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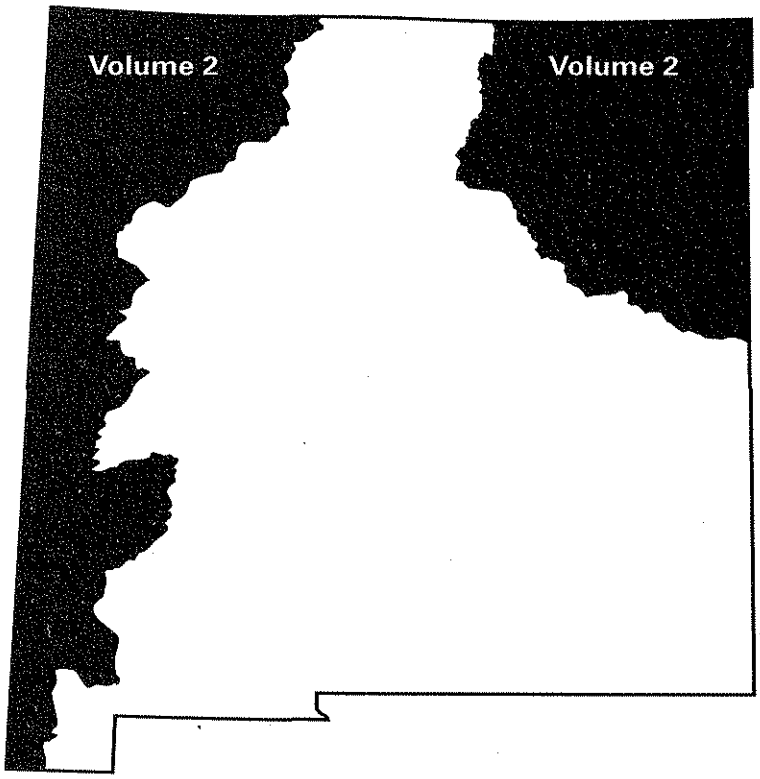
Water Resources Data New Mexico Water Year 1999

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

By David Ortiz, Kathy Lange, and Linda Beal

Water-Data Report NM-99-2



Prepared in cooperation with the State of New Mexico
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U.S. DEPARTMENT OF THE INTERIOR

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U.S. GEOLOGICAL SURVEY

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2000

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.

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Water-resources data for the 1999 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 168 gaging stations; stage and contents for 26 lakes and reservoirs; water quality for 34 gaging stations, 26 wells, and 85 partial-record stations and miscellaneous sites; and water levels at 130 observation wells. Also included are 80 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.

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

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CONTENTS

	Page
Preface	iii
List of surface-water stations, in downstream order, for which records are published in this volume	vi
List of ground-water wells, by county, for which records are published in this volume	vii
List of discontinued surface-water discharge stations	x
List of discontinued surface-water-quality stations	xiv
Introduction	1
Cooperation	1
Summary of hydrologic conditions	2
Streamflow	2
Ground-water levels	3
Surface-water quality	3
Special networks and programs	6
Explanation of the records	6
Station identification numbers	7
Downstream-order system	7
Latitude-longitude system	7
Local well numbers	8
Records of stage and water discharge	8
Data collection and computation	8
Data presentation	10
Station manuscript	10
Data table of daily mean values	13
Statistics of monthly mean data	13
Summary statistics	14
Hydrographs	15
Identifying estimated daily discharge	15
Accuracy of the records	15
Other records available	15
Records of surface-water quality	15
Classification of records	17
On-site measurements and sample collection	17
Water temperature	17
Sediment	17
Laboratory analyses	18
Data presentation	18
Remark codes	19
Water quality control data	19
Blank samples	20
Reference samples	20
Replicate samples	20
Spike samples	20
Dissolved trace element concentrations	20
Change in national trends network procedures	20
Records of ground-water levels	20
Data collection and computation	21
Data presentation	21
Publications	23
Records of ground-water quality	23
Data collection and computation	23
Data presentation	23
Access to USGS water data	23
Definition of terms	24
Techniques of water-resources investigations of the U.S. Geological Survey	29
Hydrologic-data station records	33
Discharge at partial-record stations and miscellaneous sites	126
Ground-water levels	131
Quality of ground water	169
Index	185

ILLUSTRATIONS

Figure 1.	Areas of 5-year ground-water-level monitoring in New Mexico showing years measured or scheduled for measurement	4
2.	Ground-water-level trends for last 20 years of period of record	5
3.	System for assigning latitude longitude numbers to wells, springs, and miscellaneous sites	7
4.	New Mexico well-numbering system	9
5.	Texas well-numbering system	9
6.	Map of New Mexico showing location of surface-water gaging stations	11
7.	Map of New Mexico showing location of partial-record stations	12
8.	Map of New Mexico showing location of active surface-water-quality gaging stations	16
9.	Map of New Mexico showing location of observation wells	22

TABLES

Calendar for water year 1999 ....inside front cover
Factors for converting inch-pound units to International System (SI) units ...inside back cover

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]

	Station Number	Page
LOWER MISSISSIPPI RIVER BASIN		
MISSISSIPPI RIVER:		
ARKANSAS RIVER BASIN		
ARKANSAS RIVER:		
CANADIAN RIVER:		
CHICORICA CREEK:		
LAKE MALOYA NEAR RATON, NM (v)	07199450	33
EAGLE TAIL DITCH NEAR MAXWELL, NM (d)	07202500	34
VERMEJO RIVER NEAR DAWSON, NM (d)	07203000	36
CIMARRON RIVER:		
EAGLE NEST LAKE:		
MORENO CREEK AT EAGLE NEST, NM (d	07204000	38
CIENEGUILLA CREEK NEAR EAGLE NEST, NM (d)	07204500	40
SIXMILE CREEK NEAR EAGLE NEST, NM (d)	07205000	42
EAGLE NEST LAKE NEAR EAGLE NEST, NM (v)	07205500	44
CIMARRON RIVER BELOW EAGLE NEST DAM, NM (d)	07206000	45
CIMARRON RIVER NEAR CIMARRON, NM (d)	07207000	47
PONIL CREEK NEAR CIMARRON, NM (d)	07207500	49
RAYADO CREEK NEAR CIMARRON, NM (d	07208500	51
CIMARRON RIVER AT SPRINGER, NM (d)	07211000	53
CANADIAN RIVER NEAR TAYLOR SPRINGS, NM (d)	07211500	55
MORA RIVER AT LA CUEVA, NM (d)	07215500	57
MORA RIVER NEAR GOLONDRINAS, NM (d)	07216500	59
COYOTE CREEK NEAR GOLONDRINAS, NM (d)	07218000	61
CANADIAN RIVER NEAR SANCHEZ, NM (d)	07221500	63
CONCHAS LAKE AT CONCHAS DAM, NM (v	07223500	65
CANADIAN RIVER:		
UTE CREEK NEAR LOGAN, NM (d)	07226500	66
UTE RESERVOIR NEAR LOGAN, NM (v)	07226800	67
CANADIAN RIVER AT LOGAN NM (c,d)	07227000	68
RUEVUELTO CREEK NEAR LOGAN, NM (c,d)	07227100	71
CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM (c)	07227140	74
COLORADO RIVER BASIN		
COLORADO RIVER:		
SAN JUAN RIVER BASIN		
SAN JUAN RIVER NEAR CARRACAS, CO (d)	09346400	75
NAVAJO RESERVOIR:		
PIEDRA RIVER NEAR ARBOLES, CO (d)	09349800	77
LOS PINOS RIVER AT LA BOCA, CO (d)	09354500	79
SPRING CREEK AT LA BOCA, CO (d)	09355000	81
NAVAJO RESERVOIR NEAR ARCHULETA, NM (v)	09355100	83
SAN JUAN RIVER NEAR ARCHULETA, NM (c,d)	09355500	84
ANIMAS RIVER NEAR CEDAR HILL, NM (d)	09363500	87
ANIMAS RIVER AT FARMINGTON, NM (c,d)	09364500	89
SAN JUAN RIVER AT FARMINGTON, NM (d)	09365000	94
LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE (d)	09366500	96
LA PLATA RIVER NEAR FARMINGTON, NM (d)	09367500	98
SAN JUAN RIVER AT SHIPROCK, NM (c,d)	09368000	100
SAN JUAN RIVER AT FOUR CORNERS, CO (c,d)	09371010	104
LITTLE COLORADO RIVER BASIN		
RIO NUTRIA NEAR RAMAH, NM (d)	09386900	107
ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM (d)	09386950	109
GILA RIVER BASIN		
GILA RIVER NEAR GILA, NM (d)	09430500	111
MOGOLLON CREEK NEAR CLIFF, NM (d)	09430600	113
GILA RIVER NEAR REDROCK, NM (c,d)	09431500	115
GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM (d)	09432000	119
SAN FRANCISCO RIVER NEAR RESERVE, NM (d)	09442680	121
SAN FRANCISCO RIVER NEAR GLENWOOD, NM (c,d)	09444000	123

Page

GROUND-WATER LEVELS

BERNALILLO COUNTY
WELL 350256106390801. Local number, 10N.03E.32.314 131
WELL 351051106395304. Local number, 11N.03E.18.411D 131
CHAVES COUNTY
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COLFAX COUNTY
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COSTILLA COUNTY
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CURRY COUNTY
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DONA ANA COUNTY
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HARDING COUNTY
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LEA COUNTY
WELL 332115103403301. Local number, 11S.32E.24.113222 148
WELL 331713103283301. (formerly 331740103285001) Local number, 12S.34E.11.421 148

Page

GROUND-WATER LEVELS

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SAN JUAN COUNTY
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WELL 353945105574501. Local number, 17N.09E.35.1314A 162
WELL 353945105574502. Local number, 17N.09E.35.1314B 162
WELL 353945105574503. Local number, 17N.09E.35.1314C 162
WELL 355000106092802. Local number, 19N.07E.36.3113B 163
WELL 355000106092803. Local number, 19N.07E.36.3113C 163
SIERRA COUNTY
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WELL 325921107185101. (formerly 325550107184001) Local number, 15S.05W.24.312 164
WELL 325340107183001. (formerly 325350107175501) Local number, 16S.05W.25.211 164
TAOS COUNTY
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WELL 365410105345601. (formerly 365410105354501) Local number, 02S.73W.05.244 165

GROUND-WATER LEVELS

Page

TORRANCE COUNTY
WELL 343443106024401. Local number, 04N.09E.07.334 165
WELL 344016106070901. (formerly 344016106064701) Local number, 05N.08E.08.424 166
WELL 344234106070601. (formerly 344234106074901) Local number, 06N.08E.32.212 166
WELL 344604105574601. (formerly 344622105575501) Local number, 06N.09E.11.211 166
WELL 344842106032701. Local number, 07N.08E.25.121 166
UNION COUNTY
WELL 355144103041201. (formerly 360940103083501) Local number, 19N.36E.23.244 167
WELL 361847103064701. (formerly 361910103170501) Local number, 24N.36E.17.244 167
WELL 362540103095001. Local number, 25N.35E.02.441 167
WELL 363410103064801. Local number, 27N.36E.17.434 167
WELL 364444104000201. (formerly 364430103595501) Local number, 29N.28E.18.341 168

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
East Fork Chicorica Creek near Yankee, NM	07199650	23.9	1984-87
Vermejo River at Vermejo Park, NM	07202400	36.7	1985-93
Vermejo River near Maxwell, NM	07203525	486	1983-94
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	1956-63
Mora River at Weber, NM	07216000	--	1903-04
Coyote Creek below Black Lake, NM	07217000	48	1952-63
Coyote Creek above Guadalupita, NM	07217100	71	1956-74
Coyote Creek at Guadalupita, NM	07217500	90	1920-23
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

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record
SAN JUAN BASIN--Continued			
San Juan River near Blanco, NM	09356500	3,560	1907-09, 1910, 1927-55
Canon Largo near Blanco, NM	09356565	1,700	1977-81
San Juan River at Bloomfield, NM	09357000	5,410	1909, 1910-11, 1927-31, 1955-63
San Juan River at Hammond Bridge near Bloomfield, NM	09357100	5,540	1978-81
Gallegos Canyon near Farmington, NM	09357250	290	1978-81
Animas River at Aztec, NM	09364000	1,270	1904, 1907-15
Shumway Arroyo near Fruitland, NM	09367555	62.8	1975-82
Chaco Wash near Star Lake Trading Post, NM	09367660	59.0	1978-82
Chaco Wash at East Boundary at Chaco Canyon National Monument, NM	09367676	364	1980-82
Fajada Wash at Chaco Canyon National Monument, NM	09367678	199	1980-83
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

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Period of record
LITTLE COLORADO RIVER BASIN-- Continued			
Whitewater Arroyo near Cheechilgeetho, NM	09395700	78.5	1964-67
GILA RIVER BASIN			
Gila River near Silver City, NM	09430000	1,600	1912-19
Sapello Creek below Lake Roberts, near Silver City, NM	09430150	78	1964-71
Gila River near Cliff, NM	09431000	2,435	1942-51
Trout Creek near Luna, NM	09442653	27.1	1968-86
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,t	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 at Clifton, AZ	09445000	2,766	s	1963-67
Dry Beaver Creek near Rimrock, AZ	09505350	139	s	1964-65

VOLUME 2: ARKANSAS RIVER BASIN, SAN JUAN BASIN, GILA BASIN, 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 168 gaging stations and contents for 26 lakes and reservoirs; water quality for 34 gaging stations, 26 wells, and 85 partial-record stations and miscellaneous sites, and water levels at 130 observation wells. Also included are 80 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. Two 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-98-1." These Water-Data Reports are for sale by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22162.

COOPERATION

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

New Mexico State Engineer Office

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 23 gaging stations; by the Bureau of Indian Affairs, U.S. Department of Interior, for 6 gaging stations; and by the Bureau of Land Management, U.S. Department of Interior, for 1 gaging station.

Assistance in the form of services was provided by the Carlsbad Irrigation District. Some data have been collected by contractors in accordance with U.S. Geological Survey specifications and under Geological Survey quality control. Organizations that provided data are recognized in the station description.

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 well below normal throughout the State at the beginning of water year 1999. This was followed by a major increase in precipitation in October. However, precipitation decreased again in November, a trend that continued through February, before recovering to near normal amounts in March. Precipitation increased to above normal amounts in May, remaining generally well above normal through the summer, then decreasing at the end of the water year.

Specifically, in October precipitation ranged from 136 percent of normal in the San Francisco/Upper Gila River Basin to 393 percent of normal in the Pecos River Basin. By December precipitation totals had decreased greatly, ranging from 13 percent of normal in the Pecos River Basin to 76 percent of normal in the Mimbres River Basin. By February precipitation was less than 10 percent of normal when averaged statewide. Measurements of snowpack water content at the beginning of March were 53 percent of normal in the Rio Grande Basin and 82 percent of normal in the San Juan Basin. The streamflow forecast made at this time predicted below average to well below average streamflow.

In contrast to March, measurements of snowpack water content in May were above 100 percent of normal in the Rio Grande Basin and 97 percent of normal in the San Juan Basin.

The increased amount of water in the State was exemplified by the June through August total of 5.11 inches in Albuquerque, which was the 11th wettest summer since 1892. The water year ended with most areas of the State recording less than normal precipitation totals.

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 1999 indicates various trends. Storage at Brantley, Cochiti, and Abiquiu Reservoirs varied only slightly: storage at Brantley ranged from 1 to 4 percent of capacity, at Cochiti ranged from 9 to 12 percent of capacity, and at Abiquiu ranged from 13 to 15 percent of capacity. Storage in other reservoirs, however, did partly represent hydrologic conditions during water year 1999.

In El Vado Reservoir, for example, the quantity of water stored from October through March represented the lack of precipitation in the State, whereas the increase in water storage beginning in May represented the increase in precipitation. In like manner, water storage in Eagle Nest and Conchas Reservoirs had an overall increase between the beginning and end of the water year. Storage in Elephant Butte-Caballo increased and decreased at various times during water year 1999 in response to water demands.

Reservoir storage in most of the State's reservoirs at the end of water year 1999 generally was at greater levels than at the beginning of the water year. Specifically, the combined storage of 13 major reservoirs in the State increased by 567,200 acre-feet during water year 1999, totaling 4,761,000 acre-feet by September 30, 1999. 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 1999, and most index sites ended the year with greater streamflow than at the beginning of the water year. For example, streamflow at Rio Grande below Taos Junction Bridge (station 08276500) was 101 percent of normal in October, decreased to 80 percent of normal in March, and recovered to 405 percent of normal at the end of water year 1999.

Streamflow at Gila River near Gila (station 09430500) was 97 percent of normal at the beginning of the water year, decreased to 33 percent of normal in March, then increased dramatically to 153 percent of normal in September. In contrast, streamflow at Pecos River near Pecos (station 08378500) was 187 percent of normal at the beginning of water year 1999 and decreased to 114 percent of normal at the end of water year 1999.

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.

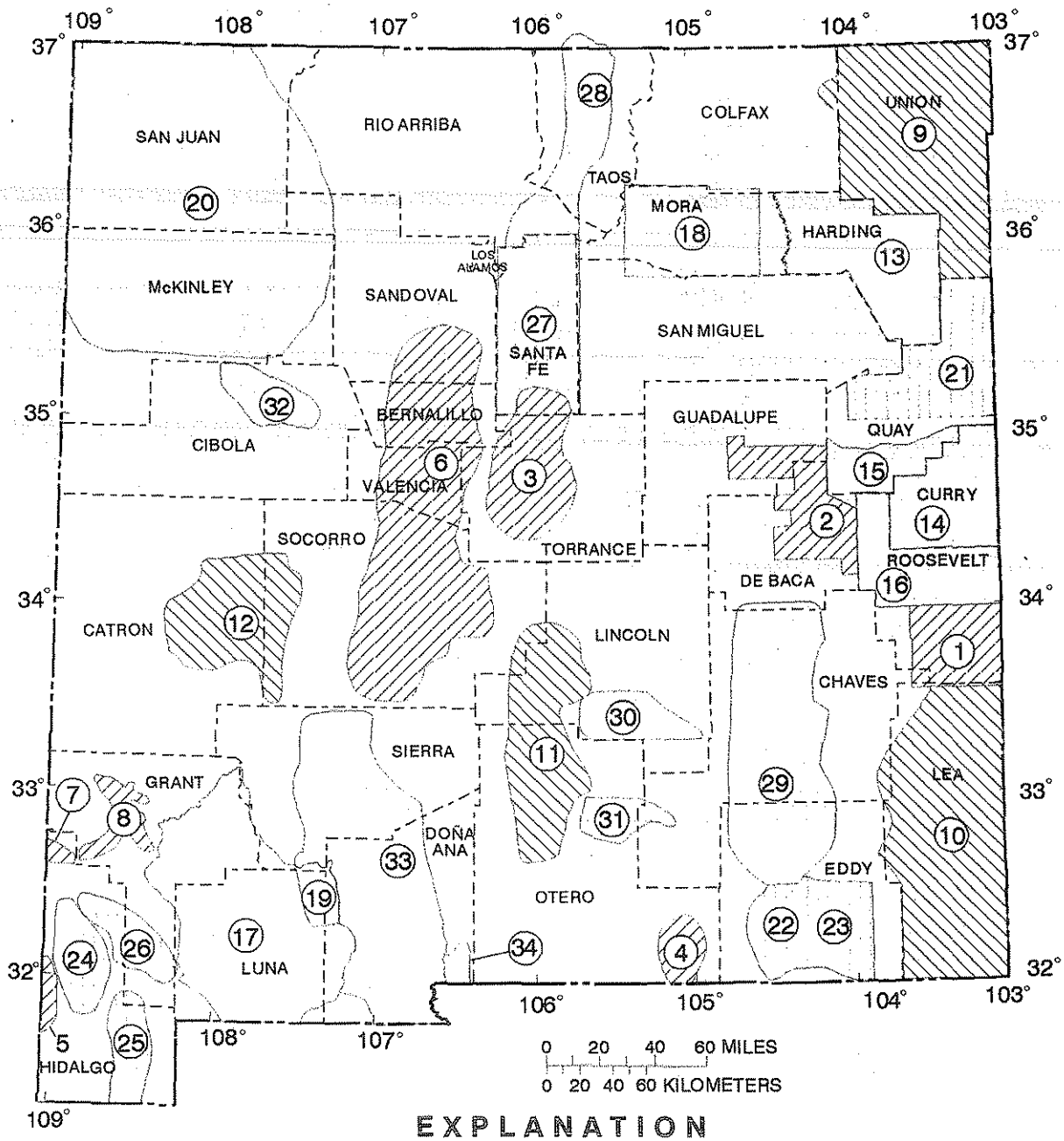
Discharges for water year 1999 at four index streamflow-gaging stations compared to median annual discharge for water years 1969-98 at the same stations are listed below:

Station number	Station name	Median annual discharge in acre-ft water years 1969-98	Annual mean discharge in acre-ft water year 1999	1999 discharge as a percentage of median
08276500	Rio Grande below Taos Junction Bridge	571,900	643,400	113
08378500	Pecos River near Pecos	74,990	87,980	117
08408500	Delaware River near Red Bluff	3,876	6,640	171
09430500	Gila River near Gila	132,900	74,660	56

Surface-Water Quality

Suspended-sediment loads for water year 1999 at three index stations and median suspended-Sediment loads for water years 1989-99 at the same stations are listed below:

Station number	Station name	Median suspended-sediment load for water years 1989-98 in tons	Suspended-sediment load for water year 1999, in tons	1999 load as a percentage of 1989-98 median
08313000	Rio Grande at Otowi Bridge	1,917,300	4,202,112	219
08330000	Rio Grande at Albuquerque	511,280	599,582	117
08358400	Rio Grande Floodway at San Marcial	4,090,240	7,732,738	189



EXPLANATION

2000/2005 | 2001/2006 | 1997/2002 | 1998/2003 | 1999/2004

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 and years measured or scheduled for measurement.

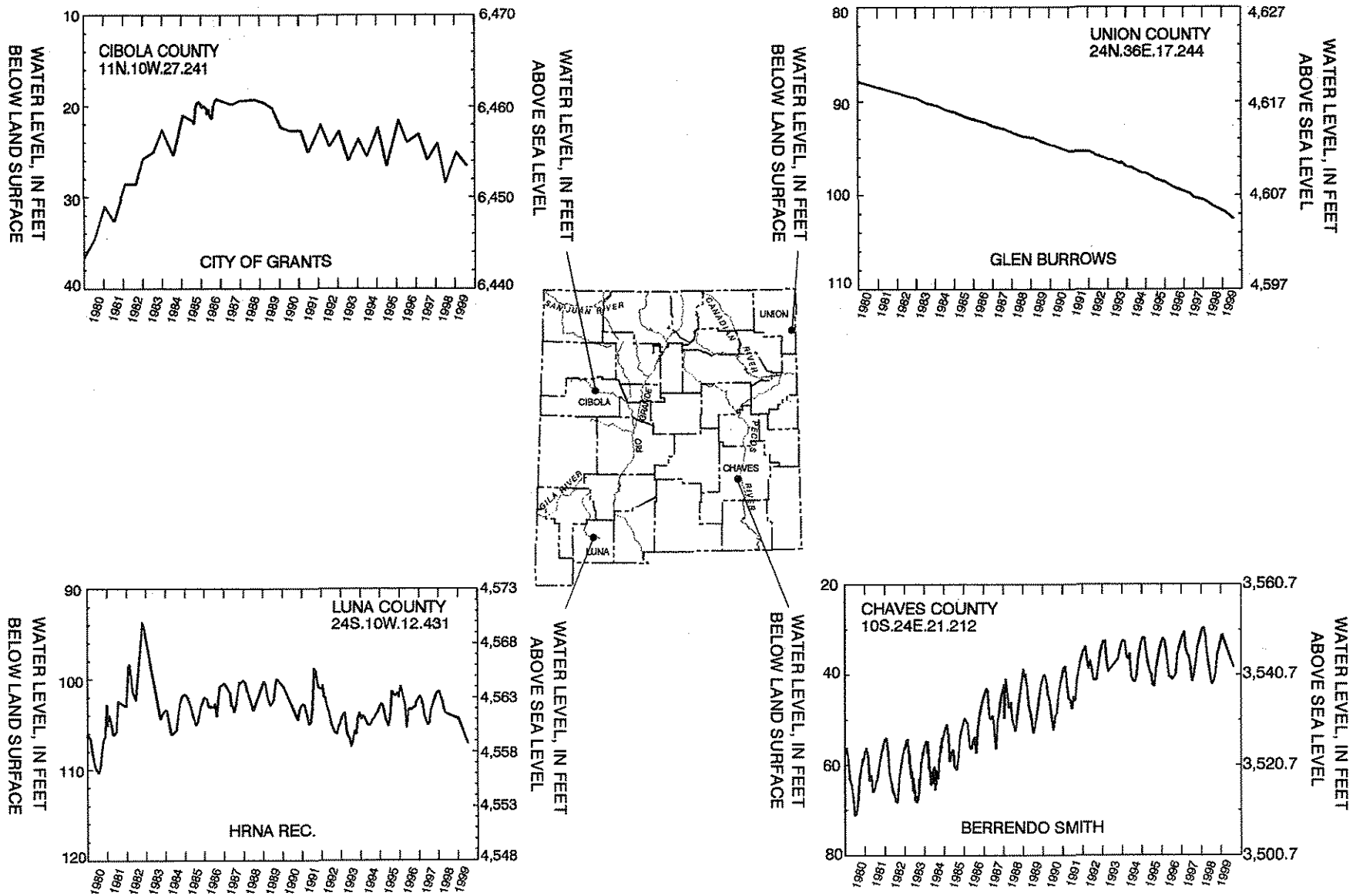


Figure 2.--Ground-water-level trends for the last 20 years or period of record.

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 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.)

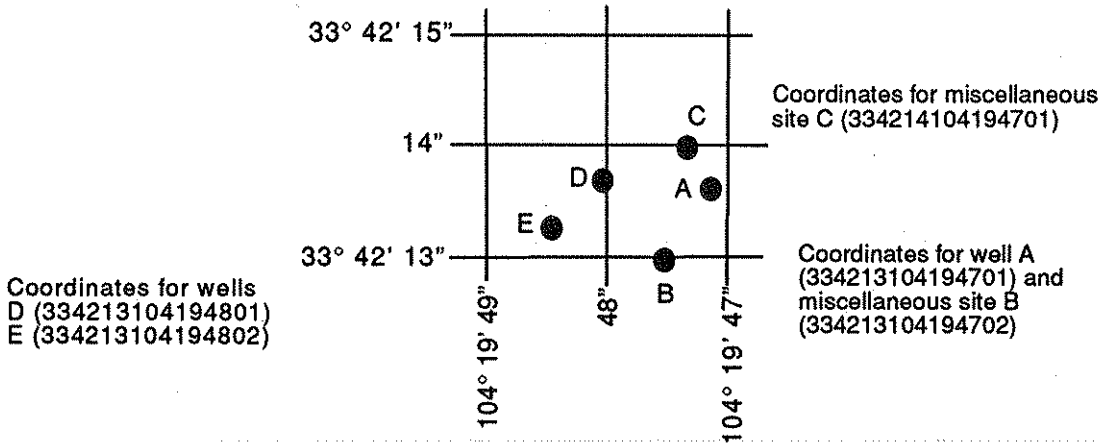


Figure 3.--System for assigning latitude longitude numbers to wells, springs, and miscellaneous sites.

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.

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 station for which data are given in this report are shown in figures 6 and7.

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, with electronic data loggers that store stage values on computer cards 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

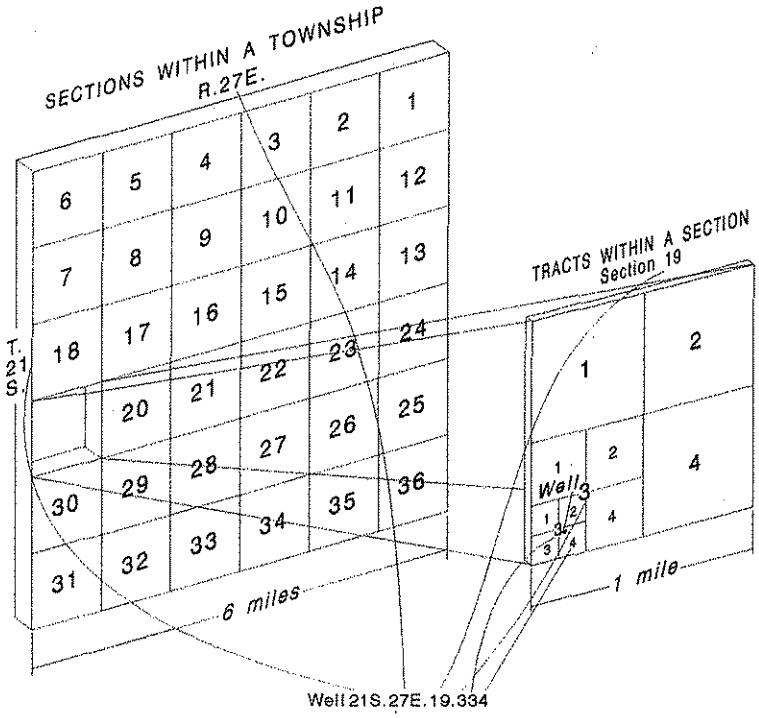


Figure 4.--New Mexico well-numbering system.

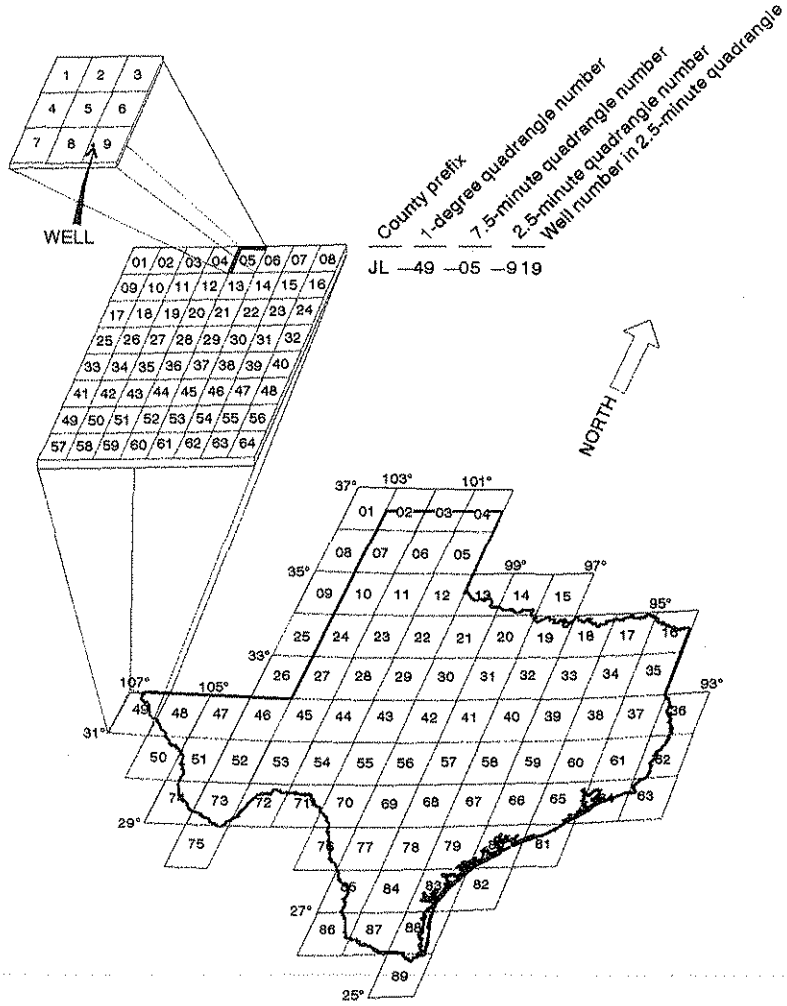


Figure 5.--Texas well-numbering system.

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 laps time since the last survey 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.

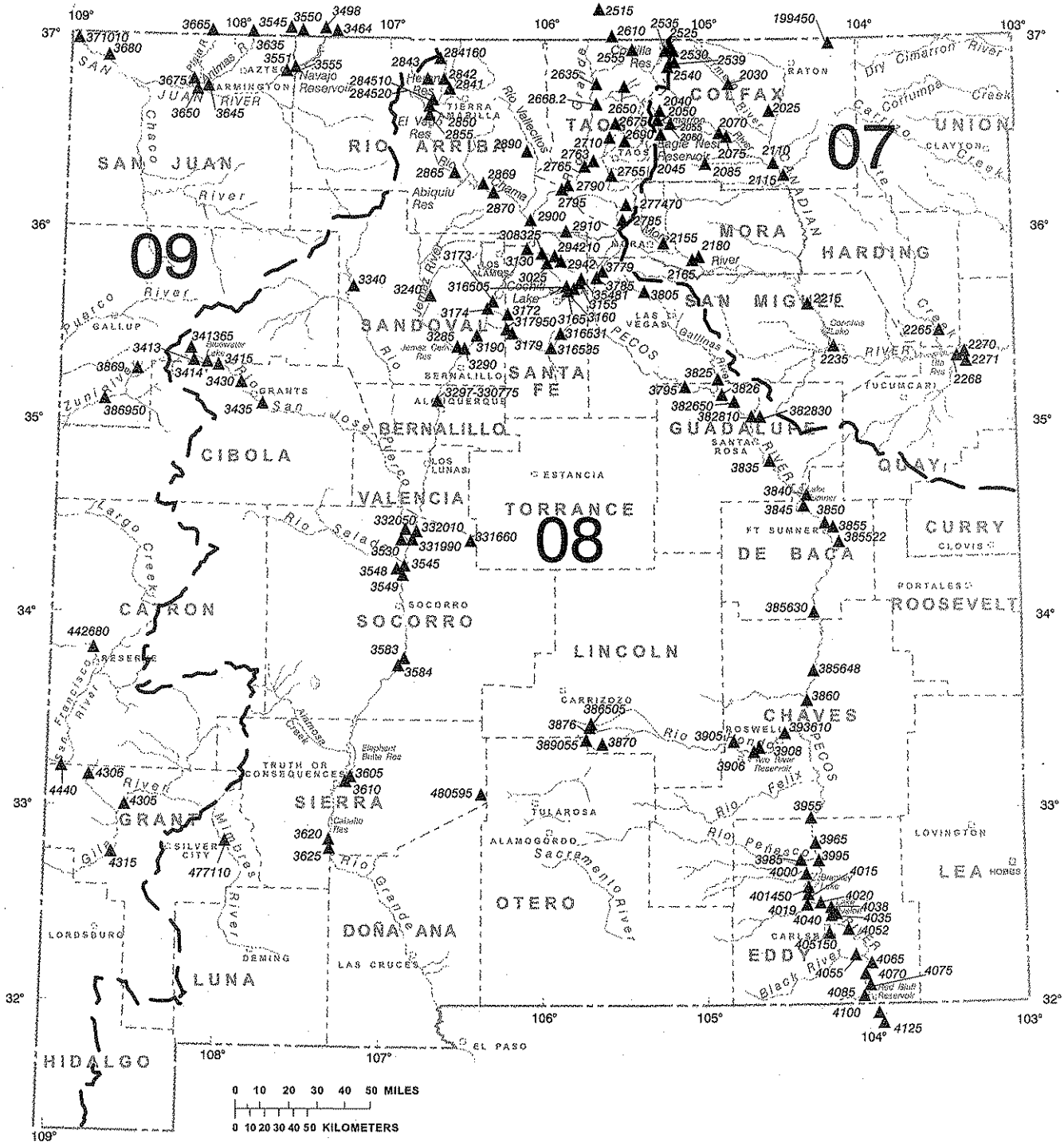
Station manuscript

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.



U.S. Geological Survey base

EXPLANATION

07 LOWER MISSISSIPPI RIVER BASIN NUMBER

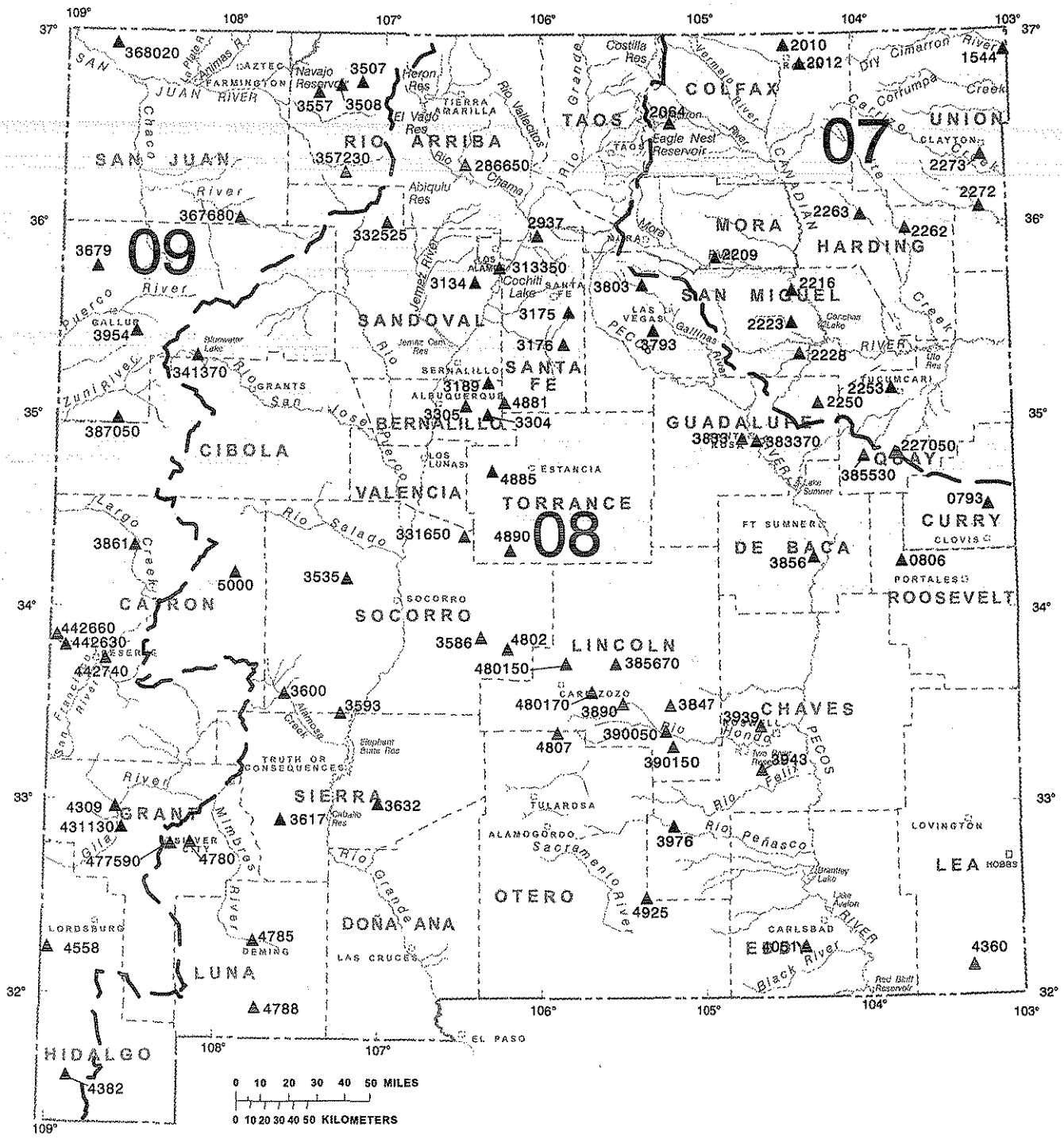
08 WESTERN GULF OF MEXICO BASIN NUMBER

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

477590▲ GAGING STATION AND NUMBER--

Number by symbol is abbreviated station number. Complete national station number is: 08 477590

Basin number + station number

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

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.

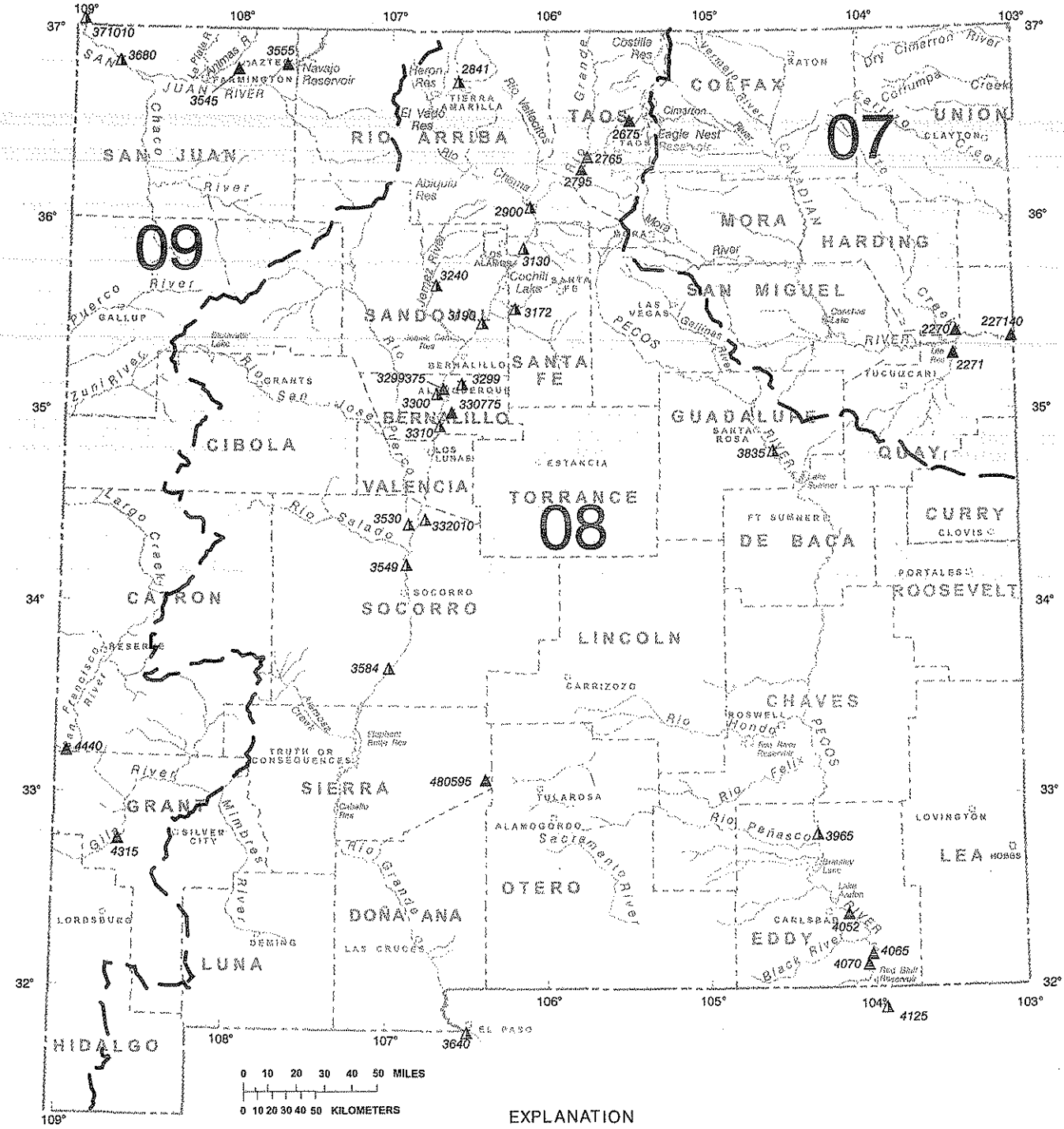


Figure 8.--Location of active surface-water-quality stations.

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 onsite 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 onsite 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 onsite 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. Water temperatures measured at the time of water-discharge measurements 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.

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDL's) and laboratory reporting levels (LRL's). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. The chance of falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 present or less.

Accordingly, concentrations are reported as <LRL for samples in which the analyte was either not detected or did not pass identification. Analyses that are detected at concentrations between the LT-MDL and LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E". These data should be used with the understanding that their uncertainty is greater than that of data reported without the "E" remark code.

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 the location of the water quality station differs

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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.

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 (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism 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 overalldata-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-collection process. 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.

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.

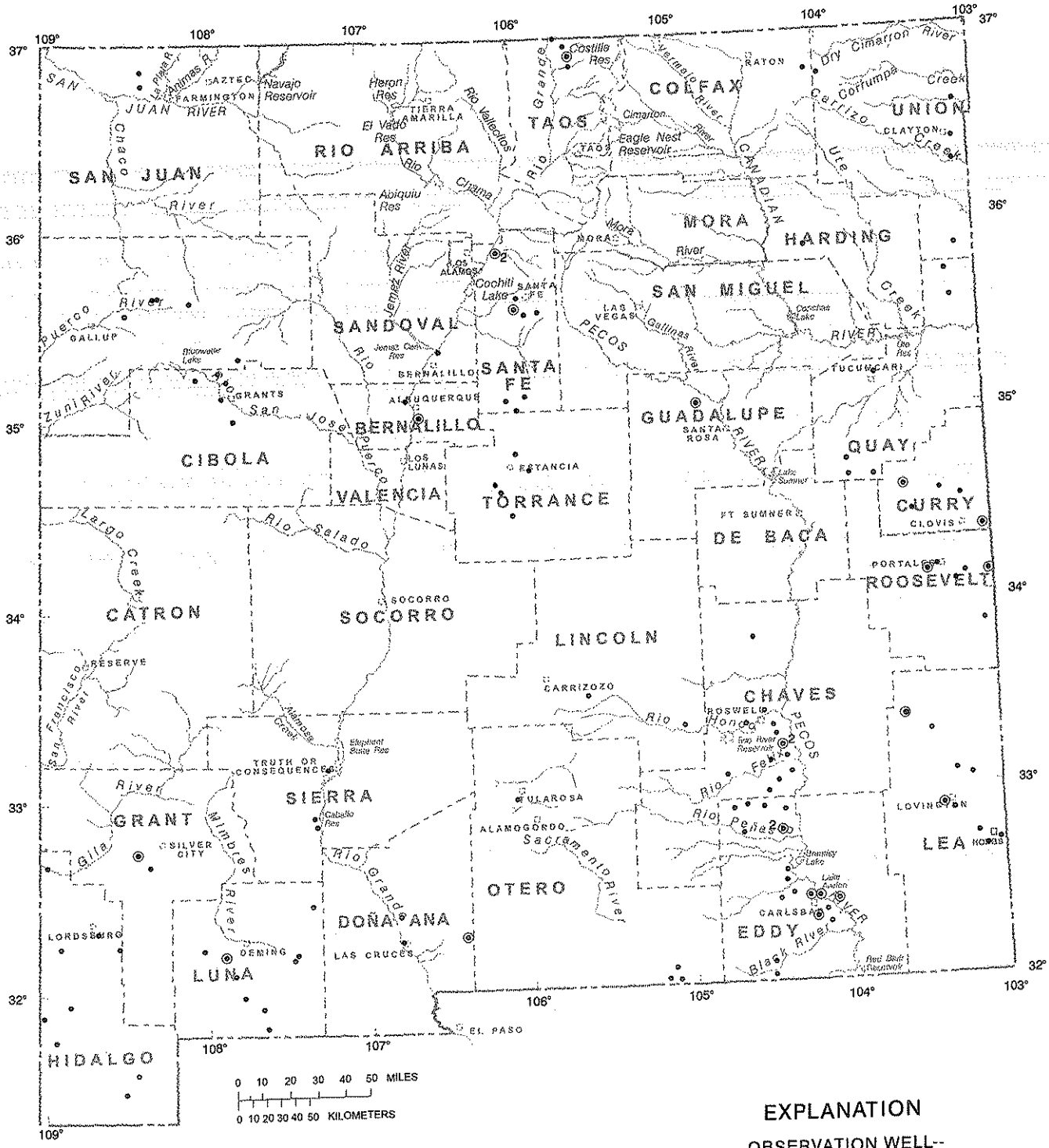
DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base, and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation 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



U.S. Geological Survey base

EXPLANATION

OBSERVATION WELL--
Number indicates closely spaced wells

2◎ Recording

• Nonrecording

Figure 9.--Location of observation wells.

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:/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 increasingly 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.

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The U.S.G.S. 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.G.S., 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 made in the form of a 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 mention the "U.S. Geological Survey Techniques of Water-Resources Investigations."

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

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, chap. 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, chap. D2. 1976. 24 pages.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

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, chap. D1. 1974. 116 pages.

2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 pages.

Section E. Subsurface Geophysical Methods

2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 pages.

2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 pages.

Section F. Drilling and Sampling Methods

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, chap. F1. 1989. 97 pages.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. 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, chap. A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS–TWRI book 3, chap. A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS-TWRI book 3, chap. A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS–TWRI book 3. chap. A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 13 pages.

3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. 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, chap. A9. 1989. 27 pages.

3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. 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, chap. 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, chap. A12. 1986. 34 pages.

3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS–TWRI book 3, chap. A13. 1983. 53 pages.

3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI book 3, chap. A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS–TWRI book 3, chap. A15. 1984. 48 pages.

3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI book 3, chap. A16. 1985. 52 pages.

3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS–TWRI book 3, chap. 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, chap. A18. 1989. 52 pages.

3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. 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, chap. A20. 1993. 38 pages.

3-A21 *Stream-gaging cableways*, by C. Russell Wagner: USGS–TWRI book 3, chap. A21. 1995. 56 pages.

Section B. Ground-Water Techniques

3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS–TWRI book 3, chap. 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, chap. 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, chap. B3. 1980. 106 pages.

3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. 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, chap. 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, chap. 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, chap. 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, chap. B7. 1992. 190 pages.

Section C. Sedimentation and Erosion Techniques

3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS–TWRI book 3, chap. 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, chap. C2. 1970. 59 pages.

3-C3. Computation of fluvial-sediment discharge, by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 pages.

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

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

4-A2. *Frequency curves*, by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 pages.

Section B. Surface Water

4-B1. *Low-flow investigations*, by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 pages.

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

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

Section D. Interrelated Phases of the Hydrologic Cycle

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

Book 5. Laboratory Analysis

Section A. Water Analysis

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, chap. 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, chap. 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, chap. 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, chap. 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, chap. 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, chap. A6. 1982. 181 pages.

Section C. Sediment Analysis

5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS–TWRI book 5, chap. C1. 1969. 58 pages.

Book 6. Modeling Techniques

Section A. Ground Water

6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. 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, chap. 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, chap. 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, chap. 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, chap. 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. 1996. 125 pages.

Book 7. Automated Data Processing and Computations

Section C. Computer Programs

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, chap. 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, chap. 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, chap. C3. 1981. 110 pages.

Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

8-A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 pages.

8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 pages.

Section B. Instruments for Measurement of Discharge

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 8, chap. B2. 1968. 15 pages.

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.

9-A2. *National Field Manual for the Collection of Water-Quality Data: Selection of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.

9-A3. *National Field Manual for the Collection of Water-Quality Data: Cleaning of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.

9-A4. *National Field Manual for the Collection of Water-Quality Data: Collection of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.

9-A5. *National Field Manual for the Collection of Water-Quality Data: Processing of Water Samples*,

edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999, 149 p.

9-A6. *National Field Manual for the Collection of Water-Quality Data: Field Measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.

9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*,edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.

9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 pages.

9-A9. *National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 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, 3,820 acre-ft, May 2-3, elevation, 7,512.08 ft; minimum contents, 3,240 acre-ft, Jan. 18-20 elevation 7,507.18 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3320	3350	3370	3260	3270	3470	3580	3810	3710	3650	3530	3470
2	3320	3350	3370	3260	3270	3470	3590	3820	3700	3640	3530	3470
3	3330	3360	3360	3260	3280	3470	3600	3820	3700	3640	3540	3470
4	3330	3360	3350	3260	3280	3470	3610	3790	3700	3640	3540	3470
5	3340	3360	3340	3260	3280	3470	3610	3770	3690	3650	3560	3470
6	3340	3360	3340	3260	3290	3470	3620	3770	3700	3660	3560	3470
7	3340	3370	3330	3260	3290	3470	3630	3760	3690	3650	3570	3470
8	3340	3370	3320	3260	3300	3470	3640	3760	3690	3650	3570	3470
9	3340	3370	3310	3260	3310	3480	3640	3750	3690	3640	3570	3470
10	3340	3380	3300	3250	3320	3480	3650	3740	3690	3630	3570	3470
11	3340	3380	3290	3250	3330	3480	3650	3740	3690	3630	3570	3470
12	3340	3380	3290	3250	3340	3480	3660	3740	3690	3620	3570	3470
13	3340	3380	3280	3250	3340	3480	3690	3730	3700	3610	3560	3470
14	3340	3380	3280	3250	3350	3480	3760	3730	3700	3600	3560	3470
15	3330	3390	3270	3250	3360	3490	3740	3720	3700	3590	3560	3480
16	3330	3390	3270	3250	3370	3490	3730	3720	3700	3580	3560	3490
17	3330	3390	3260	3250	3370	3500	3730	3720	3700	3580	3550	3490
18	3330	3390	3260	3240	3380	3500	3730	3720	3700	3580	3550	3490
19	3330	3380	3250	3240	3390	3500	3740	3720	3700	3580	3550	3500
20	3330	3390	3260	3240	3400	3500	3750	3710	3700	3570	3550	3500
21	3320	3390	3260	3250	3400	3510	3750	3710	3700	3560	3540	3500
22	3320	3390	3260	3260	3400	3520	3740	3710	3700	3550	3540	3510
23	3320	3390	3260	3260	3410	3530	3740	3710	3690	3540	3530	3510
24	3320	3390	3260	3260	3420	3540	3740	3710	3700	3530	3530	3510
25	3320	3390	3260	3260	3430	3540	3740	3720	3690	3510	3520	3510
26	3320	3380	3260	3260	3440	3550	3730	3720	3680	3510	3510	3510
27	3330	3380	3260	3260	3450	3560	3730	3710	3680	3500	3510	3510
28	3330	3380	3260	3260	3460	3570	3730	3710	3670	3500	3500	3510
29	3330	3370	3260	3270	---	3570	3740	3710	3670	3490	3490	3510
30	3340	3370	3260	3270	---	3570	3810	3710	3660	3490	3480	3510
31	3350	---	3260	3270	---	3570	---	3710	---	3520	3470	---
MAX	3350	3390	3370	3270	3460	3570	3810	3820	3710	3660	3570	3510
MIN	3320	3350	3250	3240	3270	3470	3580	3710	3660	3490	3470	3470
(+)	7508.13	7508.36	7507.34	7507.45	7509.11	7510.04	7512.02	7511.14	7510.73	7509.57	7509.17	7509.54
(++)	+30	+20	-110	+10	+190	+110	+240	-100	-50	-140	-50	+40
(+++)	29	55	10	0	15	134	54	153	233	121	186	14
(++++)	0	0	20e	0	0	0	0	0	0	0	0	0

CAL YR 1998 MAX 3790 MIN 3250 (++) -440 (+++) 994 (++++) 1227
WTR YR 1999 MAX 3820 MIN 3240 (++) +190 (+++) +20e (++++) +50e

(+) 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

e Estimated

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	15	e1.7	e1.8	2.0	1.1	.30	151	13	.00	.00	.00
2	11	8.2	e1.6	e1.7	2.3	.95	.25	116	13	.00	.00	.00
3	8.9	2.3	e2.0	e1.8	1.9	.94	.29	108	13	.00	21	.00
4	1.4	2.6	e2.1	e1.9	2.0	.94	.34	100	11	.45	1.2	.00
5	.35	2.4	e2.0	e2.0	2.3	1.1	.47	66	7.1	.21	.27	.00
6	.17	3.0	e1.9	e2.1	1.9	1.0	.39	.56	5.1	6.4	.17	.00
7	.07	2.1	e1.8	e1.8	1.9	.97	.33	.03	4.2	7.4	.23	.00
8	.15	1.3	e1.8	e1.7	2.0	.91	.22	.01	3.5	.45	.32	.00
9	.08	.79	e1.6	e1.6	2.0	.84	.13	.00	3.4	.24	.16	.00
10	.01	.83	e1.5	e1.5	1.8	.88	.07	.00	3.6	.19	.04	.00
11	.00	1.0	e1.7	e1.6	1.7	.83	.09	.00	1.5	.10	.32	2.5
12	.00	1.0	e1.6	e1.6	1.7	.87	.06	.00	.30	.00	.18	5.9
13	.00	1.0	e1.4	e1.7	2.0	1.2	.04	.00	.09	.00	.07	4.9
14	.00	1.0	e1.6	e1.8	1.9	1.3	9.4	.00	.00	.00	.00	4.0
15	.00	.97	e1.4	e1.9	1.6	.90	101	.00	.00	.00	.00	3.7
16	.00	1.0	e1.3	e2.0	1.6	.63	62	.00	.00	.00	.00	5.6
17	.00	1.3	e1.1	e1.8	1.4	.56	40	1.7	8.5	.00	.00	7.9
18	.00	1.0	e1.0	e1.6	1.6	.71	35	14	127	.00	.00	7.1
19	.00	1.7	e.98	e1.5	1.4	1.3	40	14	.75	.00	.00	8.9
20	.00	1.9	e1.1	e1.6	1.5	2.1	45	15	.47	.00	.00	5.0
21	1.6	1.8	e1.2	e1.8	1.1	1.9	56	14	.23	.00	.00	4.7
22	3.1	1.7	e1.1	e1.9	.90	1.7	52	13	.14	.00	.00	4.7
23	.82	1.9	e1.2	e2.0	.96	1.4	44	13	.02	.00	.00	4.2
24	.08	1.9	e1.3	e2.1	1.0	2.0	37	13	.00	.00	.00	4.0
25	.04	2.0	e1.4	e2.0	1.0	1.8	33	14	.00	.00	.00	3.7
26	.13	1.7	e1.5	e2.1	1.1	1.6	40	15	.00	.00	.00	3.4
27	2.0	1.9	e1.7	e2.0	1.1	1.1	35	13	.00	.00	.00	2.9
28	2.8	2.0	e1.5	e2.1	1.1	.75	28	18	.00	.00	.00	2.8
29	1.5	e1.7	e1.6	e2.1	---	.56	27	14	.00	.00	.00	3.0
30	1.5	e1.8	e1.8	e1.9	---	.37	74	14	.00	.00	.00	3.3
31	7.9	---	e2.0	e2.2	---	.31	---	13	---	.00	.00	---
TOTAL	47.20	68.79	47.48	57.2	44.76	33.52	761.38	740.30	215.90	15.44	23.96	92.20
MEAN	1.52	2.29	1.53	1.85	1.60	1.08	25.4	23.9	7.20	.50	.77	3.07
MAX	11	15	2.1	2.2	2.3	2.1	101	151	127	7.4	21	8.9
MIN	.00	.79	.98	1.5	.90	.31	.04	.00	.00	.00	.00	.00
AC-FT	94	136	94	113	89	66	1510	1470	428	31	48	183

