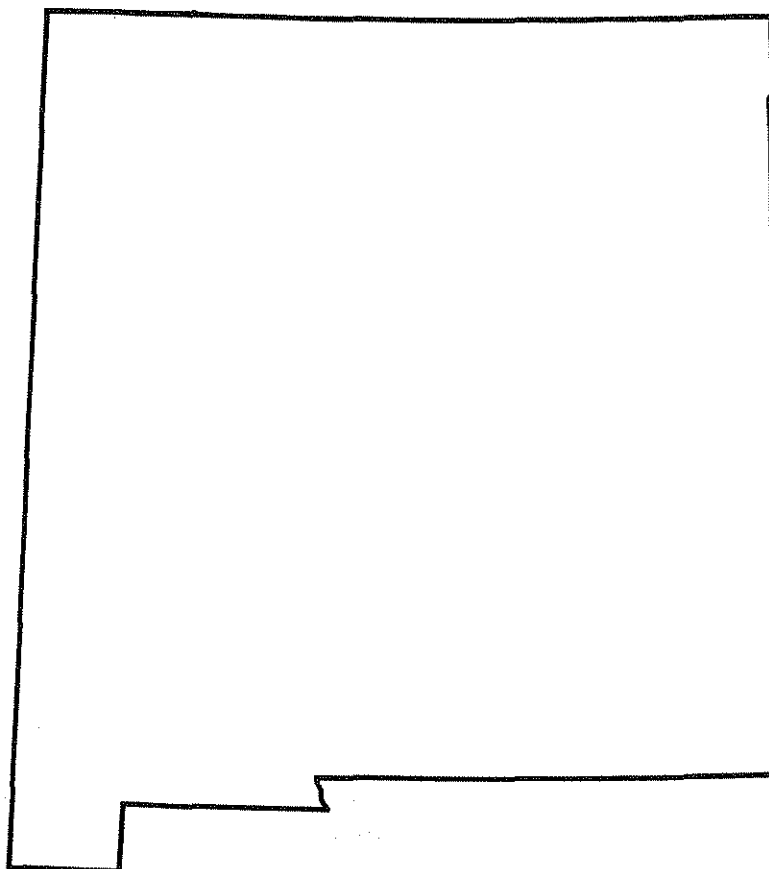




Water Resources Data New Mexico Water Year 1997

by David Ortiz, Kathy Lange, and Linda Beal



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-97-1
Prepared in cooperation with the State of New Mexico
and with other agencies

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, *Secretary*

U.S. GEOLOGICAL SURVEY

Thomas J. Casadevall, *Acting Director*

For additional information on the
water program in New Mexico write to
District Chief, Water Resources Division
U.S. Geological Survey
4501 Indian School Road NE, Suite 200
Albuquerque, New Mexico 87110-3929

1998

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.

Most of the data were collected, computed, and processed from the Albuquerque Field Office, David Ortiz, Chief, and from the Carlsbad Field Office, Glenn Todd, and from the Las Cruces Subdistrict, Luis Madrid.

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

C.G. Abeyta	R.L. Gold	T.J. Quintana
S.K. Anderholm	K.C. Grabenhorst	D.R. Rankin
P. Blanchard	T.M. Kelly	D.M. Roark
R.R. Cruz	K.L. Hamilton	R.D. Ross
R.K. Dewees	G.F. Huff	R.G. Roybal
P.L. Dickey	S.A. Kimball	M.L. Shewmake
W.T. Evans	S.H. Lewandowski	G.H. Sieber
C.R. Floran	R.M. McBreen	P.C. Teeters
D.E. Funderburg	J.A. Medina	L.A. Theisen
D.F. Healy	D.J. Milewski	C.R. Thorn
B.A. Hill	L.K. Miller	J.E. Veenhuis
B.M. Garcia	R.L. Moquino	S.D. Waltemeyer
A.C. Gellis	E.L. Nickerson	R.W. Wilcox

This report was prepared under the general supervision of Linda S. Weiss, District Chief, New Mexico, and in cooperation with the State of New Mexico and with other agencies.

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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 (e)	07199450	33
LAKE ALICE NEAR RATON, NM (e)	07199550	34
EAGLE TAIL DITCH NEAR MAXWELL, NM (d)	07202500	35
VERMEJO RIVER NEAR DAWSON, NM (d)	07203000	37
CIMARRON RIVER:		
EAGLE NEST LAKE:		
MORENO CREEK AT EAGLE NEST, NM (d)	07204000	39
CIENEGUILLA CREEK NEAR EAGLE NEST, NM (d)	07204500	41
SIXMILE CREEK NEAR EAGLE NEST, NM (d)	07205000	43
EAGLE NEST LAKE NEAR EAGLE NEST, NM (e)	07205500	45
CIMARRON RIVER BELOW EAGLE NEST DAM, NM (d)	07206000	46
CIMARRON RIVER NEAR CIMARRON, NM (c,d,s)	07207000	48
PONIL CREEK NEAR CIMARRON, NM (d,s)	07207500	50
RAYADO CREEK NEAR CIMARRON, NM (c,d,s)	07208500	52
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MORA RIVER NEAR GOLONDRINAS, NM (d)	07216500	60
COYOTE CREEK NEAR GOLONDRINAS, NM (d)	07218000	62
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UTE CREEK NEAR LOGAN, NM (d)	07226500	69
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RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM (d)	08266820	102
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RIO LUCERO NEAR ARROYO SECO, NM (d)	08271000	109
RIO GRANDE DEL RANCHO NEAR TALPA, NM (d)	08275500	111
RIO PUEBLO DE TAOS BELOW LOS CORDOVAS, NM (c,d)	08276300	113
RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM (c,d,m)	08276500	116
RIO PUEBLO NEAR PENASCO, NM (d)	08277470	120
RIO SANTA BARBARA NR PENASCO, NM (d)	08278500	122
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RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM (c,d,m,s)	08313000	159
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COLORADO RIVER BASIN

COLORADO RIVER:

SAN JUAN RIVER BASIN

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LITTLE COLORADO RIVER BASIN		
RIO NUTRIA NEAR RAMAH, NM (d)	09386900	447
ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM (d)	09386950	449
GILA RIVER BASIN		
GILA RIVER NEAR GILA, NM (d)	09430500	452
MOGOLLON CREEK NEAR CLIFF, NM (d)	09430600	454
GILA RIVER NEAR REDROCK, NM (c,d,m,s)	09431500	456
GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM (d)	09432000	461
SAN FRANCISCO RIVER NEAR RESERVE, NM (d)	09442680	463
SAN FRANCISCO RIVER NEAR GLENWOOD, NM (d)	09444000	465

GROUND-WATER LEVELS

BERNALILLO COUNTY

WELL 350256106390801.	Local number, 10N.03E.32.314.....	510
WELL 351051106395304.	Local number, 11N.03E.18.411D.....	510

CHAVES COUNTY

WELL 334138104343801.	(formerly 334645104344501) Local number, 07S.23E.23.24431.....	510
WELL 332615104303601.	Local number, 10S.24E.21.21222.....	511
WELL 332255104360401.	Local number, 11S.23E.03.342223.....	511
WELL 331914104253701.	(formerly 331930104261001) Local number, 11S.25E.29.34333.....	511
WELL 331705104262801.	(formerly 332200104270001) Local number, 12S.25E.09.42230.....	511
WELL 331525104245201.	(formerly 331205104245101) Local number, 12S.25E.23.344412.....	512
WELL 331524104245101.	Local number, 12S.25E.23.344234A.....	512
WELL 331213104241601.	(formerly 331216104241701) Local number, 13S.25E.12.311134.....	512
WELL 331002104254701.	(formerly 331002104272001) Local number, 13S.25E.27.211144.....	513
WELL 330702104402401.	(formerly 330700104402501) Local number, 14S.23E.08.144344.....	513
WELL 330646104173301.	(formerly 330640104174501) Local number, 14S.26E.12.431331.....	513
WELL 330404104221201.	Local number, 14S.26E.30.44444.....	513

CIBOLA COUNTY

WELL 350346107521201.	(formerly 350400107510501) Local number, 10N.10W.26.331.....	514
WELL 350923107522701.	(formerly 350925107523001) Local number, 11N.10W.27.241.....	514
WELL 351304107543701.	(formerly 351400107524201) Local number, 12N.10W.29.434.....	514
WELL 351651107594501.	(formerly 351650107535001) Local number, 12N.11W.09.424.....	514
WELL 351630107572801.	(formerly 351637107584501) Local number, 12N.11W.14.213.....	515

COLFAX COUNTY

WELL 364522104034501.	(formerly 364500104031501) Local number, 29N.27E.16.222.....	515
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COSTILLA COUNTY

WELL 370004105402201.	(formerly 370009105410001) Local number, 01N.74W.33.322.....	515
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CURRY COUNTY

WELL 341836103052001.	Local number, 01N.37E.17.113133.....	516
WELL 342358103093601.	Local number, 02N.36E.15.11111.....	516
WELL 342736103203701.	(formerly 342815103270001) Local number, 03N.34E.23.433133.....	516
WELL 343347103345001.	Local number, 04N.32E.22.111114.....	517
WELL 343615103123801.	Local number, 05N.35E.35.31324.....	517

DONA ANA COUNTY

WELL 322203106484101.	(formerly 322210106483001) Local number, 22S.01E.26.411.....	517
WELL 321606106462901.	(formerly 321620106461501) Local number, 23S.02E.31.213.....	518

EDDY COUNTY

WELL 325702104352801.	(formerly 325735104360701) Local number, 16S.24E.04.411341.....	518
WELL 325638104274801.	Local number, 16S.25E.11.111131A.....	518
WELL 325450104251101.	(formerly 325445104253501) Local number, 16S.26E.19.21113.....	519
WELL 324838104435301.	(formerly 324831104435701) Local number, 17S.23E.30.12344.....	519
WELL 324620104255001.	(formerly 324624104244501) Local number, 18S.26E.06.442221A.....	519
WELL 324620104255101.	Local number, 18S.26E.06.442212B.....	520
WELL 324325104233001.	Local number, 18S.26E.28.122111.....	520
WELL 323705104225501.	Local number, 19S.26E.33.41224.....	520
WELL 323542104242701.	(formerly 323540104232001) Local number, 20S.26E.08.121111.....	521
WELL 322637104142301.	(formerly 322652104141901) Local number, 21S.26E.36.22110.....	521
WELL 322712104074501.	(formerly 322710104073901) Local number, 21S.28E.30.14123.....	521
WELL 322120104151501.	Local number, 22S.26E.25.333333. (formerly 22S.26E.36.1111A).....	522
WELL 322238104101801.	(formerly 322231104131001) Local number, 22S.27E.22.421333.....	522
WELL 321741104204901.	(formerly 321721104204801) Local number, 23S.25E.24.21433.....	522
WELL 321939104113301.	(formerly 321930104113301) Local number, 23S.27E.09.211124.....	523
WELL 320604104284101.	(formerly 320602104285201) Local number, 25S.24E.27.421121.....	523
WELL 320316104294301.	(formerly 320257104295201) Local number, 26S.24E.09.443111.....	523

GRANT COUNTY

WELL 324245108175603.	Local number, 18S.14W.28.143B.....	523
WELL 324600108222501.	Local number, 18S.15W.11.323.....	524

GUADALUPE COUNTY

WELL 350414104485101.	Local number, 10N.20E.28.2241.....	524
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HARDING COUNTY

WELL 355352104054201.	Local number, 19N.27E.05.334.....	524
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HIDALGO COUNTY

WELL 324051108594101.	(formerly 324053108594101) Local number, 19S.21W.03.414.....	525
WELL 321849108392001.	(formerly 321848108391401) Local number, 23S.18W.12.333.....	525
WELL 321248108331401.	(formerly 321257108331201) Local number, 24S.17W.14.442.....	525
WELL 321624108504001.	(formerly 321540108514101) Local number, 23S.20W.25.422.....	525
WELL 315610108483901.	(formerly 315645108493501) Local number, 27S.19W.20.343.....	526
WELL 315738109004001.	Local number, 27S.21W.17.124.....	526
WELL 315048109010201.	(formerly 315010108570001) Local number, 28S.21W.30.222.....	526
WELL 313502108275001.	Local number, 31S.16W.33.233.....	526
WELL 312938108302301.	Local number, 32S.16W.30.134.....	527

LEA COUNTY

WELL 332115103403301.	Local number, 11S.32E.24.11322.....	527
WELL 331713103283301.	(formerly 331740103285001) Local number, 12S.34E.11.421.....	527

GROUND-WATER LEVELS

LEA COUNTY

WELL 330458103251001.	(formerly 330455103251301)	Local number, 14S.35E.28.111133	528
WELL 330405103194501.	(formerly 330400103193401)	Local number, 14S.36E.32.12121	528
WELL 325730103213901.	(formerly 325703103213201)	Local number, 16S.36E.04.32232	528
WELL 325658103200001.		Local number, 16S.37E.11.11111	528
WELL 325132103112501.		Local number, 17S.38E.07.111311	529
WELL 324745103082001.		Local number, 17S.38E.34.113143	529
WELL 333241105341101.	(formerly 333242105340701)	Local number, 09S.14E.10.13221	529
WELL 332110105092501.	(formerly 332157105094101)	Local number, 11S.18E.15.33313	529

LUNA COUNTY

WELL 322927107220101.	(formerly 322930107221001)	Local number, 21S.05W.08.444	530
WELL 321352107493901.		Local number, 24S.10W.12.431	530
WELL 321328107565301.	(formerly 321415107565501)	Local number, 24S.11W.14.122	530
WELL 321010107260201.	(formerly 321015107260501)	Local number, 25S.06W.02.111	531
WELL 320918107293301.	(formerly 320915104294501)	Local number, 25S.06W.07.211	531
WELL 320647107490701.		Local number, 25S.09W.19.31331	531
WELL 315517107375001.	(formerly 315525107374501)	Local number, 27S.08W.35.122	531
WELL 315903107424501.	(formerly 315905107425001)	Local number, 27S.09W.01.431	532
WELL 314942107361001.	(formerly 314938107371401)	Local number, 28S.08W.36.411	532

MCKINLEY COUNTY

WELL 352023107473201.		Local number, 13N.09W.21.4123	532
WELL 353645108011501.		Local number, 16N.11W.17.4322	532
WELL 353521108284901.		Local number, 16N.16W.25.142	533
WELL 354235108170702.		Local number, 17N.14W.13.1144B	533
WELL 354235108170703.		Local number, 17N.14W.13.1144C	533

OTERO COUNTY

WELL 330321106011101.	(formerly 330324106011201)	Local number, 14S.10E.31.144	533
WELL 320657105061501.		Local number, 25S.18E.21.233	534
WELL 320138105063101.	(formerly 320650105034801)	Local number, 26S.18E.21.331	534
WELL 320008105064501.		Local number, 26S.18E.33.133	534

QUAY COUNTY

WELL 343848103555801.		Local number, 05N.28E.23.222232	534
WELL 343855103482901.	(formerly 343810103463001)	Local number, 05N.30E.18.331311	535
WELL 344406103555501.		Local number, 06N.28E.13.33333	535
WELL 351040103433602.		Local number, 11N.30E.14.144D	535
WELL 353239103111301.		Local number, 15N.35E.11.21222	535
WELL 354238103132301.		Local number, 17N.35E.16.221	536

ROOSEVELT COUNTY

WELL 341014103264401.		Local number, 01S.33E.35.434344	536
WELL 341037103254501.		Local number, 01S.33E.36.23111	536
WELL 340732103145001.		Local number, 02S.35E.23.11113	536
WELL 340753103083101.		Local number, 02S.36E.14.311111	537
WELL 340844103055001.		Local number, 02S.37E.07.432222	537
WELL 334700103030601.	(formerly 335655103032001)	Local number, 06S.38E.21.233131	537

SANDOVAL COUNTY

WELL 352121106285501.	(formerly 352235106282401)	Local number, 13N.04E.12.112	538
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SAN JUAN COUNTY

WELL 364534108292701.		Local number, 29N.15W.02.232	538
WELL 364744108225001.		Local number, 30N.15W.23.4411	538

SANTA FE COUNTY

WELL 350534106024801.	(formerly 350525106025001)	Local number, 10N.08E.13.1332	539
WELL 350344106004601.	(formerly 350340106005001)	Local number, 10N.09E.29.1334	539
WELL 350859106002901.		Local number, 11N.09E.29.143	539
WELL 353636106021001.		Local number, 16N.08E.13.444	539
WELL 353516106035801.		Local number, 16N.08E.26.32112	540
WELL 353735105581201.	(formerly 353753105580501)	Local number, 16N.09E.10.42114	540
WELL 354013105580601.	(formerly 354005105574501)	Local number, 17N.09E.27.441	540

SIERRA COUNTY

WELL 331002107150001.		Local number, 13S.04W.21.213	541
WELL 325921107185101.	(formerly 325550107184001)	Local number, 15S.05W.24.312	541
WELL 325340107183001.	(formerly 325350107175501)	Local number, 16S.05W.25.211	541

TAOS COUNTY

WELL 365035105360501.	(formerly 365036105355301)	Local number, 30N.13E.18.1121	541
WELL 365644105363501.	(formerly 365650105370001)	Local number, 01S.74W.24.244	542
WELL 365410105345601.	(formerly 365410105354501)	Local number, 02S.73W.05.244	542

TORRANCE COUNTY

WELL 343443106024401.		Local number, 04N.09E.07.334	542
WELL 344016106070901.	(formerly 344016106064701)	Local number, 05N.08E.08.424	543
WELL 344234106070601.	(formerly 344234106074901)	Local number, 06N.08E.32.212	543
WELL 344604105574601.	(formerly 344622105575501)	Local number, 06N.09E.11.211	543
WELL 344842106032701.		Local number, 07N.08E.25.121	543

GROUND-WATER LEVELS

UNION COUNTY

WELL 355144103041201. (formerly 360940103083501) Local number, 19N.36E.23.244.....	544
WELL 361847103064701. (formerly 361910103170501) Local number, 24N.36E.17.244.....	544
WELL 362540103095001. Local number, 25N.35E.02.441.....	544
WELL 363410103064801. Local number, 27N.36E.17.434.....	544
WELL 364444104000201. (formerly 364430103595501) Local number, 29N.28E.18.341.....	545

WATER RESOURCES DATA - NEW MEXICO, 1997

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

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

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

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi ²)	Period of record
ARKANSAS RIVER BASIN -- Continued			
Vigil Canyon near Holman, NM	07214600	2.8	1956-63
Agua Fria Creek near Holman, NM	07214700	9.2	1956-63
Rio la Casa near Cleveland, NM	07214800	23	1956-70
La Cueva Canal at La Cueva, NM	07215000	--	1906-11
Cebolla River near Golondrinas, NM	07215600	64	956-63
Mora River at Weber, NM	07216000	--	1903-04
Coyote Creek below Black Lake, NM	07217000	48	1952-63
Coyote Creek at Guadalupita, NM	07217500	90	1920-23
Mora River near Watrous, NM	07218100	521	1956-63,
Sapello River at Sapello, NM	07218500	--	1903-04
Sapello canal at Sapello, NM	07218600	--	1956-70
Manuelitas Creek near Rociada, NM	07218700	52	1956-63
Sapello River at Sapello, NM	07220000	132	1915-21
Lake Isabel feeder canal near Sapello, NM	07220100	--	1956-75
Sapello River at Los Alamos, NM	07220500	144	1905-11
Sapello River near Watrous, NM	07220600	213	1956-63
Mora River near Shoemaker, NM	07221000	6,015	1912-14 1935-96
Canadian River near Bell Ranch, NM	07222000	6,200	1915-17, 1927-39
Bell Ranch Canal near Conchas Dam, NM	07223000	--	1942-84
Canchos Canal below Conchas Dam, NM	07223300	--	1961-82, 1984-92
Canadian River below Conchas Dam, NM	07224500	7,417	1936-38, 1942-72
Conchas River at Verjadero, NM	07225000	523	1936-96
Pajarito Creek near Hanley, NM	07225100	310	1911-12
Pajarito Creek near Vigil Creek, near Hanley, NM	07225200	350	1912-13
Ute Creek near Bueyeros, NM	07226000	620	1949-54
Canadian River above New Mexico-Texas State line	072271401	2,616	1969-73
Tramperos Creek near Stead, NM	07227200*	556	1966-73
BRAZOS RIVER BASIN			
Running Water Draw near Clovis, NM	08080600*	109	1956-64
RIO GRANDE BASIN			
Latir Creek Outflow Lake #9 near Amalia, NM	08254400	--	1987-88
Latir Creek Outflow Lake #2 near Amalia, NM	08254425	--	1986-88
Costilla Creek near Amalia, NM	08254500	152	1949-59, 1961-81
Ute Creek near Amalia, NM	08255000	12	1949-59
Acequia Madre at Costilla, NM	08256000	--	1944-92

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

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Station name	Station number	Drainage area (mi ²)	Period of record
RIO GRANDE BASIN -- Continued			
Mesa ditch near Garcia, CO	08256500	--	1944-65, 1969-83
Middle ditch at Garcia, CO	08257000	--	1944-56
Cerro Canal at Costilla, NM	08258000	--	1944-92
Association ditch at Costilla, NM	08258500	--	1955-71
Cerro Canal below Association Ditch at Costilla, NM	08258600	--	1972-92
Cerro Canal near Jaroso, CO	08259000	--	1944-72
Cerro Canal at State line near Jaroso, CO	08259600	--	1973-92
Penasquito ditch at Costilla, NM	08260000	--	1955-61
Costilla Creek below diversion dam, at Costilla, NM	08260500	197	1952-86
Alire ditch at Garcia, CO	08261500	--	1944-59
Costilla Creek near Jaroso, CO (near Mouth, NM	08262500	290	1912-13, 1948-61
Latir Creek near Cerro, NM	08263000	10	1937-70
Red River near Red River, NM	08264000	19.1	1940-64
Red River below Zwergle Damsite, near Red River, NM	08264500	25.7	1963-73
Cabresto Creek near Questa, NM	08266000	36.7	1943-96
Red River below Questa, NM	08266500	180	1910-22
Red River at mouth, near Questa, NM	08267000	190	1950-78
Rio Hondo at Valdez, NM	08268000	38	1916-34
Rio Hondo at Damsite at Valdez, NM	08268200	40.3	1963-66
Arroyo Hondo at Arroyo Hondo, NM	08268500	65.6	1912-28, 1932-85
Rio Grande near Arroyo Hondo, NM	08268700	8,760	1963-96
Acequia Madre at Taos, NM	08269500	--	1940-41
North channel of Rio Pueblo de Taos at Taos, NM	08270000	80	1936-41
Rio Pueblo de Taos at Taos, NM	08270500	80	1936-41
Tenorio ditch near Arroyo Seco, NM	08271500	--	1935-50
Rio Lucero diversions near Arroyo Seco, NM	08272000	--	1932-33
Indian ditch near Arroyo Seco, NM	08272500	--	1934-50
Seco ditch near Arroyo Seco, NM	08273000	--	1934-50
Juan Manuel ditch near Arroyo Seco, NM	08273500	--	1935-50
Prado ditch near Arroyo Seco, NM	08274000	--	1934-50
Rio Lucero below diversions, near Arroyo Seco, NM	08274500	25	1934-41
Rio Fernando de Taos near Taos, NM	08275000	71.7	1912-17, 1927-28, 1962-80
Rio Pueblo de Taos near Ranchito, NM	08275300	199	1957-80

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi ²)	Period of record
RIO GRANDE BASIN -- Continued			
Rio Chiquito near Talpa, NM	08275600	37.0	1957-80
Rio Pueblo de Taos at Los Cordovas, NM	08276000	359	1910-65
Carson Reservoir near Carson, NM	08277000	190	1940-60
Picuris ditch near Penasco, NM	08277500	--	1936-41
Pueblo Creek near Penasco, NM	08278000	--	1936-41
Alcalde ditch at Chamita, NM	08280000	--	1936-41
San Rafael ditch at Alcalde, NM	08280500	--	1936-41
Acequia Madre at Alcalde, NM	08281000	--	1936-41
Rio Grande above San Juan Pueblo, NM	08281100	10,530	1963-87
Rio Chama near Chama, NM	08281500	--	1912-16
Rio Brazos near Brazos, NM	08282000	--	1913-17
Chavez Creek near Brazos, NM	08282500	--	1914-15
Rio Brazos at Brazos, NM	08283000	--	1912-13
Rio Chama at Park View, NM	08283500	405	1912-15, 1916, 1924-55
Rito de Tierra Amarilla at Tierra Amarilla, NM	08284000	49.7	1914-15
Willow Creek near Park View, NM	08284500	193	1936-71
Rio Nutrias near Cebolla, NM	08286000	--	1914-15
Canjilon Creek near Canjilon, NM	08286600	--	1911-12, 1913
Rio Chama at Abiquiu, NM	08287100	--	1895-97
Rio Chama near Abiquiu, NM	08287500	2,284	1941-67
El Rito Creek near El Rito, NM	08288000	50.5	1931-51
Rio Vallecitos at Vallecitos, NM	08288500	--	1911-14
Santa Clara ditch near Espanola, NM	08290500	--	1936-41
Santa Cruz River at Riverside, NM	08291500	188	1942-51
Santa Clara Creek near Espanola, NM	08292000	34.5	1936-41, 1949-50, 1984-94
Hill Acequia at head, near Espanola, NM	08292500	--	1940-41
Hill Acequia near Espanola, NM	08293000	--	1940
Guachupangue ditch near Espanola, NM	08293500	--	1936-41
San Ildefonso ditch near Espanola, NM	08294000	--	1940-41
Rio Nambe at Nambe Falls, NM	08294300	25.1	1963-78
Nambe Canal near Nambe, NM	08294500	--	1932-51
Rio Nambe near Nambe, NM	08295000*	38.2	1932-51
Rio En Medio near Santa Fe, NM	08295200	.63	1963-73
Llano Frio ditch near Nambe, NM	08295500	--	1936-50

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi ²)	Period of record
RIO GRANDE BASIN -- Continued			
Llano ditch near Nambe, NM	08296000	--	1936-50
Mioses Pena ditch near Nambe, NM	08296500	--	1936-38
Mocha ditch at Nambe, NM	08297000	--	1936-50
Comunidad ditch at Nambe, NM	08297500	--	1936-50
Ortiz ditch at Nambe, NM	08298000	--	1936-50
Canyon ditch near Nambe, NM	08298500	--	1936-50
Acequia Rincon near Nambe, NM	08299000	--	1936-50
Las Joyas ditch near Nambe, NM	08299500	--	1936-50
Trujillo ditch near Nambe, NM	08300000	--	1936-45
Barranco Alto ditch near Nambe, NM	08300500	--	1936-50
Pojoaque River at Pojoaque Bridge, near Nambe, NM	08301000	--	1936-41
Jacona ditch near Nambe, NM	08301500	--	1936-39
Jacona ditch near San Ildefonso, NM	08302000	--	1940-48
North Fork Tesuque Creek near Santa Fe, NM	08302200	1.60	1962-73
Middle Fork Tesuque Creek near Santa Fe, NM	08302300	.43	1961-73
South Fork Tesuque Creek near Santa Fe, NM	08302400	.47	1962-73
Tesuque Creek above diversions near Santa Fe, NM	08302500	11.7	1936-52
Cajon Grande ditch near Santa Fe, NM	08303000	--	1936-41
De La Cruz ditch near Santa Fe, NM	08303500	--	1936-41
Acequia Madre near Santa Fe, NM	08304000	--	1936-41
Acequia Madre at head, near Santa Fe, NM	08304050	--	1936-41
Little Tesuque Creek near Santa Fe, NM	08304100	.64	1962-73
Little Tesuque Creek tributary No. 4 near Santa Fe, NM	08304200	.69	1964-73
Little Tesuque Creek tributary No. 3 near Santa Fe, NM	08304300	.65	1963-73
Little Tesuque Creek tributary No. 2 near Santa Fe, NM	08304400	.45	1962-73
Little Tesuque Creek near Santa Fe, NM	08305000	7.06	1936-41
Rio Tesuque at Tesuque, near Santa Fe, NM	08305500	--	1938-41
Acequia Medio near Santa Fe, NM	08306000	--	1936-46
Acequia Medio at waste, near Santa Fe, NM	08306500	--	1936-38
Hubbard ditch near Santa Fe, NM	08307500	--	1938-41
Mitchell ditch near Santa Fe, NM	08308000	--	1936-51
Post ditch near Tesuque Pueblo, NM	08308500	--	1936-41
Qwiyo ditch near Tesuque Pueblo, NM	08309000	--	1936-41
Corral ditch near Tesuque Pueblo, NM	08309500	--	1936-41
Acequia Indios near San Ildefonso, NM	08310000	--	1936-41
Acequia de la Otra Banda near San Ildefonso, NM	08310500	--	1936-41

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi ²)	Period of record
RIO GRANDE BASIN -- Continued			
El Rancho ditch near San Ildefonso, NM	08311000	--	1936-41
San Antonio ditch near San Ildefonso, NM	08311500	--	1936-41
Well ditch at San Ildefonso, NM	08312000	--	1937, 1938-51
Ortiz ditch at San Ildefonso, NM	08312500	--	1936-41
Pojoaque River near San Ildefonso Pueblo, NM	08312600	184	1972-79
Los Alamos Canyon near Los Alamos, NM	08313042	9.1	1970-71 1991-95
Rito de los Frijoles near Los Alamos, NM	08313300	8.9	1959-63
Rito de los Frijoles in Bandelier National Monument, NM	08313350	18.1	1963-69 1977-82 1983-96
Rio Grande at Cochiti, NM	08314500	14,600	1924-70
Santa Fe River at Monument Rock, near Santa Fe, NM	08315000	14	1910
Galisteo Creek above Galisteo Reservoir, NM	08317850	567	1970-76
Galisteo Creek at Domingo, NM	08318000	640	1941-71
San Felipe east side acequia near Domingo, NM	08318500	--	1936-41
Rito San Antonio near Los Alamos, NM	08319500	--	1949-50
Redondo Creek near Jemez Springs, NM	08319945	12.1	1982-85
Sulfur Creek near Jemez Springs, NM	08319950	38.0	1982-85
Jemez River near Jemez Springs, NM	08320000	--	1949-50
East Fork Jemez River near Los Alamos, NM	08320500	--	1949-50
East Fork Jemez River near Jemez Springs, NM	08321000	--	1949-50
Jemez River below East Fork, near Jemez Springs, NM	08321500	173	1951-90
Rio Las Vacas near Cuba, NM	08322000	--	1939-41
Rio Cebolla near Jemez Springs, NM	08322500	--	1939
Rio Guadalupe at Box Canyon near Jemez, NM	08323000	235	1938-42
Rio Guadalupe near Jemez Springs, NM	08323500	230	1938-42, 1949-50
Jemez east side ditch near Jemez, NM	08324500	-	1936-41
Jemez west side ditch near Jemez, NM	08325000	--	1936-41
Antonio Pecos ditch near Jemez, NM	08325500	--	1936-41
San Ysidro ditch near San Ysidro, NM	08326000	--	1936-41
Jemez River at San Ysidro, NM	08326500	854	1937-41
Zia ditch near San Ysidro, NM	08327000	--	1936-41
Zia Reservoir near San Ysidro, NM	08327500	2.4	1954-60
Jemez River above Jemez Canyon Dam, NM	08328000	961	1953-58
Piedra Lisa Arroyo near Bernalillo, NM	08329100	4.1	1955-74

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

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Station name	Station number	Drainage area (mi ²)	Period of record
RIO GRANDE BASIN -- Continued			
Rio Grande near Bernalillo, NM	08329500	17,300	1941-69
Grant Line Arroyo at Albuquerque, NM	08329865	0.052	1987-91
Rio Grande near Alameda, NM	08329928	17,263	1989-95
Rio Grande at Rio Bravo Bridge near Albuquerque, NM	08330150	17,500	1991-95
Tijeras Arroyo at Albuquerque, NM	08330500*	75.3	1921-22, 1943-49
Tijeras Arroyo above Four Hills Bridge at Albuquerque, NM	08330505	77.0	1989-91
Tijeras Arroyo at Kirtland Air Force Base, NM	08330560	80.6	1987-88
Arroyo Del Coyote near Albuquerque, NM	08330565	35	1989-95
Arroyo Del Coyote at Mouth near Albuquerque, NM	08330567	39	1989-95
Tijeras Arroyo below Arroyo Del Coyote near Albuquerque, NM	08330569	121	1989-95
Tijeras Arroyo at Montessa Park near Albuquerque, NM	08330580	122	1987-95
Tijeras Arroyo below South Diversion Channel Inlet near Albuquerque, NM	08330800	--	1974-88
Rio Grande near Isleta, NM	08331000	17,900	1925-29, 1936-38
North Pajarito Arroyo at Albuquerque, NM	08331130	.58	1979-87
North Pajarito Arroyo at Albuquerque, NM	08331140	.81	1979-83
Rio Grande near Belen, NM	08331500	18,230	1941-57
Rio Grande near Bernardo, NM	08332000	19,230	1936-39, 1941-64
Lower San Juan Riverside drain near Bernardo, NM	08332030	--	1954-75
La Jara Creek near La Jara, NM	08332500	--	1932-33
Rio Puerco near Cabezón, NM	08333000	360	1943-51
Rio Puerco at Cabezón, NM	08333500	397	1944-51
Papers Wash near Star Lake Trading Post, NM	08334300	20.3	1978-82
Arroyo Chico near Guadalupe, NM	08340500	1,390	1943-86
Rio Puerco near Guadalupe, NM	08341000	1,860	1943
Bluewater Creek near Bluewater, NM	08342000	209	1912-19, 1927-72
San Mateo Creek near San Mateo, NM	08342600	75.6	1977-82
Arroyo del Puerto near San Mateo, NM	08342700	96.8	1980-82
Rio San Jose at Grants	08343000	1,020	1949-66, 1968-94
Grants Canyon at Grants	08343100	13	1961-95
McCartys south side ditch near San Fidel, NM	08344000	--	1940-42, 1950-51
McCartys north side ditch near San Fidel, NM	08344500	--	1940-42, 1950-51
Acomita Reservoir outlet near San Fidel, NM	08345000	--	1938-41

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi ²)	Period of record
RIO GRANDE BASIN -- Continued			
Rio San Jose near San Fidel, NM	08345500	2,310	1936-42, 1950-51
Seama-Paraje ditch near Casa Blanca, NM	08346000	--	1937-41
Casa Blanca ditch at Casa Blanca, NM	08346500	--	1937-41
New Laguna ditch wasteway near Casa Blanca, NM	08347000	--	1937-41
New Laguna ditch near New Laguna, NM	08347500	--	1937-41
Rio San Jose near Casa Blanca, NM	08348000	--	1936-41
Encinal Creek near Casa Blanca, NM	08348500*	6.19	1937-39
Laguna ditch at New Laguna, NM	08349000	--	1936-41
Paguete Creek near Laguna, NM	08349500	--	1937-41
Rio Paguate below Jackpile Mine near Laguna, NM	08349800	107	1976-93
Paguete Reservoir outlet near Laguna, NM	08350000	--	1940-41
Rio San Jose near Laguna, NM	08350500	3,040	1937-41, 1973-76
Mesita ditch near Laguna, NM	08351000	--	1936-41
Rio San Jose at Correo, NM	08351500	3,660	1943-94
Rio Puerco at Rio Puerco, NM	08352500	6,590	1909-12, 1934-76
Alamo Creek near Alamo, NM	08353130	22.4	1983-85
Rio Salado near Alamo, NM	08353150	540	1983-85
Rio Salado near San Acacia, NM	08354000	1,380	1947-84
Rio Grande at San Acacia, NM	08355000	26,770	1936-64
Nogal Arroyo Floodway near Socorro, NM	08355200	--	1969-77
Arroyo de la Matanza near Socorro, NM	08355300	46.0	1969-77
Rio Grande at San Antonio, NM	08355500	27,400	1951-57
Socorro Main Canal South near San Antonio, NM	08356000	--	1937-38, 1948-71
San Antonio Riverside Drain near San Antonio, NM	08356500	--	1948-71
Elmendorf Interior Drain near San Antonio, NM	08357000	--	1936-38, 1948-71
San Antonio Riverside Drain near San Marcial, NM	08357500	--	1948-71
Rio Grande Conveyance Channel below heading, near San Marcial, NM	08358000	--	1953-57
Rio Grande at San Marcial, NM	08358500	27,700	1895-1964
Milligan Gulch near San Marcial, NM	08358550	413	1968-78
Rio Grande Conveyance Channel at mouth of Nogal Canyon, near Truth or Consequences, NM	08359000	--	1953-57
Rio Grande at the narrows, in Elephant Butte Reservoir, NM	08359500	28,500	1951-57
Alamosa Creek near Monticello, NM	08360000*	403	1931-42

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

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Station name	Station number	Drainage area (mi ²)	Period of record
RIO GRANDE BASIN -- Continued			
Las Cruces Arroyo near Las Cruces, NM	08363600	13.5	1958-66
Tortugas Arroyo near Las Cruces, NM	08363700	20.7	1962-74
Rio Grande at Vinton Bridge near Anthony, TX	08363840	28,680	1970-74
Pecos River near Cowles, NM	08378000	189	1910-19
Pecos River near San Jose, NM	08379000	539	1939-40
Tecolote Creek below Wright Canyon near El Porvenir, NM	08379187	5.42	1987-92
Tecolote Creek near San Pablo, NM	08379200	83	1960-65
South Fork Gallinas Creek near El Porvenir, NM	08380000	25	1911-20
Gallinas Creek at Montezuma, NM	08381000	87	1903, 1904-66
Storrie feeder canal near Las Vegas, NM	08381500	--	1949-52
Gallinas River near Lourdes, NM	08382000	313	1951-63
Pecos River near Colonias, NM	08382700	2,340	1970-74
Los Esteros Creek Tributary above Santa Rosa Lake, NM	08382760	13.7	1973-90
Pecos River above Los Esteros Dam Site, near Santa Rosa, NM	08382800	2,430	1965-77
Pecos River at Santa Rosa, NM	08383000	2,650	1928-92
Pecos River near Fort Sumner, NM	08385500	5,300	1904-10, 1912-13, 1921-23
Pecos River below Fort Sumner, NM	08385520	5,600	1957-58, 1962-70
Pecos River below Yeso Arroyo, near Fort Sumner, NM	08385620	7,000	1965-68
Pecos River above Huggins Creek, near Roswell, NM	08385640	7,800	1965-68
F. Herrera ditch S. at Hollywood, NM	08386900	--	1973-84
Rio Ruidoso near Glencoe, NM	08387500	--	1910-11
Eagle Creek near Alto, NM	08387800	15.7	1969-80
Rio Ruidoso at Hondo, NM	08388000	290	1930-55
Rio Bonito at Angus, NM	08388500	45.5	1930-31
Rio Bonito at Hondo, NM	08389500	295	1930-55
Rio Hondo at Hondo, NM	08390000	1,000	1930-31 1981-97
Rio Hondo at Picacho, NM	08390100	715	1908-9, 1956-62
Rio Hondo at Hondo Reservoir site, near Roswell, NM	08392500	970	1903-5
Rio Hondo below reservoir outlet, near Roswell, NM	08393000	--	1908
Taylor-Moore ditch near Roswell, NM	08393100	--	1905
Rocky Arroyo above Two Rivers Reservoir near Roswell, NM	08393200	31	1963-80
Rocky Arroyo below Rocky Dam, near Roswell, NM	08393300	65	1963-80

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi ²)	Period of record
RIO GRANDE BASIN -- Continued			
Rio Hondo at Roswell, NM	08393500	--	1903-6
North Spring River at Roswell, NM	08393600	19.5	1958-77
Pecos River near Roswell, NM	08394000	--	1903-6
Pecos River near Hagerman, NM	08394100	13,360	1968-90
Rio Felix at old highway bridge near Hagerman, NM	08394500	932	1939-87
Rio Felix near Hagerman, NM	08395000	934	1932-39
Cottonwood Creek near Lake Arthur, NM	08396000	199	1932-65
Rio Penasco at Elk, NM	08397450	--	1910-11
Rio Penasco near Elk, NM	08397500	--	1911
Rio Penasco near Dunken, NM	08397600*	583	1956-62
Pecos River below McMillan Dam, NM	08401000	16,990	1906-09, 1910-11, 1939-40, 1946-88
Pecos River above Seven Rivers near Lakewood, NM	08401100	17,000	1974-87
Pecos River below Avalon Dam, NM	08404500	--	1940
Pecos River at Carlsbad, NM	08405000	8,100	1903-09, 1907-08, 1914-15, 1920-69
Rattlesnake Springs near White City, NM	08405300	--	1961-62
Black River at Malaga, NM	08406000	360	1939-40
MIMBRES RIVER BASIN			
Mimbres River at McKnight Dam Site, near Mimbres, NM	08476300	97.3	1963-72
Bear Canyon near Mimbres, NM	08476500	14.5	1937-55
Mimbres River near Mimbres, NM	08477000	152	1921-76
Mimbres River near Paywood, NM	08477500	440	1909-11, 1912-14, 1916-17, 1920-21, 1927-55, 1963-68
Mimbres River near Spalding, NM	08477530	472	1963-68
San Vicente Arroyo at Silver City, NM	08477600	26.5	1953-65
Rio de Arena near Hurley, NM	08477700	16	1913-14
Stevens Creek near Fort Bayard, NM	08478004	--	1907-12, 1912-14
Cameron Creek at Fort Bayard, NM	08478008	--	1911-13
Cameron Creek near Hurley, NM	08478012	46	1913-14
Whitewater Creek at Hurley, NM	08478016	35	1913-14
Wamel Canal at head, near Deming, NM	08478300	--	1963-68
Mimbres River below Wamel heading near Deming, NM	08478400	1,101	1963-68

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

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Station name	Station number	Drainage area (mi ²)	Period of record
TULAROSA VALLEY			
Three Rivers near Three Rivers, NM	08480600	6.9	1956-58
Indian Creek near Three Rivers, NM	08480700*	6.8	1956-58
Indian Creek flume near Three Rivers, NM	08480800	--	1956-58
Indian Creek at Mouth, near Three Rivers, NM	08480900	10.9	1956-58
Rio Tularosa at Mescalero, NM	08481300	--	1910-11
Tularosa Creek near Bent, NM	08481500	120	1947-96
Rio Tularosa near Tularosa, NM	08482000	--	1938-47
Rio La Luz near La Luz, NM	08483000	30	1911-12
Rio Fresnal near Mountain Park, NM	08484000	44	1911-12
Rio La Luz at La Luz, NM	08484500	74	1910-13
Alamogordo-La Luz ditch at La Luz, NM	08485000	--	1934-49
Alamo Creek at Woods Ranch, near Alamogordo, NM	08485500	--	1931-37
Alamogordo water supply near Alamogordo, NM	08486000	--	1932-51
Tularosa Valley tributary near White Sands, NM	08486250	17.2	1965-74
Tularosa Valley tributary at White Sands, NM	08486260	21.0	1965-74
SALT BASIN			
Sacramento River near Sunspot, NM	08492900	12.8	1984-89
SAN JUAN BASIN			
San Juan River at Rosa, NM	09350500	1,990	1895-99, 1910-65
Los Pinos River at Ignacio, CO	09354000	--	1910-61
Martinez ditch near Archuleta, NM	09355200	--	1955-57
Citizens ditch near Turley, NM	09356000	--	1938, 1951-58
San Juan River near Blanco, NM	09356500	3,560	1907-09, 1910, 1927-55
Canon Largo near Blanco, NM	09356565	1,700	1977-81
San Juan River at Bloomfield, NM	09357000	5,410	1909, 1910-11, 1927-31, 1955-63
San Juan River at Hammond Bridge near Bloomfield, NM	09357100	5,540	1978-81
Gallegos Canyon near Farmington, NM	09357250	290	1978-81
Animas River at Aztec, NM	09364000	1,270	1904, 1907-15
Shumway Arroyo near Fruitland, NM	09367555	62.8	1975-82
Chaco Wash near Star Lake Trading Post, NM	09367660	59.0	1978-82
Chaco Wash at East Boundary at Chaco Canyon National Monument, NM	09367676	364	1980-82

DISCONTINUED SURFACE-WATER DISCHARGE STATIONS -- Continued

Station name	Station number	Drainage area (mi ²)	Period of record
SAN JUAN BASIN -- Continued			
Fajada Wash at Chaco Canyon National Monument, NM	09367678	199	1980-83
Chaco Wash at Chaco Culture National Monument, NM	09367800*	578	1976-90
Gallo Wash at Chaco National Monument, NM	09367682	36.2	1978-81
Chaco Wash near Pueblo Bonito at bridge at Chaco Canyon National Monument, NM	09367683	619	1980-83
Ah-shi-sle-pah Wash near Kimbeto, NM	09367685	8.2	1977-84
Kim-me-ni-oli Wash near Crownpoint, NM	09367687	228	1982-83
Kim-me-ni-oli Wash near Lake Valley, NM	09367689	400	1982-83
De-na-zin Wash near Bisti Trading Post, NM	09367710	184	1975-82
Black Springs Wash near Mexican Springs, NM	09367900*	7.55	1979-82
Hunter Wash at Bisti Trading Post, NM	09367930*	45.6	1975-82
Teec-ni-di-tso Wash near Burnham Trading Post, NM	09367934	7.2	1978-82
Burnham Wash near Burnham, NM	09367936	8.6	1978-82
Chaco River near Burnham, NM	09367938	3,640	1978-82
Chaco River near Waterflow, NM	09367950	4,350	1975-94
LITTLE COLORADO RIVER BASIN			
Largo Creek near Mangas, NM	09386050	63	1959-66
Zuni River at Black Rock, NM	09387000	828	1910-30
Zuni River at New Mexico-Arizona State line	09387300	1,314	1985-87, 1987-89, 1990-94
Puerco River near Church Rock, NM	09395350	193	1978-82, 1989-91
Puerco River at Gallup, NM	09395500*	558	1940-46, 1977-82
Puerco River near Manuelito, NM	09395630	990	1989-93
Whitewater Arroyo near Cheechilgeetho, NM	09395700	78.5	1964-67
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, (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
Revelto Creek below Plaza Largo Creek near Tucumcari, NM	07227080	672	c	1965-66
Canadian River near Glenrio, NM	07227125	--	c,s,t	1965-66
Rio Grande above Culebra Creek near Lobatos, CO	08249200	--	b,c,t	1962-69
Costilla Creek near Costilla, NM	08255500	195	c,s	1966-76
Rio Grande near Cerro, NM	08263500	8,440	c,m,s	1977; 1979-87
Rio Grande above Red River near Cerro, NM	08263510	--	c,m,s	1979-81
Red River near Red River, NM	08264000	19.1	s	1963
Red River below Zwergle Damsite near Red River, NM	08264500	28.9	c,m,s	1962-65 1979-82
Red River at MolyCorp Mine near Red River, NM	08264970	78.3	c,m,s	1979-82
Red River near Questa, NM	08265000	113	c,m,s	1979-87
Cabresto Creek near Questa, NM	08266000	36.7	c,m,s	1979-82
Red River below Questa, NM	08266500	160	c,m,s	1979-87
Red River above State Fish Hatchery near Questa, NM	08266790	175	c,m,s	1979-87 1994
Red River at Fish Hatchery near Questa, NM	08266800	185	c,k,s,t	1966-77
Red River below Fish Hatchery, near Questa, NM	08266820	185	c,m,s	1978-87
Red River at mouth, near Questa, NM	08267000	190	c,m,s	1966-68; 1979-85

DISCONTINUED SURFACE-WATER-QUALITY STATIONS -- Continued

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record
Rio Grande above Rio Hondo at Dunn Bridge, NM	08267400	8,690	c,m,s	1979-87
Rio Hondo at Damsite at Valdez, NM	08268200	40.3	s	1962-65
Arroyo Hondo at Arroyo Hondo, NM	08268500	65.6	c,m,s	1979-82
Rio Grande del Rancho near Talpa, NM	08275500	83	s	1962-65
Rio Grande above San Juan Pueblo, NM	08281100	10,550	c,m,s	1987-88
Willow Creek above Azotea Creek near Park View, NM	08284150	42	c,s	1973
Azotea Tunnel at Outlet near Chama, NM	08284160	--	c,s	1974-75
Willow Creek above Heron Reservoir near Park View, NM	08284200	112	c,s	1973-74
Horse Lake Creek above Heron Reservoir near Los Ojos, NM	0828430	0.45	c,s	1973
Willow Creek near Park View, NM	08284500	193	c,s	1962-65
Rio Chama below Heron Dam, NM	08284540	--	c,s	1973-74
El Vado Reservoir near Tierra Amarilla, NM	08285000	873	c	1973
Rio Chama Seep below El Vado Dam, NM	08285100	873	c	1973-74
Rio Chama below El Vado Dam, NM	08285500	877	c,s	1974
Rio Chama above Abiquiu Reservoir, NM	08286500	1,600	c,k,s,t	1963-85
Rio Chama below Abiquiu Dam, NM	08287000	2,147	c,k,s,t	1963-85
Rio Ojo Caliente at La Madera, NM	08289000	419	c	1976-77
Rio Grande at Santa Clara, NM	08291600		c,m,s	1987-94
Rio Nambe at Nambe Falls, near Nambe, NM	08294300	25.1	s	1962-65
Rito de los Frijoles in Bandelier National Monument, NM	08313350	18.1	b,c,m,s,t	1977-82
Rio Grande below Cochiti Dam, NM	08317400	14,900	c,s,t	1974-84; 1985-88
Galisteo Creek below Galisteo Dam, NM	08317950	597	c,k,s,t	1971-78
Galisteo Creek at Domingo, NM	08318000	640	c,s,t	1962-71
Jemez River below East Fork near Jemez Springs, NM	08321500	173	c,s	1963-67
Jemez River below Jemez Canyon Dam, NM	08329000	1,038	c,s	1966-88
Piedra Lisa Arroyo near Bernalillo, NM	08329100	4.1	c,s	1962-74
Rio Grande near Bernalillo, NM	08329500	17,300	c,s,t	1962-69
Campus Wash at Albuquerque, NM	08329700	3.80	c,m,s	1991-94
Tijeras Arroyo near Albuquerque, NM	08330600	133	c	1979
Rio Grande Conveyance Channel near Bernardo, NM	08331990	--	c,k,s,t	1962-75
Rio Grande near Bernardo, NM	08332000	19,230	c,s,t	1962-64
Bernardo Interior Drain near Bernardo, NM	08332050	--	c,s,t	1965-68
San Pablo Creek near Cuba, NM	08332700	12.8	c,s	1982

DISCONTINUED SURFACE-WATER-QUALITY STATIONS -- Continued

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record
Papers Wash near Star Lake Trading Post, NM	08334300	c,m,s,		1978-82
Arroyo Chico near Guadalupe, NM	08340500	1,390	c,s	1978-86
Bluewater Lake near Bluewater, NM	08341400	201	c	1966-69
Rio San Jose at Grants, NM	08343000	1,020	c,s	1980
Rio Paguete below Jackpile Mine near Luguna, NM	08349800	107	c	1977-93
Rio Salado near San Acacia, NM	08354000	1,380	c,s	1962-84
Socorro Main Canal North at San Acacia, NM	08354500	--	s	1985
Rio Grande Conveyance Channel at San Marcial, NM	08358300	--	c,m,s,t	1954-94
Rio Grande below Elephant Butte Dam, NM	08361000	29,450		1975-82
Rio Grande below Caballo Dam, NM	08362500	30,700	c	1966-68
Rio Grande at Leasburg Dam, NM	08363500		b,c,m	1975-79
Tortugas Arroyo at Las Cruces, NM	08363700	20.7	c,s	1963-74
Rio Grande at Vinton Bridge near Anthony, TX	08363840	28,680	b,c,m,s	1975-78
Rio Grande below Old Fort Quintman, TX	08370500	31,990	c,m,s	1930-93
Pecos River near Pecos, NM	08378500	189	c	1970-73
Pecos River near Anton Chico, NM	08379500	1,050	b,c,m,s	1967-77
Gallinas Creek near Montezuma, NM	08380500	84	c	1964-67
Pecos River below Sumner Dam, NM	08384500	4,390	b,c,m,s,t	1962-66; 1972-87
Rio Hondo at Diamond A Ranch near Roswell, NM	08390500	947	c,s	1962
Hagerman Canal at Dexter, NM	08393800	--	c	1964-67
Rio Penasco at Dayton, NM	08398500	1,060	s	1962-72
Pecos River (Kaiser Channel) near Lakewood, NM	08399500		c	1968-70; 1978-79
Lake McMillan near Lakewood, NM	08400500	16,990	c	1962-67; 1978-79
Pecos River below McMillan Dam, NM	08401000	16,990	c	1962-66; 1978-79
Pecos River at Ford Crossing above Major Johnson Springs, NM	08401300	16,990	c	1962-67
Pecos River at Damsite 3 near Carlsbad, NM	08402000	17,980	c,t	1962-67
Pecos River at Carlsbad, NM	08405000	18,100	c,k,t	1962-87
Pecos River below Sixmile Dam near Carlsbad, NM	08405260	18,650	b,c,m,s	1975-77
Black River at Harkey Crossing near Malaga, NM	08405400	343	c	1947-66
Pecos River below Red Bluff Dam, near Orla, TX	08410100		c,t	1962-63
Mimbres River at McKnight Damsite near Mimbres, NM	08476300	97.3	c,s	1967-72

DISCONTINUED SURFACE-WATER-QUALITY STATIONS -- Continued

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record
Mimbres River at Mimbres, NM	08477110	184	b,c,m,s	1978-86
Tularosa Creek near Bent, NM	08481500	120	c	1963-95
Rio Blanco near Pagosa Springs, CO	09343000	58		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 Diversion Dam near Chromo, CO	09344450	--	c,s	1972-75
Navajo River at Edith, CO 09346000 172 b,c,s 1969-74				
San Juan River near Carracas, CO	09346400	1,230	b,c,s	1969-73
Piedra River near Arboles, CO	09349800	629	b,c,s	1969-73
Los Pinos River at La Boca, CO	09354500	510	b,c,s	1969-73
Canon Largo near Blanco, NM	09356565	1,700	c,m,s	1978-81
San Juan River at Bloomfield, NM	09357000	5,410	s,t	1962-64
San Juan River at Hammond Bridge near Bloomfield, NM	09357100	5,540	b,c,m,s	1978-81
Gallegos Canyon near Farmington, NM	09357250	290	c,m,s	1978-81
San Juan River above Animas River at Farmington, NM	09357300	5,800	c	1966-79
San Juan River at Farmington, NM	09365000	7,240	c,s,t	1962-82
La Plata River at Colorado-New Mexico State line	09366500	331	b,c,m,s	1970-73
La Plata River near Farmington, NM	09367500	583	c,s	1970-73, 1978-81
Shumway Arroyo near Fruitland, NM	09367555	62.8	b,c,m,s	1976; 1978-82
Shumway Arroyo near Waterflow, NM	09367561	73.8	b,c,m,s	1974-84; 1986
Chaco Wash near Star Lake Trading Post, NM	09367660	59	c,s	1978-82
Chaco Wash at East Boundary at Chaco Canyon National Monument, NM	09367676	364	c,s	1981-82
Fajada Wash at Chaco Canyon National Monument, NM	09367678	199	c,s	1981-84
Chaco Wash at Chaco Canyon National Monument, NM	09367680	578	c,s	1976-84
Gallo Wash at Chaco Canyon National Monument, NM	09367682	36.2	c,s	1979
Chaco Wash near PB at bridge at Chaco Canyon National Monument, NM	09367683	619	c,s	1981-84
Ah-shi-sle-pah Wash near Kimbeto, NM	09367685	8.21	c,s	1977-83
Kim-me-ni-oli Wash near Crownpoint, NM	09367687	228	b,c,s	1981-83
Kim-me-ni-oli Wash near Lake Valley, NM	09367689	400	b,c,s	1981-83

DISCONTINUED SURFACE-WATER-QUALITY STATIONS -- Continued

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Station name	Station number	Drainage area (mi ²)	Type of record	Period of record
San Juan River near Fruitland, NM	09367540	8,010	c	1978-95
De-na-zin Wash near Bisti Trading Post, NM	09367710	184	c,s	1975-82
Black Springs Wash near Mexican Springs, NM	09367900	7.05	c,s	1981-82
Hunter Wash at Bisti Trading Post, NM	09367930	45.6	c,s	1975-82
Teec-ni-di-tso Wash near Burnham, NM	09367934	7.2	c,m,s,t	1978-82
Burnham Wash near Burnham, NM	09367936	8.6	c,m,s,t	1978-82
Chaco River near Burnham, NM	09367938	3,640	c,m,s,t	1978-82
Chaco River near Waterflow, NM	09367950	4,350	c,s	1976-89
San Juan River near Bluff, UT	09379500	23,000	c,s,t	1962-68
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
Sunset Canal above New Mexico-Arizona State line	09433500	--	b,c,s	1969-72
New Model Canal above New Mexico-Arizona State line	09436500	--	b,c,s	1969-72
Gila River at New Mexico-Arizona State line	09438000	3,349	b,c,s	1968-73
San Francisco River near Glenwood, NM	09444000	1,653	b,c,s	1963-85
San Francisco River at Clifton, AZ	09445000	2,766	s	1963-67
Dry Beaver Creek near Rimrock, AZ	09505350	139	s	1964-65

INTRODUCTION

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

Water-resources data for the current year for New Mexico consist of records of discharge and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 171 gaging stations and contents for 27 lakes and reservoirs; water quality for 46 gaging stations, 19 wells, and 48 partial-record stations and miscellaneous sites, and water levels at 124 observation wells. Also included are 35 crest-stage, partial-record stations. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating Federal, State, and local agencies in New Mexico.

Data on stream discharge and stage, and on lake or reservoir contents and stage were first published in a series of U.S. Geological Survey Water-Supply Papers entitled "Surface Water Supply of the United States." Through September 30, 1960, these Water-Supply Papers were in an annual series, then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperature, and suspended sediment were published from 1941 to 1970 in an annual series of Water-Supply Papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of Water-Supply Papers entitled "Ground-Water Levels in the United States." Water-Supply Papers generally are available in the libraries of the principal cities of the United States or may be purchased from U.S. Geological Survey, Books and Open-File Reports, Federal Center, Box 25425 Denver, Colorado 80225.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports for each State. Water-quality records for water years 1964 through 1974 were similarly released in separate reports. Beginning with water year 1975, data for streamflow, water quality, and groundwater were combined in reports published annually for each State. These reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NM-97-1." These Water-Data Reports are for sale by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22162.

COOPERATION

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

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

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

Pecos River Commission, Hector Villa III, Federal Representative and Chairman;

Colin R. McMillan, Commissioner for New Mexico;

Brad Newton, Commissioner for Texas.

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

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

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

Hal Simpson, Commissioner for Colorado.

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

City of Albuquerque, Martin Chavez, Mayor.

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

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

City of Raton, Joe Apache, Mayor.

Village of Ruidoso, Gary M. Jackson, Manager.

Financial assistance for the collection of water-resources data published in this report was provided by the Corps of Engineers, U.S. Army, for 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 stations.

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

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, varied greatly from area to area in New Mexico at the beginning of water year 1997. In October, for example, precipitation was only 19 percent of normal in Carlsbad, but was 255 percent of normal in Santa Fe. By November precipitation was below normal in all areas of the State. A number of rainfall stations recorded no precipitation during November, a trend that continued through December. January witnessed a major rebound in precipitation totals when most stations recorded above-normal amounts of precipitation. Measurements of snowpack at this time also were well above normal in most areas. The streamflow forecast made at the beginning of January predicted above-normal streamflow for the Pecos, Rio Grande, and San Juan River Basins. Precipitation continued to be near or above normal into February, then increased greatly in March. The streamflow forecast made at the beginning of April predicted below-normal streamflow for most basins, with the exception of the San Juan River Basin. Precipitation remained generally above normal from April through June and was reflected in normal or above-normal streamflows during these months. July precipitation declined greatly from June precipitation, but by August precipitation was again at or above normal. The water year ended in September with widely varied amounts of precipitation. For example, Albuquerque recorded 242 percent of normal, whereas Las Cruces recorded only 50 percent of normal. Precipitation and resulting streamflows generally were greater in water year 1997 than in water year 1996.

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 1997 indicates various trends. Storage at Brantley, Cochiti, and Abiquiu Reservoirs varied only slightly; storage at Brantley ranged from 4 to 2 percent of capacity, at Cochiti ranged from 12 to 14 percent of capacity, and at Abiquiu ranged from 12 to 16 percent of capacity. Storage in other reservoirs, however, did partly reflect existing hydrologic conditions during water year 1997. In El Vado Reservoir, for example, the quantity of water stored beginning in March reflected precipitation trends. Storage was 43 percent of capacity in March and increased to 97 percent of capacity in June. Water storage in Eagle Nest, Heron, and Conchas Reservoirs generally increased from the beginning of the water year until June, generally mirroring precipitation changes. Storage in Ute, Elephant Butte-Caballo, and Sumner-Santa Rosa Reservoirs increased and decreased at various times during water year 1997 in response to water demands. Reservoir storage in most of the State's reservoirs at the end of water year 1997 generally was at higher levels than at the beginning of the water year. Specifically, the combined storage of 13 major reservoirs in the State increased by 673,000 acre-feet during water year 1997, totaling 4,737,130 acre-feet by September 30, 1997. The total 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 most index gaging stations were near or above normal at the beginning of water year 1997. Two exceptions were streamflow at the Rio Grande at Taos Junction Bridge (station 08276500), which was 79 percent of normal, and at the Delaware River near Red Bluff (station 08408500), which was 58 percent of normal. The index sites that began water year 1997 with near or above-normal streamflow had these levels of streamflow at the end of the water year. For example, streamflow at the Pecos River near Pecos (station 08378500) was 99 percent of normal in October, reached a maximum of 297 percent of normal in June, and was at 94 percent of normal at the end of water year 1997. Streamflow at the Gila River near Gila (station 09430500) was 308 percent of normal at the beginning of the water year and decreased steadily to 110 percent of normal by February. Starting in March streamflow varied widely until the end of the water year. With the exception of 1 month (in July when streamflow was 87 percent of normal) streamflow was above normal. In contrast, streamflow at the Delaware River near Red Bluff (station 08408500) remained at a low level from October (58 percent of normal) until May (78 percent of normal) before increasing substantially in June and July to 284 and 301 percent of normal, respectively. Streamflow then again decreased until it reached 0 in September.

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.

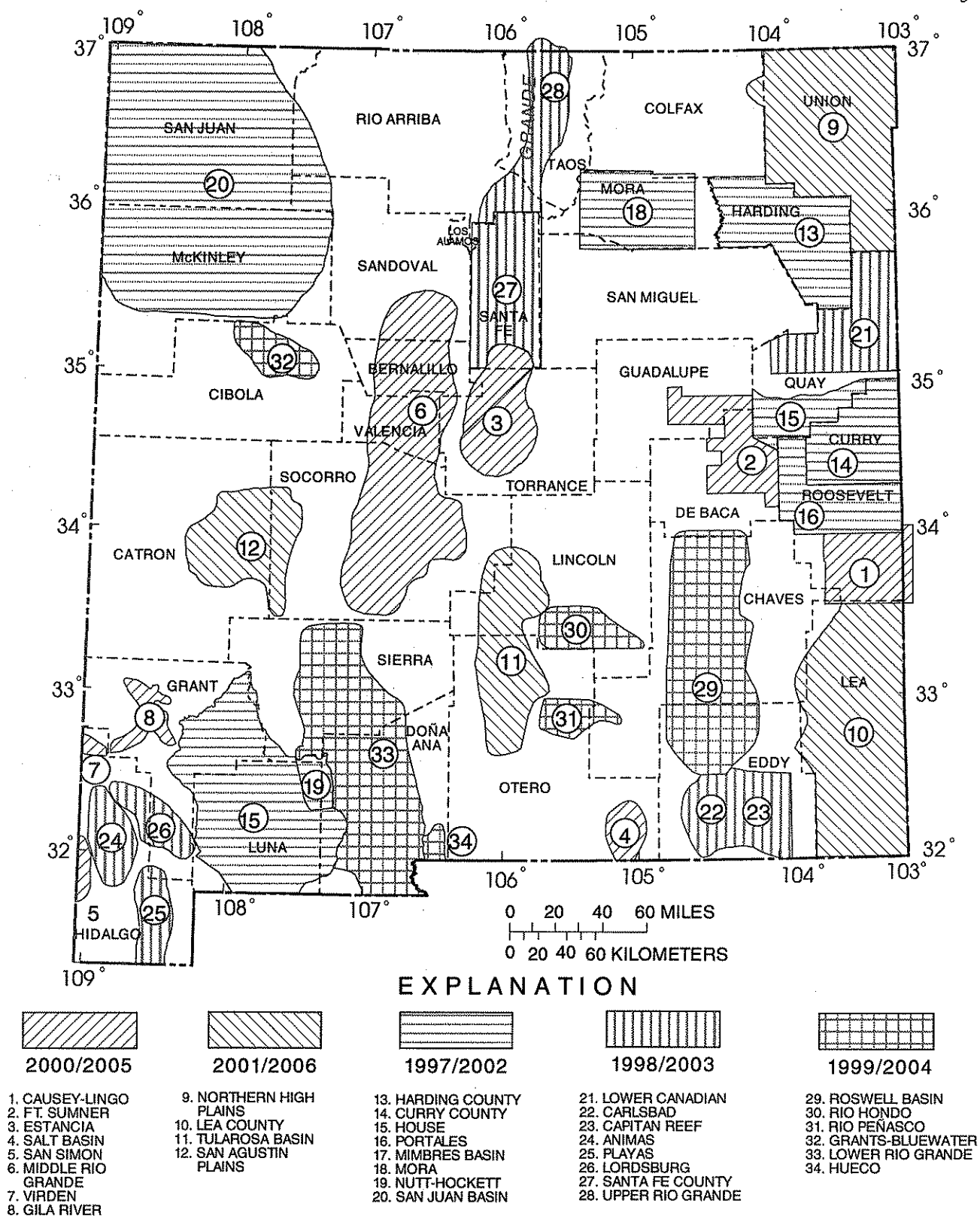


Figure 1.-Areas of 5-year ground-water-level monitoring areas and years measured or scheduled for measurement.

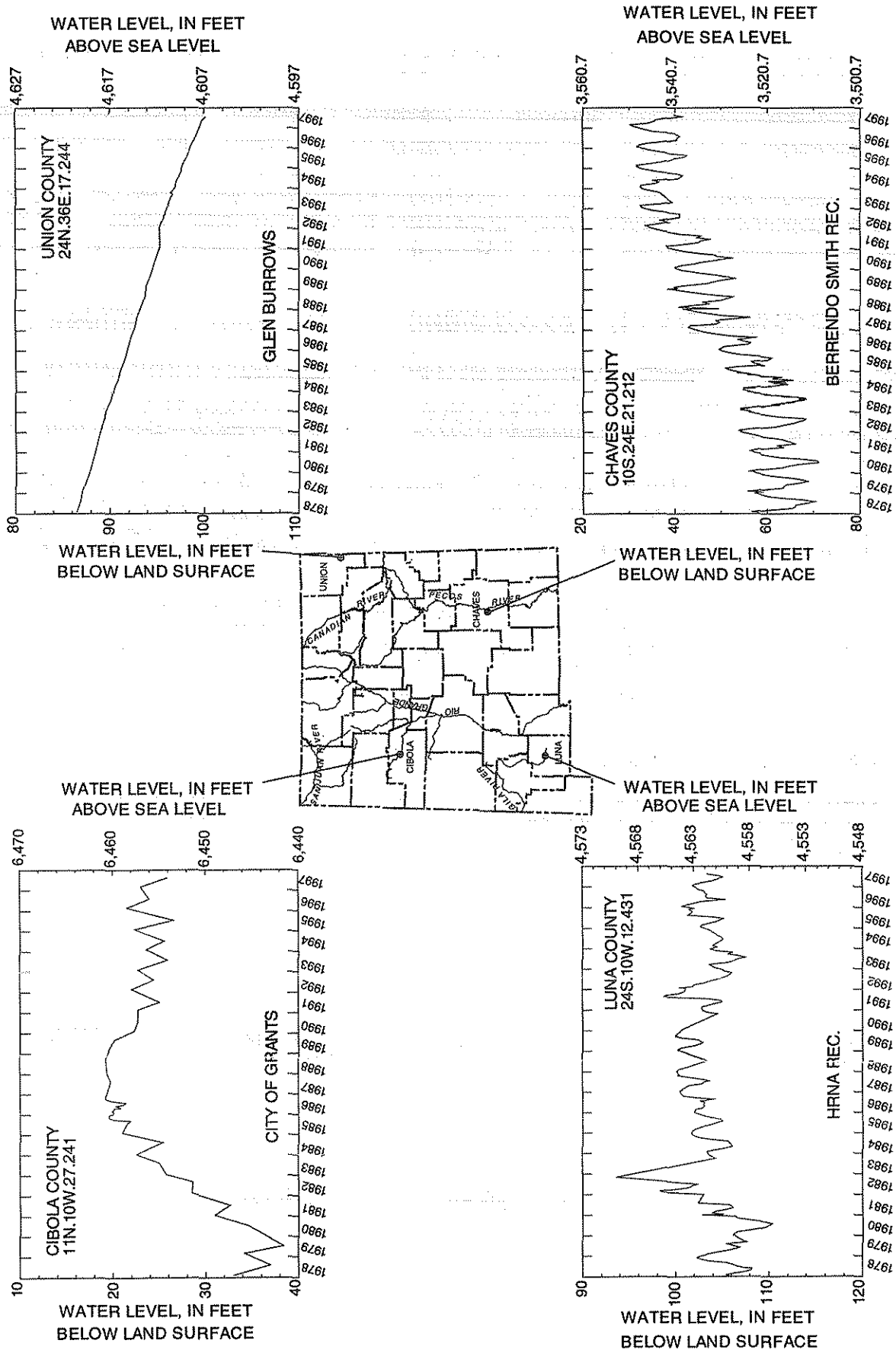


Figure 2.--Ground-water-level trends for the last 20 years or period of record.

Discharges for water year 1997 at four index streamflow-gaging stations compared to median annual discharge for water years 1967-96 at the same stations are listed below:

Station number	Station name	Median annual discharge in acre-ft water years 1967-96	Annual mean discharge in acre-ft water year 1997	1997 discharge as a percentage of median
08276500	Rio Grande below Taos Junction Bridge	541,700	660,600	122
08378500	Pecos River near Pecos	74,800	136,900	183
08408500	Delaware River near Red Bluff	4,220	2,410	57
09430500	Gila River near Gila	120,600	152,800	127

Surface-Water Quality

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

Station number	Station name	Median specific conductance, in microsiemens per centimeter at 25° Celsius water years 1987-96	water year 1997	1997 median as a percentage of 1987-96 median
08313000	Rio Grande at Otowi Bridge	333	316	95
08330000	Rio Grande at Albuquerque	390	353	91
08354900	Rio Grande FW at San Acacia	569	570	100
08358400	Rio Grande FW at San Marcial	504	547	109

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

Station number	Station name	Median suspended-sediment load for water years 1987-96 in tons	Suspended-sediment load for water year 1997, in tons	1997 load as a percentage of 1987-96 median
08313000	Rio Grande at Otowi Bridge	1,395,064	5,161,005	370
08330000	Rio Grande at Albuquerque	409,024	1,862,683	455
08358400	Rio Grande Floodway at San Marcial	2,508,924	4,236,665	169

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 SO₂ 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 SO₂ 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

Radiochemical Program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins within the conterminous United States.

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 1997, which began October 1, 1996 and ended September 30, 1997. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figure 1. 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 indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned in downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of all types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 08313000, which appears just to the left of the station name, includes the two-digit Part number "08" plus the six-digit downstream-order number "313000." The Part number designates the major river basin; for example, Part "08" is the Rio Grande basin.

Latitude-Longitude System

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

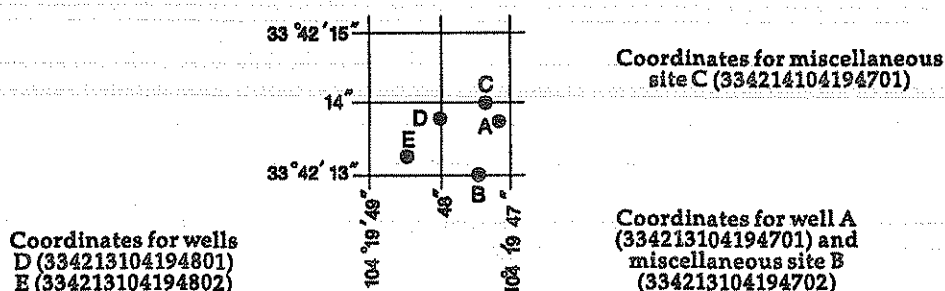


Figure 3.--System for numbering wells, springs, and miscellaneous sites.

Local Well Numbers

To provide an additional means of identification and a cross reference to records in older reports, most wells and springs have been assigned a local identifier based on the system of public land surveys. In areas covered by such surveys, the local identifier consists of a series of numbers and letters separated by periods, giving the township, range, section, and tract within a section, in that order. The letters N or S locate the township north or south of the New Mexico base line. The letters E or W locate the range east or west of the New Mexico principal meridian. A zero in a tract number indicates that the well or spring is centrally positioned or has not been located accurately enough to be placed within a tract or quarter section. Three digits in a tract number will locate a well or spring to the nearest 10-acre tract, and six digits will locate a site to the nearest 0.16-acre tract. This numbering system is illustrated in WDR NM-75-1 and WSP 1855. On the Navajo Reservation, where public land surveys have not been made, the local identifier is based on a different system of letters and numbers. In the example NR032.0156x0736, the first two letters indicate that the well is on the Navajo Reservation. The three-digit number to the left of the decimal indicates one of a series of special quadrangle maps on which the well is located. The two numbers to the right of the decimal separated by the letter x are the coordinates of the well in hundredths of a mile from the northeast corner of the area on the map. The first coordinate indicates the distance west; the second the distance south. The above well is located on map 032, 1.56 miles west and 7.36 miles south of the northeast corner.

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily 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 for which data are given in this report are shown in figure 1.

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. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

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

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

Station manuscript

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

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

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

PERIOD OF RECORD.--This indicates the period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that flow at it reasonably can be considered equivalent to flow at the present station.

REVISED RECORDS.--Because of new information, published records occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

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

REMARKS.--All periods of estimated daily discharge will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph also is used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and to other pertinent items. For reservoir stations, information is given on the dam forming

the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

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

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

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

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

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

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

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures for more than 1,000 ft³/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

Records of daily diversions of water from streams by canals are collected by and published in Hydrographers Annual Reports of the New Mexico Board of Control. Included are discharge records for streams and storage records for reservoirs not published in reports of the Geological Survey.

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.

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.

Onsite 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 Wyoming district office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors 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 measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For water-quality stations equipped with electronic monitors and digital recorders, the record consists of a daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records of the individual hourly values (unit values) may be obtained from the New Mexico district office.

Water Temperature

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

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

Sediment

Suspended-sediment concentrations are determined from samples collected using depth-integrating samplers. Samples usually are obtained from several verticals in the cross section. At daily sediment stations, daily samples may be obtained from a single vertical and a coefficient applied to determine the mean concentration in the cross section. Daily mean suspended-sediment concentrations are computed using sample concentrations and the continuous streamflow

record according to 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 constituents¹. These protocols are designed to produce trace-element data that are free of potential contamination associated with sample collection and filtration procedures. Because of the very low concentrations of some trace constituents in the environment, special precautions are necessary to protect the sample from the introduction of trace constituents during processing that could lead to a positive bias in reported concentrations. The protocols have been tested to assure reliable results at the microgram per liter (parts per billion) level. Dissolved trace-element data published prior to implementation of the protocols in 1994 may have a potential positive bias ranging from negligible to several micrograms per liter, depending on the procedures and sampling equipment used at the site.

Data Presentation

Water-quality records collected at a streamgaging station are published immediately following the daily discharge record. Station number and name are the same for both records. Where a daily discharge record is not available or where the location of the water quality station differs significantly from that of the nearby streamgaging station, the water-quality record is published with its own station number and name in the standard downstream-order sequence.

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

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.

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

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

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

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

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

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

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

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

Remark Codes

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

PRINTED OUTPUT

REMARK

E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptable range (non-ideal colony count)
L	Biological organism count less than 0.5 percent than 0.5 percent
D	Biological 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 overall

data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-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 1.

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 punched tape of a 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.

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.

ACCESS TO USGS WATER DATA

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

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

DEFINITION OF TERMS

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

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.

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.

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.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

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

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile [(ft³/s)/mi²] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (ft³/s) 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 Benchmark Network is a network of about 60 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.

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.

Less than (<) is a remark code indicating that the analyzed value was found to be less than the numeric value listed. The value associated with the "<" remark indicates the detection limit of the applied laboratory.

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.

Micrograms per gram (UG/G, $\mu\text{g/g}$) 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, $\mu\text{g/L}$) 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, $\mu\text{S/cm}$) 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.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in national or regional water-quality planning and management. The 284 sites in NASQAN generally are located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data. Coordination in consultation with the Water Resources Council. The objective of NASQAN is to obtain data on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting. Such data may be used for: description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs; detection of changes or trends with time in the pattern of occurrence of water-quality characteristics; and a nationally consistent data base useful for water-quality assessment and hydrologic research

National Water-Quality Assessment Program (NAWQA) is a nationwide program that was started by the U.S. Geological Survey in 1991. The long term goals of the NAWQA program are to describe the status and trends in the quality of a large, representative part of the Nation's surface-water, and ground-water resources and to provide a sound, scientific understanding of the primary natural and human factors affecting the quality of these resources. The principal building blocks of the NAWQA program are the study-unit investigations on which national-level assessments are based. Study-unit investigations are comprehensive and include information on water, sediment, biota, and aquatic and terrestrial habitats within its boundaries.

The National Trends Network (NTN) is a network of stations for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both spatial and temporal, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The network from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter, acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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:

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

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic 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 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins within the conterminous United States.

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.

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) \times discharge (ft^3/s) \times 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.

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 μ m membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures 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.

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.

Tritium Network is a network of stations that has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the tritium data collection at precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through the following September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1990, is called "water year 1990."

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

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

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

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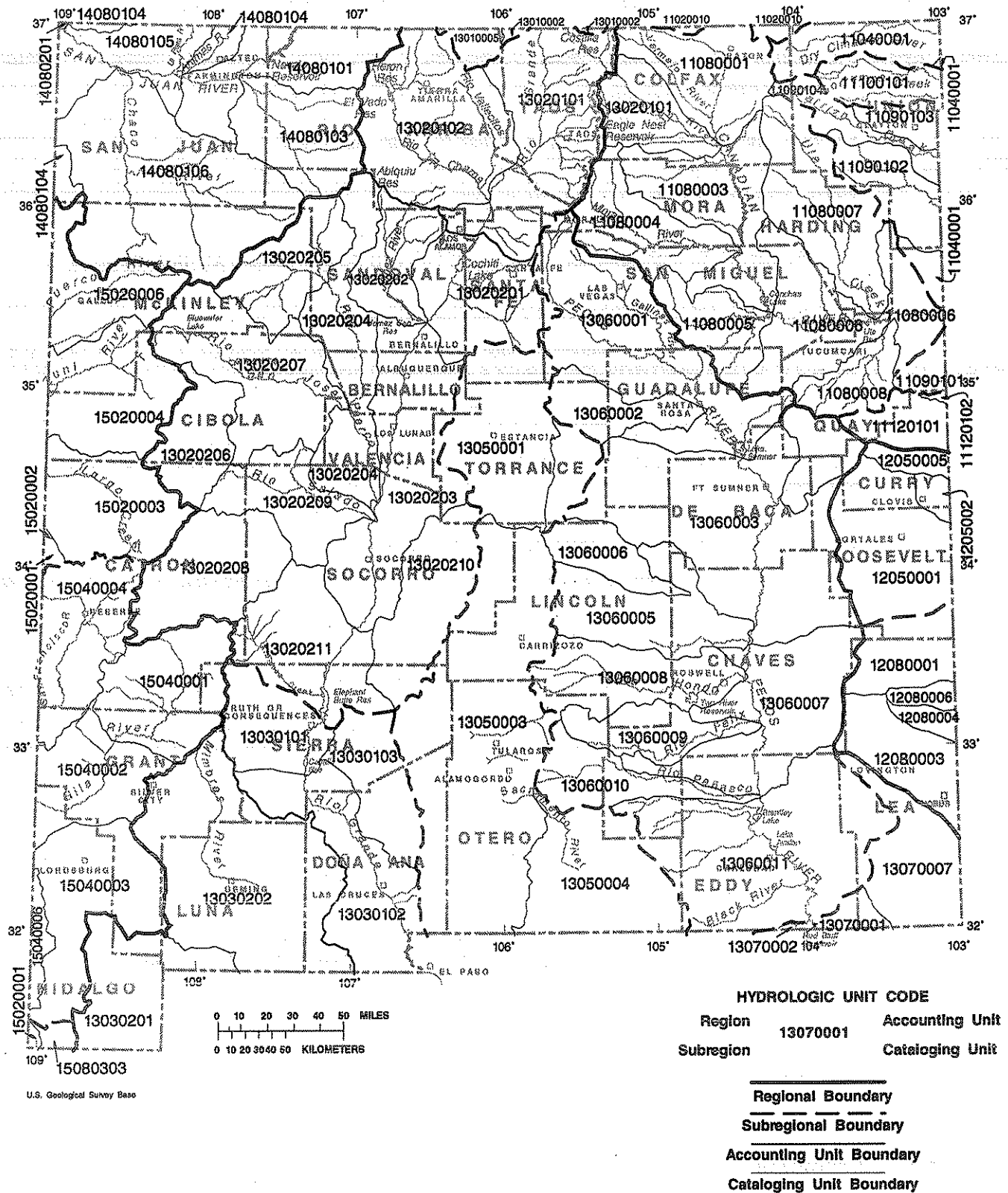
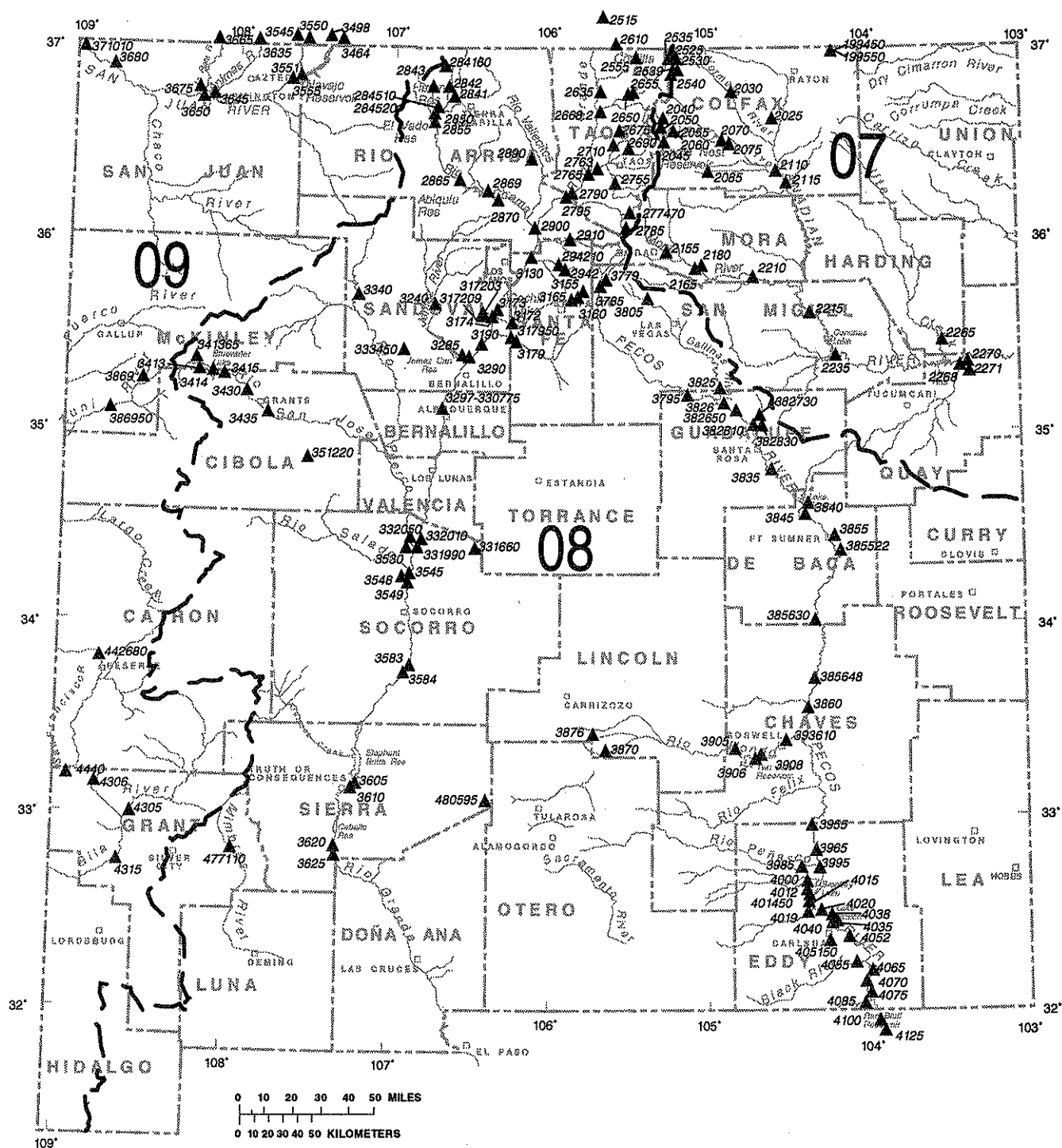


Figure 4.--Location of hydrologic units.



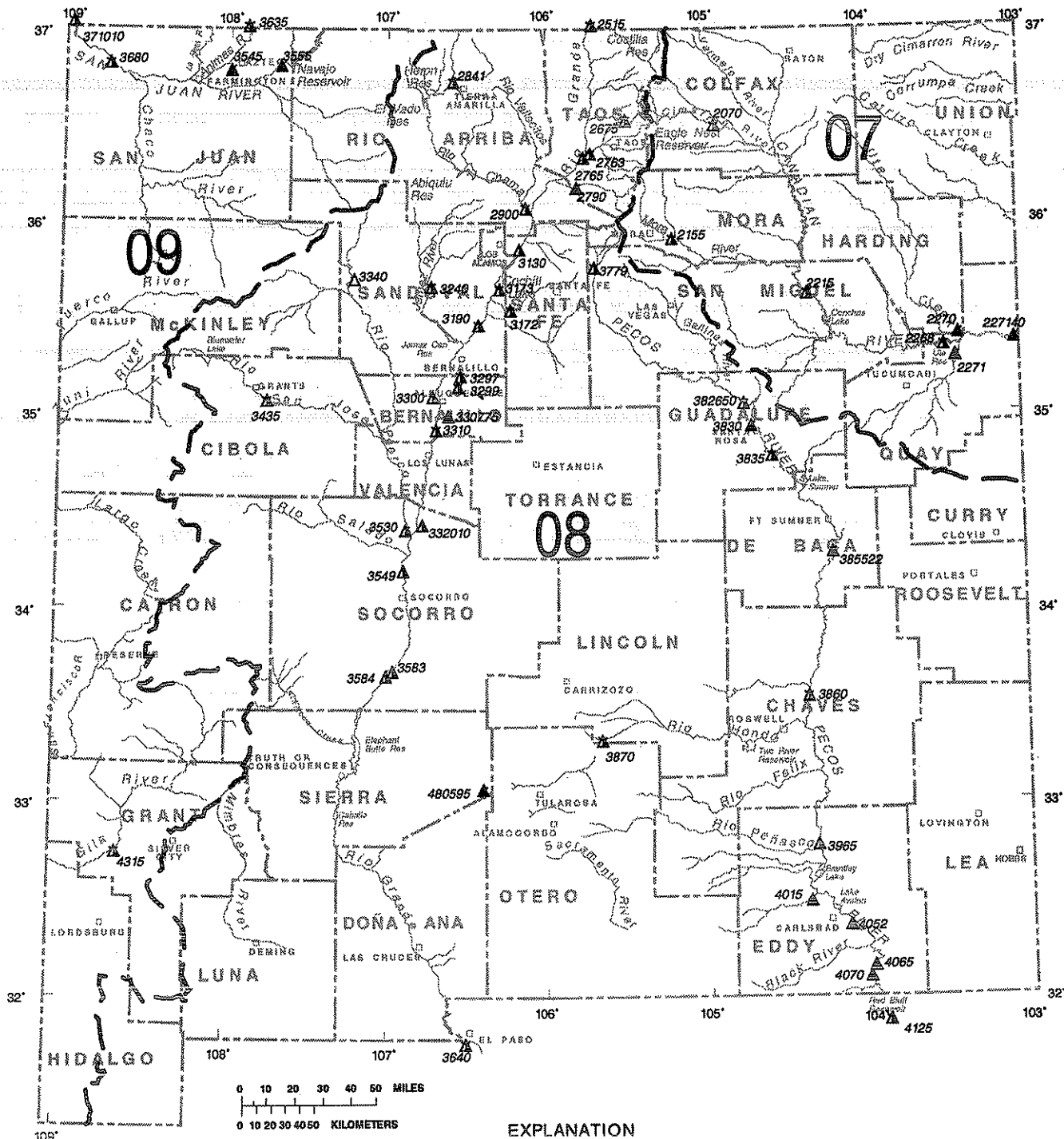
U.S. Geological Survey base

EXPLANATION

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

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

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



U.S. Geological Survey base

BASIN AND STATION NUMBER

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

— RIVER BASIN BOUNDARY

330775 ▲ STATION AND NUMBER—Number by symbol is abbreviated station number. Complete national station number is: 09 330775

Basin number + station number

STATION AND SAMPLING FREQUENCY

- | | | |
|---|--|--|
| CHEMICAL QUALITY: | ▲ Daily | ▲ Other than daily |
| SUSPENDED SEDIMENT: | ▲ Daily | ▲ Other than daily |
| CHEMICAL QUALITY AND SUSPENDED SEDIMENT: | ▲ Both daily | ▲ Both other than daily |
| | ▲ Daily chemical quality and other than daily suspended sediment | ▲ Daily suspended sediment and other than daily chemical quality |

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

HYDROLOGIC-DATA STATION RECORDS

33

LOWER MISSISSIPPI RIVER BASIN

ARKANSAS RIVER BASIN

07199450 LAKE MALOYA NEAR RATON, NM

LOCATION.--Lat 36°59'02", long 104°22'24", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, near spillway of dam on Chicorica Creek, 6.5 mi northeast of Raton, and at mile 21.5.

DRAINAGE AREA.--20.8 mi².

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

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

REMARKS.--Reservoir is formed by an earthfill dam, completed in 1907; capacity, 59 acre-ft. Reservoir enlarged in 1916; capacity, 1,130 acre-ft, spillway elevation, 7,479.0 ft. Reservoir enlarged again in 1948; capacity, 3,690 acre-ft, spillway elevation, 7,511.0 ft. Elevation of lowest outlet, 7,439.0 ft. No dead storage. Water is for municipal use of City of Raton. See table below for total monthly diversion, in acre-feet, from Lake Maloya for municipal supply for City of Raton and releases to Vermejo Conservancy District.

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,790 acre-ft, Apr. 24, 30, elevation, 7,511.78 ft; minimum contents, 3,320 acre-ft, Dec. 25 to Jan. 23, 25 to Feb. 6, elevation 7,507.88.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3450	3420	3380	3320	3320	3450	3730	e3780	3710	3680	3590	e3550
2	3440	3420	3380	3320	3320	3450	3730	e3760	3720	3670	3590	e3550
3	3440	3420	3370	3320	3320	3450	3730	e3750	3710	3670	3590	e3550
4	3430	3420	3370	3320	3320	3460	3730	e3750	3710	3660	3590	e3550
5	3440	3420	3370	3320	3320	3460	3730	3740	3700	3650	3590	e3550
6	3440	3420	3360	3320	3320	3460	3730	3740	3700	3650	3590	e3560
7	3440	3420	3360	3320	3330	3470	3720	3740	3710	3640	3600	e3560
8	3440	3420	3360	3320	3330	3480	3720	3730	3710	3630	3600	e3560
9	3430	3410	3360	3320	3340	3490	3720	3730	3720	3620	3590	e3560
10	3430	3410	3350	3320	3340	3510	3720	3730	3770	3620	3600	e3570
11	3430	3410	e3350	3320	3350	3530	3720	3730	3770	3620	3600	e3570
12	3420	3410	e3350	3320	3360	3560	3720	3730	3750	3620	3600	e3570
13	3420	3410	e3340	3320	3360	3610	3720	3730	3740	3620	3600	e3570
14	3420	3400	e3340	3320	3370	3640	3720	3730	3740	3610	3600	e3580
15	3420	3400	e3340	3320	3370	3670	3720	3720	3730	3610	3590	e3580
16	3420	3400	e3340	3320	3380	3700	3720	3720	3730	3600	3590	e3590
17	3420	3400	e3340	3320	3380	3720	3720	3720	3730	3600	3580	e3590
18	3420	3400	3340	3320	3380	3730	3730	3720	3720	3590	3580	e3590
19	3410	3400	3340	3320	3380	3730	3720	3720	3720	3580	3580	e3600
20	3410	3400	3330	3320	3390	3730	3720	3720	3720	3580	3580	e3600
21	3420	3400	3330	3320	3390	3730	3730	3720	3710	3580	3570	e3610
22	3420	3400	3330	3320	3400	3730	3730	3720	3710	3590	3570	e3610
23	3420	3400	3330	3320	3410	3720	3770	3720	3710	3580	3570	e3610
24	3410	3400	3330	3330	3420	3730	3790	3720	3710	3580	3570	e3620
25	3410	3390	3320	3320	3430	3720	3760	3720	3710	3580	3570	e3620
26	3410	3390	3320	3320	3450	3720	3750	3720	3710	3570	e3570	e3630
27	3410	3390	3320	3320	3450	3730	3750	3720	3700	3570	e3570	e3630
28	3420	3390	3320	3320	3450	3730	e3760	3720	3700	3560	e3570	e3630
29	3420	3380	3320	3320	---	3730	e3780	3720	3700	3590	e3560	e3640
30	3420	3390	3320	3320	---	3730	e3790	3720	3690	3590	e3560	e3640
31	3420	---	3320	3320	---	3730	---	3720	---	3590	e3550	---
MAX	3450	3420	3380	3330	3450	3730	3790	3780	3770	3680	3600	3640
MIN	3410	3380	3320	3320	3320	3450	3720	3720	3690	3560	3550	3550
(t)	7503.77	7508.47	7507.89	7507.90	7509.03	7511.35	7511.78	7511.24	7511.00	7510.18	7509.82	7510.55
(tt)	-30	-30	-70	0	+130	+280	+50	-60	-30	-100	-40	+90
(ttt)	0	0	140	136	104	133	140	169	0	0	0	0
(tttt)	0	0	50*	0	0	0	0	0	0	0	0	0

CAL YR 1996 MAX 3730 MIN 3320 (tt) -380 (ttt) 904 (tttt) 50

WTR YR 1997 MAX 3790 MIN 3320 (tt) +190 (ttt) 822 (tttt) 50

* Estimated spillage from frozen/cracked air/vac valves
e Estimated

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

(tt) CHANGE IN CONTENTS, IN ACRE-FEET

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

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

ARKANSAS RIVER BASIN

07199550 LAKE ALICE NEAR RATON, NM

LOCATION.--Lat 36°57'15", long 104°23'06", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, near spillway of dam on Chicorica Creek, 4.4 mi northeast of Raton, and at mile 19.2.

DRAINAGE AREA.--29.4 mi².

PERIOD OF RECORD.--May 1975 to September 1997 (discontinued).

GAGE.--Nonrecording gage. Elevation of gage is National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Reservoir is formed by an earthfill dam, completed in 1892; capacity 100 acre-ft, spillway elevation, 7,078.0 ft. Reservoir rehabilitated in 1941; capacity, 71 acre-ft, spillway elevation, 7,089.6 ft. Elevation of lowest outlet, 7,064.1 ft. No dead storage. Water is for municipal use of City of Raton.

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

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

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30, 1996.....		63	0
Oct. 31.....		63	0
Nov. 30.....		63	0
Dec. 31.....		62	-1
CAL YR 1996	-	-	-1
Jan. 31, 1997.....	7,089.6	62	0
Feb. 28.....	7,089.6	62	0
Mar. 31.....	7,089.6	63	+1
Apr. 30.....	7,089.6	63	0
May 31.....	7,089.6	63	0
June 30.....	7,089.6	62	-1
July 31.....	7,089.6	62	0
Aug. 31.....	7,089.6	62	0
Sept. 30.....	7,089.6	62	0
WTR YR 1997	-	-	0

ARKANSAS RIVER BASIN

35

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	5.6	e2.5	4.3	e5.8	6.4	20	85	6.1	e.00	.02	15
2	2.7	4.2	e2.4	3.4	e5.2	57	21	71	5.4	e.00	17	6.3
3	1.8	5.6	e2.4	3.7	e4.5	47	22	60	5.2	e.00	4.7	12
4	2.3	4.7	e2.4	3.3	e3.8	42	23	48	7.7	e.00	6.7	20
5	2.5	3.6	e2.7	e1.8	e3.3	44	26	40	11	e.00	10	12
6	2.2	3.2	4.4	e1.9	e2.6	42	23	35	15	e.00	3.1	6.1
7	1.5	3.7	3.2	e2.0	e3.0	39	19	34	27	e.00	3.1	11
8	1.1	2.7	3.1	e2.0	e3.8	37	16	30	26	e.00	1.3	8.7
9	1.5	2.8	4.2	e2.4	5.9	38	13	26	23	e.00	.81	4.9
10	1.9	3.1	3.9	e3.0	4.0	36	14	19	22	e.00	1.6	17
11	2.0	3.0	3.1	e4.0	3.1	40	12	17	17	e.00	11	22
12	1.7	3.1	2.7	e4.1	2.9	45	13	18	18	e.00	11	6.9
13	1.9	3.0	2.9	e4.7	2.7	42	12	18	18	e.00	18	3.9
14	2.2	2.9	e2.0	e5.0	1.8	20	12	16	18	e.00	6.8	4.7
15	2.2	2.7	e1.6	e4.7	2.0	14	12	15	18	e.00	3.5	2.6
16	1.9	2.7	e1.7	e5.2	2.4	10	12	14	18	e.00	2.2	1.5
17	2.0	3.2	e1.5	e5.2	2.6	12	11	13	18	.00	3.3	1.2
18	1.9	2.7	e2.0	e5.4	2.2	22	11	12	18	.00	2.4	1.3
19	1.6	2.7	e3.0	e5.4	2.2	23	13	11	17	.00	2.0	.89
20	2.3	3.0	e3.7	e5.6	2.3	13	11	11	17	1.4	1.1	1.3
21	2.4	2.5	4.5	e6.0	e1.1	18	9.5	13	16	.09	3.4	4.5
22	2.8	2.6	4.4	e5.6	e.30	18	9.5	14	15	.00	16	9.2
23	2.2	3.9	4.0	e5.2	e.19	15	12	15	14	.00	10	3.2
24	2.2	2.8	5.5	e4.9	e.15	13	41	16	e.50	.00	5.1	1.9
25	2.0	2.5	5.3	e5.3	e.22	13	165	15	e.00	.00	3.7	2.1
26	3.9	2.6	4.7	e5.7	e1.1	18	83	13	e.00	.00	4.4	2.0
27	11	2.7	4.9	e5.4	e2.0	17	65	12	e.00	.00	5.7	1.5
28	7.4	2.8	5.2	e5.5	3.1	22	83	10	e.00	.00	8.0	1.3
29	9.2	e2.8	4.9	e5.8	---	25	101	7.8	e.00	.68	4.3	1.5
30	9.6	e2.7	4.7	e5.2	---	25	105	7.3	e.00	6.9	22	1.5
31	7.2	---	4.9	e5.2	---	20	---	6.7	---	.11	34	---
TOTAL	98.8	96.1	108.4	136.9	74.26	833.4	990.0	722.8	370.90	9.18	226.23	187.99
MEAN	3.19	3.20	3.50	4.42	2.65	26.9	33.0	23.3	12.4	.30	7.30	6.27
MAX	11	5.6	5.5	6.0	5.9	57	165	85	27	6.9	34	22
MIN	1.1	2.5	1.5	1.8	.15	6.4	9.5	6.7	.00	.00	.02	.89
AC-FT	196	191	215	272	147	1650	1960	1430	736	18	449	373

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1997, BY WATER YEAR (WY)

MEAN	2.00	2.36	2.13	2.08	2.86	6.05	11.1	20.3	10.9	6.57	10.3	4.44
MAX	7.06	5.14	6.12	7.22	13.5	26.9	68.7	91.0	46.9	32.0	43.9	12.8
(WY)	1985	1947	1994	1993	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

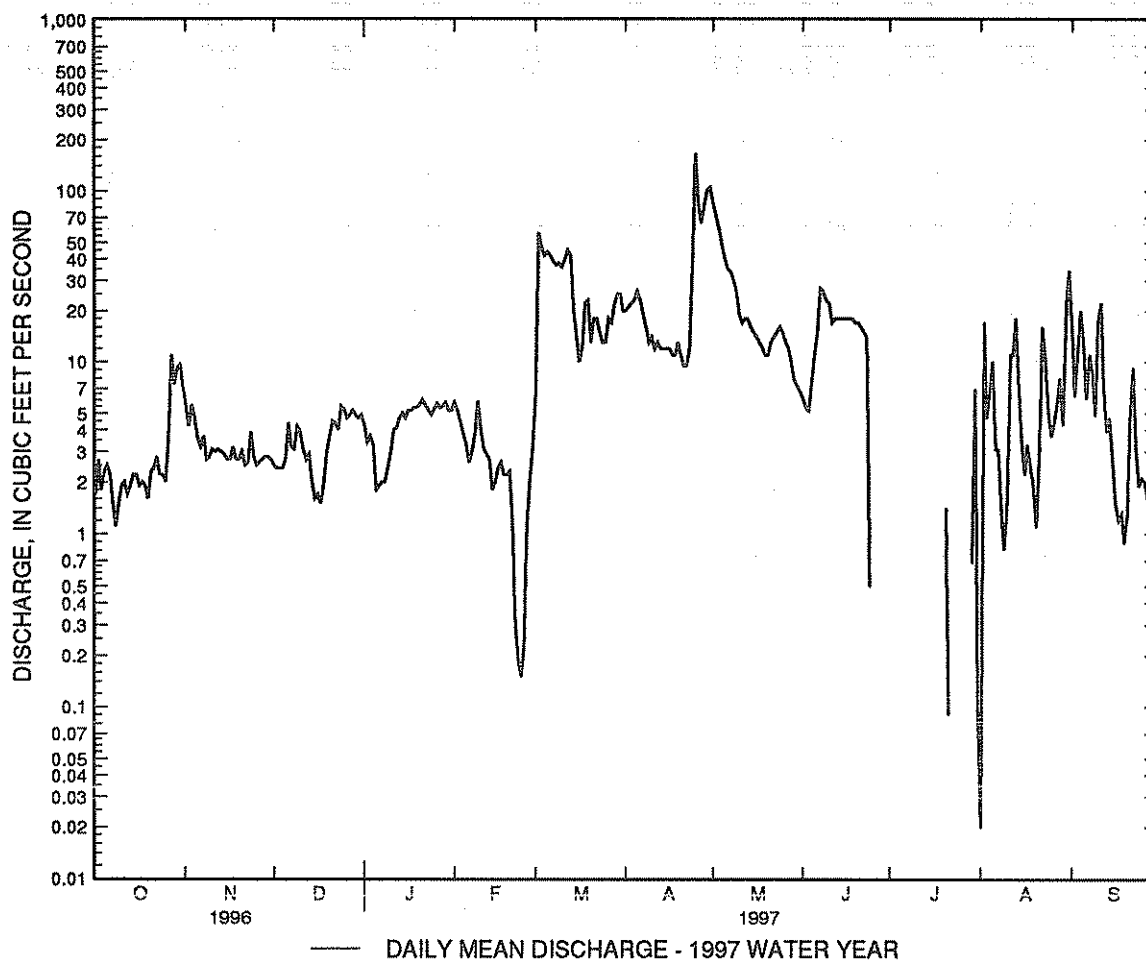
ARKANSAS RIVER BASIN

07202500 EAGLE TAIL DITCH NEAR MAXWELL, NM -- Continued

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1945 - 1997

ANNUAL TOTAL	1480.16	3854.96	
ANNUAL MEAN	4.04	10.6	7.12
HIGHEST ANNUAL MEAN			17.8 1984
LOWEST ANNUAL MEAN			1.51 1978
HIGHEST DAILY MEAN	41 Jul 31	165 Apr 25	217 ^a Aug 27 1946
LOWEST DAILY MEAN	.00 May 20	.00 Jun 25	.00 May 16 1945
ANNUAL SEVEN-DAY MINIMUM	.05 May 19	.00 Jun 25	.00 May 16 1945
INSTANTANEOUS PEAK FLOW		176 Apr 25	375 May 30 1995
INSTANTANEOUS PEAK STAGE		3.80 Apr 25	5.15 May 30 1995
ANNUAL RUNOFF (AC-FT)	2940	7650	5160
10 PERCENT EXCEEDS	8.3	23	17
50 PERCENT EXCEEDS	2.8	4.7	1.7
90 PERCENT EXCEEDS	.65	.17	.00

e Estimated

a-From rating curve extended above 85 ft³/s.

ARKANSAS RIVER BASIN

37

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 mi².

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 fair except for estimated daily discharges, which are poor. Diversions for irrigation of small acreage and mountain meadows upstream from station. Several observations of water temperature were made during year. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred Aug. 2, 1921, when discharge probably exceeded 10,000 ft³/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	12	e4.2	e5.0	10	e4.5	7.1	43	68	27	72	16
2	5.8	11	e4.1	e4.7	12	e5.8	7.5	41	66	23	54	16
3	5.4	11	e4.4	e3.8	7.8	7.5	7.8	37	64	22	35	19
4	5.4	12	e4.5	e3.2	e4.8	5.5	9.1	35	88	22	85	26
5	6.1	10	e4.6	e2.7	e3.3	4.6	8.2	36	71	22	37	22
6	6.5	10	e4.8	e3.2	e2.5	4.3	7.8	38	67	21	36	28
7	6.1	8.6	e5.2	e3.6	e2.9	4.4	4.6	40	89	19	33	24
8	5.1	6.9	e5.4	e3.2	e3.4	4.5	4.5	42	113	19	36	19
9	4.9	7.8	e6.0	e3.4	e3.6	5.2	6.0	46	93	17	59	28
10	4.8	9.5	e11	e3.6	e3.4	5.4	5.4	43	e210	17	116	46
11	4.8	8.9	e10	e3.5	e3.7	4.7	8.7	40	112	18	78	28
12	5.1	8.0	e9.8	e3.1	e4.6	4.6	11	49	72	16	40	27
13	5.3	6.8	e9.0	e3.2	e5.8	5.5	10	55	64	13	e30	19
14	5.4	7.4	e7.8	e3.0	8.0	5.5	12	53	60	12	e25	16
15	4.6	7.4	e7.1	e3.3	11	5.6	10	55	58	11	e21	13
16	4.6	7.0	e6.9	e3.7	13	5.9	9.3	64	61	13	e19	12
17	4.4	5.1	e6.6	e3.5	8.3	5.4	8.9	69	64	15	e15	11
18	4.6	5.3	e6.0	e3.2	6.4	4.8	10	67	59	15	e13	9.9
19	5.4	5.7	e5.8	e3.4	6.0	4.9	11	67	54	23	e12	9.3
20	6.5	5.8	e5.7	e3.7	5.5	4.8	12	90	49	29	e13	9.1
21	7.3	e5.6	e5.6	e4.1	e4.2	4.7	12	89	45	29	e11	20
22	7.2	e5.4	e5.5	e3.9	e3.5	5.6	16	204	64	31	e13	21
23	5.7	e5.6	e5.4	e4.2	e3.1	7.4	19	e160	63	32	e14	16
24	5.9	e5.2	e5.2	e5.2	e2.9	7.7	25	e140	47	33	e13	15
25	7.2	e4.3	e5.1	6.6	e3.4	8.7	32	e115	41	24	e12	13
26	7.3	e3.5	e5.2	11	e4.4	9.2	29	e105	42	20	e13	12
27	12	e3.5	e5.4	12	e4.2	9.0	35	e87	44	20	12	11
28	14	e4.3	e5.7	9.6	e5.0	8.5	42	78	38	30	12	10
29	17	e4.2	e6.0	7.4	---	7.5	46	71	33	55	13	10
30	16	e4.7	e6.2	13	---	8.1	44	69	29	59	14	8.1
31	13	---	e5.8	10	---	6.4	---	71	---	53	15	---
TOTAL	219.7	212.5	190.0	157.0	156.7	186.2	470.9	2199	2028	760	971	534.4
MEAN	7.09	7.08	6.13	5.06	5.60	6.01	15.7	70.9	67.6	24.5	31.3	17.8
MAX	17	12	11	13	13	9.2	46	204	210	59	116	46
MIN	4.4	3.5	4.1	2.7	2.5	4.3	4.5	35	29	11	11	8.1
AC-FT	436	421	377	311	311	369	934	4360	4020	1510	1930	1060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1997, BY WATER YEAR (WY)

	8.81	6.85	5.65	5.42	6.34	6.72	21.2	49.8	36.3	29.5	40.4	17.3
MEAN	8.81	6.85	5.65	5.42	6.34	6.72	21.2	49.8	36.3	29.5	40.4	17.3
MAX	51.6	30.5	25.5	15.5	16.7	34.8	370	372	179	138	147	78.4
(WY)	1942	1942	1995	1921	1920	1987	1942	1941	1965	1919	1955	1942
MIN	.15	.040	.59	.65	1.20	.80	1.21	.96	.65	1.85	4.50	.37
(WY)	1952	1952	1952	1975	1952	1951	1955	1967	1946	1963	1951	1951

ARKANSAS RIVER BASIN

07203000 VERMEJO RIVER NEAR DAWSON, NM -- Continued

SUMMARY STATISTICS

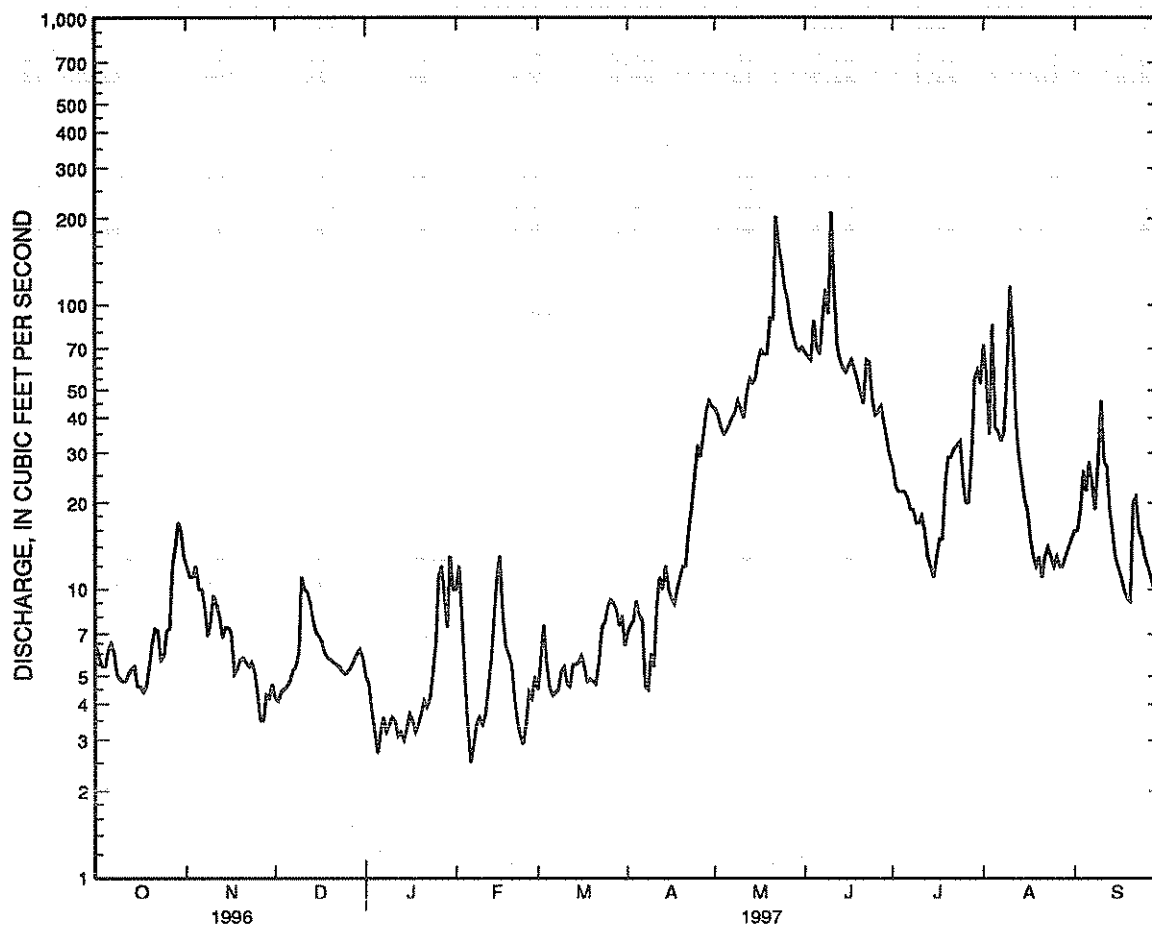
FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1916 - 1997

ANNUAL TOTAL	5353.4	8085.4	
ANNUAL MEAN	14.6	22.2	19.1
HIGHEST ANNUAL MEAN			89.0
LOWEST ANNUAL MEAN			2.05
HIGHEST DAILY MEAN	550	210	2340
LOWEST DAILY MEAN	1.2	2.5	.00
ANNUAL SEVEN-DAY MINIMUM	3.0	3.3	.00
INSTANTANEOUS PEAK FLOW		1110	12600 ^a
INSTANTANEOUS PEAK STAGE		6.47	15.25
ANNUAL RUNOFF (AC-FT)	10620	16040	13860
10 PERCENT EXCEEDS	21	62	45
50 PERCENT EXCEEDS	10	10	7.8
90 PERCENT EXCEEDS	4.6	4.2	1.8

e Estimated

a-From rating curve extended above 400 ft³/s on basis of slope-area measurement of peak flow.

— DAILY MEAN DISCHARGE - 1997 WATER YEAR

ARKANSAS RIVER BASIN

39

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 mi².

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

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

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

REMARKS.--Records good. Diversions for irrigation of about 1,200 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 240 ft³/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, 86 ft³/s, at 1415 hours, May 20, gage height, 2.72 ft; minimum daily discharge, .56 ft³/s, Oct. 12-15, Sept. 18-19.

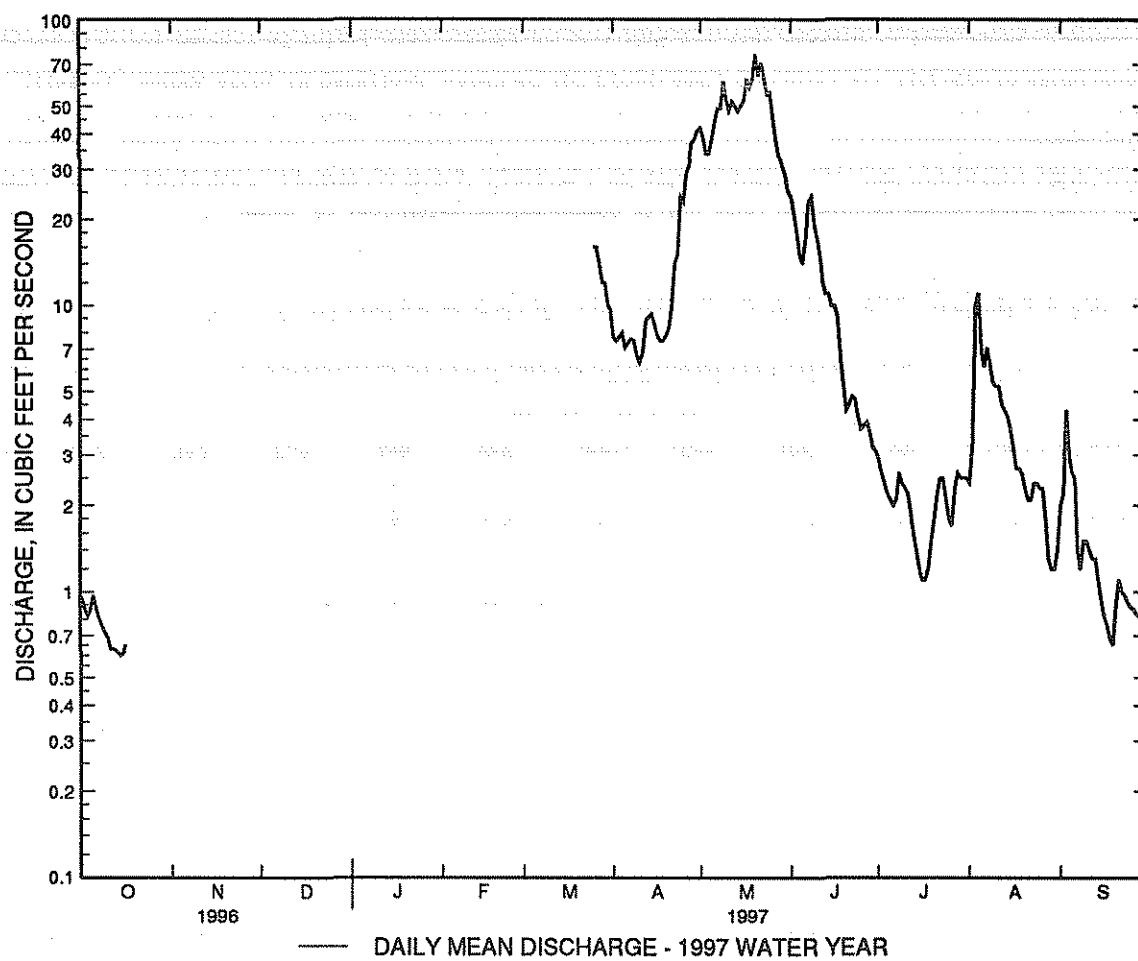
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	---	---	---	---	---	7.7	42	24	2.9	2.4	2.0
2	.87	---	---	---	---	---	7.5	39	21	2.6	3.3	2.2
3	.82	---	---	---	---	---	7.7	34	e18	2.4	10	4.3
4	.85	---	---	---	---	---	8.0	34	e15	2.2	11	3.0
5	.97	---	---	---	---	---	7.1	38	e14	2.1	6.9	2.6
6	.87	---	---	---	---	---	7.4	44	e17	2.0	6.1	2.5
7	.81	---	---	---	---	---	7.6	49	23	2.1	7.1	1.4
8	.76	---	---	---	---	---	7.5	49	e24	2.6	6.3	1.2
9	.72	---	---	---	---	---	6.7	61	e19	2.4	5.4	1.5
10	.69	---	---	---	---	---	6.3	53	e17	2.3	5.2	1.5
11	.63	---	---	---	---	---	6.8	48	15	2.2	5.2	1.4
12	.63	---	---	---	---	---	8.8	52	12	1.9	4.5	1.3
13	.62	---	---	---	---	---	9.1	50	11	1.6	4.3	1.3
14	.60	---	---	---	---	---	9.3	48	11	1.4	4.1	1.1
15	.61	---	---	---	---	---	8.5	50	10	1.2	3.7	.94
16	.65	---	---	---	---	---	7.8	52	10	1.1	3.2	.83
17	---	---	---	---	---	---	7.5	62	9.2	1.1	2.7	.77
18	---	---	---	---	---	---	7.5	58	6.6	1.2	2.7	.69
19	---	---	---	---	---	---	7.8	62	5.3	1.5	2.6	.65
20	---	---	---	---	---	---	8.3	76	4.3	1.8	2.3	.89
21	---	---	---	---	---	---	10	64	4.5	2.2	2.1	1.1
22	---	---	---	---	---	---	14	71	4.8	2.5	2.1	1.0
23	---	---	---	---	---	---	15	63	4.7	2.5	2.4	.97
24	---	---	---	---	---	---	24	55	4.1	2.1	2.4	.92
25	---	---	---	---	---	16	23	56	3.7	1.8	2.3	.88
26	---	---	---	---	---	16	29	46	3.8	1.7	2.3	.87
27	---	---	---	---	---	14	31	39	3.9	2.3	1.8	.83
28	---	---	---	---	---	12	37	34	3.6	2.6	1.3	.82
29	---	---	---	---	---	12	38	31	3.2	2.5	1.2	.81
30	---	---	---	---	---	10	41	29	3.1	2.5	1.2	.78
31	---	---	---	---	---	9.7	---	25	---	2.5	1.4	---
TOTAL	---	---	---	---	---	---	416.9	1514	325.8	63.8	119.5	41.05
MEAN	---	---	---	---	---	---	13.9	48.8	10.9	2.06	3.85	1.37
MAX	---	---	---	---	---	---	41	76	24	2.9	11	4.3
MIN	---	---	---	---	---	---	6.3	25	3.1	1.1	1.2	.65
AC-FT	---	---	---	---	---	---	827	3000	646	127	237	81

e Estimated

ARKANSAS RIVER BASIN

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 mi².

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 ft³/s, June 16, 1965, gage height, 5.63 ft, March 19, 1994, from rating curve extended above 110 ft³/s, no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 86 ft³/s, at 1145 hours, May 22, gage height, 4.18 ft; minimum daily discharge 1.0 ft³/s, Aug. 29.

