, 27S.21W.17.124.
LOCATION.--Lat 34°57'38", long 109°00'40", Hydrologic Unit 15040006. Owner: E. J. Bagwell.
AQUIFER.--Bolson.
WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 220 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 4,020 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in west side of pump base, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1978, Jan. 1980, July 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 120.98 ft above land-surface datum, Jan. 10, 1980; lowest measured, 128.29 ft below land-surface datum, Jan. 14, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 14	128.29
July 7	127.43

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 14	121.72
July 7	not measured

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 12	47.36
July 8	47.22

HIDALGO COUNTY
Playas Valley--Continued

312938108302301. Local number, 32S.16W.30.134.
LOCATION.--Lat 31°29'38", long 108°30'23", Hydrologic Unit 13030201. Owner: C. C. Edwards.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 150 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 4,490 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 3/4 in. pipe nipple inside pump shell, 1.45 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1952 to current year.
REMARKS.--"P" indicates well pumping.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 12	86.53
July 16	not measured

LEA COUNTY
Tatum-Lovington-Hobbs Area

332115103403301. Local number, 11S.32E.24.113222.
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 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 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	60.98	60.89	60.79	60.75	60.74	60.70	60.60	60.62	60.62
10	---	---	---	60.98	60.86	60.77	60.75	60.73	60.62	60.61	60.62	60.63
15	---	---	---	60.95	60.84	60.75	60.73	60.74	60.66	60.61	60.63	60.62
20	---	---	60.88	60.95	60.83	60.75	60.76	60.73	60.62	60.62	60.64	60.62
25	---	---	60.94	60.94	60.82	60.75	60.74	60.72	60.60	60.61	60.62	60.61
EOM	---	---	60.95	60.91	60.81	60.76	60.75	60.71	60.61	60.62	60.63	60.62

WTR YEAR 1998 HIGHEST 60.60 JUNE 23, 1998 LOWEST 61.05 JAN. 6, 1998

331713103283301. (formerly 331740103285001) Local number, 12S.34E.11.421.
LOCATION.--Lat 33°17'22", long 103°28'50", Hydrologic Unit 12080006. Owner: A. D. Jones.
AQUIFER.--Ogallala formation.
WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 15 in., depth 87 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 4,144 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of concrete pump base, 0.80 ft above land-surface datum.
PERIOD OF RECORD.--May 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.57 ft below land-surface datum, May 24, 1949; lowest measured, 34.14 ft below land-surface datum, Aug. 17, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 7	not measured
Aug. 26	32.09

LEA COUNTY
Tatum-Lovington-Hobbs Area--Continued

330458103251001. (formerly 330455103251301) Local number, 14S.35E.28.111133.
LOCATION.--Lat 35°04'55", long 103°25'13", Hydrologic Unit 12080003. Owner: Paul Fisher.
AQUIFER.--Ogallala formation.
WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in., depth 137 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 4,031 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.05 ft below land-surface datum, Jan. 5, 1994; lowest measured, 44.73 ft below land-surface datum, Aug. 7, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 7	44.01
Aug. 26	44.10

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, 76.14 ft below land-surface datum, Aug. 19, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 7	71.53
Aug. 26	71.56

325730103213901. (formerly 325703103213201) Local number, 16S.36E.04.32232.
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 measurement.
DATUM.--Elevation of land-surface datum is 3,926 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelf, 4.00 ft above land-surface datum.
REMARKS.--Records good.
PERIOD OF RECORD.--Aug. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.69 ft below land-surface datum, Mar. 26, 1998; lowest measured, 67.11 ft below land-surface datum, Aug. 24, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	57.48	57.30	57.13	56.96	56.84	56.76	56.69	56.77	57.21	57.57	57.82	57.98
10	57.45	57.25	57.12	56.95	56.83	56.77	56.72	56.88	57.26	57.61	57.84	57.98
15	57.42	57.26	57.08	56.91	56.80	56.72	56.69	57.00	57.31	57.63	57.87	57.98
20	57.38	57.20	57.05	56.89	56.79	56.75	56.73	57.03	57.36	57.66	57.93	57.93
25	57.34	57.17	57.03	56.88	56.77	56.71	56.72	57.05	57.42	57.68	57.93	57.92
EOM	57.29	57.15	57.01	56.85	56.78	56.71	56.76	57.15	57.49	57.77	57.96	57.91

WTR YEAR 1998 HIGHEST 56.69 MAR. 26, 1998 LOWEST 58.01 SEPT. 14, 1998

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 6	70.75
Aug. 26	72.17

LEA COUNTY
Tatum-Lovington Hobbs Area--Continued

325132103112501. Local number, 17S.38E.07.111311.
LOCATION.--Lat 32°51'32", long 103°11'25", Hydrologic Unit 12080003. Owner: L. R. Sebings.
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.
REMARKS.--"P" indicates well pumping.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.59 ft below land-surface datum, Mar. 21, 1952; lowest measured, 82.44P ft below land-surface datum, Aug. 26, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	
Jan. 5	not measured	
Aug. 26	82.44	P

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, 72.33 ft below land-surface datum, Aug. 26, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 5	69.02
Aug. 26	72.33

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, 35.49 ft below land-surface datum, Jan. 9, 1997; lowest measured, 69.77 ft below land-surface datum, Nov. 28, 1956.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 14	36.94
Aug. 5	36.93

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.--Yeso 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan.	not measured
Aug. 5	not measured

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, 213.80 ft below land-surface datum, Jan. 21, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 21	213.80
July 11	pumping

LUNA COUNTY
Mimbres Valley

321352107493901. Local number, 24S.10W.12.431.
LOCATION.--Lat 32°13'52", long 107°49'39", Hydrologic Unit 13030202. Owner: Steve Hrna.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Dug and drilled water-table unused well, diameter 36 in., reported depth 132 ft.
INSTRUMENTATION.--Continuous strip-chart recorder.
DATUM.--Elevation of land-surface datum is 4,330 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelter shelf, 1.36 ft above land-surface datum.
REMARKS.--Recorder re-installed Jan.26, 1994. Records good.
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 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	102.38	101.85	101.56	101.29	101.37	102.01	102.81	103.38	104.00	104.49	104.94	105.28
10	102.32	101.78	101.50	101.32	101.51	102.23	103.03	103.53	104.15	104.56	105.03	105.30
15	102.35	101.86	101.36	101.27	101.62	102.09	103.01	103.66	104.16	104.60	105.02	105.35
20	102.20	101.60	101.34	101.20	101.74	102.27	103.21	103.73	104.25	104.62	105.16	105.33
25	101.93	101.64	101.37	101.25	101.80	102.43	103.10	103.78	104.33	104.72	105.07	105.42
EOM	101.94	101.52	101.43	101.22	102.07	102.78	103.33	103.91	104.40	104.79	105.19	105.42

WTR YEAR 1998 HIGHEST 101.20 JAN. 19, 1998 LOWEST 105.50 SEPT. 22, 1998

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 20	174.63
July 2	180.59

LUNA COUNTY
Mimbres Valley--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 21	19.38
July 1	28.20

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 21	81.79
July 1	81.44

320647107490701. Local number, 25S.09W.19.31331.
LOCATION.--Lat 32°26'47", long 107°49'07", Hydrologic Unit 13030202. Owner: Tryon.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 14 in., depth 240 ft, cased to 240 ft, perforated 80-240 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 4,248 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, 150.70 ft below land-surface datum, Jul. 18, 1957; lowest measured, 222.52 ft below land-surface datum, July 2, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 23	205.88
July 2	222.52

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 20	83.16
July 9	92.81

LUNA COUNTY
Mimbres Valley--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 20	39.09
July 9	39.27

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 20	16.80
July 19	16.99

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.--Periodic 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 24	90.98
July 21	91.60

353645108011501. Local number, 16N.11W.17.4322.
LOCATION.--Lat 35°36'45", long 108°01'15", Hydrologic Unit 14080106. Owner: Navajo Nation.
AQUIFER.--Gallup Sandstone.
WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 5/8 in., depth 570 ft, cased to 570 ft, perforated 470-570 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 7,070 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.53 ft above land-surface datum.
PERIOD OF RECORD.--July 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 249.99 ft below land-surface datum, Mar. 23, 1998; lowest measured, 318.28 ft below land-surface datum, July 21, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 23	249.99
July 21	252.18

McKINLEY COUNTY
San Juan Basin--Continued

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.--"P" indicates well pumping. "R" indicated well recently pumped.
PERIOD OF RECORD.--Oct. 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.55 ft below land-surface datum, Feb. 2, 1995; lowest measured, 183.05P ft below land-surface datum, Feb. 25, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	
Mar. 23	135.38	R
July 21	140.27	R

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, 1.70 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 241.83 ft below land-surface datum, July 21, 1998; lowest measured, 350.38 ft below land-surface datum, Oct. 8, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 23	241.91
July 21	241.83

354235108170703. Local number, 17N.14W.13.1144C.
LOCATION.--Lat 35°42'35", long 108°17'07", Hydrologic Unit 14080106. Owner: United Nuclear.
AQUIFER.--Dakota Sandstone.
WELL CHARACTERISTICS.--Drilled water-table well, diameter 8 5/8 in. 0-54 ft, 6 5/8 in. 54- 1,728 ft. Perforated 1,587-1,728 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 6,757.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: 3/8 in. plug, 0.80 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 76.21 ft below land-surface datum, Aug. 4, 1982; lowest measured, 126.35 ft below land-surface datum, July 11, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 23	125.04
July 21	125.02

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 6	90.49
July 29	98.36

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	
Jan. 13	90.42	
Aug. 11	91.45	

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.
REMARKS.--"P" indicates well pumping.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	
Jan. 13	52.72	P
Aug. 11	75.07	

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 13	50.96
Aug. 11	59.85

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, 74.50 ft below land-surface datum, Sep. 15, 1994; lowest measured, 84.22R ft below land-surface datum, Feb. 18, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 20	74.73
June 23	74.94

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QUAY COUNTY
House Area--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 20	47.79
June 23	pumping

344406103555501. Local number, 06N.28E.13.33333.
LOCATION.--Lat 34°44'06", long 103°55'55", Hydrologic Unit 13060004. Owner: Jack Jennings.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled domestic well, diameter 16 in., depth 131 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 4,816 ft above National Geodetic Vertical Datum of 1929. Measuring point: 3/4 in. hole in cover plate, 0.40 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 100.47 ft below land-surface datum, Jan. 20, 1948; lowest measured, 120.20 ft below land-surface datum, Sep. 24, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 20	119.95
June 23	120.11

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 21	39.75
July 12	63.55

QUAY COUNTY
Northern High Plains

353239103111301. Local number, 15N.35E.11.21222.
LOCATION.--Lat 35°32'39", long 103°11'13", Hydrologic Unit 11080006. Owner: J. L. Smith.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 12 in., depth 175 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 4,126 ft above National Geodetic Vertical Datum of 1929. Measuring point: 2 1/2 in. hole, in east side of casing, 1.20 ft above land-surface datum.
PERIOD OF RECORD.--July 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.83 ft below land-surface datum, July 26, 1995; lowest measured, 114.67 ft below land-surface datum, Feb. 5, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 21	89.96
Aug. 13	90.33