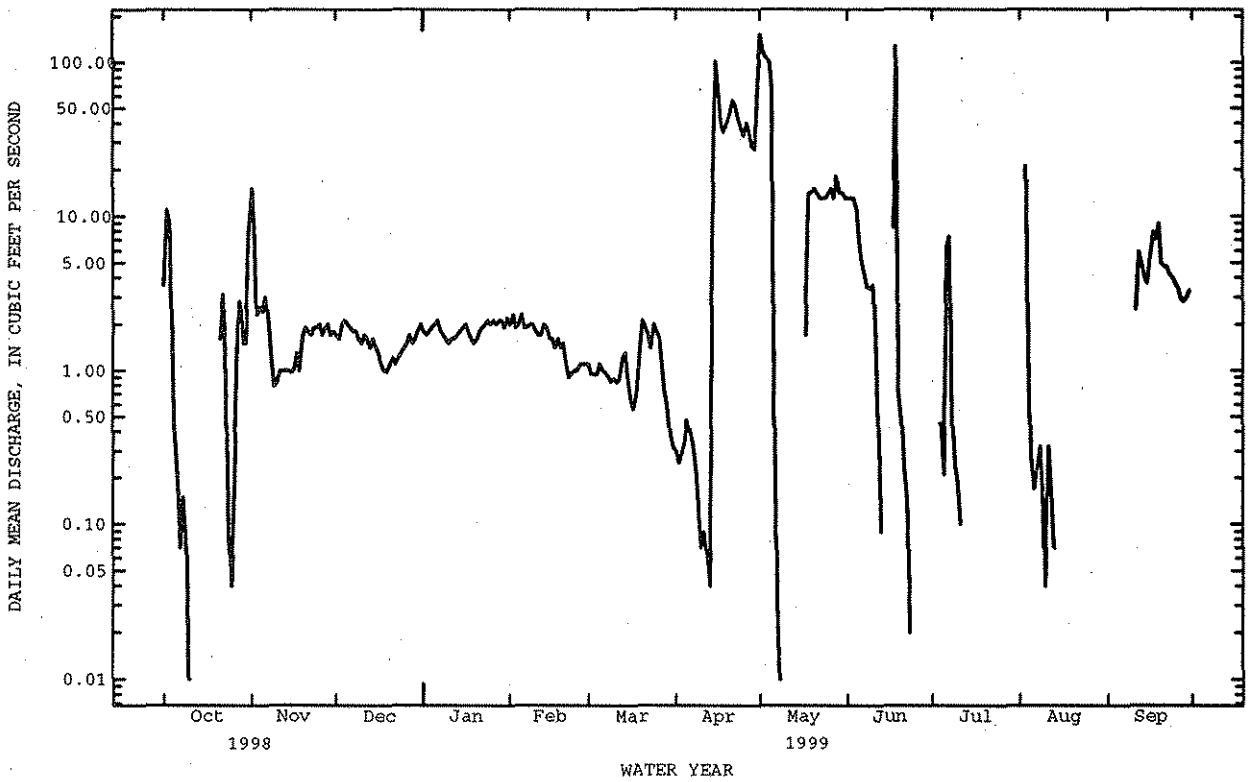
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1999, BY WATER YEAR (WY)

MEAN	2.09	2.53	2.32	2.38	3.03	5.77	11.9	21.3	10.6	6.33	9.86	4.30
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1945 - 1999	
ANNUAL TOTAL	3512.23		2148.13			
ANNUAL MEAN	9.62		5.89		7.21	
HIGHEST ANNUAL MEAN					17.8	1984
LOWEST ANNUAL MEAN					1.51	1978
HIGHEST DAILY MEAN	91	Apr 27	151	May 1	[a]217	Aug 27 1946
LOWEST DAILY MEAN	.00	Mar 20	.00	Oct 11	.00	May 16 1945
ANNUAL SEVEN-DAY MINIMUM	.00	Mar 20	.00	Oct 11	.00	May 16 1945
INSTANTANEOUS PEAK FLOW			309	Jun 18	375	May 30 1995
INSTANTANEOUS PEAK STAGE			4.65	Jun 18	5.15	May 30 1995
ANNUAL RUNOFF (AC-FT)	6970		4260		5220	
10 PERCENT EXCEEDS	23		13		17	
50 PERCENT EXCEEDS	2.3		1.4		1.7	
90 PERCENT EXCEEDS	.00		.00		.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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	17	11	e5.8	7.4	6.3	4.9	725	181	e48	177	53
2	30	15	10	e6.0	6.0	6.0	7.7	911	169	43	199	50
3	22	13	11	e6.3	7.4	6.2	10	839	156	44	228	49
4	18	12	12	e6.3	9.9	5.2	10	797	146	45	310	47
5	16	12	12	e4.7	9.1	5.0	12	767	137	45	1040	45
6	13	11	12	e6.6	9.3	5.5	13	553	130	57	e418	44
7	10	11	10	e6.4	8.2	4.8	15	311	121	50	e246	43
8	8.8	10	11	e6.0	7.4	5.4	15	355	112	47	e237	41
9	8.1	10	8.5	e5.5	7.3	6.8	17	378	107	49	e239	40
10	7.4	14	9.4	e5.2	7.0	5.5	16	347	101	47	e239	39
11	6.8	13	9.7	e6.6	e6.8	5.7	19	297	98	45	211	38
12	7.2	12	e9.6	9.1	e6.5	6.0	20	e234	97	48	176	37
13	7.1	12	e9.4	e10	e6.4	7.1	21	e234	101	48	155	36
14	7.0	11	e9.0	e11	6.3	7.1	25	e234	91	47	142	44
15	6.5	11	e9.4	e10	8.6	6.0	28	266	92	47	134	45
16	6.0	11	e9.2	e9.8	8.2	5.8	30	e234	109	69	122	58
17	6.1	10	e9.0	e9.4	7.5	5.3	30	e234	110	76	117	49
18	6.5	10	e8.8	e9.8	7.8	6.8	32	e228	118	88	109	52
19	7.0	9.7	e8.6	10	7.8	7.9	34	e223	91	136	119	41
20	7.0	9.5	e8.4	8.1	6.9	8.3	35	230	92	131	108	38
21	7.2	11	e8.0	6.7	7.5	8.0	38	225	82	90	94	37
22	7.4	11	8.7	7.9	7.2	6.5	44	224	79	94	86	34
23	7.5	11	e8.2	7.7	5.3	6.4	49	225	71	107	106	33
24	7.6	11	8.9	e7.0	6.9	6.5	52	233	66	117	75	32
25	7.9	10	7.2	e7.6	8.1	6.3	55	232	e63	111	66	31
26	e8.9	10	e5.8	9.2	6.8	5.5	56	217	e60	139	62	29
27	e12	11	e6.4	10	7.3	5.2	57	202	e59	127	60	28
28	13	10	e6.6	6.2	6.2	4.9	59	205	e56	119	58	27
29	11	11	e6.8	8.6	---	4.8	81	204	e52	115	58	27
30	9.6	10	e6.2	e8.0	---	4.9	822	205	e48	124	61	27
31	17	---	e6.0	e7.8	---	4.4	---	191	---	146	58	---
TOTAL	335.6	340.2	276.8	239.3	207.1	186.1	1707.6	10760	2995	2499	5510	1194
MEAN	10.8	11.3	8.93	7.72	7.40	6.00	56.9	347	99.8	80.6	178	39.8
MAX	30	17	12	11	9.9	8.3	822	911	181	146	1040	58
MIN	6.0	9.5	5.8	4.7	5.3	4.4	4.9	191	48	43	58	27
AC-FT	666	675	549	475	411	369	3390	21340	5940	4960	10930	2370

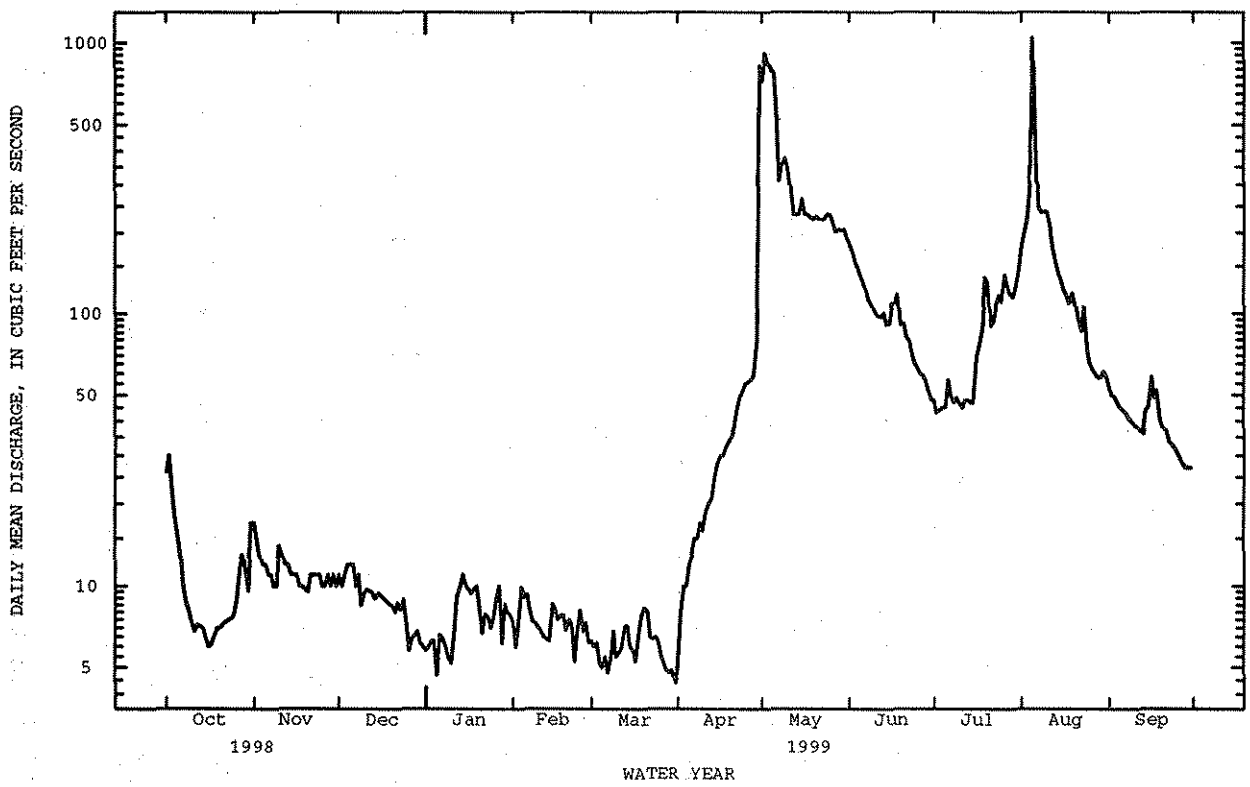
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1999, BY WATER YEAR (WY)

MEAN	8.87	6.92	5.74	5.52	6.35	6.72	21.6	53.2	36.8	30.1	42.0	17.5
MAX	51.6	30.5	25.5	15.5	16.7	34.8	370	372	179	138	178	78.4
(WY)	1942	1942	1995	1921	1920	1987	1942	1941	1965	1919	1999	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1916 - 1999	
ANNUAL TOTAL	4830.3		26250.7			
ANNUAL MEAN	13.2		71.9		19.8	
HIGHEST ANNUAL MEAN					89.0	1942
LOWEST ANNUAL MEAN					2.05	1951
HIGHEST DAILY MEAN	69	Aug 20	1040	Aug 5	2340	Apr 23 1942
LOWEST DAILY MEAN	1.7	Jun 28	4.4	Mar 31	.00	Nov 21 1931
ANNUAL SEVEN-DAY MINIMUM	1.9	Jun 24	4.9	Mar 26	.00	Nov 21 1931
INSTANTANEOUS PEAK FLOW			4230	Aug 5	[a]12600	Jun 17 1965
INSTANTANEOUS PEAK STAGE			9.82	Aug 5	15.25	Jun 17 1965
ANNUAL RUNOFF (AC-FT)	9580		52070		14310	
10 PERCENT EXCEEDS	25		207		46	
50 PERCENT EXCEEDS	10		15		8.0	
90 PERCENT EXCEEDS	5.6		6.3		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.

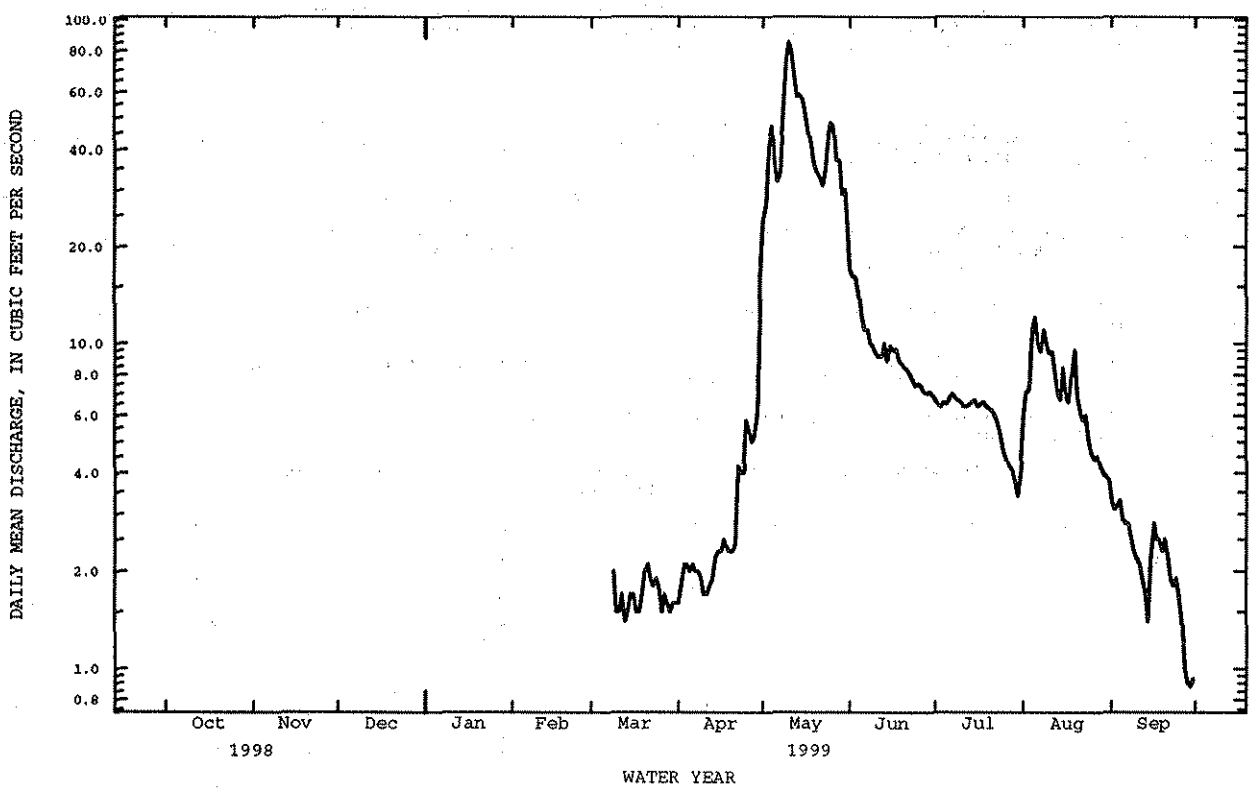
EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 96 ft^3/s, at 0930 hours, May 10, gage height, 2.78 ft; minimum daily discharge, .88 ft^3/s, Sept. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	1.6	24	17	e6.7	5.9	3.3
2	---	---	---	---	---	---	1.8	27	16	e6.5	7.1	3.1
3	---	---	---	---	---	---	2.1	41	16	e6.4	7.2	3.2
4	---	---	---	---	---	---	2.1	47	14	e6.6	11	3.3
5	---	---	---	---	---	---	2.0	36	12	e6.5	12	2.9
6	---	---	---	---	---	---	2.1	32	11	e6.8	9.9	2.8
7	---	---	---	---	---	---	2.0	34	11	e7.0	9.4	2.8
8	---	---	---	---	---	---	2.0	48	10	e6.8	11	2.5
9	---	---	---	---	---	2.0	1.9	74	9.7	e6.7	10	2.3
10	---	---	---	---	---	1.5	1.7	85	9.3	e6.6	9.3	2.2
11	---	---	---	---	---	1.5	1.7	80	9.1	e6.4	9.4	2.1
12	---	---	---	---	---	1.7	1.8	67	9.1	e6.4	8.2	1.9
13	---	---	---	---	---	1.4	1.9	58	10	e6.5	7.0	1.7
14	---	---	---	---	---	1.5	2.2	59	8.8	e6.6	6.7	1.4
15	---	---	---	---	---	1.7	2.3	57	9.8	e6.7	8.4	2.2
16	---	---	---	---	---	1.7	2.3	52	9.5	e6.4	6.8	2.8
17	---	---	---	---	---	1.5	2.5	45	9.6	e6.5	6.6	2.5
18	---	---	---	---	---	1.5	2.4	41	8.9	e6.6	7.9	2.5
19	---	---	---	---	---	1.7	2.3	36	8.7	e6.4	9.5	2.3
20	---	---	---	---	---	2.0	2.3	34	8.4	e6.3	6.9	2.5
21	---	---	---	---	---	2.1	2.4	33	8.3	e6.2	6.1	2.2
22	---	---	---	---	---	1.9	4.2	31	8.0	e6.0	5.8	1.9
23	---	---	---	---	---	1.8	4.0	34	e7.7	e5.7	6.0	1.8
24	---	---	---	---	---	1.9	4.0	43	e7.4	e5.2	5.0	1.9
25	---	---	---	---	---	1.8	5.8	48	e7.5	e4.7	4.6	1.7
26	---	---	---	---	---	1.5	5.4	47	e7.4	e4.4	4.4	1.4
27	---	---	---	---	---	1.7	5.0	37	e7.1	e4.2	4.5	1.0
28	---	---	---	---	---	1.6	5.2	37	e7.0	4.1	4.2	.91
29	---	---	---	---	---	1.5	6.1	29	e7.1	3.7	4.0	.88
30	---	---	---	---	---	1.6	16	30	e6.9	3.4	3.9	.93
31	---	---	---	---	---	1.6	---	23	---	4.1	3.8	---
TOTAL	---	---	---	---	---	---	99.1	1369	292.3	183.1	222.5	64.92
MEAN	---	---	---	---	---	---	3.30	44.2	9.74	5.91	7.18	2.16
MAX	---	---	---	---	---	---	16	85	17	7.0	12	3.3
MIN	---	---	---	---	---	---	1.6	23	6.9	3.4	3.8	.88
AC-FT	---	---	---	---	---	---	197	2720	580	363	441	129

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.

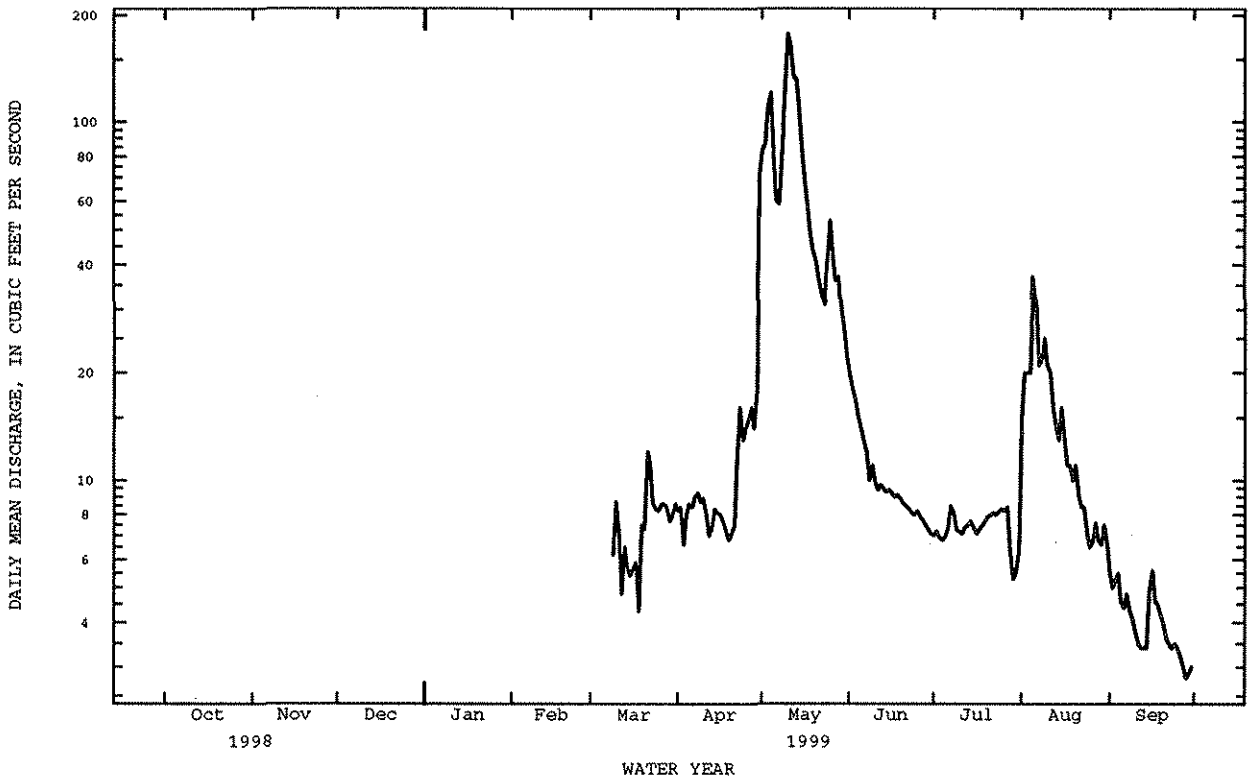
EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 209 ft^3/s, at 2300 hours, May 10, gage height, 4.90 ft; minimum daily discharge 2.8 ft^3/s, Sept. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	8.2	83	20	e7.0	15	5.5
2	---	---	---	---	---	---	8.4	87	18	e7.2	20	5.0
3	---	---	---	---	---	---	6.6	110	17	e6.9	20	5.3
4	---	---	---	---	---	---	8.0	121	15	e6.8	20	5.5
5	---	---	---	---	---	---	8.6	80	14	e7.0	37	4.6
6	---	---	---	---	---	---	8.4	60	13	e7.4	31	4.4
7	---	---	---	---	---	---	9.0	59	e12	e8.5	21	4.8
8	---	---	---	---	---	---	9.2	79	e10	e8.1	22	4.3
9	---	---	---	---	---	6.2	8.7	130	e11	e7.3	25	4.1
10	---	---	---	---	---	8.7	8.9	177	e9.9	e7.2	21	3.8
11	---	---	---	---	---	7.1	8.0	165	e9.4	e7.1	20	3.5
12	---	---	---	---	---	4.8	7.0	134	e9.7	e7.4	16	3.4
13	---	---	---	---	---	6.5	7.4	133	e9.5	e7.5	14	3.4
14	---	---	---	---	---	5.7	8.3	112	e9.3	e7.7	13	3.4
15	---	---	---	---	---	5.4	8.1	84	e9.4	e7.4	16	4.9
16	---	---	---	---	---	5.7	8.0	70	e9.2	e7.1	13	5.6
17	---	---	---	---	---	5.9	7.7	58	e9.0	e7.3	11	4.6
18	---	---	---	---	---	4.3	7.3	49	e9.1	e7.5	11	4.5
19	---	---	---	---	---	7.5	6.8	44	e8.9	e7.7	10	4.2
20	---	---	---	---	---	7.3	7.1	41	e8.6	e7.9	11	4.0
21	---	---	---	---	---	12	7.5	37	e8.5	e8.0	9.0	3.6
22	---	---	---	---	---	11	12	33	e8.3	e8.1	8.4	3.5
23	---	---	---	---	---	8.7	16	31	e8.1	e8.0	8.4	3.4
24	---	---	---	---	---	8.3	13	40	e8.0	e8.2	7.1	3.5
25	---	---	---	---	---	8.2	14	53	e8.2	e8.3	6.5	3.4
26	---	---	---	---	---	8.6	15	43	e7.9	e8.2	6.8	3.2
27	---	---	---	---	---	8.6	16	36	e7.8	e8.4	7.6	3.0
28	---	---	---	---	---	8.4	14	37	e7.5	6.5	6.8	2.8
29	---	---	---	---	---	7.7	18	30	e7.3	5.3	6.6	2.9
30	---	---	---	---	---	8.0	70	26	e7.1	5.5	7.5	3.0
31	---	---	---	---	---	8.6	---	22	---	6.3	6.6	---
TOTAL	---	---	---	---	---	---	355.2	2264	310.7	228.8	448.3	121.1
MEAN	---	---	---	---	---	---	11.8	73.0	10.4	7.38	14.5	4.04
MAX	---	---	---	---	---	---	70	177	20	8.5	37	5.6
MIN	---	---	---	---	---	---	6.6	22	7.1	5.3	6.5	2.8
AC-FT	---	---	---	---	---	---	705	4490	616	454	889	240

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 upstream 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.

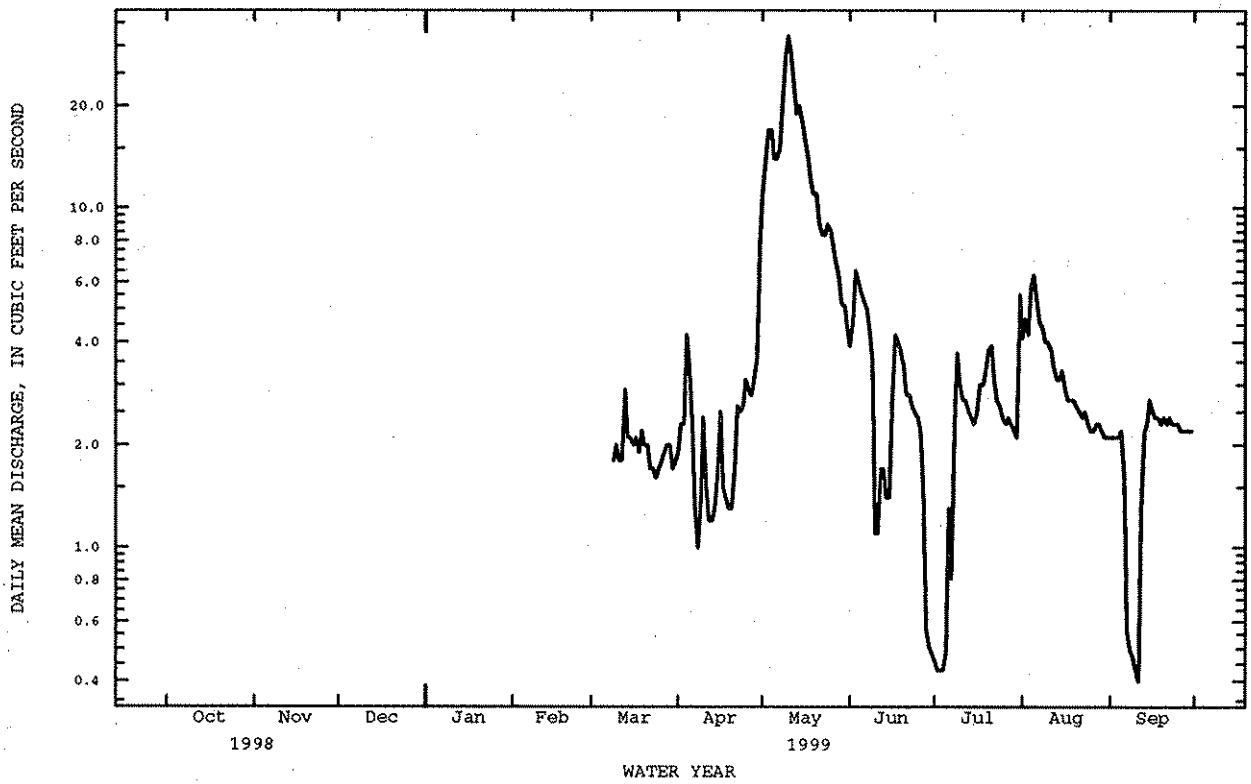
EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 34 ft^3/s, at 0430 hours, May 10, gage height 1.59 ft; minimum daily discharge .40 ft^3/s, Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	1.9	11	3.9	.46	4.1	2.1
2	---	---	---	---	---	---	2.3	14	4.6	.43	4.7	2.1
3	---	---	---	---	---	---	2.3	17	6.5	.43	4.2	2.1
4	---	---	---	---	---	---	4.2	17	6.0	.43	5.8	2.1
5	---	---	---	---	---	---	3.5	14	5.6	.49	6.3	2.2
6	---	---	---	---	---	---	2.3	14	5.3	1.3	5.3	1.6
7	---	---	---	---	---	---	1.3	15	5.0	.81	4.6	.56
8	---	---	---	---	---	---	1.0	20	4.4	2.3	4.4	.49
9	---	---	---	---	---	1.8	1.3	28	3.5	3.7	4.0	.47
10	---	---	---	---	---	e2.0	2.4	32	1.1	3.0	4.0	.43
11	---	---	---	---	---	1.8	1.5	29	1.1	2.7	3.8	.40
12	---	---	---	---	---	1.8	1.2	23	1.7	2.7	3.4	1.3
13	---	---	---	---	---	2.9	1.2	19	1.7	2.5	3.1	2.2
14	---	---	---	---	---	2.1	1.3	20	1.4	2.4	3.1	2.3
15	---	---	---	---	---	2.1	1.6	18	1.4	2.3	3.3	2.7
16	---	---	---	---	---	2.0	2.5	16	2.6	2.5	2.9	2.5
17	---	---	---	---	---	2.1	1.5	14	4.2	3.0	2.7	2.4
18	---	---	---	---	---	1.9	1.4	12	4.0	3.0	2.7	2.4
19	---	---	---	---	---	2.2	1.3	11	3.8	3.3	2.7	2.3
20	---	---	---	---	---	2.0	1.3	11	3.4	3.8	2.6	2.4
21	---	---	---	---	---	2.0	1.7	9.0	2.8	3.9	2.5	2.3
22	---	---	---	---	---	1.7	2.6	8.3	2.8	3.1	2.4	2.4
23	---	---	---	---	---	1.7	2.5	8.3	2.6	2.7	2.5	2.3
24	---	---	---	---	---	1.6	2.6	8.9	2.5	2.6	2.3	2.3
25	---	---	---	---	---	1.7	3.1	8.6	2.4	2.4	2.2	2.3
26	---	---	---	---	---	1.8	2.9	7.7	2.2	2.3	2.2	2.2
27	---	---	---	---	---	1.9	2.8	6.9	1.5	2.4	2.3	2.2
28	---	---	---	---	---	2.0	3.1	6.2	.57	2.3	2.3	2.2
29	---	---	---	---	---	2.0	3.6	5.2	.51	2.2	2.2	2.2
30	---	---	---	---	---	1.7	7.7	5.1	.48	2.1	2.1	2.2
31	---	---	---	---	---	1.8	---	4.4	---	5.5	2.1	---
TOTAL	---	---	---	---	---	---	69.9	433.6	89.56	73.05	102.8	57.65
MEAN	---	---	---	---	---	---	2.33	14.0	2.99	2.36	3.32	1.92
MAX	---	---	---	---	---	---	7.7	32	6.5	5.5	6.3	2.7
MIN	---	---	---	---	---	---	1.0	4.4	.48	.43	2.1	.40
AC-FT	---	---	---	---	---	---	139	860	178	145	204	114

e Estimated

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 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, 67,300 acre-ft, June 20-23, gage height, 131.90 ft; minimum, 56,500 acre-ft, Oct. 29-30, gage height, 126.74 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57400	56800	57600	58000	58400	58300	58700	59700	66900	66900	66300	66400
2	57400	56800	57700	58000	58300	58500	58800	59900	66900	66900	66400	66300
3	57600	56900	57800	58000	58300	58300	58700	60400	66900	66800	66400	66300
4	57400	56800	57800	58100	58400	58400	58700	60700	66900	66800	66500	66200
5	57500	56900	57800	58100	58400	58300	58700	60900	66800	66700	66600	66200
6	57500	56900	57800	58000	58500	58300	58700	61100	66900	66700	66700	66200
7	57500	57000	57800	58100	58300	58400	58700	61300	66900	66600	66800	66100
8	57500	57000	57800	58100	58400	58400	58600	61600	66900	66700	66800	66100
9	57500	57100	57800	58100	58400	58500	58800	62000	66900	66600	66900	66000
10	57500	57200	57800	58100	58500	58500	58600	62500	66900	66600	67000	65900
11	57500	57100	57800	58000	58400	58500	58500	62900	66900	66600	67000	65800
12	57600	57100	57800	58100	58500	58500	58500	63300	67000	66600	67000	65700
13	57400	57200	57800	58100	58500	58500	58500	63700	67000	66500	67000	65600
14	57400	57200	57800	58100	58500	58500	58500	64000	67100	66400	67100	65500
15	57300	57100	57900	58100	58400	58600	58500	64300	67100	66400	67100	65500
16	57200	57300	57900	58100	58600	58500	58500	64500	67100	66200	67100	65500
17	57200	57200	57900	58200	58500	58600	58500	64600	67200	66200	67200	65400
18	57200	57300	57900	58200	58400	58600	58500	64800	67200	66200	67200	65300
19	57100	57300	57900	58400	58500	58600	58500	64900	67200	66200	67200	65300
20	57100	57400	57900	58200	58500	58700	58700	65200	67300	66400	67300	65200
21	57000	57400	57900	58200	58500	58700	58500	65200	67300	66400	67300	65200
22	57000	57500	57900	58200	58400	58600	58600	65400	67300	66400	67300	65100
23	56900	57500	57900	58300	58300	58600	58600	65500	67300	66400	67200	65100
24	56800	57500	57900	58300	58400	58700	58600	65900	67200	66400	67200	65000
25	56700	57500	57900	58200	58400	58800	58600	66000	67200	66300	67100	65000
26	56700	57500	58000	58200	58400	58800	58700	66200	67100	66300	67000	64900
27	56600	57600	58000	58300	58300	58800	58700	66400	67100	66300	66900	64900
28	56600	57500	57900	58300	58400	58800	58700	66600	67000	66200	66900	64800
29	56500	57600	57900	58300	---	58800	58700	66800	67000	66200	66800	64800
30	56500	57700	58000	58400	---	58800	59200	66700	66900	66100	66700	64700
31	56700	---	58100	58400	---	58700	---	66900	---	66200	66600	---
MAX	57600	57700	58100	58400	58600	58800	59200	66900	67300	66900	67300	66400
MIN	56500	56800	57600	58000	58300	58300	58500	59700	66800	66100	66300	64700
(+)	126.87	127.34	127.54	127.71	127.68	127.87	128.12	131.70	131.74	131.41	131.56	130.72
(++)	-500	+1000	+400	+300	0	+300	+500	+7700	0	-700	+400	-1900

CAL YR 1998 MAX 69400 MIN 56500 (++) -5800
WTR YR 1999 MAX 67300 MIN 56500 (++) +7500

(+) 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. 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

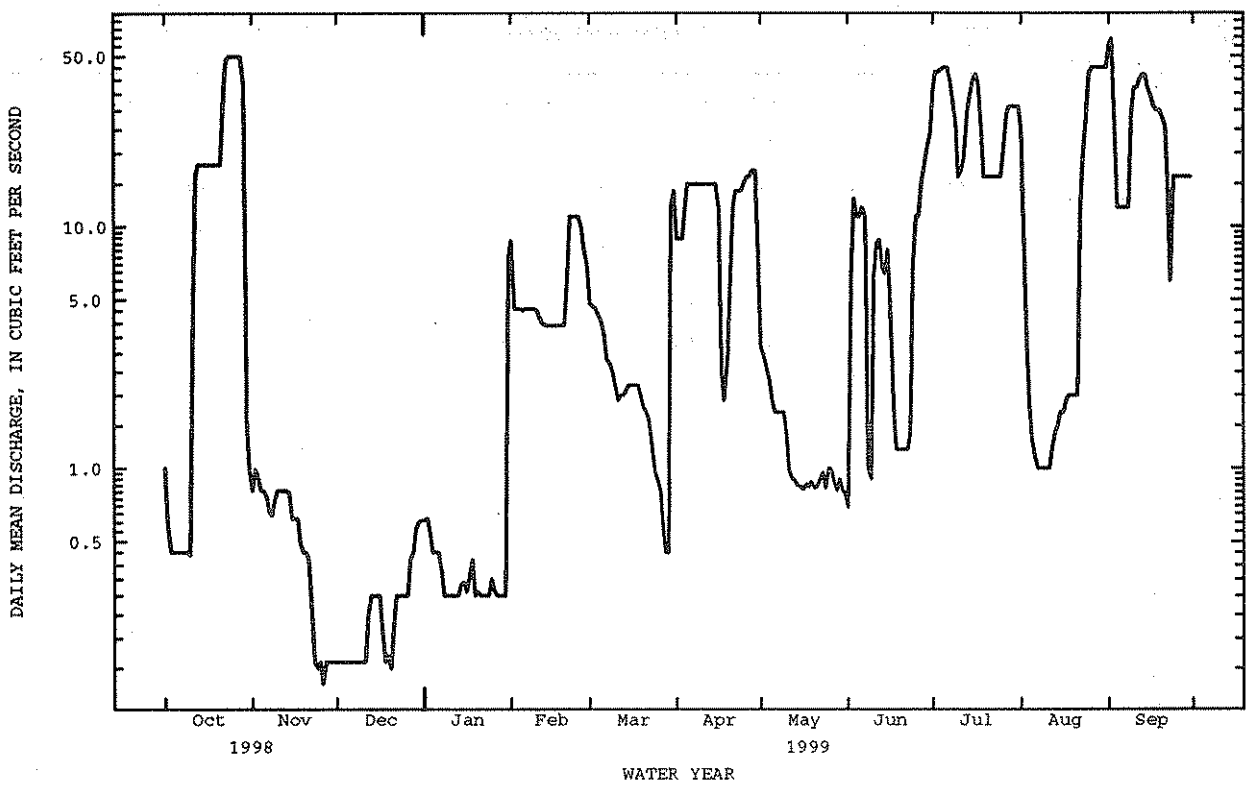
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.81	.16	.61	8.7	4.8	8.9	3.2	.69	36	25	55
2	.58	.99	.16	.62	4.6	4.7	8.9	2.9	6.2	43	9.5	59
3	.45	.93	.16	.54	4.6	4.6	8.9	2.6	13	43	3.2	25
4	.45	.81	.16	.45	4.6	4.3	12	2.3	11	44	1.8	12
5	.45	.81	.16	.45	4.5	4.1	15	1.9	11	45	1.3	12
6	.45	.76	.16	.45	4.6	3.6	15	1.7	12	45	1.1	12
7	.45	.66	.16	.38	4.6	2.8	15	1.7	11	40	1.0	12
8	.45	.64	.16	.30	4.6	2.7	15	1.7	1.0	32	1.0	12
9	.45	.75	.16	.30	4.6	2.5	15	1.7	.91	27	1.0	28
10	.44	.81	.16	.30	4.5	2.2	15	1.4	6.3	16	1.0	37
11	5.0	.81	.16	.30	4.2	1.9	15	.98	8.5	17	1.0	37
12	16	.81	.25	.30	4.0	2.0	15	.91	8.8	19	1.2	40
13	18	.81	.30	.30	3.9	2.0	15	.89	6.8	29	1.4	42
14	18	.79	.30	.33	3.9	2.1	15	.85	6.4	34	1.5	42
15	18	.62	.30	.34	3.9	2.2	15	.84	8.0	39	1.7	37
16	18	.62	.30	.31	3.9	2.2	12	.82	4.5	42	1.7	34
17	18	.62	.22	.35	3.9	2.2	2.5	.86	1.8	39	1.9	31
18	18	.49	.16	.42	3.9	2.2	1.9	.84	1.2	25	2.0	30
19	18	.45	.17	.30	3.9	2.0	2.7	.88	1.2	16	2.0	30
20	18	.45	.15	.31	3.9	1.8	5.5	.83	1.2	16	2.0	28
21	18	.42	.22	.30	6.4	1.7	12	.84	1.2	16	2.0	26
22	35	.25	.30	.30	11	1.6	14	.90	1.2	16	11	15
23	48	.16	.30	.30	11	1.3	14	.96	1.4	16	19	6.0
24	50	.15	.30	.30	11	.99	14	.83	6.6	16	28	16
25	50	.16	.30	.35	11	.90	15	1.0	11	16	42	16
26	50	.13	.30	.31	10	.81	16	.99	11	22	45	16
27	50	.16	.42	.30	8.1	.56	16	.88	15	29	45	16
28	50	.16	.45	.30	6.9	.45	17	.81	18	31	45	16
29	38	.16	.56	.30	---	.45	17	.90	21	31	45	16
30	1.6	.16	.60	.30	---	12	7.5	.81	24	31	45	16
31	.99	---	.61	7.4	---	14	---	.78	---	31	45	---
TOTAL	561.76	16.35	8.27	18.12	164.7	91.66	370.8	39.50	231.90	902	434.3	774.0
MEAN	18.1	.55	.27	.58	5.88	2.96	12.4	1.27	7.73	29.1	14.0	25.8
MAX	50	.99	.61	7.4	11	14	17	3.2	24	45	45	59
MIN	.44	.13	.15	.30	3.9	.45	1.9	.78	.69	16	1.0	6.0
AC-FT	1110	32	16	36	327	182	735	78	460	1790	861	1540

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1999, BY WATER YEAR (WY)

MEAN	15.9	5.26	.99	.91	2.43	9.64	23.2	35.5	32.1	36.9	21.9	16.6
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1950 - 1999	
ANNUAL TOTAL	7289.94		3613.36			
ANNUAL MEAN	20.0		9.90		16.6	
HIGHEST ANNUAL MEAN					56.5	1994
LOWEST ANNUAL MEAN					5.85	1955
HIGHEST DAILY MEAN	153	Jul 3	59	Sep 2	303	May 24 1994
LOWEST DAILY MEAN	.13	Nov 26	.13	Nov 26	.00	May 1 1950
ANNUAL SEVEN-DAY MINIMUM	.15	Nov 23	.15	Nov 23	.00	May 1 1950
ANNUAL RUNOFF (AC-FT)	14460		7170		12060	
10 PERCENT EXCEEDS	50		31		45	
50 PERCENT EXCEEDS	3.9		2.6		6.4	
90 PERCENT EXCEEDS	.42		.30		.00	



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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	13	2.4	e5.0	e4.6	6.1	16	171	62	33	e52	49
2	8.9	11	2.3	e4.8	e4.8	4.5	17	151	61	36	e56	56
3	5.4	8.6	2.2	e4.7	e4.8	4.2	18	160	64	40	63	45
4	4.7	7.3	2.2	e4.6	e5.0	4.0	18	135	65	43	85	19
5	4.7	6.6	2.0	e4.5	e5.0	3.8	25	93	64	45	69	17
6	3.9	6.4	2.0	e4.4	e4.6	3.7	23	72	61	51	60	21
7	3.5	5.8	e1.5	e4.5	e4.6	3.4	18	64	58	56	56	17
8	2.8	4.8	e5.0	e4.5	e4.4	3.5	20	64	51	55	e53	14
9	2.1	e4.6	e8.2	e4.5	e4.3	2.5	21	79	37	52	e57	18
10	1.8	e4.8	e7.9	e4.4	e5.0	2.4	21	81	32	47	e54	32
11	1.6	e4.6	e6.4	e4.2	e4.9	2.1	22	77	32	37	e40	33
12	4.6	e4.6	e9.7	e4.0	e8.0	2.8	22	71	32	33	35	35
13	12	4.5	e13	e4.0	e11	3.5	22	63	34	e33	27	39
14	13	4.4	e14	e4.2	e12	2.4	20	60	33	e22	31	40
15	13	4.5	e14	e4.4	e7.6	2.1	17	62	32	e21	30	43
16	14	4.9	e14	e4.5	e8.1	2.0	17	63	32	e21	27	43
17	14	e5.0	e14	e4.6	e9.6	2.1	13	61	34	e22	26	41
18	14	e4.7	e14	e4.4	e6.5	2.8	7.5	57	36	e25	29	38
19	14	e4.4	e9.8	e4.2	e6.3	2.9	6.5	54	37	e28	31	37
20	14	e4.0	e4.6	e4.0	e6.2	3.4	6.3	52	37	e33	27	36
21	14	e3.8	e3.0	e4.1	6.1	2.9	9.2	53	36	e25	24	32
22	18	e3.5	e2.0	e4.2	8.1	2.5	18	53	36	e25	24	31
23	36	3.0	e3.5	e4.4	e10	2.6	19	53	35	e25	31	14
24	40	2.7	e6.4	e4.3	e9.6	2.6	20	60	33	e27	31	16
25	41	2.6	e9.7	e4.0	9.1	3.2	20	66	32	e27	42	20
26	42	2.5	e12	e3.8	e8.9	3.1	22	71	32	e31	48	20
27	46	2.3	e11	e4.0	e7.9	3.1	22	70	32	e33	50	20
28	46	2.3	e11	e4.1	7.3	3.1	22	66	33	37	51	20
29	45	2.3	e4.2	e4.2	---	2.9	32	63	32	39	50	20
30	21	2.4	e4.0	e4.3	---	2.9	387	61	32	53	48	20
31	17	---	e4.5	e4.4	---	19	---	62	---	e55	46	---
TOTAL	526.2	145.9	220.5	134.2	194.3	112.1	921.5	2368	1227	1110	1353	886
MEAN	17.0	4.86	7.11	4.33	6.94	3.62	30.7	76.4	40.9	35.8	43.6	29.5
MAX	46	13	14	5.0	12	19	387	171	65	56	85	56
MIN	1.6	2.3	1.5	3.8	4.3	2.0	6.3	52	32	21	24	14
AC-FT	1040	289	437	266	385	222	1830	4700	2430	2200	2680	1760
(+)	0	0	0	0	0	0	0	0	0	0	14	14
(++)	0	0	0	0.11	73	0.23	81	1.1	0.78	0.34	0	0.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1999, BY WATER YEAR (WY)

MEAN	18.0	10.1	5.06	4.23	5.17	12.9	35.9	67.3	50.3	38.7	27.6	19.4
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

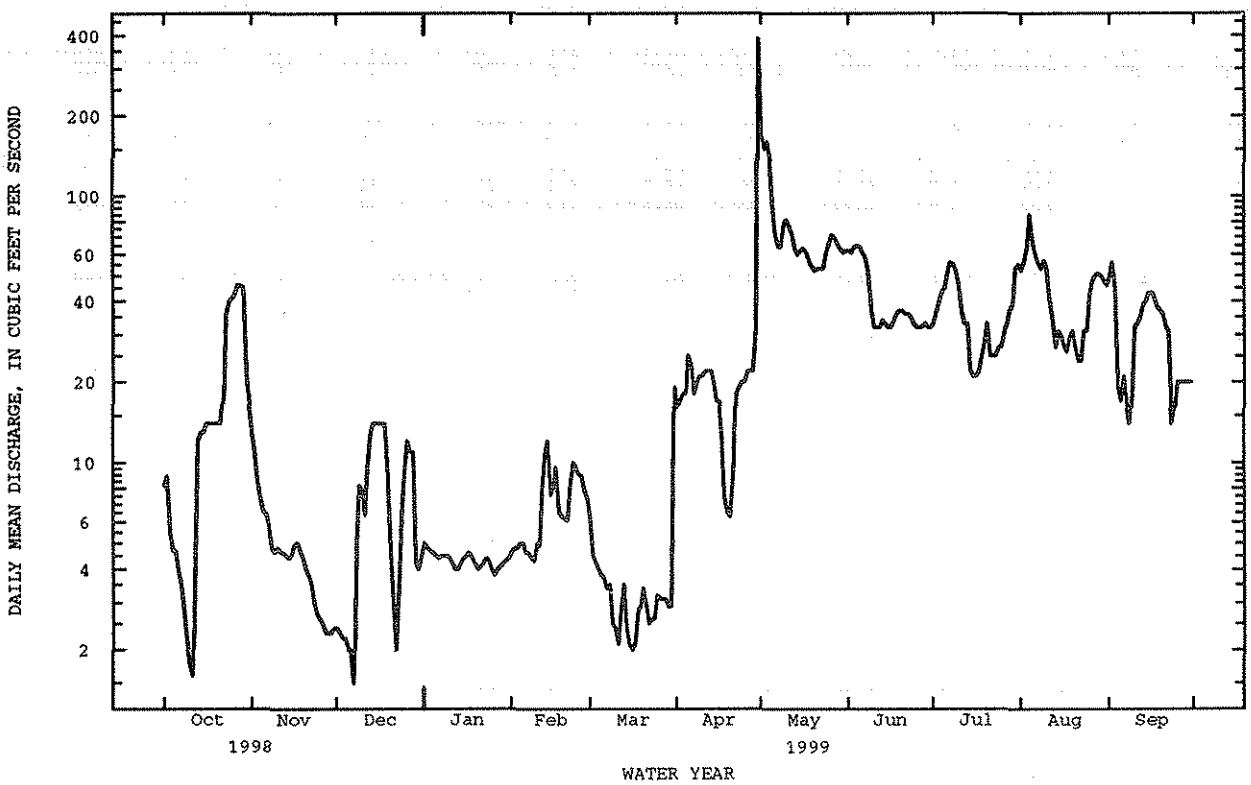
CAL YR 1998 AC-FT (+) 499 (++) 518
WTR YR 1999 AC-FT (+) 28 (++) 157

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

07207000 CIMARRON RIVER NEAR CIMARRON, NM--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1950 - 1999	
ANNUAL TOTAL	9564.80		9198.7			
ANNUAL MEAN	26.2		25.2		24.5	
HIGHEST ANNUAL MEAN					80.7	1994
LOWEST ANNUAL MEAN					9.09	1956
HIGHEST DAILY MEAN	124	Jun 30	387	Apr 30	1240	Jun 17 1965
LOWEST DAILY MEAN	.80	Jan 7	1.5	Dec 7	.00	Sep 14 1956
ANNUAL SEVEN-DAY MINIMUM	2.1	Dec 1	2.1	Dec 1	.00	Sep 14 1956
INSTANTANEOUS PEAK FLOW			922	Apr 30	[a]15500	Jun 17 1965
INSTANTANEOUS PEAK STAGE			4.63	Apr 30	[b]12.42	Jun 17 1965
INSTANTANEOUS LOW FLOW					.00	Sep 14 1956
ANNUAL RUNOFF (AC-FT)	18970		18250		17730	
10 PERCENT EXCEEDS	64		59		57	
50 PERCENT EXCEEDS	14		17		14	
90 PERCENT EXCEEDS	4.3		3.0		2.8	

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	8.0	5.5	3.5	2.2	2.3	5.2	411	98	13	37	12
2	12	8.0	5.5	3.6	1.9	2.3	5.6	438	88	13	51	11
3	7.1	7.4	5.4	e3.0	2.3	2.3	5.4	805	80	12	56	11
4	6.0	7.1	5.1	e2.8	2.1	2.4	5.3	773	70	12	110	11
5	6.2	7.2	4.8	3.7	2.1	2.4	5.4	478	60	13	121	10
6	5.5	6.8	4.4	3.7	2.0	2.5	5.7	368	53	22	94	9.7
7	5.2	6.8	4.0	3.5	1.9	2.4	6.1	358	48	23	57	9.4
8	4.9	6.1	3.1	3.6	2.1	2.5	6.1	501	42	20	47	8.8
9	4.4	7.0	e3.0	3.4	2.1	2.6	6.4	684	38	18	47	9.1
10	4.1	5.1	e3.3	3.4	2.1	2.6	6.0	696	36	17	51	8.5
11	3.8	6.2	3.8	3.5	2.0	2.5	6.4	549	33	15	37	8.0
12	3.6	7.0	4.7	3.3	1.7	2.7	6.7	389	33	14	31	7.7
13	3.5	7.2	4.7	3.0	2.2	2.6	7.1	337	34	15	27	7.8
14	3.3	7.7	4.6	3.0	2.6	2.7	8.0	356	31	14	25	10
15	3.1	8.7	4.3	3.2	2.6	2.9	8.2	340	31	12	24	9.8
16	3.0	10	4.2	2.7	2.1	2.9	7.0	285	40	13	23	11
17	2.9	11	4.2	2.2	2.3	2.9	8.6	230	48	17	22	11
18	3.1	9.9	4.5	2.1	2.3	3.3	9.1	186	34	19	24	10
19	3.2	9.0	4.0	2.0	2.2	3.3	9.1	163	29	28	22	9.8
20	3.3	7.2	3.8	1.6	2.2	3.7	10	162	28	24	22	9.1
21	3.3	7.4	e2.9	1.7	2.1	3.8	11	152	29	19	19	8.5
22	3.4	7.5	e2.8	e1.5	2.3	4.0	14	145	26	19	19	8.0
23	3.3	6.5	e3.0	e1.4	2.0	4.3	16	138	24	24	22	7.4
24	3.3	6.2	e3.5	2.6	2.2	4.4	19	139	22	27	19	7.1
25	3.1	6.0	4.6	2.2	2.3	4.5	23	149	21	23	17	6.8
26	3.3	5.7	4.4	2.0	2.2	4.7	25	138	19	21	16	6.2
27	5.4	5.6	4.5	1.7	2.3	4.8	27	132	18	22	16	5.8
28	6.2	5.7	4.1	1.9	2.3	4.9	29	146	16	30	15	5.9
29	5.6	5.8	4.0	2.1	---	5.0	41	139	15	22	14	6.0
30	5.0	5.9	3.5	2.4	---	5.1	690	135	14	20	13	6.1
31	9.1	---	3.4	2.4	---	5.1	---	111	---	22	13	---
TOTAL	144.1	215.7	127.6	82.7	60.7	104.4	1032.4	10033	1158	583	1111	262.5
MEAN	4.65	7.19	4.12	2.67	2.17	3.37	34.4	324	38.6	18.8	35.8	8.75
MAX	12	11	5.5	3.7	2.6	5.1	690	805	98	30	121	12
MIN	2.9	5.1	2.8	1.4	1.7	2.3	5.2	111	14	12	13	5.8
AC-FT	286	428	253	164	120	207	2050	19900	2300	1160	2200	521

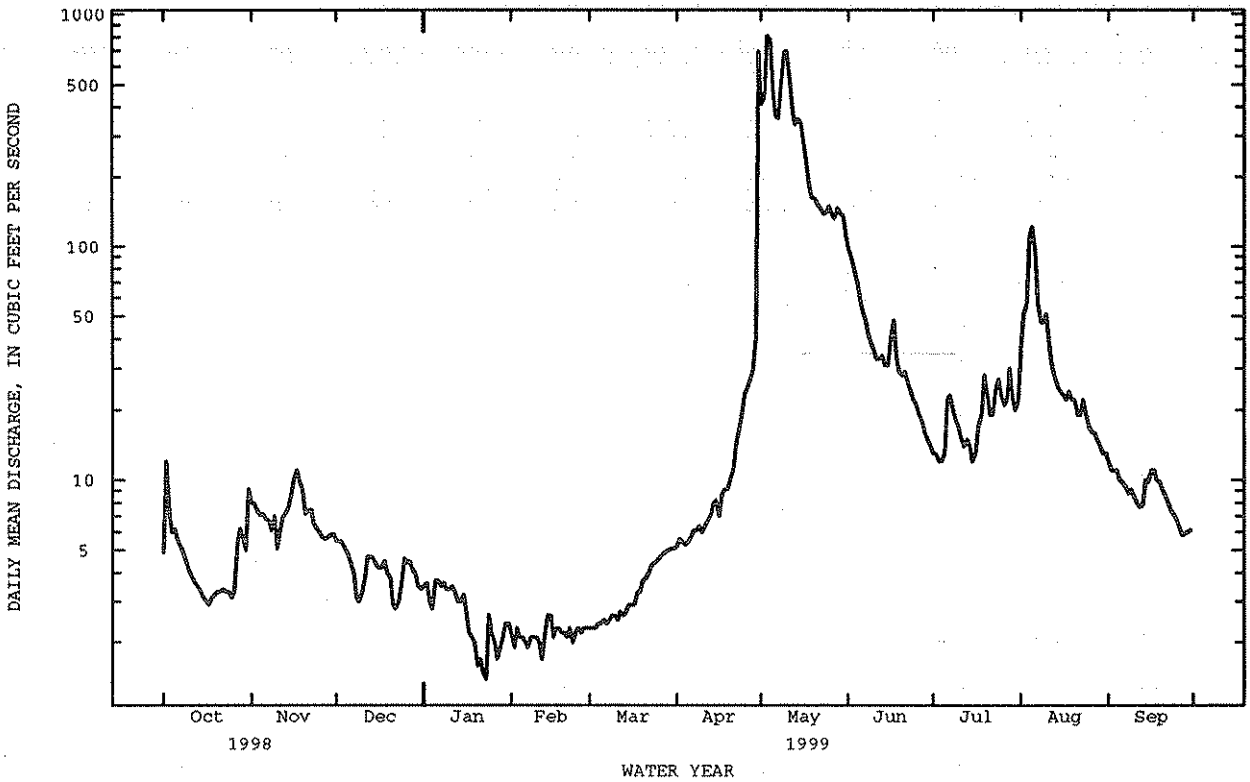
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1999, BY WATER YEAR (WY)

MEAN	3.71	3.38	2.44	2.16	2.29	5.15	25.3	51.7	19.1	7.53	15.3	5.62
MAX	23.2	12.3	8.80	8.04	7.35	25.5	126	324	122	31.9	159	51.7
(WY)	1961	1920	1920	1920	1987	1987	1924	1999	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1916 - 1999	
ANNUAL TOTAL	3716.80		14915.1			
ANNUAL MEAN	10.2		40.9		12.1	
HIGHEST ANNUAL MEAN					40.9	1999
LOWEST ANNUAL MEAN					1.38	1974
HIGHEST DAILY MEAN	70	May 1	805	May 3	819	Jun 17 1965
LOWEST DAILY MEAN	.70	Jun 30	1.4	Jan 23	.00	Jun 23 1951
ANNUAL SEVEN-DAY MINIMUM	1.0	Jun 26	1.8	Jan 17	.00	Jun 23 1951
INSTANTANEOUS PEAK FLOW			1910	Apr 30	[a]5630	Jun 17 1965
INSTANTANEOUS PEAK STAGE			6.26	Apr 30	11.13	Jun 17 1965
INSTANTANEOUS LOW FLOW					.00	Jun 23 1951
ANNUAL RUNOFF (AC-FT)	7370		29580		8800	
10 PERCENT EXCEEDS	28		90		29	
50 PERCENT EXCEEDS	5.1		7.0		3.2	
90 PERCENT EXCEEDS	2.1		2.3		.45	

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	13	8.8	e5.7	e6.6	5.5	7.6	71	52	17	30	11
2	16	14	9.1	e5.6	e7.0	5.6	8.0	70	48	17	30	12
3	10	13	9.1	e6.0	e6.8	6.0	6.7	87	45	18	36	13
4	11	12	9.0	e6.6	e7.0	5.7	6.8	86	41	19	40	11
5	9.7	12	8.4	e6.4	e6.3	5.7	7.0	74	37	18	49	9.9
6	8.8	11	6.8	e5.8	e6.3	5.4	7.4	73	35	30	48	9.4
7	8.3	10	8.2	5.7	e6.1	5.6	8.6	92	32	27	45	9.1
8	7.6	9.9	e7.6	e5.7	e6.3	5.8	8.3	139	31	25	49	8.8
9	7.1	10	e7.3	e5.5	e6.0	5.2	8.1	189	30	24	47	8.6
10	7.0	11	e7.4	e5.5	6.3	5.7	6.5	216	28	24	43	8.0
11	6.7	10	e7.0	5.6	6.5	5.3	7.1	182	26	22	38	7.9
12	6.5	10	e6.8	5.6	e6.8	5.8	7.8	143	27	20	32	7.7
13	6.4	9.9	e6.4	e5.5	e7.3	6.4	7.6	130	30	20	29	7.7
14	6.3	10	e6.4	e5.6	e6.6	6.2	9.1	129	27	19	27	7.7
15	6.1	11	e6.0	6.0	7.0	6.2	9.1	120	32	18	27	8.8
16	5.8	12	e6.1	5.8	7.4	6.5	8.2	106	36	16	23	10
17	5.9	13	e6.0	6.6	e6.8	6.8	8.9	93	39	20	21	8.8
18	6.0	12	7.0	e6.6	7.1	5.5	9.4	86	33	21	20	8.8
19	5.9	12	6.9	6.5	6.9	6.2	10	80	32	19	23	8.4
20	6.3	12	e7.0	6.4	6.4	6.8	9.6	77	32	17	24	7.6
21	6.3	11	e6.9	6.5	7.5	8.3	9.6	73	31	23	20	7.3
22	6.4	11	6.8	e6.6	5.5	11	11	69	29	22	18	7.1
23	6.2	10	7.3	e6.8	5.6	9.7	15	66	27	22	17	7.0
24	6.1	9.6	e7.4	6.7	5.5	9.0	15	72	26	32	15	7.0
25	6.1	9.5	e7.6	6.8	5.4	8.4	15	78	26	27	14	7.0
26	7.5	9.2	e6.2	7.2	5.1	8.7	14	71	24	25	14	7.0
27	13	9.4	e5.5	e6.8	5.3	8.4	15	67	22	25	15	7.0
28	12	9.3	e5.6	e6.4	5.3	8.2	15	67	22	23	13	7.0
29	9.1	9.3	e5.6	e6.3	---	7.6	19	62	20	22	13	6.8
30	8.9	9.1	e5.8	e6.6	---	7.9	74	58	19	21	13	6.7
31	13	---	e5.7	e7.0	---	7.8	---	55	---	22	12	---
TOTAL	257.0	325.2	217.7	192.4	178.7	212.9	364.4	2981	939	675	845	254.1
MEAN	8.29	10.8	7.02	6.21	6.38	6.87	12.1	96.2	31.3	21.8	27.3	8.47
MAX	16	14	9.1	7.2	7.5	11	74	216	52	32	49	13
MIN	5.8	9.1	5.5	5.5	5.1	5.2	6.5	55	19	16	12	6.7
AC-FT	510	645	432	382	354	422	723	5910	1860	1340	1680	504