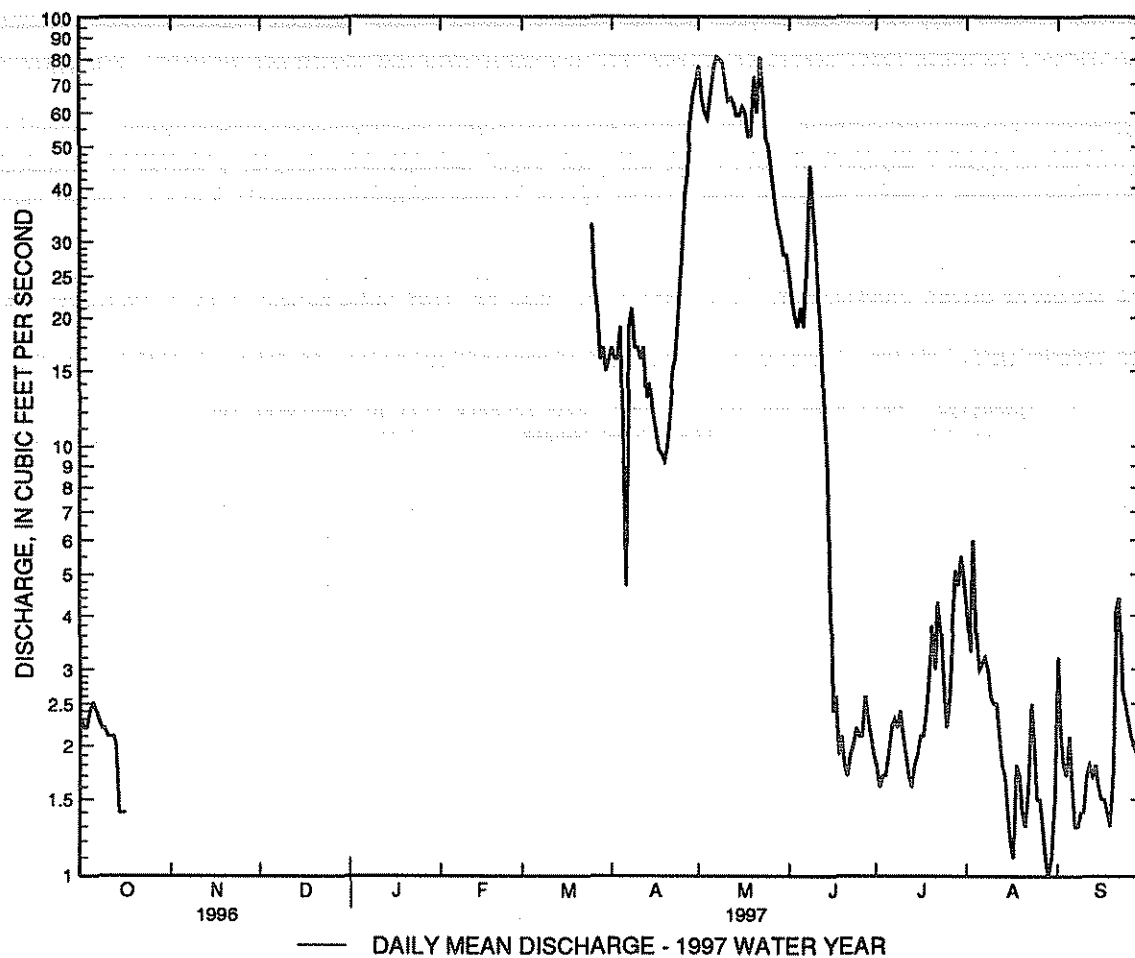
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	---	---	---	---	---	17	e77	25	e1.8	4.1	3.2
2	2.2	---	---	---	---	---	16	e65	22	e1.6	3.3	2.1
3	2.2	---	---	---	---	---	16	e60	20	e1.7	6.0	1.8
4	2.4	---	---	---	---	---	19	e58	19	e1.7	3.6	1.7
5	2.5	---	---	---	---	---	9.7	e67	21	e1.9	3.0	2.1
6	2.4	---	---	---	---	---	4.7	e76	19	e2.2	3.1	1.6
7	2.3	---	---	---	---	---	19	81	27	e2.3	3.2	1.3
8	2.2	---	---	---	---	---	21	80	45	e2.2	3.0	1.3
9	2.2	---	---	---	---	---	17	79	35	e2.4	2.6	1.4
10	2.1	---	---	---	---	---	17	71	29	e2.1	2.5	1.4
11	2.1	---	---	---	---	---	16	64	22	e1.9	2.5	1.7
12	2.1	---	---	---	---	---	17	65	18	e1.7	2.1	1.8
13	2.0	---	---	---	---	---	13	63	e12	e1.6	1.8	1.7
14	1.4	---	---	---	---	---	e14	59	e9.0	e1.8	1.7	1.8
15	1.4	---	---	---	---	---	e12	59	e5.0	e1.9	1.4	1.6
16	1.4	---	---	---	---	---	e11	62	e2.4	2.1	1.2	1.5
17	---	---	---	---	---	---	e9.8	60	e2.6	2.1	1.1	1.5
18	---	---	---	---	---	---	e9.6	53	e1.9	2.4	1.8	1.4
19	---	---	---	---	---	---	e9.2	53	e2.1	3.0	1.7	1.3
20	---	---	---	---	---	---	e10	73	e1.8	3.8	1.4	1.7
21	---	---	---	---	---	---	e12	60	e1.7	3.0	1.3	4.1
22	---	---	---	---	---	---	e15	81	e1.9	4.3	1.6	4.4
23	---	---	---	---	---	---	e16	66	e2.0	3.7	2.5	2.7
24	---	---	---	---	---	---	e21	53	e2.2	2.7	2.0	2.5
25	---	---	---	---	---	---	e27	48	e2.1	2.2	1.5	2.3
26	---	---	---	---	---	24	e38	42	e2.1	2.6	1.5	2.1
27	---	---	---	---	---	21	e44	37	e2.6	3.8	1.3	2.0
28	---	---	---	---	---	16	e57	33	e2.3	5.1	1.1	1.9
29	---	---	---	---	---	17	e66	31	e2.1	4.7	1.0	1.8
30	---	---	---	---	---	15	e71	28	e1.9	5.5	1.1	1.8
31	---	---	---	---	---	16	---	28	---	4.8	1.5	---
TOTAL	---	---	---	---	---	---	645.0	1832	359.7	84.6	67.5	59.5
MEAN	---	---	---	---	---	---	21.5	59.1	12.0	2.73	2.18	1.98
MAX	---	---	---	---	---	---	71	81	45	5.5	6.0	4.4
MIN	---	---	---	---	---	---	4.7	28	1.7	1.6	1.0	1.3
AC-FT	---	---	---	---	---	---	1280	3630	713	168	134	118

e Estimated

ARKANSAS RIVER BASIN

07204500 CIENEGUILLA CREEK NEAR EAGLE NEST, NM -- Continued



ARKANSAS RIVER BASIN

43

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 mi².

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 ft³/s, 1,820 acre-ft/yr.

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

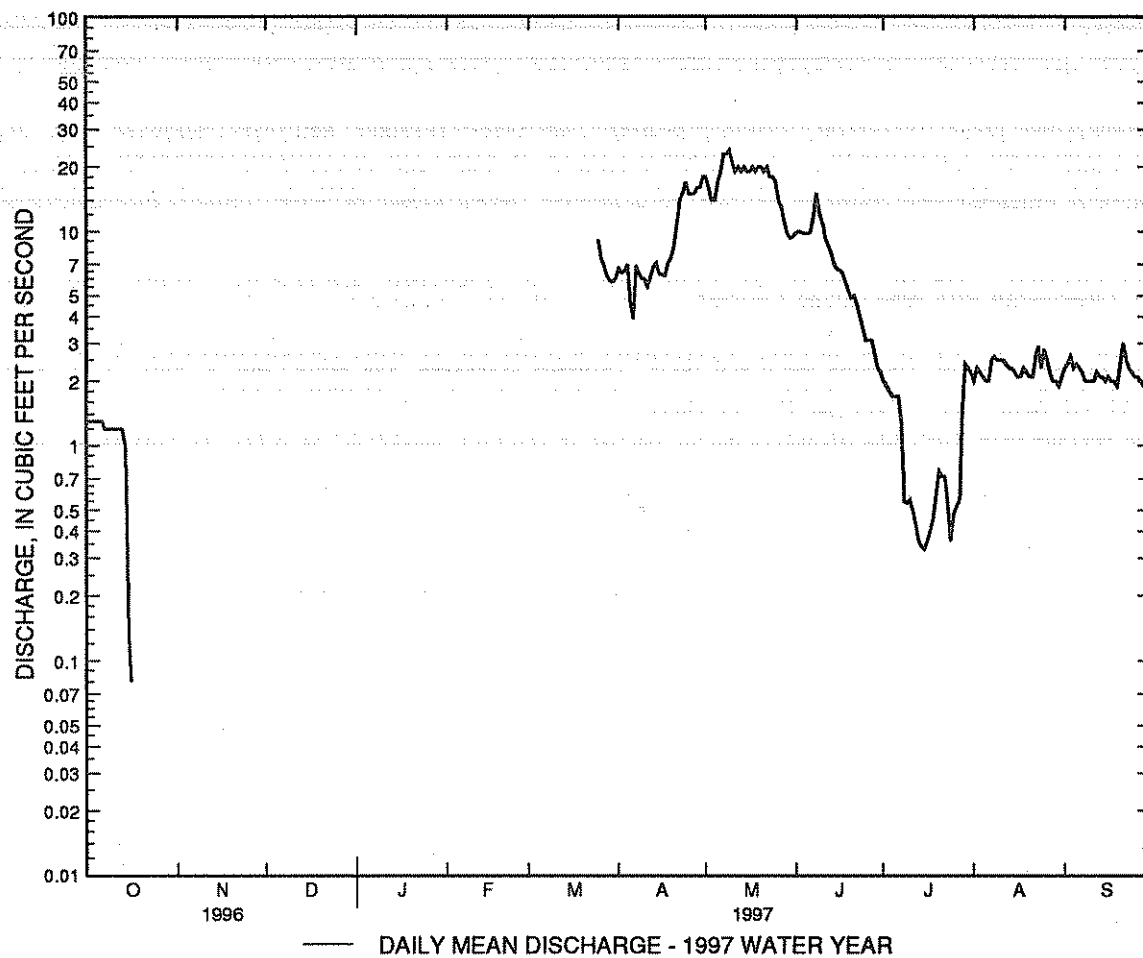
EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 25 ft³/s, at 2300 hours, May 8, gage height 1.45 ft; minimum daily discharge .08 ft³/s, Oct. 16.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	---	---	---	---	---	6.7	18	9.9	2.0	2.0	2.3
2	1.3	---	---	---	---	---	6.4	16	10	1.9	2.3	2.4
3	1.3	---	---	---	---	---	6.5	14	9.9	1.8	2.2	2.6
4	1.3	---	---	---	---	---	7.0	14	9.8	1.7	2.1	2.3
5	1.3	---	---	---	---	---	4.6	17	9.8	1.7	2.0	2.4
6	1.3	---	---	---	---	---	3.9	19	9.9	1.7	2.0	2.3
7	1.2	---	---	---	---	---	6.9	23	12	1.3	2.5	2.2
8	1.2	---	---	---	---	---	6.4	23	15	.55	2.6	2.0
9	1.2	---	---	---	---	---	6.0	24	12	.54	2.5	2.0
10	1.2	---	---	---	---	---	6.0	21	11	.56	2.5	2.0
11	1.2	---	---	---	---	---	5.5	19	9.4	.50	2.5	2.0
12	1.2	---	---	---	---	---	6.1	20	8.6	.43	2.4	2.2
13	1.2	---	---	---	---	---	6.8	19	8.0	.36	2.3	2.1
14	.98	---	---	---	---	---	7.1	20	7.1	.34	2.3	2.1
15	.13	---	---	---	---	---	6.3	19	6.7	.33	2.2	2.0
16	.08	---	---	---	---	---	6.3	19	6.6	.36	2.1	2.1
17	---	---	---	---	---	---	6.2	20	6.4	.40	2.1	2.0
18	---	---	---	---	---	---	7.1	19	5.8	.46	2.3	2.0
19	---	---	---	---	---	---	7.5	20	5.3	.60	2.2	1.9
20	---	---	---	---	---	---	8.6	20	4.9	.76	2.1	2.4
21	---	---	---	---	---	---	11	19	5.0	.72	2.1	3.0
22	---	---	---	---	---	---	14	20	4.5	.72	2.6	2.5
23	---	---	---	---	---	---	15	18	4.0	.54	2.9	2.3
24	---	---	---	---	---	---	17	18	3.5	.36	2.3	2.2
25	---	---	---	---	---	9.1	15	17	3.1	.48	2.8	2.1
26	---	---	---	---	---	7.5	15	14	3.1	.52	2.5	2.1
27	---	---	---	---	---	6.9	15	13	3.1	.56	2.2	2.0
28	---	---	---	---	---	6.2	16	11	2.7	1.5	2.0	1.9
29	---	---	---	---	---	5.9	16	9.8	2.3	2.4	2.0	1.9
30	---	---	---	---	---	5.8	18	9.3	2.2	2.3	1.9	1.9
31	---	---	---	---	---	6.0	---	9.5	---	2.2	2.1	---
TOTAL	---	---	---	---	---	---	279.9	542.6	211.6	30.59	70.6	65.2
MEAN	---	---	---	---	---	---	9.33	17.5	7.05	.99	2.28	2.17
MAX	---	---	---	---	---	---	18	24	15	2.4	2.9	3.0
MIN	---	---	---	---	---	---	3.9	9.3	2.2	.33	1.9	1.9
AC-FT	---	---	---	---	---	---	555	1080	420	61	140	129

ARKANSAS RIVER BASIN

07205000 SIXMILE CREEK NEAR EAGLE NEST, NM -- Continued



ARKANSAS RIVER BASIN

45

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 mi².

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, 73,100 acre-ft, June 19-28, gage height, 134.48 ft; minimum, 54,800 acre-ft, Oct. 31, Nov. 3, gage height, 125.90 ft.

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

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

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

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56000	54900	55600	55700	56500	57300	60800	65000	71800	72800	68900	67200
2	55900	54900	55400	55600	56500	57400	60800	65200	71900	72600	68900	67000
3	55900	54800	55600	55700	56500	57300	61000	65400	71900	72400	69000	66800
4	55900	55000	55400	55700	56500	57400	61100	65700	72000	72200	69000	66700
5	55900	55000	55500	55800	56500	57400	61100	65900	72100	72100	68900	66600
6	55900	55000	55400	55800	56600	57400	61100	66100	72200	72000	69000	66500
7	55800	54900	55400	55700	56600	57400	61100	66500	72400	71800	69000	66400
8	55700	55000	55400	55900	56600	57400	61200	66900	72500	71600	69000	66200
9	55700	55000	55500	55800	56600	57500	61300	67100	72600	71500	69000	66100
10	55700	55100	55400	55800	56900	57500	61200	67400	72700	71400	69000	66100
11	55700	55100	55500	55900	56700	57500	61400	67700	72700	71400	69000	66000
12	55600	55000	55600	56000	56700	57700	61500	68000	72800	71100	69000	65900
13	55500	55200	55500	56100	56700	57900	61600	68100	72800	71000	68900	65800
14	55500	55100	55500	56200	56800	58200	61700	68300	72900	70800	68800	65700
15	55500	55100	55500	56200	56800	58400	61700	68500	72900	70500	68700	65500
16	55500	55100	55500	56200	56800	58900	61800	68800	73000	70300	68600	65400
17	55300	55000	55500	56100	56800	59100	61900	69100	73000	70100	68400	65200
18	55200	55100	55500	56200	56800	59300	62100	69300	73000	70000	68400	65100
19	55100	55100	55500	56200	56800	59500	62200	69500	73100	69800	68400	65000
20	55200	55200	55500	56100	56900	59600	62300	69800	73100	69700	68300	65000
21	55100	55200	55500	56200	56900	59800	62400	70100	73100	69600	68300	65000
22	55000	55200	55500	56400	56900	59900	62600	70400	73100	69500	68300	65000
23	55000	55300	55500	56300	57000	60100	62800	70700	73100	69400	68300	64900
24	54800	55300	55500	56400	57000	60200	63200	70900	73100	69200	68300	64900
25	54900	55300	55600	56300	57100	60400	63500	70900	73100	69200	68300	64900
26	55000	55300	55700	56300	57100	60400	63300	71200	73100	69100	68200	64900
27	55000	55400	55600	56400	57200	60600	63600	71300	73100	69000	68100	64900
28	e55000	55300	55500	56400	57300	60600	64100	71600	73100	69000	68100	64900
29	55000	55400	55600	56400	---	60700	64500	71500	73000	68900	67900	64800
30	54900	55500	55600	56400	---	60700	64800	71700	72900	68900	67700	64800
31	54800	---	55600	56500	---	60800	---	71700	---	68900	67500	---
MAX	56000	55500	55700	56500	57300	60800	64800	71700	73100	72800	69000	67200
MIN	54800	54800	55400	55600	56500	57300	60800	65000	71800	68900	67500	64800
(†)	125.90	126.25	126.32	126.75	127.15	128.88	130.75	133.87	134.39	132.63	131.97	130.74
(††)	-940	+700	+100	+900	+800	+3500	+4000	+6900	+1200	-4000	-1400	-2700

CAL YR 1996 MAX 72300 MIN 54800 (†) -13820
WTR YR 1997 MAX 73100 MIN 54800 (††) +9060

e Estimated

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

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 mi².

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

REVISED RECORDS.--WSP 1281: Drainage area.

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	.63	.01	.35	e.43	.16	5.6	.00	4.7	54	7.7	111
2	12	.44	.05	.40	e.38	.14	5.6	.00	8.5	62	7.7	114
3	12	.30	.23	.39	e.34	.14	8.3	.00	8.5	65	7.7	114
4	12	.30	.30	e.40	e.31	.11	12	.00	8.5	68	2.6	78
5	12	.28	.28	e.38	e.29	.36	12	.00	8.4	68	.21	48
6	12	.30	.29	e.38	e.30	.51	11	.00	2.4	68	.16	48
7	12	.29	.29	e.36	e.27	.50	10	.00	.51	65	.16	48
8	12	.30	.30	e.36	e.26	.50	10	.00	.45	64	.16	57
9	12	.29	.30	e.34	e.28	.51	10	.00	.45	59	.16	59
10	10	.17	.49	e.32	e.28	.50	8.6	.00	.41	57	.16	51
11	8.5	.09	.57	e.35	e.25	.52	6.6	.00	.29	57	.16	42
12	13	.06	.45	e.33	e.23	.54	6.4	5.3	.23	57	3.5	42
13	20	.06	.45	e.37	e.20	.69	6.1	7.3	.18	63	8.9	42
14	19	.02	.44	e.34	e.21	.78	5.9	7.2	.16	65	49	42
15	18	.00	.45	e.32	e.19	.80	3.7	7.4	.13	75	58	42
16	22	.00	e.45	e.31	e.21	.77	.00	7.4	.06	78	58	46
17	24	.00	e.43	e.30	e.21	.75	.00	7.4	.06	79	58	52
18	24	.00	e.45	e.31	e.22	.89	.00	7.4	.06	79	16	50
19	24	.00	e.40	e.32	e.21	.99	.00	7.4	.06	78	3.7	47
20	24	.00	e.34	e.30	e.23	.98	.07	7.4	.06	79	7.7	35
21	24	.00	.31	e.32	e.21	.93	4.1	7.4	.06	71	7.7	25
22	24	.00	.31	e.33	e.21	.81	9.8	7.4	.06	58	7.7	16
23	24	.00	.29	e.33	e.22	.91	18	1.4	3.0	48	7.7	13
24	25	.00	.30	e.35	e.21	1.0	15	.30	7.7	44	12	12
25	25	.00	.30	e.37	.21	.74	.01	6.3	6.6	41	21	10
26	25	.00	.30	e.36	.16	.62	.00	8.1	6.3	41	30	7.0
27	25	.00	.28	e.42	.16	.60	.00	8.1	6.3	41	32	7.0
28	25	.00	.29	e.40	.16	.62	.00	8.1	6.0	41	32	7.0
29	25	.00	.30	e.45	---	3.4	.00	8.2	16	21	77	7.0
30	25	.00	.30	e.50	---	5.9	.00	1.8	28	15	99	7.0
31	6.0	---	.30	e.48	---	5.7	---	.54	---	10	99	---
TOTAL	561.1	3.53	10.25	11.24	6.84	32.37	168.78	121.84	124.13	1771	714.77	1279.0
MEAN	18.1	.12	.33	.36	.24	1.04	5.63	3.93	4.14	57.1	23.1	42.6
MAX	25	.63	.57	.50	.43	5.9	18	8.2	28	79	99	114
MIN	5.6	.00	.01	.30	.16	.11	.00	.00	.06	10	.16	7.0
AC-FT	1110	7.0	20	22	14	64	335	242	246	3510	1420	2540

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1997, BY WATER YEAR (WY)

MEAN	15.8	5.35	.96	.87	2.35	9.95	23.7	36.5	32.2	36.7	21.7	16.0
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

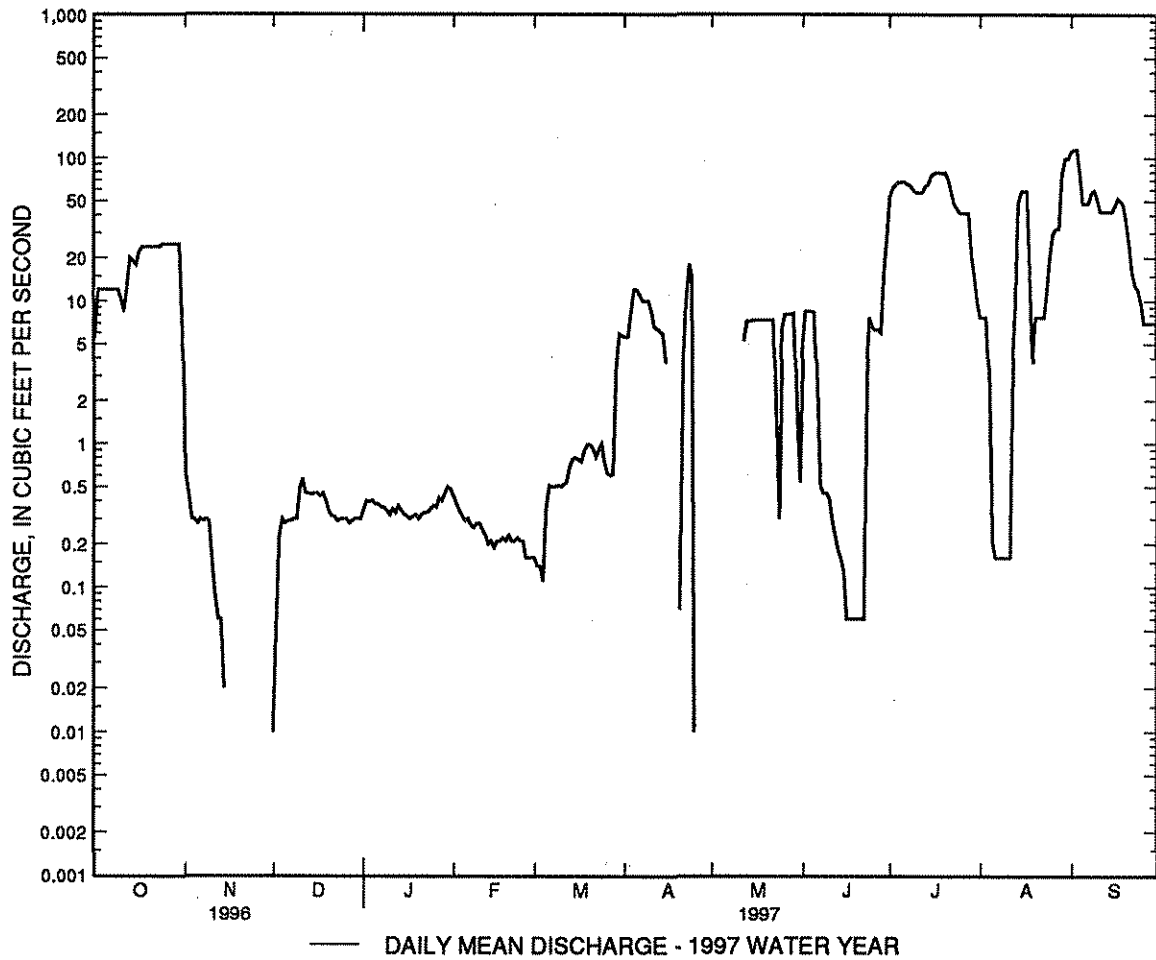
ARKANSAS RIVER BASIN

47

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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1950 - 1997	
ANNUAL TOTAL	9121.74		4804.85		16.7	
ANNUAL MEAN	24.9		13.2		56.5	
HIGHEST ANNUAL MEAN					5.85	
LOWEST ANNUAL MEAN					303	
HIGHEST DAILY MEAN	132	Jul 29	114	Sep 2	May 24	1994
LOWEST DAILY MEAN	.00	Nov 15	.00	Nov 15	May 1	1950
ANNUAL SEVEN-DAY MINIMUM	.00	Nov 15	.00	Nov 15	May 1	1950
ANNUAL RUNOFF (AC-FT)	18090		9530		12100	
10 PERCENT EXCEEDS	73		50		46	
50 PERCENT EXCEEDS	13		.69		6.5	
90 PERCENT EXCEEDS	.30		.01		.00	

e Estimated



ARKANSAS RIVER BASIN

07207000 CIMARRON RIVER NEAR CIMARRON, NM

LOCATION.--Lat 36°31'11", long 104°58'42", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank 1,200 ft downstream from Turkey Creek Canyon, 3.6 mi west of Cimarron, and at mile 31.6.

DRAINAGE AREA.--294 mi².

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	8.2	e2.1	e3.6	e1.4	e1.5	15	73	53	36	18	98
2	3.8	5.7	e2.2	e3.5	e1.2	e1.7	15	64	63	57	21	106
3	7.5	4.9	e2.2	e3.5	e1.1	e1.7	16	54	66	59	19	107
4	8.3	5.0	e2.4	e3.7	e1.1	e1.8	19	51	64	68	18	102
5	8.9	4.1	e2.4	e3.6	e1.2	e2.0	21	54	64	70	14	56
6	8.8	3.7	e2.4	e3.6	e1.1	e2.5	19	58	60	70	11	49
7	8.8	3.2	e2.5	e3.6	e1.1	e2.3	20	66	62	68	11	47
8	9.1	3.1	e2.5	e3.7	e1.3	e2.5	19	69	95	65	9.9	49
9	9.2	2.6	e2.5	e3.7	e1.5	e2.8	19	70	81	63	9.2	59
10	9.2	2.3	e2.5	e3.8	e1.3	3.2	19	67	66	60	8.8	58
11	7.9	2.1	e2.6	e3.8	e1.1	3.9	18	64	57	59	8.0	43
12	6.6	2.1	e2.5	e3.9	e1.0	5.0	17	67	52	57	7.8	45
13	11	2.0	e2.6	e4.1	e1.0	5.4	17	73	48	56	10	46
14	15	1.9	e2.7	e3.9	e1.1	5.8	17	76	44	62	21	44
15	14	1.9	e2.8	e3.8	e1.0	6.0	17	77	38	65	54	44
16	15	1.9	e2.9	e3.7	e1.0	6.1	15	79	42	76	56	44
17	20	2.1	e3.0	e3.5	e.90	6.5	14	84	39	77	58	51
18	21	1.5	e2.9	e3.2	e.80	6.9	14	86	36	78	51	52
19	21	1.4	e3.1	e2.9	e.70	7.2	15	90	32	80	15	49
20	22	1.4	e3.3	e2.5	e.70	7.7	16	91	30	80	13	46
21	23	1.4	e3.5	e2.2	e1.0	8.6	19	91	28	79	9.4	37
22	23	1.4	e3.6	e1.8	e1.0	10	27	95	30	70	8.7	25
23	23	e1.5	e3.9	e1.6	e1.1	12	34	91	27	55	8.9	19
24	23	e1.6	e4.1	e1.5	e1.1	13	45	85	26	50	10	16
25	23	e1.7	e4.5	e1.4	e1.2	14	30	82	30	44	12	15
26	24	e1.7	e4.7	e1.4	e1.3	14	32	81	30	45	20	12
27	26	e1.8	e5.0	e1.3	e1.4	14	44	75	27	49	24	8.9
28	26	e1.9	e4.6	e1.2	e1.5	13	72	68	26	50	23	8.3
29	27	e2.0	e4.0	e1.2	---	12	84	63	24	44	33	8.0
30	26	e2.1	e3.7	e1.3	---	14	85	59	32	27	83	7.6
31	24	---	e3.6	e1.6	---	15	---	52	---	25	93	---
TOTAL	498.8	78.2	97.3	88.1	31.20	222.1	814	2255	1372	1844	758.7	1351.8
MEAN	16.1	2.61	3.14	2.84	1.11	7.16	27.1	72.7	45.7	59.5	24.5	45.1
MAX	27	8.2	5.0	4.1	1.5	15	85	95	95	80	93	107
MIN	3.7	1.4	2.1	1.2	.70	1.5	14	51	24	25	7.8	7.6
AC-FT	989	155	193	175	62	441	1610	4470	2720	3660	1500	2680
(t)	0	0	0	0	0	0	0	0	11	294	147	136
(tt)	0	0	0	0	0	0	0	.10	.20	.10	0	

CAL YR 1996 AC-FT (t) 799 (tt) 765

WTR	YR	1997	AC-FT	(†)	588	(††)	.40
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(+) DIVERSION, IN ACRE-FEET, BY PHILMONT DITCH, DATA PROVIDED BY CIMARRON RIVER WATERMASTER

(††) DIVERSION, IN ACRE-FEET, RATON DIVERSION, DATA PROVIDED BY CITY OF RATON

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1997, BY WATER YEAR (WY)

MEAN	17.9	10.2	5.00	4.17	5.13	13.2	36.4	67.1	50.4	38.6	27.0	18.7
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

ARKANSAS RIVER BASIN

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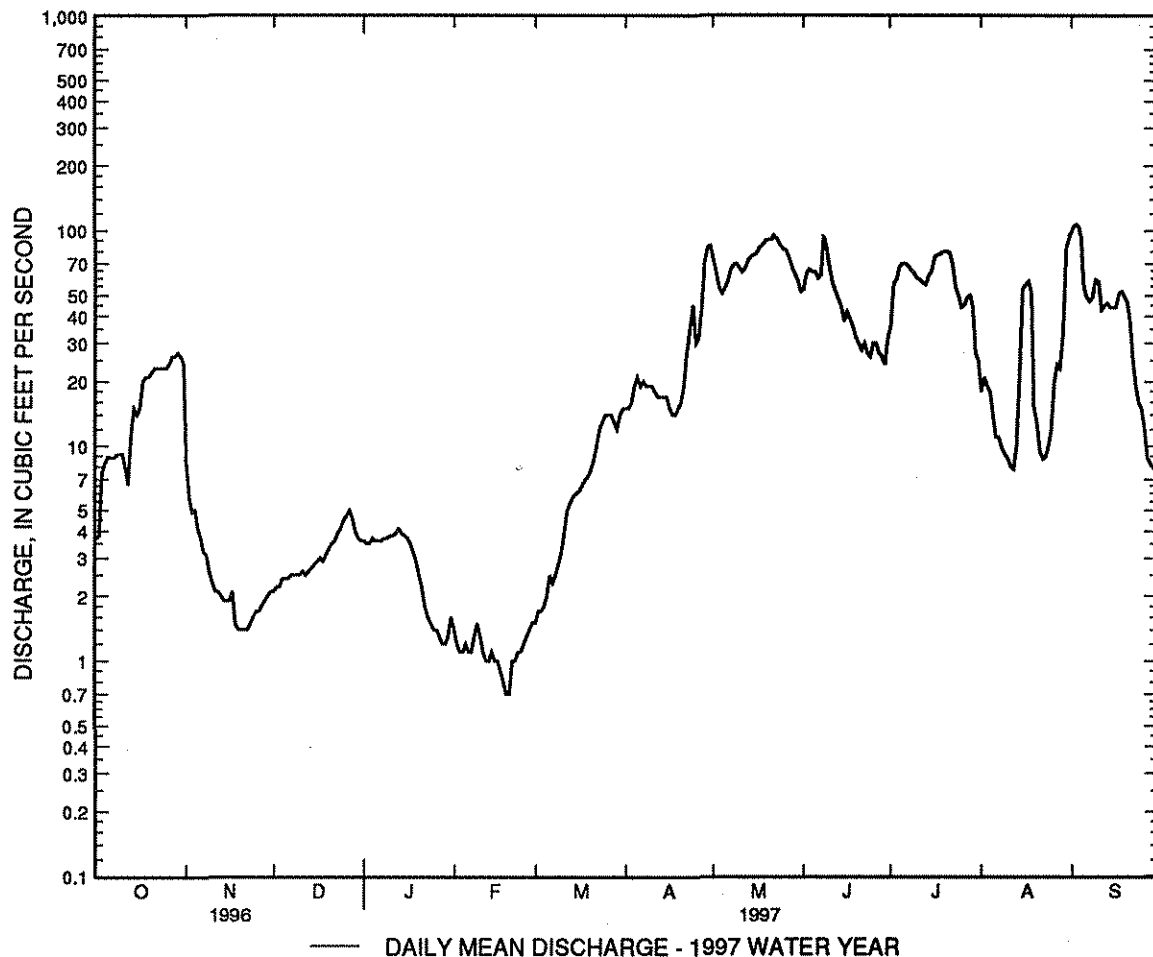
07207000 CIMARRON RIVER NEAR CIMARRON, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1950 - 1997	
ANNUAL TOTAL	8784.1		9411.20		24.4	
ANNUAL MEAN	24.0		25.8		80.7	
HIGHEST ANNUAL MEAN					9.09	
LOWEST ANNUAL MEAN					1994	
HIGHEST DAILY MEAN	121	Jul 30	107	Sep 3	1240	Jun 17 1965
LOWEST DAILY MEAN	1.4	Nov 19	.70	Feb 19	.00	Sep 14 1956
ANNUAL SEVEN-DAY MINIMUM	1.5	Nov 18	.87	Feb 15	.00	Sep 14 1956
INSTANTANEOUS PEAK FLOW			175	Jun 8	15500 ^b	Jun 17 1965
INSTANTANEOUS PEAK STAGE			2.35	Jun 8	12.42 ^a	Jun 17 1965
INSTANTANEOUS LOW FLOW			.70	Feb 19	.00	Sep 14 1956
ANNUAL RUNOFF (AC-FT)	17420		18670		17690	
10 PERCENT EXCEEDS	66		70		57	
50 PERCENT EXCEEDS	12		14		14	
90 PERCENT EXCEEDS	2.8		1.5		2.7	

e Estimated

a-From floodmarks.

b-From rating curve extended above 800 ft³/s on basis of slope-area measurements at gage heights 4.88 ft and 12.4 ft.



ARKANSAS RIVER BASIN

07207500 PONIL CREEK NEAR CIMARRON, NM

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

DRAINAGE AREA.--171 mi².

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 ft³/s by New Mexico State Engineer.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	4.4	e2.5	e1.9	e1.6	2.6	12	87	45	7.6	6.9	5.4
2	1.7	3.7	e2.3	e2.0	e1.5	2.8	12	73	43	6.8	8.2	4.3
3	1.7	3.5	e2.3	e2.0	e1.5	3.3	13	61	40	6.4	21	4.5
4	1.7	3.6	e2.3	e2.0	e1.5	3.2	13	56	39	5.9	50	5.4
5	1.7	3.3	e2.2	e1.9	e1.6	3.1	12	61	41	6.0	28	8.1
6	1.6	3.2	e2.1	e1.8	e1.5	3.5	8.6	64	38	5.8	19	6.1
7	1.5	3.0	e2.0	e2.0	e1.6	3.8	11	69	43	5.3	22	5.2
8	1.4	2.6	e2.1	e2.0	e1.6	4.1	11	70	46	5.4	22	4.7
9	1.4	2.7	e2.1	e1.9	e1.9	4.7	9.9	81	42	5.0	17	4.8
10	1.3	2.7	e2.0	e2.0	e1.7	5.3	10	80	37	4.8	15	6.0
11	1.3	2.6	e2.0	e1.9	e1.7	6.3	8.9	77	34	4.4	13	6.7
12	1.2	2.4	e1.9	e1.8	e2.0	8.3	9.8	80	28	3.9	11	4.5
13	1.2	2.5	e1.8	e1.8	e1.9	10	10	77	25	3.4	10	4.1
14	1.1	2.5	e2.0	e1.7	e1.8	10	10	76	23	3.0	9.1	3.7
15	1.1	2.5	e1.8	e1.6	e1.6	10	12	75	22	2.8	8.1	3.5
16	1.0	2.6	e1.6	e1.6	e1.8	10	14	72	23	2.8	7.7	3.2
17	1.0	2.5	e1.7	e1.7	e1.7	11	18	73	22	2.8	7.2	2.9
18	1.0	2.3	e1.8	e1.7	e1.6	11	21	72	20	2.7	7.0	2.9
19	1.1	2.5	e1.9	e1.8	e1.7	11	23	72	18	2.8	6.5	2.8
20	1.2	2.7	e2.1	e1.7	e1.8	12	26	80	16	2.8	6.2	2.7
21	1.6	2.7	e1.8	e1.7	e1.9	14	29	77	15	3.7	6.2	3.9
22	1.6	2.8	e1.7	e1.5	e1.8	16	33	121	15	3.9	6.0	4.3
23	1.5	2.8	e1.7	e1.5	e2.0	17	32	130	15	5.2	5.9	3.7
24	1.6	e2.8	e1.7	e1.6	e2.2	17	35	115	13	4.3	6.9	3.4
25	1.6	e2.7	e1.7	e1.5	e2.4	16	31	100	13	3.7	5.6	3.0
26	1.8	e2.6	e1.8	e1.5	e2.5	15	34	82	13	5.2	5.8	2.6
27	3.0	e2.5	e2.1	e1.4	e2.4	15	36	69	12	5.1	5.2	2.5
28	2.6	e2.4	e2.0	e1.3	e2.7	14	60	61	11	6.1	4.8	2.4
29	4.0	e2.4	e1.8	e1.4	---	13	85	55	9.3	6.4	4.4	2.3
30	3.6	e2.7	e1.8	e1.5	---	12	96	51	8.2	6.9	5.7	2.2
31	3.6	---	e1.8	e1.5	---	13	---	47	---	7.3	6.0	---
TOTAL	53.6	84.2	60.4	53.2	51.5	298.0	736.2	2364	769.5	148.2	357.4	121.8
MEAN	1.73	2.81	1.95	1.72	1.84	9.61	24.5	76.3	25.6	4.78	11.5	4.06
MAX	4.0	4.4	2.5	2.0	2.7	17	96	130	46	7.6	50	8.1
MIN	1.0	2.3	1.6	1.3	1.5	2.6	8.6	47	8.2	2.7	4.4	2.2
AC-FT	106	167	120	106	102	591	1460	4690	1530	294	709	242

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1997, BY WATER YEAR (WY)

MEAN	3.73	3.34	2.41	2.14	2.30	5.17	25.3	47.2	19.0	7.27	14.8	5.58
MAX	23.2	12.3	8.80	8.04	7.35	25.5	126	196	122	31.9	159	51.7
(WY)	1961	1920	1920	1920	1987	1987	1924	1924	1979	1921	1991	1991
MIN	.000	.000	.13	.029	.14	.33	1.94	.97	.18	.003	.31	.000
(WY)	1952	1952	1957	1957	1957	1955	1925	1963	1963	1964	1974	1951

ARKANSAS RIVER BASIN

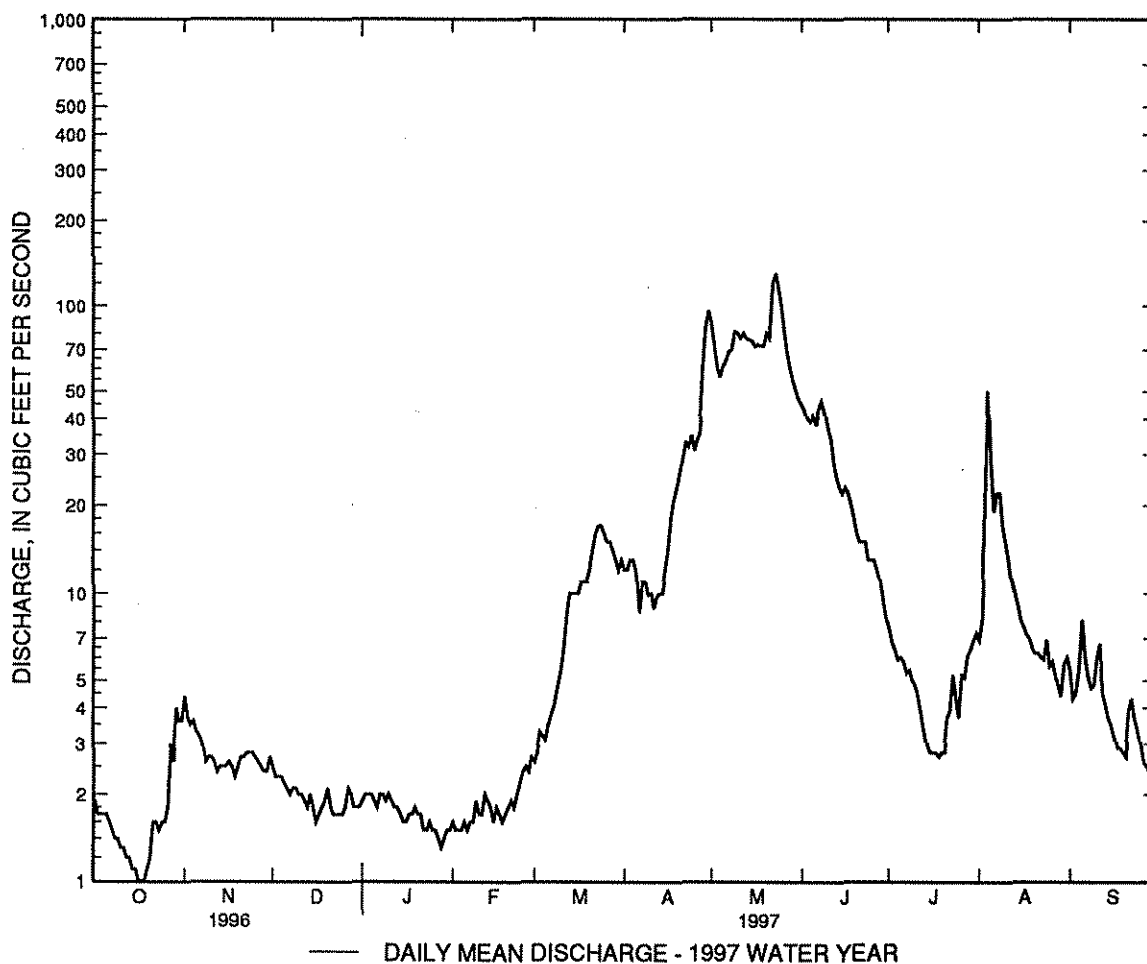
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07207500 PONIL CREEK NEAR CIMARRON, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1916 - 1997
ANNUAL TOTAL	963.89	5098.0	
ANNUAL MEAN	2.63	14.0	11.7
HIGHEST ANNUAL MEAN			34.5
LOWEST ANNUAL MEAN			1.38
HIGHEST DAILY MEAN	8.2 Aug 26	130 May 23	819 Jun 17 1965
LOWEST DAILY MEAN	.14 Jun 25	1.0 Oct 16	.00 Jun 23 1951
ANNUAL SEVEN-DAY MINIMUM	.19 Jun 20	1.1 Oct 13	.00 Jun 23 1951
INSTANTANEOUS PEAK FLOW		142 May 23	5630 ^a Jun 17 1965
INSTANTANEOUS PEAK STAGE		3.25 May 23	11.13 Jun 17 1965
INSTANTANEOUS LOW FLOW		.93 Feb 13	.00 Jun 23 1951
ANNUAL RUNOFF (AC-FT)	1910	10110	8450
10 PERCENT EXCEEDS	4.9	45	28
50 PERCENT EXCEEDS	2.6	3.9	3.1
90 PERCENT EXCEEDS	.66	1.6	.40

e Estimated

a-From rating curve extended above 230 ft³/s on basis of slope-area measurements at gage heights 3.56 ft, 5.80 ft, 7.15 ft and 11.13 ft.



ARKANSAS RIVER BASIN

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07208500 RAYADO CREEK NEAR CIMARRON, NM - Continued

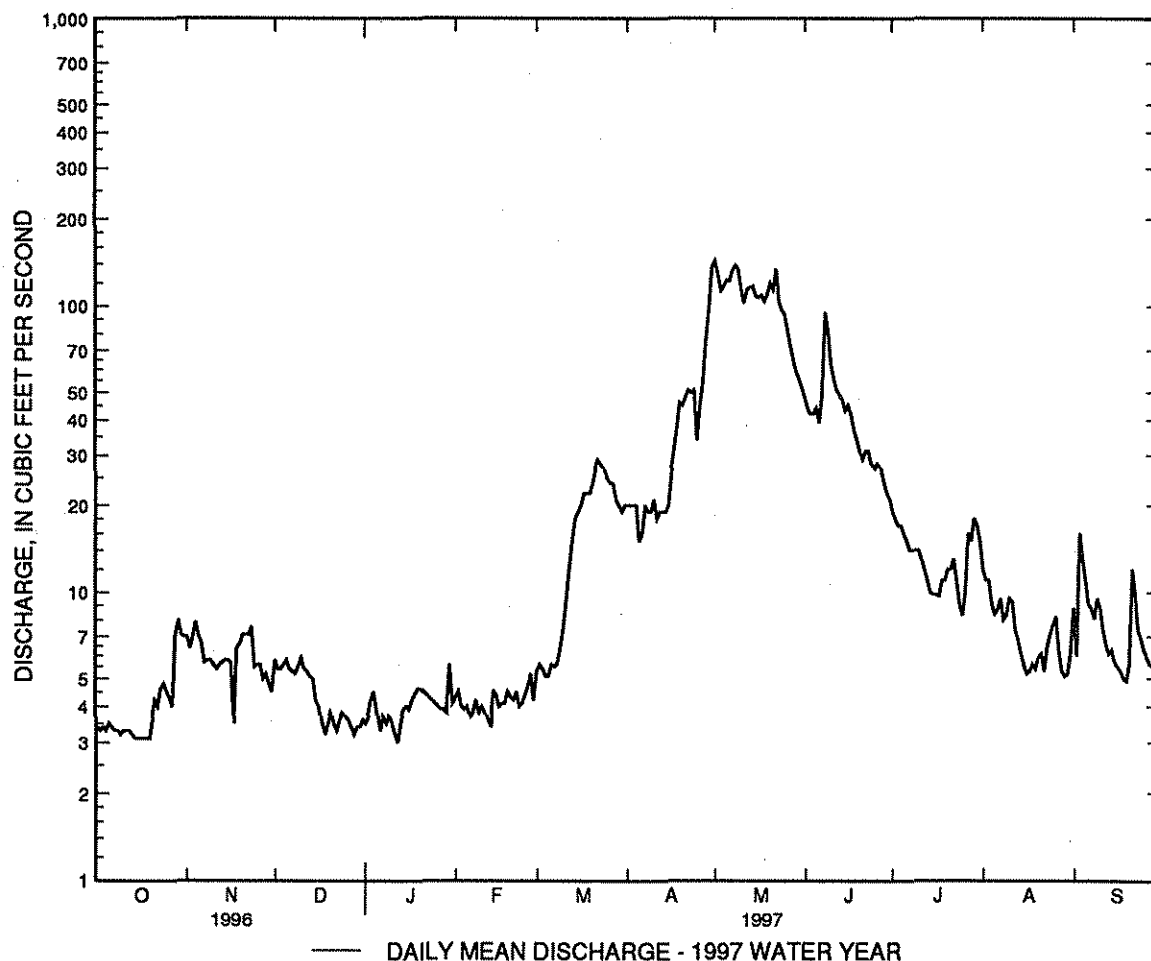
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1912 - 1997
ANNUAL TOTAL	2236.2	7714.1	
ANNUAL MEAN	6.11	21.1	13.9
HIGHEST ANNUAL MEAN			41.6
LOWEST ANNUAL MEAN			2.83
HIGHEST DAILY MEAN	15 Aug 23	143 May 1	2000 Jun 18 1965
LOWEST DAILY MEAN	2.1 Jun 21	3.0 Jan 12	.40 Nov 16 1956
ANNUAL SEVEN-DAY MINIMUM	2.7 Jun 19	3.1 Oct 13	.67 Sep 15 1956
INSTANTANEOUS PEAK FLOW		181 May 1	9000 ^b Jun 17 1965
INSTANTANEOUS PEAK STAGE		3.55 May 1	11.50 ^a Jun 17 1965
INSTANTANEOUS LOW FLOW		1.2 Nov 17	.03 ^c Dec 3 1950
ANNUAL RUNOFF (AC-FT)	4440	15300	10070
10 PERCENT EXCEEDS	11	56	30
50 PERCENT EXCEEDS	5.5	7.0	5.4
90 PERCENT EXCEEDS	3.3	3.5	2.6

e Estimated

a-From floodmarks.

b-From rating curve extended above 70 ft³/s on basis of field estimate of peak flow.

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



ARKANSAS RIVER BASIN

07211000 CIMARRON RIVER AT SPRINGER, NM

LOCATION.--Lat 36°21'37", long 104°35'53", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left bank in Springer, 400 ft downstream from bridge on State Highway 21, 0.3 mi upstream from Salado Creek, and at mile 8.2.

DRAINAGE AREA.--1,032 mi².

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 ft³/s, but probably were less than the 1965 flood.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	9.4	e5.4	9.2	8.7	15	3.4	315	73	15	20	.42
2	2.3	7.6	e5.6	8.7	8.2	14	3.7	305	66	13	11	.82
3	2.0	6.9	e5.6	8.5	7.8	12	7.2	254	66	13	5.6	.53
4	2.0	6.3	e5.8	8.0	7.2	8.9	12	238	60	17	6.0	.70
5	2.2	6.0	6.0	7.4	6.8	7.4	8.7	236	146	14	3.8	5.1
6	2.5	5.9	6.5	e6.5	7.1	6.8	5.9	204	145	13	2.1	3.9
7	2.5	5.4	8.8	e6.0	6.8	6.5	4.9	206	200	12	4.8	2.5
8	2.3	5.0	8.4	e6.2	7.2	6.4	4.5	208	227	13	4.3	3.8
9	2.2	4.2	8.0	e5.8	7.9	5.8	4.6	189	273	11	3.4	4.2
10	2.2	3.8	7.5	e5.8	8.1	5.5	4.9	181	230	4.0	2.3	3.0
11	2.5	5.5	6.8	e5.6	8.1	5.3	4.9	202	228	1.8	3.3	7.1
12	3.2	5.8	6.2	e5.8	7.7	4.8	6.0	227	196	.87	3.7	6.4
13	2.6	4.5	5.9	e5.4	7.8	4.6	7.3	250	174	.50	7.8	5.6
14	3.1	3.8	5.5	e5.2	7.3	4.2	6.8	239	162	2.3	8.6	3.3
15	7.3	4.2	e5.8	e5.2	6.7	4.0	3.9	246	147	8.1	6.7	2.7
16	3.3	5.1	e6.0	e5.0	6.5	4.1	3.9	235	125	1.4	3.4	2.6
17	2.5	5.0	e6.3	e5.2	6.5	4.0	4.3	229	136	.98	3.0	3.0
18	4.8	5.0	e6.4	e5.2	6.5	3.7	4.9	237	119	1.4	5.5	1.6
19	9.1	5.0	e6.6	5.1	6.8	4.9	5.1	242	110	1.1	6.9	1.5
20	8.1	5.0	6.6	5.6	7.0	15	4.1	249	88	.75	4.6	6.0
21	11	5.0	5.7	9.2	7.1	13	3.3	207	75	.97	3.4	12
22	12	5.0	7.0	10	6.5	11	4.0	220	59	3.6	6.2	14
23	13	5.0	8.9	11	6.9	5.9	7.0	243	49	4.3	2.0	9.3
24	15	5.0	e8.4	10	8.6	5.0	11	252	41	2.2	2.3	6.8
25	13	5.0	8.7	10	7.8	5.7	22	236	36	1.6	2.1	11
26	11	5.1	8.9	10	8.9	6.4	22	203	42	1.9	1.8	11
27	10	5.0	9.5	11	9.2	5.8	43	148	33	1.8	1.6	9.4
28	9.7	5.1	10	9.4	11	4.7	70	128	24	4.3	.72	3.5
29	14	5.4	9.2	9.1	---	4.0	126	123	19	23	.33	2.2
30	16	e5.4	8.8	8.2	---	3.5	211	88	19	18	.52	2.0
31	12	---	9.2	8.5	---	3.5	---	83	---	10	.49	---
TOTAL	206.0	160.4	224.0	231.8	212.7	211.4	630.3	6623	3368	215.87	138.26	145.97
MEAN	6.65	5.35	7.23	7.48	7.60	6.82	21.0	214	112	6.96	4.46	4.87
MAX	16	9.4	10	11	11	15	211	315	273	23	20	14
MIN	2.0	3.8	5.4	5.0	6.5	3.5	3.3	83	19	.50	.33	.42
AC-FT	409	318	444	460	422	419	1250	13140	6680	428	274	290

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 1997, BY WATER YEAR (WY)

	MEAN	8.78	8.42	7.63	7.78	8.14	10.9	33.7	87.0	45.3	12.1	17.3	12.8
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

ARKANSAS RIVER BASIN

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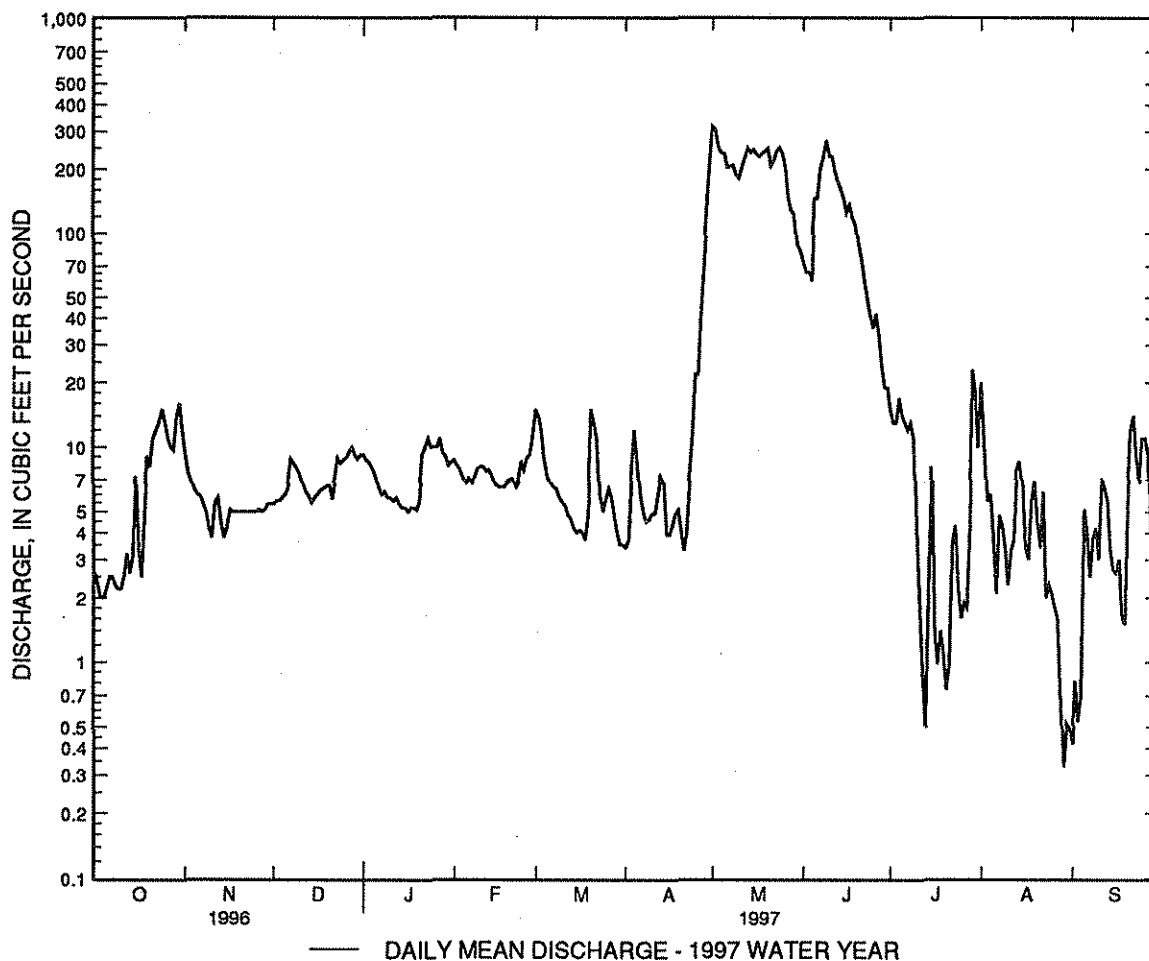
07211000 CIMARRON RIVER AT SPRINGER, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1908 - 1997
ANNUAL TOTAL	3445.10	12367.70	
ANNUAL MEAN	9.41	33.9	21.9
HIGHEST ANNUAL MEAN			139
LOWEST ANNUAL MEAN			.90
HIGHEST DAILY MEAN	252 Aug 27	315 May 1	10500 Jun 18 1965
LOWEST DAILY MEAN	.02 Aug 7	.33 Aug 29	.00 Sep 2 1954
ANNUAL SEVEN-DAY MINIMUM	.22 Aug 5	.54 Aug 29	.00 Sep 16 1954
INSTANTANEOUS PEAK FLOW		337 Apr 30	29500 ^b Jun 18 1965
INSTANTANEOUS PEAK STAGE		4.63 Apr 30	19.96 ^a Jun 18 1965
ANNUAL RUNOFF (AC-FT)	6830	24530	15850
10 PERCENT EXCEEDS	18	147	30
50 PERCENT EXCEEDS	5.8	6.6	4.0
90 PERCENT EXCEEDS	1.2	2.3	1.2

e Estimated

a-From floodmarks.

b-From rating curve extended above 1,800 ft³/s on basis of contracted-opening measurement of peak flow.



LOCATION.--Lat 36°17'49", long 104°29'36", in NW¹/4SE¹/4 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.

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.

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 ft³/s in WSP 842, 847.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	32	e19	28	24	30	16	361	96	57	119	28
2	17	27	e19	27	22	31	16	368	87	38	36	67
3	16	24	19	28	21	28	19	343	85	25	96	40
4	16	25	20	25	20	24	28	315	125	26	106	11
5	15	24	22	22	18	21	27	298	172	24	31	26
6	13	22	30	17	18	19	21	258	208	23	26	22
7	12	22	26	17	17	19	18	249	349	22	21	17
8	13	21	30	20	20	19	17	277	406	21	16	16
9	13	21	31	22	23	e18	16	253	444	20	11	19
10	13	20	30	20	21	e20	16	236	571	15	10	69
11	11	20	27	20	20	e21	16	241	564	9.3	23	82
12	11	21	23	17	20	e23	16	258	326	8.1	30	36
13	11	21	22	24	20	e20	19	278	286	6.4	878	41
14	11	20	22	24	18	e17	24	269	266	6.0	116	33
15	14	20	19	25	19	e19	21	276	229	8.5	56	24
16	12	21	17	26	19	e17	17	275	196	7.0	36	20
17	9.6	20	18	28	18	e18	16	264	208	3.5	29	16
18	9.6	20	16	27	18	e16	15	271	203	3.2	27	12
19	15	20	16	30	19	15	15	281	182	4.1	29	9.7
20	16	20	17	30	19	23	14	291	147	4.5	28	23
21	21	20	21	35	20	25	14	249	200	6.6	24	76
22	24	20	24	34	18	24	13	260	200	6.0	55	58
23	26	19	29	36	20	19	14	314	174	11	82	39
24	27	19	27	32	24	18	25	331	136	7.6	e24	26
25	26	19	28	27	27	19	43	308	115	4.9	e17	25
26	26	20	28	34	26	19	90	268	114	5.8	14	25
27	35	19	31	28	25	20	93	193	106	6.8	12	24
28	32	20	29	28	26	17	134	173	94	5.2	9.9	19
29	36	e20	27	26	---	17	179	170	77	18	8.5	15
30	38	e20	28	24	---	16	235	139	71	44	27	15
31	37	---	30	24	---	16	---	118	---	34	36	---
TOTAL	594.2	637	745	805	580	628	1207	8185	6437	481.5	2033.4	933.7
MEAN	19.2	21.2	24.0	26.0	20.7	20.3	40.2	264	215	15.5	65.6	31.1
MAX	38	32	31	36	27	31	235	368	571	57	878	82
MIN	9.6	19	16	17	17	15	13	118	71	3.2	8.5	9.7
AC-FT	1180	1260	1480	1600	1150	1250	2390	16230	12770	955	4030	1850

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

MEAN	38.8	23.3	20.7	21.3	25.3	27.7	127	244	146	92.3	118	79.6
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

ARKANSAS RIVER BASIN

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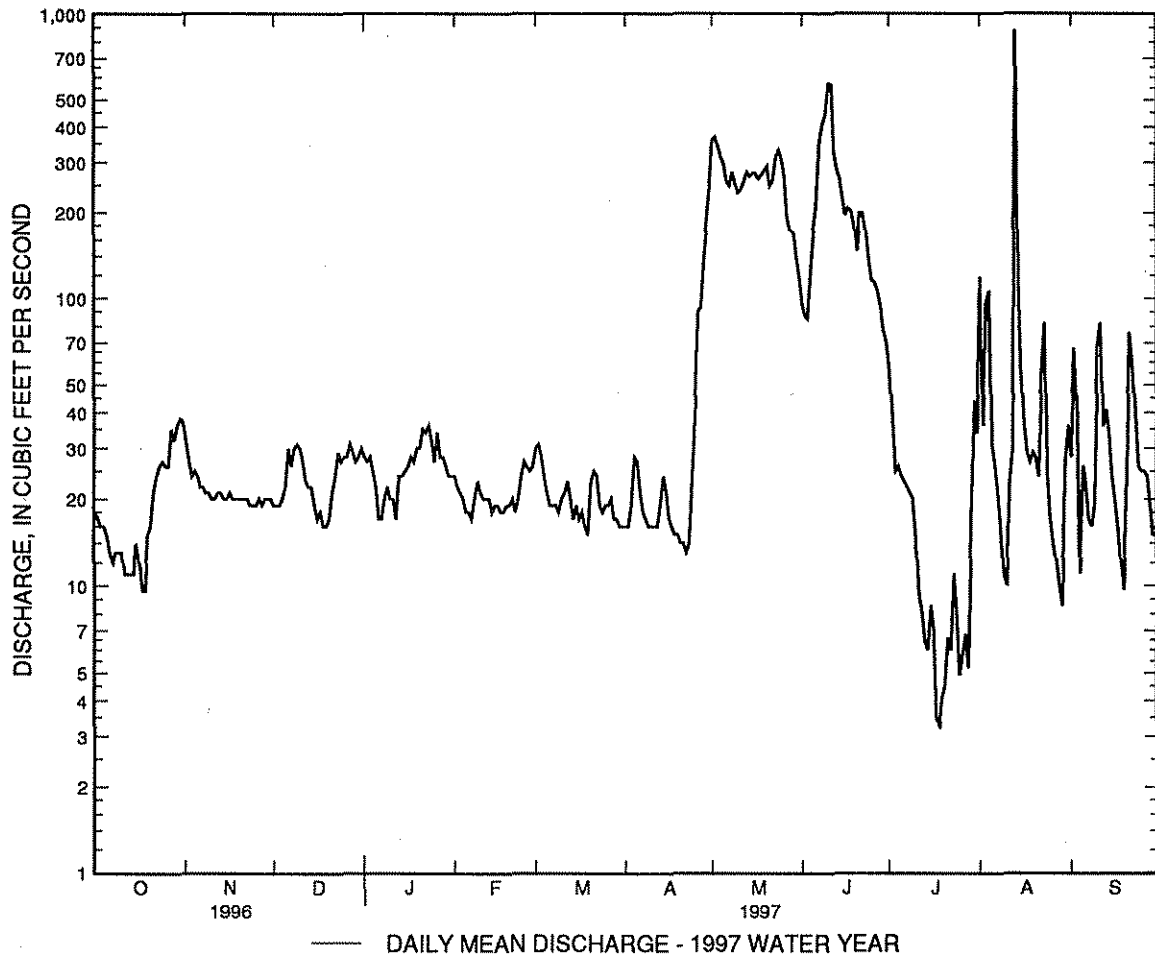
07211500 CANADIAN RIVER NEAR TAYLOR SPRINGS, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	11709.3		23266.8		81.2	
ANNUAL MEAN	32.0		63.7		564	
HIGHEST ANNUAL MEAN					7.60	
LOWEST ANNUAL MEAN					43000	
HIGHEST DAILY MEAN	679	Aug 30	878	Aug 13		Jun 18 1965
LOWEST DAILY MEAN	1.1	Jun 25	3.2	Jul 18		Jun 29 1946
ANNUAL SEVEN-DAY MINIMUM	2.3	Jun 19	5.0	Jul 16		Jun 24 1953
INSTANTANEOUS PEAK FLOW			2500	Jun 10	162000 ^b	Jun 18 1965
INSTANTANEOUS PEAK STAGE			5.41	Jun 10	47.40 ^a	Jun 18 1965
ANNUAL RUNOFF (AC-FT)	23230		46150		58840	
10 PERCENT EXCEEDS	50		231		130	
50 PERCENT EXCEEDS	23		23		15	
90 PERCENT EXCEEDS	8.2		13		2.9	

e Estimated

a-From floodmarks.

b-From rating curve extended above 7,000 ft³/s on basis of slope-area measurement of peak flow.



ARKANSAS RIVER BASIN

07215500 MORA RIVER AT LA CUEVA, NM

LOCATION.--Lat 35°56'27", long 105°14'59", Mora County, Hydrologic Unit 11080004, in Mora Grant, on left bank 45 ft upstream from bridge on State Highway 518 at La Cueva, 0.3 mi downstream from La Cueva damsite, and at mile 86.8.

DRAINAGE AREA.--173 mi².

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 ft³/s; another major flood occurred June 11, 1913, but is believed less than that of 1904.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	11	e3.6	15	e15	17	13	148	145	47	40	53
2	9.6	8.6	e3.5	15	e15	18	13	133	154	38	41	39
3	9.1	7.7	e3.6	16	e15	25	15	109	151	22	60	95
4	9.3	7.8	e2.9	15	e15	22	17	99	154	20	67	51
5	9.4	6.4	e5.0	15	e15	18	15	111	164	20	70	43
6	9.1	6.0	e6.8	e15	15	17	12	119	170	21	91	39
7	8.9	5.6	e6.6	e14	16	16	11	134	300	19	137	36
8	9.1	5.4	e6.8	e17	16	17	10	136	448	20	129	36
9	8.9	5.4	e7.2	e16	14	17	10	145	436	20	107	33
10	8.7	5.4	7.5	e15	15	17	11	127	347	21	100	33
11	8.6	5.4	7.4	e14	14	18	12	114	288	21	99	30
12	8.4	5.3	7.5	e16	14	19	14	123	254	20	88	28
13	8.0	5.1	7.3	e14	15	20	17	129	227	21	82	26
14	7.8	4.8	7.3	e12	15	18	17	135	209	21	72	25
15	7.9	4.8	7.1	e10	15	18	15	147	192	22	66	24
16	7.7	5.3	e6.6	e12	15	17	18	151	176	23	61	22
17	7.6	4.6	e6.4	e14	15	8.5	18	160	159	21	58	21
18	7.5	4.0	e7.2	e13	16	4.4	20	162	146	21	66	20
19	7.7	4.1	e7.4	e12	16	4.4	20	175	136	24	58	20
20	7.7	4.4	e7.8	e11	16	4.6	22	176	126	30	54	23
21	8.3	4.6	e6.8	e13	16	8.4	27	183	116	33	54	77
22	9.3	4.8	e6.0	e14	17	13	34	199	113	28	51	45
23	16	4.9	e6.4	13	17	12	30	183	106	24	57	33
24	14	e4.7	e8.0	11	19	18	44	175	93	23	66	31
25	7.7	e4.2	e10	15	16	20	51	165	91	22	58	24
26	7.4	e4.3	e15	11	17	20	73	144	89	21	57	22
27	11	e3.7	17	13	17	19	102	126	81	22	48	21
28	7.6	e3.5	16	15	18	19	130	120	71	26	40	22
29	10	e3.8	15	e15	---	17	153	114	66	29	40	23
30	9.8	e3.7	15	e14	---	14	168	118	59	33	45	22
31	10	---	15	e14	---	14	---	132	---	44	46	---
TOTAL	281.4	159.3	255.7	429	439	490.3	1112	4392	5267	777	2108	1017
MEAN	9.08	5.31	8.25	13.8	15.7	15.8	37.1	142	176	25.1	68.0	33.9
MAX	16	11	17	17	19	25	168	199	448	47	137	95
MIN	7.4	3.5	2.9	10	14	4.4	10	99	59	19	40	20
AC-FT	558	316	507	851	871	973	2210	8710	10450	1540	4180	2020
(†)	1535	878	327	27	523	241	384	367	235	276	531	582

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 1997, BY WATER YEAR (WY)

	17.3	11.3	8.81	8.20	7.96	11.1	34.1	79.8	67.2	34.5	44.4	28.9
MEAN	17.3	11.3	8.81	8.20	7.96	11.1	34.1	79.8	67.2	34.5	44.4	28.9
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

(†) DIVERSION, IN ACRE-FEET, BY LA CUEVA CANAL
CAL YR 1996 (†) 7355 WRT YR 1997 (†) 5910

ARKANSAS RIVER BASIN

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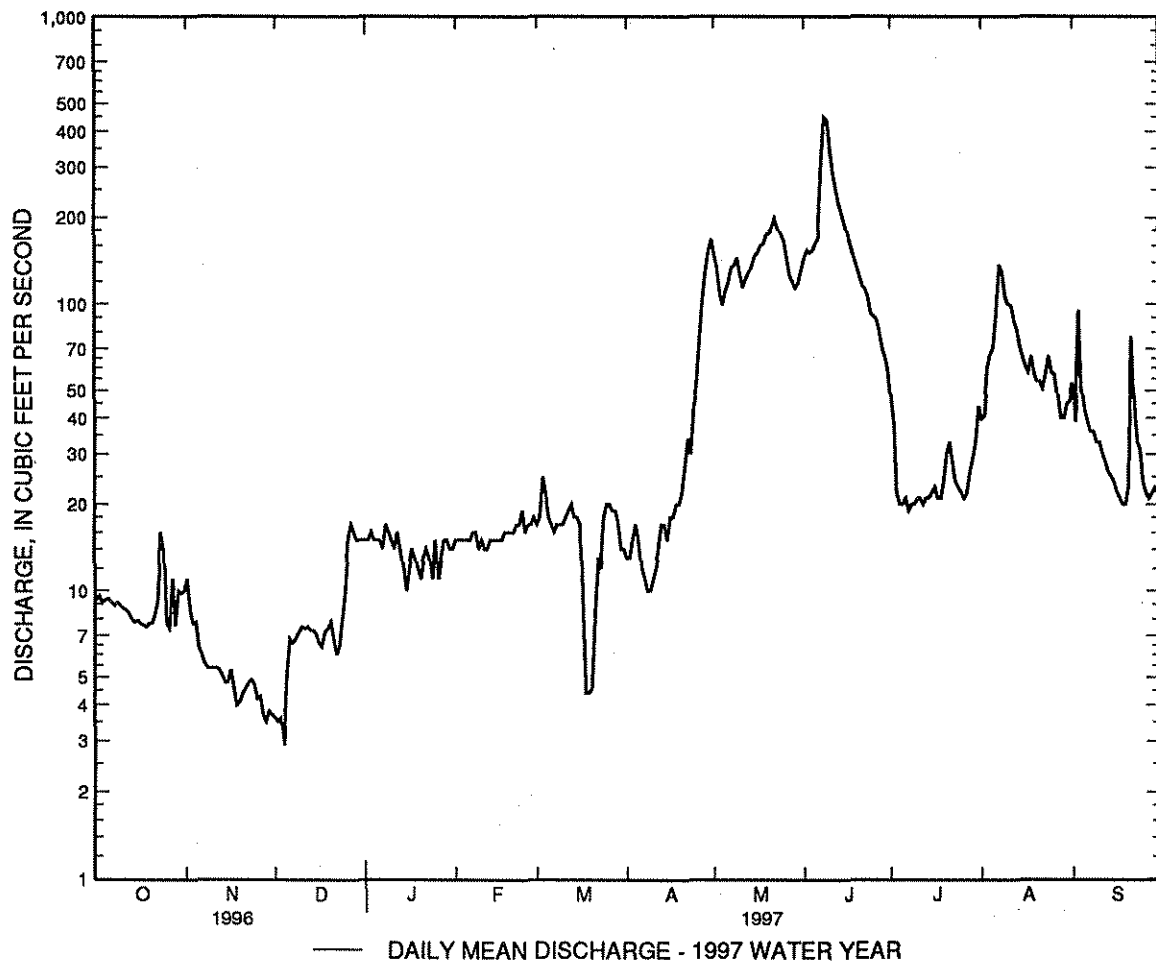
07215500 MORA RIVER AT LA CUEVA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1906 - 1997
ANNUAL TOTAL	3056.6	16727.7	29.5
ANNUAL MEAN	8.35	45.8	113
HIGHEST ANNUAL MEAN			3.12
LOWEST ANNUAL MEAN			1941
HIGHEST DAILY MEAN	38 Aug 28	448 Jun 8	1060 Apr 23 1942
LOWEST DAILY MEAN	1.5 Jan 20	2.9 Dec 4	.00 Dec 22 1907
ANNUAL SEVEN-DAY MINIMUM	1.9 Jan 17	3.5 Nov 28	.00 Dec 22 1907
INSTANTANEOUS PEAK FLOW		511 Jun 8	1530 ^a Sep 23 1941
INSTANTANEOUS PEAK STAGE		4.52 Jun 8	7.58 ^b Sep 23 1941
INSTANTANEOUS LOW FLOW		2.9 Dec 4	.00 Dec 22 1907
ANNUAL RUNOFF (AC-FT)	6060	33180	21340
10 PERCENT EXCEEDS	14	136	75
50 PERCENT EXCEEDS	7.7	18	12
90 PERCENT EXCEEDS	3.5	6.4	1.7

e Estimated

a-From rating curve extended above 400 ft³/s.

b-site and datum then in use.



ARKANSAS RIVER BASIN

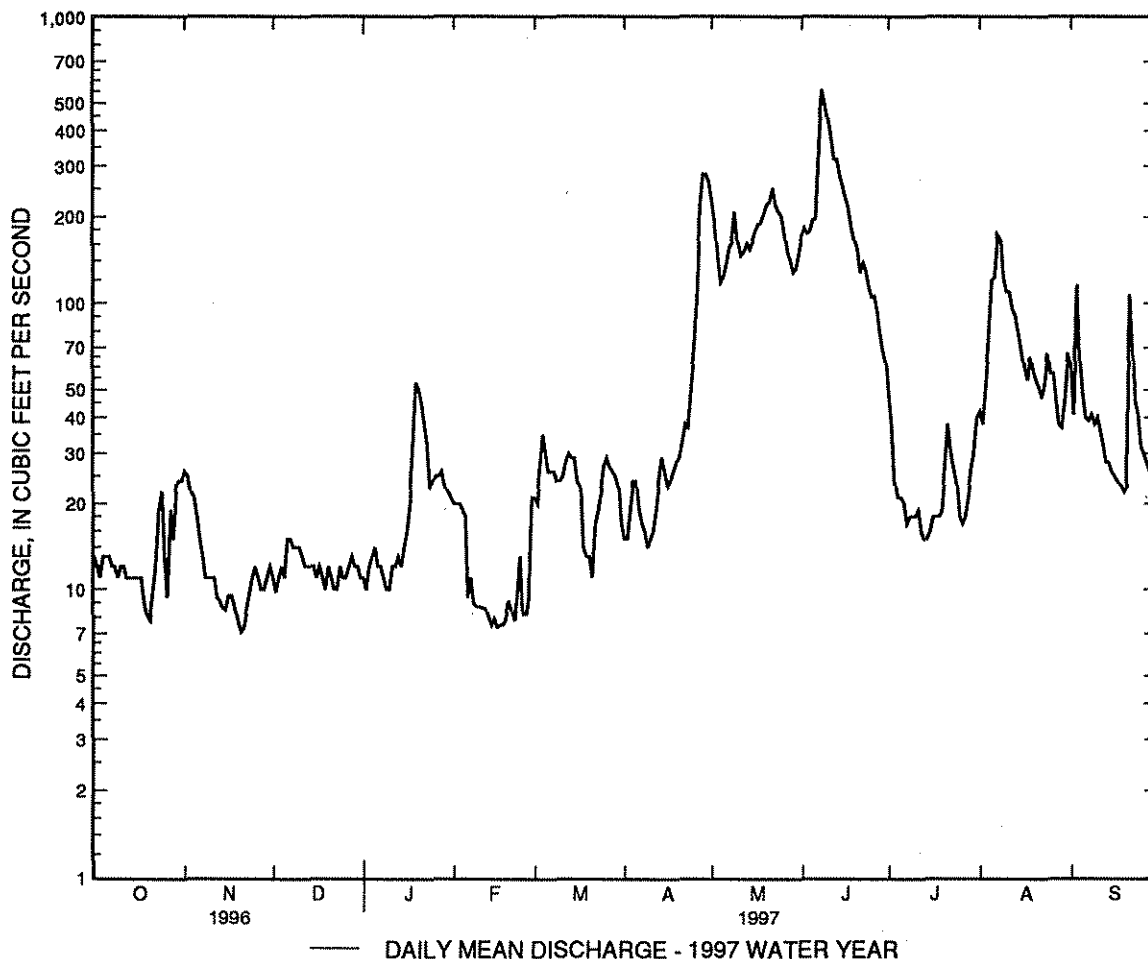
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07216500 MORA RIVER NEAR GOLONDRINAS, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1915 - 1997
ANNUAL TOTAL	4114.39	20758.9	
ANNUAL MEAN	11.2	56.9	35.3
HIGHEST ANNUAL MEAN			144
LOWEST ANNUAL MEAN			3.42
HIGHEST DAILY MEAN	123 Jul 10	557 Jun 8	1750 Apr 23 1942
LOWEST DAILY MEAN	.11 Jun 9	7.1 Nov 20	.00 May 4 1917
ANNUAL SEVEN-DAY MINIMUM	.16 Jun 3	7.7 Feb 13	.00 Aug 4 1917
INSTANTANEOUS PEAK FLOW		630 Jun 8	14000 ^a Aug 22 1952
INSTANTANEOUS PEAK STAGE		3.18 Jun 8	14.40 ^b Aug 22 1952
ANNUAL RUNOFF (AC-FT)	8160	41180	25580
10 PERCENT EXCEEDS	17	173	91
50 PERCENT EXCEEDS	10	23	14
90 PERCENT EXCEEDS	1.7	9.6	2.1

e Estimated

a-From rating curve extended above 660 ft³/s on basis of slope-area measurements of peak flow.
b-Site and datum then in use.



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.

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

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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	13	e5.4	11	8.0	13	3.2	85	24	e19	18	17
2	6.5	12	e5.2	12	8.4	14	3.3	78	21	e19	15	11
3	6.5	13	e5.2	11	8.4	15	3.6	71	19	e17	24	44
4	6.5	13	e5.0	11	6.4	15	4.4	63	18	e16	32	60
5	6.6	12	e5.2	e10	e6.0	15	5.1	55	19	e16	16	50
6	6.9	12	e5.4	e8.0	e5.8	15	4.9	49	29	e15	27	44
7	6.9	11	e5.4	e7.6	e5.6	14	4.2	49	e23	e14	55	35
8	6.9	10	6.1	e7.6	e5.5	14	3.1	49	e289	e12	47	32
9	7.0	10	7.3	e7.8	e5.3	14	3.0	56	e224	e10	36	31
10	7.3	9.7	8.2	e7.6	e5.5	15	3.2	60	e185	e9.0	32	34
11	6.2	12	7.1	e7.4	e5.3	16	4.5	63	e143	e8.8	41	25
12	5.8	10	5.7	e7.0	e5.0	19	6.4	63	e100	e7.8	36	24
13	5.6	10	5.8	e6.8	e5.4	23	6.4	64	e79	e7.0	28	22
14	5.5	10	e5.6	e7.2	e5.2	24	5.5	64	69	e6.4	23	19
15	5.4	8.0	e5.2	e7.0	9.5	18	7.8	62	64	e5.7	19	17
16	5.4	6.2	e4.8	e6.4	13	8.5	9.5	61	58	e4.4	17	17
17	5.3	8.5	e4.7	e6.4	14	12	14	62	50	4.1	13	15
18	5.3	11	e4.8	e6.8	13	13	21	62	42	4.2	13	10
19	5.3	9.6	e5.0	e6.6	13	13	25	60	37	4.2	9.1	9.6
20	5.2	10	e5.6	e6.6	13	13	19	62	36	11	9.2	9.4
21	5.8	11	e6.4	e7.0	12	9.9	11	65	32	11	9.5	34
22	8.2	11	e7.2	e7.0	13	9.9	9.4	72	29	5.7	7.8	28
23	5.4	11	e10	e7.8	13	9.0	12	75	e22	4.5	7.9	18
24	5.2	e10	e11	e8.8	14	8.3	33	73	e22	4.2	11	18
25	4.5	e9.2	e12	e8.8	17	6.4	52	68	e23	3.7	7.8	17
26	4.1	e8.6	e13	e9.4	15	4.2	61	63	e21	2.6	13	16
27	5.3	e7.6	14	e8.4	15	5.4	90	57	e20	13	11	16
28	7.0	e6.8	13	7.6	14	4.7	120	47	e20	34	10	14
29	13	e6.0	12	7.4	---	3.3	120	36	e18	17	9.5	14
30	13	e5.6	12	8.0	---	3.2	98	28	e18	13	10	14
31	13	---	11	8.1	---	3.3	---	26	---	20	25	---
TOTAL	207.1	297.8	234.3	250.1	274.3	371.1	763.5	1848	1754	339.3	632.8	715.0
MEAN	6.68	9.93	7.56	8.07	9.80	12.0	25.5	59.6	58.5	10.9	20.4	23.8
MAX	13	13	14	12	17	24	120	85	289	34	55	60
MIN	4.1	5.6	4.7	6.4	5.0	3.2	3.0	26	18	2.6	7.8	9.4
AC-FT	411	591	465	496	544	736	1510	3670	3480	673	1260	1420

MEAN	9.19	8.97	7.98	7.53	7.94	9.66	20.9	31.5	16.9	9.44	16.8	12.1
MAX	80.4	53.9	24.2	19.7	19.4	77.6	195	219	181	67.0	150	150
(WY)	1942	1942	1942	1992	1985	1987	1987	1941	1995	1941	1991	1991
MIN	.72	1.71	1.59	1.64	1.13	1.02	.32	.53	.23	.83	.78	.65
(WY)	1957	1935	1955	1957	1955	1967	1978	1967	1940	1963	1956	1956

ARKANSAS RIVER BASIN

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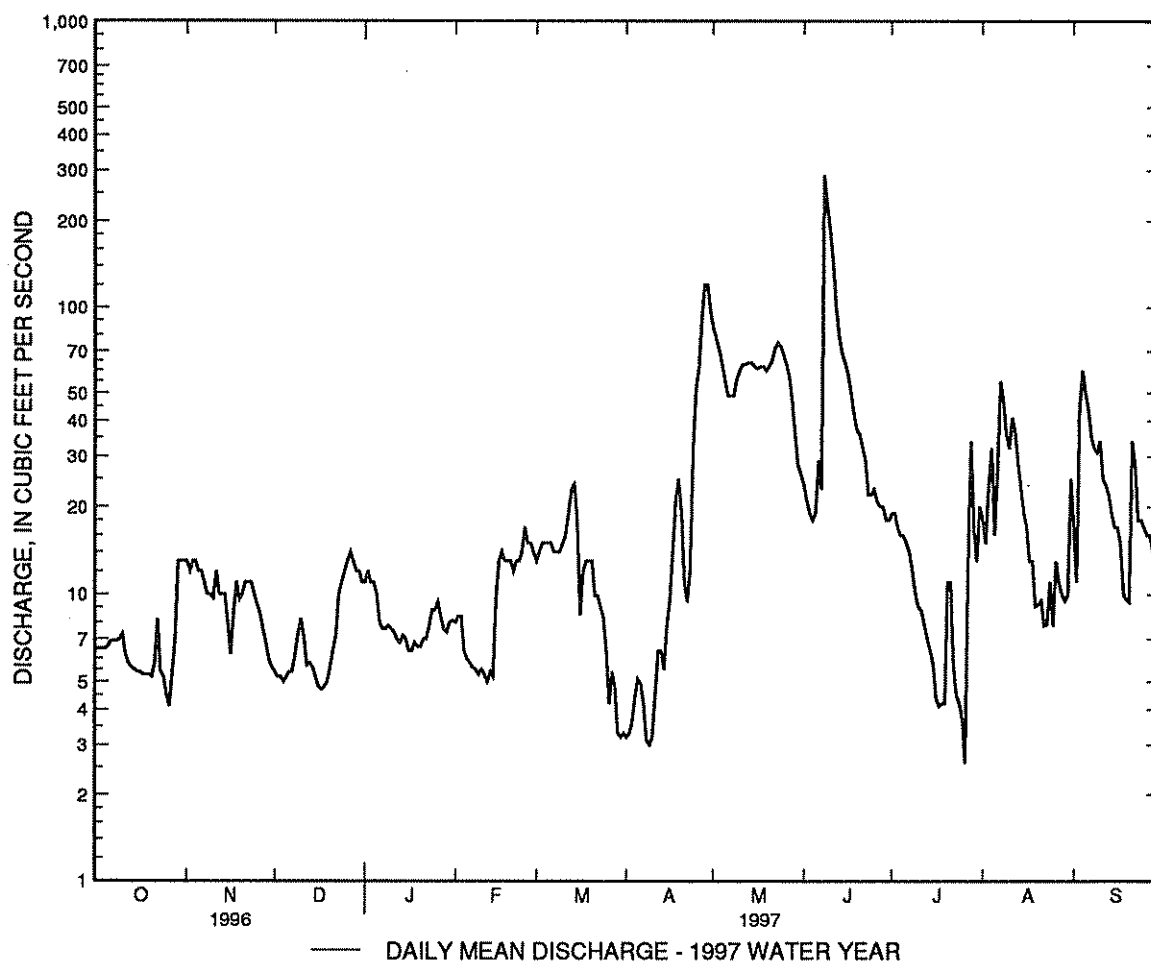
07218000 COYOTE CREEK NEAR GOLONDRINAS, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1930 - 1997	
ANNUAL TOTAL	2663.8		7687.3		13.3	
ANNUAL MEAN	7.28		21.1		52.9	
HIGHEST ANNUAL MEAN					2.33	
LOWEST ANNUAL MEAN					1290	
HIGHEST DAILY MEAN	29	Aug 16	289	Jun 8	.00	Sep 10 1991
LOWEST DAILY MEAN	1.3	Jun 26	2.6	Jul 26	.10	Aug 4 1945
ANNUAL SEVEN-DAY MINIMUM	1.8	Jun 11	3.5	Mar 29	4050 ^a	Jul 20 1939
INSTANTANEOUS PEAK FLOW			471	Jun 8	10.10 ^b	Aug 17 1961
INSTANTANEOUS PEAK STAGE			5.77	Jun 8	.00	Aug 30 1936
INSTANTANEOUS LOW FLOW			.00	Dec 5	.00	Aug 4 1945
ANNUAL RUNOFF (AC-FT)	5280		15250		9600	
10 PERCENT EXCEEDS	13		57		25	
50 PERCENT EXCEEDS	6.8		11		5.7	
90 PERCENT EXCEEDS	2.4		5.2		1.2	

e Estimated

a-From rating curve extended above 250 ft³/s on basis of slope-area measurements at gage heights 5.54 ft, 7.74 ft and 9.60 ft.

b-Site and datum then in use.



ARKANSAS RIVER BASIN

07221500 CANADIAN RIVER NEAR SANCHEZ, NM

LOCATION.--Lat 35°39'08", long 104°22'39", in SW¹/₄ 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 mi², of which 303 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

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

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

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29, or 30, 1904, probably exceeded 100,000 ft³/s, but is believed to have been less than the peak of June 18, 1965.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	102	87	89	e62	78	36	809	383	216	125	155
2	52	111	90	84	e60	77	32	900	370	191	1740	142
3	47	112	85	83	e58	83	37	805	359	170	232	141
4	51	111	73	79	e52	84	42	724	346	141	231	208
5	46	104	68	75	e52	89	39	643	423	129	240	307
6	40	100	66	78	e52	92	35	583	574	102	234	215
7	36	98	77	77	e50	96	33	542	1160	79	273	227
8	32	94	73	e66	e57	95	39	507	2480	81	324	183
9	29	89	83	e70	e64	87	43	564	2000	85	319	363
10	27	85	80	e56	e55	86	41	660	1590	75	274	219
11	25	86	82	e56	e52	80	38	609	1370	63	460	249
12	24	84	84	e50	e52	79	35	540	1210	53	352	216
13	24	85	83	e56	e52	80	36	545	890	53	286	238
14	23	82	82	e56	e50	84	34	554	767	41	669	180
15	22	82	77	e58	e51	92	32	545	676	33	400	148
16	20	84	70	e60	e52	93	30	548	616	26	297	140
17	16	83	65	e66	e48	99	31	552	653	20	242	126
18	19	84	51	e60	48	87	35	552	537	15	362	110
19	20	81	54	e64	53	80	37	564	510	15	228	92
20	18	80	49	e64	58	74	32	582	463	13	208	123
21	23	80	46	e72	64	63	29	645	420	42	468	114
22	27	76	46	e69	61	56	27	647	374	16	425	120
23	e26	75	52	e81	59	50	45	655	439	13	190	279
24	26	75	54	e68	65	45	85	817	400	12	159	244
25	31	72	56	e62	66	44	124	739	355	11	198	202
26	36	72	59	e76	65	46	198	675	316	47	195	174
27	42	71	66	e68	66	45	436	600	297	29	162	153
28	60	73	80	e68	70	41	921	516	294	23	138	140
29	80	73	83	e66	---	40	1040	456	276	112	128	135
30	87	80	87	e62	---	42	813	413	248	124	110	123
31	92	---	84	e62	---	39	---	396	---	108	104	---
TOTAL	1158	2584	2192	2101	1594	2226	4435	18887	20796	2138	9773	5466
MEAN	37.4	86.1	70.7	67.8	56.9	71.8	148	609	693	69.0	315	182
MAX	92	112	90	89	70	99	1040	900	2480	216	1740	363
MIN	16	71	46	50	48	39	27	396	248	11	104	92
AC-FT	2300	5130	4350	4170	3160	4420	8800	37460	41250	4240	19380	10840

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1997, BY WATER YEAR (WY)

	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
MEAN	109	59.0	51.0	53.1	63.6	60.2	214	404	402	236	320	248
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

ARKANSAS RIVER BASIN

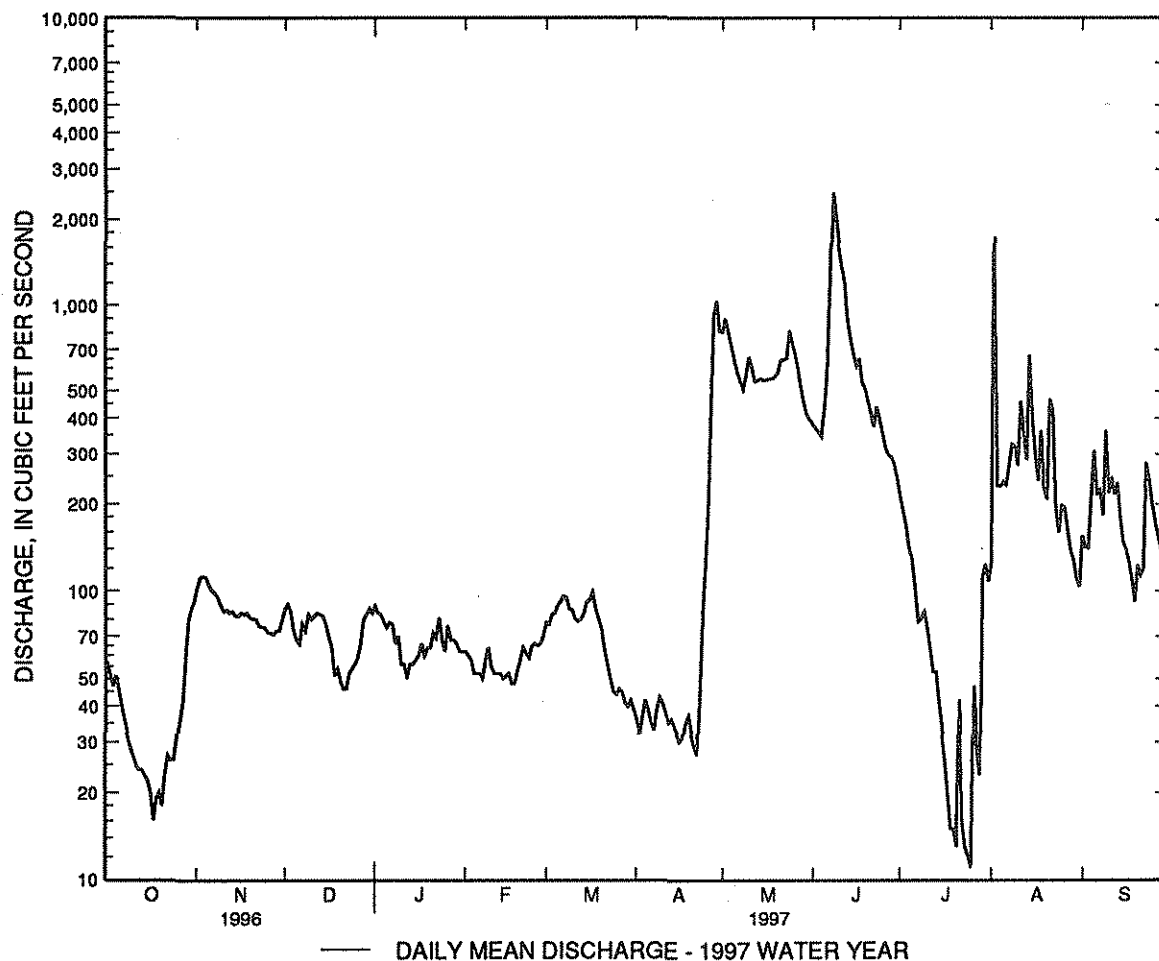
65

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1913 - 1997	
ANNUAL TOTAL	33025.1		73350		187	
ANNUAL MEAN	90.2		201		1191	
HIGHEST ANNUAL MEAN					19.7	
LOWEST ANNUAL MEAN					50000	
HIGHEST DAILY MEAN	2020	Aug 28	2480	Jun 8		1942
LOWEST DAILY MEAN	1.7	May 24	11	Jul 25		1954
ANNUAL SEVEN-DAY MINIMUM	3.0	May 18	17	Jul 19		1913
INSTANTANEOUS PEAK FLOW			7080	Aug 2		1936
INSTANTANEOUS PEAK STAGE			12.01	Aug 2		1936
INSTANTANEOUS LOW FLOW			10	Jul 25		1965
ANNUAL RUNOFF (AC-FT)	65510		145500			1966
10 PERCENT EXCEEDS	133		553			
50 PERCENT EXCEEDS	52		82			
90 PERCENT EXCEEDS	9.7		33			

e Estimated

a-From floodmarks, present site and datum.

b-From rating curve extended above 91,000 ft³/s on basis of slope-area measurement of peak flow.

ARKANSAS RIVER BASIN

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	
OCT 1996 17...	0930	15	1200	8.0	12.0	15.0	650	8.1	95	12	460	
JAN 1997 23...	1030	39	1130	8.4	13.5	0.5	650	12.4	101	17	440	
DATE		HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1996 17...	290	94	55	100	2	3.4	215	0	176	180	450	
JAN 1997 23...	--	95	49	77	2	2.0	--	--	--	178	400	
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
OCT 1996 17...	21	0.50	7.8	838	0.010	<0.050	0.020	0.18	0.30	0.20	0.020	
JAN 1997 23...	17	0.50	11	759	<0.010	0.060	<0.015	--	<0.20	<0.20	<0.010	
DATE		PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
OCT 1996 17...	<0.010	0.010	3.6	6.0	<1.0	<1	162	<1.0	98	<1.0	2.0	
JAN 1997 23...	<0.010	<0.010	2.5	--	--	--	--	--	68	--	--	
DATE		COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	
OCT 1996 17...	<1.0	<1.0	6.0	<1.0	15	<0.10	4.0	<1.0	<1	<1		
JAN 1997 23...	--	--	<3.0	--	--	--	--	--	--	--		

ARKANSAS RIVER BASIN

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07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)
OCT 1996 17...	<1.0	2.0	<2.0	0.6	900	320	4	<1	4	<5
JAN 1997 23...	--	--	--	--	--	--	--	--	--	--

DATE	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, CHARGE, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (80155)	
OCT 1996 17...	8	4000	10	430	0.01	20	3.0	24	0.98	>78
JAN 1997 23...	--	--	--	--	--	--	--	21	2.2	91

ARKANSAS RIVER BASIN

07223500 CONCHAS LAKE AT CONCHAS DAM, NM

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

DRAINAGE AREA.--7,409 mi², of which 433 mi², is probably noncontributing.

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

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

REMARKS.--Lake is formed by dam consisting of concrete main section and earthfill wings, completed Sept. 15, 1939; storage began Dec. 29, 1938. Capacity, 315,700 acre-ft between elevations 4,060.0 ft and 4,201.0 ft, crest of 300 ft ungated service spillway. Inactive storage, 70,490 acre-ft, at elevation 4,155.0 ft. Lake usually not drawn below elevation, 4,157.35 ft, sill of irrigation outlet, capacity, 77,790 acre-ft, except for minor sluicing; at times irrigation water is pumped into Conchas Canal. Capacity of 198,800 acre-ft between elevations 4,201.0 ft, crest of 300 ft ungated service spillway, and 4,218.0 ft, crest of 3,000 ft ungated emergency spillway, acts as detention storage in the control of floods. Figures given herein represent total contents. Lake is used for irrigation, flood control, and recreation. Diversions upstream from station for irrigation of about 57,000 acres. Direct diversions through Conchas Dam to Bell Ranch Canal and Conchas Canal (stations 07223000, 07223300) irrigate about 36,000 acres near Tucumcari, and on Bell Ranch. U.S. Army Corps of Engineers satellite telemeter at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 479,600 acre-ft, Apr. 24, 1942, elevation, 4,208.41 ft; minimum after initial filling, 78,080 acre-ft, Sept. 18, 1976, elevation, 4,157.44 ft; minimum elevation, 4,155.80 ft, Sept. 24, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 324,010 acre-ft, June 1, elevation, 4,201.85 ft; minimum, 277,350 acre-ft, Oct. 30, 31, Nov. 1, elevation, 4,196.80 ft.

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

(Based on Survey by U.S. Army Corps of Engineers in 1988)

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

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288090	277350	278650	279090	281800	284180	285770	293140	319120	314010	293320	300560
2	287470	277440	278650	279090	281890	284270	285950	294690	318730	313250	296970	300010
3	286930	277520	278650	279260	281980	284360	286660	296150	318540	312380	297340	299540
4	286580	277520	278650	279260	281980	284270	286580	297610	318830	311620	297060	298990
5	286130	277520	278650	279440	281980	284360	286400	298900	319310	310960	297430	298900
6	285770	277520	278570	279610	282150	284530	286310	299910	319700	310290	297240	298990
7	285510	277610	278570	279700	282330	284710	286220	300750	322140	309540	297520	298900
8	285060	277610	278740	279790	282410	284710	286130	301670	324010	308680	297700	298440
9	284710	277700	278830	279790	282410	284890	286220	303160	320480	307930	297790	298620
10	284260	277700	278910	279790	282500	285070	286220	304460	317860	306990	298070	298350
11	283820	277700	278830	279790	282590	285070	286130	305590	316700	306150	298710	297890
12	283470	277700	278830	279870	282590	285330	286040	306330	316120	305210	299270	297340
13	282940	277870	278740	280050	282770	285240	286040	307080	316410	304280	300560	296880
14	282590	277870	278740	280140	282770	285420	285770	307930	316890	303530	301850	296420
15	282060	277870	278740	280140	282860	285420	285420	308590	317180	302130	302510	295870
16	281620	277870	278740	280220	282940	285600	284980	309250	317570	301210	302600	295230
17	281190	277870	278910	280310	282940	285600	284620	310010	317760	300190	302600	294500
18	280660	277870	278930	280490	282940	285770	284090	310770	317760	299080	302880	293870
19	280140	278040	278910	280570	283300	285770	283830	311530	317670	297980	303070	293140
20	279700	278040	278830	280750	283650	285950	283470	312570	317180	297060	303160	293770
21	279350	278040	278830	280660	283650	285950	283030	314300	316700	296050	303720	294600
22	279000	278130	278830	280840	283730	285950	282770	315260	316310	295140	304280	294410
23	278740	278130	278740	280920	283630	286130	282940	316120	316220	294050	304280	294320
24	278480	278130	278650	280920	283830	286130	283730	317470	315830	293690	304090	294320
25	278570	278130	278650	281010	283830	286130	285070	318240	315930	292330	303810	294230
26	278310	278130	278830	281100	284000	286130	285600	318830	315930	291510	303440	294140
27	278130	278130	278830	281190	284000	286040	286490	319600	315640	290700	303070	293870
28	277960	278130	278740	281360	284090	285950	279910	319410	315450	290610	302780	293590
29	277790	278130	278740	281450	---	285860	289800	319410	315260	290790	302130	293410
30	277350	278650	278740	281530	---	285770	291420	319410	314680	291690	301950	293050
31	277350	---	278910	281710	---	285860	---	319310	---	293140	301120	---
MAX	288090	278650	278910	281710	284090	286130	291420	319600	324010	314010	304280	300560
MIN	277350	277350	278570	279090	281800	284180	282770	293140	314680	290610	293320	293050
(†)	4196.80	4196.95	4196.98	4197.30	4197.57	4197.77	4198.39	4201.37	4200.89	4198.58	4199.45	4198.57
(††)	-11280	+1300	+260	+2800	+2380	+1770	+5560	+27890	-4630	-21540	+7980	-8070

CAL YR 1996 MAX 306050 MIN 244630 (††) -22940
WTR YR 1997 MAX 324010 MIN 277350 (††) +4420

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

LOCATION.--Lat 35°26'18", long 103°31'31", in NW1/4SE1/4 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.

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1, 1914, reached a stage of 22.95 ft site and datum then in use. Another major flood reached a stage of 16.0 ft, 1942 datum, sometime in 1941, from information furnished by Bureau of Reclamation; discharge, about 70,000 ft³/s.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.22	.00	e.00	83	e.00
2	.00	.00	.00	.00	.00	.00	.00	.04	.00	e.00	54	e.00
3	.00	.00	.00	.00	.00	.00	19	.00	.00	e.00	43	.00
4	.00	.00	.00	.00	.00	.00	e7.6	.00	.00	e.00	59	.00
5	.00	.00	.00	.00	.00	.00	e4.1	.00	.00	.00	e10	.00
6	.00	.00	.00	.00	.00	.00	e5.8	.00	.00	.00	e3.7	.00
7	.00	.00	.00	.00	.00	.00	e4.6	.00	.00	.00	e.00	.00
8	.00	.00	.00	.00	.00	.00	.29	e3.7	63	.00	e.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	82	.00	e.00	.53
10	.00	.00	.00	.00	.00	.00	.00	.72	52	.00	e.00	2.3
11	.00	.00	.00	.00	.00	.00	.00	.53	21	.00	e26	.08
12	.00	.00	.00	.00	.00	.00	.00	.00	17	.00	67	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	13	.00	261	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	9.4	.00	143	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	7.0	.00	131	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	6.8	.00	e72	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	5.2	.00	e41	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	4.5	.00	e18	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	e2.0	.00	e3.1	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	e.50	.00	e.00	.00
21	.00	.00	.00	.00	.00	.00	.00	5.2	e.00	.00	e.00	8.0
22	.00	.00	.00	.00	.00	.00	.00	1.0	e.00	.00	e.00	5.0
23	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	e.00	.29
24	.00	.00	.00	.00	.00	.00	12	.00	e.00	.00	e.00	.14
25	.00	.00	.00	.00	.00	.00	86	.00	e.00	.00	e.00	.05
26	.00	.00	.00	.00	.00	.00	48	.00	e.00	.00	e.00	.00
27	.00	.00	.00	.00	.00	.00	13	.00	e.00	.00	e.00	.00
28	.00	.00	.00	.00	.00	.00	6.7	.00	e.00	.00	e.00	.00
29	.00	.00	.00	.00	---	.00	4.9	.00	e.00	3.6	e.00	.00
30	.00	.00	.00	.00	---	.00	.67	.00	e.00	51	e.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	84	e.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	212.66	11.41	283.40	138.60	1014.80	16.39
MEAN	.0000	.0000	.0000	.0000	.0000	.0000	7.09	.37	9.45	4.47	32.7	.55
MAX	.00	.00	.00	.00	.00	.00	86	5.2	82	84	261	8.0
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	422	23	562	275	2010	33

MEAN	10.2	3.37	1.86	2.57	2.13	1.80	10.8	37.6	28.6	53.0	71.7	29.8
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

ARKANSAS RIVER BASIN

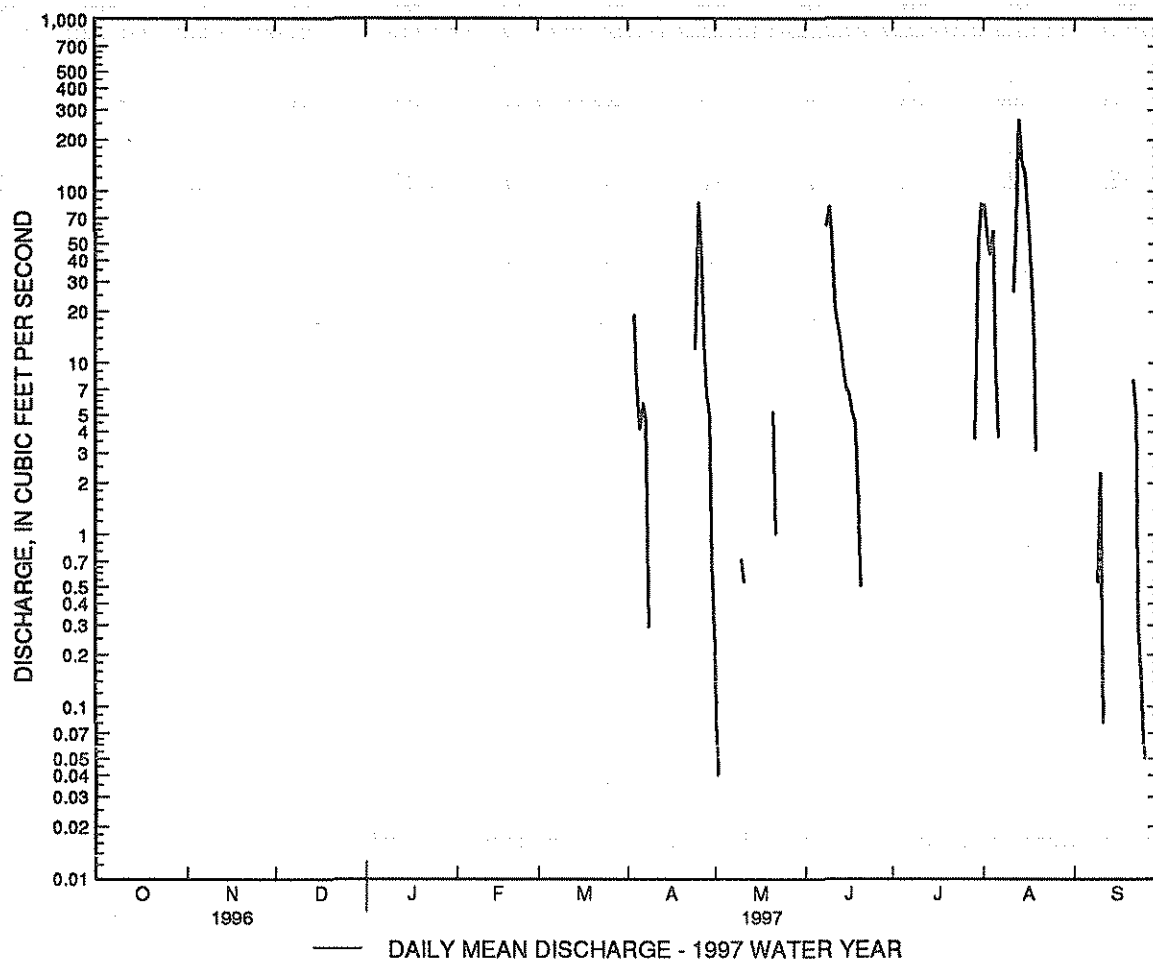
07226500 UTE CREEK NEAR LOGAN, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1942 - 1997	
ANNUAL TOTAL	2862.28		1677.26		20.2	
ANNUAL MEAN	7.82		4.60		.084	
HIGHEST ANNUAL MEAN					57.2	
LOWEST ANNUAL MEAN					.084	
HIGHEST DAILY MEAN	1180	Aug 27	261	Aug 13	7420	May 28 1946
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jul 17 1942
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Mar 18 1943
INSTANTANEOUS PEAK FLOW			459		24500 ^a	
INSTANTANEOUS PEAK STAGE			2.18		9.94 ^b	
ANNUAL RUNOFF (AC-FT)	5680		3330	Aug 13	14660	Aug 11 1981
10 PERCENT EXCEEDS	5.3		4.9		18	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

a-From rating curve extended above 7,700 ft³/s on basis of slope-area measurements at gage heights 5.2 ft and 7.2 ft.

b-Site and datum then in use.



ARKANSAS RIVER BASIN

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07226800 UTE RESERVOIR NEAR LOGAN, NM

LOCATION.--Lat 35°20'35", long 103°26'37", in NW¹/4 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 mi², of which 1,110 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

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

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 214,980 acre-ft, June 18-19, elevation, 3,783.10 ft; minimum, 176,740 acre-ft, Apr. 1, elevation, 3,777.50 ft.

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

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

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

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180520	178780	178780	177570	177760	178020	176740	184570	186660	211070	198210	191870
2	180190	178590	178590	177700	177640	178270	177060	184370	186930	210630	198210	191340
3	180190	178970	178660	177760	177640	178080	177830	184500	187060	209770	197590	190740
4	180390	178720	178590	177510	177640	177960	178590	184570	187330	209340	197320	190270
5	180650	178780	178660	177510	177570	177830	178400	184500	187800	208690	197050	189800
6	180780	178660	178530	177450	177570	178020	178400	184500	188130	207960	196430	189400
7	180650	178660	178590	177380	177570	178080	178470	184570	188730	207460	196220	189200
8	180520	178660	178530	177510	177510	178080	178270	184370	190340	206810	196220	189270
9	180520	178720	178780	177510	177510	177960	178150	183980	192270	206320	196150	189470
10	180390	178720	178910	177450	177640	178080	178020	184110	194850	205760	196290	189600
11	180520	178660	178470	177320	177700	178020	177960	183850	199790	205060	196500	189870
12	180450	178590	178400	177320	177570	178210	177960	183980	206180	205270	196290	190000
13	180520	178590	178530	177380	177640	177830	178020	184110	210350	205270	196980	190070
14	180450	178850	178340	177960	177700	177890	178020	183910	213520	205270	197460	190130
15	180320	178910	178270	177510	177700	177830	178150	183980	214170	205270	197180	189670
16	180190	178590	178210	177510	177960	177830	178020	183910	214470	201890	196840	189060
17	180190	178720	178020	177570	177830	177760	178020	184040	214910	201400	196090	188600
18	180260	178720	178020	177510	177830	177760	178020	183780	214980	200760	198000	187800
19	180060	178780	178150	177700	177890	177640	178020	183780	214980	200130	198350	187530
20	179930	178660	178400	177700	177890	177700	178020	183780	214760	199850	197730	186730
21	179870	178530	178340	177890	177890	177510	177960	184110	214540	199170	197180	186860
22	179930	178470	178400	177640	177890	181960	177890	184500	214240	198960	196700	186930
23	179930	178400	178020	177700	177830	181890	178270	184570	213880	198480	196290	186660
24	180190	178270	178020	177830	177760	181960	179100	184760	213670	197870	195880	186390
25	180580	178340	178020	177890	177960	181960	181170	184760	213520	197870	195130	184240
26	179680	178270	178150	177960	177890	181890	182020	185090	213380	196910	194510	183780
27	179490	178270	178020	177510	178020	181890	183060	184960	213020	196500	194100	183390
28	179230	178270	177960	177760	178150	176870	184110	185020	212800	196090	193690	182670
29	178720	178210	177960	177640	---	176740	184310	185420	212510	196020	192740	182410
30	178530	178660	177960	177640	---	176740	184500	185740	212080	196570	192610	181240
31	178530	---	177450	177640	---	177000	---	186130	---	197320	192340	---
MAX	180780	178970	178910	177960	178150	181960	184500	186130	214980	211070	198350	191870
MIN	178530	178210	177450	177320	177510	176740	176740	183780	186660	196020	192340	181240
(+)	3777.78	3777.80	3777.61	3777.64	3777.72	3777.54	3778.70	3778.95	3782.70	37880.61	3779.88	3778.20
(++)	-2180	+130	-1210	+190	+510	-1150	+7500	+1630	+25950	-14760	-4980	-11100

CAL YR 1996 MAX 194230 MIN 170440 (++) -1010
WTR YR 1997 MAX 214980 MIN 176740 (++) +530

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

WATER-QUALITY RECORDS

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

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

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

WATER QUALITY DATA: WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	SAM- PLING DEPTH (FEET) (000003)	RESER- VOIR DEPTH (FEET) (72025)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (00340)
JUL 1997										
16...	1000	78.0	78.0	1100	7.8	29.0	14.0	670	0.3	3
16...	1001	75.0	78.0	--	--	29.0	15.0	670	0.4	--
16...	1003	70.0	78.0	--	--	29.0	15.0	670	0.4	--
16...	1004	65.0	78.0	--	--	29.0	15.5	670	0.6	--
16...	1005	60.0	78.0	--	--	29.0	16.0	670	0.6	--
16...	1006	55.0	78.0	--	--	29.0	17.0	670	0.7	--
16...	1007	50.0	78.0	--	--	29.0	18.0	670	0.9	--
16...	1008	45.0	78.0	1100	8.1	29.0	19.0	670	1.6	20
16...	1009	40.0	78.0	--	--	29.0	22.0	670	4.2	--
16...	1010	35.0	78.0	--	--	29.0	23.0	670	5.2	--
16...	1011	30.0	78.0	--	--	29.0	23.5	670	6.0	--
16...	1012	20.0	78.0	--	--	29.0	24.0	670	6.8	--
16...	1013	10.0	78.0	--	--	29.0	24.0	670	6.9	--
16...	1014	5.0	78.0	--	--	29.0	24.0	670	6.8	--
16...	1015	1.0	78.0	1100	8.4	29.0	24.0	670	6.9	94

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ARKANSAS RIVER BASIN

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07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, 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)
JUL 1997 16...	192	300	47	0.7	6.2	677	<0.01	0.12	<0.01	0.3	0.2
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)	
JUL 1997 16...	<0.01	<0.01	0.01	2	<1	2	238	<1	179	<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, DIS- SOLVED (UG/L AS SE) (01147)	
JUL 1997 16...	2	<1	2	<3	<1	6	<0.1	6	2	<1	
DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	
JUL 1997 16...	<1	<1	2	<2	27	1600	490	6	1	30	
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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	
JUL 1997 16...	20	140	28000	170	560	<0.1	64	6	12	98	

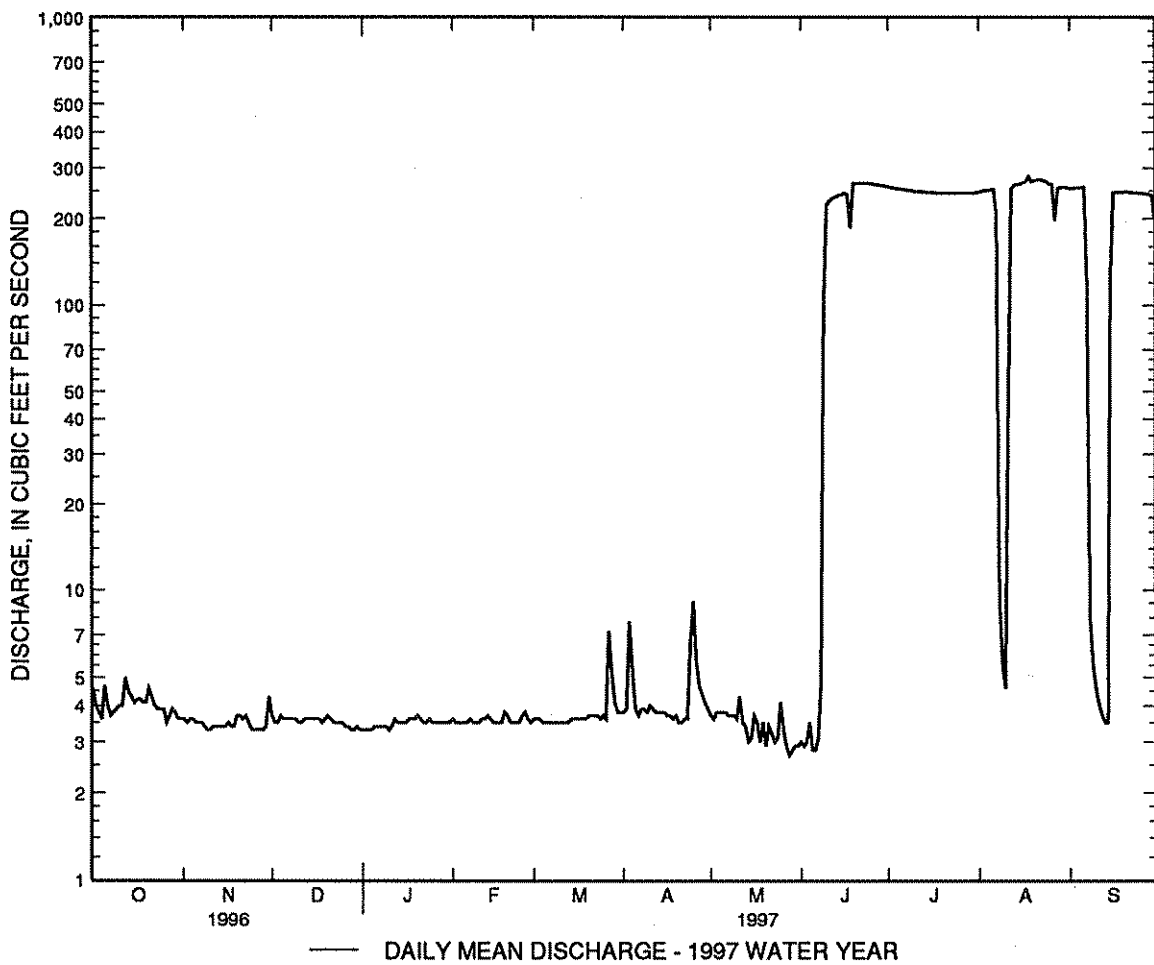
ARKANSAS RIVER BASIN

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07227000 CANADIAN RIVER AT LOGAN, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1963 - 1997
ANNUAL TOTAL	15663.1	26447.7	
ANNUAL MEAN	42.8	72.5	41.4
HIGHEST ANNUAL MEAN			145
LOWEST ANNUAL MEAN			1.62
HIGHEST DAILY MEAN	269 Aug 19	280 Aug 18	6860 Jun 18 1969
LOWEST DAILY MEAN	2.6 Jun 20	2.7 May 28	.10 Jan 12 1963
ANNUAL SEVEN-DAY MINIMUM	2.7 Jun 17	2.9 May 27	.10 Apr 16 1963
INSTANTANEOUS PEAK FLOW		365 Aug 18	219000 ^a Sep 22 1941
INSTANTANEOUS PEAK STAGE		4.33 Aug 18	29.30 ^b Sep 22 1941
ANNUAL RUNOFF (AC-FT)	31070	52460	29970
10 PERCENT EXCEEDS	249	255	115
50 PERCENT EXCEEDS	3.6	3.7	2.6
90 PERCENT EXCEEDS	3.2	3.4	1.6

a-From rating curve extended above 75,000
b-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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT 1996												
16...	1345	4.2	9110	7.9	29.0	20.5	662	9.0	119	630	140	69
DEC 09...	1045	3.5	8180	8.0	23.0	11.0	--	--	--	--	--	--
JAN 1997												
21...	1430	3.4	8570	8.1	15.0	11.0	660	10.9	118	590	130	64
MAY 13...	1500	3.3	8500	7.9	31.0	25.0	665	10.2	146	560	120	66
JUL 15...	1415	254	1170	8.2	39.0	19.0	672	8.9	110	280	51	37
SEP 05...	1450	253	1150	7.9	36.0	22.5	--	--	--	--	--	--

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ARKANSAS RIVER BASIN

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07227100 REVUELTO CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°20'29", long 103°23'37", in SW¹/4NW¹/4 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 mi².