QUAY COUNTY
Northern High Plains--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 21	160.09
Aug. 13	162.42

ROOSEVELT COUNTY
Portales Valley

341014103264401. Local number, 01S.33E.35.434344.
LOCATION.--Lat 34°10'14", long 103°26'44", Hydrologic Unit 12050002. Owner: Jones
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 16 in., depth 84 ft.
INSTRUMENTATION.--Digital recorder, 1-hour punch.
DATUM.--Elevation of land-surface datum is 4,066 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.80 ft above land-surface datum.
REMARKS.--Recorder installed Apr. 25, 1996. Lost record several months due to recorder malfunction.
PERIOD OF RECORD.--Apr. to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.37 ft below land-surface datum, Apr. 25, 1996; lowest measured, 68.02 ft below land-surface datum, Sept. 30, 1998

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	67.44	67.49	67.54	67.63	---	---	67.69	67.77	---	67.86	67.94	67.96
10	67.47	67.49	67.54	67.64	---	---	67.70	67.77	---	67.87	67.94	67.99
15	67.46	67.53	67.49	67.64	---	---	67.69	67.80	---	67.88	67.94	68.00
20	67.47	67.50	67.55	---	---	67.67	67.74	67.80	---	67.89	67.95	68.00
25	67.48	67.50	67.60	---	---	67.65	67.73	67.81	67.84	67.90	67.96	68.00
EOM	67.45	67.52	67.61	---	---	67.68	67.75	67.81	67.85	67.93	67.96	68.01

WTR YEAR 1998 HIGHEST 67.42 OCT. 1, 1997 LOWEST 68.02 SEPT. 30, 1998

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.--Periodic steel tape measurements.
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.--Recorder removed Apr. 25, 1996.
PERIOD OF RECORD.--Jan. 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.19 ft below land-surface datum, Jan. 25, 1952; lowest measured, 86.65 ft below land-surface datum, Jan. 23, 1997.

DATE	WATER LEVEL
Jan. 7	87.98
Aug. 11	89.25

340732103145001. Local number, 02S.35E.23.11113.
LOCATION.--Lat 34°07'32", long 103°14'50", Hydrologic Unit 12050001. Owner: Herman Gras.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 10 in., depth 80 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 3,961 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1.5 in. shaft hole, in center of pump, 2.80 ft above land-surface datum.
PERIOD OF RECORD.--July 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.32 ft below land-surface datum, Mar. 27, 1951; lowest measured, 56.33 ft below land-surface datum, Aug. 8, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 7	dry
Aug. 11	dry

ROOSEVELT COUNTY
Portales Valley--Continued

340753103083101. Local number, 02S.36E.14.311111.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Aug. 11	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 measurement.
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 malfuncation.
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, 133.76 ft below land-surface datum, Sept. 18,1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	126.00	125.49	124.55	124.14	123.61	123.27	123.24	125.60	128.69	129.35	128.28	132.76
10	125.50	---	124.62	124.04	123.50	123.25	124.19	125.62	128.33	130.33	131.42	132.77
15	125.50	124.94	124.39	123.90	123.52	123.12	123.49	127.90	129.05	130.67	131.91	132.98
20	125.10	124.81	124.32	123.88	123.52	123.08	125.02	125.83	127.34	130.86	131.93	130.71
25	125.04	124.72	124.32	123.81	123.45	124.86	125.83	126.44	129.68	130.95	132.47	132.68
EOM	124.90	124.63	124.21	123.70	123.35	123.58	126.51	126.18	130.06	129.63	132.56	132.15

WTR YEAR 1998 HIGHEST 123.04 MAR. 21, 1998 LOWEST 133.76 SEPT. 18, 1998

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" indicated well pumping.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 7	92.23
Aug. 11	95.32

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 19	23.91
Aug. 3	23.81

SAN JUAN COUNTY
San Juan Basin

364534108292701. Local number, 29N.15W.02.232.
LOCATION.--Lat 36°57344", long 108°92270", Hydrologic Unit 14080105. Owner: Dean Bradshaw.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled water-table well, diameter 10 in., depth 37 ft, cased to 37 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 5,045 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.05 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1992 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.53 ft below land-surface datum, July 30, 1996; lowest measured, 10.04 ft below land-surface datum, Feb. 22, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 16	10.08
July 23	not measured

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 to729.5 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, 167.85 ft below land-surface datum, July 23, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 16	166.59
July 23	167.85

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 well pumping.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 5	148.30
July 20	pumping

350344106004601. (formerly 350340106005001) Local number, 10N.09E.29.1334.
LOCATION.--Lat 35°03'44", long 106°00'46", Hydrologic Unit 13050001. Owner: Phil Wallen.
AQUIFER.--Glorieta Sandstone of Permian age.
WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 14 in., reported depth 200 ft, cased to 140 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 6,248 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of 3 in. pipe on north side of pump, 1.30 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 55.00 ft below land-surface datum, May 4, 1949; lowest measured, 133.50 ft below land-surface datum, Aug. 1, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 5	117.95
July 20	pumping

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, 139.10 ft below land-surface datum, Aug. 7, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 5	139.62
July 20	139.98

SANTA FE COUNTY
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, 264.79 ft below land-surface datum, Aug. 15, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 23	not measured
Aug. 7	262.96

SANTA FE COUNTY
Santa Fe Area--Continued

353516106035801. Local number, 16N.08E.26.32112.
LOCATION.--Lat 35°35'16", long 106°03'58", Hydrologic Unit 13020201. Owner: State Highway Dept.
AQUIFER.--Tesuque Formation of Santa Fe Group.
WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 10 in., depth 160 ft, cased to 160 ft, perforated 125-160 ft.
INSTRUMENTATION.--Digital recorder, 1-hour measurement.
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.--Lost recorder due to recorder malfunction.
PERIOD OF RECORD.--July 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.62 ft below land-surface datum, June 11, 1973; lowest measured, 130.92 ft below land-surface datum, Sept. 29, 1997

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	130.81	130.73	130.70	---	130.66	130.63	130.59	130.61	---	---	130.70	130.79
10	130.66	130.69	130.76	---	130.66	130.59	130.59	130.62	---	---	130.72	130.80
15	130.72	130.78	130.66	---	130.57	130.55	130.59	---	---	---	130.69	130.80
20	130.71	130.69	130.65	---	130.59	130.60	130.62	---	---	---	130.73	130.81
25	130.79	130.70	---	---	130.63	130.57	130.56	---	---	---	130.72	130.79
EOM	130.67	130.67	---	130.59	130.64	130.66	130.59	---	---	---	130.78	130.83

WTR YEAR 1998 HIGHEST 130.47 FEB. 24, 1998 LOWEST 130.89 OCT. 1, 1997

353735105581201. (formerly 353753105580501) Local number, 16N.09E.10.42114.
LOCATION.--Lat 35°37'53", long 105°58'05", Hydrologic Unit 13020201. Owner: Paul Ragel.
AQUIFER.--Ancha Formation of Santa Fe Group.
WELL CHARACTERISTICS.--Drilled domestic well, diameter 6 in., depth 243 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 6,820 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1/2 in. plug in cover plate, 6.00 ft below land-surface datum.
PERIOD OF RECORD.--Aug. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 149.52 ft below land-surface datum, Dec. 11, 1957; lowest measured, 230.44 ft below land-surface datum, Aug. 22, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 23	229.56
Aug. 7	229.87

354013105580601. (formerly 354005105574501) Local number, 17N.09E.27.441.
LOCATION.--Lat 35°40'05", long 105°57'45", Hydrologic Unit 13020201. Owner: U.S. Indian School.
AQUIFER.--Tesuque Formation of Santa Fe Group.
WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 8 in., depth 989 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 6,848 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 2.70 ft below land-surface datum.
PERIOD OF RECORD.--Dec. 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 102.33 ft below land-surface datum, Dec. 27, 1951; lowest measured, 240.30R ft below land-surface datum, Feb. 21, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 11	231.92
Aug. 7	not measured

SANTA FE COUNTY
Santa Fe Area--Continued

355000106092801. Local number, 19N.07E.36.3113 SF-2A.
LOCATION.--Lat 35°50'00", long 106°09'28", Hydrologic Unit 13020201. Owner: U.S. Geological Survey, WRD
AQUIFER.--Tesuque Formation of Santa Fe Group.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4.5 in., depth 1,863 ft, cased to 1,863 ft, screened 1,850-1,860 ft.
INSTRUMENTATION.--Transducer and data logger, 1-hour measurements.
DATUM.--Elevation of land-surface datum is 5,540 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1.80 ft above land-surface datum.
REMARKS.--Transducer and data logger installed July 2, 1997. Some lost record due to equipment malfunction.
PERIOD OF RECORD.--July 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.30 ft below land-surface datum, July 3, 1997; lowest measured, 33.88 ft below land-surface datum, Sept. 30, 1998

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.20	31.42	31.62	31.83	32.05	32.23	32.45	32.74	32.92	33.17	33.43	---
10	31.23	31.44	31.66	31.87	32.08	32.27	32.52	32.77	32.95	33.21	33.47	---
15	31.25	31.48	31.69	31.90	32.11	32.29	32.57	32.79	32.98	33.24	---	---
20	31.29	31.51	31.72	31.93	32.15	32.34	32.61	32.82	33.03	33.29	---	33.80
25	31.33	31.55	31.75	31.96	32.18	32.38	32.65	32.85	33.08	33.33	---	33.84
EOM	31.38	31.58	31.79	32.02	32.21	---	32.70	32.88	33.12	33.38	---	33.87

WTR YEAR 1998 HIGHEST 31.15 OCT. 3, 1997 LOWEST 33.88 SEPT. 30 , 1998

355000106092803. Local number, 19N.07E.36.3113 SF-2C.
LOCATION.--Lat 35°50'00", long 106°09'28", Hydrologic Unit 13020201. Owner: U.S. Geological Survey, WRD
AQUIFER.--Tesuque Formation of Santa Fe Group.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4.5 in., depth 346 ft, cased to 346 ft, screened 324-334 ft.
INSTRUMENTATION.--Transducer and data logger, 1-hour measurements.
DATUM.--Elevation of land-surface datum is 5,540 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1.80 ft above land-surface datum.
REMARKS.--Transducer and data logger installed July 2, 1997. Some lost record due to equipment malfunction.
PERIOD OF RECORD.--July 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 219.55 ft below land-surface datum, Oct. 22, 1997; lowest measured, 224.28 ft below land-surface datum, July 27, 1998

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	221.41	221.09	221.57	221.80	221.98	222.15	221.08	222.41	222.95	223.25	223.57	---
10	221.50	221.32	221.49	221.95	222.16	222.57	221.75	222.48	222.95	223.24	222.22	---
15	221.03	221.17	221.70	222.06	221.70	222.95	221.88	222.61	222.57	223.08	---	---
20	220.42	221.42	221.72	221.92	222.18	222.53	221.55	222.88	222.82	223.22	---	223.58
25	220.60	221.66	221.56	222.24	221.98	222.43	222.33	223.13	223.09	223.33	---	223.63
EOM	220.85	221.50	221.99	221.98	222.13	---	222.36	223.08	223.19	222.99	---	223.80