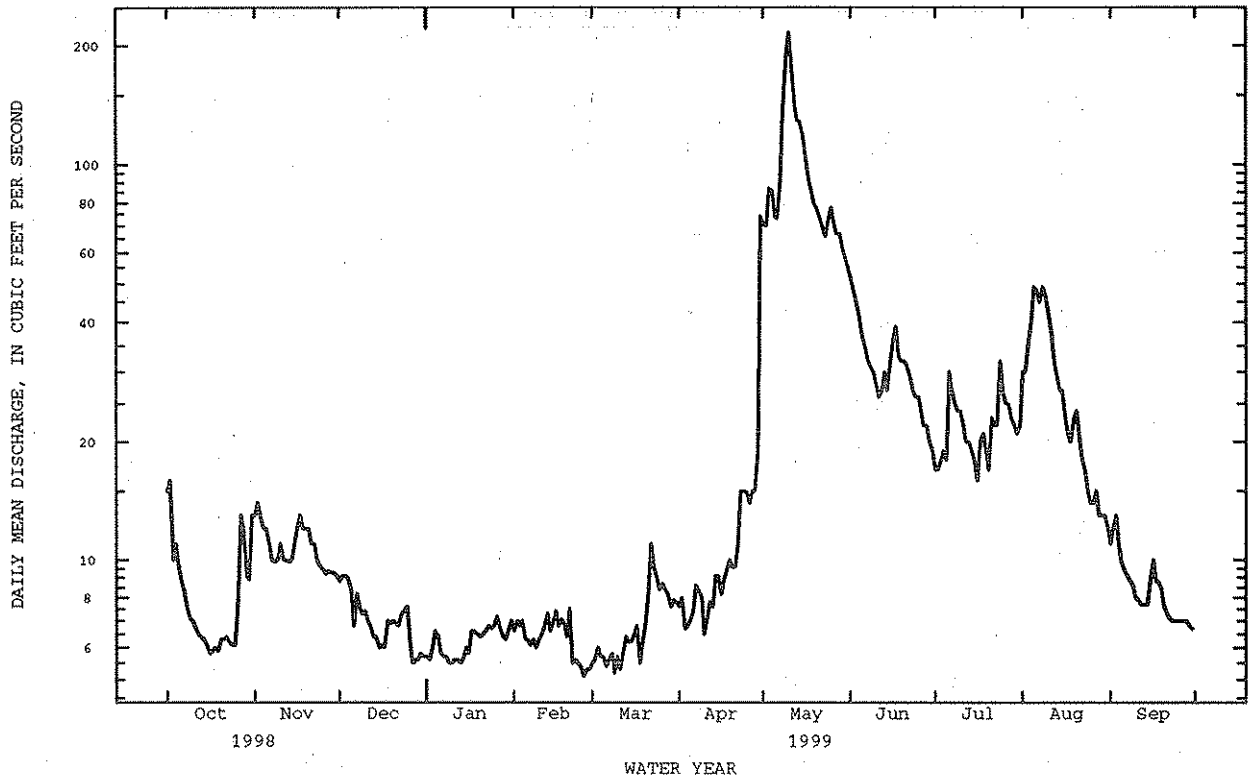
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1999, BY WATER YEAR (WY)

MEAN	5.85	5.08	4.00	3.67	4.08	7.82	30.8	53.3	23.2	10.5	11.7	7.34
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
(Formerly Rayado Creek at Sauble Ranch, near Cimarron, NM)

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1912 - 1999	
ANNUAL TOTAL	4883.0		7442.4			
ANNUAL MEAN	13.4		20.4		14.0	
HIGHEST ANNUAL MEAN					41.6	1965
LOWEST ANNUAL MEAN					2.83	1956
HIGHEST DAILY MEAN	57	May 5	216	May 10	2000	Jun 18 1965
LOWEST DAILY MEAN	3.3	Mar 7	5.1	Feb 26	.40	Nov 16 1956
ANNUAL SEVEN-DAY MINIMUM	4.1	Feb 12	5.4	Feb 22	.67	Sep 15 1956
INSTANTANEOUS PEAK FLOW			272	May 10	[a]9000	Jun 17 1965
INSTANTANEOUS PEAK STAGE			4.02	May 10	[b]11.50	Jun 17 1965
INSTANTANEOUS LOW FLOW			2.0	Mar 11	[c].03	Dec 3 1950
ANNUAL RUNOFF (AC-FT)	9690		14760		10120	
10 PERCENT EXCEEDS	28		48		31	
50 PERCENT EXCEEDS	9.1		9.1		5.5	
90 PERCENT EXCEEDS	4.7		5.8		2.7	

e Estimated
a From rating curve extended above 70 ft^3/s, on basis of field 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	33	e4.2	14	15	7.3	e3.8	2930	97	5.2	7.3	10
2	11	12	e4.3	18	14	7.0	4.2	1800	e57	3.0	7.2	47
3	6.4	8.0	e4.5	14	15	6.7	4.1	1110	e40	2.2	65	235
4	3.8	6.6	e4.7	14	15	6.5	4.4	1130	e35	2.4	88	63
5	2.8	5.9	e5.3	15	14	6.4	4.3	1000	e31	3.1	203	29
6	2.0	5.6	e5.6	17	15	5.9	4.0	e697	e26	3.8	132	19
7	1.3	4.7	6.0	19	15	5.9	3.8	515	e22	4.2	157	15
8	1.1	4.1	6.3	19	14	6.5	3.4	531	e17	3.3	101	12
9	.80	3.9	5.4	17	13	6.5	3.1	669	15	4.9	110	11
10	1.7	4.1	4.6	16	10	6.1	3.0	866	14	11	103	10
11	1.9	3.9	4.6	15	9.0	5.9	2.8	909	13	8.0	89	16
12	1.9	3.8	5.0	16	8.7	7.0	2.8	792	15	7.6	76	17
13	1.9	3.9	5.1	16	5.9	7.9	3.4	631	27	7.2	67	18
14	3.6	3.9	3.7	15	8.4	7.3	7.4	543	34	4.3	61	20
15	2.2	3.8	3.4	14	9.6	6.6	8.8	537	23	4.4	61	25
16	1.2	3.7	5.5	16	10	6.1	11	524	16	17	55	51
17	1.4	3.8	5.8	e13	11	5.6	9.2	452	66	70	44	40
18	1.9	3.8	5.5	e12	11	7.9	8.3	349	57	32	39	24
19	2.8	3.9	e5.1	e11	10	10	6.1	288	43	17	45	25
20	3.1	3.7	5.8	e13	9.3	12	5.1	255	38	31	46	29
21	2.3	3.6	4.1	12	9.2	16	4.4	210	36	19	43	29
22	4.0	3.6	5.5	e9.6	9.7	13	4.4	173	38	15	35	26
23	6.6	3.4	4.1	9.1	9.6	9.3	4.6	163	21	13	32	27
24	3.1	3.4	7.9	9.0	8.9	8.1	4.7	178	15	11	16	20
25	6.3	3.7	7.9	11	10	7.4	7.1	188	12	20	12	13
26	4.0	3.6	9.6	10	12	6.3	6.5	200	11	19	11	9.8
27	6.8	3.6	12	11	11	5.8	5.1	192	10	16	10	11
28	7.2	3.8	13	14	8.1	5.4	4.8	180	9.1	14	11	14
29	5.1	4.1	16	14	---	4.7	4.6	164	8.8	11	9.8	12
30	4.3	e4.4	15	15	---	4.5	639	126	8.2	7.7	9.7	12
31	12	---	16	16	---	e4.1	---	107	---	5.7	11	---
TOTAL	128.50	163.3	211.5	434.7	311.4	225.7	788.2	18409	855.1	393.0	1757.0	889.8
MEAN	4.15	5.44	6.82	14.0	11.1	7.28	26.3	594	28.5	12.7	56.7	29.7
MAX	14	33	16	19	15	16	639	2930	97	70	203	235
MIN	.80	3.4	3.4	9.0	5.9	4.1	2.8	107	8.2	2.2	7.2	9.8
AC-FT	255	324	420	862	618	448	1560	36510	1700	780	3490	1760

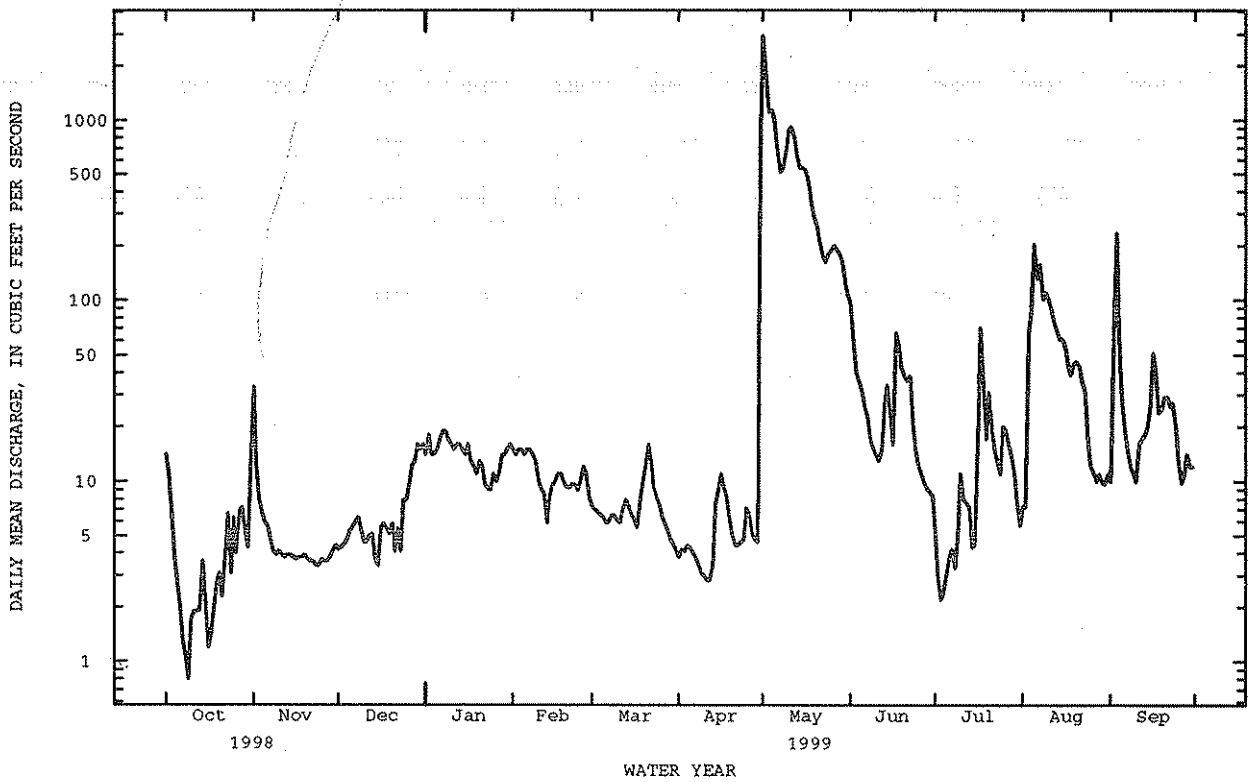
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1999, BY WATER YEAR (WY)

MEAN	8.68	8.59	7.80	7.99	8.25	10.9	33.3	92.8	44.5	12.0	17.7	12.9
MAX	98.0	68.3	59.0	62.3	63.8	242	506	928	699	146	154	118
(WY)	1942	1942	1987	1987	1992	1987	1987	1941	1965	1965	1991	1942
MIN	.039	.23	.28	.33	.33	.35	.50	.73	1.01	.39	.17	.007
(WY)	1957	1957	1957	1957	1957	1957	1957	1956	1925	1974	1978	1956

07211000 CIMARRON RIVER AT SPRINGER, NM--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1908 - 1999	
ANNUAL TOTAL	3074.42		24567.20			
ANNUAL MEAN	8.42		67.3		22.4	
HIGHEST ANNUAL MEAN					139	1994
LOWEST ANNUAL MEAN					.90	1957
HIGHEST DAILY MEAN	55	Mar 16	2930	May 1	10500	Jun 18 1965
LOWEST DAILY MEAN	.00	Jun 26	.80	Oct 9	.00	Sep 2 1954
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 24	1.5	Oct 7	.00	Sep 16 1954
INSTANTANEOUS PEAK FLOW			8000	Apr 30	[a]29500	Jun 18 1965
INSTANTANEOUS PEAK STAGE			9.26	Apr 30	[b]19.96	Jun 18 1965
ANNUAL RUNOFF (AC-FT)	6100		48730		16190	
10 PERCENT EXCEEDS	17		108		30	
50 PERCENT EXCEEDS	6.8		10		4.1	
90 PERCENT EXCEEDS	.70		3.7		1.2	

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



07211500 CANADIAN RIVER NEAR TAYLOR SPRINGS, NM

LOCATION.--Lat 36°17'49", long 104°29'36", in NW$^1/_4$SE$^1/_4$ 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	117	19	e47	e29	16	13	1750	381	e32	e201	45
2	e38	77	18	e38	e28	15	13	2270	315	e29	e211	169
3	e28	44	17	e42	e28	15	14	2010	266	e33	e1020	575
4	e19	34	17	e43	e28	15	15	1540	238	e84	e1340	197
5	e10	30	16	e44	e27	15	16	e1940	210	151	e1440	95
6	e9.7	27	17	e45	e27	15	16	e1950	110	1010	e1630	58
7	7.9	25	18	e52	e27	16	15	e929	87	494	e835	47
8	7.0	22	18	e49	e27	17	14	e69	71	181	e737	40
9	6.7	21	18	e44	e25	17	13	e109	59	122	e559	33
10	6.2	21	e26	e42	e25	16	12	e187	52	118	e472	71
11	5.9	20	e25	e39	e22	16	13	e269	56	102	e419	52
12	5.2	20	e26	e40	e26	18	12	e440	72	96	e272	42
13	5.1	20	e29	e39	e23	20	15	e725	65	80	e260	38
14	4.9	20	e24	e38	e21	20	28	e1020	98	65	e225	42
15	5.7	19	e23	e35	e21	20	66	1110	115	e56	e235	48
16	4.2	19	e26	e36	e22	20	58	1020	134	e224	e237	155
17	4.3	18	e26	e33	e25	19	35	868	174	166	e213	400
18	4.7	18	e25	e29	e22	23	34	709	565	e310	e269	136
19	6.0	18	e27	e28	19	30	31	627	295	103	e260	84
20	6.9	18	e28	e30	18	31	26	733	230	e256	e275	71
21	7.5	18	e24	e30	17	38	21	554	206	147	e240	68
22	6.5	18	e24	e27	17	38	21	488	191	88	e221	60
23	32	18	e22	e24	16	31	19	524	161	77	e246	55
24	16	17	e19	e22	18	25	19	540	131	e89	e168	48
25	12	17	e23	e25	17	21	24	569	115	115	96	37
26	13	17	e27	e25	19	18	22	584	110	93	73	31
27	40	18	e32	e21	19	18	19	549	99	e185	59	27
28	39	18	e37	e25	17	17	16	647	59	e135	53	28
29	27	19	e43	e28	---	16	23	566	42	e86	49	25
30	22	19	e43	e27	---	15	1180	538	39	e64	45	24
31	87	---	e45	e32	---	14	---	436	---	e59	48	---
TOTAL	520.4	787	782	1079	630	625	1823	26270	4746	4850	12408	2801
MEAN	16.8	26.2	25.2	34.8	22.5	20.2	60.8	847	158	156	400	93.4
MAX	87	117	45	52	29	38	1180	2270	565	1010	1630	575
MIN	4.2	17	16	21	16	14	12	69	39	29	45	24
AC-FT	1030	1560	1550	2140	1250	1240	3620	52110	9410	9620	24610	5560

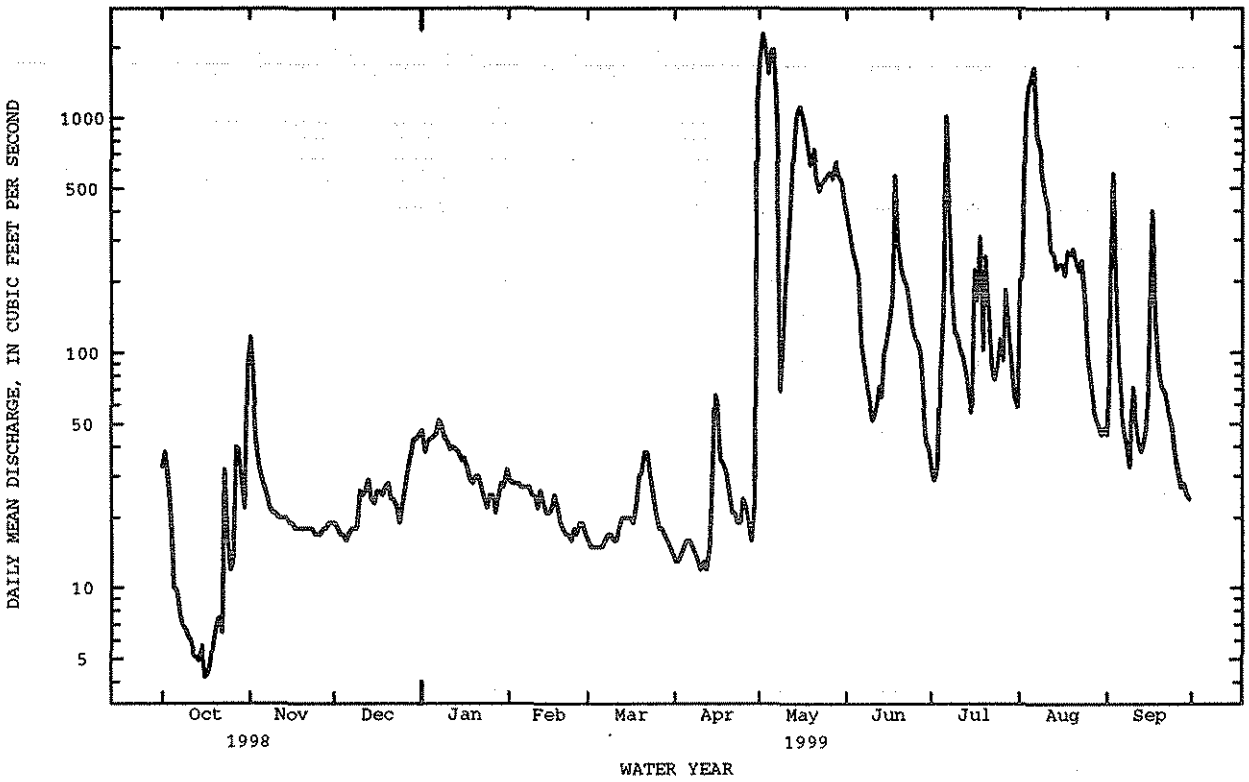
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

MEAN	38.1	23.6	21.0	21.8	25.4	28.5	125	252	144	92.0	122	79.1
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1940 - 1999	
ANNUAL TOTAL	14216.19		57321.4			
ANNUAL MEAN	38.9		157		81.9	
HIGHEST ANNUAL MEAN					564	1942
LOWEST ANNUAL MEAN					7.60	1975
HIGHEST DAILY MEAN	405	Sep 24	2270	May 2	43000	Jun 18 1965
LOWEST DAILY MEAN	.05	Jun 30	4.2	Oct 16	.00	Jun 29 1946
ANNUAL SEVEN-DAY MINIMUM	.19	Jun 25	4.9	Oct 12	.00	Jun 24 1953
INSTANTANEOUS PEAK FLOW			3800	May 3	[a]162000	Jun 18 1965
INSTANTANEOUS PEAK STAGE			6.42	May 3	[b]47.40	Jun 18 1965
ANNUAL RUNOFF (AC-FT)	28200		113700		59320	
10 PERCENT EXCEEDS	102		490		132	
50 PERCENT EXCEEDS	25		33		16	
90 PERCENT EXCEEDS	4.7		15		3.0	

e Estimated
a From rating curve extended 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	64	2.9	6.8	e7.1	e5.0	8.4	400	190	83	101	42
2	35	49	3.2	6.8	e7.3	e4.7	7.6	282	163	78	89	41
3	24	35	3.6	6.7	e6.6	e4.4	7.7	e250	151	68	145	47
4	23	30	4.3	6.4	e6.4	e5.2	8.0	e220	143	61	155	43
5	24	28	4.4	6.1	e5.3	6.8	8.1	217	129	56	135	39
6	23	e25	4.6	6.3	4.7	5.2	7.9	176	116	61	126	41
7	24	e21	5.1	11	4.6	4.1	7.8	161	106	67	112	47
8	23	e18	4.0	e18	4.7	4.2	7.2	170	101	60	113	39
9	21	14	3.4	e17	4.7	3.5	7.3	218	98	73	115	39
10	20	12	3.1	e15	4.7	2.4	7.3	236	98	69	107	37
11	19	11	3.3	e14	4.2	4.8	7.3	225	101	63	104	35
12	18	13	3.0	e20	4.9	7.4	6.7	198	95	55	95	34
13	14	10	3.1	21	4.4	7.7	7.7	179	103	49	92	32
14	17	8.9	3.2	17	4.5	6.9	8.2	181	106	44	89	29
15	19	7.3	3.3	e15	4.9	4.0	8.3	194	113	42	99	30
16	17	4.9	3.1	e12	5.1	2.2	8.7	177	129	38	83	31
17	16	3.2	3.1	e13	5.3	2.4	8.5	149	191	61	79	35
18	18	2.5	4.9	e15	5.2	3.0	8.1	131	165	54	72	35
19	13	2.1	6.1	e13	5.3	4.1	8.1	128	158	48	72	29
20	9.5	1.8	6.4	e12	5.4	6.6	7.8	136	149	53	71	27
21	8.4	1.4	5.9	e11	5.5	5.2	7.9	131	149	59	65	25
22	8.4	2.3	6.4	e10	5.4	4.0	8.6	145	134	57	60	26
23	8.4	1.9	7.1	e13	6.5	4.1	8.8	174	129	56	62	24
24	6.2	1.4	8.2	e15	e4.5	4.1	8.9	286	125	54	56	24
25	5.4	1.3	6.2	e13	e5.6	4.3	10	339	125	53	52	24
26	14	1.3	6.5	e12	e7.0	4.5	8.6	287	122	52	50	22
27	63	1.2	6.4	e9.8	e5.8	5.8	8.7	236	111	51	50	22
28	49	1.5	6.5	e8.6	e5.0	5.9	8.7	240	105	46	47	21
29	25	1.7	7.0	e8.0	---	5.6	9.8	231	100	46	49	20
30	19	1.8	6.9	e7.6	---	4.8	400	221	91	44	51	19
31	125	---	7.2	e7.2	---	6.4	---	215	---	60	49	---
TOTAL	756.3	376.5	152.4	367.3	150.6	149.3	636.7	6533	3796	1761	2645	959
MEAN	24.4	12.6	4.92	11.8	5.38	4.82	21.2	211	127	56.8	85.3	32.0
MAX	125	64	8.2	21	7.3	7.7	400	400	191	83	155	47
MIN	5.4	1.2	2.9	6.1	4.2	2.2	6.7	128	91	38	47	19
AC-FT	1500	747	302	729	299	296	1260	12960	7530	3490	5250	1900
(+)	225	798	687	198	454	468	243	229	150	166	261	180

(+) DIVERSION, IN ACRE-FEET, BY LA CUEVA CANAL
CAL YR 1998 (+) 10570 WTR YR 1999 (+) 4060

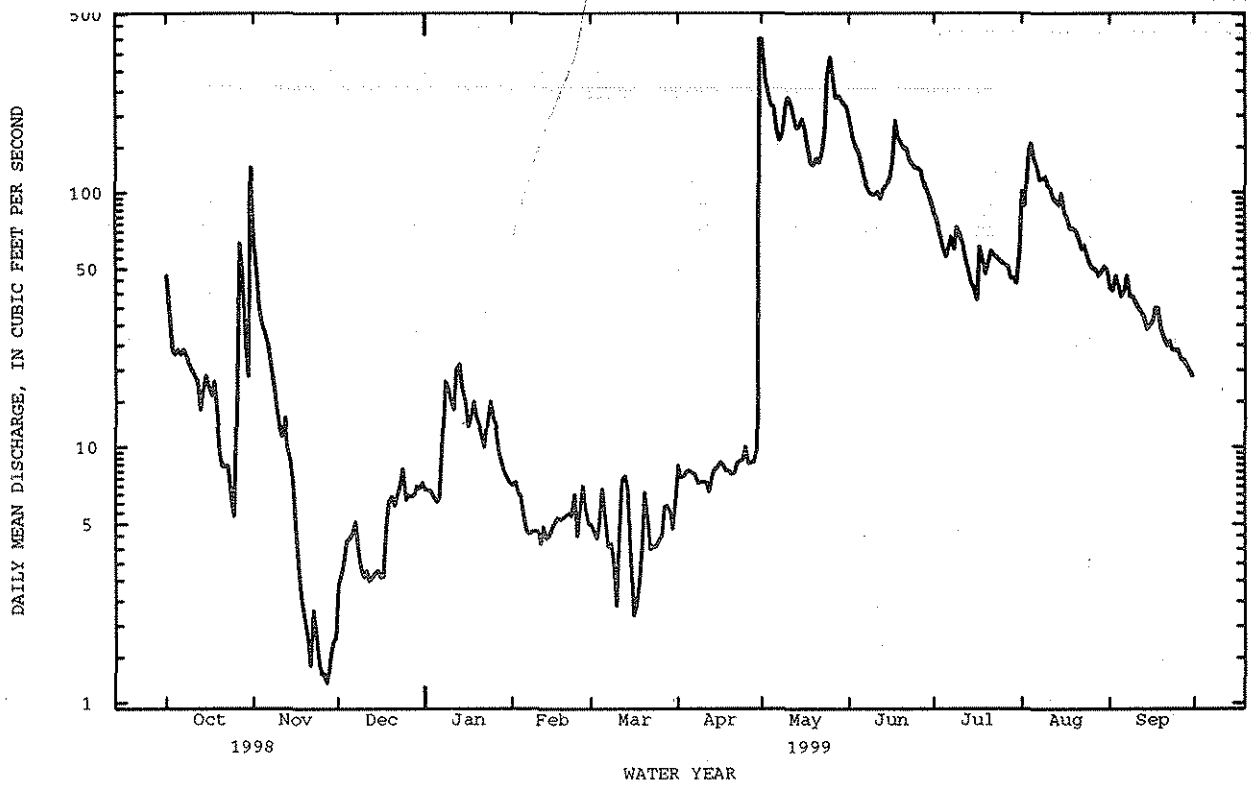
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 1999, BY WATER YEAR (WY)

MEAN	17.5	11.3	8.73	8.23	7.88	11.0	33.7	80.9	67.7	35.1	45.6	29.1
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1906 - 1999	
ANNUAL TOTAL	10442.5		18283.1			
ANNUAL MEAN	28.6		50.1		29.7	
HIGHEST ANNUAL MEAN					113	1941
LOWEST ANNUAL MEAN					3.12	1956
HIGHEST DAILY MEAN	179	Aug 21	400	Apr 30	1060	Apr 23 1942
LOWEST DAILY MEAN	1.2	Nov 27	1.2	Nov 27	.00	Dec 22 1907
ANNUAL SEVEN-DAY MINIMUM	1.5	Nov 24	1.5	Nov 24	.00	Dec 22 1907
INSTANTANEOUS PEAK FLOW			899	Apr 30	1530	Sep 23 1941
INSTANTANEOUS PEAK STAGE			5.56	Apr 30	7.58	Sep 23 1941
INSTANTANEOUS LOW FLOW			.83	Feb 12	.00	Dec 22 1907
ANNUAL RUNOFF (AC-FT)	20710		36260		21540	
10 PERCENT EXCEEDS	70		147		76	
50 PERCENT EXCEEDS	19		18		12	
90 PERCENT EXCEEDS	2.8		4.1		1.7	

e Estimated



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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	109	10	14	e12	4.7	8.9	868	203	84	135	45
2	44	52	10	14	e13	5.2	7.7	523	165	78	109	42
3	28	34	12	15	e10	4.3	8.1	420	151	64	220	46
4	25	26	11	15	e9.0	4.7	9.4	424	142	54	204	44
5	27	23	11	15	e8.0	5.1	11	280	126	50	174	39
6	26	21	10	16	e7.5	4.8	10	218	109	50	148	39
7	27	19	11	14	e8.4	6.0	8.0	190	94	59	122	47
8	27	18	13	e13	8.3	8.3	9.4	190	88	49	181	40
9	25	13	12	e12	6.2	6.7	6.5	232	88	51	141	39
10	24	11	12	e10	5.8	5.2	6.8	255	89	58	118	38
11	23	11	12	e18	6.7	5.7	6.2	244	94	52	112	35
12	25	12	12	e15	8.0	6.2	5.2	213	97	45	99	33
13	19	13	12	e13	7.4	7.9	5.9	188	100	41	95	33
14	19	11	13	e12	6.8	8.2	7.3	179	102	35	88	31
15	19	11	13	e11	7.3	8.0	6.5	198	119	32	104	31
16	18	9.9	13	e13	6.7	6.7	6.4	178	132	35	85	33
17	13	9.8	12	e10	5.4	6.4	7.8	143	284	44	80	35
18	16	9.5	12	e11	4.6	7.7	8.2	122	207	48	73	40
19	17	9.6	12	e13	4.2	9.4	7.3	116	187	40	74	32
20	13	9.6	11	e12	4.6	13	3.8	119	173	43	72	29
21	13	9.1	15	e10	4.8	18	6.3	111	168	50	67	28
22	12	10	11	e11	5.3	11	7.7	125	152	51	60	27
23	12	10	e13	e12	6.2	9.0	3.6	149	139	50	64	26
24	9.8	9.6	14	e15	5.1	8.4	5.2	277	132	47	59	25
25	10	8.2	e14	e14	4.3	9.3	4.6	401	133	47	53	25
26	24	9.3	12	e13	4.7	9.6	4.2	330	135	45	51	23
27	123	9.5	13	e12	4.4	8.9	3.9	260	123	45	50	22
28	70	9.6	14	e10	5.3	9.3	3.1	262	112	38	48	22
29	39	9.8	13	e10	---	9.6	3.4	258	104	37	50	21
30	29	10	13	e8.0	---	12	608	238	97	36	51	20
31	353	---	14	e10	---	10	---	226	---	118	51	---
TOTAL	1184.8	527.5	380	391.0	190.0	249.3	800.4	7937	4045	1576	3038	990
MEAN	38.2	17.6	12.3	12.6	6.79	8.04	26.7	256	135	50.8	98.0	33.0
MAX	353	109	15	18	13	18	608	868	284	118	220	47
MIN	9.8	8.2	10	8.0	4.2	4.3	3.1	111	88	32	48	20
AC-FT	2350	1050	754	776	377	494	1590	15740	8020	3130	6030	1960

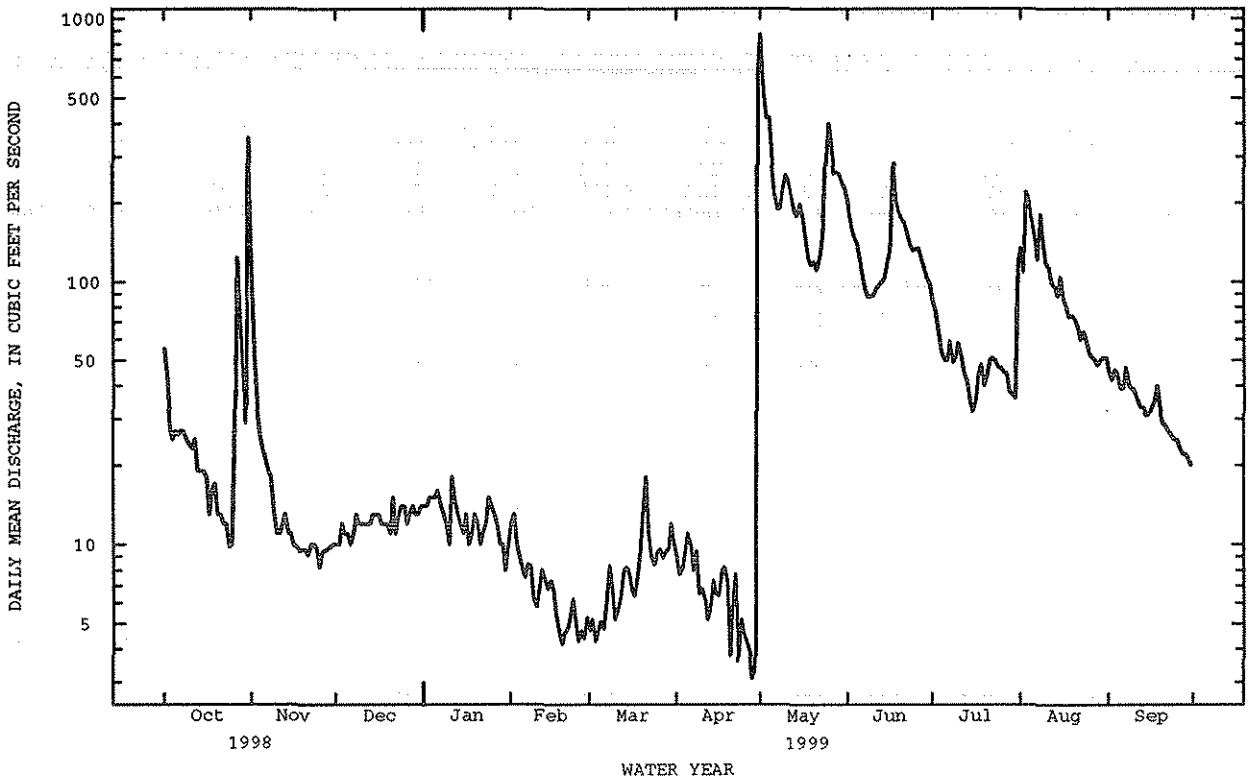
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1999, BY WATER YEAR (WY)

MEAN	22.2	14.7	12.1	12.2	11.4	13.1	44.4	94.9	76.3	41.3	57.6	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1915 - 1999	
ANNUAL TOTAL	11859.9		21309.0			
ANNUAL MEAN	32.5		58.4		35.6	
HIGHEST ANNUAL MEAN					144	1941
LOWEST ANNUAL MEAN					3.42	1956
HIGHEST DAILY MEAN	353	Oct 31	868	May 1	1750	Apr 23 1942
LOWEST DAILY MEAN	5.8	Feb 25	3.1	Apr 28	.00	May 4 1917
ANNUAL SEVEN-DAY MINIMUM	6.4	Feb 20	4.0	Apr 23	.00	Aug 4 1917
INSTANTANEOUS PEAK FLOW			1730	Apr 30	[a]14000	Aug 22 1952
INSTANTANEOUS PEAK STAGE			4.28	Apr 30	[b]14.40	Aug 22 1952
ANNUAL RUNOFF (AC-FT)	23520		42270		25760	
10 PERCENT EXCEEDS	73		166		92	
50 PERCENT EXCEEDS	22		18		14	
90 PERCENT EXCEEDS	9.5		6.4		2.1	

e Estimated
a From rating curve extended above 660 ft^3/s, on basis of slope-area measurement 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	e10	e9.2	e11	6.5	5.0	3.0	166	75	e12	60	17
2	13	e11	e9.0	e9.9	6.5	4.3	3.2	168	70	e10	87	17
3	13	e14	e8.5	e9.6	4.9	3.6	3.3	186	65	e9.7	95	26
4	15	e12	e8.3	15	6.8	3.8	3.3	190	58	e9.6	112	19
5	16	e10	e8.1	20	5.9	2.6	3.5	157	49	e9.1	190	17
6	13	e14	e8.4	e14	4.8	1.7	3.4	128	45	e9.4	203	16
7	11	e13	e10	e15	4.0	1.7	3.1	118	44	e9.3	146	19
8	12	e10	e9.4	e10	4.0	2.2	2.7	106	36	e9.1	174	16
9	10	e9.7	e9.6	e11	4.1	1.9	2.4	103	8.3	e8.5	143	9.8
10	11	e9.8	18	e10	4.1	1.1	1.9	108	27	e8.6	114	9.8
11	9.6	e9.5	18	e9.2	4.1	.92	1.7	111	26	e8.4	96	8.2
12	8.7	e9.7	16	e9.3	4.3	1.6	1.9	105	26	e8.2	81	7.3
13	8.9	e10	e12	e9.5	4.8	2.9	2.3	102	27	e8.0	67	8.6
14	9.1	e11	e10	12	4.7	4.2	2.4	97	23	e7.5	58	11
15	7.1	e12	e11	e9.1	3.5	4.0	2.3	93	24	e7.0	58	14
16	6.7	e11	e12	e9.5	4.2	3.2	2.7	89	37	e6.4	49	17
17	6.4	e10	e13	e9.1	4.1	3.0	2.5	85	89	e6.2	45	16
18	5.8	e12	e12	10	3.5	5.7	2.3	80	50	e5.9	43	16
19	5.4	e13	e10	6.0	4.6	7.1	2.1	76	40	e5.5	42	15
20	7.0	e11	e11	5.5	4.5	8.1	1.6	71	72	e5.4	36	14
21	7.3	e10	e10	6.0	4.8	5.3	1.5	66	46	12	32	13
22	7.4	e12	11	6.8	4.8	3.0	1.0	60	42	9.7	29	13
23	6.9	e11	16	9.2	6.2	2.8	1.4	58	37	7.8	30	13
24	5.9	e13	20	e6.1	5.2	2.6	2.5	62	30	6.7	26	12
25	6.9	e14	18	e6.0	6.3	2.8	10	99	28	6.5	26	12
26	e10	e13	18	6.8	5.4	3.0	6.5	125	24	8.1	23	11
27	e18	e12	16	7.7	6.1	4.2	5.2	120	e18	26	19	9.7
28	e19	e11	e13	e7.5	6.2	3.6	3.9	118	e13	15	18	9.5
29	e18	e10	e14	e7.1	---	3.1	4.3	124	e10	12	21	9.6
30	e15	e9.9	e12	8.1	---	3.3	63	104	e11	11	23	9.1
31	e11	---	e13	8.1	---	3.3	---	87	---	25	19	---
TOTAL	328.1	338.6	384.5	294.1	138.9	105.62	150.9	3362	1150.3	303.6	2165	405.6
MEAN	10.6	11.3	12.4	9.49	4.96	3.41	5.03	108	38.3	9.79	69.8	13.5
MAX	19	14	20	20	6.8	8.1	63	190	89	26	203	26
MIN	5.4	9.5	8.1	5.5	3.5	.92	1.0	58	8.3	5.4	18	7.3
AC-FT	651	672	763	583	276	209	299	6670	2280	602	4290	805

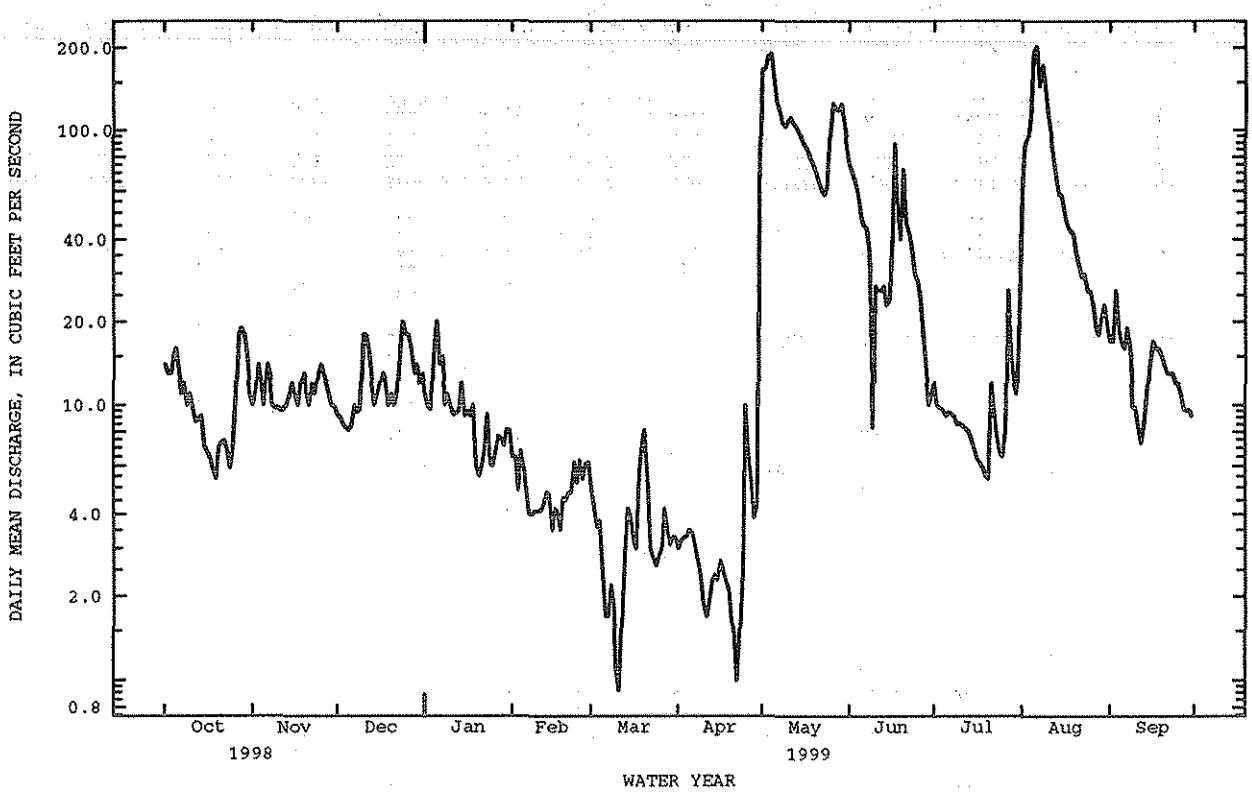
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1999, BY WATER YEAR (WY)

MEAN	9.36	9.13	8.15	7.70	7.98	9.68	20.6	32.2	16.9	9.33	17.6	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	1.12	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1930 - 1999	
ANNUAL TOTAL	3990.62		9127.22			
ANNUAL MEAN	10.9		25.0		13.4	
HIGHEST ANNUAL MEAN					52.9	1942
LOWEST ANNUAL MEAN					2.33	1978
HIGHEST DAILY MEAN	71	Aug 22	203	Aug 6	1290	Sep 10 1991
LOWEST DAILY MEAN	.26	Jun 22	.92	Mar 11	.00	Aug 4 1945
ANNUAL SEVEN-DAY MINIMUM	.30	Jun 25	1.6	Mar 6	.10	Jul 20 1939
INSTANTANEOUS PEAK FLOW			253	Aug 6	[a]4050	Aug 17 1961
INSTANTANEOUS PEAK STAGE			4.17	Aug 6	[b]10.10	Aug 30 1936
INSTANTANEOUS LOW FLOW			.67	Mar 11	.00	Aug 4 1945
ANNUAL RUNOFF (AC-FT)	7920		18100		9720	
10 PERCENT EXCEEDS	20		80		25	
50 PERCENT EXCEEDS	10		10		5.8	
90 PERCENT EXCEEDS	1.2		3.2		1.2	

e Estimated
a From rating curve extended above 250 ft^3/s, on basis of slope-area measurement 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 SW$^1/_4$ 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.--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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	592	79	84	59	26	23	18800	920	121	171	73
2	136	702	76	87	59	24	21	13900	793	101	287	67
3	82	411	76	85	59	25	20	6200	665	91	774	66
4	70	292	77	75	59	25	18	5090	537	71	1270	272
5	90	234	75	65	56	24	16	4430	451	65	1840	186
6	81	203	74	71	53	23	16	2840	403	77	1940	137
7	69	182	75	76	50	23	14	1890	354	565	2020	100
8	61	167	73	86	50	24	13	1540	274	467	1750	75
9	56	155	71	86	48	23	12	1460	236	252	1590	61
10	52	143	66	80	46	23	11	1550	194	162	1080	50
11	48	132	56	89	43	23	11	1730	174	133	797	44
12	44	121	54	88	41	24	11	1790	164	113	667	38
13	41	113	69	88	37	25	12	1570	242	100	486	46
14	39	108	64	89	34	24	11	1360	192	97	378	39
15	36	107	66	88	32	23	10	1290	170	81	329	56
16	39	103	69	86	28	23	11	1340	194	68	295	85
17	37	100	69	85	29	23	12	1230	223	127	286	140
18	36	98	70	81	27	30	22	1090	329	227	248	593
19	35	96	73	83	27	35	33	915	609	199	230	197
20	36	96	76	83	27	35	24	816	537	145	281	133
21	36	95	76	81	28	34	19	930	438	129	308	120
22	37	94	60	78	29	34	17	763	763	199	215	102
23	41	92	63	75	29	37	15	685	350	101	202	91
24	40	90	61	72	27	37	13	703	278	108	182	84
25	38	90	48	70	26	39	13	839	237	104	179	76
26	40	87	53	60	25	39	11	1110	212	74	148	72
27	44	86	70	58	25	36	9.7	1210	190	92	127	66
28	60	84	76	56	25	32	8.8	1240	183	76	109	58
29	144	82	74	60	---	30	9.4	1260	197	109	94	51
30	157	80	74	62	---	28	9570	1240	146	93	85	47
31	286	---	84	57	---	25	---	1080	---	70	77	---
TOTAL	2048	5035	2147	2384	1078	876	10006.9	81891	10655	4417	18445	3225
MEAN	66.1	168	69.3	76.9	38.5	28.3	334	2642	355	142	595	108
MAX	286	702	84	89	59	39	9570	18800	920	565	2020	593
MIN	35	80	48	56	25	23	8.8	685	146	65	77	38
AC-FT	4060	9990	4260	4730	2140	1740	19850	162400	21130	8760	36590	6400

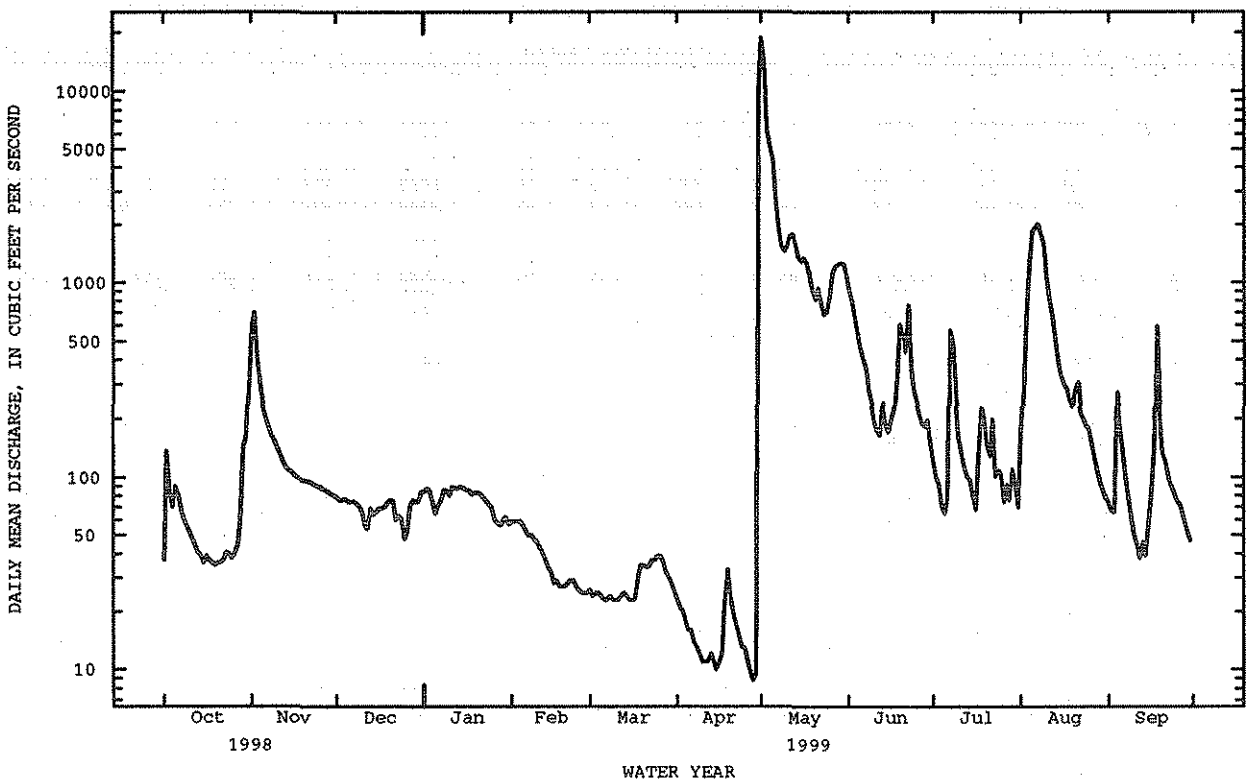
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1999, BY WATER YEAR (WY)

MEAN	108	61.2	51.6	53.9	63.5	61.8	216	433	395	232	322	243
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1913 - 1999	
ANNUAL TOTAL	40311.8		142207.9			
ANNUAL MEAN	110		390		189	
HIGHEST ANNUAL MEAN					1191	1942
LOWEST ANNUAL MEAN					19.7	1954
HIGHEST DAILY MEAN	950	Jul 31	18800	May 1	50000	Jun 13 1913
LOWEST DAILY MEAN	2.6	Jun 28	8.8	Apr 28	.00	Apr 1 1936
ANNUAL SEVEN-DAY MINIMUM	3.4	Jun 26	11	Apr 10	.00	Apr 1 1936
INSTANTANEOUS PEAK FLOW			35600	May 1	[a]145000	Jun 18 1965
INSTANTANEOUS PEAK STAGE			21.00	May 1	[b]36.60	Jun 18 1965
INSTANTANEOUS LOW FLOW			7.6	Apr 28	1.7	May 24 1996
ANNUAL RUNOFF (AC-FT)	79960		282100		136900	
10 PERCENT EXCEEDS	223		825		352	
50 PERCENT EXCEEDS	78		80		46	
90 PERCENT EXCEEDS	22		24		4.5	

a From rating curve extended above 91,000 ft^3/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 with satellite telemetry. 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, 321,950 acre-ft, May 2, elevation, 4,201.64 ft; minimum, 227,140 acre-ft, Oct. 25-26, elevation, 4,190.52 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	235690	231710	239130	240900	244390	244390	244080	289530	315930	313240	303340	306990
2	236230	232980	239280	240970	244470	244320	243850	321950	315830	312570	303530	306240
3	236230	233960	239350	241130	244470	244240	243770	319020	315830	311810	307740	305580
4	236000	234790	239590	241280	244550	244160	243770	317180	315450	311150	310200	305020
5	235770	235240	239590	241360	244630	244160	243530	317180	315350	310960	311150	304650
6	235470	235690	239660	241520	244710	244080	243380	316220	315450	310860	312480	304370
7	235090	235920	239740	241590	244790	244080	243300	315930	315740	310390	313150	303990
8	234640	236300	239820	241670	244790	244000	243300	315830	315740	311050	314580	303060
9	234190	236380	239590	241830	244790	243930	242680	315930	315830	311150	314390	302510
10	233740	236610	239590	241900	244790	243850	242130	315640	315640	310670	312670	301670
11	233280	236610	239660	242060	244790	243850	241520	315830	315120	310290	310770	301120
12	232830	236610	239660	242210	244710	243770	241050	316220	316510	309920	309730	300560
13	232380	237060	239660	242370	244710	243770	240900	316310	316410	309250	309250	299640
14	231860	237210	239740	242520	244710	243770	240350	315930	316310	308590	309920	298990
15	231340	237210	239890	242520	244710	243690	239970	315540	316600	308020	310580	299180
16	230820	237440	239890	242520	244790	243610	239590	315450	316600	307740	310960	299360
17	230370	237590	240050	242680	244860	243850	239130	315540	316510	307650	311150	299450
18	229930	237670	240050	242830	244630	244000	238820	315740	316410	307650	311240	300000
19	229560	237830	240050	242910	244550	244240	238360	315740	316890	307560	311240	300380
20	229270	237830	240050	242990	244630	244320	238050	315930	317370	307270	311430	300380
21	228750	238130	240120	243300	244710	244390	237590	316310	316890	307180	311530	300470
22	228310	238130	240200	243460	244710	244390	237210	316410	316600	306990	311620	300470
23	227940	238210	240120	243530	244710	244390	236830	316310	315930	306890	311720	300380
24	227500	238210	240200	243610	244790	244390	236830	316410	315540	306330	311340	300280
25	227140	238360	240280	243770	244790	244390	236610	316310	315540	305860	311050	300000
26	227140	238510	240430	243770	244630	244390	236150	315640	315350	305490	310670	299730
27	227720	238670	240590	243770	244470	244390	235850	316020	314870	304930	310390	299540
28	227720	238820	240590	243930	244390	244390	235540	316410	314580	304370	309630	299080
29	227720	238970	240660	244080	---	244390	235770	316700	314200	303720	309060	298810
30	228090	239050	240740	244240	---	244390	245960	316890	313720	303250	308500	298440
31	229860	---	240820	244390	---	244320	---	316310	---	303160	307840	---
MAX	236230	239050	240820	244390	244860	244390	245960	321950	317370	313240	314580	306990
MIN	227140	231710	239130	240900	244390	243610	235540	289530	313720	303160	303340	298440
(+)	4190.89	4192.11	4192.34	4192.80	4192.80	4192.79	4193.00	4201.06	4200.79	4199.67	4200.17	4199.16
(++)	-4700	+9190	+1770	+3570	0	-70	+1640	+70350	-2590	-10560	+4680	-9400

CAL YR 1998 MAX 310960 MIN 227140 (++) -49070
WTR YR 1999 MAX 321950 MIN 227140 (++) +63880

(+) 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 NW$^1/_4$SE$^1/_4$ 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 at 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.10	.00	.00	.00	.00	.00	549	.00	.00	e21	.00
2	.00	.00	.00	.00	.00	.00	.00	2060	.00	.00	e3.1	.00
3	.00	.00	.00	.00	.00	.00	.00	510	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	e173	.00	.00	e8.8	.00
5	e.00	.00	.00	.00	.00	.00	.00	e57	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	e35	.00	56	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	e44	.00	125	e24	.00
8	.00	.00	.00	.00	.00	.00	.00	e39	.00	e12	e52	.00
9	.00	.00	.00	.00	.00	.00	.00	13	.00	e5.5	e3.9	.00
10	.00	.00	.00	.00	.00	.00	.00	5.7	.00	e.00	e.12	.00
11	.00	.00	.00	.00	.00	.00	.00	1.8	.00	e.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.85	118	e.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.42	.05	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.7
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	52
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	e8.2	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.3	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	33	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	25	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	22	.00	e36	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e30	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	101	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	42	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	1.9	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.13	.00	.00	.00	.00
30	.92	.00	.00	.00	---	.00	1.0	.00	.00	.00	.00	.00
31	25	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	25.92	0.10	0.00	0.00	0.00	0.00	1.00	3633.86	165.05	206.70	214.22	61.70
MEAN	.84	.003	.000	.000	.000	.000	.033	117	5.50	6.67	6.91	2.06
MAX	25	.10	.00	.00	.00	.00	1.0	2060	118	125	52	52
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	51	.2	.00	.00	.00	.00	2.0	7210	327	410	425	122

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1999, BY WATER YEAR (WY)

MEAN	9.84	3.25	1.80	2.52	2.07	1.78	10.5	38.3	27.7	51.5	70.2	28.8
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1942 - 1999	
ANNUAL TOTAL	2000.61		4308.55			
ANNUAL MEAN	5.48		11.8		19.8	
HIGHEST ANNUAL MEAN					57.2	1958
LOWEST ANNUAL MEAN					.084	1974
HIGHEST DAILY MEAN	673	Aug 11	2060	May 2	7420	May 28 1946
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jul 17 1942
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 13	.00	Oct 1	.00	Mar 18 1943
INSTANTANEOUS PEAK FLOW			3070	May 2	[a]24500	May 28 1946
INSTANTANEOUS PEAK STAGE			4.44	May 2	[b]9.94	Aug 11 1981
ANNUAL RUNOFF (AC-FT)	3970		8550		14360	
10 PERCENT EXCEEDS	1.2		.95		18	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated
a From rating curve extended above 7,700 ft^3/s, on basis of slope-area measurement 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 NW$^1/_4$ 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, 247,600 acre-ft, Aug. 8, 1999, elevation, 3,787.33 ft; minimum, 172,700 acre-ft, Apr. 11-12, elevation, 3,776.59 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e176000	177000	176000	174000	175000	173900	173900	181400	246600	244200	243300	243800
2	e177000	177000	176000	174000	175000	173900	173900	192800	246700	244100	243400	243700
3	e177000	177000	176000	174000	175000	173900	173600	196200	246100	243800	244600	243300
4	e177000	177000	176000	174000	175000	173700	173400	200600	245900	244000	245100	243300
5	e176000	177000	176000	174000	175000	173400	173500	214600	245300	243700	245000	243100
6	176000	177000	175000	174000	175000	173600	173200	225600	245100	243800	245400	243000
7	176000	177000	175000	174000	175000	173900	173300	235100	245000	244200	247200	242800
8	176000	177000	175000	174000	175000	173700	173100	242000	244800	243800	247600	242600
9	176000	177000	175000	174000	175000	173900	172900	246100	244800	243700	246600	242700
10	176000	177000	175000	174000	174000	173700	172800	246700	244400	243600	246600	242500
11	175000	177000	175000	174000	174000	173700	172700	246900	244200	243600	246700	242300
12	175000	176000	175000	174000	174000	173600	172700	247100	245600	243500	246800	242000
13	175000	176000	175000	174000	174000	173600	173200	246900	245800	243300	247200	242000
14	175000	176000	175000	174000	174000	173600	173600	246700	245400	243200	246700	241800
15	175000	176000	175000	174000	174000	173700	174000	247000	245500	242800	245900	242400
16	175000	176000	175000	174000	175000	173700	173900	246800	245200	242600	245300	243700
17	175000	176000	175000	174000	174000	173400	174000	246600	245100	243000	245000	244200
18	175000	176000	175000	174000	174000	173900	174100	246500	244900	243400	244800	244300
19	175000	176000	175000	174000	174000	173900	174100	246300	245000	243400	244700	244200
20	175000	176000	175000	174000	174000	174100	174200	246000	244800	243400	244600	244100
21	e175000	176000	174000	174000	174000	174400	174300	246000	245300	243400	244600	244200
22	e174000	176000	174300	174000	174000	174200	174000	245500	245700	243500	246700	244200
23	e175000	176000	174000	174000	174000	174400	173800	245600	245700	243500	245600	244100
24	175000	176000	174000	174000	174000	174100	174100	245700	245500	243500	245200	243900
25	174000	176000	174300	174000	174000	174200	174300	245700	245600	243300	245000	243800
26	175000	176000	174000	174000	174000	174200	174200	246300	245400	243000	244700	243600
27	175000	176000	174000	174000	174000	174100	174300	246400	244900	243000	244800	243400
28	175000	176000	174000	174000	173900	174100	174200	246500	244400	242800	244500	243200
29	175000	176000	174000	175000	---	174100	174200	246100	244700	242600	244400	243200
30	175000	176000	174000	175000	---	174100	175200	246300	244600	242400	244200	243000
31	176000	---	174000	175000	---	174000	---	246300	---	242900	243800	---
MAX	177000	177000	176000	175000	175000	174400	175200	247100	246700	244200	247600	244300
MIN	174000	176000	174000	174000	173900	173400	172700	181400	244200	242400	243300	241800
(+)	3777.46	3777.32	3777.13	3777.24	3777.06	3777.07	3777.25	3787.17	3786.95	3786.74	3786.86	3786.76
(++)	+700	0	-2000	+1000	-1100	+100	+1200	+71100	-1700	-1700	+900	-800