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Water-discharge records good except for estimated 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 ft³/s, Sept. 18, 1946, gage height, 9.04 ft, at site 180 ft downstream at different datum, from unpublished records collected by Bureau of Reclamation. A peak of 26,100 ft³/s, date unknown, gage height, 12.9 ft at former site and datum, was measured by slope-area method in May 1957.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	e1.5	29	7.4	e4.5	8.6	4.5	90	14	273	881	64
2	2.4	e1.6	152	7.1	4.2	17	4.8	49	11	88	481	21
3	1.0	e1.8	119	5.8	4.0	5.2	e209	27	13	41	117	17
4	14	e2.1	29	5.7	2.6	1.0	e5.8	15	7.6	34	201	26
5	e325	e2.5	16	7.1	2.2	1.7	e4.4	9.5	5.6	46	341	40
6	e80	e3.0	9.8	e5.7	1.5	4.5	e3.8	7.1	14	79	111	27
7	e13	e3.6	4.3	e5.3	.91	5.2	e2.1	5.2	61	54	27	13
8	e14	e3.8	4.7	e4.6	1.0	5.5	e1.8	3.8	466	22	3.4	12
9	e10	e4.0	6.0	e4.2	.53	16	e2.0	278	558	41	2.0	20
10	e9.0	e4.3	5.4	e4.0	2.2	11	e2.3	83	450	97	3.4	18
11	e7.0	e4.5	4.4	e4.3	1.1	5.9	e2.9	166	347	187	748	15
12	e6.0	8.4	4.9	e4.1	1.1	10	e2.5	66	298	208	272	14
13	e5.0	8.7	7.0	e4.2	4.3	8.7	e4.9	27	364	22	590	15
14	e4.5	5.4	9.6	e4.2	10	6.5	3.2	15	449	40	185	16
15	e4.0	9.5	6.5	e4.0	4.7	10	1.7	13	498	58	44	22
16	e11	17	7.7	e3.9	5.6	12	1.5	11	461	17	26	16
17	e8.0	14	17	e4.2	16	11	1.4	31	665	15	5.5	21
18	e4.0	5.7	28	e3.9	5.2	11	1.1	18	418	18	270	14
19	e2.3	4.1	21	e4.0	2.7	15	.75	14	343	22	251	6.8
20	e2.1	3.6	42	e4.2	7.9	7.7	169	12	303	48	441	7.3
21	e30	2.7	30	e4.5	15	2.9	120	35	259	62	230	30
22	e30	2.0	7.0	e4.7	10	4.1	90	99	222	44	93	282
23	e20	1.9	8.5	2.3	4.9	7.8	65	39	310	136	50	228
24	e10	1.6	8.6	3.8	9.0	15	461	34	308	95	12	189
25	e6.0	1.6	8.3	e3.9	14	4.7	771	23	285	66	6.5	261
26	e3.0	2.1	11	e4.1	10	3.9	1080	19	251	77	2.9	184
27	e10	1.9	9.6	e3.9	44	2.9	699	15	244	132	1.5	149
28	e10	2.3	9.3	e4.1	40	5.2	476	13	173	198	1.3	101
29	e6.0	2.5	5.9	e4.6	---	3.5	336	14	249	584	1.6	57
30	e6.0	13	7.3	e4.3	---	3.7	189	12	285	669	17	23
31	e3.0	---	7.5	e4.7	---	5.0	---	18	---	715	53	---
TOTAL	678.3	140.7	636.3	142.8	229.14	232.2	4716.45	1261.6	8332.2	4188	5469.1	1909.1
MEAN	21.9	4.69	20.5	4.61	8.18	7.49	157	40.7	278	135	176	63.6
MAX	325	17	152	7.4	44	17	1080	278	665	715	881	282
MIN	1.0	1.5	4.3	2.3	.53	1.0	.75	3.8	5.6	15	1.3	6.8
AC-FT	1350	279	1260	283	454	461	9360	2500	16530	8310	10850	3790

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1997, BY WATER YEAR (WY)

	MEAN	34.4	9.06	10.1	5.55	7.41	6.47	27.4	45.9	81.2	122	125	73.5
MAX	320	34.1	129	27.9	42.5	52.1	346	203	492	1203	575	515	
(WY)	1961	1962	1960	1990	1983	1985	1970	1991	1960	1960	1981	1969	
MIN	.000	.056	.001	.000	.000	.003	.32	.085	.89	.42	.93	1.72	
(WY)	1965	1978	1976	1965	1965	1980	1981	1976	1990	1983	1978	1978	

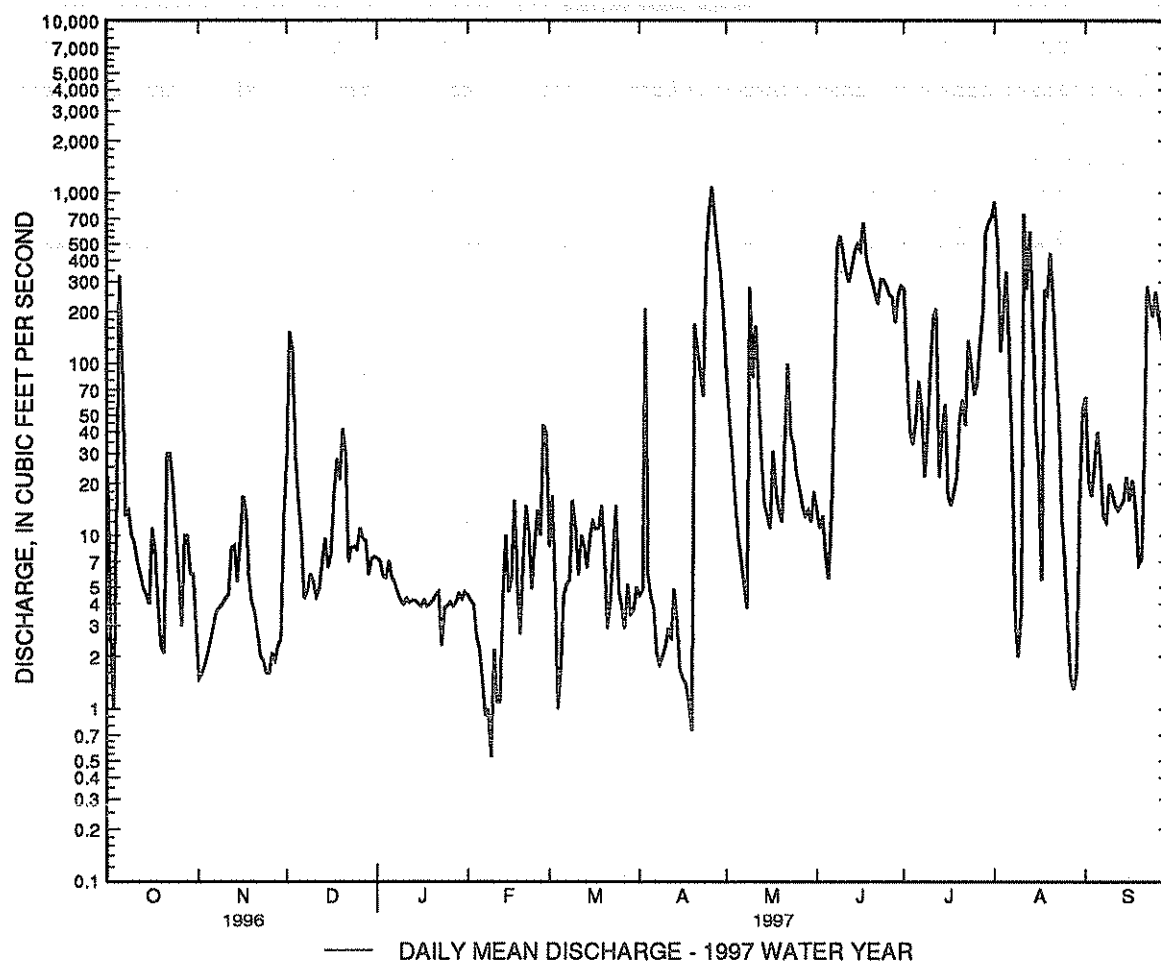
e Estimated

ARKANSAS RIVER BASIN

07227100 REVUELTO CREEK NEAR LOGAN, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1959 - 1997
ANNUAL TOTAL	25535.69	27935.89	45.5
ANNUAL MEAN	69.8	76.5	4.72
HIGHEST ANNUAL MEAN			204 1960
LOWEST ANNUAL MEAN			4.72 1964
HIGHEST DAILY MEAN	3750 Jul 10	1080 Apr 26	13800 Jul 9 1960
LOWEST DAILY MEAN	.01 Aug 9	.53 Feb 9	.00 Oct 20 1959
ANNUAL SEVEN-DAY MINIMUM	.10 Aug 3	1.2 Feb 6	.00 Oct 20 1959
INSTANTANEOUS PEAK FLOW		2940 Apr 3	26700 ^a Jul 9 1960
INSTANTANEOUS PEAK STAGE		5.58 Apr 3	14.30 Jul 9 1960
INSTANTANEOUS LOW FLOW		.09 Mar 4	.00 Oct 20 1959
ANNUAL RUNOFF (AC-FT)	50650	55410	32930
10 PERCENT EXCEEDS	104	272	62
50 PERCENT EXCEEDS	7.0	11	5.3
90 PERCENT EXCEEDS	.42	2.3	.00

a-From slope-area measurement of peak flow.



ARKANSAS RIVER BASIN

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

WATER-QUALITY RECORDS

LOCATION.--Lat 35°23'35", long 103°02'30", in SW¹/4 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 1996 TO SEPTEMBER 1997

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 OF (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, SATUR-ATION (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 1996												
16...	1015	22	5790	8.0	22.5	15.5	667	9.0	105	520	110	60
JAN 1997												
22...	1015	22	8310	8.4	10.0	3.0	670	12.0	105	1600	420	130
MAY												
14...	1015	30	4330	8.5	21.5	17.0	673	7.5	89	460	110	44
JUL												
15...	1340	253	1320	8.3	41.0	26.0	675	7.7	108	290	53	37

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	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)
OCT 1996											
16...	1100	21	7.7	223	440	1600	0.60	11	3460	339	<9.0
JAN 1997											
22...	1200	13	8.4	265	570	2300	0.70	10	4800	656	<15
MAY											
14...	790	16	5.8	239	410	1000	0.6	9.6	2560	284	16
JUL											
15...	170	4	6.5	187	320	100	0.7	6.2	803	193	<3

RIO GRANDE BASIN

81

08251500 RIO GRANDE NEAR LOBATOS, CO

LOCATION.--Lat 37°04'43", long 105°45'23", in NE¹/4NW¹/4 sec.27, T.33 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank at highway bridge, 5.7 mi north of Colorado-New Mexico State line, 8 mi downstream from Culebra Creek, 11 mi east of Lobatos, and 14 mi east of Antonito.

DRAINAGE AREA.--7,700 mi², approximately, includes 2,940 mi² in closed basin in northern part of San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1899 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "at Cenicero" 1899-1901, and as "near Cenicero" 1902-4.

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

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

REMARKS.--Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, groundwater withdrawals and diversion for irrigation, and return flow from irrigated area.

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	109	e95	e340	e360	374	733	444	1840	1170	424	443
2	38	141	e115	e355	e365	355	670	448	2400	1150	470	496
3	39	165	e125	e380	e380	368	591	405	2870	1110	355	522
4	41	150	e135	e360	e335	370	550	351	3220	981	302	524
5	53	141	e145	e330	e345	369	521	371	3470	822	354	490
6	49	133	e185	e250	e365	361	448	401	3460	608	385	494
7	44	121	e205	e260	e345	356	388	542	3150	748	421	492
8	44	108	e215	e290	e340	384	375	795	2920	749	656	476
9	44	102	e255	e300	e330	399	320	936	2820	591	850	449
10	44	99	e290	e315	e325	412	309	1170	2690	460	871	420
11	51	97	e300	e330	e335	430	285	971	2270	446	864	413
12	53	100	e300	e340	e345	463	278	1020	2070	558	856	427
13	47	103	e260	e340	e355	524	267	985	1890	514	825	445
14	47	102	e230	e340	e330	565	244	1170	1780	446	730	409
15	46	103	e190	e320	e345	587	237	1190	1660	404	727	376
16	46	105	e160	e310	e355	614	239	1390	1670	364	649	357
17	45	e100	e145	e310	e390	685	227	1610	1670	330	591	334
18	42	e95	e105	e310	377	763	218	1730	e1640	308	556	342
19	48	96	e235	e320	379	777	243	1880	1510	350	543	372
20	50	101	e260	e320	380	751	299	2160	1480	386	513	354
21	48	101	e240	e330	381	805	383	2450	1620	369	489	382
22	45	102	e240	e320	350	913	484	2140	1570	359	448	567
23	59	102	e240	e315	380	963	756	2230	1590	375	448	1010
24	54	105	e260	e310	369	982	803	2330	1480	339	454	1330
25	58	108	e265	e315	388	1010	608	2180	1240	299	432	1740
26	e67	109	e280	e330	368	976	499	1800	1040	360	432	2120
27	e80	e112	e290	e330	355	858	436	1520	975	339	436	2030
28	e85	e115	e295	e330	369	804	380	1170	1120	318	451	1730
29	e85	e120	e305	e330	---	782	390	1110	1150	336	458	1480
30	97	e125	e320	e330	---	775	403	1210	1210	349	421	1200
31	101	---	e325	e345	---	761	---	1370	---	344	405	---
TOTAL	1688	3370	7010	10005	10041	19536	12584	39479	59475	16282	16816	22224
MEAN	54.5	112	226	323	359	630	419	1274	1983	525	542	741
MAX	101	165	325	380	390	1010	803	2450	3470	1170	871	2120
MIN	38	95	95	250	325	355	218	351	975	299	302	334
AC-FT	3350	6680	13900	19840	19920	38750	24960	78310	118000	32300	33350	44080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1997, BY WATER YEAR (WY)

MEAN	173	311	284	261	313	419	533	1130	1254	445	160	129
MAX	1401	1199	763	521	595	884	2326	4958	4470	2754	842	779
(WY)	1942	1942	1942	1986	1986	1987	1985	1987	1941	1995	1957	1982
MIN	12.9	59.6	61.7	75.7	102	66.0	32.3	42.9	19.8	1.28	3.21	1.91
(WY)	1957	1955	1964	1957	1957	1957	1935	1963	1977	1951	1956	1956

RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1931 - 1997	
ANNUAL TOTAL	65657		218510		451 ^a	
ANNUAL MEAN	179		599		1264	
HIGHEST ANNUAL MEAN					1264	
LOWEST ANNUAL MEAN					70.9	
HIGHEST DAILY MEAN	609		3470		9110 ^b	
LOWEST DAILY MEAN	15 ^c		38 ^d		.00 ^f	
ANNUAL SEVEN-DAY MINIMUM	15		43		.00	
INSTANTANEOUS PEAK FLOW			3610		11600 ^g	
INSTANTANEOUS PEAK STAGE			4.72		8.76	
ANNUAL RUNOFF (AC-FT)	130200		433400		326600	
10 PERCENT EXCEEDS	438		1510		970	
50 PERCENT EXCEEDS	115		371		242	
90 PERCENT EXCEEDS	30		100		40	

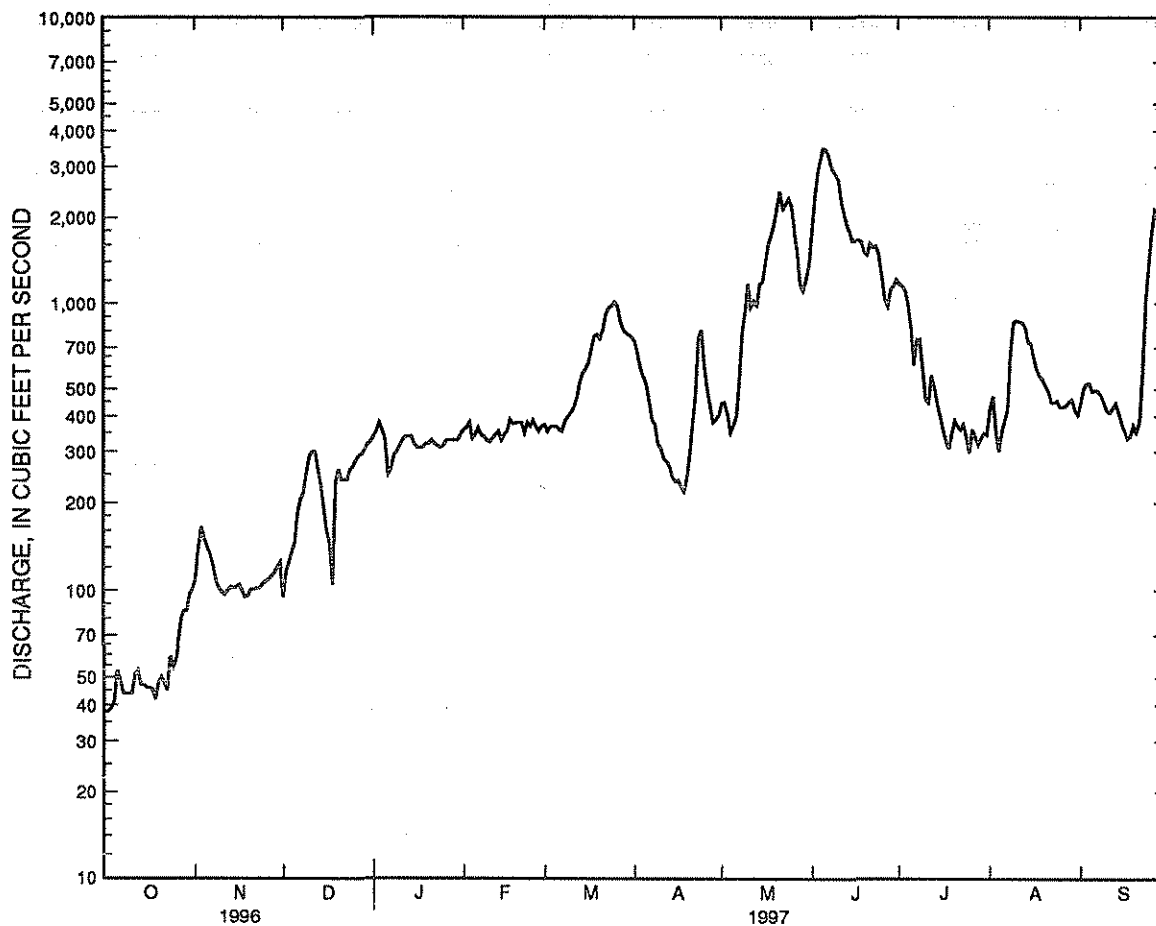
e-Estimated.

a-Average discharge for 31 years (water years 1900-30), 846 ft³/s; 612900 acre-ft/yr, includes period of extensive development for irrigation.b-Maximum daily discharge for period of record, 13100 ft³/s, Jun 8, 1905.

c-Also occurred Aug 1-4.

d-Also occurred Oct 2.

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

g-Maximum discharge and stage for period of record, 13200 ft³/s, Jun 8, 1905, gage height, 9.1 ft, from rating curve extended above 8000 ft³/s.

— DAILY MEAN DISCHARGE - 1997 WATER YEAR

RIO GRANDE BASIN

83

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1975 to September 1981.

WATER TEMPERATURE: October 1975 to September 1981.

REMARKS.--Periodic water-quality data available Sept. 1969 to Sept. 1993 under National Stream-Quality Accounting Network (NASQAN) for this site.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,040 microsiemens, Sept. 17-18, 1977; minimum, 89 microsiemens, May 9, 1979.

WATER TEMPERATURE: Maximum, 30.0°C, July 17, 1977; minimum, 0.0°C, many days.

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

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	pH (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	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)	POTAS-SIUM, DIS-SOLVED (MG/L) AS K (00935)	ALKA- ^a LINTY LAB (MG/L) AS CACO3 (90410)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)
OCT 29...	1000	73	390	8.2	1.5	10.8	27	6.0	44	5.9	140	46
MAR 10...	1030	402	266	8.4	5.0	11.5	25	4.6	21	4.0	94	29
MAY 22...	1130	2150	135	7.7	12.0	7.8	13	2.5	8.7	2.6	48	12
JUN 16...	1245	1690	248	7.7	16.0	--	22	4.4	18	3.8	69	42
JUL 22...	1030	254	230	8.2	19.5	7.3	20	3.9	17	3.5	78	26
AUG 26...	1050	418	190	8.1	20.5	7.6	18	3.4	13	3.2	70	18

DATE	CHLO-RIDE, DIS-SOLVED (MG/L) AS CL (00940)	FLUO-RIDE, DIS-SOLVED (MG/L) AS F (00950)	SILICA, DIS-SOLVED (MG/L) AS SIO2 (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	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)
OCT 29...	14	0.6	31	267	0.02	0.07	0.04	0.4	0.2	0.10	0.05	0.04
MAR 10...	6.9	0.4	26	179	<0.01	0.19	<0.015	0.4	<0.2	0.08	0.01	0.03
MAY 22...	2.2	0.15	21	105	<0.01	0.085	<0.015	0.54	<0.2	0.136	0.041	0.051
JUN 16...	4.6	0.26	20	177	<0.01	0.064	<0.015	0.52	0.28	0.107	0.057	0.054
JUL 22...	5.3	0.26	21	161	<0.01	<0.05	<0.015	0.48	<0.2	0.129	0.044	0.047
AUG 26...	3.6	0.21	23	131	<0.01	<0.05	<0.015	0.39	<0.2	0.115	0.035	0.045

DATE	ALUM-INUM, DIS-SOLVED (UG/L) AS AL (01106)	ANTI-MONY, DIS-SOLVED (UG/L) AS SB (01095)	ARSENIC DIS-SOLVED (UG/L) AS AS (01000)	BARIUM, DIS-SOLVED (UG/L) AS BA (01005)	BERYL-LIUM, DIS-SOLVED (UG/L) AS BE (01010)	CADMIUM DIS-SOLVED (UG/L) AS CD (01025)	CHRO-MIUM, DIS-SOLVED (UG/L) AS CR (01030)	COBALT, DIS-SOLVED (UG/L) AS CO (01035)	COPPER, DIS-SOLVED (UG/L) AS CU (01040)
OCT 29...	3.0	<1.0	2	37	<1	<1	1	<1	2.0
MAR 10...	--	--	--	--	--	--	--	--	--
MAY 22...	11	<1.0	1	22	<1	<1	<1	<1	1.5
JUN 16...	4.3	<1.0	2	30	<1	<1	<1	<1	1.9
JUL 22...	2.3	<1.0	2	23	<1	<1	<1	<1	1.1
AUG 26...	--	--	--	--	--	--	--	--	--

a-Lab total dissolved alkalinity, determined by fixed-endpoint titration method.

RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

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

DATE	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)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
OCT 29...	39	<1	7	4	<1	<1	<1	1.0	3
MAR 10...	20	--	38	--	--	--	--	--	--
MAY 22...	71	<1	31	<1	<1	<1	<1	1.1	<1
JUN 16...	56	<1	20	1.0	<1	<1	<1	<1	<1
JUL 22...	24	<1	11	2.1	<1	<1	<1	<1	<1
AUG 26...	21	--	5.9	--	--	--	--	--	--

CROSS-SECTION DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (000009)	TEMPER- ATURE WATER (DEG C) (00010)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	pH (STAND- ARD UNITS) (00400)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG 26...	1022	114	20.5	190	7.8	7.6
26...	1025	102	20.5	190	8.1	7.7
26...	1026	88.0	20.5	190	8.1	7.6
26...	1027	77.0	20.5	190	8.1	7.5
26...	1028	72.0	20.5	190	8.1	7.5
26...	1030	65.0	20.5	190	8.1	7.6
26...	1031	57.0	20.5	190	8.1	7.6
26...	1032	50.0	20.5	190	8.2	7.6
26...	1033	37.0	20.5	190	8.2	7.6
26...	1034	20.0	20.5	190	8.2	7.7

RIO GRANDE BASIN

85

08252500 COSTILLA CREEK ABOVE COSTILLA DAM, NM

LOCATION.--Lat 36°53'52", long 105°15'16", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 1,900 ft upstream from normal high-water line of Costilla Reservoir, 2.1 mi northeast of Costilla Dam, 16 mi southeast of Costilla, and at mile 36.9.

DRAINAGE AREA.--25.1 mi².

PERIOD OF RECORD.--April 1937 to current year (seasonal records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Prior to October 1951, published as "above reservoir, near Costilla."

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

GAGE.--Water-stage recorder. Concrete control since Sept. 17, 1965. Elevation of gage is 9,428 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1923 for history of changes prior to Sept. 17, 1965.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 3,870 ft³/s, July 22, 1954, gage height, about 4.8 ft, from floodmarks, site and datum then in use, on basis of slope-area measurement of peak flow; minimum not determined. The flood in 1954 destroyed the gaging station and is highest since about 1909 from information by local range rider. A portion of this flow may have originated in Casias Creek basin (see REMARKS).

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 105 ft³/s, at 2245 hours May 21, gage height 3.46 ft; minimum daily discharge 2.0 ft³/s, Oct. 8, 9, 10.

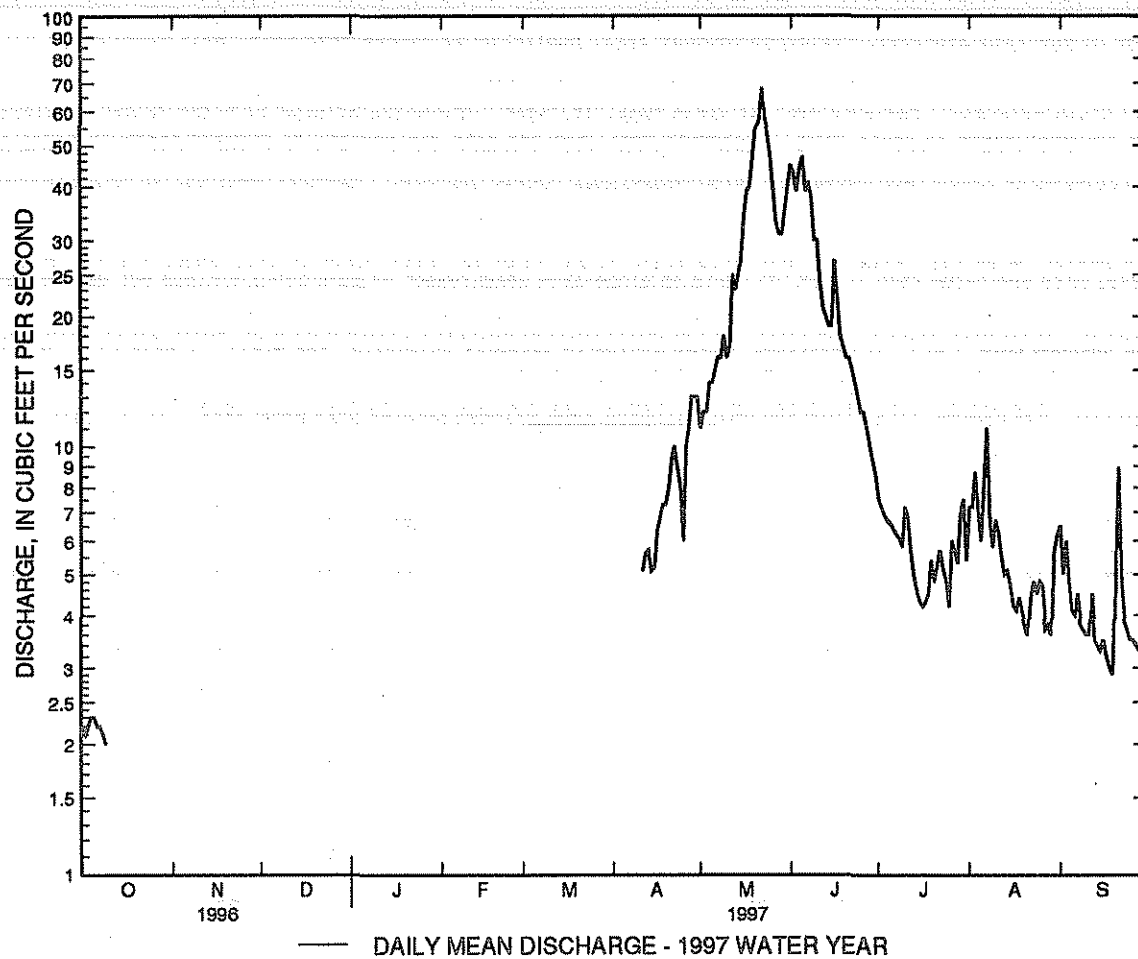
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	---	---	---	---	---	---	11	45	7.5	7.2	6.5
2	2.1	---	---	---	---	---	---	12	43	7.2	7.2	5.0
3	2.2	---	---	---	---	---	---	12	39	6.9	8.7	6.0
4	2.3	---	---	---	---	---	---	14	44	6.7	7.1	4.8
5	2.3	---	---	---	---	---	---	14	47	6.6	6.0	4.1
6	2.2	---	---	---	---	---	---	15	39	6.4	8.0	4.0
7	2.2	---	---	---	---	---	---	16	41	6.2	11	4.5
8	2.1	---	---	---	---	---	---	16	38	6.1	6.7	3.8
9	2.0	---	---	---	---	---	---	18	30	5.8	5.8	3.7
10	---	---	---	---	---	---	---	16	30	7.2	6.7	3.6
11	---	---	---	---	---	---	5.1	17	24	6.9	6.3	3.6
12	---	---	---	---	---	---	5.6	25	21	5.7	5.5	4.5
13	---	---	---	---	---	---	5.7	23	20	5.0	5.0	3.5
14	---	---	---	---	---	---	5.1	25	19	4.6	5.1	3.4
15	---	---	---	---	---	---	5.2	27	19	4.3	4.7	3.3
16	---	---	---	---	---	---	6.3	34	27	4.2	4.2	3.5
17	---	---	---	---	---	---	6.8	39	22	4.3	4.1	3.2
18	---	---	---	---	---	---	7.3	40	18	4.5	4.4	3.0
19	---	---	---	---	---	---	7.3	47	17	5.4	4.1	2.9
20	---	---	---	---	---	---	7.9	55	16	4.8	3.8	5.2
21	---	---	---	---	---	---	9.2	57	16	5.2	3.6	8.9
22	---	---	---	---	---	---	10	68	15	5.7	4.4	4.8
23	---	---	---	---	---	---	8.9	58	14	5.2	4.8	3.9
24	---	---	---	---	---	---	e8.0	54	13	4.8	4.5	3.7
25	---	---	---	---	---	---	e6.0	48	12	4.2	4.8	3.5
26	---	---	---	---	---	---	e10	40	12	6.0	4.7	3.5
27	---	---	---	---	---	---	e11	33	11	5.7	3.7	3.4
28	---	---	---	---	---	---	13	31	10	5.3	3.8	3.3
29	---	---	---	---	---	---	13	31	9.2	6.9	3.6	3.3
30	---	---	---	---	---	---	13	35	8.5	7.5	5.7	3.2
31	---	---	---	---	---	---	---	40	---	5.4	6.2	---
TOTAL	---	---	---	---	---	---	---	971	719.7	178.2	171.4	123.6
MEAN	---	---	---	---	---	---	---	31.3	24.0	5.75	5.53	4.12
MAX	---	---	---	---	---	---	---	68	47	7.5	11	8.9
MIN	---	---	---	---	---	---	---	11	8.5	4.2	3.6	2.9
AC-FT	---	---	---	---	---	---	---	1930	1430	353	340	245

e Estimated

RIO GRANDE BASIN

08252500 COSTILLA CREEK ABOVE COSTILLA DAM, NM -- Continued



RIO GRANDE BASIN

87

08253000 CASIAS CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°53'48", long 105°15'35", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 200 ft downstream from road crossing, 900 ft upstream from normal high-water line of Costilla Reservoir, 1.8 mi northeast of Costilla Dam, and 16 mi southeast of Costilla.

DRAINAGE AREA.--16.6 mi².

PERIOD OF RECORD.--April 1937 to current year (seasonal records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Records for Nov. 1-7, 1947 and Nov. 1-16, 1948, published in WSP 1118 and 1148, are unreliable and should not be used.

REVISED RECORDS.--WSP 1282: 1948-51. WSP 1923: Drainage area.

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft³/s, July 20, 1971, gage height, 2.07 ft, from rating curve extended above 85 ft³/s; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 87 ft³/s, at 2130 hours May 21, gage height 1.49 ft; minimum daily discharge 3.8 ft³/s, Oct. 9, Apr. 11.

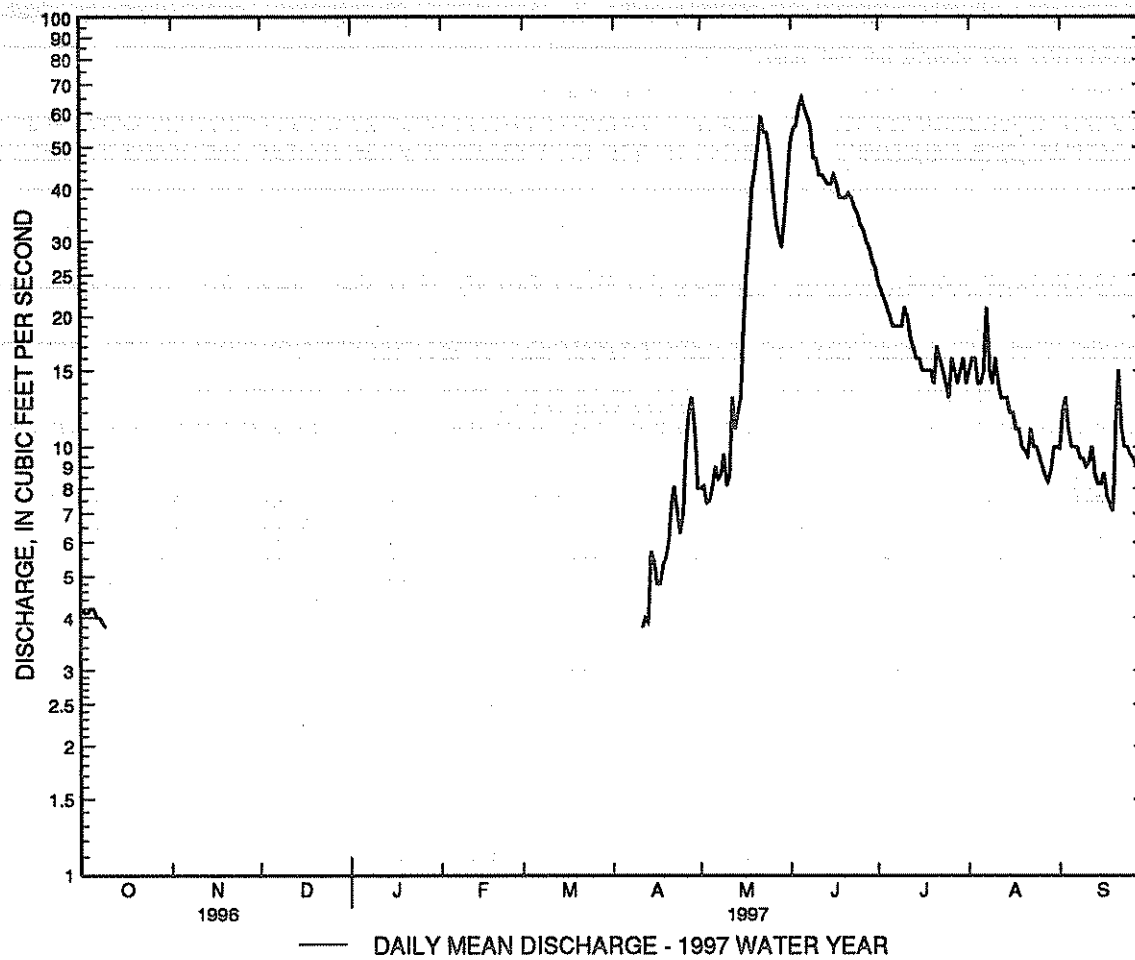
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	---	---	---	---	---	---	8.0	51	24	15	9.9
2	4.1	---	---	---	---	---	---	8.1	55	23	16	12
3	4.1	---	---	---	---	---	---	7.4	56	22	16	13
4	4.2	---	---	---	---	---	---	7.5	62	21	14	11
5	4.2	---	---	---	---	---	---	8.1	65	20	14	10
6	4.0	---	---	---	---	---	---	9.0	61	19	15	10
7	4.0	---	---	---	---	---	---	8.4	59	19	21	10
8	3.9	---	---	---	---	---	---	8.6	56	19	15	9.4
9	3.8	---	---	---	---	---	---	9.6	47	19	14	9.4
10	---	---	---	---	---	---	---	8.1	47	21	16	9.0
11	---	---	---	---	---	---	3.8	8.5	43	20	14	9.2
12	---	---	---	---	---	---	4.0	13	43	18	13	10
13	---	---	---	---	---	---	3.9	11	42	17	13	8.6
14	---	---	---	---	---	---	5.7	12	41	16	13	8.2
15	---	---	---	---	---	---	5.4	13	41	16	12	8.2
16	---	---	---	---	---	---	4.8	19	43	15	12	8.7
17	---	---	---	---	---	---	4.8	25	41	15	11	7.7
18	---	---	---	---	---	---	5.3	31	38	15	11	7.4
19	---	---	---	---	---	---	5.5	40	38	15	10	7.1
20	---	---	---	---	---	---	6.0	44	38	14	9.8	11
21	---	---	---	---	---	---	7.3	50	39	17	9.5	15
22	---	---	---	---	---	---	8.1	59	38	16	11	11
23	---	---	---	---	---	---	7.1	54	36	15	10	10
24	---	---	---	---	---	---	e6.3	54	35	14	10	10
25	---	---	---	---	---	---	e7.0	49	33	13	9.5	9.6
26	---	---	---	---	---	---	e10	41	32	16	9.0	9.4
27	---	---	---	---	---	---	e12	34	30	15	8.6	9.0
28	---	---	---	---	---	---	e13	31	29	14	8.3	8.8
29	---	---	---	---	---	---	e11	29	27	15	8.8	8.6
30	---	---	---	---	---	---	e8.0	34	26	16	10	7.9
31	---	---	---	---	---	---	---	42	---	14	10	---
TOTAL	---	---	---	---	---	---	---	776.3	1292	533	379.5	289.1
MEAN	---	---	---	---	---	---	---	25.0	43.1	17.2	12.2	9.64
MAX	---	---	---	---	---	---	---	59	65	24	21	15
MIN	---	---	---	---	---	---	---	7.4	26	13	8.3	7.1
AC-FT	---	---	---	---	---	---	---	1540	2560	1060	753	573

e Estimated

RIO GRANDE BASIN

08253000 CASIAS CREEK NEAR COSTILLA, NM -- Continued



RIO GRANDE BASIN

89

08253500 SANTISTEVAN CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°53'03", long 105°16'50", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 200 ft upstream from road crossing, 1,300 ft upstream from normal high-water line of Costilla Reservoir, 0.6 mi north of Costilla Dam, and 16 mi southeast of Costilla.

DRAINAGE AREA.--2.15 mi².

PERIOD OF RECORD.--April 1937 to current year (seasonal records). Monthly discharge only for some periods, published in WSP 1312 and 1732.

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 9,480 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 27, 1940, water-stage recorder and wooden control at datum 0.99 ft lower.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20 ft³/s, June 29, 1995; maximum gage height, 1.73 ft, Aug. 11, 1941; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 11 ft³/s, at 1945 hours June 6, gage height 1.17; minimum daily 0.52 ft³/s, April 12, 13.

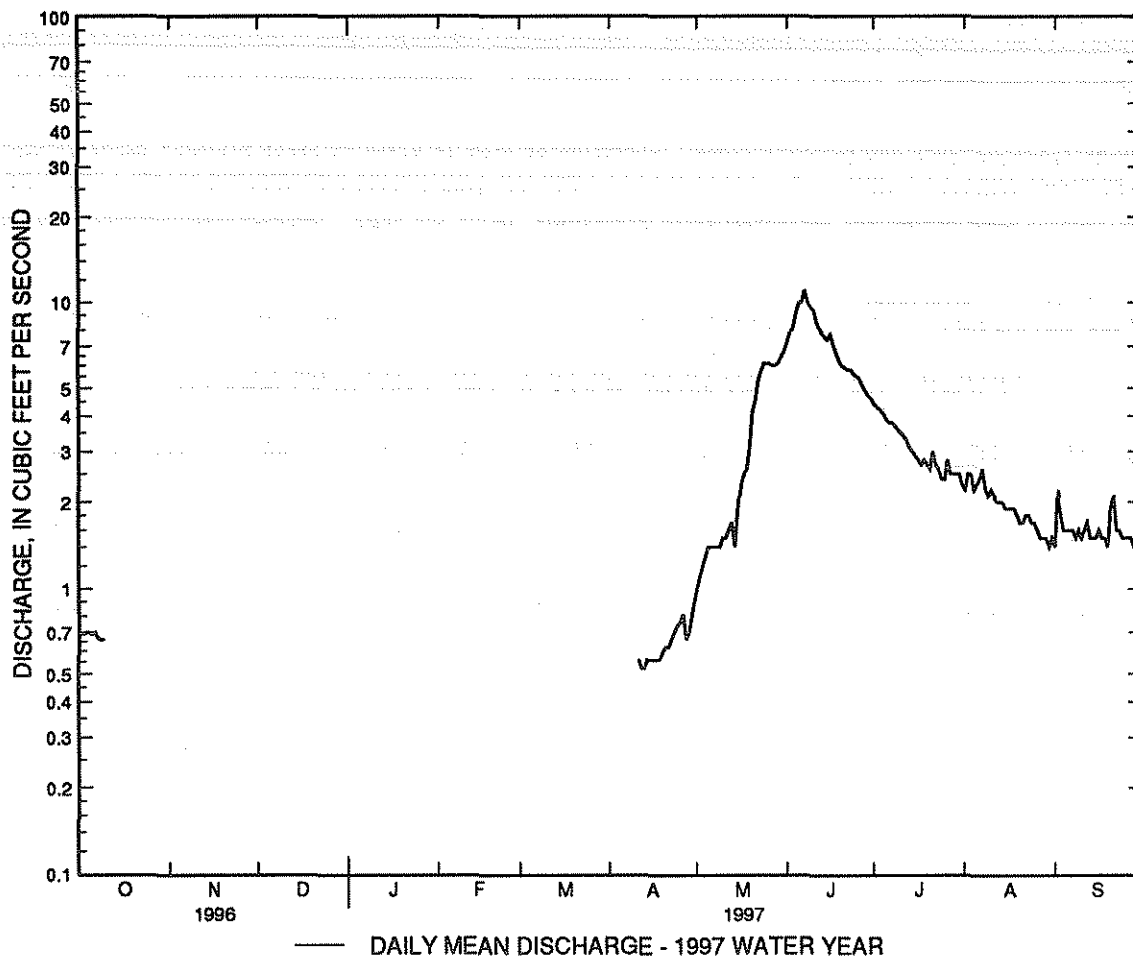
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	---	---	---	---	---	---	e1.0	7.2	4.4	2.2	1.4
2	.69	---	---	---	---	---	---	e1.1	7.8	4.3	2.5	2.2
3	.70	---	---	---	---	---	---	e1.2	8.2	4.2	2.5	1.8
4	.70	---	---	---	---	---	---	e1.3	9.2	4.1	2.2	1.6
5	.69	---	---	---	---	---	---	e1.4	9.9	3.9	2.3	1.6
6	.70	---	---	---	---	---	---	e1.4	10	3.8	2.4	1.6
7	.67	---	---	---	---	---	---	1.4	11	3.8	2.6	1.6
8	.66	---	---	---	---	---	---	1.4	10	3.7	2.2	1.5
9	.66	---	---	---	---	---	---	1.4	9.6	3.6	2.1	1.6
10	---	---	---	---	---	---	---	1.5	9.4	3.5	2.2	1.5
11	---	---	---	---	---	---	e.56	1.5	8.5	3.4	2.1	1.6
12	---	---	---	---	---	---	e.52	1.6	8.1	3.3	2.0	1.7
13	---	---	---	---	---	---	e.52	1.7	7.8	3.1	2.0	1.5
14	---	---	---	---	---	---	e.56	1.4	7.6	3.0	2.0	1.5
15	---	---	---	---	---	---	e.56	1.9	7.4	2.9	1.9	1.5
16	---	---	---	---	---	---	e.56	2.3	7.7	2.8	1.9	1.6
17	---	---	---	---	---	---	e.56	2.5	7.1	2.7	1.9	1.5
18	---	---	---	---	---	---	e.56	2.6	6.6	2.8	1.9	1.5
19	---	---	---	---	---	---	e.60	3.1	6.2	2.7	1.8	1.4
20	---	---	---	---	---	---	e.62	4.1	6.0	2.6	1.7	1.9
21	---	---	---	---	---	---	e.62	4.5	5.9	3.0	1.7	2.1
22	---	---	---	---	---	---	e.66	5.3	5.8	2.7	1.8	1.6
23	---	---	---	---	---	---	e.70	5.7	5.8	2.6	1.8	1.6
24	---	---	---	---	---	---	e.74	6.1	5.6	2.4	1.7	1.5
25	---	---	---	---	---	---	e.76	6.1	5.5	2.4	1.7	1.5
26	---	---	---	---	---	---	e.81	6.1	5.4	2.8	1.6	1.5
27	---	---	---	---	---	---	e.66	6.0	5.1	2.5	1.5	1.5
28	---	---	---	---	---	---	e.70	6.0	4.9	2.5	1.5	1.4
29	---	---	---	---	---	---	e.80	6.1	4.7	2.5	1.5	1.4
30	---	---	---	---	---	---	e.90	6.4	4.6	2.5	1.4	1.4
31	---	---	---	---	---	---	---	6.7	---	2.3	1.5	---
TOTAL	---	---	---	---	---	---	---	100.8	218.6	96.8	60.1	47.6
MEAN	---	---	---	---	---	---	---	3.25	7.29	3.12	1.94	1.59
MAX	---	---	---	---	---	---	---	6.7	11	4.4	2.6	2.2
MIN	---	---	---	---	---	---	---	1.0	4.6	2.3	1.4	1.4
AC-FT	---	---	---	---	---	---	---	200	434	192	119	94

e Estimated

RIO GRANDE BASIN

08253500 SANTISTEVAN CREEK NEAR COSTILLA, NM -- Continued



RIO GRANDE BASIN

91

08253900 COSTILLA RESERVOIR NEAR COSTILLA, NM

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

DRAINAGE AREA.--54.6 mi².

PERIOD OF RECORD.--May 1922 to September 1965 (monthend contents only), October 1965 to September 1983, April 1990 to current year. Records prior to October 1960 published in WSP 1732. Prior to October 1966, published as Costilla Lake near Costilla.

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Water-stage recorder with satellite telemeter. Elevation of gage is 9,300 above National Geodetic Vertical datum of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 16,500 acre-ft June 1-4, 1994, June 19-22, 1995, gage height, 107.61 ft; no storage October 1925 to February 1926, September 1956, Aug. 22 to Sept. 24, 1972, July 29 to Sept. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 11,500 acre-ft, June 22-28, gage-height, 94.86 ft, June 25; minimum contents, 1,060 acre-ft, Oct. 1, gage height, 44.74 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1060	1510	2050	2500	2920	3300	4060	4960	8960	11200	8090	6210
2	1080	1530	2070	2520	2930	3310	4080	5000	9150	11100	8120	6100
3	1090	1560	2080	2540	2950	3320	4100	5040	9330	11000	8100	5990
4	1110	1580	2090	2550	2960	3340	4130	5090	9530	11000	7990	5880
5	1130	1600	2110	2560	2970	3350	4130	5140	9740	11000	e7910	5820
6	1140	1620	2120	2580	2990	3360	4140	5200	9940	11000	e7830	5820
7	1160	1630	2130	2590	3000	3380	4170	5250	10100	10800	e7780	5790
8	1170	1650	2150	2600	3010	3390	4200	5320	10300	10700	e7770	5690
9	1190	1670	2170	2610	3020	3400	4220	5380	10500	10600	7760	5590
10	1200	1680	2190	2630	3040	3420	4240	5440	10600	10500	7740	5490
11	1210	1700	2210	2640	3050	3450	4270	5500	10700	10500	7640	5390
12	1230	1720	2220	2660	3060	3480	4290	5590	10800	10500	7550	5360
13	1240	1740	2240	2670	3070	3510	4310	5670	10900	10400	7460	5360
14	1250	1750	2250	2690	3080	3540	4330	5760	11000	10200	7370	5330
15	1260	1770	2270	2700	3100	3570	4350	5850	11000	10000	7350	5230
16	1270	1790	2280	2710	3110	3600	4370	5980	11100	9820	7360	5140
17	1280	1800	2300	2720	3120	3640	4400	6130	11200	9640	7310	5050
18	1300	1820	2320	2740	3140	3660	4420	6280	11300	9580	7200	4960
19	1310	1850	2330	2750	3150	3700	4460	6460	11300	9600	7080	4930
20	1320	1870	2340	2760	3170	3730	4490	e6610	11400	9540	6970	4970
21	1330	1890	2350	2780	3180	3770	4520	e6770	11400	9340	6870	4960
22	1340	1910	2370	2790	3190	3800	4560	e6960	11500	9140	6860	4840
23	1360	1930	2380	2800	3210	3840	4610	e7180	11500	8930	6870	4740
24	1380	1940	2390	2810	3220	3870	4660	e7480	11500	8750	6840	4640
25	1390	1960	2410	2830	3240	3890	4670	e7640	11500	8700	6730	4550
26	1400	1970	2420	2840	3250	3920	4710	e7810	11500	8720	6610	4530
27	1420	1990	2430	2850	3260	3940	4760	e8040	11500	8680	6490	4530
28	1440	2010	2440	2860	3280	3970	4810	e8280	11500	8510	6380	4530
29	1440	2030	2460	2880	---	3980	4870	8430	11400	8380	6350	4530
30	1460	2040	2470	2890	---	4010	4910	8590	11300	8250	6360	4540
31	1490	---	2490	2900	---	4030	---	8770	---	8120	6330	---
MAX	1490	2040	2490	2900	3280	4030	4910	8770	11500	11200	8120	6210
MIN	1060	1510	2050	2500	2920	3300	4060	4960	8960	8120	6330	4530
(+)	50.46	55.22	58.27	60.91	63.13	67.12	71.36	86.37	94.31	84.15	77.47	69.60
(++)	+440	+550	+450	+410	+380	+750	+880	+3860	+2530	-3180	-1790	-1790

CAL YR 1996 MAX 13300 MIN 1020 (++) -8010
WTR YR 1997 MAX 11500 MIN 1060 (++) +3490

e Estimated

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

RIO GRANDE BASIN

08254000 COSTILLA CREEK BELOW COSTILLA DAM, NM

LOCATION.--Lat 36°52'26", long 105°16'47", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on right bank approximately 1,000 ft downstream from Costilla Dam, 16 mi southeast of Costilla, and at mile 34.5.

DRAINAGE AREA.--54.6 mi².

PERIOD OF RECORD.--April 1937 to current year (seasonal records 1937-44, 1947-49, 1988-97). Monthly discharge only for some periods, published in WSP 1312. Prior to October 1951, published as "below reservoir near Costilla."

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 9,290 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 7, 1989, at site 500 ft upstream at different datum.

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

AVERAGE DISCHARGE.--41 years (water years 1945-47, 1950-87), 18.6 ft³/s, 13,480 acre-ft/yr.

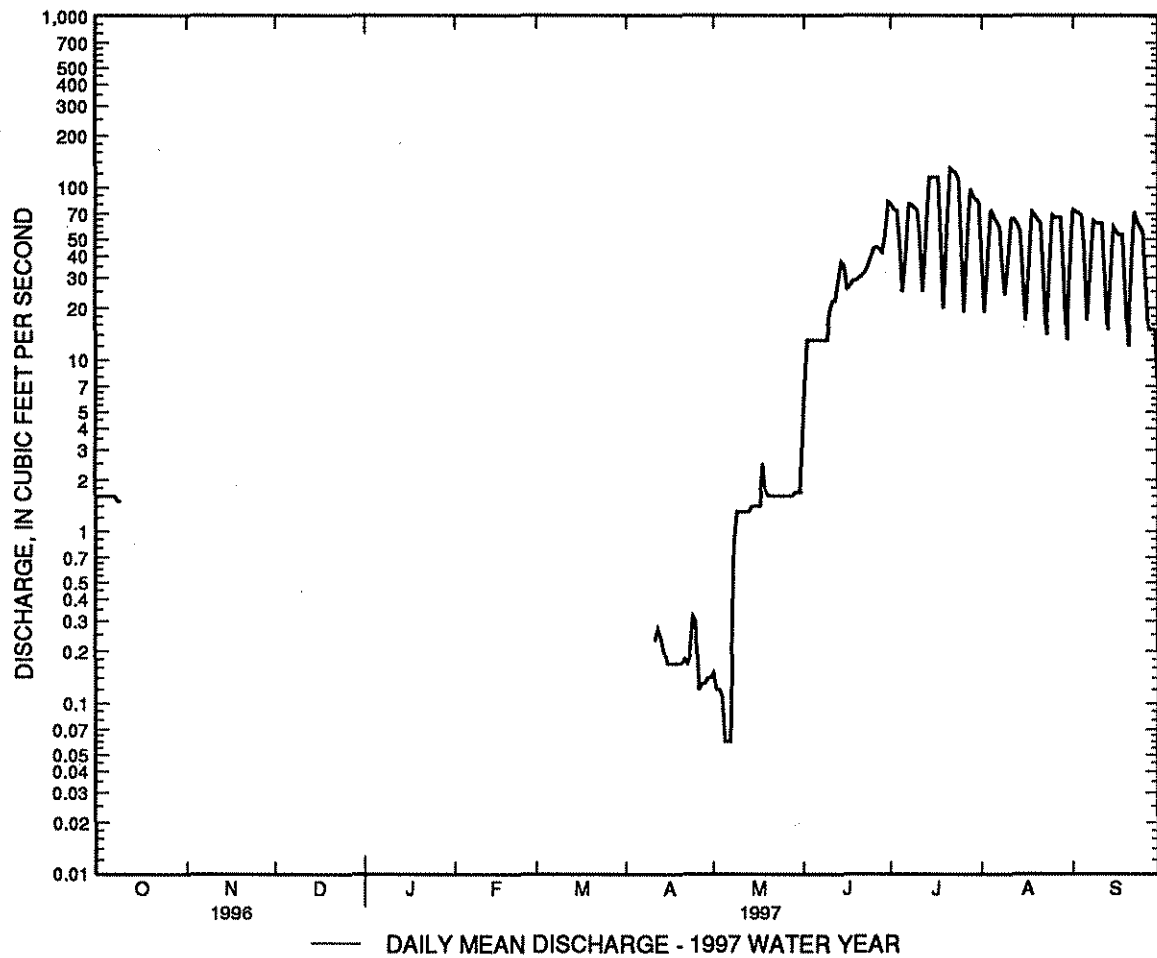
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 366 ft³/s, July 29, 1994, gage height, 3.57 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge during period of seasonal operation, 129 ft³/s, July 21; minimum daily, 0.06 ft³/s, May 5-7.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	---	---	---	---	---	---	.15	5.2	79	40	74
2	1.6	---	---	---	---	---	---	.12	13	74	19	72
3	1.6	---	---	---	---	---	---	.12	13	73	37	71
4	1.6	---	---	---	---	---	---	.11	13	46	74	68
5	1.6	---	---	---	---	---	---	.06	13	25	68	43
6	1.6	---	---	---	---	---	---	.06	13	41	63	17
7	1.6	---	---	---	---	---	---	.06	13	80	59	33
8	1.5	---	---	---	---	---	---	.79	13	79	35	64
9	1.5	---	---	---	---	---	---	1.3	13	76	24	62
10	---	---	---	---	---	---	---	1.3	19	74	37	62
11	---	---	---	---	---	---	.23	1.3	22	49	66	62
12	---	---	---	---	---	---	.27	1.3	22	25	65	32
13	---	---	---	---	---	---	.24	1.3	29	51	61	15
14	---	---	---	---	---	---	.20	1.4	37	114	56	29
15	---	---	---	---	---	---	.17	1.4	35	114	31	59
16	---	---	---	---	---	---	.17	1.4	26	114	17	55
17	---	---	---	---	---	---	.17	1.4	27	114	34	53
18	---	---	---	---	---	---	.17	2.5	29	53	72	53
19	---	---	---	---	---	---	.17	1.7	29	20	69	26
20	---	---	---	---	---	---	.17	1.6	30	52	65	12
21	---	---	---	---	---	---	.18	1.6	31	129	62	32
22	---	---	---	---	---	---	.17	1.6	32	125	32	72
23	---	---	---	---	---	---	.19	1.6	35	122	14	63
24	---	---	---	---	---	---	.32	1.6	39	110	31	59
25	---	---	---	---	---	---	.30	1.6	44	48	69	55
26	---	---	---	---	---	---	.12	1.6	45	19	67	28
27	---	---	---	---	---	---	.13	1.6	44	45	67	15
28	---	---	---	---	---	---	.13	1.6	42	98	67	15
29	---	---	---	---	---	---	.14	1.7	53	89	33	15
30	---	---	---	---	---	---	.14	1.7	82	85	13	7.5
31	---	---	---	---	---	---	---	1.7	---	82	33	---
TOTAL	---	---	---	---	---	---	---	37.27	861.2	2305	1480	1323.5
MEAN	---	---	---	---	---	---	---	1.20	28.7	74.4	47.7	44.1
MAX	---	---	---	---	---	---	---	2.5	82	129	74	74
MIN	---	---	---	---	---	---	---	.06	5.2	19	13	7.5
AC-FT	---	---	---	---	---	---	---	74	1710	4570	2940	2630

08254000 COSTILLA CREEK BELOW COSTILLA DAM, NM -- Continued



RIO GRANDE BASIN

08255500 COSTILLA CREEK NEAR COSTILLA, NM

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

DRAINAGE AREA.--195 mi².

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

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

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	12	e9.0	e8.0	e9.6	11	22	51	113	107	82	82
2	9.1	9.7	e10	e8.0	e10	15	20	45	122	99	41	87
3	8.7	12	e7.0	e7.0	e8.5	11	20	40	117	94	47	89
4	8.7	12	e6.0	e6.0	e9.5	11	21	41	116	83	93	86
5	8.8	11	e5.0	e6.0	e9.0	10	19	46	119	48	88	77
6	8.7	11	e7.0	e7.0	e9.4	10	11	52	113	44	85	33
7	8.6	9.5	e7.0	e5.0	e8.7	11	18	64	115	89	84	32
8	8.4	8.5	e8.0	e5.0	e9.0	11	20	65	120	95	70	75
9	8.3	10	e9.0	e6.0	e9.7	12	19	82	107	93	45	76
10	8.2	10	e10	e7.0	e10	13	19	70	105	91	45	77
11	8.2	9.6	e10	e8.0	e9.8	14	17	70	106	87	84	76
12	8.0	9.2	e8.0	e6.0	e9.7	16	17	78	97	46	85	68
13	8.0	9.8	e7.0	e6.0	e9.6	24	17	86	91	41	84	28
14	8.0	11	e6.0	e5.0	e10	27	17	92	99	105	79	26
15	7.6	10	e5.0	e5.0	e11	30	18	93	97	111	65	66
16	7.5	11	e6.0	e5.0	e10	38	19	100	93	113	37	73
17	7.6	9.4	e6.0	e4.0	11	39	20	112	90	114	32	68
18	7.4	13	e7.0	e5.0	11	32	21	116	85	92	84	66
19	7.5	13	e6.0	e6.0	11	31	24	132	80	37	86	56
20	9.4	12	e7.0	e7.0	11	36	27	181	75	33	83	30
21	9.1	11	e8.0	e8.0	9.3	38	31	157	71	119	77	46
22	7.1	12	e10	e6.0	11	38	36	193	71	130	66	89
23	9.0	12	e10	e8.0	10	33	33	183	77	128	30	83
24	9.6	10	e9.0	e7.0	9.5	32	34	168	77	123	28	78
25	9.8	7.9	e8.0	e7.0	11	25	26	166	79	90	82	75
26	9.0	8.4	e7.0	e9.0	11	23	27	136	80	40	86	62
27	9.7	11	e7.0	e10	10	23	30	121	80	43	84	30
28	12	11	e10	e9.0	9.9	22	41	112	75	111	84	28
29	13	12	e9.0	e8.0	---	22	43	106	70	109	71	26
30	11	10	e10	e9.0	---	19	50	106	103	109	29	25
31	13	---	e10	e10	---	21	---	106	---	107	28	---
TOTAL	280.0	319.0	244.0	213.0	279.2	698	737	3170	2843	2731	2064	1813
MEAN	9.03	10.6	7.87	6.87	9.97	22.5	24.6	102	94.8	88.1	66.6	60.4
MAX	13	13	10	10	11	39	50	193	122	130	93	89
MIN	7.1	7.9	5.0	4.0	8.5	10	11	40	70	33	28	25
AC-FT	555	633	484	422	554	1380	1460	6290	5640	5420	4090	3600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1997, BY WATER YEAR (WY)

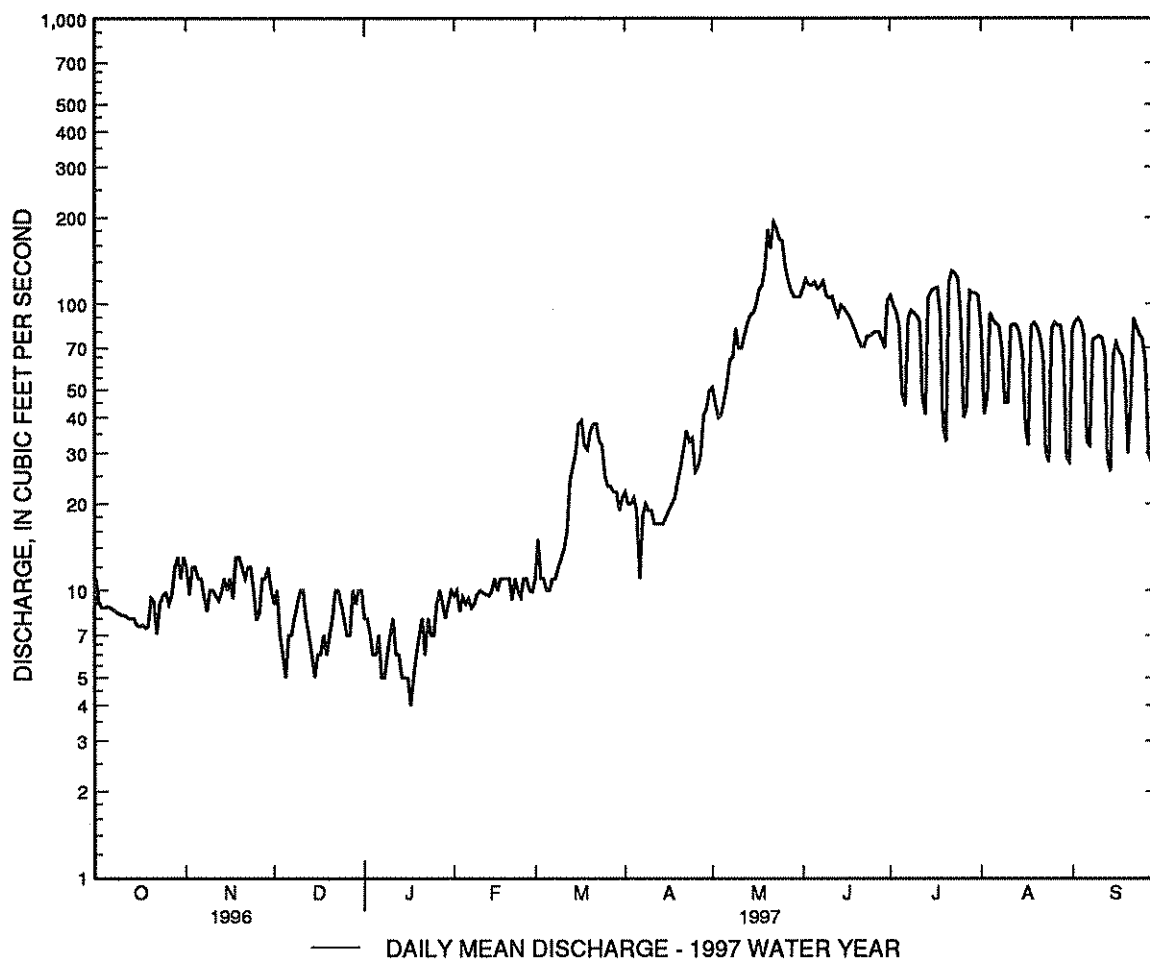
MEAN	15.5	11.7	8.61	7.87	9.47	18.3	50.9	121	118	85.5	69.5	35.2
MAX	44.9	30.1	19.6	15.0	16.9	70.9	223	594	342	160	137	109
{WY}	1962	1942	1942	1950	1942	1989	1942	1942	1983	1944	1973	1957
MIN	4.85	4.11	3.71	3.44	3.38	6.92	13.1	30.8	36.0	23.8	17.3	7.93
{WY}	1964	1965	1964	1964	1964	1964	1956	1967	1946	1946	1977	1974

08255500 COSTILLA CREEK NEAR COSTILLA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1942 - 1997
ANNUAL TOTAL	11900.6	15391.2	46.4
ANNUAL MEAN	32.5	42.2	134
HIGHEST ANNUAL MEAN			16.5
LOWEST ANNUAL MEAN			1000
HIGHEST DAILY MEAN	125 May 14	193 May 22	May 11 1942
LOWEST DAILY MEAN	5.0 Dec 5	4.0 Jan 17	1.0 Dec 1 1958
ANNUAL SEVEN-DAY MINIMUM	6.1 Dec 13	5.1 Jan 12	2.5 Dec 5 1964
INSTANTANEOUS PEAK FLOW		210 May 22	1150 May 11 1942
INSTANTANEOUS PEAK STAGE		3.28 May 22	5.37 ^a May 11 1942
INSTANTANEOUS LOW FLOW		2.2 Mar 7	.34 Mar 15 1969
ANNUAL RUNOFF (AC-FT)	23600	30530	33590
10 PERCENT EXCEEDS	94	106	119
50 PERCENT EXCEEDS	16	22	19
90 PERCENT EXCEEDS	8.7	7.3	6.3

e Estimated

a-Site and datum then in use.



RIO GRANDE BASIN

08261000 COSTILLA CREEK AT GARCIA, CO

LOCATION.--Lat 36°59'21", long 105°31'54", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 0.4 mi downstream from old State Highway 3, 0.5 mi upstream from New Mexico-Colorado State line, 0.9 mi south of Garcia, and at mile 13.3.

DRAINAGE AREA.--200 mi², approximately.

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 444 ft³/s, June 1, 1983, gage height, 4.91 ft; no flow for many days most years.

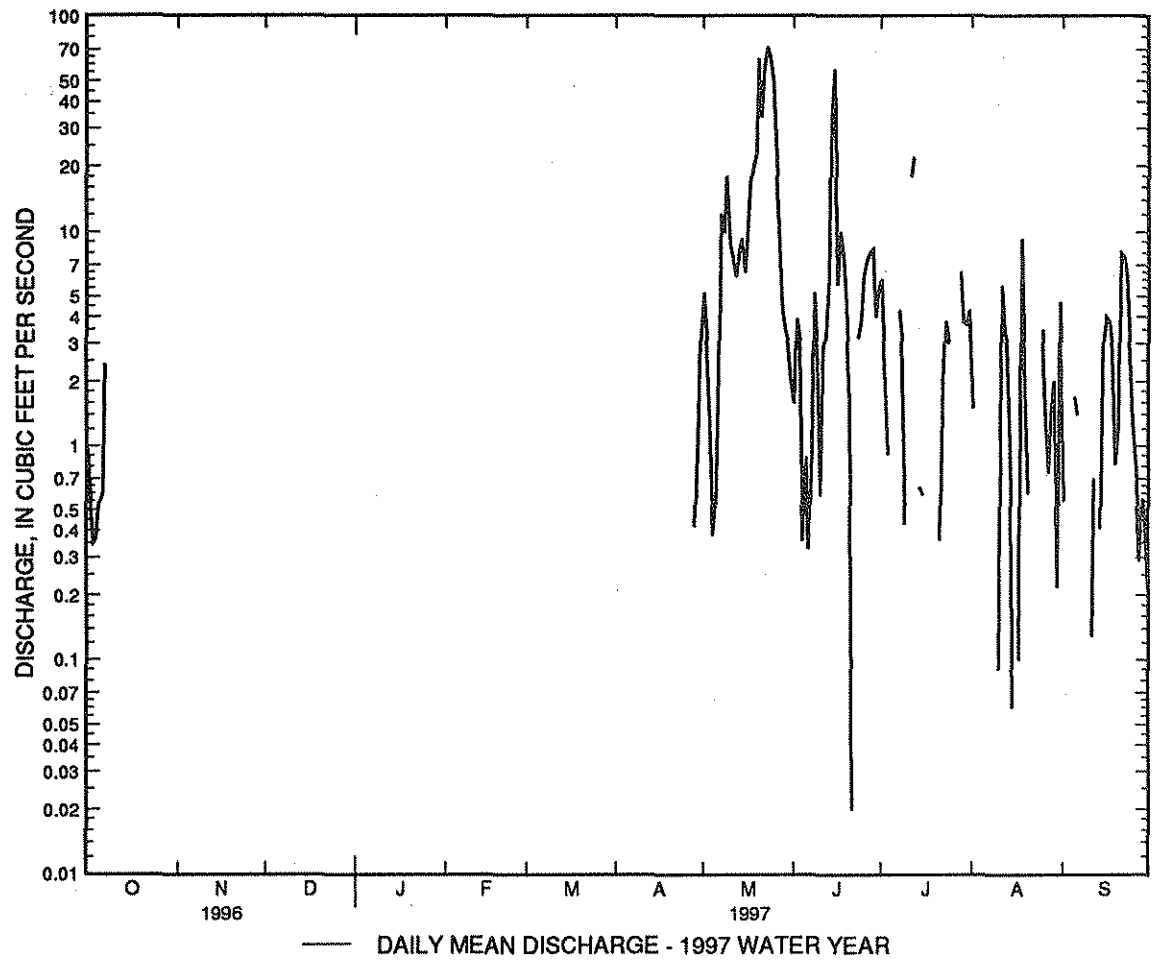
EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably reached a discharge of 1,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 89 ft³/s, at 1730 hours June 14, gage height, 3.51 ft; no flow at times.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	---	---	---	---	---	---	5.2	1.6	6.0	1.5	.55
2	.51	---	---	---	---	---	---	3.3	3.9	2.3	.00	.00
3	.35	---	---	---	---	---	---	1.3	3.0	.91	.00	.00
4	.37	---	---	---	---	---	---	.38	.36	.00	2.8	.00
5	.54	---	---	---	---	---	---	.52	.88	.00	.00	1.7
6	.60	---	---	---	---	---	---	2.2	.33	.00	.00	1.4
7	2.4	---	---	---	---	---	---	12	.93	4.3	.04	.00
8	.00	---	---	---	---	---	---	10	5.2	3.2	.00	1.4
9	.00	---	---	---	---	---	---	18	2.4	.43	.00	.00
10	.00	---	---	---	---	---	---	8.7	.59	.00	.09	.00
11	---	---	---	---	---	---	.00	7.6	2.8	18	5.6	.13
12	---	---	---	---	---	---	.00	6.2	3.3	22	3.4	.70
13	---	---	---	---	---	---	.00	8.1	6.1	.00	3.0	.00
14	---	---	---	---	---	---	.00	9.3	33	.64	1.0	.41
15	---	---	---	---	---	---	.14	6.5	56	.59	.06	3.1
16	---	---	---	---	---	---	.00	9.6	5.7	.00	.00	4.0
17	---	---	---	---	---	---	.00	17	10	.00	.10	3.8
18	---	---	---	---	---	---	.00	20	7.4	.00	9.3	2.8
19	---	---	---	---	---	---	.00	23	4.5	.09	2.5	.82
20	---	---	---	---	---	---	.00	63	1.6	.00	.60	1.2
21	---	---	---	---	---	---	.00	34	.02	.36	.00	8.0
22	---	---	---	---	---	---	.00	58	.00	2.0	.00	7.6
23	---	---	---	---	---	---	.00	72	3.2	3.8	.00	6.2
24	---	---	---	---	---	---	.00	65	3.9	3.0	.00	2.6
25	---	---	---	---	---	---	.00	49	6.2	.00	3.5	1.3
26	---	---	---	---	---	---	.00	22	7.4	.00	1.5	.79
27	---	---	---	---	---	---	.00	8.7	8.0	.00	.75	.29
28	---	---	---	---	---	---	.42	4.3	8.3	6.5	1.4	.56
29	---	---	---	---	---	---	1.1	3.4	4.0	3.8	2.0	.46
30	---	---	---	---	---	---	3.1	3.1	5.5	3.7	.22	.22
31	---	---	---	---	---	---	---	2.0	---	4.3	4.7	---
TOTAL	---	---	---	---	---	---	---	553.40	196.11	85.92	44.06	50.03
MEAN	---	---	---	---	---	---	---	17.9	6.54	2.77	1.42	1.67
MAX	---	---	---	---	---	---	---	72	56	22	9.3	8.0
MIN	---	---	---	---	---	---	---	.38	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	---	1100	389	170	87	99

RIO GRANDE BASIN
08261000 COSTILLA CREEK AT GARCIA, CO - Continued



RIO GRANDE BASIN

08263500 RIO GRANDE NEAR CERRO, NM

LOCATION.--Lat 36°44'24", long 105°40'59", in NW¹/4NE¹/4 sec.20, T.29 N., R.12 E., Taos County, Hydrologic Unit 13020101, on left bank 4 mi southwest of Cerro, 5.5 mi northwest of Questa, 7.4 mi upstream from Red River, and at mile 1.693.1.

DRAINAGE AREA.--8,440 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

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

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	136	116	360	419	439	886	473	1700	1310	409	465
2	73	147	87	380	444	423	856	529	2150	1260	531	532
3	72	187	134	401	453	412	773	529	2590	1260	534	582
4	71	221	159	434	465	418	712	466	2930	1160	396	618
5	73	197	131	412	420	427	652	402	3120	1050	370	588
6	80	185	175	381	430	422	597	454	3220	849	441	564
7	89	179	219	243	451	420	516	512	3050	705	468	568
8	81	166	236	243	429	417	454	770	2840	902	565	560
9	77	150	248	e340	425	451	419	1020	2750	794	892	547
10	78	143	288	e348	406	476	366	1130	2630	630	979	518
11	76	141	337	e358	404	490	356	1230	2390	493	986	492
12	81	138	336	e356	411	520	330	1090	2150	524	987	481
13	87	139	358	e352	421	575	330	1130	2010	634	957	507
14	e84	143	346	e348	431	644	308	1180	1890	547	902	506
15	e80	139	266	e346	404	678	286	1300	1810	478	867	467
16	e77	140	213	e344	420	712	277	1380	1770	435	834	434
17	e75	124	e190	e340	430	753	279	1590	1760	386	745	409
18	73	138	e120	e346	469	848	262	1740	1780	372	683	387
19	72	146	139	e348	454	899	254	1850	1710	342	660	406
20	74	139	268	e350	470	898	288	2020	1590	414	632	432
21	77	138	294	e354	456	893	353	2310	1680	437	592	437
22	80	142	272	367	423	973	495	2320	1690	414	560	458
23	e82	140	273	367	412	1060	656	2110	1660	420	520	856
24	e84	146	275	380	454	1070	967	2300	1640	433	528	1260
25	87	148	292	375	411	1100	848	2240	1470	375	523	1560
26	84	150	300	380	452	1110	684	1990	1290	351	500	1980
27	93	152	314	399	429	1030	579	1730	1160	430	501	2090
28	105	148	321	402	412	949	496	1460	1210	390	507	1890
29	126	157	328	405	---	926	434	1290	1280	366	529	1660
30	115	162	339	404	---	911	455	1330	1310	401	525	1430
31	133	---	354	401	---	913	---	1440	---	398	476	---
TOTAL	2613	4581	7728	11264	12105	22257	15168	41315	60230	18960	19599	23684
MEAN	84.3	153	249	363	432	718	506	1333	2008	612	632	789
MAX	133	221	358	434	470	1110	967	2320	3220	1310	987	2090
MIN	71	124	87	243	404	412	254	402	1160	342	370	387
AC-FT	5180	9090	15330	22340	24010	44150	30090	81950	119500	37610	38870	46980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1997, BY WATER YEAR (WY)

	196	351	299	294	355	476	554	963	1149	467	238	186
MEAN	196	351	299	294	355	476	554	963	1149	467	238	186
MAX	720	1073	774	566	657	1010	2335	4577	4400	2181	957	804
(WY)	1970	1987	1987	1987	1987	1987	1987	1987	1949	1986	1957	1982
MIN	52.7	88.1	100	116	140	110	107	84.1	58.1	51.5	48.1	44.8
(WY)	1957	1957	1964	1957	1957	1957	1955	1963	1977	1951	1956	1956

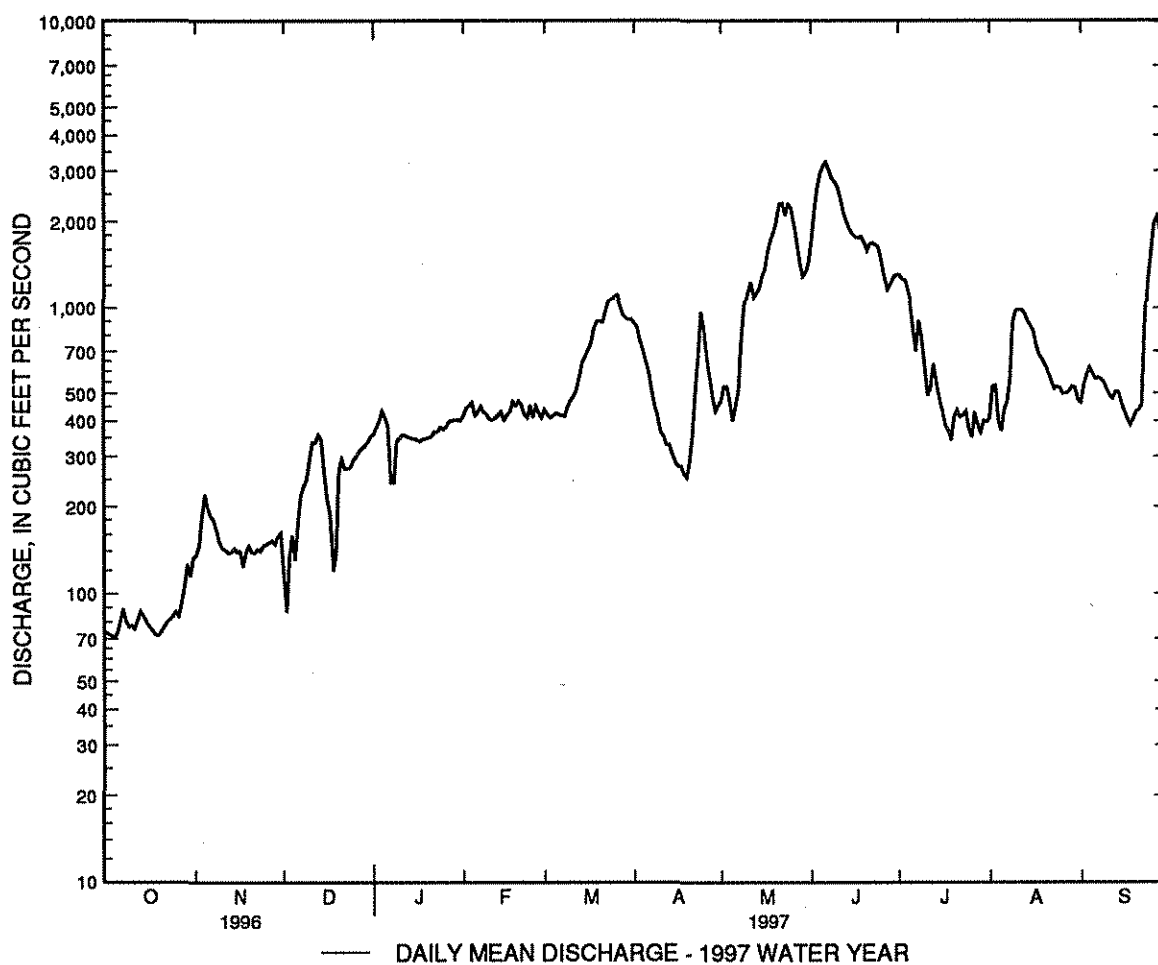
RIO GRANDE BASIN

99

08263500 RIO GRANDE NEAR CERRO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1949 - 1997	
ANNUAL TOTAL	84386		239504		460	
ANNUAL MEAN	231		656		1275	
HIGHEST ANNUAL MEAN					112	
LOWEST ANNUAL MEAN					9440	
HIGHEST DAILY MEAN	710	Feb 23	3220	Jun 6	40	Jun 22 1949
LOWEST DAILY MEAN	58	Aug 3	71	Oct 4	42	Sep 10 1977
ANNUAL SEVEN-DAY MINIMUM	63	Jul 31	75	Oct 15	42	Sep 5 1977
INSTANTANEOUS PEAK FLOW			3260	Jun 5	9740	Jun 22 1949
INSTANTANEOUS PEAK STAGE			10.28	Jun 5	15.78	Jun 22 1949
INSTANTANEOUS LOW FLOW			54	Dec 2	40	Sep 10 1977
ANNUAL RUNOFF (AC-FT)	167400		475100		333500	
10 PERCENT EXCEEDS	517		1650		981	
50 PERCENT EXCEEDS	158		434		275	
90 PERCENT EXCEEDS	73		134		81	

e Estimated



RIO GRANDE BASIN

08265000 RED RIVER NEAR QUESTA, NM

LOCATION.--Lat 36°42'12", long 105°34'04", in NE¹/4SE¹/4 sec.32, T.29 N., R.13 E. (projected), Taos County, Hydrologic Unit 13020101, in Carson National Forest, on left bank 1.3 mi upstream from Cabresto Creek, 1.5 mi east of Questa, and at mile 9.0.

DRAINAGE AREA.--113 mi².

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

REVISED RECORDS.--WSP 808: 1935. WSP 1392: 1913, 1932, 1941, 1947-48. WSP 1712: Drainage area.

GAGE.--Water-stage recorder with Satellite telemetry. Wood or concrete control since Mar. 20, 1936. Datum of gage is 7,451.92 ft above National Geodetic Vertical Datum of 1929. See WSP 1923 for history of changes prior to Oct. 4, 1938.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions for irrigation of a few hundred acres upstream from station. Figures of discharge do not include flow in South ditch which diverts from left bank 1,500 ft upstream and bypasses gage for irrigation and stock water downstream. January 1966 to December 1991 surface and ground-water diversions by Molybdenum Corp. of America (Molycorp) refinery 5.5 mi upstream bypass gage in tailings pipelines on left bank and discharge into settling pond 3 mi downstream. Effluent from this pond enters Red River as surface water and is included in discharge at Red River below Fish Hatchery, near Questa (station 08266820). Several observations of water temperature were made during year.

AVERAGE DISCHARGE.--52 years (water years 1913-25, 1927-65), 55.9 ft³/s, 40,500 acre-ft/yr, prior to extensive upstream diversions by Molycorp.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	16	e11	13	12	e8.6	27	49	293	105	44	36
2	15	17	e10	13	13	e10	27	46	322	97	50	34
3	15	17	e9.0	13	13	14	26	43	318	92	66	32
4	14	18	e11	13	12	12	28	47	330	93	72	32
5	15	17	e10	12	10	13	26	58	347	90	63	30
6	15	17	10	e10	12	13	19	69	330	85	59	30
7	14	14	9.9	e9.0	11	13	20	85	320	82	68	30
8	14	12	11	e9.8	12	13	21	96	336	78	59	29
9	13	13	11	e10	13	13	21	117	299	72	54	28
10	13	13	13	e11	12	12	20	104	283	70	54	27
11	12	12	12	e12	11	13	20	103	264	66	52	28
12	13	12	12	e11	10	14	22	113	260	62	46	31
13	12	13	11	e10	10	14	22	125	245	61	45	30
14	11	13	13	e10	9.7	13	22	144	229	58	43	30
15	10	13	e11	e9.6	11	14	23	153	224	55	42	29
16	10	15	e10	e10	10	17	24	166	219	55	43	30
17	10	13	e9.5	e10	11	18	25	192	195	53	43	26
18	11	16	e10	e11	12	19	25	208	178	54	43	22
19	13	16	e11	e12	11	20	26	239	181	56	41	21
20	14	15	12	13	10	21	28	284	183	56	36	28
21	14	14	13	13	9.4	20	34	276	182	59	35	42
22	12	14	15	11	e8.8	24	44	294	175	61	36	36
23	13	14	9.0	12	9.4	25	47	294	165	52	36	30
24	14	13	9.4	13	9.2	27	48	295	159	47	35	28
25	13	12	9.8	13	e8.4	26	43	287	149	44	35	27
26	13	13	8.4	13	9.1	24	44	251	141	49	36	27
27	15	13	9.0	12	9.1	23	42	228	132	54	31	26
28	17	13	8.8	10	8.9	23	46	210	123	50	30	28
29	18	14	8.5	11	---	25	47	204	118	47	30	25
30	16	13	8.8	9.8	---	24	49	216	112	47	32	23
31	16	---	12	12	---	26	---	249	---	48	36	---
TOTAL	422	425	329.1	352.2	298.0	551.6	916	5245	6812	1998	1395	875
MEAN	13.6	14.2	10.6	11.4	10.6	17.8	30.5	169	227	64.5	45.0	29.2
MAX	16	16	15	13	13	27	49	295	347	105	72	42
MIN	10	12	8.4	9.0	8.4	8.6	19	43	112	44	30	21
AC-FT	837	843	653	699	591	1090	1820	10400	13510	3960	2770	1740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1997, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
MEAN	23.0	17.1	12.3	12.2	12.7	15.9	37.3	117	142	64.5	39.9	29.1
MAX	38.1	32.8	25.3	25.2	22.8	40.0	84.1	267	405	172	70.6	62.2
(WY)	1986	1987	1994	1994	1988	1989	1985	1979	1979	1979	1966	1991
MIN	7.93	8.09	3.88	3.91	4.81	5.11	9.73	17.5	22.7	14.6	11.8	8.81
(WY)	1973	1977	1975	1973	1977	1977	1971	1971	1977	1971	1972	1978

RIO GRANDE BASIN

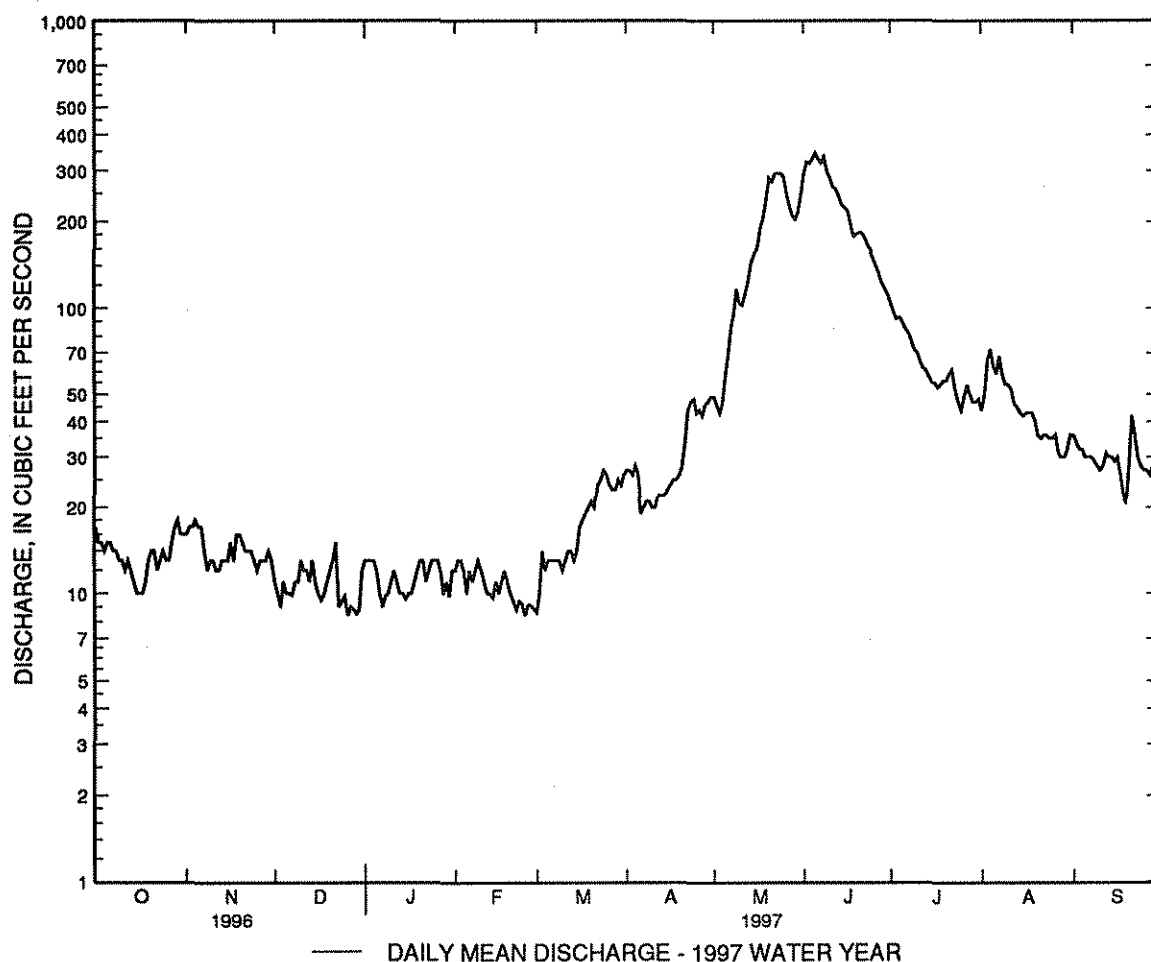
101

08265000 RED RIVER NEAR QUESTA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1966 - 1997	
ANNUAL TOTAL	8170.1		19618.9		43.7	
ANNUAL MEAN	22.3		53.8		87.6	
HIGHEST ANNUAL MEAN					11.8	
LOWEST ANNUAL MEAN					557	
HIGHEST DAILY MEAN	55	May 17	347	Jun 5	557	Jun 9 1979
LOWEST DAILY MEAN	8.4	Dec 26	8.4	Dec 26	2.5	Jan 6 1971
ANNUAL SEVEN-DAY MINIMUM	9.0	Dec 24	9.0	Dec 24	3.1	Jan 2 1973
INSTANTANEOUS PEAK FLOW			368	Jun 5	886 ^a	May 25 1942
INSTANTANEOUS PEAK STAGE			4.21	Jun 5	5.80	Jun 8 1979
INSTANTANEOUS LOW FLOW			5.8	Mar 1	.60	Jan 21 1981
ANNUAL RUNOFF (AC-FT)	16210		38910		31660	
10 PERCENT EXCEEDS	34		176		109	
50 PERCENT EXCEEDS	22		22		22	
90 PERCENT EXCEEDS	12		10		7.9	

^a Estimated

a-From rating curve extended above 450 ft³/s.



RIO GRANDE BASIN

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM

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

DRAINAGE AREA.--185 mi².

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	40	37	39	39	36	50	70	268	124	63	56
2	36	40	38	39	39	36	51	68	320	116	67	56
3	37	40	36	39	39	40	50	64	324	108	79	55
4	36	41	36	39	39	40	52	63	328	107	89	55
5	35	40	36	39	38	39	51	74	375	106	83	53
6	37	40	38	37	39	40	45	85	378	102	78	51
7	37	39	38	33	39	41	46	118	354	98	e85	52
8	36	38	39	33	37	41	47	107	369	94	e78	50
9	36	39	39	34	37	41	46	135	321	88	e72	49
10	36	39	39	35	37	40	45	127	301	86	e67	49
11	38	38	40	38	37	40	46	121	274	84	e64	50
12	38	38	39	38	38	41	46	125	255	80	e68	53
13	37	38	39	38	38	42	47	133	240	78	68	52
14	37	38	40	38	37	41	47	152	222	76	66	52
15	36	38	38	37	38	41	48	158	217	73	64	51
16	37	39	36	35	38	43	48	173	212	72	64	51
17	36	39	37	35	38	44	49	195	201	70	64	48
18	37	40	31	37	39	45	49	207	179	69	64	45
19	38	40	33	38	39	45	51	236	183	69	63	44
20	39	40	35	38	39	45	51	315	186	69	59	51
21	39	40	36	39	38	43	58	304	186	72	57	67
22	37	40	37	38	37	46	68	327	179	80	58	62
23	38	40	37	39	38	48	72	327	170	69	59	55
24	38	40	36	39	38	50	70	320	161	63	57	53
25	37	39	37	38	38	49	66	319	155	59	56	53
26	38	39	37	39	38	48	66	265	158	61	57	53
27	39	40	37	39	38	47	63	236	149	68	52	52
28	40	39	37	38	38	48	62	215	140	65	51	53
29	41	40	37	38	---	49	64	197	135	63	49	51
30	40	40	37	37	---	48	69	198	128	65	51	49
31	40	---	38	39	---	49	---	222	---	67	55	---
TOTAL	1165	1181	1150	1162	1067	1346	1623	5656	7068	2501	2007	1571
MEAN	37.6	39.4	37.1	37.5	38.1	43.4	54.1	182	236	80.7	64.7	52.4
MAX	41	41	40	39	39	50	72	327	378	124	89	67
MIN	35	38	31	33	37	36	45	63	128	59	49	44
AC-FT	2310	2340	2280	2300	2120	2670	3220	11220	14020	4960	3980	3120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1997, BY WATER YEAR (WY)

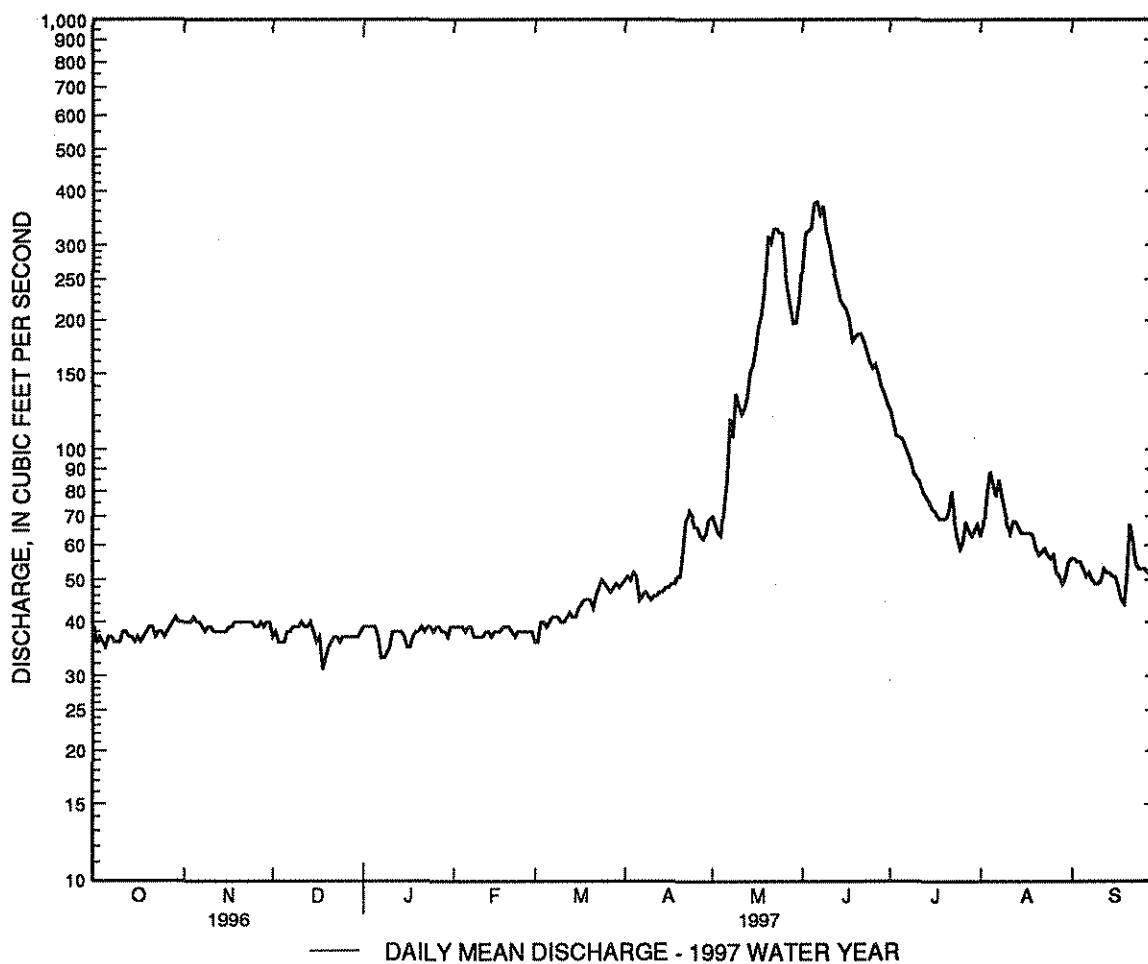
MEAN	53.9	48.0	43.6	44.1	44.5	48.7	80.2	203	227	108	71.2	61.6
MAX	71.0	59.2	51.0	55.3	57.9	72.0	144	374	520	227	95.3	86.9
(WY)	1986	1992	1987	1992	1992	1989	1985	1994	1979	1995	1993	1986
MIN	29.0	33.0	28.2	31.4	31.5	35.1	39.7	50.5	51.2	43.1	42.1	31.2
(WY)	1979	1979	1979	1979	1981	1981	1981	1981	1996	1981	1981	1978

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1978 - 1997	
ANNUAL TOTAL	17199		27497		86.4	
ANNUAL MEAN	47.0		75.3		129	
HIGHEST ANNUAL MEAN					41.9	
LOWEST ANNUAL MEAN					1979	
HIGHEST DAILY MEAN	70	May 18	378	Jun 6	676	May 27 1979
LOWEST DAILY MEAN	31	Dec 18	31	Dec 18	26	Oct 10 1978
ANNUAL SEVEN-DAY MINIMUM	35	Dec 16	35	Dec 16	26	Dec 9 1978
INSTANTANEOUS PEAK FLOW			400	Jun 5	755	Jun 8 1979
INSTANTANEOUS PEAK STAGE			3.67	Jun 5	5.30 ^a	Jun 8 1979
INSTANTANEOUS LOW FLOW			28	Dec 18	21	Dec 14 1986
ANNUAL RUNOFF (AC-FT)	34110		54540		62570	
10 PERCENT EXCEEDS	56		179		171	
50 PERCENT EXCEEDS	48		47		55	
90 PERCENT EXCEEDS	37		37		38	

e Estimated

a-Site and datum then in use.



08267500 RIO HONDO NEAR VALDEZ, NM

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

DRAINAGE AREA.--36.2 mi².

WATER-DISCHARGE RECORDS

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

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	13	e10	e9.1	e12	e9.0	e22	42	191	84	31	22
2	16	12	10	e9.2	e12	e9.8	e22	39	200	78	35	21
3	16	12	e10	e8.9	e11	e11	e21	38	191	75	37	23
4	16	12	e9.9	e9.1	e11	10	22	42	205	73	33	22
5	16	12	e11	e8.4	e10	e12	20	50	213	72	33	21
6	15	12	11	e8.3	e9.6	e11	20	60	215	68	34	20
7	15	11	11	e8.3	e9.2	11	19	75	202	64	36	20
8	15	9.9	10	e8.5	e9.4	12	19	84	221	61	32	20
9	15	11	10	e9.0	e9.0	12	18	91	230	58	31	20
10	14	11	11	e8.8	e9.2	13	18	82	204	54	32	20
11	14	11	11	e8.3	e9.8	e14	18	80	193	52	32	20
12	14	11	10	e7.8	9.1	e15	17	81	186	49	32	21
13	14	11	10	e8.2	9.1	e15	17	81	166	47	33	19
14	14	11	10	e9.0	e9.4	e16	17	91	150	46	33	19
15	13	11	10	e9.1	e9.4	e16	17	100	144	45	31	19
16	13	10	e10	e9.0	9.2	e17	19	114	142	44	31	19
17	13	9.1	e9.9	e8.9	9.4	e19	21	123	143	43	30	19
18	13	11	e9.0	e9.8	9.5	e19	25	130	132	42	34	18
19	12	12	e9.5	e10	9.6	e21	31	134	110	41	29	18
20	13	12	e11	e11	9.7	e25	34	150	100	41	28	20
21	12	12	e10	e11	9.6	e31	41	129	101	41	27	30
22	10	12	e9.7	e11	e9.9	e36	44	151	104	40	26	25
23	11	13	e10	e11	9.4	e35	42	231	108	38	26	22
24	12	11	e9.8	e10	9.3	e34	41	224	107	36	24	21
25	12	9.7	e9.1	e12	9.1	e31	37	214	107	34	27	20
26	11	11	e9.0	e13	9.1	e25	34	186	104	34	26	20
27	12	11	e8.8	e13	9.1	e23	33	146	100	35	24	19
28	14	11	e8.3	e12	8.3	e22	37	126	100	34	23	19
29	13	11	e8.5	e11	---	e22	39	126	96	32	23	19
30	13	11	e9.0	e12	---	e20	41	117	88	34	22	19
31	13	---	e9.0	e12	---	e20	---	144	---	34	24	---
TOTAL	420	337.7	305.5	306.7	270.4	586.8	806	3481	4553	1529	919	615
MEAN	13.5	11.3	9.85	9.89	9.66	18.9	26.9	112	152	49.3	29.6	20.5
MAX	16	13	11	13	12	36	44	231	230	84	37	30
MIN	10	9.1	8.3	7.8	8.3	9.0	17	38	88	32	22	18
AC-FT	833	670	606	608	536	1160	1600	6900	9030	3030	1820	1220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1997, BY WATER YEAR (WY)

	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
MEAN	18.6	15.0	12.2	10.9	10.8	14.4	34.6	97.0	116	49.3	29.3	22.6
MAX	43.5	35.8	23.1	20.1	16.6	36.4	92.4	246	299	156	60.3	53.2
(WY)	1942	1942	1942	1942	1942	1989	1937	1941	1979	1995	1957	1993
MIN	10.8	8.28	7.52	6.03	6.08	7.60	11.1	20.6	21.0	14.6	10.9	9.87
(WY)	1957	1952	1964	1935	1935	1964	1977	1971	1996	1972	1972	1956

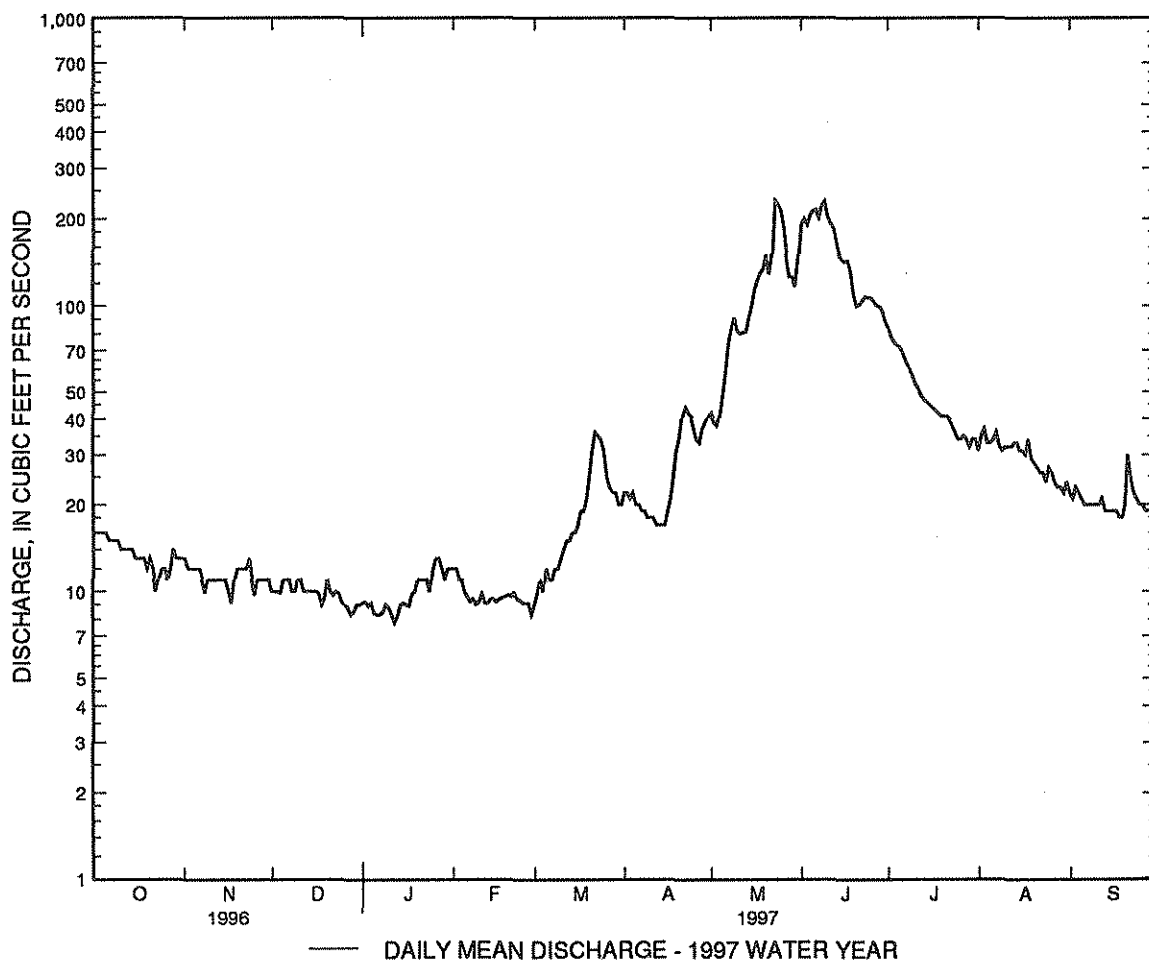
08267500 RIO HONDO NEAR VALDEZ, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1935 - 1997	
ANNUAL TOTAL	6065.2		14130.1		35.9	
ANNUAL MEAN	16.6		38.7		69.9	
HIGHEST ANNUAL MEAN					15.6	
LOWEST ANNUAL MEAN					416	
HIGHEST DAILY MEAN	50	May 17	231	May 23	3.0	May 13 1941
LOWEST DAILY MEAN	8.3	Dec 28	7.8	Jan 12	4.2	Jan 21 1935
ANNUAL SEVEN-DAY MINIMUM	8.8	Dec 25	8.4	Jan 7	541	Jan 18 1935
INSTANTANEOUS PEAK FLOW			254	Jun 9	4.89	May 13 1941
INSTANTANEOUS PEAK STAGE			3.32 ^b	Dec 24	1.0 ^a	Feb 2 1994
INSTANTANEOUS LOW FLOW			7.0	Feb 14	26010	Jan 27 1942
ANNUAL RUNOFF (AC-FT)	12030		28030		87	
10 PERCENT EXCEEDS	27		107		18	
50 PERCENT EXCEEDS	14		19		10	
90 PERCENT EXCEEDS	11		9.2			

e Estimated

a-Result of freeze-up.

b-Maximum gage height on Dec. 24, 1996 due to backwater from ice.



RIO GRANDE BASIN

08267500 RIO HONDO NEAR VALDEZ, NM -- Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)
NOV 1996									
13...	0745	12	161	8.3	2.0	2.0	582	10.0	95
FEB 1997									
19...	0745	E10	168	8.1	0.5	2.0	577	10.8	103

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
NOV 1996									
13...	0.260	0.020	0.280	0.020	<0.20	<0.20	<0.010	0.010	<0.010
FEB 1997									
19...	0.480	0.060	0.540	<0.015	<0.20	<0.20	<0.010	<0.010	<0.010

08269000 RIO PUEBLO DE TAOS NEAR TAOS, NM

LOCATION.--Lat 36°26'22", long 105°30'11", in SW¹/4SE¹/4 sec.36, T.26 N., R.13 E., Taos County, Hydrologic Unit 13020101, in Taos Pueblo Grant, on right bank 2.3 mi east of Taos Pueblo, 4.5 mi northeast of Taos, 5.8 mi upstream from Rio Lucero, and at mile 15.1.

DRAINAGE AREA.--66.6 mi².

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

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	8.0	e6.4	6.1	6.5	e6.8	30	82	161	35	15	14
2	6.3	7.3	e6.4	6.1	6.5	e8.0	30	73	174	33	16	11
3	6.3	8.3	e6.7	e6.1	e6.5	e8.0	29	67	161	32	20	12
4	6.5	9.1	e5.9	e6.0	e6.3	e7.2	31	73	160	30	18	14
5	6.5	8.5	e7.5	e5.8	e6.0	e7.8	27	100	161	29	16	11
6	6.3	8.2	e7.7	e5.7	e5.8	e8.4	26	123	150	28	18	11
7	6.3	7.5	7.5	e5.7	e5.7	8.9	26	154	138	26	18	10
8	6.1	6.8	7.2	e5.9	e6.6	9.1	24	163	143	25	17	10
9	6.1	7.4	7.0	e6.0	e6.8	10	24	163	121	24	15	10
10	6.1	7.4	7.3	e5.8	e6.9	11	26	142	113	24	16	10
11	6.0	7.2	7.3	e5.8	e6.9	14	25	127	105	23	15	10
12	5.8	7.2	7.1	e5.9	6.9	18	24	134	100	21	14	11
13	5.8	7.4	6.8	e5.8	6.7	20	23	137	95	20	14	9.8
14	5.8	7.4	6.9	e6.0	6.4	22	23	153	87	19	14	9.6
15	5.8	7.3	7.0	e6.0	e6.7	21	24	163	83	19	13	9.4
16	5.8	7.6	e7.1	e5.9	7.1	24	27	167	78	18	12	9.6
17	5.8	6.6	e6.4	e5.7	7.1	26	32	178	71	18	12	9.1
18	5.8	8.1	e6.2	e6.0	7.3	27	39	185	65	18	14	8.8
19	5.8	8.3	e6.8	e6.1	7.7	28	43	191	64	18	12	8.7
20	6.4	8.7	e7.8	e6.4	e7.6	34	50	186	64	20	12	9.7
21	6.9	8.9	e7.5	e6.3	e7.6	43	64	177	62	18	13	15
22	5.6	9.0	e7.2	6.3	e7.1	49	77	198	59	20	12	14
23	6.4	e8.9	7.4	6.3	e7.2	48	71	226	54	18	13	11
24	6.8	e8.0	7.5	5.9	e6.9	47	67	209	51	16	12	10
25	6.7	e6.9	6.6	6.7	e6.9	42	59	185	49	15	12	10
26	6.9	e7.8	6.3	7.0	e6.8	35	51	156	48	15	12	9.8
27	7.4	e7.7	6.1	6.7	e6.8	31	50	131	45	16	11	9.6
28	7.9	e7.2	5.9	6.5	e6.7	29	64	116	41	17	10	9.5
29	9.2	e7.6	5.8	6.3	---	28	74	109	39	17	10	9.4
30	8.0	e7.0	5.9	6.4	---	27	84	116	37	18	9.9	9.2
31	8.1	---	6.1	6.4	---	28	---	137	---	18	11	---
TOTAL	201.6	233.3	211.3	189.6	190.0	726.2	1244	4521	2779	668	426.9	316.2
MEAN	6.50	7.78	6.82	6.12	6.79	23.4	41.5	146	92.6	21.5	13.8	10.5
MAX	9.2	9.1	7.8	7.0	7.7	49	84	226	174	35	20	15
MIN	5.6	6.6	5.8	5.7	5.7	6.8	23	67	37	15	9.9	8.7
AC-FT	400	463	419	376	377	1440	2470	8970	5510	1320	847	627

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1997, BY WATER YEAR (WY)

	MEAN	9.87	9.10	7.96	6.97	7.57	13.8	51.1	122	76.4	23.6	15.6	11.7
MAX	19.1	17.5	12.5	11.1	13.3	39.7	155	356	268	75.4	32.2	32.4	
(WY)	1942	1942	1992	1984	1995	1989	1942	1941	1979	1995	1991	1982	
MIN	4.84	4.80	4.05	3.39	3.64	5.58	13.1	11.3	8.64	4.60	4.45	4.17	
(WY)	1965	1982	1964	1964	1964	1964	1971	1972	1972	1972	1972	1972	

RIO GRANDE BASIN

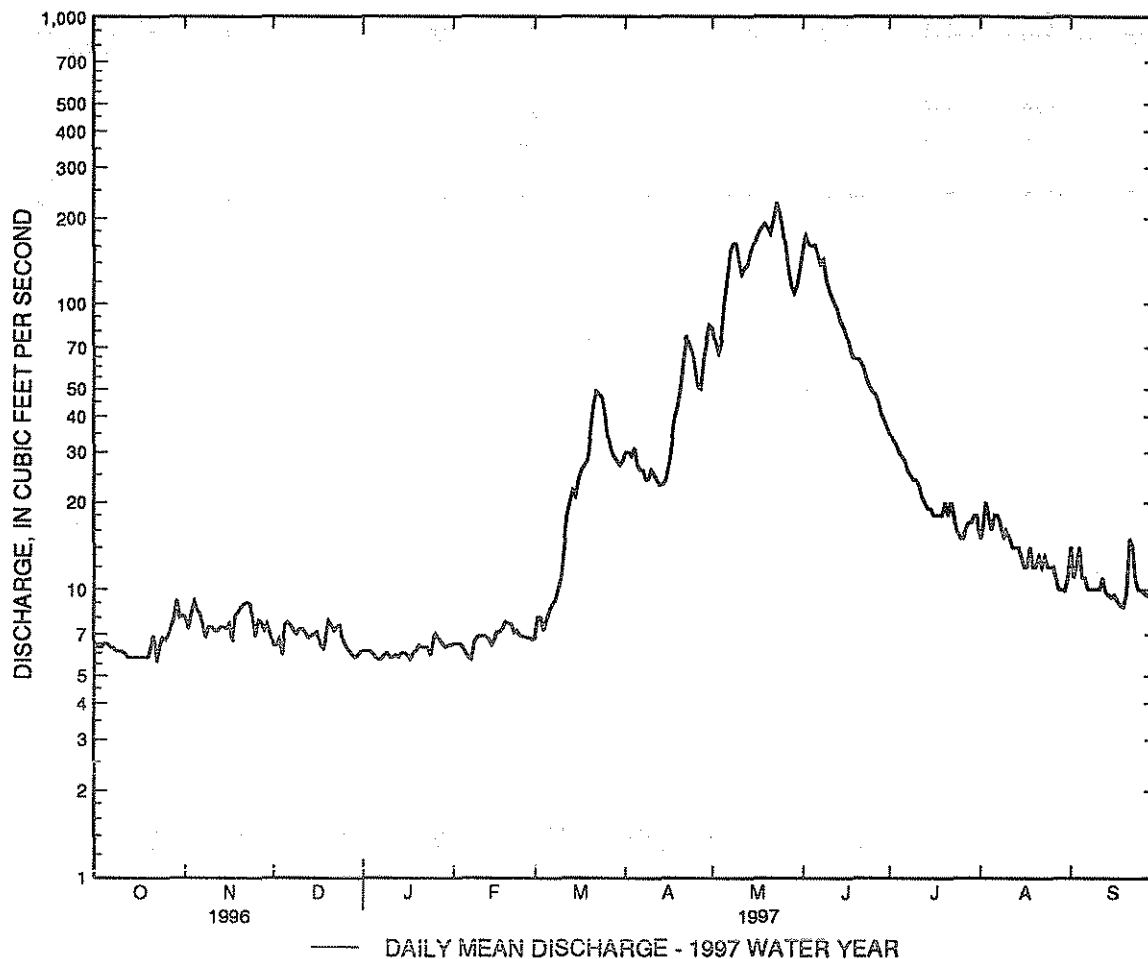
08269000 RIO PUEBLO DE TAOS NEAR TAOS, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1913 - 1997
ANNUAL TOTAL	4172.1	11707.1	
ANNUAL MEAN	11.4	32.1	30.6
HIGHEST ANNUAL MEAN			72.3
LOWEST ANNUAL MEAN			7.74
HIGHEST DAILY MEAN	43 May 7	226 May 23	926 May 26 1979
LOWEST DAILY MEAN	5.1 Aug 19	5.6 Oct 22	2.0 Dec 3 1950
ANNUAL SEVEN-DAY MINIMUM	5.4 Aug 14	5.8 Oct 12	2.8 Jan 29 1990
INSTANTANEOUS PEAK FLOW		235 May 22	1050 ^a May 26 1979
INSTANTANEOUS PEAK STAGE		2.20 May 22	3.90 ^b May 14 1941
INSTANTANEOUS LOW FLOW		4.0 Feb 16	.69 Feb 27 1991
ANNUAL RUNOFF (AC-FT)	8280	23220	22140
10 PERCENT EXCEEDS	21	107	73
50 PERCENT EXCEEDS	8.6	10	11
90 PERCENT EXCEEDS	6.1	6.1	5.8

e Estimated

a-From rating curve extended above 370 ft³/s.

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



LOCATION.--Lat 36°30'30", long 105°31'49", Taos County, Hydrologic Unit 13020101, in Tract C Taos Pueblo Grant, on right bank 200 ft upstream from diversion dam for Tenorio and Indian ditches, 2.2 mi east of Arroyo Seco, 7.4 mi northeast of Taos, and at mile 8.1.

PERIOD OF RECORD.--April to December 1910 (discharge measurements and occasional gage heights), January 1911 to September 1915, March to December 1916 (fragmentary), October 1933 to December 1951, (annual maximum), water years 1952-62, October 1962 (monthly discharge only), November 1962 to current year. Monthly discharge only for some periods, published in WSP 1312. Fragmentary records for October 1915 to February 1916, published in WSP 438, are unreliable and should not be used. Published as "near Taos," 1910-16.

GAGE.--Water-stage recorder. Concrete control since Nov. 21, 1962. Datum of gage is 8,051.44 ft above National Geodetic Vertical Datum of 1929. See WSP 1923 for history of changes prior to Nov. 21, 1962.

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

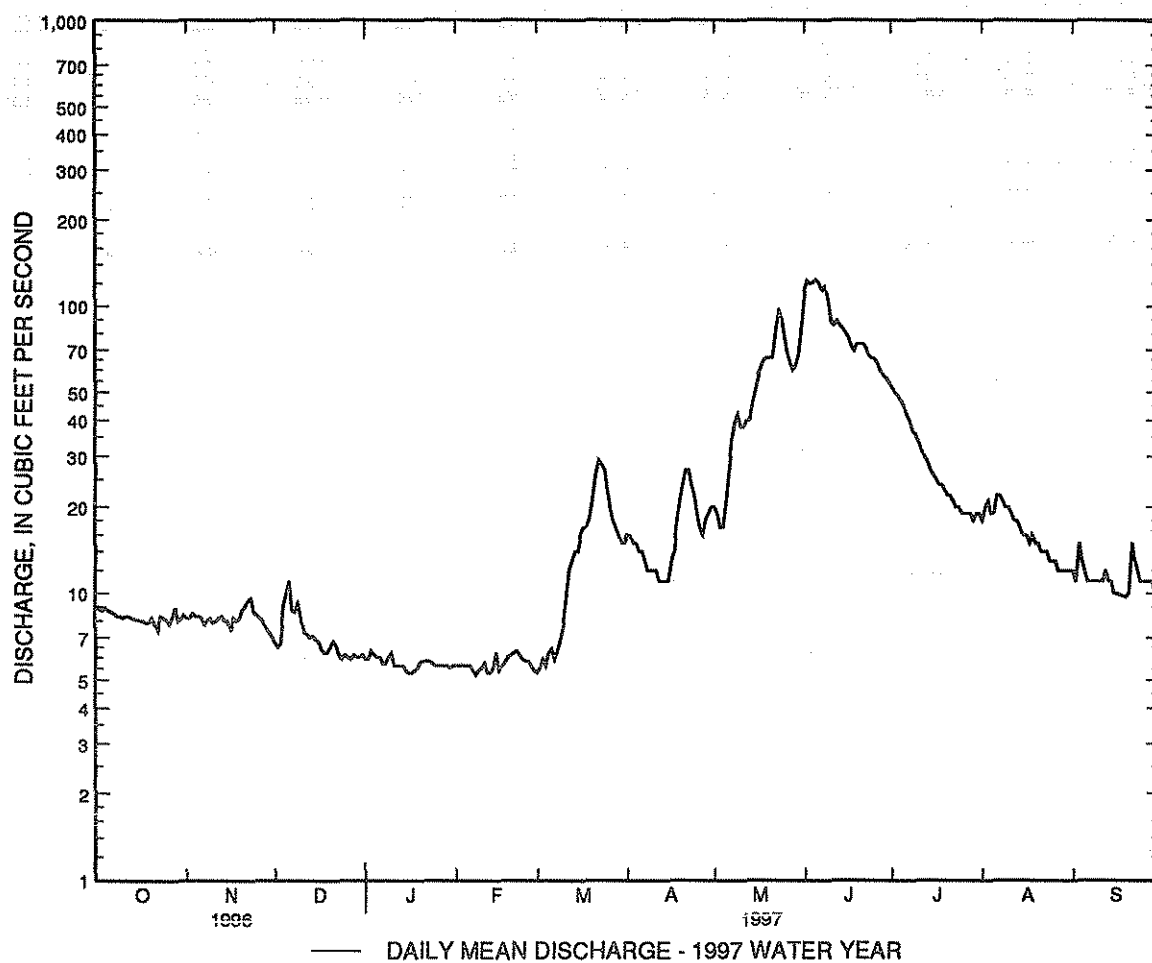
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1997, BY WATER YEAR (WY)

MEAN	11.6	9.10	7.27	6.07	6.07	9.29	22.5	59.2	72.2	30.8	18.5	13.9
MAX	27.8	22.0	14.8	10.0	9.92	21.2	47.5	156	178	101	37.5	34.5
(WY)	1942	1942	1991	1942	1991	1989	1937	1941	1941	1995	1967	1982
MIN	6.29	5.37	4.26	3.51	3.47	4.11	8.77	14.5	12.4	7.86	6.55	6.74
(WY)	1979	1977	1951	1951	1964	1977	1977	1972	1996	1972	1972	1972

08271000 RIO LUCERO NEAR ARROYO SECO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1913 - 1997
ANNUAL TOTAL	3661.5	7960.4	22.5
ANNUAL MEAN	10.0	21.8	46.7
HIGHEST ANNUAL MEAN			9.91
LOWEST ANNUAL MEAN			1941
HIGHEST DAILY MEAN	38 May 14	124 Jun 5	246 Jun 4 1942
LOWEST DAILY MEAN	5.5 Feb 27	5.2 Feb 8	2.0 Jan 28 1981
ANNUAL SEVEN-DAY MINIMUM	5.9 Jan 1	5.4 Feb 7	2.7 Jan 22 1981
INSTANTANEOUS PEAK FLOW		128 Jun 2	310 Jun 8 1979
INSTANTANEOUS PEAK STAGE		2.85 Jun 2	3.17 Jun 20 1995
INSTANTANEOUS LOW FLOW		4.2 Mar 5	1.4 Nov 2 1951
ANNUAL RUNOFF (AC-FT)	7260	15790	16320
10 PERCENT EXCEEDS	14	64	54
50 PERCENT EXCEEDS	8.3	11	11
90 PERCENT EXCEEDS	6.2	5.7	5.5

e Estimated



RIO GRANDE BASIN

111

08275500 RIO GRANDE DEL RANCHO NEAR TALPA, NM

LOCATION.--Lat 36°17'52", long 105°34'55", Taos County, Hydrologic Unit 13020101, in Carson National Forest, Rancho del Rio Grande Grant, on right bank 1.4 mi downstream from Rito de la olla (locally known as Pot Creek), 3.2 mi south of Talpa, 4.3 mi upstream from Rio Chiquito, and at mile 6.9.