WTR YEAR 1998 HIGHEST 219.28 OCT. 22, 1997 LOWEST 224.28 July 27, 1998

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, 46.54 ft below land-surface datum, Feb. 28, 1997; lowest measured, 65.56 ft below land-surface datum, Feb. 25, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 11	47.10
July 28	47.94

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, 44.36 ft below land-surface datum, Mar. 11, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 11	44.36
July 28	44.17

SIERRA COUNTY
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 11	22.88
July 28	23.71

TAOS COUNTY
Sunshine Valley

365035105360501. (formerly 365036105355301) Local number, 30N.13E.18.1121.
LOCATION.--Lat 36°50'35", long 105°36'05", Hydrologic Unit 13020101. Owner: U. S. Government.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 10 in., depth 500 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 7,597 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--Sep. 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.50 ft below land-surface datum, Jan. 16, 1994; lowest measured, 77.33 ft below land-surface datum, Aug. 9, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 2	69.04
Aug. 20	69.22

TAOS COUNTY
Sunshine Valley--Continued

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.--Continuous strip-chart recorder
DATUM.--Elevation of land-surface datum is 7,620 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 3.00 ft above land-surface datum.
REMARKS.--Lost record due to recorder malfunction.
PERIOD OF RECORD.--June 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 182.78 ft below land-surface datum, Jan. 17, 1996; lowest measured, 213.53 ft below land-surface datum, Aug. 10, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	184.25	184.45	183.90	183.97	---	183.97	---	184.04	184.20	184.54	184.66	184.51
10	184.26	184.10	184.48	---	---	184.37	---	184.16	184.15	184.59	184.61	184.46
15	184.59	184.13	---	---	183.72	184.09	---	184.14	184.27	184.54	184.42	184.51
20	184.32	184.09	---	---	184.15	---	---	184.41	184.43	184.49	184.61	184.30
25	183.83	184.33	---	---	183.64	---	---	184.24	184.43	184.52	184.42	184.26
EOM	184.11	184.14	184.47	---	184.05	---	---	184.34	184.52	184.56	184.46	184.46

WTR YEAR 1998 HIGHEST 183.64 FEB. 16, 1998 LOWEST 184.79 JULY 16, 1998

365410105345601. (formerly 365410105354501) Local number, 02S.73W.05.244.
LOCATION.--Lat 36°54'10", long 105°34'56", Hydrologic Unit 13020101. Owner: Bert Quintana.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled water-table domestic and stock well, diameter 6 in., depth unknown.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 7,590 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1 in. hole in plate over casing, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.86 ft below land-surface datum, Aug. 11, 1995; lowest measured, 84.78 ft below land-surface datum, Jan. 27, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Mar. 2	not measured
Aug. 20	66.10

TORRANCE COUNTY
Estancia Valley

343443106024401. Local number, 04N.09E.07.334.
LOCATION.--Lat 34°34'43", long 106°02'44", Hydrologic Unit 13050001. Owner: Franklin Development.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 16 in., reported depth 163 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 6,118 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in northwest side of pump base, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.70 ft below land-surface datum, Feb. 10, 1958; lowest measured, 100.39 ft below land-surface datum, Aug. 24, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 4	96.87
July 20	pumping

TORRANCE COUNTY
Estancia Valley--Continued

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, 133.68 ft below land-surface datum, July 20, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 4	127.38
July 20	133.68

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 4	83.61
July 20	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, 28.65 ft below land-surface datum, July 13, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 4	18.95
July 20	27.06

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, 69.38 ft below land-surface datum, July 20, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Feb. 4	56.99
July 20	69.38

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.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 23	150.79
Aug. 13	150.93

361847103064701. (formerly 361910103170501) Local number, 24N.36E.17.244.
LOCATION.--Lat 36°18'47", long 103°06'47", Hydrologic Unit 11090103. Owner: Glen Burrows.
AQUIFER.--Ogallala formation.
WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 20 in., depth 231 ft.
INSTRUMENTATION.--Continuous strip-chart recorder.
DATUM.--Elevation of land-surface datum is 4,707 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.95 ft above land-surface datum.
REMARKS.--Lost several months of record due to recorder malfuncation
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, 101.37 ft below land-surface datum, Sept. 22, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	100.26	100.38	100.44	100.34	100.47	---	---	100.80	100.89	101.03	101.12	101.27
10	100.30	100.34	100.42	100.33	100.50	---	---	100.84	100.93	101.04	101.16	101.33
15	100.34	100.38	100.49	100.31	---	---	---	100.92	100.97	101.07	101.18	101.32
20	100.34	100.35	100.35	100.30	---	---	100.78	100.90	---	101.08	101.23	101.34
25	100.31	100.36	100.39	100.48	---	---	100.78	100.92	---	101.13	101.22	101.32
EOM	100.29	100.42	100.35	100.45	---	---	---	100.88	101.02	101.09	101.22	101.33

WTR YEAR 1998 HIGHEST 100.22 OCT. 12, 1997 LOWEST 101.37 SEPT. 22, 1998

362540103095001. Local number, 25N.35E.02.441.
LOCATION.--Lat 36°25'40", long 103°10'02", Hydrologic Unit 11090103. Owner: Bill Winchester.
AQUIFER.--Ogalalla 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 22	95.99
Apr. 16	95.97

363410103064801. Local number, 27N.36E.17.434.
LOCATION.--Lat 36°34'10", long 103°06'48", Hydrologic Unit 11100101. Owner: Paul Carter.
AQUIFER.--Ogalalla 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 22	95.99
Apr. 16	96.29

UNION COUNTY
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.
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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
Jan. 22	35.76
Aug. 13	33.93

EXPLANATION OF GEOLOGIC UNIT (AQUIFER) CODES (LISTED FROM YOUNGEST TO OLDEST AGE) U-UPPER, M-MIDDLE, L-LOWER:
110 AVMB-Cenozoic, Quaternary, Alluvium, Bolson Deposits and other Surface Deposits
121 TSUQ-Cenozoic, Quaternary, Tesuque Formation, undifferentiated unit
325 MDER-Paleozoic, Middle Pennsylvanian, Des Moinesian, Madera Limestoner
400 PCMB-Paleozoic, Precambrian, precambrian Earthem

LOCAL IDENTIFIER.--Indicates location by New Mexico or Texas local well number, if area not surveyed location by site name.

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.

E estimated

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

BERNALILLO COUNTY

LOCAL IDENTIFIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEOLOGIC UNIT	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	FLOW RATE (G/M) (00059)
09N.06E.06.124	350221106202801	001	GW	05-29-98	1000	325MDER	7118	2160	27.0
09N.06E.30.132	345841106203901	001	GW	10-03-97	1300	325MDER	7615	15	15.0
11N.05E.24.233	351011106205801	001	GW	09-15-98	1200	--	6970	20	13.0

LOCAL IDENTIFIER	DATE	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 NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
09N.06E.06.124	05-29-98	750	7.4	20.5	13.3	595	3.4	350	22
09N.06E.30.132	10-03-97	1090	7.2	16.1	13.0	583	5.9	490	--
11N.05E.24.233	09-15-98	550	--	20.4	14.2	--	--	250	--

LOCAL IDENTIFIER	DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
09N.06E.06.124	05-29-98	94	28	19	.4	1.7	328	338	38
09N.06E.30.132	10-03-97	170	17	33	.6	1.3	--	337	59
11N.05E.24.233	09-15-98	88	8.7	9.7	.3	.9	--	242	18

LOCAL IDENTIFIER	DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
09N.06E.06.124	05-29-98	23	.5	15	424	.525	.01	.54	.05
09N.06E.30.132	10-03-97	100	.2	20	627	--	<.01	4.9	.06
11N.05E.24.233	09-15-98	16	.3	20	309	--	<.01	.69	<.02

BERNALILLO COUNTY--Continued

LOCAL IDENTIFIER	DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
09N.06E.06.124	05-29-98	<.1	<.01	<.01	1	<1	55.9	<10	<4
09N.06E.30.132	10-03-97	<.2	<.01	<.01	3.3	<1	45.4	7	<1
11N.05E.24.233	09-15-98	.2	.03	.02	1.2	<1	19.5	E7	<3

DONA ANA COUNTY

LOCAL IDENTIFIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEOLOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)
21S.04E.10.133	322952106314401	013	SP	07-17-98	0930	400PCMB	--	6060	--
21S.04E.10.322	322943106312301	013	GW	10-16-97	1255	400PCMB	156.00	5755	--
		013	GW	01-28-98	1200	400PCMB	156.00	5755	--
		013	GW	04-15-98	1630	400PCMB	156.00	5755	--
		013	GW	07-15-98	1145	400PCMB	156.00	5755	--
21S.04E.10.411B	322941106311301	013	GW	10-17-97	1140	400PCMB	85.00	5691	--
		013	GW	01-28-98	1000	400PCMB	85.00	5691	--
		013	GW	04-15-98	1010	400PCMB	85.00	5691	--
		013	GW	07-15-98	1330	400PCMB	85.00	5691	--
21S.04E.10.411C	322941106311502	013	GW	10-17-97	1030	400PCMB	80.00	5688	--
		013	GW	01-28-98	1110	400PCMB	80.00	5688	--
		013	GW	04-15-98	1110	400PCMB	80.00	5688	--
		013	GW	07-15-98	1520	400PCMB	80.00	5688	--
21S.04E.10.411D	322939106311701	013	GW	10-17-97	0920	400PCMB	110.00	5696	--
		013	GW	01-28-98	1300	400PCMB	110.00	5696	--
		013	GW	04-15-98	1310	400PCMB	110.00	5696	--
		013	GW	07-16-98	1110	400PCMB	110.00	5696	--
21S.04E.10.411E	322943106311401	013	GW	04-15-98	1010	400PCMB	100.00	5699	--
		013	GW	07-15-98	1145	400PCMB	100.00	5699	--
21S.04E.10.413	322938106311601	013	GW	04-15-98	1310	400PCMB	120.00	5690	--
		013	GW	07-15-98	1410	400PCMB	120.00	5690	--
21S.04E.10.414A	322938106310801	013	GW	10-16-97	1115	400PCMB	103.00	--	--
		013	GW	01-28-98	1500	400PCMB	103.00	--	--
		013	GW	04-16-98	1230	400PCMB	103.00	--	--
		013	GW	07-16-98	1340	400PCMB	103.00	--	--
21S.04E.10.414B	322937106310901	013	GW	10-16-97	1330	400PCMB	104.00	5641	--
		013	GW	01-29-98	0945	400PCMB	104.00	5641	--
		013	GW	04-16-98	1110	400PCMB	104.00	5641	--
		013	GW	07-17-98	1000	400PCMB	104.00	5641	--
21S.04E.10.414C	322936106311001	013	GW	10-16-97	1515	400PCMB	110.00	5641	--
		013	GW	01-28-98	1355	400PCMB	110.00	5641	--
		013	GW	04-16-98	1450	400PCMB	110.00	5641	--
		013	GW	07-16-98	1550	400PCMB	110.00	5641	--
21S.04E.10.414D	322937106310902	013	GW	04-16-98	1250	400PCMB	159.00	5638	--
		013	GW	07-16-98	1515	400PCMB	159.00	5638	--
21S.04E.10.423	322935106310301	013	GW	03-08-98	1245	400PCMB	147.00	5595	--
		013	GW	04-16-98	1440	400PCMB	147.00	5595	--
		013	GW	07-16-98	1200	400PCMB	147.00	5595	--
21S.04E.10.441	322932106305601	013	GW	03-02-98	1804	400PCMB	130.00	5537	--
		013	GW	03-03-98	1150	400PCMB	130.00	5537	--
		013	GW	03-03-98	1520	400PCMB	130.00	5537	--
		013	GW	04-14-98	1700	400PCMB	130.00	5537	--
		013	GW	07-15-98	1650	400PCMB	130.00	5537	--
21S.04E.14.114	322910106303601	013	GW	10-17-97	1245	400PCMB	157.00	5150	--
		013	GW	01-29-98	1220	400PCMB	157.00	5150	--
		013	GW	04-14-98	1615	400PCMB	157.00	5150	--
		013	GW	07-17-98	1110	400PCMB	157.00	5150	--
25S.06E.19.443	320645106215101	013	GW	09-10-98	0945	--	--	--	45