CAL YR 1998 MAX 183800 MIN 171600 (++) -6100
WTR YR 1999 MAX 247600 MIN 172700 (++) +67700

e Estimated

(+) 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 NE$^1/_4$NE$^1/_4$ 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	3.6	2.9	2.7	3.2	3.0	e3.2	e3.6	1120	17	18	9.0
2	3.9	3.3	3.0	2.7	3.5	3.1	e3.2	e3.6	1150	25	7.9	20
3	3.4	3.2	3.0	2.7	3.0	4.3	e3.2	e3.7	1140	36	11	27
4	3.2	3.2	2.9	2.7	2.8	3.4	e3.2	e3.7	691	40	79	15
5	3.3	3.2	2.9	2.8	2.9	3.3	e3.1	e3.8	805	37	132	10
6	3.2	3.2	3.0	2.7	2.9	3.4	e3.1	e3.8	294	11	193	13
7	3.0	3.0	3.0	2.8	3.0	3.7	e3.1	3.8	108	10	1110	11
8	3.0	3.0	2.9	2.7	3.0	3.6	e3.1	3.7	135	42	2640	6.3
9	3.1	2.9	2.9	2.7	3.0	3.4	e3.1	109	47	10	2130	7.8
10	3.1	2.8	2.8	2.9	4.1	3.4	e3.2	1430	38	7.1	1450	17
11	3.1	2.9	2.9	4.3	3.0	3.4	e3.2	1410	13	7.5	1710	6.7
12	3.0	2.9	2.9	3.9	2.8	3.5	e3.2	1510	77	7.7	1690	5.4
13	3.1	2.9	2.7	3.3	2.9	4.9	e3.2	1560	382	16	1970	4.8
14	2.9	3.0	2.7	2.8	2.9	3.6	e3.2	1620	350	15	2230	10
15	2.9	3.0	2.8	2.4	3.0	3.4	e3.2	1480	216	47	1160	6.3
16	2.9	2.9	2.7	2.6	2.8	3.4	e3.2	1580	188	12	327	5.4
17	2.8	2.9	2.8	2.8	2.8	e3.5	e3.2	1400	112	13	114	26
18	2.9	2.9	2.8	6.0	2.8	e3.5	e3.3	1320	139	12	54	11
19	3.0	2.8	2.9	3.7	2.8	e3.5	e3.3	989	49	11	23	11
20	3.0	2.7	2.8	3.1	3.0	e3.5	e3.3	770	70	18	45	6.0
21	3.0	2.7	2.7	3.0	3.0	e3.5	e3.3	624	32	12	51	5.8
22	3.0	2.7	2.7	2.8	2.8	e3.4	e3.4	498	336	13	87	9.3
23	3.0	3.1	2.8	2.6	2.9	e3.4	e3.4	283	409	10	815	17
24	3.0	3.2	2.8	2.8	2.9	e3.4	e3.4	356	382	11	254	24
25	3.1	3.0	2.7	2.7	3.2	e3.4	e3.4	410	460	14	97	15
26	3.2	3.0	2.8	2.7	2.8	e3.4	e3.5	486	380	11	55	7.0
27	3.9	3.1	2.8	2.7	3.0	e3.3	e3.5	982	228	6.9	23	5.4
28	3.2	2.9	2.8	2.9	3.0	e3.3	e3.5	1170	38	7.0	31	4.7
29	3.0	3.2	2.7	3.7	---	e3.3	e3.5	939	80	14	21	8.3
30	3.5	3.1	2.8	4.1	---	e3.3	e3.6	971	40	10	18	9.3
31	6.4	---	2.8	3.6	---	e3.0	---	1270	---	45	21	---
TOTAL	102.2	90.3	87.7	95.9	83.8	107.5	98.3	23196.7	9509	548.2	18566.9	334.5
MEAN	3.30	3.01	2.83	3.09	2.99	3.47	3.28	748	317	17.7	599	11.1
MAX	6.4	3.6	3.0	6.0	4.1	4.9	3.6	1620	1150	47	2640	27
MIN	2.8	2.7	2.7	2.4	2.8	3.0	3.1	3.6	13	6.9	7.9	4.7
AC-FT	203	179	174	190	166	213	195	46010	18860	1090	36830	663

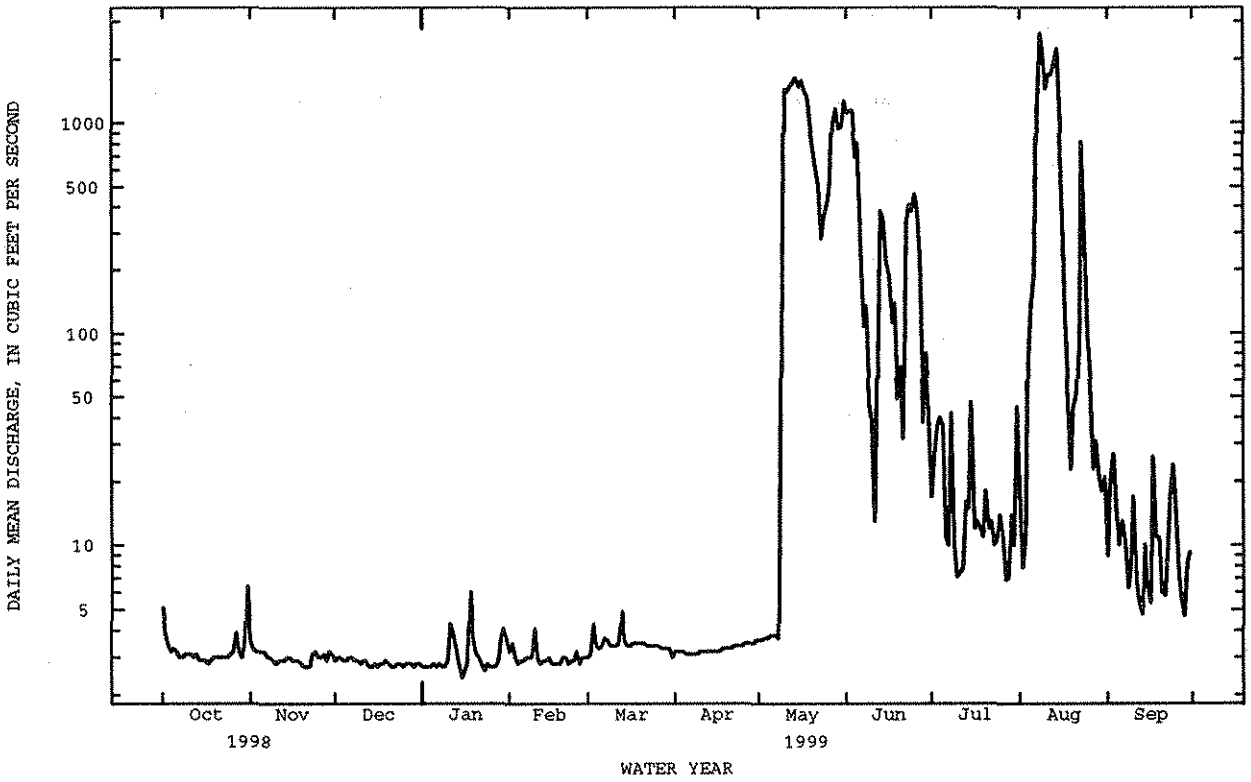
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1999, BY WATER YEAR (WY)

MEAN	29.0	24.5	6.62	7.23	8.97	3.19	15.9	53.3	67.0	85.1	111	104
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1963 - 1999	
ANNUAL TOTAL	1110.0		52821.0			
ANNUAL MEAN	3.04		145		[a]43.1	
HIGHEST ANNUAL MEAN					145	1999
LOWEST ANNUAL MEAN					1.62	1964
HIGHEST DAILY MEAN	6.4	Oct 31	2640	Aug 8	6860	Jun 18 1969
LOWEST DAILY MEAN	2.0	Jul 10	2.4	Jan 15	.10	Jan 12 1963
ANNUAL SEVEN-DAY MINIMUM	2.2	Jul 9	2.7	Dec 29	.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)	2200		104800		31240	
10 PERCENT EXCEEDS	3.6		409		97	
50 PERCENT EXCEEDS	3.0		3.5		2.7	
90 PERCENT EXCEEDS	2.5		2.8		1.7	

e Estimated
a Average discharge for 15 years (water years 1909, 1912-13), 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 ft^3/s.
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 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV												
25...	0730	3.0	8930	7.9	2.0	6.5	673	8.4	80	590	120	68
JAN												
20...	1115	2.7	9180	7.9	21.5	10.0	665	10.1	106	580	130	66
JUN												
15...	0730	228	1050	8.5	--	19.0	673	7.8	96	250	47	31
JUL												
26...	1530	12	3310	8.0	35.0	28.0	670	8.0	118	340	67	41

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)
NOV											
25...	1700	31	8.4	330	510	2500	1	12	5080	371	E37
JAN											
20...	1800	32	11	355	540	2600	1.2	<.1	5390	400	E50
JUN											
15...	120	3	5.4	177	280	52	.6	5.1	646	139	<10
JUL											
26...	530	13	5.6	237	330	720	1.0	8.3	1850	215	<30

07227100 REVUELTO CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°20'29", long 103°23'37", in SW$^1/_4$NW$^1/_4$ 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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	642	619	3.7	e3.6	e49	e3.0	e.54	1390	77	38	e72	24
2	693	211	e3.0	e3.4	e37	e3.5	e.37	1590	87	46	e80	18
3	275	78	e4.3	e3.8	58	e4.7	e.23	415	47	48	e91	22
4	99	46	e3.6	e4.2	34	e4.4	e.15	92	23	36	e100	29
5	39	39	e3.0	e4.5	20	e5.2	e.00	49	e77	37	e111	29
6	19	33	e2.6	5.0	12	e4.9	e.00	34	e50	53	e122	33
7	8.7	29	e3.5	3.2	8.3	e8.2	e.00	24	e36	69	105	e55
8	5.0	22	e3.7	2.7	4.8	e10	e.00	17	e15	36	49	e45
9	4.7	19	e3.9	2.2	2.6	e8.7	e.00	13	e11	20	213	e43
10	6.8	14	e2.9	2.8	1.6	e7.2	e.00	41	e8.3	11	118	32
11	2.9	13	e2.7	2.7	1.3	e6.2	e.00	11	e9.5	8.6	e52	29
12	3.7	9.9	e2.8	2.0	.48	e5.7	e.00	e.54	24	9.2	e32	30
13	1.9	10	e3.0	1.8	.66	e5.4	86	e.00	20	20	25	32
14	.16	9.3	3.5	1.5	.18	e6.1	473	e.00	28	46	17	37
15	.04	8.2	2.9	1.6	.17	e7.1	157	e.00	35	34	21	e59
16	e.03	7.5	2.5	1.3	e.15	e7.7	127	e.00	30	19	19	e84
17	.02	7.1	e2.6	1.1	e.22	e8.3	90	e.00	27	e29	e18	e110
18	.01	5.8	e2.8	.83	e.14	11	59	e.30	33	e33	e15	e144
19	e.02	5.4	e3.0	1.2	.00	82	53	e.00	15	e27	e13	83
20	.02	6.2	e3.2	.76	.00	93	51	e.94	38	e30	15	47
21	.27	6.7	3.3	.90	e.23	48	45	e4.3	e43	e24	12	e23
22	.65	5.5	6.0	2.7	e.00	47	36	e11	e30	e30	12	e18
23	.49	4.4	9.3	2.2	e.30	44	37	e6.1	e21	e37	e85	e11
24	.80	4.1	e10	1.8	e.14	29	39	33	e16	40	e37	e7.4
25	.48	3.5	e12	1.4	e.97	22	86	99	e12	25	e41	e6.7
26	2.5	4.1	e13	.88	e1.2	16	69	126	31	20	e34	e5.5
27	108	4.2	e11	.37	e1.9	15	51	285	32	14	28	e2.6
28	158	3.3	4.2	.54	e2.5	11	47	83	20	e32	29	e2.2
29	64	4.2	5.2	2.5	---	12	55	44	15	e41	e43	e3.9
30	86	5.0	4.4	14	---	10	91	128	12	e50	35	e3.4
31	2000	---	e3.8	36	---	8.9	---	85	---	e63	31	---
TOTAL	4222.19	1237.4	145.4	113.48	237.84	555.2	1653.29	4582.18	922.8	1025.8	1675	1068.7
MEAN	136	41.2	4.69	3.66	8.49	17.9	55.1	148	30.8	33.1	54.0	35.6
MAX	2000	619	13	36	58	93	473	1590	87	69	213	144
MIN	.01	3.3	2.5	.37	.00	3.0	.00	.00	8.3	8.6	12	2.2
AC-FT	8370	2450	288	225	472	1100	3280	9090	1830	2030	3320	2120

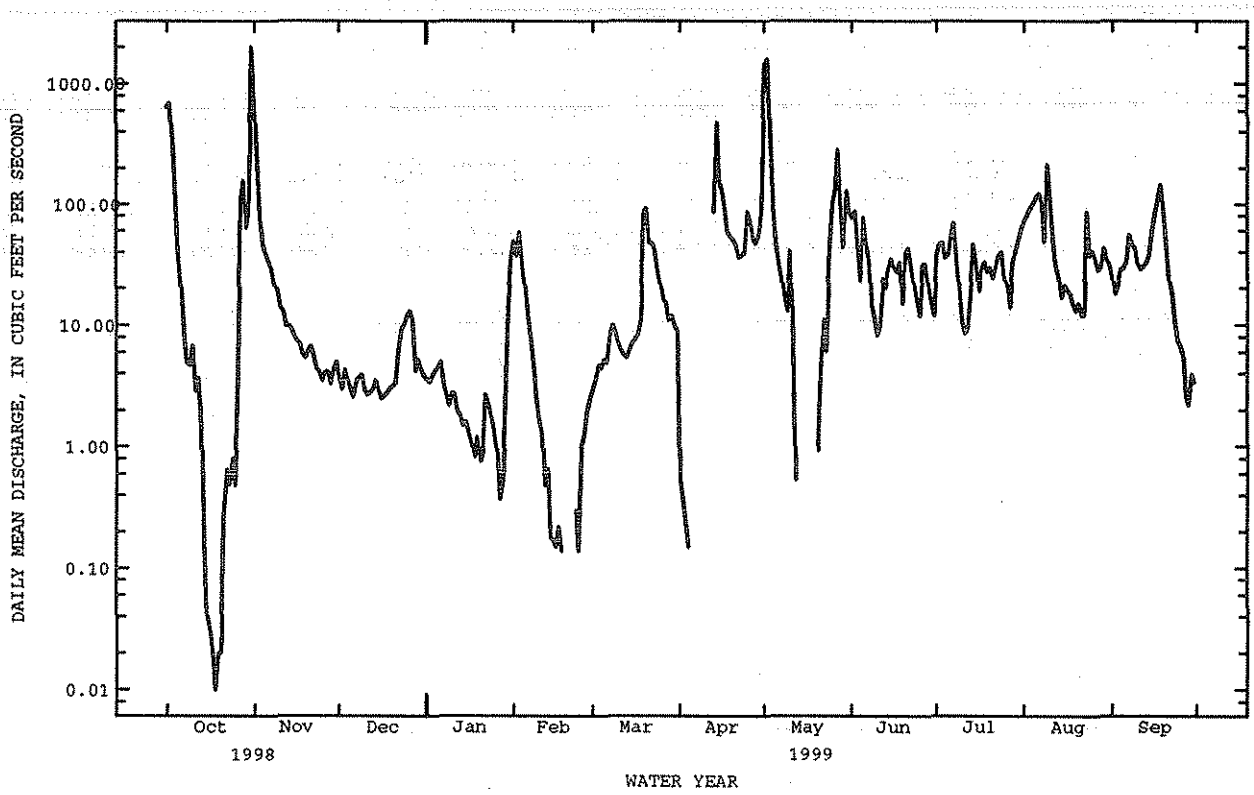
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1999, BY WATER YEAR (WY)

MEAN	37.2	9.78	10.0	5.62	7.30	7.73	28.7	47.6	78.0	118	126	71.1
MAX	320	41.2	129	27.9	42.5	52.1	346	203	492	1203	575	515
(WY)	1961	1999	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1959 - 1999	
ANNUAL TOTAL	18823.01		17439.28			
ANNUAL MEAN	51.6		47.8		45.4	
HIGHEST ANNUAL MEAN					204	1960
LOWEST ANNUAL MEAN					4.72	1964
HIGHEST DAILY MEAN	2000	Oct 31	2000	Oct 31	13800	Jul 9 1960
LOWEST DAILY MEAN	.00	Feb 13	.00	Feb 19	.00	Oct 20 1959
ANNUAL SEVEN-DAY MINIMUM	.00	Mar 23	.00	Apr 5	.00	Oct 20 1959
INSTANTANEOUS PEAK FLOW			4440	Oct 31	[a]26700	Jul 9 1960
INSTANTANEOUS PEAK STAGE			6.89	Oct 31	14.30	Jul 9 1960
INSTANTANEOUS LOW FLOW			.00	Oct 14	.00	Oct 20 1959
ANNUAL RUNOFF (AC-FT)	37340		34590		32900	
10 PERCENT EXCEEDS	97		85		63	
50 PERCENT EXCEEDS	4.1		12		5.4	
90 PERCENT EXCEEDS	.00		.34		.00	

e Estimated
a From slope-area measurement of peak flow.



07227100 REVUELTO CREEK NEAR LOGAN, NM--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV												
25...	0915	3.5	1910	8.4	5.5	4.0	674	11.0	96	320	65	38
JAN												
20...	1245	E3.2	2430	8.4	18.5	10.0	664	10.6	109	380	70	49
JUN												
14...	1410	47	1470	8.4	--	28.0	680	7.0	101	280	60	30
JUL												
27...	0850	17	1110	8.5	29.5	23.0	674	7.6	101	290	64	32

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)
NOV											
25...	270	7	3.7	241	480	160	.5	9.2	1180	282	<10
JAN											
20...	370	8	3.8	251	650	240	.7	2.6	1540	316	E19
JUN											
14...	200	5	4.5	216	470	50	.6	8.1	958	283	36
JUL											
27...	110	3	5.5	202	320	40	.5	7.7	699	162	<10

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

WATER-QUALITY RECORDS

LOCATION.--Lat 35°23'35", long 103°02'30", in SW$^1/_4$ 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 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV												
24...	1200	E20	7570	8.3	21.5	12.0	670	9.5	103	590	130	65
JUN												
14...	1130	393	1150	8.4	--	21.5	680	7.8	100	240	47	30
JUL												
26...	1230	32	3960	8.2	34.0	29.0	675	6.9	103	380	76	47
SEP												
09...	1300	E24	3500	8.4	24.0	25.5	680	8.6	120	360	73	44

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)
NOV											
24...	1500	26	7.2	263	460	2100	.6	12	4450	386	52
JUN											
14...	140	4	5.1	186	290	83	.5	5.3	707	143	<10
JUL											
26...	620	14	7.6	221	360	950	.7	9.0	2200	231	<30
SEP											
09...	550	13	1.5	219	350	790	.5	9.9	1950	197	<10

09346400 SAN JUAN RIVER NEAR CARRACAS, CO

LOCATION.--Lat 37°00'49", long 107°18'42", in SE$^1/_4$SW$^1/_4$ sec.17, T.32 N., R.4 W., Archuleta County, Hydrologic Unit 14080101, on right bank five feet above the maximum water surface of Navajo Reservoir, 3 mi northwest of Carracas, 7.2 mi upstream from Piedra River.

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.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	729	329	e210	e140	271	455	1670	2230	898	715	893
2	248	676	e330	e220	e150	315	460	1600	2170	842	799	1140
3	211	582	e330	e200	e150	314	421	1670	1790	750	951	1550
4	180	443	333	e180	e160	316	420	1900	1800	704	1630	1250
5	173	406	314	e170	e170	301	385	1380	1730	656	1530	986
6	157	380	319	e180	e180	272	384	1040	1490	606	1960	829
7	149	320	261	e180	e170	264	528	980	1370	575	1580	794
8	141	322	e255	e190	e160	272	936	1040	1600	623	1130	675
9	141	596	e240	e180	e170	255	1030	1170	1880	623	928	588
10	139	348	e240	e170	e170	244	770	1240	2010	587	839	540
11	128	322	e230	e170	e160	237	763	1160	2030	477	1100	498
12	129	361	e220	e180	e160	242	795	1010	2010	496	1010	521
13	118	428	e230	e190	e150	234	1000	1030	1820	406	822	471
14	118	525	e240	e180	e160	242	864	1310	1910	369	706	440
15	119	523	e230	e170	e170	265	797	1360	1970	421	1620	471
16	120	587	e230	e170	e180	285	736	1400	2030	431	1590	647
17	129	572	e240	e170	e190	304	766	1330	2030	370	1070	579
18	127	531	e250	e180	e190	325	616	1330	2010	396	874	596
19	133	462	e250	e170	e200	320	681	1420	1960	641	833	691
20	148	418	e250	e180	e200	343	837	1700	1960	699	721	691
21	252	348	e240	e180	e180	393	951	1740	1850	672	837	624
22	273	354	e220	e170	e180	456	988	1830	1800	843	739	550
23	356	357	e210	e160	e180	448	968	1940	1710	969	738	512
24	388	315	e190	e160	198	436	934	2130	1610	775	814	537
25	302	299	e190	e170	244	441	1140	1900	1490	804	844	472
26	1280	281	e190	e170	263	487	1240	1600	1440	729	740	423
27	1320	286	e190	e160	241	490	1190	1540	1310	808	691	386
28	1130	289	e200	e160	243	469	1090	1500	1260	788	853	361
29	654	321	e200	e150	---	429	1030	1790	1090	815	813	353
30	601	366	e210	e140	---	441	1270	2070	969	808	837	338
31	735	---	e200	e140	---	455	---	2140	---	668	813	---
TOTAL	10233	12747	7561	5400	5109	10566	24445	46920	52329	20249	31127	19406
MEAN	330	425	244	174	182	341	815	1514	1744	653	1004	647
MAX	1320	729	333	220	263	490	1270	2140	2230	969	1960	1550
MIN	118	281	190	140	140	234	384	980	969	369	691	338
AC-FT	20300	25280	15000	10710	10130	20960	48490	93070	103800	40160	61740	38490

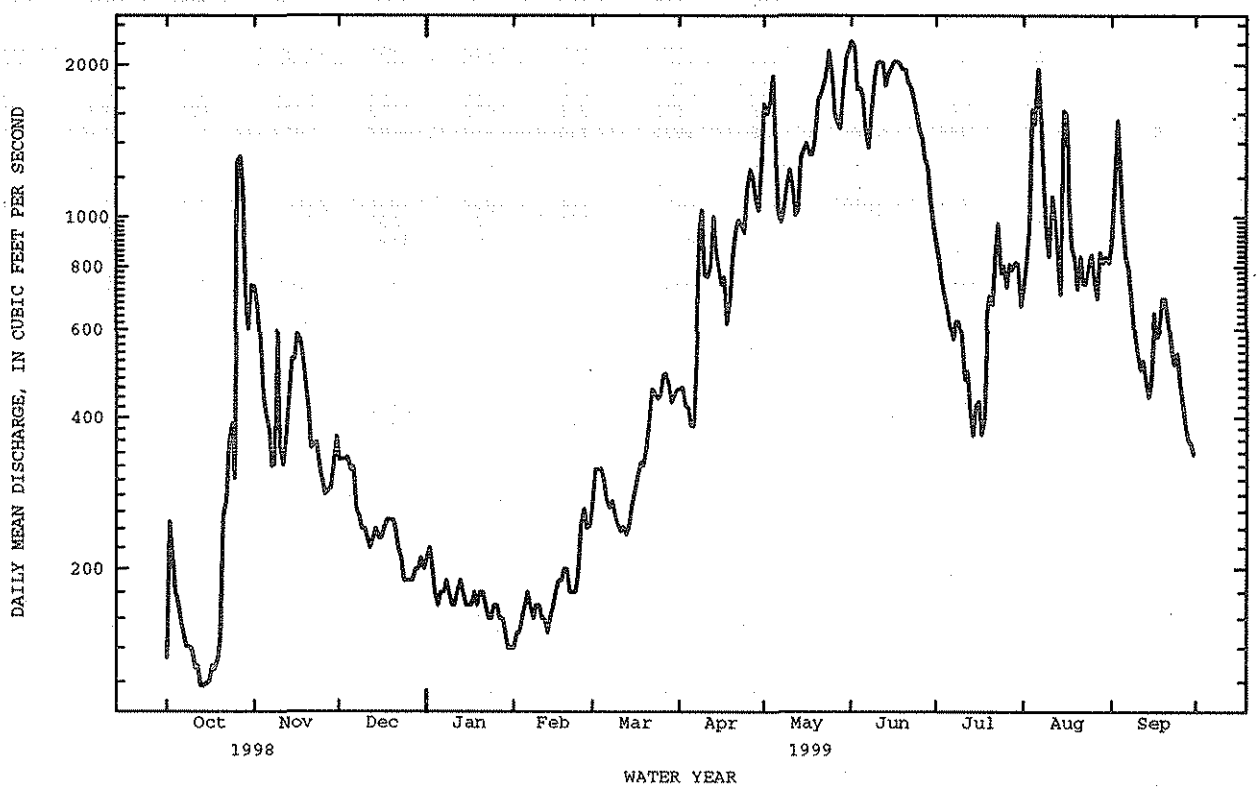
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1999, BY WATER YEAR (WY)

MEAN	317	254	180	161	200	616	1088	1763	1853	675	355	306
MAX	932	983	406	296	481	1369	2524	3195	4039	2427	1004	880
(WY)	1987	1987	1987	1987	1986	1995	1979	1973	1985	1995	1999	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1971 - 1999	
ANNUAL TOTAL	201593		246092			
ANNUAL MEAN	552		674		[a]648	
HIGHEST ANNUAL MEAN					[b]1191	1985
LOWEST ANNUAL MEAN					[b]200	1977
HIGHEST DAILY MEAN	2470	May 22	2230	Jun 1	[b]6700	Mar 12 1985
LOWEST DAILY MEAN	98	Sep 27	118	Oct 13	[c]28	Sep 14 1974
ANNUAL SEVEN-DAY MINIMUM	102	Sep 23	123	Oct 12	39	Sep 14 1978
INSTANTANEOUS PEAK FLOW			4400	Aug 4	[d]8590	Mar 6 1995
INSTANTANEOUS PEAK STAGE			[f]5.50	Aug 4	[g]8.10	Mar 6 1995
ANNUAL RUNOFF (AC-FT)	399900		488100		469600	
10 PERCENT EXCEEDS	1390		1600		1730	
50 PERCENT EXCEEDS	314		469		293	
90 PERCENT EXCEEDS	151		170		115	

e Estimated
a Average discharge for 9 years (water years 1962-70), 632 ft^3/s, 457,900 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 minimum daily discharge for period of record, (corrected).
d Maximum discharge for period of record, 9,730 ft^3/s, Sept. 6, 1970, gage height, 8.34 ft, from rating curve extended above 6,000 ft^3/s, on basis of slope-area measurement of peak flow.
f Maximum gage height, 9.25 ft, Jan. 14 and 15, backwater from ice.
g 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 NE$^1/_4$SW$^1/_4$ 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.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	464	243	104	e67	165	343	1020	1400	626	459	673
2	302	439	240	99	e70	179	332	983	1360	591	454	812
3	200	405	234	89	69	176	275	1070	1120	529	813	1340
4	170	353	227	83	76	186	313	1290	1090	623	1230	1170
5	151	310	225	86	86	182	271	1050	1060	552	1810	888
6	133	281	207	93	92	170	276	849	891	468	2050	720
7	123	271	167	93	85	168	349	782	804	469	1910	639
8	118	273	153	95	e73	168	522	820	970	612	1320	540
9	110	344	156	86	e80	162	540	937	1150	594	974	472
10	103	244	173	82	e82	156	454	1010	1260	534	1050	432
11	98	235	138	86	85	152	460	974	1260	437	1340	391
12	94	260	129	87	68	152	564	878	1200	438	1080	408
13	93	259	155	88	75	142	882	941	1030	368	818	361
14	96	267	148	83	e76	152	767	1190	1150	329	658	349
15	92	298	146	80	e77	168	794	1230	1170	400	1060	473
16	87	323	150	82	e80	179	644	1220	1170	389	1270	659
17	97	329	158	85	80	192	579	1160	1180	316	1010	554
18	98	312	149	81	82	194	560	1160	1210	325	812	557
19	102	285	146	81	88	194	605	1230	1170	489	979	590
20	114	250	e145	84	e88	212	701	1360	1210	718	864	590
21	170	224	141	87	e88	241	828	1390	1110	713	1110	514
22	243	230	129	83	e98	280	866	1450	1110	775	1140	454
23	266	219	118	78	e105	316	813	1440	1120	678	1030	437
24	286	206	118	83	109	319	975	1520	1070	652	956	430
25	239	203	e110	82	e130	345	1280	1380	1010	560	1110	394
26	657	205	e115	84	e130	358	1110	1200	1010	503	802	357
27	645	227	e120	80	e140	354	1000	1210	926	446	660	325
28	749	227	e120	74	151	343	946	1180	874	437	640	299
29	494	264	119	68	---	331	939	1370	766	442	607	281
30	452	268	110	e72	---	354	996	1360	676	562	676	267
31	504	---	108	e66	---	342	---	1340	---	430	749	---
TOTAL	7267	8475	4797	2604	2530	7032	19984	35994	32527	16005	31441	16376
MEAN	234	282	155	84.0	90.4	227	666	1161	1084	516	1014	546
MAX	749	464	243	104	151	358	1280	1520	1400	775	2050	1340
MIN	87	203	108	66	67	142	271	782	676	316	454	267
AC-FT	14410	16810	9510	5170	5020	13950	39640	71390	64520	31750	62360	32480

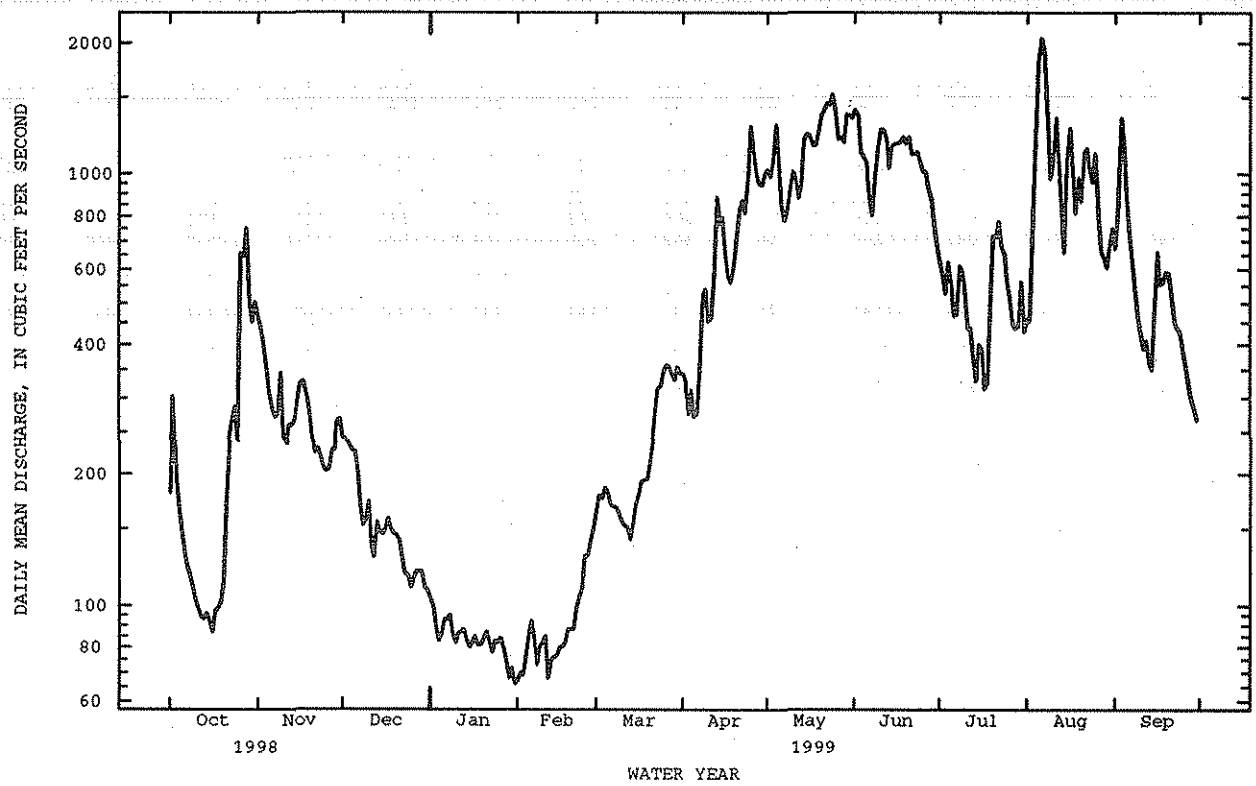
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1999, BY WATER YEAR (WY)

MEAN	180	131	92.8	76.6	95.1	331	880	1311	1072	357	235	223
MAX	618	517	257	153	244	895	2126	2926	2526	1133	1014	943
(WY)	1973	1987	1987	1987	1986	1995	1979	1979	1979	1975	1999	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1963 - 1999	
ANNUAL TOTAL	136159		185032			
ANNUAL MEAN	373		507		416	
HIGHEST ANNUAL MEAN					822	1979
LOWEST ANNUAL MEAN					94.0	1977
HIGHEST DAILY MEAN	1500	May 4	2050	Aug 6	5360	Sep 6 1970
LOWEST DAILY MEAN	67	Sep 28	[e]66	Jan 31	19	Nov 29 1989
ANNUAL SEVEN-DAY MINIMUM	72	Sep 24	69	Jan 28	26	Dec 11 1989
INSTANTANEOUS PEAK FLOW			2310	Aug 6	[a]8370	Sep 6 1970
INSTANTANEOUS PEAK STAGE			4.11	Aug 6	[b]6.38	Sep 6 1970
ANNUAL RUNOFF (AC-FT)	270100		367000		301400	
10 PERCENT EXCEEDS	1050		1170		1210	
50 PERCENT EXCEEDS	225		349		156	
90 PERCENT EXCEEDS	81		86		55	

e Estimated
a From rating curve extended above 4,400 ft^3/s, on basis of slope-area measurement of peak flow.
b 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 NE$^1/_4$NW$^1/_4$ 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.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	564	249	80	86	75	103	65	122	463	305	523	705
2	200	202	72	66	66	104	79	130	559	265	544	819
3	134	188	204	e52	58	104	72	142	810	290	1090	1270
4	139	159	223	e52	57	104	79	207	692	362	1240	1400
5	148	157	231	53	68	103	72	187	370	380	1700	1020
6	147	151	231	51	e78	103	77	134	737	277	2070	988
7	134	155	260	e47	e78	104	84	425	378	249	952	971
8	125	165	409	e48	79	109	133	610	285	247	820	944
9	124	367	432	e50	99	107	132	609	642	254	922	937
10	124	219	436	e52	89	86	108	572	1160	312	1460	909
11	119	154	458	53	73	82	99	520	1330	284	2010	803
12	108	150	548	e52	69	83	110	505	1190	265	2060	549
13	102	167	549	51	68	71	136	436	984	402	1290	481
14	104	155	491	e48	64	54	143	388	911	500	800	378
15	117	158	119	e47	60	51	136	369	1200	792	964	368
16	120	151	92	e50	59	50	128	354	1120	379	904	410
17	112	128	85	e48	60	51	121	304	1150	353	999	407
18	99	110	80	47	58	54	112	251	1270	371	956	384
19	91	98	78	67	58	54	108	209	1290	557	1240	368
20	223	88	77	102	e54	54	105	160	1220	472	1500	363
21	182	84	73	110	e57	58	90	162	1200	425	1790	342
22	264	82	73	134	60	60	82	788	1080	783	1710	335
23	191	80	100	136	55	61	97	1030	928	1110	1670	347
24	154	75	145	117	56	61	99	1070	968	1240	1640	348
25	155	72	145	112	66	59	158	1090	962	1120	1590	335
26	607	69	145	87	89	63	162	963	960	727	1560	334
27	266	67	147	78	98	65	141	562	970	479	1620	324
28	337	e75	151	78	102	62	127	549	960	369	1850	315
29	177	e80	146	82	---	60	117	499	867	359	1590	320
30	162	e80	136	81	---	59	116	488	635	459	1510	316
31	299	---	113	78	---	60	---	482	---	565	1240	---
TOTAL	5828	4135	6529	2215	1953	2299	3288	14317	27291	14952	41814	17790
MEAN	188	138	211	71.5	69.8	74.2	110	462	910	482	1349	593
MAX	607	367	549	136	102	109	162	1090	1330	1240	2070	1400
MIN	91	67	72	47	54	50	65	122	285	247	523	315
AC-FT	11560	8200	12950	4390	3870	4560	6520	28400	54130	29660	82940	35290

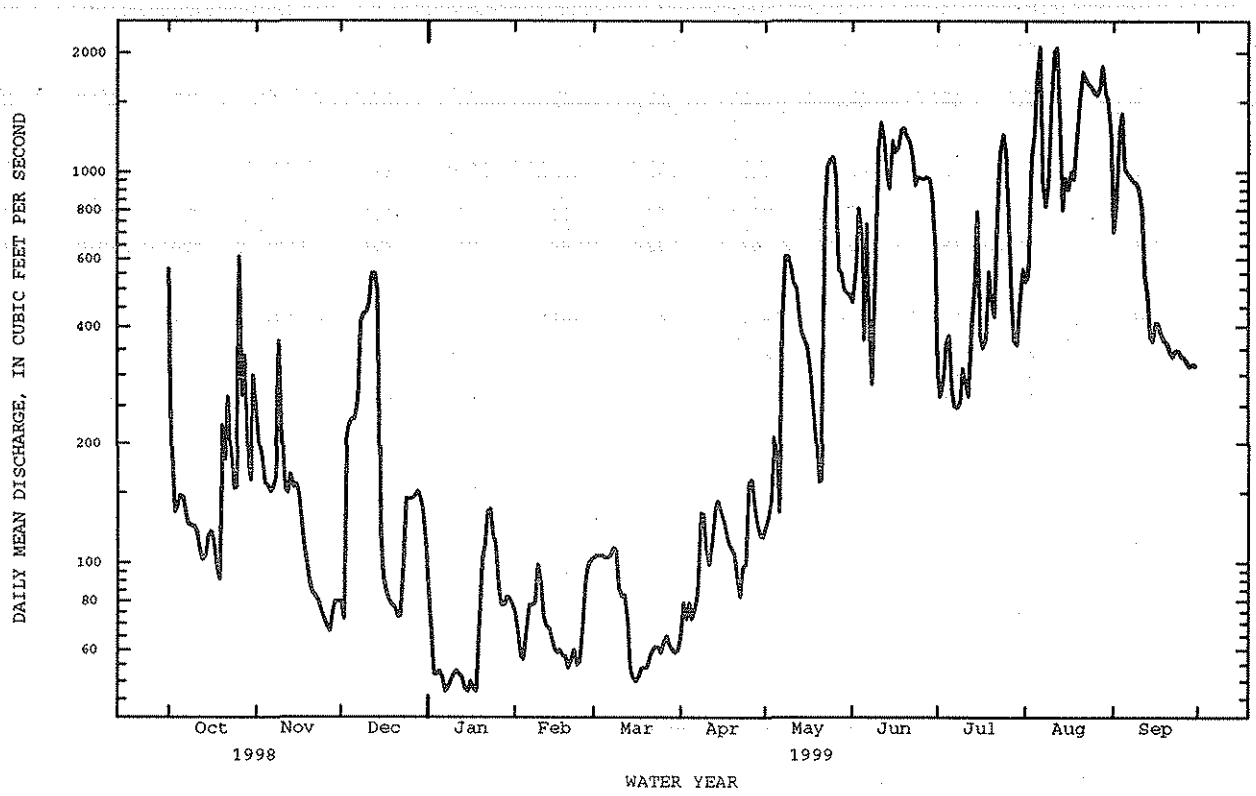
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1999, BY WATER YEAR (WY)

MEAN	198	139	106	76.2	98.9	222	348	440	520	309	244	221
MAX	672	709	396	182	362	972	1339	1719	1555	1381	1349	725
(WY)	1987	1987	1983	1985	1993	1993	1979	1958	1979	1957	1999	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1951 - 1999	
ANNUAL TOTAL	65324		142411			
ANNUAL MEAN	179		390		247	
HIGHEST ANNUAL MEAN					582	1973
LOWEST ANNUAL MEAN					77.4	1959
HIGHEST DAILY MEAN	807	Mar 27	2070	Aug 6	4560	Jul 27 1957
LOWEST DAILY MEAN	e64	Feb 1	e47	Jan 7	6.1	May 1 1977
ANNUAL SEVEN-DAY MINIMUM	66	Feb 10	49	Jan 12	8.3	Apr 30 1977
INSTANTANEOUS PEAK FLOW			2370	Aug 6	a6400	Jul 27 1957
INSTANTANEOUS PEAK STAGE			6.85	Aug 6	b8.95	Jul 27 1957
ANNUAL RUNOFF (AC-FT)	129600		282500		179000	
10 PERCENT EXCEEDS	335		1090		561	
50 PERCENT EXCEEDS	147		158		134	
90 PERCENT EXCEEDS	76		60		50	

e Estimated
a From rating curve extended above 5,100 ft^3/s.
b 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 SE$^1/_4$SW$^1/_4$ 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	51	e7.8	e4.8	4.3	2.7	2.4	7.7	50	76	79	57
2	55	23	e7.2	e4.4	e4.0	2.7	4.1	8.6	50	80	100	105
3	49	19	e6.4	e4.2	e3.6	2.5	4.2	8.8	52	90	255	122
4	50	17	e6.0	e4.2	e3.4	2.4	4.5	12	54	94	81	32
5	48	17	6.1	e4.4	e3.9	2.7	4.7	10	54	88	65	26
6	46	17	e5.8	e4.5	e4.4	2.4	4.7	8.6	58	100	75	29
7	45	16	5.7	e4.4	e4.6	2.8	3.4	8.1	59	89	23	32
8	45	18	5.1	e4.0	e4.7	3.0	3.8	10	57	88	28	32
9	44	85	e5.2	e4.0	e5.3	2.5	3.7	11	57	119	28	30
10	44	31	e5.2	e4.3	5.7	2.4	2.9	13	58	117	43	32
11	44	16	e5.4	e4.6	e4.5	2.3	2.0	27	61	99	31	31
12	43	15	e5.7	e4.4	e3.8	2.5	1.8	24	61	96	16	31
13	43	21	e5.5	e4.5	3.4	2.3	1.7	22	65	96	22	36
14	43	14	e5.5	e4.5	3.6	2.3	2.0	22	66	106	24	34
15	43	13	e5.6	e4.5	3.5	2.2	1.5	20	70	131	61	33
16	44	13	e5.9	e4.4	3.0	2.3	1.4	24	75	111	31	31
17	45	13	e5.8	e4.4	2.7	2.4	1.4	25	83	124	26	30
18	44	12	e5.8	e6.0	3.3	2.7	1.4	33	84	130	25	26
19	44	e10	e5.9	e7.4	3.6	2.8	1.4	31	84	127	60	38
20	45	e9.0	e5.2	e8.8	3.0	2.6	1.4	30	84	101	23	36
21	31	e8.6	e4.8	e10	3.0	2.4	1.6	34	88	72	51	30
22	33	e8.4	e4.7	e11	3.1	2.2	22	36	85	111	31	35
23	23	e8.2	e4.3	11	2.4	2.0	7.1	37	83	72	32	49
24	19	e7.7	e4.3	11	2.8	2.1	3.8	41	82	74	50	51
25	18	e7.2	e4.6	10	2.9	2.0	5.4	45	84	72	36	51
26	66	e7.0	e4.6	9.7	2.8	2.4	6.1	45	79	67	42	49
27	36	e6.8	e4.8	9.6	2.7	2.3	4.7	45	86	82	42	48
28	44	e7.4	e5.0	7.3	2.7	1.9	4.0	48	81	80	61	42
29	16	e7.8	e5.0	e7.8	---	1.9	3.5	48	75	58	51	40
30	17	e8.0	e4.9	3.4	---	1.8	7.9	50	75	59	46	42
31	56	---	e4.8	e4.0	---	1.8	---	50	---	61	52	---
TOTAL	1450	507.1	168.6	191.5	100.7	73.3	120.5	834.8	2100	2870	1590	1260
MEAN	46.8	16.9	5.44	6.18	3.60	2.36	4.02	26.9	70.0	92.6	51.3	42.0
MAX	227	85	7.8	11	5.7	3.0	22	50	88	131	255	122
MIN	16	6.8	4.3	3.4	2.4	1.8	1.4	7.7	50	58	16	26
AC-FT	2880	1010	334	380	200	145	239	1660	4170	5690	3150	2500

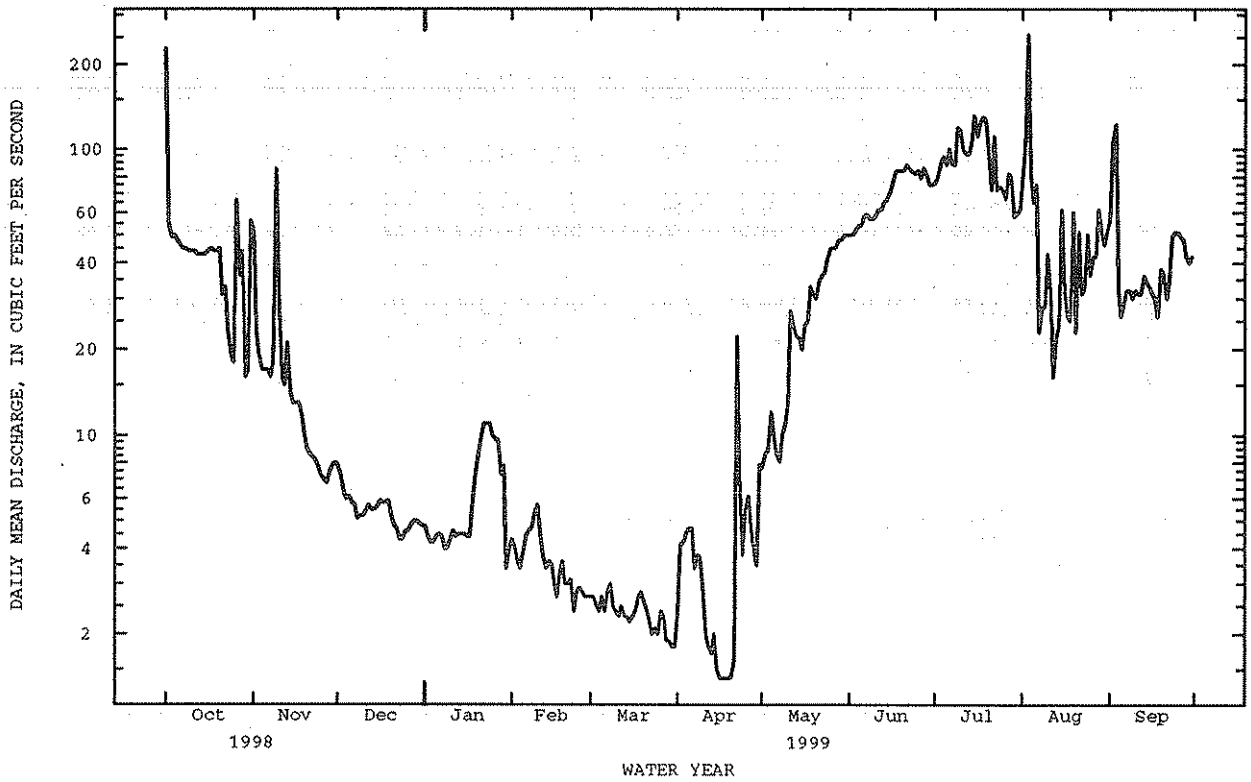
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1999, BY WATER YEAR (WY)

MEAN	35.0	10.8	5.54	4.79	10.0	18.6	13.4	39.3	58.0	68.1	66.4	58.9
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	2.36	3.77	15.7	24.4	21.2	32.1	26.5
(WY)	1978	1978	1960	1973	1996	1999	1978	1978	1977	1977	1977	1951

09355000 SPRING CREEK AT LA BOCA, CO--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1951 - 1999	
ANNUAL TOTAL	10108.5		11266.5			
ANNUAL MEAN	27.7		30.9		32.8	
HIGHEST ANNUAL MEAN					47.7	1987
LOWEST ANNUAL MEAN					15.6	1977
HIGHEST DAILY MEAN	227	Oct 1	255	Aug 3	918	Mar 6 1995
LOWEST DAILY MEAN	1.5	Mar 13	1.4	Apr 16	1.0	Feb 25 1951
ANNUAL SEVEN-DAY MINIMUM	1.8	Mar 10	1.4	Apr 15	1.0	Dec 7 1959
INSTANTANEOUS PEAK FLOW			496	Oct 1	[a]1980	Sep 6 1970
INSTANTANEOUS PEAK STAGE			3.78	Oct 1	[b]4.62	Sep 6 1970
ANNUAL RUNOFF (AC-FT)	20050		22350		23760	
10 PERCENT EXCEEDS	56		81		72	
50 PERCENT EXCEEDS	19		17		23	
90 PERCENT EXCEEDS	3.3		2.6		3.2	

e Estimated
a From rating curve extended above 160 ft^3/s, on the basis of field estimate of peak flow.
b Maximum gage height, 5.98 ft, Mar. 9, 1960, backwater from ice.



09355100 NAVAJO RESERVOIR NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'28", long 107°36'31", in SW$^1/_4$SE$^1/_4$ 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, 1,667,700 acre-ft, Aug. 12, elevation, 6,082.83 ft; minimum contents, 1,374,500 acre-ft, Oct. 19, elevation, 6,062.08 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1382300	1401800	1414900	1411700	1393600	1380200	1379000	1424900	1522000	1561700	1610300	1637600
2	1382100	1403300	1415000	1411100	1393100	1379900	1379900	1428500	1519500	1562800	1611800	1637000
3	1381900	1404400	1415300	1410500	1392600	1380200	1380400	1432600	1516400	1563700	1617800	1637600
4	1381900	1404900	1415400	1410000	1391800	1379800	1381000	1437900	1512400	1564800	1625200	1637300
5	1381600	1405500	1415800	1409200	1391600	1379500	1381200	1441700	1507800	1566000	1635800	1634600
6	1381200	1405500	1416100	1408600	1391300	1379400	1381500	1444100	1504300	1566900	1645200	1631300
7	1381100	1406000	1416300	1408100	1391000	1379000	1381500	1446800	1498700	1566900	1653800	1627400
8	1380300	1406500	1416600	1407600	1390600	1378600	1383300	1450600	1493600	1568100	1658500	1623200
9	1379600	1409200	1417100	1407000	1390200	1378500	1384100	1458500	1490300	1569800	1661300	1618200
10	1379300	1410000	1417700	1406400	1389400	1378200	1384900	1462100	1488900	1571300	1663300	1613100
11	1378700	1410000	1418100	1405700	1388900	1377700	1385600	1465200	1489700	1572000	1664700	1607500
12	1378400	1410500	1418900	1405100	1388400	1377400	1386000	1468100	1491400	1572400	1667700	1602000
13	1377700	1410700	1419400	1404900	1387900	1376900	1388800	1472000	1491900	1572700	1666400	1597400
14	1376900	1411500	1419500	1404300	1387300	1376700	1390100	1476400	1492600	1573000	1662500	1594900
15	1376100	1412100	1419400	1403300	1386800	1376300	1391400	1481200	1494200	1574500	1664100	1588800
16	1375600	1412900	1418900	1402300	1386500	1376000	1392200	1485500	1497300	1575100	1663700	1585900
17	1375400	1413400	1418500	1401800	1385600	1376000	1393500	1488000	1501200	1575900	1662500	1583800
18	1375000	1413900	1418200	1401500	1385000	1375800	1394500	1493300	1506800	1576800	1660700	1580500
19	1374500	1414200	1417500	1401000	1384300	1375800	1395300	1498400	1513000	1578900	1659200	1578700
20	1375000	1414300	1417300	1400600	1383900	1375500	1395600	1498400	1519500	1581300	1657900	1573300
21	1375400	1414500	1417100	1400300	1383800	1375500	1397500	1503700	1525700	1583400	1658200	1570400
22	1375900	1414500	1416600	1399900	1383400	1375500	1399800	1509900	1530300	1587800	1658500	1566600
23	1376400	1414700	1415900	1399500	1383200	1375500	1401900	1517000	1535200	1591900	1657600	1564100
24	1377200	1414500	1415300	1399100	1382900	1375800	1404500	1524600	1539700	1595900	1656700	1563500
25	1377400	1414300	1414700	1398700	1382600	1376000	1405600	1529700	1543800	1598900	1654400	1563400
26	1384600	1414200	1414200	1397900	1382100	1376100	1411400	1531700	1548400	1601500	1652100	1560200
27	1388400	1414200	1413700	1397400	1381300	1376300	1414300	1530200	1552100	1603800	1649400	1558900
28	1391800	1414200	1413100	1396800	1380600	1376800	1416700	1528300	1555900	1603900	1648200	1558300
29	1395400	1414500	1412700	1396000	---	1377600	1418600	1527600	1558500	1605800	1645800	1557900
30	1398100	1415000	1412500	1395200	---	1377700	1421000	1525000	1560500	1607600	1642400	1558500
31	1400000	---	1412100	1394400	---	1378400	---	1523600	---	1608800	1640500	---
MAX	1400000	1415000	1419500	1411700	1393600	1380200	1421000	1531700	1560500	1608800	1667700	1637600
MIN	1374500	1401800	1412100	1394400	1380600	1375500	1379000	1424900	1488900	1561700	1610300	1557900
(+)	6064.04	6065.17	6064.95	6063.61	6062.55	6062.38	6065.62	6073.07	6075.64	6078.93	6081.04	6075.50
(++)	+20000	+15000	-2900	-17700	-13800	-2200	+42600	+102600	+36900	+48300	+31700	-82000

CAL YR 1998 MAX 1576100 MIN 1374500 (++) -145900
WTR YR 1999 MAX 1667700 MIN 1374500 (++) +178500

(+) 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 NW$^1/_4$NE$^1/_4$ 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	547	568	562	577	587	617	535	567	4770	524	600	3970
2	539	572	562	573	587	614	537	568	5090	525	541	3120
3	538	570	561	569	587	620	537	560	5100	529	543	4210
4	539	570	559	567	588	621	539	548	5090	531	622	4670
5	537	569	560	553	591	620	539	545	5090	531	636	4660
6	537	570	557	543	591	615	539	545	5100	532	861	4650
7	538	575	511	545	590	615	539	545	5090	535	1160	4610
8	539	579	474	543	590	617	540	547	5090	533	1160	4530
9	540	602	473	542	591	615	538	547	5090	561	1390	4530
10	542	571	473	541	591	615	534	546	4650	542	2180	4540
11	543	570	472	541	587	610	533	547	3630	535	2770	4540
12	543	573	472	548	585	612	535	547	3110	532	3130	4550
13	543	577	477	548	586	611	535	547	3120	531	3840	4010
14	552	577	531	549	587	610	537	546	3120	532	3840	3100
15	551	577	573	572	586	569	535	546	2780	524	3920	2940
16	551	576	572	589	586	528	535	547	2130	523	3860	2940
17	552	575	572	588	597	530	536	547	1570	522	3880	2940
18	553	573	572	588	653	531	539	547	1040	527	3880	2940
19	554	572	572	587	645	532	540	547	559	614	3880	2940
20	567	569	574	589	619	531	541	547	543	527	3900	2940
21	563	569	575	593	617	532	551	545	547	525	3910	2940
22	561	569	567	589	615	530	554	546	542	525	3920	2950
23	565	569	570	588	613	532	550	547	515	527	4020	2570
24	565	568	570	590	614	530	556	977	490	535	4450	2030
25	599	566	570	590	614	529	556	2090	496	531	4530	2030
26	571	565	570	590	614	530	556	3130	501	534	4510	2020
27	562	564	568	588	614	531	558	4010	503	542	4500	2020
28	558	566	574	589	616	529	559	4590	498	532	4530	1580
29	563	568	575	592	---	529	560	4650	510	532	4540	873
30	573	563	574	587	---	530	568	4640	521	535	4540	873
31	570	---	572	587	---	532	---	4640	---	537	4570	---
TOTAL	17155	17152	16964	17735	16841	17667	16311	41351	76885	16565	94613	97216
MEAN	553	572	547	572	601	570	544	1334	2563	534	3052	3241
MAX	599	602	575	593	653	621	568	4650	5100	614	4570	4670
MIN	537	563	472	541	585	528	533	545	490	522	541	873
AC-FT	34030	34020	33650	35180	33400	35040	32350	82020	152500	32860	187700	192800
(+)	2000	0	0	0	0	2600	6800	12800	32300	28800	15900	10600

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

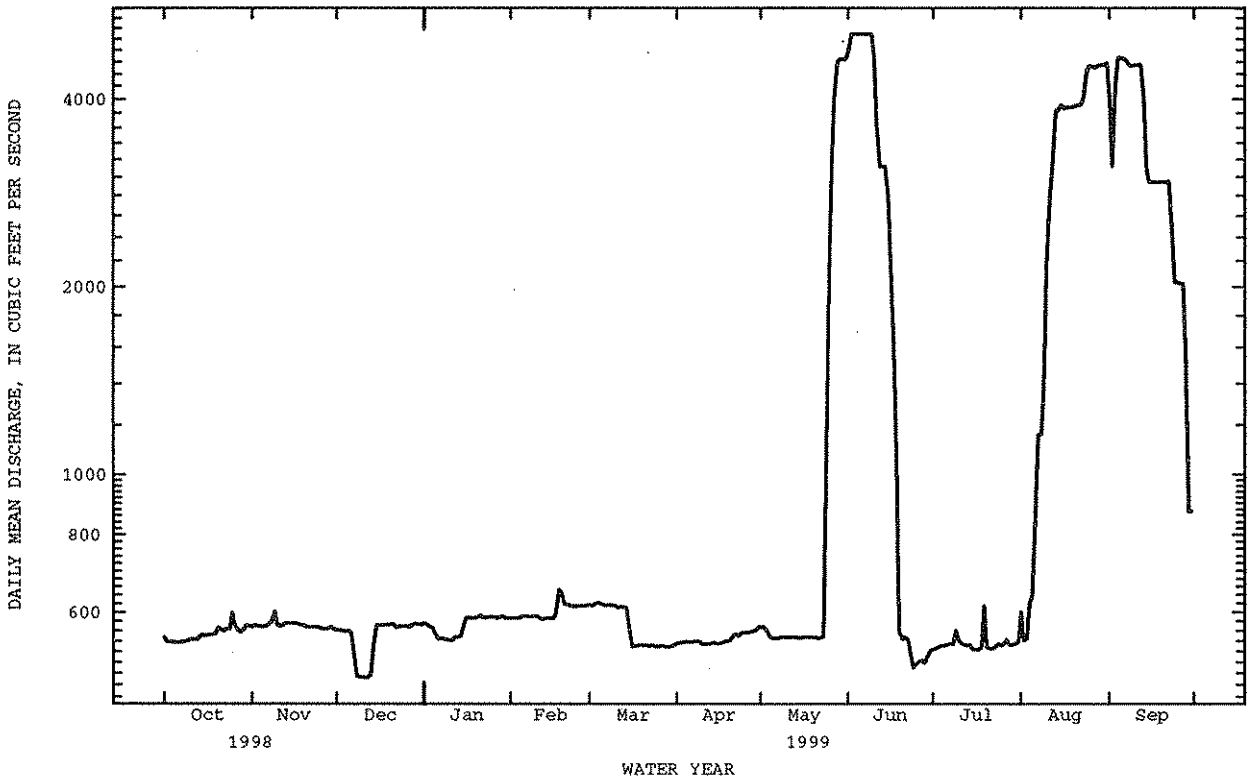
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1999, BY WATER YEAR (WY)

MEAN	863	890	1006	1057	1061	1146	1401	1814	1886	1244	1010	968
MAX	2131	3018	2886	2768	2382	4216	4768	4962	5169	5126	3508	3241
(WY)	1966	1966	1966	1986	1987	1993	1979	1985	1979	1979	1973	1999
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

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1963 - 1999	
ANNUAL TOTAL	402538		446455			
ANNUAL MEAN	1103		1223		[a]1195	
HIGHEST ANNUAL MEAN					2686	1987
LOWEST ANNUAL MEAN					280	1963
HIGHEST DAILY MEAN	5120	Jun 6	5100	Jun 3	6420	Jun 21 1965
LOWEST DAILY MEAN	472	Dec 11	472	Dec 11	30	Mar 12 1964
ANNUAL SEVEN-DAY MINIMUM	479	Dec 7	479	Dec 7	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)	798400		885500		866100	
10 PERCENT EXCEEDS	3000		3940		2660	
50 PERCENT EXCEEDS	600		570		657	
90 PERCENT EXCEEDS	554		531		406	

a Average discharge for 7 years (water years 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.