DRAINAGE AREA.--83 mi², approximately.

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	5.8	5.0	4.5	5.0	4.7	15	45	e130	e16	12	14
2	4.0	5.6	4.4	4.5	5.0	4.6	15	42	e140	e14	11	9.7
3	3.9	5.7	3.8	e4.6	5.0	5.3	15	40	e135	e12	12	8.8
4	4.6	6.0	3.8	e4.5	4.8	5.5	17	44	e130	e11	13	8.9
5	5.0	5.6	4.5	e4.4	5.0	4.9	16	48	e130	e11	12	8.3
6	4.6	5.6	5.6	e4.3	e4.6	5.1	12	50	e125	11	14	7.9
7	4.3	5.4	5.0	e4.3	e4.5	5.9	16	64	e120	11	21	7.7
8	4.2	5.1	5.0	e4.3	e4.5	6.2	17	74	e126	10	18	7.5
9	4.2	4.9	4.9	e4.5	e4.7	6.2	17	77	e110	10	15	7.5
10	3.9	4.9	5.1	e5.0	e4.9	6.4	19	76	e100	11	14	7.7
11	3.9	5.0	5.3	e4.6	e4.8	7.2	20	77	e90	11	14	7.6
12	3.8	5.0	5.1	e4.2	e4.7	8.5	19	85	e80	10	13	7.5
13	3.8	4.9	5.0	e4.1	e4.7	11	19	88	e75	9.5	12	7.1
14	3.8	4.9	4.9	e4.1	5.1	12	17	102	e70	9.2	11	7.0
15	3.7	5.1	4.6	e4.3	5.0	13	18	117	e62	8.8	11	6.7
16	3.8	5.9	4.0	e4.7	5.3	17	19	128	e58	8.6	10	6.8
17	3.8	4.8	4.6	e4.8	5.3	19	20	136	e52	8.5	10	6.5
18	4.0	5.4	3.5	e4.8	5.6	18	20	152	e50	9.0	11	6.4
19	4.0	5.5	3.3	e4.7	5.6	17	22	171	e50	9.5	10	6.2
20	4.8	5.5	4.4	e4.6	5.5	18	25	178	e44	12	9.4	6.4
21	5.5	5.5	5.3	4.6	5.4	20	27	177	e40	11	9.6	8.9
22	4.9	5.5	4.7	4.5	4.8	21	28	196	e38	12	9.6	9.3
23	4.6	5.9	4.4	4.5	5.7	21	29	194	e37	11	10	7.8
24	4.9	5.9	4.5	4.6	5.4	22	29	185	e34	9.7	9.5	7.3
25	5.1	5.2	4.5	4.6	5.1	22	27	168	e33	8.9	9.2	6.9
26	5.7	5.0	4.3	5.2	5.2	20	26	146	e32	8.7	9.0	6.6
27	5.9	5.3	4.2	5.2	5.1	19	28	126	e28	9.9	8.4	6.5
28	6.4	5.2	4.1	5.0	5.2	16	34	109	e24	11	8.1	6.4
29	7.6	5.5	4.1	4.9	---	15	38	e105	e21	12	7.7	6.3
30	6.6	5.3	4.3	4.8	---	14	43	e108	e18	13	7.5	6.2
31	6.0	---	4.4	5.0	---	14	---	e112	---	14	8.2	---
TOTAL	145.5	160.9	140.6	142.7	141.5	399.5	667	3420	2182	334.3	350.2	228.4
MEAN	4.69	5.36	4.54	4.60	5.05	12.9	22.2	110	72.7	10.8	11.3	7.61
MAX	7.6	6.0	5.6	5.2	5.7	22	43	196	140	16	21	14
MIN	3.7	4.8	3.3	4.1	4.5	4.6	12	40	18	8.5	7.5	6.2
AC-FT	289	319	279	283	281	792	1320	6780	4330	663	695	453

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1997, BY WATER YEAR (WY)

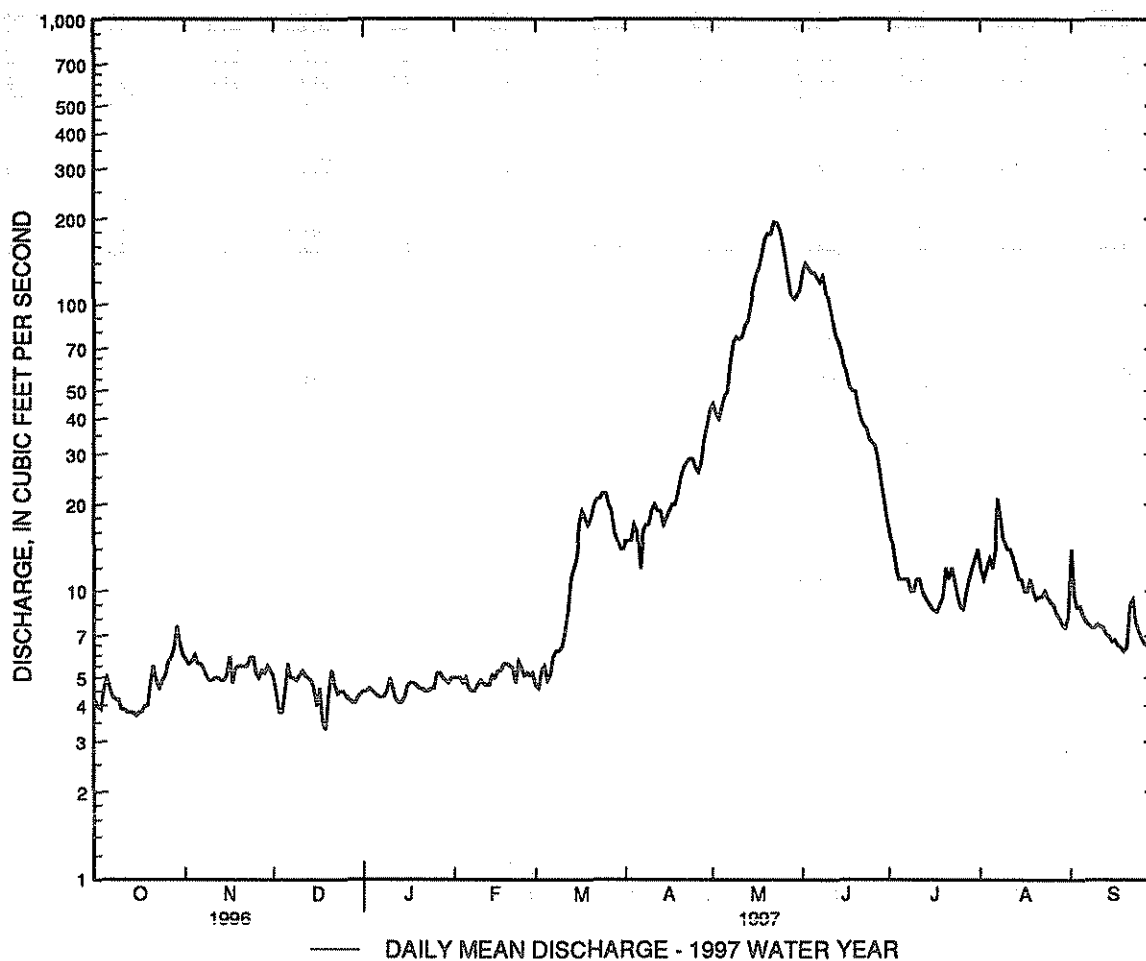
	MEAN	7.31	6.67	5.79	5.29	5.61	9.50	31.8	93.0	53.3	14.5	12.4	8.92
MAX	14.2	13.9	10.4	9.19	9.31	22.9	91.9	264	174	41.9	35.7	24.9	
(WY)	1958	1995	1958	1958	1989	1994	1962	1994	1995	1986	1957	1957	
MIN	2.12	2.95	2.97	2.06	2.65	4.65	9.61	12.9	5.94	3.14	2.33	1.56	
(WY)	1957	1957	1957	1955	1955	1955	1981	1981	1996	1956	1972	1956	

RIO GRANDE BASIN

08275500 RIO GRANDE DEL RANCHO NEAR TALPA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1953 - 1997
ANNUAL TOTAL	2735.3	8312.6	
ANNUAL MEAN	7.47	22.8	21.3
HIGHEST ANNUAL MEAN			44.0 1994
LOWEST ANNUAL MEAN			5.96 1972
HIGHEST DAILY MEAN	28 May 9	196 May 22	590 May 22 1991
LOWEST DAILY MEAN	2.2 Aug 14	3.3 Dec 19	0.60 Jan 5 1955
ANNUAL SEVEN-DAY MINIMUM	2.5 Aug 11	3.8 Oct 11	1.2 Jan 4 1955
INSTANTANEOUS PEAK FLOW		204 May 22	644 May 22 1991
INSTANTANEOUS PEAK STAGE		2.43 May 22	4.16 May 22 1991
INSTANTANEOUS LOW FLOW		1.9 Dec 16	0.20 Jan 5 1955
ANNUAL RUNOFF (AC-FT)	5430	16490	15400
10 PERCENT EXCEEDS	14	74	50
50 PERCENT EXCEEDS	5.9	7.7	8.0
90 PERCENT EXCEEDS	3.8	4.4	4.0

e Estimated



RIO GRANDE BASIN

113

08276300 RIO PUEBLO DE TAOS BELOW LOS CORDOVAS, NM

LOCATION.--Lat 36°22'39", long 105°40'05", Taos County, Hydrologic Unit 13020101, in Gijosa Grant, on left bank 1.9 mi southwest of Los Cordovas, 2.5 mi downstream from Rio Grande del Rancho, and at mile 5.1.

DRAINAGE AREA.--380 mi².

WATER-DISCHARGE RECORDS

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

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	23	e28	26	33	e30	66	135	283	39	23	22
2	10	22	e26	26	33	e29	65	129	344	37	20	17
3	9.8	29	e24	29	34	e28	64	114	322	35	31	17
4	11	35	e26	29	31	e32	74	106	305	28	22	17
5	12	28	e28	28	31	31	75	127	319	28	26	16
6	11	25	30	e28	32	30	61	150	320	25	44	15
7	11	24	32	e36	31	33	69	185	323	25	32	13
8	11	24	32	e32	28	35	70	e210	407	24	31	13
9	11	24	33	e28	28	35	66	246	379	21	24	13
10	13	24	38	e29	29	36	61	205	321	20	25	14
11	11	23	40	e32	31	38	69	187	264	21	28	14
12	11	23	35	e28	34	43	68	204	231	19	23	13
13	11	23	32	e26	34	48	60	207	208	15	22	13
14	11	24	29	e33	32	52	57	228	192	13	22	13
15	11	23	28	e33	31	56	47	280	178	12	23	12
16	12	33	e27	e32	32	61	45	330	161	12	22	12
17	11	25	e26	e36	34	71	52	342	144	11	21	11
18	11	24	e24	e37	35	73	57	358	125	10	22	11
19	11	24	e24	e37	36	73	62	405	125	10	22	11
20	13	24	e27	e36	35	75	72	472	128	12	21	13
21	15	24	e32	e32	34	79	88	518	115	20	21	21
22	16	25	e30	e30	31	89	113	e540	103	21	24	24
23	16	28	28	29	e30	86	115	e585	91	20	26	21
24	17	30	e26	28	e32	85	124	592	83	20	26	20
25	16	27	e25	29	e32	79	114	477	73	16	23	19
26	17	27	e26	36	e30	72	107	400	68	15	20	19
27	19	29	26	41	e30	69	105	332	70	25	19	18
28	20	28	25	39	e34	66	114	255	59	21	16	17
29	27	30	27	35	---	63	123	214	52	21	15	17
30	23	33	25	33	---	73	133	199	46	27	14	16
31	24	---	27	33	---	76	---	226	---	29	27	---
TOTAL	432.8	785	886	986	897	1746	2396	8958	5839	652	735	472
MEAN	14.0	26.2	28.6	31.8	32.0	56.3	79.9	289	195	21.0	23.7	15.7
MAX	27	35	40	41	36	89	133	592	407	39	44	24
MIN	9.8	22	24	26	28	28	45	106	46	10	14	11
AC-FT	858	1560	1760	1960	1780	3460	4750	17770	11580	1290	1460	936

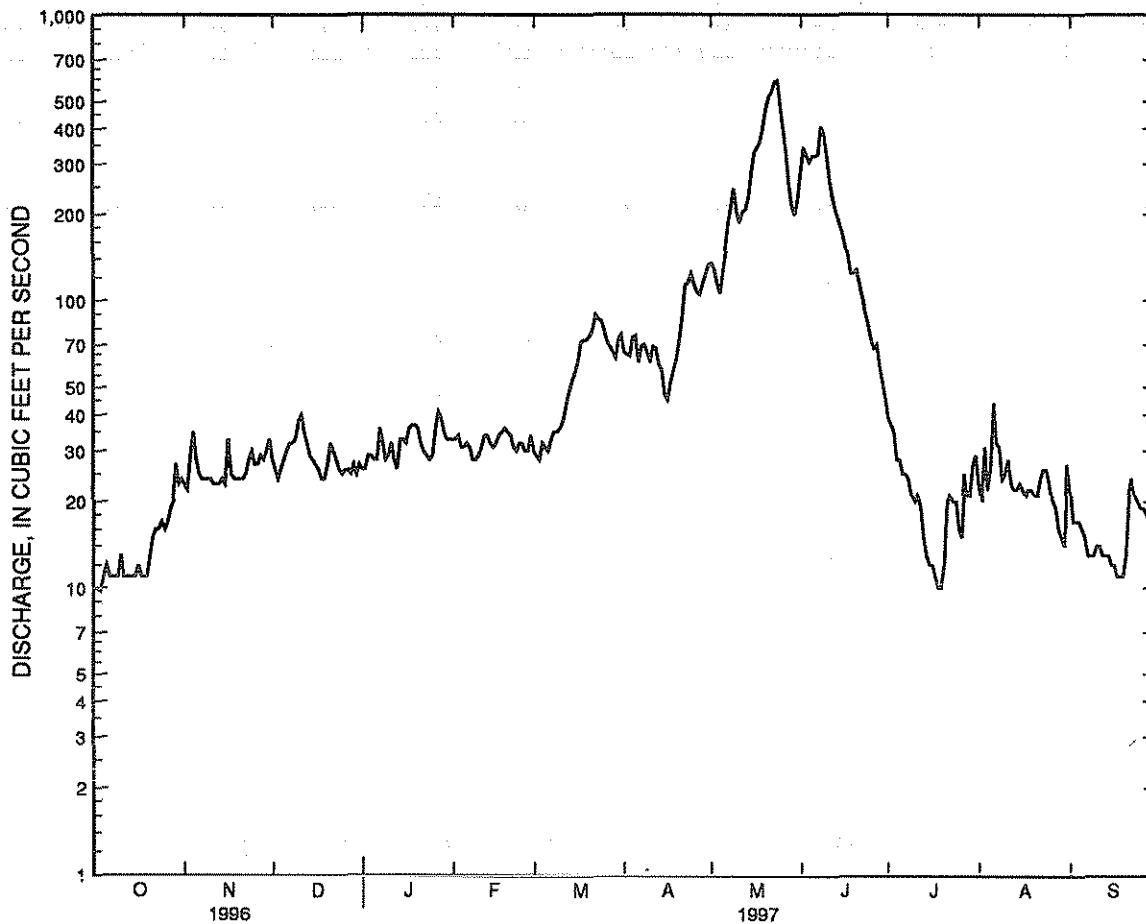
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1997, BY WATER YEAR (WY)

	MEAN	26.8	33.1	34.1	32.9	38.2	49.9	116	258	146	30.9	25.0	23.6
MAX	74.9	71.9	56.8	48.4	60.3	113	440	1063	708	169	97.9	67.5	
(WY)	1958	1958	1987	1995	1987	1995	1994	1994	1979	1995	1957	1993	
MIN	7.88	14.3	13.5	14.0	21.5	23.9	8.32	5.71	4.69	3.89	4.28	4.26	
(WY)	1964	1973	1973	1973	1973	1971	1972	1972	1971	1972	1972	1972	

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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1957 - 1997	
ANNUAL TOTAL	8954.2		24784.8		67.4	
ANNUAL MEAN	24.5		67.9		193	
HIGHEST ANNUAL MEAN					14.5	
LOWEST ANNUAL MEAN					1940	
HIGHEST DAILY MEAN	68	Mar 9	592	May 24	1940	May 20 1994
LOWEST DAILY MEAN	5.1	Jun 20	9.8	Oct 3	2.6	Aug 16 1972
ANNUAL SEVEN-DAY MINIMUM	5.3	Jun 19	11	Oct 1	3.0	Aug 10 1972
INSTANTANEOUS PEAK FLOW			685	May 24	2380 ^a	Aug 24 1957
INSTANTANEOUS PEAK STAGE			7.55	May 24	8.93	May 22 1991
INSTANTANEOUS LOW FLOW			9.3	Oct 1	1.9	Aug 1 1972
ANNUAL RUNOFF (AC-FT)	17760		49160		48810	
10 PERCENT EXCEEDS	49		195		136	
50 PERCENT EXCEEDS	23		30		32	
90 PERCENT EXCEEDS	6.6		13		9.9	

e Estimated

a-From rating curve extended above 900 ft³/s.

— DAILY MEAN DISCHARGE - 1997 WATER YEAR

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

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	
NOV 1996 12...	1330	23	500	8.6	17.0	8.5	604	11.1	120	<10	1400
MAR 1997 06...	0900	29	488	8.3	2.5	1.5	605	11.6	105	<10	K5
DATE	STREP-TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3 CO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3 CACO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)
NOV 1996 12...	210	210	14	61	13	21	0.6	1.6	214	10	192
MAR 1997 06...	K30	220	33	66	14	19	0.6	1.1	217	7	190
DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)
NOV 1996 12...	195	57	11	0.60	14	300	0.980	0.120	1.10	0.110	0.19
MAR 1997 06...	193	58	10	0.60	13	298	--	<0.010	0.520	<0.015	--
DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1996 12...	0.30	0.30	0.110	0.100	0.100	3.8	61	10	22	1.4	65
MAR 1997 06...	0.20	<0.20	0.050	0.020	0.040	1.8	43	14	34	2.6	33

RIO GRANDE BASIN

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

LOCATION.--Lat 36°19'12", long 105°45'14", in NW¹/4NE¹/4 sec.15, T.24 N., R.11 E., Taos County, Hydrologic Unit 13020101, on left bank 1.7 mi downstream from bridge on State Highway 567, 2.0 mi downstream from Rio Pueblo de Taos, 11.8 mi southwest of Taos, and at mile 1,657.7.

DRAINAGE AREA.--9,730 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1930 monthly discharge only, published in WSP 1312. Published as "at Taos Junction Bridge, near Taos" prior to 1934.

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

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1888, about 14,000 ft³/s June 19, 1903, from records for Rio Grande at Embudo and estimated inflow. Other floods exceeding 10,000 ft³/s occurred June 9, 1905, May 28, 1920, and June 16, 1921, from comparison of records for stations near Lobatos and at Embudo.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	317	329	514	560	582	1110	776	2380	1650	566	626
2	221	319	273	531	578	609	1080	797	2910	1590	631	640
3	217	338	256	543	602	594	1030	806	3330	1570	752	711
4	221	399	289	579	602	594	971	753	3670	1480	664	737
5	220	395	307	587	587	591	918	715	3900	1360	576	754
6	224	372	311	542	573	604	850	749	4110	1180	624	708
7	236	361	389	452	588	599	802	864	4040	941	679	707
8	238	350	405	313	580	598	736	1070	3940	1050	678	705
9	230	336	412	443	567	613	710	e1420	3760	1050	919	696
10	225	323	441	479	563	643	630	e1580	3580	905	1130	676
11	225	318	496	519	559	667	623	e1780	3350	757	1150	646
12	226	313	517	520	566	693	604	e1650	2980	698	1130	645
13	232	309	523	497	581	739	585	e1700	2810	781	1110	642
14	235	318	500	494	578	802	568	e1720	2640	757	1080	673
15	228	316	482	501	567	845	530	1920	2510	687	991	635
16	229	332	378	504	577	883	507	1990	2430	635	985	605
17	229	316	375	488	585	930	509	2250	2390	606	903	577
18	225	286	366	476	609	1010	518	2460	2330	554	846	548
19	227	310	296	486	625	1090	506	2620	2280	549	800	541
20	230	323	324	483	624	1110	518	2900	2160	549	781	595
21	240	304	450	503	625	1090	604	3140	2160	621	747	638
22	239	311	430	509	608	1160	727	3370	2200	638	717	638
23	239	314	433	523	571	1260	881	3220	2120	601	691	785
24	237	319	419	528	610	1300	1170	3350	2110	615	670	1320
25	247	316	436	530	604	1330	1200	3290	1980	581	677	1650
26	250	316	448	539	603	1340	1010	2950	1780	515	652	2070
27	259	322	468	557	607	1280	885	2590	1610	572	637	2320
28	270	322	470	565	593	1170	820	2270	1550	607	632	2190
29	304	327	482	561	---	1130	753	1960	1640	551	646	1940
30	305	342	486	556	---	1110	746	1940	1650	551	673	1720
31	300	---	500	557	---	1110	---	2100	---	599	659	---
TOTAL	7431	9844	12691	15879	16492	28076	23101	60700	80300	25800	24396	28338
MEAN	240	328	409	512	589	906	770	1958	2677	832	787	945
MAX	305	399	523	587	625	1340	1200	3370	4110	1650	1150	2320
MIN	217	286	256	313	559	582	506	715	1550	515	566	541
AC-FT	14740	19530	25170	31500	32710	55690	45820	120400	159300	51170	48390	56210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1997, BY WATER YEAR (WY)

	MEAN	409	526	495	481	550	671	877	1798	1817	745	413	383
MAX	1675	1532	1018	764	865	1195	3020	6055	6007	3445	1539	2087	
(WY)	1942	1942	1942	1986	1987	1987	1942	1987	1941	1995	1929	1927	
MIN	171	224	243	263	290	259	250	233	188	185	184	161	
(WY)	1957	1957	1957	1957	1957	1957	1981	1977	1977	1959	1956	1956	

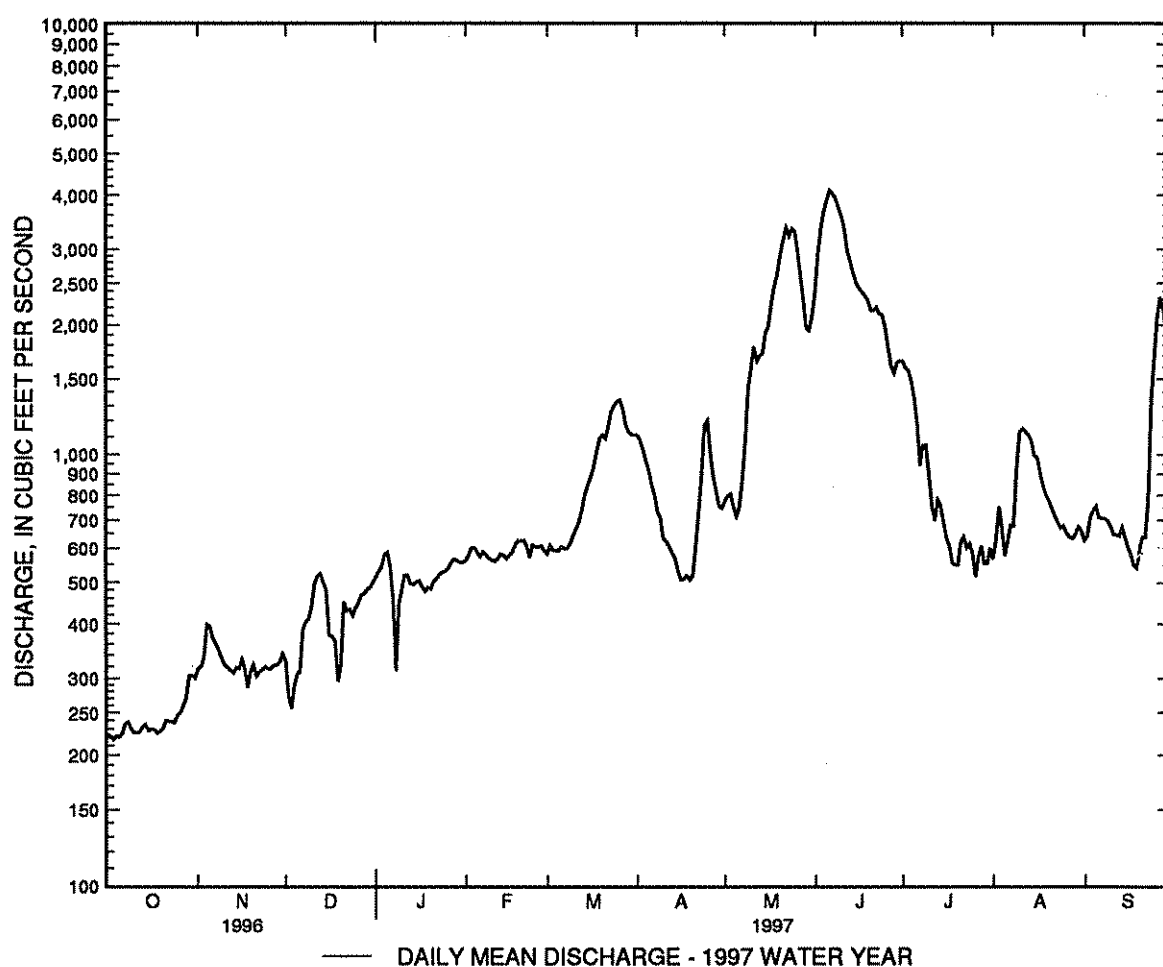
RIO GRANDE BASIN

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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1926 - 1997	
ANNUAL TOTAL	143181		333048		764	
ANNUAL MEAN	391		912		1840	
HIGHEST ANNUAL MEAN					271	
LOWEST ANNUAL MEAN					159	
HIGHEST DAILY MEAN	830	Feb 21	4110	Jun 6	9730	Jun 7 1948
LOWEST DAILY MEAN	193	Aug 6	217	Oct 3	159	Sep 2 1956
ANNUAL SEVEN-DAY MINIMUM	200	Aug 10	223	Oct 1	159	Sep 19 1956
INSTANTANEOUS PEAK FLOW			4170	Jun 6	9730	Jun 7 1948
INSTANTANEOUS PEAK STAGE			7.08	Jun 6	9.23	Jun 22 1949
INSTANTANEOUS LOW FLOW			205	Dec 3	155	Sep 21 1956
ANNUAL RUNOFF (AC-FT)	284000		660600		553400	
10 PERCENT EXCEEDS	684		2140		1500	
50 PERCENT EXCEEDS	322		609		476	
90 PERCENT EXCEEDS	215		305		242	

e Estimated



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

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	
NOV 1996 12...	1115	311	324	8.4	8.0	7.5	3.6	620	10.7	110	<10	
FEB 1997 18...	1300	625	262	8.2	15.5	5.5	3	610	11.4	113	<10	
DATE		HARD-NESS TOTAL (MG/L AS CAC03) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CAC03 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)
NOV 1996 12...	100	0	30	7.0	24	1	3.4	126	4	109	112	
FEB 1997 18...	88	4	26	5.2	18	0.8	3.0	102	0	84	93	
DATE		SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
NOV 1996 12...	40	8.0	0.70	27	208	0.310	0.020	0.330	0.020	<0.20	<0.20	
FEB 1997 18...	28	6.7	0.5	28	168	0.300	0.010	0.310	<0.015	<0.20	<0.20	
DATE		PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)
NOV 1996 12...	0.020	0.010	0.010	2.3	<0.010	13	<1.0	2	36	<1.0	50	
FEB 1997 18...	0.030	<0.010	<0.010	3.0	<0.010	--	--	--	--	--	30.1	
DATE		CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)
NOV 1996 12...	<1.0	2.0	<1.0	<1.0	9.0	<1.0	11	<0.10	9.0	1.0	<1	
FEB 1997 18...	--	--	--	--	14	--	--	--	--	--	--	

RIO GRANDE BASIN

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

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)
NOV 1996											
12...	<1	<1.0	2.0	<2.0	11	900	430	3	<1	4	10
FEB 1997											
18...	--	--	--	--	--	--	--	--	--	--	--
DATE	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	
NOV 1996											
12...	10	18000	10	630	0.01	100	3.0	21	18	47	
FEB 1997											
18...	--	--	--	--	--	--	--	29	49	74	

RIO GRANDE BASIN

08277470 RIO PUEBLO NEAR PENASCO, NM

LOCATION.--Lat 36°10'14", long 105°36'36", in SE¹/4NE¹/4 sec.1, T.22 N., R.12 E., Taos County, Hydrologic Unit 13020101, on left bank 10 ft downstream from bridge on private road, 0.5 mi upstream from junction of State Highways 518 and 75, 1.0 mi downstream from Osha Canyon and 6.0 mi east of Penasco.

DRAINAGE AREA.--101 mi².

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	18	e19	11	e10	e10	54	e185	321	45	38	30
2	7.9	e16	e18	12	e9.4	e11	53	e170	325	42	46	23
3	8.5	17	e16	16	e10	e13	53	e160	298	40	53	38
4	12	17	e34	15	e9.6	e14	54	e155	293	39	53	29
5	13	17	e45	e14	e9.5	e16	33	e172	280	37	59	25
6	12	17	e38	e12	e9.8	e15	41	e200	287	35	70	22
7	11	e15	e27	e11	e10	e15	56	e240	339	32	94	21
8	11	e17	e22	e12	e9.4	14	47	e270	437	30	82	20
9	11	e17	21	e14	e9.6	e16	50	e265	346	29	69	19
10	8.8	e16	18	e16	e10	e18	54	e255	279	28	62	19
11	8.8	e15	17	e16	e9.6	e22	51	e230	244	28	59	19
12	8.5	e16	16	e15	e9.2	e26	45	e250	221	25	50	19
13	8.4	14	e16	e14	e9.4	e30	43	e280	203	20	45	18
14	8.3	14	e15	e13	e9.2	34	e42	347	182	19	41	17
15	8.5	14	e13	e11	e9.3	36	e41	367	168	18	36	16
16	8.7	e14	e11	e10	e9.4	42	e44	402	153	18	33	17
17	8.9	e14	e11	e9.6	9.5	47	e52	407	132	18	31	16
18	8.8	16	e10	e9.8	9.9	46	e70	499	121	18	31	15
19	8.7	18	e11	e11	11	49	e82	628	113	23	29	15
20	11	19	e13	e11	9.9	58	e97	598	106	37	26	16
21	12	19	e15	e10	e9.8	72	e115	601	100	40	26	27
22	13	19	e15	e9.8	e9.4	77	e140	525	96	33	25	24
23	12	20	e14	e9.9	e11	77	e125	474	87	30	28	19
24	12	e15	e14	e9.7	e13	77	e130	443	78	25	26	17
25	12	e17	e14	e9.4	e11	68	e110	401	73	20	25	16
26	11	e18	e12	e10	e9.6	58	e105	326	71	21	23	16
27	11	e16	e12	e10	e9.2	55	e103	265	65	32	21	15
28	15	e17	12	e10	e9.6	51	e115	232	57	40	19	15
29	18	e15	11	e9.9	---	50	e140	224	53	36	18	14
30	22	e21	11	e9.8	---	50	e170	245	49	39	18	14
31	16	---	12	e10	---	52	---	283	---	47	33	---
TOTAL	345.4	498	533	361.9	276.3	1219	2315	10099	5577	944	1269	591
MEAN	11.1	16.6	17.2	11.7	9.87	39.3	77.2	326	186	30.5	40.9	19.7
MAX	22	21	45	16	13	77	170	628	437	47	94	38
MIN	7.6	14	10	9.4	9.2	10	33	155	49	18	18	14
AC-FT	685	988	1060	718	548	2420	4590	20030	11060	1870	2520	1170

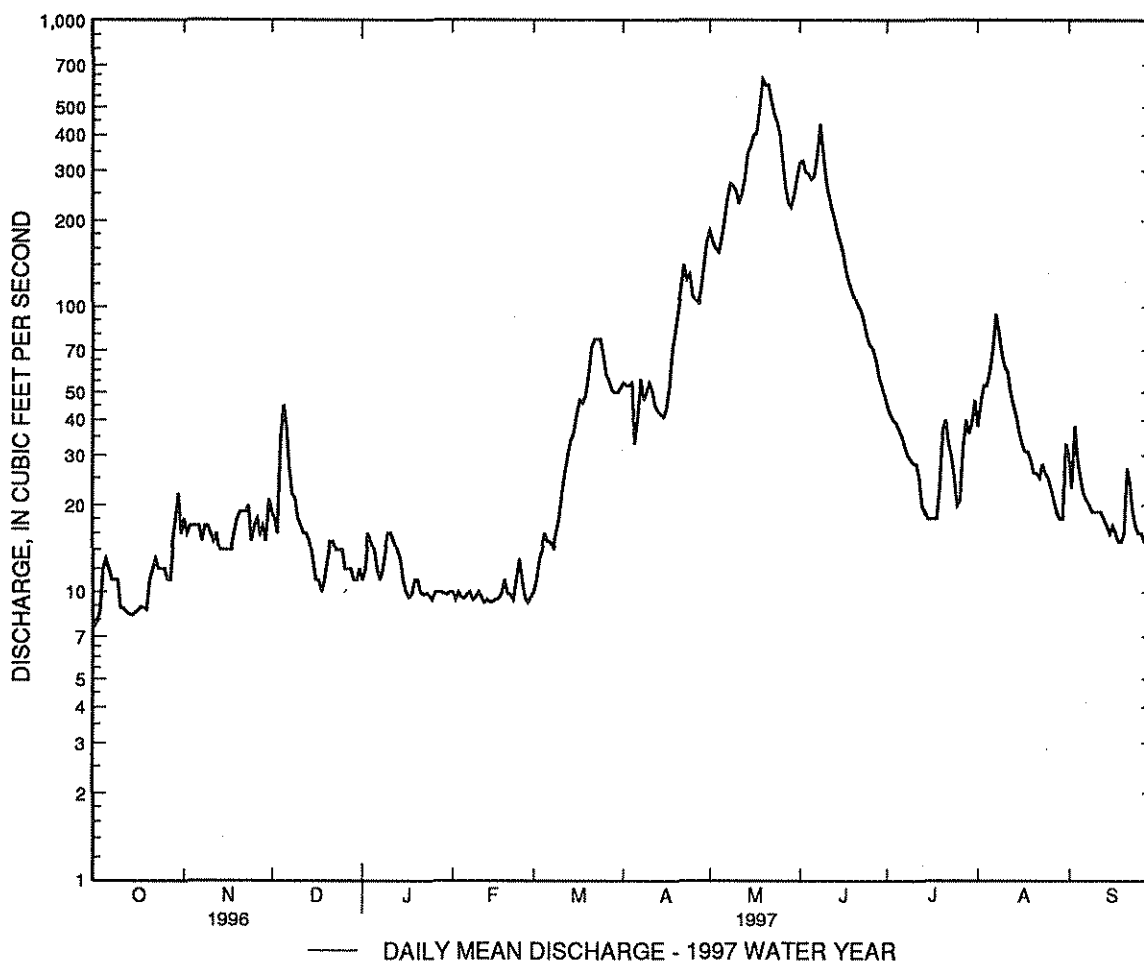
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997
MEAN	13.7	14.9	12.7	11.1	12.9	28.7
MAX	17.5	17.4	17.2	14.6	16.8	39.3
(WY)	1995	1995	1997	1992	1992	1997
MIN	11.1	12.5	10.0	9.60	9.87	14.9
(WY)	1997	1993	1993	1996	1997	1996

08277470 RIO PUEBLO NEAR PENASCO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1992 - 1997	
ANNUAL TOTAL	5522.5		24028.6		74.0	
ANNUAL MEAN	15.1		65.8		124	
HIGHEST ANNUAL MEAN					14.5	
LOWEST ANNUAL MEAN					1720	
HIGHEST DAILY MEAN	79	Apr 28	628	May 19	3.3	May 20 1994
LOWEST DAILY MEAN	3.3	Jun 21	7.6	Oct 1	3.7	Jun 21 1996
ANNUAL SEVEN-DAY MINIMUM	3.7	Jun 18	8.6	Oct 10	3.7	Jun 18 1996
INSTANTANEOUS PEAK FLOW			830	May 21	2200	May 19 1994
INSTANTANEOUS PEAK STAGE			5.11	Mar 11	6.00	May 19 1994
INSTANTANEOUS LOW FLOW			3.3	Feb 16	3.1	Jun 21 1996
ANNUAL RUNOFF (AC-FT)	10950		47660		53640	
10 PERCENT EXCEEDS	33		222		220	
50 PERCENT EXCEEDS	11		20		16	
90 PERCENT EXCEEDS	5.1		9.8		9.5	

e Estimated



RIO GRANDE BASIN

08278500 RIO SANTA BARBARA NR PENASCO, NM

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

DRAINAGE AREA.--38 mi² (approximately).

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	13	e12	e7.8	e7.1	e6.7	23	49	e220	69	33	e27
2	15	13	e11	e7.9	e7.3	e7.8	23	45	e230	64	35	e26
3	14	13	e10	e8.4	e7.1	e7.8	24	44	e225	60	35	26
4	18	13	e9.8	e8.4	e7.3	e7.9	25	53	e215	57	34	25
5	18	13	e9.6	e8.0	e7.1	e7.5	24	65	e213	54	44	26
6	16	13	e9.8	e8.0	e7.2	e8.4	25	82	e223	50	60	23
7	15	11	e12	e7.7	e6.9	e8.2	24	103	e240	46	61	22
8	15	13	e15	e7.8	e7.2	e8.3	21	103	e260	43	57	21
9	15	13	e14	e7.4	e7.6	e8.7	21	93	e308	41	52	20
10	15	12	e12	e7.8	e7.8	e9.8	22	88	e300	40	52	20
11	14	12	e11	e7.8	e7.6	e11	21	88	e260	37	53	20
12	14	12	e9.9	e7.6	e7.4	e13	19	96	e240	34	e48	20
13	14	11	e9.7	e7.4	e7.4	e14	19	101	e230	32	e46	19
14	14	11	e9.8	e7.6	e7.1	e15	19	139	e220	30	e44	19
15	13	11	e8.8	e7.8	e7.6	15	18	162	e210	28	e40	18
16	13	12	e10	e7.9	e7.5	17	21	165	e180	27	e37	19
17	13	13	e9.8	e8.0	e7.4	19	24	162	e170	27	e35	17
18	13	13	e9.3	e8.0	e7.3	18	25	174	e150	27	e35	16
19	13	13	e9.8	e8.1	e7.5	19	30	201	e130	28	e30	16
20	14	13	e9.6	e8.3	e7.4	23	35	202	e125	36	e27	19
21	14	13	e9.8	e8.2	e7.0	28	42	197	e115	41	e27	45
22	13	13	e12	e7.7	e7.2	32	46	191	e108	27	e25	31
23	14	14	e10	e7.5	e7.1	32	41	176	e102	26	e28	25
24	13	12	e9.6	e7.5	e7.2	33	38	178	e100	23	e26	23
25	13	13	e9.4	e7.9	e7.0	30	35	180	e92	22	e25	22
26	13	14	e8.9	e7.5	e6.9	27	32	169	e90	28	e26	21
27	14	12	e8.7	e7.3	e6.8	25	33	e155	e87	28	e25	21
28	16	13	e8.2	e7.1	e6.9	24	38	e145	82	27	e23	20
29	16	11	e8.0	e7.1	---	23	44	e140	77	28	e20	19
30	14	19	e8.0	e7.3	---	23	50	e145	74	26	e22	19
31	14	---	e8.0	e7.6	---	23	---	e180	---	39	e30	---
TOTAL	445	382	313.5	240.4	202.9	545.1	862	4071	5276	1145	1135	665
MEAN	14.4	12.7	10.1	7.75	7.25	17.6	28.7	131	176	36.9	36.6	22.2
MAX	18	19	15	8.4	7.8	33	50	202	308	69	61	45
MIN	13	11	8.0	7.1	6.8	6.7	18	44	74	22	20	16
AC-FT	883	758	622	477	402	1080	1710	8070	10460	2270	2250	1320

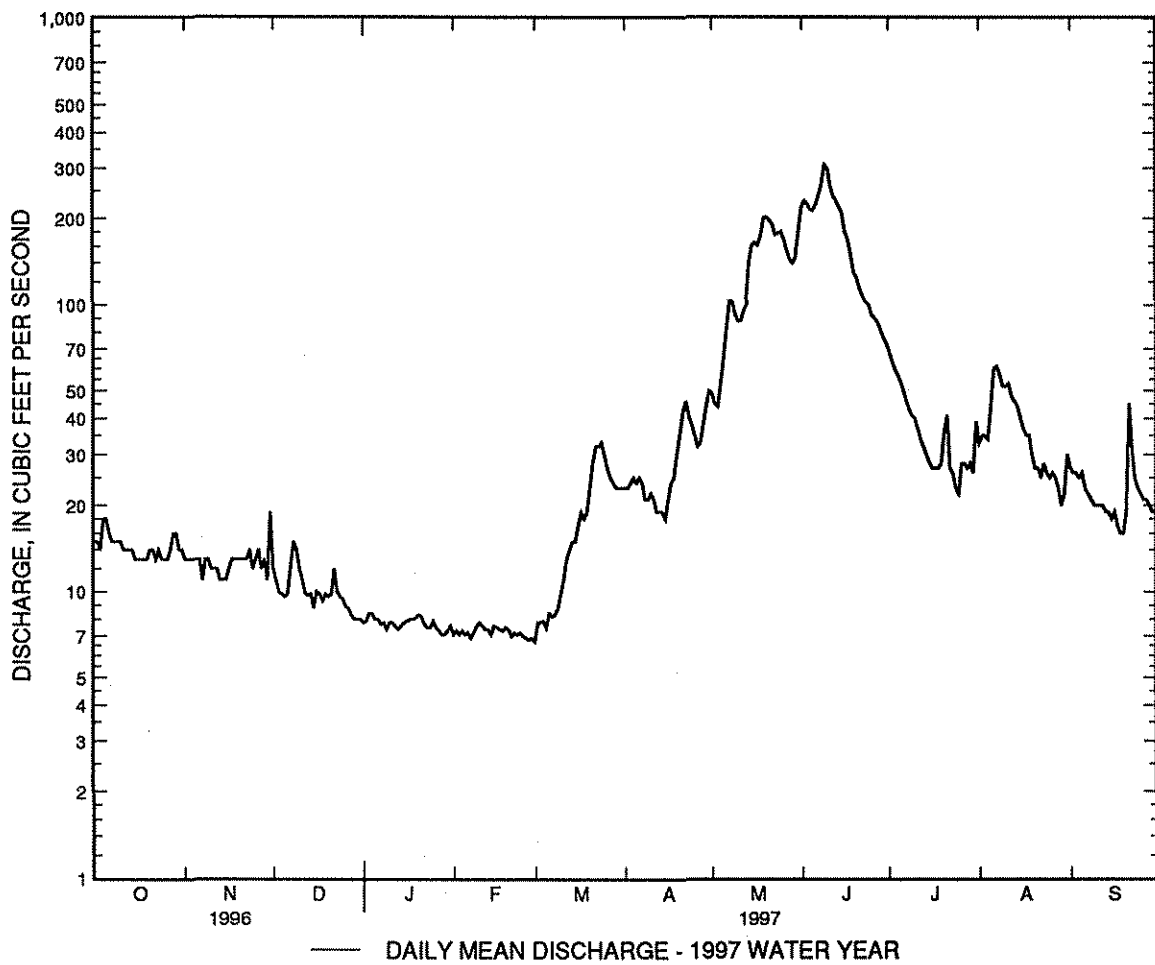
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1997, BY WATER YEAR (WY)

MEAN	13.5	11.3	8.33	6.95	6.92	11.5	37.5	106	122	36.7	38.4	25.0
MAX	17.9	17.1	13.6	9.24	9.11	17.6	75.3	199	211	62.1	129	66.5
(WY)	1996	1992	1992	1953	1992	1997	1992	1994	1995	1957	1957	1957
MIN	4.95	5.13	4.18	4.10	3.93	6.46	18.6	35.6	17.0	8.13	8.11	4.50
(WY)	1957	1957	1957	1954	1957	1957	1956	1956	1956	1956	1956	1956

08278500 RIO SANTA BARBARA NR PENASCO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1953 - 1997	
ANNUAL TOTAL	7523.5		15282.9		34.3	
ANNUAL MEAN	20.6		41.9		50.5	
HIGHEST ANNUAL MEAN					12.0	
LOWEST ANNUAL MEAN					499	
HIGHEST DAILY MEAN	79	May 13	308	Jun 9	3.0	Jun 2 1994
LOWEST DAILY MEAN	6.0	Jan 1	6.7	Mar 1	3.1	Jan 31 1957
ANNUAL SEVEN-DAY MINIMUM	6.1	Jan 1	6.9	Feb 23	838	Jan 30 1957
INSTANTANEOUS PEAK FLOW					6.21	
INSTANTANEOUS PEAK STAGE					2.4	
INSTANTANEOUS LOW FLOW			3.8	Feb 22	Mar 2 1996	
ANNUAL RUNOFF (AC-FT)	14920		30310		24840	
10 PERCENT EXCEEDS	45		134		96	
50 PERCENT EXCEEDS	15		19		15	
90 PERCENT EXCEEDS	7.3		7.6		6.0	

e Estimated



RIO GRANDE BASIN

08279000 EMBUDO CREEK AT DIXON, NM

LOCATION.--Lat 36°12'39", long 105°54'47", in NE¹/4SE¹/4 sec.19, T.23 N., R.10 E., Rio Arriba County, Hydrologic Unit 13020101, on right bank 750 ft upstream from State Highway 68, 0.5 mi upstream from mouth, 0.5 mi east of Embudo Post Office, and 1.7 mi northwest of Dixon.

DRAINAGE AREA.--305 mi².

WATER-DISCHARGE RECORD

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

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	46	41	38	36	30	88	272	583	93	93	64
2	24	43	35	38	34	29	87	252	624	82	79	43
3	22	47	33	43	36	36	91	219	603	75	102	50
4	27	52	32	50	32	36	106	215	614	70	94	54
5	34	47	31	39	34	32	99	257	618	64	114	57
6	34	49	49	33	35	33	71	294	628	61	136	47
7	31	46	50	e20	34	39	107	379	728	58	184	42
8	30	40	46	e22	27	43	112	415	868	55	178	41
9	28	46	50	e26	31	46	110	410	730	e50	148	42
10	28	45	55	e32	32	49	114	375	610	e47	145	43
11	28	44	57	40	33	58	116	341	545	e41	127	41
12	24	43	52	36	34	71	105	365	495	e34	118	43
13	22	44	47	e28	35	77	99	390	453	e27	110	40
14	23	44	47	e27	31	78	94	450	415	e23	102	43
15	22	44	42	e28	29	76	88	489	394	e22	93	38
16	22	53	27	e29	31	81	81	523	363	e21	81	38
17	23	40	30	e30	34	89	88	538	319	20	74	31
18	22	49	e20	e27	36	87	96	575	283	20	74	28
19	21	54	e17	31	39	85	111	651	257	21	69	27
20	22	55	e24	31	38	92	133	650	241	28	52	28
21	29	53	e32	34	38	112	159	661	228	41	53	55
22	30	51	43	32	28	135	210	701	215	43	57	71
23	34	54	44	34	38	131	200	686	203	39	65	57
24	38	53	32	34	37	128	211	660	183	35	62	53
25	36	44	36	29	33	130	183	635	156	24	59	48
26	37	47	36	39	35	114	176	563	159	23	52	44
27	42	50	39	37	34	111	170	503	155	27	46	42
28	48	42	39	37	36	98	194	451	130	57	44	40
29	59	50	36	35	---	92	222	438	113	58	36	37
30	48	46	37	32	---	89	265	461	100	84	35	36
31	47	---	39	34	---	88	---	528	---	112	37	---
TOTAL	958	1421	1198	1025	950	2395	3986	14347	12013	1455	2719	1323
MEAN	30.9	47.4	38.6	33.1	33.9	77.3	133	463	400	46.9	87.7	44.1
MAX	59	55	57	50	39	135	265	701	868	112	184	71
MIN	21	40	17	20	27	29	71	215	100	20	35	27
AC-FT	1900	2820	2380	2030	1880	4750	7910	28460	23830	2890	5390	2620

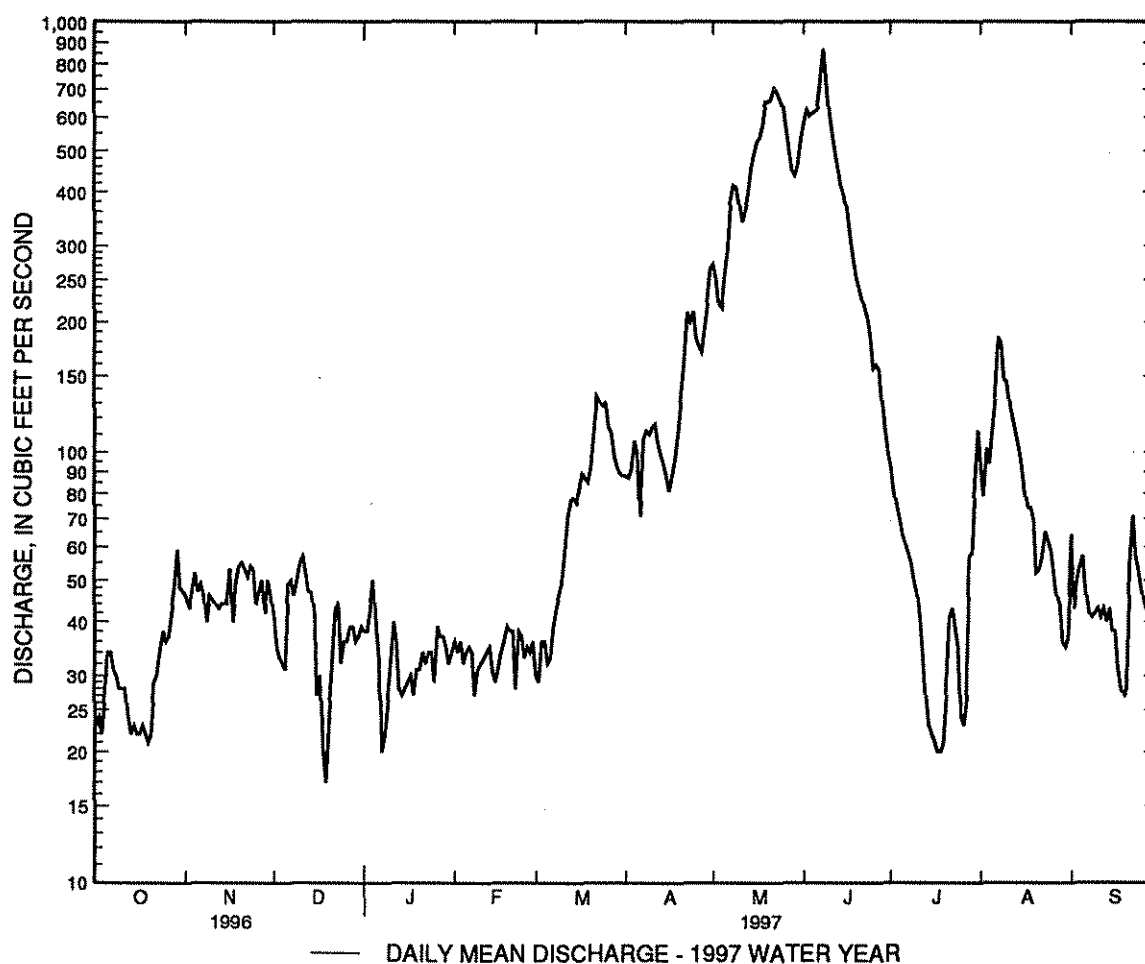
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1997, BY WATER YEAR (WY)

MEAN	37.9	35.9	31.5	28.9	30.8	47.2	145	314	204	50.3	49.6	42.0
MAX	116	95.5	54.3	42.2	72.7	129	505	1231	813	204	222	190
(WY)	1942	1942	1942	1985	1932	1989	1942	1941	1941	1937	1991	1929
MIN	3.09	4.18	9.75	12.0	15.0	15.5	13.3	8.94	5.49	.86	2.71	2.79
(WY)	1951	1951	1951	1951	1951	1951	1972	1972	1950	1951	1950	1950

08279000 EMBUDO CREEK AT DIXON, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1924 - 1997	
ANNUAL TOTAL	10469.3		43790		85.2	
ANNUAL MEAN	28.6		120		235	
HIGHEST ANNUAL MEAN					12.8	
LOWEST ANNUAL MEAN					2590	
HIGHEST DAILY MEAN	66	Apr 28	868	Jun 8	.20	May 14 1941
LOWEST DAILY MEAN	4.0	Jul 25	17	Dec 19	.60	Jun 27 1950
ANNUAL SEVEN-DAY MINIMUM	4.7	Aug 12	22	Jul 13	.60	Jul 16 1951
INSTANTANEOUS PEAK FLOW			938	Jun 8	4200	Aug 29 1977
INSTANTANEOUS PEAK STAGE			4.42	Jun 8	7.60	Aug 4 1967
INSTANTANEOUS LOW FLOW			11	Feb 8	.06	Jun 26 1950
ANNUAL RUNOFF (AC-FT)	20770		86860		61700	
10 PERCENT EXCEEDS	46		383		214	
50 PERCENT EXCEEDS	33		48		35	
90 PERCENT EXCEEDS	6.5		28		13	

e Estimated



RIO GRANDE BASIN

08279000 EMBUDO CREEK AT DIXON, NM --Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
NOV 1996									
05...	0945	48	369	8.3	5.0	6.0	614	10.0	100
FEB 1997									
19...	0900	38	325	8.2	8.0	4.0	620	11.2	105

RIO GRANDE BASIN

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08279500 RIO GRANDE AT EMBUDO, NM

LOCATION.--Lat 36°12'20", long 105°57'49", in SW¹/4SW¹/4 sec.23, T.23 N., R.9 E., Rio Arriba County, Hydrologic Unit 13020101, on right bank 0.2 mi downstream from bridge at Embudo, 2.8 mi downstream from Embudo Creek, and at mile 1.643.1.

DRAINAGE AREA.--10,400 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

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

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

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

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

AVERAGE DISCHARGE.--41 years (water years 1890-1930), 1,238 ft³/s, 896,900 acre-ft/yr.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	248	343	365	555	597	622	1230	1100	2920	1730	663	690
2	248	343	314	567	617	651	1200	1110	3480	1660	685	647
3	244	356	287	587	648	645	1150	1100	3920	1620	847	730
4	253	416	314	637	647	641	1110	1050	4290	1550	807	764
5	258	432	335	648	647	634	1050	1040	4560	1420	707	799
6	259	410	343	585	619	649	930	1090	4810	1250	784	727
7	262	392	400	515	632	649	912	1310	4840	1010	879	711
8	270	375	426	338	616	657	849	1550	4820	1030	873	712
9	261	366	447	443	605	668	805	1860	4490	1100	1040	701
10	257	354	484	512	603	706	739	1990	4180	956	1310	690
11	255	345	544	558	594	755	718	2140	3910	800	1320	661
12	253	341	572	561	601	809	698	2030	3470	717	1260	645
13	255	339	567	536	620	870	668	2080	3260	764	1250	629
14	258	341	566	537	608	940	651	2160	3060	780	1220	665
15	255	347	537	533	608	988	602	2400	2920	698	1110	635
16	253	366	426	531	612	1040	569	2490	2790	640	1100	607
17	254	347	392	519	624	1090	565	2760	2720	607	1020	566
18	251	335	379	505	645	1150	586	3010	2620	554	951	534
19	251	353	296	513	680	1250	593	3260	2540	551	891	516
20	259	360	324	510	676	1290	619	3540	2430	542	851	558
21	268	350	503	538	681	1290	718	3770	2370	643	817	654
22	271	349	474	537	650	1360	893	4110	2420	668	785	672
23	272	355	476	554	617	1470	1080	3930	2330	633	762	722
24	277	360	443	559	656	1520	1340	4030	2300	637	728	1290
25	277	350	458	560	659	1560	1460	3980	2160	599	723	1640
26	286	351	481	581	638	1550	1270	3620	1960	532	697	2040
27	292	359	501	592	663	1500	1120	3160	1790	561	669	2350
28	308	355	514	608	646	1370	1060	2820	1670	679	662	2250
29	341	361	517	600	---	1300	1040	2460	1740	611	656	2000
30	343	375	525	594	---	1270	1050	2430	1740	623	681	1780
31	331	---	538	597	---	1240	---	2620	---	720	674	---
TOTAL	8370	10826	13748	17010	17709	32134	27275	76000	92510	26885	27422	28585
MEAN	270	361	443	549	632	1037	909	2452	3084	867	885	953
MAX	343	432	572	648	681	1560	1460	4110	4840	1730	1320	2350
MIN	244	335	287	338	594	622	565	1040	1670	532	656	516
AC-FT	16600	21470	27270	33740	35130	63740	54100	150700	183500	53330	54390	56700

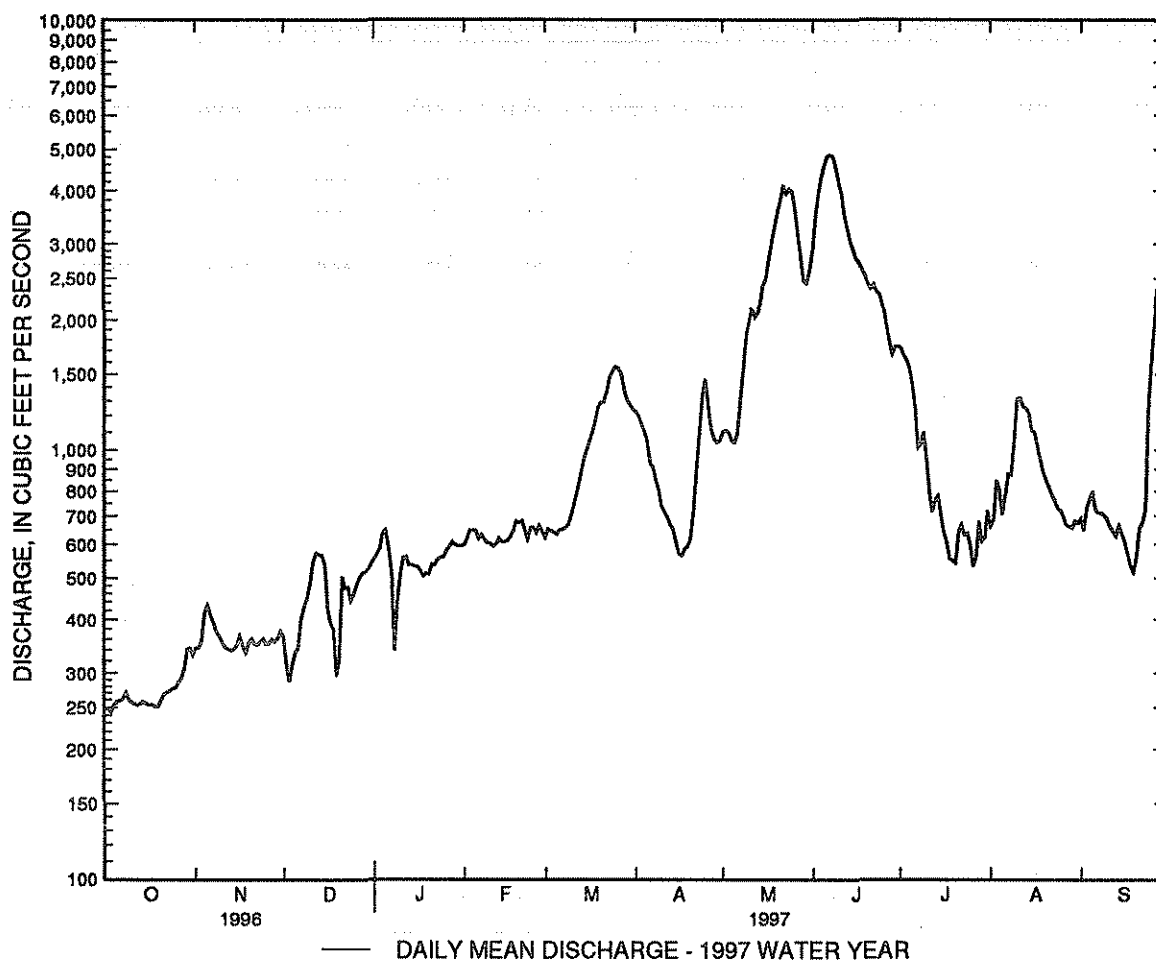
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1997, BY WATER YEAR (WY)

	MEAN	417	551	522	509	579	717	1021	2077	2006	788	449	386
MAX	1795	1611	1052	799	888	1290	3544	7228	6837	3540	1699	1132	
(WY)	1942	1942	1942	1942	1987	1989	1942	1941	1941	1995	1957	1982	
MIN	182	243	269	300	323	286	274	249	199	188	186	171	
(WY)	1957	1957	1957	1957	1957	1957	1981	1972	1977	1963	1956	1956	

RIO GRANDE BASIN

08279500 RIO GRANDE AT EMBUDO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1931 - 1997	
ANNUAL TOTAL	154187		378474		835	
ANNUAL MEAN	421		1037		2077	
HIGHEST ANNUAL MEAN					1942	
LOWEST ANNUAL MEAN					308	
HIGHEST DAILY MEAN	892	Feb 24	4840	Jun 7	11700	May 16 1941
LOWEST DAILY MEAN	208	Aug 7	244	Oct 3	165	Sep 2 1956
ANNUAL SEVEN-DAY MINIMUM	215	Aug 11	253	Oct 1	166	Sep 1 1956
INSTANTANEOUS PEAK FLOW			4930	Jun 8	16200	Jun 19 1903
INSTANTANEOUS PEAK STAGE			8.64	Jun 8	15.90	Jun 19 1903
INSTANTANEOUS LOW FLOW			241	Oct 3	130	Jun 30 1902
ANNUAL RUNOFF (AC-FT)	305800		750700		605100	
10 PERCENT EXCEEDS	732		2420		1640	
50 PERCENT EXCEEDS	356		656		511	
90 PERCENT EXCEEDS	240		337		261	



RIO GRANDE BASIN

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08284100 RIO CHAMA NEAR LA PUENTE, NM

LOCATION.--Lat 36°39'45", long 106°37'57", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on right bank 0.7 mi downstream from Rito de Tierra Amarilla, 3.1 southwest of La Puente, 6.7 mi upstream from flow line of El Vado Reservoir, and at mile 91.4.

DRAINAGE AREA.--480 mi², approximately.

WATER-DISCHARGE RECORDS

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

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

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

EXTREMES OUTSIDE PERIOD OF RECORDS.--A discharge of about 9,000 ft³/s occurred Apr. 16, 1937, based on flow of Rio Chama at Los Ojos (Park View) with allowance for tributary inflow. A peak on May 21 or 22, 1926, may have exceeded 10,000 ft³/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	61	68	e51	e61	e46	703	959	2140	260	167	205
2	30	56	62	e52	e61	e48	643	736	2100	226	160	149
3	30	61	e58	e54	e62	e49	645	662	1860	202	154	128
4	43	64	e59	e54	e61	e38	763	986	1780	187	163	159
5	53	60	e56	e52	e60	e31	589	1710	1690	179	157	176
6	46	60	e60	e50	e63	e46	459	2300	1500	173	181	138
7	42	53	e62	e51	e52	e67	459	2770	1490	165	235	121
8	38	48	e58	e53	e54	e79	445	2760	1850	152	346	109
9	35	50	e57	e53	e58	e87	455	2590	1400	146	248	105
10	32	53	e57	e56	e54	103	422	2510	1410	137	203	108
11	33	53	e56	e58	e56	122	381	2820	1210	136	265	108
12	31	52	e54	e56	e52	151	329	2990	1080	134	190	109
13	28	55	e57	e59	e61	182	319	3320	1010	124	161	101
14	28	55	e55	e63	e50	206	288	3430	880	115	139	95
15	29	57	e56	e59	e48	222	285	3270	820	106	132	97
16	35	61	e59	e56	e50	260	324	3170	884	101	123	148
17	36	52	e56	e55	e54	338	427	3180	829	102	116	123
18	36	67	e60	e53	e64	369	553	3270	694	101	122	98
19	35	68	e59	e52	e60	406	663	3220	678	115	126	89
20	42	69	e60	e51	e56	536	836	3300	650	137	111	108
21	44	70	e58	e51	e57	725	1140	3060	595	132	104	653
22	38	80	e55	e50	e49	803	1400	3210	541	145	103	496
23	39	88	e50	e52	e54	801	1350	2960	516	130	106	282
24	45	82	e54	e55	e51	799	1230	2780	472	125	107	208
25	47	66	e53	e58	e56	616	882	2600	405	106	118	176
26	48	69	e55	e57	e50	576	708	2250	373	99	187	157
27	46	81	e56	e56	e49	637	664	1990	345	115	146	145
28	57	65	e55	e57	e58	666	839	1890	320	154	110	133
29	66	83	e54	e58	---	732	987	1830	297	163	98	121
30	52	73	e52	e61	---	675	949	1880	281	149	101	115
31	58	---	e52	e60	---	707	---	2030	---	214	191	---
TOTAL	1253	1912	1763	1703	1561	11123	20137	76433	30100	4530	4870	4960
MEAN	40.4	63.7	56.9	54.9	55.8	359	671	2466	1003	146	157	165
MAX	66	88	68	63	64	803	1400	3430	2140	260	346	653
MIN	28	48	50	50	48	31	285	662	281	99	98	89
AC-FT	2490	3790	3500	3380	3100	22060	39940	151600	59700	8990	9660	9840

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1997, BY WATER YEAR (WY)

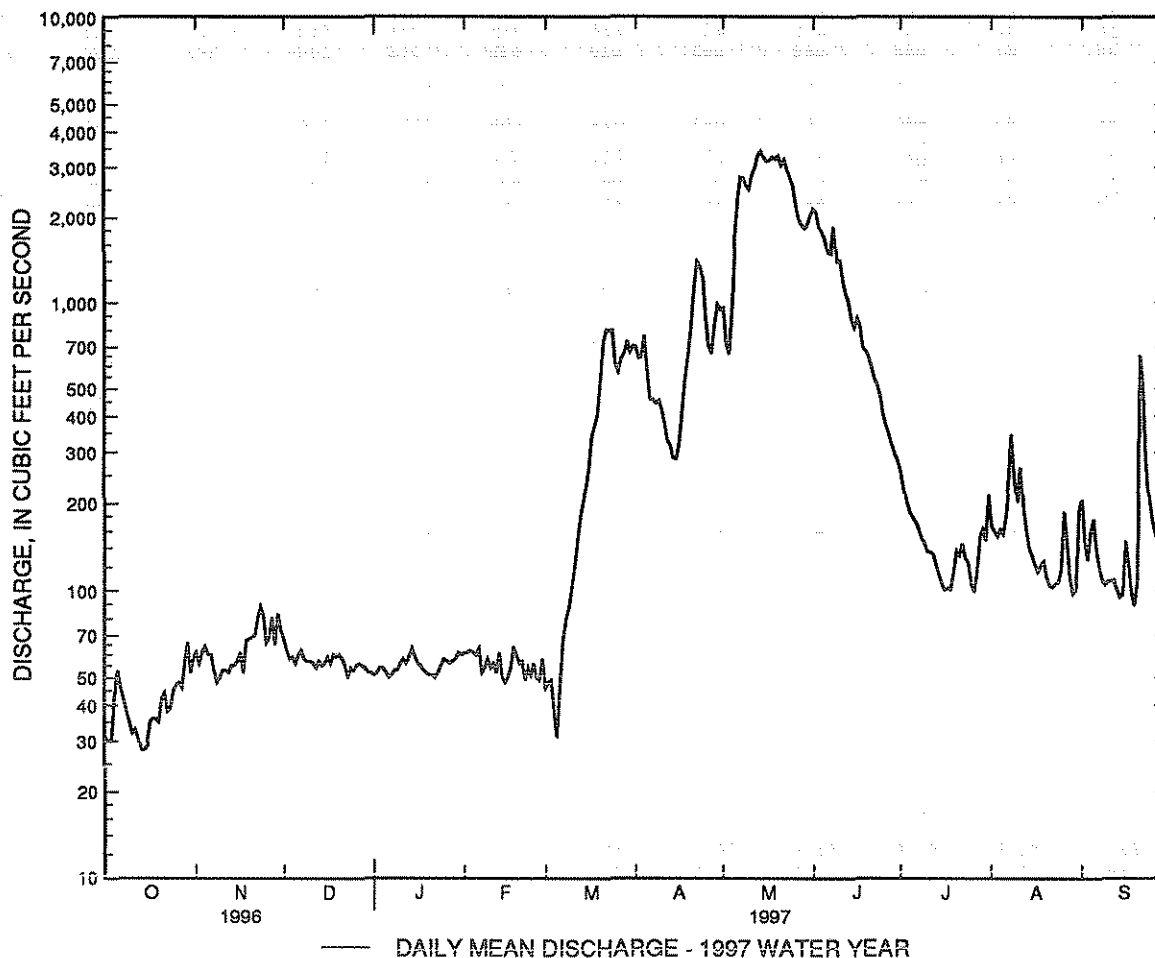
MEAN	92.0	84.3	60.0	55.4	70.3	188	848	1847	790	136	98.9	80.9
MAX	562	422	131	103	174	523	1846	4195	3200	571	352	320
(WY)	1987	1987	1987	1987	1962	1995	1962	1985	1995	1957	1957	1982
MIN	9.82	24.8	25.9	15.8	26.3	49.9	244	123	19.1	9.23	9.00	7.96
(WY)	1957	1957	1964	1963	1964	1964	1964	1977	1977	1956	1972	1956

RIO GRANDE BASIN

08284100 RIO CHAMA NEAR LA PUENTE, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1956 - 1997	
ANNUAL TOTAL	56785		160345		364	
ANNUAL MEAN	155		439		63.0	1977
HIGHEST ANNUAL MEAN					723	1985
LOWEST ANNUAL MEAN					63.0	1977
HIGHEST DAILY MEAN	2380	Apr 27	3430	May 14	7720	May 10 1985
LOWEST DAILY MEAN	13	Aug 16	28	Oct 13	4.4	Sep 19 1956
ANNUAL SEVEN-DAY MINIMUM	14	Aug 15	31	Oct 9	5.6	Sep 18 1956
INSTANTANEOUS PEAK FLOW			4310	May 20	11200 ^a	May 28 1979
INSTANTANEOUS PEAK STAGE			5.64	May 20	6.46	May 14 1984
INSTANTANEOUS LOW FLOW			27	Oct 13	4.0	Sep 19 1956
ANNUAL RUNOFF (AC-FT)	112600		318000		263600	
10 PERCENT EXCEEDS	399		1400		1060	
50 PERCENT EXCEEDS	52		109		80	
90 PERCENT EXCEEDS	24		50		30	

e Estimated

a-From rating curve extended above 5,400 ft³/s,

RIO GRANDE BASIN

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08284100 RIO CHAMA NEAR LA PUENTE, NM -- Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED OF (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	
OCT 1996 31...	0930	60	190	8.2	8.5	2.0	582	10.8	102	
FEB 1997 20...	0930	E56	199	7.8	1.0	0.0	581	12.2	110	
DATE		HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINEITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 1996 31...	78	24	4.4	6.8	0.3	1.8	78	17	1.9	
FEB 1997 20...	84	26	4.6	7.3	0.3	1.4	75	23	2.8	
DATE		FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. * FINER THAN .062 MM (70331)	
OCT 1996 31...	<0.10	22	125	13	39	26	4.2	26		
FEB 1997 20...	0.1	19	129	13.4	14	6	--	91		

RIO GRANDE BASIN

08284160 AZOTEA TUNNEL AT OUTLET. NEAR CHAMA, NM

LOCATION.--Lat 36°51'12", long 106°40'18", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on left bank at south portal, 0.2 mi upstream from Azotea Creek, and 6.2 mi southwest of Chama.

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

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 7,519.87 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Records represent regulated diversions from Rio Blanco, Little Navajo River, and Navajo River in San Juan River Basin.

COOPERATION.--Records provided by Bureau of Reclamation.

AVERAGE DISCHARGE.--26 years, 128 ft³/s, 92,740 acre-ft/yr.

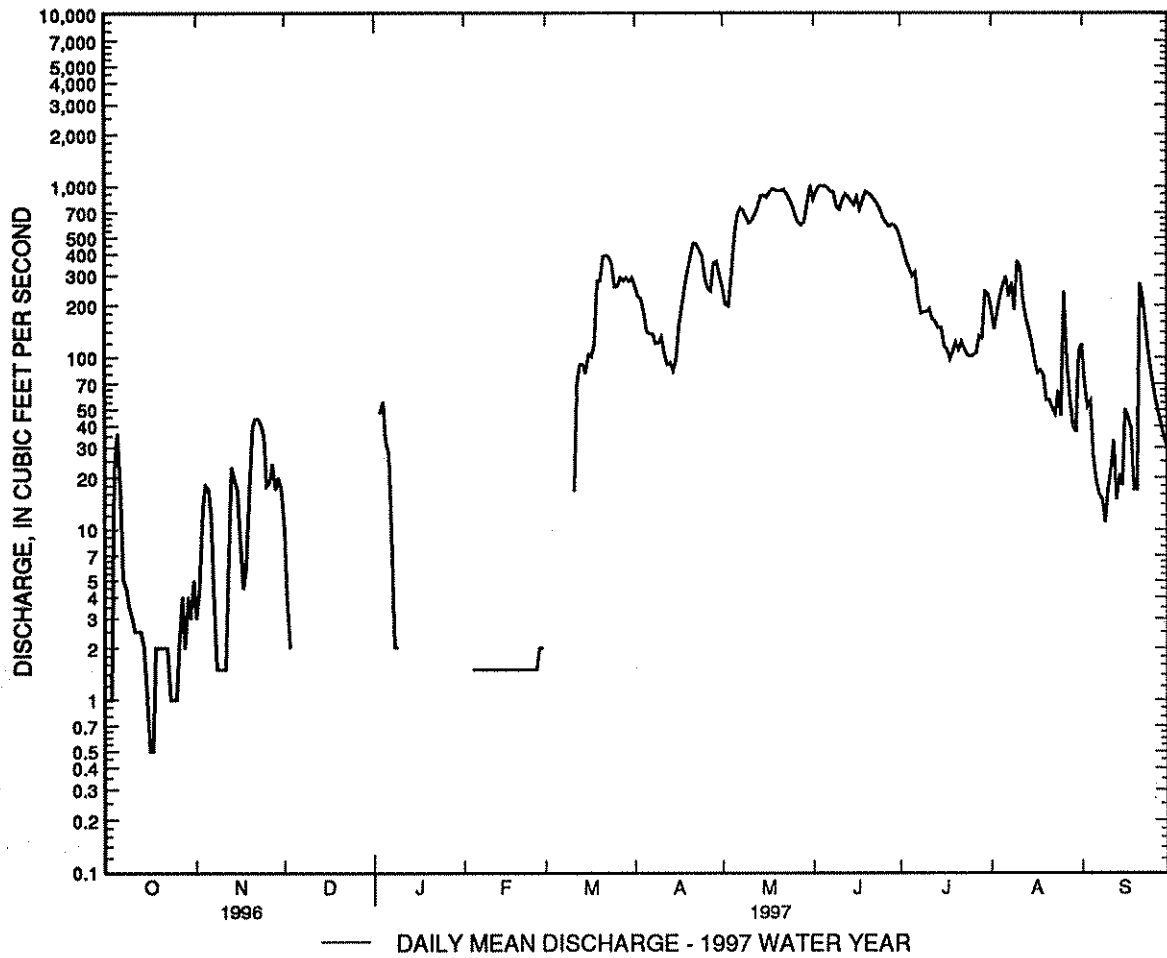
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft³/s, May 17, 1978, gage height, 7.85 ft; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1010 ft³/s, May 31; no flow many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	3.0	10	.00	.00	.00	261	254	838	492	194	119
2	1.0	4.5	4.0	.00	.00	.00	225	203	930	429	146	69
3	1.0	13	2.0	47	.00	.00	220	199	1000	370	182	52
4	22	18	.00	55	1.5	.00	183	301	1000	329	227	56
5	36	17	.00	32	1.5	.00	141	500	1000	298	264	26
6	15	12	.00	27	1.5	.00	136	672	984	314	295	19
7	5.0	3.5	.00	9.6	1.5	.00	136	745	930	220	226	16
8	4.5	1.5	.00	2.0	1.5	.00	121	725	931	180	272	15
9	3.5	1.5	.00	2.0	1.5	.00	121	666	765	184	188	11
10	3.0	1.5	.00	.00	1.5	.00	131	611	734	184	365	17
11	2.5	1.5	.00	.00	1.5	17	106	632	832	192	336	22
12	2.5	7.0	.00	.00	1.5	70	91	682	899	167	216	33
13	2.5	23	.00	.00	1.5	91	93	755	867	161	169	15
14	2.0	19	.00	.00	1.5	91	84	875	816	148	145	21
15	1.0	17	.00	.00	1.5	81	97	884	782	148	122	18
16	.50	9.1	.00	.00	1.5	103	155	861	866	116	96	50
17	.50	4.5	.00	.00	1.5	101	197	920	731	111	81	45
18	2.0	6.0	.00	.00	1.5	118	258	962	829	97	84	39
19	2.0	17	.00	.00	1.5	277	321	954	930	108	79	17
20	2.0	40	.00	.00	1.5	280	388	941	907	122	57	17
21	2.0	44	.00	.00	1.5	387	464	940	883	111	57	268
22	2.0	44	.00	.00	1.5	394	458	957	830	123	51	221
23	1.0	41	.00	.00	1.5	385	425	901	795	111	47	150
24	1.0	35	.00	.00	1.5	352	390	838	736	103	64	103
25	1.0	18	.00	.00	1.5	256	292	767	658	101	46	79
26	2.0	19	.00	.00	1.5	259	252	675	618	103	241	61
27	4.0	24	.00	.00	2.0	291	244	614	583	106	96	50
28	2.0	17	.00	.00	2.0	279	354	595	600	133	60	42
29	4.0	20	.00	.00	---	290	363	619	590	129	40	35
30	3.0	17	.00	.00	---	277	297	782	553	241	37	31
31	5.0	---	.00	.00	---	290	---	1010	---	234	109	---
TOTAL	136.50	498.6	16.00	174.60	38.50	4689.00	7004	22040	24417	5865	4592	1717
MEAN	4.40	16.6	.52	5.63	1.38	151	233	711	814	189	148	57.2
MAX	36	44	10	55	2.0	394	464	1010	1000	492	365	268
MIN	.50	1.5	.00	.00	.00	.00	84	199	553	97	37	11
AC-FT	271	989	32	346	76	9300	13890	43720	48430	11630	9110	3410
CAL YR 1996	TOTAL 29508.80	MEAN 80.6	MAX 831	MIN .00	AC-FT 58530							
WTR YR 1997	TOTAL 71188.20	MEAN 195	MAX 1010	MIN .00	AC-FT 141200							

08284160 AZOTEA TUNNEL AT OUTLET, NEAR CHAMA, NM -- Continued



RIO GRANDE BASIN

08284200 WILLOW CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM

LOCATION.--Lat 36°44'33", long 106°37'34", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on right bank 200 ft downstream from bridge, 0.2 mi downstream from Iron Spring Creek, 3.3 mi west of Los Ojos, and at mile 9.7.

DRAINAGE AREA.--112 mi².

PERIOD OF RECORD.--October and November 1962 (monthly discharge only), December 1962 to current year. Published as "near Park View" prior to 1976.

GAGE.--Water-stage recorder. Concrete control since June 6, 1963. Datum of gage is 7,196.29 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 1, 1971, at site 900 ft downstream at lower datum.

REMARKS.--Records represent inflow to Heron Reservoir and since Nov. 17, 1970, include San Juan River water imported through Azotea tunnel (station 08284160).

COOPERATION.--Records provided by Bureau of Reclamation.

AVERAGE DISCHARGE.--8 years (water years 1963-70), 10.5 ft³/s, 7,610 acre-ft/yr, prior to completion of Azotea tunnel. 26 years (water years 1971-97), 143 ft³/s, 103,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,610 ft³/s, Mar. 12, 1985, gage height, 6.65 ft; no flow at times most years.

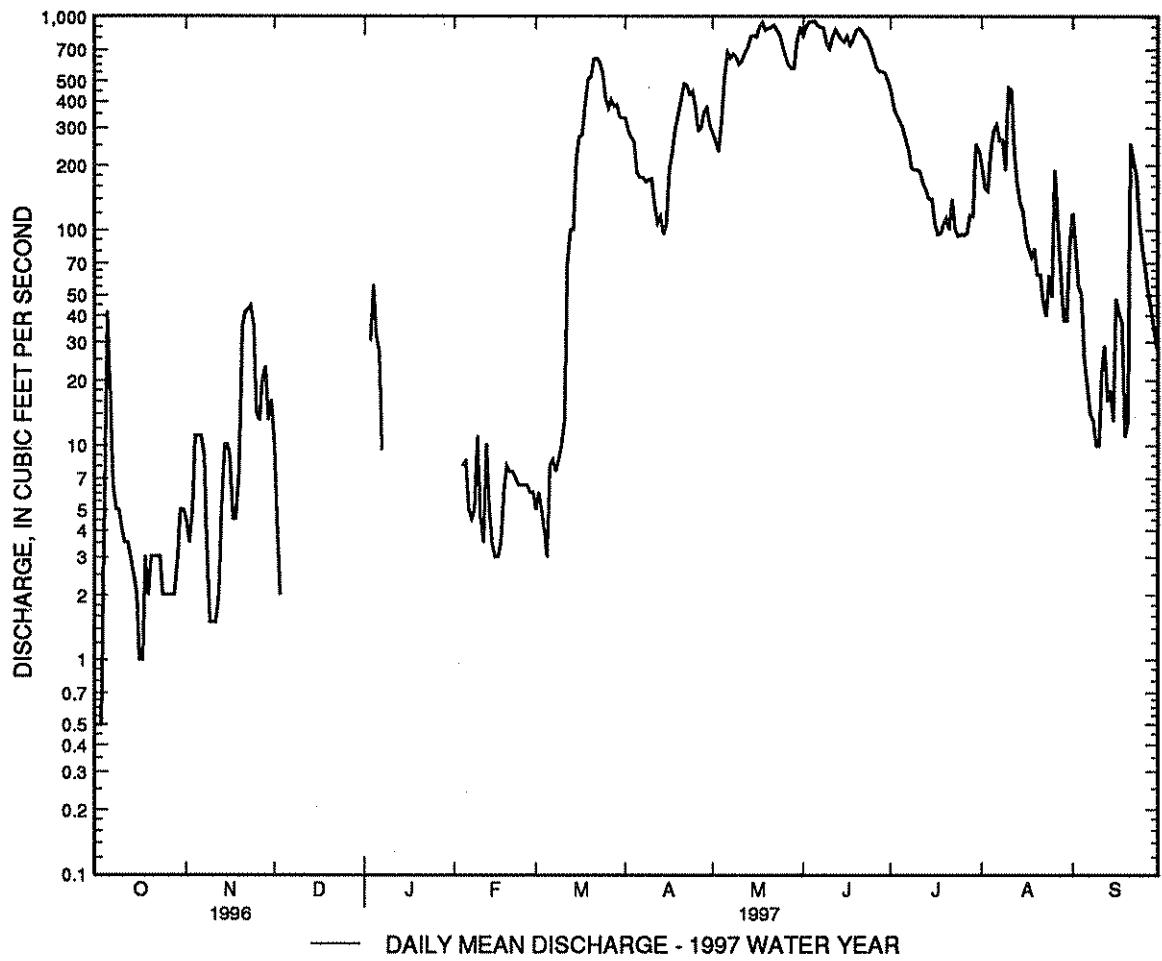
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 958 ft³/s, June 5; no flow many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	4.5	10	.00	.00	5.0	335	286	818	452	202	120
2	.50	3.5	4.5	.00	.00	6.1	292	262	901	377	157	84
3	.50	5.0	2.0	31	.00	5.0	271	233	952	345	152	55
4	3.5	11	.00	55	8.1	4.0	260	315	952	323	233	51
5	42	11	.00	32	8.6	3.0	186	514	958	302	292	25
6	16	11	.00	27	5.0	8.1	176	683	913	265	311	19
7	6.6	9.1	.00	9.6	4.5	8.6	176	643	896	237	262	14
8	5.0	3.5	.00	.00	5.0	7.6	168	669	890	195	265	13
9	5.0	1.5	.00	.00	11	8.6	171	650	753	191	191	10
10	4.0	1.5	.00	.00	4.5	10	173	598	711	191	466	10
11	3.5	1.5	.00	.00	3.5	13	131	623	807	188	452	22
12	3.5	2.0	.00	.00	10	71	108	679	873	165	233	29
13	3.0	5.0	.00	.00	5.0	101	116	721	829	155	165	16
14	2.5	10	.00	.00	3.5	101	96	807	784	140	134	18
15	2.0	10	.00	.00	3.0	214	108	818	764	140	123	13
16	1.0	9.1	.00	.00	3.0	273	192	806	813	108	93	48
17	1.0	4.5	.00	.00	3.5	277	229	897	737	96	82	41
18	3.0	4.5	.00	.00	6.1	384	294	943	780	97	75	37
19	2.0	7.6	.00	.00	8.1	514	345	868	860	107	82	11
20	3.0	36	.00	.00	7.6	522	402	884	884	114	62	13
21	3.0	42	.00	.00	7.6	635	485	894	862	101	62	253
22	3.0	43	.00	.00	7.1	639	480	913	818	139	46	210
23	3.0	45	.00	.00	6.6	614	434	868	791	101	40	180
24	2.0	36	.00	.00	6.6	550	448	829	727	94	62	108
25	2.0	14	.00	.00	6.6	418	375	737	659	96	49	82
26	2.0	13	.00	.00	6.6	373	293	659	589	95	191	64
27	2.0	20	.00	.00	6.1	408	302	598	553	97	107	51
28	2.0	23	.00	.00	6.1	379	358	575	553	118	65	42
29	3.0	13	.00	.00	---	387	375	574	543	116	38	34
30	5.0	16	.00	.00	---	338	311	775	504	252	38	28
31	5.0	---	.00	.00	---	334	---	901	---	237	84	---
TOTAL	140.10	416.8	16.50	154.60	153.30	7611.0	8090	21222	23474	5634	4814	1701
MEAN	4.52	13.9	.53	4.99	5.47	246	270	685	782	182	155	56.7
MAX	42	45	10	55	11	639	485	943	958	452	466	253
MIN	.50	1.5	.00	.00	.00	3.0	96	233	504	94	39	10
AC-FT	278	827	33	307	304	15100	16050	42090	46560	11180	9550	3370

CAL YR 1996 TOTAL 30305.32 MEAN 82.8 MAX 814 MIN .00 AC-FT 60110
WTR YR 1997 TOTAL 73427.30 MEAN 201 MAX 958 MIN .00 AC-FT 145600

08284200 WILLOW CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM -- Continued



08284300 HORSE LAKE CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM

LOCATION.--Lat 36°42'24", long 106°44'42", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on right bank 3.7 mi northwest of Heron Dam, 7.8 mi downstream from Horse Lake, and 9.9 mi west of Los Ojos.

DRAINAGE AREA.--45 mi², approximately.

PERIOD OF RECORD.--October and November 1962 (monthly discharge only), December 1962 to current year. No winter records subsequent to 1973. Published as "near Park View" prior to 1976.

GAGE.--Water-stage recorder. Concrete control since June 10, 1963. Datum of gage is 7,188.85 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to July 1, 1971, at site 1,100 ft upstream at higher datums.

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

COOPERATION.--Records provided by Bureau of Reclamation.

AVERAGE DISCHARGE.--11 years (water years 1963-73), 1.10 ft³/s, 797 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,960 ft³/s, July 30, 1968, gage height, 4.9 ft, site and datum then in use, from rating curve extended above 37 ft³/s on basis of slope-area measurements at gage heights 3.20 ft and 4.9 ft; no flow most of time.

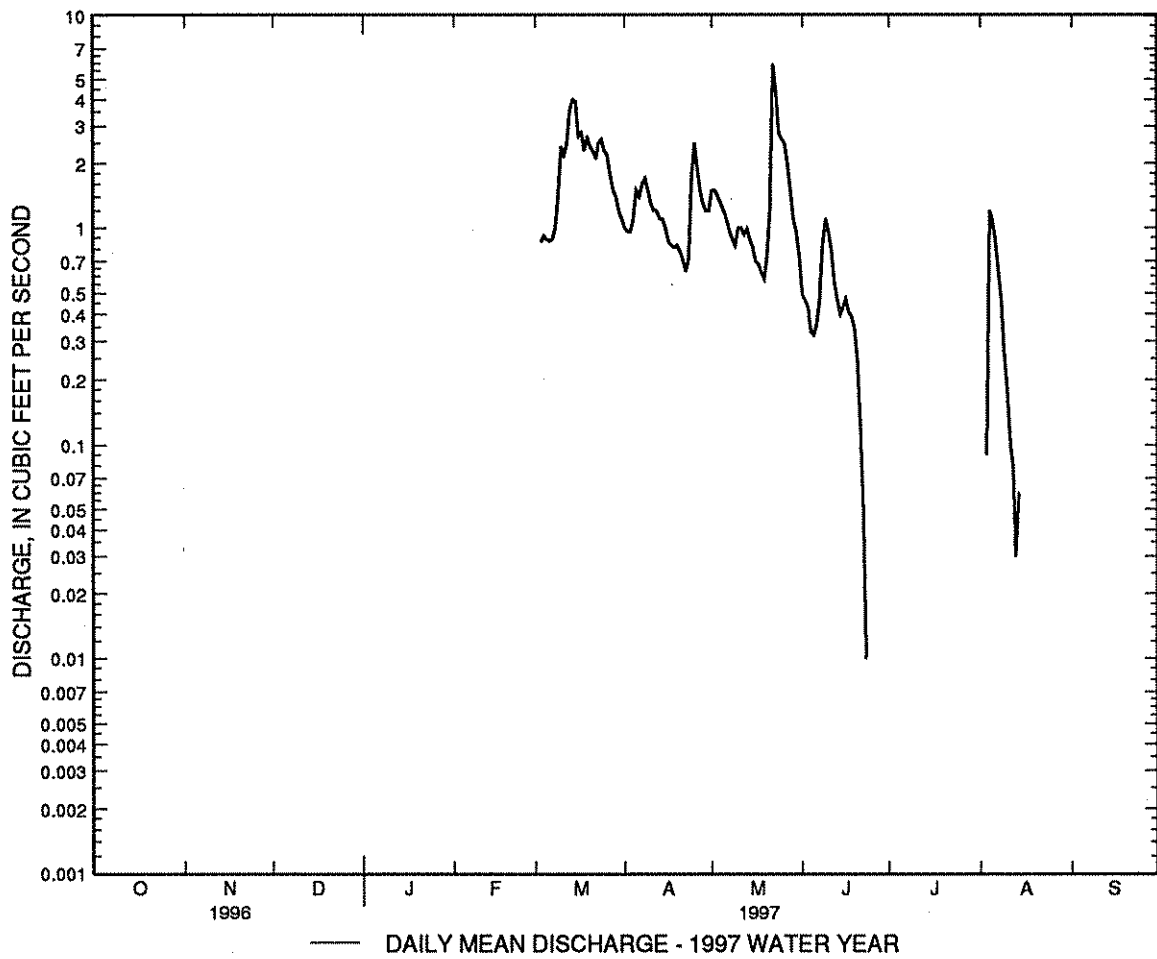
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5.9 ft³/s, May 22, no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	1.0	1.5	.49	.00	.00	.00
2	---	---	---	---	---	---	.96	1.5	.46	.00	.00	.00
3	---	---	---	---	---	.86	.96	1.4	.43	.00	.09	.00
4	---	---	---	---	---	.92	1.1	1.3	.33	.00	1.2	.00
5	---	---	---	---	---	.88	1.5	1.2	.32	.00	1.1	.00
6	---	---	---	---	---	.87	1.4	1.1	.36	.00	.87	.00
7	---	---	---	---	---	.89	1.6	.98	.47	.00	.65	.00
8	---	---	---	---	---	1.0	1.7	.89	.82	.00	.46	.00
9	---	---	---	---	---	1.4	1.5	.83	1.1	.00	.27	.00
10	---	---	---	---	---	2.4	1.3	1.0	.96	.00	.18	.00
11	---	---	---	---	---	e2.2	1.2	1.0	.79	.00	.1	.00
12	---	---	---	---	---	e2.5	1.2	.93	.56	.00	.08	.00
13	---	---	---	---	---	e3.6	1.1	.99	.47	.00	.03	.00
14	---	---	---	---	---	e4.0	1.1	.88	.40	.00	.06	.00
15	---	---	---	---	---	e3.9	1.0	.82	.43	.00	.00	.00
16	---	---	---	---	---	e2.7	.86	.70	.47	.00	.00	.00
17	---	---	---	---	---	e2.8	.83	.68	.41	.00	.00	.00
18	---	---	---	---	---	e2.3	.81	.62	.39	.00	.00	.00
19	---	---	---	---	---	e2.7	.83	.58	.34	.00	.00	.00
20	---	---	---	---	---	e2.4	.78	.74	.24	.00	.00	.00
21	---	---	---	---	---	e2.3	.71	1.2	.12	.01	.00	.00
22	---	---	---	---	---	e2.1	.63	5.9	.05	.00	.00	.00
23	---	---	---	---	---	e2.5	.72	4.4	.01	.00	.00	.00
24	---	---	---	---	---	e2.6	1.7	2.8	.00	.00	.00	.00
25	---	---	---	---	---	e2.3	2.5	2.6	.00	.00	.00	.00
26	---	---	---	---	---	2.2	1.9	2.5	.00	.00	.00	.00
27	---	---	---	---	---	1.8	1.5	2.0	.00	.00	.00	.00
28	---	---	---	---	---	1.5	1.3	1.5	.00	.00	.00	.00
29	---	---	---	---	---	1.4	1.2	1.1	.00	.00	.00	.00
30	---	---	---	---	---	1.2	1.2	.96	.00	.00	.00	.00
31	---	---	---	---	---	1.1	---	.74	---	.00	.00	---
TOTAL	---	---	---	---	---	---	36.09	45.34	10.42	0.01	5.09	0.00
MEAN	---	---	---	---	---	---	1.20	1.46	.35	.000	.16	.000
MAX	---	---	---	---	---	---	2.5	5.9	1.1	.01	1.2	.00
MIN	---	---	---	---	---	---	.63	.58	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	72	90	21	.02	10	.00

e Estimated

08284300 HORSE LAKE CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM -- Continued



RIO GRANDE BASIN

08284510 HERON RESERVOIR NEAR LOS OJOS, NM

LOCATION.--Lat 36°39'56", long 106°42'13", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, at Heron Dam on Willow Creek, 0.2 mi upstream from Rio Chama, 5.1 mi northeast of El Vado Dam, and 8.7 mi southwest of Los Ojos.

DRAINAGE AREA.--193 mi².

PERIOD OF RECORD.--October 1970 to current year. Published as "near Park View" prior to 1976.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Mar. 24, 1971, nonrecording gage.

REMARKS.--Reservoir is formed by earthfill dam; storage began Oct. 21, 1970. Total capacity 401,300 acre-ft at elevation 7,186.1 ft, low point on crest of uncontrolled spillway, including 1,340 acre-ft of dead storage at elevation 7,003.0 ft, invert of gate sill of outlet tunnel. Reservoir is used for storage of transmountain water from San Juan River basin and for recreation. Figures given herein represent total storage.

COOPERATION.--Records provided by Bureau of Reclamation.

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 366,680 acre-ft, July 17, elevation, 7,180.08 ft; minimum, 263,320 acre-ft, Apr. 17, elevation, 7,159.98 ft.

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

(Based on survey by Bureau of Reclamation in 1986)

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

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	334720	320910	314460	305710	299540	293040	289550	269880	314460	361210	363830	360540
2	334240	320650	314200	305410	299290	292840	288910	270260	316260	361870	363160	360600
3	333770	320440	313900	305310	298990	292650	288770	270640	318270	362490	362930	360600
4	333340	320180	313330	305260	298740	292350	288030	271210	320230	362990	363210	360710
5	333020	319970	313280	305260	298540	292060	287550	272100	322260	363490	364220	360600
6	332650	319660	313130	305060	298300	291860	287010	273430	324130	363940	364770	360040
7	332390	319350	312770	304860	298050	291420	285940	274960	326170	364330	365170	359650
8	331800	319040	312420	304610	297800	290880	284190	276530	328110	364610	365330	359540
9	331380	318840	312420	304400	297500	290380	281530	278060	329640	364890	364940	359490
10	330850	318630	312260	304100	297250	289940	279260	279260	331220	365170	364940	359040
11	330540	318370	312060	303950	297000	289600	276670	280510	332760	365500	365450	358540
12	330010	318060	311800	303800	296850	289350	274240	281910	334510	365730	365890	357770
13	329480	317850	311450	303600	296600	289310	271680	283410	336320	365950	366170	356610
14	328950	317600	311190	303600	296360	289260	269030	285110	337920	366230	366340	355950
15	328480	317550	310830	303350	296110	289450	266550	286860	339260	366340	366230	356000
16	327960	317390	310330	303050	295860	289650	264120	288470	341030	366510	365390	356000
17	327430	317080	310020	302800	295660	289990	263320	290340	342480	366680	365050	356000
18	326910	316880	309720	302800	295410	290190	263740	292200	344100	366510	365170	355950
19	326380	316570	309410	302290	295220	290430	264120	294230	346050	365780	365220	355950
20	325960	316310	309000	302040	294970	291510	264810	296160	347630	365610	365280	356110
21	325390	316100	308700	301790	294670	292010	265940	298340	349370	365500	365330	356720
22	324920	315950	308400	301540	294470	292400	266970	300390	350950	365450	365110	356890
23	324390	315850	308090	301340	294230	292790	268050	302240	352490	365450	363710	357110
24	323920	315640	307790	301090	294030	292790	269030	304100	353860	365110	363940	357330
25	323350	315440	307480	300990	293780	292600	269690	305610	355070	364660	363660	357380
26	322880	315180	307230	300940	293530	292250	270260	306930	356220	364500	363710	357490
27	322520	315130	306980	300740	293440	291960	270730	308090	357220	363660	363550	357550
28	322100	314920	306720	300490	293340	291370	271440	308800	358270	363210	363160	357600
29	321740	314870	306420	300240	---	291020	270500	309360	359320	363210	362540	357220
30	321530	314720	306220	299990	---	290580	269270	310780	360320	363320	361650	356390
31	321270	---	305920	299690	---	290090	---	312720	---	363880	360930	---
MAX	334720	320910	314460	305710	299540	293040	289550	312720	360320	366680	366340	360710
MIN	321270	314720	305920	299690	293340	289260	263320	269880	314460	361210	360930	355950
(+)	7171.67	7170.40	7168.67	7167.43	7166.15	7165.49	7161.16	7170.01	7178.89	7179.58	7179.05	7178.23
(+)	-13880	-6550	-8800	-6230	-6350	-3250	-20820	+43450	+47600	+3560	-2950	-4540

CAL YR 1996 MAX 376680 MIN 305920 (++) -70760

WTR YR 1997 MAX 366680 MIN 263320 (++) +21240

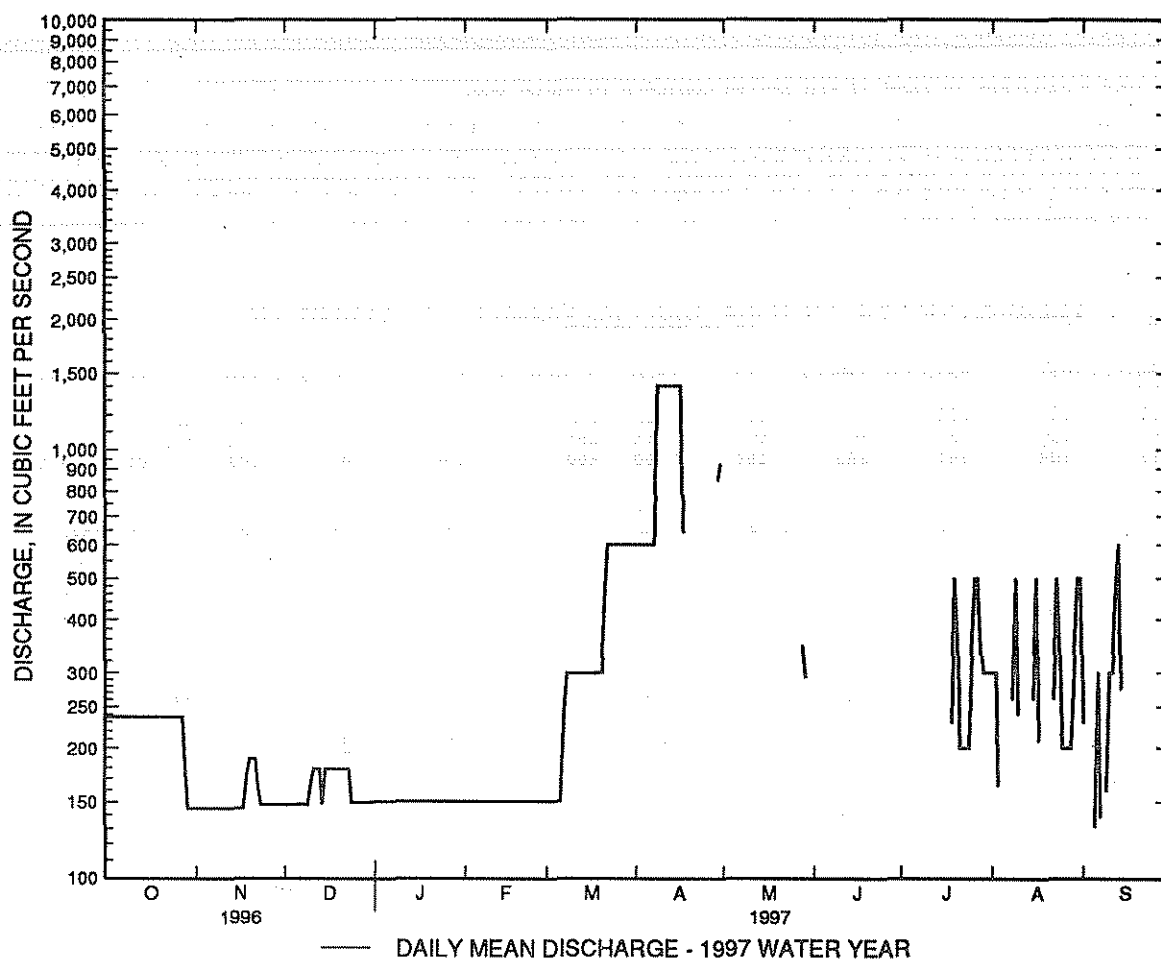
(+) ELEVATION, IN FEET, AT END OF MONTH

(++) CHANGE IN CONTENTS, IN ACRE-FEET

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237	145	148	150	150	150	600	.00	.00	.00	300	229
2	237	145	148	150	150	150	600	.00	.00	.00	300	.00
3	237	145	148	150	150	150	600	.00	.00	.00	163	.00
4	237	145	148	150	150	150	600	.00	.00	.00	.00	.00
5	237	145	148	150	150	150	600	.00	.00	.00	.00	131
6	237	145	148	150	150	150	600	.00	.00	.00	.00	300
7	237	145	148	150	150	240	600	.00	.00	.00	.00	138
8	237	145	148	150	150	300	1400	.00	.00	.00	260	.00
9	237	145	148	150	150	300	1400	.00	.00	.00	500	159
10	237	145	165	150	150	300	1400	.00	.00	.00	240	300
11	237	145	179	150	150	300	1400	.00	.00	.00	.00	300
12	237	145	179	150	150	300	1400	.00	.00	.00	.00	438
13	237	145	179	150	150	300	1400	.00	.00	.00	.00	600
14	237	145	148	150	150	300	1400	.00	.00	.00	.00	275
15	237	145	179	150	150	300	1400	.00	.00	.00	260	.00
16	237	145	179	150	150	300	1400	.00	.00	.00	500	.00
17	237	145	179	150	150	300	642	.00	.00	.00	208	.00
18	237	171	179	150	150	300	.00	.00	.00	229	.00	.00
19	237	189	179	150	150	300	.00	.00	.00	500	.00	.00
20	237	189	179	150	150	300	.00	.00	.00	363	.00	.00
21	237	189	179	150	150	450	.00	.00	.00	200	.00	.00
22	237	162	179	150	150	600	.00	.00	.00	200	260	.00
23	237	148	179	150	150	600	.00	.00	.00	200	500	.00
24	237	148	150	150	150	600	.00	.00	.00	200	363	.00
25	237	148	150	150	150	600	.00	.00	.00	338	200	.00
26	237	148	150	150	150	600	.00	.00	.00	500	200	.00
27	237	148	150	150	150	600	.00	.00	.00	500	200	.00
28	180	148	150	150	150	600	.00	347	.00	340	200	.00
29	145	148	150	150	---	600	848	293	.00	300	337	297
30	145	148	150	150	---	600	925	.00	.00	300	500	381
31	145	---	150	150	---	600	---	.00	---	300	500	---
TOTAL	7014	4549	4993	4650	4200	11490	19215.00	640.00	0.00	4470.00	5991.00	3548.00
MEAN	226	152	161	150	150	371	641	20.6	.000	144	193	118
MAX	237	189	179	150	150	600	1400	34.7	.00	500	500	600
MIN	145	145	148	150	150	150	.00	.00	.00	.00	.00	.00
AC-FT	13910	9020	9900	9220	8330	22790	38110	1270	.00	8870	11880	7040
CAL YR 1996	TOTAL	64108.00	MEAN	175	MAX	1400	MIN	.00	AC-FT	127200		
WTR YR 1997	TOTAL	70760.00	MEAN	194	MAX	1400	MIN	.00	AC-FT	140400		

RIO GRANDE BASIN

08284520 WILLOW CREEK BELOW HERON DAM, NM -- Continued



08285000 EL VADO RESERVOIR NEAR TIERRA AMARILLA, NM

LOCATION.--Lat 36°35'39", long 106°44'00", Rio Arriba County, Hydrologic Unit 13020102, Tierra Amarilla Grant, at outlet tower of dam on Rio Chama, at village of El Vado, 12.4 mi southwest of Tierra Amarilla, and at mile 77.7.

DRAINAGE AREA.--873 mi², of which about 100 mi² probably is noncontributing.

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

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

REMARKS.--Reservoir is formed by rockfill dam, steel faced. Storage began in January 1935. Capacity 186,250 acre-ft between gage heights 6,759.0 ft and 6,902.0 ft, top of spillway gate. Dead storage, 1,480 acre-ft below 6,775.0 ft, sill of outlet works. Figures given herein represent total contents. Reservoir is used to impound water for irrigation by Middle Rio Grande Conservancy District and, since December 1972, for storage of contract water from San Juan-Chama Project. Rehabilitation of outlet works, completed in December 1966, increased valve-controlled release from about 1,750 ft³/s to about 6,000 ft³/s.

COOPERATION.--Records provided by Bureau of Reclamation.

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 179,880 acre-ft, June 30, July 1, elevation, 6,900.01 ft; minimum, 42,650 acre-ft, Oct. 27-29, elevation 6,835.20.

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

(Based on survey by Bureau of Reclamation in 1987)

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

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45060	42680	43480	44440	46870	49000	81440	121580	177510	179880	168350	159320
2	44940	42700	43440	44510	46960	49070	83160	121920	178140	179850	167920	158580
3	44830	42730	43390	44610	47000	49130	84830	122200	178210	179720	167640	157550
4	44800	42740	43330	44740	47100	49220	86790	123020	178330	179600	167520	156750
5	44760	42770	43300	44890	47180	49270	88400	123920	178620	179600	167310	155840
6	44680	42770	43340	45000	47230	49340	89760	124170	178740	179470	167190	154680
7	44600	42770	43340	45020	47270	49450	91110	124340	178900	179280	167150	153740
8	44510	42750	43330	45080	47310	50050	93420	125050	178740	179090	167280	152730
9	44410	42740	43380	45130	47360	50520	96550	126460	178210	178810	167220	151870
10	44280	42740	43500	45210	47460	50980	99560	128070	178620	178390	167030	151290
11	44170	42740	43660	45320	47510	51540	102590	130460	179090	177890	167060	150860
12	44040	42730	43770	45410	47580	52150	105530	133040	179180	177170	166970	150370
13	43940	42740	43860	45480	47670	52190	108450	136420	179220	176290	166820	149940
14	43810	42750	43940	45570	47730	53740	111000	140380	179090	175780	166580	149540
15	43710	42800	43990	45660	47770	54560	113450	144700	179090	175470	166150	149370
16	43590	42830	44060	45700	47820	55440	116050	148890	179340	175130	165510	149230
17	43490	42780	44070	45750	47900	56540	117320	153340	179560	174780	165060	148950
18	43380	42830	44040	45820	47990	57520	117680	157280	179660	174410	164930	148660
19	43390	42910	44030	45880	48150	58440	118160	160660	179660	173260	164690	148430
20	43190	42990	44040	45940	48190	59470	119080	164120	179560	172760	164360	148240
21	43110	43100	44070	46030	48300	61090	120010	166820	179410	172290	163970	148920
22	43010	43190	44130	46060	48380	63110	119910	169730	179310	171800	163570	149540
23	42920	43250	44190	46200	48460	65110	119220	171360	179250	171240	163000	149660
24	42830	43290	44170	46270	48570	67110	118640	172140	179280	170680	162550	149660
25	42750	43300	44170	46350	48650	68840	117770	172540	179340	169980	162190	149630
26	42690	43310	44160	46480	48760	70470	117510	172630	179440	169980	161800	149490
27	42650	43360	44190	46550	48860	72330	117390	172850	179560	169080	161500	149320
28	42650	43380	44220	46610	48980	74140	117460	174100	179690	169050	160990	149150
29	42650	43470	44280	46670	---	75970	119370	175350	179820	168870	160510	148660
30	42690	43480	44340	46730	---	77790	121060	176040	179880	168650	160130	147810
31	42680	---	44380	46800	---	80540	---	176730	---	168500	159620	---
MAX	45060	43480	44380	46800	48980	80540	121060	176730	179880	179880	168350	159320
MIN	42650	42680	43300	44440	46870	49000	81440	121580	177510	168500	159620	147810
(+)	6835.22	6835.85	6836.55	6838.39	6840.00	6860.02	6879.21	6899.01	6900.01	6896.36	6893.42	6889.35
(++)	-2480	+800	+900	+2420	+2180	+31560	+40520	+55670	+3150	-11380	-8880	-11810

CAL YR 1996 MAX 159920 MIN 42650 (++) -62230
WTR YR 1997 MAX 179880 MIN 42650 (++) +102650

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

RIO GRANDE BASIN

08285500 RIO CHAMA BELOW EL VADO DAM, NM

LOCATION.--Lat 36°34'48", long 106°43'24", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on left bank 1.5 mi downstream from El Vado Dam, 2.8 mi upstream from Rio Nutrias, 13 mi southwest of Tierra Amarilla, and at mile 76.2.

DRAINAGE AREA.--877 mi², of which about 100 mi² is probably noncontributing.

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

REVISED RECORDS.--WSP 1312: 1914, 1949. WSP 1392: 1949. WDR-NM-90: 1989.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,696.12 ft above National Geodetic Vertical Datum of 1929. Prior to October 1935, at site 1.5 mi upstream at different datum. October 1935 to September 1938 at site 1.1 mi upstream at datum 30.34 ft higher.

REMARKS.--Records good. Flow regulated by El Vado Reservoir (station 08285000) since 1935. Flow affected by release of transmountain water from Heron Reservoir (station 08284510) since May 1971. Diversions for irrigation of about 10,600 acres upstream from station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years (water years 1914-15, 1921-23), 448 ft³/s, 324,600 acre-ft/yr, prior to completion of El Vado Dam. 35 years (water years 1936-70), 373 ft³/s, 270,200 acre-ft/yr, prior to release of transmountain water.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft³/s, May 22, 1920, gage height, 12 ft, site and datum then in use, from rating curve extended above 3,500 ft³/s; no flow Mar. 25, 26, 31, 1955. Maximum discharge since construction of El Vado Dam in 1935, 6,610 ft³/s, May 7, 1985, gage height, 7.08 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4 or 5, 1911, was greater than floods in September 1904 and May 1920, from information by local residents.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	297	179	186	173	167	169	234	681	1570	208	567	568
2	299	179	186	173	167	169	236	555	1610	207	684	483
3	298	179	186	173	167	169	236	535	1660	207	434	590
4	297	179	186	173	167	168	236	536	1500	208	215	593
5	296	179	186	173	167	165	237	1180	1320	208	218	717
6	294	177	186	173	167	165	237	1960	1280	209	213	893
7	291	172	186	173	167	165	237	2540	1330	244	205	741
8	292	171	187	170	167	165	199	2160	1800	279	439	598
9	292	172	172	170	167	165	164	1770	1630	310	688	553
10	292	173	180	170	169	168	165	1450	1010	310	470	497
11	291	173	189	170	170	169	167	1360	886	431	213	503
12	292	173	181	171	170	170	167	1360	943	501	213	640
13	291	173	183	173	170	170	167	1360	943	328	214	807
14	290	173	184	173	170	170	267	1120	862	235	213	565
15	291	184	184	172	170	170	301	817	762	235	501	210
16	291	189	185	171	170	171	311	792	688	235	800	209
17	287	189	184	171	170	172	320	779	652	237	492	211
18	286	187	187	171	171	173	320	1060	651	463	213	212
19	287	186	190	171	171	238	319	1290	650	799	213	214
20	286	185	190	171	170	272	320	1580	650	665	213	217
21	285	188	190	169	170	273	578	1680	622	500	216	217
22	285	188	189	167	170	276	1330	1680	548	500	467	216
23	285	189	190	168	169	277	1590	2080	479	502	741	216
24	285	189	190	167	170	279	1530	2490	421	502	624	217
25	284	189	190	167	170	247	1130	2490	349	634	475	216
26	283	188	192	168	170	228	794	2280	278	768	480	217
27	282	187	180	168	170	229	735	1840	262	653	480	217
28	215	188	173	167	170	229	762	1500	226	483	478	218
29	179	188	173	167	---	230	848	1260	208	486	631	599
30	179	186	173	167	---	232	874	1380	208	488	800	826
31	179	---	172	167	---	233	---	1530	---	479	799	---
TOTAL	8581	5452	5711	5277	4733	6276	15011	45095	25998	12514	13609	13180
MEAN	277	182	184	170	169	202	500	1455	867	404	439	439
MAX	299	189	192	173	171	279	1590	2540	1800	799	800	893
MIN	179	171	172	167	167	165	164	535	208	207	205	209
AC-FT	17020	10810	11330	10470	9390	12450	29770	89450	51570	24820	26990	26140

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

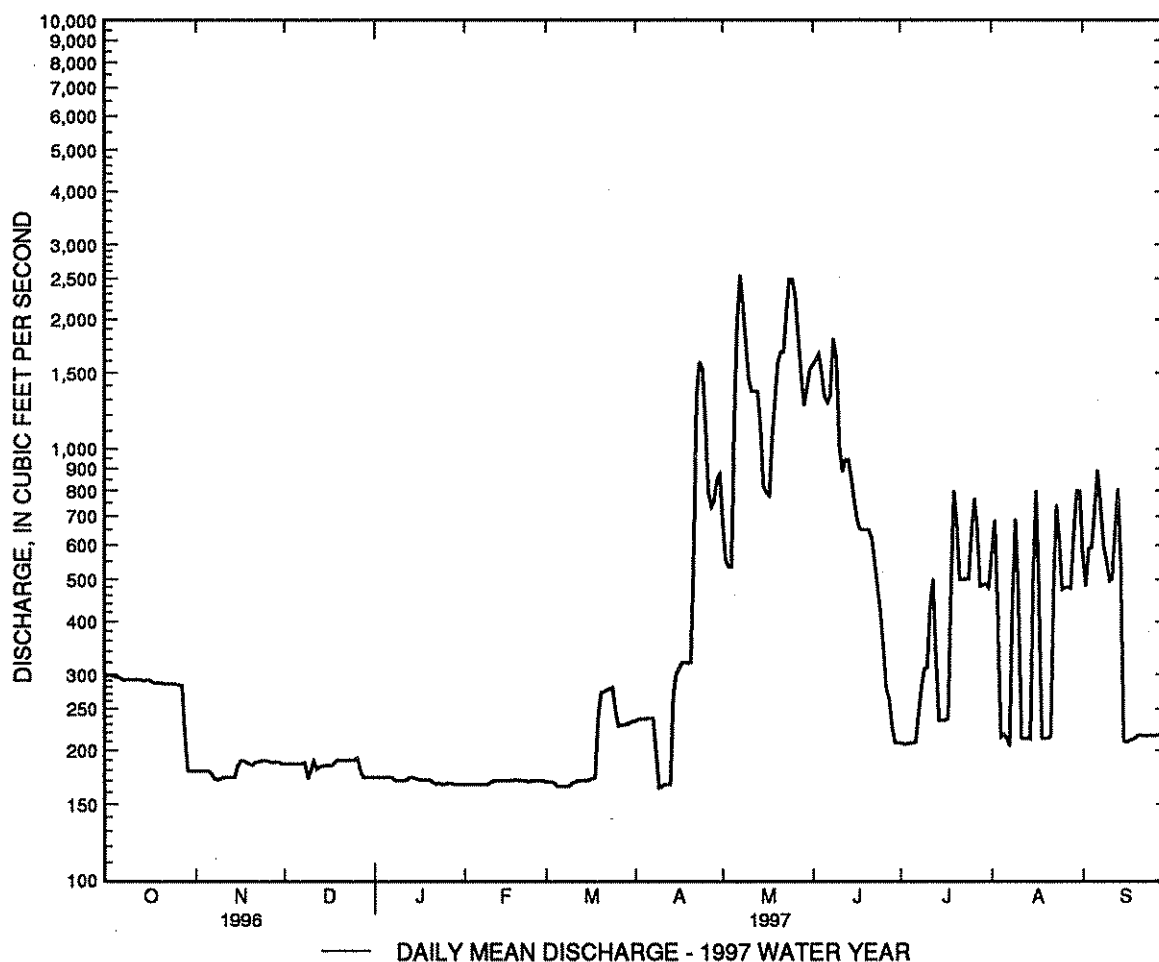
	196	187	298	159	172	305	893	1694	906	395	354	297
MEAN	196	187	298	159	172	305	893	1694	906	395	354	297
MAX	607	646	1272	435	522	962	1887	3412	2342	707	709	692
(WY)	1987	1987	1976	1987	1986	1985	1986	1985	1995	1992	1996	1976
MIN	36.7	43.9	63.2	23.9	17.1	27.8	33.2	262	186	126	54.4	50.6
(WY)	1979	1977	1971	1978	1976	1973	1973	1972	1976	1985	1971	1972

RIO GRANDE BASIN

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08285500 RIO CHAMA BELOW EL VADO DAM, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	148357		161437			
ANNUAL MEAN	405		442			
HIGHEST ANNUAL MEAN					489	
LOWEST ANNUAL MEAN					754	1985
HIGHEST DAILY MEAN	1150	May 10	2540	May 7	194	1972
LOWEST DAILY MEAN	171	Nov 8	164	Apr 9	5790	May 21 1973
ANNUAL SEVEN-DAY MINIMUM	172	Nov 7	166	Mar 4	11	Oct 1 1972
ANNUAL RUNOFF (AC-FT)	294300		320200		16	Oct 14 1974
10 PERCENT EXCEEDS	888		1080		354600	
50 PERCENT EXCEEDS	260		226		1180	
90 PERCENT EXCEEDS	184		169		228	
					45	



RIO GRANDE BASIN

08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, NM

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

DRAINAGE AREA.--1,600 mi², of which about 100 mi² is probably noncontributing.