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DONA ANA COUNTY--Continued

LOCAL IDENTIFIER	DATE	FLOW RATE (G/M) (00059)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS TOTAL (MG/L AS CACO3) (00900)
21S.04E.10.133	07-17-98	--	745	7.0	21.5	--	620	6.6	300
21S.04E.10.322	10-16-97	--	968	7.2	19.0	--	--	--	400
	01-28-98	--	929	7.1	18.8	--	624	3.8	400
	04-15-98	--	968	7.2	18.6	--	--	3.6	410
	07-15-98	--	1010	7.2	22.9	--	620	3.7	400
21S.04E.10.411B	10-17-97	--	902	7.2	19.3	--	--	--	380
	01-28-98	--	918	7.2	19.0	--	624	4.9	380
	04-15-98	--	929	7.2	19.0	--	--	5.0	380
	07-15-98	--	966	7.4	20.8	--	622	4.9	380
21S.04E.10.411C	10-17-97	--	876	7.3	19.1	--	--	--	360
	01-28-98	--	892	7.2	19.2	--	624	4.6	370
	04-15-98	--	902	7.3	18.9	--	--	4.7	370
	07-15-98	--	934	7.9	21.8	--	622	7.3	370
21S.04E.10.411D	10-17-97	--	810	7.2	19.4	2.8	--	--	320
	01-28-98	--	826	7.2	19.7	--	624	4.5	330
	04-15-98	--	837	7.3	18.9	--	--	4.6	340
	07-16-98	--	873	7.4	20.7	--	627	4.1	340
21S.04E.10.411E	04-15-98	--	914	7.2	18.6	1.0	615	5.0	410
	07-15-98	--	1040	7.4	20.6	--	623	5.1	400
21S.04E.10.413	04-15-98	--	799	7.2	18.2	1.0	615	4.4	350
	07-15-98	--	913	7.5	21.1	--	623	5.2	350
21S.04E.10.414A	10-16-97	--	952	7.2	19.5	.20	--	--	380
	01-28-98	--	955	7.3	19.4	--	624	5.0	390
	04-16-98	--	975	7.4	19.1	--	--	4.9	390
	07-16-98	--	1010	7.5	20.5	--	626	5.4	380
21S.04E.10.414B	10-16-97	--	963	7.4	19.0	.33	--	--	390
	01-29-98	--	985	7.4	19.2	--	626	5.8	390
	04-16-98	--	990	7.5	18.8	--	--	6.0	390
	07-17-98	--	1030	7.5	19.8	--	627	5.9	400
21S.04E.10.414C	10-16-97	--	937	7.3	19.7	.96	--	--	370
	01-28-98	--	930	7.3	19.4	--	624	4.3	380
	04-16-98	--	995	7.4	18.8	--	--	5.1	380
	07-16-98	--	1020	7.4	20.3	--	625	5.0	390
21S.04E.10.414D	04-16-98	--	966	7.3	19.4	19	618	5.6	370
	07-16-98	--	1020	7.5	21.8	--	628	4.6	370
21S.04E.10.423	03-08-98	--	910	7.7	18.0	15	622	4.5	380
	04-16-98	--	978	7.5	18.9	6.0	618	6.0	370
	07-16-98	--	1020	7.4	20.9	--	627	5.2	390
21S.04E.10.441	03-02-98	--	808	7.4	18.6	1.0	625	8.0	310
	03-03-98	--	786	7.4	20.1	2.0	625	6.3	310
	03-03-98	--	770	7.4	20.0	4.0	625	6.7	300
	04-14-98	--	794	7.4	20.4	1.0	618	6.5	310
	07-15-98	--	854	7.5	21.9	--	626	7.0	300
21S.04E.14.114	10-17-97	--	745	7.2	20.2	--	--	--	290
	01-29-98	--	772	7.3	19.8	--	620	4.9	290
	04-14-98	--	782	7.1	19.9	--	--	--	300
	07-17-98	--	804	7.1	20.2	--	633	4.8	290
25S.06E.19.443	09-10-98	200	1480	7.6	25.9	--	--	--	400

DONA ANA COUNTY--Continued

LOCAL IDENT-I-FIER	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)
21S.04E.10.133	07-17-98	--	85	22	40	1	.8	--	--	--
21S.04E.10.322	10-16-97	--	110	29	63	1	1.2	--	--	--
	01-28-98	--	110	29	63	1	1.2	--	--	--
	04-15-98	--	110	30	64	1	1.3	--	--	--
	07-15-98	--	110	28	62	1	1.3	--	--	--
21S.04E.10.411B	10-17-97	--	100	28	58	1	1	--	--	--
	01-28-98	--	110	28	58	1	1.0	--	--	--
	04-15-98	--	100	28	58	1	1.1	--	--	--
	07-15-98	--	110	28	58	1	1.0	--	--	--
21S.04E.10.411C	10-17-97	--	100	27	57	1	1.3	--	--	--
	01-28-98	--	100	27	58	1	1.3	--	--	--
	04-15-98	--	100	28	57	1	1.4	--	--	--
	07-15-98	--	100	27	57	1	1.4	--	--	--
21S.04E.10.411D	10-17-97	--	87	25	53	1	1.3	--	--	--
	01-28-98	--	90	25	55	1	1.3	--	--	--
	04-15-98	--	91	27	56	1	1.3	--	--	--
	07-16-98	--	92	26	54	1	1.4	--	--	--
21S.04E.10.411E	04-15-98	--	120	28	63	1	1.2	--	--	--
	07-15-98	--	110	30	63	1	1.2	--	--	--
21S.04E.10.413	04-15-98	--	98	26	52	1	2.9	--	--	--
	07-15-98	--	97	26	52	1	2.0	--	--	--
21S.04E.10.414A	10-16-97	--	110	26	60	1	1.5	--	--	--
	01-28-98	--	110	26	60	1	1.5	--	--	--
	04-16-98	--	110	27	62	1	1.4	--	--	--
	07-16-98	--	110	26	60	1	1.4	--	--	--
21S.04E.10.414B	10-16-97	--	110	27	61	1	1.3	--	--	--
	01-29-98	--	110	26	61	1	1.3	--	--	--
	04-16-98	--	110	26	60	1	1.3	--	--	--
	07-17-98	--	110	27	61	1	1.1	--	--	--
21S.04E.10.414C	10-16-97	--	100	25	59	1	1.4	--	--	--
	01-28-98	--	110	26	59	1	1.4	--	--	--
	04-16-98	--	110	26	59	1	1.6	--	--	--
	07-16-98	--	110	27	60	1	1.4	--	--	--
21S.04E.10.414D	04-16-98	--	110	26	66	1	1.3	--	--	--
	07-16-98	--	110	25	71	2	1.9	--	--	--
21S.04E.10.423	03-08-98	--	110	26	57	1	2.3	--	--	--
	04-16-98	--	110	25	64	1	1.8	--	--	--
	07-16-98	--	110	27	59	1	1.4	--	--	--
21S.04E.10.441	03-02-98	--	91	21	56	1	1.2	--	--	--
	03-03-98	--	90	21	57	1	1.1	--	--	--
	03-03-98	--	89	20	54	1	1.5	--	--	--
	04-14-98	--	90	21	56	1	1.6	--	--	--
	07-15-98	--	88	20	54	1	1.3	--	--	--
21S.04E.14.114	10-17-97	--	83	19	55	1	.8	--	--	--
	01-29-98	--	86	19	56	1	.8	--	--	--
	04-14-98	--	87	20	57	1	.8	--	--	--
	07-17-98	--	85	19	55	1	.9	--	--	--
25S.06E.19.443	09-10-98	320	110	28	110	2	13	93	0	76