09355500 SAN JUAN RIVER NEAR ARCHULETA, NM--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
DEC										
08...	1445	477	239	8.9	10.0	6.5	4.8	623	12.6	126
JAN										
13...	0745	549	230	8.0	-6.0	3.0	6.0	622	10.4	95
JUN										
01...	1420	4540	232	8.2	28.0	8.0	20	620	11.8	123
JUL										
08...	1630	531	242	8.8	31.0	13.5	1.7	624	10.6	125

DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
DEC										
08...	88	--	27	5.1	12	.5	1.6	121	4	106
JAN										
13...	83	--	25	4.9	11	.6	1.6	155	0	127
JUN										
01...	86	4	26	5.2	12	.5	1.7	100	0	82
JUL										
08...	92	20	28	5.4	13	.6	1.5	82	3	73

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)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC										
08...	73	40	2.1	.1	11	128	162	--	--	--
JAN										
13...	75	37	1.9	.2	11	149	170	18	27	96
JUN										
01...	78	33	1.9	.1	12	150	140	--	--	--
JUL										
08...	77	39	2.5	.2	11	153	144	--	--	--

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.

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. 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

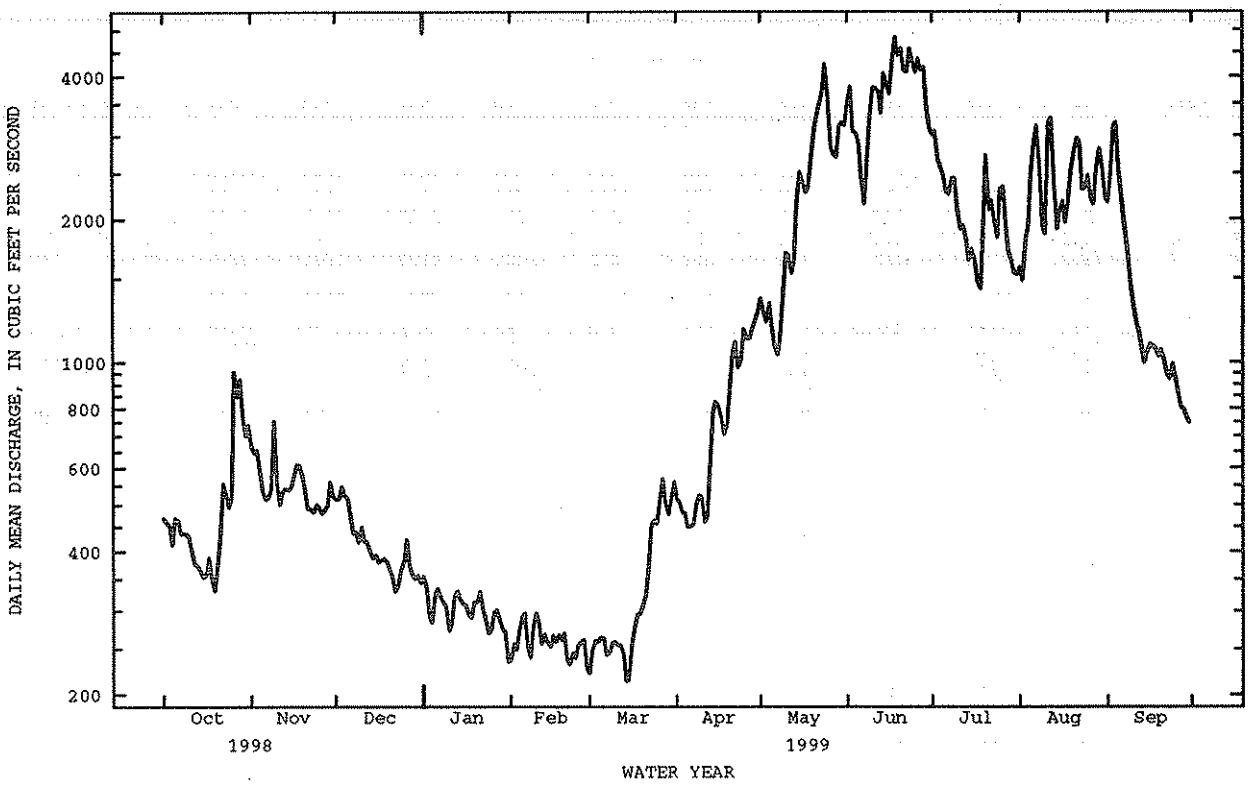
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	469	666	514	354	238	222	516	1360	3480	3020	1580	2170
2	460	645	516	335	256	248	507	1270	3800	3060	1490	2450
3	452	655	546	293	249	260	482	1220	3060	2680	1820	3130
4	413	590	523	284	273	258	483	1330	3030	2580	1930	3190
5	469	539	519	326	291	264	451	1180	2910	2470	2510	2560
6	465	514	477	334	297	263	452	1080	2430	2280	2930	2180
7	435	518	437	320	254	243	454	1040	2160	2260	3140	1940
8	437	537	440	312	240	246	503	1140	2660	2440	2510	1700
9	435	752	418	308	278	257	523	1420	3330	2440	1940	1490
10	429	561	449	273	297	258	520	1690	3780	2110	1860	1350
11	396	501	420	282	284	254	462	1680	3780	1910	3170	1230
12	376	534	420	321	256	254	471	1540	3720	1940	3270	1170
13	374	542	401	330	268	244	634	1630	3350	1820	2330	1080
14	363	539	387	317	258	214	782	2160	4050	1640	1910	1000
15	353	544	393	311	253	215	825	2510	3840	1730	2080	1050
16	359	569	380	309	266	255	807	2410	3670	1640	2180	1090
17	387	608	384	295	258	275	764	2270	4390	1490	1970	1080
18	353	608	386	290	267	296	707	2320	4830	1430	2130	1070
19	331	577	381	313	261	296	741	2620	4430	1920	2530	1030
20	372	538	366	313	270	308	872	3040	4580	2720	2750	1060
21	423	493	353	329	236	325	1050	3290	4110	2090	2960	1010
22	553	491	330	305	232	373	1100	3520	4080	2190	2890	946
23	533	484	341	287	245	453	978	3700	4570	1990	2310	924
24	495	502	366	270	239	465	1010	4230	4320	1830	2320	992
25	519	496	381	272	254	457	1170	3600	4080	2300	2470	931
26	957	481	422	298	258	521	1120	2850	4340	2340	2220	857
27	847	489	374	301	261	567	1120	2740	4120	1940	2150	805
28	921	499	355	288	226	506	1170	2700	4170	1710	2560	800
29	756	558	351	275	---	479	1230	3140	3510	1630	2810	768
30	700	520	357	272	---	514	1280	3200	3100	1540	2590	747
31	738	---	344	235	---	558	---	3150	---	1530	2210	---
TOTAL	15570	16550	12731	9352	7265	10348	23184	71030	111680	64670	73520	41800
MEAN	502	552	411	302	259	334	773	2291	3723	2086	2372	1393
MAX	957	752	546	354	297	567	1280	4230	4830	3060	3270	3190
MIN	331	481	330	235	226	214	451	1040	2160	1430	1490	747
AC-FT	30880	32830	25250	18550	14410	20530	45990	140900	221500	128300	145800	82910

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1999, BY WATER YEAR (WY)

MEAN	473	346	271	248	262	431	1079	2526	3045	1285	650	544
MAX	2479	1068	555	388	467	1043	2192	5686	6145	3710	2372	1922
(WY)	1942	1942	1987	1973	1987	1993	1985	1941	1957	1957	1999	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1934 - 1999	
ANNUAL TOTAL	312391		457700			
ANNUAL MEAN	856		1254		939	
HIGHEST ANNUAL MEAN					1713	1941
LOWEST ANNUAL MEAN					340	1977
HIGHEST DAILY MEAN	4310	Jun 3	4830	Jun 18	11800	Jun 19 1949
LOWEST DAILY MEAN	210	Mar 2	214	Mar 14	.00	Nov 1 1933
ANNUAL SEVEN-DAY MINIMUM	247	Feb 25	242	Mar 10	.00	Nov 1 1933
INSTANTANEOUS PEAK FLOW			5430	Jun 18	13100	Jun 19 1949
INSTANTANEOUS PEAK STAGE			8.65	Jun 18	11.45	Jun 19 1949
INSTANTANEOUS LOW FLOW			204	Mar 14	63	Jan 21 1935
ANNUAL RUNOFF (AC-FT)	619600		907800		680500	
10 PERCENT EXCEEDS	2010		3110		2450	
50 PERCENT EXCEEDS	517		608		415	
90 PERCENT EXCEEDS	274		267		210	



09364500 ANIMAS RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'17", long 108°12'05", in SW$^1/_4$SW$^1/_4$ sec.15, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080104, in Boyd City Park, on right bank 900 ft upstream from bridge on Miller Ave., 0.4 mi downstream from bridge on U.S. Highway 64 in Farmington, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--1,360 mi^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 except for estimated daily discharges, which are poor. Diversions for irrigation of about 30,000 acres upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, when a stage of about 16.5 ft was reached (datum in use Oct. 1938 to Nov. 1973). Flood of Sept. 6, 1909, reached a stage of 11.1 ft, 1904-5 site and datum (discharge, about 19,000 ft^3/s).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	832	588	466	349	263	241	e515	969	3330	2900	1430	2230
2	461	550	490	344	263	245	e503	963	3580	2940	1540	2670
3	421	571	511	323	280	258	e450	879	3230	2660	1930	3110
4	377	530	497	293	277	257	e480	1060	2970	2460	2070	3470
5	385	493	486	293	298	252	e440	951	2960	2370	2760	2840
6	372	470	464	328	320	257	e432	837	2610	2160	3610	2400
7	343	484	435	328	310	252	e435	739	2160	2080	3620	2070
8	326	463	418	324	278	230	e463	710	2420	2210	3230	1770
9	324	723	408	322	274	232	e470	858	3110	3050	2550	1490
10	321	578	433	310	295	238	e480	1180	3560	2400	2340	1290
11	314	485	426	289	288	232	e432	1250	3670	2040	3010	1140
12	288	474	406	313	278	225	e430	1100	3570	1950	3510	1070
13	269	496	400	338	270	218	e604	1090	3300	1850	2730	990
14	267	492	396	330	284	227	e543	1490	3680	1600	2080	867
15	256	494	384	319	266	237	e635	2030	3770	1620	2160	842
16	263	502	386	320	264	248	e695	2010	3500	1550	2420	948
17	291	515	379	325	275	288	e684	1890	3960	1380	2000	932
18	295	534	391	306	278	285	e591	1810	4720	1290	2250	954
19	270	518	388	305	270	307	e580	2060	4370	1670	2330	885
20	302	489	388	320	263	289	e689	2590	4480	2710	3020	887
21	350	459	371	333	269	285	e869	2940	4350	2120	3020	891
22	484	448	336	320	243	300	e1000	3210	3970	2120	3230	828
23	489	440	325	300	238	347	e978	3460	4490	1970	2650	783
24	452	432	337	295	254	374	e944	3900	4410	1770	2530	834
25	474	448	329	289	256	365	e1100	3800	4080	1930	2580	820
26	1000	437	333	295	265	380	e1110	3040	4210	2320	2420	743
27	821	461	371	321	267	413	e1120	2780	4090	1890	2140	674
28	801	466	349	305	268	395	e1130	2810	4160	1630	2660	661
29	720	499	351	299	---	363	e1240	2990	3580	1490	2940	652
30	608	504	346	287	---	339	e1250	3210	3070	1510	2830	644
31	707	---	346	285	---	368	---	3110	---	1340	2420	---
TOTAL	13883	15043	12346	9708	7654	8947	21292	61716	109360	62980	80010	40385
MEAN	448	501	398	313	273	289	710	1991	3645	2032	2581	1346
MAX	1000	723	511	349	320	413	1250	3900	4720	3050	3620	3470
MIN	256	432	325	285	238	218	430	710	2160	1290	1430	644
AC-FT	27540	29840	24490	19260	15180	17750	42230	122400	216900	124900	158700	80100

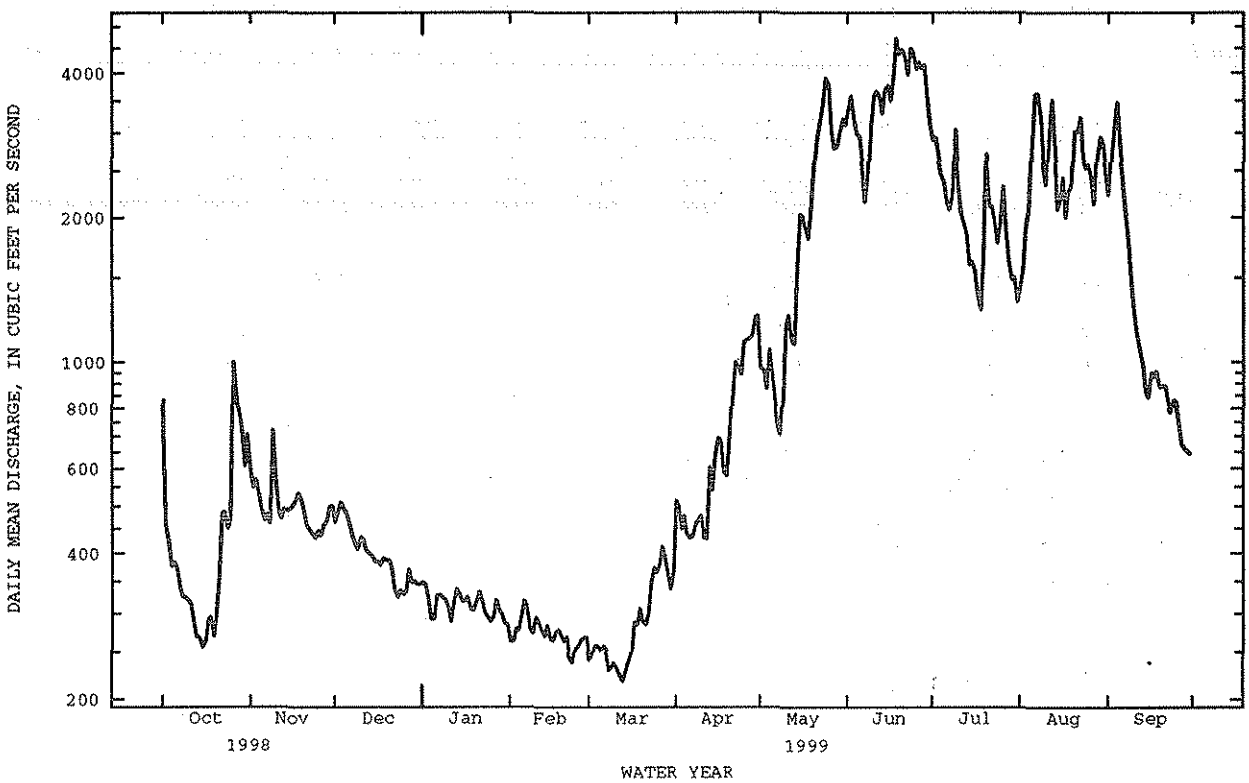
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1999, BY WATER YEAR (WY)

MEAN	437	356	298	276	300	457	989	2405	3011	1148	522	455
MAX	2726	1140	609	554	675	1242	2489	6126	6930	3609	2581	2182
(WY)	1942	1942	1987	1920	1920	1997	1979	1920	1920	1957	1999	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1914 - 1999	
ANNUAL TOTAL	272426		443324			
ANNUAL MEAN	746		1215		889	
HIGHEST ANNUAL MEAN					1734	1920
LOWEST ANNUAL MEAN					239	1977
HIGHEST DAILY MEAN	3710	Jun 3	4720	Jun 18	11000	Jun 19 1949
LOWEST DAILY MEAN	190	Mar 3	218	Mar 13	.00	Aug 8 1996
ANNUAL SEVEN-DAY MINIMUM	227	Feb 27	229	Mar 8	.00	Aug 13 1996
INSTANTANEOUS PEAK FLOW			7730	Jul 9	[a]25000	Jun 29 1927
INSTANTANEOUS PEAK STAGE			9.19	Jul 9	9.32	Jun 18 1995
INSTANTANEOUS LOW FLOW			195	Mar 3	.00	Aug 8 1996
ANNUAL RUNOFF (AC-FT)	540400		879300		643800	
10 PERCENT EXCEEDS	1860		3110		2350	
50 PERCENT EXCEEDS	437		543		381	
90 PERCENT EXCEEDS	272		272		189	

e Estimated
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 1998 TO SEPTEMBER 1999

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)
MAR												
11...	0855	242	636	8.3	9.5	6.0	625	10.5	103	240	120	75
JUN												
02...	1310	3810	217	7.6	26.0	12.0	627	9.2	104	92	28	30
JUL												
20...	0915	3100	270	8.2	26.0	15.0	635	8.0	96	110	47	38
AUG												
05...	0940	2610	326	8.1	26.0	15.5	634	8.0	97	130	52	43

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)
MAR												
11...	14	30	.8	2.9	150	0	123	132	170	19	.4	2.9
JUN												
02...	4.3	5.2	.2	.8	78	0	64	69	34	3.1	.2	5.3
JUL												
20...	4.7	7.6	.3	2.9	82	0	67	76	52	4.8	.3	5.7
AUG												
05...	5.9	11	.4	2.2	98	0	80	241	65	4.8	.3	6.6

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)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)
MAR												
11...	384	<.01	<.02	.01	--	.35	<.20	.38	.02	<.01	8	<1
JUN												
02...	122	<.01	.10	<.01	--	.34	<.20	.26	<.02	<.01	38	<1
JUL												
20...	157	<.01	.13	.01	--	1.2	<.20	1.2	.02	<.01	23	<1
AUG												
05...	188	<.01	.15	.04	.19	6.1	.23	3.5	.03	.01	7	<1

DATE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
MAR												
11...	<1	72	<1	65.6	<1	<1	<1	4	E9	<1	39	<.1
JUN												
02...	<1	46	<1	E13.5	<1	--	<1	3	23	<1	13	<.1
JUL												
20...	<1	59	<1	18.9	<1	<1.0	<1	2	<10	<1	25	<.1
AUG												
05...	<1	122	<1	20.8	<1	--	<1	2	<10	<1	<1	--

09364500 ANIMAS RIVER AT FARMINGTON, NM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	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)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)
MAR												
11...	2	2	<1	<1	<1	5	<2	110	1000	180	1.8	<5
JUN												
02...	<1	<1	<1	<1	<1	9	--	--	--	--	--	--
JUL												
20...	<1	1	<1	<1	<1	3	--	--	--	--	--	--
AUG												
05...	2	<1	1	<1	<1	1	--	--	--	--	--	--

DATE	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)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR												
11...	7	10	14	9300	10	110	.02	450	2	49	32	60
JUN												
02...	--	--	--	--	--	--	--	--	<1	438	4510	27
JUL												
20...	--	--	--	--	--	--	--	--	<1	3350	28100	35
AUG												
05...	--	--	--	--	--	--	--	--	<1	7710	54300	62

DATE	TIME	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	PROMETON, WATER, DISS, REC (UG/L) (04037)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DISSOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	LINDANE DISSOLVED (UG/L) (39341)
MAR												
11...	0855	--	--	--	--	--	--	--	--	--	--	--
JUN												
02...	1310	<.007	<.002	<.005	<.018	<.002	<.004	<.003	<.002	<.006	<.004	<.004
JUL												
20...	0915	--	--	--	--	--	--	--	--	--	--	--
AUG												
05...	0940	--	--	--	--	--	--	--	--	--	--	--

DATE	DIELDRIN DISSOLVED (UG/L) (39381)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	MALATHION, DISSOLVED (UG/L) (39532)	PARATHION, DISSOLVED (UG/L) (39542)	DIAZINON, DISSOLVED (UG/L) (39572)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
MAR												
11...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
02...	<.001	<.002	<.005	<.004	<.002	<.001	<.002	<.002	<.004	<.003	<.002	<.004
JUL												
20...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
05...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)
MAR												
11...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
02...	<.002	<.007	<.002	<.006	<.002	<.004	<.010	<.004	<.003	<.002	<.003	<.013
JUL												
20...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
05...	--	--	--	--	--	--	--	--	--	--	--	--

09364500 ANIMAS RIVER AT FARMINGTON, NM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)
MAR												
11...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
02...	<.003	<.017	<.001	<.004	E.0094	<.002	<.002	<.004	<.003	<.013	<.001	<.005
JUL												
20...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
05...	--	--	--	--	--	--	--	--	--	--	--	--

09365000 SAN JUAN RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'22", long 108°13'30", in NW$^1/_4$SE$^1/_4$ 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1250	1760	e1060	e995	e950	842	1090	2010	e8180	3340	2440	6960
2	1400	1580	e1080	e990	e970	846	1070	1990	e9900	3260	3000	6240
3	1000	1510	e1090	e950	e1020	885	1030	1920	e8530	3200	3280	8290
4	1090	1460	e1070	e930	e950	891	1020	2120	e8100	3120	3740	8700
5	1020	1430	e1060	e920	e990	897	1050	2100	e8040	3080	4430	7830
6	1020	1400	e1030	e910	e1010	897	956	e1580	e7710	2790	6150	7210
7	1000	1420	e1020	e920	e1000	897	952	e1390	e7300	e2640	5220	6940
8	961	1390	e1000	e930	e960	872	952	e1340	e7440	2630	4480	6580
9	956	2030	e980	e960	e930	870	908	e1410	e7620	3630	3650	6290
10	937	1570	e950	e970	e990	876	953	e1830	e8200	3710	4150	6120
11	901	1400	e940	e980	980	877	929	e1850	e7310	2640	6230	5940
12	838	e1310	e930	e985	897	882	901	e1730	e6700	2420	7100	5740
13	775	e1290	e920	e1000	865	862	879	e1650	e6490	2300	7150	5470
14	738	e1240	e920	e1000	881	864	1080	e2280	e6800	2050	6290	4600
15	681	e1200	e960	e980	864	869	1170	e2670	e6590	2080	6940	4280
16	799	e1190	e970	e960	877	820	1230	e2750	e6110	2020	7310	4350
17	845	e1170	e990	e970	871	839	1220	e2530	e5530	1840	6120	4290
18	839	e1160	e1010	e980	923	894	1130	e2550	e5610	1890	6210	4280
19	752	e1130	e1030	e1000	940	902	1120	e2610	e4930	3040	6590	4190
20	951	e1120	e1040	e1150	899	968	1230	e3230	e5020	3820	7160	4140
21	1020	e1110	e1030	e1040	898	980	1420	e3500	e4900	2820	7170	4150
22	1150	e1100	e1000	e1000	852	996	1740	e3760	e4510	3580	7590	4060
23	1250	e1100	e980	e1050	843	1030	1570	e3900	e5000	2830	6830	3850
24	1180	e1110	e990	e1020	872	1080	1500	e4880	e4920	2820	7160	3190
25	1410	e1110	e980	e1090	871	1080	1720	e5890	e4580	2830	7300	3120
26	e1570	e1090	e990	e1030	881	1090	1770	e6180	e4700	3050	7160	3050
27	e1380	e1050	e1000	e1070	875	1130	1710	e6760	e4590	2840	6830	2950
28	e2100	e1080	e1010	e1100	875	1100	1750	e7330	e4660	2490	7520	2770
29	1700	e1090	e1010	e1000	---	1080	1830	e7680	e4290	2370	7650	1930
30	1730	e1100	e1000	e970	---	1090	1900	e7910	e3210	3340	7520	1820
31	1990	---	e990	e990	---	1090	---	e7800	---	2250	7000	---
TOTAL	35233	38700	31030	30840	25734	29296	37780	107130	187470	86720	187370	149330
MEAN	1137	1290	1001	995	919	945	1259	3456	6249	2797	6044	4978
MAX	2100	2030	1090	1150	1020	1130	1900	7910	9900	3820	7650	8700
MIN	681	1050	920	910	843	820	879	1340	3210	1840	2440	1820
AC-FT	69880	76760	61550	61170	51040	58110	74940	212500	371800	172000	371600	296200

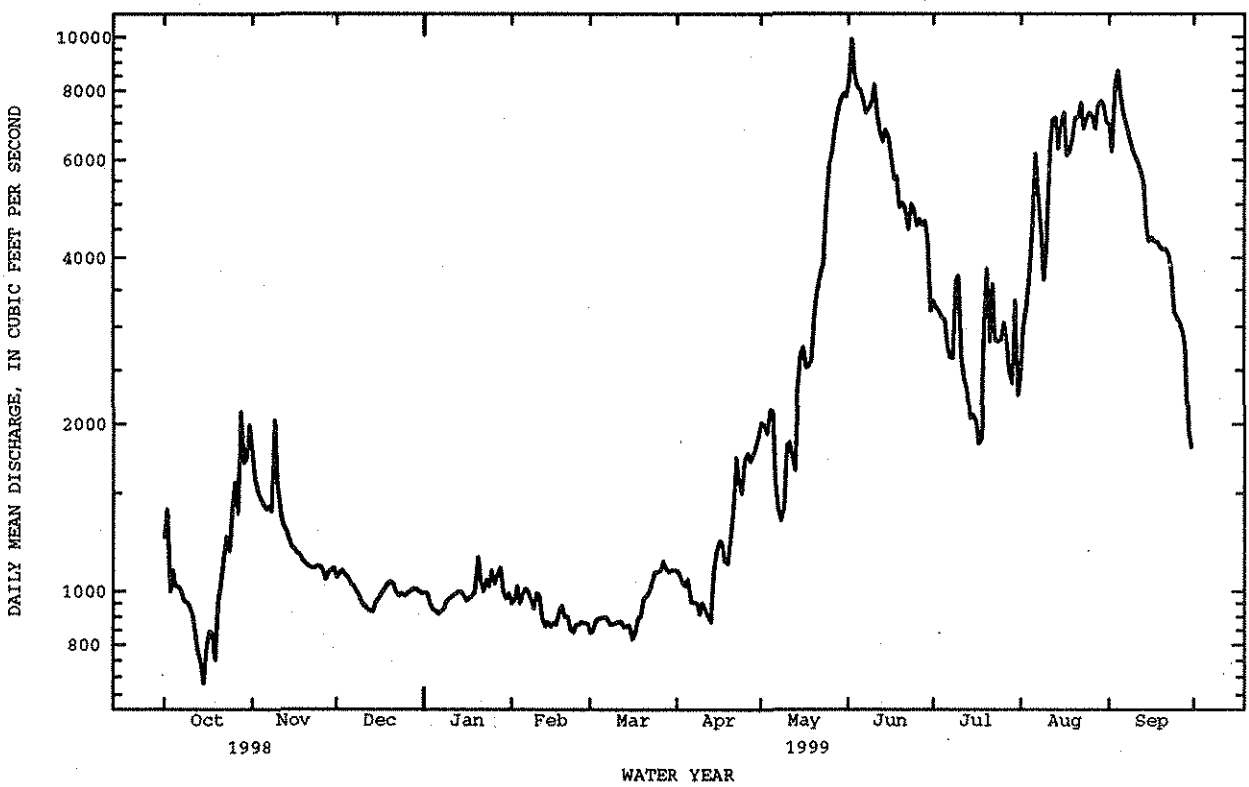
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

MEAN	1209	1014	991	1013	1142	1579	3014	5062	5496	2252	1342	1201
MAX	7271	3549	3381	3271	3032	5304	9133	18830	14990	8639	6044	4978
(WY)	1942	1987	1966	1986	1987	1993	1932	1941	1941	1957	1999	1999
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1931 - 1999	
ANNUAL TOTAL	730308		946633			
ANNUAL MEAN	2001		2594		2111	
HIGHEST ANNUAL MEAN					5054	1941
LOWEST ANNUAL MEAN					728	1963
HIGHEST DAILY MEAN	11500	May 30	9900	Jun 2	30000	May 14 1941
LOWEST DAILY MEAN	411	Sep 28	681	Oct 15	27	Aug 22 1939
ANNUAL SEVEN-DAY MINIMUM	456	Sep 23	776	Oct 13	37	Jul 1 1934
INSTANTANEOUS PEAK FLOW					[a]68000	Jun 29 1927
INSTANTANEOUS PEAK STAGE					[b]10.20	Jun 29 1927
INSTANTANEOUS LOW FLOW					14	Aug 22 1939
ANNUAL RUNOFF (AC-FT)	1449000		1878000		1529000	
10 PERCENT EXCEEDS	5350		6830		5140	
50 PERCENT EXCEEDS	1210		1310		1130	
90 PERCENT EXCEEDS	773		896		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 NW$^1/_4$SE$^1/_4$ 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	16	18	14	12	14	15	24	88	38	15	41
2	3.4	15	17	14	13	15	17	26	90	28	24	52
3	3.3	15	16	e13	14	15	17	31	57	23	58	74
4	3.7	14	16	e13	13	14	17	43	74	26	123	57
5	4.7	13	16	e13	15	14	16	42	86	30	79	50
6	4.7	13	16	e14	15	14	13	34	62	26	42	55
7	5.2	13	15	e13	14	13	13	34	66	23	58	44
8	4.9	15	e14	e13	14	14	13	32	44	23	34	31
9	4.4	21	e13	e12	14	13	14	32	49	22	39	23
10	4.4	16	e13	e12	15	13	13	36	87	23	85	20
11	4.3	14	e13	e12	14	14	11	38	87	21	57	17
12	4.4	15	e14	12	16	15	10	42	78	13	39	15
13	4.4	16	e14	13	15	14	11	48	90	13	35	11
14	4.4	15	e14	13	13	13	13	72	105	12	49	11
15	4.4	15	e14	15	13	12	16	93	85	14	61	12
16	5.0	16	e14	14	13	10	18	70	75	14	50	15
17	5.6	16	e13	e13	14	11	25	58	80	10	47	20
18	5.5	15	e13	12	13	11	26	73	83	10	33	19
19	5.5	15	e13	12	12	11	30	71	70	15	55	16
20	6.0	14	13	13	10	11	32	69	86	38	51	14
21	7.2	13	13	14	11	12	33	70	83	14	53	11
22	9.1	13	e13	13	11	15	40	46	74	17	47	8.3
23	10	13	e13	14	12	14	31	83	50	53	35	9.3
24	9.4	13	e12	13	11	15	27	103	37	29	64	11
25	12	13	e13	13	11	17	35	72	60	30	62	11
26	32	13	e13	13	11	32	31	51	72	44	35	9.4
27	24	13	e13	13	11	39	26	80	44	26	40	7.8
28	21	14	e14	14	12	27	22	98	31	26	52	7.6
29	16	20	14	14	---	25	23	81	31	46	40	7.4
30	15	21	14	13	---	20	23	80	41	23	41	8.3
31	17	---	14	14	---	18	---	73	---	15	33	---
TOTAL	263.9	448	435	408	362	495	631	1805	2065	745	1536	688.1
MEAN	8.51	14.9	14.0	13.2	12.9	16.0	21.0	58.2	68.8	24.0	49.5	22.9
MAX	32	21	18	15	16	39	40	103	105	53	123	74
MIN	3.0	13	12	12	10	10	10	24	31	10	15	7.4
AC-FT	523	889	863	809	718	982	1250	3580	4100	1480	3050	1360

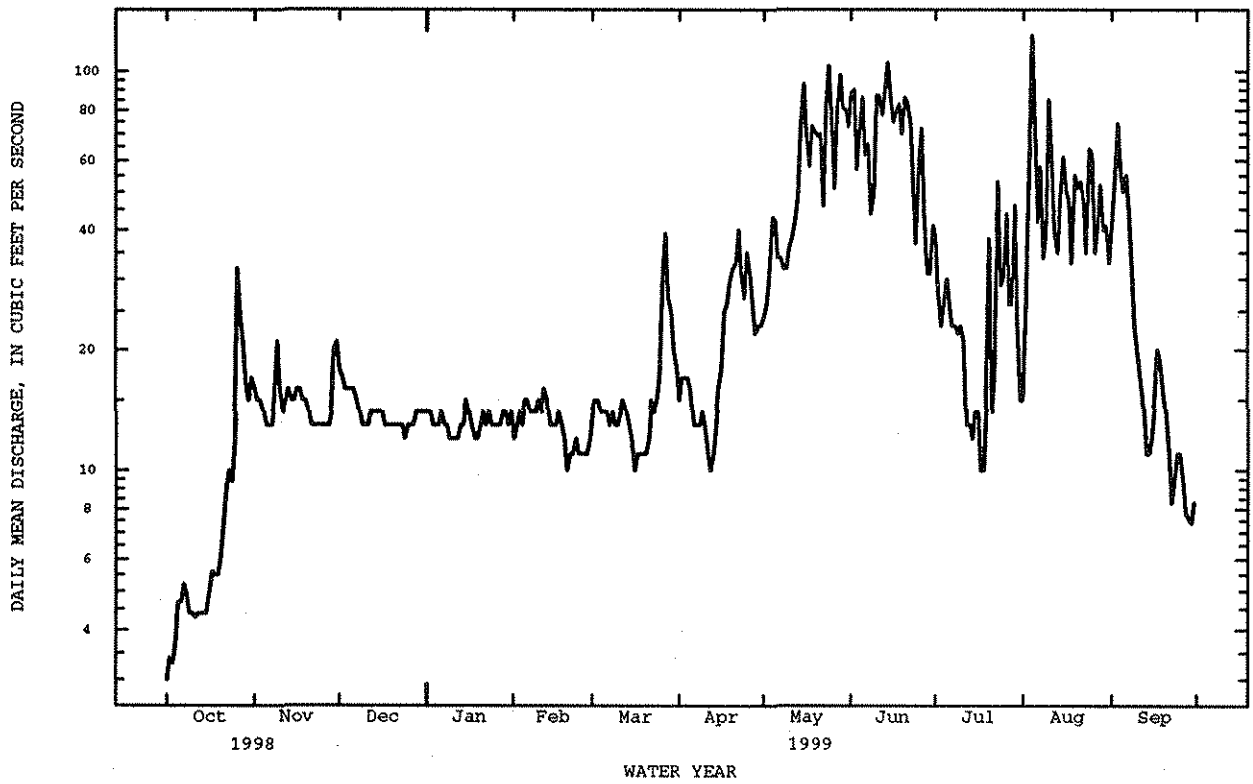
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1999, BY WATER YEAR (WY)

MEAN	13.8	12.2	12.3	12.0	17.1	37.6	106	109	67.5	20.4	12.4	11.5
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

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

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1921 - 1999	
ANNUAL TOTAL	10199.9		9882.0			
ANNUAL MEAN	27.9		27.1		36.0	
HIGHEST ANNUAL MEAN					109	1973
LOWEST ANNUAL MEAN					4.44	1977
HIGHEST DAILY MEAN	155	Mar 26	123	Aug 4	1120	May 4 1941
LOWEST DAILY MEAN	1.7	Aug 31	3.0	Oct 1	[a].00	Jul 3 1922
ANNUAL SEVEN-DAY MINIMUM	1.9	Aug 28	4.0	Oct 1	.00	Jul 3 1922
INSTANTANEOUS PEAK FLOW			638	Aug 4	[b]4750	Aug 24 1927
INSTANTANEOUS PEAK STAGE			6.01	Aug 4	11.36	Aug 24 1927
ANNUAL RUNOFF (AC-FT)	20230		19600		26100	
10 PERCENT EXCEEDS	72		69		86	
50 PERCENT EXCEEDS	19		15		13	
90 PERCENT EXCEEDS	3.6		11		1.8	

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



09367500 LA PLATA RIVER NEAR FARMINGTON, NM

LOCATION.--Lat 36°44'23", long 108°14'51", in NE$^1/_4$SW$^1/_4$ 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 poor and estimated daily discharges, 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	e33	e19	e15	e11	e4.1	e.44	2.5	8.1	2.6	e41	e25
2	26	e32	e18	e16	e11	e3.9	2.3	1.2	10	3.4	e43	e19
3	25	e31	e18	e15	e12	e3.8	2.0	3.1	11	4.9	e44	e13
4	25	e30	e18	e14	e11	e1.1	2.5	6.5	7.5	6.1	e44	e9.1
5	25	e30	e18	e15	e13	e1.1	3.9	3.2	11	5.6	e42	e7.2
6	25	e33	e18	e16	e11	e1.0	3.9	1.8	12	5.3	e44	e5.0
7	26	e37	e16	e15	e12	e1.1	4.6	1.1	10	5.1	e45	e3.4
8	29	e35	e16	e15	e12	e.96	1.3	1.5	9.3	5.2	e50	e3.1
9	29	e45	e15	e13	e11	e1.1	1.3	1.1	5.7	144	e58	e3.0
10	28	e32	e15	e14	e9.0	e.91	1.1	.39	5.0	120	e60	e3.0
11	28	e28	e15	e13	e8.8	e.87	1.1	.29	12	65	e54	e2.9
12	28	e25	e16	e13	e8.4	e.81	.95	.23	12	e40	e60	e2.7
13	25	e23	e16	e12	e8.5	e.90	.86	.82	12	e35	e62	e2.6
14	23	e22	e16	e14	e8.1	e.70	.75	2.6	15	e26	e57	e2.9
15	25	e21	e16	e13	e7.6	e.73	.65	2.4	15	e22	e57	e2.7
16	25	e20	e16	e13	e7.4	e.60	.63	6.2	13	e22	e60	e2.5
17	24	e19	e15	e12	e7.1	e.51	.60	3.1	12	e22	e64	e2.9
18	20	e18	e15	e14	e6.8	e.60	.45	2.3	15	e21	e61	e2.7
19	15	e17	e15	e13	e6.5	e.51	.33	3.0	13	e23	e66	e2.5
20	20	e15	e15	e15	e6.2	e.47	.29	2.5	9.7	e25	e68	e2.9
21	26	e12	e15	e16	e6.0	e.33	.70	2.7	13	e23	e67	e2.6
22	26	e12	e14	e16	e5.6	e.41	7.2	4.4	14	e20	e70	e2.9
23	21	e12	e15	e15	e5.3	e.44	2.6	3.0	11	e28	e68	e2.4
24	19	e12	e16	e14	e5.1	e.47	1.8	8.5	6.6	e35	e68	e2.6
25	30	e12	e15	e13	e5.0	e.51	4.0	13	4.1	e28	e63	e2.7
26	54	e11	e15	e15	e4.9	e.55	2.5	7.6	11	e27	e50	e2.5
27	72	e11	e16	e15	e4.7	e.49	1.3	3.7	11	e30	e59	e2.9
28	56	e11	e16	e13	e4.5	e.45	.67	10	6.0	e34	e56	e2.7
29	50	e11	e15	e14	---	e.43	.43	10	3.8	e37	e55	e2.3
30	49	e11	e16	e12	---	e.47	.26	11	2.6	e38	e50	e2.7
31	e35	---	e16	e13	---	e.44	---	9.9	---	e40	e36	---
TOTAL	937	661	495	436	229.5	30.76	51.41	129.63	301.4	943.2	1722	144.4
MEAN	30.2	22.0	16.0	14.1	8.20	.99	1.71	4.18	10.0	30.4	55.5	4.81
MAX	72	45	19	16	13	4.1	7.2	13	15	144	70	25
MIN	15	11	14	12	4.5	.33	.26	.23	2.6	2.6	36	2.3
AC-FT	1860	1310	982	865	455	61	102	257	598	1870	3420	286

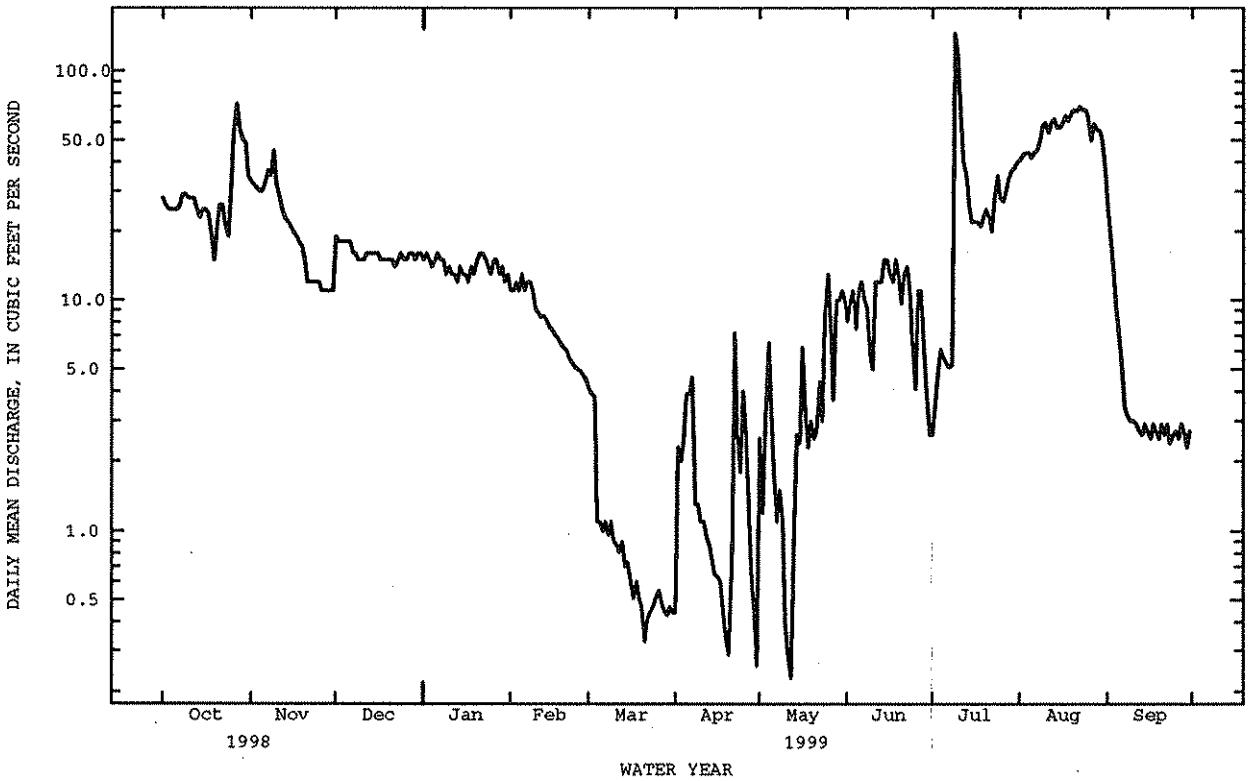
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1999, BY WATER YEAR (WY)

MEAN	20.5	13.4	14.6	18.5	24.3	36.0	88.4	66.7	34.4	9.24	12.4	11.2
MAX	537	141	73.1	100	89.2	166	408	783	252	117	64.5	170
(WY)	1942	1987	1987	1979	1979	1993	1980	1941	1957	1986	1957	1941
MIN	.000	.000	.000	.032	1.00	.16	.000	.000	.000	.000	.000	.000
(WY)	1947	1955	1956	1957	1957	1959	1951	1939	1939	1948	1960	1955

09367500 LA PLATA RIVER NEAR FARMINGTON, NM--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1938 - 1999	
ANNUAL TOTAL	7117.88		6081.30			
ANNUAL MEAN	19.5		16.7		29.0	
HIGHEST ANNUAL MEAN					134	1941
LOWEST ANNUAL MEAN					.48	1956
HIGHEST DAILY MEAN	129	Mar 27	144	Jul 9	2370	May 13 1941
LOWEST DAILY MEAN	.27	Aug 11	.23	May 12	.00	Mar 1 1938
ANNUAL SEVEN-DAY MINIMUM	.45	Aug 8	.45	Mar 19	.00	Mar 1 1938
INSTANTANEOUS PEAK FLOW			1670	Jul 9	[a]5770	Aug 21 1990
INSTANTANEOUS PEAK STAGE			5.54	Jul 9	[b]13.60	Aug 21 1990
INSTANTANEOUS LOW FLOW			.46	Apr 4	.00	Aug 1 1996
ANNUAL RUNOFF (AC-FT)	14120		12060		21010	
10 PERCENT EXCEEDS	45		43		66	
50 PERCENT EXCEEDS	15		12		4.5	
90 PERCENT EXCEEDS	.91		.87		.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 SE$^1/_4$ 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2080	2630	1000	970	915	888	1030	1940	7280	3420	2550	6430
2	1340	1970	1010	944	893	868	1070	2030	7820	3530	3310	5330
3	953	1330	1020	922	914	853	1010	1680	7850	3350	3600	7070
4	905	1140	1030	868	904	877	1030	2080	7180	3210	4560	7910
5	821	998	1010	860	900	867	1060	1800	7240	3110	4650	6980
6	677	939	1010	879	929	864	977	1600	7030	2910	7180	6330
7	682	965	973	892	933	855	908	1380	6490	2750	5560	5980
8	649	941	917	888	887	830	793	1260	6500	2900	4170	5630
9	645	2110	907	902	880	860	845	1340	7250	3650	3290	5270
10	637	2250	901	939	889	859	801	1840	7830	4770	3370	5000
11	632	1400	910	912	842	865	801	1990	7380	3360	4960	4800
12	610	1190	892	930	877	e853	776	1630	6350	3050	5960	4720
13	576	1090	890	958	818	e841	747	1550	5950	2800	6080	4620
14	551	1070	891	959	848	e800	814	1790	6110	2350	5340	3830
15	575	1060	926	930	845	e826	1010	2590	6630	2250	6190	3390
16	630	1040	952	894	832	817	1110	2720	5660	2200	7280	3410
17	731	1060	966	912	836	796	1060	2630	5360	2120	6620	3420
18	797	1080	997	911	859	805	963	2400	5760	1900	5770	3480
19	767	1090	1000	907	921	825	863	2460	5150	2640	6130	3450
20	710	1080	1020	930	869	810	907	2810	4800	4560	6910	3490
21	1030	1060	970	969	865	805	1240	3200	4870	3660	6600	3560
22	1170	1040	975	956	819	802	1900	3470	4430	4220	7420	3470
23	1270	1050	947	927	812	841	1750	e3950	4690	3440	6300	3490
24	1330	1050	975	923	824	961	1490	e4600	4790	3550	6270	3010
25	1140	1060	958	899	866	932	1770	e5800	4530	3030	6850	2900
26	4240	959	967	896	928	965	1860	5910	4480	3440	6410	2800
27	5820	961	1000	907	923	1070	1480	5960	4580	3070	6210	2800
28	4170	983	970	918	915	1090	1470	6630	4490	2680	6980	2750
29	2230	1040	942	962	---	1010	1530	6870	4130	2680	7350	2010
30	1440	1040	956	949	---	1000	1740	7290	3660	3390	7240	1620
31	2460	---	946	942	---	1010	---	7190	---	2620	6560	---
TOTAL	42268	36676	29828	28555	24543	27345	34805	100390	176270	96610	177670	128950
MEAN	1363	1223	962	921	877	882	1160	3238	5876	3116	5731	4298
MAX	5820	2630	1030	970	933	1090	1900	7290	7850	4770	7420	7910
MIN	551	939	890	860	812	796	747	1260	3660	1900	2550	1620
AC-FT	83840	72750	59160	56640	48680	54240	69040	199100	349600	191600	352400	255800

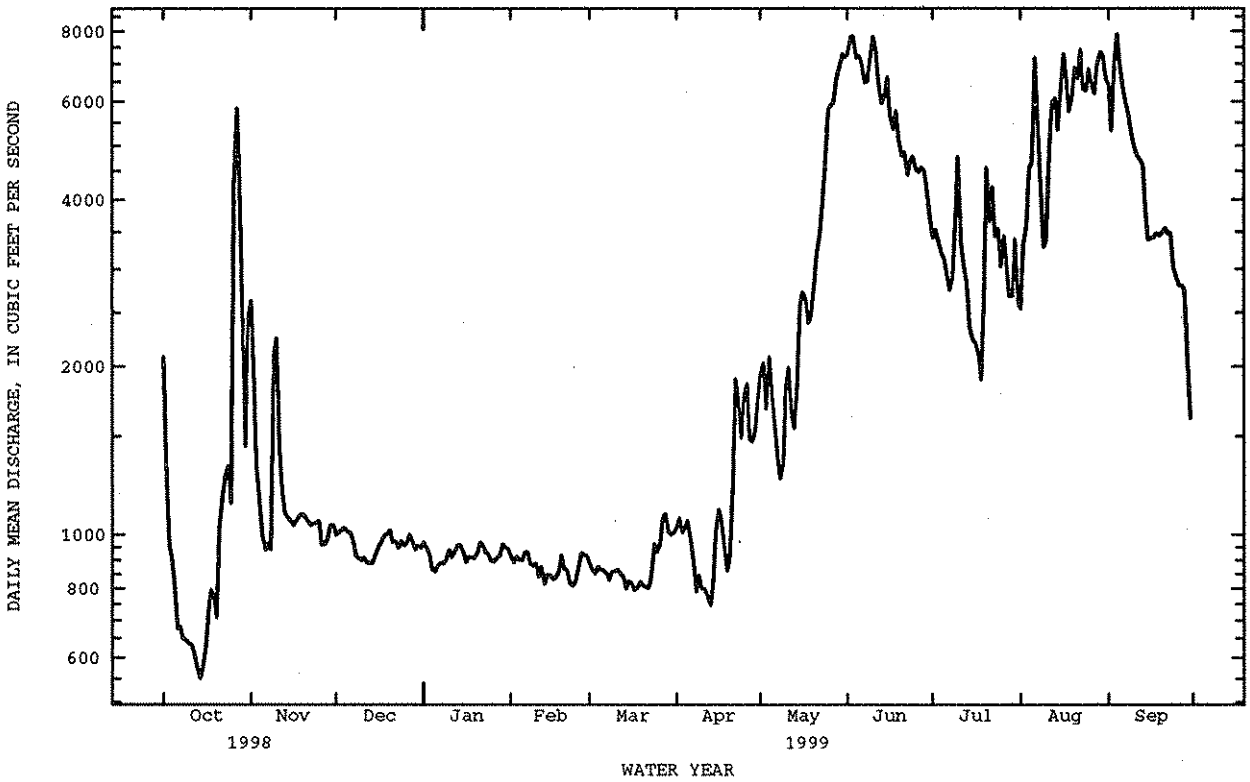
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1999, BY WATER YEAR (WY)

MEAN	1269	1105	1066	1075	1217	1636	3013	4909	5397	2247	1380	1243
MAX	8370	3997	3420	3169	3314	5099	9275	19790	15540	8869	5731	4298
(WY)	1942	1987	1966	1966	1987	1993	1937	1941	1941	1957	1999	1999
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1935 - 1999	
ANNUAL TOTAL	640666		903910			
ANNUAL MEAN	1755		2476		2131	
HIGHEST ANNUAL MEAN					5324	1941
LOWEST ANNUAL MEAN					702	1963
HIGHEST DAILY MEAN	7610	Jun 4	7910	Sep 4	33300	Oct 14 1941
LOWEST DAILY MEAN	326	Aug 19	551	Oct 14	8.0	Aug 25 1939
ANNUAL SEVEN-DAY MINIMUM	422	Aug 14	602	Oct 10	13	Jul 24 1959
INSTANTANEOUS PEAK FLOW			9500	Aug 6	80000	Aug 11 1929
INSTANTANEOUS PEAK STAGE			12.80	Aug 6	14.02	Jun 19 1995
INSTANTANEOUS LOW FLOW			544	Oct 14	[a]8.0	Aug 25 1939
ANNUAL RUNOFF (AC-FT)	1271000		1793000		1544000	
10 PERCENT EXCEEDS	4270		6230		5100	
50 PERCENT EXCEEDS	1160		1140		1150	
90 PERCENT EXCEEDS	637		831		457	

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 1998 TO SEPTEMBER 1999

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)
MAR												
10...	1045	832	535	8.5	13.0	7.9	639	10.1	102	180	80	56
JUN												
03...	1020	7870	239	8.0	24.0	12.0	638	9.6	107	86	17	27
JUL												
19...	1425	2310	508	8.1	28.5	21.5	645	7.6	102	130	26	42
AUG												
04...	1500	3920	633	8.2	27.0	20.5	643	7.2	95	130	32	44

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)
MAR												
10...	11	37	1	2.3	118	4	104	114	130	13	.3	7.3
JUN												
03...	4.7	10	.5	1.3	84	0	69	74	39	2.7	.2	8.8
JUL												
19...	5.9	52	2	1.3	127	0	104	172	120	8.9	.5	7.3
AUG												
04...	4.3	79	3	3.5	115	0	94	249	180	8.4	.5	9.4

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	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)	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)
MAR												
10...	324	<.01	.18	<.01	.51	.24	.24	.02	<.01	3	<1	<1
JUN												
03...	136	<.01	.10	<.01	.38	<.20	.30	<.02	<.01	14	<1	<1
JUL												
19...	301	<.01	.32	.03	7.8	<.20	2.2	.02	.02	5	<1	1
AUG												
04...	391	<.01	.47	.01	16	<.20	6.4	.04	.03	5	<1	1

DATE	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)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)
MAR												
10...	66	<1	49.6	<1	<1	<1	3	<10	<1	5	<.1	1
JUN												
03...	55	<1	16.9	<1	--	<1	2	15	<1	7	<.1	<1
JUL												
19...	73	<1	40.2	<1	<1.0	<1	2	E5	<1	<1	--	3
AUG												
04...	69	<1	46.9	<1	--	<1	3	<10	<1	<1	--	4

09368000 SAN JUAN RIVER AT SHIPROCK, NM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO-GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS-PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
MAR												
10...	2	<1	<1	<1	2	<2	60	200	170	1.0	<5	6
JUN												
03...	<1	<1	<1	<1	2	--	--	--	--	--	--	--
JUL												
19...	2	2	<1	<1	<1	--	--	--	--	--	--	--
AUG												
04...	<1	2	2	<1	<1	--	--	--	--	--	--	--

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR											
10...	6	6	7300	<10	150	.01	23	2	443	995	21
JUN											
03...	--	--	--	--	--	--	--	<1	1850	39300	19
JUL											
19...	--	--	--	--	--	--	--	2	10700	66600	92
AUG											
04...	--	--	--	--	--	--	--	2	30500	322000	70

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO

LOCATION.--Lat 37°00'20", long 109°02'00", SE$^1/_4$NE$^1/_4$ 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1970	3160	1160	1050	1050	1010	1180	1700	7280	3320	2240	7420
2	1640	2690	1100	987	1010	971	1180	1960	7640	3210	2910	6410
3	1260	1820	1140	922	1000	934	1210	1730	7970	3310	3320	7080
4	1140	1510	1150	884	1030	960	1180	1990	7280	2980	5110	8030
5	1060	1380	1130	850	1000	960	1190	1940	7340	2810	4820	7660
6	992	1300	1150	842	1040	944	1200	1730	7270	2630	6840	7050
7	930	1240	1110	860	1080	926	1050	1630	6810	2430	5960	6600
8	870	1220	1080	869	1040	917	895	1570	6570	2600	4920	6320
9	829	2580	1050	854	988	904	870	1570	7080	3040	3950	6020
10	836	3210	1040	874	989	919	856	1720	7530	5280	3580	5820
11	797	1890	996	904	977	946	846	2040	7500	3300	4900	5580
12	780	1450	983	911	957	934	802	1920	6750	2760	6530	5540
13	731	1340	965	915	954	926	746	1830	6320	2460	6610	5430
14	666	1340	956	921	917	894	708	1880	6110	2110	5930	4820
15	653	1270	948	920	962	863	995	2520	6780	1870	6120	4130
16	673	1250	975	902	922	892	1180	3210	6090	1910	7490	4020
17	831	1230	1000	904	921	836	1230	3090	5500	1820	7590	4240
18	885	1220	1030	922	908	853	1120	2760	5860	1680	6490	4070
19	967	1200	1070	926	1000	883	992	3280	5530	1860	6690	4010
20	846	1220	1090	958	988	885	943	3500	4910	4120	7510	3970
21	1150	1190	1070	997	943	851	1200	3830	5020	3710	7400	3990
22	1450	1150	1020	1090	935	847	1670	4260	4600	3830	7950	3910
23	1730	1130	955	996	892	872	1650	4440	4650	3730	7000	3830
24	1910	1130	993	997	888	997	1400	5130	4930	3440	6490	3520
25	1750	1110	974	989	896	1090	1460	5630	4620	2920	7340	3140
26	e2470	1100	956	976	1000	1040	1680	6030	4420	3020	7150	2950
27	e5900	1080	996	980	1020	1210	1400	5950	4670	2810	6790	2850
28	e4250	1070	1010	1000	1020	1240	1360	6530	4470	2680	7440	2880
29	e2950	1130	953	1050	---	1210	1410	6830	4330	2680	7710	2490
30	1940	1210	943	1070	---	1140	1610	7200	3750	3550	7930	1780
31	2670	---	983	1040	---	1170	---	7200	---	2790	7470	---
TOTAL	47526	44820	31976	29360	27327	30024	35213	106600	179580	90660	190180	145560
MEAN	1533	1494	1031	947	976	969	1174	3439	5986	2925	6135	4852
MAX	5900	3210	1160	1090	1080	1240	1680	7200	7970	5280	7950	8030
MIN	653	1070	943	842	888	836	708	1570	3750	1680	2240	1780
AC-FT	94270	88900	63420	58240	54200	59550	69840	211400	356200	179800	377200	288700

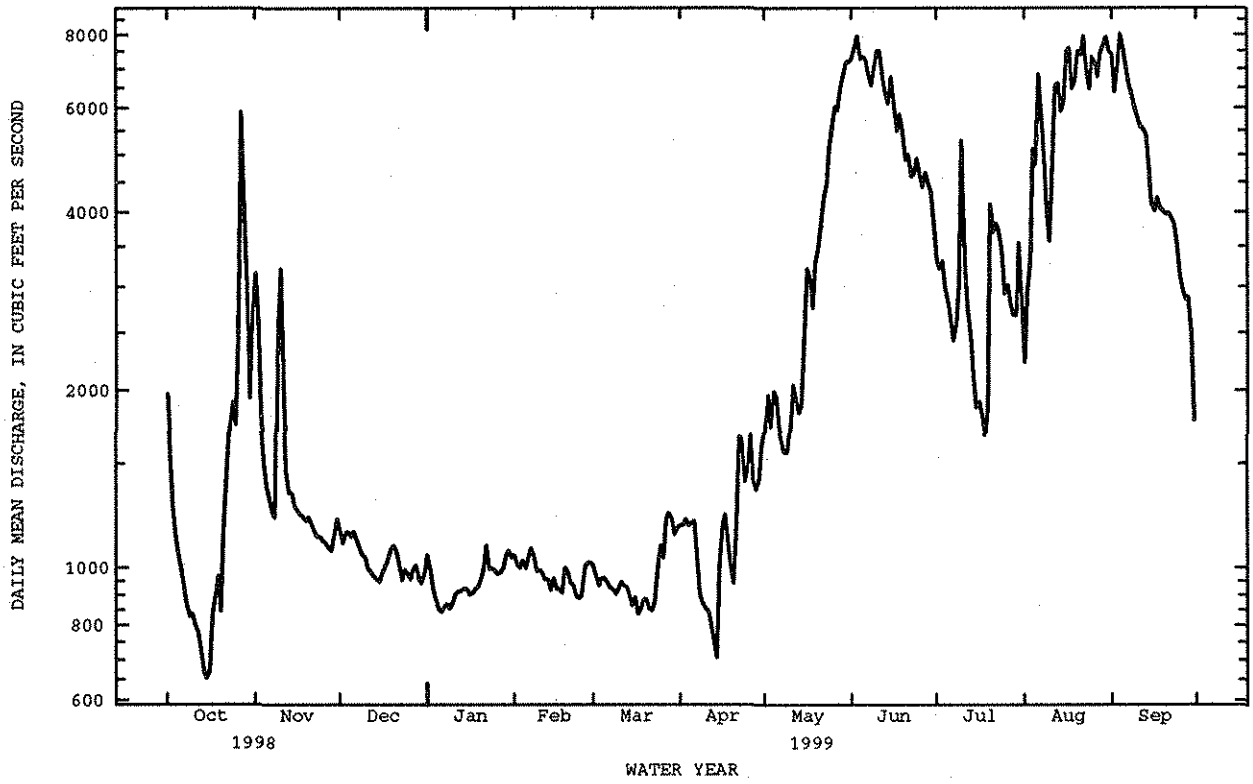
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1999, BY WATER YEAR (WY)