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

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

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

AVERAGE DISCHARGE.--9 years (water years 1962-70), 358 ft³/s, 259,400 acre-ft/yr, prior to release of transmountain water.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	296	171	184	169	182	195	259	864	1650	181	563	859
2	296	171	183	169	183	193	261	656	1690	185	777	430
3	296	171	183	177	184	196	261	580	1780	186	716	664
4	370	171	186	183	186	206	270	576	1680	189	256	662
5	314	170	191	174	185	197	277	862	1410	192	275	723
6	299	169	187	172	184	192	276	1880	1290	196	291	1010
7	299	169	186	168	184	209	269	2510	1330	215	231	947
8	296	169	186	171	179	252	270	2690	1630	241	261	677
9	296	169	186	169	181	337	192	1990	1900	314	774	658
10	294	168	161	178	178	320	185	1840	1300	312	741	565
11	293	167	193	173	180	328	184	1520	937	365	247	551
12	293	166	199	171	180	341	180	1480	1010	554	226	589
13	293	163	178	176	181	323	178	1480	1020	482	224	899
14	293	162	174	183	182	288	178	1420	980	232	219	883
15	291	162	175	e185	184	239	335	1060	862	230	275	243
16	284	182	178	e183	186	233	305	930	782	230	890	232
17	284	181	178	e187	193	229	338	954	636	230	811	215
18	284	180	176	e187	199	219	337	1100	630	241	234	209
19	282	180	197	e181	e197	212	339	1380	624	881	220	209
20	294	180	207	e183	e199	320	338	1680	625	880	216	236
21	290	180	211	e185	e195	329	494	1910	611	581	216	353
22	287	183	208	e182	197	332	1060	1920	560	576	267	234
23	287	185	194	189	197	338	1710	2170	476	594	835	220
24	287	191	199	186	193	334	1850	2740	416	572	839	214
25	287	186	200	186	204	336	1560	2740	366	582	585	212
26	284	186	204	184	199	271	1100	2530	273	926	556	209
27	286	186	202	184	198	265	840	2160	235	800	667	209
28	292	183	172	182	197	261	830	1750	229	587	536	208
29	188	184	169	183	---	261	871	1390	181	584	581	372
30	176	184	169	184	---	261	943	1430	182	565	899	924
31	172	---	169	183	---	259	---	1590	---	600	966	---
TOTAL	8783	5269	5785	5567	5287	8276	16490	49782	27295	13503	15394	14616
MEAN	283	176	187	180	189	267	550	1606	910	436	497	487
MAX	370	191	211	189	204	341	1850	2740	1900	926	966	1010
MIN	172	162	161	168	178	192	178	576	181	181	216	208
AC-FT	17420	10450	11470	11040	10490	16420	32710	98740	54140	26780	30530	28990

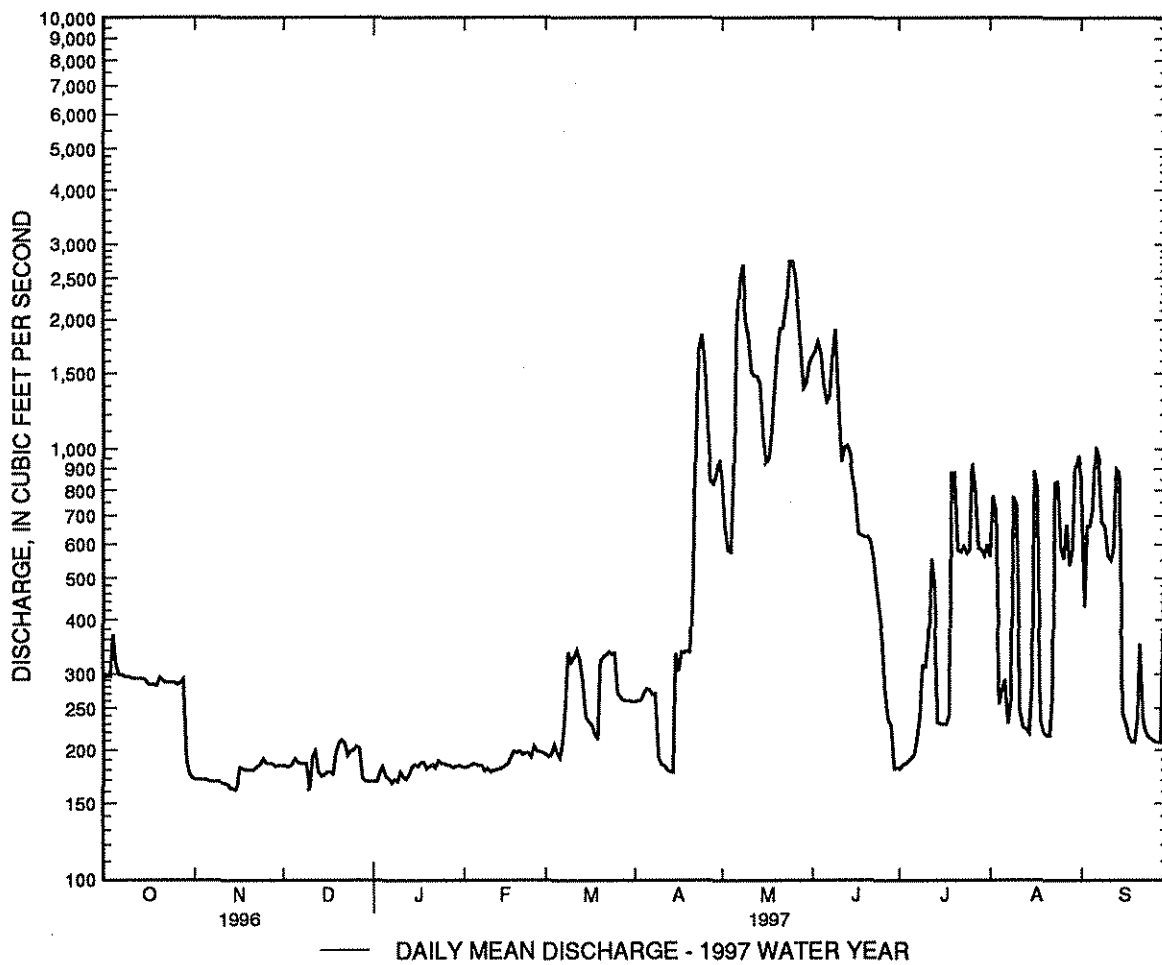
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

MEAN	205	193	305	166	197	352	954	1812	957	407	373	304
MAX	625	676	1273	431	495	1050	1985	3741	2619	707	722	724
(WY)	1987	1987	1976	1987	1987	1985	1985	1984	1995	1992	1996	1976
MIN	40.1	48.4	74.0	29.1	29.7	44.1	106	259	185	132	86.1	77.9
(WY)	1979	1977	1971	1978	1976	1977	1977	1972	1976	1985	1979	1972

08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	150750		176047		520	
ANNUAL MEAN	412		482		823	
HIGHEST ANNUAL MEAN					204	
LOWEST ANNUAL MEAN					1972	
HIGHEST DAILY MEAN	1310	May 11	2740	May 24	6480	May 18 1984
LOWEST DAILY MEAN	161	Dec 10	161	Dec 10	11	Oct 3 1972
ANNUAL SEVEN-DAY MINIMUM	165	Nov 9	165	Nov 9	20	Oct 15 1974
INSTANTANEOUS PEAK FLOW			2880	May 7	6680	May 8 1985
INSTANTANEOUS PEAK STAGE			6.07	May 7	8.70	May 20 1973
INSTANTANEOUS LOW FLOW			109	Dec 18	7.5	Oct 17 1993
ANNUAL RUNOFF (AC-FT)	299000		349200		376900	
10 PERCENT EXCEEDS	986		1100		1260	
50 PERCENT EXCEEDS	257		259		240	
90 PERCENT EXCEEDS	180		178		58	

e Estimated



RIO GRANDE BASIN

08286900 ABIQUIU RESERVOIR NEAR ABIQUIU, NM

LOCATION.--Lat 36°14'24", long 106°25'44", Rio Arriba County, Hydrologic Unit 13020102, in Piedra Lumbre Grant, in operations building at Abiquiu Dam on Rio Chama, 6.6 mi northwest of Abiquiu, and at mile 32.1.

DRAINAGE AREA.--2,146 mi², of which about 100 mi² is probably noncontributing.

PERIOD OF RECORD.--February 1963 to September 1965 (monthend contents only), October 1965 to current year, October 1969 to December 1975, contents at 0800 hours.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Corps of Engineers).

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 193,630 acre-ft, June 9, elevation, 6,221.05 ft; minimum, 140,870 acre-ft, Oct. 20, elevation, 6,207.41 ft.

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

(Based on survey by U.S. Army Corps of Engineers in 1990)

6,200	115,360	6,240	280,470
6,220	189,310	6,250	333,840
6,230	232,160	6,260	392,280

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145110	144450	151630	157860	164310	166230	164650	176040	191610	174620	170410	178780
2	144740	144710	151780	158050	164540	166150	164570	176400	191900	174540	171270	178780
3	144200	144960	151920	158320	164730	166110	164690	176680	192230	174220	171940	178700
4	144010	145110	152110	158590	164920	166110	164770	176950	192390	173750	172250	178660
5	144050	145290	152480	158850	165110	166190	164770	177470	192230	173310	172450	178620
6	144050	145470	152740	159000	165300	166230	164770	178820	191900	172880	172250	178700
7	143870	145690	152890	159160	165500	166230	164770	180940	192110	172530	171940	178740
8	143730	145910	153040	159340	165690	166270	164770	182800	193100	172220	171590	178460
9	143690	146100	153230	159540	165840	166650	164730	184050	193630	171900	172290	177830
10	143180	146310	153420	159760	166070	167040	164610	184740	193060	171740	173390	176990
11	142750	146530	153830	159990	166270	167350	164540	185020	192110	171780	173590	176320
12	142420	146750	153980	160180	166460	167620	164460	185100	190910	171900	173550	176120
13	142090	146970	154130	160450	166570	167690	164420	185140	189880	171900	173430	176040
14	141770	147230	154320	160710	166500	167730	164340	184860	188650	171470	173350	176320
15	141620	147530	154500	160830	166420	167690	164380	184130	187300	170530	173750	175800
16	141260	147780	154690	160980	166340	167690	164310	183160	185750	169400	174420	174700
17	141080	148080	154770	161170	166270	167730	164230	182190	184450	168200	175050	173750
18	141010	148300	154920	161320	166270	167810	164230	181550	183850	167040	175250	172960
19	140940	148410	155070	161520	166420	167890	164190	181430	183720	166530	175170	172490
20	140870	148700	155220	161670	166570	167770	164150	181910	183520	166300	174930	172140
21	140900	149070	155370	161860	166570	167500	164310	182920	183480	166030	174700	171780
22	141010	149330	155520	162050	166460	167270	165340	183930	183440	166070	175010	171390
23	141190	149550	155820	162280	166340	167040	166810	185550	182960	166460	175640	171240
24	141520	149810	156050	162550	166230	166770	168000	187550	182150	166810	176280	171200
25	141950	150070	156240	162810	166340	166730	169590	189590	181190	166770	176710	171200
26	142380	150330	156500	163080	166380	166300	170840	191120	179940	166880	177150	171160
27	142850	150480	156770	163270	166340	165800	172100	191900	178500	167190	177390	171120
28	143320	150620	156990	163460	166270	165610	173200	192060	177070	167770	177390	171040
29	143870	150920	157220	163650	---	165460	174260	191700	175760	168350	177430	171390
30	144090	151250	157490	163880	---	165300	175330	191530	174930	169050	177790	171700
31	144270	---	157710	164110	---	164810	---	191490	---	169710	178300	---
MAX	145110	151250	157710	164110	166570	167890	175330	192060	193630	174620	178300	178780
MIN	140870	144450	151630	157860	164310	164810	164150	176040	174930	166030	170410	171040
(+)	6208.35	6210.25	6211.97	6213.65	6214.21	6213.83	6216.53	6220.53	6216.43	6215.10	6217.28	6215.61
(++)	-1240	+6980	+6460	+6400	+2160	-1460	+10520	+16160	-16560	-5220	+8590	-6600
CAL YR 1996	MAX 218570	MIN 140870	(++) -61080									
WTR YR 1997	MAX 193630	MIN 140870	(++) +26190									

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

RIO GRANDE BASIN

147

08287000 RIO CHAMA BELOW ABIQUIU DAM, NM

LOCATION.--Lat 36°14'12", long 106°24'59", in SE¹/4SE¹/4 sec.8, T.23 N., R.5 E., Rio Arriba County, Hydrologic Unit 13020102, on right bank 0.8 mi downstream from Abiquiu Dam, 5.9 mi northwest of Abiquiu, and at mile 31.3.

DRAINAGE AREA.--2,147 mi², of which about 100 mi² is probably noncontributing.

PERIOD OF RECORD.--October 1961 to current year (monthly discharge only, October 1961).

REVISED RECORDS.--WDR-NM-90: 1989.

GAGE.--Water-stage recorder with satellite telemetry. Concrete control since Jan. 25, 1966. Elevation of gage is 6,040 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 25, 1966, at datum 1.60 ft lower.

REMARKS.--Records good. Flow controlled by El Vado Reservoir (station 08285000) 46.4 mi upstream and Abiquiu Reservoir (station 08286900) 0.8 mi upstream since February 1963. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 54.5 mi upstream. Diversions for irrigation of about 17,600 acres upstream from station. Several observations of water temperature taken during year.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 384 ft³/s, 278,200 acre-ft/yr, prior to release of transmountain water.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	587	68	89	75	88	204	433	548	1800	326	247	494
2	538	68	89	73	90	204	394	548	1730	217	248	486
3	552	69	89	73	89	203	330	585	1710	281	248	591
4	527	71	88	73	89	177	329	607	1710	422	249	593
5	363	68	87	75	88	157	334	792	1710	415	253	674
6	345	67	86	74	88	158	332	1130	1700	432	358	786
7	361	67	88	75	89	160	333	1380	1500	434	422	775
8	412	68	87	75	88	160	340	1540	1400	437	348	808
9	443	71	89	75	90	160	314	1650	1600	435	280	866
10	436	69	89	75	88	161	303	1660	1670	433	277	902
11	428	69	88	75	88	161	285	1660	1690	400	274	847
12	424	68	88	75	88	175	256	1720	1700	397	272	727
13	421	67	89	75	137	221	257	1800	1760	402	273	631
14	418	68	90	77	206	242	294	1800	1760	511	264	536
15	418	67	89	77	208	244	361	1770	1750	690	244	646
16	373	67	86	76	207	242	412	1770	1730	794	266	736
17	316	67	88	84	206	241	459	1770	1610	834	307	665
18	301	76	92	91	208	245	453	1780	1020	885	281	562
19	299	86	93	91	205	244	456	1780	850	924	243	565
20	297	82	93	96	203	383	456	1790	799	895	300	599
21	267	83	92	95	204	506	524	1790	718	731	348	551
22	193	83	94	88	204	513	704	1790	682	534	348	345
23	152	86	91	89	204	514	933	1780	821	345	313	256
24	105	89	81	88	204	515	1050	1770	932	314	320	232
25	68	83	73	88	204	506	854	1770	948	599	349	234
26	68	76	71	88	204	476	499	1750	1010	719	347	234
27	68	79	72	88	204	473	408	1780	1070	666	427	231
28	68	86	73	89	204	456	410	1790	1050	354	475	234
29	68	86	73	89	---	431	448	1780	963	245	551	251
30	68	86	74	90	---	429	495	1800	609	243	598	566
31	68	---	73	89	---	431	---	1810	---	246	607	---
TOTAL	9452	2240	2644	2541	4275	9392	13456	47690	40002	15560	10337	16623
MEAN	305	74.7	85.3	82.0	153	303	449	1538	1333	502	333	554
MAX	587	89	94	96	208	515	1050	1810	1800	924	607	902
MIN	68	67	71	73	88	157	256	548	609	217	243	231
AC-FT	18750	4440	5240	5040	8480	18630	26690	94590	79340	30860	20500	32970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1971	287	1261	1988	44.9	1979
1972	310	1181	1980	45.8	1990
1973	318	1308	1976	43.9	1975
1974	191	860	1986	35.7	1978
1975	252	1708	1987	38.0	1978
1976	433	1668	1987	52.4	1977
1977	903	1894	1985	111	1977
1978	1219	2055	1983	242	1972
1979	1109	2418	1984	184	1976
1980	651	1488	1973	201	1972
1981	464	1084	1973	98.4	1979
1982	411	1199	1987	64.4	1972

RIO GRANDE BASIN

08287000 RIO CHAMA BELOW ABIQUIU DAM, NM -- Continued

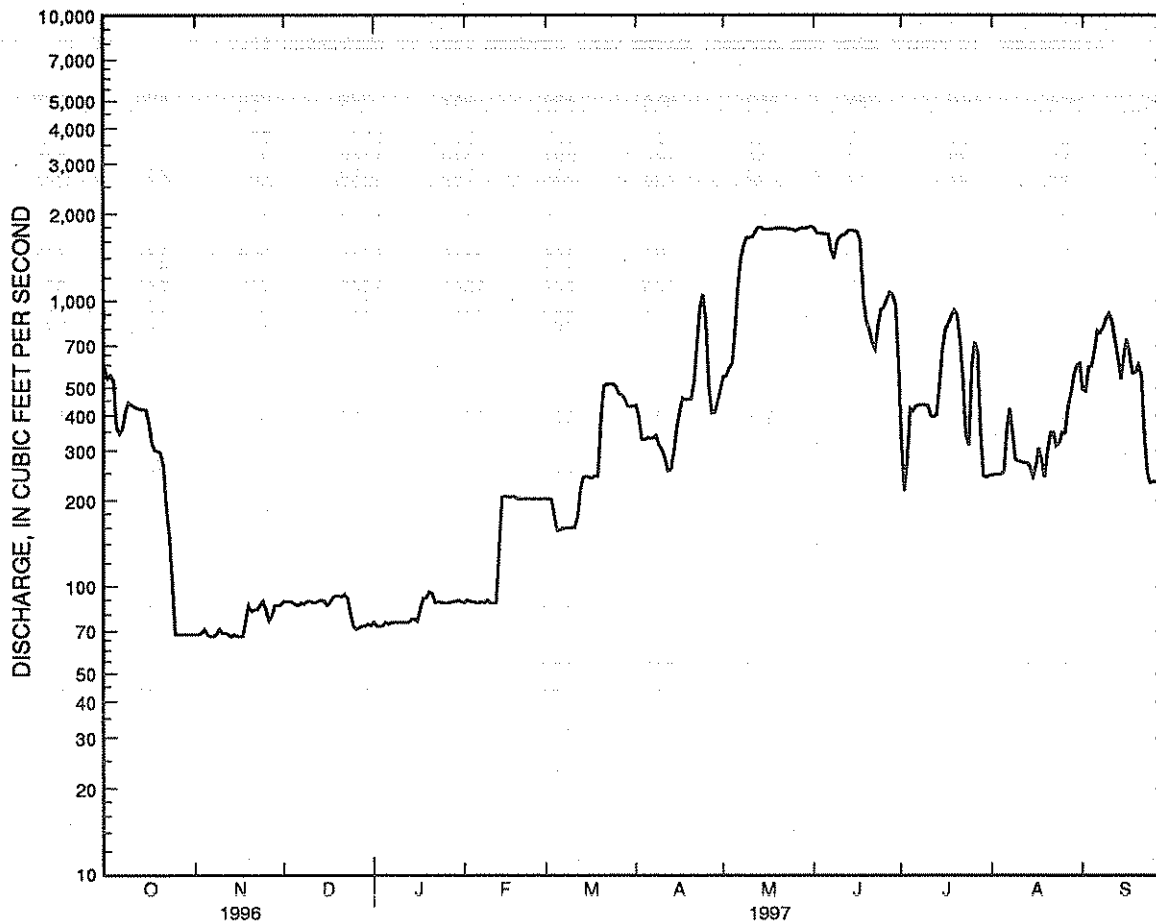
SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1971 - 1997

ANNUAL TOTAL	185367		174212		546	
ANNUAL MEAN	506		477		213	1987
HIGHEST ANNUAL MEAN					872	1972
LOWEST ANNUAL MEAN					213	1972
HIGHEST DAILY MEAN	1480	May 19	1810	May 31	2660	May 15 1985
LOWEST DAILY MEAN	67	Nov 6	67	Nov 6	10	Sep 19 1972
ANNUAL SEVEN-DAY MINIMUM	68	Nov 11	68	Nov 11	21	Sep 30 1972
ANNUAL RUNOFF (AC-FT)	367700		345500		395800	
10 PERCENT EXCEEDS	992		1630		1620	
50 PERCENT EXCEEDS	424		299		318	
90 PERCENT EXCEEDS	83		75		53	



— DAILY MEAN DISCHARGE - 1997 WATER YEAR

LOCATION.--Lat 36°20'59", long 106°02'37", in NW1/4NE1/4 sec.1, T.24 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, on left bank 400 ft upstream from bridge on State Highway 554, 2.4 mi south of La Madera, 2.6 mi downstream from confluence of Rio Vallecitos and Rio Tusas, 3.1 mi north of Ojo Caliente, and at mile 19.9.

REVISÉD RECORDS.--WSP 1712: 1959.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,358.84 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 23, 1934, at site about 2.6 mi upstream at different datum. Apr. 23, 1934 to Apr. 21, 1936, at datum 12.58 ft lower and Apr. 22, 1936 to Oct. 26, 1956, at datum 13.84 ft lower, both at site 1.400 ft downstream.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	20	16	22	28	26	205	321	125	8.2	14	11
2	5.7	18	17	22	28	26	181	255	112	7.8	12	11
3	6.5	18	17	24	29	30	192	219	94	7.4	17	12
4	7.7	19	16	26	27	32	210	307	83	7.1	31	15
5	8.3	19	17	25	27	29	161	499	82	7.3	17	14
6	8.7	19	21	23	29	30	117	586	71	6.6	18	14
7	8.9	18	22	19	24	33	147	672	91	6.3	26	13
8	8.7	16	21	21	23	37	145	599	141	6.2	41	11
9	8.4	17	21	23	25	42	140	545	140	6.2	33	13
10	8.0	17	23	25	25	45	134	680	129	6.3	24	13
11	7.7	16	25	25	25	52	119	564	114	6.6	22	13
12	6.3	16	23	22	25	64	104	568	85	6.7	21	12
13	6.5	17	22	24	27	77	101	569	72	6.5	18	10
14	6.7	17	22	25	24	88	93	513	60	6.4	16	12
15	7.0	19	18	24	24	90	86	453	55	6.2	13	9.8
16	7.0	21	17	24	25	116	101	394	53	5.6	13	8.9
17	7.2	17	17	23	27	150	134	378	60	5.9	14	12
18	7.1	19	14	24	28	161	183	369	51	5.7	18	12
19	7.6	20	15	24	31	153	251	339	43	5.2	16	10
20	8.0	20	15	25	31	182	317	487	36	7.7	16	14
21	9.4	21	17	25	31	233	421	365	31	6.2	15	68
22	9.9	21	20	25	26	258	558	418	26	6.3	13	45
23	10	24	20	25	32	250	461	e386	20	7.4	14	29
24	12	24	18	25	30	255	398	e324	14	5.7	13	22
25	12	21	20	24	29	213	304	e288	13	5.7	12	18
26	12	20	19	27	29	179	262	e254	13	5.7	9.7	17
27	16	21	20	27	28	179	228	e187	12	6.1	13	16
28	18	20	20	27	29	189	281	153	12	7.9	10	15
29	22	22	20	27	---	210	340	138	10	9.9	9.3	14
30	19	21	21	26	---	189	343	133	9.4	9.9	9.2	14
31	19	---	22	26	---	199	---	129	---	13	11	---
TOTAL	307.2	578	596	754	766	3817	6717	12092	1857.4	215.7	529.2	498.7
MEAN	9.91	19.3	19.2	24.3	27.4	123	224	390	61.9	6.96	17.1	16.6
MAX	22	24	25	27	32	258	558	680	141	13	41	68
MIN	5.7	16	14	19	23	26	86	129	9.4	5.2	9.2	8.9
AC-FT	609	1150	1180	1500	1520	7570	13320	23980	3680	428	1050	989

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1997, BY WATER YEAR (WY)

MEAN	14.6	17.8	17.7	18.6	23.3	59.5	286	326	53.1	10.1	14.2	10.9
MAX	57.5	49.2	36.0	33.5	55.5	211	979	1256	298	33.1	68.1	29.8
(WY)	1987	1987	1987	1952	1941	1995	1937	1941	1995	1949	1967	1936
MIN	3.98	8.82	11.2	10.0	12.0	15.5	44.5	9.32	5.09	2.64	3.13	2.30
(WY)	1957	1957	1957	1964	1955	1981	1955	1977	1954	1951	1956	1956

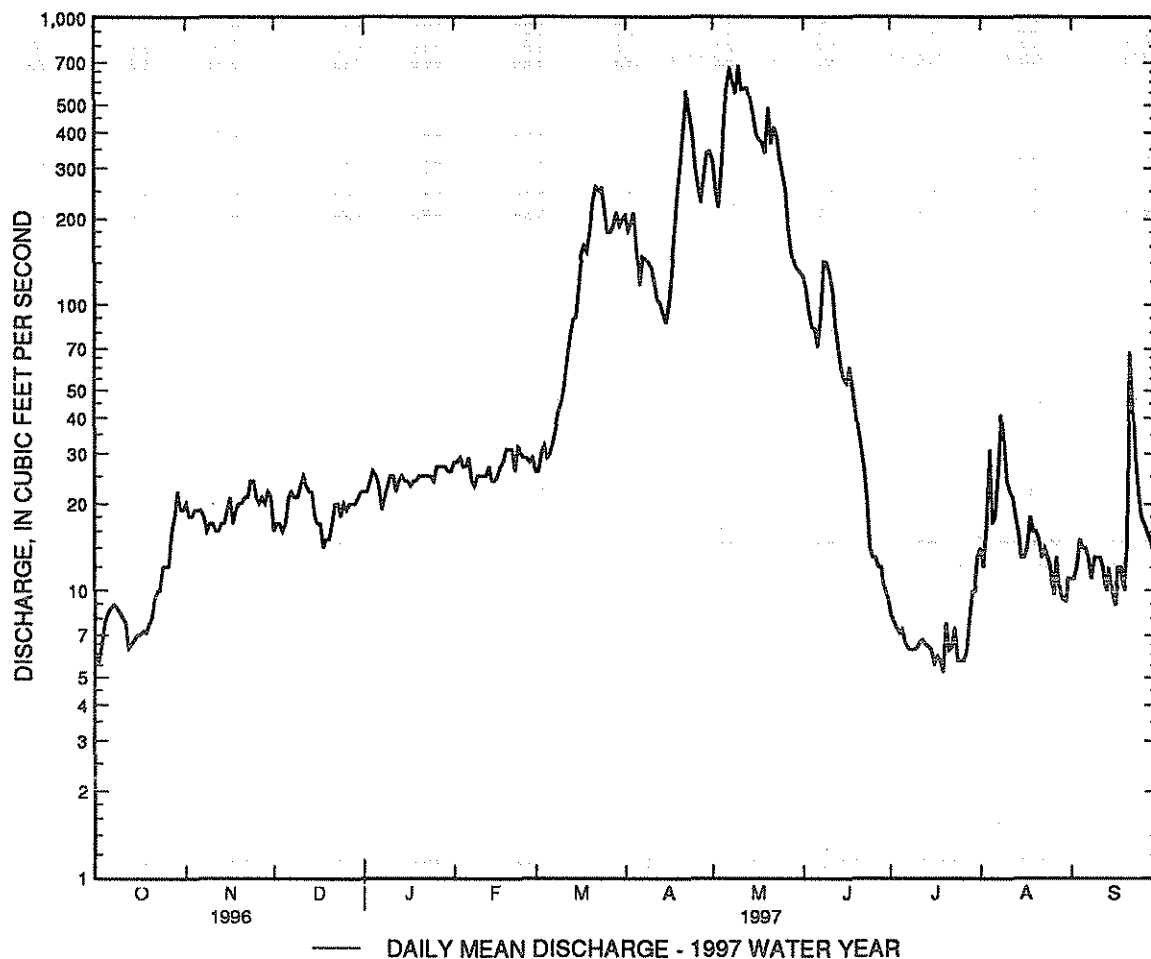
RIO GRANDE BASIN

08289000 RIO OJO CALIENTE AT LA MADERA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1933 - 1997
ANNUAL TOTAL	8683.8	28728.2	
ANNUAL MEAN	23.7	78.7	71.1
HIGHEST ANNUAL MEAN			205
LOWEST ANNUAL MEAN			13.4
HIGHEST DAILY MEAN	218	680	2180
LOWEST DAILY MEAN	4.1	5.2	.60
ANNUAL SEVEN-DAY MINIMUM	4.3	5.9	1.1
INSTANTANEOUS PEAK FLOW		952	3640 ^a
INSTANTANEOUS PEAK STAGE		5.79	8.27
INSTANTANEOUS LOW FLOW		4.5	.20
ANNUAL RUNOFF (AC-FT)	17220	56980	51480
10 PERCENT EXCEEDS	48	254	174
50 PERCENT EXCEEDS	17	22	18
90 PERCENT EXCEEDS	5.4	7.7	5.4

e Estimated

a-From slope-area measurement of peak flow.



LOCATION.--Lat 36°04'26", long 106°06'40", in NE¹/₄NE¹/₄ sec.8, T.21 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, in San Juan Pueblo Grant, near left downstream corner of bridge on U.S. Highway 285, 0.5 mi west of Chamita, 2.5 mi northwest of San Juan Pueblo, and at mile 2.8.

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WSP 1512: 1913-15, 1934, 1936. WSP 1632: 1929(M). WSP 1732: 1931(M). WSP 1923: Drainage area.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diversions upstream from station for irrigation of about 27,600 acres. Chamita ditch (station 08289500), on left bank, and Hernandez ditch (station 08289800), on right bank, bypass gage for irrigation of several hundred acres downstream from station. Flow regulated by El Vado Reservoir (station 08285000) 74.9 mi upstream since January 1935 and Abiquiu Reservoir (station 08286900), 29.3 mi upstream since February 1963. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 83.0 mi upstream. No flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--The floods of Sept. 29, 1904, and Oct. 4 or 5, 1911, probably exceeded 15,000 ft³/s. Another major flood occurred in 1884, from newspaper accounts.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	598	106	167	147	147	291	734	892	1760	427	267	564
2	546	108	165	139	147	287	718	856	1700	172	261	428
3	534	98	163	139	155	287	612	802	1640	121	273	593
4	628	95	172	143	146	284	619	857	1650	306	275	601
5	430	103	173	142	146	228	603	1100	1660	353	359	612
6	376	111	165	143	153	226	525	1530	1690	386	331	768
7	362	111	172	136	145	225	551	2030	1670	402	452	774
8	435	106	165	155	141	226	537	2110	1640	397	424	789
9	498	113	163	143	143	237	523	2250	1700	404	304	885
10	512	112	162	150	152	231	495	2350	1800	392	333	933
11	502	109	165	155	145	252	450	2260	1760	392	317	946
12	499	113	162	e152	142	268	377	2210	1670	347	299	835
13	498	106	163	e151	148	329	363	2370	1700	356	290	740
14	508	126	160	e153	260	374	323	2290	1690	394	282	657
15	509	130	156	e150	293	390	383	2250	1700	571	228	632
16	518	130	156	e151	290	418	442	2170	1700	735	204	795
17	470	126	158	e150	288	460	561	2140	1660	788	271	760
18	433	107	126	e150	292	491	640	2120	1140	842	315	596
19	431	132	e140	e149	291	475	719	2110	866	895	237	549
20	402	165	e141	e150	302	567	775	2250	754	912	222	624
21	395	160	e142	e158	297	844	912	2140	706	777	344	802
22	331	161	e143	e160	288	926	1210	2240	616	637	351	530
23	212	154	e140	e161	295	919	1360	2180	651	418	344	377
24	201	172	e139	165	294	925	1530	2060	817	317	291	278
25	104	165	e132	164	286	921	1380	2160	815	427	349	270
26	83	151	e130	173	290	821	950	2050	862	705	338	258
27	138	137	e131	173	284	793	732	1970	959	831	357	246
28	122	143	e130	162	300	794	733	1910	931	570	453	240
29	123	151	142	162	---	766	794	1810	939	283	499	233
30	124	170	145	158	---	756	848	1790	655	265	603	318
31	108	---	147	151	---	749	---	1760	---	333	624	---
TOTAL	11630	3871	4715	4735	6260	15760	21399	59017	39501	15155	10497	17633
MEAN	375	129	152	153	224	508	713	1904	1317	489	339	588
MAX	628	172	173	173	302	926	1530	2370	1800	912	624	946
MIN	83	95	126	136	141	225	323	802	616	121	204	233
AC-FT	23070	7680	9350	9390	12420	31260	42440	117100	78350	30060	20820	34980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

MEAN	299	335	350	232	293	503	1162	1575	1105	612	445	402
MAX	1273	1224	1291	876	1677	1705	2534	2741	2346	1477	1020	1164
(WY)	1988	1980	1976	1986	1987	1987	1985	1983	1984	1983	1973	1987
MIN	37.3	60.6	77.3	63.5	66.6	85.1	120	204	117	170	95.5	83.1
(WY)	1979	1990	1975	1975	1978	1977	1977	1972	1976	1972	1979	1974

RIO GRANDE BASIN

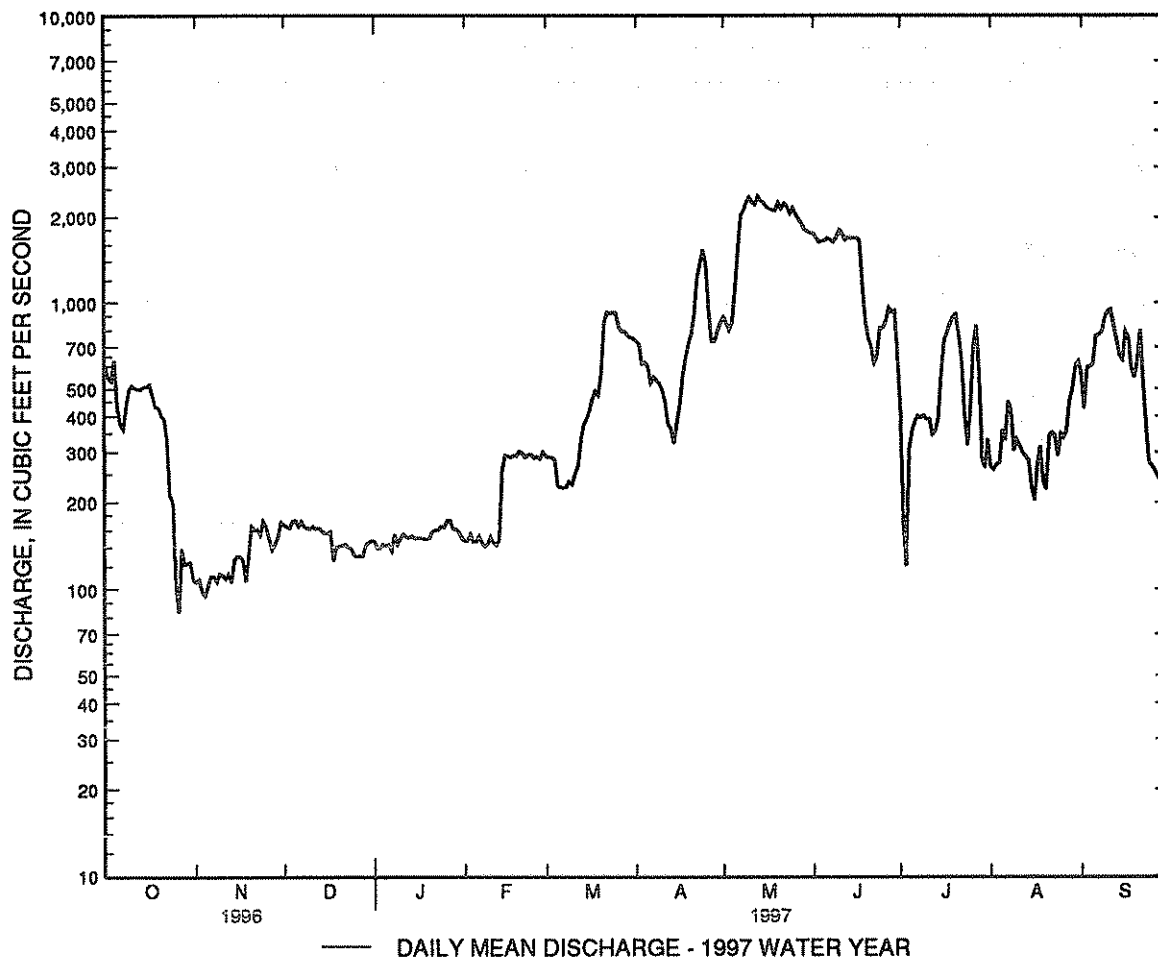
08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	196446		210173		610	
ANNUAL MEAN	537		576		923	
HIGHEST ANNUAL MEAN					234	
LOWEST ANNUAL MEAN					3570	
HIGHEST DAILY MEAN	1230	May 20	2370	May 13	1.2	May 5 1985
LOWEST DAILY MEAN	83	Oct 26	83	Oct 26	1.7	Sep 16 1971
ANNUAL SEVEN-DAY MINIMUM	104	Oct 31	104	Oct 31	15000 ^a	Sep 10 1971
INSTANTANEOUS PEAK FLOW			2710	May 10	11.68 ^b	May 22 1920
INSTANTANEOUS PEAK STAGE			6.38	May 10		Sep 1 1994
INSTANTANEOUS LOW FLOW			83	Oct 26		
ANNUAL RUNOFF (AC-FT)	389700		416900		442100	
10 PERCENT EXCEEDS	901		1670		1720	
50 PERCENT EXCEEDS	514		353		344	
90 PERCENT EXCEEDS	142		139		77	

e Estimated

a-From rating survey extended above 2300 ft³/s.

b-From floodmarks of slope-area measurement of peak flow.



08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

WATER-QUALITY RECORDS

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

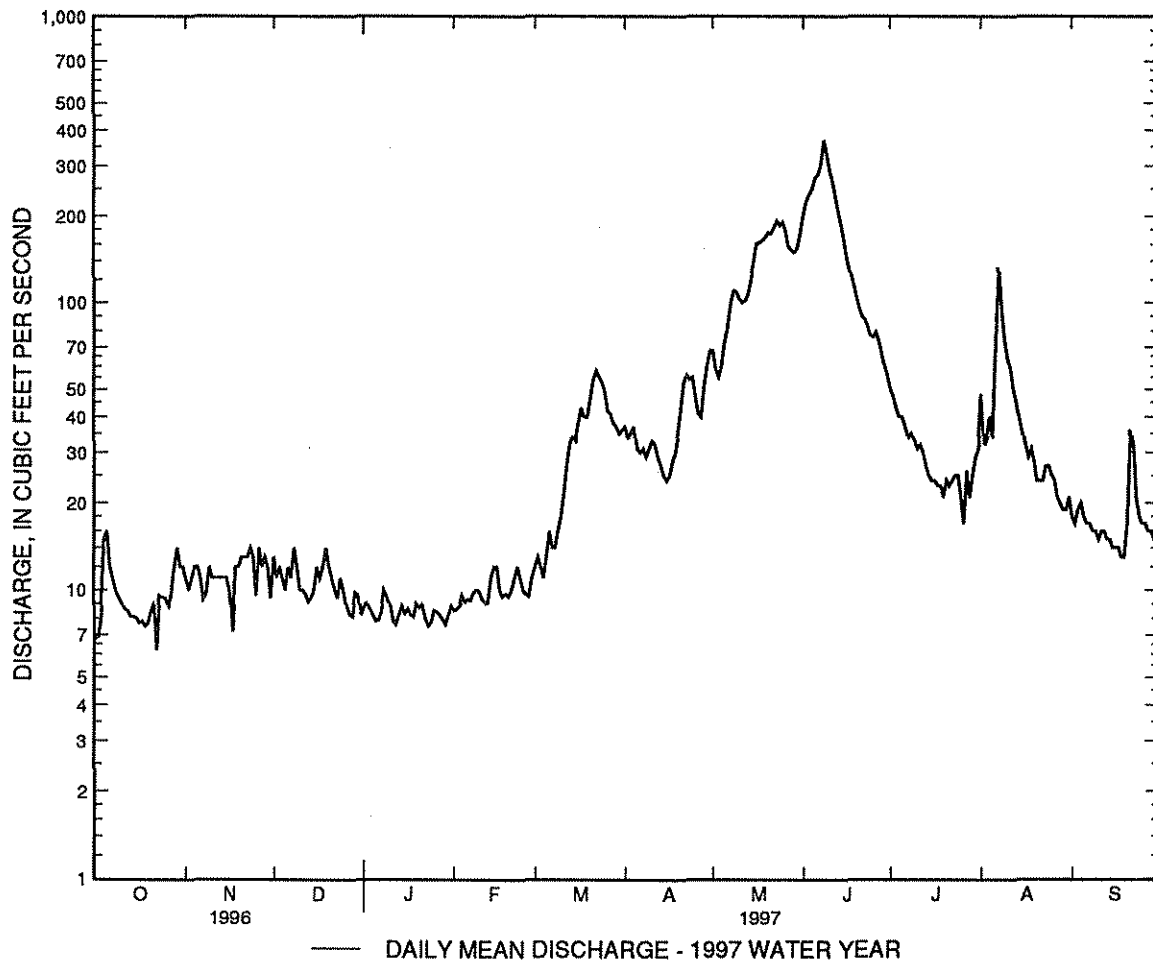
WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
NOV 1996 05...	1115	103	491	8.4	9.5	7.0	620	10.0	102	<10	42
FEB 1997 19...	1045	286	432	8.2	7.5	6.0	624	10.2	100	<10	K18
DATE	TIME	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)
NOV 1996 05...	110	170	20	50	11	33	1	2.9	183	0	
FEB 1997 19...	41	160	52	48	10	26	0.9	2.3	134	0	
DATE	TIME	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, 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)
NOV 1996 05...	150	153	88	12	0.40	17	305	0.020	<0.050	0.020	
FEB 1997 19...	110	119	93	8.1	0.3	15	269	<0.010	<0.050	<0.015	
DATE	TIME	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM- INUM, DIS- SOLVED (MG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIIUM, DIS- SOLVED (UG/L AS BA) (01005)
NOV 1996 05...	<0.20	<0.20	<0.010	<0.010	<0.010	3.7	4.0	<1.0	2	94	
FEB 1997 19...	<0.20	<0.20	0.030	<0.010	<0.010	3.4	4	<1	2	78	
DATE	TIME	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)
NOV 1996 05...	<1.0	76	<1.0	2.0	<1.0	2.0	<3.0	<1.0	21	<0.10	
FEB 1997 19...	<1	52.4	<1	<1	<1	2	<3	<1	8	<0.1	
DATE	TIME	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. * FINER THAN .062 MM (70331)
NOV 1996 05...	2.0	1.0	<1	<1	<1.0	3.0	4.0	54	15	50	
FEB 1997 19...	2	<1	<1	<1	<1	9	3	283	219	15	

08291000 SANTA CRUZ RIVER AT CUNDIYO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1933 - 1997	
ANNUAL TOTAL	4150.8		15593.4		31.7	
ANNUAL MEAN	11.3		42.7		75.2	
HIGHEST ANNUAL MEAN					8.93	
LOWEST ANNUAL MEAN					623	
HIGHEST DAILY MEAN	35	Jun 27	368	Jun 8	Jun 9 1979	
LOWEST DAILY MEAN	3.2	Aug 20	6.2	Oct 22		
ANNUAL SEVEN-DAY MINIMUM	5.3	Aug 14	7.8	Oct 16	2.2 Sep 11 1956	
INSTANTANEOUS PEAK FLOW			400	Jun 8	2420 Sep 24 1931	
INSTANTANEOUS PEAK STAGE			3.46	Jun 8	7.80 Sep 24 1931	
INSTANTANEOUS LOW FLOW			3.4	Oct 1	.19 Mar 13 1954	
ANNUAL RUNOFF (AC-FT)	8230		30930		22960	
10 PERCENT EXCEEDS	18		119		77	
50 PERCENT EXCEEDS	9.9		17		15	
90 PERCENT EXCEEDS	7.0		8.5		7.5	

e Estimated



08294200 NAMBE FALLS RESERVOIR NEAR NAMBE, NM

LOCATION.--Lat 35°50'46", long 105°54'17", in NE¹/4SW¹/4, sec.29, T.19 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, on Nambe Indian Reservation, 300 ft upstream from Nambe Falls, 2.6 mi upstream from Rio En Medio, 4.4 mi southeast of Nambe Pueblo, and 5.4 mi southeast of Nambe.

DRAINAGE AREA.--34.1 mi².

PERIOD OF RECORD.--February 1976 to current year.

REVISED RECORDS.--WDR NM-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to July 22, 1976, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by a concrete arch and earthfill dam, storage began Feb. 23, 1976. Total capacity, 2,020 acre-ft at elevation 6,826.6 ft, crest of ogee weir spillway, including 237 acre-ft of storage in a permanent pool between elevation 6,760.9 ft, invert of outlet conduits, and 6,780.0 ft. Dead storage 121 acre-ft below elevation 6,760.9 ft. Outlet conduits are one 6-in and two 12-in diameter pipes. Reservoir is used for storage of irrigation water and for recreation. Figures given herein represent total storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,060 acre-ft June 9, 1979, elevation, 6,827.24 ft; no storage prior to Feb. 23, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,040 acre-ft, May 29, 31 to June 12, elevation 6,826.83 ft; minimum, 542 acre-ft, Oct. 1, elevation 6,789.03 ft.

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

(Based on survey by Bureau of Reclamation in 1976)

6,780	358	6,815	1,420
6,791	590	6,820	1,660
6,801	870	6,825	1,930
6,810	1,201	6,830	2,230

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	542	791	1100	1350	1560	1730	2020	1880	2040	2030	1530	1880
2	548	798	1110	1360	1560	1740	2020	1890	2040	2030	1550	1860
3	553	808	1120	1370	1570	1740	2020	1890	2040	2030	1580	1830
4	572	817	1130	1380	1570	1750	2020	1900	2040	2030	1610	1800
5	590	828	1140	1380	1580	1750	2020	1910	2040	2030	1650	1780
6	606	839	1150	1390	1590	1760	2020	1930	2040	2030	1720	1750
7	619	850	1160	1400	1590	1770	2020	1960	2040	2030	1810	1720
8	630	860	1170	1400	1600	1770	2020	2000	2040	2030	1870	1700
9	635	870	1180	1410	1610	1780	2020	2030	2040	2030	1910	1670
10	638	881	1190	1420	1610	1790	2020	2030	2040	2030	1940	1640
11	646	891	1200	1420	1620	1800	2010	2030	2040	2020	1960	1610
12	653	901	1210	1430	1620	1810	2000	2030	2040	2020	1980	1590
13	659	911	1220	1440	1630	1820	1980	2030	2030	2000	2000	1560
14	668	921	1230	1440	1640	1840	1960	2030	2030	2000	2010	1530
15	677	932	1230	1450	1640	1850	1950	2030	2030	1940	2020	1500
16	682	942	1240	1460	1650	1860	1940	2030	2040	1900	2030	1470
17	688	951	1240	1460	1650	1880	1920	2030	2040	1850	2030	1440
18	693	963	1250	1470	1660	1900	1900	2030	2040	1800	2020	1410
19	699	973	1250	1470	1670	1910	1890	2040	2040	1760	2020	1380
20	705	984	1260	1480	1670	1930	1880	2040	2040	1720	2020	1350
21	712	996	1270	1490	1680	1950	1880	2040	2040	1670	2020	1340
22	716	1010	1280	1490	1690	1980	1880	2040	2040	1660	2020	1320
23	727	1020	1290	1500	1690	2000	1880	2040	2030	1650	2030	1300
24	733	1030	1300	1510	1700	2020	1880	2040	2030	1650	2020	1300
25	736	1040	1300	1510	1700	2020	1880	2040	2030	1570	2020	1300
26	738	1050	1310	1520	1710	2020	1880	2040	2030	1580	2020	1300
27	738	1060	1320	1530	1720	2020	1880	2030	2030	1560	2010	1300
28	761	1070	1320	1530	1730	2020	1870	2030	2030	1500	1980	1310
29	771	1090	1330	1540	---	2020	1870	2040	2030	1500	1960	1310
30	778	1100	1340	1540	---	2020	1880	2030	e2030	e1500	1930	1300
31	786	---	1340	1550	---	2020	---	2040	---	e1520	1910	---
MAX	786	1100	1340	1550	1730	2020	2020	2040	2040	2030	2030	1880
MIN	542	791	1100	1350	1560	1730	1870	1880	2030	1500	1530	1300
(†)	6798.30	6807.41	6813.31	6817.74	6821.25	6826.59	6824.06	6826.83	---	---	6824.61	6812.40
(††)	+247	+314	+240	+210	+180	+290	-140	+160	-10	-510	+390	-610

CAL YR 1996 MAX 1940 MIN 429 (††) -130
WTR YR 1997 MAX 2040 MIN 542 (††) +761

e Estimated

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

08294210 RIO NAMBE BELOW NAMBE FALLS DAM, NEAR NAMBE, NM

LOCATION.--Lat 35°50'46", long 105°54'17", in NE¹/4SW¹/4 sec.29, T.19 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, on Nambe Indian Reservation, in outlet conduits of Nambe Falls Dam, 300 ft upstream from Nambe Falls, 2.6 mi upstream from Rio En Medio, 4.4 mi southeast of Nambe Pueblo and 5.4 mi southeast of Nambe.

DRAINAGE AREA.--34.1 mi².

PERIOD OF RECORD.--January 1979 to current year.

GAGE.--Water-stage recorder with Satellite telemetry and concrete control. Datum of gage is 6,840 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Nambe Falls Reservoir (station 08294200). Outlet conduits are one 6-in. and two 12-in. diameter pipes. During periods of spill at Nambe Falls Dam, record computed at site 1,100 ft downstream, site of discontinued station 08294300, Rio Nambe at Nambe Falls.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	2.9	.87	.89	.90	.94	11	16	62	27	5.0	22
2	4.1	2.9	.86	.90	.90	.92	12	16	65	26	4.9	22
3	4.7	2.9	.84	.91	.90	.95	7.9	16	62	25	4.9	22
4	3.1	1.8	.85	.90	.89	.94	13	16	65	24	5.0	22
5	1.2	.80	.84	.89	.89	.92	10	16	72	22	5.2	22
6	1.2	.80	.87	.88	.91	.93	8.4	16	68	20	5.4	22
7	1.1	.80	.88	.87	.90	.94	10	16	77	19	3.2	22
8	2.6	.80	.88	.86	.89	.95	9.7	16	77	18	4.7	22
9	3.8	.81	.87	.88	.90	.96	9.6	18	78	17	10	22
10	3.8	.80	.89	.89	.89	.96	11	31	73	17	10	22
11	3.8	.74	.89	.90	.89	.96	14	31	70	17	10	22
12	3.8	.73	.88	.86	.90	.97	15	32	68	16	10	22
13	3.8	.74	.87	.84	.91	.97	15	32	65	16	10	22
14	3.6	.83	.88	.86	.90	.97	15	35	62	28	11	22
15	3.6	.90	.86	.86	.89	.97	15	37	61	38	11	22
16	3.6	.87	.84	.86	.91	.97	16	39	60	37	14	22
17	3.3	.86	.82	.85	.91	.97	16	40	56	37	14	22
18	3.1	.88	.82	.86	.92	.97	16	42	54	37	15	22
19	3.2	.89	.83	.88	.94	.97	16	47	52	37	14	22
20	3.2	.89	.84	.89	.93	.97	16	47	49	38	12	22
21	3.1	.89	.88	.90	.91	.97	16	50	48	21	12	22
22	3.0	.88	.88	.89	.91	.90	16	57	45	17	12	22
23	3.0	.89	.88	.90	.93	.90	16	55	42	20	13	19
24	3.0	.88	.85	.90	.93	4.4	16	54	39	20	13	9.6
25	3.1	.87	.85	.89	.92	13	16	53	38	19	16	7.8
26	3.0	.88	.86	.91	.93	11	16	50	38	19	12	6.8
27	3.0	.87	.88	.91	.93	11	16	49	35	24	19	6.9
28	2.9	.87	.89	.90	.95	10	16	47	32	32	23	6.8
29	2.9	.88	.89	.90	---	9.9	16	48	31	20	23	6.8
30	2.9	.88	.88	.90	---	9.7	16	50	29	12	23	6.7
31	2.9	---	.89	.90	---	10	---	54	---	8.9	23	---
TOTAL	99.4	32.43	26.81	27.43	25.48	100.87	416.6	1126	1673	728.9	368.3	554.4
MEAN	3.21	1.08	.86	.88	.91	3.25	13.9	36.3	55.8	23.5	11.9	18.5
MAX	6.0	2.9	.89	.91	.95	13	16	57	78	38	23	22
MIN	1.1	.73	.82	.84	.89	.90	7.9	16	29	8.9	3.2	6.7
AC-FT	197	64	53	54	51	200	826	2230	3320	1450	731	1100

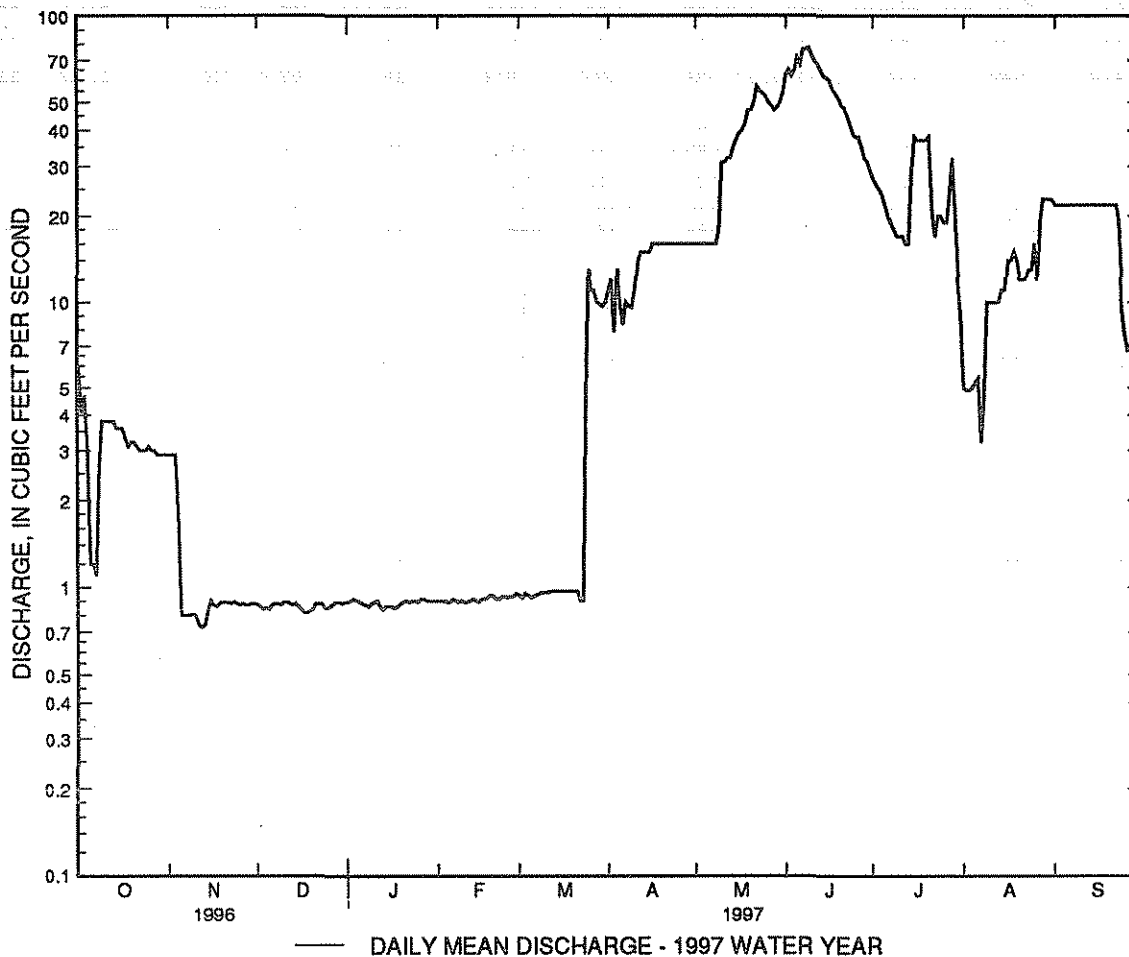
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1997, BY WATER YEAR (WY)

	7.24	4.57	2.55	2.25	2.97	5.90	17.0	40.9	50.9	23.4	16.8	12.0
MEAN	7.24	4.57	2.55	2.25	2.97	5.90	17.0	40.9	50.9	23.4	16.8	12.0
MAX	19.5	11.9	8.70	5.29	7.68	17.4	42.3	85.4	125	48.4	51.9	45.4
(WY)	1989	1987	1987	1992	1995	1985	1985	1985	1979	1983	1983	1988
MIN	2.83	1.08	.45	.45	.45	.49	1.60	9.89	8.76	5.42	2.86	1.47
(WY)	1991	1997	1980	1980	1980	1979	1981	1981	1996	1996	1989	1994

08294210 RIO NAMBE BELOW NAMBE FALLS DAM, NEAR NAMBE, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1979 - 1997
ANNUAL TOTAL	2375.14	5179.62	
ANNUAL MEAN	6.49	14.2	15.0
HIGHEST ANNUAL MEAN			25.7 1985
LOWEST ANNUAL MEAN			5.42 1981
HIGHEST DAILY MEAN	37 Aug 13	78 Jun 9	236 Jun 9 1979
LOWEST DAILY MEAN	.73 Nov 12	.73 Nov 12	.00 Dec 31 1993
ANNUAL SEVEN-DAY MINIMUM	.77 Nov 7	.77 Nov 7	.21 Nov 12 1980
INSTANTANEOUS PEAK FLOW			312 ^a Jun 9 1979
INSTANTANEOUS PEAK STAGE			1.96 Jun 9 1979
INSTANTANEOUS LOW FLOW			.13 May 3 1981
ANNUAL RUNOFF (AC-FT)	4710	10270	10890
10 PERCENT EXCEEDS	20	42	44
50 PERCENT EXCEEDS	4.1	6.0	8.0
90 PERCENT EXCEEDS	.88	.87	.51

a-At site 1,100 ft downstream (maximum release and spill computed at Nambé Falls Dam, 250 ft³/s, June 9, 1979).



RIO GRANDE BASIN

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

LOCATION.--Lat 35°52'29", long 106°08'30", in SW¹/4SW¹/4 sec.18, T.19 N., R.8 E., Santa Fe County, Hydrologic Unit 13020101, on San Ildefonso Pueblo Grant, near right bank on downstream end of pier of former railway bridge, 400 ft downstream from bridge on State Highway 502, 1.8 mi southwest of San Ildefonso Pueblo, 2.5 mi downstream from Pojoaque River, 6.8 mi west of Pojoaque, and at mile 1.614.2.

DRAINAGE AREA.--14,300 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1895 to December 1905, June 1909 to current year. Monthly discharge only for some periods, published in WSP 1312. In early reports this record was published as "at Water Tank," as "at Rio Grande," and as "near Buckman."

REVISED RECORDS.--WSP 828: Drainage area. WSP 1512: 1895-99, 1904-6, 1911-12, 1914, 1931(M), 1935. WSP 1712: 1904(M). WDR-NM-90: 1989.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,488.48 ft above National Geodetic Vertical Datum of 1929. See WSP 1312, 1732, or 1923 for history of changes prior to June 1, 1910.

REMARKS.--Water-discharge records good except for periods of estimated daily discharges, which are poor. Considerable regulation by Heron Reservoir (station 08284510), El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900) on Rio Chama, which can contribute a major portion of the total flow. Flow affected by release of transmountain water from Heron Reservoir since May 1971. Diversions upstream from station for irrigation of about 620,000 acres in Colorado and 75,000 acres in New Mexico.

AVERAGE DISCHARGE.--71 years (water years 1895-1914, 1916, 1920-70), 1,530 ft³/s, 1,108,000 acre-ft/yr. Prior to release of transmountain water.

EXTREMES OUTSIDE PERIOD OF RECORD.--The 1920 flood is greatest since at least 1884 and probably since 1741; information from W. H. Yeo's file on floods.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	800	479	571	734	753	929	1860	1970	4550	2050	994	1260
2	733	490	509	737	763	925	1830	1990	5040	1760	942	1030
3	682	500	443	766	788	933	1700	1900	5440	1680	1090	1210
4	949	561	418	809	798	940	1650	1900	5820	1760	1100	1320
5	722	637	469	834	800	889	1630	2070	6210	1710	1390	1340
6	554	614	496	818	786	872	1440	2540	6570	1600	1580	1430
7	535	589	558	718	784	878	1400	3130	6890	1420	1610	1400
8	608	574	626	507	775	888	1340	3410	6940	1300	1390	1390
9	666	529	635	444	756	892	1290	3790	6570	1450	1280	1450
10	688	539	662	660	760	924	1230	4070	6280	1330	1510	1550
11	682	511	710	718	753	970	1160	4120	5890	1230	1630	1550
12	669	496	767	682	758	1030	1090	4070	5260	1070	1510	1460
13	677	500	760	613	774	1120	1040	4200	4960	1060	1480	1340
14	687	503	770	638	841	1240	1020	4180	4640	1100	1430	1250
15	689	523	745	694	896	1330	1000	4360	4550	1190	1300	1160
16	694	539	672	693	885	1390	1010	4470	4430	1320	1230	1340
17	619	535	558	661	909	1500	1080	4670	4350	1380	1210	1290
18	563	501	e429	664	926	1580	1170	4910	3800	1350	1230	1110
19	562	499	e417	694	959	1660	1230	5210	3370	1440	1130	1020
20	576	556	e484	696	955	1730	1290	5700	3130	1460	1010	1100
21	620	582	e542	724	958	1980	1440	5870	2940	1450	1050	1440
22	591	536	705	728	944	2120	1880	6400	2880	1330	1050	1300
23	487	531	686	730	925	2230	2270	6330	2800	1090	1020	1050
24	463	561	649	722	935	2280	2720	6200	2910	965	912	1330
25	395	546	626	719	960	2290	2840	6320	2830	973	967	1730
26	358	533	640	738	930	2210	2220	5900	2670	1270	963	2090
27	452	528	658	755	953	2160	1820	5240	2680	1350	937	2470
28	461	532	675	763	973	2080	1760	4800	2470	1400	1020	2440
29	511	540	680	758	---	1940	1790	4340	2510	1020	1050	2190
30	521	588	684	749	---	1900	1880	4160	2300	933	1210	1960
31	488	---	693	745	---	1870	---	4280	---	1110	1260	---
TOTAL	18702	16152	18937	21911	23997	45680	47080	132500	131680	41551	37485	44000
MEAN	603	538	611	707	857	1474	1569	4274	4389	1340	1209	1467
MAX	949	637	770	834	973	2290	2840	6400	6940	2050	1630	2470
MIN	358	479	417	444	753	872	1000	1900	2300	933	912	1020
AC-FT	37100	32040	37560	43460	47600	90610	93380	262800	261200	82420	74350	87270

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

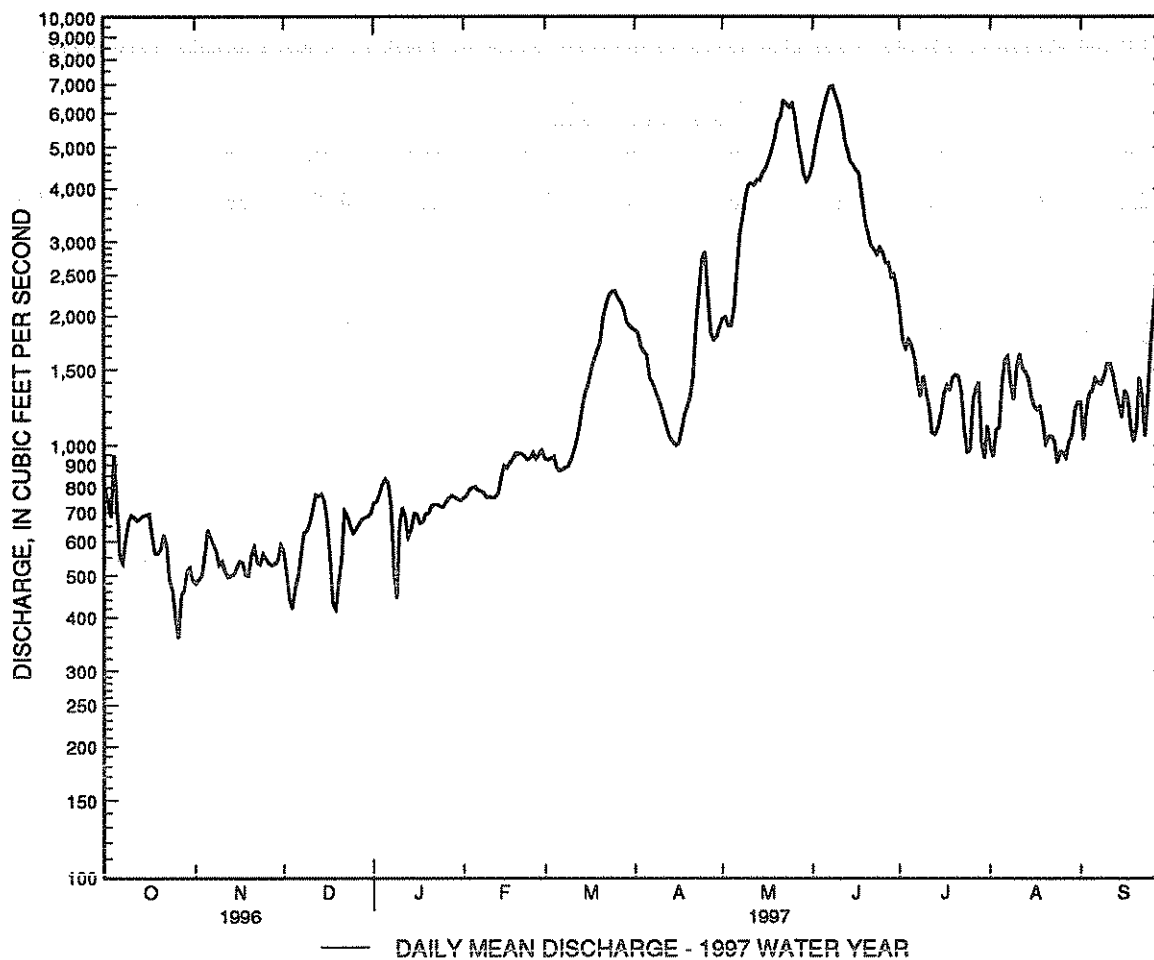
	776	998	958	820	954	1429	2369	3792	3420	1610	953	868
MEAN	776	998	958	820	954	1429	2369	3792	3420	1610	953	868
MAX	1554	2034	1959	1757	2641	3127	6412	8390	7914	4548	1612	1547
(WY)	1988	1987	1976	1986	1987	1987	1985	1985	1979	1995	1973	1982
MIN	361	401	450	436	500	612	489	433	470	394	391	263
(WY)	1975	1978	1975	1977	1978	1977	1977	1972	1972	1972	1972	1974

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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	338446		579675		1580	
ANNUAL MEAN	925		1588		1580	
HIGHEST ANNUAL MEAN					2764	1987
LOWEST ANNUAL MEAN					602	1977
HIGHEST DAILY MEAN	1750	May 20	6940	Jun 8	12000	May 11 1985
LOWEST DAILY MEAN	330	Aug 28	358	Oct 26	195	Aug 4 1977
ANNUAL SEVEN-DAY MINIMUM	447	Oct 23	447	Oct 23	229	Sep 11 1971
INSTANTANEOUS PEAK FLOW			7220	Jun 8	24400	May 23 1920
INSTANTANEOUS PEAK STAGE			7.76	Jun 8	14.50 ^a	Sep 29 1904
INSTANTANEOUS LOW FLOW			265	Dec 20	195	Aug 4 1977
ANNUAL RUNOFF (AC-FT)	671300		1150000		1144000	
10 PERCENT EXCEEDS	1330		4140		3750	
50 PERCENT EXCEEDS	937		1050		997	
90 PERCENT EXCEEDS	510		536		485	

e Estimated

a-Present site and datum.



WATER-QUALITY RECORDS

REMARKS.--Specific conductance values were determined in the laboratory from daily suspended sediment samples collected by pumping sampler.

[illegible]

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

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)
NOV 1996												
06...	0.020	<0.010	<0.010	7.2	--	<0.010	7.0	<1.0	2	72	<1.0	65
FEB 1997												
20...	0.050	<0.010	<0.010	8.9	--	<0.010	7	<1	2	52	<1	33.5
MAY												
20...	--	--	--	--	4.7	--	13	<1	1	44	<1	--
JUN												
10...	--	--	--	--	--	--	46	<1	<1	41	<1	--
AUG												
20...	--	--	--	--	--	--	7	<1	2	52	<1	33.7
SEP												
03...	--	--	--	--	3.2	--	9	<1	1	54	<1	--

DATE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
NOV 1996												
06...	<1.0	2.0	<1.0	<1.0	6.0	<1.0	4.0	<0.10	7.0	<1.0	<1	<1
FEB 1997												
20...	<1	1	<1	2	8	<1	9	<0.1	4	<1	<1	<1
MAY												
20...	<1	2	<1	3	--	<1	9	--	2	2	--	<1
JUN												
10...	<1	<1	<1	3	--	<1	5	--	2	1	<1	<1
AUG												
20...	<1	<1	<1	2	<3	<1	1	--	4	<1	<1	<1
SEP												
03...	<1	<1	<1	2	--	<1	1	--	4	1	--	<1

DATE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT. (MG/KG AS N) (00633)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT. (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)
NOV 1996												
06...	<1.0	3.0	<2.0	4.9	200	330	3	<1	7	<5	8	7700
FEB 1997												
20...	<1	1	--	--	--	--	--	--	--	--	--	--
MAY												
20...	<1	5	--	--	--	--	--	--	--	--	--	--
JUN												
10...	<1	4	--	--	--	--	--	--	--	--	--	--
AUG												
20...	<1	<1	--	--	--	--	--	--	--	--	--	--
SEP												
03...	<1	3	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM 2 SIGMA DISS, (UG/L) (75990)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1996											
06...	10	430	<0.01	30	0.06	0.020	4.4	0.097	125	206	37
FEB 1997											
20...	--	--	--	--	--	--	3	--	183	476	26
MAY											
20...	--	--	--	--	--	--	1	--	--	--	--
JUN											
10...	--	--	--	--	--	--	<1	--	--	--	--
AUG											
20...	--	--	--	--	--	--	2	--	568	1590	16
SEP											
03...	--	--	--	--	--	--	1	--	--	--	--

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

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	366	415	381	339	329	323	271	285	255	---	311	276
2	367	413	399	334	329	327	269	288	241	---	318	280
3	369	408	---	334	328	332	263	296	233	---	303	282
4	350	402	421	323	324	346	265	299	217	---	301	280
5	376	401	409	321	328	342	269	280	211	---	305	277
6	380	400	403	---	324	352	286	283	213	---	301	275
7	380	392	418	---	322	350	298	291	209	---	301	275
8	381	380	399	---	323	338	303	275	214	---	306	278
9	381	377	403	---	326	328	303	277	212	---	307	283
10	386	384	411	344	322	326	310	276	214	---	298	279
11	391	385	394	339	325	321	322	264	229	266	255	279
12	392	387	374	---	329	319	320	260	244	289	258	277
13	388	388	367	---	332	320	329	260	260	303	251	280
14	388	391	352	---	335	315	340	258	262	308	250	274
15	385	390	345	---	342	305	345	259	262	302	256	284
16	385	394	345	---	339	308	354	259	261	288	251	286
17	388	389	---	---	341	298	355	251	257	296	258	285
18	388	400	---	---	339	283	350	265	258	298	258	284
19	394	406	---	325	327	288	344	259	266	302	272	291
20	393	397	---	332	326	278	331	270	266	301	262	295
21	387	391	---	339	327	306	316	235	---	303	271	293
22	---	414	359	336	325	281	306	236	---	303	272	294
23	414	399	389	343	328	270	302	230	---	318	279	300
24	413	394	378	340	325	275	306	229	---	310	284	281
25	408	391	371	335	326	256	290	223	---	314	283	237
26	422	394	363	335	336	257	269	227	---	290	280	194
27	404	397	366	331	332	250	266	236	---	291	284	184
28	429	393	359	337	324	260	275	248	---	296	280	182
29	421	398	353	337	---	261	273	259	---	343	281	176
30	412	386	345	336	---	264	277	270	---	321	279	187
31	411	---	340	330	---	268	---	268	---	310	276	---
MEAN	---	395	---	---	329	302	304	262	---	---	280	265
MAX	---	415	---	---	342	352	355	299	---	---	318	300
MIN	---	377	---	---	322	250	263	223	---	---	250	176

RIO GRANDE BASIN

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

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	431	944	203	262	119	183	574	1140	132	273	189	460
2	693	1370	178	236	130	178	439	872	137	285	200	487
3	369	677	161	217	133	159	286	591	142	304	201	494
4	5150	14200	188	287	135	152	276	604	145	315	164	403
5	6350	12700	253	435	137	174	291	655	140	306	261	599
6	1320	1990	228	379	145	195	316	696	145	307	249	561
7	303	436	180	286	180	272	345	667	169	357	212	487
8	214	356	161	250	209	353	376	513	124	259	256	596
9	518	937	154	221	200	343	411	495	118	237	243	570
10	784	1460	177	258	141	252	433	772	111	224	384	943
11	629	1160	126	174	259	500	368	714	113	224	511	1330
12	520	939	121	162	419	870	383	704	95	190	715	1990
13	403	736	157	212	445	913	419	693	99	203	1450	4470
14	266	492	107	144	367	764	458	790	158	361	1150	3970
15	212	394	106	150	250	502	500	940	278	681	1780	6700
16	298	559	129	188	186	337	546	1020	315	759	1710	6730
17	183	305	162	235	216	325	597	1070	223	551	1560	6700
18	206	313	126	170	274	e342	652	1170	201	507	1820	8280
19	154	234	90	122	346	e471	628	1170	248	654	3330	16000
20	131	204	137	206	438	e502	240	452	239	627	5840	29500
21	133	223	155	233	554	e909	99	194	208	542	9340	54200
22	289	456	237	343	627	1200	118	232	199	509	6980	42800
23	535	699	148	212	348	645	135	270	162	404	2780	17900
24	198	247	183	278	255	449	154	308	163	408	4650	31000
25	143	152	178	262	163	276	164	324	157	402	2250	14900
26	163	158	114	163	135	234	190	388	150	369	3000	19300
27	219	271	96	137	151	269	193	404	176	449	866	5420
28	604	747	97	139	172	314	178	377	180	469	3370	20300
29	468	648	84	122	161	296	144	300	---	---	2740	15400
30	496	697	91	144	177	327	143	294	---	---	1270	6970
31	303	401	---	---	181	339	135	274	---	---	1770	9540
TOTAL	---	45105	---	6627	---	13045	---	19093	---	11176	---	329000

DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1540	8260	5290	30100	727	9300	171	1010	1290	3120	1540	5150
2	1840	9640	3820	21900	791	11300	161	809	935	2040	1340	3520
3	1510	7320	4090	22300	2570	39300	151	723	2540	6650	975	3070
4	720	3380	4990	27300	2860	46400	143	717	2350	6060	916	3210
5	528	2440	5750	34400	1380	24000	134	655	8190	30600	2200	7910
6	650	2610	6850	50200	4030	73900	126	575	21600	104000	1420	5510
7	564	2200	3410	30600	5600	107000	119	472	30000	132000	1560	5890
8	896	3340	6470	64100	9100	175000	112	404	2710	10200	747	2800
9	639	2270	5550	60300	10100	184000	106	429	8860	29800	1000	3960
10	1020	3450	9860	115000	8610	151000	99	367	2170	8890	1140	4830
11	468	1480	10800	126000	5550	91200	85	283	3160	13900	2000	8510
12	341	1000	7590	88200	5070	74600	98	277	9470	38800	2200	8730
13	397	1100	11600	139000	3220	45300	110	308	6360	25700	2660	9560
14	535	1430	8740	104000	590	7770	99	289	1860	7190	742	2420
15	437	1150	7880	97700	391	5030	149	475	6150	20900	1460	4390
16	534	1420	9140	103000	473	5930	249	625	6480	21100	776	2760
17	694	2000	3250	42700	1590	19700	173	644	3370	10700	904	3060
18	370	1170	19200	268000	891	9820	152	552	2280	7450	353	1000
19	629	2140	14600	213000	351	3420	175	683	2110	6110	187	473
20	1250	4520	6180	97600	323	2920	156	618	3460	8930	296	841
21	4410	18300	5850	95900	312	2650	230	898	1420	3830	3520	13500
22	7340	39700	8620	154000	294	2450	161	564	367	983	5580	19000
23	3600	23600	8650	153000	277	2250	134	368	532	1370	1150	3020
24	5290	41900	5790	99900	260	2190	161	377	480	1070	812	2880
25	5560	45700	5030	88600	245	2010	148	349	1510	3700	2270	10700
26	5150	33300	4220	69600	231	1790	158	514	6450	15600	2170	12500
27	2420	12700	2620	38800	217	1690	209	757	3280	7550	2820	19700
28	2110	10600	608	8250	205	1470	1080	3970	1960	5080	5840	40300
29	3600	18500	520	6410	193	1400	2900	7070	2170	5800	1120	6870
30	3690	19900	557	6590	181	1210	1800	3900	2980	9490	2370	13000
31	---	---	1980	24200	---	---	3760	10400	1720	5760	---	---
TOTAL	---	326520	---	2480650	---	1106000	---	40352	---	554373	---	229064
YEAR	5161005											

RIO GRANDE BASIN

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08315500 MCCLURE RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'18", long 105°50'06", in NE¹/4SW¹/4, sec.24, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, at McClure Dam on Santa Fe River, 2.1 mi upstream from Nichols Reservoir, 5.8 mi east of Santa Fe, and at mile 37.1.

DRAINAGE AREA.--17.4 mi².

PERIOD OF RECORD.--September 1929, July to October 1930, April 1931 to June 1946, September 1947 to current year. Prior to October 1947, published in WSP 1312. Prior to October 1965, monthend contents only. Prior to January 1980 at site on outlet tower.

GAGE.--Water-stage recorder. Elevation of gage is 7,790 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1947, nonrecording gages at same site and various datums all referred to the Public Service Co. of New Mexico assumed datum, 165.9 ft lower.

REMARKS.--Reservoir is formed by earthfill dam, completed in 1926, capacity, 561 acre-ft, raised 3 ft in 1935, capacity, 650 acre-ft, and raised 36.5 ft more in 1947, capacity, 2,615 acre-ft at gage height 96.6 ft, crest of concrete spillway. Between October 1947 and May 1953 varying amounts of sandbag bulkheads were placed on crest of spillway to increase capacity. Between May 1953 and December 1971 spillway was equipped with radial gates that opened automatically thereby increasing capacity to over 3,000 acre-ft. Radial gates were removed during 1972, capacity, 2,615 acre-ft. In 1995, modifications to the dam and spillway increased capacity to 3,257 acre-ft. Only the storage of Rio Grande water in excess of 1,061 acre-ft is subject to terms of the Rio Grande Compact. No dead storage. Water is for municipal use of City of Santa Fe.

COOPERATION.--Capacity table and supplementary gage readings, provided by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,280 acre-ft, June 8, 1997, gage height, 86.03 ft; no contents Jan. 25 to May 8, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,280 acre-ft; June 7, elevation, 7,886.08 ft; minimum, 540 acre-ft, Oct. 14, gage height, 7836.41

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

(Based on survey by Public Service Co. of New Mexico in 1995)

7,834	476	7,864	1740
7,844	780	7,874	2380
7,854	1200	7,884	3120

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	566	666	966	1190	1380	1590	2430	2720	3270	3220	2720	e2920
2	564	677	1000	1190	1380	1600	2440	2760	3270	3210	2710	e2900
3	561	690	1010	1200	1390	1610	2440	2790	3270	3200	2700	e2880
4	565	702	1020	1210	1400	1620	2440	2820	3270	3180	2710	e2850
5	566	714	1020	1210	1410	1630	2420	e2850	3270	3170	2740	e2830
6	565	727	1030	1220	1420	1640	2410	e2870	3270	3150	2780	e2810
7	564	738	1040	1230	1420	1650	2390	e2900	3280	3140	2830	e2790
8	562	748	1050	1230	1430	1660	2370	e2920	3270	3120	2860	e2770
9	559	757	1060	1240	1440	1680	2360	e2950	3270	3100	2890	e2740
10	556	766	1060	1240	1440	1700	2350	e2970	3270	3090	2920	e2710
11	553	774	1070	1250	1450	1720	2370	e3000	3270	3070	2940	e2690
12	550	783	1080	1250	1460	1750	2390	e3020	3270	3050	2970	e2670
13	545	793	1080	1260	1460	1780	2410	e3050	3270	3030	2990	e2650
14	540	803	1090	1260	1470	1810	2430	e3070	3260	3010	3010	e2620
15	542	813	1100	1270	1480	1850	2440	e3100	3260	2990	3020	e2600
16	547	823	1100	1270	1480	1880	2440	e3120	3260	2980	3040	e2580
17	551	832	1110	1280	1490	1920	2430	e3150	3260	2960	3050	e2550
18	555	842	1120	1280	1500	1950	2420	e3170	3260	2940	3070	e2530
19	559	853	1120	1280	1500	1990	2420	e3200	3260	2920	3080	e2510
20	564	866	1130	1290	1510	2030	2420	e3220	3260	2900	3090	e2490
21	571	878	1130	1300	1520	2070	2430	e3240	3260	2880	3100	e2460
22	575	892	1140	1300	1530	2130	2450	e3260	3260	2860	3110	e2440
23	580	908	1150	1310	1540	2180	2470	e3270	3260	2850	3110	e2420
24	585	922	1150	1320	1550	2230	2500	3270	3260	2830	3110	e2390
25	590	934	1160	1320	1560	2270	2510	3270	3260	2810	e3080	e2360
26	596	945	1160	1330	1570	2310	2530	3270	3260	2780	e3060	e2330
27	605	956	1170	1340	1580	2330	2550	3270	3250	2760	e3040	e2290
28	616	966	1170	1350	1590	2350	2580	3270	3250	2750	e3010	e2260
29	629	977	1170	1350	---	2370	2620	3260	3240	2740	e2980	e2230
30	641	988	1180	1360	---	2390	2680	3270	3230	2720	e2960	e2200
31	652	---	1180	1370	---	2410	---	3270	---	2730	e2940	---
MAX	652	988	1180	1370	1590	2410	2680	3270	3280	3220	3110	2920
MIN	540	666	966	1190	1380	1590	2350	2720	3230	2720	2700	2200
(+)	7840.20	7849.32	7853.74	7857.43	7861.44	7874.39	7878.14	7885.93	7885.45	7878.77	---	---
(++)	+83	+336	+192	+190	+220	+820	+270	+590	-40	-500	+210	-740

CAL YR 1996 MAX 1930 MIN 485 (++) -720
WTR YR 1997 MAX 3280 MIN 540 (++) +1631

e Estimated

(+) GAGE HEIGHT, IN FEET, AT END OF MONTH (OCT TO DEC), ELEVATION IN FEET, AT END OF MONTH (JAN-SEPT).
(++) CHANGE IN CONTENTS, IN ACRE-FEET

08316000 SANTA FE RIVER NEAR SANTA FE, NM

LOCATION.--Lat 35°41'12", long 105°50'35", in NE¹/4SE¹/4 sec.23, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, on left bank 0.4 mi downstream from McClure Dam, 5.3 mi east of Santa Fe, and at mile 36.6.

DRAINAGE AREA.--18.2 mi².

PERIOD OF RECORD.--June 1910, January 1913 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1953, published as "Santa Fe Creek near Santa Fe."

REVISED RECORDS.--WSP 1512: 1933, 1936-37(M), 1942, drainage area. WSP 1732: 1923, 1925. WDR NM-75-1: 1927.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 7,720 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1312 for history of changes prior to Oct. 1, 1947.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by McClure Reservoir (station 08315500), completed in 1926, raised in 1935 1947, and again in 1989. Several observations of water temperature were made during year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 1,000 ft³/s occurred Aug. 19, 1872, and Sept. 29 or 30, 1904. Without regulation the flood of Sept. 23, 1929, might have exceeded 1,500 ft³/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	.24	e.16	e.22	e.20	.32	4.4	13	49	13	13	17
2	5.2	.26	.15	e.22	e.20	.44	4.6	13	51	13	13	17
3	5.2	.34	e.20	e.20	e.20	.42	13	13	49	13	13	17
4	5.2	.35	e.22	e.20	e.20	.40	19	13	47	13	13	17
5	5.2	.28	e.22	e.18	e.20	.35	19	14	55	13	5.9	17
6	5.2	.27	e.22	e.18	e.20	.32	19	14	48	13	.33	17
7	5.2	.22	e.22	e.18	e.20	.28	19	14	67	13	.36	17
8	5.2	.22	e.22	e.18	e.20	.31	19	14	76	13	.32	17
9	5.2	.22	e.22	e.18	e.20	.38	19	14	64	13	.28	17
10	5.2	e.23	e.22	e.18	e.20	.49	11	15	54	13	.29	17
11	5.2	e.23	e.22	e.19	e.20	.62	.68	15	50	13	.29	17
12	5.2	e.22	e.22	e.19	e.20	.66	.68	15	46	13	.26	17
13	5.2	e.22	e.22	e.19	e.20	.68	.59	15	42	13	.23	17
14	5.2	.16	e.22	e.19	e.20	.60	.59	26	37	13	.16	17
15	2.5	.17	e.22	e.20	e.20	.54	2.1	44	33	13	.17	17
16	.18	.17	e.22	e.20	e.20	.50	8.7	47	30	13	.22	17
17	.16	.14	e.22	e.20	e.20	.50	12	48	25	13	.22	17
18	.16	.14	e.22	e.20	e.20	.50	12	53	22	13	.25	17
19	.16	e.18	e.22	e.20	e.20	.46	12	55	21	13	.22	17
20	.17	e.16	e.22	e.20	e.33	.38	12	51	19	13	.22	16
21	.24	e.16	e.22	e.20	.35	.35	12	54	18	13	.22	17
22	.22	e.16	e.22	e.20	.35	.35	12	55	17	13	2.5	16
23	.17	e.19	e.22	e.20	.35	.35	12	54	15	13	4.6	17
24	.16	e.17	e.22	e.20	.34	.30	12	54	14	13	4.9	17
25	.17	e.16	e.22	e.20	.33	.38	12	51	14	13	11	17
26	.16	e.16	e.22	e.20	.29	.35	12	45	13	13	18	e17
27	.33	e.16	e.22	e.20	.31	2.4	12	41	13	13	17	e17
28	.47	e.16	e.22	e.20	.49	4.4	13	38	13	13	17	e17
29	.62	e.16	e.22	e.20	---	4.4	13	36	13	13	17	e17
30	.49	e.18	e.22	e.20	---	4.4	13	37	13	13	17	e17
31	.37	---	e.22	e.20	---	4.4	---	44	---	13	17	---
TOTAL	79.53	6.08	6.67	6.08	6.94	31.23	331.34	1015	1028	403	187.94	508
MEAN	2.57	.20	.22	.20	.25	1.01	11.0	32.7	34.3	13.0	6.06	16.9
MAX	5.2	.35	.22	.22	.49	4.4	19	55	76	13	18	17
MIN	.16	.14	.15	.18	.20	.28	.59	13	13	13	.16	16
AC-FT	158	12	13	12	14	62	657	2010	2040	799	373	1010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1997, BY WATER YEAR (WY)

	MEAN	2.99	2.55	2.37	2.68	4.86	12.6	23.5	17.8	9.43	8.45	6.83
MAX	22.6	13.5	7.19	6.87	14.2	30.0	68.5	92.9	75.2	56.2	74.0	36.0
(WY)	1942	1942	1959	1970	1916	1916	1915	1941	1921	1919	1921	1929
MIN	.58	.20	.22	.20	.25	.34	.23	.53	.70	1.06	.81	.90
(WY)	1957	1997	1997	1997	1997	1972	1981	1955	1955	1981	1951	1959

RIO GRANDE BASIN

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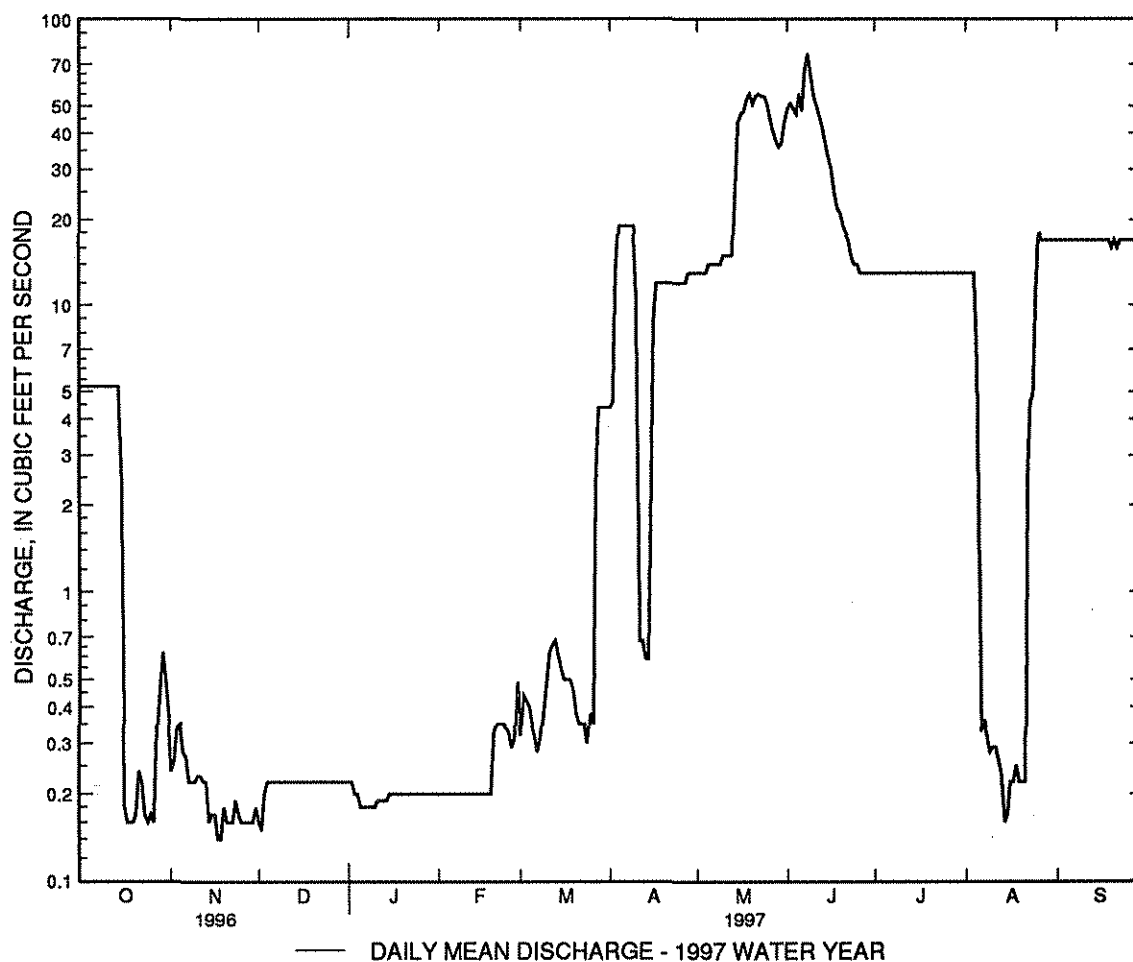
08316000 SANTA FE RIVER NEAR SANTA FE, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1913 - 1997
ANNUAL TOTAL	1602.98	3609.81	
ANNUAL MEAN	4.38	9.89	8.23
HIGHEST ANNUAL MEAN			26.2
LOWEST ANNUAL MEAN			1.88
HIGHEST DAILY MEAN	24 May 4	76 Jun 8	378 Sep 23 1929
LOWEST DAILY MEAN	.14 Nov 17	.14 Nov 17	.10 Feb 7 1927
ANNUAL SEVEN-DAY MINIMUM	.16 Nov 16	.16 Nov 16	.16 Nov 16 1996
INSTANTANEOUS PEAK FLOW		91 Jun 7	1500 ^b Aug 14 1921
INSTANTANEOUS PEAK STAGE		3.16 Jun 7	5.17 ^a Aug 14 1921
INSTANTANEOUS LOW FLOW		.12 Nov 17	.05 Apr 7 1981
ANNUAL RUNOFF (AC-FT)	3180	7160	5960
10 PERCENT EXCEEDS	10	21	19
50 PERCENT EXCEEDS	3.5	2.1	4.2
90 PERCENT EXCEEDS	.22	.19	1.0

e Estimated

a-Site and datum then in use.

b-From rating curve extended above 150 ft³/s.



RIO GRANDE BASIN

08316500 NICHOLS RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'24", long 105°52'46", in SE¹/4NE¹/4 sec.21, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, at Nichols Dam on Santa Fe River, 0.6 mi east of Twomile Reservoir, 3.3 mi east of Santa Fe, and at mile 34.4.

DRAINAGE AREA.--22.8 mi².

PERIOD OF RECORD.--March 1943 to September 1965 (monthend contents only), October 1965 to current year. Prior to January 1980 at site on outlet tower.

GAGE.--Water-stage recorder. Datum of gage is 7,313.2 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam. No contents prior to Mar. 16, 1943. Capacity, 685 acre-ft between gage heights 121.2 ft, bottom of lower operational gate and 167.0 ft, crest of spillway. Dead storage, 14 acre-ft. Water is for municipal use of City of Santa Fe.

COOPERATION.--Survey to compute capacity table and supplementary gage readings, provided by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 836 acre-ft, June 8, 1952, gage height, 171.8 ft; minimum, 16 acre-ft, Feb. 11 to Mar. 10, 1944, Feb. 1-19, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 698 acre-ft, June 7; maximum gage height, 167.42 ft; minimum, 254 acre-ft, Aug. 25, gage height, 148.40

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

(Based on survey by Public Service Co. of New Mexico in 1943)

133	74	150	279
135	89	160	491
140	139	170	776

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	556	584	576	461	461	430	267	524	694	685	674	291
2	554	587	577	462	462	423	256	533	694	681	677	298
3	554	586	577	464	463	415	266	541	694	679	686	305
4	555	583	577	465	464	409	286	549	694	677	689	312
5	564	585	576	467	466	403	320	557	694	675	684	318
6	573	586	571	467	468	396	e343	564	694	673	675	324
7	581	588	566	468	469	390	367	570	698	672	660	330
8	590	589	566	469	470	385	386	577	697	679	641	336
9	592	590	565	470	471	380	406	583	696	680	621	347
10	590	584	560	471	472	374	426	591	694	683	602	353
11	593	585	557	471	473	370	416	598	694	681	581	358
12	601	585	557	472	475	367	407	603	693	679	559	362
13	609	586	549	472	476	368	398	590	691	678	533	366
14	613	587	546	473	477	365	388	596	691	676	504	370
15	608	587	546	473	478	360	376	638	690	676	477	376
16	598	588	545	473	479	355	371	687	689	669	455	383
17	589	588	543	473	480	350	376	694	688	666	426	389
18	589	581	535	474	481	345	380	696	687	662	396	394
19	588	577	528	474	483	339	394	695	686	660	372	399
20	587	e578	521	474	482	333	402	695	683	656	349	405
21	583	e577	514	474	478	328	405	697	683	652	323	416
22	573	577	507	474	473	322	408	695	688	649	298	431
23	573	579	501	475	467	316	413	694	688	646	277	445
24	573	579	494	475	461	308	421	694	687	643	261	458
25	574	580	488	475	455	301	429	693	687	639	254	472
26	575	580	484	476	449	291	439	692	687	635	262	485
27	573	578	483	472	442	285	450	692	687	632	268	498
28	576	575	480	463	437	282	462	691	686	632	274	512
29	579	576	472	459	---	280	485	691	686	650	279	525
30	581	577	465	459	---	277	507	692	686	653	283	534
31	583	---	460	460	---	275	---	693	---	665	285	---
MAX	613	590	577	476	483	430	507	697	698	685	689	534
MIN	554	575	460	459	437	275	256	524	683	632	254	291
(†)	163.42	163.21	158.68	158.68	157.66	149.72	160.59	167.26	167.03	166.33	150.30	161.59
(††)	+24	-6	-117	0	-23	-162	+232	+186	-7	-20	-381	-249

CAL YR 1996 MAX 613 MIN 233 (††) -90
WTR YR 1997 MAX 698 MIN 254 (††) -25

e Estimated

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

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM

LOCATION.--Lat 35°32'49", long 106°13'41", in NW¹/4 sec.8, T.15 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201 in Mesita de Juana Lopez Grant, on right bank at foot of La Bajada Hill, 5.0 mi upstream from Cochiti Dam, 6.3 mi east of Pena Blanca, and at mile 7.9.

DRAINAGE AREA.--231 mi².

WATER-DISCHARGE RECORDS

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

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

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

DISCHARGE MEASUREMENTS, IN CUBIC FEET PER SECOND, OF DITCH, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

Date	Discharge	Date	Discharge
03/27/97	1.19	07/24/97	.37
05/13/97	1.08	08/27/97	.52
06/26/97	.32		

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	11	16	15	13	12	8.8	6.8	34	4.7	14	3.6
2	6.1	11	15	14	13	11	8.6	7.2	38	5.2	13	4.2
3	6.5	12	15	15	13	11	9.4	7.4	37	4.3	12	3.6
4	12	13	14	14	13	10	13	6.8	36	4.0	22	3.9
5	13	12	14	14	13	11	11	6.6	43	3.7	14	4.6
6	8.4	12	15	13	13	11	10	7.1	46	2.9	12	5.0
7	7.3	12	15	13	13	11	9.4	6.7	58	3.3	10	3.8
8	6.4	12	15	13	13	11	8.7	7.0	77	3.2	e9.0	5.1
9	6.1	12	15	15	13	11	7.5	5.9	56	3.7	e9.0	3.7
10	5.5	13	15	15	13	12	8.2	7.5	48	4.4	e9.0	4.3
11	6.0	12	15	15	13	11	8.8	7.7	42	5.2	e7.0	4.5
12	6.6	13	15	17	12	12	9.7	7.5	37	5.1	e7.0	4.2
13	7.0	13	16	e15	13	12	9.6	7.6	33	6.2	e7.0	4.0
14	7.3	12	15	e15	12	11	9.5	6.9	31	5.5	e7.0	4.4
15	7.4	13	15	e14	12	12	8.5	6.5	30	3.1	e5.0	4.7
16	7.5	13	16	13	12	12	8.4	9.6	26	3.0	e5.0	4.1
17	6.3	13	15	14	12	11	7.8	18	23	3.1	e5.0	3.3
18	6.6	13	12	14	12	10	7.7	41	20	2.8	e5.0	3.1
19	7.1	12	15	14	12	11	8.1	46	19	3.8	e5.0	4.0
20	8.3	14	14	17	11	9.6	8.1	48	18	5.8	e5.0	6.4
21	11	14	16	17	10	9.5	7.5	56	16	6.8	e7.0	13
22	8.6	14	17	15	10	9.5	7.2	53	16	6.1	e7.0	10
23	8.0	15	15	15	11	9.2	7.9	49	18	5.8	e7.0	7.9
24	7.6	16	17	15	11	9.0	14	45	13	3.6	e5.0	7.1
25	8.7	16	17	14	11	12	13	47	12	4.2	e5.0	6.0
26	8.9	15	15	16	11	11	8.5	44	8.5	4.8	e4.0	6.0
27	18	15	17	16	11	10	8.2	37	10	6.3	e4.0	5.7
28	15	15	17	15	12	10	8.1	33	8.3	10	4.2	5.5
29	24	15	16	14	---	10	7.4	32	7.0	14	4.0	6.5
30	12	16	16	13	---	9.4	7.0	30	6.0	24	3.6	7.2
31	12	---	16	13	---	8.5	---	30	---	140	3.7	---
TOTAL	281.0	399	476	452	338	330.7	269.6	723.8	866.8	308.6	236.5	159.4
MEAN	9.06	13.3	15.4	14.6	12.1	10.7	8.99	23.3	28.9	9.95	7.63	5.31
MAX	24	16	17	17	13	12	14	56	77	140	22	13
MIN	5.5	11	12	13	10	8.5	7.0	5.9	6.0	2.8	3.6	3.1
AC-FT	557	791	944	897	670	656	535	1440	1720	612	469	316

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1997, BY WATER YEAR (WY)

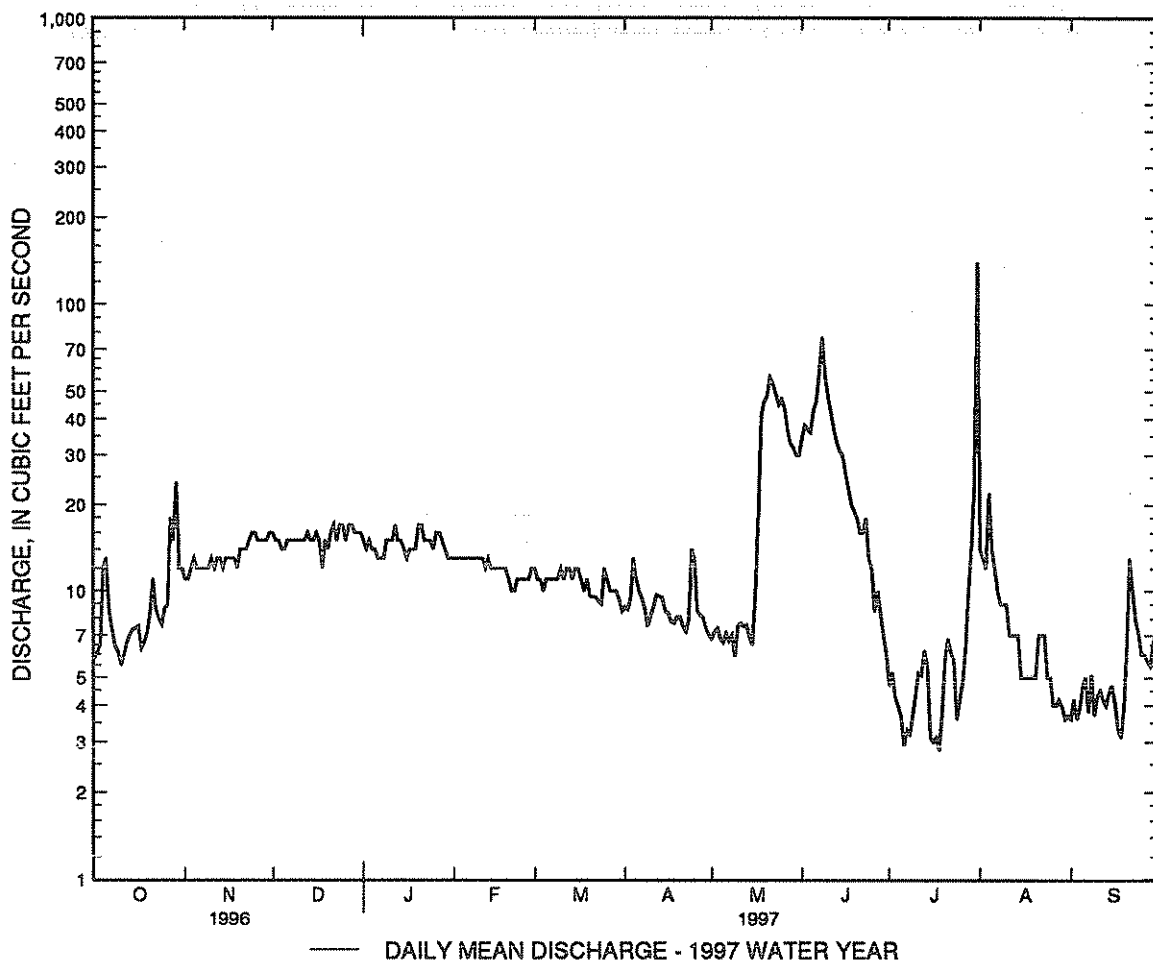
	7.74	9.23	10.3	10.2	10.3	11.0	20.7	18.5	15.2	8.87	7.95	7.74
MEAN	7.74	9.23	10.3	10.2	10.3	11.0	20.7	18.5	15.2	8.87	7.95	7.74
MAX	16.4	15.5	15.4	14.6	16.6	28.6	306	69.3	75.3	28.0	32.8	19.2
(WY)	1986	1995	1997	1997	1992	1992	1992	1973	1979	1971	1991	1990
MIN	3.98	5.53	6.84	6.51	7.18	6.15	3.64	1.60	1.19	2.29	2.14	2.61
(WY)	1980	1980	1971	1971	1971	1971	1971	1970	1971	1980	1971	1970

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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1970 - 1997	
ANNUAL TOTAL	4727.0		4841.4		11.7	
ANNUAL MEAN	12.9		13.3		6.09	
HIGHEST ANNUAL MEAN					40.1	
LOWEST ANNUAL MEAN					1972	
HIGHEST DAILY MEAN	483	Jul 10	140	Jul 31	1000	Apr 17 1992
LOWEST DAILY MEAN	2.9	Jun 11	2.8	Jul 18	.00	Jul 16 1971
ANNUAL SEVEN-DAY MINIMUM	3.4	Jun 7	3.6	Jul 3	.01	Jul 12 1971
INSTANTANEOUS PEAK FLOW			2130	Jul 31	11400 ^a	Jul 26 1971
INSTANTANEOUS PEAK STAGE			5.34	Jul 31	9.58	Jul 26 1971
INSTANTANEOUS LOW FLOW			.87	Jul 18	.00	Jul 16 1971
ANNUAL RUNOFF (AC-FT)	9380		9600		8450	
10 PERCENT EXCEEDS	16		19		16	
50 PERCENT EXCEEDS	9.6		11		8.1	
90 PERCENT EXCEEDS	4.5		4.6		3.0	

e Estimated

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



RIO GRANDE BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-75, 1979, 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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 OF (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
NOV 1996 07...	1200	11	762	8.7	7.5	8.5	628	9.8	102	14	190	
FEB 1997 27...	0900	12	738	8.6	5.5	4.0	617	11.6	110	15	170	
DATE		HARD-NESS NONCARE DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 1996 07...	0	59	9.7	99	3	10	285	13	255	258	56	
FEB 1997 27...	--	52	8.6	93	3	9.5	--	--	--	258	50	
DATE		CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
NOV 1996 07...	56	0.60	28	482	0.810	0.150	0.960	0.220	0.38	0.70	0.60	
FEB 1997 27...	54	0.70	21	454	1.08	0.020	1.10	<0.015	--	0.80	0.50	
DATE		PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
NOV 1996 07...	2.00	2.00	1.90	4.6	7.0	<1.0	5	86	<1.0	238	<1.0	
FEB 1997 27...	1.80	1.80	1.70	5.8	5.0	<1.0	4	89	<1.0	209	<1.0	
DATE		CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	
NOV 1996 07...	3.0	<1.0	6.0	12	2.0	17	<0.10	9.0	3.0	<1		
FEB 1997 27...	4.0	<1.0	6.0	17	1.0	20	<0.10	8.0	3.0	<1		
DATE		SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS. (PCI/L) (76001)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS. (UG/L) (75990)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. * FINER THAN .062 MM (70331)	
NOV 1996 07...	<1	<1.0	38	0.09	0.020	9.4	0.6	21	0.62	51		
FEB 1997 27...	<1	<1.0	39	--	--	13	--	--	--	--		

RIO GRANDE BASIN

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM

LOCATION.--Lat 35°37'01", long 106°18'58", in NW¹/4SW¹/4 sec.16, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, in control tower at Cochiti Dam, 1.7 mi northeast of Cochiti Pueblo, and at mile 1,588.1.

DRAINAGE AREA.--14,900 mi² approximately, including 2,940 mi², in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1973 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 15, 1975, at site 1.3 mi upstream at same datum.

REMARKS.--Lake is formed by an earthfill dam on Rio Grande and Santa Fe River. Storage began on Nov. 12, 1973. Capacity, based on capacity table effective Jan. 1, 1992, 502,330 acre-ft between elevations 5,247.0 ft and 5,450.0 ft, crest of service spillway. Dead storage 560 acre-ft below elevation 5,255.0 ft, invert of outlet structure. Lake was created primarily for flood and sediment control. A 50,000-acre-ft permanent pool is authorized for recreational purposes.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 301,000 acre-ft, July 3, 1986, elevation, 5,417.32 ft; no storage prior to Nov. 12, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 79,790 acre-ft, May 27, elevation, 5,354.23 ft; minimum, 56,030 acre-ft, Dec. 18, elevation, 5,339.84 ft.

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

(Based on survey by Corps of Engineers in 1992)

5,325	39,108	5,365	103,870
5,335	49,770	5,375	130,480
5,345	63,520	5,385	161,300
5,355	81,310	5,395	196,280

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56640	56590	56780	57120	57200	58660	58300	57960	70150	57750	57710	57330
2	56730	56640	56750	57140	57230	58720	58520	57900	69100	57850	57430	57010
3	56530	56750	56500	57170	57290	58830	58410	57730	68220	57900	57340	56780
4	56730	56770	56500	57230	57260	58950	58200	57620	67660	58110	57430	56770
5	56890	56630	56800	57420	57200	58960	58070	57790	67930	58320	57480	56530
6	56680	56420	56920	57410	57260	58950	57790	57930	68910	57990	57370	56360
7	56540	56390	56820	57140	57290	59000	57930	58070	71760	57730	57620	56200
8	56560	56490	56810	56980	57290	59060	57940	58130	75180	57650	57290	56100
9	56610	56520	56840	57000	57240	59120	57820	58380	76980	58090	57170	56100
10	56610	56530	56740	57140	57170	59230	57820	59390	77240	58300	57200	56390
11	56610	56530	56630	57400	57150	59320	58010	60490	76680	58160	57380	56920
12	56610	56410	56610	57000	57260	59270	58300	61480	75010	57780	57260	57520
13	56590	56320	56680	57000	57510	59170	58440	62670	72920	57260	57290	57690
14	56560	56360	56860	57310	57830	59160	58340	63740	70290	56890	57340	57330
15	56540	56590	56980	57450	58320	59130	58180	63960	67460	56600	57260	56950
16	56590	56560	56890	57510	58780	59230	58040	63840	64440	56590	57370	56800
17	56700	56560	56390	57450	59250	59230	58010	64110	62050	56740	57540	57010
18	56640	56490	56030	57420	58470	59150	58070	64910	59880	56910	57290	57220
19	56560	56290	56250	57540	56820	59150	58240	66260	58140	57160	57060	57220
20	56450	56340	56280	57680	56360	59020	58410	68230	57550	57480	57100	57160
21	56590	56500	56450	57720	56610	58890	58130	69800	57230	57850	57220	57960
22	56730	56590	57130	57650	56890	58640	57930	72340	57290	58030	57470	58060
23	56840	56610	57200	57680	57150	58690	57990	74770	57620	58040	57440	57200
24	56890	56670	56850	57480	57340	58890	57870	76600	57660	57620	57090	56910
25	56980	56730	56420	57170	57590	58900	58090	78580	57360	57100	56940	57190
26	56980	56730	56320	57060	57850	58810	58160	79730	57330	57060	57080	56610
27	57100	56730	56480	56980	58100	58790	57500	79790	57850	57120	57160	56380
28	57120	56700	56640	56880	58550	58640	57330	78920	57690	57930	57240	56350
29	56990	56700	56840	56890	---	58280	57760	77240	57480	57990	57160	56570
30	56770	56730	56950	57060	---	57790	57990	74660	57650	57470	57100	56640
31	56500	---	57030	57140	---	57850	---	72110	---	57680	57190	---
MAX	57120	56770	57200	57720	59250	59320	58520	79790	77240	58320	57710	58060
MIN	56450	56290	56030	56880	56360	57790	57330	57620	57230	56590	56940	56100
(+)	5340.18	5340.34	5340.56	5340.64	5341.64	5341.14	5341.24	5350.12	5341.00	5341.02	5340.67	5340.28
(++)	-60	+230	+300	+110	+1410	-700	+140	+14120	+14460	+30	-490	-550

CAL YR 1996 MAX 59570 MIN 56030 (++) +120

WTR YR 1997 MAX 79790 MIN 56030 (++) +80

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

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

WATER-QUALITY RECORDS

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

COCHITI LAKE AT SITE A (Lat 35°38'11", Long 106°19'05")

WATER QUALITY DATA. WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

[illegible]

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	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, DIS- SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
JUL 1997										
21...	---	--	---	--	---	---	---	---	--	---
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21...	5	<1	398	<0.1	3	<1	<1	<1	<1	2
21...	---	--	---	--	---	---	---	---	--	---

[illegible]

RIO GRANDE BASIN

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08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM -- Continued

WATER-QUALITY RECORDS

COCHITI LAKE AT SITE A (Lat 35°38'11", Long 106°19'05")

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUL 1997										
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
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21...	--	--	--	--	--	--	--	--	--	--
21...	100	1300	<0.1	110	0.07	0.02	1	0.03	29	98
21...	--	--	--	--	--	--	--	--	--	--

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	CHLOR- PYRIFOS TOTAL RECOVER (UG/L) (38932)	DISUL- FOTON UNFILT RECOVER (UG/L) (39011)	PHORATE TOTAL (UG/L) (39023)	PER- THANE TOTAL (UG/L) (39034)	DEF TOTAL (UG/L) (39040)	PCNS UNFILT RECOVER (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	LINDANE TOTAL (UG/L) (39340)	CHLOR- DANE, TECH- NICAL TOTAL (UG/L) (39350)	P, P'- DDD UNFILT RECOVER (UG/L) (39360)	
JUL 1997 21...	1100	<0.01	<0.01	<0.01	<0.1	<0.01	<0.1	<0.01	<0.01	<0.1	<0.01	
DATE		P, P'- DDE, TOTAL (UG/L) (39365)	P, P'- DDT UNFILT RECOVER (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, I TOTAL (UG/L) (39388)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	TOX- APHENE, TOTAL (UG/L) (39400)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	PCB, TOTAL (UG/L) (39516)
JUL 1997 21...		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<1	<0.01	<0.01	<0.01	<0.1
DATE		MALA- THION, TOTAL (UG/L) (39530)	PARA- THION, TOTAL (UG/L) (39540)	DI- AZINON, TOTAL (UG/L) (39570)	METHYL PARA- THION, TOTAL (UG/L) (39600)	2, 4-D, TOTAL (UG/L) (39730)	2, 4, 5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)	TOTAL TRI- THION (UG/L) (39786)	2, 4-DP TOTAL (UG/L) (82183)	FONOFOS (DY- FONATE) WATER WHOLE TOT.REC (UG/L) (82614)
JUL 1997 21...		<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010

RIO GRANDE BASIN

08317400 RIO GRANDE BELOW COCHITI DAM, NM

LOCATION.--Lat 35°37'05", long 106°19'24", in SW¹/₄NE¹/₄ sec.17, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, on right bank 320 ft upstream from bridge on State Highway 22, 700 ft downstream from Cochiti Dam, 1.4 mi northeast of Cochiti Pueblo, and at mile 1,587.6.

DRAINAGE AREA.--14,900 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

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

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,226.08 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to Nov. 14, 1973, at site 2.4 mi downstream at elevation 5,210 ft, from topographic map. Nov. 14, 1973, to Jan. 8, 1976, at site 320 ft downstream at datum 1.79 ft lower.

REMARKS.--Records good. Discharges include flow of Santa Fe River, which is intercepted by Cochiti Dam and released through the combined outlet works. Flow regulated by Cochiti Dam since Nov. 12, 1973. Diversions upstream from station for irrigation of about 620,000 acres in Colorado and about 81,000 acres in New Mexico. Cochiti Eastside Main Canal, on left bank, and Sili Main Canal, on right bank, head at Cochiti Dam and bypass gage for irrigation of about 6,000 acres downstream from station; see tabulation below for monthly and yearly diversion.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 15, 1941, reached a discharge of 23,400 ft³/s at a nearby site upstream from mouth of Santa Fe River. The flood of May 23, 1920, probably exceeded 23,400 ft³/s, and is likely the highest since 1905.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	526	402	503	614	717	832	1420	1760	5680	1820	894	1100
2	520	433	530	646	716	834	1480	1830	5700	1580	884	1120
3	566	433	545	669	737	761	1550	1760	6120	1440	906	1120
4	598	494	394	669	770	730	1550	1700	6370	1390	879	1220
5	530	600	336	669	776	730	1530	1710	6380	1460	921	1320
6	509	616	451	725	737	683	1420	2180	6390	1560	1170	1390
7	441	513	545	765	738	655	1150	2700	5760	1370	1520	1400
8	382	482	545	606	749	656	1160	3160	5460	1090	1400	1390
9	410	479	582	429	748	658	1150	3460	6030	1010	1180	1370
10	433	479	637	543	749	658	1040	3510	6610	1060	1250	1380
11	437	479	660	614	734	713	866	3530	6590	1110	1420	1250
12	445	511	660	614	672	852	798	3550	6550	1080	1420	1150
13	456	480	640	465	623	910	814	3560	6520	1060	1310	1190
14	450	456	614	444	623	985	908	3580	6480	1060	1280	1250
15	441	384	614	557	624	1070	890	4180	6400	1050	1220	1130
16	392	479	689	652	626	1070	883	4480	6350	1050	1010	1070
17	349	479	736	672	626	1220	883	4480	5810	1050	1070	959
18	362	512	513	650	1250	1330	919	4520	5100	1050	1260	872
19	368	536	375	650	1620	1370	951	4570	4190	1040	1090	881
20	368	471	382	650	1090	1500	1010	4780	3370	1040	851	878
21	371	435	389	719	775	1730	1340	5180	2990	1030	780	897
22	365	460	389	765	775	1920	1630	5230	2680	976	839	1210
23	347	471	688	759	778	1920	1960	5330	2530	933	917	1330
24	317	471	839	823	778	1920	2650	5350	2690	925	969	1130
25	289	471	807	868	779	2050	2610	5400	2810	920	841	1330
26	289	495	657	785	780	2030	2230	5430	2510	946	773	1450
27	289	471	562	785	783	1970	2100	5440	2300	945	784	2440
28	360	503	562	785	744	1900	1690	5410	2390	873	869	2440
29	456	503	562	729	---	1870	1440	5360	2360	981	942	1800
30	456	503	594	672	---	1860	1580	5620	2090	994	1030	1870
31	482	---	614	696	---	1580	---	5720	---	831	1050	---
TOTAL	13004	14501	17614	20689	22117	38967	41602	124470	143210	34724	32729	39337
MEAN	419	483	568	667	790	1257	1387	4015	4774	1120	1056	1311
MAX	598	616	839	868	1620	2050	2650	5720	6610	1820	1520	2440
MIN	289	384	336	429	623	655	798	1700	2090	831	773	872
AC-FT	25790	28760	34940	41040	43870	77290	82520	246900	284100	68880	64920	78020
(†)	3288	0	0	0	0	3026	3485	4018	3870	3658	3636	3831
(††)	1968	0	0	0	0	2216	2515	2674	2544	2500	2398	2372

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

	545	891	928	844	998	1281	2104	3270	3143	1742	879	696
MEAN												
MAX	1192	1878	1787	2245	3639	2868	6320	6101	6205	5643	3683	1635
(WY)	1987	1987	1987	1986	1986	1986	1985	1984	1983	1979	1986	1986
MIN	214	331	461	428	493	438	281	353	392	293	254	121
(WY)	1975	1990	1978	1977	1978	1977	1977	1972	1972	1972	1972	1974

(†) DIVERSION, IN ACRE-FEET, BY COCHITI EASTSIDE MAIN CANAL AT HEAD

(††) DIVERSION, IN ACRE-FEET, BY SILI MAIN CANAL AT HEAD

RIO GRANDE BASIN

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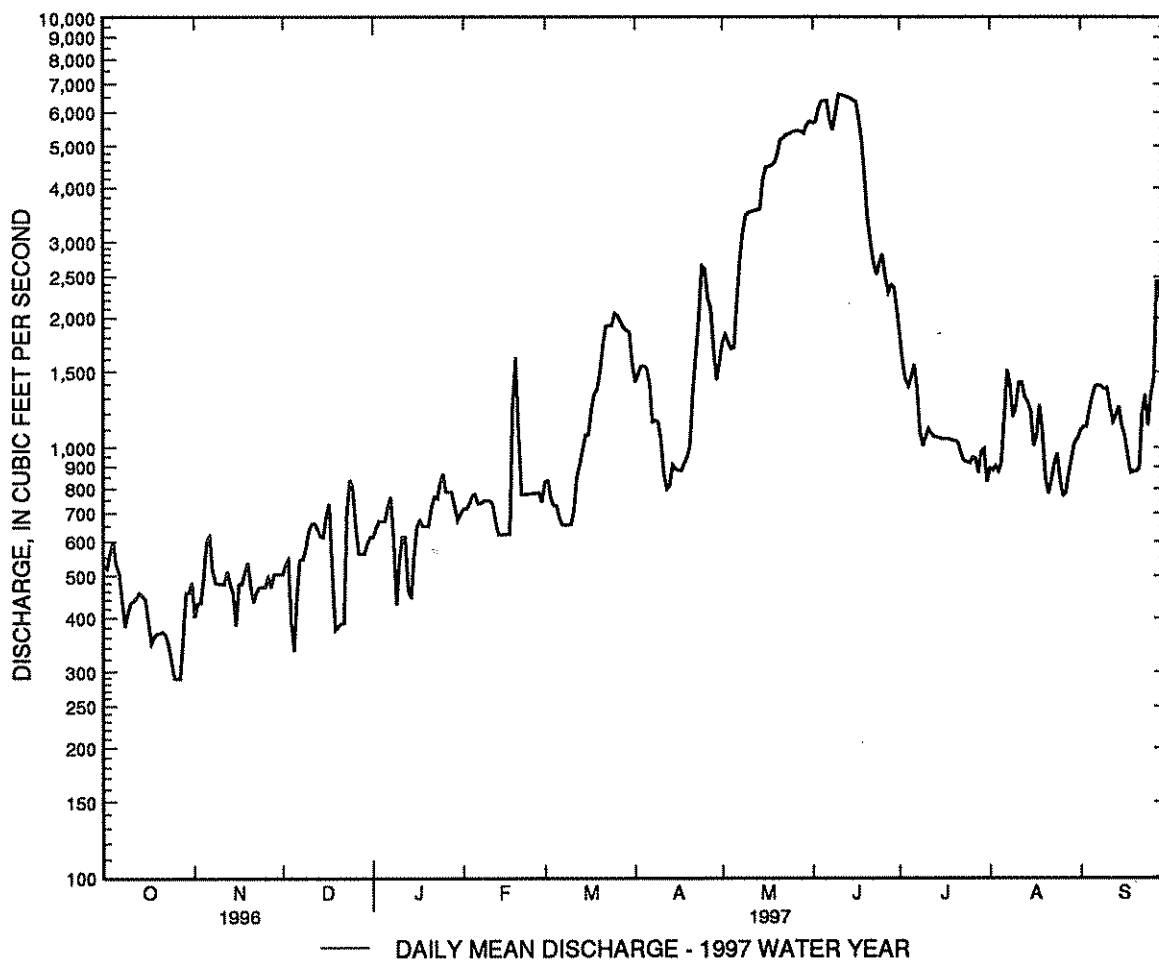
08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	291910		542964		1444	
ANNUAL MEAN	798		1488		2355	
HIGHEST ANNUAL MEAN					452	
LOWEST ANNUAL MEAN					8290	
HIGHEST DAILY MEAN	1530	Feb 22	6610	Jun 10	8290	May 7 1985
LOWEST DAILY MEAN	289	Oct 25	289	Oct 25	.51	Aug 4 1977
ANNUAL SEVEN-DAY MINIMUM	322	Oct 22	322	Oct 22	39	Sep 16 1977
INSTANTANEOUS PEAK FLOW					10300 ^b	Jul 26 1971
INSTANTANEOUS PEAK STAGE					7.90 ^a	Jul 26 1971
INSTANTANEOUS LOW FLOW					.51 ^c	Aug 5 1977
ANNUAL RUNOFF (AC-FT)	579000		1077000		1046000	
10 PERCENT EXCEEDS	1230		3820		3760	
50 PERCENT EXCEEDS	725		906		867	
90 PERCENT EXCEEDS	449		456		365	

a-Site and datum then in use.

b-From rating curve extended above 2,600 ft 3/s.

c-Aug. 3-5, 1977, Aug. 27, 28, 1978, result of regulation.