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DONA ANA COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	ANC UNFLTRD TIT 4.5 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, NITRITE DIS-SOLVED (MG/L AS N) (00613)
21S.04E.10.133	07-17-98	223	120	22	4.0	.20	31	379	458	--
21S.04E.10.322	10-16-97	275	200	32	3.8	.25	25	665	629	--
	01-28-98	279	200	30	4.5	.27	25	666	629	--
	04-15-98	281	200	30	3.5	.26	24	664	632	--
	07-15-98	240	180	48	4.3	.27	24	700	604	--
21S.04E.10.411B	10-17-97	254	170	33	4.5	.25	24	613	578	--
	01-28-98	256	170	33	5.4	.26	25	639	582	--
	04-15-98	257	170	32	4.0	.26	25	645	575	--
	07-15-98	252	170	31	4.3	.27	25	637	575	--
21S.04E.10.411C	10-17-97	247	160	31	4.3	.23	24	603	557	--
	01-28-98	248	160	30	5.4	.25	25	623	561	--
	04-15-98	225	160	30	3.8	.25	24	622	542	--
	07-15-98	195	160	31	4.3	.26	25	604	528	--
21S.04E.10.411D	10-17-97	224	140	31	2.2	.20	23	570	497	--
	01-28-98	225	140	31	4.8	.21	24	571	508	--
	04-15-98	213	140	29	3.6	.20	23	569	499	--
	07-16-98	226	140	30	3.7	.21	23	573	507	--
21S.04E.10.411E	04-15-98	239	180	50	3.7	.25	24	702	608	--
	07-15-98	282	200	30	3.9	.28	25	664	632	--
21S.04E.10.413	04-15-98	230	150	35	3.4	.25	23	587	527	--
	07-15-98	229	150	35	3.8	.26	24	588	525	--
21S.04E.10.414A	10-16-97	215	170	56	3.1	.26	23	671	575	--
	01-28-98	216	170	55	5.3	.28	23	668	581	--
	04-16-98	216	160	53	3.8	.27	23	668	575	--
	07-16-98	217	170	53	3.8	.27	24	668	574	--
21S.04E.10.414B	10-16-97	220	170	51	4.1	.25	24	676	580	--
	01-29-98	223	170	51	5.4	.25	24	682	587	--
	04-16-98	224	170	50	3.9	.25	23	687	581	--
	07-17-98	224	170	52	4.3	.26	24	661	584	--
21S.04E.10.414C	10-16-97	203	170	52	3.9	.25	23	666	558	--
	01-28-98	209	170	51	4.8	.26	23	668	569	--
	04-16-98	152	170	51	3.6	.25	23	693	533	--
	07-16-98	210	160	50	3.6	.27	24	678	569	--
21S.04E.10.414D	04-16-98	205	170	55	3.6	.26	23	666	570	--
	07-16-98	210	170	53	3.9	.26	24	681	586	--
21S.04E.10.423	03-08-98	185	160	40	5.8	.31	21	645	535	--
	04-16-98	189	170	40	3.2	.31	24	694	547	--
	07-16-98	186	170	39	3.5	.32	22	664	540	--
21S.04E.10.441	03-02-98	195	140	33	3.5	.24	22	548	483	--
	03-03-98	196	140	33	5.9	.24	23	546	485	--
	03-03-98	194	130	32	6.4	.25	23	534	478	--
	04-14-98	195	140	32	4.0	.25	22	558	480	--
	07-15-98	194	140	33	4.5	.25	23	545	477	--
21S.04E.14.114	10-17-97	225	130	28	5.1	.19	25	520	481	--
	01-29-98	227	130	28	5.6	.20	25	517	488	--
	04-14-98	228	130	26	4.3	.20	24	515	485	--
	07-17-98	227	130	27	4.7	--	25	508	483	--
25S.06E.19.443	09-10-98	--	52	360	.5	--	37	--	762	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DONA ANA COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)
21S.04E.10.133	07-17-98	--	--	--	--	--	--	--	--	30.8
21S.04E.10.322	10-16-97	--	--	--	--	--	--	--	--	40.0
	01-28-98	--	--	--	--	--	--	--	--	43.0
	04-15-98	--	--	--	--	--	--	--	--	44.1
	07-15-98	--	--	--	--	--	--	--	--	47.9
21S.04E.10.411B	10-17-97	--	--	--	--	--	--	--	--	61.4
	01-28-98	--	--	--	--	--	--	--	--	62.4
	04-15-98	--	--	--	--	--	--	--	--	54.2
	07-15-98	--	--	--	--	--	--	--	--	59.5
21S.04E.10.411C	10-17-97	--	--	--	--	--	--	--	--	68.1
	01-28-98	--	--	--	--	--	--	--	--	67.7
	04-15-98	--	--	--	--	--	--	--	--	65.1
	07-15-98	--	--	--	--	--	--	--	--	62.3
21S.04E.10.411D	10-17-97	--	--	--	--	--	--	--	--	118
	01-28-98	--	--	--	--	--	--	--	--	118
	04-15-98	--	--	--	--	--	--	--	--	117
	07-16-98	--	--	--	--	--	--	--	--	120
21S.04E.10.411E	04-15-98	--	--	--	--	--	--	--	--	46.1
	07-15-98	--	--	--	--	--	--	--	--	47.2
21S.04E.10.413	04-15-98	--	--	--	--	--	--	--	--	40.0
	07-15-98	--	--	--	--	--	--	--	--	40.4
21S.04E.10.414A	10-16-97	--	--	--	--	--	--	--	--	43.3
	01-28-98	--	--	--	--	--	--	--	--	45.4
	04-16-98	--	--	--	--	--	--	--	--	48.8
	07-16-98	--	--	--	--	--	--	--	--	48.6
21S.04E.10.414B	10-16-97	--	--	--	--	--	--	--	--	43.3
	01-29-98	--	--	--	--	--	--	--	--	47.1
	04-16-98	--	--	--	--	--	--	--	--	46.8
	07-17-98	--	--	--	--	--	--	--	--	45.8
21S.04E.10.414C	10-16-97	--	--	--	--	--	--	--	--	47.3
	01-28-98	--	--	--	--	--	--	--	--	46.5
	04-16-98	--	--	--	--	--	--	--	--	46.8
	07-16-98	--	--	--	--	--	--	--	--	47.9
21S.04E.10.414D	04-16-98	--	--	--	--	--	--	--	--	40.0
	07-16-98	--	--	--	--	--	--	--	--	43.1
21S.04E.10.423	03-08-98	--	--	--	--	--	--	--	--	49.1
	04-16-98	--	--	--	--	--	--	--	--	45.4
	07-16-98	--	--	--	--	--	--	--	--	50.6
21S.04E.10.441	03-02-98	--	--	--	--	--	--	--	--	48.5
	03-03-98	--	--	--	--	--	--	--	--	45.5
	03-03-98	--	--	--	--	--	--	--	--	43.7
	04-14-98	--	--	--	--	--	--	--	--	49.5
	07-15-98	--	--	--	--	--	--	--	--	45.8
21S.04E.14.114	10-17-97	--	--	--	--	--	--	--	--	37.7
	01-29-98	--	--	--	--	--	--	--	--	37.1
	04-14-98	--	--	--	--	--	--	--	--	37.3
	07-17-98	--	--	--	--	--	--	--	--	37.6
25S.06E.19.443	09-10-98	1.8	<.02	<.1	<.01	<.01	2	110	<1.0	113

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DONA ANA COUNTY--Continued

LOCAL IDENTIFIER	DATE	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
21S.04E.10.133	07-17-98	--	--	--	--	24	--	33	--
21S.04E.10.322	10-16-97	--	--	--	--	<3	--	22	--
	01-28-98	--	--	--	--	<10	--	21	--
	04-15-98	--	--	--	--	<10	--	21	--
	07-15-98	--	--	--	--	<10	--	19	--
21S.04E.10.411B	10-17-97	--	--	--	--	<3	--	17	--
	01-28-98	--	--	--	--	<10	--	18	--
	04-15-98	--	--	--	--	<10	--	17	--
	07-15-98	--	--	--	--	<10	--	19	--
21S.04E.10.411C	10-17-97	--	--	--	--	<3	--	17	--
	01-28-98	--	--	--	--	<10	--	18	--
	04-15-98	--	--	--	--	<10	--	16	--
	07-15-98	--	--	--	--	<10	--	19	--
21S.04E.10.411D	10-17-97	--	--	--	--	<3	--	14	--
	01-28-98	--	--	--	--	<10	--	15	--
	04-15-98	--	--	--	--	<10	--	12	--
	07-16-98	--	--	--	--	<10	--	16	--
21S.04E.10.411E	04-15-98	--	--	--	--	<10	--	19	--
	07-15-98	--	--	--	--	<10	--	23	--
21S.04E.10.413	04-15-98	--	--	--	--	<10	--	21	--
	07-15-98	--	--	--	--	<10	--	21	--
21S.04E.10.414A	10-16-97	--	--	--	--	<3	--	20	--
	01-28-98	--	--	--	--	<10	--	21	--
	04-16-98	--	--	--	--	<10	--	20	--
	07-16-98	--	--	--	--	<10	--	21	--
21S.04E.10.414B	10-16-97	--	--	--	--	<3	--	19	--
	01-29-98	--	--	--	--	<10	--	19	--
	04-16-98	--	--	--	--	<10	--	18	--
	07-17-98	--	--	--	--	<10	--	20	--
21S.04E.10.414C	10-16-97	--	--	--	--	<3	--	18	--
	01-28-98	--	--	--	--	<10	--	19	--
	04-16-98	--	--	--	--	<10	--	18	--
	07-16-98	--	--	--	--	<10	--	20	--
21S.04E.10.414D	04-16-98	--	--	--	--	<10	--	19	--
	07-16-98	--	--	--	--	<10	--	22	--
21S.04E.10.423	03-08-98	--	--	--	--	11	--	18	--
	04-16-98	--	--	--	--	<10	--	17	--
	07-16-98	--	--	--	--	<10	--	17	--
21S.04E.10.441	03-02-98	--	--	--	--	110	--	21	--
	03-03-98	--	--	--	--	39	--	21	--
	03-03-98	--	--	--	--	77	--	21	--
	04-14-98	--	--	--	--	<10	--	20	--
	07-15-98	--	--	--	--	<10	--	22	--
21S.04E.14.114	10-17-97	--	--	--	--	5	--	25	--
	01-29-98	--	--	--	--	<10	--	26	--
	04-14-98	--	--	--	--	<10	--	25	--
	07-17-98	--	--	--	--	<10	--	26	--
25S.06E.19.443	09-10-98	<8	<14	<12	<10	24	<100	77	<4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DONA ANA COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	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)
21S.04E.10.133	07-17-98	--	--	--	--	--	240	--	--
21S.04E.10.322	10-16-97	--	--	--	--	--	270	--	--
	01-28-98	--	--	--	--	--	280	--	--
	04-15-98	--	--	--	--	--	290	--	--
	07-15-98	--	--	--	--	--	240	--	--
21S.04E.10.411B	10-17-97	--	--	--	--	--	260	--	--
	01-28-98	--	--	--	--	--	270	--	--
	04-15-98	--	--	--	--	--	270	--	--
	07-15-98	--	--	--	--	--	270	--	--
21S.04E.10.411C	10-17-97	--	--	--	--	--	240	--	--
	01-28-98	--	--	--	--	--	250	--	--
	04-15-98	--	--	--	--	--	260	--	--
	07-15-98	--	--	--	--	--	250	--	--
21S.04E.10.411D	10-17-97	--	--	--	--	--	240	--	--
	01-28-98	--	--	--	--	--	260	--	--
	04-15-98	--	--	--	--	--	270	--	--
	07-16-98	--	--	--	--	--	260	--	--
21S.04E.10.411E	04-15-98	--	--	--	--	--	250	--	--
	07-15-98	--	--	--	--	--	290	--	--
21S.04E.10.413	04-15-98	--	--	--	--	--	220	--	--
	07-15-98	--	--	--	--	--	210	--	--
21S.04E.10.414A	10-16-97	--	--	--	--	--	240	--	--
	01-28-98	--	--	--	--	--	250	--	--
	04-16-98	--	--	--	--	--	260	--	--
	07-16-98	--	--	--	--	--	250	--	--
21S.04E.10.414B	10-16-97	--	--	--	--	--	300	--	--
	01-29-98	--	--	--	--	--	310	--	--
	04-16-98	--	--	--	--	--	310	--	--
	07-17-98	--	--	--	--	--	310	--	--
21S.04E.10.414C	10-16-97	--	--	--	--	--	280	--	--
	01-28-98	--	--	--	--	--	300	--	--
	04-16-98	--	--	--	--	--	300	--	--
	07-16-98	--	--	--	--	--	300	--	--
21S.04E.10.414D	04-16-98	--	--	--	--	--	290	--	--
	07-16-98	--	--	--	--	--	330	--	--
21S.04E.10.423	03-08-98	--	--	--	--	--	320	--	--
	04-16-98	--	--	--	--	--	320	--	--
	07-16-98	--	--	--	--	--	310	--	--
21S.04E.10.441	03-02-98	--	--	--	--	--	220	--	--
	03-03-98	--	--	--	--	--	220	--	--
	03-03-98	--	--	--	--	--	270	--	--
	04-14-98	--	--	--	--	--	220	--	--
	07-15-98	--	--	--	--	--	210	--	--
21S.04E.14.114	10-17-97	--	--	--	--	--	240	--	--
	01-29-98	--	--	--	--	--	260	--	--
	04-14-98	--	--	--	--	--	260	--	--
	07-17-98	--	--	--	--	--	260	--	--
25S.06E.19.443	09-10-98	<.1	<60	<40	1	<4	2500	<10	<20