MEAN	1291	1386	1393	1470	1572	2092	2972	4779	5454	2523	1608	1501
MAX	2959	3732	3466	3300	3365	5454	7893	10220	10370	6846	6135	4852
(WY)	1987	1987	1987	1987	1987	1993	1979	1979	1979	1979	1999	1999
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1978 - 1999	
ANNUAL TOTAL	716382		958826			
ANNUAL MEAN	1963		2627		2337	
HIGHEST ANNUAL MEAN					4180	1987
LOWEST ANNUAL MEAN					991	1990
HIGHEST DAILY MEAN	8580	Jun 4	8030	Sep 4	16400	May 29 1979
LOWEST DAILY MEAN	345	Aug 20	653	Oct 15	110	Aug 17 1978
ANNUAL SEVEN-DAY MINIMUM	458	Sep 23	733	Oct 11	126	Aug 14 1978
INSTANTANEOUS PEAK FLOW			8660	Aug 16	16900	May 29 1979
INSTANTANEOUS PEAK STAGE			4.62	Aug 16	[a]6.25	May 29 1979
INSTANTANEOUS LOW FLOW			629	Oct 14	110	Aug 19 1978
ANNUAL RUNOFF (AC-FT)	1421000		1902000		1693000	
10 PERCENT EXCEEDS	5020		6600		5670	
50 PERCENT EXCEEDS	1230		1360		1450	
90 PERCENT EXCEEDS	610		893		715	

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 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)
DEC										
08...	1230	1040	631	8.3	.5	1.0	18	651	12.6	104
JAN										
13...	1100	907	647	8.5	1.0	2.0	15	650	12.3	105
JUN										
02...	0910	7560	271	7.8	22.0	12.0	600	642	9.4	104
JUL										
08...	1130	2700	335	8.3	29.5	23.0	30	649	7.2	99

DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
DEC										
08...	230	52	69	14	43	1	2.3	216	0	177
JAN										
13...	220	4	65	14	42	1	1.9	262	0	215
JUN										
02...	94	21	29	5.3	12	.5	1.4	89	0	73
JUL										
08...	130	58	40	6.6	16	.6	1.5	81	2	70

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)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC										
08...	126	180	15	.2	8.7	427	441	--	--	--
JAN										
13...	125	180	15	.3	7.9	434	458	46	113	97
JUN										
02...	84	49	3.4	.2	8.9	177	153	--	--	--
JUL										
08...	76	73	6.8	.3	6.7	210	193	--	--	--

09386900 RIO NUTRIA NEAR RAMAH, NM

LOCATION.--Lat 35°16'57", long 108°33'10", in NW$^1/_4$SW$^1/_4$ 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	17	1.4	.12	.07	.12	.13	.17	.26	.02	.03	e2.6
2	.12	2.6	.75	.12	.05	.14	.54	.24	.25	.02	3.9	e1.4
3	.15	.51	.44	.13	.05	.16	.68	.14	.26	.03	42	e.86
4	.12	.17	.27	.08	.05	.19	.96	.78	.24	.02	3.0	e.55
5	.14	.09	.21	.07	.06	.19	1.0	1.8	.23	.03	.65	e.38
6	.17	.06	.19	.11	.06	.12	2.3	1.7	.03	.04	4.7	e.19
7	.20	.05	.18	.18	.05	.08	8.2	.71	.02	.06	2.7	e.11
8	.16	.14	.15	.19	.05	.09	4.4	.37	.08	.09	.34	e.13
9	.16	41	.14	.14	.05	.07	6.9	.24	e.13	.06	.20	e.17
10	.16	37	.11	.09	.18	.07	2.9	.15	e.09	.05	.10	e.20
11	.16	18	.07	.13	.19	.07	1.1	.11	e.11	.02	e.09	e.12
12	.16	27	.06	.16	.06	.09	.62	.09	e.12	.01	e.10	e.14
13	.16	22	.06	.12	.07	.07	.39	.08	e.15	.01	e.08	e.17
14	.16	8.0	.06	.10	.07	.06	.30	.07	e.09	.03	e.07	e.19
15	.16	4.3	.07	.08	.06	.07	.21	.07	e.07	.07	e.06	e.22
16	.21	1.8	.07	.10	.05	.09	.18	.06	e.12	.06	e.07	e.15
17	.38	.76	.07	.13	.06	.24	.20	.05	e.32	.06	e.05	e.11
18	.31	.37	.10	.13	.06	.32	.14	.07	.51	.74	e.07	e.08
19	.32	.29	.14	.12	.07	.65	.15	.11	.02	1.5	e.10	e.10
20	2.8	.20	.16	.14	.10	.56	.14	.12	.16	.25	e.11	e.11
21	2.8	.13	.14	.25	.14	.48	.12	.12	.15	.11	e.13	e.12
22	1.8	.11	.08	.16	.19	.33	.11	.12	.08	.04	e.15	e.10
23	2.1	.08	.08	.13	.13	.17	.08	.11	.02	.37	e.06	e.08
24	1.8	.07	.03	.14	.11	.11	.07	.12	.01	7.5	e.10	e.07
25	7.2	.06	.04	.15	.11	.09	.21	.12	e.03	11	e.13	e.10
26	51	.06	.05	.16	.12	.11	.27	.11	e.04	2.4	e1.4	e.11
27	17	.06	.06	.11	.15	.15	.15	.16	e.05	5.0	e2.3	e.12
28	14	.08	.08	.10	.12	.13	.13	.22	e.09	.93	e3.1	e.14
29	1.7	.62	.10	.10	---	.12	.19	.27	e.06	.28	e1.3	e.16
30	.45	4.6	.11	.05	---	.12	.11	.25	e.11	.13	e1.8	e.18
31	11	---	.10	.06	---	.12	---	.22	---	.04	e3.9	---
TOTAL	117.18	187.21	5.57	3.85	2.53	5.38	32.88	8.95	3.90	30.97	72.79	9.16
MEAN	3.78	6.24	.18	.12	.090	.17	1.10	.29	.13	1.00	2.35	.31
MAX	51	41	1.4	.25	.19	.65	8.2	1.8	.51	11	42	2.6
MIN	.12	.05	.03	.05	.05	.06	.07	.05	.01	.01	.03	.07
AC-FT	232	371	11	7.6	5.0	11	65	18	7.7	61	144	18

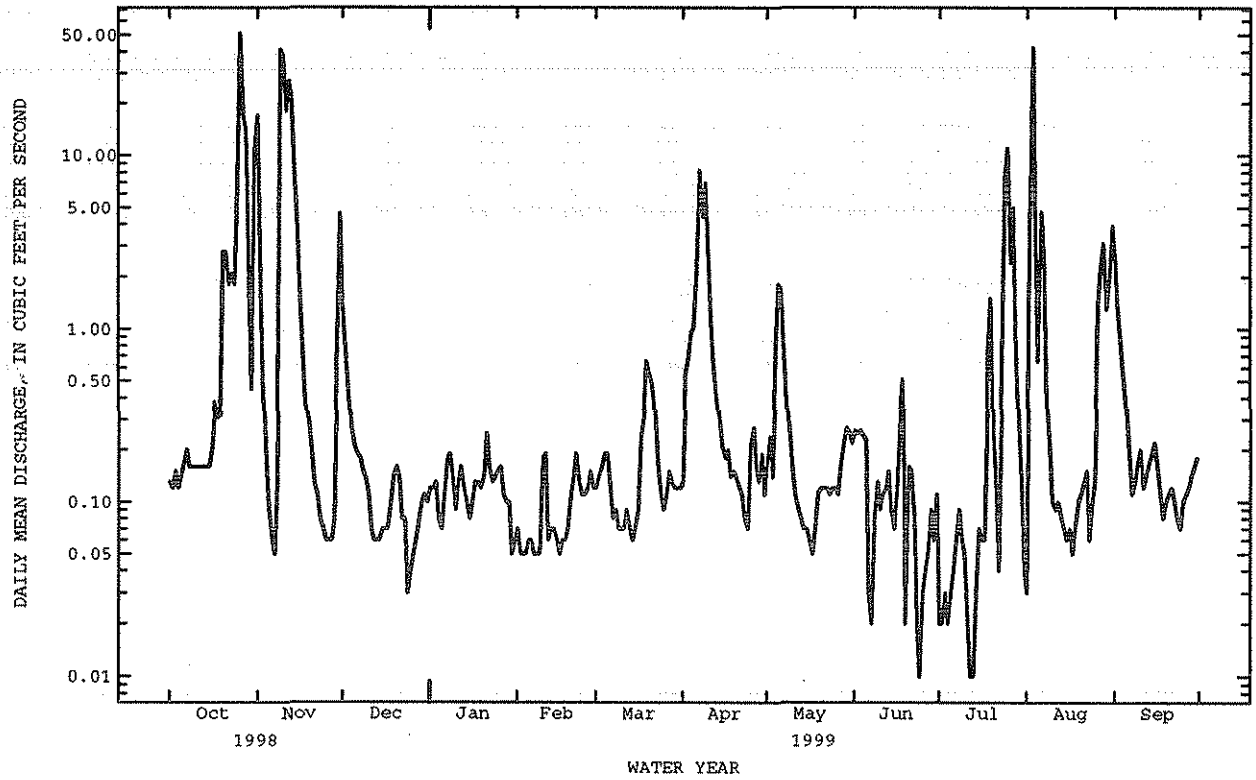
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

MEAN	.50	.84	.83	1.16	5.98	36.0	32.7	3.38	.33	.63	1.73	.66
MAX	3.78	6.24	3.76	18.9	57.1	166	187	33.8	1.33	3.52	14.0	6.04
(WY)	1999	1999	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	6871.70		480.37			
ANNUAL MEAN	18.8		1.32		7.05	
HIGHEST ANNUAL MEAN					22.4	1980
LOWEST ANNUAL MEAN					.13	1976
HIGHEST DAILY MEAN	632	Mar 24	51	Oct 26	1030	Mar 6 1995
LOWEST DAILY MEAN	.03	Jun 24	.01	Jun 24	.00	Oct 1 1969
ANNUAL SEVEN-DAY MINIMUM	.04	Jun 23	.03	Jul 1	.00	Oct 1 1969
INSTANTANEOUS PEAK FLOW			149	Aug 3	[a]1850	Mar 5 1995
INSTANTANEOUS PEAK STAGE			7.08	Aug 3	[b]9.34	Mar 5 1995
INSTANTANEOUS LOW FLOW					.02	Aug 30 1998
ANNUAL RUNOFF (AC-FT)	13630		953		5110	
10 PERCENT EXCEEDS	34		1.9		9.4	
50 PERCENT EXCEEDS	.22		.13		.18	
90 PERCENT EXCEEDS	.07		.06		.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 NE$^1/_4$ 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 noncontributing.

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

GAGE.--Water-stage recorder, with 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.9	2.3	2.1	1.4	.79	.46	.39	.00	.00	.00	.00
2	.00	1.9	1.8	1.6	1.1	.71	1.4	.59	.00	.00	57	.00
3	.00	1.1	1.6	1.4	e.96	.62	2.6	.48	.00	.00	8.9	.10
4	.00	.78	1.5	1.3	e1.2	.58	2.5	1.0	.00	.00	3.1	.03
5	.00	.86	e1.3	e1.1	e1.4	.60	2.5	1.8	.00	4.0	3.7	.00
6	.00	.83	e1.1	e1.0	e1.5	.55	2.8	1.1	.00	.21	5.2	.00
7	.00	.84	e1.0	e1.2	e1.4	.63	2.4	.82	.00	.01	2.0	.00
8	.00	1.2	e.98	1.4	e1.3	.61	2.2	.49	.00	.01	.12	.00
9	.00	4.5	e1.0	e1.1	e1.4	.64	2.0	.32	.00	.00	.00	.00
10	.00	7.3	e1.2	e1.0	1.5	.67	1.6	.27	.00	.00	.00	.00
11	.00	4.0	1.1	e1.6	e.98	.71	.96	.17	.00	.00	.00	.00
12	.00	3.1	1.0	e1.3	e1.0	.75	.68	.09	.00	.00	.00	.00
13	.00	2.5	1.2	1.1	e1.2	.87	.65	.05	.00	.00	.00	.00
14	.00	2.1	1.3	.99	1.4	.74	.71	.08	.00	.00	.00	.07
15	.00	1.7	1.4	.95	1.3	.82	.74	.07	.00	.00	.00	.00
16	.00	1.5	1.4	1.2	e1.1	.86	.68	.03	.00	.00	.37	.00
17	.00	1.3	1.5	1.1	e1.0	1.2	.58	.01	.00	.00	.02	.00
18	.00	1.2	1.6	1.5	e1.1	2.1	.47	.00	.00	.48	.13	.13
19	.00	1.2	1.7	1.4	e1.0	2.6	.38	.00	.00	.04	.44	.05
20	.00	1.2	1.7	1.5	e1.1	2.1	.48	.00	.00	.00	.00	.00
21	.00	1.1	1.5	e1.3	e1.4	1.8	.52	.00	.00	.00	.00	.00
22	.00	1.2	e1.1	e1.1	e1.3	1.4	.27	.00	.00	.91	.00	.00
23	.00	1.3	e.98	e1.0	e1.0	1.1	.15	.00	.00	.06	.00	.00
24	.00	e1.4	e.90	e1.1	e1.1	.73	.16	.00	.00	.00	.13	.00
25	.00	e1.2	e1.0	e1.4	e1.3	.56	e.40	.00	.00	.00	.00	.00
26	8.7	e1.0	1.2	1.5	1.2	.59	e.64	.00	.00	.11	.00	.00
27	8.7	1.2	1.3	1.4	1.1	1.0	e.88	.00	.00	.23	1.1	.00
28	8.1	1.4	1.3	1.2	.90	1.0	e1.1	.00	.00	.01	1.1	.00
29	3.1	2.5	1.4	1.1	---	.80	e1.4	.00	.00	.64	.84	.00
30	1.7	3.2	1.6	1.2	---	.75	.40	.00	.00	.34	.32	.00
31	2.8	---	1.8	1.2	---	.56	---	.00	---	.00	.00	---
TOTAL	33.10	57.51	41.76	39.34	33.64	29.44	32.71	7.76	0.00	7.05	84.47	0.38
MEAN	1.07	1.92	1.35	1.27	1.20	.95	1.09	.25	.000	.23	2.72	.013
MAX	8.7	7.3	2.3	2.1	1.5	2.6	2.8	1.8	.00	4.0	57	.13
MIN	.00	.78	.90	.95	.90	.55	.15	.00	.00	.00	.00	.00
AC-FT	66	114	83	78	67	58	65	15	.00	14	168	.8

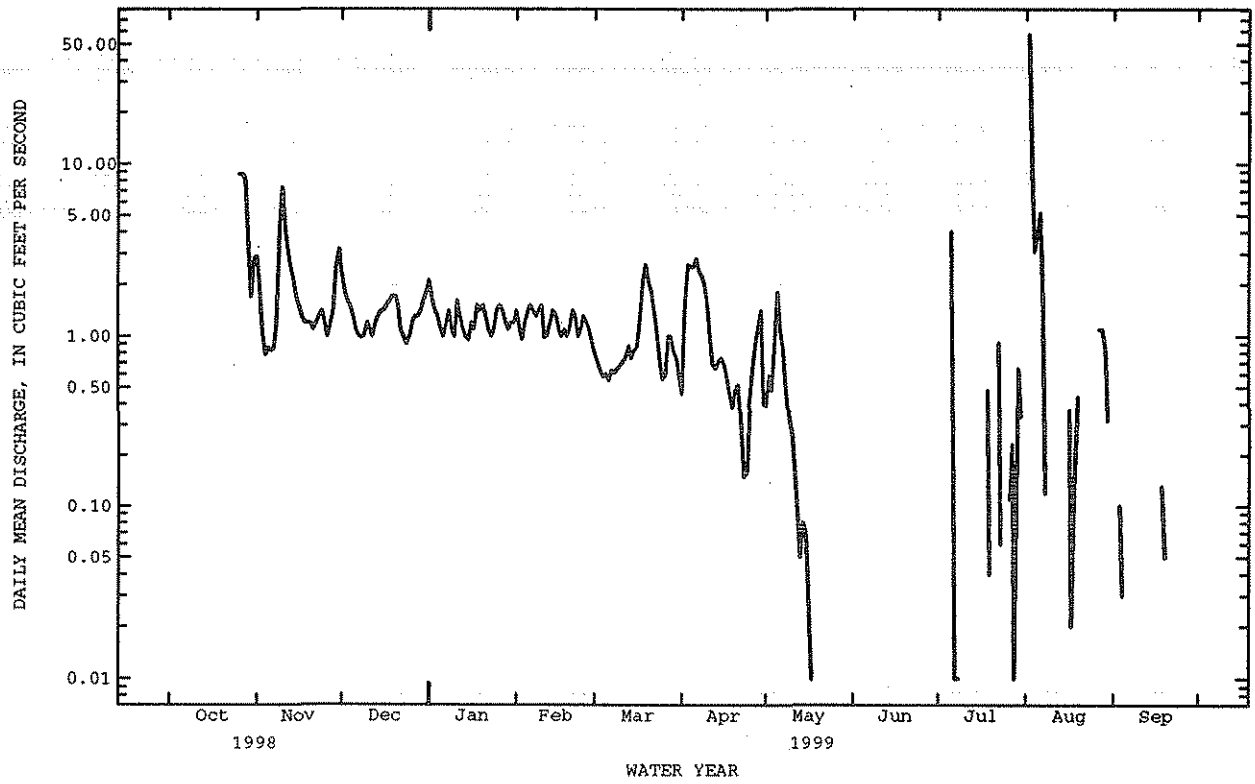
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1999, BY WATER YEAR (WY)

MEAN	1.55	1.45	1.32	2.92	10.1	42.6	50.7	5.28	.18	2.75	5.74	2.42
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1970 - 1999	
ANNUAL TOTAL	2185.05		367.16			
ANNUAL MEAN	5.99		1.01		10.6	
HIGHEST ANNUAL MEAN					46.9	1973
LOWEST ANNUAL MEAN					.50	1990
HIGHEST DAILY MEAN	212	Mar 27	57	Aug 2	1530	Mar 13 1985
LOWEST DAILY MEAN	.00	Jun 16	.00	Oct 1	.00	May 22 1970
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 16	.00	Oct 1	.00	May 22 1970
INSTANTANEOUS PEAK FLOW			1080	Aug 2	[a]5200	Aug 4 1974
INSTANTANEOUS PEAK STAGE			5.28	Aug 2	6.61	Aug 4 1974
INSTANTANEOUS LOW FLOW			.00	Oct 1	.00	Oct 1 1995
ANNUAL RUNOFF (AC-FT)	4330		728		7640	
10 PERCENT EXCEEDS	13		1.8		10	
50 PERCENT EXCEEDS	.98		.64		.77	
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 NE$^1/_4$NW$^1/_4$ sec.30, T.14 S., R.16 W., Grant County, Hydrologic Unit 15040001, on left bank at Hooker damsite, 1.6 mi upstream from Mogollon Creek, 7 mi northeast of Gila, and at mile 572.5.

DRAINAGE AREA.--1,864 mi^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 except for estimated daily discharges, which are fair. Diversions for irrigation of about 500 acres upstream from station. Several observations of water temperature were made during the year.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	121	112	82	74	67	58	58	34	23	149	92
2	43	117	111	81	73	65	64	58	33	21	255	101
3	43	111	137	81	73	64	69	57	32	21	293	181
4	42	104	170	79	72	64	71	55	30	22	545	122
5	43	100	184	76	73	63	70	54	30	33	1320	97
6	43	94	173	76	75	64	67	53	29	35	2170	102
7	46	88	160	76	76	66	65	52	27	30	1070	102
8	46	86	144	77	74	69	60	51	27	27	659	91
9	47	90	128	77	72	67	59	49	26	31	528	86
10	46	100	120	76	71	65	59	47	24	35	610	105
11	45	96	117	76	71	64	60	46	23	36	782	97
12	46	91	112	76	70	63	61	44	23	37	508	90
13	46	96	107	76	69	63	61	44	27	36	358	86
14	46	103	104	76	68	62	63	44	29	44	273	182
15	46	96	102	75	69	61	65	43	27	43	260	188
16	46	94	99	74	70	61	62	42	27	40	226	191
17	46	92	98	74	e72	62	61	40	31	39	201	204
18	47	89	97	75	69	65	61	39	43	46	173	408
19	49	86	97	75	69	68	59	38	51	51	149	380
20	49	84	97	75	67	62	56	39	53	56	133	283
21	54	83	93	75	64	61	55	38	67	92	115	230
22	55	82	91	76	64	59	56	37	52	178	103	207
23	57	81	88	78	66	61	56	36	48	197	96	178
24	57	80	e86	74	65	61	56	37	44	211	103	163
25	57	79	83	75	65	60	57	36	37	184	103	148
26	67	77	e79	75	66	61	58	37	32	170	97	135
27	130	77	82	74	67	62	57	36	29	153	97	123
28	290	76	83	74	68	59	58	37	26	144	119	112
29	195	96	83	74	---	58	60	41	23	121	125	103
30	147	120	82	74	---	59	58	38	23	107	106	97
31	129	---	82	74	---	58	---	36	---	97	93	---
TOTAL	2146	2789	3401	2356	1952	1944	1822	1362	1007	2360	11819	4684
MEAN	69.2	93.0	110	76.0	69.7	62.7	60.7	43.9	33.6	76.1	381	156
MAX	290	121	184	82	76	69	71	58	67	211	2170	408
MIN	42	76	79	74	64	58	55	36	23	21	93	86
AC-FT	4260	5530	6750	4670	3870	3860	3610	2700	2000	4680	23440	9290

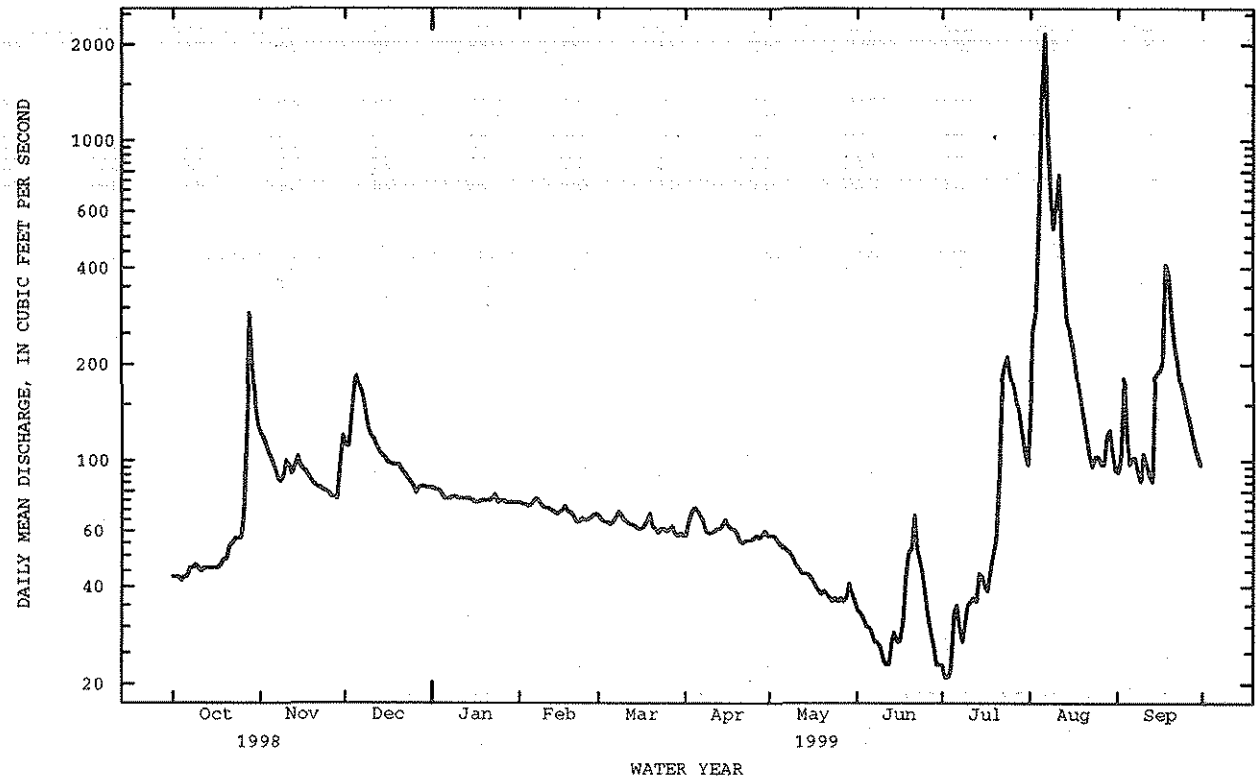
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1999, BY WATER YEAR (WY)

MEAN	119	99.7	169	175	238	321	222	142	60.3	65.3	145	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1928 - 1999	
ANNUAL TOTAL	70577		37642			
ANNUAL MEAN	193		103		159	
HIGHEST ANNUAL MEAN					477	1979
LOWEST ANNUAL MEAN					47.8	1956
HIGHEST DAILY MEAN	1830	Mar 27	2170	Aug 6	23400	Dec 28 1984
LOWEST DAILY MEAN	31	Jun 30	21	Jul 2	15	Jul 16 1971
ANNUAL SEVEN-DAY MINIMUM	36	Jun 26	23	Jun 28	16	Jul 14 1971
INSTANTANEOUS PEAK FLOW			2780	Aug 6	[a]35200	Dec 28 1984
INSTANTANEOUS PEAK STAGE			5.05	Aug 6	[b]13.00	Dec 28 1984
INSTANTANEOUS LOW FLOW			19	Jul 3	14	Jul 15 1971
ANNUAL RUNOFF (AC-FT)	140000		74660		115400	
10 PERCENT EXCEEDS	415		171		317	
50 PERCENT EXCEEDS	112		70		75	
90 PERCENT EXCEEDS	47		36		40	

e Estimated
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

LOCATION.--Lat 33°10'00", long 108°38'57", in SE$^1/_4$SE$^1/_4$ 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	13	11	3.6	3.7	2.1	1.3	1.6	.00	.00	9.4	4.3
2	1.0	10	13	3.5	3.7	2.0	3.4	1.7	.00	.00	10	4.7
3	.93	8.8	22	4.3	4.0	2.0	2.7	1.4	.00	.00	10	4.3
4	.71	7.5	19	7.3	3.2	2.0	2.4	1.5	.00	.00	29	3.6
5	.65	6.7	16	10	3.8	2.0	2.2	1.4	.00	.00	159	3.0
6	.78	6.1	13	5.8	3.9	2.0	3.2	1.4	.00	.81	115	3.8
7	.74	5.3	12	3.3	3.3	2.0	4.6	1.3	.00	1.0	60	3.0
8	.53	4.9	10	3.2	3.4	2.2	4.9	1.1	.00	4.4	38	2.4
9	.41	6.0	9.3	3.1	3.3	2.2	4.5	.86	.00	12	29	3.1
10	.34	6.5	8.0	4.7	3.2	1.9	4.0	.65	.00	5.5	29	3.1
11	.24	6.0	7.0	3.0	3.3	1.9	3.6	.61	.00	3.2	26	2.3
12	.23	5.9	8.0	3.0	4.3	1.7	3.4	.60	.00	2.5	19	2.1
13	.22	7.0	6.3	2.9	4.6	1.8	3.3	.49	.00	1.4	14	2.1
14	.22	6.6	5.8	1.8	3.1	1.7	3.5	.34	.00	2.4	12	3.3
15	.19	5.8	5.7	1.5	2.9	1.7	2.9	.22	.00	5.4	16	4.1
16	.26	5.6	5.5	1.9	2.8	1.6	2.8	.03	.00	19	16	3.2
17	.91	5.2	5.2	2.8	2.8	2.0	2.7	.00	.00	21	12	33
18	1.3	5.1	5.9	2.7	2.7	2.9	2.6	.00	.00	15	10	22
19	1.3	4.7	5.3	2.7	2.6	2.6	2.3	.00	.00	12	9.4	16
20	1.7	4.7	5.1	2.8	2.6	1.9	2.3	.00	.00	15	7.9	12
21	1.9	4.6	4.7	3.6	2.6	1.8	2.4	.00	.00	11	6.6	9.8
22	2.6	4.1	4.5	4.1	2.6	1.7	2.6	.00	.00	35	7.6	9.0
23	2.6	4.0	7.8	4.2	2.5	1.6	2.5	.13	.00	48	6.4	19
24	2.2	4.0	6.9	4.0	2.4	1.6	2.4	.34	.00	33	5.3	13
25	1.8	4.0	11	3.8	2.4	1.6	2.7	.00	.00	23	6.6	9.5
26	6.4	3.9	11	3.6	2.4	1.5	2.4	.00	.00	18	6.1	7.9
27	31	3.6	4.0	3.5	2.4	1.9	2.1	.00	.00	17	6.3	6.8
28	25	3.7	3.7	3.8	2.2	1.6	1.8	.00	.00	15	5.3	5.8
29	14	26	3.6	4.4	---	1.4	1.7	.00	.00	11	5.0	4.9
30	14	16	3.6	4.6	---	1.3	1.7	.00	.00	9.3	4.7	4.5
31	19	---	3.6	4.6	---	1.2	---	.00	---	8.5	4.4	---
TOTAL	134.16	205.3	257.5	118.1	86.7	57.4	84.9	15.67	0.00	349.41	695.0	225.6
MEAN	4.33	6.84	8.31	3.81	3.10	1.85	2.83	.51	.000	11.3	22.4	7.52
MAX	31	26	22	10	4.6	2.9	4.9	1.7	.00	48	159	33
MIN	.19	3.6	3.6	1.5	2.2	1.2	1.3	.00	.00	.00	4.4	2.1
AC-FT	266	407	511	234	172	114	168	31	.00	693	1380	447

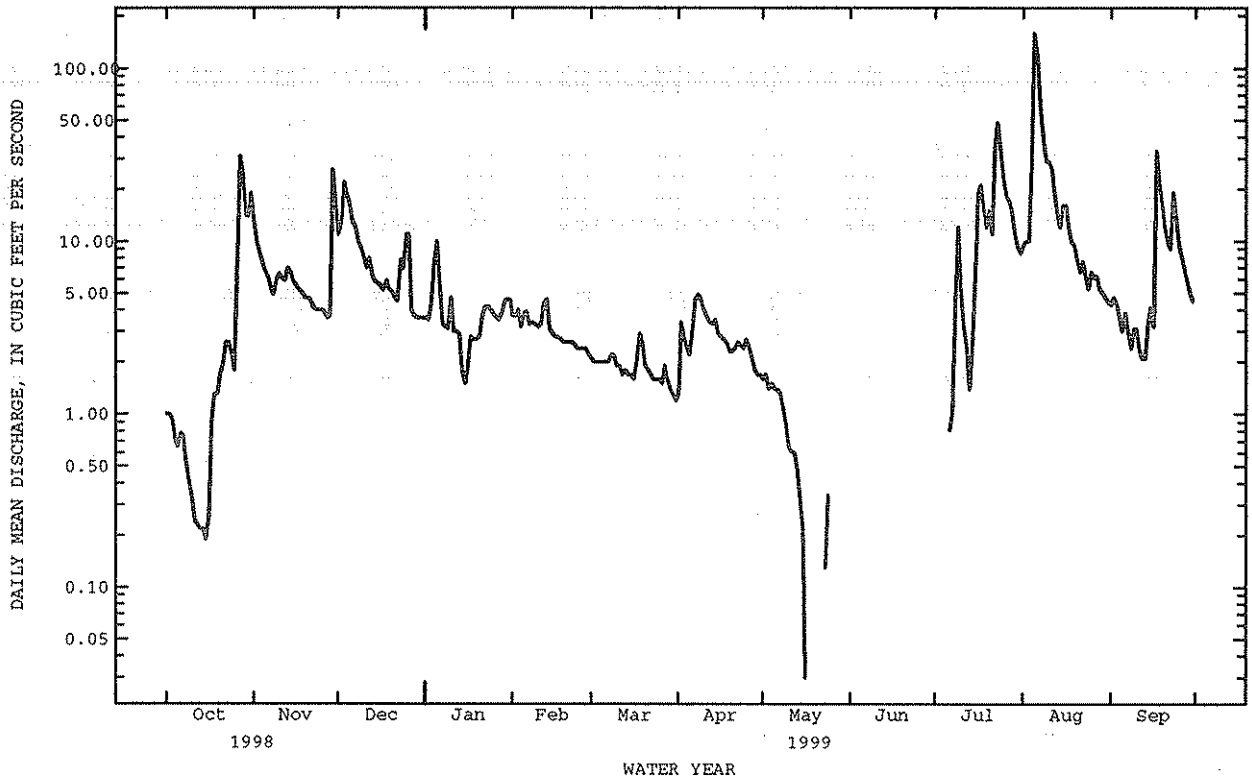
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1999, BY WATER YEAR (WY)

MEAN	21.9	18.1	45.7	36.8	58.4	73.3	55.5	28.1	3.52	7.80	17.4	16.7
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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1967 - 1999	
ANNUAL TOTAL	14085.35		2229.74			
ANNUAL MEAN	38.6		6.11		32.1	
HIGHEST ANNUAL MEAN					97.0	1979
LOWEST ANNUAL MEAN					1.83	1971
HIGHEST DAILY MEAN	511	Mar 26	159	Aug 5	6000	Dec 19 1978
LOWEST DAILY MEAN	.19	Oct 15	.00	May 17	.00	Jun 17 1967
ANNUAL SEVEN-DAY MINIMUM	.24	Oct 10	.00	May 25	.00	Jun 23 1967
INSTANTANEOUS PEAK FLOW			203	Aug 5	[a]10800	Aug 12 1967
INSTANTANEOUS PEAK STAGE			3.29	Aug 5	[b]13.70	Aug 12 1967
INSTANTANEOUS LOW FLOW			.00	May 17	.00	Oct 13 1995
ANNUAL RUNOFF (AC-FT)	27940		4420		23270	
10 PERCENT EXCEEDS	109		14		86	
50 PERCENT EXCEEDS	13		3.2		6.9	
90 PERCENT EXCEEDS	1.6		.00		.41	

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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1904 to February 1905 (gage heights only). May 1905 to December 1906, January to December 1907 and July to October 1908 (gage heights only). November 1908 to December 1910, January 1911 to January 1912 and May to June 1912 (gage heights only). August 1912 to September 1955, October 1962 to current year. Monthly or annual discharge only some periods, published in WSP 1313. Published as "near Cliff" 1904-7.

REVISED RECORDS.--WSP 1213: 1906, 1911-15, 1931, 1936-37, 1939, 1941, 1944, 1945(P), 1946(M), 1947. WSP 1283: Drainage area. WSP 1926: 1955. WDR NM-78-1: 1977.

GAGE.--Water-stage recorder 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.--Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 5,000 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	169	115	109	100	96	68	65	45	14	351	244
2	45	156	110	102	96	92	79	73	43	14	244	141
3	41	148	126	107	88	84	91	73	39	17	243	258
4	40	137	164	107	85	77	97	53	43	22	445	233
5	38	130	200	89	82	79	99	49	33	22	1740	178
6	37	126	214	81	88	80	99	46	16	26	2720	154
7	37	116	203	79	92	86	94	47	16	45	1490	141
8	41	112	188	81	94	96	84	46	22	31	957	123
9	42	112	174	80	86	87	81	30	31	29	721	108
10	43	122	156	81	89	86	71	23	31	27	760	114
11	42	128	134	90	92	90	62	27	33	31	1010	116
12	38	125	113	94	96	87	67	48	34	30	840	104
13	39	121	107	93	95	82	55	49	35	27	675	107
14	38	123	100	91	93	85	50	49	49	32	548	127
15	38	126	113	86	97	61	53	46	26	35	538	196
16	41	120	110	90	94	79	55	47	25	42	421	189
17	45	115	111	89	e81	80	54	47	23	118	376	360
18	26	113	118	87	79	83	57	48	46	42	268	400
19	31	109	120	81	81	85	67	42	71	45	216	598
20	43	105	124	83	83	81	51	39	75	156	314	509
21	51	84	123	87	81	81	36	41	76	607	205	401
22	56	94	120	95	83	82	53	41	65	407	158	337
23	58	104	113	92	77	75	47	39	51	225	140	290
24	58	96	e111	99	73	70	46	45	27	309	109	257
25	61	100	109	99	52	69	48	47	30	222	118	205
26	72	90	109	94	66	71	52	43	24	207	119	160
27	104	94	99	93	87	76	51	38	19	280	120	146
28	193	83	82	94	89	80	59	38	17	423	182	163
29	279	97	98	95	---	50	73	38	16	211	159	144
30	219	107	108	73	---	52	75	35	16	112	142	130
31	192	---	106	80	---	63	---	38	---	161	112	---
TOTAL	2134	3462	3978	2801	2399	2445	1974	1390	1077	3969	16441	6633
MEAN	68.8	115	128	90.4	85.7	78.9	65.8	44.8	35.9	128	530	221
MAX	279	169	214	109	100	96	99	73	76	607	2720	598
MIN	26	83	82	73	52	50	36	23	16	14	109	104
AC-FT	4230	6870	7890	5560	4760	4850	3920	2760	2140	7870	32610	13160

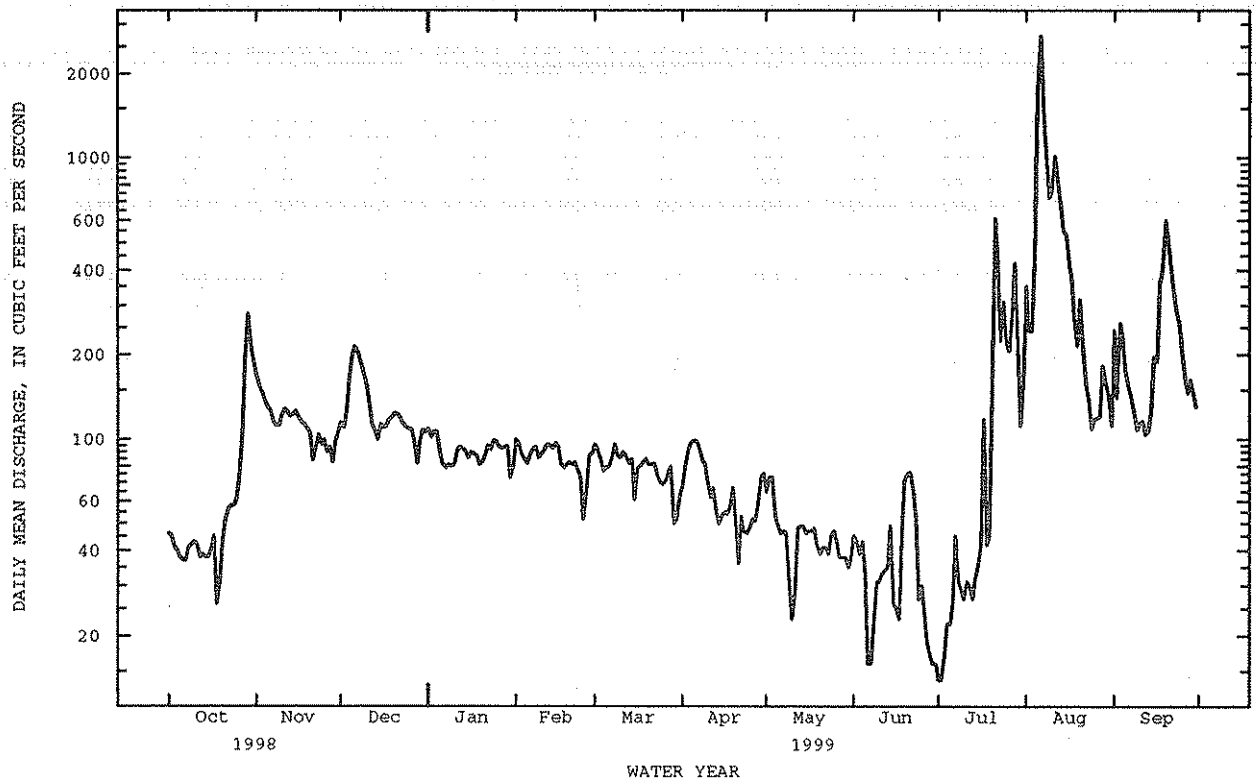
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1999, BY WATER YEAR (WY)

MEAN	203	154	339	322	418	502	315	196	62.4	78.5	219	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1963 - 1999	
ANNUAL TOTAL	95070		48703			
ANNUAL MEAN	260		133		254	
HIGHEST ANNUAL MEAN					664	1993
LOWEST ANNUAL MEAN					57.2	1971
HIGHEST DAILY MEAN	1840	Mar 27	2720	Aug 6	34000	Dec 19 1978
LOWEST DAILY MEAN	26	Oct 18	14	Jul 1	3.6	Jul 20 1978
ANNUAL SEVEN-DAY MINIMUM	37	Oct 13	16	Jun 27	4.9	Jul 16 1971
INSTANTANEOUS PEAK FLOW			4070	Aug 5	[a]48800	Dec 19 1978
INSTANTANEOUS PEAK STAGE			9.87	Aug 5	[b]29.80	Dec 19 1978
INSTANTANEOUS LOW FLOW			8.5	Jun 8	2.2	Aug 5 1947
ANNUAL RUNOFF (AC-FT)	188600		96600		183700	
10 PERCENT EXCEEDS	604		228		550	
50 PERCENT EXCEEDS	146		87		101	
90 PERCENT EXCEEDS	55		35		35	

e Estimated
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.



09431500 GILA RIVER NEAR REDROCK, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-97, March 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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)
MAR											
02...	1445	92	390	8.8	25.0	14.0	658	9.6	108	130	--
JUN											
09...	1055	31	425	8.4	26.5	19.5	661	11.3	143	--	--
29...	1030	16	443	8.4	34.0	25.0	661	7.2	101	150	2
AUG											
09...	1740	667	271	8.1	37.0	27.5	660	7.2	106	84	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
MAR										
02...	37	10	21	.8	2.1	162	--	135	175	8.1
JUN										
09...	--	--	--	--	--	154	8	140	--	--
29...	44	9.7	35	1	2.8	167	7	149	164	44
AUG										
09...	25	5.1	20	.9	2.5	113	0	93	107	19

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
MAR										
02...	6.7	.4	37	205	--	<.010	.81	<.010	.23	<.20
JUN										
09...	--	--	--	--	.280	.02	.30	.02	<.20	<.20
29...	14	1.9	35	279	.620	.02	.64	.06	.52	<.20
AUG										
09...	7.5	1.5	40	177	--	<.01	.29	<.01	1.4	.31

DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	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)
MAR										
02...	<.02	.15	.04	2	<1	2	10	<1	20.4	<1
JUN										
09...	.04	.04	<.01	--	--	--	--	--	--	--
29...	.20	.05	.03	1	<1	2	24	<1	49.3	<1
AUG										
09...	.83	.06	.08	13	<1	1	17	<1	31.6	<1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)
MAR										
02...	11	<1	<1	<10	<1	15	<.1	<1	1	<1
JUN										
09...	--	--	--	--	--	--	--	--	--	--
29...	<1.0	<1	2	<10	<1	15	<.01	4	<1	<1
AUG										
09...	--	<1	3	E6	<1	3	<.1	2	1	<1

09431500 GILA RIVER NEAR REDROCK, NM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS-PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR										
02...	<1	<1	3	--	--	--	2	15	3.7	98
JUN										
09...	--	--	--	130	67	850	--	10	.84	87
29...	<1	<1	1	--	--	--	2	124	5.4	95
AUG										
09...	<1	<1	3	--	--	--	1	1050	1890	77

09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM

LOCATION.--Lat 32°38'53", long 108°50'43", in SE$^1/_4$SW$^1/_4$ 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 good except for estimated daily discharges, which are fair. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres above station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	140	118	105	100	88	68	e78	32	17	346	175
2	58	135	119	104	102	88	83	e74	33	17	279	171
3	57	132	120	104	100	86	89	e77	34	18	273	229
4	51	128	128	105	98	82	92	e71	35	20	368	212
5	43	126	140	100	96	81	94	e61	33	23	1300	186
6	39	123	147	95	93	85	93	e55	30	23	2670	170
7	38	120	148	93	95	85	91	e53	26	24	1500	159
8	43	117	144	92	99	88	90	e51	24	28	973	150
9	60	117	139	92	97	88	88	e48	23	29	729	138
10	62	119	134	93	95	86	85	e44	22	30	650	131
11	64	122	129	95	96	87	79	e41	22	31	837	131
12	64	123	119	97	97	87	74	e39	22	33	687	127
13	64	121	115	98	98	85	72	e40	30	32	496	126
14	63	120	112	98	97	86	64	e41	36	34	409	127
15	56	122	113	98	96	81	61	e40	28	36	441	152
16	53	120	114	97	96	75	69	e40	25	36	326	166
17	60	118	113	99	95	82	69	e40	22	119	281	217
18	67	117	115	98	91	88	70	e40	24	76	230	264
19	57	116	115	97	88	87	73	e39	49	62	195	376
20	56	115	116	97	89	87	73	e37	45	101	231	340
21	72	108	116	97	88	89	64	e36	51	383	209	294
22	81	105	115	101	88	89	57	35	49	396	180	250
23	85	114	114	103	87	89	61	35	46	485	161	223
24	86	112	113	105	84	86	61	35	40	398	143	203
25	89	112	112	106	79	83	60	35	30	279	132	179
26	94	110	111	104	76	84	59	35	26	256	127	156
27	106	110	109	103	83	86	60	34	23	271	176	144
28	122	108	100	102	86	87	e61	34	20	246	205	140
29	171	110	100	100	---	85	e63	34	18	321	182	134
30	158	113	105	95	---	74	e75	33	17	197	171	127
31	146	---	106	95	---	69	---	33	---	166	162	---
TOTAL	2321	3553	3699	3068	2589	2623	2198	1388	915	4187	15069	5597
MEAN	74.9	118	119	99.0	92.5	84.6	73.3	44.8	30.5	135	486	187
MAX	171	140	148	106	102	89	94	78	51	485	2670	376
MIN	38	105	100	92	76	69	57	33	17	17	127	126
AC-FT	4600	7050	7340	6090	5140	5200	4360	2750	1810	8300	29890	11100
CFSM	.02	.04	.04	.03	.03	.03	.02	.01	.01	.04	.15	.06
IN.	.03	.04	.04	.04	.03	.03	.03	.02	.01	.05	.18	.07

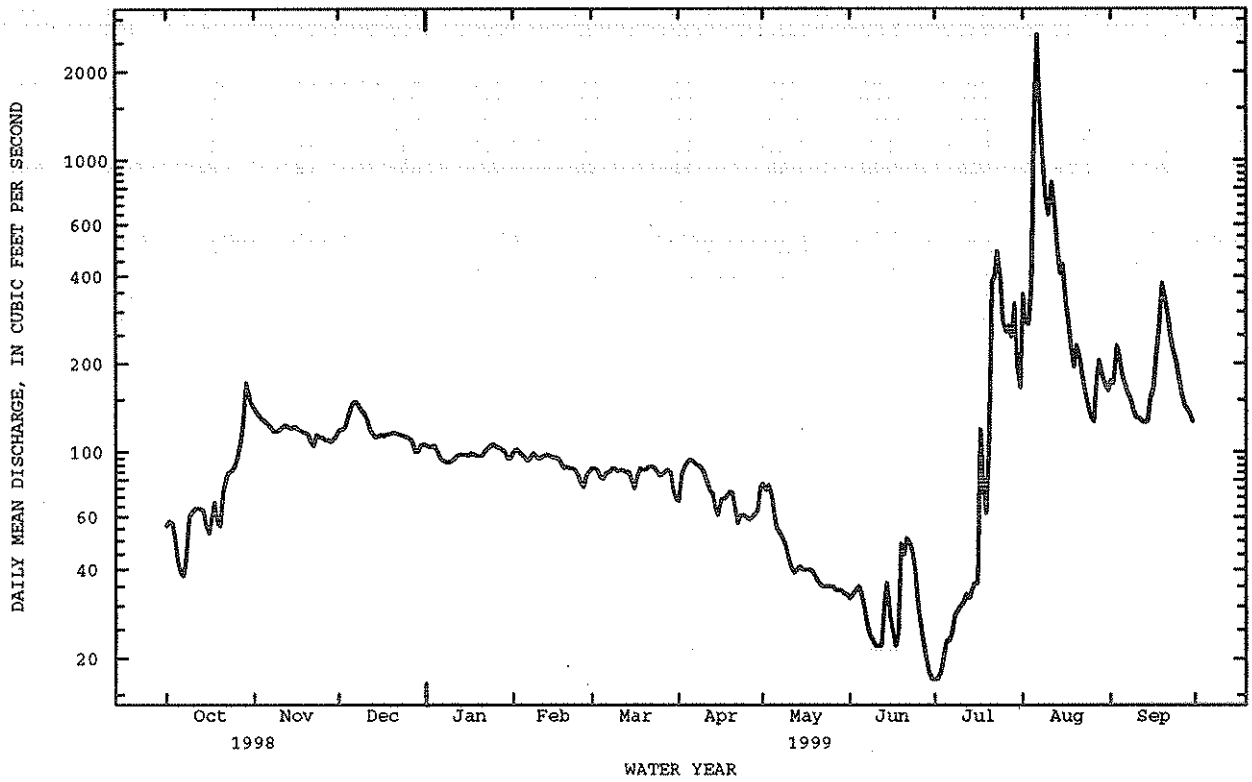
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1999, BY WATER YEAR (WY)

MEAN	160	130	252	314	362	434	274	152	51.7	76.5	206	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1932 - 1999	
ANNUAL TOTAL	101049		47207			
ANNUAL MEAN	277		129		213	
HIGHEST ANNUAL MEAN					746	1993
LOWEST ANNUAL MEAN					43.1	1956
HIGHEST DAILY MEAN	1970	Mar 28	2670	Aug 6	33100	Dec 19 1978
LOWEST DAILY MEAN	38	Oct 7	17	Jun 30	1.7	Jul 11 1956
ANNUAL SEVEN-DAY MINIMUM	46	Jun 30	18	Jun 28	2.0	Sep 26 1956
INSTANTANEOUS PEAK FLOW			3680	Aug 6	[a]58700	Dec 19 1978
INSTANTANEOUS PEAK STAGE			7.75	Aug 6	29	Dec 19 1978
INSTANTANEOUS LOW FLOW					1.0	Jul 14 1934
ANNUAL RUNOFF (AC-FT)	200400		93640		154100	
ANNUAL RUNOFF (CFSM)	.086		.040		.066	
ANNUAL RUNOFF (INCHES)	1.17		.55		.90	
10 PERCENT EXCEEDS	659		214		460	
50 PERCENT EXCEEDS	140		95		93	
90 PERCENT EXCEEDS	63		34		23	

e Estimated
a From rating curve extended above 38,000 ft3/s, on basis of slope-area measurement of peak flow.



09442680 SAN FRANCISCO RIVER NEAR RESERVE, NM

LOCATION.--Lat 33°44'12", long 108°46'14", in NE$^1/_4$NW$^1/_4$SE$^1/_4$ sec.35, T.6 S., R.19 W., Catron County, Hydrologic Unit 15040004, on left bank 1,300 ft downstream from Rainbow Bridge Canyon, 1.7 mi northwest of Reserve, and at mile 563.1.

DRAINAGE AREA.--350 mi^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 good. 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	8.3	10	8.2	7.4	6.5	3.9	5.8	9.2	3.0	17	18
2	2.7	8.1	10	8.2	7.0	4.1	9.3	5.9	9.4	3.0	182	16
3	2.3	8.1	10	7.2	6.1	3.9	15	5.6	10	2.8	680	16
4	2.6	8.1	8.8	7.6	3.5	3.9	9.0	5.8	10	1.4	422	14
5	4.3	7.0	8.8	6.3	4.9	4.3	8.0	6.5	8.5	1.9	327	11
6	4.1	7.7	8.9	6.6	6.2	4.5	8.5	6.0	9.6	20	334	11
7	4.0	7.1	8.5	8.2	6.0	4.6	9.0	5.9	11	5.1	212	11
8	4.4	7.2	8.1	7.2	6.2	6.1	8.8	6.2	10	1.9	75	9.7
9	4.6	8.1	6.4	6.6	5.9	5.6	8.4	6.0	9.0	2.0	36	8.8
10	4.2	8.2	8.4	7.0	3.4	5.6	11	5.9	7.6	2.5	60	9.3
11	3.9	8.4	8.3	7.5	3.7	5.5	11	5.4	6.5	2.8	79	8.4
12	4.2	8.3	6.5	7.5	3.8	6.1	9.9	5.4	5.8	2.7	47	8.4
13	3.9	7.9	8.3	6.9	4.3	5.6	9.7	5.6	3.8	3.0	26	9.6
14	4.5	7.2	7.5	7.1	6.4	5.6	9.9	3.4	4.9	3.4	16	10
15	3.1	7.6	8.0	6.9	6.4	5.6	9.3	3.3	3.5	47	17	42
16	1.6	7.8	7.8	7.1	5.9	4.8	8.6	3.1	8.6	4.2	28	86
17	1.8	7.2	7.9	7.1	5.9	3.9	8.0	2.6	9.9	3.0	31	374
18	4.1	8.2	8.3	7.0	6.9	5.1	7.4	3.5	12	13	21	282
19	4.7	8.5	8.1	7.1	6.5	6.7	7.2	3.9	13	48	15	192
20	2.9	7.2	7.8	7.1	6.3	5.7	7.0	2.5	9.1	22	21	105
21	3.5	6.6	7.6	7.0	6.1	5.0	6.4	1.9	9.4	15	20	67
22	6.5	7.1	6.9	6.9	5.7	4.1	6.0	2.9	8.9	10	15	51
23	7.2	7.3	6.8	8.0	5.2	3.5	5.9	3.0	7.6	8.4	15	275
24	5.9	7.0	8.1	6.8	6.1	4.2	6.4	2.7	5.9	6.8	18	250
25	6.4	7.4	7.8	7.6	6.0	4.4	6.8	2.8	4.8	5.9	15	150
26	16	6.9	7.4	7.7	4.8	4.6	6.5	3.1	4.4	5.8	57	100
27	14	7.2	8.1	7.3	4.7	4.9	6.9	3.1	4.8	6.7	46	71
28	11	7.3	7.9	7.0	6.7	4.5	6.4	3.5	4.4	5.8	48	52
29	8.8	17	7.9	6.8	---	4.2	5.8	6.3	3.4	4.9	44	41
30	9.2	11	7.9	6.2	---	3.0	5.5	6.9	3.8	23	34	35
31	11	---	7.7	5.6	---	2.3	---	8.1	---	17	25	---
TOTAL	170.4	241.0	250.5	221.3	158.0	148.4	241.5	142.6	228.8	302.0	2983	2334.2
MEAN	5.50	8.03	8.08	7.14	5.64	4.79	8.05	4.60	7.63	9.74	96.2	77.8
MAX	16	17	10	8.2	7.4	6.7	15	8.1	13	48	680	374
MIN	1.6	6.6	6.4	5.6	3.4	2.3	3.9	1.9	3.4	1.4	15	8.4
AC-FT	338	478	497	439	313	294	479	283	454	599	5920	4630

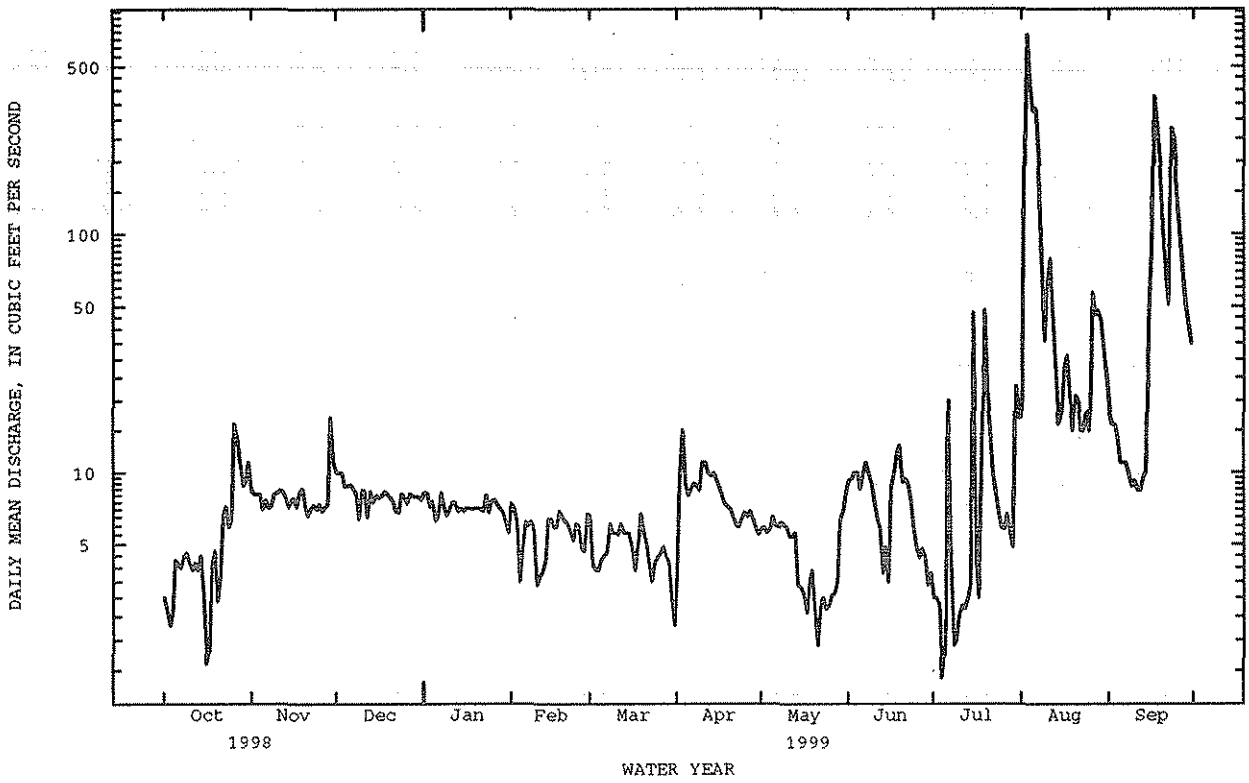
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1999, BY WATER YEAR (WY)

MEAN	28.7	18.9	20.7	21.3	39.4	77.9	52.5	19.5	6.57	8.51	17.7	19.9
MAX	430	211	159	159	231	336	398	162	39.7	28.3	96.2	172
(WY)	1984	1979	1979	1993	1993	1985	1973	1973	1992	1967	1999	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 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1959 - 1999	
ANNUAL TOTAL	6068.54		7421.7			
ANNUAL MEAN	16.6		20.3		27.9	
HIGHEST ANNUAL MEAN					101	1973
LOWEST ANNUAL MEAN					5.94	1996
HIGHEST DAILY MEAN	264	Mar 27	680	Aug 3	5000	Oct 20 1972
LOWEST DAILY MEAN	.92	Jul 18	1.4	Jul 4	.24	Jul 18 1997
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 23	2.6	Jul 8	.44	Jul 14 1997
INSTANTANEOUS PEAK FLOW			1950	Aug 3	[a]9830	Oct 1 1983
INSTANTANEOUS PEAK STAGE			4.28	Aug 3	[b]11.71	Oct 1 1983
INSTANTANEOUS LOW FLOW			1.4	Jul 4	.69	Jul 24 1995
ANNUAL RUNOFF (AC-FT)	12040		14720		20220	
10 PERCENT EXCEEDS	28		27		55	
50 PERCENT EXCEEDS	8.1		7.1		8.5	
90 PERCENT EXCEEDS	3.2		3.4		3.5	

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 NE$^1/_4$NW$^1/_4$ sec.23, T.12 S., R.20 W., Catron County, Hydrologic Unit 15040004, on left bank 0.2 mi upstream from hot springs, 5 mi south of Glenwood, 6 mi downstream from Whitewater Creek, and at mile 511.5.