RIO GRANDE BASIN

08317900 GALISTEO RESERVOIR NEAR CERRILLOS, NM

LOCATION.--Lat 35°27'44", long 106°12'30", in NW¹/₄ sec. 9 T.14 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, at Galisteo Dam on Galisteo Creek, 5.0 mi northwest of Cerrillos, and at mile 11.8.

DRAINAGE AREA.--596 mi².

PERIOD OF RECORDS.--October 1970 to current year.

GAGE.--Water-stage recorder above elevation 5,500.3 ft, nonrecording below. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by an earthfill dam, completed Oct. 11, 1970. Capacity, based on capacity table effective January 1972, 88,990 acre-ft between elevations 5,496.0 ft, sill of ungated outlet conduit, and 5,608.0 ft, crest of uncontrolled spillway. No dead storage. Reservoir is used for flood control. U.S. Army Corps of Engineers satellite telemeter at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,510 acre-ft, July 26, 1971, elevation, 5,517.00; no storage most of time.

EXTREMES FOR CURRENT YEAR.--No storage all year.

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

(Based on survey by U.S. Army Corps of Engineers in 1972)

5,500	0	5,504	41
5,501	2	5,505	69
5,502	9	5,506	109
5,503	21	5,508	244

08317950 GALISTEO CREEK BELOW GALISTEO DAM, NM

LOCATION.--Lat 35°27'53", long 106°12'49", in NE¹/4NE¹/4 sec.8, T.14 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, on right bank 0.4 mi downstream from Galisteo Dam, 5.3 mi northwest of Cerrillos, and at mile 11.4.

DRAINAGE AREA.--597 mi².

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,450 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 21, 1981, at site 1,200 ft downstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Galisteo Reservoir 0.4 mi upstream. Diversions for irrigation of about 50 acres upstream from station. Several observations of water temperature were made during the year. No flow for many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.5	1.0	e.00	6.0	1.1	1.9	3.8	e.00	.00	2.2	1.0
2	.00	1.2	.84	e.00	4.4	.84	1.9	5.8	e.00	.00	1.7	.00
3	.00	.93	.88	e.00	3.3	.75	1.6	4.4	e.00	.00	e.00	.00
4	.45	.94	.64	e.00	3.3	.46	4.8	3.0	e.00	.00	e.00	7.7
5	27	1.0	.68	e.00	1.6	1.1	3.7	1.7	e.00	.00	e.00	.00
6	2.6	.82	1.1	e.00	2.4	2.2	2.1	1.2	e.00	.00	e.00	.00
7	.09	1.0	.69	e.03	3.8	3.2	1.6	e.31	e2.2	.00	e.00	1.2
8	.00	.84	.87	e.05	3.3	3.5	2.9	.00	e12	.00	e.00	.00
9	.00	.90	.88	e.00	3.3	e.75	2.3	.00	e3.1	.00	e.00	.00
10	.00	.76	.95	e.05	2.3	e.06	2.5	.00	e1.9	.94	e.00	60
11	.00	.73	.88	e.17	2.6	e.00	2.5	.00	e.87	1.9	e.00	7.9
12	.00	.85	.90	e.13	1.9	e.00	3.8	.00	e.00	.15	e.00	1.4
13	.00	.95	1.0	e.07	2.9	e.00	2.8	.00	e.00	.00	e.00	1.9
14	.00	.84	.98	e.00	2.5	e.00	2.7	.00	e.00	.00	e.00	7.0
15	.00	.86	.76	e.00	1.1	e.00	3.4	.00	.43	.00	e.00	.00
16	.00	1.2	.98	e.03	2.0	e.00	2.8	3.9	1.7	.00	e.00	.00
17	.00	1.0	.24	e.14	1.9	e.08	1.6	5.7	.00	.00	e.00	.00
18	.00	1.0	.00	e.07	1.9	e.10	1.6	2.1	.00	.00	e.00	.00
19	.00	.80	.00	e.12	2.4	1.1	1.2	.96	.00	.00	e.00	.00
20	.00	.57	.00	e.32	1.3	1.1	e.70	e1.2	.00	.00	.00	.00
21	.00	.64	1.5	e.51	2.0	2.2	e.00	e.61	.00	2.3	3.1	134
22	1.0	.77	2.6	e.42	1.4	2.5	e.00	e.36	.00	.12	.40	18
23	.58	.82	5.7	e.47	2.4	2.1	e.12	e.20	.00	.00	.96	1.9
24	1.5	1.1	7.8	e.13	1.1	1.6	6.0	e.32	.00	.00	639	.00
25	.59	.43	12	e.51	1.9	2.1	8.1	e.24	.00	.00	.43	.00
26	.39	.48	15	e.06	1.5	3.7	8.5	e.09	.00	.00	.00	.00
27	9.1	.65	19	2.3	1.8	2.8	8.5	e.00	.00	.00	.00	.00
28	10	.76	14	3.2	2.0	1.5	7.4	e.00	.00	2.2	.00	.00
29	3.1	.77	16	2.5	---	1.3	7.4	e.00	.00	9.5	.00	.00
30	2.8	1.1	5.0	4.1	---	.77	5.2	e.00	.00	241	59	.00
31	2.4	---	.84	3.6	---	1.7	---	e.00	---	252	84	---
TOTAL	61.60	26.21	113.71	18.98	68.3	38.61	99.62	35.89	22.20	510.11	790.79	242.00
MEAN	1.99	.87	3.67	.61	2.44	1.25	3.32	1.16	.74	16.5	25.5	8.07
MAX	27	1.5	19	4.1	6.0	3.7	8.5	5.8	12	252	639	134
MIN	.00	.43	.00	.00	1.1	.00	.00	.00	.00	.00	.00	.00
AC-FT	122	52	226	38	135	77	198	71	44	1010	1570	480

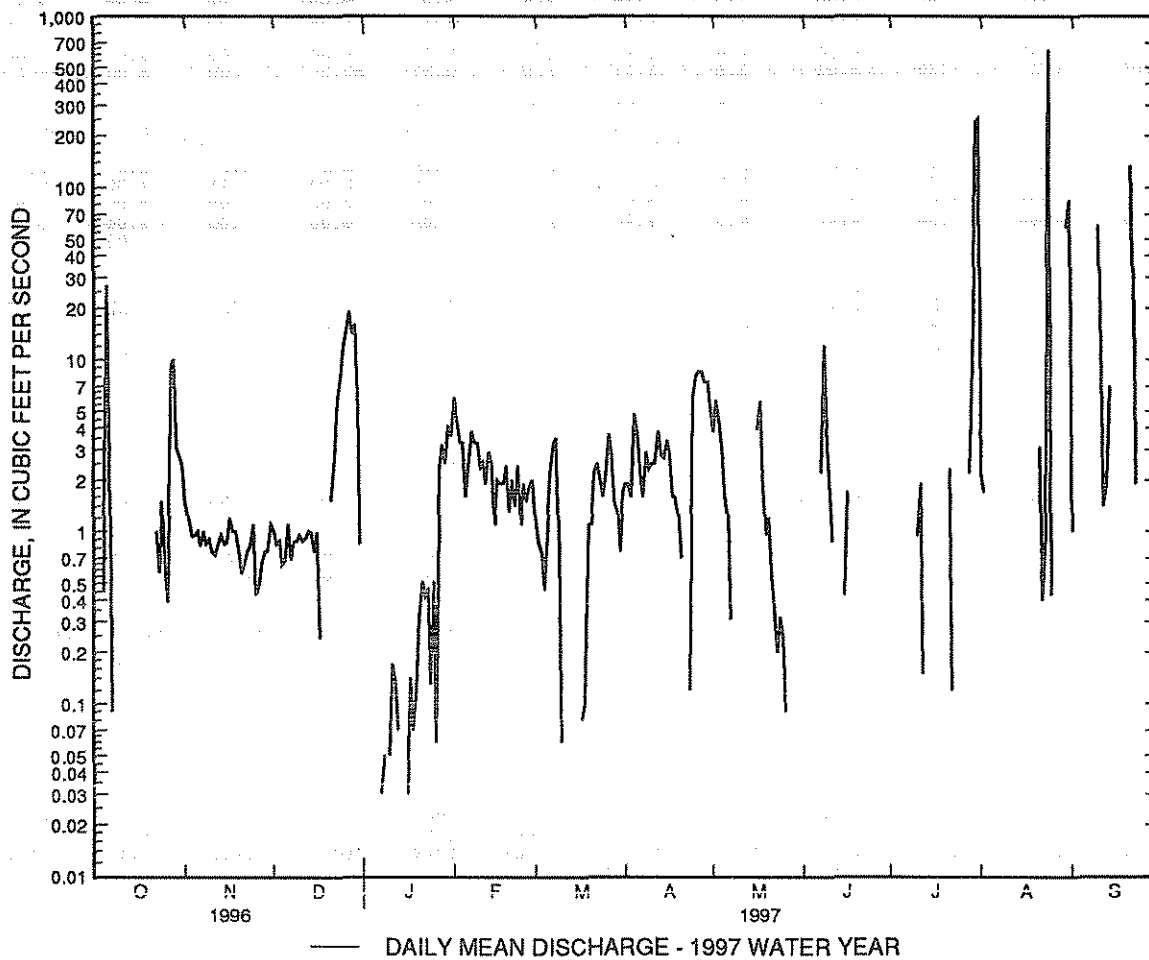
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

MEAN	2.96	2.63	4.65	1.98	1.97	1.16	5.31	7.50	10.7	14.4	44.8	12.7
MAX	3.78	4.39	5.64	3.65	2.44	1.70	14.1	17.3	19.7	16.5	117	16.7
(WY)	1994	1996	1995	1996	1997	1996	1995	1994	1996	1997	1994	1994
MIN	1.99	.87	3.67	.61	1.20	.52	1.89	1.16	.74	13.2	15.5	8.07
(WY)	1997	1997	1997	1997	1995	1995	1996	1997	1997	1996	1995	1997

08317950 GALISTEO CREEK BELOW GALISTEO DAM, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1994 - 1997
ANNUAL TOTAL	2619.86	2028.02	
ANNUAL MEAN	7.16	5.56	5.56
HIGHEST ANNUAL MEAN			5.56 1997
LOWEST ANNUAL MEAN			5.56 1997
HIGHEST DAILY MEAN	179 Jun 28	639 Aug 24	1200 Aug 2 1994
LOWEST DAILY MEAN	.00 Jul 3	.00 Oct 1	.00 Oct 2 1993
ANNUAL SEVEN-DAY MINIMUM	.00 Jul 20	.00 Oct 8	.00 Oct 14 1993
INSTANTANEOUS PEAK FLOW		3460 Aug 24	3460 ^a Aug 24 1997
INSTANTANEOUS PEAK STAGE		5.57 Aug 24	5.57 Aug 24 1997
ANNUAL RUNOFF (AC-FT)	5200	4020	4030
10 PERCENT EXCEEDS	10	4.4	15
50 PERCENT EXCEEDS	1.9	.68	2.4
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 1,400 ft³/s.

RIO GRANDE BASIN

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08319000 RIO GRANDE AT SAN FELIPE, NM

LOCATION.--Lat 35°26'39", long 106°26'23", in SW¹/4NW¹/4 sec.17, T.14 N., R.5 E., Sandoval County, Hydrologic Unit 13020201, in San Felipe Grant, on right bank 200 ft downstream from Tonque Arroyo, 1,700 ft upstream from steel highway bridge, 0.8 mi upstream from San Felipe Pueblo, 11 mi northeast of Bernalillo, and at mile 1,572.7.

DRAINAGE AREA.--16,100 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1926-30, WSP 1392: 1937(M), WSP 1512: 1931-32, 1933(M), 1934-36, 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 5,115.73 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 27, 1957, at site 1,800 ft downstream at datum 5.35 ft lower, except period May 16, 1945, to Sept. 30, 1946, when it was 5.94 ft lower than present datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 17 mi upstream. Prior to November 1973 some regulation of flow by El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions for irrigation of about 705,000 acres upstream from station, some of which is irrigated downstream by Cochiti Eastside Main Canal and San Felipe eastside acequia, which bypass station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in 1874, 1884, and 1904.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	615	633	e580	666	764	935	1480	1830	6060	1920	920	1120
2	643	553	e610	680	776	947	1490	1930	6060	1670	963	1140
3	663	559	e620	715	781	918	1560	1930	6370	1510	928	1130
4	823	596	e520	734	797	917	1570	1860	6650	1410	954	1110
5	886	692	e490	734	823	885	1540	1850	6680	1460	928	1200
6	813	e700	e540	749	818	826	1500	2140	6680	1550	1140	1270
7	783	e600	e620	788	814	820	1240	2610	6320	1490	1320	1300
8	658	e570	e630	582	831	837	1220	2970	5750	1160	1470	1310
9	680	e566	e650	546	834	831	1220	3300	6160	1030	1280	1280
10	728	e560	e690	538	834	797	1150	3400	6960	1060	1290	1290
11	732	e570	e720	680	828	798	997	3450	7000	1130	1420	1300
12	730	e600	e740	677	777	936	899	3460	7000	1130	1480	1190
13	728	e622	e710	599	709	1020	896	3490	6990	1100	1400	1210
14	722	553	e690	474	700	1040	989	3500	6930	1110	1360	1280
15	706	475	e710	583	700	1150	1020	3880	6890	1100	1340	1260
16	700	567	e690	668	694	1170	987	4100	6790	1090	1200	1190
17	620	e560	775	685	691	1220	994	4130	6450	1080	1160	1140
18	613	e610	675	695	1010	1370	1010	4190	5670	1090	1320	1040
19	629	e615	444	711	1630	1400	1070	4190	4670	1080	1280	1040
20	632	e550	428	711	1380	1490	1090	4280	3670	1100	1070	1060
21	638	e530	440	741	921	1640	1390	4910	3180	1110	964	1160
22	622	e550	442	807	905	1840	1690	5040	2860	1080	998	1260
23	573	e540	588	818	908	1900	1980	5240	2630	1030	1110	1420
24	554	e560	865	849	908	1900	2290	5260	2710	1010	1300	1250
25	515	e550	856	899	908	1870	2410	5300	2970	1010	1040	1340
26	495	e590	788	869	903	1950	2230	5380	2700	1030	911	1730
27	487	e550	644	869	895	1930	2120	5390	2370	1040	898	2210
28	503	e580	644	849	844	1930	1880	5500	2450	808	930	2250
29	670	e570	626	824	---	1860	1550	5620	2490	902	989	2130
30	669	e590	635	754	---	1850	1650	5870	2270	1270	1070	1940
31	664	---	661	741	---	1720	---	6040	---	1080	1180	---
TOTAL	20494	17361	19721	22235	24383	40697	43112	122040	152380	36640	35613	40550
MEAN	661	579	636	717	871	1313	1437	3937	5079	1182	1149	1352
MAX	886	700	865	899	1630	1950	2410	6040	7000	1920	1480	2250
MIN	487	475	428	474	691	797	896	1830	2270	808	898	1040
AC-FT	40650	34440	39120	44100	48360	80720	85510	242100	302200	72680	70640	80430
(†)	3400	16	0	0	0	3190	3670	3850	3850	3850	3840	3590

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, BY WATER YEAR (WY)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	670	930	1004	914	1072	1405	2298	3454	3410	1977	1055	843												
MAX	1370	2072	1969	2163	3695	3054	6126	6160	6534	5979	3667	1781												
(WY)	1987	1987	1987	1986	1986	1986	1985	1985	1983	1979	1986	1986												
MIN	289	389	500	462	552	546	378	521	746	565	596	206												
(WY)	1975	1990	1978	1977	1977	1977	1977	1977	1989	1974	1978	1974												

(†) MONTHLY DIVERSIONS, IN ACRE-FEET, OF COCHITI EASTSIDE CANAL, RECORDS OF THE FLOW FURNISHED BY MIDDLE RIO GRANDE CONSERVANCY DISTRICT.

RIO GRANDE BASIN

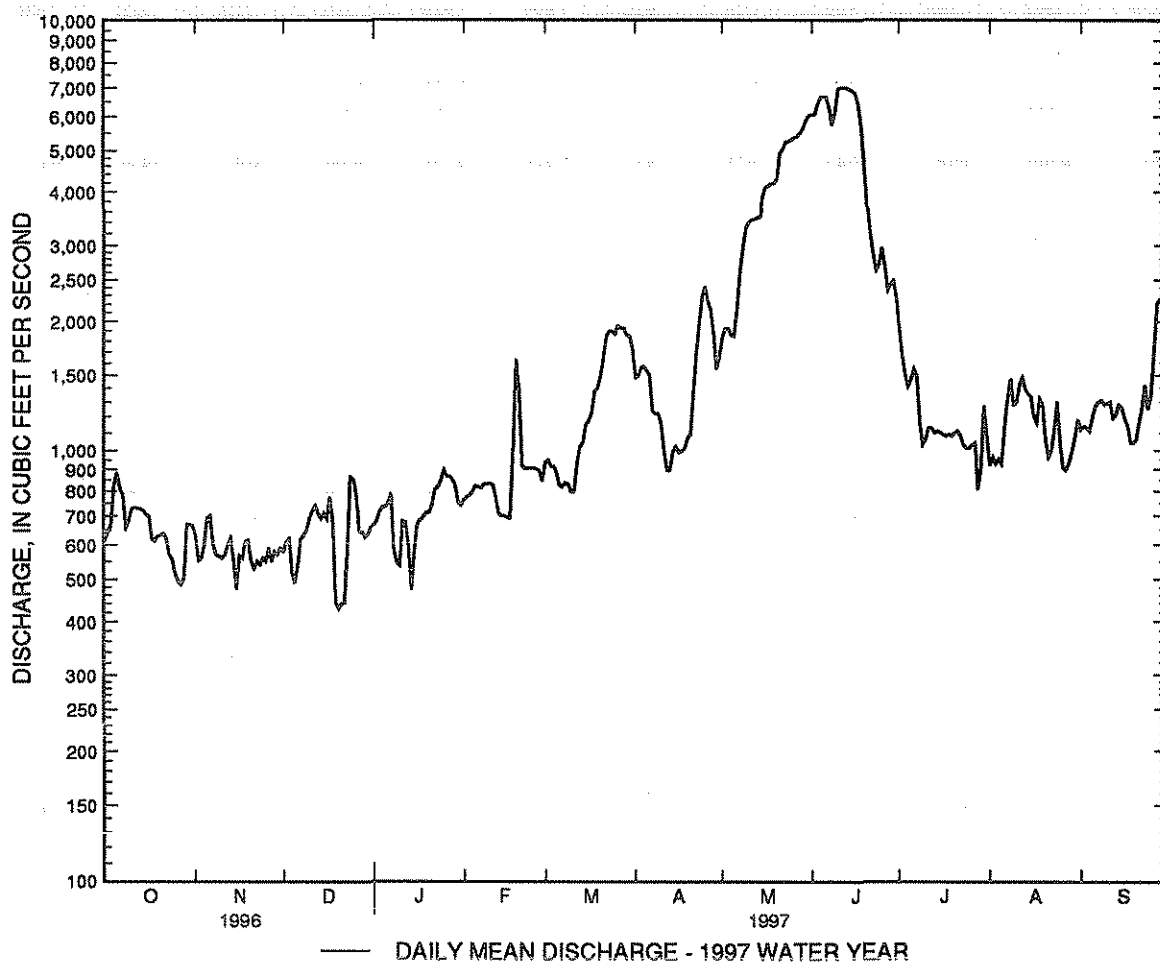
08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1974 - 1997	
ANNUAL TOTAL	329545		575226		1587 ^a	
ANNUAL MEAN	900		1576		2493	1987
HIGHEST ANNUAL MEAN					547	1977
LOWEST ANNUAL MEAN					8100	May 7 1985
HIGHEST DAILY MEAN	1530	Feb 22	7000	Jun 11	67	Aug 28 1978
LOWEST DAILY MEAN	428	Dec 20	428	Dec 20	135	Aug 23 1978
ANNUAL SEVEN-DAY MINIMUM	536	Oct 22	536	Oct 22	273000 ^b	May 26 1937
INSTANTANEOUS PEAK FLOW			7040	Jun 10	11.13 ^c	Jun 26 1937
INSTANTANEOUS PEAK STAGE			6.90	Jun 10	1150000	
ANNUAL RUNOFF (AC-FT)	653700		1141000		3930	
10 PERCENT EXCEEDS	1220		3750		995	
50 PERCENT EXCEEDS	872		1010		467	
90 PERCENT EXCEEDS	568		581			

e Estimated

a-Average discharge for 48 years (water year 1926-1973), 1,374 ft³/s, 995,500 acre-ft/yr, prior to closure of Cochiti.b-From rating curve extended above 15,000 ft³/s.

c-Site and datum then in use.



RIO GRANDE BASIN

183

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	
NOV 1996 07...	0915	677	400	8.3	5.5	8.0	638	9.4	95	<10	140	
FEB 1997 12...	1215	794	354	8.1	9.0	4.5	633	11.3	105	<10	130	
DATE		HARD-NESS NONCARB DISSOLV FLD. AS CAC03 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD CACO3 (39086)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 1996 07...	12	44	8.2	25	0.9	3.1	160	0	131	132	64	
FEB 1997 12...	7	38	7.3	24	0.9	3.1	144	0	118	126	46	
DATE		CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, 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)
NOV 1996 07...	7.2	0.50	18	249	0.020	<0.050	0.030	<0.20	<0.20	0.020	<0.010	
FEB 1997 12...	8.9	0.5	25	224	<0.010	0.150	<0.015	<0.20	<0.20	<0.010	<0.010	
DATE		PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	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)
NOV 1996 07...	<0.010	3.0	5.0	<1.0	1	96	<1.0	54	<1.0	2.0	<1.0	
FEB 1997 12...	<0.010	3.2	4	<1	2	69	<1	50.2	<1	1	<1	
DATE		COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED 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)
NOV 1996 07...	<1.0	<3.0	<1.0	7.0	<0.10	5.0	<1.0	<1	<1	<1.0	3.0	
FEB 1997 12...	2	<3	<1	13	<0.1	5	<1	<1	<1	<1	2	

RIO GRANDE BASIN

08324000 JEMEZ RIVER NEAR JEMEZ. NM

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

DRAINAGE AREA.--470 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1936 to May 1941, August 1949 to October 1950, May 1951 to September 1952 (irrigation seasons only), March 1953 to current year. Monthly discharge only for some periods, published in WSP 1732. Published as Jemez Creek near Jemez, 1936-41.

REVISED RECORDS.--WSP 1712: Drainage area. WSP 1923, 1957-58.

GAGE.--Water-stage recorder with satellite telemetry. Concrete control since Dec. 6, 1965. Datum of gage is 5,622 ft above National Geodetic Vertical Datum of 1929 (plane-table survey by Topographic Division, U.S. Geological Survey, 1952). June 22, 1936 to Mar. 11, 1937, at site 60 ft upstream at datum 0.50 ft higher. Mar. 12, 1937, to July 8, 1938, at present site at datum 0.7 ft higher. July 9, 1938, to May 6, 1941, at site 60 ft upstream at datum 0.70 ft higher.

REMARKS.--Water-discharge records fair. Diversion for irrigation of about 300 acres upstream from station. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1890 occurred between May 6 and 15, 1941, after gage was destroyed (discharge probably exceeded 6,000 ft³/s), from information by local residents.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	44	33	33	40	38	244	284	211	30	51	50
2	19	44	30	34	39	44	223	263	195	29	47	41
3	18	48	25	42	43	48	224	236	177	27	85	37
4	50	46	27	58	37	47	251	242	164	25	99	33
5	39	45	30	74	40	44	215	284	146	26	106	34
6	37	44	42	53	44	46	147	300	140	26	119	34
7	29	40	37	29	38	48	206	327	254	26	87	31
8	27	35	35	34	36	52	270	331	261	24	79	29
9	26	42	36	33	41	54	283	337	194	25	59	37
10	25	42	39	39	38	61	264	327	151	27	51	40
11	24	42	45	43	40	73	219	313	308	29	54	49
12	23	41	46	38	40	89	196	308	90	28	56	44
13	23	41	42	37	46	109	187	337	102	27	50	38
14	22	42	43	37	38	126	183	349	93	24	44	33
15	22	37	34	36	38	135	178	345	95	24	39	31
16	20	38	32	41	41	156	183	343	87	24	36	32
17	21	24	29	32	42	205	198	327	81	24	34	29
18	21	30	24	45	43	327	206	323	74	26	36	30
19	22	36	23	39	45	360	217	312	68	31	37	48
20	24	46	32	38	44	392	231	353	61	36	34	37
21	27	49	31	41	46	495	270	328	51	27	35	89
22	26	56	33	38	38	547	297	399	45	25	32	102
23	27	57	33	39	48	388	294	411	44	27	40	76
24	28	57	28	38	46	371	351	325	41	27	48	53
25	30	45	27	35	44	292	314	336	38	24	41	43
26	31	43	28	48	40	225	307	271	37	24	47	39
27	36	46	31	47	44	230	308	228	37	32	39	36
28	59	39	31	42	45	253	283	201	38	63	30	34
29	59	47	31	40	---	276	280	193	34	58	34	33
30	42	39	31	38	---	244	281	201	32	56	30	31
31	46	---	32	40	---	238	---	214	---	53	34	---
TOTAL	923	1285	1020	1261	1164	6013	7310	9348	3349	954	1613	1273
MEAN	29.8	42.8	32.9	40.7	41.6	194	244	302	112	30.8	52.0	42.4
MAX	59	57	46	74	48	547	351	411	308	63	119	102
MIN	18	24	23	29	36	38	147	193	32	24	30	29
AC-FT	1830	2550	2020	2500	2310	11930	14500	18540	6640	1890	3200	2520

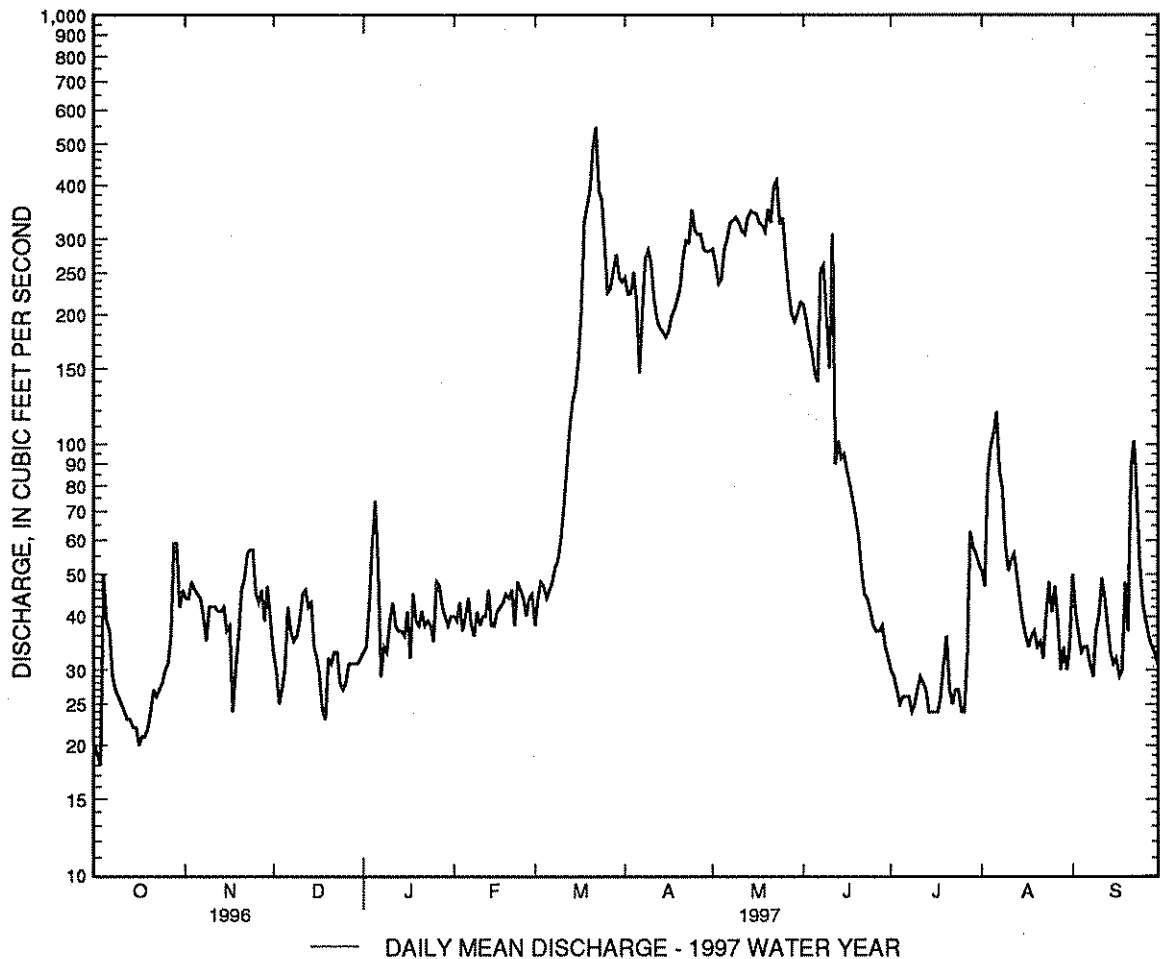
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1997, BY WATER YEAR (WY)

MEAN	35.9	38.1	29.3	28.9	36.2	90.6	271	242	69.6	33.0	46.0	34.6
MAX	109	128	58.2	50.6	77.1	301	961	1118	274	78.5	121	95.8
(WY)	1987	1987	1987	1995	1995	1995	1958	1973	1979	1986	1957	1991
MIN	14.5	18.4	17.0	16.6	19.9	26.0	30.9	13.5	10.5	14.5	15.8	11.1
(WY)	1957	1957	1957	1977	1955	1996	1996	1996	1996	1972	1956	1956

08324000 JEMEZ RIVER NEAR JEMEZ, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1954 - 1997	
ANNUAL TOTAL	8957.1		35513		79.6	
ANNUAL MEAN	24.5		97.3		189	
HIGHEST ANNUAL MEAN					22.9	
LOWEST ANNUAL MEAN					3160	
HIGHEST DAILY MEAN	70	Aug 23	547	Mar 22	2.1	Apr 21 1958
LOWEST DAILY MEAN	7.2	Jun 23	18	Oct 3	6.0	Jul 25 1981
ANNUAL SEVEN-DAY MINIMUM	7.9	Jun 19	22	Oct 13	5900 ^a	Apr 21 1958
INSTANTANEOUS PEAK FLOW			903	Mar 22	10.10 ^b	Jul 15 1985
INSTANTANEOUS PEAK STAGE			6.39	Mar 22	1.2	Jul 25 1981
INSTANTANEOUS LOW FLOW			18	Oct 2	57680	
ANNUAL RUNOFF (AC-FT)	17770		70440		179	
10 PERCENT EXCEEDS	39		284		34	
50 PERCENT EXCEEDS	24		43		18	
90 PERCENT EXCEEDS	11		27			

a-From rating curve extended above 2,200 ft³/s on basis of contracted-opening measurement of peak flow.
b-Present datum.



RIO GRANDE BASIN

08324000 JEMEZ RIVER NEAR JEMEZ, NM -- Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV 1996 13...	1145	41	447	8.1	16.0	6.5	628	10.4	103	100	34	3.9
FEB 1997 12...	0900	37	482	8.5	1.0	1.0	621	11.6	100	110	38	4.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (70301)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
NOV 1996 13...	45	2	7.3	136	8.8	52	0.90	42	276	9.0	<1.0	37
FEB 1997 12...	49	2	8.1	143	15	56	1	46	303	54	<1	38

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)
NOV 1996 13...	60	<1.0	436	<1.0	2.0	<1.0	<1.0	61	<1.0	13	<0.10	4.0
FEB 1997 12...	67	<1	461	<1	<1	<1	1	39	<1	16	<0.1	4

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)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1996 13...	<1.0	<1	<1	<1.0	2.0	1.7	0.270	1.2	0.028	20	2.2	62
FEB 1997 12...	<1	<1	<1	<1	2	--	--	1	--	--	--	--

08328500 JEMEZ CANYON RESERVOIR NEAR BERNALILLO, NM

LOCATION.--Lat 35°23'40", long 106°32'50", in SW¹/4SW¹/4 sec.32, T.14 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, at corner of outlet works control tower of Jemez Canyon Dam on Jemez River, 2.8 mi upstream from mouth, and 6 mi north of Bernalillo.

DRAINAGE AREA.--1,034 mi².

PERIOD OF RECORD.--October 1953 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam, completed October 19, 1953. Capacity, 172,800 acre-ft, from capacity table adapted January 1, 1992, between elevations 5,125.0 ft, sill of outlet gates, and 5,252.3 ft, operating deck of spillway. Maximum controlled capacity, 102,700 acre-ft at elevation 5,232.0 ft (floor of spillway, which is located about 0.8 mi south of dam). Capacity by original survey was 189,100 acre-ft. Original plan for reservoir operation was to desilt all flow above 30 ft³/s by storage for one day before releasing to Rio Grande, and for possible detention during flood stage on Rio Grande. U.S. Army Corps of Engineers satellite telemeter at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 72,110 acre-ft, June 1, 1987, elevation, 5,220.24 ft; no storage most of time prior to March 1979.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 27,290 acre-ft, May 26, elevation, 5,196.580 ft; minimum contents, 17,620 acre-ft, Oct. 24, elevation, 5,188.91 ft.

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

(Based on survey by U.S. Army Corps of Engineers in 1992)

5,193.0	22,540	5,208.0	44,810
5,198.0	29,260	5,213.0	54,080
5,203.0	36,560	5,218.0	64,720

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18080	18360	19970	21200	21720	21820	26590	25870	26540	24860	23920	23210
2	18030	18400	20000	20960	21720	21820	26510	25940	26360	24790	23710	23130
3	18160	18480	20040	21100	21720	21860	26580	26000	26180	24730	23640	23080
4	18300	18520	20050	21150	21720	21900	26810	26060	26150	24650	23750	23060
5	18460	18570	20080	21260	21720	21900	26930	26140	26050	24580	23950	23080
6	18460	18610	20120	21320	21780	21870	26860	26300	25990	24510	23880	23120
7	18390	18610	20170	21350	21810	21870	26750	26470	26220	24450	23610	23070
8	18210	18640	20260	21390	21810	21870	26700	26450	26710	24400	23520	23040
9	18060	18670	20290	21420	21830	21870	26660	26400	27000	24340	23570	22980
10	18020	18680	20360	21470	21850	21900	26670	26330	27130	24290	23620	23030
11	18010	18740	20400	21530	21860	21870	26580	26240	27060	24260	23590	23130
12	17960	18790	20480	21580	21900	21900	26410	26150	26820	24210	23520	23120
13	17950	18850	20550	21600	21950	21950	26250	26060	26660	24170	23510	23040
14	17910	18920	20650	21610	21980	21970	26100	25980	26410	24110	23470	22970
15	17880	18950	20660	21600	22030	22050	25980	25940	26170	24050	23420	22930
16	17840	18960	20680	21580	22080	22130	25950	25950	25880	24000	23370	22880
17	17780	19000	20700	21660	22150	22270	25990	25950	25580	23950	23310	22850
18	17740	19020	20660	21660	22080	22590	26060	25900	25290	23910	23290	22790
19	17670	19050	20680	21720	21900	23160	26060	25840	25230	23850	23250	22780
20	17670	19090	20690	21820	21710	23820	26070	25830	25180	23790	23190	22850
21	17640	19140	20690	21980	21670	24630	26100	25940	25170	23710	23110	23400
22	17630	19210	20700	22120	21650	25420	26030	26300	25140	23660	23160	23780
23	17630	19290	20800	22280	21560	25910	26020	26690	25110	23640	23240	23740
24	17620	19410	20900	22950	21560	26300	26150	26950	25070	23590	23610	23590
25	17700	19500	20920	23090	21570	26600	26370	27150	25110	23530	23650	23420
26	17740	19560	20960	23210	21600	26730	26430	27290	25110	23480	23600	23280
27	17760	19620	21040	23220	21760	26710	26470	27150	25090	23470	23520	23150
28	17750	19660	21070	23020	21810	26660	26330	27110	25020	23750	23440	22990
29	17950	19810	21100	22620	---	26660	25940	27020	24970	23950	23390	22940
30	18260	19880	21200	22040	---	26670	25810	26810	24910	23980	23310	22930
31	18340	---	21200	21770	---	26630	---	26650	---	24090	23260	---
MAX	18460	19880	21200	23220	22150	26730	26930	27290	27130	24860	23950	23780
MIN	17620	18360	19970	20960	21560	21820	25810	25830	24910	23470	23110	22780
(†)	5189.54	5190.84	5191.93	5192.39	5192.42	5196.10	5195.50	5196.11	5194.83	5194.21	5193.57	5193.31
(††)	+230	+1540	+1320	+570	+40	+4820	-820	+840	-1740	-820	-830	-330

CAL YR 1996 MAX 22620 MIN 17620 (††) -1270
WTR YR 1997 MAX 27290 MIN 17620 (††) +4820

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

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

RIO GRANDE BASIN

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM

LOCATION.--Lat 35°23'24", long 106°32'03", in NE¹/₄ sec.5, T.13 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, on right bank 0.8 mi downstream from Jemez Canyon Dam, 2.0 mi upstream from mouth, and 6 mi north of Bernalillo.

DRAINAGE AREA.--1,038 mi².

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

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

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

REMARKS.--Records good. Subsequent to October 1953, flow at this station can be completely regulated by Jemez Canyon Reservoir (station 08328500). However, reservoir is designed essentially for desilting and flood control rather than storage. Diversions for irrigation of about 3,000 acres upstream from station. No flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in 1900 was probably less than 16,000 ft³/s, but highest observed outside period of record.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	2.2	2.1	1.2	24	25	245	239	239	6.1	115	9.8
2	5.2	2.2	2.1	1.2	24	25	224	217	238	6.0	115	9.8
3	5.2	2.3	2.1	1.3	24	23	190	196	198	6.0	114	9.8
4	5.4	2.2	2.1	1.3	23	21	189	195	148	5.8	114	9.8
5	5.1	2.2	2.0	1.4	23	28	189	196	147	5.7	114	9.5
6	5.0	2.2	2.0	1.3	21	34	188	197	111	5.6	152	9.2
7	56	2.2	2.0	1.5	20	34	190	220	73	5.4	212	9.0
8	81	2.2	2.0	1.2	20	34	208	317	76	5.4	87	9.1
9	46	2.2	1.9	1.2	19	34	231	364	74	5.3	6.7	9.1
10	23	2.1	1.6	1.2	19	34	231	363	75	5.3	6.8	8.9
11	8.2	2.1	1.6	1.3	19	40	251	364	150	5.1	37	8.3
12	8.1	2.1	1.6	1.4	20	46	266	366	194	5.0	41	21
13	8.0	2.2	1.6	1.9	19	52	265	366	193	5.2	20	35
14	7.5	2.2	1.5	1.5	8.8	68	250	367	192	5.1	16	34
15	6.7	2.2	1.4	1.4	4.1	77	198	364	190	4.6	12	19
16	6.6	2.2	1.4	1.4	3.7	77	144	359	192	4.6	6.7	8.7
17	6.2	2.2	1.4	1.4	3.5	105	124	360	233	4.6	6.7	8.6
18	5.7	2.2	1.4	1.4	68	126	145	363	152	4.5	6.7	8.5
19	5.9	2.2	1.3	1.4	123	126	176	365	8.6	4.6	6.7	6.5
20	5.8	2.3	1.2	1.5	97	127	176	366	6.9	4.6	8.4	3.6
21	5.9	2.4	1.1	1.5	45	157	202	309	7.0	4.6	8.9	3.2
22	5.9	2.4	1.1	1.4	39	192	254	234	7.0	4.6	8.8	51
23	5.9	2.4	1.1	1.6	38	193	281	236	7.0	4.8	8.4	105
24	6.0	2.3	1.0	1.6	33	194	335	236	7.0	4.8	8.3	104
25	5.4	2.1	1.0	1.6	15	192	344	237	6.1	4.8	5.9	104
26	2.1	2.2	1.0	1.6	7.8	192	301	237	6.1	4.8	20	84
27	2.2	2.2	1.0	61	7.3	224	301	239	6.5	4.8	36	60
28	2.3	2.2	.98	129	18	251	381	238	6.6	4.8	22	60
29	2.1	2.3	.94	211	---	250	433	239	6.6	4.8	9.7	27
30	2.1	2.2	.93	297	---	246	319	241	6.4	75	9.8	7.2
31	2.2	---	.93	141	---	245	---	240	---	116	9.8	---
TOTAL	347.9	66.6	45.38	875.7	786.2	3472	7231	8830	2956.8	338.3	1345.3	852.6
MEAN	11.2	2.22	1.46	28.2	28.1	112	241	285	98.6	10.9	43.4	28.4
MAX	81	2.4	2.1	297	123	251	433	367	239	116	212	105
MIN	2.1	2.1	.93	1.2	3.5	21	124	195	6.1	4.5	5.9	3.2
AC-FT	690	132	90	1740	1560	6920	14240	17510	5960	671	2670	1690

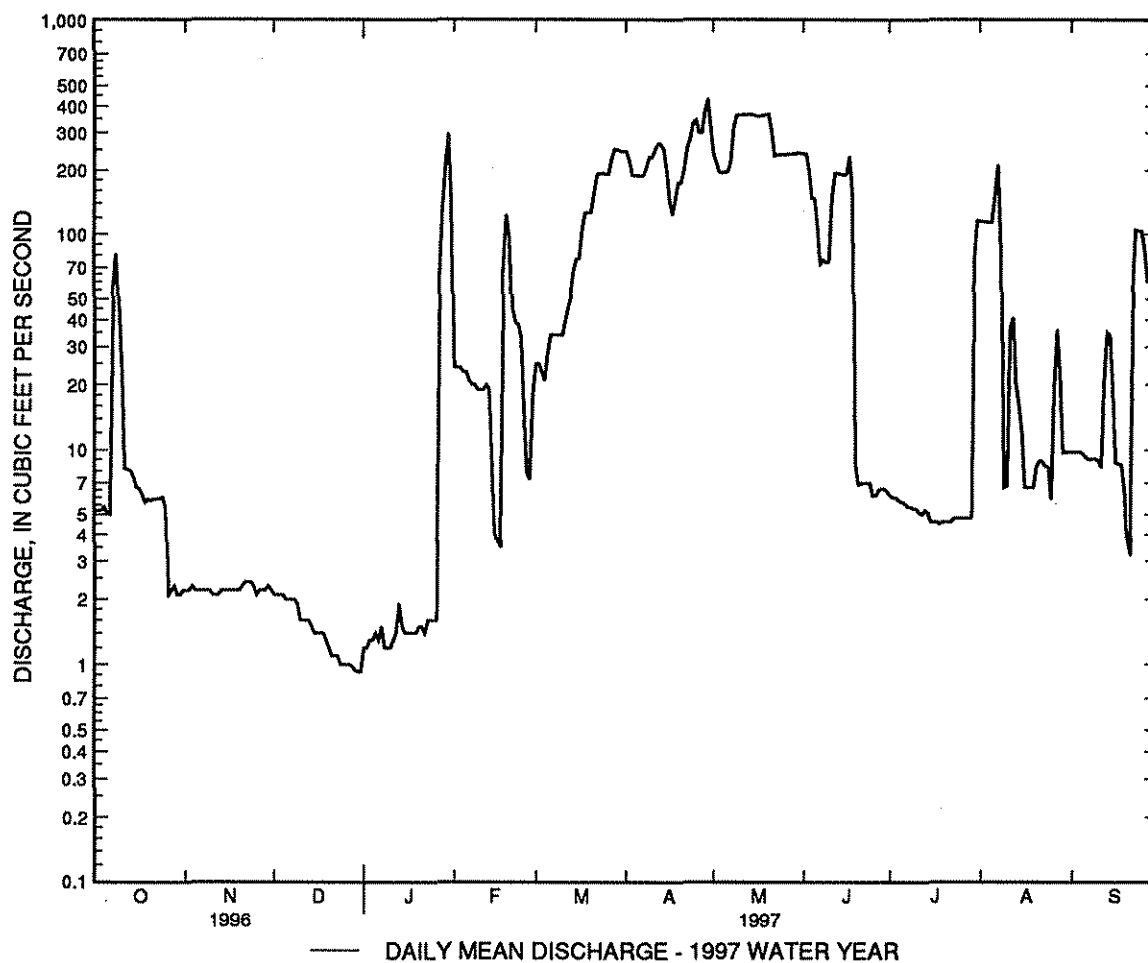
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1997, BY WATER YEAR (WY)

	MEAN	26.8	29.6	21.2	23.2	28.0	66.5	188	193	78.3	26.4	44.1	22.4
MAX	193	179	74.4	56.1	75.1	288	772	968	988	358	247	157	
(WY)	1987	1958	1987	1993	1987	1995	1985	1973	1958	1987	1991	1988	
MIN	.000	2.22	.20	.25	.34	13.7	.96	.000	.000	.000	.13	.000	
(WY)	1956	1997	1985	1985	1985	1981	1996	1972	1946	1947	1950	1945	

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1943 - 1997	
ANNUAL TOTAL	4418.75		27147.78		62.8	
ANNUAL MEAN	12.1		74.4		178	
HIGHEST ANNUAL MEAN					10.6	
LOWEST ANNUAL MEAN					3640	
HIGHEST DAILY MEAN	215	Jul 11	433	Apr 29		1973
LOWEST DAILY MEAN	.64	Apr 16	.93	Dec 30		1953
ANNUAL SEVEN-DAY MINIMUM	.66	May 19	.97	Dec 25		1958
INSTANTANEOUS PEAK FLOW						1943
INSTANTANEOUS PEAK STAGE					16300 ^b	May 24 1943
ANNUAL RUNOFF (AC-FT)	8760		53850		5.62 ^a	Aug 29 1943
10 PERCENT EXCEEDS	35		239		156	
50 PERCENT EXCEEDS	3.2		9.0		18	
90 PERCENT EXCEEDS	.73		1.5		.00	

a-Site and datum then in use.

b-From rating curve extended above 3,000 ft³/s.

08329700 CAMPUS WASH AT ALBUQUERQUE, NM

LOCATION.--Lat 35°05'40", long 106°37'22", in SE¹/₄ sec.16, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 100 ft west of southwest corner of University of New Mexico North Golf Course, 200 ft downstream from Barelbas Stormwater Pumping Station outfall, 600 ft downstream from Tucker Road bridge, and 1,500 ft northeast of intersection of Lomas and University Boulevards. in Albuquerque.

DRAINAGE AREA.--3.80 mi².

PERIOD OF RECORD.--April 1982 to current year. Prior to wy 97 only seasonal records provided.

GAGE.--Water-stage and rainfall recorder and concrete-lined channel. Elevation of gage is 5,140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except for estimated daily discharge, which are poor. Recording rain gage at station. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s, July 14, 1990, gage height, 4.50 ft, from rating curve developed by step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 526 ft³/s, at 2000 hours July 10, gage height, 2.71 ft; no flow Nov. 28.

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

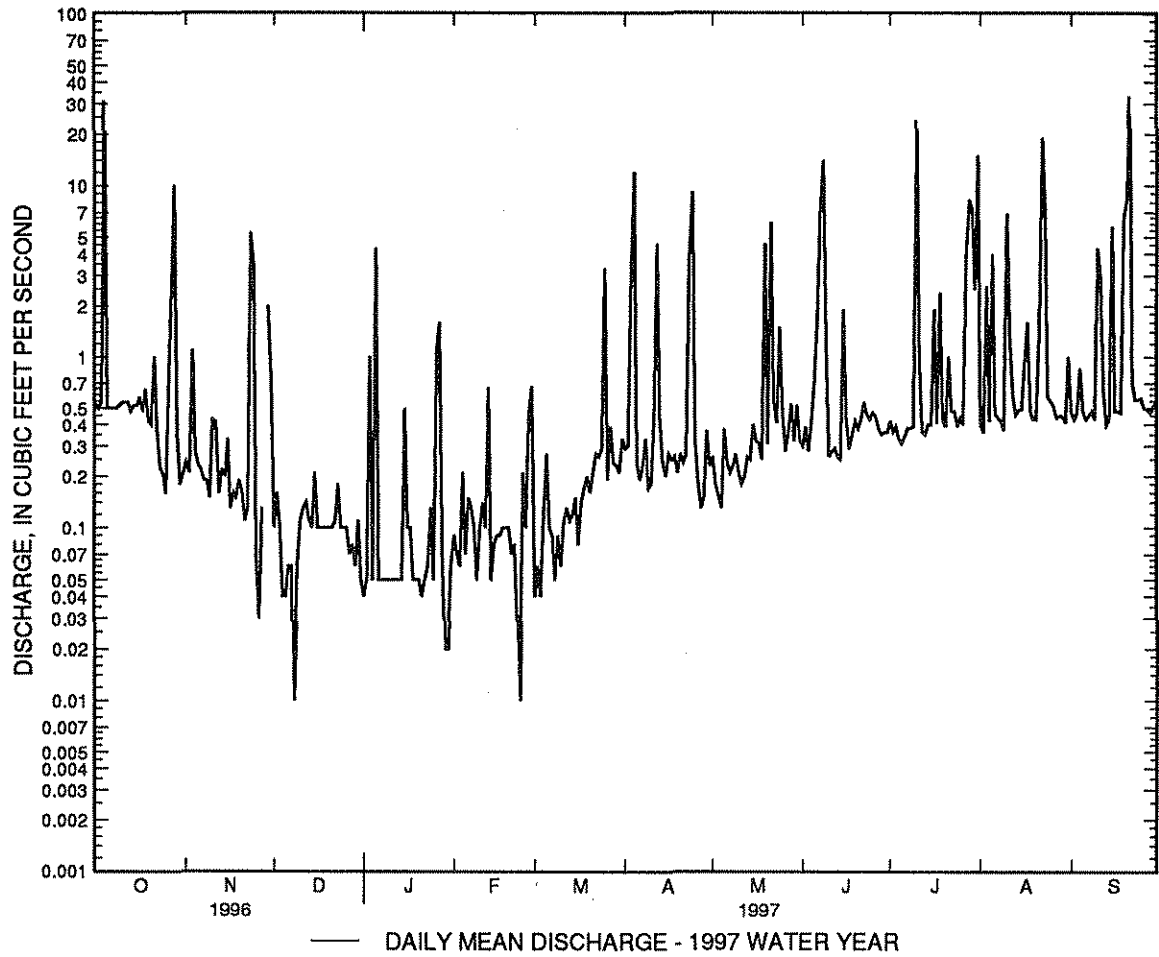
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.53	.24	e.10	.04	.09	.04	.29	.26	.30	.42	.40	.47
2	.50	.21	.16	e.05	.07	.06	.30	.18	.39	.36	.36	.43
3	.54	1.1	e.10	e1.0	.06	.04	3.3	.15	.28	.39	2.6	.47
4	e31	.28	.04	e.05	.21	.12	12	.13	.41	.33	.42	.86
5	e.50	.23	.04	4.3	.07	.27	.24	.38	.70	.31	4.0	.48
6	e.50	.22	.06	e.05	.15	.10	.19	.24	1.6	.34	.46	.43
7	e.50	.19	.06	e.05	.13	.09	.23	.21	7.4	.38	.44	.45
8	e.50	.19	.01	e.05	e.10	.05	.33	.23	14	.38	.42	.48
9	.52	.15	.06	e.05	.05	.09	.17	.27	1.3	.39	.37	.43
10	.54	.43	.11	e.05	e.10	.06	.18	.21	.26	24	6.9	4.3
11	.54	.42	.13	e.05	.14	.11	.44	.18	.28	.95	1.3	2.9
12	.54	.16	.14	e.05	.10	.13	4.6	.20	.29	.36	.60	.63
13	.48	.22	.11	e.05	.66	.11	.44	.26	.26	.35	.46	.40
14	.52	.20	.10	e.05	.05	.12	.24	.25	.25	.40	.49	.43
15	.52	.33	.21	e.50	.08	.15	.20	.40	1.9	.40	.49	5.8
16	.58	.13	e.10	e.10	.09	.08	.27	.32	.43	1.9	.90	.48
17	.48	.16	e.10	e.10	.09	.14	.25	.31	.29	.41	1.6	.48
18	.64	.15	e.10	e.05	.10	.17	.26	.25	.35	2.4	.48	.47
19	.42	.19	e.10	e.05	.10	.20	.21	4.6	.42	.42	.43	6.5
20	.40	.16	e.10	e.05	.10	.16	.27	.31	.38	.39	.43	8.3
21	1.0	.11	e.10	.04	.07	.21	.24	6.1	.43	1.0	1.3	33
22	.38	.13	.11	e.05	.08	.27	.27	.54	.54	.48	19	.70
23	.22	5.3	.18	.06	.03	.26	4.2	.41	.46	.48	7.3	.56
24	.21	3.4	e.10	.13	.01	.29	9.2	1.5	.43	.39	.58	.56
25	.16	.07	e.10	e.05	.21	3.3	.32	.47	.47	.44	.55	.57
26	.59	.03	e.10	1.1	.10	.19	.19	.28	.45	.40	.51	.50
27	2.6	.13	.07	1.6	.47	.39	.13	.36	.38	3.9	.44	.49
28	10	.00	.08	.07	.67	.24	.15	.53	.35	8.3	.45	.47
29	.35	2.0	.06	.02	---	.23	.37	.32	.36	7.3	.45	.51
30	.18	.74	.11	.02	---	.21	.23	.52	.36	2.5	.41	.54
31	.21	---	.05	.06	---	.33	---	.32	---	15	1.0	---
TOTAL	56.65	17.27	2.99	9.94	4.18	8.21	39.71	20.69	35.72	75.47	55.54	73.09
MEAN	1.83	.58	.096	.32	.15	.26	1.32	.67	1.19	2.43	1.79	2.44
MAX	31	5.3	.21	4.3	.67	3.3	12	6.1	14	24	19	33
MIN	.16	.00	.01	.02	.01	.04	.13	.13	.25	.31	.36	.40
AC-FT	112	34	5.9	20	8.3	16	79	41	71	150	110	145
(†)	0.74	0.47	0.12	0.39	0.13	0.38	1.23	0.57	1.03	2.86	1.53	2.41

e Estimated

(†) Total rainfall accumulation in inches.

08329700 CAMPUS WASH AT ALBUQUERQUE, NM -- Continued



08329835 NORTH FLOODWAY CHANNEL AT ALBUQUERQUE, NM

LOCATION.--Lat 35°07'03", long 106°36'42", in SE¹/₄ sec.3, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank of concrete-lined drainage channel, 300 ft downstream (north) of bridge on Candelaria Boulevard. NE, and 3,000 ft downstream from confluence of Campus Wash and Embudo Arroyo in Albuquerque.

DRAINAGE AREA.--40.0 mi².

PERIOD OF RECORD.--May 1982 to current year (seasonal records).

GAGE.--Water-stage recorder and concrete-lined channel. Elevation of gage is 5,110 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,250 ft³/s, July 9, 1988, gage height, 12.10 ft, from floodmarks from step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 5,290 ft³/s, at 1417 hours July 28, gage height, 10.3 ft; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	.00	.00	.00	.00	4.1	.00
3	.00	---	---	---	---	---	6.5	.00	.00	.00	3.7	3.1
4	e280	---	---	---	---	---	e110	.00	.00	.00	62	2.5
5	e50	---	---	---	---	---	.00	.00	.24	.00	68	.00
6	e10	---	---	---	---	---	.00	.00	10	.00	.00	.00
7	e.00	---	---	---	---	---	.00	.00	54	.00	.00	.00
8	.00	---	---	---	---	---	.00	.00	116	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	4.7	.00	5.5
10	.00	---	---	---	---	---	.00	.00	.00	225	43	15
11	.00	---	---	---	---	---	2.2	1.3	.00	19	7.6	9.5
12	.00	---	---	---	---	---	53	.00	.00	.00	.15	.75
13	.00	---	---	---	---	---	2.5	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	9.7	.00
15	.00	---	---	---	---	---	.00	.00	8.3	.00	.00	23
16	.00	---	---	---	---	---	.00	7.2	1.6	31	.00	.00
17	.00	---	---	---	---	---	12	.00	.00	4.3	8.1	.00
18	.00	---	---	---	---	---	.00	.00	.00	19	1.1	.00
19	.00	---	---	---	---	.00	.00	55	.00	1.8	.00	36
20	.00	---	---	---	---	.65	.00	.00	.24	.00	.00	48
21	7.7	---	---	---	---	.00	.00	72	.00	12	16	282
22	.00	---	---	---	---	.00	.00	.55	.00	.60	106	.42
23	.00	---	---	---	---	.00	47	.00	1.8	16	67	.00
24	.00	---	---	---	---	.44	e100	8.3	3.4	.00	.35	.00
25	.00	---	---	---	---	21	14	1.6	1.1	.00	.00	.00
26	.83	---	---	---	---	.00	4.7	.00	.00	.00	.00	.00
27	25	---	---	---	---	4.2	.86	.00	.00	31	.00	.00
28	105	---	---	---	---	.00	.00	.00	.00	278	.00	.00
29	.75	---	---	---	---	.00	.00	.00	.00	15	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	77	.00	.00
31	---	---	---	---	---	.00	---	.00	---	135	4.6	---
TOTAL	---	---	---	---	---	---	352.76	145.95	196.68	869.40	401.40	425.77
MEAN	---	---	---	---	---	---	11.8	4.71	6.56	28.0	12.9	14.2
MAX	---	---	---	---	---	---	110	72	116	278	106	282
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	700	289	390	1720	796	845

e Estimated

08329838 SOUTH FORK HAHN ARROYO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°07'16", long 106°34'04", in NE¹/4SE¹/4 sec. 1, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank 300 ft above Louisiana Boulevard, 900 ft south of Comanche Rd, and 1,700 ft north of Candelaria Rd, in Albuquerque.

DRAINAGE AREA.--2.03 mi².

PERIOD OF RECORD.--June 1978 to December 1983, June 1992 to September 1996 (seasonal records). October 1996 to current year.

GAGE.--Water-stage and rainfall recorder and concrete lined channel. Elevation of gage is 5,300 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to 1983 at site 300 ft downstream on Louisiana Boulevard bridge, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment. Recording rain gage at station. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 574 ft³/s, May 11, 1994, gage height, 4.42 ft, from step-backwater analysis of concrete lined stream channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 502 ft³/s, at 1405 hours, July 28, gage height, 4.10 ft; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.10	.17	.13	.00	.04	.22	.20	.01	.02	.03	.05
2	.20	.05	.23	e.01	.00	.02	.27	.16	.19	.01	.12	.05
3	.18	1.5	.26	e.20	.03	.03	.68	.00	.12	.01	.00	.05
4	16	.11	.21	e.00	.00	.21	5.5	.05	.13	.01	12	.06
5	.20	.13	.31	2.8	.05	.10	.14	.18	.16	.00	3.6	.12
6	.04	.12	.11	.60	.20	.14	.08	.16	.80	.01	.07	.01
7	.10	.16	.01	.00	.03	.11	.22	.16	2.2	.01	.06	.01
8	.10	.25	.00	e.00	.01	.05	.26	.14	5.7	.04	.11	.02
9	.14	.01	.22	e.00	.00	.04	.27	.27	.15	.01	.06	.11
10	.14	.04	.26	e.00	.08	.25	.27	.05	.23	15	.90	.08
11	.13	.13	.17	e.00	.01	.13	1.1	.32	.14	.66	.48	.11
12	.01	.14	.16	e.10	.01	.16	4.6	.23	.14	.00	.07	.11
13	.00	.12	.27	e.10	.25	.26	.21	.22	.18	.00	.06	.12
14	.16	.15	.09	e.00	.12	.15	.17	.23	.00	.05	.28	.00
15	.16	.26	.03	e1.0	.01	.07	.16	.19	.39	.02	.08	.76
16	.18	.06	1.1	e1.0	.01	.09	.16	.71	.17	2.1	.05	.28
17	.13	.08	.20	e.50	.11	.15	.17	.02	.18	.36	.21	.06
18	.14	.19	e.00	e.50	.09	.15	.17	.06	.13	.22	.05	.06
19	.06	.26	e.00	e.10	.11	.13	.00	3.5	.23	.30	.05	1.5
20	.05	.45	e.00	e.00	.11	.16	.08	.32	.09	.00	.05	2.4
21	.39	.22	e.00	.00	.10	.14	.25	3.0	.01	.06	.08	10
22	.12	.18	.00	.00	.01	.06	.19	.22	.01	.28	11	.14
23	.20	2.9	.18	.00	.00	.07	2.4	.21	.11	.25	1.8	.08
24	.13	1.6	.19	.00	.10	.06	5.4	.67	.06	.04	.02	.07
25	.08	.13	.19	.00	.10	2.1	2.3	.15	.00	.02	.06	.11
26	.33	.23	.21	.92	.53	.00	1.3	.13	.05	.00	.05	.09
27	.81	.23	.11	.93	1.4	.87	.31	.18	.04	1.7	.07	.00
28	4.6	.22	.00	.09	.37	.11	.20	.13	.00	22	.05	.00
29	.14	2.2	.00	.11	---	.04	.20	.21	.00	.58	.04	.06
30	.04	2.0	.16	.03	---	.06	.17	.12	.05	7.1	.01	.06
31	.10	---	.17	.08	---	.23	---	.00	---	9.9	.38	---
TOTAL	25.20	14.22	5.01	9.20	3.84	6.18	27.45	12.19	11.67	60.76	31.89	16.57
MEAN	.81	.47	.16	.30	.14	.20	.92	.39	.39	1.96	1.03	.55
MAX	16	2.9	1.1	2.8	1.4	2.1	5.5	3.5	5.7	22	12	10
MIN	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	50	28	9.9	18	7.6	12	54	24	23	121	63	33
(+)	1.92	0.73	0.02	0.63	0.52	0.37	1.69	0.95	0.94	3.50	2.27	1.73

e Estimated

(+) Total rainfall accumulation in inches.

RIO GRANDE BASIN

08329839 NORTH FORK HAHN ARROYO AT ALBUQUERQUE, NM

LOCATION.---Lat 35°07'37", long 106°34'04", in NE¹/4SE¹/4 sec. 1, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 200 ft above Louisiana Boulevard, 1,150 ft north of Comanche Rd, and 1,450 ft south of Montgomery Boulevard, in Albuquerque.

DRAINAGE AREA.--1.51 mi².

PERIOD OF RECORD.--May 1979 to December 1983, June 1992 to September 1996 (seasonal records). October 1996 to current year.

GAGE.--Water-stage and rainfall recorder and concrete lined channel. Elevation of gage is 5,290 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to 1983 at site 200 ft downstream on Louisiana Boulevard bridge, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment. Recording rain gage at station. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 439 ft³/s, Aug. 14, 1980, gage height, 1.94 ft, from step-backwater analysis of concrete lined stream channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 39.0 ft³/s, at 1650 hours, July 30, gage height, 1.76 ft; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.22	.00	.00	e.00	.00	.00	.12	.00	.00	.00	.03	.00
5	.01	.00	.00	.00	.00	.00	.02	.00	.00	.00	.02	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.02	.00
11	.00	.00	.00	.00	.00	.00	.01	.00	.00	.04	.00	.00
12	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.02	.00	.00	.00	.00	.07	.00	.00	.00	.00
20	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.01
21	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.08
22	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00	.07	.00
23	.00	.00	.00	.04	.00	.00	.02	.00	.00	.00	.01	.00
24	.00	.00	.00	.01	.00	.00	.08	.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	.02	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00
28	.06	.00	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00
29	.01	.00	.00	.00	---	.00	.00	.00	.00	.01	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.36	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.13	.00	---
TOTAL	0.30	0.00	0.03	0.10	0.00	0.00	0.39	0.07	0.20	0.80	0.19	0.09
MEAN	.010	.000	.001	.003	.000	.000	.013	.002	.007	.026	.006	.003
MAX	.22	.00	.02	.04	.00	.00	.12	.07	.10	.36	.07	.08
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.6	.00	.06	.2	.00	.00	.8	.1	.4	1.6	.4	.2
(t)	2.16	0.76	0.14	0.64	0.58	0.33	2.29	0.69	1.11	3.72	2.33	1.69

e Estimated

(t) Total rainfall accumulation in inches.

08329840 HAHN ARROYO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°07'33", long 106°35'23", in SE¹/4NE¹/4 sec.2, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, 860 ft below San Mateo Boulevard Bridge on right bank, 750 ft north of Comanche Road, and 2,050 ft south of Montgomery Boulevard in Albuquerque.

DRAINAGE AREA.--4.23 mi².

PERIOD OF RECORD.--June 1978 to September 1996 (seasonal records). October 1996 to current year.

GAGE.--Water-stage and rainfall recorder and concrete-lined channel. Elevation of gage is 5,190 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to 1992 at site on downstream side of San Mateo Boulevard Bridge, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment. Recording rain gage at station. Development within basin is predominantly residential, but there are some commercial areas. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft³/s, Aug. 14, 1980, gage height, 2.54 ft, from rating curve extended above 10 ft³/s on basis of step-forward analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 442 ft³/s, at 1650 hours July 30, gage height, 1.80, from rating curve extended above 10 ft³/s on basis of step-forward analysis of channel; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	.36	.44	.57	.00	.47	1.7	.15	.00	.03	.01	.06
2	.79	.16	.74	e.20	.01	.04	.27	.11	.18	.01	.12	.05
3	.89	2.8	.63	e1.0	.07	.43	1.7	.00	.12	.09	.00	.06
4	e24	.50	.86	e.00	.05	.56	9.9	.05	.12	.27	11	.11
5	e.50	.63	.74	6.2	.24	.68	.06	.22	.13	.41	7.9	.11
6	e.20	.67	.65	1.6	.62	.72	.06	.15	1.4	.47	.23	.09
7	e.30	.71	.36	e.00	.00	.52	.28	.20	4.9	.70	.29	.00
8	.38	1.3	.12	e.00	.00	.05	.31	.18	10	.54	.45	.10
9	.62	.22	1.3	e.00	.00	.08	.32	.40	.20	1.3	.11	.37
10	.65	.23	1.6	e.10	.01	.46	.29	.06	.17	17	3.2	.10
11	.55	.73	1.2	.18	.00	.36	2.1	.33	.11	1.1	2.5	.78
12	.11	.64	.62	.41	.03	.43	8.7	.35	.15	.00	1.5	.34
13	.09	.56	.55	.58	.80	2.2	.16	.26	.13	.00	.79	.24
14	.82	.80	.52	e.00	.20	.67	.15	.36	.00	.00	2.1	.00
15	.70	.70	.00	3.3	.00	.16	.11	.27	1.1	.01	1.2	1.7
16	.66	.42	.78	3.6	.00	.17	.10	1.8	.25	2.7	1.6	.46
17	.55	.52	.47	2.1	.10	.48	.08	.01	.17	.55	1.9	.13
18	.47	.84	e.00	2.4	.15	.50	.07	.07	.13	.71	2.4	.50
19	.38	1.7	e.00	.65	.18	.82	.04	5.3	.27	.90	1.5	3.0
20	.36	2.4	e.00	e.00	.23	.45	.02	.41	.16	.10	.87	5.5
21	1.9	1.5	e.10	e.00	.19	.26	.42	4.8	.03	.45	e1.0	22
22	.47	.92	.14	e.10	.00	.10	.34	.19	.32	.64	e13	.71
23	.69	6.0	.76	e.10	.00	.11	4.9	.25	1.3	1.7	3.5	.48
24	.52	4.1	.55	e.00	.23	.34	11	1.3	.64	.26	.00	1.7
25	.40	.31	.72	e.00	.42	6.3	3.5	.11	.44	.19	.04	1.8
26	1.2	.54	1.0	e2.0	.93	.11	2.3	.12	.25	.01	.04	.94
27	4.5	.56	.87	e2.0	2.9	3.0	.24	.12	.13	5.1	.07	.00
28	9.8	.52	.10	.07	1.9	.51	.16	.08	.00	25	.06	.29
29	.86	5.5	.05	.13	---	.67	.16	.16	.00	.99	.06	1.2
30	.42	4.7	.73	.04	---	.77	.13	.11	.12	14	.00	5.2
31	.30	---	.68	.04	---	1.7	---	.01	---	15	.78	---
TOTAL	54.74	41.54	17.28	27.37	9.26	24.12	49.57	17.93	22.92	90.23	58.22	48.02
MEAN	1.77	1.38	.56	.88	.33	.78	1.65	.58	.76	2.91	1.88	1.60
MAX	24	6.0	1.6	6.2	2.9	6.3	11	5.3	10	25	13	22
MIN	.09	.16	.00	.00	.00	.04	.02	.00	.00	.00	.00	.00
AC-FT	109	82	34	54	18	48	98	36	45	179	115	95
(†)	0.71	0.73	0.09		0.26	0.34	1.73	0.65	1.04	2.64	1.55	1.76

e Estimated

(†) Total rainfall accumulation in inches.

08329860 GRANT LINE ARROYO AT VILLA DEL OSO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°08'04", long 106°34'16", in SE¹/4SE¹/4 sec.36, T.11 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank of rock-lined channel, and 60 ft west of northwest corner of apartment parking lot at 4215 Louisiana Boulevard NE in Albuquerque.

DRAINAGE AREA.--0.052 mi².

PERIOD OF RECORD.--June 1976 to current year (seasonal records).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5,300 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Recording rain gage at station. Development within basin is predominantly residential. See tabulation below for monthly precipitation in inches. No flow most of time.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34 ft³/s, Aug. 1, 1982, gage height, 2.14 ft, from rating curve extended above 5.0 ft³/s on basis of slope-area measurements at gage height 2.08; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 26 ft³/s, at 1650 hours July 30, gage height, 2.03 ft. No flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
4	.51	---	---	---	---	---	---	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	.00	.00	.00	.00	.03	.00
6	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	---	---	---	---	---	.00	.00	.05	.00	.00	.00
8	.00	---	---	---	---	---	.00	.00	.14	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	.00	.00	.00	.17	.00	.00
11	.00	---	---	---	---	---	.02	.00	.00	.00	.00	.00
12	.00	---	---	---	---	---	.04	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	---	.00	.10	.00	.00	.00	.01
20	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.06
21	.01	---	---	---	---	.00	.00	.01	.00	.00	.00	.19
22	.00	---	---	---	---	.00	.00	.00	.00	.00	.24	.00
23	.00	---	---	---	---	.00	.03	.00	.00	.00	.01	.00
24	.00	---	---	---	---	.00	.06	.00	.00	.00	.00	.00
25	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
26	.01	---	---	---	---	.00	.02	.00	.00	.00	.00	.00
27	.04	---	---	---	---	.00	.00	.00	.00	.05	.00	.00
28	.14	---	---	---	---	.00	.00	.00	.00	.23	.00	.00
29	.01	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.34	.00	.00
31	---	---	---	---	---	.00	---	.00	---	.16	.00	---
TOTAL	---	---	---	---	---	---	---	0.11	0.19	0.95	0.28	0.26
MEAN	---	---	---	---	---	---	---	.004	.006	.031	.009	.009
MAX	---	---	---	---	---	---	---	.10	.14	.34	.24	.19
MIN	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	---	.2	.4	1.9	.6	.5
(t)	1.60	0.96	0.06	0.65	0.25	0.16	1.15	0.41	1.20	3.77	2.04	1.89

(t) Total rainfall accumulation in inches.

08329872 PINO ARROYO AT VENTURA BOULEVARD AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°09'16", long 106°32'22", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on left bank in Tanoan Country Club, and 30 ft upstream from Ventura Boulevard in Albuquerque.

DRAINAGE AREA.--5.40 mi².

PERIOD OF RECORD.--August 1990 to September 1996 (seasonal records). October 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,490 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 126 ft³/s, July 23, 1992, gage height, 1.98 ft, from rating curve extended above 12 ft³/s on basis of slope-area measurement of peak flow; no flow part of many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 100 ft³/s, at 1400 hours July 28, gage height, 1.86 ft, from rating curve extended above 12 ft³/s on basis of slope-area measurement of peak flow; no flow part of many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.09	.14	.08	.01	.01	e.15	.07	.11	.21	.23	.14
2	.02	.05	.10	.04	.02	.02	e.15	.08	.15	.24	.44	e.15
3	.03	.08	.10	.11	.02	.05	e.20	.14	.18	.13	.20	e.20
4	4.7	.05	.13	.02	.03	.09	e1.1	.22	.19	.12	.31	.35
5	e.05	.03	.16	.30	.00	.09	.15	.17	.17	.13	e.50	.20
6	e.05	.03	.14	e.03	.14	.07	.08	.19	.37	.14	.29	.17
7	e.05	.02	.07	e.03	.11	.01	.08	.09	.66	.13	.23	.11
8	e.05	.01	.08	e.03	.05	.02	.09	.09	1.7	.15	.24	.24
9	.05	.01	.08	e.03	.02	.01	.13	.14	e.20	.19	.24	.66
10	.03	.02	.07	e.20	.01	.03	.15	.16	.25	2.4	.84	.41
11	.10	.06	.09	e.03	.02	.04	.34	.16	.16	.23	.45	e.20
12	.09	.13	e.05	e.03	.05	.03	.87	e.20	.16	.11	e.20	.15
13	.08	.02	.02	e.03	.05	.07	.12	e.20	.12	.12	e.25	.16
14	.08	.04	.02	e.03	.01	.12	.13	e.20	.14	.16	e.15	.16
15	.08	.07	.01	e.03	.02	.10	.13	e.20	.23	.12	.20	.44
16	.11	.07	.03	e.03	.01	.09	e.10	e.25	.11	.68	.19	e.20
17	.11	.03	.04	e.03	.03	.14	e.15	e.20	.18	.21	.25	e.15
18	.11	.01	.00	e.10	.06	.07	e.10	.15	.15	.20	.20	e.15
19	.14	.01	e.00	e.20	.06	.04	e.10	.47	.16	.18	.19	.49
20	.15	.03	.00	e.10	.02	.09	e.10	.14	.18	.21	.23	1.2
21	.14	.04	.01	.07	.02	.16	e.10	.80	.15	.20	.33	6.4
22	.03	.03	e.00	.07	.02	.15	.11	.15	.14	.26	2.7	.19
23	.02	.72	.03	.07	.01	.19	.70	.22	e.20	.22	e.70	.12
24	.04	.34	.02	.06	.01	.19	e.90	.25	e.15	.20	.16	.09
25	.05	.09	.01	.07	.02	e.50	.60	.17	e.15	.16	.23	.19
26	.09	.05	.02	.22	e.05	.04	.50	.22	e.15	.15	.16	.19
27	.10	.04	.07	e.05	e.05	e.40	e.15	.20	.15	.78	.14	.16
28	.82	.08	.04	.01	.10	e.10	e.15	.12	.11	5.2	.16	.16
29	.15	.35	.04	.01	---	e.10	e.13	.12	.14	.26	.17	.23
30	.11	.38	.05	.01	---	e.10	e.10	.13	.17	1.1	.15	.18
31	.10	---	.12	.02	---	e.60	---	.10	---	3.8	.29	---
TOTAL	7.76	2.98	1.74	2.14	1.02	3.72	7.86	6.00	7.08	18.39	11.02	13.84
MEAN	.25	.099	.056	.069	.036	.12	.26	.19	.24	.59	.36	.46
MAX	4.7	.72	.16	.30	.14	.60	1.1	.80	1.7	5.2	2.7	6.4
MIN	.02	.01	.00	.01	.00	.01	.08	.07	.11	.11	.14	.09
AC-FT	15	5.9	3.5	4.2	2.0	7.4	16	12	14	36	22	27
(†)	1.84	0.52	0.25	0.85	0.32	0.61	1.90	0.53	0.72	3.90	1.52	1.65

e Estimated

(†) Total rainfall accumulation in inches.

RIO GRANDE BASIN

08329873 HOFFMANTOWN CHURCH OUTLET NO. 1 AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°08'50", long 106°33'00", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on right bank at drainage outlet of east parking lot of Hoffmantown Baptist Church, at northern boundary of Albuquerque Academy and 0.1 mi downstream from Ventura Boulevard. in Albuquerque.

DRAINAGE AREA.--.00859 mi²

PERIOD OF RECORD.--August 1990 to current year (seasonal records).

GAGE.--Water-stage recorder and Palmer-Bowlus flume. Elevation of gage is 5,490 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good where recorders provided gage height record, otherwise poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18 ft³/s, Aug. 1, 1993, gage height, 1.86 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 0.09 ft³/s, at 1350 hours Oct. 4, gage height, 1.39 ft; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	---	.00
2	.01	---	---	---	---	---	.00	.00	.00	.00	---	.00
3	.01	---	---	---	---	---	.00	.00	.00	.00	---	.00
4	.05	---	---	---	---	---	.01	.00	.00	.00	---	.00
5	.07	---	---	---	---	---	.00	.00	.00	.00	.03	.00
6	.04	---	---	---	---	---	.00	.00	---	.00	.02	.00
7	.02	---	---	---	---	---	.00	.00	---	.00	.01	.00
8	.01	---	---	---	---	---	.00	.00	---	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	---	.00	.00	.00
10	.00	---	---	---	---	---	.00	.00	---	---	.00	.00
11	.00	---	---	---	---	---	.00	.00	---	---	.00	.00
12	.00	---	---	---	---	---	.00	.00	---	---	.00	.00
13	.00	---	---	---	---	---	.00	.00	---	---	.00	.00
14	.00	---	---	---	---	---	.00	.00	---	---	.00	.00
15	.00	---	---	---	---	---	.00	.00	---	---	.00	.00
16	.00	---	---	---	---	---	.00	.00	---	---	.00	.00
17	.00	---	---	---	---	---	.00	.00	---	---	.00	.00
18	.00	---	---	---	---	.00	.00	.00	---	---	.00	.00
19	.00	---	---	---	---	.00	.00	.00	---	---	.00	.00
20	.00	---	---	---	---	.00	.00	.00	---	---	.00	.00
21	.00	---	---	---	---	.00	.00	.00	---	---	.00	.05
22	.00	---	---	---	---	.00	.00	.00	---	---	.00	.04
23	.00	---	---	---	---	.00	.00	.00	---	---	.01	.01
24	.00	---	---	---	---	.00	.02	.00	---	---	.00	.00
25	.00	---	---	---	---	.00	.02	.00	---	---	.00	.00
26	---	---	---	---	---	.00	.01	.00	---	---	.00	.00
27	---	---	---	---	---	.00	.01	.00	---	---	.00	.00
28	---	---	---	---	---	.00	.00	.00	---	---	.00	.00
29	---	---	---	---	---	.00	.00	.00	---	---	.00	.00
30	---	---	---	---	---	.00	.00	.00	---	---	.00	.00
31	---	---	---	---	---	.00	---	.00	---	---	.00	---
TOTAL	---	---	---	---	---	---	0.07	0.00	---	---	---	0.10
MEAN	---	---	---	---	---	---	.002	.000	---	---	---	.003
MAX	---	---	---	---	---	---	.02	.00	---	---	---	.05
MIN	---	---	---	---	---	---	.00	.00	---	---	---	.00
AC-FT	---	---	---	---	---	---	.1	.00	---	---	---	.2

08329874 HOFFMANTOWN CHURCH OUTLET NO. 2 AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°08'50", long 106°33'10", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on right bank at drainage outlet of west parking lot of Hoffmantown Baptist Church, and at northern boundary of Albuquerque Academy and 0.3 mi south of Harper Boulevard. in Albuquerque.

DRAINAGE AREA.--.0413 mi²

PERIOD OF RECORD.--August 1990 to current year (seasonal records).

GAGE.--Water-stage recorder and concrete-lined channel. Elevation of gage is 5,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Recording rain gage at station. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46 ft³/s, Aug. 1, 1993, gage height, 3.18 ft, from rating curve extended above 7.0 ft³/s on basis of theoreteral rating for open box culvert; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 31 ft³/s, at 1350 hours July 28, gage height, 2.87 ft, from rating curve extended above 7.0 ft³/s on basis of theoreteral rating for open box culvert; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	.00	.00	.00	.03	.00	.00
3	.00	---	---	---	---	---	.06	.00	.00	.00	.00	.00
4	.72	---	---	---	---	---	.37	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	.01	.00	.00	.00	.05	.00
6	.00	---	---	---	---	---	.00	.00	.06	.00	.00	.00
7	.00	---	---	---	---	---	.00	.00	.12	.00	.00	.00
8	.00	---	---	---	---	---	.00	.00	.21	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.11
10	.00	---	---	---	---	---	.00	.00	.00	.46	.06	.00
11	.00	---	---	---	---	---	.07	.00	.00	.01	.01	.00
12	.00	---	---	---	---	---	.19	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.04
16	.00	---	---	---	---	---	.00	.01	.00	.03	.00	.01
17	.00	---	---	---	---	---	.00	.00	.00	.00	.03	.00
18	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	.00	.00	.08	.00	.00	.00	.04
20	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.18
21	.02	---	---	---	---	.00	.00	.12	.00	.00	.00	.63
22	.00	---	---	---	---	.00	.00	.00	.00	.03	.43	.00
23	.00	---	---	---	---	.00	.12	.00	.00	.00	.01	.00
24	.00	---	---	---	---	.00	.18	.02	.00	.00	.00	.00
25	.00	---	---	---	---	.33	.04	.00	.00	.00	.00	.00
26	.02	---	---	---	---	.21	.09	.00	.00	.00	.00	.00
27	.01	---	---	---	---	.28	.00	.00	.00	.17	.00	.00
28	.21	---	---	---	---	.09	.00	.00	.00	.66	.00	.00
29	.00	---	---	---	---	.00	.00	.00	.00	.01	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.29	.00	.00
31	---	---	---	---	---	.00	---	.00	---	.37	.05	---
TOTAL	---	---	---	---	---	---	1.13	0.23	0.39	2.06	0.64	1.01
MEAN	---	---	---	---	---	---	.038	.007	.013	.066	.021	.034
MAX	---	---	---	---	---	---	.37	.12	.21	.66	.43	.63
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	2.2	.5	.8	4.1	1.3	2.0
(†)	1.84	0.56	0.24	0.71	0.33	0.25	1.91	0.58	0.79	3.66	1.39	1.83

(†) Total rainfall accumulation in inches.

RIO GRANDE BASIN

08329875 CHERRY HILLS ARROYO NO. 1 AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°08'50", long 106°33'10", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on left bank, on grounds of the Albuquerque Academy, and 300 ft downstream from Harper Road in Albuquerque.

DRAINAGE AREA.--.0147 mi²

PERIOD OF RECORD.--August 1990 to current year (seasonal records).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17 ft³/s, Aug. 2, 1994, gage height, 3.99 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 6.6 ft³/s, at 1140 hours Oct. 4, gage height, 3.06 ft; no flow most of the time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
4	.27	---	---	---	---	---	.04	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	---	---	---	---	---	.00	.00	.01	.00	.00	.00
8	.00	---	---	---	---	---	.00	.00	.04	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.01
10	.00	---	---	---	---	---	.00	.00	.00	.07	.00	.00
11	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	---	---	---	---	---	.02	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	.00	.00	.01	.00	.00	.00	.00
20	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.03
21	.00	---	---	---	---	.00	.00	.01	.00	.00	.00	.14
22	.00	---	---	---	---	.00	.00	.00	.00	.00	.08	.00
23	.00	---	---	---	---	.00	.01	.00	.00	.00	.00	.00
24	.00	---	---	---	---	.00	.03	.00	.00	.00	.00	.00
25	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
26	.00	---	---	---	---	.00	.02	.00	.00	.00	.00	.00
27	.00	---	---	---	---	.01	.00	.00	.00	.01	.00	.00
28	.04	---	---	---	---	.00	.00	.00	.00	.18	.00	.00
29	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.08	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.08	.00	---
TOTAL	0.31	---	---	---	---	---	0.12	0.02	0.05	0.42	0.08	0.18
MEAN	.010	---	---	---	---	---	.004	.001	.002	.014	.003	.006
MAX	.27	---	---	---	---	---	.04	.01	.04	.18	.08	.14
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.6	---	---	---	---	---	.2	.04	.1	.8	.2	.4

08329876 CHERRY HILLS ARROYO NO. 2 AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°08'50", long 106°33'20", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on right bank, on grounds of the Albuquerque Academy, and 390 ft downstream from Harper Road in Albuquerque.

DRAINAGE AREA.--.0796 mi²

PERIOD OF RECORD.--August 1990 to current year (seasonal records).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,440 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1992, at same site at a datum 2.00 ft lower.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21 ft³/s, Sept. 22, 1990, gage height, 1.85 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 10.0 ft³/s, at 1655 hours July 30, gage height, 3.19 ft; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	---	---	---	---	---	.07	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	.00	.00	.00	.00	.03	.00
6	.00	---	---	---	---	---	.00	.00	.01	.00	.00	.00
7	.00	---	---	---	---	---	.00	.00	.03	.00	.00	.00
8	.00	---	---	---	---	---	.00	.00	.10	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.06
10	.00	---	---	---	---	---	.00	.00	.00	.14	.04	.00
11	.00	---	---	---	---	---	.02	.00	.00	.00	.01	.00
12	.00	---	---	---	---	---	.04	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.02	.00
18	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	.00	.00	.02	.00	.00	.00	.01
20	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.07
21	.00	---	---	---	---	.00	.00	.03	.00	.00	.00	.25
22	.00	---	---	---	---	.00	.00	.00	.00	.00	.22	.00
23	.00	---	---	---	---	.00	.03	.00	.00	.00	.00	.00
24	.00	---	---	---	---	.00	.04	.00	.00	.00	.00	.00
25	.00	---	---	---	---	.01	.00	.00	.00	.00	.00	.00
26	.00	---	---	---	---	.00	.03	.00	.00	.00	.00	.00
27	.00	---	---	---	---	.01	.00	.00	.00	.05	.00	.00
28	.01	---	---	---	---	.00	.00	.00	.00	.23	.00	.00
29	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.21	.00	.00
31	---	---	---	---	---	.00	---	.00	---	.14	.01	---
TOTAL	---	---	---	---	---	---	0.23	0.05	0.14	0.77	0.33	0.39
MEAN	---	---	---	---	---	---	.008	.002	.005	.025	.011	.013
MAX	---	---	---	---	---	---	.07	.03	.10	.23	.22	.25
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	.5	.1	.3	1.5	.7	.8

08329877 PINO ARROYO AT WYOMING BOULEVARD AT ALBUQUERQUE, NM.

LOCATION.--Lat 35°09'25", long 106°33'29", Bernalillo County, Hydrologic Unit 132020203, in Elena Gallegos Grant, on the grounds of the Albuquerque Academy, on left bank, and 560 ft upstream from Wyoming Boulevard in Albuquerque.

DRAINAGE AREA.--5.80 mi².

PERIOD OF RECORD.--August 1990 to current year (seasonal records).

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

REMARKS.--Records poor prior to June 12, 1997, when bottom of well was lowered. Since then records fair..

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 214 ft³/s, July 28, 1997, gage height, 2.39 ft, from high water marks in well; no flow part of many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 214 ft³/s, at 1417 hours July 28, gage height, 2.39 ft; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
2	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
3	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
4	1.6	---	---	---	---	---	---	---	.00	.00	.00	.00
5	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
6	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
7	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
8	.00	---	---	---	---	---	---	---	.10	.00	.00	.00
9	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
10	.00	---	---	---	---	---	---	---	.00	.74	.00	.00
11	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
12	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
13	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
14	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
15	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
16	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
17	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
18	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
19	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
20	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
21	.00	---	---	---	---	---	---	---	.00	.00	.00	1.3
22	.00	---	---	---	---	---	---	---	.00	.00	.76	.00
23	.00	---	---	---	---	---	---	---	.00	.00	.16	.00
24	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
25	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
26	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
27	.00	---	---	---	---	---	---	---	.00	.00	.00	.00
28	.00	---	---	---	---	---	---	.00	.00	1.7	.00	.00
29	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
30	.00	---	---	---	---	---	---	.00	.00	.02	.00	.00
31	---	---	---	---	---	---	---	.00	---	.44	.00	---
TOTAL	---	---	---	---	---	---	---	---	0.10	2.90	0.92	1.30
MEAN	---	---	---	---	---	---	---	---	.003	.094	.030	.043
MAX	---	---	---	---	---	---	---	---	.10	1.7	.76	1.3
MIN	---	---	---	---	---	---	---	---	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	---	---	.2	5.8	1.8	2.6

08329880 ACADEMY ACRES DRAIN AT ALBUQUERQUE, NM

LOCATION.--Lat 35°09'02", long 106°34'18", in NE¹/4SE¹/4 sec.25, T.11 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank of concrete-lined channel, 250 ft north of intersection of Esther Avenue and Burlison Drive, and 0.4 mi north of Academy Road in Albuquerque.

DRAINAGE AREA.--0.124 mi².

PERIOD OF RECORD.--June 1976 to current year (seasonal records).

GAGE.--Water-stage recorder and V-notch weir. Elevation of gage is 5,310 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Recording rain gage at station. The basin is primarily urban residential. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the short duration of peak flows. See tabulation below for monthly precipitation in inches. No flow most of time.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103 ft³/s, Aug. 3, 1978, gage height, 4.09 ft, from rating curve extended above 10 ft³/s on basis of slope-area measurement of peak flow; no flow most time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 42 ft³/s, at 1655 hours July 30, gage height, 3.35 ft; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	.00	.00	.00	.02	.00	.00
3	.00	---	---	---	---	---	.04	.00	.00	.00	.00	.00
4	.98	---	---	---	---	---	.21	.00	.00	.00	.06	.00
5	.00	---	---	---	---	---	.00	.00	.00	.00	.06	.00
6	.00	---	---	---	---	---	.00	.00	.04	.00	.00	.00
7	.00	---	---	---	---	---	.00	.00	.23	.00	.00	.00
8	.00	---	---	---	---	---	.00	.00	.39	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.05
10	.00	---	---	---	---	---	.00	.00	.00	.32	.13	.00
11	.00	---	---	---	---	---	.04	.00	.00	.00	.01	.00
12	.00	---	---	---	---	---	.09	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.01	.00	.00	.05
16	.00	---	---	---	---	---	.00	.02	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.05	.00
18	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	.00	.00	.12	.00	.00	.00	.01
20	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.15
21	.00	---	---	---	---	.00	.00	.04	.00	.00	.00	.54
22	.00	---	---	---	---	.00	.00	.00	.00	.00	.53	.00
23	.00	---	---	---	---	.00	.09	.00	.00	.00	.02	.00
24	.00	---	---	---	---	.00	.14	.02	.00	.00	.00	.00
25	.00	---	---	---	---	.07	.00	.00	.00	.00	.00	.00
26	.00	---	---	---	---	.00	.15	.00	.00	.00	.00	.00
27	.02	---	---	---	---	.03	.00	.00	.00	.12	.00	.00
28	.21	---	---	---	---	.00	.00	.00	.00	.63	.00	.00
29	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.68	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.28	e.05	---
TOTAL	1.21	---	---	---	---	---	0.76	0.20	0.67	2.05	0.91	0.80
MEAN	.039	---	---	---	---	---	.025	.006	.022	.066	.029	.027
MAX	.98	---	---	---	---	---	.21	.12	.39	.68	.53	.54
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	2.4	---	---	---	---	---	1.5 [†]	.4	1.3	4.1	1.8	1.6
(†)	2.15	0.72	0.25	0.85	0.32	0.39	2.00	0.65	1.11	3.31	1.83	1.72

e Estimated

(†) Total rainfall accumulation in inches.

RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM

LOCATION.--Lat 35°11'58", long 106°35'53", Bernalillo County, Hydrologic Unit 13020203, in Elena Gallegos Grant, on left bank 0.5 mi upstream from Edith Boulevard, 1.1 mi upstream from mouth, and 1.2 mi northeast of Alameda.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1968 to current year (no winter records in water years 1969-89).

GAGE.--Water-stage recorder with Isco flow meter and concrete-lined channel. Elevation of gage is 5,015 ft above National Geodetic Vertical Datum of 1929, from U.S. Army Corps of Engineers plan and profile map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low flow values are obtained from gaging station (08329914), 500 ft downstream. Floodway channel intercepts flow of numerous arroyos in northeast Albuquerque and discharges into the Rio Grande at a point 1.6 mi north of Alameda.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	.46	.22	.20	.31	.46	1.1	.46	.72	.74	1.6	.72
2	.59	.44	.21	.22	.30	.45	1.1	.46	.91	.91	1.1	1.0
3	.60	.40	.21	.22	.31	.45	e7.0	.46	1.0	9.4	.91	8.0
4	390	.40	.22	.21	.32	.46	224	.58	1.1	1.9	e260	1.9
5	.77	.38	.20	.21	.32	.44	.78	.72	1.1	1.1	184	6.7
6	29	.37	.20	.20	.33	.44	e1.1	.72	27	2.5	14	.88
7	.58	.37	.21	.20	.34	.45	.72	.75	117	4.5	.91	.65
8	.60	.36	.21	.21	.33	.46	.58	.83	276	5.6	.72	.77
9	7.5	.35	.22	.21	.35	.44	.46	.85	1.5	14	.72	24
10	.60	.35	.21	.21	.35	.44	.72	e1.1	.94	413	88	30
11	.59	.34	.20	.22	.37	.45	e2.5	5.0	1.1	61	67	25
12	.60	.34	.20	.22	.39	.46	59	1.6	1.2	1.8	35	5.7
13	12	.33	.21	.20	13	.46	176	1.0	1.1	.58	22	.81
14	19	.33	.21	.20	.41	.45	9.7	e1.0	1.1	.78	32	.62
15	12	.33	.21	.21	.44	.45	e3.0	.72	17	.71	6.3	41
16	.76	.32	.22	.22	.46	.46	e2.8	28	21	51	.72	1.8
17	.60	.32	.21	.22	.45	.44	2.3	17	1.1	15	19	.80
18	.76	.31	.22	.20	.44	.45	30	e1.1	2.4	24	25	1.1
19	.59	.31	.22	.20	.45	.46	1.1	116	.75	5.5	3.6	64
20	.46	.30	.20	.21	.46	e1.0	1.1	3.3	1.6	1.1	.72	113
21	e8.0	.30	.21	.22	.46	.58	1.1	113	.65	28	37	622
22	.46	.30	.21	.23	.44	.58	.91	5.2	.59	1.1	209	4.1
23	.45	.28	.20	.23	.46	.72	80	e.91	1.6	21	200	.74
24	.44	.28	.22	.24	6.0	e1.0	350	17	12	.72	13	1.1
25	.44	.27	.22	.24	.46	65	170	4.2	3.9	.72	6.7	.84
26	e1.0	.26	.21	.25	2.0	1.0	79	.72	.77	.72	.72	.80
27	e25	.24	.21	.25	11	24	e1.0	.58	.79	61	1.3	.67
28	e105	.23	.20	.27	7.0	1.2	.58	.58	.75	926	.82	1.0
29	e1.0	.22	.20	.28	---	1.2	.46	.46	.65	50	.81	.60
30	.46	21	.21	.27	---	1.1	.46	.46	.74	e80	1.5	1.9
31	.46	---	.21	.29	---	1.1	---	.58	---	e320	47	---
TOTAL	697.14	30.49	6.51	6.96	47.95	107.05	1285.79	325.34	498.06	2104.38	1281.15	962.20
MEAN	22.5	1.02	.21	.22	1.71	3.45	42.9	10.5	16.6	67.9	41.3	32.1
MAX	390	21	.22	.29	13	65	350	116	276	926	260	622
MIN	.44	.22	.20	.20	.30	.44	.46	.46	.59	.58	.72	.60
AC-FT	1380	60	13	14	95	212	2550	645	988	4170	2540	1910

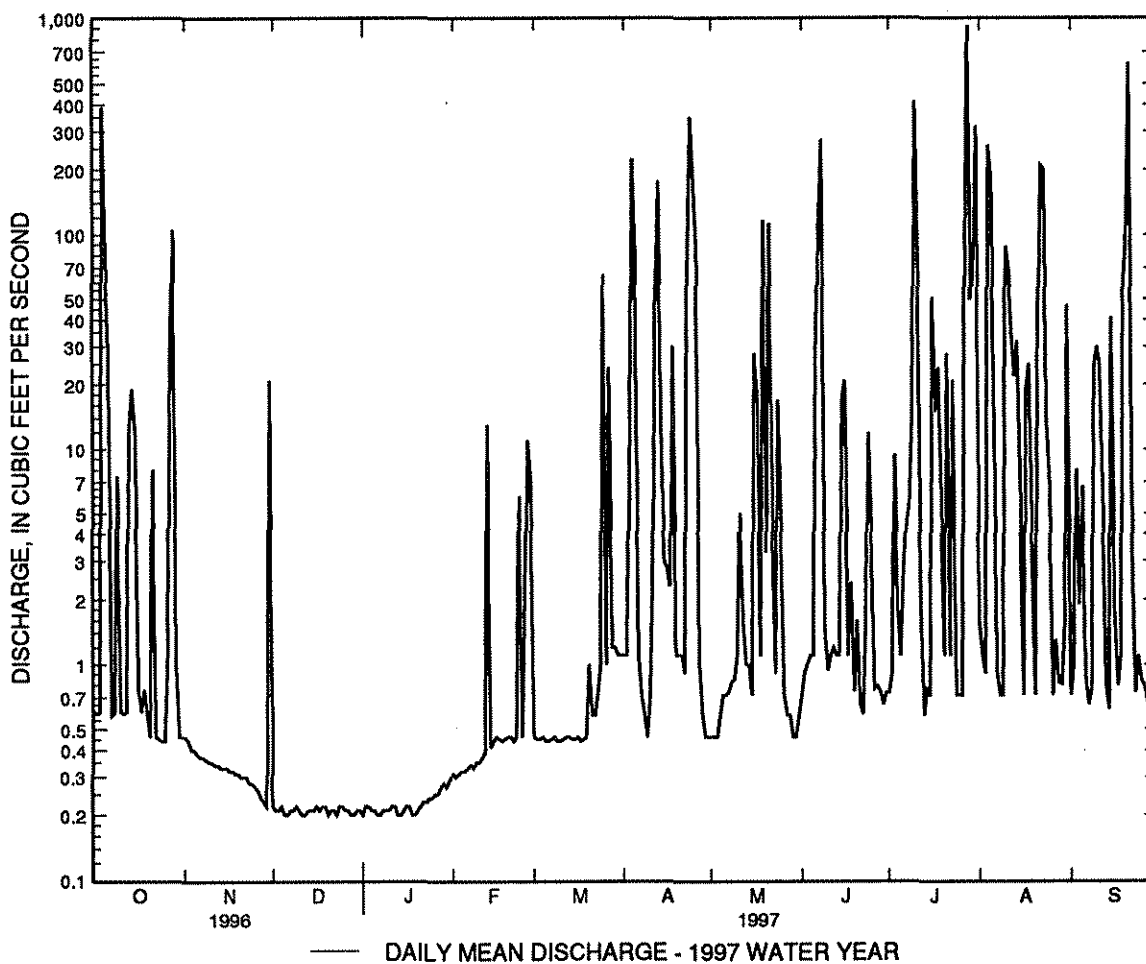
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1997, BY WATER YEAR (WY)

MEAN	10.7	6.06	4.25	6.83	3.12	4.28	6.71	8.11	7.74	21.2	25.0	13.8
MAX	38.2	24.5	28.5	39.9	19.7	14.0	42.9	41.2	36.2	75.0	53.4	40.1
(WY)	1985	1995	1994	1995	1993	1973	1997	1994	1988	1991	1994	1991
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	2.78	.82	.73
(WY)	1976	1970	1973	1969	1969	1969	1978	1974	1975	1980	1989	1968

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1968 - 1997
ANNUAL TOTAL	4122.64	7353.02	
ANNUAL MEAN	11.3	20.1	11.1
HIGHEST ANNUAL MEAN			21.6
LOWEST ANNUAL MEAN			3.12
HIGHEST DAILY MEAN	700 Aug 26	926 Jul 28	1060 Aug 14 1980
LOWEST DAILY MEAN	.00 Jan 2	.20 Dec 5	.00 Jul 1 1968
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 2	.21 Dec 26	.00 Jul 1 1968
INSTANTANEOUS PEAK FLOW		7850 Jul 28	11000 ^a Aug 14 1980
INSTANTANEOUS PEAK STAGE		8.30 Jul 28	10.40 Aug 14 1980
ANNUAL RUNOFF (AC-FT)	8180	14580	8060
10 PERCENT EXCEEDS	15	36	21
50 PERCENT EXCEEDS	.00	.72	.00
90 PERCENT EXCEEDS	.00	.21	.00

e Estimated

a-From rating curve extended above 2,900 ft³/s.

RIO GRANDE BASIN

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982-83, 1991 to current year.

REMARKS.--Selected composite samples were collected with an automatic parastaltic pump sampler that was activated whenever the flow stage exceeded 1.5 feet. Samples were pumped into a refrigerated chamber, manually retrieved within 12 hours, and expeditiously processed for delivery to the analytical laboratories.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
MAY 1997					
19...	1750	1820	239	1520	7470
19...	1805	1730	250	2120	9900
19...	1820	1610	232	1040	4520
19...	1835	1210	207	1010	3300
19...	1850	740	251	1250	2500
19...	1910	560	248	1660	2510
19...	1925	450	256	3260	3960
JUL					
10...	2000	4060	370	3920	43000
10...	2015	4640	327	2690	33700
10...	2030	4520	170	1010	12300
10...	2045	4400	184	974	11600
10...	2100	4060	171	815	8930
10...	2115	3300	201	1670	14900
10...	2130	2600	170	1050	7370
10...	2145	1770	167	692	3310
10...	2200	2160	155	508	2960
10...	2215	1070	146	449	1300
AUG					
04...	1445	2500	141	1200	8100
04...	1500	2400	150	1090	7060
04...	1515	1690	126	686	3130
04...	1530	1290	123	650	2260
04...	1545	860	124	601	1400
04...	1600	620	120	495	829

RIO GRANDE BASIN

207

08329914 NORTH CAMINO ARROYO TRIBUTARY AT ALBUQUERQUE, NM

LOCATION.--Lat 35°11'47", long 106°33'57", Bernalillo County, Hydrologic Unit 13020203, in Elena Gallegos Grant, on left bank in right-of-way for extension of Wyoming Boulevard, 150 ft south of Venice Avenue, 15 ft north of Beverly Hills Avenue, and 1.5 mi north of intersection of Paseo del Norte and Wyoming Boulevard in Albuquerque.

DRAINAGE AREA.--0.06 mi².

PERIOD OF RECORD.--June 1979 to September 1997 (discontinued). Rain gage record continues at same location.

GAGE.--Water-stage recorder. Elevation of gage is 5,360 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Recording rain gage at station. The basin is developing quickly since 1993. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 134 ft³/s, July 7, 1981, gage height, 2.10 ft, from slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 63 ft³/s, at 1800 hours July 10, gage height, 1.63 ft; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	1.4	.00	.00	1.8	.00	.00
4	22	---	---	---	---	---	21	.00	.00	.00	.00	---
5	.29	---	---	---	---	---	.00	.00	.00	.00	8.7	---
6	.00	---	---	---	---	---	.00	.00	2.3	.00	.00	---
7	.00	---	---	---	---	---	.00	.00	11	.00	.00	---
8	.00	---	---	---	---	---	.00	.00	29	.00	.00	---
9	.00	---	---	---	---	---	.00	.00	1.8	.00	.00	---
10	.00	---	---	---	---	---	.00	.04	.00	11	4.8	---
11	.00	---	---	---	---	---	7.1	1.2	.00	.00	5.2	---
12	.00	---	---	---	---	---	27	.00	.00	.00	.27	---
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	---
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	---
15	.00	---	---	---	---	---	.00	.00	2.0	.00	.00	---
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	---
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	---
18	.00	---	---	---	---	---	.00	.00	.00	.00	.00	---
19	.00	---	---	---	---	---	.00	.06	.00	.00	.00	---
20	.00	---	---	---	---	---	.00	.00	.00	.00	.00	---
21	13	---	---	---	---	---	.00	7.8	.00	.00	.00	---
22	.00	---	---	---	---	---	.00	.00	.00	2.2	6.5	---
23	.00	---	---	---	---	---	6.2	.00	.00	.00	1.0	---
24	.00	---	---	---	---	---	22	6.5	.00	.00	3.5	---
25	.00	---	---	---	---	.00	18	.00	.00	.00	.00	---
26	3.7	---	---	---	---	.00	11	.00	.72	.00	.00	---
27	29	---	---	---	---	2.2	6.2	.00	.00	5.3	.00	---
28	18	---	---	---	---	.00	.00	.00	.00	19	.00	---
29	.33	---	---	---	---	.00	.00	.00	.00	.58	.00	---
30	.00	---	---	---	---	.00	.00	.00	.00	19	.00	---
31	.00	---	---	---	---	.00	---	.00	---	30	7.6	---
TOTAL	86.32	---	---	---	---	---	119.90	15.60	46.82	88.88	37.57	---
MEAN	2.78	---	---	---	---	---	4.00	.50	1.56	2.87	1.21	---
MAX	29	---	---	---	---	---	27	7.8	29	30	8.7	---
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	.00	---
AC-FT	171	---	---	---	---	---	238	31	93	176	75	---
(†)	2.78	2.29	0.01	1.22	0.66	1.09	3.65	1.39	1.89	5.03	2.61	3.20

(†) Total rainfall accumulation in inches.

RIO GRANDE BASIN

08329930 CORRALES RIVERSIDE DRAIN NEAR CORRALES, NM

LOCATION.--Lat. 35°12'19", long 106°38'30", T.11 N., R. 106 W., Town of Alameda Grant, Bernalillo County, Hydrologic Unit 13020203, located on the right bank of dredged drain, 1/4 mile above Alameda Blvd. Bridge on right bank of Rio Grande. Site is approximately 0.2 miles north of intersection of Coors Blvd. (State Hwy 448) and Alameda Blvd. (State Hwy 46).

DRAINAGE AREA.--Not applicable to diversion drains.

PERIOD OF RECORD.-- June 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,995 feet above National Geodetic Vertical datum of 1929, from topographic map.

REMARKS.-- Records are fair prior to the construction of a concrete control structure on March 19, 1997. After this date, records are poor.

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 207 ft³/s, July 28, 1997, gage height 8.15 ft; base flows of approximately 20 cfs from November to mid March.

EXTREMES FOR PERIOD JUNE TO SEPTEMBER 1996.--Maximum daily discharge 65 ft³/s, Sept. 14; minimum daily 25 ft³/s, July 1.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 207 ft³/s, July 28, 1997, gage height 8.15 ft; base flows of approximately 20 cfs from November to mid March.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	25	60	32
2	---	---	---	---	---	---	---	---	---	49	51	26
3	---	---	---	---	---	---	---	---	---	40	54	28
4	---	---	---	---	---	---	---	---	---	34	55	30
5	---	---	---	---	---	---	---	---	---	30	55	30
6	---	---	---	---	---	---	---	---	---	27	44	33
7	---	---	---	---	---	---	---	---	---	27	40	36
8	---	---	---	---	---	---	---	---	---	36	48	33
9	---	---	---	---	---	---	---	---	---	43	42	33
10	---	---	---	---	---	---	---	---	---	40	42	40
11	---	---	---	---	---	---	---	---	---	47	41	37
12	---	---	---	---	---	---	---	---	---	40	38	51
13	---	---	---	---	---	---	---	---	---	61	38	55
14	---	---	---	---	---	---	---	---	---	61	37	65
15	---	---	---	---	---	---	---	---	---	56	29	55
16	---	---	---	---	---	---	---	---	---	45	27	51
17	---	---	---	---	---	---	---	---	---	51	31	52
18	---	---	---	---	---	---	---	---	---	62	35	53
19	---	---	---	---	---	---	---	---	---	58	42	53
20	---	---	---	---	---	---	---	---	---	48	37	52
21	---	---	---	---	---	---	---	---	---	42	34	50
22	---	---	---	---	---	---	---	---	---	38	40	49
23	---	---	---	---	---	---	---	---	---	28	49	49
24	---	---	---	---	---	---	---	---	---	27	49	53
25	---	---	---	---	---	---	---	---	---	30	45	54
26	---	---	---	---	---	---	---	---	51	41	61	56
27	---	---	---	---	---	---	---	---	73	49	57	58
28	---	---	---	---	---	---	---	---	71	48	53	53
29	---	---	---	---	---	---	---	---	31	44	53	54
30	---	---	---	---	---	---	---	---	26	51	42	50
31	---	---	---	---	---	---	---	---	---	53	34	---
TOTAL	---	---	---	---	---	---	---	---	---	1331	1363	1371
MEAN	---	---	---	---	---	---	---	---	---	42.9	44.0	45.7
MAX	---	---	---	---	---	---	---	---	---	62	61	65
MIN	---	---	---	---	---	---	---	---	---	25	27	26
AC-FT	---	---	---	---	---	---	---	---	---	2640	2700	2720

08329930 CORRALES RIVERSIDE DRAIN NEAR CORRALES, NM -- Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	34	21	20	20	19	38	38	60	55	71	42
2	49	23	21	19	19	19	41	41	62	64	83	37
3	44	23	21	20	19	19	37	40	62	67	96	34
4	52	22	21	21	19	23	39	36	66	72	97	37
5	55	22	21	21	19	29	44	41	66	68	100	47
6	43	23	20	21	19	37	34	33	69	65	93	41
7	35	23	21	20	19	39	31	39	75	64	105	37
8	48	23	21	20	19	39	e40	44	70	57	116	39
9	44	22	21	20	19	37	48	51	66	67	111	40
10	42	22	21	19	19	38	58	52	75	80	104	41
11	40	22	21	19	19	39	60	61	73	107	111	46
12	34	22	21	20	18	37	59	58	75	96	113	49
13	37	22	21	19	19	37	40	53	75	85	85	44
14	40	22	21	19	18	40	44	49	70	77	56	36
15	42	22	21	19	18	37	39	52	65	67	61	42
16	44	22	21	19	18	35	33	62	69	65	62	43
17	54	22	21	19	18	35	30	62	71	69	51	44
18	55	22	21	19	18	39	36	61	66	72	48	43
19	54	22	20	19	19	40	34	67	63	63	56	43
20	54	22	19	19	20	37	38	64	63	74	56	47
21	54	22	19	19	20	31	43	76	65	78	55	59
22	56	22	19	19	19	30	36	74	68	64	50	52
23	55	22	19	20	19	30	41	69	73	73	55	52
24	53	23	20	20	19	35	46	70	68	93	56	53
25	54	21	21	20	19	41	45	73	67	100	52	50
26	51	21	21	20	19	33	41	72	73	104	43	51
27	50	21	20	20	19	45	44	68	73	107	36	53
28	49	21	20	20	19	42	49	62	75	160	36	52
29	46	22	20	20	---	41	44	58	90	128	39	49
30	47	22	19	20	---	46	43	60	83	103	43	52
31	53	---	19	20	---	41	---	63	---	84	40	---
TOTAL	1491	674	633	610	529	1090	1255	1749	2096	2528	2180	1355
MEAN	48.1	22.5	20.4	19.7	18.9	35.2	41.8	56.4	69.9	81.5	70.3	45.2
MAX	57	34	21	21	20	46	60	76	90	160	116	59
MIN	34	21	19	19	18	19	30	33	60	55	36	34
AC-FT	2960	1340	1260	1210	1050	2160	2490	3470	4160	5010	4320	2690

e Estimated

08329931 CORRALES MAIN CANAL OUTFLOW AT ALBUQUERQUE, NM

LOCATION.--Lat. 35°09'41", long 106°40'27', in SW¹/₄ of the SW¹/₄, Sec. 19, T. 11 N., R. 2 E., Bernalillo County, Hydrologic Unit 13020203, located on the right bank of the concrete-lined Main Canal and in the concrete box culvert which passes directly over the Corrales Riverside Drain. This is approximately 1/4 mi east and 1000 feet north of the intersection of Coors Blvd. and La Orilla Road on the west side of Albuquerque.

DRAINAGE AREA.--Not applicable to diversion drains.

PERIOD OF RECORD.--June 1996 to current year (seasonal records).

GAGE.--Water-stage recorder in concrete-lined box culvert. Elevation of gage is 4,990 feet above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. Periods of missing record cannot be estimated, due to lack of upstream gages and the variable return-flows received from irrigation run-off.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 111 ft³/s, March 5, 1997, gage height 1.23 ft; no flow from approximately Nov. 15 to March 1.

EXTREMES FOR PERIOD JUNE TO SEPTEMBER 1996.--Maximum daily discharge 19 ft³/s, Sept. 18, 23-27, minimum daily; no flow July 2.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 111 ft³/s March 5, 1997, at 1230 hours, gage height, 1.23 ft; no flow for many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	.09	9.2	1.8
2	---	---	---	---	---	---	---	---	---	.00	8.2	2.8
3	---	---	---	---	---	---	---	---	---	5.1	12	4.9
4	---	---	---	---	---	---	---	---	---	10	8.4	4.0
5	---	---	---	---	---	---	---	---	---	9.5	7.1	6.8
6	---	---	---	---	---	---	---	---	---	7.6	4.8	15
7	---	---	---	---	---	---	---	---	---	3.7	5.8	11
8	---	---	---	---	---	---	---	---	---	8.7	6.6	11
9	---	---	---	---	---	---	---	---	---	14	7.9	7.1
10	---	---	---	---	---	---	---	---	---	5.3	4.8	11
11	---	---	---	---	---	---	---	---	---	4.7	3.0	5.2
12	---	---	---	---	---	---	---	---	---	5.0	2.1	7.6
13	---	---	---	---	---	---	---	---	---	7.8	---	4.4
14	---	---	---	---	---	---	---	---	---	7.2	---	16
15	---	---	---	---	---	---	---	---	---	5.8	---	8.7
16	---	---	---	---	---	---	---	---	---	4.6	---	11
17	---	---	---	---	---	---	---	---	---	2.2	---	18
18	---	---	---	---	---	---	---	---	---	5.0	---	19
19	---	---	---	---	---	---	---	---	---	7.1	---	18
20	---	---	---	---	---	---	---	---	---	7.0	---	17
21	---	---	---	---	---	---	---	---	---	2.8	---	17
22	---	---	---	---	---	---	---	---	---	.44	---	18
23	---	---	---	---	---	---	---	---	---	.00	---	19
24	---	---	---	---	---	---	---	---	---	.00	---	19
25	---	---	---	---	---	---	---	---	---	.00	---	19
26	---	---	---	---	---	---	---	---	---	.00	---	19
27	---	---	---	---	---	---	---	---	e3.0	2.6	---	19
28	---	---	---	---	---	---	---	---	3.3	4.7	---	15
29	---	---	---	---	---	---	---	---	.62	7.1	e5.0	11
30	---	---	---	---	---	---	---	---	.01	14	4.3	13
31	---	---	---	---	---	---	---	---	---	18	8.6	---
TOTAL	---	---	---	---	---	---	---	---	---	170.03	---	369.3
MEAN	---	---	---	---	---	---	---	---	---	5.48	---	12.3
MAX	---	---	---	---	---	---	---	---	---	18	---	19
MIN	---	---	---	---	---	---	---	---	---	.00	---	1.8
AC-FT	---	---	---	---	---	---	---	---	---	337	---	733

e Estimated

08329931 CORRALES MAIN CANAL OUTFLOW AT ALBUQUERQUE, NM -- Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	.01	.00	.00	.00	.00	.22	6.2	16	---	1.1	---
2	12	.00	.00	.00	.00	.00	1.3	2.8	12	---	.91	e15
3	14	.00	.00	.00	.00	.00	2.2	4.3	5.9	---	.68	21
4	6.1	.00	.00	.00	.00	9.9	.00	8.9	5.9	---	e5.0	22
5	1.6	.00	.00	e.00	.00	51	.89	11	8.7	---	---	22
6	1.1	.00	.00	e.00	.00	34	2.4	4.8	14	---	---	18
7	1.4	.00	.00	e.00	.00	35	2.5	4.9	21	---	---	9.5
8	9.5	.00	.00	e.00	.00	27	2.9	7.6	e15	---	---	6.7
9	8.9	.00	.00	e.00	.00	7.2	.76	4.2	---	---	---	11
10	3.1	.00	.00	e.00	.00	.00	.00	8.2	---	---	---	12
11	3.4	.00	.00	e.00	.00	.00	.00	11	---	---	---	11
12	4.2	.00	.00	.00	.00	.00	.00	10	---	---	---	11
13	10	.00	.00	.00	.00	.00	.00	10	---	---	---	17
14	11	.00	.00	.00	.00	.00	3.8	6.5	---	---	---	24
15	9.9	.00	.00	.00	.00	.00	5.3	15	---	e14	---	23
16	6.9	.00	.00	.00	.00	.00	12	15	---	8.1	---	22
17	1.7	.00	.00	.00	.00	.00	24	13	---	4.0	---	20
18	2.5	.00	.00	.00	.00	.00	13	11	---	6.1	---	16
19	4.2	.00	.00	.00	.00	.00	14	12	---	13	---	18
20	7.8	.00	.00	.00	.00	.00	11	11	---	9.3	---	14
21	8.2	.00	.00	.00	.00	.00	3.0	12	---	7.3	---	19
22	5.5	.00	.00	.00	.00	.00	7.6	11	---	1.5	---	19
23	6.3	.00	.00	.00	.00	.00	9.8	14	---	1.3	---	17
24	7.1	.01	.00	.00	.00	1.9	13	16	---	2.8	---	12
25	19	.79	.00	.00	.00	6.3	11	15	---	9.4	---	10
26	14	.00	.00	.00	.00	6.2	7.9	14	---	5.9	---	9.1
27	11	.00	.00	.00	.00	4.5	7.0	13	---	6.6	---	5.3
28	13	.00	.00	.00	.00	7.1	8.0	7.4	---	11	---	4.9
29	9.8	.43	.00	.00	---	.00	10	6.8	---	9.9	---	7.4
30	9.3	.44	.00	.00	---	.00	8.6	15	---	7.0	---	7.5
31	6.7	---	.00	.00	---	.00	---	17	---	4.3	---	---
TOTAL	236.5	1.68	0.00	0.00	0.00	190.10	182.17	318.6	---	---	---	---
MEAN	7.63	.056	.000	.000	.000	6.13	6.07	10.3	---	---	---	---
MAX	19	.79	.00	.00	.00	51	24	17	---	---	---	---
MIN	1.1	.00	.00	.00	.00	.00	.00	2.8	---	---	---	---
AC-FT	469	3.3	.00	.00	.00	377	361	632	---	---	---	---

e Estimated

RIO GRANDE BASIN

08329935 ARROYO 19A AT ALBUQUERQUE, NM

LOCATION.--Lat 35°09'24", long 106°43'37", in NE¹/4NE¹/4 sec.28, T.11 N., R.2 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 900 ft upstream from culvert under 81st Street, 1,200 ft south of city water tank, and 0.6 mi south of intersection of 81st Street and Atrisco Drive at Albuquerque.

DRAINAGE AREA.--1.50 mi².

PERIOD OF RECORD.--June 1977 to current year (seasonal records).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,330 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 19, 1986 at site 450 ft downstream at different datum.

REMARKS.--Records good. Recording rain gage at station. The basin drains undeveloped semidesert terrain above the escarpment west of Albuquerque. See tabulation below for monthly precipitation in inches. No flow most of time.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100 ft³/s, Oct. 2, 1981, gage height, 4.03 ft, site and datum then in use, from slope-area measurement of peak flow; no flow most time.

EXTREMES FOR CURRENT YEAR.--No flow during water year.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
4	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
20	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
21	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
22	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
23	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
24	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
25	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
26	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
27	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
28	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
29	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	---	---	---	---	---	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	.000	---	---	---	---	---	.000	.000	.000	.000	.000	.000
MAX	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
(t)	1.40	0.50	0.02	0.47	0.16	0.24	1.51	0.41	0.83	2.25	1.61	2.09

(t) Total rainfall accumulation in inches.

08329936 TAYLOR RANCH DRAIN AT ALBUQUERQUE, NM

LOCATION.--Lat 35°08'56", long 106°42'03", in SE¹/₄SW¹/₄ sec.26, T.11 N., R.2 E., Bernalillo County, Hydrologic Unit 13020203, on left bank of drainage outlet for Taylor Ranch subdivision, 120 ft west of intersection of Calle Nuestra and Cabrillo Circle, and 1,850 ft southwest of intersection of Montano Road and Valle Vista Drive in Albuquerque.

DRAINAGE AREA.--0.132 mi².

PERIOD OF RECORD.--August 1978 to current year (seasonal records).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Recording rain gage at station. The basin is primarily urban residential. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43 ft³/s, Sept. 8, 1980, gage height, 3.26 ft; no flow most most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 32 ft³/s, Aug. 21, at 1725 hours gage height, 2.87 ft; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	.02	.00
2	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	.16	.00	.00	.00	.00	.00
4	.28	---	---	---	---	---	.19	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	.00	.00	.00	.00	.21	.00
6	.00	---	---	---	---	---	.00	.00	.01	.00	.00	.00
7	.00	---	---	---	---	---	.00	.00	.09	.00	.00	.00
8	.00	---	---	---	---	---	.00	.00	.11	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.18
10	.00	---	---	---	---	---	.00	.00	.00	.02	.00	.00
11	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.03
12	.00	---	---	---	---	---	.02	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.06	.00	.00	.11
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	---	---	---	---	---	.00	.00	.00	.01	.00	.00
19	.00	---	---	---	---	---	.00	.07	.00	.00	.00	.01
20	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.14
21	.01	---	---	---	---	.00	.00	.07	.00	.00	.68	.45
22	.00	---	---	---	---	.00	.00	.00	.00	.00	.10	.00
23	.00	---	---	---	---	.00	.08	.00	.00	.00	.00	.00
24	.00	---	---	---	---	.00	.15	.00	.00	.00	.00	.00
25	.00	---	---	---	---	.03	.00	.00	.00	.00	.00	.00
26	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
27	.09	---	---	---	---	.00	.00	.00	.00	.68	.00	.00
28	.15	---	---	---	---	.00	.00	.00	.00	.06	.00	.00
29	.00	---	---	---	---	.00	.00	.00	.00	.04	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.01	.03	.00
31	.00	---	---	---	---	.00	---	.00	---	.08	.00	---
TOTAL	0.53	---	---	---	---	---	0.60	0.14	0.27	0.90	1.04	0.92
MEAN	.017	---	---	---	---	---	.020	.005	.009	.029	.034	.031
MAX	.28	---	---	---	---	---	.19	.07	.11	.68	.68	.45
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	1.1	---	---	---	---	---	1.2	.3	.5	1.8	2.1	1.8
(t)	2.09	0.54	0.01	0.79	0.19	0.47	2.00	0.67	1.19	3.00	2.39	3.18

(t) Total rainfall accumulation in inches.