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

LINCOLN COUNTY

LOCAL IDENTIFIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEOLOGIC UNIT	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)
MOUND SPRING (UPPER POND)	332535106170501	027	SP	08-18-98	1100	110AVMB	.02	5000	6.8

LOCAL IDENTIFIER	DATE	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (JCU) (00070)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)
MOUND SPRING UPPER	08-18-98	21.0	10	654	2.6	2300	680	150	360	3

LOCAL IDENTIFIER	DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)
MOUND SPRING UPPER	08-18-98	4.6	113	1900	680	1.2	.36	26	4180

LOCAL IDENTIFIER	DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)
MOUND SPRING UPPER	08-18-98	3870	.677	.11	.79	.25	.2	<.01	.01

LOCAL IDENTIFIER	DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)
MOUND SPRING UPPER	08-18-98	40	<30.0	<1	<1	<100	10	250	226

LOCAL IDENTIFIER	DATE	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)
MOUND SPRING UPPER	08-18-98	<1	<1	<1.0	<1.0	<1	<1	40	<30

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

LINCOLN COUNTY--Continued

LOCAL IDENTIFIER	DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)
MOUND SPRING UPPER	08-18-98	<1	<1	50	59	20	<12	<.1	<.1

LOCAL IDENTIFIER	DATE	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
MOUND SPRING UPPER	08-18-98	3	3	<1	<1	12000	9500	40	<60

LOCAL IDENTIFIER	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)
MOUND SPRING (UPPER POND)	08-18-98	1100	<.01	<.01	<.01	<.01

OTERO COUNTY

LOCAL IDENTIFIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEOLOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)
17S.07E.36.34	324712106105901	035	GW	12-16-97	1400	110AVMB	39.00	4005	65
		035	GW	08-18-98	1200	110AVMB	39.00	4005	--
MALPAIS SPRING NR OSCURA	331715106183301	035	SP	08-17-98	1645	110AVMB	--	--	--
WSNM WELL 2	324854106160201	035	GW	12-16-97	1110	110AVMB	23.50	3990	61
		035	GW	08-18-98	1000	110AVMB	23.50	3990	--

LOCAL IDENTIFIER	DATE	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
17S.07E.36.34	12-16-97	5150	7.8	19.0	--	--	2100	2100	510	210
	08-18-98	--	--	--	--	--	--	--	--	--
MALPAIS SPRING	08-17-98	6240	7.8	17.5	656	7.4	2300	--	660	160
WSNM WELL 2	12-16-97	14500	7.5	13.0	--	--	3600	3500	590	510
	08-18-98	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)
17S.07E.36.34	12-16-97	400	4	2.9	60	--	2600	240	1.1	.20
	08-18-98	--	--	--	--	--	--	--	--	--
MALPAIS SPRING	08-17-98	600	5	7.7	--	51	1900	1200	1.3	.42
WSNM WELL 2	12-16-97	1800	13	3.9	80	--	3600	2900	2.5	.49
	08-18-98	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

OTERO COUNTY--Continued

LOCAL IDENTIFIER	DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)
17S.07E.36.34	12-16-97	53	4570	4030	--	--	--	--	--	--
	08-18-98	--	--	--	--	--	--	--	--	--
MALPAIS SPRING	08-17-98	28	4830	4610	<.01	3.5	.13	<.1	<.01	.01
WSNM WELL 2	12-16-97	40	10100	9430	--	--	--	--	--	--
	08-18-98	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)
17S.07E.36.34	12-16-97	--	--	--	--	--	22	--	--	--
	08-18-98	--	--	--	--	--	--	--	--	--
MALPAIS SPRING	08-17-98	20	<40.0	1	1	<100	12	250	219	<1
WSNM WELL 2	12-16-97	--	--	--	--	--	17	--	--	--
	08-18-98	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)
17S.07E.36.34	12-16-97	--	--	--	--	--	--	<50	--	--
	08-18-98	--	--	--	--	--	--	--	--	--
MALPAIS SPRING	08-17-98	<2	<2.0	<2	<1	<2	<10	<40	<2	<2
WSNM WELL 2	12-16-97	--	--	--	--	--	--	110	--	--
	08-18-98	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)
17S.07E.36.34	12-16-97	--	--	--	<20	--	--	--	--	--
	08-18-98	--	--	--	--	--	--	--	--	--
MALPAIS SPRING	08-17-98	50	65	20	<16	<.1	<.1	6	6	<1
WSNM WELL 2	12-16-97	--	--	--	730	--	--	--	--	--
	08-18-98	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR) (01082)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	C-13 / C-12 STABLE ISOTOPE RATIO PER MIL (82081)
17S.07E.36.34	12-16-97	--	--	9500	--	--	3	1	-5.6
	08-18-98	--	--	--	--	--	--	--	--
MALPAIS SPRING	08-17-98	<2	13400	12000	<10	<80	--	--	--
WSNM WELL 2	12-16-97	--	--	14000	--	--	--	--	--
	08-18-98	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

SANTA FE COUNTY

LOCAL IDENTIFIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEOLOGIC UNIT	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	FLOW RATE (G/M) (00059)	SPECIFIC CONDUCTANCE (US/CM) (00095)
19N.07E.14.314	355231106102901	049	GW	09-09-98	1300	--	--	--	530
		049	GW	09-09-98	1500	--	--	--	530
19N.07E.18.313	355234106083201	049	GW	09-08-98	1415	--	--	--	708
		049	GW	09-08-98	1512	--	--	--	708
19N.07E.22.131	355158106114201	049	SP	06-04-98	1045	--	6000	--	435
19N.07E.24.231	355133106092801	049	SP	05-20-98	1200	--	5650	--	211
19N.07E.35.121	355028106101701	049	SP	05-21-98	1300	121TSUQ	--	--	253
19N.08E.05.443	355401106065801	049	GW	06-04-98	1415	--	5670	--	435
19N.08E.06.2431A	355428106074401	049	GW	06-04-98	1230	--	5550	--	1660
19N.08E.06.2431B	355429106074401	049	GW	06-04-98	1315	--	5550	--	1640
19N.08E.18.234	355244106075101	049	GW	05-19-98	1600	--	5515	30	325
19N.08E.18.313	355229106083001	049	SP	09-08-98	1610	--	--	--	476
20N.08E.32.341	355505106070701	049	GW	05-19-98	1200	--	5530	6	807

LOCAL IDENTIFIER	DATE	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	TURBIDITY (NTU) (00076)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
19N.07E.14.314	09-09-98	7.6	24.5	15.9	390	622	--	150	56	3.4
	09-09-98	7.6	24.5	15.9	--	622	--	--	--	--
19N.07E.18.313	09-08-98	6.9	22.0	18.6	1.6	628	--	240	84	6.6
	09-08-98	6.9	22.0	18.6	--	628	--	--	--	--
19N.07E.22.131	06-04-98	6.7	19.0	6.5	--	609	6.0	--	--	--
19N.07E.24.231	05-20-98	8.1	--	17.2	--	623	4.7	--	--	--
19N.07E.35.121	05-21-98	8.0	--	18.0	--	--	--	--	--	--
19N.08E.05.443	06-04-98	8.2	28.0	13.8	--	620	2.5	--	--	--
19N.08E.06.2431A	06-04-98	7.0	16.0	17.0	--	620	1.1	--	--	--
19N.08E.06.2431B	06-04-98	7.1	17.2	16.0	--	620	1.1	--	--	--
19N.08E.18.234	05-19-98	8.7	--	19.5	--	625	6.0	--	--	--
19N.08E.18.313	09-08-98	7.2	31.0	15.1	--	625	--	150	53	5.0
20N.08E.32.341	05-19-98	7.4	--	15.5	--	626	3.4	--	--	--

LOCAL IDENTIFIER	DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (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)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
19N.07E.14.314	09-09-98	46	2	4.3	--	--	--	163	23	40
	09-09-98	--	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	54	2	4.3	--	--	--	223	34	70
	09-08-98	--	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	14	0	11	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	66	0	54	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	67	0	55	--	--	--
19N.08E.18.234	05-19-98	--	--	--	165	3	140	--	--	--
19N.08E.18.313	09-08-98	37	1	3.4	--	--	--	170	20	32
20N.08E.32.341	05-19-98	--	--	--	290	0	238	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

SANTA FE COUNTY--Continued

LOCAL IDENTIFIER	DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
19N.07E.14.314	09-09-98	.2	.12	52	367	352	--	<.01	5.9	.03
	09-09-98	--	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	.3	.28	57	468	452	--	<.01	1.7	<.02
	09-08-98	--	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	4.50	.02	4.5	.06
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	.6	.15	54	324	310	--	<.01	.38	.03
20N.08E.32.341	05-19-98	--	--	--	--	--	--	<.01	.51	.03

LOCAL IDENTIFIER	DATE	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)
19N.07E.14.314	09-09-98	.09	.2	.1	.99	.69	.70	1.9	--	4
	09-09-98	--	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	--	.1	<.1	.04	.05	.05	.7	--	4
	09-08-98	--	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	.25	.4	.3	2.8	2.5	2.6	3.2	2.6	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	.4	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	.3	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	.3	--
19N.08E.18.313	09-08-98	--	<.1	<.1	.08	.08	.09	.8	--	5
20N.08E.32.341	05-19-98	--	<.1	<.1	.05	.05	.05	.7	.8	6

LOCAL IDENTIFIER	DATE	ANTIMONY, DISSOLVED (UG/L AS SB) (01095)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)
19N.07E.14.314	09-09-98	<1	6	381	<1	164	<1	3	2	1
	09-09-98	--	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<1	2	255	<1	93.6	<1	2	<1	<1
	09-08-98	--	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	<1	3	163	<1	74.1	<1	2	<1	<1
20N.08E.32.341	05-19-98	<1	7	119	<1	313	<1	2	<1	2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

SANTA FE COUNTY--Continued

LOCAL IDENTIFIER	DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)
19N.07E.14.314	09-09-98	<10	<1	28	<1	<.1	<1	5	<1
	09-09-98	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<10	<1	57	<1	<.1	<1	<1	1
	09-08-98	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	<10	<1	38	<1	3.9	1	<1	<1
20N.08E.32.341	05-19-98	<10	<1	50	<1	<.1	8	<1	<1

LOCAL IDENTIFIER	DATE	SILVER, DISSOLVED (UG/L AS AG) (01075)	THALLIUM, DISSOLVED (UG/L AS TL) (01057)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)
19N.07E.14.314	09-09-98	<1	<.5	11	3	<3.0	2.11	7.3	1.58
	09-09-98	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<1	<.5	10	1	<3.0	2.71	8.2	2.02
	09-08-98	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	16	8.37	7.2	4.68
19N.08E.06.2431B	06-04-98	--	--	--	--	22	9.35	9.4	4.77
19N.08E.18.234	05-19-98	--	--	--	--	6.7	3.02	4.8	1.06
19N.08E.18.313	09-08-98	<1	<.5	<10	4	--	--	--	--
20N.08E.32.341	05-19-98	<1	<.5	14	4	11	4.84	10	4.34