DRAINAGE AREA.--1,653 mi^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 good. Diversions for irrigation of about 2,000 acres upstream from 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 slope-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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	35	36	35	36	25	8.8	17	17	13	48	86
2	27	30	46	37	36	19	14	18	16	14	268	51
3	21	26	44	36	37	18	16	17	15	15	496	63
4	22	25	40	37	37	15	18	20	14	16	685	51
5	24	26	39	36	36	15	20	19	13	15	1030	41
6	23	25	38	32	38	12	24	18	14	16	955	72
7	22	25	38	31	40	11	25	18	13	15	421	54
8	22	24	38	33	40	11	25	17	15	15	239	34
9	19	25	37	34	41	11	22	17	14	20	105	28
10	20	25	37	38	40	11	24	18	13	46	741	80
11	20	25	35	33	38	12	27	18	14	24	299	48
12	21	26	35	33	34	14	21	16	12	19	152	31
13	20	23	36	33	27	13	18	16	13	16	85	310
14	19	21	36	33	26	14	21	18	12	18	48	694
15	20	21	36	34	27	10	18	19	11	22	37	382
16	20	21	34	34	28	9.5	19	20	16	24	208	338
17	22	23	31	34	26	9.2	18	17	14	25	148	879
18	21	23	32	34	22	10	17	18	15	76	73	1190
19	19	24	32	33	21	11	16	19	13	113	44	732
20	22	24	33	34	21	9.4	16	18	13	262	65	616
21	21	24	34	34	22	9.7	16	19	24	136	77	340
22	21	25	38	34	20	9.2	15	17	15	63	26	222
23	21	27	38	34	20	9.6	14	15	15	86	21	185
24	18	29	37	34	21	9.0	17	15	14	52	21	277
25	19	28	36	34	23	12	18	15	13	26	16	302
26	38	28	37	33	23	9.6	19	17	15	20	25	224
27	75	29	37	33	22	11	16	17	15	41	21	167
28	60	30	37	34	21	13	17	18	13	22	118	127
29	36	33	37	34	---	11	18	18	12	13	99	100
30	29	40	37	34	---	10	15	18	13	14	62	88
31	35	---	37	35	---	9.2	---	19	---	24	46	---
TOTAL	804	790	1138	1057	823	373.4	552.8	546	426	1281	6679	7812
MEAN	25.9	26.3	36.7	34.1	29.4	12.0	18.4	17.6	14.2	41.3	215	260
MAX	75	40	46	38	41	25	27	20	24	262	1030	1190
MIN	18	21	31	31	20	9.0	8.8	15	11	13	16	28
AC-FT	1590	1570	2260	2100	1630	741	1100	1080	845	2540	13250	15500

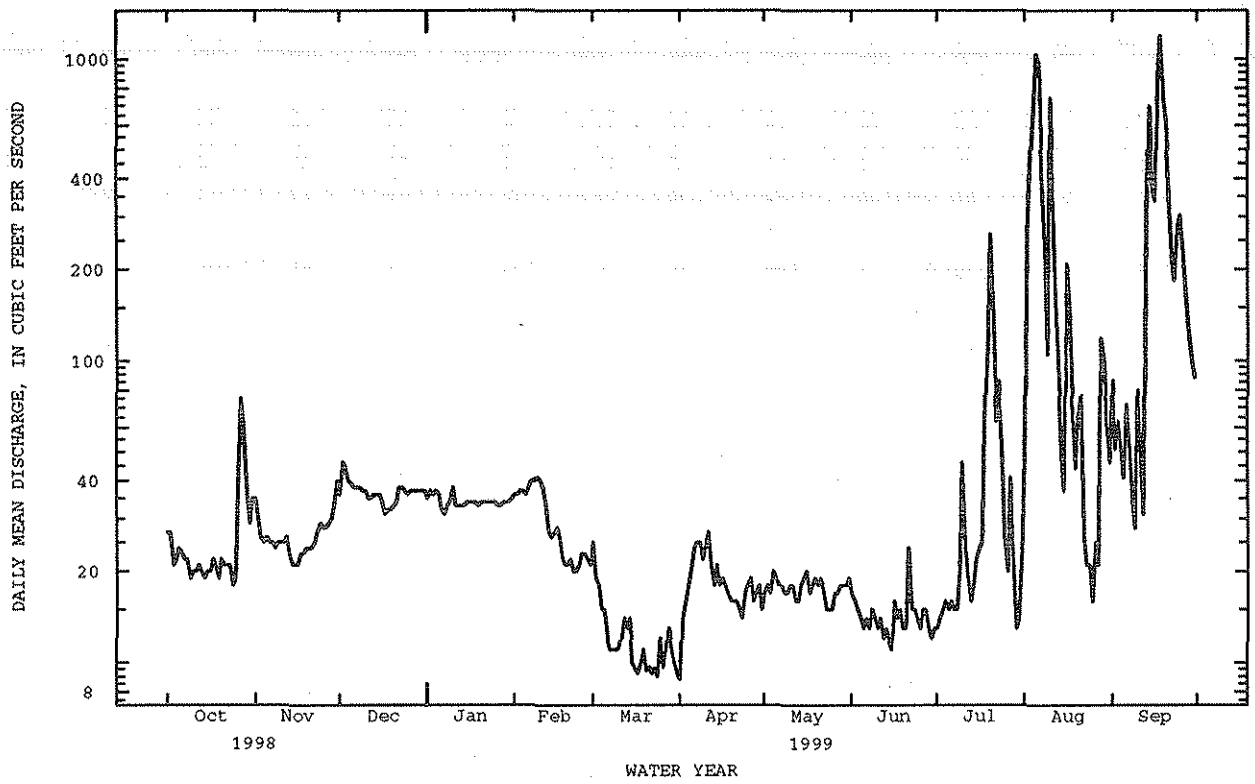
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1999, BY WATER YEAR (WY)

MEAN	83.7	49.3	86.7	100	128	197	144	76.8	28.8	37.7	77.9	61.1
MAX	2026	520	1068	1568	1034	1036	1049	593	146	108	392	368
(WY)	1984	1979	1979	1993	1993	1985	1973	1973	1992	1930	1957	1988
MIN	9.77	10.8	12.9	13.5	14.9	11.3	10.2	8.65	5.70	13.2	13.7	7.66
(WY)	1966	1957	1954	1956	1956	1959	1957	1956	1956	1963	1960	1956

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM--Continued

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1928 - 1999	
ANNUAL TOTAL	32822		22282.2			
ANNUAL MEAN	89.9		61.0		89.2	
HIGHEST ANNUAL MEAN					351	1979
LOWEST ANNUAL MEAN					13.9	1956
HIGHEST DAILY MEAN	1240	Mar 27	1190	Sep 18	27500	Oct 2 1983
LOWEST DAILY MEAN	18	Oct 24	8.8	Apr 1	2.5	Jun 25 1956
ANNUAL SEVEN-DAY MINIMUM	20	Oct 9	9.7	Mar 18	3.9	Jun 22 1956
INSTANTANEOUS PEAK FLOW			4820	Sep 13	[a]37100	Oct 2 1983
INSTANTANEOUS PEAK STAGE			7.46	Sep 13	[b]18.15	Oct 2 1983
INSTANTANEOUS LOW FLOW			8.8	Apr 1	1.5	Dec 3 1906
ANNUAL RUNOFF (AC-FT)	65100		44200		64600	
10 PERCENT EXCEEDS	211		87		174	
50 PERCENT EXCEEDS	41		24		32	
90 PERCENT EXCEEDS	21		13		15	

a From rating curve extended above 4,200 ft^3/s, on basis of slope-area measurements at gage heights, 10.74 ft, 15.60 ft, and 20.80 ft.
b 20.80 ft from outside floodmarks.



09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-85, March 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
MAR												
01...	1615	25	354	8.6	22.0	18.0	645	8.0	100	140	40	8.3
JUN												
08...	1310	17	378	8.0	31.5	23.0	646	8.5	118	--	--	--
28...	1315	12	392	8.2	38.0	27.5	647	8.9	134	160	44	12
AUG												
09...	1240	125	320	8.1	30.0	23.5	651	7.0	97	120	34	8.7

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE 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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
MAR												
01...	29	1	1.7	200	--	168	143	35	13	1.9	31	260
JUN												
08...	--	--	--	217	.000	178	--	--	--	--	--	--
28...	23	.8	2.3	222	.000	182	197	8.5	7.3	.4	38	244
AUG												
09...	19	.7	2.3	181	.000	148	156	6.2	5.1	.3	37	201

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	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)	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)
MAR												
01...	<.010	.11	<.010	<.20	<.20	.12	<.02	.04	<1	<1	1	16
JUN												
08...	<.01	.10	.02	<.20	<.20	.08	.05	.03	--	--	--	--
28...	<.01	<.02	.02	<.20	<.20	.06	.06	.03	1	<1	<1	13
AUG												
09...	<.01	.08	<.01	.75	.25	.42	.17	.13	11	<1	2	24

DATE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)
MAR												
01...	<1	44.4	<1	8	<1	1	<10	<1	4	<.1	2	1
JUN												
08...	--	--	--	--	--	--	--	--	--	--	--	--
28...	<1	17.1	<1	<1.0	<1	<1	<10	<1	18	<.01	<1	<1
AUG												
09...	<1	18.3	<1	--	<1	2	<10	<1	12	<.1	<1	1

DATE	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS-PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR											
01...	2	<1	<1	<1	--	--	--	2	27	1.8	65
JUN											
08...	--	--	--	--	<2	14	450	--	177	8.1	72
28...	<1	<1	<1	<1	--	--	--	2	31	1.0	91
AUG											
09...	<1	<1	<1	3	--	--	--	1	240	81	93

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 1999 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-	04-30-99	5.04	1,750	07-06-58	12.22	15,600
Raton Creek at Raton. (07201000)	Lat 36°55'38", long 104°26'22", Colfax County, Hydrologic Unit 11080001, 60 ft upstream from bridge on State Highway 72 at Raton. Drainage area is 14.4 mi^2.	1953-96g 1999-	07-06-99	1.71	400	06-17-65	14.80	3,990
Chicorica Creek tributary near Raton. (07201200)	Lat 36°49'41", long 104°19'58", Colfax County, Hydrologic Unit 11080001, upstream from culvert on U.S. Highway 64-87, 7.7 mi southeast of Raton. Drainage area is 5.18 mi^2.	1971-96g 1997-	07-06-99	9.49	516	08-25-82	18.30	1,340
Clear Creek near Ute Park. (07206400)	Lat 36°31'35", long 105°10'30", Colfax County, Hydrologic Unit 11080002, 0.25 mi upstream from mouth, and 4 mi southwest of Ute Park. Drainage area is 7.44 mi^2.	1962-67* 1968-96g 1999-	07-06-99	1.79	20	06-18-65	3.05	151
Dog Creek near Shoemaker. (07220900)	Lat 35°49'32", long 104°53'28", Mora County, Hydrologic Unit 11080004, 0.5 mi upstream from Valmora-Shoemaker road, and 1.8 mi northwest of Shoemaker. Drainage area is 18.4 mi^2.	1954-95g 1999-	08-03-99	6.73	140	07-08-82	14.90	7,180
Lagartija Creek tributary near Sanchez. (07221600)	Lat 35°39'21", long 104°24'57", San Miguel County, Hydrologic Unit 11080003, at bridge on State Highway 419, 0.9 mi northeast of Sanchez. Drainage area is 1.19 mi^2.	1961-96g 1999-	06-12-99	3.49	390	05-11-94	5.83	1,500
Trementina Creek at Trementina. (07222300)	Lat 35°29'28", long 104°24'59", San Miguel County, Hydrologic Unit 11080005, at bridge on State Highway 419; at Trementina. Drainage area is 63.9 mi^2.	1959-	04-30-99	4.67	2,800	09-11-65	12.00	14,100

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum Date	Gage height (ft)	Discharge (ft^3/s)	Period of record maximum Date	Gage height (ft)	Discharge (ft^3/s)
			ARKANSAS RIVER BASIN--Continued					
Garita Creek tributary near Variadero. (07222800)	Lat 35°20'10", long 104°21'50", San Miguel County, Hydrologic Unit 11080005, 1.2 mi upstream from mouth, and 6.3 mi southeast of Variadero. Drainage area is 12.0 mi^2.	1971-96g 1999-	06-12-99	7.67	380	08-29-77	17.37	7,020
Pajarito Creek at Newkirk, NM (07225000)	Lat 35°04'20", long 104°14'50", Guadalupe County, downstream side of bridge on U.S. Highway 66, 1 mile east of Newkirk. Drainage area is 55.0 mi^2.	1954-95g 1999-	- -99	<4.63	<2.50	07-16-81	8.01	3,500
Bluewater Creek near Tucumcari. (07225300)	Lat 35°08'31", long 103°47'32", Quay County, in Tucumcari Metropolitan Park, 1,600 ft north of the park's southern boundary, and 4.8 miles southwest of Tucumcari. Drainage area is 15.2 mi^2.	1971-96g 1999-	07-21-99	11.35	1,740	08-11-81	12.71	c2,350
Bueyeros Creek at Bueyeros. (07226200)	Lat 35°58'10", long 103°41'05", Harding County, on right upstream wingwall of culvert on State Road 102 at Bueyeros. Drainage area is a34.0 mi^2.	1957-96g 1999-	07-05-99	3.90	350	08-11-81	3.65	1,150
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-	06-12-99	4.93	680	08-11-81	[n]7.11	n1,800
Plaza Largo Creek tributary near Ragland. (07227050)	Lat 34°48'29", long 103°45'35", Quay County, Hydrologic Unit 11080008, at culvert on State Highway 209, 1.2 mi northwest of Ragland. Drainage is 0.36 mi^2.	1952-96g 1999-	- -99	--	(k)	07-16-58	12.70	1,170
Tramperos Creek near Stead. (07227200)	Lat 36°04'15", long 103°12'10", in NW1/2NW1/2 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-	05-01-99	8.15	1,600	10-17-65	16.5	12,300
Sand Draw near Clayton. (07227300)	Lat 36°20'30", long 103°11'30", Union County, Hydrologic Unit 11090103, on downstream side of bridge on State Highway 402, 7.5 mi south of Clayton. Drainage area is a42.0 mi^2.	1953-96g 1999-	06-11-99	3.02	550	10-16-95	5.59	3,500
			SAN JUAN RIVER BASIN					
Ruben Canyon near Gobernador. (09350700)	Lat 36°44'26", long 107°14'33", Rio Arriba County, Hydrologic Unit 14080101, in Carson National Forest, upstream from culvert on U.S. Highway 64, and 6.5 mi east of Gobernador. Drainage area is 5.06 mi^2.	1970-96g 1999-	07-09-99	4.31	56	08-17-88	5.89	380
Vaqueros Canyon near Gobernador (09350800)	Lat 36°43'23", long 107°16'47", Rio Arriba County, Hydrologic Unit 14080101, 100 ft east of U.S. Highway 64, and 4.2 mi east of Gobernador. Drainage area is 60.5 mi^2.	1956-95g 1999-	07-09-99	1.94	59	08-02-65	10.37	2,520

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum Date	Gage height (ft)	Dis-charge (ft^3/s)	Period of record maximum Date	Gage height (ft)	Dis-charge (ft^3/s)
			SAN JUAN RIVER BASIN--Continued					
Gobernador Canyon near Gobernador (09355700)	Lat 36°41'05", long 107°25'10", San Juan County, Hydrologic Unit 14080101, 0.2 mi south of U.S. Highway 64, and 4 mi southwest of Gobernador. Drainage area is 19.8 mi^2.	1956-96g 1999-	08-03-99	<3.27	<400	08-06-63	9.30	3,450
Burro Canyon near Lindrith. (09357230)	Lat 36°16'21", long 107°14'46", Rio Arriba County, Hydrologic Unit 14080103, upstream from culvert on State Highway 537, 11.5 mi west of Lindrith. Drainage area is 9.11 mi^2.	1970-96g 1999-	- -99	<11.71	<35	06-29-81	10.87	725
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-	08-03-99	6.26	1,140	09-02-88	8.55	1,920
Black Springs Wash near Mexican Springs. (09367900)	Lat 35°45'40", long 108°49'00", McKinley County, Hydrologic Unit 14080106, 2.5 mi south of Mexican Springs, and 17 mi north of Gallup. Drainage area is 7.05 mi^2.	1954-78 1979-82* 1983-96g 1999-	- -99	<1.46	<100	08-18-55	--	2,200
Malpais Arroyo near Shiprock (09368020)	Lat 36°55'33", long 108°43'26", San Juan County, Hydrologic Unit 14080105, upstream from culvert on U.S. Highway 666, 8.3 mi north of Shiprock.	1980-96g 1999-	07-05-99	0.75	55	09-13-93	2.44	295
			LITTLE COLORADO RIVER BASIN					
Largo Creek near Quemado. (09386100)	Lat 34°19'25", long 108°31'40", Catron County, Hydrologic Unit 15020003, on downstream side of bridge on ranch road, 2.5 mi southwest of Quemado. Drainage area is 151 mi^2.	1954-95g 1999-	06-17-99	1.64	810	08-06-54	4.70	1,320
Galestena Canyon tributary near Black Rock. (09387050)	Lat 34°58'45", long 108°40'00", McKinley County, Hydrologic Unit 15020004, 100 ft downstream from bridge on State Highway 36, and 10.5 mi southeast of Black Rock. Drainage area is a19 mi^2.	1957-95g 1999-	- -99	<1.02	<20	09-05-70	6.40	660
Milk Ranch Canyon near Fort Wingate. (09395400)	Lat 35°25'55", long 108°33'30", McKinley County, Hydrologic Unit 15020006, 0.5 mi downstream from culvert on secondary road between Fort Wingate and McGaffey, and 3 mi south of Fort Wingate. Drainage area is 14.0 mi^2.	1949-95g 1999-	05-01-99	2.22	320	- -49	4.20	1,360
			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-	08-05-99	4.24	1,900	01-18-93	11.76	7,400

Station name and number	Location and drainage area	Period of record	Water year 1999 maximum Date	Gage height (ft)	Discharge (ft^3/s)	Period of record maximum Date	Gage height (ft)	Discharge (ft^3/s)
	GILA RIVER BASIN--Continued							
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-	08-05-99	3.21	38	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 box canyon 0.1 mi west of State Highway 338, and 11 mi north of Cloverdale. Drainage area is 157 mi^2.	1959-	07-23-99	4.12	380	10-13-74	7.78	3,400
Mail Hollow near Luna. (09442630)	Lat 33°47'38", long 108°56'59", Catron County, Hydrologic Unit 15040004, 1,000 ft upstream from culvert on U.S. Highway 180, 2.3 mi south of Luna. Drainage area is 4.20 mi^2.	1970-96g 1999-	07-06-99	2.52	37	10-02-83	4.35	264
Trout Creek at Luna. (09442660)	Lat 33°50'50", long 108°59'38", Catron County, Hydrologic Unit 15040004, 500 ft downstream from bridge on Luna-Red Hill Road, and 2.6 mi north of Luna. Drainage area is 31.9 mi^2.	1954-95g 1999-	07-06-99	2.78	510	10-02-83	4.93	2,790
Tularosa River near Reserve (09442740)	Lat 33°44'00", long 108°42'10", Catron County, 150 ft west of Eagle Peak Lookout road and 3.3 mi northeast of Reserve. Drainage area is 426 mi^2.	1956-86g 1997-	07-06-99	4.20	450	10-02-83	9.80	3,020
Steins Creek at Steins. (09455800)	Lat 32°13'47", long 109°00'01", Hidalgo County, Hydrologic Unit 15040006, at culvert on Interstate Highway 10, and 0.9 mi west of Steins. Drainage area is 1.26 mi^2.	1959-96g 1999-	07-23-99	1.88	76	09-03-65	4.80	317

< Less than.
+ Discharge not yet determined.
* Operated as continuous-record gaging station.
a Approximately.
b Peak too low to register on gage.
c Estimated.
d From floodmark.
e Gage height not determined.
f Contributing area.
g Discontinued at end of year.
h Revised.
j May not have been peak for year.
k No evidence of any flow during water year.
m No record.
n Correction.

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 1999

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements 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-	06-05-99	e360
					07-27-99	323
		GILA RIVER BASIN				
Mangas Creek 09431100	Gila River	Lat 32°50'48", long 108°30'57", in NW1/4NE1/4 sec. 8, T. 17 S., R. 16 W., Grant County, Hydrologic Unit 15040002, 0.4 mi northwest of Mangas Springs.	177	1970	10-06-98	4.47
					02-23-99	4.98
					04-08-99	5.84
					07-06-99	5.42

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 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.97	34.89	35.82	35.09	34.74	36.54	36.09	38.00	39.70	40.94	39.41	38.89
10	38.18	34.68	36.11	34.81	35.72	37.03	37.11	37.50	39.96	40.48	37.59	38.74
15	37.39	35.15	35.07	34.38	36.18	35.91	37.20	39.56	40.36	41.03	38.15	38.06
20	36.75	35.77	35.61	34.18	35.83	35.45	37.85	39.67	39.51	39.58	38.61	37.14
25	35.74	36.18	35.11	34.30	35.38	36.10	38.33	39.21	37.99	40.28	38.15	37.59
EOM	34.99	35.20	35.83	34.36	36.33	36.01	37.59	37.85	41.03	41.45	39.29	38.44

WTR YEAR 1999 HIGHEST 34.17 JAN. 19, 21, 1999 LOWEST 42.54 JULY 4, 1999

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, 45.45 ft below land-surface datum, July 29, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	44.10	NOV 30	43.43	DEC 29	42.95	JAN 27	43.39	FEB 25	43.24	MAR 30	42.90
APR 30	43.57	MAY 28	43.77	JUNE 30	40.80	JULY 29	45.45	AUG 27	45.20	SEP 30	44.39

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 1998 TO SEPTEMBER 1999

WATER DATE	LEVEL
Feb. 1	264.55
Aug. 24	not measured

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	35.60	NOV 25	33.50	DEC 24	32.10	JAN 25	31.00	FEB 25	30.40	MAR 25	31.60
APR 26	34.40	MAY 25	35.25	JUNE 25	34.70	JULY 26	36.20	AUG 25	38.35	SEP 24	37.70

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 1998 TO SEPTEMBER 1999

WATER DATE	LEVEL
Jan. 5	171.63
Aug. 24	175.94

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 1998 TO SEPTEMBER 1999

WATER DATE	LEVEL
Jan. 14	not measured
Aug. 24	not measured

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 1998 TO SEPTEMBER 1999

WATER DATE	LEVEL
Jan. 8	66.69
Aug. 24	67.88

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, 4.95 ft below land-surface datum, Feb. 9, 1998; lowest measured, 199.68 ft below land-surface datum, June 20, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.93	23.81	13.37	8.44	5.45	25.23	80.50	69.04	95.72	101.31	119.06	89.56
10	49.88	20.95	13.13	7.60	9.44	27.37	83.37	56.93	107.67	94.10	103.09	87.07
15	51.00	19.00	11.53	7.69	8.89	34.42	80.89	71.28	80.66	94.46	102.31	81.82
20	42.58	17.53	10.67	9.28	12.95	30.89	95.63	89.47	88.48	93.11	106.97	67.99
25	32.99	16.21	9.70	8.61	16.60	49.21	102.87	65.98	71.96	105.96	111.35	73.43
EOM	28.64	14.54	11.50	6.75	21.11	71.82	96.32	68.06	90.63	118.12	101.86	67.18

WTR YEAR 1999 HIGHEST 5.42 FEB. 6, 1999 LOWEST 128.08 JULY 30, 1999

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, 100.01 ft below land-surface datum, Apr. 21, 1999; lowest measured, 111.17 below land-surface datum, Sep. 22, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	101.42	101.32	101.13	100.92	100.60	100.31	100.18	100.23	100.25	100.37	100.45	100.71
10	101.34	101.42	101.22	100.86	100.46	100.21	100.14	100.16	100.21	100.44	100.49	100.65
15	101.33	101.25	101.15	100.73	100.44	100.19	100.13	100.19	100.24	100.37	100.56	100.71
20	101.51	101.31	101.00	100.70	100.50	---	100.03	100.22	100.30	100.41	100.59	100.78
25	101.36	101.26	101.00	100.69	100.35	100.37	100.08	100.19	100.25	100.41	100.61	100.67

WTR YEAR 1999 HIGHEST 100.01 APR. 21, 1999 LOWEST 101.58 OCT. 28, 1998

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 1998 TO SEPTEMBER 1999

WATER DATE	LEVEL
Jan. 11	83.52
Aug. 26	90.79

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, -3.49 ft above land-surface datum, Feb. 5, 1999; lowest measured, 198.30 ft below land-surface datum, July 18, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	28.91	NOV 25	8.61	DEC 25	2.45	JAN 25	-1.61	FEB 25	9.23	MAR 25	68.89
APR 26	130.77	MAY 25	80.41	JUNE 25	86.28	JULY 26	121.54	AUG 25	138.96	SEP 24	89.61

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 6	284.69
Aug. 26	286.53

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 12	17.27
Aug. 26	15.78

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 12	not measured
Aug. 26	not measured

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 9	29.20
Aug. 27	29.40

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 9	25.05
Aug. 27	26.58

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 9	81.45
Aug. 27	78.62

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 9	100.03
Aug. 27	100.21

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 9	85.93
Aug. 27	86.00

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.
REMARKS:--"X" indicates affected by surface water.
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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	
Feb. 22	8.39	
Aug. 17	7.63	X

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 8	136.89
July 22	137.00

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, 277.89 ft below land-surface datum, Sept. 3, 1999

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	271.78	271.32	270.71	270.22	270.06	269.85	270.42	270.50	271.22	274.63	276.61	277.66
10	271.51	---	270.95	270.25	270.03	270.54	270.24	271.17	271.83	275.17	276.15	277.08
15	271.62	---	270.62	270.27	269.87	270.63	270.43	270.88	271.41	275.42	276.10	277.00
20	271.46	---	270.55	270.21	269.93	270.63	270.01	270.62	272.39	275.39	276.69	276.91
25	271.71	---	270.56	270.36	269.87	271.03	270.61	271.18	273.04	275.63	277.04	276.47
EOM	271.43	---	270.20	270.15	269.69	270.24	270.54	270.89	273.71	276.18	277.58	276.29

WTR YEAR 1999 HIGHEST 269.62 FEB. 17, 1999 LOWEST 277.89 SEPT. 3, 1999

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Mar. 4	290.55
July 7	295.23

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, 360.20 ft below land-surface datum, Mar. 5, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Mar. 5	360.20
July 7	360.10

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, 296.07 ft above land-surface datum, Nov. 10, 1998; lowest measured, 309.92 ft below land-surface datum, Jan. 9, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	296.14	296.32	---	---	---	296.52	296.54	296.50	296.41	296.60	---	---
10	296.13	296.07	---	---	---	296.47	296.52	296.45	296.45	296.56	---	---
15	296.21	296.23	---	---	---	296.48	296.76	296.48	296.38	296.27	---	---
20	296.16	296.07	---	---	---	296.66	296.23	296.43	296.45	296.47	---	---
25	296.40	296.17	---	---	---	296.62	296.39	296.39	296.39	296.39	---	---
EOM	296.40	296.07	---	---	---	296.16	296.54	296.39	296.34	---	---	---

WTR YEAR 1999 HIGHEST 296.07 NOV. 10, 1998 LOWEST 297.00 APR. 10, 23, 1999

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.
REMARKS.--"S" indicates nearby well pumping.
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, 454.07S ft below land-surface datum, July 6, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	
Mar. 5	453.72	
July 6	454.07	S

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 20	11.72
July 26	10.75

DONA ANA COUNTY
Rincon and Mesilla Valleys--Continued

322323106314701. Local number, 22S.04E.15.331.
LOCATION.--Lat 32°23'02", long 106°31'47". Owner: White Sands Missile Range
AQUIFER.--Bolson Fill.
WELL CHARACTERISTICS.--4-in. diameter PVC casing, depth 295 ft, screen interval 125-285 ft.
INSTRUMENTATION.--Pressure transducer, 1-hour measurement.
DATUM.--Elevation of land-surface datum is 4,622 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 8-in. steel surface casing on north side at 1.65 ft above land-surface datum.
REMARKS.--Records good.
PERIOD OF RECORD.--December 1998 to current.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.40 ft below land-surface datum, Apr. 21, 1999; lowest measured, 67.47 ft below land-surface datum, Sept. 29, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	66.72	66.61	66.51	66.46	66.44	66.68	66.94	67.07	67.29
10	---	---	---	66.71	66.54	66.52	66.49	66.49	66.75	67.02	67.10	67.31
15	---	---	66.82	66.65	66.55	66.52	66.48	66.53	66.87	66.99	67.16	67.35
20	---	---	66.69	66.61	66.54	66.58	66.46	66.59	66.83	67.03	67.20	67.34
25	---	---	66.79	66.65	66.56	66.54	66.44	66.63	66.88	67.05	67.20	67.33
EOM	---	---	66.67	66.62	66.56	66.43	66.44	66.67	66.90	67.05	67.25	67.39

WTR YEAR 1999 HIGHEST 66.40 APR. 21, 1999 LOWEST 67.47 SEPT. 29, 1999

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 20	19.99
July 26	19.00

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 14	56.52
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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	63.52	NOV 5	60.05	DEC	---	JAN 14	57.53	FEB	---	MAR 1	59.28
APR 8	60.65	MAY 7	61.60	JUNE 3	61.90	JULY 8	62.12	AUG	---	SEP	---

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 13	108.79
Aug. 26	116.54

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 12	not measured
Aug. 25	not measured

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 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	134.00	105.49	94.15	86.12	79.92	89.84	116.75	105.37	115.48	117.74	144.23	147.37
10	125.57	103.39	93.06	85.03	80.00	95.53	124.86	104.12	118.40	124.52	144.33	144.32
15	120.35	101.27	91.86	84.11	79.02	97.95	131.16	112.78	112.02	123.23	147.33	140.27
20	116.82	99.57	90.10	83.30	80.82	100.09	135.89	122.03	108.24	128.85	154.42	132.78
25	112.24	97.94	88.87	82.71	83.50	107.09	130.18	125.38	106.41	134.00	156.56	129.09
EOM	108.40	96.10	87.32	80.83	86.27	113.06	120.76	114.96	108.84	144.00	155.02	130.75

WTR YEAR 1999 HIGHEST 79.02 FEB. 15, 1999 LOWEST 158.60 AUG. 27, 1999

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.--Records good.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 106.83 ft below land-surface datum, Jan. 7, 1974; lowest measured, 142.88 ft below land-surface datum, Sept. 4, 5, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	140.76	135.59	130.97	127.30	124.40	122.82	126.56	131.87	132.94	131.74	134.18	137.72
10	139.89	134.93	130.73	126.98	123.74	123.20	127.46	131.51	132.77	132.17	134.78	137.72
15	138.96	133.89	129.92	126.17	123.32	123.71	129.08	131.62	132.72	132.04	135.53	137.68
20	138.51	133.40	129.13	125.72	123.23	124.31	129.99	131.95	132.47	132.41	136.25	137.63
25	137.31	132.61	128.62	125.40	122.80	124.85	131.23	132.65	132.03	132.78	136.88	137.05
EOM	136.40	131.99	127.76	124.86	122.80	125.44	131.98	133.01	131.63	133.38	137.34	136.64

WTR YEAR 1999 HIGHEST 122.66 MAR. 4, 1999 LOWEST 141.36 OCT. 1, 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, 125.93 ft below land-surface datum, Aug. 26, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	125.70	NOV 5	125.90	DEC	---	JAN 7	125.57	FEB	---	MAR 1	125.75
APR 8	125.77	MAY 7	125.89	JUNE 3	125.85	JULY 8	125.86	AUG 26	125.93	SEP	---

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 11	37.16
Aug. 26	36.25

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	33.74	NOV 5	32.91	DEC	---	JAN 11	31.85	FEB	---	MAR 1	31.39
APR 8	29.95	MAY 7	30.35	JUNE 3	29.53	JULY	---	AUG	---	SEP	---

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 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.40	22.53	22.36	22.36	22.24	22.28	22.33	22.69	22.76	23.29	23.05	23.21
10	23.46	22.43	22.50	22.41	22.08	22.24	22.40	22.97	22.84	23.16	23.06	23.15
15	23.28	22.36	22.43	22.28	22.13	22.30	22.60	23.03	22.93	22.78	23.37	23.23
20	23.36	22.50	22.31	22.30	22.20	22.30	22.65	23.06	22.77	22.64	23.34	23.36
25	22.96	22.51	22.41	22.38	22.24	22.33	22.62	22.84	22.79	22.70	23.18	23.25
EOM	22.64	22.47	22.36	22.32	22.31	22.17	22.70	22.66	23.03	22.81	23.20	23.15

WTR YEAR 1999 HIGHEST 22.08 FEB. 10, 1999 LOWEST 23.65 OCT. 1, 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.--Records good.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.13 ft below land-surface datum, June 29, 1987; lowest measured, 98.68 ft below land-surface datum, Aug. 3, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	94.37	93.49	93.28	93.29	93.11	93.12	93.09	93.53	93.55	93.96	93.85	94.07
10	94.41	93.32	93.35	93.26	93.00	93.12	93.22	93.68	93.67	94.11	93.90	94.06
15	94.28	93.26	93.36	93.21	93.07	93.14	93.29	93.85	93.85	93.81	94.02	94.03
20	94.28	93.27	93.23	93.18	93.02	93.15	93.48	93.94	93.71	93.60	94.19	94.07
25	94.03	93.33	93.31	93.19	93.09	93.11	93.56	93.89	93.60	93.53	94.11	94.10
EOM	93.63	93.32	93.24	93.18	93.11	93.04	93.55	93.59	93.72	93.62	94.04	94.10

WTR YEAR 1999 HIGHEST 93.00 FEB. 10, 1999 LOWEST 94.49 OCT. 1, 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 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	154.82	150.06	146.38	144.99	144.58	145.48	150.57	153.24	157.20	157.75	159.81	161.35
10	153.83	149.38	146.41	144.94	144.40	145.96	151.07	153.94	156.98	159.37	160.91	160.48
15	152.74	148.54	146.05	144.67	144.48	147.82	152.61	155.36	157.78	159.79	160.99	159.52
20	152.29	148.11	145.57	144.58	144.54	149.36	152.74	156.42	158.02	160.00	160.77	158.62
25	151.70	147.55	145.49	144.65	144.67	149.80	152.74	157.58	157.14	159.75	161.06	157.27
EOM	150.86	147.07	145.05	144.64	144.91	150.12	153.29	157.71	156.66	159.51	161.17	157.16

WTR YEAR 1999 HIGHEST 144.39 JAN. 21, 1999 LOWEST 161.42 SEPT. 4, 1999

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 21	29.76
Aug. 24	27.62

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. Recorder removed July, 1, 1999 (discontinued).
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 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	401.74	401.32	401.00	400.97	400.92	400.86	401.20	401.34	401.27	---	---	---
10	401.74	401.18	401.16	400.98	400.82	400.83	401.37	401.57	401.49	---	---	---
15	401.85	401.11	401.11	400.88	400.82	400.98	401.49	401.23	401.55	---	---	---
20	401.96	401.16	400.87	400.82	400.89	400.84	401.63	401.55	401.44	---	---	---
25	401.62	401.15	400.99	401.02	400.97	401.18	401.69	401.20	401.34	---	---	---
EOM	401.37	401.10	400.92	400.99	401.00	400.96	401.40	400.98	401.20	---	---	---

WTR YEAR 1999 HIGHEST 400.74 FEB. 18, 1999 LOWEST 402.04 OCT. 17, 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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 21	56.00
Aug. 24	52.62

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 21	58.21
Aug. 24	58.90

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 21	not meausssred
Aug. 24	46.87

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 8	372.43
July 1	351.20

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.--Records good.
PERIOD OF RECORD.--Mar. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 262.34 ft below land-surface datum, Mar. 3, 1962; lowest measured, 302.42 ft below land-surface datum, Sept. 4, 1998.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	296.55	296.61	296.83	296.57	296.73	296.85	296.66	296.64	296.87	296.73	296.60	296.64
10	296.64	296.54	296.45	296.61	296.75	296.82	296.75	296.73	296.91	296.78	296.61	296.69
15	296.86	296.57	296.66	296.69	296.95	296.76	296.65	296.68	296.80	296.55	296.52	296.69
20	296.50	296.55	296.80	296.81	296.69	296.59	296.80	296.68	296.92	296.49	296.56	296.67
25	296.69	296.56	296.50	296.68	296.85	296.75	296.74	296.69	296.91	296.52	296.65	296.75
EOM	296.68	296.55	296.75	296.66	296.71	296.94	296.78	296.90	296.89	296.58	296.69	296.71

WTR YEAR 1999 HIGHEST 296.34 OCT. 22, 1998 LOWEST 297.19 APR. 21, 1999

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 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	346.01	346.26	346.10	346.35	347.00	347.68	348.55	348.90	347.48	346.64	345.99	345.54
10	346.05	346.35	346.28	346.62	347.01	347.80	348.63	348.62	347.25	346.50	345.81	345.46
15	346.20	346.25	346.26	346.54	347.14	347.94	349.31	348.86	347.18	346.43	345.73	345.72
20	346.44	346.32	346.15	346.62	347.42	348.14	348.90	348.70	347.69	346.40	345.59	345.70
25	346.45	346.28	346.27	346.85	347.46	348.32	349.02	348.01	346.70	346.23	345.44	345.70
EOM	346.42	346.35	346.44	346.95	347.52	348.36	349.08	347.73	346.48	346.31	345.40	345.86

WTR YEAR 1999 HIGHEST 345.41 SEPT. 2, 1999 LOWEST 349.97 APR. 29, 1999

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 22	49.76
Aug. 18	50.04

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 12	12.51
July 9	not meassured

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 15	157.15
July 7	155.78

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.
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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 15	88.30
July 7	not measured

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 13	54.56
July 13	54.82

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 13	183.36
July 13	189.54

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, 132.09 ft below land-surface datum, July 9, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 12	127.84
July 9	132.09

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 12	121.76
July 9	122.38

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 13	47.41
July 7	47.37

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.--Records good.
PERIOD OF RECORD.--Oct. 1977 to Nov. 1998, July 1999 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 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	60.63	60.60	---	---	---	---	---	---	---	60.43	60.40	60.37
10	60.61	60.61	---	---	---	---	---	---	---	60.42	60.40	60.36
15	60.60	60.59	---	---	---	---	---	---	---	60.42	60.40	60.35
20	60.61	---	---	---	---	---	---	---	---	60.41	60.39	60.35
25	60.61	---	---	---	---	---	---	---	---	60.41	60.39	60.33
EOM	60.60	---	---	---	---	---	---	---	---	60.41	60.37	60.32

WTR YEAR 1999 HIGHEST 60.32 SEPT. 30, 1999 LOWEST 60.75 OCT. 31, 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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 13	32.20
Aug.	not measured

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 13	44.15
Aug.	not measured

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 13	71.63
Aug.	not measured

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 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	57.87	57.70	57.53	57.43	57.35	57.27	57.29	57.37	57.45	57.55	57.56	57.59
10	57.85	57.68	57.57	57.44	57.31	57.27	57.29	57.37	57.48	57.58	57.62	57.58
15	57.81	57.64	57.54	57.40	57.29	57.27	57.32	57.37	57.53	57.58	57.63	57.61
20	57.84	57.63	57.49	57.39	57.31	57.30	57.31	57.38	57.53	57.61	57.62	57.62
25	57.79	57.59	57.49	57.39	57.28	57.28	57.35	57.40	57.53	57.60	57.57	57.61
EOM	57.70	57.58	57.43	57.38	57.28	57.25	57.37	57.43	57.53	57.58	57.57	57.64

WTR YEAR 1999 HIGHEST 57.24 MAR. 7, 1999 LOWEST 57.94 OCT. 7, 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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 13	73.10
Aug.	not measured

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 13	70.26
Aug.	not measured

LEA COUNTY
Tatum-Lovington Hobbs Area--Continued

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 13	70.60
Aug.	not measured

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan.	not measured
Aug. 24	35.40

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan.	not measured
Aug. 24	47.08

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, 228.70 ft below land-surface datum, Jan. 11, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 21	228.70
July 2	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. Lost record due to recorder malfunction.
PERIOD OF RECORD.--Apr. 1939 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 71.61 ft below land-surface datum, May 6-13, 1940; lowest measured, 113.30 ft below land-surface datum, Aug. 12 and 20, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	105.33	104.79	104.49	104.47	104.71	105.66	106.24	106.84	107.13	107.04	105.91
10	---	105.32	104.82	104.49	104.43	104.85	105.67	106.34	106.96	107.16	106.90	105.67
15	---	105.15	104.77	104.30	104.52	104.93	105.82	106.45	107.06	107.15	106.75	105.46
20	---	105.11	104.69	104.30	104.53	105.10	105.95	106.50	107.07	107.16	106.54	105.25
25	105.45	104.99	104.74	104.36	104.68	105.25	106.09	106.59	107.06	107.17	106.33	105.00
EOM	105.35	104.99	104.50	104.43	104.69	105.37	106.16	106.76	107.08	107.08	106.10	---

WTR YEAR 1999 HIGHEST 104.17 JAN. 21, 1999 LOWEST 107.22 JULY 11, 1999

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 4	176.40
July 2	180.31

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 4	23.12
July 1	25.49

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 4	81.69
July 1	81.34

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 4	208.43
July 2	220.50

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 7	86.44
July 2	101.00

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 7	39.34
July 2	39.62

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 7	dry
July 2	dry

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 9	93.00
Aug. 27	95.03

353645108011501. Local number, 16N.11W.17.4322.
LOCATION.--Lat 35°36'45", long 108°01'15", Hydrologic Unit 14080106. Owner: Navajo Nation.
AQUIFER.--Gallup Sandstone.
WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 5/8 in., depth 570 ft, cased to 570 ft, perforated 470-570 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 7,070 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.53 ft above land-surface datum.
REMARKS.--"R" indicates well recently pumped.
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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	
Mar. 19	251.36	R
Aug. 27	252.17	

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	
Feb. 19	137.46	R
Aug. 27	144.68	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, 241.20 ft below land-surface datum, Aug. 27, 1999; lowest measured, 350.38 ft below land-surface datum, Oct. 8, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 9	241.28
Aug. 27	241.20

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 9	124.68
Aug. 27	124.50

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.
REMARKS.--"S" indicates nearby well pumping.
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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	
Mar.	pumping	
Aug. 24	102.31	S

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 14	90.86
Aug. 24	92.64

320138105063101. (formerly 320650105034801) Local number, 26S.18E.21.331.
LOCATION.--Lat 32°01'38", long 105°06'31", Hydrologic Unit 13050004. Owner: Frank Gentry.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 18 in., depth 544 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 3,655 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.50 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.08 ft below land-surface datum, Jan. 8, 1973; lowest measured, 82.94 ft below land-surface datum, Aug. 17, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 14	58.73
Aug. 24	pumping

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 14	not measured
Aug. 24	62.15

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Mar. 5	74.74
July 6	74.90

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Mar. 5	pumping
July 6	47.79

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Mar. 5	119.97
July 6	119.78

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 23	44.30
Aug. 17	61.55

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 23	90.56
Aug. 17	90.85

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 23	159.39
Aug. 17	160.80

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 due to recorder malfunction.
PERIOD OF RECORD.--Apr. 1996 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.37 ft below land-surface datum, Apr. 25, 1996; lowest measured, 68.42 ft below land-surface datum, Sept. 28, 1999

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	66.92	67.52	66.92	67.35	67.79	68.17	---	68.25	68.27	68.30	68.33	68.35
10	67.02	67.63	66.98	67.40	67.85	68.19	---	68.25	68.28	68.33	68.34	68.35
15	67.11	67.72	67.05	67.47	67.91	68.19	---	68.25	68.30	68.31	68.34	68.37
20	67.20	67.80	67.11	67.53	67.99	68.20	---	68.26	68.30	68.32	68.34	68.38
25	67.30	67.90	67.19	67.64	68.06	68.21	---	68.27	68.30	68.32	68.35	68.36
EOM	67.42	67.98	67.27	67.72	68.10	68.21	---	68.28	68.30	68.32	68.35	68.37

WTR YEAR 1999 HIGHEST 66.84 OCT. 1, 1998 LOWEST 68.42 SEPT. 28, 1999

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
Mar. 4	90.95
July 7	pumping

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Mar. 4	dry
July 7	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, 92.98 ft below land-surface datum, Mar. 4, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Mar. 4	92.98
July 7	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. Records good.
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, 133.71 ft below land-surface datum, Sept. 5, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	130.23	129.48	128.87	128.45	128.05	128.29	127.70	127.67	129.83	---	130.90	133.31
10	130.29	129.42	128.83	128.31	127.89	127.94	127.67	129.77	129.42	132.94	130.59	133.91
15	130.45	129.22	128.73	128.57	128.18	127.81	127.99	130.79	128.56	132.08	133.82	131.66
20	130.01	129.15	128.65	128.22	128.09	128.03	127.94	129.41	130.94	130.08	134.76	131.40
25	129.76	129.13	128.51	128.16	127.88	127.85	127.97	128.33	128.92	133.58	134.12	133.53
EOM	129.62	129.06	128.54	128.14	127.90	127.62	127.70	128.05	131.77	133.43	134.94	131.37

WTR YEAR 1999 HIGHEST 127.52 MAY 2, 1999 LOWEST 135.71 SEPT. 5, 1999

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Mar. 4	92.77
July 6	92.87

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 25	24.36
July 23	23.61

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 11	9.97
Aug. 10	9.80

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, 170.81 ft below land-surface datum, Aug. 10, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 11	169.49
Aug. 10	170.81

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. "S" indicates nearby 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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	
Feb. 10	149.89	
Aug. 16	152.45	S

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 10	118.68
Aug. 16	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, 141.91 ft below land-surface datum, Aug. 16, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 10	140.79
Aug. 16	141.91

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 10	263.10
July 23	263.92

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.--Records good.
PERIOD OF RECORD.--July 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.62 ft below land-surface datum, June 11, 1973; lowest measured, 131.17 ft below land-surface datum, Sept. 28, 29, 1999

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	130.90	130.87	130.84	130.80	130.83	130.94	130.97	130.99	130.99	130.96	130.97	131.01
10	130.85	130.97	130.94	130.86	130.69	130.89	130.96	130.94	130.94	130.96	130.98	130.99
15	130.82	130.88	130.91	130.78	130.83	130.89	130.86	130.89	130.91	130.97	131.01	130.99
20	130.90	130.92	130.90	130.80	130.90	130.92	130.85	130.95	130.94	130.99	130.98	131.03
25	130.85	---	130.93	130.83	130.85	130.88	130.93	130.92	130.92	130.95	130.97	130.96
EOM	130.90	---	130.84	130.84	130.86	130.83	130.92	130.92	130.93	130.97	130.98	130.97

WTR YEAR 1999 HIGHEST 130.73 OCT. 1, 1998 LOWEST 131.17 SEPT. 28, 29, 1999

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, 230.75 ft below land-surface datum, July 23, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 10	230.05
July 23	230.75

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.
REMARKS.--"R" indicates well pumped recently.
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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	
Feb. 10	231.30	R
Aug. 13	234.21	

SANTA FE COUNTY
Santa Fe Area--Continued

353945105574501. Local number, 17N.09E.35.1314A.
LOCATION.--Lat 35°39'45", long 105°57'45", Hydrologic Unit 13020201. Owner: City of Santa Fe.
AQUIFER.--Tesuque Formation of Santa Fe Group.
WELL CHARACTERISTICS.--Drilled monitoring well, diameter 2 in., depth 1,952 ft, screened interval 1,917-1,922 ft.
INSTRUMENTATION.--Pressure transducer, 1-hour measurement.
DATUM.--Elevation of land-surface datum is 6,880 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel casing, 2.60 ft above land-surface datum.
REMARKS.--Records good.
PERIOD OF RECORD.--Oct. 1998 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.73 ft below land-surface datum, Nov. 9,1998; lowest measured, 89.06 ft below land-surface datum, Sept. 21, 22, 1999

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	87.73	86.91	87.74	87.74	88.13	87.26	87.34	87.25	88.49	88.08	88.71	88.84
10	87.88	87.05	88.02	87.39	87.90	87.30	87.30	87.31	88.57	88.69	88.71	88.80
15	87.64	87.63	88.02	87.84	88.04	87.28	87.30	87.31	88.68	88.66	88.81	88.88
20	87.23	87.80	87.87	87.98	88.11	87.43	87.27	87.43	88.69	88.77	88.74	88.90
25	87.03	87.87	88.08	88.11	88.10	87.33	87.28	87.45	88.58	88.73	88.71	88.19
EOM	87.44	87.87	87.97	88.09	87.56	87.03	87.29	88.38	88.59	88.20	88.80	88.19

WTR YEAR 1999 HIGHEST 86.73 NOV. 9, 1998 LOWEST 89.06 SEPT. 21, 22, 1999

353945105574502. Local number, 17N.09E.35.1314B.
LOCATION.--Lat 35°39'45", long 105°57'45", Hydrologic Unit 13020201. Owner: City of Santa Fe.
AQUIFER.--Tesuque Formation of Santa Fe Group.
WELL CHARACTERISTICS.--Drilled monitoring well, diameter 2 in., depth 1,060 ft, screened interval 1,025-1,030 ft.
INSTRUMENTATION.--Pressure transducer, 1-hour measurement.
DATUM.--Elevation of land-surface datum is 6,880 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel casing, 2.70 ft above land-surface datum.
REMARKS.--Records good.
PERIOD OF RECORD.--Oct. 1998 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 187.41 ft below land-surface datum, Mar. 2, 1999; lowest measured, 194.17 ft below land-surface datum, Oct.1, 1998

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	193.40	190.53	190.35	188.76	188.91	187.48	188.70	189.33	191.77	190.39	191.75	192.21
10	193.21	190.34	190.11	187.69	188.80	187.89	188.59	189.60	191.66	191.94	191.68	192.09
15	192.89	191.52	189.97	189.15	188.90	188.21	188.68	189.71	191.71	192.05	191.79	192.16
20	190.50	191.08	189.74	189.52	188.78	188.31	189.04	189.91	191.62	191.85	191.87	192.00
25	190.45	190.91	189.60	189.19	188.92	188.51	189.17	190.11	191.63	191.74	191.89	190.64
EOM	191.97	190.52	189.48	189.02	187.81	188.45	189.36	191.99	191.74	190.39	192.23	190.66

WTR YEAR 1999 HIGHEST 187.41 MAR. 2, 1999 LOWEST 194.17 OCT. 1, 1998

353945105574503. Local number, 17N.09E.35.1314C.
LOCATION.--Lat 35°39'45", long 105°57'45", Hydrologic Unit 13020201. Owner: City of Santa Fe.
AQUIFER.--Tesuque Formation of Santa Fe Group.
WELL CHARACTERISTICS.--Drilled monitoring well, diameter 2 in., depth 780 ft, screened interval 669-674 ft.
INSTRUMENTATION.--Pressure transducer, 1-hour measurement.
DATUM.--Elevation of land-surface datum is 6,880 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of steel casing, 3.00 ft above land-surface datum.
REMARKS.--Lost record due to recorder malfunction.
PERIOD OF RECORD.--Oct. 1998 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 240.00 ft below land-surface datum, Oct. 17, 1998; lowest measured, 330.32 ft below land-surface datum, May 25, 1999

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	282.13	---	---	262.88	288.58	321.73	327.66	282.58	274.72	282.38	271.07
10	---	294.76	---	278.80	262.54	---	310.28	328.86	276.38	279.91	277.12	269.57
15	---	273.51	---	284.22	262.36	---	321.28	329.51	273.55	272.39	274.90	268.07
20	260.21	265.39	---	268.68	262.18	---	325.21	329.96	271.81	270.37	271.79	267.42
25	285.84	262.24	---	264.84	262.46	---	326.90	330.23	270.47	269.82	275.88	272.30
EOM	285.84	261.15	---	263.37	263.12	319.22	327.11	300.55	269.22	273.52	272.14	298.26

WTR YEAR 1999 HIGHEST 240.00 OCT. 17, 1998 LOWEST 330.32 MAY 25, 1999

SANTA FE COUNTY
Santa Fe Area--Continued

355000106092802. Local number, 19N.07E.36.3113B .
LOCATION.--Lat 35°50'00", long 106°09'28", Hydrologic Unit 13020201. Owner: City of Santa Fe
AQUIFER.--Tesuque Formation of Santa Fe Group.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4.5 in., depth 824 ft, screened 802-812 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.--Some lost record due to equipment malfunction.
PERIOD OF RECORD.--Feb. 1999 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 327.51 ft below land-surface datum, Apr. 30, 1999; lowest measured, 503.88 ft below land-surface datum, Sept. 29, 1999

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	360.61	351.44	335.28	331.83	434.11	463.51	487.81	495.61
10	---	---	---	---	358.65	349.76	337.72	331.64	442.10	468.79	484.89	496.69
15	---	---	---	---	357.04	343.20	336.25	377.44	445.02	471.07	485.99	495.39
20	---	---	---	---	355.59	344.79	336.28	396.10	447.94	478.22	486.16	498.86
25	---	---	---	---	353.91	344.79	336.12	409.68	449.28	481.00	472.27	500.49
EOM	---	---	---	---	353.02	342.25	327.51	424.54	457.95	485.77	494.26	502.77

WTR YEAR 1999 HIGHEST 327.51 APR. 30, 1999 LOWEST 503.88 SEPT. 29, 1999

355000106092803. Local number, 19N.07E.36.3113C .
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 356 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.--Records good.
PERIOD OF RECORD.--July 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 214.06 ft below land-surface datum, May 4, 1999; lowest measured, 224.80 ft below land-surface datum, Oct. 13, 1998

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	223.71	221.65	220.39	218.58	216.92	215.88	214.94	214.13	220.52	222.21	223.19	223.88
10	223.82	221.22	220.42	218.36	216.37	215.91	214.96	214.07	220.91	222.49	223.24	223.93
15	223.92	221.04	220.04	217.86	216.48	215.80	214.93	218.19	221.32	222.49	223.59	224.04
20	223.33	220.82	219.38	217.47	216.35	215.87	214.69	219.20	221.53	222.79	223.67	224.08
25	222.68	---	219.42	217.41	216.26	215.61	214.60	219.91	221.62	222.90	223.65	224.14
EOM	222.05	---	218.72	217.12	216.26	215.01	214.39	220.36	221.82	222.99	223.77	224.32

WTR YEAR 1999 HIGHEST 214.06 MAY 4, 1999 LOWEST 224.80 OCT. 13, 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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 20	47.68
July 26	47.80

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.
REMARKS.--"P" indicates well pumping.
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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL	
Jan. 20	44.37	P
July 26	41.74	

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Jan. 21	23.35
July 26	23.72

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 8	69.05
July 22	69.09

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.--Records good.
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 1998 TO SEPTEMBER 1999
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	184.28	184.27	184.17	184.50	184.27	184.13	184.02	184.16	184.43	184.85	184.76	184.74
10	184.37	184.20	184.75	184.54	183.83	184.27	184.15	184.27	184.56	184.89	184.74	184.60
15	184.09	184.46	184.79	184.28	184.17	184.38	184.43	184.33	184.77	184.64	184.82	184.64
20	184.63	184.60	184.28	184.11	184.30	184.59	184.30	184.43	184.68	184.79	184.85	184.66
25	184.41	184.61	184.71	184.39	184.24	184.37	184.25	184.58	184.54	184.77	184.67	184.45
EOM	184.36	184.71	184.36	184.29	184.43	183.98	184.29	184.49	184.52	184.80	184.69	184.54

WTR YEAR 1999 HIGHEST 183.76 JAN. 21, 1999 LOWEST 185.05 AUG. 2, 17, 1999

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 8	69.05
July 22	pumping

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 10	95.03
Aug. 16	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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 10	not measured
Aug. 16	129.00

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 10	85.12
Aug. 16	88.94

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 10	21.59
Aug. 16	23.63

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 10	55.99
Aug. 16	63.82

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 23	150.44
Aug. 17	150.40

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 removed.Periodic steel-tape measurements
DATUM.--Elevation of land-surface datum is 4,707 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.95 ft above land-surface datum.
PERIOD OF RECORD.--May 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 81.38 ft below land-surface datum, May 8, 1968; lowest measured, 102.54 ft below land-surface datum, Aug. 17, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 23	101.75
Aug. 17	102.54

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 23	not measured
Aug. 17	95.22

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, 97.58 ft below land-surface datum, Feb. 22, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 22	97.58
Aug. 16	97.00

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 1998 TO SEPTEMBER 1999

DATE	WATER LEVEL
Feb. 22	34.30
Aug. 17	33.85

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
110 BLSN-Cenozoic, Quaternary, Bolson Fill
210 MNCS-Mesozoic, Cretaceous, Mancos Shale
231 CHNL-Mesozoic, Upper Triassic, Chinle Formation
310 YESO-Paleozoic, Permian, Yeso Formation, Monzano Group
325 MDER-Paleozoic, Middle Pennsylvanian, Des Moinesian, Madera Limestone
400 PCMB-Precambrian Erathem

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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

BERNALILLO COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)
09N.06E.04.443	350144106175001	001	GW	11-17-98	1400	325MDER	130.00	7138	10
09N.06E.30.441	345819106200601	001	GW	12-21-98	1030	325MDER	--	7420	10
09N.06E.33.223	345753106175901	001	GW	11-06-98	1000	325MDER	220.00	7300	10
09N.06E.33.324	345733106181901	001	GW	11-05-98	1330	325MDER	128.00	7280	20
10N.05E.11.324	350615106223301	001	GW	11-04-98	1000	210MNCS	80.00	6580	0
10N.05E.12.121A	350644106213401	001	GW	11-17-98	0945	210MNCS	280.00	6640	20
10N.05E.13.222A	350553106210001	001	GW	03-16-99	1050	325MDER	--	6560	20
10N.05E.13.222B	350551106205801	001	GW	03-16-99	1130	325MDER	--	6560	15
10N.05E.30.213A	350410106262601	001	GW	11-04-98	1200	110AVMB	120.00	6030	20
10N.06E.06.414	350706106200501	001	GW	06-04-99	1000	310YESO	275.00	6725	40
10N.06E.08.342	350609106192201	001	GW	11-19-98	0900	325MDER	--	7005	15
10N.06E.31.341	350239106202601	001	GW	11-06-98	1230	325MDER	180.00	7185	10
11N.05E.24.234	350956106212401	001	GW	12-03-98	1130	310YESO	--	6980	100
11N.05E.24.443	350930106210701	001	GW	05-18-99	1200	231CHNL	120.00	6860	20
11N.06E.20.344	350925106193101	001	GW	05-19-99	1030	231CHNL	--	6665	30
11N.06E.32.323A	350733106195001	001	GW	11-05-98	1130	210MNCS	--	6860	5
11N.06E.32.323B	350734106195101	001	GW	11-05-98	1200	210MNCS	--	6860	2
11N.06E.36.333A	350734106153601	001	GW	06-04-99	1100	325MDER	920.00	6967	20

LOCAL IDENT-I-FIER	DATE	FLOW RATE (G/M) (00059)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
09N.06E.04.443	11-17-98	10.0	1060	6.9	16.8	10.7	--	1.0	420	--
09N.06E.30.441	12-21-98	5.0	1310	7.4	-1.60	12.5	--	--	550	330
09N.06E.33.223	11-06-98	6.00	874	6.7	12.5	12.6	--	--	360	--
09N.06E.33.324	11-05-98	5.0	1280	--	9.5	12.5	--	--	540	--
10N.05E.11.324	11-04-98	12.0	966	--	14.5	13.9	--	--	440	--
10N.05E.12.121A	11-17-98	10.0	2070	8.0	10.4	14.4	--	1.0	20	--
10N.05E.13.222A	03-16-99	5.0	1350	7.1	13.9	10.4	--	--	450	150
10N.05E.13.222B	03-16-99	5.0	1340	7.3	14.1	11.0	--	--	460	170
10N.05E.30.213A	11-04-98	8.0	1630	--	12.6	16.7	--	--	650	--
10N.06E.06.414	06-04-99	20.0	838	7.2	24.0	14.7	--	1.0	400	--
10N.06E.08.342	11-19-98	10.0	1010	6.9	7.6	12.7	595	5.5	470	200
10N.06E.31.341	11-06-98	7.0	792	6.9	10.2	13.0	--	--	360	56
11N.05E.24.234	12-03-98	1.0	692	7.1	4.7	12.0	--	5.7	320	59
11N.05E.24.443	05-18-99	10.0	1240	7.0	23.1	14.5	--	1.0	530	--
11N.06E.20.344	05-19-99	10.0	1770	7.6	23.0	15.9	--	.2	--	--
11N.06E.32.323A	11-05-98	4.0	1610	--	9.6	14.2	--	--	370	--
11N.06E.32.323B	11-05-98	6.0	2410	--	9.6	12.8	--	--	920	--
11N.06E.36.333A	06-04-99	10.0	866	7.5	25.3	17.7	--	.6	190	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