RIO GRANDE BASIN

08329938 LADERA ARROYO AT ALBUQUERQUE, NM

LOCATION.--Lat 35°06'59", long 106°43'59", in Town of Atrisco Land Grant, Bernalillo County, Hydrologic Unit 13020203, on left bank, 0.25 mi northwest of City of Albuquerque water storage tank, on dirt road extension of Ouray Road, and 2.3 mi west of North Coors Road in Albuquerque.

DRAINAGE AREA.--0.34 mi².

PERIOD OF RECORD.--May 1981 to current year (seasonal records).

GAGE.--Water-stage recorder. Elevation of gage is 5,220 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 5, 1986 at site 0.2 mi downstream at different datum.

REMARKS.--Records fair. Recording rain gage at station. The basin is undeveloped semidesert terrain, part of which, is above the escarpment west of Albuquerque. See tabulation below for monthly precipitation in inches.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 182 ft³/s, Aug. 27, 1993, gage height, 4.11 ft, from step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 9.8 ft³/s, Oct. 4, at 1145 hours, gage height, 2.50 ft; no flow most of time.

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

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
4	.51	---	---	---	---	---	.00	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
6	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
8	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
11	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
12	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
20	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
21	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
22	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
23	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
24	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
25	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
26	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
27	.00	---	---	---	---	.00	.00	.00	.00	.04	.00	.00
28	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
29	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.01	.00	---
TOTAL	0.51	---	---	---	---	---	0.00	0.00	0.00	0.05	0.00	0.00
MEAN	.016	---	---	---	---	---	.000	.000	.000	.002	.000	.000
MAX	.51	---	---	---	---	---	.00	.00	.00	.04	.00	.00
MIN	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	1.0	---	---	---	---	---	.00	.00	.00	.1	.00	.00
(†)	1.58	0.19	0.01	0.43	0.16	0.39	1.55	0.42	0.68	2.16	0.54	2.28

(†) Total rainfall accumulation in inches.

08330000 RIO GRANDE AT ALBUQUERQUE, NM

LOCATION.--Lat 35°05'21", long 106°40'48", Bernalillo County, Hydrologic Unit 13020203, in Atrisco Grant, on downstream side of Central Ave. Bridge in Albuquerque, and at mile 1,540.0.

DRAINAGE AREA.--17,440 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1946(M).

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,946.16 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 18, 1947, at various sites at datum about 2.00 ft higher; Sept. 15, 1982, to Sept. 20, 1983, at site 1.0 mi upstream at different datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 50 mi upstream. Possible regulation by operation of reservoirs on Rio Chama and by flood and silt-detention reservoirs on Galisteo Creek and Jemez River (stations 08285000, 08286900, 08317900, 08328500). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions upstream from station for irrigation of about 718,000 acres, several hundred of which are downstream from station. National Weather Service gage-height telemeter.

COOPERATION.--Records for Albuquerque Riverside drain and Arenal, Armijo, and Atrisco canals provided by Middle Rio Grande Conservancy District.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	737	658	728	825	885	1590	1610	4980	1650	1230	764
2	342	585	641	730	830	948	1470	1800	4940	1490	1070	741
3	301	567	660	749	835	943	1570	1790	4930	1290	1040	754
4	750	571	672	791	850	873	1880	1660	5290	1220	1080	784
5	923	613	540	799	893	897	1680	1610	5240	1190	1090	867
6	635	703	474	880	931	890	1630	1620	5320	1300	1140	929
7	571	697	565	839	900	851	1410	2200	5600	1430	1430	945
8	478	589	662	864	893	821	1170	2760	5430	1160	1790	977
9	362	568	680	701	882	820	1150	3110	5170	910	1360	990
10	324	574	719	543	874	768	1110	3220	5900	820	1210	987
11	320	571	779	628	866	732	1040	3370	5980	1230	1380	1050
12	302	569	795	695	846	769	1060	3400	5970	916	1530	944
13	296	605	795	651	805	929	1060	3350	5920	860	1420	896
14	302	561	753	567	746	992	976	3350	5890	845	1270	950
15	322	536	700	558	716	1090	924	3430	5810	831	1250	1050
16	332	476	689	693	720	1120	838	4140	5810	808	1150	954
17	289	550	775	786	714	1090	744	4230	5720	849	952	893
18	258	562	794	778	714	1260	700	4320	4840	810	948	791
19	284	590	616	758	1490	1310	751	4490	4020	843	1030	716
20	298	612	498	751	1760	1290	774	4530	3260	814	831	791
21	314	551	475	762	1120	1390	860	4990	2720	830	668	1370
22	345	517	471	840	926	1680	1190	5000	2470	823	606	1200
23	312	558	475	875	935	1800	1540	4940	2230	812	1010	1400
24	297	701	738	870	943	1830	2090	4960	2150	746	795	1320
25	290	579	896	939	927	1990	2660	4930	2360	721	918	1190
26	334	572	902	941	886	2080	2440	4900	2000	691	671	1420
27	407	607	762	955	914	2010	2240	4900	1410	795	567	2070
28	427	602	677	1010	924	2010	2180	4900	1930	1490	531	2220
29	427	670	663	1010	---	2030	1760	4850	2040	1090	550	2200
30	397	706	661	1060	---	2070	1580	4810	1970	1190	615	1680
31	472	---	707	1010	---	2010	---	5080	---	2070	688	---
TOTAL	12021	17899	20892	24761	25665	40178	42067	114250	127300	32524	31820	33843
MEAN	388	597	674	799	917	1296	1402	3685	4243	1049	1026	1128
MAX	923	737	902	1060	1760	2080	2660	5080	5980	2070	1790	2220
MIN	258	476	471	543	714	732	700	1610	1410	691	531	716
AC-FT	23840	35500	41440	49110	50910	79690	83440	226600	252500	64510	63110	67130
(t)	13960	837	38	662	579	10080	15730	17870	17280	18030	14660	16480

(t) COMBINED FLOW, IN ACRE-FEET, OF ALBUQUERQUE RIVERSIDE DRAIN, AND ARENAL, ARMIJO AND ATRISCO CANALS. THIS FLOW, WHICH BYPASSES RIVER GAGE, CAN BE ADDED TO RIVER RECORDS TO GET THE ENTIRE FLOW IN VALLEY CROSS SECTION.

RIO GRANDE BASIN

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, BY WATER YEAR (WY)

MEAN	421	961	1053	964	1092	1345	2193	3347	3081	1628	792	594
MAX	1291	2302	2276	2159	3562	2790	6343	6203	6113	5439	3452	1554
(WY)	1987	1987	1987	1986	1986	1986	1985	1980	1983	1979	1986	1986
MIN	38.4	145	480	486	590	480	137	148	336	287	278	51.4
(WY)	1978	1990	1975	1977	1978	1977	1977	1977	1989	1974	1978	1974

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

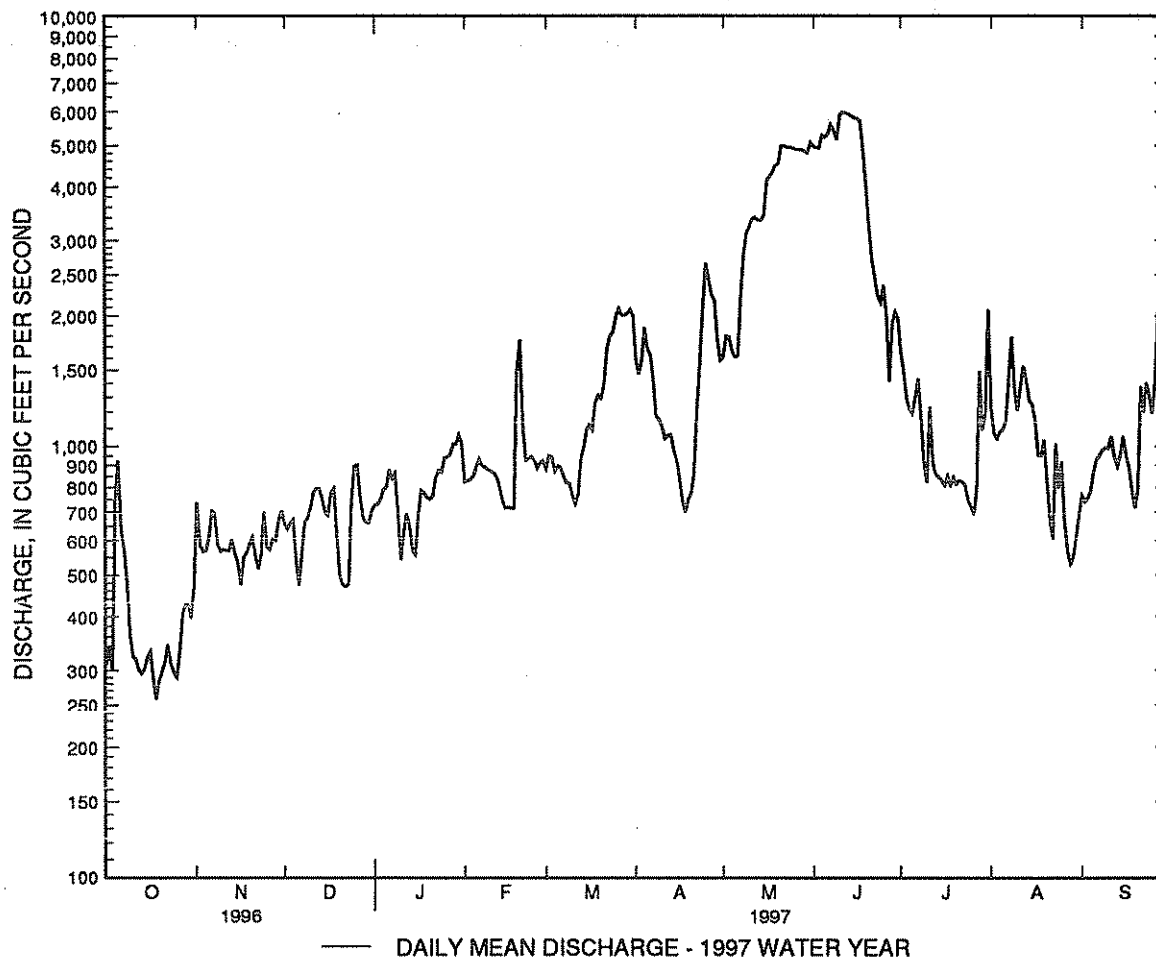
FOR 1997 WATER YEAR

WATER YEARS 1974 - 1997

ANNUAL TOTAL	266575		523220									
ANNUAL MEAN	728		1433							1456 ^a		
HIGHEST ANNUAL MEAN										2486		1987
LOWEST ANNUAL MEAN										356		1977
HIGHEST DAILY MEAN	1770	Feb 22		5980	Jun 11					8650	Apr 24	1985
LOWEST DAILY MEAN	174	Jul 6		258	Oct 18					.00	May 30	1977
ANNUAL SEVEN-DAY MINIMUM	285	Sep 25		298	Oct 13					.00	May 30	1977
INSTANTANEOUS PEAK FLOW				6270	Jun 8				25000 ^b		Apr 24	1942
INSTANTANEOUS PEAK STAGE				6.21	Jun 8				7.82		Aug 10	1967
INSTANTANEOUS LOW FLOW				227	Oct 18				147		Jul 6	1996
ANNUAL RUNOFF (AC-FT)	528800			1038000					1055000			
10 PERCENT EXCEEDS	1380			3410					3720			
50 PERCENT EXCEEDS	594			897					858			
90 PERCENT EXCEEDS	336			538					288			

a-Average discharge for 33 years (water year 1942-74), 1,440 ft³/s, 1,043,000 acre-ft, prior to closure of Cochiti Dam.

b-From rating curve extended above 13,900 ft³/s.



08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to current year.

SUSPENDED-SEDIMENT DISCHARGE: May 1969 to September 1969 (partial-record station), October 1969 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler.

REMARKS.--Daily sediment total-loads were calculated for one day of nearly every month. Daily total-load values were determined using equation from double-mass relationship plot for period of record. Specific conductance values were determined in the laboratory from daily suspended sediment samples collected by pumping sampler..

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,840 microsiemens, Oct. 12, 1974; minimum daily, 115 microsiemens, Aug. 14, 1980.

SEDIMENT CONCENTRATION: Maximum daily mean, 45,500 mg/L, July 21, 1971; minimum daily mean, no flow on many days in 1971, 1972, and 1977.

SEDIMENT LOAD: Maximum daily, 275,000 tons, July 27, 1971; minimum daily, 0 ton on many days in 1971, 1972, and 1977.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, undetermined; minimum daily, undetermined.

SEDIMENT CONCENTRATION: Maximum daily mean, 12,300 mg/L, July 31; minimum daily mean, 70 mg/L, Dec. 20, July 26..

SEDIMENT LOAD: Maximum daily, 70,100 tons, July 31; minimum daily, 53 tons, Oct. 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC- ITY, MEAN (F/S) (00055)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY) (80156)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)	
OCT 1996											
28...	0957	322	248	0.91	1.41	11.0	126	110	180	--	
DEC											
02...	1015	619	258	1.2	1.92	7.0	854	1430	2140	--	
30...	1115	630	262	1.3	1.79	7.0	70	119	194	--	
JAN 1997											
27...	1100	1050	276	1.8	2.11	8.0	1570	4450	6400	--	
FEB											
10...	1107	868	258	1.6	2.09	5.5	125	293	464	--	
MAR											
05...	0950	904	260	1.6	2.12	2.5	147	359	564	--	
APR											
04...	1122	2090	328	2.2	2.87	10.0	1500	8460	11900	--	
MAY											
09...	1150	3230	331	3.1	3.17	--	1790	15600	21500	100	
JUN											
03...	0950	5040	336	4.3	3.52	16.5	1820	24800	33600	99	
JUL											
08...	0940	1100	--	--	--	19.5	1660	4930	7060	--	
AUG											
05...	1006	984	--	--	--	22.0	308	818	1250	--	
SEP											
02...	1040	774	254	1.5	1.95	20.5	445	930	1410	--	
DATE		SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)
OCT 1996											
28...	--	--	--	--	50	61	76	91	100	3	
DEC											
02...	--	--	--	--	6	11	22	45	100	0	
30...	--	--	--	--	61	72	100	--	--	0	
JAN 1997											
27...	--	--	--	--	13	14	25	72	100	--	
FEB											
10...	--	--	--	--	52	59	89	100	--	1	
MAR											
05...	--	--	--	--	66	72	87	100	--	6	
APR											
04...	--	--	--	--	22	23	35	74	100	4	
MAY											
09...	6	7	8	12	26	32	51	79	93	0	
JUN											
03...	--	--	--	--	9	13	29	81	95	--	
JUL											
08...	--	--	--	--	4	5	22	82	100	--	
AUG											
05...	--	--	--	--	81	83	90	100	--	0	
SEP											
02...	--	--	--	--	94	95	98	100	--	0	

RIO GRANDE BASIN

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	BED MAT. SIEVE DIAM. % FINER THAN 125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN 250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN 500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
OCT 1996									
28...	5	10	41	64	71	73	74	77	100
DEC									
02...	2	13	56	84	90	91	92	100	--
30...	2	8	45	72	78	80	80	80	100
JAN 1997									
27...	0	6	49	79	89	92	95	100	--
FEB									
10...	3	9	53	80	85	87	88	100	--
MAR									
05...	11	23	65	89	97	99	99	100	--
APR									
04...	7	16	69	95	99	99	100	--	--
MAY									
09...	1	20	74	91	96	99	100	--	--
JUN									
03...	0	7	49	80	89	100	96	97	100
JUL									
08...	0	5	48	86	97	99	100	--	--
AUG									
05...	1	13	57	92	98	99	100	--	--
SEP									
02...	1	6	53	85	93	96	97	100	--

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	428	---	---	---	---	407	---	266	284	450	332
2	---	---	433	425	---	---	415	379	268	286	368	312
3	---	---	---	418	427	407	---	---	271	290	354	322
4	---	436	432	---	428	---	340	---	269	---	358	328
5	---	---	---	---	---	402	---	---	267	---	348	318
6	---	433	451	370	---	---	---	357	267	---	362	311
7	406	427	---	---	428	---	371	340	255	---	373	309
8	---	---	---	419	---	---	---	---	255	293	358	308
9	433	---	438	---	---	---	---	349	248	307	327	307
10	---	---	---	---	414	413	415	---	242	280	327	308
11	458	---	420	---	---	---	422	---	236	302	320	313
12	---	437	---	---	416	420	---	338	241	308	330	316
13	---	436	---	431	---	---	---	---	243	---	333	319
14	---	---	---	---	428	415	458	330	247	---	327	324
15	419	434	---	---	---	---	---	---	252	---	326	328
16	417	---	423	428	---	---	412	313	256	---	322	321
17	---	---	---	---	---	---	---	320	269	---	321	320
18	427	431	---	---	391	435	396	314	272	---	325	321
19	---	---	434	---	448	431	---	308	263	---	318	320
20	---	431	448	---	---	---	---	299	267	---	322	308
21	424	---	---	409	429	431	411	299	270	---	307	244
22	---	432	---	402	---	---	---	281	282	306	296	327
23	425	---	443	---	---	---	402	273	278	323	280	363
24	---	---	439	403	423	---	---	272	276	322	310	355
25	435	429	---	---	---	412	379	268	299	320	357	364
26	---	439	---	---	403	405	---	263	294	318	308	354
27	---	427	414	443	---	---	---	262	288	321	319	330
28	423	---	---	---	---	403	381	259	289	320	327	321
29	---	---	---	508	---	---	---	263	286	300	315	313
30	425	---	422	---	---	---	430	263	284	336	318	---
31	---	---	---	630	---	---	---	265	---	420	311	---
MEAN	427	432	433	441	421	416	403	301	267	313	333	321
MAX	458	439	451	630	448	435	458	379	299	420	450	364
MIN	406	427	414	370	391	402	340	259	236	280	280	244

WTR YR 1997 MEAN 353 MAX 630 MIN 236

RIO GRANDE BASIN

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08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	159	137	471	910	109	188	152	287	204	455	188	450
2	192	177	350	539	112	187	167	319	185	415	183	468
3	247	199	231	342	122	210	163	320	177	399	180	459
4	318	679	171	254	126	222	194	402	206	473	189	446
5	409	1020	205	329	99	141	237	498	200	482	197	476
6	527	900	246	452	82	101	268	620	189	475	189	455
7	614	946	249	452	95	141	220	483	184	446	181	415
8	351	461	305	466	116	200	180	411	207	499	173	383
9	189	185	383	567	140	249	177	327	237	565	165	365
10	174	151	481	720	166	314	179	256	259	612	157	326
11	170	145	605	900	188	383	181	301	225	526	150	296
12	164	132	625	927	172	358	183	336	187	428	149	310
13	158	125	184	286	154	321	181	311	142	310	182	460
14	151	122	124	182	138	271	160	241	110	221	225	603
15	141	121	113	157	123	225	141	206	107	207	265	782
16	114	100	121	149	110	198	127	233	109	212	311	943
17	92	71	131	188	102	205	134	280	111	214	365	1080
18	78	53	142	209	95	196	145	298	202	390	413	1400
19	85	63	156	240	86	137	156	316	1390	5900	376	1330
20	94	74	159	254	70	90	168	338	879	4180	382	1340
21	109	90	120	173	78	95	186	378	447	1380	405	1530
22	154	138	91	123	89	108	223	501	290	725	444	2020
23	198	160	89	129	129	158	208	487	194	489	489	2370
24	137	106	88	162	308	602	201	469	144	366	537	2650
25	109	83	88	133	255	595	255	649	170	424	606	3270
26	251	219	90	134	187	439	334	847	201	481	706	3970
27	643	684	104	166	143	283	416	1070	200	493	636	3460
28	1140	1220	107	168	131	229	412	1120	194	484	557	3030
29	482	560	108	189	123	211	380	1030	---	---	494	2710
30	177	183	109	200	119	204	294	846	---	---	439	2450
31	260	329	---	---	133	244	229	628	---	---	389	2110
TOTAL	---	9633	---	10100	---	7505	---	14808	---	22251	---	42357
DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	352	1510	257	1120	4120	55500	643	2890	9610	32700	1120	2200
2	381	1510	287	1400	3060	40900	570	2310	3070	8700	936	1830
3	502	2140	284	1370	2450	32600	749	2620	1020	2860	360	731
4	619	3160	278	1250	3250	46400	560	1850	878	2580	830	1740
5	473	2150	271	1180	3620	51300	415	1340	475	1420	1110	2560
6	334	1470	282	1230	2900	41600	308	1080	968	3020	589	1480
7	248	949	417	2510	2700	40900	229	879	3590	13900	346	883
8	237	749	1020	7670	3490	51100	165	522	2590	12500	366	964
9	234	727	2110	17800	3860	53900	112	276	917	3450	444	1190
10	227	680	1670	14500	2540	40400	184	406	431	1410	364	971
11	182	514	1140	10400	2870	46400	151	548	422	1570	834	2430
12	165	472	807	7400	2210	35700	92	226	394	1630	1320	3500
13	154	441	715	6470	2350	37600	103	239	337	1300	304	736
14	148	389	689	6240	2450	38900	103	236	229	788	225	576
15	186	463	783	7250	1990	31200	103	232	195	659	302	859
16	232	524	947	10600	2040	32000	103	226	229	713	208	543
17	173	349	1430	16400	3760	58100	104	237	148	382	140	338
18	119	225	1710	20000	2460	32300	104	227	236	606	123	263
19	122	247	1590	19300	1770	19300	104	236	237	654	106	206
20	135	283	1690	20600	2010	17700	104	228	252	555	164	353
21	167	393	1490	20200	1610	11800	104	233	206	378	561	2200
22	304	991	2170	29200	1600	10700	98	218	214	349	1330	4060
23	539	2270	3110	41400	1710	10300	82	179	875	2200	2440	8940
24	768	4360	2610	34900	2850	16500	76	152	1340	2680	517	1890
25	953	6860	2520	33500	2630	16700	79	154	4750	10800	212	683
26	750	4960	1970	26100	1710	9690	70	131	1460	2730	264	1030
27	560	3390	2280	30100	1330	5430	198	513	378	580	647	3690
28	417	2450	2380	31500	994	5200	2520	10400	300	430	472	2820
29	304	1450	2330	30500	782	4300	1380	4210	271	404	342	2030
30	235	998	2770	35900	763	4050	2280	7310	336	560	301	1460
31	---	---	3330	45700	---	---	12300	70100	390	723	---	---
TOTAL YEAR	---	47074 1862683	---	533690	---	898470	---	110408	---	113231	---	53156

RIO GRANDE BASIN

08330540 TRAMWAY FLOODWAY CHANNEL AT ALBUQUERQUE, NM

LOCATION.--Lat 35°04'43", long 106°29'51", Bernalillo County, Hydrologic Unit 13020203, on right bank 300 ft downstream from Copper Boulevard Bridge, near corner of Tramway and Copper Boulevards NE in Albuquerque.

DRAINAGE AREA.--1.60 mi².

PERIOD OF RECORD.--July 1987 to current year (seasonal record).

GAGE.--Water-stage recorder and concrete-lined channel. Elevation of gage is 5,760 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. Some minor streamflow may exist on days where daily mean discharges have been recorded as zero due to the sensitivity limits of the streamflow monitoring equipment.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,250 ft³/s, July 9, 1988, gage height, 7.62 ft, from floodmarks, from step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 238 ft³/s, at 1925 hours July 10, gage height 1.60 ft; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	e.00	.00	.00
2	.00	---	---	---	---	---	.00	.00	.00	e.00	.00	.00
3	.00	---	---	---	---	---	.44	.00	.00	e.00	.30	.27
4	e3.0	---	---	---	---	---	1.6	.00	.00	e.00	.00	.03
5	e.00	---	---	---	---	---	.01	.00	.00	e.00	1.2	.00
6	e.00	---	---	---	---	---	.01	.00	.11	e.00	.00	.00
7	e.00	---	---	---	---	---	.00	.00	.45	e.00	.00	.00
8	e.00	---	---	---	---	---	.00	.00	1.3	e.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	e.00	.00	.03
10	.00	---	---	---	---	---	.00	.00	.00	e7.0	.25	.00
11	.00	---	---	---	---	---	.01	.00	.00	.00	.00	.01
12	.00	---	---	---	---	---	.57	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.01	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.32	.00
15	.00	---	---	---	---	---	.00	.00	.12	.00	.00	.00
16	.00	---	---	---	---	---	.00	.00	.00	.23	.00	.00
17	.00	---	---	---	---	---	.18	.00	.00	.00	.00	.00
18	.00	---	---	---	---	---	.01	.00	.00	.13	.00	.00
19	.00	---	---	---	---	e.00	.00	1.3	.00	.14	.00	.16
20	.00	---	---	---	---	.00	.00	.43	.00	.00	.00	1.1
21	.04	---	---	---	---	.00	.00	1.0	.00	.24	.22	3.7
22	.00	---	---	---	---	.00	.00	.00	.00	.83	.49	.00
23	.00	---	---	---	---	.00	.90	.00	.00	.00	.66	.00
24	.00	---	---	---	---	.00	1.2	.00	.00	.00	.00	.00
25	.00	---	---	---	---	.50	.61	.00	.00	.00	.00	.00
26	.31	---	---	---	---	.00	.14	.00	.00	.00	.00	.00
27	.37	---	---	---	---	.35	.00	.00	e.00	.39	.00	.00
28	.90	---	---	---	---	.00	.00	.00	e.00	5.0	.00	.00
29	.08	---	---	---	---	.00	.00	.00	e.00	.02	.00	.00
30	e.00	---	---	---	---	.00	.00	.00	e.00	1.2	.00	.00
31	---	---	---	---	---	.00	---	.00	---	2.2	.00	---
TOTAL	---	---	---	---	---	---	5.69	2.73	1.98	17.38	3.44	5.30
MEAN	---	---	---	---	---	---	.19	.088	.066	.56	.11	.18
MAX	---	---	---	---	---	---	1.6	1.3	1.3	7.0	1.2	3.7
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	11	5.4	3.9	34	6.8	11

e Estimated

08330600 TIJERAS ARROYO NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'09", long 106°38'57", in SW¹/4SW¹/4 sec.17, T.9 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank 800 ft upstream from bridge on Broadway Boulevard SE, 0.2 mi downstream from bridge on Interstate Highway 25, and 3.0 mi south of Albuquerque.

DRAINAGE AREA.--128 mi².

PERIOD OF RECORD.--October 1951 to September 1968 (annual maximum only), August 1974 to current year (seasonal records).

GAGE.--Water-stage recorder. Elevation of gage is 5,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 10, 1988, at site 1,700 ft downstream at different datum.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,930 ft³/s, July 9, 1988, gage height, 9.6 ft, from floodmarks, from slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of seasonal operation, 583 ft³/s, at 1543 hours July 28, gage height, 5.30 ft from rating curve extended above 10 cfs on basis of step-backwater analysis of channel; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
4	33	---	---	---	---	---	.90	.00	.00	.00	e5.0	2.0
5	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.05
6	.00	---	---	---	---	---	.00	.00	.00	.00	.12	.00
7	.00	---	---	---	---	---	.00	.00	9.1	.00	.00	.00
8	.00	---	---	---	---	---	.00	.00	e20	.00	.00	.00
9	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	.00	.00	.00	19	.00	.00
11	.00	---	---	---	---	---	.00	.00	.00	e.50	.00	.00
12	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.18	.00	.00	3.4
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.22
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
20	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.59
21	.00	---	---	---	---	.00	.00	.00	.00	.00	.68	e35
22	.00	---	---	---	---	.00	.00	.00	.00	.00	7.0	.00
23	.00	---	---	---	---	.00	.00	.00	.00	.00	e20	.00
24	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
25	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
26	.00	---	---	---	---	.00	.00	.00	.00	.00	.00	.00
27	.00	---	---	---	---	.00	.00	.00	.00	.48	.00	.00
28	1.2	---	---	---	---	.00	.00	.00	.00	e30	.00	.00
29	.00	---	---	---	---	.00	.00	.00	.00	e.00	.00	.00
30	.00	---	---	---	---	.00	.00	.00	.00	2.1	.00	.00
31	---	---	---	---	---	.00	---	.00	---	e9.0	.00	---
TOTAL	---	---	---	---	---	---	0.90	0.00	29.28	61.08	32.80	41.26
MEAN	---	---	---	---	---	---	.030	.000	.98	1.97	1.06	1.38
MAX	---	---	---	---	---	---	.90	.00	20	30	20	35
MIN	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	1.8	.00	58	121	65	82

e Estimated

RIO GRANDE BASIN

08330775 SOUTH DIVERSION CHANNEL ABOVE TIJERAS ARROYO NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'09", long 106°39'02", Bernalillo County, Hydrologic Unit 13020203, on right bank 600 ft upstream from confluence with Tijeras Arroyo, and 2.5 mi south of Albuquerque.

DRAINAGE AREA.--11.0 mi².

PERIOD OF RECORD.--June 1988 to current year.

GAGE.--Water stage recorder and concrete control. Elevation of gage is 4,930 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,960 ft³/s, July 14, 1990, gage height, 6.30 ft from floodmarks, from rating curve extended above 30 cfs on basis of step-backwater analysis of channel; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 284 ft³/s, at 1350 hours Oct. 4, gage height, 2.05 ft; no flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e2.7	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
4	41	.00	.00	.00	.00	.00	e17	.00	.00	.00	e.00	.00
5	e2.9	.00	.00	.21	.00	.00	.00	.00	.00	.00	e.00	4.2
6	e.00	.00	.00	1.8	.00	.00	.00	.00	.00	.00	e.00	.00
7	e.00	.00	.00	.00	.00	.00	.00	.00	2.3	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	9.9	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.3	1.2	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.6	3.2	.04
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	13
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.5
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	2.4	.00	.00	.00	.27
20	.00	.00	.00	.00	.00	.00	.00	.93	.00	.00	.00	10
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	48
22	.00	.00	.00	.00	.00	.00	.00	.21	.00	.00	2.6	3.6
23	.00	.77	.00	.00	.00	e.25	.00	.00	.00	.00	31	.00
24	.00	8.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.29	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.69	.00	.00	.25	.00	.00	.00	.00	.00	.00	.00	.00
28	6.9	.00	.00	1.8	.00	.00	.00	.00	.00	7.6	.00	.00
29	.35	.00	.00	.18	---	.00	.00	.00	.00	7.9	.00	.00
30	.00	.51	.00	.00	---	e3.5	.00	.00	.00	9.3	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	25	.00	---
TOTAL	51.84	9.28	0.00	4.24	0.00	3.75	17.00	3.83	12.20	64.70	40.70	83.61
MEAN	1.67	.31	.000	.14	.000	.12	.57	.12	.41	2.09	1.31	2.79
MAX	41	8.0	.00	1.8	.00	3.5	17	2.4	9.9	25	31	48
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	103	18	.00	8.4	.00	7.4	34	7.6	24	128	81	166

CAL YR 1996 TOTAL 276.40 MEAN .76 MAX 41 MIN .00 AC-FT 548
WTR YR 1997 TOTAL 291.15 MEAN .80 MAX 48 MIN .00 AC-FT 577

e Estimated

08331000 RIO GRANDE AT ISLETA, NM

LOCATION.--Lat 34°55'14", long 106°40'44", in NE¹/4SE¹/4SW¹/4 sec. 13, T.8 N., R.2 E., Valencia County, Hydrologic Unit 13020203, in Isleta Pueblo Grant, on right bank 0.5 mi upstream from Isleta Diversion Dam, 1.0 mi west from State Highway 47, 1.2 mi from Isleta Pueblo, and at mile 1527.7.

DRAINAGE AREA.--18,100 mi² (estimated), including 2,940 mi² in closed basin in San Luis valley, Co.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1995 to September 1997 (discontinued).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,890 ft above National Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge recorder good except for estimated daily discharges, which are poor. Flow completely regulated since November 1993 by (Cochiti Dam station 08317300) 11 mi upstream. Possible regulation by operation of regulated on Rio Chama and by flood and silt-detention reservoirs on Galisteo Creek and Jemez River (stations 08285000, 08286900, 083179000, 08328500). Diversion upstream from station for irrigation of about 752,000 acres.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	461	751	635	792	902	978	1790	2360	e5570	e2190	e1550	e1060
2	474	722	628	777	860	987	1690	2590	e5540	e2020	e1390	e1080
3	489	658	666	765	866	968	1750	2630	e5530	e1810	e1340	e1100
4	683	665	676	798	865	952	1970	2500	e5740	e1730	e1330	e1140
5	1510	673	673	805	852	993	1920	2420	e5690	e1690	e1320	e1180
6	857	754	619	901	854	993	1980	2360	e5770	e1800	e1400	e1210
7	722	800	637	877	904	966	1930	2610	e6000	e1930	e1690	e1240
8	684	734	702	882	877	942	1730	3170	e5900	e1660	e2050	e1250
9	621	692	704	871	874	989	1660	3960	e5670	e1410	e1610	e1280
10	595	687	692	776	892	977	1640	4060	e6300	e1320	e1390	e1280
11	596	686	718	729	855	937	1750	3980	e6400	e1710	e1350	e1290
12	576	680	758	814	844	936	1820	3950	e6400	e1500	e1330	e1280
13	561	686	766	824	820	967	1830	3840	e6360	e1400	e1390	e1200
14	572	685	755	793	844	1030	1740	3790	e6340	e1400	e1300	e1280
15	579	625	749	751	834	1060	1730	3890	e6260	e1390	e1270	e1330
16	573	587	745	793	835	1130	1690	4570	e6260	e1380	e1240	e1330
17	563	620	758	838	802	1150	1620	e4690	e6190	e1340	e1230	e1220
18	511	643	796	871	785	1310	1530	e4790	e5440	e1320	e1200	e1120
19	512	654	764	842	992	1490	1550	e4950	e4620	e1350	e1240	e1050
20	502	e640	709	822	1270	1470	1590	e4990	e3890	e1330	e1190	e1110
21	515	e582	678	799	1170	1520	1610	e5450	e3370	e1310	e1080	e1550
22	548	e525	666	822	978	1690	1850	e5460	e3130	e1320	e960	e1490
23	530	e550	677	836	956	1830	2120	e5450	e2850	e1300	e1350	e1550
24	492	569	742	872	960	1840	2540	e5450	e2770	e1250	e1180	e1490
25	481	552	831	881	951	2100	3250	e5420	e2920	e1200	e1250	e1400
26	521	557	834	866	911	2120	3200	e5400	e2500	e1170	e1180	e1620
27	576	585	816	889	907	2000	2870	e5390	e2100	e1260	e1060	e2370
28	590	591	766	949	907	1970	2640	e5390	e2530	e1950	e940	e2520
29	654	574	768	947	---	1990	2570	e5350	e2600	e1550	e960	e2520
30	601	618	761	984	---	2060	2460	e5300	e2520	e1550	e1000	e2080
31	630	---	767	968	---	2000	---	e5560	---	e2470	e1060	---
TOTAL	18779	19345	22456	26134	25367	42345	60020	131720	143160	48010	39830	42620
MEAN	606	645	724	843	906	1366	2001	4249	4772	1549	1285	1421
MAX	1510	800	834	984	1270	2120	3250	5560	6400	2470	2050	2520
MIN	461	525	619	729	785	936	1530	2360	2100	1170	940	1050
AC-FT	37250	38370	44540	51840	50320	83990	119000	261300	284000	95230	79000	84540

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1997, BY WATER YEAR (WY)

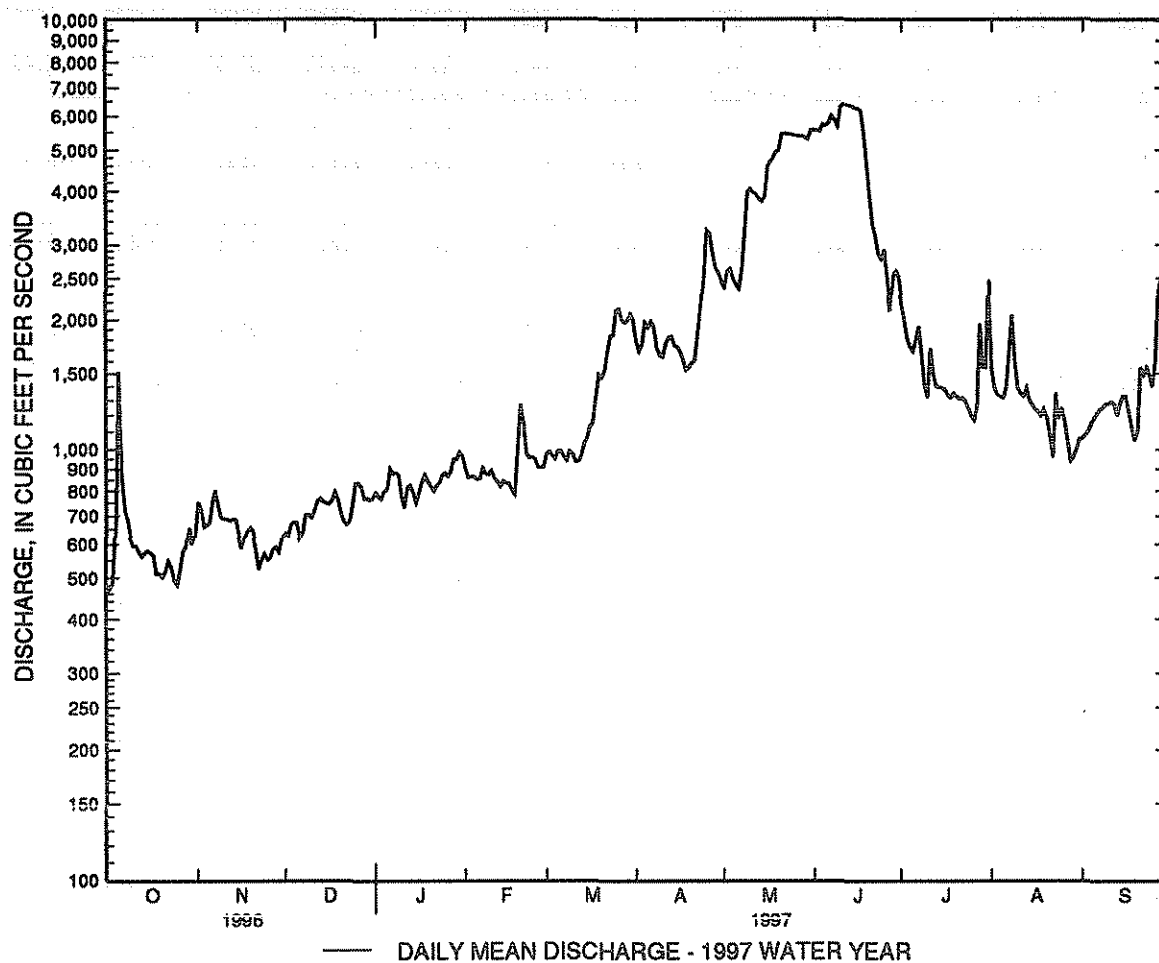
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
MEAN	784	859	930	1054	1113	1321	1300	2631	3309	1667	1618	1686
MAX	961	1073	1135	1265	1313	1366	2001	4249	4772	1785	1950	1951
(WY)	1996	1996	1996	1996	1996	1997	1997	1997	1997	1996	1996	1996
MIN	606	645	724	843	906	1275	600	1012	1846	1549	1285	1421
(WY)	1997	1997	1997	1997	1997	1996	1996	1996	1997	1997	1997	1997

RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1996 - 1997	
ANNUAL TOTAL	456522		619786		1522	
ANNUAL MEAN	1247		1698		1698	1997
HIGHEST ANNUAL MEAN					1347	1996
LOWEST ANNUAL MEAN					6400	1997
HIGHEST DAILY MEAN	2980	Jun 27	6400	Jun 11	6400	Jun 11 1997
LOWEST DAILY MEAN	461	Oct 1	461	Oct 1	461	Oct 1 1996
ANNUAL SEVEN-DAY MINIMUM	511	Oct 19	511	Oct 19	511	Oct 19 1996
INSTANTANEOUS PEAK FLOW			6400	Jun 11	6400	Jun 11 1997
INSTANTANEOUS PEAK STAGE			9.69	Jun 11	9.69	Jun 11 1997
INSTANTANEOUS LOW FLOW			436	Oct 1	315	Jul 6 1996
ANNUAL RUNOFF (AC-FT)	905500		1229000		1103000	
10 PERCENT EXCEEDS	1950		4010		2460	
50 PERCENT EXCEEDS	1280		1180		1260	
90 PERCENT EXCEEDS	556		621		618	

e Estimated



08331000 RIO GRANDE AT ISLETA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
OCT 1996													
02...	1000	467	504	8.0	19.0	17.0	--	640	7.4	92	--	--	
NOV													
05...	1015	610	482	8.1	10.0	12.0	--	637	8.4	94	<10	5000	
05...	1015	--	--	--	--	--	--	--	--	--	--	--	
DEC													
05...	1100	660	468	8.2	6.0	6.0	--	637	10.4	100	--	--	
JAN 1997													
23...	1115	807	442	8.4	5.0	5.5	--	637	9.9	94	--	--	
FEB													
19...	0930	820	446	8.1	7.5	8.5	--	640	8.4	86	--	--	
MAR													
18...	1000	1160	447	8.2	14.5	10.0	20	646	8.5	89	34	43	
APR													
29...	0900	2500	405	8.1	17.0	13.5	--	635	7.5	87	--	--	
MAY													
12...	1030	4050	349	7.9	16.0	16.5	--	640	7.5	92	--	--	
JUN													
30...	1045	1810	297	8.1	25.5	22.0	--	639	6.9	95	--	--	
JUL													
23...	0900	1230	387	7.8	24.0	23.0	--	642	6.2	86	--	--	
AUG													
12...	0930	1320	356	8.2	20.0	21.5	74	643	6.3	85	--	--	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 CO3 (00453)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)
OCT 1996													
02...	--	150	28	48	7.8	39	1	5.3	151	0	124	129	
NOV													
05...	570	140	17	45	7.7	37	1	4.5	155	0	127	137	
05...	--	--	--	--	--	--	--	--	--	--	--	--	
DEC													
05...	--	140	0	42	7.6	34	1	4.4	170	0	139	138	
JAN 1997													
23...	--	140	6	44	7.6	35	1	4.4	165	0	136	134	
FEB													
19...	--	140	0	43	7.1	35	1	4.3	168	0	138	141	
MAR													
18...	460	100	0	33	5.6	30	1	3.6	177	0	145	138	
APR													
29...	--	120	11	37	6.2	29	1	3.3	132	0	108	113	
MAY													
12...	--	110	13	34	6.0	25	1	3.2	118	0	96	100	
JUN													
30...	--	91	0	28	5.0	17	0.8	2.8	125	0	103	102	
JUL													
23...	--	110	0	34	5.8	27	1	4.4	133	0	109	105	
AUG													
12...	--	120	10	37	5.8	25	1	3.9	130	0	106	109	

RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 1996												
02...	76	25	0.60	24	331	312	2.39	0.010	2.40	0.060	0.14	0.70
NOV												
05...	76	19	0.60	22	316	294	0.680	0.240	0.920	0.580	0.22	1.0
05...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
05...	71	17	0.60	20	291	285	0.390	0.250	0.640	0.480	0.22	0.90
JAN 1997												
23...	61	19	0.60	24	276	281	0.300	0.030	0.330	1.30	0.20	1.8
FEB												
19...	60	19	0.70	24	287	281	0.510	0.070	0.580	1.60	0.10	1.9
MAR												
18...	62	20	0.6	18	284	263	0.400	0.040	0.440	0.700	0.20	1.2
APR												
29...	59	18	0.4	19	257	239	--	<0.01	0.26	0.10	0.12	0.5
MAY												
12...	54	13	0.4	18	215	214	0.293	0.02	0.31	0.04	--	0.6
JUN												
30...	43	6.8	0.3	16	219	183	0.331	0.02	0.35	0.03	--	0.4
JUL												
23...	48	15	0.5	20	235	225	0.445	0.08	0.52	1.2	0.42	3.0
AUG												
12...	47	11	0.4	21	223	217	0.602	0.05	0.65	0.10	0.19	0.7
DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS- (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)
OCT 1996												
02...	0.20	0.540	0.380	0.390	--	--	--	--	--	--	--	--
NOV												
05...	0.80	0.390	0.300	0.310	4.2	<0.010	18	<1.0	4	85	<1.0	99
05...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
05...	0.70	0.430	0.370	0.340	--	--	--	--	--	--	--	--
JAN 1997												
23...	1.5	0.310	0.200	0.200	--	--	--	--	--	--	--	--
FEB												
19...	1.7	0.330	0.320	0.310	--	--	--	--	--	--	--	--
MAR												
18...	0.90	0.230	0.150	0.180	3.1	<0.010	7	<1	2	62	<1	85.1
APR												
29...	0.2	0.16	0.10	0.10	--	--	--	--	--	--	--	--
MAY												
12...	<0.2	0.28	0.06	0.07	--	--	--	--	--	--	--	--
JUN												
30...	<0.2	0.25	0.11	0.10	--	--	--	--	--	--	--	--
JUL												
23...	1.6	0.74	0.31	0.28	--	--	--	--	--	--	--	--
AUG												
12...	0.3	0.34	0.12	0.15	--	--	--	--	--	--	--	--

WATER-QUALITY RECORDS

DATE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
OCT 1996												
02...	--	--	--	--	13	--	10	--	--	--	--	--
NOV												
05...	<1.0	1.0	<1.0	1.0	12	<1.0	19	<0.10	7.0	1.0	<1	<1
05...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
05...	--	--	--	--	16	--	28	--	--	--	--	--
JAN 1997												
23...	--	--	--	--	10	--	23	--	--	--	--	--
FEB												
19...	--	--	--	--	7.0	--	27	--	--	--	--	--
MAR												
18...	<1	1	<1	1	4	<1	11	<0.1	4	<1	<1	<1
APR												
29...	--	--	--	--	7	--	21	--	--	--	--	--
MAY												
12...	--	--	--	--	10	--	7	--	--	--	--	--
JUN												
30...	--	--	--	--	4	--	9	--	--	--	--	--
JUL												
23...	--	--	--	--	14	--	16	--	--	--	--	--
AUG												
12...	--	--	--	--	<3	--	7	--	--	--	--	--

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RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1996 02...	--	--	--	--	--	--	--	--	73	92	71
NOV 05...	--	--	--	--	0.06	0.020	3.0	0.2	127	209	90
05...	<10	130	<0.01	20	--	--	--	--	--	--	--
DEC 05...	--	--	--	--	--	--	--	--	117	208	76
JAN 1997 23...	--	--	--	--	--	--	--	--	1050	2290	10
FEB 19...	--	--	--	--	--	--	--	--	114	252	77
MAR 18...	--	--	--	--	--	--	3	--	211	661	81
APR 29...	--	--	--	--	--	--	--	--	116	783	85
MAY 12...	--	--	--	--	--	--	--	--	565	6180	46
JUN 30...	--	--	--	--	--	--	--	--	167	816	46
JUL 23...	--	--	--	--	--	--	--	--	74	246	58
AUG 12...	--	--	--	--	--	--	--	--	254	905	85

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

		DEETHYL										
DATE	TIME	PROP- CHLOR, WATER, DISS, REC (UG/L) (04024)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	FONOFOS WATER DISS REC (UG/L) (04095)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	P,P' DDE DISSOLV (UG/L) (34653)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	
OCT 1996												
02...	1000	<0.007	<0.002	0.017	EO.005	<0.002	<0.004	<0.003	<0.002	<0.006	<0.004	
NOV												
05...	1015	<0.007	<0.002	0.006	EO.011	<0.002	<0.004	<0.003	<0.002	<0.006	<0.004	
DEC												
05...	1100	<0.007	<0.002	<0.005	<0.018	<0.002	<0.004	<0.003	<0.002	<0.006	<0.004	
DATE		LINDANE DIS- SOLVED (UG/L) (39341)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)
OCT 1996												
02...	<0.004	<0.001	<0.002	<0.005	<0.004	0.017	<0.001	--	--	--	<0.002	
NOV												
05...	<0.004	<0.001	<0.002	<0.005	<0.004	0.019	<0.001	<0.040	<0.010	<0.010	<0.002	
DEC												
05...	<0.004	<0.001	<0.002	<0.005	<0.004	<0.002	<0.001	--	--	--	<0.002	
DATE		ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	2, 4-DP TOTAL (UG/L) (82183)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	2,6-DI- ETHYL ANILINE WAT FLT GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT GF, REC (UG/L) (82661)	ETHAL- FLUR- ALIN WAT FLT GF, REC (UG/L) (82663)	PHORATE WATER FLTRD GF, REC (UG/L) (82664)	TER- BACIL WATER FLTRD GF, REC (UG/L) (82665)	LIN- URON WATER FLTRD GF, REC (UG/L) (82666)	METHYL PARA- THION WAT FLT GF, REC (UG/L) (82667)	
OCT 1996												
02...	<0.002	--	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006		
NOV												
05...	<0.002	<0.010	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006		
DEC												
05...	<0.002	--	<0.004	<0.003	<0.002	<0.004	<0.002	<0.007	<0.002	<0.006		

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08331000 RIO GRANDE AT ISLETA, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	PEB- ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)
OCT 1996 02...	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017
NOV 05...	<0.002	<0.004	E0.004	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017
DEC 05...	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003	<0.017
DATE	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)
OCT 1996 02...	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
NOV 05...	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
DEC 05...	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

RIO GRANDE BASIN

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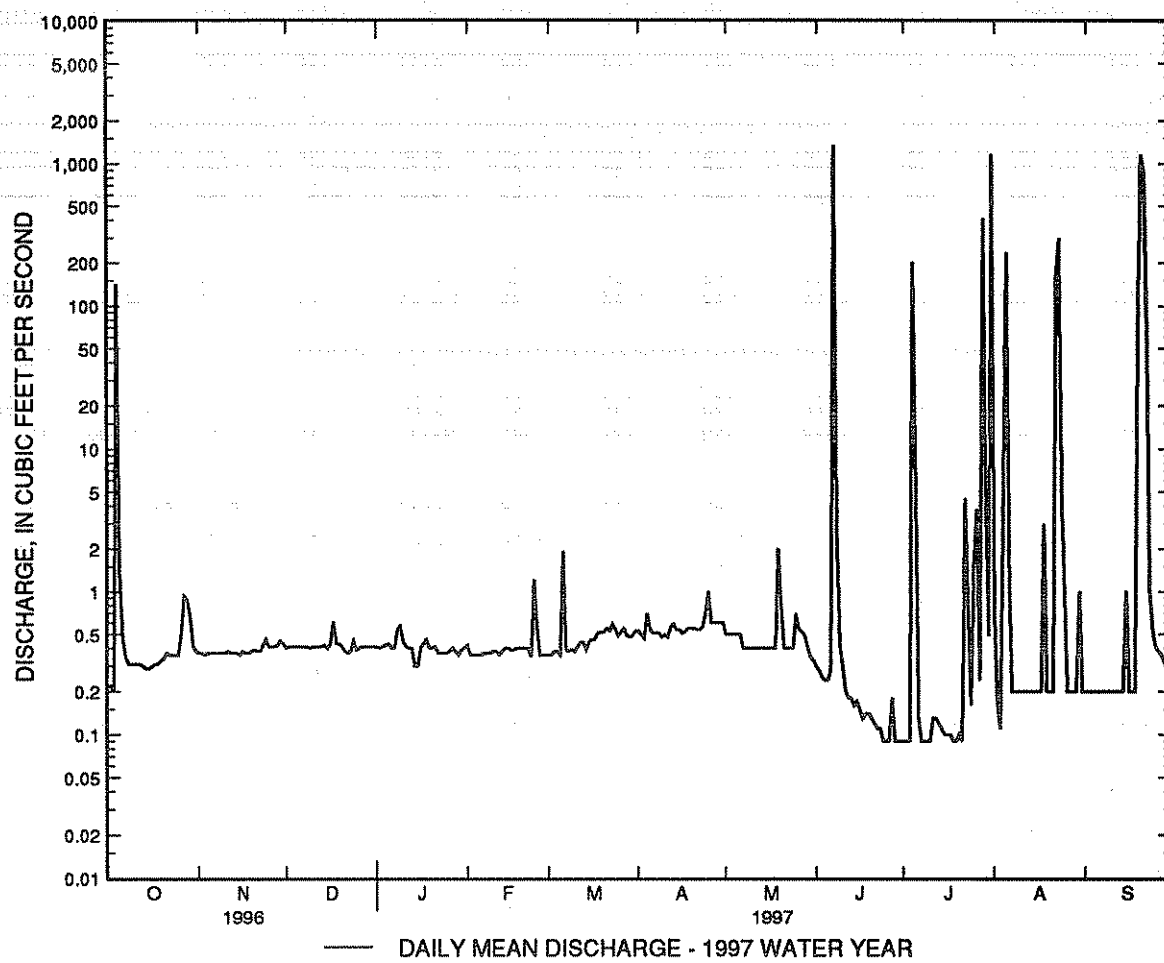
08331660 ABO ARROYO NEAR BLUE SPRINGS, NM -- Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.37	.40	.41	.42	.36	.53	e.50	.30	.09	.70	e.20
2	.22	.37	.41	.40	.36	.36	.50	e.50	.28	.09	.17	e.20
3	.20	.36	.41	.41	.36	.38	.47	e.50	.25	.09	.11	e.20
4	142	.37	.41	.42	.36	.38	.70	e.50	.24	204	4.9	e.20
5	1.4	.37	.41	.43	.36	.36	.54	e.50	.24	7.1	237	e.20
6	.47	.37	.41	e.40	.36	1.9	.51	e.50	.28	.13	1.2	e.20
7	.35	.37	.41	e.40	.37	.39	.51	e.40	e1330	.09	e.20	e.20
8	.31	.37	.41	.54	.37	.38	.51	e.40	2.8	.09	e.20	e.20
9	.31	.37	.40	.57	.37	.39	.48	e.40	.43	.09	e.20	e.20
10	.31	.37	.41	.44	.38	.38	.50	e.40	.30	.09	e.20	e.20
11	.31	.38	.41	.41	.38	.41	.48	e.40	.20	.13	e.20	e.20
12	.31	.37	.41	e.40	.36	.44	.56	e.40	.18	.13	e.20	e.20
13	.30	.37	.41	e.40	.38	.44	.59	e.40	.18	.12	e.20	e.20
14	.29	.37	.42	e.30	.40	.39	.54	e.40	.16	.11	e.20	e.20
15	.29	.36	.40	e.30	.40	.44	.54	e.40	.17	.10	e.20	e1.0
16	.30	.38	.43	e.40	.39	.46	.51	e.40	.15	.10	e.20	e.20
17	.31	.37	.61	.43	.39	.46	.52	e.40	.13	.10	e.20	e.20
18	.31	.37	.43	.46	.40	.51	.55	e.40	.14	.09	e3.0	e.20
19	.33	.38	.43	e.40	.40	.52	.55	e2.0	.14	.09	e.20	69
20	.34	.39	.41	e.40	.40	.52	.55	e.80	.13	.10	e.20	1140
21	.37	.38	.38	.41	.40	.55	.54	e.40	.12	.09	e.20	860
22	.36	.38	.37	.37	.40	.53	.54	e.40	.11	4.5	e160	71
23	.36	.42	.38	.37	.35	.59	.56	e.40	.11	.90	e300	.99
24	.36	.46	.45	.37	1.2	.54	e.70	e.40	.09	.16	e5.0	.53
25	.36	.41	.39	.37	.55	.49	e1.0	e.70	.09	1.6	e1.0	.41
26	.51	.41	.40	.38	.36	.52	e.60	.55	.09	3.8	e.20	.38
27	.93	.41	.41	.40	.36	.55	e.60	.52	.18	.24	e.20	.36
28	.88	.42	.41	.38	.36	.49	e.60	.50	.09	410	e.20	.32
29	.68	.45	.41	.36	---	.48	e.60	.42	.09	5.2	e.20	.33
30	.42	.43	.41	.39	---	.49	e.60	.35	.09	.49	e1.0	.33
31	.38	---	.41	.40	---	.53	---	.33	---	e1150	e.20	---
TOTAL	154.49	11.60	12.86	12.52	11.59	15.63	16.98	15.57	1337.76	1789.91	717.88	2148.05
MEAN	4.98	.39	.41	.40	.41	.50	.57	.50	44.6	57.7	23.2	71.6
MAX	142	.46	.61	.57	1.2	1.9	1.0	2.0	1330	1150	300	1140
MIN	.20	.36	.37	.30	.35	.36	.47	.33	.09	.09	.11	.20
AC-FT	306	23	26	25	23	31	34	31	2650	3550	1420	4260

WTR YR 1997 TOTAL 6244.84 MEAN 17.1 MAX 1330 MIN .09 AC-FT 12390

e Estimated



08331990 RIO GRANDE CONVEYANCE CHANNEL NEAR BERNARDO, NM

LOCATION.--Lat 34°24'52", long 106°48'11", Socorro County, Hydrologic Unit 13020203, in Sevilleta or Belen Grant, 0.2 mi south of U.S. Highway 60, 1.8 mi east of Bernardo, about 3 mi upstream from floodway, and 4 mi upstream from Rio Puerco.

PERIOD OF RECORD.--June 1936 to September 1937, October 1964 to current year. July 1943 to September 1964, included in composite flow of "Rio Grande near Bernardo." October 1960 to September 1964, monthly acre-feet published in WSP 1923 (daily records available in district files). Beginning October 1952, flow in conveyance channel represents controlled diversion from Rio Grande. Prior to October 1952, records called "San Francisco Riverside drain near Bernardo" are not equivalent.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,720.00 ft above National Geodetic Vertical Datum of 1929. Prior to October 1964, 0.2 mi upstream at various datums.

REMARKS.--Records good. Conveyance channel is 1 of 4 channels (stations 08332010, 08332030, and 08332050) carrying flow in valley cross section. Original design and plan were for conveyance channel to carry flows up to about 2,000 ft³/s. For combined monthly flow in acre-ft of this channel, floodway, Bernardo interior drain, and Lower San Juan Riverside drain, see tabulation below daily table for station 08332010. Several observations of water temperature were made during the year. No flow many days most years.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	43	11	10	11	11	13	18	16	48	45	32
2	46	29	11	10	11	10	12	21	16	42	42	37
3	46	26	11	10	10	10	11	18	23	45	37	39
4	46	24	11	12	10	10	11	16	24	47	42	39
5	52	24	11	12	10	10	11	18	21	44	43	33
6	64	21	11	12	10	10	11	14	23	44	41	41
7	64	14	11	12	10	9.7	12	15	39	49	36	45
8	68	14	11	12	10	10	11	16	40	50	35	40
9	70	14	11	12	10	12	10	14	45	44	36	41
10	66	13	11	12	10	12	11	14	42	43	41	38
11	59	12	11	12	10	12	12	16	55	42	39	31
12	51	12	12	11	11	11	12	16	62	42	41	40
13	46	12	11	11	11	11	13	15	66	43	44	43
14	50	12	10	11	10	11	13	15	63	40	44	46
15	55	12	10	11	10	12	12	18	66	37	46	49
16	55	12	10	11	10	13	13	15	70	31	49	46
17	53	11	10	11	10	13	17	13	66	37	44	43
18	52	11	10	11	10	13	15	14	64	37	42	42
19	53	11	10	11	11	13	12	15	66	38	40	49
20	43	11	10	11	11	12	12	15	61	38	39	55
21	45	11	10	11	12	12	13	17	61	41	38	63
22	53	11	10	10	12	13	15	19	51	42	38	68
23	54	11	10	10	12	13	15	18	44	40	36	54
24	61	11	10	10	11	13	15	19	47	e45	45	48
25	56	11	10	10	11	13	15	19	46	e45	45	49
26	47	11	11	10	11	18	17	21	50	e45	41	47
27	49	11	11	10	11	17	19	19	50	45	46	18
28	51	11	11	10	11	17	21	19	55	43	42	16
29	52	11	11	10	---	16	16	17	50	49	33	12
30	61	11	10	10	---	15	18	18	48	48	31	21
31	59	---	10	11	---	16	---	17	---	45	40	---
TOTAL	1663	448	328	337	297	388.7	408	519	1430	1329	1261	1225
MEAN	53.6	14.9	10.6	10.9	10.6	12.5	13.6	16.7	47.7	42.9	40.7	40.8
MAX	70	43	12	12	12	18	21	21	70	50	49	68
MIN	36	11	10	10	10	9.7	10	13	16	31	31	12
AC-FT	3300	889	651	668	589	771	809	1030	2840	2640	2500	2430

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1997, BY WATER YEAR (WY)

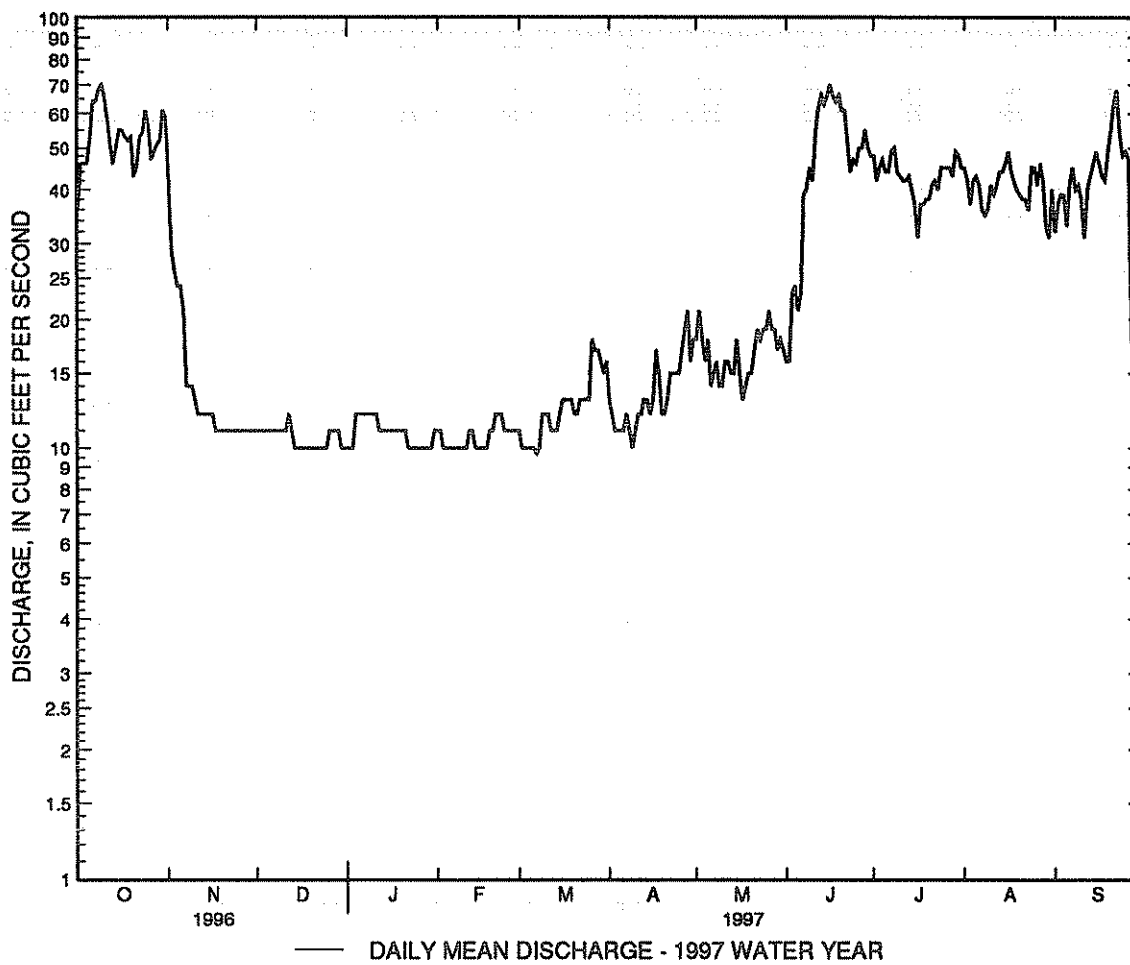
	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
MEAN	86.0	307	276	253	252	209	215	216	185	98.9	88.2	67.5
MAX	682	1395	1579	1417	1006	1028	1354	1259	1665	1690	890	570
(WY)	1970	1971	1974	1974	1970	1966	1966	1973	1973	1973	1973	1973
MIN	.000	1.54	2.62	2.42	2.55	3.93	2.92	.64	.000	.000	.013	.000
(WY)	1964	1978	1995	1995	1995	1977	1977	1977	1972	1964	1977	1964

RIO GRANDE BASIN

08331990 RIO GRANDE CONVEYANCE CHANNEL NEAR BERNARDO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1964 - 1997	
ANNUAL TOTAL	8303.8		9633.7		187	
ANNUAL MEAN	22.7		26.4		1017	
HIGHEST ANNUAL MEAN					1973	
LOWEST ANNUAL MEAN					1977	
HIGHEST DAILY MEAN	70	Oct 9	70	Oct 9	2050	Aug 2 1973
LOWEST DAILY MEAN	3.4	Apr 1	9.7	Mar 7	.00	Oct 1 1963
ANNUAL SEVEN-DAY MINIMUM	3.9	Mar 28	10	Mar 2	.00	Oct 1 1963
INSTANTANEOUS PEAK FLOW					2220	Aug 22 1958
ANNUAL RUNOFF (AC-FT)	16470		19110		135600	
10 PERCENT EXCEEDS	53		51		796	
50 PERCENT EXCEEDS	11		16		6.9	
90 PERCENT EXCEEDS	5.1		10		.43	

e Estimated



08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM

LOCATION.--Lat 34°25'01", long 106°48'00", Socorro County, Hydrologic Unit 13020203, in Belen or Sevilleta Grant, on downstream side of bridge on U.S. Highway 60, 2.0 mi east of Bernardo, and at mile 1,487.2. and 5.0 mi downstream from heading of conveyance channel.

DRAINAGE AREA.--19,230 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1936 to January 1939, October 1941 to current year. Monthly discharge only October 1942 to June 1943, published in WSP 1312, and October 1960 to September 1964, published in WSP 1923 (daily records available in district files). Published as "Rio Grande near Bernardo" prior to October 1964. Prior to October 1952, flow of Bernardo interior drain was included only when it carried river overflow; the entire flow has been included from October 1952 to September 1964. Flow in the conveyance channel, formerly "San Francisco Riverside drain," has been included in records prior to October 1964.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,722.55 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are fair. Since November 1973 flow completely regulated by Cochiti Dam (station 08317300) 100 mi upstream. Floodway is 1 of 4 channels (stations 08331990, 08332030, and 08332050) carrying flow in valley cross section. For combined monthly flow in acre-ft of floodway, conveyance channel, Bernardo interior drain and Lower San Juan Riverside drain see tabulation below. Diversions for irrigation of about 740,000 acres upstream from station. No flow for many days most years.

AVERAGE DISCHARGE.--19 years (water years 1937-38, 1942-58), 1,125 ft³/s, 815,100 acre-ft/yr. Includes flow of floodway, conveyance channel, and Bernardo interior drain. 15 years (water years 1959-73), 898 ft³/s, Riverside drain, prior to closure of Cochiti Dam. 24 years (water years 1974-97), 1,461 ft³/s, 1,469,000 acre-ft/yr, includes flow of floodway, conveyance channel, Bernardo interior drain, and lower San Juan Riverside drain, since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD (1936-39 AND SINCE 1941).--Maximum discharge, 21,000 ft³/s, Apr. 25, 1942, gage height, 6.90 ft; no flow most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 6,470 ft³/s, June 17; minimum daily, 30 ft³/s, Oct. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	580	753	673	1100	931	e1550	1330	5020	1700	2670	e300
2	e67	731	705	717	978	902	1420	1320	4950	1400	1570	e350
3	e30	749	674	757	924	869	1350	1490	4910	1120	1120	e400
4	e40	670	698	776	933	923	1590	1380	5110	e940	1060	e400
5	e46	681	728	833	920	832	1750	1350	5560	e920	955	e400
6	e46	687	712	849	922	779	1530	1200	5810	e900	1270	e440
7	e113	782	563	887	927	747	1480	1240	6300	e810	1180	e440
8	182	823	590	797	919	729	1340	1640	6270	833	e1480	e470
9	171	738	727	824	900	692	1050	e2120	6140	694	e1760	e480
10	126	667	755	751	921	699	973	e2780	5680	506	e1600	e490
11	96	667	754	635	931	628	979	e3000	5840	421	e1180	e510
12	89	708	791	603	953	547	1100	e3250	6130	646	e1150	e520
13	72	718	826	740	967	497	1100	3500	6280	518	e1260	e530
14	56	726	812	777	933	544	1110	3370	6240	470	1210	e540
15	56	e676	795	748	890	632	987	3430	6410	394	993	551
16	44	e668	742	676	885	673	918	3620	6380	355	886	775
17	46	e644	733	801	890	750	831	4270	6470	273	787	765
18	54	e636	741	911	882	730	e630	4360	6400	281	614	596
19	44	e890	e870	934	891	780	e600	4420	5840	213	483	543
20	48	e780	e810	914	1210	969	e620	4530	4850	286	533	647
21	92	e780	e620	893	1600	1020	649	4520	3720	333	541	1040
22	100	e693	e610	875	1310	1100	592	4930	2870	297	358	1730
23	110	e652	e600	889	1060	1290	775	4910	2500	346	403	1570
24	144	e727	e620	993	1000	1440	1240	4860	2110	367	687	1370
25	121	e843	e760	1000	972	1440	2090	5010	1880	356	627	1460
26	104	e744	e950	1010	979	e1540	2610	5040	2110	299	e690	1250
27	196	e660	e860	1060	942	e1500	2420	5040	2190	254	e520	1410
28	326	670	803	985	946	e1570	2220	5030	1810	360	e280	1970
29	359	679	644	960	---	e1580	1910	4960	1700	991	e230	2230
30	404	693	660	988	---	e1540	1560	4850	1830	1500	e230	2130
31	365	---	666	1080	---	e1650	---	4800	---	1410	e230	---
TOTAL	3798	21362	22572	26336	27685	30523	38974	107550	139310	20193	28557	26307
MEAN	123	712	728	850	989	985	1299	3469	4644	651	921	877
MAX	404	890	950	1080	1600	1650	2610	5040	6470	1700	2670	2230
MIN	30	580	563	603	882	497	592	1200	1700	213	230	300
AC-FT	7530	42370	44770	52240	54910	60540	77300	213300	276300	40050	56640	52180
(t)	27370	48430	49610	56880	59190	71520	89540	229000	296500	55850	71960	69000

CAL YR 1996 TOTAL 175060.38 MEAN 478 MAX 1550 MIN .00 AC-FT 347200 (+)MEAN 673 AC-FT 488600
WTR YR 1997 TOTAL 493167 MEAN 1351 MAX 6470 MIN 30 AC-FT 978200 (+)MEAN 1662 AC-FT 1204000

e Estimated

(t) COMBINED FLOW, IN ACRE-FT, AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY, CONVEYANCE CHANNEL, BERNARDO INTERIOR DRAIN AND LOWER SAN JUAN RIVERSIDE DRAIN.

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1956 to current year.

WATER TEMPERATURE: October 1964 to September 1996 (discontinued).

SUSPENDED-SEDIMENT DISCHARGE: October 1964 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler.

REMARKS.--Sediment total-loads (suspended sediment plus bed material discharge), in tons per day, were determined from the regression equation developed for the period of record. Specific conductance values were determined in the laboratory from daily suspended sediment samples collected by pumping sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1964-97): Maximum daily, 1,410 microsiemens, July 23, 1976; minimum daily, 224 microsiemens, June 5, 1980.

SEDIMENT CONCENTRATION (water years 1975-96): Maximum daily mean, 21,400 mg/L, Aug. 11, 1979; minimum daily mean, no flow on many days of most years.

SEDIMENT LOAD: Maximum daily, 356,000 tons, Aug. 11, 1967; minimum daily, 0 ton on many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 640 microsiemens, Feb. 2; minimum daily, 281 microsiemens, June 14.

SEDIMENT CONCENTRATION: Maximum daily mean, 17,600 mg/L, Sept. 22; minimum daily mean, 100 mg/L, Oct. 17, 19.

SEDIMENT LOAD: Maximum daily, 83,300 tons, Sept. 22; minimum daily, 8.9 ton, Oct. 3.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
OCT 1996 24...	1000	129	557	8.2	10.0	5.5	640	10.6	100	<10	180
MAR 1997 03...	1030	865	505	8.1	15.5	8.0	641	9.5	96	10	150

DATE	HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	ALKA-LINITY LAB (MG/L AS CaCO3) (39410)
OCT 1996 24...	24	55	9.6	48	2	4.8	186	0	153	160
MAR 1997 03...	10	47	8.0	41	1	4.6	171	0	140	143

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)
OCT 1996 24...	92	22	0.60	24	352	0.770	0.040	0.810	0.020	0.28
MAR 1997 03...	72	22	0.70	26	313	1.34	0.060	1.40	0.150	0.05

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS Sb) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
OCT 1996 24...	0.40	0.30	0.200	0.150	0.180	5.1	6.0	<1.0	4	93
MAR 1997 03...	0.40	0.20	0.310	0.260	0.320	6.4	--	--	--	--

RIO GRANDE BASIN

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08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
OCT 1996 24...	<1.0	121	<1.0	1.0	<1.0	1.0	<3.0	<1.0	5.0	<0.10
MAR 1997 03...	--	103	--	--	--	--	<3.0	--	--	--
DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1996 24...	8.0	2.0	<1	<1	<1.0	2.0	3.0	103	36	81
MAR 1997 03...	--	--	--	--	--	--	--	423	988	57
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC- ITY, MEAN (F/S) (00055)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY) (80156)	
OCT 1996 17...	1220	49	--	--	--	14.0	107	14	24	
NOV 12...	1000	722	--	--	--	7.5	495	965	1460	
DEC 16...	1125	723	--	--	--	3.0	1310	2560	3770	
JAN 1997 16...	1145	545	--	--	--	0.5	515	758	1160	
FEB 11...	0955	932	382	1.3	1.90	4.5	430	1080	1630	
MAR 18...	1110	727	388	1.1	1.65	13.0	620	1220	1840	
APR 15...	1200	1010	--	--	--	17.0	323	881	1340	
MAY 20...	1145	4520	350	4.1	3.12	19.0	2090	25500	35100	
JUN 24...	1100	2060	340	3.0	2.10	23.5	429	2390	3530	
JUL 22...	1033	317	206	1.0	1.52	24.5	82	70	114	
AUG 19...	1135	459	310	1.1	1.34	24.0	220	273	429	
SEP 16...	1115	746	316	1.4	1.73	--	963	1940	2880	

RIO GRANDE BASIN

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SED. SUSP. FALL DIAM. % FINER THAN (70337)	SED. SUSP. FALL DIAM. % FINER THAN (70338)	SED. SUSP. FALL DIAM. % FINER THAN (70339)	SED. SUSP. FALL DIAM. % FINER THAN (70340)	SED. SUSP. FALL DIAM. % FINER THAN (70342)	SED. SUSP. FALL DIAM. % FINER THAN (70343)	SED. SUSP. FALL DIAM. % FINER THAN (70344)	SED. SUSP. FALL DIAM. % FINER THAN (70345)	SED. SUSP. FALL DIAM. % FINER THAN (70346)
OCT 1996									
17...	--	--	--	--	--	--	--	--	--
NOV									
12...	--	--	--	--	84	88	95	100	--
DEC									
16...	--	--	--	--	27	29	60	100	--
JAN 1997									
16...	--	--	--	--	67	79	98	100	--
FEB									
11...	--	--	--	--	71	73	80	100	--
MAR									
18...	--	--	--	--	56	71	90	100	--
APR									
15...	--	--	--	--	57	69	93	100	--
MAY									
20...	6	7	9	12	24	37	56	89	100
JUN									
24...	--	--	--	--	38	52	89	100	--
JUL									
22...	--	--	--	--	69	71	97	100	--
AUG									
19...	--	--	--	--	79	82	100	--	--
SEP									
16...	--	--	--	--	49	50	72	99	100

DATE	BED MAT. SIEVE DIAM. % FINER THAN (80164)	BED MAT. SIEVE DIAM. % FINER THAN (80165)	BED MAT. SIEVE DIAM. % FINER THAN (80166)	BED MAT. SIEVE DIAM. % FINER THAN (80167)	BED MAT. SIEVE DIAM. % FINER THAN (80168)	BED MAT. SIEVE DIAM. % FINER THAN (80169)	BED MAT. SIEVE DIAM. % FINER THAN (80170)	BED MAT. SIEVE DIAM. % FINER THAN (80171)	BED MAT. SIEVE DIAM. % FINER THAN (80172)
OCT 1996									
17...	2	4	36	89	98	99	99	99	100
NOV									
12...	5	8	33	87	98	100	--	--	--
DEC									
16...	8	11	35	83	96	98	99	99	100
JAN 1997									
16...	8	17	42	84	97	99	100	--	--
FEB									
11...	5	8	32	85	97	99	99	100	--
MAR									
18...	3	8	33	87	98	99	100	--	--
APR									
15...	1	6	30	88	98	99	100	--	--
MAY									
20...	0	3	25	70	89	93	95	97	100
JUN									
24...	0	2	27	87	96	99	99	100	--
JUL									
22...	0	1	18	82	97	99	100	--	--
AUG									
19...	0	2	19	83	97	99	99	100	--
SEP									
16...	0	1	22	86	97	99	100	--	--

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY INSTANTANEOUS VALUES

[illegible]

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS
SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	135	19	1220	1970	736	1500	1090	1990	836	2480	1320	3330
2	128	23	1760	3490	772	1470	1330	2580	644	1710	1520	3700
3	110	8.9	3000	6030	722	1310	994	2030	503	1260	1240	2910
4	103	11	2370	4280	639	1200	920	1930	463	1170	1290	3230
5	600	75	1990	3660	575	1130	708	1590	428	1060	1020	2280
6	2120	263	1860	3450	628	1200	617	1420	461	1150	1270	2670
7	1540	555	2270	4800	1370	2060	832	1990	526	1320	998	2010
8	2040	1030	3120	6920	783	1250	707	1520	526	1300	967	1900
9	1260	582	2970	5930	763	1500	801	1780	518	1260	1110	2080
10	653	228	2510	4520	1120	2280	839	1700	512	1270	1160	2190
11	365	95	1260	2270	1200	2440	840	1440	507	1280	630	1080
12	292	70	820	1570	1260	2690	840	1370	500	1290	319	468
13	243	48	987	1910	979	2180	840	1680	492	1290	583	784
14	187	28	1160	2280	737	1620	841	1760	485	1220	676	993
15	174	26	1490	e2720	575	1240	841	1700	478	1150	766	1310
16	140	17	1150	e2070	537	1070	841	1540	471	1130	916	1670
17	100	12	1140	e1980	1150	2270	842	1820	464	1120	897	1820
18	107	16	1050	e1800	1750	3500	842	2070	462	1100	498	983
19	100	12	1110	e2670	1460	3790	842	2120	1350	3240	678	1470
20	144	18	1150	e2420	1150	2800	843	2080	3430	11500	2040	5350
21	279	67	1280	e2700	1010	1890	843	2030	3060	13300	2750	7610
22	2380	654	1080	e2000	1280	2320	843	1990	3510	12300	2850	8510
23	794	249	777	e1370	1100	1940	844	2030	4860	13900	3460	12200
24	271	105	694	e1360	884	1630	844	2260	2230	6060	5790	22500
25	200	66	834	e1900	970	2180	844	2290	1680	4410	4030	15700
26	121	34	800	e1610	1040	3000	845	2310	1790	4730	4510	21000
27	161	91	606	e1080	752	1950	845	2420	1700	4320	5600	26700
28	514	458	504	913	767	1650	845	2250	1540	3940	5300	25000
29	712	687	574	1050	770	1340	846	2190	---	---	2930	13900
30	909	999	582	1090	811	1450	823	2200	---	---	2620	12100
31	581	569	---	---	843	1520	979	2860	---	---	2460	12500
TOTAL	---	7115.9	---	81813	---	59370	---	60940	---	101260	---	219948
DAY	MEAN CONC TRAT (MG/ L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3380	15100	1820	6520	409	5540	267	1220	5660	40000	774	e627
2	3070	11700	1370	4880	380	5090	254	962	10500	44000	887	e838
3	3470	12700	1340	5410	299	3960	235	715	6830	20900	1220	e320
4	3880	16700	1030	3820	305	4210	218	e553	2580	7530	1020	e1100
5	5400	25600	876	3190	319	4800	202	e502	1570	4060	673	e726
6	4720	19500	619	2010	411	6450	187	e454	1420	4870	605	e718
7	2840	11400	609	2040	456	7820	173	e378	1350	4290	949	e1130
8	1500	5490	719	3210	906	15400	160	360	1280	e5110	1750	e2220
9	799	2280	727	4670	1070	17700	148	278	1210	e5750	1680	e2160
10	645	1690	711	5910	742	11400	138	189	1150	e4970	864	e1140
11	452	1200	694	6320	521	8210	161	182	1100	e3470	954	e1310
12	1220	3610	679	6560	524	8680	487	906	1040	e3230	777	e1090
13	1620	4820	663	6280	573	9720	263	365	988	3370	1480	e2120
14	1820	5450	648	5900	513	8650	159	202	938	3060	2070	e3810
15	1170	3140	634	5870	571	9890	160	169	891	2390	1380	2010
16	1290	3200	620	6060	477	8210	269	256	846	2020	912	1920
17	1180	2660	606	6980	477	8340	266	196	804	1710	1470	3020
18	824	1600	592	6960	369	6380	235	178	763	1270	995	1610
19	601	1080	579	6910	275	4340	207	120	725	945	677	989
20	538	980	565	6920	246	3210	183	142	688	992	1280	2580
21	520	911	553	6750	254	2540	172	155	760	1080	6420	19600
22	433	694	540	7190	355	2740	214	170	2690	2570	17600	83300
23	586	1250	528	7000	528	3550	238	225	8210	9210	11300	48900
24	1120	3930	516	6770	786	4460	357	352	3490	5960	7320	26800
25	3150	18500	504	6830	1010	5150	387	370	3580	5990	5400	21300
26	7590	53800	493	6710	487	2750	1430	1100	3500	e6520	4020	13600
27	5730	37600	482	6560	962	5650	799	543	4900	e6880	2990	11300
28	4440	26800	471	6400	482	2380	856	858	2720	e2060	2230	11700
29	2770	14300	460	6160	248	1140	1930	5470	945	e587	1660	9970
30	2040	8630	449	5880	245	1210	2580	10200	486	e302	1310	7520
31	---	---	430	5570	---	---	3270	12700	494	e307	---	---
TOTAL	---	316315	---	178240	---	189570	---	40470	---	205403	---	285428
YEAR	1745872.9											
e	Estimated											

08333450 ARROYO CHAVEZ NEAR SAN LUIS, NM

LOCATION.--Lat 35°41'32", long 106°06'08", SW¹/₄, NW¹/₄, NE¹/₄, sec. 24, T.17.N., R. 3 W., Sandoval County, Hydrologic Unit 13020204, on right bank 5.4 mi northeast of San Luis, 12.5 mi to Highway 44, and 23 mi to Cibola, NM.

DRAINAGE AREA.--0.85 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1995 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,380 ft above National Geodetic Vertical of 1929, from topographic map.

REMARKS.--Records fair. Discharge recorded and sediment samples collected on discharge events.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 291 ft³/s, Sept. 8, 1997, gage height, 4.40 ft; no flow on many days.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5.4 ft³/s, Aug. 10, Sept. 8; minimum daily, no flow on many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.72	.01
4	1.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.4
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.4	e.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.63
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.38	e.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.36	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.90	.00	.00
										.16	.00	---
TOTAL	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.52	6.50	6.16
MEAN	.039	.000	.000	.000	.000	.000	.000	.000	.000	.081	.21	.21
MAX	1.2	.00	.00	.00	.00	.00	.00	.00	.00	1.1	5.4	5.4
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	2.4	.00	.00	.00	.00	.00	.00	.00	.00	5.0	13	12

WTR YR 1997 TOTAL 16.38 MEAN .045 MAX 5.4 MIN .00 AC-FT 32

e Estimated

RIO GRANDE BASIN

08333450 ARROYO CHAVEZ NEAR SAN LUIS, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1995 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGES: October 1996 to September 1997.

INSTRUMENTATION.--Automatic pumping sediment sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 10,300 mg/L, July 30, 1997; minimum daily mean, no flow on many days.

SEDIMENT LOADS: Maximum daily, 981 tons, Sept. 8, 1997; minimum daily, 0 ton on many days.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 10,300 mg/L, July 30; minimum daily mean, no flow on many days.

SEDIMENT LOADS: Maximum daily, 981 tons, Sept. 8; minimum daily, 0 ton on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)
JUN 1997				
07...	0650	4.0	38800	419
07...	1414	20	50100	2710
JUL				
27...	1701	3.6	64600	628
27...	1749	5.0	43000	580
27...	1837	0.48	44800	58
27...	1937	0.58	43500	68
27...	2025	0.54	13700	20
AUG				
03...	0035	12	99400	3220
03...	0041	12	38600	1250
03...	0153	2.5	13000	88
03...	0229	2.5	8570	58
03...	0417	4.2	26900	305
10...	1243	5.2	57600	809
10...	1319	105	91300	25900
10...	1355	61	45800	7540
10...	1431	6.4	32300	558

WATER-QUALITY RECORDS
SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY			MARCH
1	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
2	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
3	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
4	10100	107	0	.00	0	.00	0	.00	0	.00	0	.00
5	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
6	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
7	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
8	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
9	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
10	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
11	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
12	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
13	0	.00	0	.00	0	.00	0	.00	0	.00	0	.01
14	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
15	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
16	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
17	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
18	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
19	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
20	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
21	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
22	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
23	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
24	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
25	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
26	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
27	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
28	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
29	0	.00	0	.00	0	.00	0	.00	---	---	0	.00
30	0	.00	0	.00	0	.00	0	.00	---	---	0	.00
31	0	.00	---	---	0	.00	0	.00	---	---	0	.00
TOTAL	---	107.00	---	0.00	---	0.00	---	0.00	---	0.00	---	0.01
DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
2	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
3	0	.00	0	.00	0	.00	0	.00	5680	66	938	2.4
4	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
5	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
6	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
7	0	.00	0	.00	1330	e45	0	.00	0	.00	0	.00
8	0	.00	0	.00	0	.00	0	.00	0	.00	2800	981
9	0	.01	0	.00	0	.00	0	.00	0	.00	0	.00
10	0	.00	0	.00	0	.00	0	.00	4360	763	0	.00
11	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
12	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
13	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
14	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
15	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
16	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
17	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
18	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
19	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
20	0	.00	0	.00	0	.00	0	.00	0	.00	6430	107
21	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
22	0	.00	0	.00	0	.00	0	.00	0	.00	0	e.00
23	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
24	0	.00	0	.00	0	.00	0	.00	5200	85	0	.00
25	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
26	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
27	0	.00	0	.00	0	.00	9560	182	0	.00	0	.00
28	0	.00	0	.00	0	.00	4160	49	0	.00	0	.00
29	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
30	0	.00	0	.00	0	.00	10300	200	0	.00	0	.00
31	---	---	0	.00	---	---	2710	1.2	0	.00	---	---
TOTAL YEAR e Estimated	---	0.01 2588.62	---	0.00	---	45.00	---	432.20	---	914.00	---	1090.40

RIO GRANDE BASIN

08332050 BERNARDO INTERIOR DRAIN NEAR BERNARDO, NM

LOCATION.--Lat 34°24'56", long 106°49'15", Socorro County, Hydrologic Unit 13020203, on right bank 110 ft upstream from culvert on U.S. Highway 60, and 1.0 mi east of Bernardo.

PERIOD OF RECORD.--June 1936 to May 1937, October 1943 to current year. Monthly discharge only June 1936 to May 1937, published in WSP 828. October 1943 to September 1960 included in composite records for station 08332000 "Rio Grande near Bernardo." October 1960 to September 1964, monthly acre-ft published in WSP 1923. Daily records available in district files beginning October 1943.

GAGE.--Water-stage recorder. Elevation of gage is 4,710 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 4, 1936, to May 17, 1937, nonrecording gage 300 ft downstream, and Oct. 1, 1943 to Jan. 12, 1978, water-stage recorder at site 150 ft downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. This drain is 1 of 4 channels (stations 08331990, 08332010, and 08332030) carrying flow in valley cross section. For combined monthly flow in acre-ft of this drain, conveyance channel, floodway, and Lower San Juan Riverside drain, see tabulation below daily table for station 08332010. Several observations of water temperature were made during the year. Prior to 1952, drain was subject to overflow from floodway.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	87	22	17	25	19	93	45	51	113	103	74
2	92	57	22	17	22	18	60	77	84	88	92	75
3	98	52	22	17	20	18	33	55	114	107	92	69
4	99	48	21	17	5.8	17	29	47	88	117	111	94
5	104	48	21	15	2.7	17	32	81	82	111	99	77
6	127	54	21	14	1.8	49	27	56	85	109	94	129
7	135	38	20	11	13	65	60	75	82	95	68	135
8	132	34	20	6.3	19	33	82	87	75	81	76	125
9	144	32	19	10	15	22	59	95	85	78	103	145
10	142	30	19	12	15	17	70	105	77	93	133	e90
11	125	29	20	18	20	17	81	120	105	102	111	70
12	119	28	20	17	20	34	71	90	111	92	109	97
13	123	27	19	17	20	35	104	43	126	84	114	117
14	136	26	19	18	20	74	74	58	120	90	115	126
15	143	26	19	18	19	91	73	92	104	92	105	123
16	141	25	19	17	19	93	88	49	126	83	101	116
17	133	24	18	17	19	54	77	33	119	107	96	131
18	126	24	18	18	19	73	64	61	98	84	86	124
19	125	24	18	18	18	70	62	63	108	95	84	125
20	104	24	13	12	13	39	81	68	95	88	93	179
21	100	24	4.1	3.6	18	41	50	79	82	91	100	187
22	121	24	4.0	3.5	14	66	65	106	82	80	106	175
23	119	23	8.4	4.2	12	59	92	129	65	73	98	126
24	126	23	11	4.8	16	55	91	109	71	93	151	107
25	123	23	3.8	4.9	7.7	70	38	93	66	116	161	107
26	127	23	4.8	6.6	2.1	85	46	107	67	108	133	110
27	124	23	6.6	6.8	1.6	89	68	57	72	130	112	34
28	111	23	18	7.5	17	102	56	56	96	112	91	34
29	120	23	13	13	---	98	32	37	100	89	87	35
30	129	22	17	19	---	75	51	46	101	99	78	37
31	131	---	17	12	---	77	---	68	---	100	106	---
TOTAL	3755	968	497.7	392.2	414.7	1672	1909	2287	2737	3000	3208	3173
MEAN	121	32.3	16.1	12.7	14.8	53.9	63.6	73.8	91.2	96.8	103	106
MAX	144	87	22	19	25	102	104	129	126	130	161	187
MIN	76	22	3.8	3.5	1.6	17	27	33	51	73	68	34
AC-FT	7450	1920	987	778	823	3320	3790	4540	5430	5950	6360	6290

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1997, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1954	75.8	168	1996	.11	1957
1955	31.2	87.9	1987	1.37	1957
1956	27.2	74.2	1987	3.50	1955
1957	25.8	87.7	1990	3.30	1957
1958	26.0	74.5	1990	3.90	1957
1959	48.6	96.9	1985	5.61	1954
1960	59.1	118	1969	4.81	1955
1961	63.1	137	1996	4.84	1954
1962	58.1	134	1992	1.64	1954
1963	59.0	146	1992	.18	1956
1964	69.7	146	1992	.006	1954
1965	72.9	164	1995	.010	1956

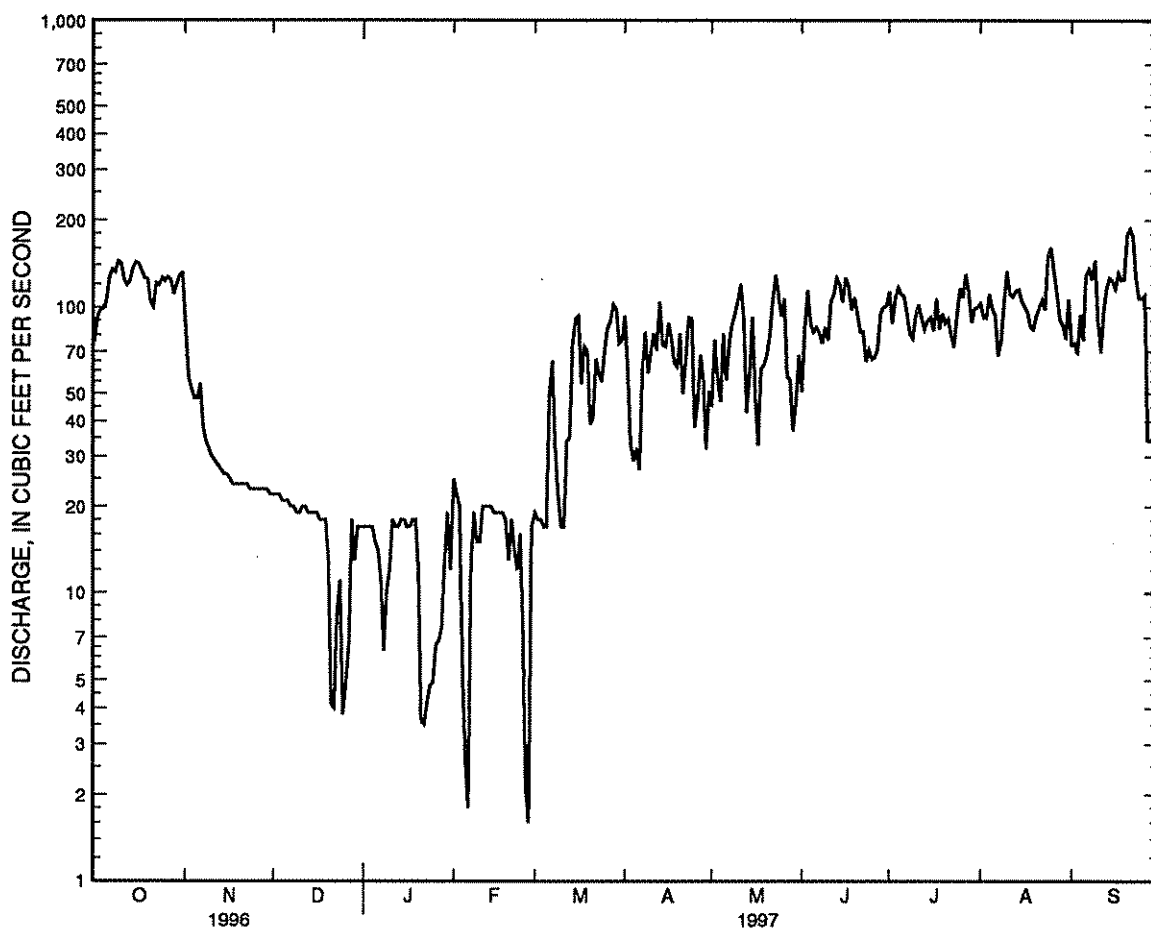
RIO GRANDE BASIN

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08332050 BERNARDO INTERIOR DRAIN NEAR BERNARDO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1954 - 1997	
ANNUAL TOTAL	28056.7		24013.6		52.4	
ANNUAL MEAN	76.7		65.8		92.1	
HIGHEST ANNUAL MEAN					4.29	
LOWEST ANNUAL MEAN					1992	
HIGHEST DAILY MEAN	175	May 26	187	Sep 21	208	May 5 1983
LOWEST DAILY MEAN	3.8	Dec 25	1.6	Feb 27	.00	Jul 31 1954
ANNUAL SEVEN-DAY MINIMUM	6.1	Dec 21	4.9	Jan 21	.00	Jul 31 1954
INSTANTANEOUS PEAK FLOW					208	May 5 1983
ANNUAL RUNOFF (AC-FT)	55650		47630		37960	
10 PERCENT EXCEEDS	139		124		114	
50 PERCENT EXCEEDS	81		70		39	
90 PERCENT EXCEEDS	21		15		5.7	

e Estimated



— DAILY MEAN DISCHARGE - 1997 WATER YEAR

RIO GRANDE BASIN

08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM

LOCATION.--Lat 35°36'04", long 107°09'56", (revised) in SW¹/₄ sec.21, T.16 N., R.3 W., Sandoval County, Hydrologic Unit 13020204, on right bank 1.6 mi upstream from Arroyo Chico, 5.5 mi northeast of village of Guadalupe, and at mile 106.8.

DRAINAGE AREA.--420 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,950 ft above National Geodetic Vertical Datum of 1929. Prior to July 14, 1966, at datum 1.01 ft higher.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 3,700 acres upstream from station in past years, but present diversion negligible. Several observations of water temperature were made during the year. No flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1943, probably exceeded 5,000 ft³/s based on records for stations upstream and downstream.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.75	e.10	e.00	e10	2.2	3.2	8.6	49	e.00	31	.06
2	.00	.68	e.05	e.00	e6.0	e2.0	3.2	9.8	53	e.00	8.0	.04
3	.00	.73	e.00	e.00	e6.0	e1.5	2.6	6.9	46	.00	240	.03
4	e100	.68	e.00	e.00	e6.2	e1.5	4.4	6.7	41	.00	57	.02
5	e80	.69	e.00	e.00	e5.0	e1.0	11	8.4	36	.00	15	.13
6	9.3	.55	e.00	e.00	e5.0	e1.0	14	15	33	.00	60	6.1
7	3.4	.19	e.00	e.00	e5.5	e1.0	13	21	76	.00	23	1.1
8	1.4	.02	e.00	e.00	e3.0	e1.0	12	27	132	.00	12	17
9	.82	.00	e.00	e.00	e2.5	e1.0	7.6	33	97	.00	4.6	17
10	.72	.00	e.00	e.00	e2.0	e2.0	6.7	34	48	.00	56	.90
11	.61	.00	e.00	e.00	3.2	e2.0	7.7	32	25	.00	29	2.2
12	.43	.00	e.00	e.00	4.4	e3.0	7.8	29	19	.00	15	.30
13	.23	.00	e.00	e.00	4.8	e4.0	8.2	30	14	.00	7.2	.10
14	.01	.00	e.00	e.00	5.2	4.3	6.0	40	9.8	.00	3.4	.15
15	.00	.00	e.00	e.00	5.5	3.4	5.2	42	7.6	.00	2.1	.47
16	.00	.63	e.00	e.00	4.6	2.4	5.0	48	16	.00	.86	.67
17	e.00	.42	e.00	e.00	3.5	1.9	4.4	57	11	.00	.59	.73
18	e.00	.29	e.00	e.00	5.8	1.8	4.7	54	6.4	.00	.54	.38
19	e.00	.23	e.00	e.00	7.2	2.2	6.2	59	5.6	.00	.18	4.8
20	e.00	.16	e.00	e.00	8.6	2.3	7.6	77	3.0	.00	.01	64
21	e.00	.09	e.00	e.00	6.0	2.3	7.7	86	1.6	.00	.00	e100
22	e.00	.35	e.00	e.02	5.3	2.2	6.6	89	.83	.00	.00	e20
23	e.00	.79	e.00	e.03	4.9	4.0	14	172	.45	.00	.00	e5.0
24	e.00	.63	e.00	e.00	4.2	3.7	22	129	.30	.00	4.7	e.05
25	.00	.47	e.00	e.00	3.1	4.5	32	103	e.20	.00	16	e.01
26	.00	.27	e.00	e.00	2.8	5.9	29	82	e.00	1.5	e3.0	e.15
27	1.3	.13	e.00	e.00	2.4	5.6	16	53	e.00	28	e1.0	.14
28	6.8	.38	e.00	e.00	2.9	3.7	10	38	e.00	16	.44	.04
29	2.1	1.6	e.00	e.00	---	2.4	8.6	33	e.00	4.7	.21	.01
30	1.0	1.3	e.00	e4.5	---	2.2	11	32	e.00	27	.12	.00
31	.90	---	e.00	e9.0	---	2.2	---	38	---	167	.08	---
TOTAL	209.02	12.03	0.15	13.55	135.6	80.2	297.4	1493.4	731.78	244.20	591.03	241.58
MEAN	6.74	.40	.005	.44	4.84	2.59	9.91	48.2	24.4	7.88	19.1	8.05
MAX	100	1.6	.10	9.0	10	5.9	32	172	132	167	240	100
MIN	.00	.00	.00	.00	2.0	1.0	2.6	6.7	.00	.00	.00	.00
AC-FT	415	24	.3	27	269	159	590	2960	1450	484	1170	479

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1997, BY WATER YEAR (WY)

	7.58	3.03	1.43	2.97	12.4	17.1	19.5	40.3	16.8	16.0	23.7	12.2
MEAN	7.58	3.03	1.43	2.97	12.4	17.1	19.5	40.3	16.8	16.0	23.7	12.2
MAX	129	28.2	15.9	48.2	79.2	161	99.3	236	113	83.0	101	90.3
(WY)	1958	1987	1987	1993	1979	1960	1958	1973	1995	1996	1957	1972
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1953	1953	1953	1953	1953	1953	1964	1964	1953	1959	1962	1952

RIO GRANDE BASIN

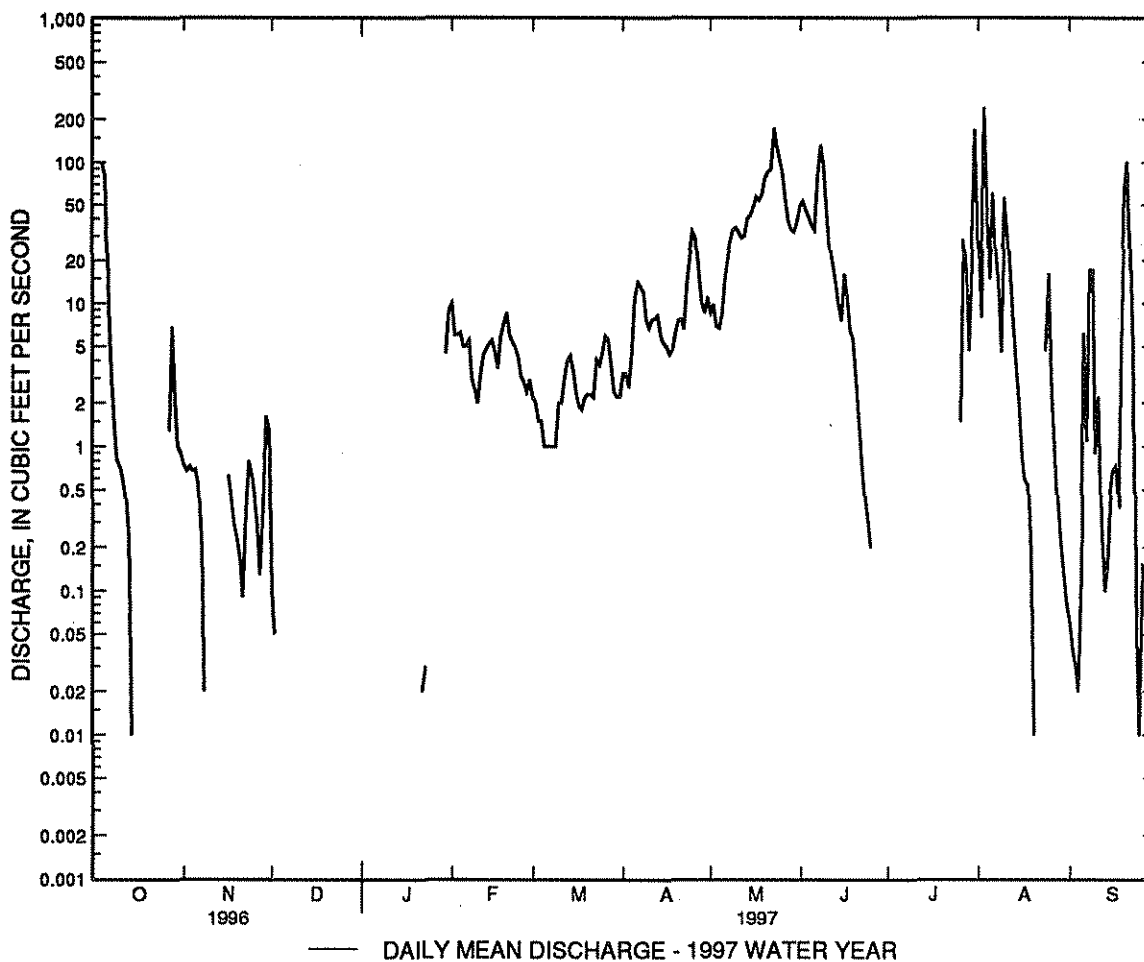
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08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1952 - 1997
ANNUAL TOTAL	4935.46	4049.94	
ANNUAL MEAN	13.5	11.1	14.5
HIGHEST ANNUAL MEAN			48.6
LOWEST ANNUAL MEAN			1.11
HIGHEST DAILY MEAN	1170 Jul 9	240 Aug 3	2000 Oct 20 1957
LOWEST DAILY MEAN	.00 Jan 6	.00 Oct 1	.00 Oct 1 1951
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 8	.00 Oct 15	.00 Oct 1 1951
INSTANTANEOUS PEAK FLOW		664 Sep 21	6940 ^a Jul 29 1967
INSTANTANEOUS PEAK STAGE		4.45 Sep 21	13.53 Jul 29 1967
ANNUAL RUNOFF (AC-FT)	9790	8030	10470
10 PERCENT EXCEEDS	9.5	33	40
50 PERCENT EXCEEDS	.00	1.0	.14
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 1,300 ft³/s on basis of slope-area measurements at gage heights 7.75 ft and 10.60 ft.



RIO GRANDE BASIN

08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-56 (published as "below Cabezon"), 1981 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGES: July 1948 to June 1956, October 1981 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler.

REMARKS.--Daily suspended-sediment samples are collected when flow is observed on this ephemeral stream.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 214,000 mg/L, Aug. 28, 1988; minimum daily mean, no flow on many days each year.

SEDIMENT LOADS: Maximum daily, 730,000 tons, July 27, 1955; minimum daily, 0 ton on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 107,000 mg/L, Aug. 3; minimum daily mean, no flow on many days.

SEDIMENT LOADS: Maximum daily, 73,300 tons, Aug. 3; minimum daily, 0 ton on many days.

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCE TRATI (MG/L)	LOAD (TONS/ DAY)	MEAN CONCE TRATI (MG/L)	LOAD (TONS/ DAY)	MEAN CONCE TRATI (MG/L)	LOAD (TONS/ DAY)	MEAN CONCE TRATI (MG/L)	LOAD (TONS/ DAY)	MEAN CONCE TRATI (MG/L)	LOAD (TONS/ DAY)	MEAN CONCE TRATI (MG/L)	LOAD (TONS/ DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	405	.82	249	.07	0	.00	19700	e529	14300	86
2	0	.00	360	.66	156	.02	0	.00	17100	e277	12000	e65
3	0	.00	374	.74	0	.00	0	.00	18000	e292	10000	e40
4	58300	25300	362	.67	0	.00	0	.00	19600	e328	10000	e40
5	70000	16400	355	.66	0	.00	0	.00	21100	e285	9500	e26
6	57700	1550	319	.47	0	.00	0	.00	18700	e252	9500	e26
7	30300	289	263	.14	0	.00	0	.00	17200	e255	9000	e24
8	12500	49	158	.01	0	.00	0	.00	17000	e138	9000	e24
9	4900	11	0	.00	0	.00	0	.00	14800	e100	10000	e27
10	1350	2.7	0	.00	0	.00	0	.00	14500	e78	14000	e76
11	514	.89	0	.00	0	.00	0	.00	17200	153	15000	e81
12	300	.30	0	.00	0	.00	0	.00	18900	223	20000	e162
13	743	.56	0	.00	0	.00	0	.00	19200	248	54900	e593
14	150	.00	0	.00	0	.00	0	.00	18900	263	63700	740
15	0	.00	0	.00	0	.00	0	.00	18900	280	71500	652
16	0	.00	1020	1.8	0	.00	0	.00	22800	286	54200	349
17	0	.00	434	.51	0	.00	0	.00	18300	170	41100	214
18	0	.00	306	.24	0	.00	0	.00	19100	299	31400	154
19	0	.00	277	.17	0	.00	0	.00	19600	378	33800	200
20	0	.00	239	.11	0	.00	0	.00	19200	447	35300	221
21	0	.00	264	.06	0	.00	0	.00	17500	286	32500	206
22	0	.00	975	1.1	0	.00	206	.01	17100	245	34300	206
23	0	.00	1440	3.1	0	.00	261	.02	17400	230	39000	424
24	0	.00	1160	2.0	0	.00	0	.00	16800	191	33000	335
25	0	.00	705	.91	0	.00	0	.00	15200	125	35300	427
26	0	.00	418	.31	0	.00	0	.00	13500	102	34700	552
27	2000	7.3	349	.13	0	.00	0	.00	13700	89	32400	492
28	16700	364	632	.78	0	.00	0	.00	14400	113	29900	295
29	9940	67	1230	5.3	0	.00	0	.00	---	---	20000	131
30	1380	3.9	951	3.5	0	.00	9340	e113	---	---	19500	115
31	534	1.3	---	---	0	.00	18900	e459	---	---	17700	107
TOTAL	---	44046.95	---	24.19	---	0.09	---	572.03	---	6662	---	7090

RIO GRANDE BASIN

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08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM -- Continued

WATER-QUALITY RECORDS

DAY	MEAN CONCE TRATI (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16100	141	18600	434	24100	3180	0	.00	63700	5430	140	.02
2	15000	131	18600	488	24900	3570	0	.00	58800	1220	130	.01
3	13600	97	17700	330	23900	2990	0	.00	107000	73300	119	.01
4	15700	186	17500	316	23300	2550	0	.00	70600	12000	237	.01
5	17000	521	18500	421	22600	2190	0	.00	32600	1310	17200	23
6	17800	662	20100	788	22500	2000	0	.00	69100	11600	80300	2060
7	17600	596	21700	1220	25000	5230	0	.00	67700	4300	13600	41
8	16500	545	21900	1600	27100	9620	0	.00	41400	1360	66000	5570
9	11700	242	22400	2000	25700	6770	0	.00	25300	309	80200	3740
10	11200	206	22700	2070	22200	2860	0	.00	54400	9540	26000	85
11	13700	283	21300	1800	20300	1380	0	.00	72500	5700	14300	87
12	13900	294	22500	1760	19600	997	0	.00	43800	1820	19000	16
13	12000	264	23000	1880	18900	699	0	.00	15700	328	6590	2.1
14	11300	183	24200	2610	18100	480	0	.00	5460	53	7440	3.2
15	10300	144	20900	2380	19000	391	0	.00	1650	9.7	9600	15
16	10600	143	24700	3240	19200	837	0	.00	1060	2.5	9800	20
17	10900	132	24400	3700	18500	528	0	.00	636	1.0	9480	24
18	13800	176	20400	2950	17600	305	0	.00	472	.70	4620	5.6
19	17900	302	20800	3350	16500	254	0	.00	249	.14	56700	1840
20	22500	465	25200	5310	10700	87	0	.00	68	.00	62000	8850
21	26200	540	25900	6030	5270	24	0	.00	0	.00	97100	e26200
22	25000	445	26500	6360	2000	4.8	0	.00	0	.00	66400	e3590
23	20400	762	29000	13500	587	.71	0	.00	0	.00	45000	e608
24	19700	1200	28200	9790	360	.29	0	.00	6650	189	33800	e4.6
25	20400	1790	27600	7690	241	.13	0	.00	22800	904	200	e.01
26	20500	1580	26200	5830	0	.00	7470	137	8900	e72	6800	4.7
27	19700	871	26900	3860	0	.00	48300	4300	498	e1.3	1110	.78
28	18700	520	23900	2470	0	.00	98900	4600	205	.24	501	.13
29	18400	425	23400	2100	0	.00	87100	1130	180	.10	314	.04
30	18600	552	22900	2000	0	.00	79000	5960	161	.05	262	.03
31	---	---	23500	2440	---	---	71700	32500	150	.03	---	---
TOTAL	---	14398	---	100717	---	46947.93	---	48627.00	---	129450.76	---	52790.24
YEAR		451326.19										

e Estimated

RIO GRANDE BASIN

08341300 BLUEWATER CREEK ABOVE BLUEWATER DAM, NEAR BLUEWATER, NM

LOCATION.--Lat 35°16'04", long 108°06'50", SW¹/4SW¹/4, sec. 16, T.12 N., R.12 W., Cibola County, Hydrologic Unit 13020207, on left bank 2.0 mi south of Bluewater Dam, 7.0 mi west of Bluewater, and 11 mi east of Thoreau.

DRAINAGE AREA.--75.0 mi².

PERIOD OF RECORD.--October 1953 to September 1978 (annual maximum only), July 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.35	e.16	e.22	e.54	1.1	3.6	8.8	.66	.13	.10	.55
2	.09	.34	e.14	e.25	e.55	1.0	3.2	7.8	.56	.12	.08	.29
3	.08	e.32	e.15	e.28	e.56	1.2	2.6	5.9	.50	.11	.08	.19
4	.32	e.31	e.14	e.27	e.54	1.5	4.0	4.1	.46	.10	.08	.18
5	.29	e.30	e.13	e.26	e.52	1.7	6.1	3.3	.43	.11	.12	.26
6	.25	e.30	e.13	e.25	e.50	1.8	4.7	2.7	.52	.11	.13	.25
7	.23	e.30	e.13	e.26	.47	2.1	7.1	2.3	.89	.10	.10	.21
8	.21	e.31	e.12	e.27	.44	2.6	21	1.9	2.4	.10	.10	.19
9	.18	e.28	e.11	e.26	.39	3.8	22	1.9	2.3	.10	.09	.22
10	.16	e.29	e.10	e.25	.36	7.3	20	1.9	1.7	.11	.10	.23
11	.14	e.28	e.10	e.25	.37	21	15	2.1	1.2	.11	.11	.23
12	.13	e.27	e.10	e.24	.35	43	16	2.0	.93	.10	.10	.21
13	.14	e.28	e.11	e.24	.34	63	21	1.7	1.1	.11	.15	.33
14	.21	e.27	e.10	e.23	.32	67	17	1.4	.91	.09	.14	.32
15	.23	e.29	e.10	e.25	.32	59	13	1.2	.78	.06	.10	.24
16	.22	.36	e.10	e.25	.34	62	11	1.2	.71	.06	.09	.28
17	.20	.33	e.11	e.26	.45	65	9.4	1.2	.66	.07	.08	.24
18	.20	.33	e.12	e.26	.55	47	8.5	1.3	.61	.07	.14	.18
19	.22	.31	e.13	e.25	.62	39	7.0	2.3	.50	.08	.09	.16
20	.28	.29	e.14	e.26	.75	35	5.5	3.5	.42	.09	.06	12
21	e.28	.29	e.15	e.26	.85	32	4.6	4.4	.36	.09	.07	100
22	e.27	.29	e.17	e.25	e1.1	27	e4.1	3.1	.32	.07	.19	22
23	e.29	.31	e.19	e.26	e1.3	22	4.5	2.4	.30	.05	.17	9.4
24	e.28	.27	e.21	e.25	e1.6	17	7.6	1.8	.28	.04	1.0	5.4
25	e.29	.26	e.22	e.26	e2.2	13	17	1.6	.27	.04	.26	3.6
26	e.35	.17	e.23	e.29	e1.9	10	16	1.3	.21	.05	.24	2.1
27	.45	.11	e.22	e.50	e1.5	8.4	22	1.1	.18	.08	.19	1.3
28	.69	e.09	e.22	e.84	e1.3	6.3	22	.97	.16	.08	.14	.84
29	.47	e.12	e.23	e.69	---	5.0	17	.85	.15	.08	.13	.62
30	.38	e.13	e.21	e.60	---	4.0	12	.77	.14	.13	.16	.44
31	.36	---	e.22	e.56	---	3.5	---	.71	---	.10	.87	---
TOTAL	8.03	8.15	4.69	9.82	21.03	673.3	344.5	77.50	20.61	2.74	5.46	162.46
MEAN	.26	.27	.15	.32	.75	21.7	11.5	2.50	.69	.088	.18	5.42
MAX	.69	.36	.23	.84	2.2	67	22	8.8	2.4	.13	1.0	100
MIN	.08	.09	.10	.22	.32	1.0	2.6	.71	.14	.04	.06	.16
AC-FT	16	16	9.3	19	42	1340	683	154	41	5.4	11	322

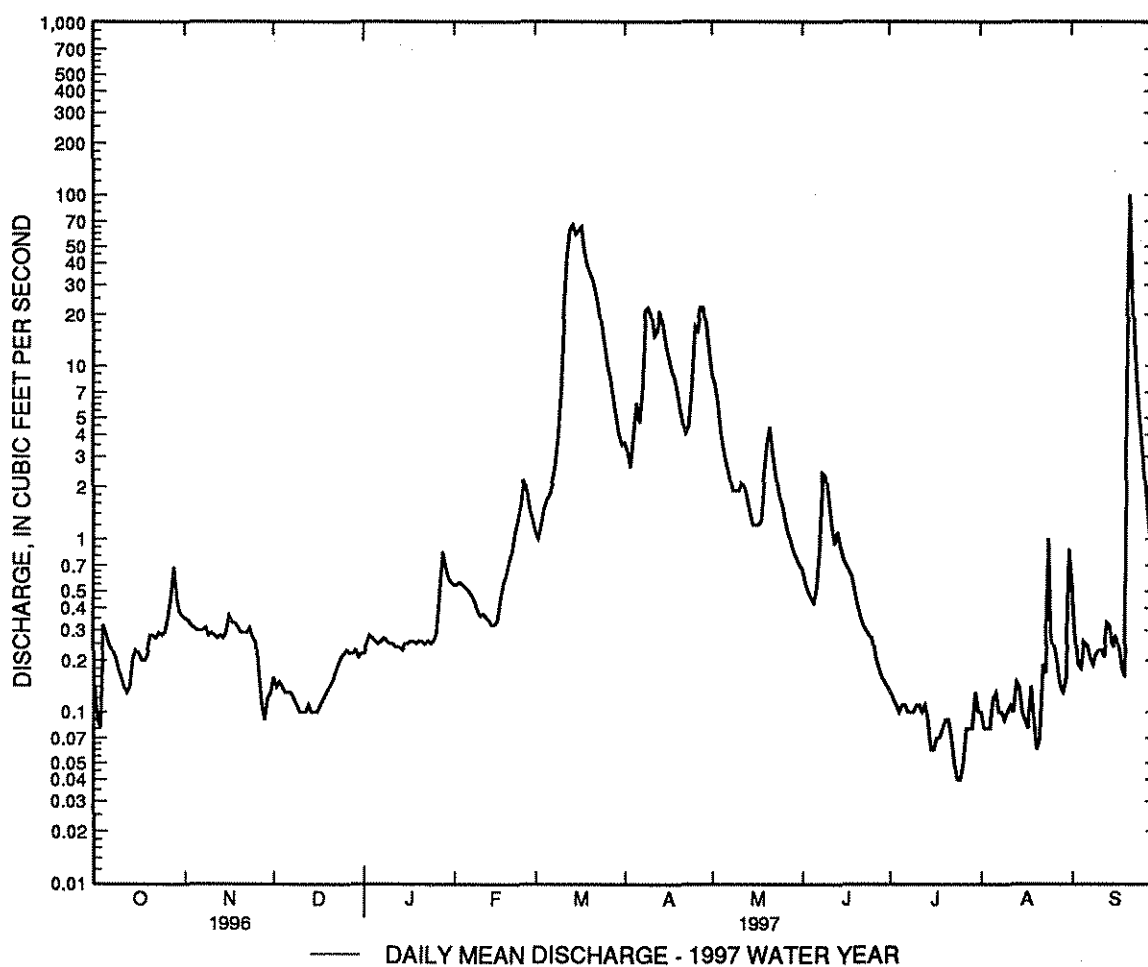
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1997, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1989	.45	1.90	1994	.093	1991
1990	1.00	3.47	1994	.055	1991
1991	.87	2.54	1995	.050	1991
1992	2.81	17.9	1993	.091	1991
1993	10.6	42.1	1995	.48	1990
1994	57.4	227	1993	.55	1990
1995	42.0	225	1993	.43	1990
1996	4.25	14.6	1993	.37	1996
1997	.99	1.78	1993	.077	1990
	.43	.88	1993	.052	1996
	1.87	11.7	1993	.023	1990
	1.34	5.42	1997	.059	1990

08341300 BLUEWATER CREEK ABOVE BLUEWATER DAM, NEAR BLUEWATER, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1989 - 1997
ANNUAL TOTAL	144.98	1338.29	
ANNUAL MEAN	.40	3.67	10.3
HIGHEST ANNUAL MEAN			44.6
LOWEST ANNUAL MEAN			.24
HIGHEST DAILY MEAN	1.2 Aug 9	100 Sep 21	742 Mar 6 1995
LOWEST DAILY MEAN	.00 Jun 25	.04 Jul 24	.00 Jun 24 1990
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 13	.06 Jul 22	.00 Aug 3 1990
INSTANTANEOUS PEAK FLOW		354 Sep 21	3570 Jul 16 1953
INSTANTANEOUS PEAK STAGE		3.32 Sep 21	8.99 Jul 16 1953
ANNUAL RUNOFF (AC-FT)	288	2650	7490
10 PERCENT EXCEEDS	.91	9.0	18
50 PERCENT EXCEEDS	.29	.30	.68
90 PERCENT EXCEEDS	.03	.10	.09

e Estimated



RIO GRANDE BASIN

08341365 COTTONWOOD CREEK NEAR THOREAU, NM

LOCATION.--Lat 35°20'32", long 108°12'42", in NE¹/4SE¹/4 sec.21, T.13 N., R. 13., McKinley County, Hydrologic Unit 13020207, on left bank 4.0 mi southeast of Thoreau, and 4.0 mi northwest of north end of Bluewater Lake.