LOCAL IDENTIFIER	DATE	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	RADIUM 228 DISSOLVED (PCI/L AS RA-228) (81366)	RA-228 2 SIGMA WATER, DISS, (PCI/L) (76000)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)
19N.07E.14.314	09-09-98	--	--	--	--	--	--	3	--
	09-09-98	--	--	--	--	330	20	--	--
19N.07E.18.313	09-08-98	--	--	--	--	--	--	3	--
	09-08-98	--	--	--	--	280	20	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	.10	.02	<1.0	.391	--	--	11	.3
19N.08E.06.2431B	06-04-98	2.0	.56	<1.0	.459	--	--	11	.3
19N.08E.18.234	05-19-98	.02	.009	<1.0	.292	590	29	6.3	.15
19N.08E.18.313	09-08-98	--	--	--	--	480	24	2	--
20N.08E.32.341	05-19-98	.07	.02	<1.0	.288	580	29	12	.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

SANTA FE COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	URANIUM -238 WATER DISSOLV (PCI/L) (22603)	U-238 2 SIGMA WATER, DISS, (PCI/L) (75991)	URANIUM -234 WATER DISSOLV (PCI/L) (22610)	U-234 2 SIGMA WATER, DISS, (PCI/L) (75992)	URANIUM -235 WATER, DISS (PCI/L) (22620)	U-235 2 SIGMA WATER, DISS, (PCI/L) (75994)	STRON-TIUM 90 DIS-SOLVED (PCI/L) (13503)	SR-90 2 SIGMA WATER, DISS, (PCI/L) (76003)
19N.07E.14.314	09-09-98	.9	.123	1.6	.204	<.1	.021	<.5	.215
	09-09-98	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	1.0	.154	1.6	.222	<.1	.016	<.5	.281
	09-08-98	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	<.5	.210
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	<.5	.201
19N.08E.18.234	05-19-98	--	--	--	--	--	--	<.5	.234
19N.08E.18.313	09-08-98	--	--	--	--	--	--	--	--
20N.08E.32.341	05-19-98	--	--	--	--	--	--	<.5	.221

LOCAL IDENT-I-FIER	DATE	PLUTO-NIUM238 WATER FILT (PCI/L) (22001)	PLUTON-IUM-238 WATER FLTRD 2 SIGMA (PCI/L) (49939)	PLUTON-IUM-239/240 WATER FLTRD (PCI/L) (49940)	PLUTON-IUM-239/240 WATER FLTRD 2 SIGMA (PCI/L) (49941)	AMERI-CIUM-241 WATER FILT (PCI/L) (29867)	AMERIC-IUM-241 WATER FLTRD 2 SIGMA (PCI/L) (49942)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)
19N.07E.14.314	09-09-98	<.1	.002	<.1	.016	<.1	.019	60	20
	09-09-98	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<.1	.022	<.1	.002	<.1	.034	40	20
	09-08-98	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	<30	20
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	<30	20
19N.08E.18.234	05-19-98	--	--	--	--	--	--	<30	20
19N.08E.18.313	09-08-98	--	--	--	--	--	--	60	20
20N.08E.32.341	05-19-98	--	--	--	--	--	--	50	20

LOCAL IDENT-I-FIER	DATE	TIME	DI-BROMO-METHANE WATER WHOLE RECOVER (UG/L) (30217)	BROMO-DI-CHLORO-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)
19N.07E.14.314	09-09-98	1300	<.05	<.048	<.088	<.134	<.104	<.182	E.04	<.054
	09-09-98	1500	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	1415	<.05	<.048	<.088	<.134	<.104	<.182	E.023	<.054
	09-08-98	1512	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	1045	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	1200	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	1300	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	1415	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	1230	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	1315	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	1600	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	1610	<.05	<.048	<.088	<.134	<.104	<.182	E.012	<.054
20N.08E.32.341	05-19-98	1200	--	--	--	--	--	--	--	--

SANTA FE COUNTY--Continued

ORGANIC COMPOUND DATA

LOCAL IDENTIFIER	DATE	BENZENE TOTAL (UG/L) (34030)	ACRYLONITRILE TOTAL (UG/L) (34215)	CHLOROBENZENE TOTAL (UG/L) (34301)	CHLOROETHANE TOTAL (UG/L) (34311)	ETHYLBENZENE TOTAL (UG/L) (34371)	ETHANE HEXACHLORO- WATER UNFLTRD RECOVER (UG/L) (34396)	METHYLBROMIDE TOTAL (UG/L) (34413)	METHYLCHLORIDE TOTAL (UG/L) (34418)	METHYLENE CHLORIDE TOTAL (UG/L) (34423)
19N.07E.14.314	09-09-98	E.079	<1.23	<.028	<.12	<.03	<.362	<.148	<.254	<.382
	09-09-98	--	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<.1	<1.23	<.028	<.12	<.03	<.362	<.148	<.254	<.382
	09-08-98	--	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	<.1	<1.23	<.028	<.12	<.03	<.362	<.148	<.254	<.382
20N.08E.32.341	05-19-98	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE	TETRACHLOROETHYLENE TOTAL (UG/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (UG/L) (34488)	1,1-DICHLOROETHANE TOTAL (UG/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (UG/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (UG/L) (34506)	1,1,2-TRICHLOROETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRACHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DICHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DICHLOROPROPANE TOTAL (UG/L) (34541)
19N.07E.14.314	09-09-98	<.102	<.092	<.066	<.044	<.032	<.064	<.132	<.048	<.068
	09-09-98	--	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<.102	<.092	.501	E.024	3.49	<.064	<.132	<.048	<.068
	09-08-98	--	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	<.102	<.092	.490	E.013	3.41	<.064	<.132	<.048	<.068
20N.08E.32.341	05-19-98	--	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE	TRANS-1,2-DICHLOROETHENE TOTAL (UG/L) (34546)	BENZENE 1,2,4-TRICHLORO- WAT UNF REC (UG/L) (34551)	BENZENE 1,3-DICHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DICHLORO- WATER UNFLTRD REC (UG/L) (34571)	DICHLORODIFLUOROMETHANE TOTAL (UG/L) (34668)	NAPHTHALENE TOTAL (UG/L) (34696)	TRANS-1,3-DICHLOROPROPENE TOTAL (UG/L) (34699)	CIS 1,3-DICHLOROPROPENE TOTAL (UG/L) (34704)	VINYL CHLORIDE TOTAL (UG/L) (39175)
19N.07E.14.314	09-09-98	<.032	<.188	<.054	<.05	<.138	<.25	<.134	<.092	<.112
	09-09-98	--	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<.032	<.188	<.054	<.05	<.138	<.25	<.134	<.092	<.112
	09-08-98	--	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	<.032	<.188	<.054	<.05	<.138	<.25	<.134	<.092	<.112
20N.08E.32.341	05-19-98	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

SANTA FE COUNTY--Continued

ORGANIC COMPOUND DATA

LOCAL IDENTIFIER	DATE	TRICHLOROETHYLENE TOTAL (UG/L) (39180)	HEXACHLOROBUTADIENE TOTAL (UG/L) (39702)	METHYL ACRYLATE WATER UNFLTRD RECOVER (UG/L) (49991)	PREHNITENE WATER UNFLTRD RECOVER (UG/L) (49999)	ISODURENE WATER UNFLTRD RECOVER (UG/L) (50000)	BROMOETHENE WATER UNFLTRD RECOVER (UG/L) (50002)	ETHER TERTBUTYL ETHYL WATER UNFLTRD RECOVER (UG/L) (50004)	ETHER TERTPENTYL METHYL WATER UNFLTRD RECOVER (UG/L) (50005)
19N.07E.14.314	09-09-98	E.054	<.142	<1.36	<.23	<.24	<.1	<.054	<.112
	09-09-98	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	E.016	<.142	<1.36	<.23	<.24	<.1	<.054	<.112
	09-08-98	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	<.038	<.142	<1.36	<.23	<.24	<.1	<.054	<.112
20N.08E.32.341	05-19-98	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE	2BUTENE TRANS-1 4-DICHLORO UNFLTRD RECOVER (UG/L) (73547)	METHACRYLATE ETHYL WATER UNFLTRD RECOVER (UG/L) (73570)	CIS-1,2-DICHLOROETHENE WATER TOTAL (UG/L) (77093)	2-HEXANONE WATER WHOLE TOTAL (UG/L) (77103)	STYRENE TOTAL (UG/L) (77128)	O-XYLENE WATER WHOLE TOTAL (UG/L) (77135)	1,1-DICHLOROPROPENE, WAT, WH TOTAL (UG/L) (77168)	2,2-DICHLOROPROPANE WAT, WH TOTAL (UG/L) (77170)
19N.07E.14.314	09-09-98	<.692	<.278	<.038	<.746	<.042	<.064	<.026	<.078
	09-09-98	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<.692	<.278	<.038	<.746	<.042	<.064	<.026	<.078
	09-08-98	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	<.692	<.278	<.038	<.746	<.042	<.064	<.026	<.078
20N.08E.32.341	05-19-98	--	--	--	--	--	--	--	--

LOCAL IDENTIFIER	DATE	1,3-DICHLOROPROPANE WAT, WH TOTAL (UG/L) (77173)	TOLUENE O-ETHYL WATER UNFLTRD RECOVER (UG/L) (77220)	BENZENE 123-TRIMETHYL WATER UNFLTRD RECOVER (UG/L) (77221)	BENZENE 124-TRIMETHYL UNFILT RECOVER (UG/L) (77222)	ISOPROPYLBENZENE WATER WHOLE REC (UG/L) (77223)	BENZENE N-PROPY WATER UNFLTRD REC (UG/L) (77224)	BENZENE 135-TRIMETHYL WATER UNFLTRD REC (UG/L) (77226)	O-CHLOROTOLUENE WATER WHOLE TOTAL (UG/L) (77275)
19N.07E.14.314	09-09-98	<.116	<.1	<.124	E.011	<.032	<.042	<.044	<.042
	09-09-98	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<.116	<.1	<.124	<.056	<.032	<.042	<.044	<.042
	09-08-98	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	<.116	<.1	<.124	<.056	<.032	<.042	<.044	<.042
20N.08E.32.341	05-19-98	--	--	--	--	--	--	--	--