BERNALILLO COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY 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)
09N.06E.04.443	11-17-98	120	29	41	.9	2.6	--	271	120	96
09N.06E.30.441	12-21-98	170	33	40	.8	2.3	223	229	96	200
09N.06E.33.223	11-06-98	94	30	38	.9	3.5	--	301	51	72
09N.06E.33.324	11-05-98	180	23	37	.7	2.0	--	293	89	160
10N.05E.11.324	11-04-98	130	26	34	.7	.9	--	336	150	27
10N.05E.12.121A	11-17-98	3.8	2.6	490	48	3.0	809	838	150	110
10N.05E.13.222A	03-16-99	110	41	77	2	2.8	299	306	90	170
10N.05E.13.222B	03-16-99	120	41	79	2	2.8	299	307	90	170
10N.05E.30.213A	11-04-98	190	42	58	1	6.7	--	251	140	250
10N.06E.06.414	06-04-99	110	33	23	.5	1.5	--	328	58	42
10N.06E.08.342	11-19-98	140	27	23	.5	1.8	271	279	100	80
10N.06E.31.341	11-06-98	95	30	24	.5	2.1	306	333	47	31
11N.05E.24.234	12-03-98	110	11	15	.4	.8	261	272	25	44
11N.05E.24.443	05-18-99	180	21	31	.6	1	--	294	29	160
11N.06E.20.344	05-19-99	--	--	--	--	--	364	397	470	--
11N.06E.32.323A	11-05-98	60	53	220	5	7.2	--	539	260	13
11N.06E.32.323B	11-05-98	170	120	220	3	9.8	--	545	790	65
11N.06E.36.333A	06-04-99	45	18	130	4	5.7	--	327	75	8.8

LOCAL IDENT-I-FIER	DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, 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)
09N.06E.04.443	11-17-98	.6	14	595	--	<.01	2.6	.03	.10
09N.06E.30.441	12-21-98	.2	16	725	6.08	.94	7.0	.06	.33
09N.06E.33.223	11-06-98	1.4	13	484	--	<.01	<.05	.03	--
09N.06E.33.324	11-05-98	.2	18	716	--	<.01	7.4	<.02	--
10N.05E.11.324	11-04-98	.2	21	601	--	<.01	1.5	.02	.11
10N.05E.12.121A	11-17-98	1.9	10	1270	--	<.01	<.05	.56	.05
10N.05E.13.222A	03-16-99	.4	20	754	--	<.01	11	<.02	--
10N.05E.13.222B	03-16-99	.4	20	760	--	<.01	12	<.02	--
10N.05E.30.213A	11-04-98	1.6	21	936	--	<.01	18	<.02	--
10N.06E.06.414	06-04-99	.3	27	500	--	<.01	3.0	<.02	--
10N.06E.08.342	11-19-98	.3	18	586	--	<.01	5.4	<.02	--
10N.06E.31.341	11-06-98	.6	16	448	--	<.01	.72	<.02	--
11N.05E.24.234	12-03-98	.4	18	390	--	<.01	.61	<.02	--
11N.05E.24.443	05-18-99	.2	27	721	--	<.01	21	<.02	--
11N.06E.20.344	05-19-99	2.2	11	--	--	<.01	.58	.05	--
11N.06E.32.323A	11-05-98	.2	17	955	--	<.01	<.05	2.0	.15
11N.06E.32.323B	11-05-98	.2	19	1730	--	<.01	1.1	--	--
11N.06E.36.333A	06-04-99	3.9	9.2	488	--	<.01	<.05	.03	--

LOCAL IDENT-I-FIER	DATE	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)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
09N.06E.04.443	11-17-98	.1	<.05	.02	1.7	<1	74.8	E9	<3
09N.06E.30.441	12-21-98	.4	<.05	.01	--	2	78.2	12	<4
09N.06E.33.223	11-06-98	<.1	<.05	<.01	.9	4	123	120	26
09N.06E.33.324	11-05-98	.2	<.05	<.01	3.4	<1	58.9	<10	<3
10N.05E.11.324	11-04-98	.1	<.05	.02	1.2	<1	38.7	<10	E3
10N.05E.12.121A	11-17-98	.6	<.05	.02	1.5	<1	220	E20	<9
10N.05E.13.222A	03-16-99	.1	.018	.01	5.9	1	148	<10	E2
10N.05E.13.222B	03-16-99	.1	.017	.01	1.5	1	147	<10	<3
10N.05E.30.213A	11-04-98	<.1	<.05	<.01	.8	<1	52.7	<10	E2
10N.06E.06.414	06-04-99	E.09	.031	.05	3.5	2	68.7	<10	<3
10N.06E.08.342	11-19-98	.3	<.05	.01	3.9	1	77.1	<10	<3
10N.06E.31.341	11-06-98	<.1	<.05	.01	1.2	<1	76.2	<10	E2
11N.05E.24.234	12-03-98	<.1	<.05	.02	--	<1	28.1	<10	<4
11N.05E.24.443	05-18-99	.1	.024	.03	4.4	1	67.1	<10	<3
11N.06E.20.344	05-19-99	E.06	.016	.02	.6	<1	684	<10	32
11N.06E.32.323A	11-05-98	2.2	<.05	.01	4	<1	332	350	19
11N.06E.32.323B	11-05-98	2.0	<.05	.01	3.8	<1	137	21	20
11N.06E.36.333A	06-04-99	E.09	<.004	.02	4.9	<1	234	50	32

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DONA ANA COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
21S.04E.10.322A	322943106312301	013	GW	10-21-98	1120	400PCMB	156.00	5755
		013	GW	01-27-99	1425	400PCMB	156.00	5755
		013	GW	04-21-99	1115	400PCMB	156.00	5755
		013	GW	07-28-99	1140	400PCMB	156.00	5755
21S.04E.10.411B	322941106311301	013	GW	10-22-98	1330	400PCMB	85.00	5691
		013	GW	01-28-99	1145	400PCMB	85.00	5691
		013	GW	04-22-99	0945	400PCMB	85.00	5691
		013	GW	07-28-99	1300	400PCMB	85.00	5691
21S.04E.10.411C	322941106311502	013	GW	10-22-98	1140	400PCMB	80.00	5688
		013	GW	01-28-99	1305	400PCMB	80.00	5688
		013	GW	04-21-99	1430	400PCMB	80.00	5688
		013	GW	07-28-99	1440	400PCMB	80.00	5688
21S.04E.10.411D	322939106311701	013	GW	10-22-98	1515	400PCMB	110.00	5696
		013	GW	01-27-99	1630	400PCMB	110.00	5696
		013	GW	04-21-99	1315	400PCMB	110.00	5696
		013	GW	07-28-99	1045	400PCMB	110.00	5696
21S.04E.10.411E	322943106311401	013	GW	10-22-98	1315	400PCMB	100.00	5699
		013	GW	01-28-99	1100	400PCMB	100.00	5699
		013	GW	04-21-99	1655	400PCMB	100.00	5699
		013	GW	07-28-99	1500	400PCMB	100.00	5699
21S.04E.10.413A	322938106311601	013	GW	10-22-98	1630	400PCMB	120.00	5690
		013	GW	01-28-99	1300	400PCMB	120.00	5690
		013	GW	04-22-99	1020	400PCMB	120.00	5690
		013	GW	07-28-99	1310	400PCMB	120.00	5690
21S.04E.10.414A	322938106310801	013	GW	10-21-98	1335	400PCMB	103.00	5643
		013	GW	01-28-99	1520	400PCMB	103.00	5643
		013	GW	04-21-99	1632	400PCMB	103.00	5643
		013	GW	07-29-99	1130	400PCMB	103.00	5643
21S.04E.10.414B	322937106310901	013	GW	10-21-98	1515	400PCMB	104.00	5641
		013	GW	01-28-99	1530	400PCMB	104.00	5641
		013	GW	04-22-99	1510	400PCMB	104.00	5641
		013	GW	07-29-99	1230	400PCMB	104.00	5641
21S.04E.10.414C	322936106311001	013	GW	10-22-98	1705	400PCMB	110.00	5641
		013	GW	01-29-99	1120	400PCMB	110.00	5641
		013	GW	04-22-99	1130	400PCMB	110.00	5641
		013	GW	07-29-99	1345	400PCMB	110.00	5641
21S.04E.10.414D	322937106310902	013	GW	10-21-98	1200	400PCMB	159.00	5638
		013	GW	01-29-99	1220	400PCMB	159.00	5638
		013	GW	04-22-99	1310	400PCMB	159.00	5638
		013	GW	07-29-99	1255	400PCMB	159.00	5638
21S.04E.10.423	322935106310301	013	GW	10-21-98	1500	400PCMB	147.00	5595
		013	GW	01-27-99	1600	400PCMB	147.00	5595
		013	GW	04-21-99	1440	400PCMB	147.00	5595
		013	GW	07-29-99	1210	400PCMB	147.00	5595
21S.04E.10.441	322932106305601	013	GW	10-22-98	1040	400PCMB	130.00	5537
		013	GW	01-27-99	1330	400PCMB	130.00	5537
		013	GW	04-21-99	1230	400PCMB	130.00	5537
		013	GW	07-29-99	1440	400PCMB	130.00	5537
21S.04E.14.114	322910106303601	013	GW	10-21-98	1600	400PCMB	157.00	5150
		013	GW	01-29-99	1320	400PCMB	157.00	5150
		013	GW	04-22-99	1300	400PCMB	157.00	5150
		013	GW	07-29-99	1440	400PCMB	157.00	5150
25S.04E.11.123	320906106302901	013	GW	08-11-99	0930	110BLSN	800.00	4107
25S.04E.12.121	320914106292701	013	GW	08-11-99	0900	110BLSN	660.00	4081

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DONA ANA COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
21S.04E.10.322A	10-21-98	976	7.0	17.4	627	3.5	400	110	30
	01-27-99	979	7.1	17.9	619	2.7	410	110	30
	04-21-99	1000	7.2	20.1	615	3.7	390	110	29
	07-28-99	1000	7.2	19.8	--	3.5	410	110	31
21S.04E.10.411B	10-22-98	928	7.1	17.6	631	5.3	380	110	28
	01-28-99	931	7.1	17.8	617	4.5	380	100	28
	04-22-99	948	7.2	19.7	613	4.7	370	100	28
	07-28-99	955	7.4	20.3	--	--	380	110	29
21S.04E.10.411C	10-22-98	900	7.2	17.2	--	--	380	100	28
	01-28-99	901	7.1	17.9	616	4.5	370	100	28
	04-21-99	926	7.2	20.0	614	5.0	350	97	27
	07-28-99	926	7.4	20.1	--	--	370	100	28
21S.04E.10.411D	10-22-98	840	7.1	18.4	631	4.2	340	92	27
	01-27-99	850	7.2	18.6	617	4.1	320	87	26
	04-21-99	876	7.3	20.9	620	4.6	330	91	26
	07-28-99	877	7.2	20.1	629	4.8	340	93	26
21S.04E.10.411E	10-22-98	993	7.4	18.6	629	3.5	400	110	28
	01-28-99	994	7.4	18.5	615	4.8	400	110	28
	04-21-99	1020	7.2	19.8	616	4.9	400	110	28
	07-28-99	1020	7.2	20.1	627	4.6	340	91	28
21S.04E.10.413A	10-22-98	864	7.7	18.8	629	--	350	98	26
	01-28-99	867	7.5	19.1	617	5.2	330	91	25
	04-22-99	879	7.4	19.7	616	5.4	340	93	25
	07-28-99	882	7.3	20.4	629	4.9	350	96	26
21S.04E.10.414A	10-21-98	968	7.2	18.6	628	5.5	390	110	26
	01-28-99	971	7.6	18.6	617	5.2	370	110	25
	04-21-99	990	7.4	19.5	613	5.0	370	110	25
	07-29-99	1000	7.5	20.4	--	--	380	110	26
21S.04E.10.414B	10-21-98	987	7.3	18.6	629	5.7	400	110	27
	01-28-99	984	7.2	18.4	616	6.2	370	110	26
	04-22-99	1010	7.5	19.8	618	5.7	390	110	27
	07-29-99	1020	7.6	20.4	--	--	400	110	27
21S.04E.10.414C	10-22-98	971	7.1	18.9	631	4.8	390	110	27
	01-29-99	964	7.9	17.6	620	--	370	100	26
	04-22-99	996	7.3	19.2	615	5.2	380	110	27
	07-29-99	1010	7.5	20.1	--	--	390	110	27
21S.04E.10.414D	10-21-98	991	7.3	19.3	627	4.6	380	110	26
	01-29-99	992	7.8	18.0	620	4.5	380	110	26
	04-22-99	1010	7.3	20.1	618	4.2	370	110	26
	07-29-99	1060	7.3	20.6	629	1.5	380	110	27
21S.04E.10.423	10-21-98	966	7.3	19.1	629	4.9	380	110	26
	01-27-99	974	7.4	19.2	620	4.6	360	100	25
	04-21-99	996	7.2	20.2	620	5.4	370	110	25
	07-29-99	1000	7.2	20.4	630	4.6	380	110	26
21S.04E.10.441	10-22-98	811	7.5	18.8	632	5.6	310	89	21
	01-27-99	817	7.3	19.2	622	5.0	300	86	21
	04-21-99	837	7.1	20.3	622	6.0	300	87	21
	07-29-99	845	7.3	20.8	630	5.5	310	89	21
21S.04E.14.114	10-21-98	766	7.2	19.6	629	4.8	300	86	20
	01-29-99	758	7.6	18.9	620	4.4	280	80	19
	04-22-99	792	7.2	20.3	--	5.2	290	83	20
	07-29-99	807	7.4	20.6	--	--	300	85	20
25S.04E.11.123	08-11-99	495	8.2	25.0	--	--	84	27	3.9
25S.04E.12.121	08-11-99	706	7.6	28.0	--	--	180	41	18

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DONA ANA COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC BICAR-BONATE IT FIELD MG/L AS HCO3 (00450)	ANC CAR-BONATE IT FIELD MG/L AS CO3 (00447)	ANC WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
21S.04E.10.322A	10-21-98	64	1	1.2	339	0	278	282	200
	01-27-99	64	1	1.2	331	0	271	281	200
	04-21-99	63	1	1.2	340	0	279	205	200
	07-28-99	66	1	1.2	342	0	280	333	130
21S.04E.10.411B	10-22-98	59	1	1.1	301	0	247	257	170
	01-28-99	59	1	.8	310	0	254	256	170
	04-22-99	58	1	1.1	308	0	252	230	170
	07-28-99	59	1	1.0	306	0	251	259	170
21S.04E.10.411C	10-22-98	59	1	1.3	292	0	240	249	160
	01-28-99	57	1	1.2	295	0	242	247	160
	04-21-99	56	1	1.3	303	0	241	226	160
	07-28-99	57	1	1.3	309	0	253	245	170
21S.04E.10.411D	10-22-98	55	1	1.4	272	0	223	227	140
	01-27-99	53	1	1.3	274	0	224	225	150
	04-21-99	54	1	1.3	273	0	225	227	150
	07-28-99	55	1	1.2	268	0	220	228	140
21S.04E.10.411E	10-22-98	64	1	1.1	288	0	236	240	180
	01-28-99	64	1	1.1	289	0	237	241	180
	04-21-99	63	1	1.0	292	0	237	243	180
	07-28-99	64	2	1.1	310	0	254	240	170
21S.04E.10.413A	10-22-98	53	1	1.8	272	0	223	230	150
	01-28-99	51	1	1.7	284	0	233	229	150
	04-22-99	51	1	1.5	--	0	--	230	150
	07-28-99	53	1	1.5	275	0	225	272	150
21S.04E.10.414A	10-21-98	61	1	1.4	259	0	212	216	170
	01-28-99	58	1	1.3	256	0	210	215	170
	04-21-99	59	1	1.3	260	0	213	217	170
	07-29-99	59	1	1.4	260	0	213	213	170
21S.04E.10.414B	10-21-98	62	1	1.1	265	0	217	226	170
	01-28-99	57	1	1.0	270	0	221	224	170
	04-22-99	61	1	1	--	--	--	198	170
	07-29-99	62	1	1.1	271	0	222	221	170
21S.04E.10.414C	10-22-98	60	1	1.4	256	0	210	210	170
	01-29-99	59	1	1.3	222	0	182	210	170
	04-22-99	59	1	1.3	257	0	207	212	170
	07-29-99	61	1	1.5	--	--	--	195	190
21S.04E.10.414D	10-21-98	70	2	1.7	251	0	206	211	180
	01-29-99	70	2	1.7	255	0	209	211	180
	04-22-99	66	1	1.6	257	0	205	221	180
	07-29-99	74	2	2.0	255	0	209	216	200
21S.04E.10.423	10-21-98	60	1	1.5	253	0	207	184	170
	01-27-99	56	1	1.5	221	0	181	185	170
	04-21-99	58	1	1.4	222	0	184	185	170
	07-29-99	59	1	1.5	218	0	179	187	170
21S.04E.10.441	10-22-98	56	1	1.3	244	0	200	194	140
	01-27-99	54	1	1.3	232	0	190	193	140
	04-21-99	54	1	1.2	233	0	194	195	140
	07-29-99	55	1	1.2	228	0	187	195	180
21S.04E.14.114	10-21-98	57	1	.8	268	0	220	226	130
	01-29-99	54	1	.7	267	0	219	225	130
	04-22-99	56	1	.8	270	0	221	229	130
	07-29-99	58	1	.8	272	0	223	230	160
25S.04E.11.123	08-11-99	51	2	--	--	--	--	--	34
25S.04E.12.121	08-11-99	54	2	--	--	--	--	--	57

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DONA ANA COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
21S.04E.10.322A	10-21-98	30	5.8	.28	26	548	632	--	--
	01-27-99	31	3.7	.28	27	567	635	--	--
	04-21-99	33	4.9	.26	24	667	629	--	--
	07-28-99	26	6.8	.26	26	544	567	--	--
21S.04E.10.411B	10-22-98	30	7.1	.27	25	633	576	--	--
	01-28-99	31	4.0	.28	27	638	581	--	--
	04-22-99	32	4.9	.26	24	600	572	--	--
	07-28-99	30	4.5	.26	26	545	575	--	--
21S.04E.10.411C	10-22-98	29	5.8	.25	25	614	556	--	--
	01-28-99	29	4.0	.26	27	638	557	--	--
	04-21-99	31	4.3	.24	24	574	552	--	--
	07-28-99	29	4.6	.24	26	568	568	--	--
21S.04E.10.411D	10-22-98	29	5.0	.21	24	564	510	--	--
	01-27-99	31	3.5	.23	25	574	509	--	--
	04-21-99	31	3.9	.20	22	526	512	--	--
	07-28-99	31	6.3	.21	24	506	507	--	--
21S.04E.10.411E	10-22-98	46	5.9	.26	24	685	603	--	--
	01-28-99	46	3.9	.28	25	681	606	--	--
	04-21-99	47	4.6	.25	23	594	601	--	--
	07-28-99	39	6.2	.25	25	575	574	--	--
21S.04E.10.413A	10-22-98	34	5.5	.25	24	543	525	--	--
	01-28-99	35	3.5	.27	25	584	524	--	--
	04-22-99	35	4.7	.24	23	562	520	--	--
	07-28-99	33	5.8	.24	24	513	521	--	--
21S.04E.10.414A	10-21-98	52	5.8	.27	23	667	575	--	--
	01-28-99	52	3.8	.28	25	664	568	--	--
	04-21-99	54	4.5	.25	22	674	567	--	--
	07-29-99	52	5.8	.26	24	597	573	--	--
21S.04E.10.414B	10-21-98	49	6.1	.25	24	683	581	--	--
	01-28-99	50	3.9	.25	25	680	576	--	--
	04-22-99	49	4.7	.23	23	606	565	--	--
	07-29-99	48	7.1	.24	25	598	586	--	--
21S.04E.10.414C	10-22-98	51	5.5	.27	24	671	572	--	--
	01-29-99	50	3.6	.28	25	670	548	--	--
	04-22-99	49	4.2	.26	22	680	565	--	--
	07-29-99	52	6.4	.26	24	560	590	--	--
21S.04E.10.414D	10-21-98	53	5.7	.26	24	693	593	--	--
	01-29-99	54	3.7	.28	25	688	600	--	--
	04-22-99	54	3.3	.25	23	632	589	--	--
	07-29-99	29	6.3	.25	25	640	594	--	--
21S.04E.10.423	10-21-98	40	5.4	.32	22	670	556	--	--
	01-27-99	41	3.3	.34	23	665	532	--	--
	04-21-99	41	4.2	.31	21	662	531	--	--
	07-29-99	49	5.8	.31	22	658	548	--	--
21S.04E.10.441	10-22-98	32	6.1	.25	23	545	485	--	--
	01-27-99	33	4.1	.25	25	552	480	--	--
	04-21-99	33	4.8	.24	22	516	477	--	--
	07-29-99	45	6.6	.24	23	508	531	--	--
21S.04E.14.114	10-21-98	26	6.2	.20	25	461	481	--	--
	01-29-99	27	4.4	.21	27	615	475	--	--
	04-22-99	28	5.7	.19	24	525	480	--	--
	07-29-99	28	2.9	.19	26	494	516	--	--
25S.04E.11.123	08-11-99	28	2.6	--	33	--	--	<.01	1.3
25S.04E.12.121	08-11-99	25	.4	--	34	--	--	<.01	1.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DONA ANA COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	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 TOTAL (UG/L AS AS) (01002)	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.10.322A	10-21-98	--	--	--	--	--	--	--	38.5
	01-27-99	<.02	--	--	--	--	--	--	39.9
	04-21-99	--	--	--	--	--	--	--	33.8
	07-28-99	--	--	--	--	--	--	--	33.8
21S.04E.10.411B	10-22-98	--	--	--	--	--	--	--	55.7
	01-28-99	<.02	--	--	--	--	--	--	54.6
	04-22-99	--	--	--	--	--	--	--	51.2
	07-28-99	--	--	--	--	--	--	--	47.6
21S.04E.10.411C	10-22-98	--	--	--	--	--	--	--	55.7
	01-28-99	.02	--	--	--	--	--	--	59.1
	04-21-99	--	--	--	--	--	--	--	58.6
	07-28-99	--	--	--	--	--	--	--	57.7
21S.04E.10.411D	10-22-98	--	--	--	--	--	--	--	107
	01-27-99	<.02	--	--	--	--	--	--	107
	04-21-99	--	--	--	--	--	--	--	109
	07-28-99	--	--	--	--	--	--	--	114
21S.04E.10.411E	10-22-98	--	--	--	--	--	--	--	39.3
	01-28-99	<.02	--	--	--	--	--	--	52.2
	04-21-99	--	--	--	--	--	--	--	41.3
	07-28-99	--	--	--	--	--	--	--	42.7
21S.04E.10.413A	10-22-98	--	--	--	--	--	--	--	31.4
	01-28-99	<.02	--	--	--	--	--	--	36.9
	04-22-99	--	--	--	--	--	--	--	32.2
	07-28-99	--	--	--	--	--	--	--	33.9
21S.04E.10.414A	10-21-98	--	--	--	--	--	--	--	40.0
	01-28-99	.02	--	--	--	--	--	--	39.9
	04-21-99	--	--	--	--	--	--	--	35.5
	07-29-99	--	--	--	--	--	--	--	38.9
21S.04E.10.414B	10-21-98	--	--	--	--	--	--	--	42.1
	01-28-99	.02	--	--	--	--	--	--	43.6
	04-22-99	--	--	--	--	--	--	--	41.3
	07-29-99	--	--	--	--	--	--	--	42.7
21S.04E.10.414C	10-22-98	--	--	--	--	--	--	--	39.3
	01-29-99	.02	--	--	--	--	--	--	39.9
	04-22-99	--	--	--	--	--	--	--	34.7
	07-29-99	--	--	--	--	--	--	--	35.1
21S.04E.10.414D	10-21-98	--	--	--	--	--	--	--	39.3
	01-29-99	<.02	--	--	--	--	--	--	38.7
	04-22-99	--	--	--	--	--	--	--	33.8
	07-29-99	--	--	--	--	--	--	--	30.1
21S.04E.10.423	10-21-98	--	--	--	--	--	--	--	41.4
	01-27-99	<.02	--	--	--	--	--	--	50.2
	04-21-99	--	--	--	--	--	--	--	33.0
	07-29-99	--	--	--	--	--	--	--	41.4
21S.04E.10.441	10-22-98	--	--	--	--	--	--	--	41.4
	01-27-99	<.02	--	--	--	--	--	--	50.2
	04-21-99	--	--	--	--	--	--	--	36.3
	07-29-99	--	--	--	--	--	--	--	35.1
21S.04E.14.114	10-21-98	--	--	--	--	--	--	--	34.3
	01-29-99	.03	--	--	--	--	--	--	31.7
	04-22-99	--	--	--	--	--	--	--	25.6
	07-29-99	--	--	--	--	--	--	--	25.1
25S.04E.11.123	08-11-99	<.02	<.1	.004	<.01	4	95	<1.6	72.4
25S.04E.12.121	08-11-99	<.02	<.1	.013	<.01	6	78	<1.6	53.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DONA ANA COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
21S.04E.10.322A	10-21-98	--	--	--	--	<10	--	20	--
	01-27-99	--	--	--	--	<10	--	21	--
	04-21-99	--	--	--	--	<10	--	21	--
	07-28-99	--	--	--	--	<10	--	21	--
21S.04E.10.411B	10-22-98	--	--	--	--	<10	--	16	--
	01-28-99	--	--	--	--	<100	--	16	--
	04-22-99	--	--	--	--	<10	--	17	--
	07-28-99	--	--	--	--	<10	--	18	--
21S.04E.10.411C	10-22-98	--	--	--	--	<10	--	17	--
	01-28-99	--	--	--	--	<10	--	17	--
	04-21-99	--	--	--	--	<10	--	18	--
	07-28-99	--	--	--	--	<10	--	18	--
21S.04E.10.411D	10-22-98	--	--	--	--	<10	--	15	--
	01-27-99	--	--	--	--	<10	--	14	--
	04-21-99	--	--	--	--	<10	--	16	--
	07-28-99	--	--	--	--	<10	--	13	--
21S.04E.10.411E	10-22-98	--	--	--	--	<10	--	17	--
	01-28-99	--	--	--	--	<10	--	13	--
	04-21-99	--	--	--	--	<10	--	20	--
	07-28-99	--	--	--	--	<10	--	18	--
21S.04E.10.413A	10-22-98	--	--	--	--	<10	--	19	--
	01-28-99	--	--	--	--	<10	--	18	--
	04-22-99	--	--	--	--	<10	--	19	--
	07-28-99	--	--	--	--	<10	--	19	--
21S.04E.10.414A	10-21-98	--	--	--	--	<10	--	19	--
	01-28-99	--	--	--	--	<10	--	19	--
	04-21-99	--	--	--	--	<10	--	21	--
	07-29-99	--	--	--	--	<10	--	19	--
21S.04E.10.414B	10-21-98	--	--	--	--	<10	--	17	--
	01-28-99	--	--	--	--	<10	--	17	--
	04-22-99	--	--	--	--	<10	--	18	--
	07-29-99	--	--	--	--	<10	--	17	--
21S.04E.10.414C	10-22-98	--	--	--	--	<10	--	18	--
	01-29-99	--	--	--	--	<10	--	17	--
	04-22-99	--	--	--	--	<10	--	19	--
	07-29-99	--	--	--	--	<10	--	19	--
21S.04E.10.414D	10-21-98	--	--	--	--	<10	--	21	--
	01-29-99	--	--	--	--	<10	--	20	--
	04-22-99	--	--	--	--	<10	--	22	--
	07-29-99	--	--	--	--	<10	--	24	--
21S.04E.10.423	10-21-98	--	--	--	--	<10	--	16	--
	01-27-99	--	--	--	--	<10	--	17	--
	04-21-99	--	--	--	--	<10	--	16	--
	07-29-99	--	--	--	--	<10	--	16	--
21S.04E.10.441	10-22-98	--	--	--	--	<10	--	20	--
	01-27-99	--	--	--	--	<10	--	20	--
	04-21-99	--	--	--	--	<10	--	21	--
	07-29-99	--	--	--	--	<10	--	20	--
21S.04E.14.114	10-21-98	--	--	--	--	<10	--	24	--
	01-29-99	--	--	--	--	E6	--	24	--
	04-22-99	--	--	--	--	<10	--	24	--
	07-29-99	--	--	--	--	E7	--	26	--
25S.04E.11.123	08-11-99	<8	<14	<7	<10	E5	<100	24	<3
25S.04E.12.121	08-11-99	<8	<14	<7	<10	<10	<100	17	<3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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, TOTAL (UG/L AS SE) (01147)	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.10.322A	10-21-98	--	--	--	--	--	280	--	--
	01-27-99	--	--	--	--	--	280	--	--
	04-21-99	--	--	--	--	--	280	--	--
	07-28-99	--	--	--	--	--	290	--	--
21S.04E.10.411B	10-22-98	--	--	--	--	--	260	--	--
	01-28-99	--	--	--	--	--	260	--	--
	04-22-99	--	--	--	--	--	260	--	--
	07-28-99	--	--	--	--	--	270	--	--
21S.04E.10.411C	10-22-98	--	--	--	--	--	250	--	--
	01-28-99	--	--	--	--	--	240	--	--
	04-21-99	--	--	--	--	--	240	--	--
	07-28-99	--	--	--	--	--	250	--	--
21S.04E.10.411D	10-22-98	--	--	--	--	--	260	--	--
	01-27-99	--	--	--	--	--	260	--	--
	04-21-99	--	--	--	--	--	260	--	--
	07-28-99	--	--	--	--	--	250	--	--
21S.04E.10.411E	10-22-98	--	--	--	--	--	240	--	--
	01-28-99	--	--	--	--	--	240	--	--
	04-21-99	--	--	--	--	--	240	--	--
	07-28-99	--	--	--	--	--	230	--	--
21S.04E.10.413A	10-22-98	--	--	--	--	--	210	--	--
	01-28-99	--	--	--	--	--	210	--	--
	04-22-99	--	--	--	--	--	210	--	--
	07-28-99	--	--	--	--	--	210	--	--
21S.04E.10.414A	10-21-98	--	--	--	--	--	240	--	--
	01-28-99	--	--	--	--	--	250	--	--
	04-21-99	--	--	--	--	--	240	--	--
	07-29-99	--	--	--	--	--	240	--	--
21S.04E.10.414B	10-21-98	--	--	--	--	--	300	--	--
	01-28-99	--	--	--	--	--	290	--	--
	04-22-99	--	--	--	--	--	300	--	--
	07-29-99	--	--	--	--	--	300	--	--
21S.04E.10.414C	10-22-98	--	--	--	--	--	290	--	--
	01-29-99	--	--	--	--	--	290	--	--
	04-22-99	--	--	--	--	--	290	--	--
	07-29-99	--	--	--	--	--	290	--	--
21S.04E.10.414D	10-21-98	--	--	--	--	--	300	--	--
	01-29-99	--	--	--	--	--	300	--	--
	04-22-99	--	--	--	--	--	290	--	--
	07-29-99	--	--	--	--	--	310	--	--
21S.04E.10.423	10-21-98	--	--	--	--	--	300	--	--
	01-27-99	--	--	--	--	--	290	--	--
	04-21-99	--	--	--	--	--	300	--	--
	07-29-99	--	--	--	--	--	290	--	--
21S.04E.10.441	10-22-98	--	--	--	--	--	200	--	--
	01-27-99	--	--	--	--	--	210	--	--
	04-21-99	--	--	--	--	--	210	--	--
	07-29-99	--	--	--	--	--	200	--	--
21S.04E.14.114	10-21-98	--	--	--	--	--	250	--	--
	01-29-99	--	--	--	--	--	250	--	--
	04-22-99	--	--	--	--	--	250	--	--
	07-29-99	--	--	--	--	--	260	--	--
25S.04E.11.123	08-11-99	<.1	<50	<40	1	<4	520	E6	40
25S.04E.12.121	08-11-99	<.1	<50	<40	<1	<4	500	E8	<20

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LINCOLN COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEO-LOGIC UNIT	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)
MOUND SPRING	332535106170501	027	SP	07-21-99	1330	110AVMB	5020	6.6	21.0

LOCAL IDENT-I-FIER	DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)
MOUND SPRING	07-21-99	2200	2100	660	140	350	3	4.2	120	0

LOCAL IDENT-I-FIER	DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	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)
MOUND SPRING	07-21-99	106	190	720	1.2	.37	28	4220	2170

LOCAL IDENT-I-FIER	DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC 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)
MOUND SPRING	07-21-99	.551	.20	.75	.20	.14	.3	<.004	<.01

LOCAL IDENT-I-FIER	DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)
MOUND SPRING	07-21-99	<140	<30.0	<1	<1	10.7	11	229	195

LOCAL IDENT-I-FIER	DATE	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
MOUND SPRING	07-21-99	<1	<1	12	<1.0	<1	<1	64.9	<30

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LINCOLN COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
MOUND SPRING	07-21-99	<1	<1	E55.2	53	<9.0	<9	<.1	<.1

LOCAL IDENT-I-FIER	DATE	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MOUND SPRING	07-21-99	3	3	<1	<1	9330	9000	<120	<60

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

LOCAL IDENT-I-FIER	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	07-21-99	1330	<.01	<.01	<.01	<.01

OTERO COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)
18S.07E.01.24	324648106102701	035	GW	04-29-99	1405	110AVMB	34.00	3993	90
18S.07E.01.34	324618106105101	035	GW	04-29-99	1045	110AVMB	28.50	4000	60
MALPAIS SPRING NR OSCURA,	331715106183301	035	SP	07-22-99	0930	110AVMB	--	--	--
WHSA-MW1	324924106160201	035	GW	04-30-99	1420	110AVMB	25.00	3990	80
WHSA-MW6	324850106153001	035	GW	04-30-99	1110	110AVMB	26.50	3990	50

LOCAL IDENT-I-FIER	DATE	FLOW RATE (G/M) (00059)	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)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
18S.07E.01.24	04-29-99	.6	--	71500	7.2	28.5	21.0	652	4.8	22000
18S.07E.01.34	04-29-99	1.0	--	3160	7.4	26.0	17.0	652	5.9	2200
MALPAIS SPRING	07-22-99	--	1.3	6200	7.3	--	15.5	--	7.5	2300
WHSA-MW1	04-30-99	.9	--	11300	7.4	25.0	15.0	653	4.8	4000
WHSA-MW6	04-30-99	1.2	--	14300	7.4	19.5	12.0	654	4.4	4700

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)
18S.07E.01.24	04-29-99	22000	700	5000	23000	67	130	--	--	417
18S.07E.01.34	04-29-99	2100	510	220	48	.5	47	--	--	65
MALPAIS SPRING	07-22-99	2300	670	150	610	6	6.9	60	0	49
WHSA-MW1	04-30-99	3900	620	580	1700	12	36	--	--	83
WHSA-MW6	04-30-99	4600	640	750	2700	17	42	--	--	112

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

OTERO COUNTY--Continued

LOCAL IDENT-I-FIER	DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
18S.07E.01.24	04-29-99	27000	19000	1.7	3.8	25	75300	75100	--	--
18S.07E.01.34	04-29-99	2100	88	3.8	.06	54	3400	3130	--	--
MALPAIS SPRING	07-22-99	1900	1300	1.3	.45	30	<10	4730	<.01	3.3
WHSA-MW1	04-30-99	3400	2300	3.6	.34	44	9110	8760	--	--
WHSA-MW6	04-30-99	4100	4000	3.9	.51	50	12500	12300	--	--

LOCAL IDENT-I-FIER	DATE	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)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)
18S.07E.01.24	04-29-99	--	--	--	--	--	--	--	--	--
18S.07E.01.34	04-29-99	--	--	--	--	--	--	--	--	--
MALPAIS SPRING	07-22-99	.05	<.1	.004	<.01	<84.0	<40.0	1	2	11.5
WHSA-MW1	04-30-99	--	--	--	--	--	--	--	--	--
WHSA-MW6	04-30-99	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
18S.07E.01.24	04-29-99	<100	--	--	--	--	--	--	--	--
18S.07E.01.34	04-29-99	10	--	--	--	--	--	--	--	--
MALPAIS SPRING	07-22-99	12	214	215	<2	<2	14	<1.0	<2	<2
WHSA-MW1	04-30-99	18	--	--	--	--	--	--	--	--
WHSA-MW6	04-30-99	E5	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
18S.07E.01.24	04-29-99	--	--	--	--	--	--	--	--	--
18S.07E.01.34	04-29-99	--	--	--	--	--	--	--	--	--
MALPAIS SPRING	07-22-99	<42.0	<40	<2	<2	50.3	57	<9.0	<12	<.1
WHSA-MW1	04-30-99	--	--	--	--	--	--	--	--	--
WHSA-MW6	04-30-99	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
18S.07E.01.24	04-29-99	--	--	--	--	--	--	16000	--	--
18S.07E.01.34	04-29-99	--	--	--	--	--	--	9400	--	--
MALPAIS SPRING	07-22-99	<.1	4	5	<2	<2	11700	12000	<120	<80
WHSA-MW1	04-30-99	--	--	--	--	--	--	16000	--	--
WHSA-MW6	04-30-99	--	--	--	--	--	--	16000	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

SANDOVAL COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)
12N.03E.29.434	351359106384001	043	GW	01-28-99	1100	112SNTF	380.00	5180	30
12N.03E.32.212	351356106384501	043	GW	01-28-99	1300	112SNTF	180.00	5150	30

LOCAL IDENT-I-FIER	DATE	FLOW RATE (G/M) (00059)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	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)
12N.03E.29.434	01-28-99	6.0	659	7.7	10.0	16.0	>1.0	270	110	88
12N.03E.32.212	01-28-99	6.0	981	7.6	9.5	16.0	>1.0	410	320	120

LOCAL IDENT-I-FIER	DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
12N.03E.29.434	01-28-99	12	31	.8	5.2	194	0	159	120
12N.03E.32.212	01-28-99	24	43	.9	8.2	107	0	88	300

LOCAL IDENT-I-FIER	DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
12N.03E.29.434	01-28-99	26	.3	44	422	.669	.01	.68	<.02
12N.03E.32.212	01-28-99	55	.4	44	670	--	<.01	5.1	<.02

LOCAL IDENT-I-FIER	DATE	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)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
12N.03E.29.434	01-28-99	E.07	.02	.02	1.6	5	61.4	<10	29
12N.03E.32.212	01-28-99	E.09	.0055	<.01	4.3	4	95.4	150	11

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

EL PASO COUNTY, TEXAS

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE	TIME	GEO-LOGIC UNIT	SAM-PLING DEPTH (FEET) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)
GOLF COURSE NO. 2	315003106261301	141	GW	09-10-99	1015	--	--	--	--
JL-49-05-307	315814106235601	141	GW	08-18-99	1105	112HCBL	--	650.00	650
JL-49-05-316	315821106235901	141	GW	08-18-99	1200	112HCBL	--	625.00	624
JL-49-05-918	315305106232002	141	GW	09-09-99	1030	112HCBL	--	940.00	--
JL-49-06-111	315817106202601	141	GW	08-19-99	1230	--	--	560.00	--
JL-49-06-503	315636106191902	141	GW	08-20-99	1300	--	--	601.00	--
JL-49-06-603	315541106171701	141	GW	08-23-99	1315	--	355	600.00	--
JL-49-06-901	315331106171001	141	GW	08-18-99	1330	--	--	550.00	--
JL-49-13-307	315132106242002	141	GW	09-09-99	0930	--	--	812.00	--
JL-49-13-628	314940106233701	141	GW	09-08-99	1030	--	--	1035.00	--
JL-49-13-634	314951106230702	141	GW	08-10-99	0905	112HCBL	--	900.00	--
JL-49-13-909	314556106234701	141	GW	09-08-99	1100	112HCBL	--	671.00	646
JL-49-13-956	314551106224801	141	GW	09-08-99	1010	112HCBL	--	665.00	657
JL-49-13-957	314638106232801	141	GW	09-15-99	1030	112HCBL	--	882.00	877
JL-49-13	315209106232601	141	GW	09-10-99	1130	--	--	--	--
JL-49-14-202	315123106174501	141	GW	08-17-99	1300	--	--	500.00	--
JL-49-14-303	315004106163902	141	GW	08-16-99	1500	--	--	500.00	--

LOCAL IDENT-I-FIER	DATE	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)
GOLF COURSE NO. 2	09-10-99	--	3600	180	1150	548	7.9	27.0	25.0
JL-49-05-307	08-18-99	423	4035	--	230	767	7.9	30.0	26.5
JL-49-05-316	08-18-99	422	4035	--	310	716	8.0	32.0	26.5
JL-49-05-918	09-09-99	--	3922	--	1.0	534	8.1	28.0	27.0
JL-49-06-111	08-19-99	--	4014	180	1.5	778	7.8	31.0	25.0
JL-49-06-503	08-20-99	--	3973	--	--	1410	7.4	35.0	24.0
JL-49-06-603	08-23-99	--	4010	--	--	1700	7.3	30.0	25.0
JL-49-06-901	08-18-99	--	4005	--	--	1830	8.1	29.0	23.0
JL-49-13-307	09-09-99	--	3897	--	--	761	7.9	26.0	25.0
JL-49-13-628	09-08-99	--	3913	--	1200	651	7.8	28.5	25.5
JL-49-13-634	08-10-99	--	3921	--	--	558	--	--	26.0
JL-49-13-909	09-08-99	478	3730	--	700	1850	7.8	30.0	26.5
JL-49-13-956	09-08-99	490	3770	--	750	2020	7.6	28.0	27.5
JL-49-13-957	09-15-99	648	3854	--	643	1010	8.1	26.0	28.5
JL-49-13	09-10-99	--	3908	--	--	561	8.2	27.0	26.0
JL-49-14-202	08-17-99	--	3972	--	--	1390	8.0	33.0	25.0
JL-49-14-303	08-16-99	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)
GOLF COURSE NO. 2	09-10-99	130	--	33	11	55	2	--	199
JL-49-05-307	08-18-99	120	53	36	7.8	92	4	7.3	84
JL-49-05-316	08-18-99	120	47	35	7.2	85	3	6.8	86
JL-49-05-918	09-09-99	73	--	19	6.0	74	4	--	137
JL-49-06-111	08-19-99	140	61	44	7.4	94	3	--	97
JL-49-06-503	08-20-99	--	--	--	--	--	--	--	--
JL-49-06-603	08-23-99	--	--	--	--	--	--	--	42
JL-49-06-901	08-18-99	320	--	86	24	240	6	--	--
JL-49-13-307	09-09-99	100	--	26	8.5	110	5	--	190
JL-49-13-628	09-08-99	72	--	18	6.1	100	5	--	180
JL-49-13-634	08-10-99	61	--	16	5.1	81	5	--	--
JL-49-13-909	09-08-99	360	260	96	29	210	5	12	123
JL-49-13-956	09-08-99	430	330	120	33	230	5	14	119
JL-49-13-957	09-15-99	130	26	36	8.8	130	5	7.9	123
JL-49-13	09-10-99	73	--	19	6.2	81	4	--	170
JL-49-14-202	08-17-99	170	--	46	12	160	6	--	--
JL-49-14-303	08-16-99	250	150	71	18	180	5	--	131

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

EL PASO COUNTY, TEXAS--Continued

LOCAL IDENT-I-FIER	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)
GOLF COURSE NO. 2	09-10-99	0	163	--	39	33	.5	30	--
JL-49-05-307	08-18-99	0	69	67	18	180	.5	33	426
JL-49-05-316	08-18-99	0	70	69	17	160	.5	32	399
JL-49-05-918	09-09-99	0	113	--	43	62	.9	31	--
JL-49-06-111	08-19-99	0	79	--	19	180	.5	27	--
JL-49-06-503	08-20-99	--	--	--	--	--	--	--	--
JL-49-06-603	08-23-99	0	35	--	--	--	--	--	--
JL-49-06-901	08-18-99	--	--	--	190	420	.4	25	--
JL-49-13-307	09-09-99	0	156	--	87	77	1.3	32	--
JL-49-13-628	09-08-99	0	148	--	67	66	.9	31	--
JL-49-13-634	08-10-99	--	--	--	61	53	.8	28	--
JL-49-13-909	09-08-99	0	101	103	92	470	.5	32	1070
JL-49-13-956	09-08-99	0	97	99	230	430	.4	32	1180
JL-49-13-957	09-15-99	0	101	103	59	210	.7	33	564
JL-49-13	09-10-99	0	140	--	52	50	1	31	--
JL-49-14-202	08-17-99	--	--	--	91	250	.4	29	--
JL-49-14-303	08-16-99	0	107	--	250	220	.5	32	--

LOCAL IDENT-I-FIER	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 DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
GOLF COURSE NO. 2	09-10-99	--	--	<.01	2.2	<.02	--	E.05	.01
JL-49-05-307	08-18-99	419	--	<.01	1.4	<.02	--	E.05	.011
JL-49-05-316	08-18-99	394	--	<.01	1.4	<.02	--	<.1	.009
JL-49-05-918	09-09-99	--	--	<.01	1.7	<.02	--	E.07	.011
JL-49-06-111	08-19-99	--	--	<.01	1.8	.06	.07	.1	.004
JL-49-06-503	08-20-99	--	--	--	--	--	--	--	--
JL-49-06-603	08-23-99	--	--	--	--	--	--	--	--
JL-49-06-901	08-18-99	--	.422	.02	.44	<.02	--	E.08	.005
JL-49-13-307	09-09-99	--	--	<.01	2.0	<.02	--	E.08	.009
JL-49-13-628	09-08-99	--	--	<.01	1.5	<.02	--	E.08	.009
JL-49-13-634	08-10-99	--	--	<.01	1.5	<.02	--	E.07	.008
JL-49-13-909	09-08-99	1000	.125	.01	.14	<.02	--	E.08	.004
JL-49-13-956	09-08-99	1140	--	<.01	<.05	<.02	--	E.08	<.004
JL-49-13-957	09-15-99	547	.278	.02	.30	.09	--	E.08	.006
JL-49-13	09-10-99	--	--	<.01	1.9	<.02	--	<.1	.01
JL-49-14-202	08-17-99	--	1.02	.02	1.0	<.02	--	.1	.007
JL-49-14-303	08-16-99	--	1.33	.01	1.3	<.02	--	E.09	.007

LOCAL IDENT-I-FIER	DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, 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)
GOLF COURSE NO. 2	09-10-99	<.01	--	2	--	150	<1.6	70.1	<8
JL-49-05-307	08-18-99	<.01	<15	--	6	200	--	70.3	<1
JL-49-05-316	08-18-99	<.01	<15	--	6	190	--	63.9	<1
JL-49-05-918	09-09-99	.01	--	4	--	59	<1.6	113	<8
JL-49-06-111	08-19-99	<.01	--	4	--	120	<1.6	68.7	<8
JL-49-06-503	08-20-99	--	--	--	--	--	--	--	--
JL-49-06-603	08-23-99	--	--	--	--	--	--	--	--
JL-49-06-901	08-18-99	<.01	--	1	--	41	<1.6	149	<8
JL-49-13-307	09-09-99	<.01	--	4	--	35	<1.6	158	<8
JL-49-13-628	09-08-99	<.01	--	7	--	54	<1.6	145	<8
JL-49-13-634	08-10-99	<.01	--	7	--	52	<1.6	131	<8
JL-49-13-909	09-08-99	<.01	<15	--	6	150	--	108	<1
JL-49-13-956	09-08-99	<.01	<15	--	5	110	--	139	<1
JL-49-13-957	09-15-99	<.01	<15	--	11	140	--	91.4	<1
JL-49-13	09-10-99	<.01	--	4	--	45	<1.6	120	<8
JL-49-14-202	08-17-99	<.01	--	4	--	58	<1.6	111	<8
JL-49-14-303	08-16-99	<.01	--	2	--	22	<1.6	195	<8

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

EL PASO COUNTY, TEXAS--Continued

LOCAL IDENT-I-FIER	DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
GOLF COURSE NO. 2	09-10-99	<14	<13	<10	<10	<100	32	<2	<.1
JL-49-05-307	08-18-99	2.4	--	<1	11	<1	36	E2	<.1
JL-49-05-316	08-18-99	2.2	--	<1	14	<1	33	4	<.1
JL-49-05-918	09-09-99	<14	<13	E6	<10	<100	44	<2	<.1
JL-49-06-111	08-19-99	<14	<13	<10	160	<100	48	30	<.1
JL-49-06-503	08-20-99	--	--	--	--	--	--	--	--
JL-49-06-603	08-23-99	--	--	--	--	--	--	--	--
JL-49-06-901	08-18-99	<14	<13	<10	39	<100	130	26	<.1
JL-49-13-307	09-09-99	<14	<13	<10	<10	<100	61	<2	<.1
JL-49-13-628	09-08-99	<14	<13	<10	<10	<100	71	<2	<.1
JL-49-13-634	08-10-99	<14	<7	<10	<10	<100	64	<3	<.1
JL-49-13-909	09-08-99	<1.0	--	<1	<10	<1	170	31	<.1
JL-49-13-956	09-08-99	<1.0	--	<1	E5	<1	210	22	<.1
JL-49-13-957	09-15-99	<1.0	--	<1	E6	<1	100	10	<.1
JL-49-13	09-10-99	E8	<13	<10	<10	<100	59	<2	<.1
JL-49-14-202	08-17-99	<14	<13	<10	53	<100	82	8	<.1
JL-49-14-303	08-16-99	<14	<13	<10	170	<100	100	27	<.1

LOCAL IDENT-I-FIER	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)	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)
GOLF COURSE NO. 2	09-10-99	<30	<40	<1	--	<7	1000	15	<20
JL-49-05-307	08-18-99	--	<1	--	1	<1	910	--	<20
JL-49-05-316	08-18-99	--	<1	--	<1	<1	930	--	E14
JL-49-05-918	09-09-99	<30	<40	2	--	<7	530	12	<20
JL-49-06-111	08-19-99	<30	<40	1	--	<7	880	<10	<20
JL-49-06-503	08-20-99	--	--	--	--	--	--	--	--
JL-49-06-603	08-23-99	--	--	--	--	--	--	--	--
JL-49-06-901	08-18-99	<30	<40	<1	--	<7	1800	<10	<20
JL-49-13-307	09-09-99	<30	<40	4	--	<7	700	12	<20
JL-49-13-628	09-08-99	<30	<40	2	--	<7	570	13	<20
JL-49-13-634	08-10-99	<50	<40	2	--	<4	500	14	E12
JL-49-13-909	09-08-99	--	<1	--	2	<1	3100	--	<20
JL-49-13-956	09-08-99	--	<1	--	3	<1	3700	--	<20
JL-49-13-957	09-15-99	--	<1	--	4	<1	1100	--	<20
JL-49-13	09-10-99	<30	<40	2	--	<7	530	14	<20
JL-49-14-202	08-17-99	<30	<40	2	--	<7	940	E8	<20
JL-49-14-303	08-16-99	<30	<40	2	--	<7	1200	E6	<20

Page

A

Access to USGS Water Data 23
Accuracy of the records, surface water 15
Acid neutralizing capacity, definition of 23
Acre-foot (AC-FT, acre-ft), annual runoff, definition of 14
Acre-foot (acre-ft, AC-FT), annual runoff, definition of 23
Alkalinity, definition of 23
Animas River at Farmington 89
near Cedar Hill 87
Annual 7-day minimum, definition of 14,24
Annual mean, explanation of 14
Annual runoff, explanation of 14
Annual total, explanation of 14
Aquifer, definition of 24
Arrangement of records, water quality 18
Artesian, definition of 24

B

Bacteria, definition of 24
Fecal coliform, definition of 24
Fecal streptococcal, definition of 24
Non-ideal colony count 24
Bed load discharge, definition of 26
Bed material, definition of 24
Bed material, surficial, definition of 27
Bottom material, see bed material 24

C

Canadian River above New Mexico-Texas State Line 74
at Logan NM 68
near Sanchez 63
near Taylor Springs 55
cfs-day, definition of 24
Chemical oxygen demand, definition of 24
Cieneguilla Creek near Eagle Nest 40
Cimarron River at Springer 53
Cimarron River below Eagle Nest Dam 45
Cimarron River near Cimarron 47
Classification of records, water-quality 17
Coliform, fecal bacteria, definition of 24
Conchas Lake at Conchas Dam 65
Contents, reservoir, definition of 24
Continuing-record station 24
Continuing-record station, definition of 24
Control, definition of 24
Cooperation 2
Surface-water records, definition of 13
Water-quality records, definition of 19
Coyote Creek near Golondrinas 61
Cubic feet per second per square mile (ft3/s/mi2), annual runoff, definition of 15
Cubic foot per second (ft3/s), definition of 24
Cubic-foot-per-second day (cfs-day), definition of 24

D

Data Collection and Computation 23
Data collection and computation, Ground water 21
Surface water 8
Data Presentation 21,23
Data presentation, Surface water 10
Data table of daily mean values, explanation of 13
Definition of terms 23
Discharge, definition of 24
Annual 7-day minimum, definition of 24
Instantaneous, definition of 25
Mean, definition of 25
Dissolved, definition of 25
Dissolved-solids concentration, definition of 25
Downstream-order system 7
Drainage area, definition of 25
Surface water 10
Water quality 19
Drainage basin, definition of 25

E

Eagle Nest Lake near Eagle Nest 44
Eagle Tail Ditch near Maxwell 34
Escherichia coli, definition of 24
Explanation of the records
Records of ground-water levels 20
Records of stage and water discharge 8
Records of surface-water quality 15
Extremes outside period of record, surface water, explanation of 13
Extremes, water quality, explanation of 19

F

Fecal coliform, definition of 24
Fecal streptococcal bacteria, definition of 24

G

Gage height (G.H.), definition of 25
Gage, explanation of 13
Gaging station, definition of 25
Gila River below Blue Creek, near Virden 119
near Gila 111
near Redrock 115
Ground-Water Levels 131
Ground-water levels, hydrologic conditions of
Record of 20

H

Hardness, definition of 25
Highest annual mean, explanation of 14
Highest daily mean, explanation of 14
Hydrologic bench-mark network, definition of 6
Hydrologic unit, definition of 25

I

Identifying estimated daily discharge 15
Inches, annual runoff, explanation of 15
Instantaneous, discharge, definition of 25
Low flow, explanation of 14
Peak flow, explanation of 14
Peak stage, explanation of 14
Instrumentation, water quality 19

Page

L

La Plata River at Colorado-New Mexico State Line 96
near Farmington 98
Laboratory measurements 18
Lake Maloya near Raton 33
Land-surface datum (lsd), definition of 25
Latitude-longitude system 7, 8
Load, suspended-sediment, definition of 26
Local Well Numbers 8
Location, explanation of 10
Location, water quality 19
Los Pinos River at La Boca, CO 79
Lowest annual mean, explanation of 14
Lowest daily mean, explanation of 14

M

Mean concentration, suspended-sediment, definition of 26
Mean discharge, definition of 25
Measurements at Miscellaneous Sites 126
Measuring point (MP), definition of 25
Membrane filter, definition of 25
Micrograms per gram (UG/G, mg/g), definition of 25
Micrograms per liter (UG/L, mg/L), definition of 25
Microsiemens per centimeter at 25 degrees
Celsius (US/CM, mS/cm), definition of 25
Milligrams per liter (MG/L, mg/L), definition of 25
Mogollon Creek near Cliff 113
Mora River at La Cueva 57
near Golondrinas 59
Moreno Creek at Eagle Nest 38

N

National Atmospheric Deposition Program/National
Tends Network, definition of 6
National Geodetic Vertical Datum of 1939 (NGVD
of 1939), definition of 25
National Stream Quality Accounting Network, definition of 6
National Water-Quality Assessment Program, definition of . 6
Navajo Reservoir near Archuleta 83
NGVD of 1929 (National Geodetic Vertical
Datum of 1929), definition of 25
Non-ideal colony count, definition of 24

O

Onsite measurements and sample collection 17
Other records available, surface water 15

P

Parameter Code, definition of 25
Partial-record station, definition of 25
Particle size, definition of 26
classification, definition of 26
Percent composition, definition of 26
Period of record, surface water, explanation of 10
Water quality, explanation of 19
Pesticides, definition of 26
pH, definition of 26
Picocurie (PC, pCi), definition of 26
Piedra River near Arboles, CO 77

Page

Polychlorinated biphenyls, definition of 26
Ponil Creek near Cimarron 49
Publications, Ground-water 23

Q

Quality of Ground Water 169

R

Rayado Creek near Cimarron 51
Records of Ground-Water Quality 23
Records of surface-water quality 15
Records, explanation of
Ground-water levels 20
Data collection and computation 21
Publications 23
Stage and water discharge 8
Accuracy of the records 15
Data collection and computation 8
Data presentation 10
Identifying estimated daily discharge 15
Other records available 15
Surface-water quality 15
Classification of records 17
Laboratory analyses 18
Onsite measurements and sample collection 17
Presentation of water-quality records 18
Sediment 17
Water temperature 17
Recoverable from bottom material, definition of 26
Remark codes, water quality 19
Remarks, Surface water, explanation of 13
Water quality, explanation of 19
Return period, definition of 26
Revised records, surface water, explanation of 13
Revisions, surface water, explanation of 13
water quality, explanation of 19
Revuelto Creek near Logan NM 71
Rio Nutria near Ramah 107
Runoff in inches (IN., in.), definition of 26

S

San Francisco River near Glenwood 123
near Reserve 121
San Juan River at Farmington 94
at Four Corners 104
at Shiprock 100
near Archuleta 84
near Carracas, Co 75
SAR(sodium-adsorption-ratio), definition of 27
Sea level 26
Sediment 17
Sediment, definition of 26
Records of 17
Suspended, definition of
Mean concentration, definition of 26
Suspended, definition of 26
Suspended-sediment concentration, definition of 26
Suspended-sediment load, definition of 26
Sixmile Creek near Eagle Nest 42

Page

Sodium-adsorption-ratio (SAR), definition of 27
Solute, definition of 27
Specific conductance, definition of 27
Spring Creek at La Boca, CO 81
Stage and water-discharge records, explanation of 8
Stage-discharge relation, definition of 27
Station identification numbers 7
Station manuscript, surface water, explanation of 10
Statistics of monthly mean data, explanation of 13
Streamflow, definition of 27
Streptococcal, fecal bacterial, definition of 24
Summary of hydrologic conditions
    streamflow 2
Summary statistics, explanation of 14
Surface area, definition of 27
Surface-water-quality records, explanation of 15
Surficial bed material, definition of 27
Suspended, definition of 27
    Recoverable, definition of 27
    Total, definition of 27
Suspended-sediment concentration, definition of 26
Suspended-sediment discharge 26
Suspended-sediment load, definition of 26
Synoptic Studies, definition of 27

T

Terms, definition of 23
Thermograph, definition of 27
Time-weighted average, definition of 27
Tons per acre-foot, definition of 28
Tons per day (T/DAY), definition of 28
Total sediment discharge, definition of 27
Total sediment load, definition of 27
Total, definition of 28
    Discharge, definition of 28
    Load (tons), definition of 28
    Recoverable, definition of 28
    Total in bottom material, definition of 28
Tritium Network, definition of 6
Turbidity, definition of 28

U

Ute Creek near Logan 66
Ute Reservoir near Logan 67

V

Vermejo River near Dawson 36
Volatile Organic Compounds, definition of 28

Page

W

Water Data Report (WDR), definition of 28
Water temperature, water-quality records 17
Water year, definition of 28
Water-discharge records, stage and explanation of 8
Water-quality records, explanation of 15
    Classification of the records, explanation of 17
WDR (Water Data Report), definition of 28
Weighted average, definition of 28
WSP 28

Z

Zuni River above Black Rock Reservoir 109

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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.

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