SANTA FE COUNTY--Continued

ORGANIC COMPOUND DATA

LOCAL IDENT-I-FIER	DATE	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)	METHYL IODIDE WATER UNFLTRD RECOVER (UG/L) (77424)	123-TRI CHLORO-PROPANE WATER WHOLE TOTAL (UG/L) (77443)
19N.07E.14.314	09-09-98	<.056	<.044	<.186	<.048	<.096	<.11	<.208	<.162
	09-09-98	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<.056	<.044	<.186	<.048	<.096	<.11	<.208	<.162
	09-08-98	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	<.056	<.044	<.186	<.048	<.096	<.11	<.208	<.162
20N.08E.32.341	05-19-98	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE	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 TERT-BUTYL ETHER WAT UNF REC (UG/L) (78032)	PROPENE 3-CHLORO-WATER UNFLTRD RECOVER (UG/L) (78109)	METHYL ISO-BUTYL KETONE WAT.WH. TOTAL (UG/L) (78133)	ACETONE WATER WHOLE TOTAL (UG/L) (81552)
19N.07E.14.314	09-09-98	<.044	<.266	<.036	<.032	<.166	<.196	<.374	<4.90
	09-09-98	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<.044	<.266	<.036	<.032	<.166	<.196	<.374	<4.90
	09-08-98	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	<.044	<.266	<.036	<.032	<.166	<.196	<.374	<4.90
20N.08E.32.341	05-19-98	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE	BROMO-BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	ETHER ETHYL WATER UNFLTRD RECOVER (UG/L) (81576)	DI-ISO-PROPYL-ETHER, WATER, UNFLTRD RECOVER (UG/L) (81577)	METH-ACRYLO-NITRITE WATER UNFLTRD RECOVER (UG/L) (81593)	METHYL-ETHYL-KETONE WATER WHOLE TOTAL (UG/L) (81595)	METHAC-RYLATE METHYL WATER UNFLTRD RECOVER (UG/L) (81597)	FURAN, TETRA-HYDRO-WATER UNFLTRD RECOVER (UG/L) (81607)	DIBROMO CHLORO-PROPANE WATER WHOLE TOT.REC (UG/L) (82625)
19N.07E.14.314	09-09-98	<.036	<.17	<.098	<.57	<1.65	<.35	<8.79	<.214
	09-09-98	--	--	--	--	--	--	--	--
19N.07E.18.313	09-08-98	<.036	<.17	<.098	<.57	<1.65	<.35	<8.79	<.214
	09-08-98	--	--	--	--	--	--	--	--
19N.07E.22.131	06-04-98	--	--	--	--	--	--	--	--
19N.07E.24.231	05-20-98	--	--	--	--	--	--	--	--
19N.07E.35.121	05-21-98	--	--	--	--	--	--	--	--
19N.08E.05.443	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431A	06-04-98	--	--	--	--	--	--	--	--
19N.08E.06.2431B	06-04-98	--	--	--	--	--	--	--	--
19N.08E.18.234	05-19-98	--	--	--	--	--	--	--	--
19N.08E.18.313	09-08-98	<.036	<.17	<.098	<.57	<1.65	<.35	<8.79	<.214
20N.08E.32.341	05-19-98	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

EL PASO COUNTY, TEXAS

LOCAL IDENTIFIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH TO BOTTOM OF WATER-BEARING ZONE (FT) (72003)	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)	DEPTH OF WELL, TOTAL (FEET) (72008)
JL-48-13-504	314851106254001	141	GW	09-09-98	1330	--	--	--	785
JL-49-06-111	315817106202601	141	GW	08-26-98	1500	--	537	337	560
JL-49-06-503	315636106191902	141	GW	09-01-98	1500	--	--	--	601
JL-49-06-603	315541106171701	141	GW	08-31-98	1410	--	--	--	600
JL-49-06-901	315331106171001	141	GW	08-27-98	1410	--	418	316	550
JL-49-13-307	315132106242002	141	GW	09-03-98	1010	--	--	--	812
JL-49-13-312	315131106231901	141	GW	09-09-98	1010	--	--	--	935
JL-49-13-520	314853106252301	141	GW	09-08-98	1445	--	--	--	--
JL-49-13-524	314815106260501	141	GW	09-08-98	1300	--	--	--	--
JL-49-13-630	314853106245001	141	GW	09-02-98	1215	--	--	--	--
JL-49-14-202	315123106174501	141	GW	08-31-98	1230	--	--	--	500
JL-49-14-303	315004106163902	141	GW	08-28-98	1230	343	479	348	500

LOCAL IDENTIFIER	DATE	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTERVAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	FLOW RATE (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)
JL-48-13-504	09-09-98	--	--	3877	--	--	701	7.7	--	26.4
JL-49-06-111	08-26-98	--	340	4014	178	1.00	876	7.6	36.0	28.1
JL-49-06-503	09-01-98	--	--	3973	210	1.00	1510	7.6	33.0	24.5
JL-49-06-603	08-31-98	--	--	4010	165	1.10	1890	7.5	34.0	24.0
JL-49-06-901	08-27-98	351	350	4005	215	1.00	1870	8.0	32.0	23.0
JL-49-13-307	09-03-98	--	--	3897	--	1000	773	7.8	28.0	24.5
JL-49-13-312	09-09-98	--	--	--	--	--	583	8.0	--	26.2
JL-49-13-520	09-08-98	--	--	--	--	--	1090	7.4	--	24.4
JL-49-13-524	09-08-98	--	--	--	--	--	659	7.6	--	25.5
JL-49-13-630	09-02-98	--	--	--	--	1000	855	7.8	30.0	24.5
JL-49-14-202	08-31-98	--	--	3972	144	1.00	1170	8.7	33.0	24.5
JL-49-14-303	08-28-98	350	350	--	120	1.00	1500	7.7	32.0	24.5

LOCAL IDENTIFIER	DATE	HARDNESS TOTAL (MG/L AS CACO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)
JL-48-13-504	09-09-98	180	3	46	16	60	2	5.1	220	0
JL-49-06-111	08-26-98	130	58	41	7.2	98	4	7.9	92	0
JL-49-06-503	09-01-98	270	130	77	19	180	5	10	160	0
JL-49-06-603	08-31-98	270	240	69	23	220	6	13	38	0
JL-49-06-901	08-27-98	290	220	76	24	230	6	11	89	0
JL-49-13-307	09-03-98	100	--	26	8.7	110	5	9.0	195	0
JL-49-13-312	09-09-98	74	--	19	6.3	82	4	10	156	0
JL-49-13-520	09-08-98	330	180	84	29	63	2	6.1	179	0
JL-49-13-524	09-08-98	200	7	45	22	50	2	4.7	239	0
JL-49-13-630	09-02-98	140	--	34	14	89	3	5.8	198	0
JL-49-14-202	08-31-98	97	35	22	10	180	8	8.6	72	2
JL-49-14-303	08-28-98	230	120	61	19	190	5	9.9	138	0

EL PASO COUNTY, TEXAS--Continued

LOCAL IDENTIFIER	DATE	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
JL-48-13-504	09-09-98	180	57	55	.5	30	398	--	<.01	3.8
JL-49-06-111	08-26-98	76	19	180	.5	26	431	--	<.01	2.0
JL-49-06-503	09-01-98	131	210	220	.5	28	839	4.80	.01	4.8
JL-49-06-603	08-31-98	31	200	380	.3	5.7	943	--	<.01	.26
JL-49-06-901	08-27-98	73	190	390	.4	24	1000	.418	.02	.44
JL-49-13-307	09-03-98	160	84	71	1.4	32	453	--	<.01	2.3
JL-49-13-312	09-09-98	128	55	52	.9	30	341	--	<.01	1.8
JL-49-13-520	09-08-98	147	110	140	1.0	32	583	6.22	.02	6.2
JL-49-13-524	09-08-98	196	60	35	.5	28	382	--	<.01	4.1
JL-49-13-630	09-02-98	162	60	79	1.1	28	418	1.83	.01	1.8
JL-49-14-202	08-31-98	62	40	270	.3	6.1	573	--	<.01	<.05
JL-49-14-303	08-28-98	113	240	210	.5	29	830	--	<.01	1.3

LOCAL IDENTIFIER	DATE	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)
JL-48-13-504	09-09-98	<.02	--	<.1	<.01	.01	4	160	<1.0	135
JL-49-06-111	08-26-98	.06	.57	.6	<.01	<.01	2	140	<1.0	80.1
JL-49-06-503	09-01-98	<.02	--	.1	<.01	.01	1	47	<1.0	189
JL-49-06-603	08-31-98	.32	--	.3	.01	.01	<1	37	<1.0	145
JL-49-06-901	08-27-98	<.02	--	.2	<.01	<.01	1	37	<1.0	166
JL-49-13-307	09-03-98	<.02	--	<.1	<.01	.01	4	36	<1.0	157
JL-49-13-312	09-09-98	<.02	--	<.1	.01	.02	5	51	<1.0	128
JL-49-13-520	09-08-98	<.02	--	<.1	<.01	.01	2	160	<1.0	129
JL-49-13-524	09-08-98	.02	--	<.1	<.01	.01	3	110	<1.0	104
JL-49-13-630	09-02-98	<.02	--	<.1	<.01	.01	4	59	<1.0	109
JL-49-14-202	08-31-98	<.02	--	<.1	<.01	<.01	<1	47	<1.0	113
JL-49-14-303	08-28-98	.02	--	<.1	<.01	<.01	2	23	<1.0	199

LOCAL IDENTIFIER	DATE	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
JL-48-13-504	09-09-98	<8	<14	<12	<10	<10	<100	46	<4
JL-49-06-111	08-26-98	<8	<14	<12	<10	350	<100	46	29
JL-49-06-503	09-01-98	<8	<14	<12	<10	39	<100	84	47
JL-49-06-603	08-31-98	<8	<14	<12	<10	2000	<100	120	160
JL-49-06-901	08-27-98	<8	<14	<12	<10	60	<100	120	22
JL-49-13-307	09-03-98	<8	<14	<12	<10	<10	<100	62	<4
JL-49-13-312	09-09-98	<8	<14	<12	<10	<10	<100	66	<4
JL-49-13-520	09-08-98	<8	<14	<12	<10	<10	<100	27	<4
JL-49-13-524	09-08-98	<8	<14	<12	<10	<10	<100	30	<4
JL-49-13-630	09-02-98	<8	<14	<12	<10	16	<100	38	<4
JL-49-14-202	08-31-98	<8	<14	<12	<10	24	<100	81	10
JL-49-14-303	08-28-98	<8	<14	<12	<10	140	<100	100	29

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

EL PASO COUNTY, TEXAS--Continued

LOCAL IDENTIFIER	DATE	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
JL-48-13-504	09-09-98	<.1	<60	<40	2	<4	1400	14	<20
JL-49-06-111	08-26-98	<.1	<60	<40	1	<4	960	<10	<20
JL-49-06-503	09-01-98	<.1	<60	<40	3	<4	1700	<10	<20
JL-49-06-603	08-31-98	<.1	<60	<40	<1	<4	1800	<10	<20
JL-49-06-901	08-27-98	<.1	<60	<40	1	<4	1800	<10	<20
JL-49-13-307	09-03-98	<.1	<60	<40	3	<4	700	15	<20
JL-49-13-312	09-09-98	<.1	<60	<40	3	<4	530	17	<20
JL-49-13-520	09-08-98	<.1	<60	<40	4	<4	2000	<10	<20
JL-49-13-524	09-08-98	<.1	<60	<40	2	<4	1100	<10	<20
JL-49-13-630	09-02-98	<.1	<60	<40	2	<4	1100	18	<20
JL-49-14-202	08-31-98	<.1	<60	<40	<1	<4	800	<10	<20
JL-49-14-303	08-28-98	<.1	<60	<40	2	<4	1300	<10	<20

Page

Page

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-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.

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
4501 Indian School Road, Suite 200
Albuquerque NM 87110

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