DRAINAGE AREA.--77.0 mi.

PERIOD OF RECORD.--July 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,420 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. No flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	e.00	e.00	.00	3.5	3.3	.00	.00	.00	23
2	.00	.00	.00	e.00	e.00	.00	3.0	3.8	.00	.00	.00	.20
3	.00	.00	.00	e.00	e.00	.00	2.4	3.2	.00	.00	.00	.00
4	.00	.00	.00	e.00	e.00	.00	4.1	2.2	.00	.00	.00	.00
5	.00	.00	.00	e.00	e.00	.00	5.2	1.8	.00	.00	.00	.00
6	.00	.00	.00	e.00	e.00	.00	3.6	1.4	.00	.00	.00	.00
7	.00	.00	.00	e.00	e.00	.00	8.1	1.2	.00	.00	.00	.00
8	.00	.00	.07	e.00	e.00	.00	17	.95	.33	.00	.00	.00
9	.00	.00	.02	e.08	e.00	.00	22	.91	2.1	.00	.00	.00
10	.00	.00	.03	e.00	e.00	.00	17	1.2	.82	.00	.00	.00
11	.00	.00	.02	e.00	e.00	.00	13	1.1	.17	.00	.00	.00
12	.00	.00	.00	e.00	e.00	.00	12	.89	.01	.00	.00	.00
13	.00	.00	.00	e.00	e.00	.00	17	.65	.00	.00	.00	.00
14	.00	.00	.00	e.00	e.00	.00	14	.45	.00	.00	.00	.00
15	.00	.00	.00	e.00	e.00	.00	10	.28	.00	.00	.00	.00
16	.00	.00	.00	e.00	e.00	.00	7.9	.16	.00	.00	.00	.00
17	.00	.00	.00	e.00	e.00	.00	7.0	.09	.00	.00	.00	.00
18	.00	.00	.00	e.00	e.00	.00	6.3	.10	.00	.00	.00	.00
19	.00	.00	.00	e.00	e.00	.00	5.2	2.9	.00	.00	.00	.00
20	.00	.00	.00	e.00	e.00	.00	4.2	21	.00	.00	.00	65
21	.00	.00	.00	e.00	e.00	e1.1	3.5	30	.00	.00	.00	74
22	.00	.00	.00	e.00	e.00	e3.2	2.9	15	.00	.00	.00	127
23	.00	.00	.00	e.00	e.00	e5.6	2.5	9.0	.00	.00	.00	20
24	.00	.00	.00	e.00	e.00	e7.1	5.9	5.2	.00	.00	.00	8.9
25	.00	.00	e.00	e.00	e.00	e9.3	13	2.9	.00	.00	.00	5.0
26	.00	.00	e.00	e.00	e.00	e10	12	1.6	.00	.00	.00	3.1
27	.00	.00	e.00	e.00	e.00	7.9	20	.81	.00	.00	.00	1.9
28	.00	.00	e.00	e.00	e.00	5.9	12	.49	.00	.00	.00	1.1
29	.00	.00	e.10	e.00	---	4.9	6.5	.29	.00	.00	.00	.53
30	.00	.00	e.00	e.00	---	4.0	4.3	.12	.00	.00	.00	.18
31	.00	---	e.00	e.00	---	3.8	---	.03	---	.00	7.5	---
TOTAL	0.00	0.00	0.24	0.08	0.00	62.80	265.1	113.02	3.43	0.00	7.50	329.91
MEAN	.000	.000	.008	.003	.000	2.03	8.84	3.65	.11	.000	.24	11.0
MAX	.00	.00	.10	.08	.00	10	22	30	2.1	.00	7.5	127
MIN	.00	.00	.00	.00	.00	.00	2.4	.03	.00	.00	.00	.00
AC-FT	.00	.00	.5	.2	.00	125	526	224	6.8	.00	15	654

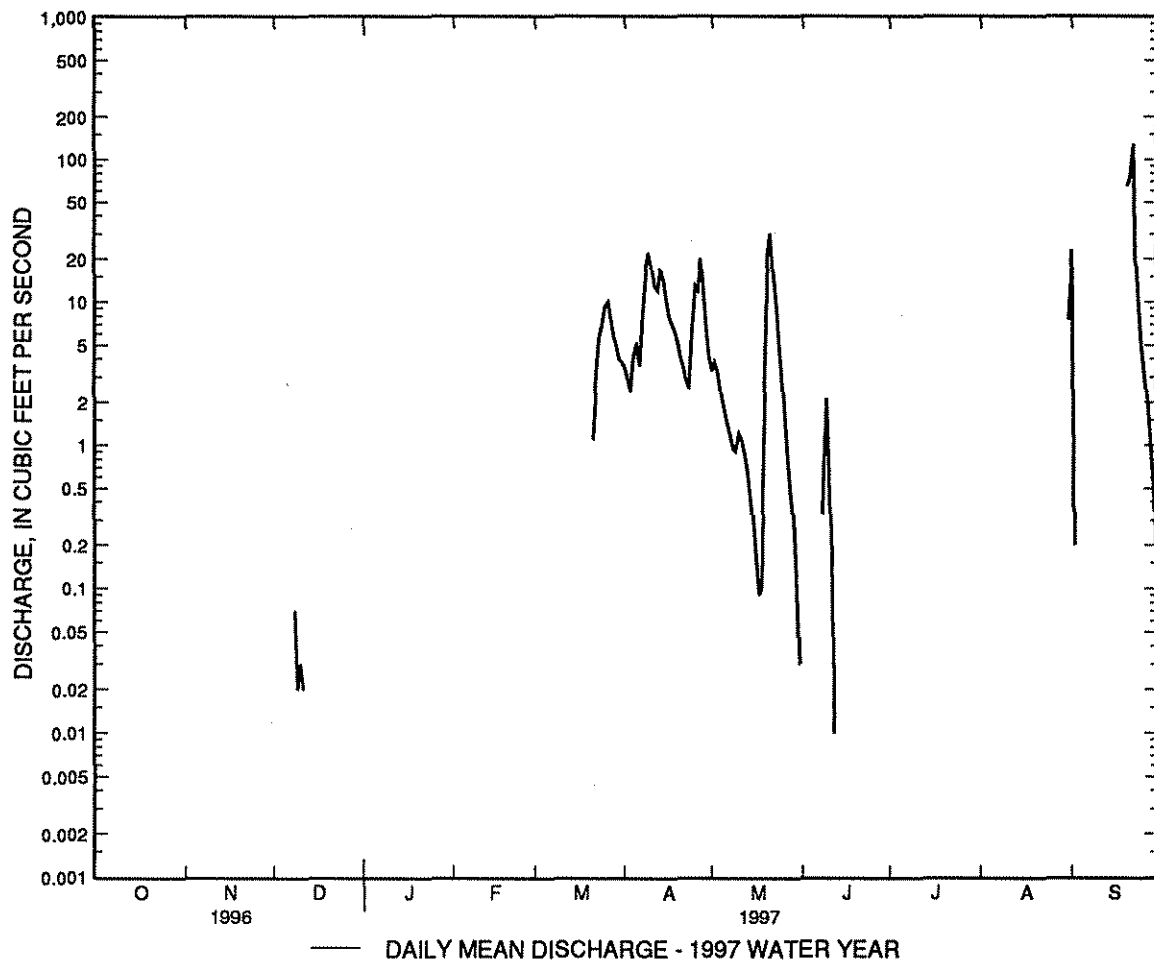
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1997, BY WATER YEAR (WY)

MEAN	.013	.19	.22	4.28	8.08	38.0	18.7	2.78	.32	.060	.44	1.25
MAX	.10	1.22	1.19	34.2	33.4	143	62.8	8.32	.93	.31	1.17	11.0
(WY)	1994	1994	1993	1993	1993	1993	1991	1995	1995	1996	1996	1997
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1990	1990	1990	1990	1990	1990	1990	1990	1994	1993	1994	1991

08341365 COTTONWOOD CREEK NEAR THOREAU, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1989 - 1997
ANNUAL TOTAL	52.88	782.08	
ANNUAL MEAN	.14	2.14	6.21
HIGHEST ANNUAL MEAN			21.6
LOWEST ANNUAL MEAN			.006
HIGHEST DAILY MEAN	15 Aug 9	127 Sep 22	470 Mar 6 1995
LOWEST DAILY MEAN	.00 Jan 3	.00 Oct 1	.00 Jul 20 1989
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 3	.00 Oct 1	.00 Aug 7 1989
INSTANTANEOUS PEAK FLOW		419 Sep 22	813 ^a Mar 6 1995
INSTANTANEOUS PEAK STAGE		6.02 Sep 22	7.64 Mar 6 1995
ANNUAL RUNOFF (AC-FT)	105	1550	4500
10 PERCENT EXCEEDS	.10	5.2	11
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 2000 ft³/s.

RIO GRANDE BASIN

08351225 VOLCANO HILL WASH NR CORREO,NM

LOCATION.--Lat 34°50'04", long 107°21'46", SW¹/4,SE¹/4,NE¹/4, sec. 16, T.17.N., R. 5 W., Cibola County, Hydrologic Unit 13020207, on left bank 16 mi to State Road 52, 16 mi to Correro and 18 mi to Interstate 40.

DRAINAGE AREA.--3.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1995 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5.730 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Discharge recorded and sediment samples collected on discharge events.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 436 ft³/s, Aug. 12, 1997, gage height 3.53 ft, no flow on many days.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 16 ft³/s, Aug. 12; minimum daily no flow on many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.51	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.7	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.6
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.01
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.6
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.6	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	2.7	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	13	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	e.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	21.49	25.93	3.21
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.021	.69	.84	.11
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.51	13	16	1.6
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	1.3	43	51	6.4

WTR YR 1997 TOTAL 51.27 MEAN .14 MAX 16 MIN .00 AC-FT 102

e Estimated

08351225 VOLCANO HILL WASH NEAR CORREO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1995 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGES: October 1996 to September 1997.

INSTRUMENTATION.--Automatic pumping sediment sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 5,060 mg/L, Sept. 21, 1997; minimum daily mean, no flow on many days.

SEDIMENT LOADS: Maximum daily, 2290 tons, July 31, 1997; minimum daily, 0 ton on many days.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 5,060 mg/L, Sept. 21; minimum daily mean, no flow on many days.

SEDIMENT LOADS: Maximum daily, 2290 tons, July 31; minimum daily, 0 ton on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	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)
JUL 1997						
26...	1831	0.21	--	39200	22	98
27...	1923	10	--	61600	1660	85
27...	1959	11	--	29800	885	92
29...	2224	0.21	--	9570	5.4	97
30...	2026	86	--	50200	11700	87
30...	2102	240	--	30400	19700	79
30...	2138	135	--	27000	9840	88
30...	2214	14	--	22400	847	88
30...	2250	12	--	21300	690	93
30...	2326	9.3	--	17700	444	96
AUG						
04...	0150	1.9	--	18700	96	97
04...	0226	2.7	--	17800	130	97
10...	2049	1.9	--	28400	146	99
11...	1844	422	--	53200	60600	76
11...	1920	58	--	35600	5570	93
11...	1956	11	--	30200	897	95
12...	1713	278	--	66300	49800	78
12...	1749	360	--	31900	31000	78
12...	1825	39	--	17200	1810	89
12...	1901	4.1	--	11000	122	96
SEP						
16...	1551	E0.01	342	39900	1.1	83
21...	1143	1.2	221	22200	72	89
21...	1231	14	249	28200	1070	86
21...	1331	15	227	24400	988	82
21...	1407	5.1	210	15700	216	88
21...	1546	2.3	201	11300	70	93
21...	1551	3.1	342	21500	180	89

RIO GRANDE BASIN

08351225 VOLCANO HILL WASH NEAR CORREO, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
2	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
3	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
4	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
5	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
6	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
7	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
8	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
9	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
10	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
11	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
12	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
13	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
14	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
15	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
16	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
17	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
18	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
19	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
20	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
21	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
22	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
23	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
24	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
25	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
26	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
27	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
28	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
29	0	.00	0	.00	0	.00	0	.00	---	---	0	.00
30	0	.00	0	.00	0	.00	0	.00	---	---	0	.00
31	0	.00	---	---	0	.00	0	.00	---	---	0	.00
TOTAL	---	0.00	---	0.00	---	0.00	---	0.00	---	0.00	---	0.00

DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
2	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
3	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
4	0	.00	0	.00	0	.00	0	.00	1220	1.1	0	.00
5	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
6	0	.00	0	.00	719	5.6	0	.00	0	.00	0	.00
7	0	.00	0	.00	2010	19	0	.00	0	.00	0	.00
8	0	.00	0	.00	417	.27	0	.00	0	.00	0	.00
9	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
10	0	.00	0	.00	0	.00	0	.00	1640	12	0	.00
11	0	.00	0	.00	0	.00	0	.00	4810	1010	0	.00
12	0	.00	0	.00	0	.00	0	.00	2830	1310	0	.00
13	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
14	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
15	0	.00	0	.00	0	.00	0	.00	0	.00	2680	139
16	0	.00	0	.00	0	.00	0	.00	0	.00	416	1.1
17	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
18	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
19	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
20	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
21	0	.00	0	.00	0	.00	0	.00	0	.00	5060	81
22	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
23	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
24	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
25	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
26	0	.00	0	.00	0	.00	1700	21	0	.00	0	.00
27	0	.00	0	.00	0	.00	2080	605	0	.00	0	.00
28	0	.00	0	.00	0	.00	245	.03	0	.00	0	.00
29	0	.00	0	.00	0	.00	1350	118	0	.00	0	.00
30	0	.00	0	.00	0	.00	3830	2290	0	.00	0	.00
31	---	---	0	.00	---	---	0	.00	0	.00	---	---
TOTAL YEAR	---	0.00 5613.10	---	0.00	---	24.87	---	3034.03	---	2333.10	---	221.10

08341400 BLUEWATER LAKE NEAR BLUEWATER, NM

LOCATION.--Lat 35°17'31", long 108°06'40", in SE¹/₄ sec.9, T.12 N., R.12 W., Cibola County, Hydrologic Unit 13020207, at left end of Bluewater Dam on Bluewater Creek, and 9.5 mi west of Bluewater.

DRAINAGE AREA.--201 mi².

PERIOD OF RECORD.--June 1927 to December 1950 (monthend contents only, published in WSP 1732), April 1958 to current year (monthend contents only).

GAGE.--Water-stage recorder. Datum of gage is 7,345.57 ft above National Geodetic Vertical Datum of 1929. July 1958 to January 1961, nonrecording gage at nearby site, same datum. Gage heights have been converted to sea-level elevations.

REMARKS.--Lake is formed by concrete arch dam. Storage began in 1927. Capacity, 38,500 acre-ft, survey of 1945 at elevation 7,402.6 ft, crest of uncontrolled siphon spillway, which is vented to avoid drawdown below crest, and 44,200 acre-ft, at elevation 7,405.6 ft, crest of ungated spillway over dam. Capacity table used through 1944 showed a capacity of 50,300 acre-ft at crest of ungated spillway over dam, and that used from 1945-50, 43,500 acre-ft. Tables used prior to 1958 are not available and no adjustments are made for changes in tables. Dead storage, 3.4 acre-ft at elevation 7,345.4 ft, sill of lower outlet tube. Lake not usually drawn below conservation-pool level elevation, 7,365.36 ft, below which ownership is by State Game and Fish Department. Above this level, water is owned and used by Bluewater-Toltec Irrigation Co. Figures given herein represent total contents at 2400 hours.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents determined, 47,100 acre-ft, Apr. 30, 1941. Contents may have been greater on Apr. 28, 1941, when peak discharge of 800 ft³/s occurred at station 8 mi downstream; no storage at times prior to 1947.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 6,310 acre-ft, May 26, 27, elevation, 7,372.86 ft; minimum, 3,140 acre-ft, Jan. 2, elevation, 7,364.67 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	7,365.45	3,380	
Oct. 31	7,365.27	3,320	- 60
Nov. 30	7,364.82	3,190	- 130
Dec. 31	7,364.71	3,160	- 30
CAL YR 1996			- 7,000
Jan. 31	7,364.71	3,160	- 0
Feb. 28	7,364.75	3,170	+ 10
Mar. 31	7,370.85	5,360	+ 2,190
Apr. 30	7,372.36	6,060	+ 700
May 31	7,372.77	6,270	+ 210
June 30	7,372.21	5,990	- 280
July 31	7,371.66	5,720	- 170
Aug. 31	7,371.37	5,990	+ 130
Sept. 30	7,371.72	5,750	+ 160
WTR YR 1997			+ 2,373

RIO GRANDE BASIN

08341500 BLUEWATER CREEK BELOW BLUEWATER DAM, NM

LOCATION.--Lat 35°18'13", long 108°05'56", in NW¹/4NW¹/4 sec. 3, T.12 N., R. 12 W., Cibola County, Hydrologic Unit 13020207, on left bank 0.5 mi downstream from Bluewater Dam and 11 mi west of Bluewater.

DRAINAGE AREA.--201 mi².

PERIOD OF RECORD.--March 1951 to September 1960, July 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,290 ft above National Geodetic Vertical Datum of 1929, from topographic map. March 14, 1951 to September 30, 1960 at site 0.5 mi upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Bluewater Lake (station 08341400) 0.5 mi upstream, since 1927. No flow at times in 1955, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known occurred Sept. 6, 1909, where Bluewater Dam washed out; stage and discharge not determined. Another major flood probably occurred July 12-19, 1919 when a stage of 13.5 was reached at station (08342000) 8.0 mi downstream.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.47	.49	.37	.37	.44	e.41	.72	.89	1.2	.81	.72	.97
2	.46	.49	.39	.37	.44	e.40	.73	.92	1.2	.80	.66	.75
3	.68	.49	.39	.42	.44	e.41	.75	.91	1.2	.79	.67	.91
4	.57	.47	.39	.39	.43	e.42	.81	.93	1.2	.78	.66	1.0
5	.51	.47	.39	.39	.43	e.42	.79	.98	1.2	.76	.69	.91
6	.49	.47	.40	.36	.44	e.40	.80	.98	1.2	.75	.86	.89
7	.49	.47	.39	.37	.43	.41	.78	1.0	1.5	.75	.68	.89
8	.50	.47	.39	.39	.42	.41	.76	1.0	1.4	.69	.67	2.1
9	.49	.44	.39	.39	.43	.41	.75	1.5	1.2	.69	.68	1.3
10	.49	.44	.39	.40	.41	.41	.76	1.1	1.1	.69	.70	.85
11	.49	.44	.38	.38	.40	.39	.76	1.0	.99	.67	.73	.84
12	.49	.44	.37	.38	e.42	.42	.81	1.1	1.0	.66	.73	.82
13	.49	.44	.37	.37	e.39	.41	.81	1.1	1.0	.64	.73	1.0
14	.51	.41	.35	.37	e.40	.41	.80	1.1	.98	.65	.72	1.2
15	.52	.41	.35	.37	e.40	.41	.80	1.1	.97	.68	.69	.93
16	.52	.45	.34	.39	e.39	.44	.80	1.1	.98	.69	.70	.96
17	.52	.43	.34	.39	e.39	.45	.80	1.1	.98	.67	.70	.93
18	.49	.44	.33	.42	e.38	.47	.81	1.1	.95	.69	.81	.94
19	.51	.41	.35	.48	e.40	.49	.80	1.2	.90	.73	.72	.91
20	.52	.41	.38	.49	e.42	.52	.80	1.4	.88	.70	.67	1.3
21	.52	.41	.38	.44	e.40	.55	.81	1.2	.88	.66	.71	1.3
22	.52	.42	.38	.41	e.39	.55	.80	1.3	.89	.66	.75	3.3
23	.52	.44	.36	.41	e.38	.56	.80	1.2	.88	.66	.65	.95
24	.52	.41	.35	.42	e.39	.61	.96	1.2	.87	.64	.69	.91
25	.50	.41	.35	.44	e.38	.68	.88	1.2	.91	.66	.69	.90
26	.53	.41	.36	.48	e.41	.69	.89	1.3	.88	.71	.69	.87
27	.59	.41	.37	.48	e.40	.70	.88	1.2	.85	.75	.66	.87
28	.75	.39	.37	.46	e.42	.70	.87	1.2	.85	.81	.66	.89
29	.57	.42	.35	.44	---	.70	.86	1.2	.83	1.1	.69	.87
30	.51	.37	.37	.43	---	.71	.85	1.2	.87	1.0	.74	.86
31	.49	---	.37	.43	---	.72	---	1.2	---	.73	2.6	---
TOTAL	16.23	13.07	11.46	12.73	11.47	15.68	24.24	34.91	30.74	22.67	23.72	32.12
MEAN	.52	.44	.37	.41	.41	.51	.81	1.13	1.02	.73	.77	1.07
MAX	.75	.49	.40	.49	.44	.72	.96	1.5	1.5	1.1	2.6	3.3
MIN	.46	.37	.33	.36	.38	.39	.72	.89	.83	.64	.65	.75
AC-FT	32	26	23	25	23	31	48	69	61	45	47	64

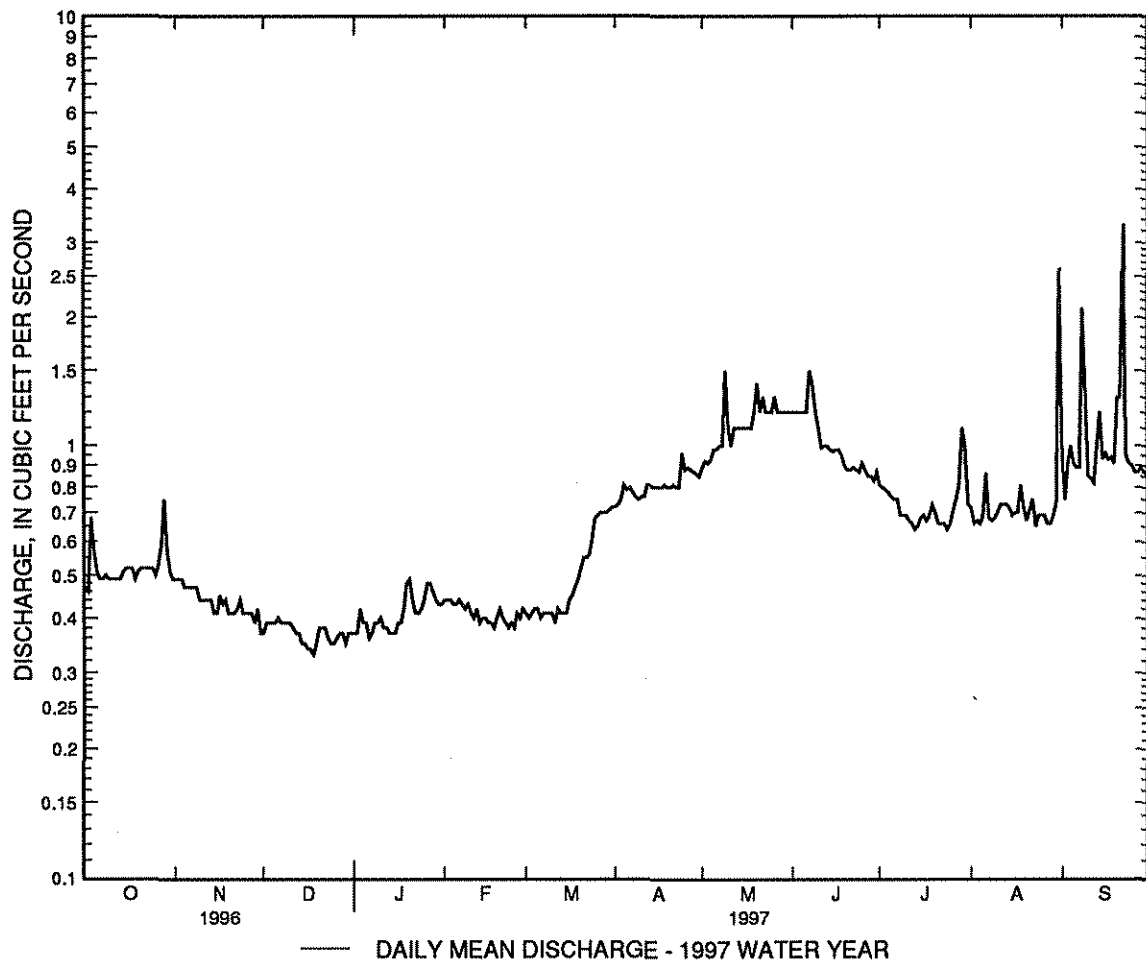
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1997, BY WATER YEAR (WY)

MEAN	2.87	1.32	1.18	1.27	1.43	2.57	6.53	34.3	27.6	27.7	18.2	10.3
MAX	15.1	4.48	3.90	4.39	5.03	6.25	21.7	67.4	53.3	59.1	41.0	33.0
(WY)	1994	1994	1994	1994	1994	1993	1994	1995	1995	1995	1995	1993
MIN	.49	.44	.28	.39	.41	.51	.62	.65	.46	.48	.48	.39
(WY)	1990	1997	1991	1991	1997	1997	1990	1990	1990	1990	1990	1989

08341500 BLUEWATER CREEK BELOW BLUEWATER DAM, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1989 - 1997
ANNUAL TOTAL	2970.85	249.04	
ANNUAL MEAN	8.12	.68	11.6
HIGHEST ANNUAL MEAN			22.1
LOWEST ANNUAL MEAN			.61
HIGHEST DAILY MEAN	84 May 29	3.3 Sep 22	98 May 5 1995
LOWEST DAILY MEAN	.33 Dec 18	.33 Dec 18	.14 Dec 9 1990
ANNUAL SEVEN-DAY MINIMUM	.35 Dec 13	.35 Dec 13	.17 Dec 5 1990
INSTANTANEOUS PEAK FLOW			108 ^a May 4 1995
INSTANTANEOUS PEAK STAGE			3.35 Jul 6 1994
ANNUAL RUNOFF (AC-FT)	5890	494	8430
10 PERCENT EXCEEDS	54	1.1	41
50 PERCENT EXCEEDS	.76	.66	1.1
90 PERCENT EXCEEDS	.41	.39	.44

e Estimated

a-From rating curve extended above 50 ft³/s.

RIO GRANDE BASIN

08343000 RIO SAN JOSE AT GRANTS, NM

LOCATION.--Lat 35°09'16", long 107°52'11", in SW¹/4NW¹/4 sec.26, T.11 N., R.10 W., Cibola County, Hydrologic Unit 13020207, on right bank upstream 1,500 ft from El Morro St., 0.2 mi south of Santa Fe Ave. in Grants, and at mile 67.8.

DRAINAGE AREA.--1,020 mi², approximately.

PERIOD OF RECORD.--October 1912 to February 1914, June 1914, October 1914 to February 1915, May 1915 to June 1921, September 1921 to June 1923, October 1923 to May 1926, September to December 1926, May 1949 to September 1966, June 1968 to current year. Monthly discharge only for some periods published in WSP 1312. Prior to October 1967, published as "Bluewater Creek at Grants."

REVISED RECORDS.--WSP 1512: 1913-14. WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,468.34 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). See WSP 1732 or 1923 for history of changes prior to Jan. 1, 1926. Prior to 1992 at site on right bank at bridge at El Morro St., at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow slightly regulated by Bluewater Lake (station 08341400) 24 mi upstream. Diversions and ground-water withdrawals for irrigation of about 4,500 acres upstream from station. Several observations of water temperature were made during the year. No flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood observed occurred Sept. 6 or 7, 1909, when Bluewater Dam washed out. A flood in July 1919 probably exceeded the one in 1952.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.20	.00	.00	.00	.00	.00	.00	.00	.00	e.70	.00
2	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00	e.20	.00
3	.20	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.02	.00
4	.95	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00
5	.47	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.02	.00	.00	.00	.00	.00	.00	.00	.52	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	2.1	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.62	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.10	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.05	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	1.9	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	e.05	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	.43	.00
23	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00	1.6	.00
24	.00	.00	.00	.00	.00	.00	.12	.00	.00	.00	e.00	.00
25	.00	.00	.00	.00	.00	.00	e.06	.00	.00	.00	e.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	3.5	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.00	.00
29	5.2	.00	.00	.00	---	.00	.00	.00	.00	2.0	.00	.00
30	1.5	.00	.00	.00	---	.00	.00	.00	.00	e5.9	.00	.00
31	.59	---	.00	.00	---	.00	---	.00	---	e3.2	.00	---
TOTAL	12.60	0.23	0.00	0.00	0.00	0.00	0.18	1.95	3.33	12.50	3.11	0.00
MEAN	.41	.008	.000	.000	.000	.000	.006	.063	.11	.40	.10	.000
MAX	5.2	.20	.00	.00	.00	.00	.12	1.9	2.1	5.9	1.6	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	25	.5	.00	.00	.00	.00	.4	3.9	6.6	25	6.2	.00

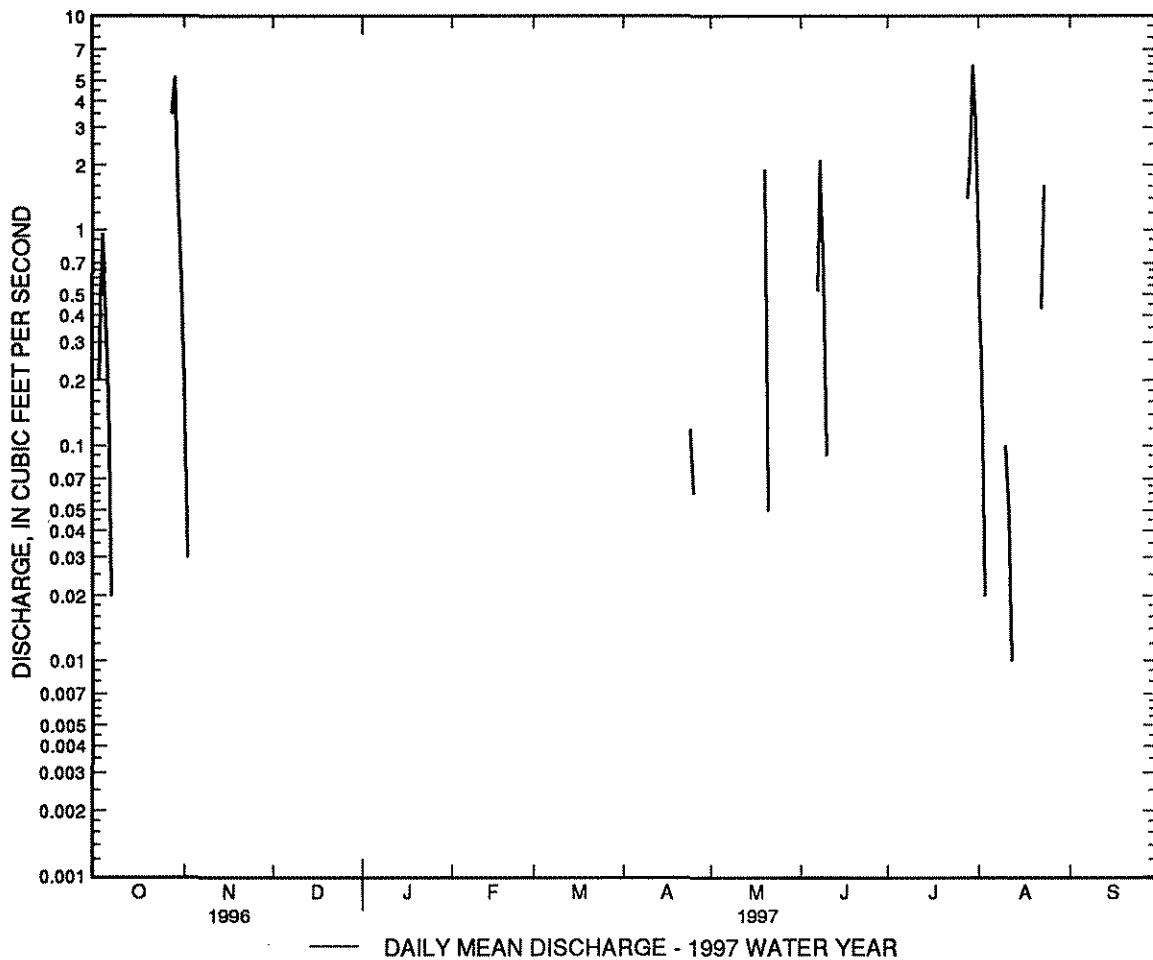
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1997, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
MEAN	.20	.002	.000	.000	.000	.22	5.82	1.85	.005	.11	.48	.28
MAX	2.51	.061	.000	.000	.000	6.30	87.0	22.5	.11	1.20	7.79	5.49
(WY)	1970	1980	1969	1969	1969	1985	1980	1983	1997	1981	1993	1972
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1969	1969	1969	1969	1969	1969	1969	1969	1968	1968	1969	1968

08343000 RIO SAN JOSE AT GRANTS, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1968 - 1997
ANNUAL TOTAL	72.95	33.90	
ANNUAL MEAN	.20	.093	.75
HIGHEST ANNUAL MEAN			8.10
LOWEST ANNUAL MEAN			.000
HIGHEST DAILY MEAN	30 Aug 23	5.9 Jul 30	355 Apr 21 1980
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	.00 Jun 1 1968
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Oct 8	.00 Jun 1 1968
INSTANTANEOUS PEAK FLOW		25 Jul 30	1760 ^a Aug 28 1952
INSTANTANEOUS PEAK STAGE		2.07 Jul 30	5.35 Aug 28 1952
ANNUAL RUNOFF (AC-FT)	145	67	541
10 PERCENT EXCEEDS	.00	.00	.00
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended above 300 ft³/s, on basis of velocity-area studies.

RIO GRANDE BASIN

08343500 RIO SAN JOSE NEAR GRANTS, NM

LOCATION.--Lat 35°04'27", long 107°45'01", in SE¹/4SE¹/4 sec.23, T.10 N., R.9 W., Cibola County, Hydrologic Unit 13020207, on right bank at west boundary of Acoma Pueblo Grant, 8.5 mi southeast of Grants, and at mile 57.4.

DRAINAGE AREA.--2,300 mi², approximately, of which 1,130 mi² does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1936 to current year. Prior to October 1955, published as "San Jose River near Grants."

REVISED RECORDS.--WSP 898: 1936-39(M). WSP 1512: 1943. WSP 1712: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,269.47 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Flow slightly regulated by Bluewater Lake (station 08341400), 34 mi upstream. Diversions and ground-water withdrawal for irrigation of about 5,100 acres upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood probably occurred Sept. 6 or 7, 1909, following destruction of Bluewater Dam. The peak of Sept. 20, 1963, may have been exceeded by those of July 1919, August and September 1929, and August 1935.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	3.8	4.5	3.6	4.8	3.6	e3.9	e3.9	3.8	3.5	4.4	3.0
2	4.3	3.9	4.5	3.6	4.6	3.5	e3.9	e3.9	4.0	3.5	2.9	3.0
3	6.1	3.9	4.6	3.6	4.3	3.6	e3.9	e3.7	4.1	3.6	2.6	2.9
4	4.9	3.8	4.3	3.6	4.2	3.6	e4.1	e3.6	4.3	3.7	2.7	3.2
5	5.5	3.7	3.9	3.7	4.3	3.5	e4.2	e3.6	4.7	3.6	2.7	7.0
6	4.4	3.7	3.8	3.7	4.2	3.6	e4.2	e3.6	5.0	3.4	3.0	4.0
7	4.1	3.6	3.8	3.6	4.2	3.6	e4.1	e3.5	5.3	3.4	3.0	3.2
8	4.0	3.7	3.7	3.6	4.4	3.6	e4.0	e3.5	5.3	3.5	3.3	3.4
9	4.3	3.7	3.8	3.7	4.3	3.6	e4.1	e3.6	6.7	3.5	3.3	3.4
10	4.3	3.7	3.7	3.8	4.2	3.6	e4.2	e3.6	6.6	3.7	3.3	3.5
11	4.2	3.7	3.8	3.8	4.2	3.6	e4.2	e3.6	6.1	3.7	3.5	3.5
12	4.2	3.8	3.8	3.8	4.3	3.6	e4.2	e3.7	6.3	3.7	3.4	3.6
13	4.3	3.8	3.8	3.8	4.2	3.5	e4.2	e3.5	6.4	3.6	3.6	3.5
14	4.2	3.8	3.8	3.7	4.0	3.6	e4.1	e3.4	6.5	3.7	3.5	3.6
15	4.3	3.9	3.8	3.6	4.0	3.6	e4.0	e3.3	6.6	3.6	3.8	4.3
16	4.3	3.9	4.0	3.6	4.1	3.6	e4.1	e3.2	6.5	3.7	3.9	4.2
17	4.3	3.9	3.9	3.6	4.1	3.6	e4.1	e3.2	6.3	3.7	3.9	e4.1
18	4.5	3.9	3.8	3.6	3.9	3.6	e4.1	e3.3	6.1	3.7	3.9	e3.9
19	4.5	4.0	4.1	3.6	3.8	3.6	e4.1	e3.6	5.7	3.6	4.0	e3.8
20	4.0	4.0	3.9	3.6	3.6	3.6	e4.1	e5.5	5.4	3.6	4.1	e3.8
21	4.0	4.1	3.9	3.6	3.5	3.6	e4.2	e6.0	5.0	3.5	4.2	e5.5
22	4.0	4.0	3.9	3.6	3.5	3.6	e4.2	e3.3	4.7	3.6	4.3	e6.2
23	3.9	3.9	3.7	3.6	3.6	3.6	e4.2	3.1	4.3	3.5	4.2	e4.4
24	3.9	4.0	3.6	3.6	3.6	3.6	e4.4	2.9	3.9	3.6	3.8	e4.2
25	3.9	4.1	3.6	3.7	3.5	3.6	e4.1	3.1	3.9	3.3	3.8	e4.1
26	3.9	4.1	3.6	3.9	3.3	4.0	e4.0	3.0	3.8	3.6	3.7	e3.9
27	3.7	4.2	3.6	4.3	3.6	e4.0	e3.9	3.4	3.7	3.5	3.9	e3.8
28	4.0	4.3	3.6	4.4	3.6	e3.9	e3.8	3.4	3.7	4.1	3.7	e3.7
29	4.1	4.3	3.6	4.4	---	e3.9	e3.8	3.4	3.6	2.9	3.7	e3.7
30	4.9	4.2	3.6	4.4	---	e3.8	e3.8	3.4	3.5	5.4	3.6	e3.7
31	4.1	---	3.7	4.4	---	e3.8	---	3.6	---	2.8	9.1	---
TOTAL	133.4	117.4	119.7	117.1	111.9	113.1	122.2	111.4	151.8	111.8	116.8	118.1
MEAN	4.30	3.91	3.86	3.78	4.00	3.65	4.07	3.59	5.06	3.61	3.77	3.94
MAX	6.1	4.3	4.6	4.4	4.8	4.0	4.4	6.0	6.7	5.4	9.1	7.0
MIN	3.7	3.6	3.6	3.6	3.3	3.5	3.8	2.9	3.5	2.8	2.6	2.9
AC-FT	265	233	237	232	222	224	242	221	301	222	232	234

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1997, BY WATER YEAR (WY)

MEAN	5.61	5.32	5.18	5.53	5.69	5.59	8.19	8.04	5.46	6.77	9.17	6.57
MAX	16.6	9.76	7.82	10.5	11.6	11.4	91.3	128	10.2	24.0	53.2	24.6
(WY)	1973	1980	1978	1945	1944	1985	1980	1941	1941	1957	1957	1975
MIN	2.43	3.01	2.51	2.84	3.28	3.58	2.86	2.49	3.52	3.38	3.16	3.52
(WY)	1990	1994	1994	1994	1994	1994	1994	1996	1996	1994	1994	1990

RIO GRANDE BASIN

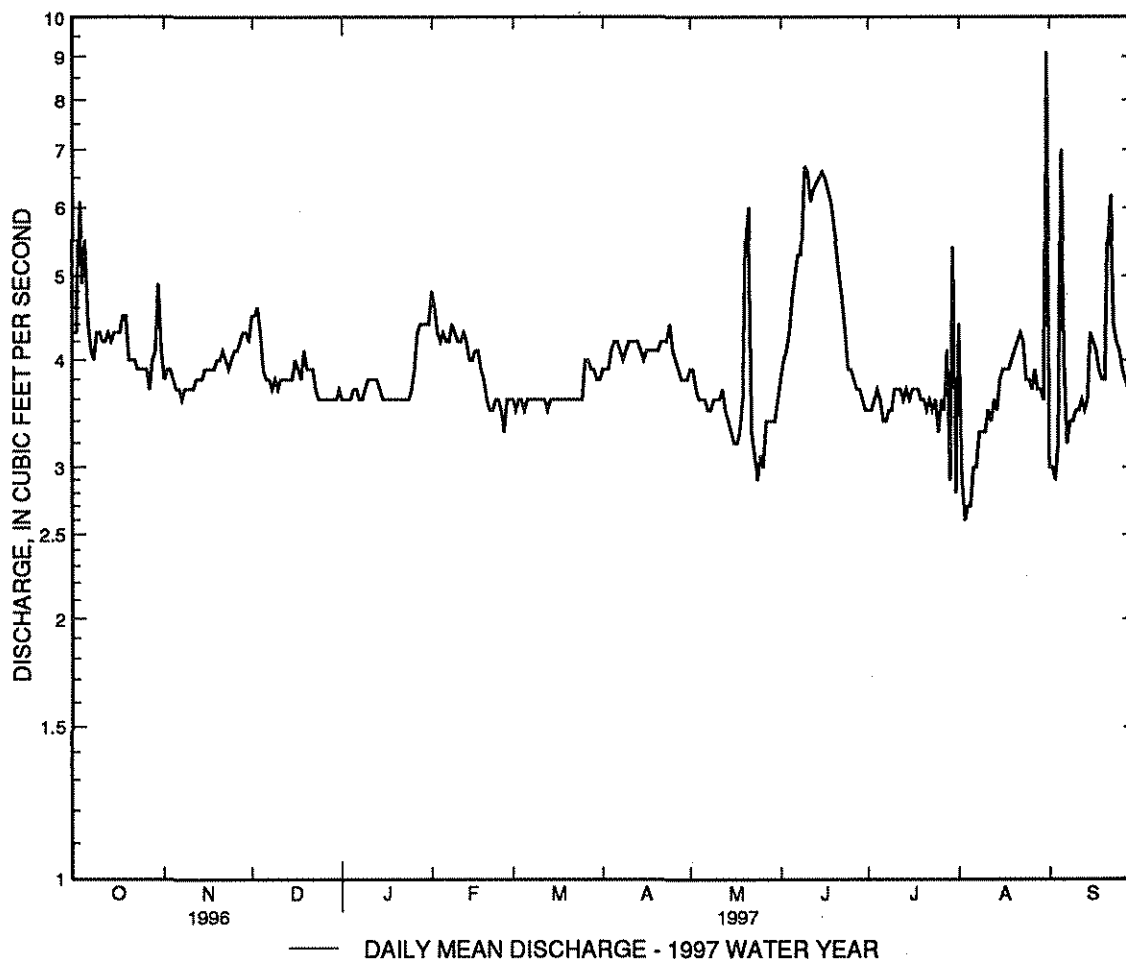
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08343500 RIO SAN JOSE NEAR GRANTS, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1937 - 1997	
ANNUAL TOTAL	1581.7		1444.7		6.43	
ANNUAL MEAN	4.32		3.96		19.3	
HIGHEST ANNUAL MEAN					3.53	
LOWEST ANNUAL MEAN					538	
HIGHEST DAILY MEAN	34	Sep 15	9.1	Aug 31	1.6	Aug 30 1957
LOWEST DAILY MEAN	1.6	May 30	2.6	Aug 3	1.7	May 30 1996
ANNUAL SEVEN-DAY MINIMUM	1.7	May 30	2.9	Aug 2	1.7	May 30 1996
INSTANTANEOUS PEAK FLOW			100	Aug 31	1400 ^a	Sep 20 1963
INSTANTANEOUS PEAK STAGE			2.35	Aug 31	4.87	Sep 20 1963
INSTANTANEOUS LOW FLOW			2.3	Jul 31	1.5	May 29 1996
ANNUAL RUNOFF (AC-FT)	3140		2870		4660	
10 PERCENT EXCEEDS	7.5		4.4		7.1	
50 PERCENT EXCEEDS	3.8		3.8		5.1	
90 PERCENT EXCEEDS	2.4		3.4		4.0	

e Estimated

a-From rating curve extended above 450 ft³/s, on basis of slope-area measurements at gage heights 3.19 ft and 4.87 ft.



RIO GRANDE BASIN

08353000 RIO PUERCO NEAR BERNARDO, NM

LOCATION.--Lat 34°24'33", long 106°51'09", in SE¹/₄ sec.8, T.2 N., R.1 E., Socorro County, Hydrologic Unit 13020204, on bridge on former U.S. Highway 85, 0.2 mi upstream from Interstate Highway 25, 1.2 mi southwest of Bernardo, 3.0 mi upstream from mouth, and 18 mi south of Belen.

DRAINAGE AREA.--7,350 mi², approximately, of which at least 1,130 mi² does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1939 to current year. Fragmentary gage-height record and footnotes concerning no flow for the period September 1910 to August 1914, published in WSP 358 and 388, are in error and should not be used.

REVISED RECORDS.--WSP 1512: 1941-42, 1944-45, 1946(P), 1947-49. WSP 1632: 1957. WSP 1732: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,722.34 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 24, 1969, at datum 3.10 ft higher.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 11,500 acres upstream from station (includes 3,700 acres irrigated wholly or partly from wells).

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since about 1880 occurred Sept. 23, 1929, from information by local residents (discharge, about 35,000 ft³/s, estimated on basis of peak at Rio Puerco). Another flood occurred Aug. 12, 1929 (discharge, 30,600 ft³/s, by slope-area measurement, from reports of New Mexico State Engineer).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.7	e3.3	3.1	1.3	1.6	.00	.00	16	.00	252	.00
2	.00	.33	e3.8	2.9	1.2	.81	.00	.00	9.3	.00	601	.00
3	.00	.00	e4.0	3.2	.84	.36	.00	.00	3.1	.00	692	.00
4	.00	.00	1.2	1.0	.56	.22	.00	.00	9.8	.00	162	.00
5	15	.00	.13	.39	.18	.13	.00	.00	21	56	e350	.00
6	406	.00	.00	.04	.09	.72	.00	.00	19	.59	e592	.00
7	341	.00	.00	.01	.10	.21	.00	.00	68	.05	338	.00
8	50	.00	.52	.00	.07	.04	.00	.00	46	.52	363	40
9	12	.00	.61	.00	.02	.02	.00	.00	110	.00	68	39
10	3.8	.00	2.6	.00	.13	.00	.00	.00	165	.00	22	8.7
11	.85	.00	.87	.00	.13	.00	.00	.00	129	.00	17	8.3
12	.02	.00	.00	.00	.14	.00	.00	16	52	.00	2.6	16
13	.00	.00	.00	.00	.71	.00	.00	45	32	.00	36	33
14	.00	.00	.00	.00	1.5	.00	.00	41	16	.00	127	45
15	.00	.00	.00	.00	.23	.00	.00	31	7.1	.00	122	32
16	.00	.00	.00	.00	.00	.00	.00	29	1.7	.00	31	61
17	.00	e1.0	.76	.00	1.1	e.00	.00	39	.04	.00	6.7	41
18	.00	e2.0	e.00	.00	.82	e.00	.00	43	.00	.00	.42	37
19	.00	e2.5	.00	.00	.64	e.00	.00	47	.00	.00	.00	16
20	.00	e3.0	.00	.00	.53	e.00	.00	54	.00	.00	.00	3.4
21	.00	e3.0	.00	.00	.53	.00	.00	67	.00	.00	.00	178
22	.00	e3.0	.00	.00	.37	.00	.00	76	.00	.00	.00	436
23	.00	e3.0	.00	.00	.81	.00	.00	106	.00	.00	.43	595
24	.00	e3.0	.00	.00	.60	.00	.00	123	.00	.00	.40	780
25	.00	e2.8	.00	3.4	1.3	.00	.00	93	.00	.00	5.2	519
26	.00	e2.8	.00	8.0	1.1	.00	.00	91	.00	3.7	171	72
27	.00	e2.8	.00	9.5	.42	.00	.00	69	.00	.00	20	37
28	.02	e3.0	.00	4.7	.25	.00	.00	58	.00	13	1.8	20
29	.00	e2.9	.00	4.1	---	.00	.00	45	.00	6.7	.00	11
30	.04	e3.0	.00	2.3	---	.00	.00	34	.00	60	.00	6.1
31	2.4	---	.62	1.7	---	.00	---	24	---	95	.00	---
TOTAL	831.13	39.83	18.41	44.34	15.67	4.11	0.00	1131.00	705.04	235.56	3981.55	3034.50
MEAN	26.8	1.33	.59	1.43	.56	.13	.000	36.5	23.5	7.60	128	101
MAX	406	3.0	4.0	9.5	1.5	1.6	.00	123	165	95	692	780
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1650	79	37	88	31	8.2	.00	2240	1400	467	7900	6020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

MEAN	50.5	7.21	1.27	2.54	15.8	18.7	15.0	42.9	20.5	63.3	189	88.3
MAX	586	100	26.6	70.0	142	208	179	885	203	362	922	584
(WY)	1942	1987	1985	1993	1979	1960	1973	1941	1941	1955	1957	1972
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.92	.000
(WY)	1952	1940	1940	1940	1942	1942	1944	1950	1945	1942	1986	1956

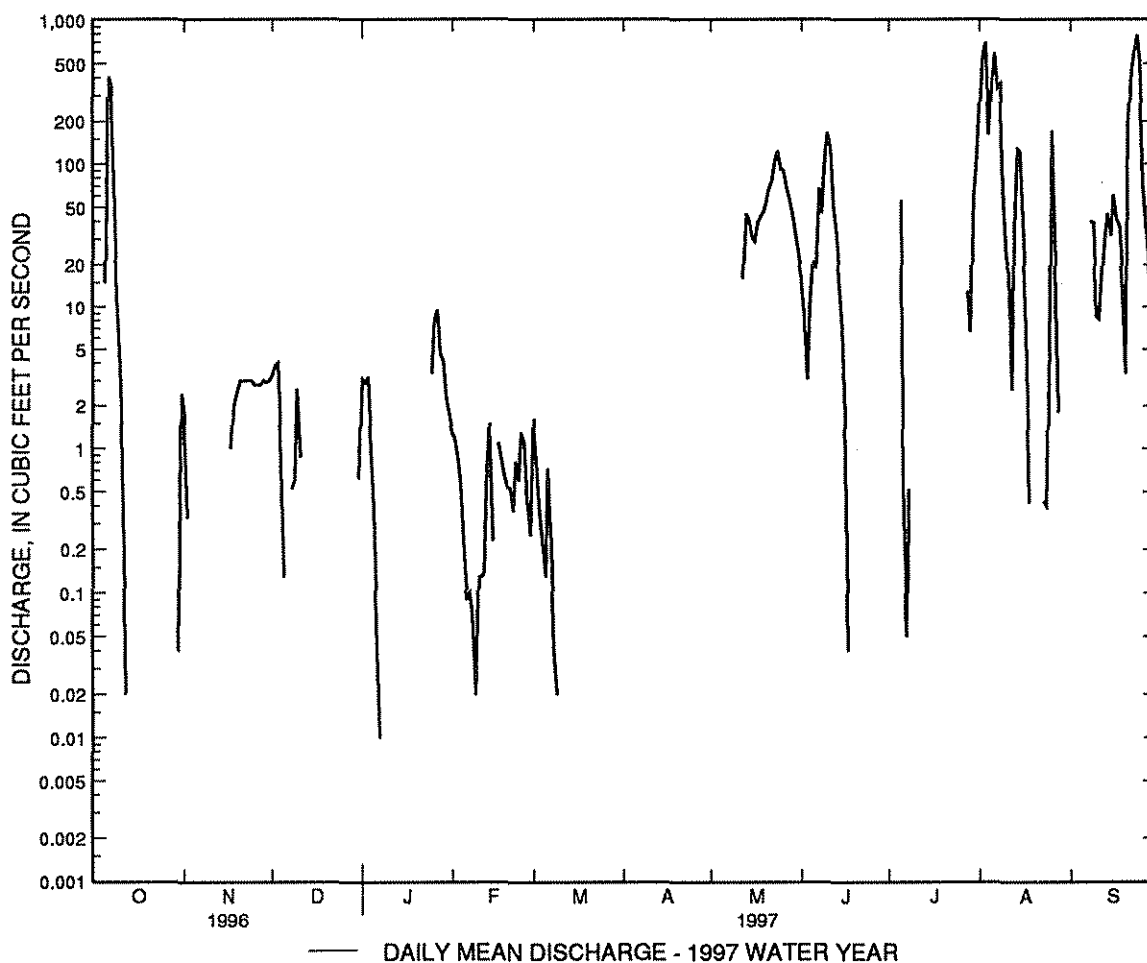
08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL TOTAL	14342.31		10041.14		42.9	
ANNUAL MEAN	39.2		27.5		171	1941
HIGHEST ANNUAL MEAN					5.47	1978
LOWEST ANNUAL MEAN					5980	May 5 1941
HIGHEST DAILY MEAN	1300	Jun 29	780	Sep 24	.00	Nov 1 1939
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Nov 1 1939
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 13	.00	Sep 23 1941
INSTANTANEOUS PEAK FLOW			1280	Sep 25	18800 ^a	Aug 12 1955
INSTANTANEOUS PEAK STAGE			10.44	Sep 25	16.90 ^b	
INSTANTANEOUS LOW FLOW			.00	Oct 1		
ANNUAL RUNOFF (AC-FT)	28450		19920		31110	
10 PERCENT EXCEEDS	59		55		67	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

a-From rating curve extended above 7,800 ft³/s.

b-Maximum gage height, 16.9 ft, present datum, Aug. 12, 1955.



RIO GRANDE BASIN

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

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

SUSPENDED-SEDIMENT DISCHARGE: October 1947 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1947 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler.

REMARKS.--Daily suspended-sediment samples are collected when flow is observed on this ephemeral stream.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 267,000 mg/L, July 26, 1957; minimum daily mean, no flow on many days of each year.

SEDIMENT LOAD: Maximum daily, 2,240,000 tons, Aug. 7, 1957; minimum daily, 0 ton on many days of each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 153,000 mg/L, Sept. 9; minimum daily mean, no flow on many days.

SEDIMENT LOAD: Maximum daily, 88,100 tons, Oct. 6; minimum daily, 0 ton on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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)	
MAY 1997												
22...	0945	95	1280	7.8	16.0	14.0	645	8.2	95	330	--	
AUG 14...	0930	117	855	7.8	23.0	20.0	645	6.7	88	190	93	
DATE		CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3 CO3) (00453) (00452)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CaCO3) (39086)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)
MAY 1997												
22...	93	23	150	4	6.0	--	--	--	122	510	34	
AUG 14...	55	11	96	3	4.8	112	0	92	124	260	31	
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 AS) (70301)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	
MAY 1997												
22...	0.8	7.9	903	5	<1	1	61	<1	138	<1		
AUG 14...	0.7	10	520	3	<1	<1	38	<1	233	<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)	
MAY 1997												
22...	2	<1	3	<3	<1	<1	<0.1	6	2		7	
AUG 14...	1	<1	5	<3	<1	<1	0.1	5	2		5	
DATE		SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	
MAY 1997												
22...	3	<1	2	0.10	0.03	4	0.100	61500	15800		97	
AUG 14...	<2	<1	3	0.08	0.02	3	0.06	27400	8660		91	

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCE TRATI (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	5500	27	7500	e67	6210	50	4080	15	4590	21
2	0	.00	2390	2.4	8500	e87	7060	55	3860	12	3050	6.7
3	0	.00	0	.00	10000	e108	6580	57	2860	6.9	1630	1.6
4	0	.00	0	.00	4140	11	3290	8.9	1970	3.1	1390	.84
5	14100	1820	0	.00	1320	.62	1770	2.1	1060	.46	1450	.63
6	72500	88100	0	.00	0	.00	676	.08	633	.16	3200	6.3
7	57500	51100	0	.00	0	.00	340	.01	493	.12	2160	1.3
8	31700	4840	0	.00	4660	6.7	0	.00	362	.06	1820	.22
9	11500	401	0	.00	5250	8.9	0	.00	317	.01	1810	.10
10	4170	47	0	.00	5900	42	0	.00	385	.15	0	.00
11	1510	3.8	0	.00	2930	7.8	0	.00	396	.14	0	.00
12	616	.05	0	.00	0	.00	0	.00	461	.16	0	.00
13	0	.00	0	.00	0	.00	0	.00	1170	2.8	0	.00
14	0	.00	0	.00	0	.00	0	.00	2150	8.9	0	.00
15	0	.00	0	.00	0	.00	0	.00	1680	1.1	0	.00
16	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
17	0	.00	2500	e6.7	2210	6.4	0	.00	2740	8.7	0	.00
18	0	.00	5000	e27	2190	5250	0	.00	2070	4.7	0	.00
19	0	.00	6500	e44	0	.00	0	.00	1610	2.7	0	.00
20	0	.00	7000	e57	0	.00	0	.00	1330	1.9	0	.00
21	0	.00	6900	e56	0	.00	0	.00	1190	1.7	0	.00
22	0	.00	6900	e56	0	.00	0	.00	1120	1.1	0	.00
23	0	.00	6800	e55	0	.00	0	.00	1880	4.3	0	.00
24	0	.00	6900	e56	0	.00	0	.00	1930	3.3	0	.00
25	0	.00	6700	e51	0	.00	3360	80	2530	9.1	0	.00
26	0	.00	6700	e51	0	.00	18200	428	2300	6.9	0	.00
27	0	.00	6800	e51	0	.00	23000	590	1490	1.7	0	.00
28	461	.03	7000	e57	0	.00	15600	205	1530	1.0	0	.00
29	0	.00	6900	e54	0	.00	10000	113	---	---	0	.00
30	974	.23	7000	e57	0	.00	5840	36	---	---	0	.00
31	5180	41	---	---	2450	6.3	4630	22	---	---	0	.00
TOTAL	---	146353.11	---	708.10	---	5601.72	---	1647.09	---	98.16	---	38.69
DAY	MEA CON TRA (MG	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	0	.00	0	.00	60200	2600	0	.00	51300	33400	0	.00
2	0	.00	0	.00	65600	1640	0	.00	30400	49300	0	.00
3	0	.00	0	.00	70200	602	0	.00	19700	36500	0	.00
4	0	.00	0	.00	82100	2180	7500	2430	23700	9750	0	.00
5	0	.00	0	.00	68000	3920	39500	3090	60500	e61900	0	.00
6	0	.00	0	.00	59300	3030	42900	69	39400	e63000	0	.00
7	0	.00	0	.00	47200	8830	1890	.09	58600	59300	0	.00
8	0	.00	0	.00	45600	5990	593	.85	69000	66300	149000	17400
9	0	.00	0	.00	57100	17800	0	.00	56300	10500	153000	16000
10	0	.00	0	.00	73000	32500	0	.00	47800	2790	133000	3170
11	0	.00	8750	227	63300	21900	0	.00	41300	2060	105000	2300
12	0	.00	76600	4540	58500	8200	0	.00	25400	172	64900	2830
13	0	.00	80600	9830	63000	5470	0	.00	47300	5230	94400	10800
14	0	.00	80200	8980	65300	2850	0	.00	28800	9840	101000	12100
15	0	.00	71700	5950	66200	1280	0	.00	17900	6060	85900	7410
16	0	.00	69700	5530	64100	279	0	.00	13300	1150	80500	12900
17	0	.00	66100	7000	93700	8.4	0	.00	7350	151	80400	8900
18	0	.00	62800	7330	0	.00	0	.00	1330	2.6	85000	8520
19	0	.00	62300	7960	0	.00	0	.00	0	.00	72100	3120
20	0	.00	60500	8920	0	.00	0	.00	0	.00	47100	442
21	0	.00	53600	9720	0	.00	0	.00	0	.00	32200	15800
22	0	.00	50100	10300	0	.00	0	.00	0	.00	47800	56000
23	0	.00	69100	22200	0	.00	0	.00	98	.21	39000	62500
24	0	.00	72900	24700	0	.00	0	.00	672	.22	31200	65700
25	0	.00	59300	14900	0	.00	0	.00	35500	1290	29500	42400
26	0	.00	56900	14000	0	.00	13400	460	47100	24500	27600	5310
27	0	.00	54500	10100	0	.00	0	.00	25400	1470	27200	2740
28	0	.00	55800	8740	0	.00	30400	1930	10100	71	21900	1200
29	0	.00	55700	6820	0	.00	18400	298	0	.00	15400	470
30	0	.00	56200	5120	0	.00	48100	7520	0	.00	3950	81
31	---	---	59600	3800	---	---	46400	12100	0	.00	---	---
TOTAL	---	0.00	---	196667.00	---	119079.40	---	27897.94	---	444737.03	---	358093.00
YEAR	1300921.24		e Estimated									

RIO GRANDE BASIN

08354500 SOCORRO MAIN CANAL NORTH AT SAN ACACIA, NM

LOCATION.--Lat 34°15'17", long 106°53'43", in SE¹/4NW¹/4 sec.1, T.1 S., R.1 W., Socorro County, Hydrologic Unit 13020203, on right bank at San Acacia, and 0.5 mi downstream from point of diversion.

PERIOD OF RECORD.--April 1936 to September 1964 (monthly discharge only), October 1964 to current year.

REVISED RECORDS.--WSP 1242: 1951.

GAGE.--Water-stage recorder. Datum of gage is 4,660.16 ft above National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). Prior to Mar. 8, 1958, at site 300 ft upstream (in old channel) at datum 0.42 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are fair. This canal is 1 of 3 channels (stations 08354800, 08354900) carrying flow in valley cross section. For combined monthly flow in acre-ft of this canal, conveyance channel, and floodway, see tabulation below daily table for 08354900. Canal diverts water from right bank of Rio Grande for irrigation of about 8,000 acres. Alamillo acequia and 3 other smaller ditches divert water from canal upstream from station for irrigation of about 400 acres. Discharge records collected at the canal heading from October 1964 to September 1965 indicate that 7,770 acre-ft or 9% reaching the regular gaging station. Several observations of water temperature were made during the year. No flow at times.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	23	.00	.00	.00	.00	254	276	303	301	e150	279
2	218	2.0	.00	.00	.00	.00	253	277	301	302	e150	281
3	181	.00	.00	.00	.00	95	254	273	308	299	e150	280
4	152	.00	.00	.00	.00	178	260	271	310	306	e150	274
5	203	.00	.00	.00	.00	187	260	270	320	303	158	231
6	206	.00	.00	.00	.00	190	254	275	325	288	167	197
7	193	.00	.00	.00	.00	192	259	275	301	294	155	234
8	193	.00	.00	.00	.00	187	258	278	236	293	163	246
9	190	.00	.00	.00	.00	184	259	277	236	290	197	244
10	201	.00	.00	.00	.00	193	262	272	247	295	205	240
11	187	.00	.00	.00	.00	199	241	273	252	301	204	247
12	193	.00	.00	.00	.00	217	205	276	254	311	236	257
13	198	.00	.00	.00	.00	223	203	276	281	306	237	257
14	207	.00	.00	.00	.00	222	222	276	272	309	173	260
15	229	.00	.00	.00	.00	222	236	287	273	302	154	263
16	243	.00	.00	.00	.00	219	237	283	274	292	142	277
17	233	.00	.00	.00	.00	214	246	281	276	279	145	271
18	231	.00	.00	.01	.00	225	244	284	286	267	133	271
19	207	.00	.00	.00	.00	252	249	282	280	303	158	266
20	190	.00	.00	.00	.00	276	247	282	284	299	246	248
21	e140	.00	.00	.00	.00	270	246	286	282	303	245	e74
22	e97	.00	.00	.00	.00	257	262	286	283	301	267	e.00
23	112	.00	.00	.00	.00	263	274	273	280	306	269	e.00
24	113	.00	.00	.00	.00	260	267	279	288	310	276	e.00
25	112	.00	.00	.00	.00	262	255	286	288	313	271	e.00
26	e77	.00	.00	.00	.00	268	250	281	287	308	266	e.00
27	e56	.00	.00	.00	.00	270	246	280	289	308	279	.00
28	e56	.00	.00	.00	.00	270	281	275	292	307	274	.00
29	e56	.00	.00	.00	---	254	273	278	287	299	270	45
30	e56	.00	.00	.00	---	247	261	293	301	159	278	193
31	52	---	.00	.00	---	257	---	294	---	e150	273	---
TOTAL	5001	25.00	0.00	0.01	0.00	6553.00	7518	8655	8496	9004	6441	5435.00
MEAN	161	.83	.000	.000	.000	211	251	279	283	290	208	181
MAX	243	23	.00	.01	.00	276	281	294	325	313	279	281
MIN	52	.00	.00	.00	.00	.00	203	270	236	150	133	.00
AC-FT	9920	50	.00	.02	.00	13000	14910	17170	16850	17860	12780	10780

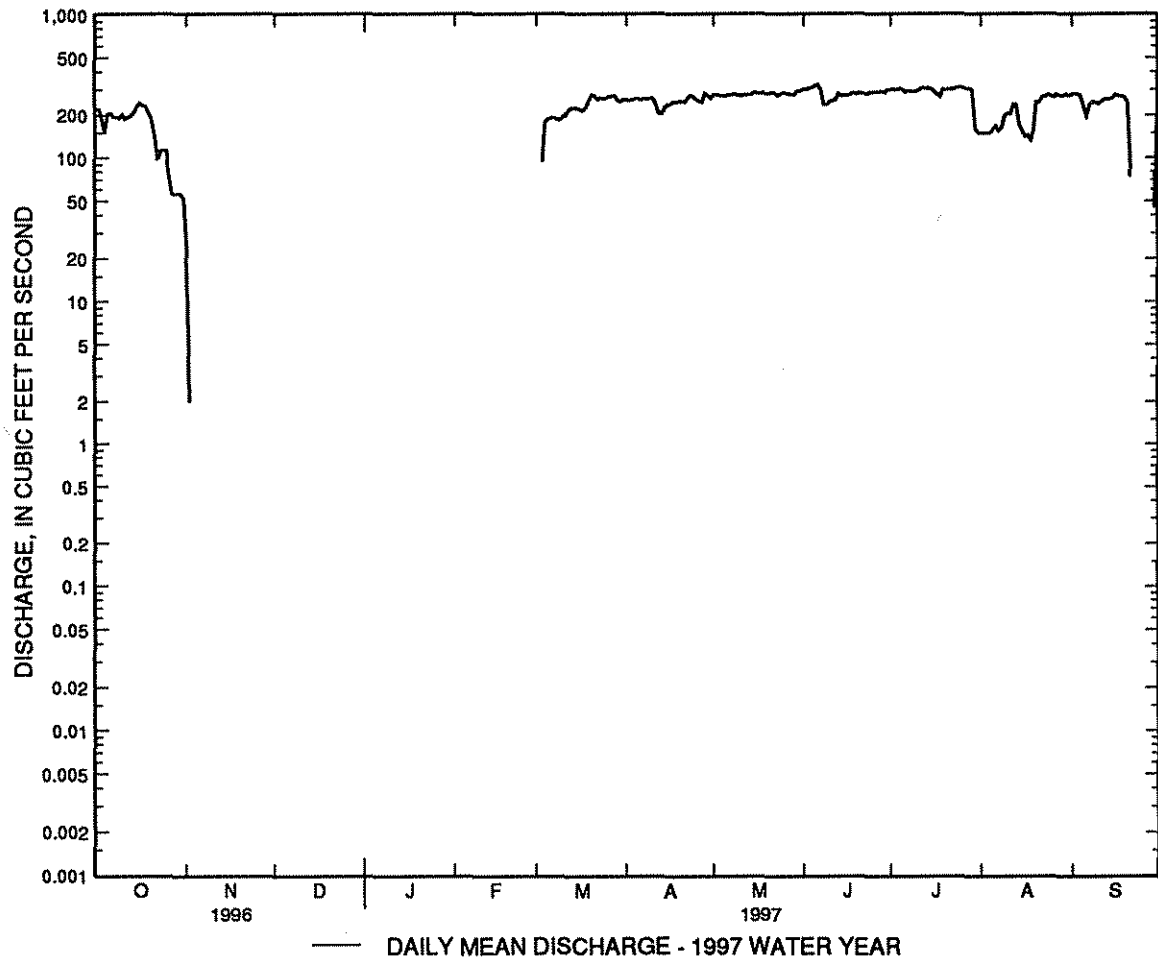
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1997, BY WATER YEAR (WY)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
MEAN	127	9.10	7.56	6.92	5.10	150	199	198	194	176	149	130
MAX	257	86.0	79.0	56.7	52.4	234	251	279	298	291	277	223
(WY)	1994	1989	1976	1976	1979	1995	1997	1997	1994	1995	1995	1992
MIN	17.1	.000	.000	.000	.000	39.4	121	81.0	49.9	43.8	56.2	12.6
(WY)	1964	1967	1964	1964	1964	1983	1967	1977	1977	1964	1964	1975

08354500 SOCORRO MAIN CANAL NORTH AT SAN ACACIA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1964 - 1997	
ANNUAL TOTAL	48615.00		57128.01		113	
ANNUAL MEAN	133		157		170	
HIGHEST ANNUAL MEAN					63.7	
LOWEST ANNUAL MEAN					325	
HIGHEST DAILY MEAN	302	Jun 1	325	Jun 6	Aug 5 1995	
LOWEST DAILY MEAN	.00	Jan 1	.00	Nov 3	Oct 18 1963	
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Nov 3	Nov 2 1963	
ANNUAL RUNOFF (AC-FT)	96430		113300		82090	
10 PERCENT EXCEEDS	266		291		239	
50 PERCENT EXCEEDS	163		204		120	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated



RIO GRANDE BASIN

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM

LOCATION.--Lat 34°14'54", long 106°54'04", in SW¹/4 sec.1, T.1 S., R.1 W., Socorro County, Hydrologic Unit 13020203, on right bank 75 ft upstream from railway crossing, 0.5 mi south of San Acacia, and 1.2 mi downstream from San Acacia diversion dam.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to September 1964 included in composite flow of station 08355000, "Rio Grande at San Acacia," October 1960 to September 1964 (monthly discharge published in WSP 1923 with records for station 08355000), October 1964 to January 1994, October 1994 to current year. Daily records 1958-64 are available in files at district office.

GAGE.--Water-stage recorder. Datum of gage is 4,652.50 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except for estimated daily discharges, which are poor. Conveyance channel, constructed in 1958, is 1 of 3 channels (stations 08354500, 08354900) carrying flow in valley cross section. Original design and plan were for conveyance channel to carry all flows up to about 2,000 ft³/s. For combined monthly flow in acre-ft of this channel, floodway, and Socorro main canal north, see tabulation below daily table for station 08354900. No flow at times.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	641	1090	928	133	2.3
2	.00	.00	.00	.00	.00	.00	.00	559	1050	585	131	2.0
3	.00	.00	.00	.00	.00	.00	.00	553	1000	177	129	1.9
4	.00	.00	.00	.00	.00	.00	.00	527	1080	78	77	1.8
5	.00	.00	.00	.00	.00	.00	.00	536	1090	81	3.3	1.6
6	.00	.00	.00	.00	.00	.00	.00	531	1280	89	1.9	1.6
7	.00	.00	.00	.00	.00	.00	.00	504	1230	e64	1.8	1.7
8	.00	.00	.00	.00	.00	.00	.00	499	1300	e48	1.6	1.7
9	.00	.00	.00	.00	.00	.00	.00	636	1280	e42	1.9	1.7
10	.00	.00	.00	.00	.00	.00	10	907	751	e25	1.9	1.9
11	.00	.00	.00	.00	.00	.00	1.8	904	96	1.2	2.0	1.1
12	.00	.00	.00	.00	.00	.00	1.8	895	418	e.20	2.7	1.1
13	.00	.00	.00	.00	.00	.00	1.7	854	1350	e.00	2.9	1.1
14	.00	.00	.00	.00	.00	.00	54	862	805	e.00	3.4	.98
15	.00	.00	.00	.00	.00	.00	17	677	813	e.00	3.3	.76
16	.00	.00	.00	.00	.00	.00	23	316	735	e.00	3.2	.29
17	.00	.00	.00	.00	.00	.00	2.8	776	833	e.00	3.4	.04
18	.00	.00	.00	.00	.00	.00	2.3	e118	931	e.00	3.6	.10
19	.00	.00	.00	.00	.00	.00	2.2	e.50	930	e.00	4.0	.17
20	.00	.00	.00	.00	.00	.00	2.1	e.50	908	e.00	6.4	.22
21	.00	.00	.00	.00	.00	.00	1.9	.00	912	e.00	6.1	51
22	.00	.00	.00	.00	.00	.00	1.9	135	912	e.00	5.6	138
23	.00	.00	.00	.00	.00	.00	1.7	1070	903	e.00	5.2	12
24	.00	.00	.00	.00	.00	.00	1.6	1180	938	.00	4.9	3.5
25	.00	.00	.00	.00	.00	.00	67	1110	974	.00	5.3	3.2
26	.00	.00	.00	.00	.00	.00	204	1090	996	.00	4.7	3.1
27	.00	.00	.00	.00	.00	.00	144	1080	1010	.00	4.2	2.9
28	.00	.00	.00	.00	.00	.00	11	1160	1010	.00	3.7	2.6
29	.00	.00	.00	.00	---	.00	11	1180	964	.00	3.2	2.5
30	.00	.00	.00	.00	---	.00	195	1010	993	.00	3.0	1.6
31	.00	---	.00	.00	---	.00	---	995	---	50	2.6	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	757.80	21306.00	28582	2168.40	565.8	244.46
MEAN	.000	.000	.000	.000	.000	.000	25.3	687	953	69.9	18.3	8.15
MAX	.00	.00	.00	.00	.00	.00	204	1180	1350	928	133	138
MIN	.00	.00	.00	.00	.00	.00	.00	.00	96	.00	1.6	.04
AC-FT	.00	.00	.00	.00	.00	.00	1500	42260	56690	4300	1120	485

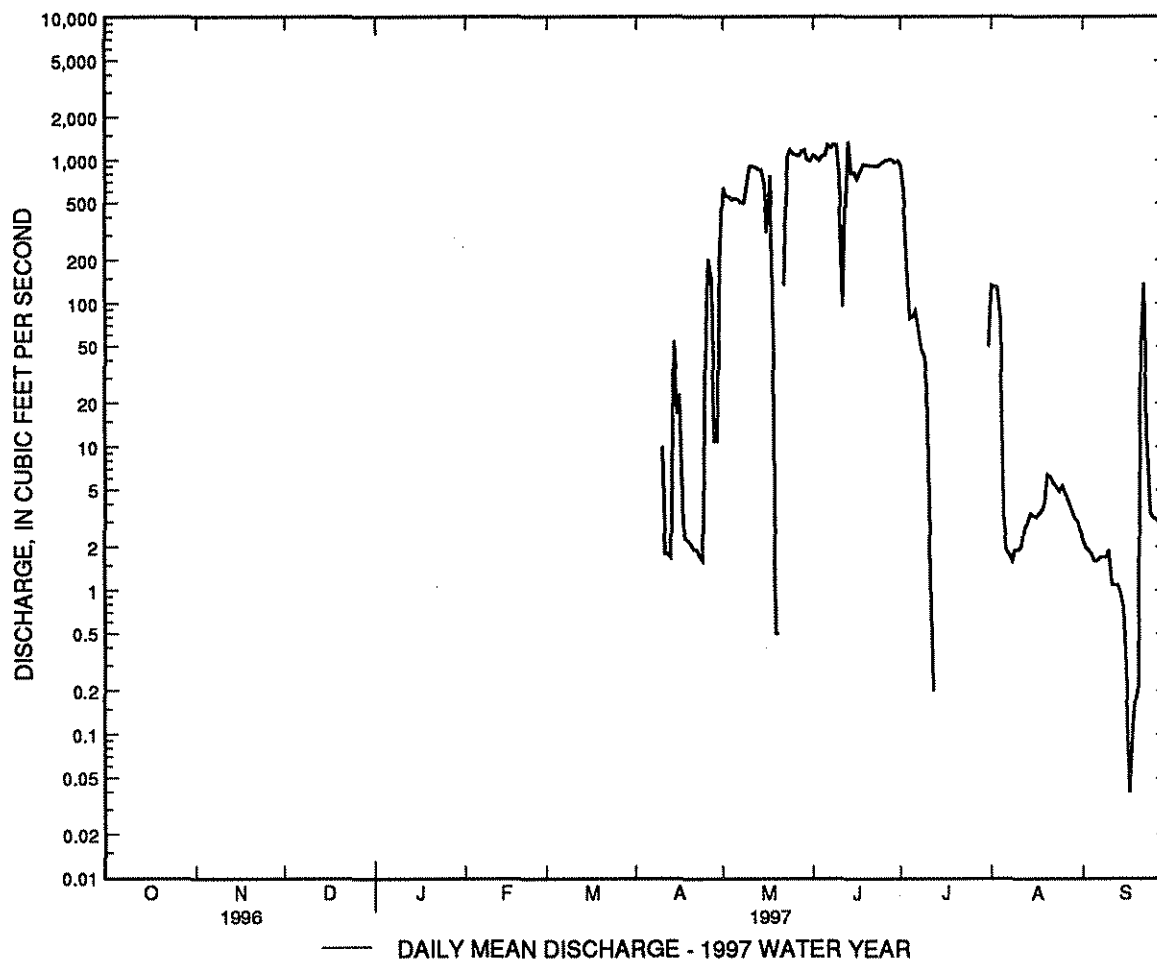
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1997, BY WATER YEAR (WY)

	127	593	603	490	496	393	366	488	381	193	173	125
MEAN	127	593	603	490	496	393	366	488	381	193	173	125
MAX	765	1644	1823	1513	1255	1240	1506	1663	1580	1522	829	633
(WY)	1985	1966	1966	1974	1962	1966	1979	1979	1980	1979	1967	1972
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1988	1988	1986	1988	1987	1991	1991	1995	1986	1987	1987	1987

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

UMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1959 - 1997
ANNUAL TOTAL	1491.70	53624.46	
ANNUAL MEAN	4.08	147	368
HIGHEST ANNUAL MEAN			1033
LOWEST ANNUAL MEAN			.049
HIGHEST DAILY MEAN	96 May 29	1350 Jun 13	1950 May 12
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	.00 Jul 22
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Oct 1	.00 Jul 20
ANNUAL RUNOFF (AC-FT)	2960	106400	266600
10 PERCENT EXCEEDS	23	875	1280
50 PERCENT EXCEEDS	.00	.00	13
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated



WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: January 1959 to September 1985, October 1988 to September 1989, October 1996 to January 1997.

REMARKS.--Specific conductance values were determined in the laboratory from daily suspended sediments collected by pumping sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 141,000 mg/L, Aug. 10, 1959; minimum daily mean, no flow on many days of most years.

SEDIMENT LOAD: Maximum daily, 528,000 tons, Aug. 28, 1972; minimum daily, 0 ton on many days during most years.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 15,200 mg/L, June 27, 28; minimum daily mean, no flow on many days.

SEDIMENT LOAD: Maximum daily, 41,600 tons, June 28; minimum daily, 0 ton on many days.

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

[illegible]

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

DAY	MEAN CONCE TRATI (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	0	.00	1180	2040	3810	11200	1690	4350	2170	777	283	1.7
2	0	.00	932	1410	3670	10400	1040	1690	1540	544	227	1.3
3	0	.00	840	1260	3840	10400	540	262	1280	445	203	1.0
4	0	.00	1050	1490	3980	11600	324	68	882	202	197	.98
5	0	.00	1070	1540	4540	13500	305	66	427	4.0	174	.77
6	0	.00	975	1400	8880	30700	336	81	222	1.1	169	.74
7	0	.00	429	584	9950	32900	294	e65	188	.90	161	.75
8	0	.00	602	812	10700	37300	256	e59	168	.72	160	.73
9	0	.00	1220	2180	9730	33300	244	e52	194	1.0	161	.74
10	932	33	2460	6030	6840	14500	201	e21	201	1.0	165	.85
11	339	1.6	3790	9250	4580	1130	152	.48	212	1.1	144	.44
12	247	1.2	2520	6070	3730	5080	110	e.06	237	1.7	140	.41
13	517	2.4	3030	7020	8750	31600	0	.00	262	2.1	138	.41
14	3180	597	3500	8140	5180	11000	0	.00	375	3.5	123	.32
15	1360	56	2690	4600	4780	10300	0	.00	398	3.5	119	.24
16	1050	77	2610	2180	3830	7400	0	.00	384	3.4	110	.09
17	416	3.2	3040	6360	3330	7270	0	.00	389	3.5	101	.01
18	296	1.8	2500	e796	2460	6030	0	.00	396	3.9	101	.03
19	243	1.4	1560	e2.1	2530	6130	0	.00	456	5.0	109	.05
20	199	1.1	977	e1.3	5710	13600	0	.00	576	10	174	.11
21	181	.94	0	.00	6890	16400	0	.00	595	9.8	1770	335
22	178	.89	2050	1140	6730	16000	0	.00	555	8.3	2060	770
23	169	.78	4170	12100	6930	16300	0	.00	530	7.4	1060	41
24	449	2.1	4870	15500	9270	23100	0	.00	505	6.7	539	5.2
25	5960	1510	4570	13700	8900	23300	0	.00	503	7.2	366	3.2
26	11100	6100	4490	13200	10800	29200	0	.00	466	5.9	322	2.7
27	9750	3860	4480	13000	15200	41500	0	.00	445	5.0	297	2.3
28	7960	234	4900	15400	15200	41600	0	.00	398	4.0	257	1.8
29	4420	127	4910	15600	6090	15800	0	.00	386	3.3	244	1.7
30	1480	640	4780	13100	6230	16600	0	.00	350	2.8	213	1.0
31	---	---	4300	11500	---	---	1770	455	306	2.2	---	---
TOTAL YEAR	---	13251.41 756218.94	---	187405.40	---	545140	---	7169.54	---	2077.02	---	1175.57

e Estimated

RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM

LOCATION.--Lat 34°15'23", long 106°53'18", Socorro County, Hydrologic Unit 13020203, in Sevilleta Grant, on right bank 0.2 mi downstream from San Acacia diversion dam, 0.3 mi east of San Acacia, 2 mi downstream from Rio Salado, and at mile 1,472.6.

DRAINAGE AREA.--26,770 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, Co.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1936 to September 1958 (prior to construction of conveyance channel), October 1958 to September 1964 (flow in conveyance channel included), October 1964 to current year. Prior to October 1964 published as 08355000 "Rio Grande at San Acacia" and records are not equivalent.

REVISED RECORDS.--WSP 1242: 1951. WSP 1732: 1958(M). WRD 1969: 1967.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,654.50 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 19, 1953, at several sites 0.1 mi upstream at different datums. Mar. 19, 1953, to Aug. 19, 1965, at site 0.4 mi downstream at datum 3.60 ft higher. Aug. 19, 1965, to Aug. 15, 1967, at same site at datum 1.89 ft higher. Datum on Aug. 21, 1987, was lowered 2.00 ft, on April 26, 1996 10.00 ft was added to gage datum. Floodway is bypassed by Socorro main canal north and since Oct. 1958 by conveyance channel.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Floodway is 1 of 3 channels (stations 08354500, 08354800) carrying flow in valley cross section. For combined monthly flow in acre-ft of floodway, conveyance channel, and Socorro main canal north, see tabulation below. Normal plan is for floodway to carry flow when combined capacities of conveyance channel (about 2,000 ft³/s) and Socorro main canal north (about 200 ft³/s) is exceeded, during periods of silt sluicing, and when river silt load is excessive. Diversions upstream from station for irrigation of about 760,000 acres; this includes Socorro main canal north, which bypasses station and irrigates about 8,000 acres. No flow at times.

AVERAGE DISCHARGE.--22 years (water years 1937-58), 1,192 ft³/s, 863,000 acre-ft/yr, prior to construction of conveyance channel; does not include Socorro main canal north. 15 years (water years 1959-73), 911 ft³/s, 660,000 acre-ft/yr, combined flow of floodway, conveyance channel and Socorro main canal north, prior to closure of Cochiti Dam. 24 years (water years 1974-97), 1,472 ft³/s, 1,066,000 acre-ft/yr, combined flow of floodway, conveyance channel, and Socorro Main Canal North, since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft³/s, Aug. 5, 1936, gage height, 10.75 ft, site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,090 ft³/s, June 11; minimum daily, 86 ft³/s, Oct. 14.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	798	838	769	1040	1010	1670	623	3290	742	e2800	144
2	116	970	830	768	971	1040	1590	618	3430	959	e2350	213
3	116	1050	785	804	900	765	1260	790	3240	937	1880	286
4	119	976	790	868	894	829	1610	745	3220	850	1370	271
5	158	982	836	856	883	765	2020	825	3410	903	1530	264
6	484	1030	913	826	919	727	1700	e580	3590	698	1890	340
7	471	1010	958	771	953	744	1490	e420	4000	687	1440	445
8	236	969	932	746	965	736	1440	795	4730	737	1400	520
9	238	969	983	753	924	687	990	1350	4060	e620	1300	484
10	222	947	1290	754	927	642	746	2130	4540	e420	1280	500
11	149	956	1170	660	992	570	875	2390	5090	e366	1080	518
12	125	948	1080	649	981	475	1100	2680	4550	442	1030	511
13	110	961	1070	715	998	401	1150	2630	4150	490	1080	697
14	86	998	1020	710	955	411	1140	2490	4400	384	983	791
15	88	1150	960	703	880	475	1030	2940	4390	314	839	692
16	99	903	975	668	823	523	823	3160	4420	283	738	758
17	162	870	920	819	792	687	781	3540	4240	273	742	798
18	182	944	869	836	790	703	623	4450	4070	217	725	542
19	225	1050	908	786	804	676	440	4250	3680	237	532	394
20	233	1200	913	801	961	973	398	4250	2910	199	614	485
21	213	1190	862	867	1740	920	458	4250	2090	234	681	e3890
22	242	996	854	895	1240	1020	387	4180	1570	236	554	e2260
23	315	923	850	868	911	1160	483	3580	1250	312	572	2000
24	376	888	805	969	914	1550	1080	3440	978	268	658	2180
25	420	794	801	957	889	1590	2650	3700	783	237	913	2110
26	415	790	826	1080	915	1770	3450	3800	759	273	864	1870
27	469	740	795	1140	896	1810	2950	3600	1000	172	643	2010
28	667	764	817	1070	937	1900	2690	3470	758	587	311	2340
29	741	774	806	1030	---	1850	2180	3280	606	730	174	2500
30	722	795	807	1060	---	1830	1660	3250	642	e2060	145	2500
31	743	---	796	1030	---	1730	---	3130	---	e1600	118	---
TOTAL	9096	28335	28059	26228	26794	30969	40864	81336	89846	17467	31236	33313
MEAN	293	945	905	846	957	999	1362	2624	2995	563	1008	1110
MAX	743	1200	1290	1140	1740	1900	3450	4450	5090	2060	2800	3890
MIN	86	740	785	649	790	401	387	420	606	172	118	144
AC-FT	18040	56200	55660	52020	53150	61430	81050	161300	178200	34650	61960	66080
(+)	28220	57470	55660	52020	53150	74430	97460	220730	251740	56810	75860	78165

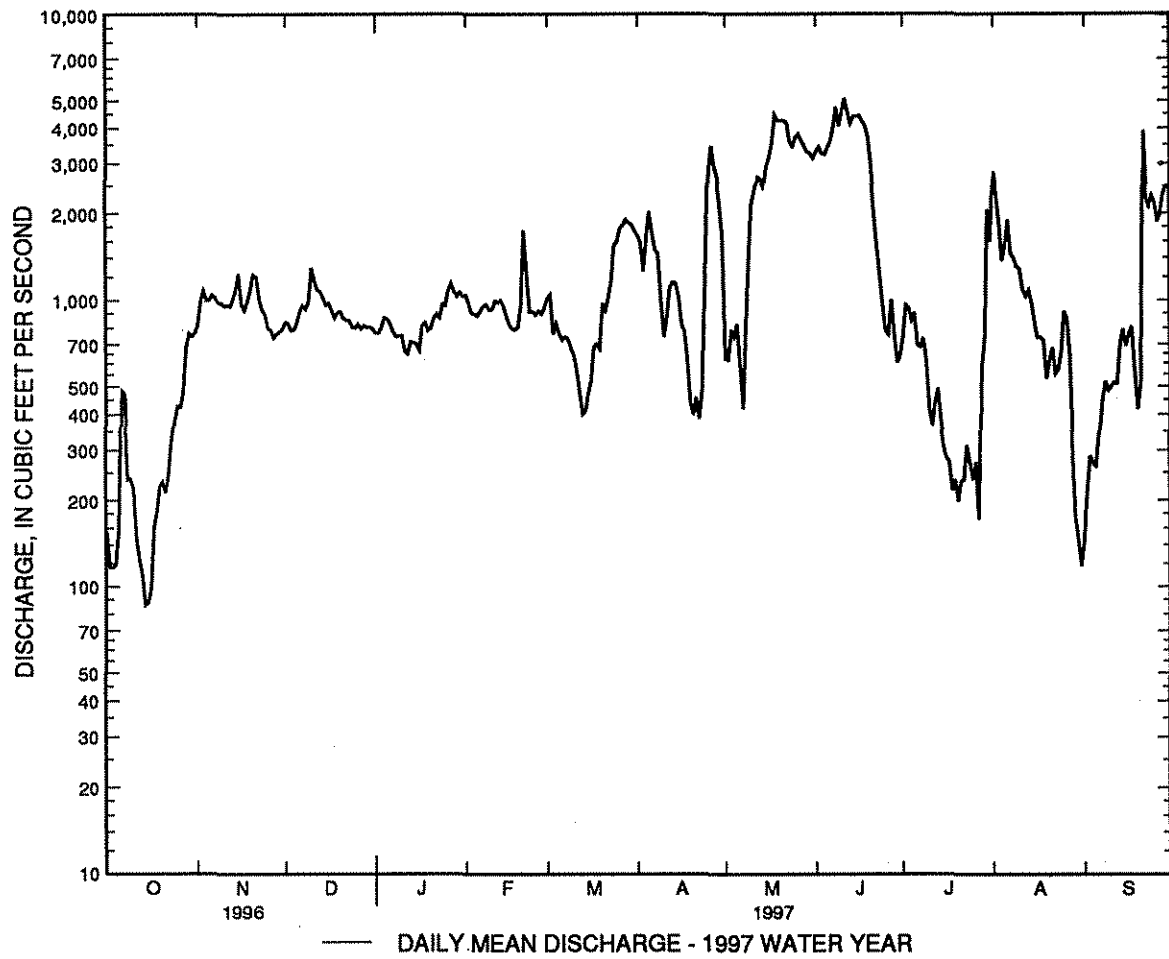
CAL YR 1996 TOTAL 211905 MEAN 579 MAX 5500 MIN 17 AC-FT 420300 (+) MEAN 718 AC-FT 521190

WTR YR 1997 TOTAL 443543 MEAN 1215 MAX 5090 MIN 86 AC-FT 879800 (+) MEAN 1520 AC-FT 1101800

e Estimated

(+) COMBINED FLOW, IN ACRE-FEET, AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY, CONVEYANCE CHANNEL, AND SOCORRO MAIN CANAL NORTH.

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued



08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937-56, 1959 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July to December 1937, March 1939 to September 1956, October 1964 to current year.

WATER TEMPERATURE: October 1947 to August 1956, January 1959 to current year.

SUSPENDED-SEDIMENT DISCHARGE: July 1946 to June 1956, January 1959 to current year.

REMARKS.--Sediment total-loads (suspended sediment plus bed material discharge), in tons per day, were determined from the regression equation for the period of record.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,700 microsiemens, July 14, 1940; minimum daily, 236 microsiemens, June 1, 1995.

WATER TEMPERATURE: (1947-56, 1959-62, 1964-97): Maximum daily, 34.5 °C, July 13, 1971; minimum daily, 0.0 °C on many days during winter months of most years.

SEDIMENT CONCENTRATION: Maximum daily mean, 223,000 mg/L, Aug. 11, 1946; minimum daily mean, no flow on many days of most years.

SEDIMENT LOAD: Maximum daily, 1,760,000 tons, Aug. 12, 1955; minimum daily, 0 ton on many days of most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 940 microsiemens, Aug. 24; minimum daily, 308 microsiemens, June 12.

WATER TEMPERATURE: Maximum daily, 27.0 °C, on several days during August and September; minimum daily, 0.0 °C, Jan. 7.

SEDIMENT CONCENTRATION: Maximum daily mean, 14,600 mg/L, July 21; minimum daily mean, 76 mg/L, July 17.

SEDIMENT LOAD: Maximum daily, 81,000 tons, Sept. 21; minimum daily, 46 tons Oct. 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DEMAND, (PER-CENT SATURATION) (MG/L) (00301)	OXYGEN, (HIGH LEVEL) (MG/L) (00340)	HARDNESS TOTAL (MG/L AS CaCO3) (00900)	HARDNESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)
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OCT 1996	24...	1415	403	626	8.2	12.5	12.5	641	8.6	96	28	210	42
MAR 1997	03...	1345	834	519	8.1	18.0	8.0	642	10.3	104	<10	150	22

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORPTION RATIO (00931)	POTASSIUM DIS-SOLVED (MG/L AS K) (00935)	BICARBONATE WATER DIS-IT FIELD (MG/L AS HCO3) (00453)	CARBONATE WATER DIS-IT FIELD (MG/L AS CO3) (00452)	ALKALINITY TOT IT (MG/L AS CaCO3) (39086)	ALKALINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE DIS-SOLVED (MG/L AS Cl) (00940)
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OCT 1996	24...	65	11	57	2	4.7	202	0	166	171	110	30
MAR 1997	03...	48	8.5	44	2	4.5	162	0	132	144	81	24

DATE	FLUORIDE DIS-SOLVED (MG/L AS F) (00950)	SILICA DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL DIS-SOLVED (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	PHOSPHORUS TOTAL DIS-SOLVED (MG/L AS P) (00665)
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OCT 1996	24...	0.70	27	409	0.680	0.030	0.710	0.040	0.26	0.30	0.30	0.180
MAR 1997	03...	0.60	26	323	1.25	0.050	1.30	0.050	--	0.30	<0.20	0.260

DATE	PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUMINUM DIS-SOLVED (UG/L AS AL) (01106)	ANTIMONY DIS-SOLVED (UG/L AS SE) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM DIS-SOLVED (UG/L AS BE) (01010)	BORON DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM DIS-SOLVED (UG/L AS CR) (01030)
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OCT 1996	24...	0.130	0.130	15	5.0	<1.0	5	68	<1.0	138	<1.0	2.0
MAR 1997	03...	0.210	0.220	4.7	--	--	--	--	98	--	--	--

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)
OCT 1996 24...	<1.0	<1.0	4.0	<1.0	75	<0.10	8.0	2.0	<1	<1	<1.0
MAR 1997 03...	--	--	<3.0	--	--	--	--	--	--	--	--
DATE	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, NH4 TOTAL IN BOT. 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. BOT MAT (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CR) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)
OCT 1996 24...	3.0	<2.0	1.1	600	170	4	<1	10	<5	8	13000
MAR 1997 03...	--	--	--	--	--	--	--	--	--	--	--
DATE	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY) (80156)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1996 24...	10	230	0.37	30	0.08	0.020	3.2	0.074	3300	3590	39
MAR 1997 03...	--	--	--	--	--	--	--	--	2790	6280	12
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC- ITY, MEAN (F/S) (00055)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY) (80155)	SEDI- MENT, DISCH, SUSP. + BED MA- TERIAL (T/DAY) (80156)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	
OCT 1996 15...	1050	89	67.0	0.88	1.51	17.0	220	53	88	--	
NOV 13...	0955	892	158	1.2	4.50	8.0	3080	7420	10100	--	
DEC 17...	1142	935	158	1.4	4.16	4.0	1820	4590	6340	--	
JAN 1997 16...	1400	649	166	1.6	2.38	5.5	1410	2470	3500	--	
FEB 11...	1157	1010	160	2.5	2.54	6.0	714	1950	2790	--	
MAR 18...	0949	735	175	2.2	1.92	11.5	193	383	588	--	
APR 15...	1020	1040	153	3.0	2.29	13.0	176	494	750	100	
MAY 20...	0958	4220	162	5.7	4.59	17.0	7410	84400	103000.	--	
JUN 24...	0928	980	114	3.0	2.85	21.5	1790	4740	6540	--	
JUL 22...	0916	238	96.0	1.2	2.12	23.5	55	35	59	--	
AUG 19...	0920	583	160	1.2	3.13	23.5	1770	2790	3940	--	
SEP 16...	0915	800	147	2.6	2.08	12.0	8220	17800	23200	--	

RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SED. SUSP. FALL DIAM. % FINER THAN (70337)	SED. SUSP. FALL DIAM. % FINER THAN (70338)	SED. SUSP. FALL DIAM. % FINER THAN (70339)	SED. SUSP. FALL DIAM. % FINER THAN (70340)	SED. SUSP. FALL DIAM. % FINER THAN (70342)	SED. SUSP. FALL DIAM. % FINER THAN (70343)	SED. SUSP. FALL DIAM. % FINER THAN (70344)	SED. SUSP. FALL DIAM. % FINER THAN (70345)	SED. SUSP. FALL DIAM. % FINER THAN (70346)	BED MAT. SIEVE DIAM. % FINER THAN (80164)
OCT 1996										
15...	--	--	--	--	85	89	96	100	--	--
NOV										
13...	--	--	--	--	41	64	91	100	--	1
DEC										
17...	--	--	--	--	31	52	96	100	--	1
JAN 1997										
16...	--	--	--	--	27	42	80	100	--	0
FEB										
11...	--	--	--	--	73	79	92	100	--	0
MAR										
18...	--	--	--	--	58	65	83	100	--	0
APR										
15...	--	--	--	--	--	--	--	--	--	--
MAY										
20...	33	40	48	56	70	88	99	100	--	0
JUN										
24...	--	--	--	--	13	14	37	95	100	1
JUL										
22...	--	--	--	--	78	78	78	78	78	1
AUG										
19...	--	--	--	--	16	43	90	100	--	3
SEP										
16...	46	56	65	73	82	82	88	100	--	1

DATE	BED MAT. SIEVE DIAM. % FINER THAN (80165)	BED MAT. SIEVE DIAM. % FINER THAN (80166)	BED MAT. SIEVE DIAM. % FINER THAN (80167)	BED MAT. SIEVE DIAM. % FINER THAN (80168)	BED MAT. SIEVE DIAM. % FINER THAN (80169)	BED MAT. SIEVE DIAM. % FINER THAN (80170)	BED MAT. SIEVE DIAM. % FINER THAN (80171)	BED MAT. SIEVE DIAM. % FINER THAN (80172)	BED MAT. SIEVE DIAM. % FINER THAN (80173)
OCT 1996									
15...	0	13	93	99	100	--	--	--	--
NOV									
13...	7	57	94	99	99	99	100	--	--
DEC									
17...	8	62	96	99	99	100	--	--	--
JAN 1997									
16...	1	28	97	100	--	--	--	--	--
FEB									
11...	1	19	83	95	98	99	100	--	--
MAR									
18...	1	9	54	80	91	97	100	--	--
APR									
15...	0	5	45	61	65	71	79	91	100
MAY									
20...	4	28	34	37	39	43	49	65	100
JUN									
24...	5	42	88	95	95	96	97	100	--
JUL									
22...	5	31	52	59	62	66	71	76	100
AUG									
19...	19	75	98	100	--	--	--	--	--
SEP									
16...	2	21	78	90	94	97	99	100	--

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS
SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	169	46	1260	2680	1530	3450	599	1240	1050	2940	570	1560
2	155	49	1260	3220	1210	2710	724	1500	692	1810	414	1170
3	164	53	991	2730	1050	2220	818	1780	1040	2510	454	935
4	204	70	1690	4290	1120	2400	664	1560	1360	3280	376	835
5	810	398	2530	6420	1200	2700	638	1470	995	2370	460	947
6	2120	3110	2280	6000	828	2030	665	1480	821	2040	606	1190
7	8580	10300	1960	5040	738	1910	826	1720	951	2450	576	1160
8	10100	6990	1140	2800	484	1220	749	1510	628	1640	351	699
9	7270	5120	1050	2560	940	2520	588	1200	471	1180	176	326
10	4990	3350	1190	2810	715	2410	597	1220	453	1130	266	459
11	3580	1680	923	2180	537	1690	661	1180	578	1560	379	576
12	6210	2480	826	1920	490	1420	578	1010	376	996	491	626
13	6440	2340	864	2150	458	1330	505	975	410	1100	436	472
14	3320	976	965	2620	751	2060	583	1120	450	1160	527	587
15	4220	1110	1080	3340	658	1700	788	1500	486	1150	438	555
16	3030	810	1060	2590	677	1780	964	1740	552	1220	363	513
17	1780	787	914	2140	1210	3030	1090	2410	1160	2470	360	668
18	1860	947	941	2410	1130	2640	689	1560	2510	5340	507	964
19	1610	1000	921	2610	1350	3290	635	1340	1680	3640	519	948
20	1180	774	1060	3450	723	1790	935	2030	2590	7010	611	1610
21	1450	872	1210	3890	670	1560	915	2140	3000	14200	582	1450
22	1350	930	1920	5180	411	946	799	1930	1630	5610	409	1130
23	699	611	1020	2550	477	1100	1000	2360	1020	2520	386	1220
24	943	964	960	2300	590	1280	1220	3200	1450	3560	504	2110
25	407	461	1100	2370	634	1370	1040	2700	1380	3320	429	1840
26	1290	1460	830	1760	621	1390	1090	3160	482	1190	402	1920
27	1570	1990	664	1330	542	1160	710	2190	276	670	391	1910
28	1090	1950	902	1860	725	1610	800	2310	315	802	494	2540
29	1160	2320	1310	2730	641	1390	608	1690	---	---	435	2170
30	1220	2380	1030	2220	1120	2460	931	2660	---	---	380	1880
31	1240	2470	---	---	567	1210	783	2190	---	---	398	1860
TOTAL	---	58798	---	90150	---	59776	---	56075	---	78868	---	36830
DAY	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	513	2310	373	629	1630	14500	752	1460	4570	36800	292	112
2	403	1740	260	432	1080	10000	311	676	5270	34600	489	284
3	379	1290	244	521	666	5820	122	285	4340	22100	488	373
4	623	2750	265	534	1260	11000	139	289	3330	12300	472	344
5	1260	6920	308	682	874	8060	164	359	1880	7540	587	421
6	1440	6610	392	651	533	5150	165	272	674	3510	633	581
7	485	1930	463	607	443	4800	135	217	766	3020	554	661
8	246	955	522	1140	1170	14500	127	216	869	3290	1620	2370
9	335	873	590	2160	2240	24600	158	e264	771	2700	3500	4580
10	709	1420	668	3870	2170	26500	92	e104	692	2400	1160	1500
11	449	1050	832	5370	1690	23100	166	e164	867	2520	1030	1420
12	923	2810	1510	11000	987	12400	200	234	1210	3350	2180	3000
13	668	2080	911	6500	249	2710	174	230	972	2830	1150	2020
14	566	1750	975	6550	137	1630	146	152	3650	9310	1040	2230
15	357	987	1660	13500	141	1680	194	164	1990	4600	1350	2540
16	999	2240	1830	15700	143	1710	243	186	1380	2740	1670	3430
17	1720	3640	1830	17500	147	1680	76	56	1990	3980	3110	6770
18	566	958	1880	22600	207	2270	80	48	2330	4570	3020	4600
19	449	533	1860	21300	211	2090	1040	586	3020	4200	3020	3410
20	564	607	1790	20600	215	1680	7390	4160	5090	8430	3660	5150
21	429	523	1740	20500	260	1460	14600	9280	4240	7790	4410	81000
22	965	1010	1820	20000	1020	4240	960	592	1830	2740	4620	44400
23	552	692	1020	9890	1190	4050	770	590	1260	1950	4160	23900
24	369	1070	854	7950	1680	4470	362	261	4510	8620	1780	11000
25	339	2420	739	7390	1590	3320	961	741	4820	12200	2160	12400
26	309	2880	1610	16400	3260	6860	4140	2660	1630	3810	1320	6700
27	272	2170	997	9680	1800	4910	7090	3290	997	1730	2800	15300
28	430	3080	716	6710	2760	5360	8100	13000	963	808	2640	16500
29	940	5480	760	6730	651	1040	8200	16200	818	385	1430	9680
30	491	2340	605	5290	197	323	8270	50600	710	279	1070	7220
31	---	---	809	6820	---	---	5180	24000	449	143	---	---
TOTAL	---	65118	---	269206	---	211913	---	131336	---	215245	---	273896
e Estimated												

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM

LOCATION.--Lat 33°41'15", long 106°59'40", Socorro County, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 34, on right bank 0.4 mi northwest of Atchison, Topeka and Santa Fe Railway Co. bridge over floodway channel, 1.0 mi southwest of former site of San Marcial, 3.5 mi downstream from railroad bridge near Tiffany siding, and 51 mi downstream from heading at San Acacia.

PERIOD OF RECORD.--October 1958 to September 1959, October 1964 to current year. Prior to October 1964 monthly discharge only published with record for Rio Grande at San Marcial (station 08358500).

GAGE.--Water-stage recorder. Datum of gage is 4,454.00 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 29, 1958, at datum 4.19 ft higher.

REMARKS.--Records good. Original design and plan were for conveyance channel to carry all flows up to about 2,000 ft³/s. Conveyance channel is 1 of 2 channels (station 08358400) carrying flow in valley cross section. For combined monthly flow in acre-ft of this channel and floodway, see tabulation below daily table for station 08358400. Bureau of Reclamation satellite telemeter at station. No flow from River since 1965.

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

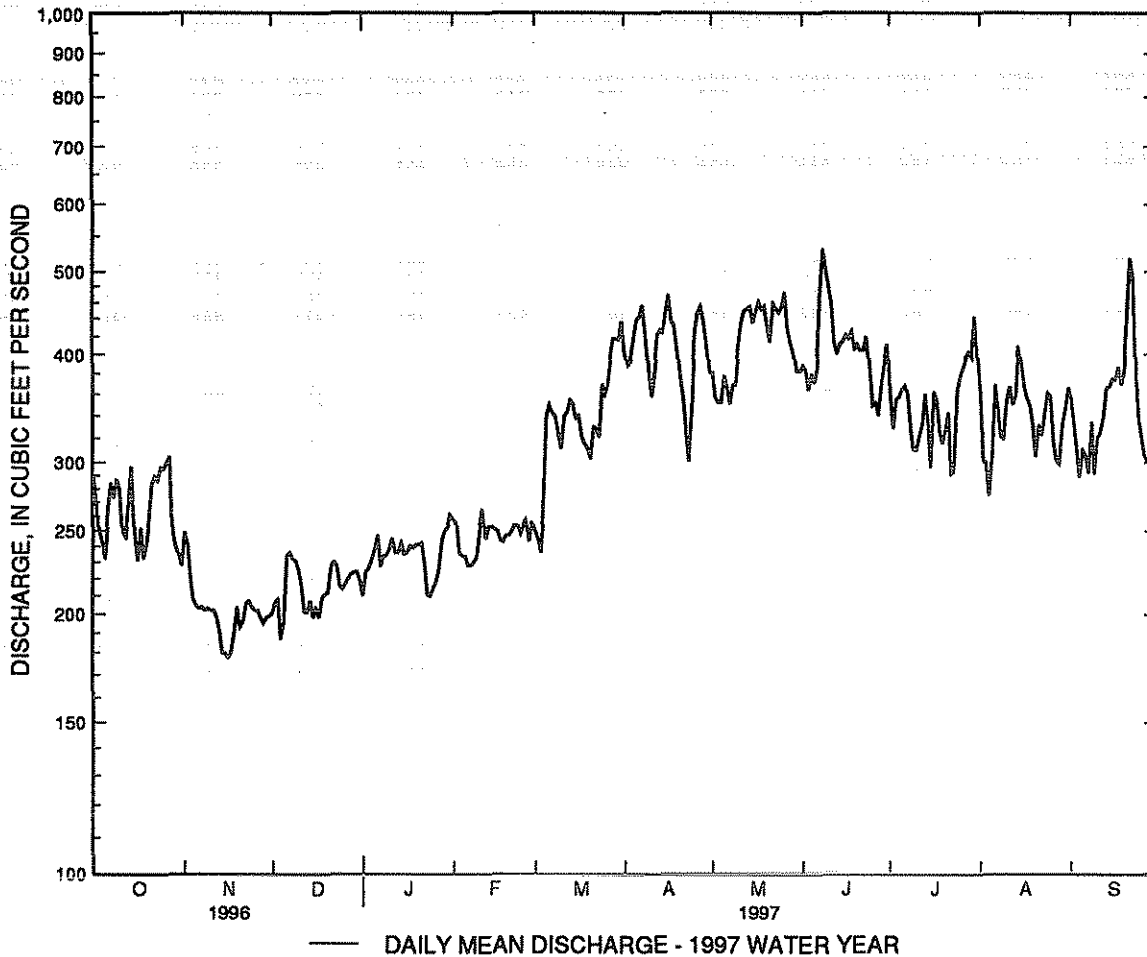
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	290	249	200	210	258	250	401	381	388	359	361	356
2	269	242	206	224	256	245	389	357	383	329	302	334
3	249	221	208	226	236	236	394	352	364	355	300	313
4	242	208	187	231	234	266	416	352	380	357	275	289
5	232	205	195	238	234	340	438	378	371	364	304	310
6	264	203	234	247	228	350	442	366	385	368	369	306
7	284	204	236	227	228	343	456	351	471	360	347	292
8	273	202	232	234	230	340	424	369	531	329	322	334
9	287	203	231	234	233	326	385	369	501	311	320	291
10	280	202	225	238	251	312	358	409	480	310	353	320
11	249	202	216	245	265	340	381	434	458	322	367	325
12	246	198	201	236	245	343	421	449	413	332	350	338
13	266	191	201	236	253	354	427	451	400	360	358	366
14	297	180	207	242	253	351	424	454	411	336	409	367
15	247	180	198	235	251	338	447	435	414	296	390	375
16	231	178	204	236	250	340	469	448	421	362	367	374
17	252	180	198	240	244	323	437	460	417	354	356	387
18	232	190	209	239	243	316	432	451	425	326	350	369
19	242	204	211	241	247	312	404	455	406	316	332	381
20	256	193	212	241	247	303	375	432	411	327	305	437
21	283	196	228	242	250	330	356	413	404	343	332	517
22	289	206	230	230	254	329	326	458	404	291	323	492
23	286	207	228	211	254	321	301	452	419	293	342	379
24	296	204	216	210	248	370	350	447	386	363	361	337
25	295	202	214	214	253	360	422	454	349	377	358	322
26	300	202	217	218	257	370	445	472	352	386	319	306
27	305	198	220	226	243	396	454	429	340	397	302	302
28	249	195	223	244	256	417	437	413	371	402	299	299
29	239	198	224	250	---	417	412	402	391	396	332	303
30	235	199	224	252	---	416	381	382	411	442	347	338
31	228	---	219	261	---	436	---	382	---	399	366	---
TOTAL	8193	6042	6654	7258	6901	10490	12204	12857	12257	10862	10518	10459
MEAN	264	201	215	234	246	338	407	415	409	350	339	349
MAX	305	249	236	261	265	436	469	472	531	442	409	517
MIN	228	178	187	210	228	236	301	351	340	291	275	289
AC-FT	16250	11980	13200	14400	13690	20810	24210	25500	24310	21540	20860	20750

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1997, BY WATER YEAR (WY)

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
MEAN	259	523	514	429	422	431	464	543	475	336	283	254	
MAX	759	1729	1880	1558	1112	1394	1679	1782	1652	1690	986	730	
(WY)	1985	1970	1966	1974	1985	1966	1966	1969	1973	1973	1973	1972	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
(WY)	1969	1977	1975	1975	1975	1977	1976	1976	1976	1976	1976	1974	

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1965 - 1997	
ANNUAL TOTAL	85859		114695		411	
ANNUAL MEAN	235		314		1137	
HIGHEST ANNUAL MEAN					1973	
LOWEST ANNUAL MEAN					1977	
HIGHEST DAILY MEAN	392	Mar 31	531	Jun 8	2200	May 14 1966
LOWEST DAILY MEAN	78	Jun 13	178	Nov 16	.00	Sep 7 1968
ANNUAL SEVEN-DAY MINIMUM	95	Jun 8	185	Nov 12	.00	Sep 7 1968
INSTANTANEOUS LOW FLOW			174	Nov 14		
ANNUAL RUNOFF (AC-FT)	170300		227500		297600	
10 PERCENT EXCEEDS	329		428		1110	
50 PERCENT EXCEEDS	240		316		275	
90 PERCENT EXCEEDS	146		208		.00	



08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM

LOCATION.--Lat 33°40'50", long 106°59'30", Socorro County, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 33, on pier of the Atchison, Topeka, and Santa Fe Railway Co. bridge, 1.1 mi downstream from former site of San Marcial, 18.5 mi southwest of San Antonio, and at mile 1,425.2.

DRAINAGE AREA.--27,700 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year. Records collected at this site January 1895 to September 1964 represented total flow of the river and were published as Rio Grande at San Marcial (station 08358500). Records of daily discharge for floodway only, April 1950, to September 1964, are available in files of district office.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,455.19 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Floodway is 1 of 2 channels (station 08358300) carrying flow in valley cross section. Prior to 1950 all flow was in floodway channel. Normal plan is for floodway to carry flow when capacity of conveyance channel (about 2,000 ft³/s) is exceeded. Combined monthly discharge in acre-ft is given at end of each year table. Diversion for irrigation of about 775,000 acres upstream from station (includes about 13,800 acre-ft diverted from conveyance channel, as based on weekly measurements, data provided by Bureau of Reclamation).

AVERAGE DISCHARGE.--33 years (water years 1965-97), 813 ft³/s, 584,700 acre-ft/yr. Total flow of river, 102 years (water years 1895-1997), 1,274 ft³/s, 923,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, since January 1895, about 50,000 ft³/s, Oct. 11, 1904; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,320 ft³/s, June 10; no flow at times.

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

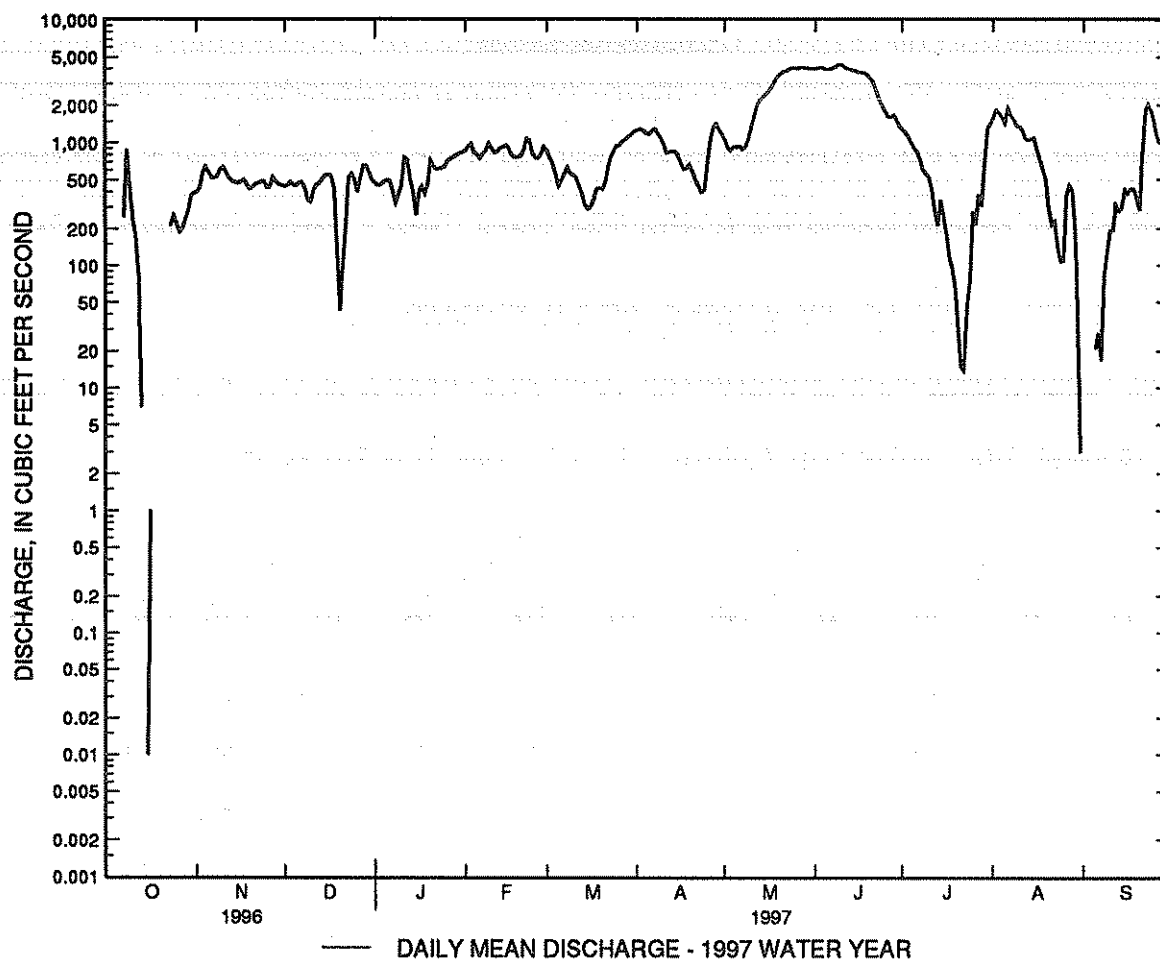
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	400	447	477	862	866	1260	1060	4000	1280	1580	.00
2	.00	435	454	455	e930	e760	1290	916	4060	1200	1840	.00
3	.00	570	483	458	e980	680	1260	867	4110	1120	1740	.00
4	.00	641	460	483	e840	554	1190	923	4020	995	1610	.00
5	.00	583	452	503	e810	e450	1170	917	3970	902	1430	21
6	.00	523	478	497	e750	e500	1260	936	3990	841	1900	28
7	253	522	482	415	816	e560	1290	888	4020	731	1670	17
8	866	540	435	328	853	633	1170	915	4130	603	1550	82
9	458	612	346	382	e990	e560	1090	1050	4310	560	1370	131
10	246	639	334	455	900	e550	974	1310	4320	528	1350	191
11	183	574	417	757	831	525	824	1600	4160	426	1260	195
12	80	521	461	728	855	451	838	2000	4030	287	1080	311
13	7.0	494	472	503	907	395	855	2210	3970	214	1050	279
14	.00	485	514	398	922	319	845	2330	3880	341	1070	297
15	.01	472	547	262	950	293	791	2460	3840	249	1090	416
16	1.0	486	555	403	898	303	688	2590	3750	182	892	385
17	.00	506	544	445	798	340	612	2810	3720	117	733	421
18	.00	465	431	388	762	421	e620	3080	3670	94	616	419
19	.00	428	127	465	e760	e430	665	3420	3540	67	506	363
20	.00	438	43	718	778	e420	585	3590	3340	32	299	288
21	.00	468	109	648	849	e480	505	3750	3040	15	217	767
22	.00	474	216	612	e1080	e640	451	3820	2630	14	231	e1820
23	214	488	519	619	1050	e760	399	3940	2240	44	142	e2040
24	258	492	562	622	838	e850	412	4070	2000	76	108	e1800
25	225	434	509	645	764	e940	684	4060	1800	275	110	e1490
26	190	438	401	719	e750	e950	1030	4030	1620	217	367	1100
27	202	531	519	743	e800	1020	1310	4100	1610	378	450	1000
28	241	490	651	769	929	1060	1420	4080	1670	306	416	1040
29	282	463	652	788	---	1120	1280	4090	1510	658	205	1190
30	370	458	574	821	---	1160	1170	4000	1350	1300	36	e1240
31	394	---	501	836	---	1240	---	4000	---	1400	3.0	---
TOTAL	4470.01	15070	13695	17342	24252	20230	27938	79812	98300	15452	26921.0	17331.00
MEAN	144	502	442	559	866	653	931	2575	3277	498	868	578
MAX	866	641	652	836	1080	1240	1420	4100	4320	1400	1900	2040
MIN	.00	400	43	262	750	293	399	867	1350	14	3.0	.00
AC-FT	8870	29890	27160	34400	48100	40130	55420	158300	195000	30650	53400	34380
(+)	25120	41870	40360	48800	61790	60940	79630	183800	219310	52190	74260	55130

CAL YR 1996 TOTAL 140311.81 MEAN 383 MAX 1690 MIN .00 AC-FT 278300 (+) MEAN 618 AC-FT 448600
WTR YR 1997 TOTAL 360813.01 MEAN 989 MAX 4320 MIN .00 AC-FT 715700 (+) MEAN 1303 AC-FT 943200

e Estimated

(+) COMBINED FLOW, IN ACRE-FEET, AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY AND CONVEYANCE CHANNEL.

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued



08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1905-07, 1946 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1905 to April 1907, July 1946 to current year.

SUSPENDED-SEDIMENT DISCHARGE: July 1946 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler.

REMARKS.--Records of chemical analyses and sediment discharge for years prior to 1946 have been published in Water Bulletins of International Boundary and Water Commission. Sediment total-loads (suspended plus bed material discharge), in tons per day, were determined from the regression equation developed for the period of record. Specific conductance values were determined in the laboratory from daily suspended sediment samples collected by pumping sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,730 microsiemens, Apr. 8, 1953; minimum daily, 276 microsiemens, May 11, 1994.

SEDIMENT CONCENTRATION: Maximum daily mean, 135,000 mg/L, July 23, 1977; minimum daily mean, no flow on many days each year.

SEDIMENT LOAD: Maximum daily, 1,200,000 tons, Sept. 21, 1982; minimum daily, 0 ton on many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,200 microsiemens, July 23; minimum daily, 320 microsiemens, June 17.

SEDIMENT CONCENTRATION: Maximum daily mean, 37,300 mg/L, Sept. 27; minimum daily mean, no flow on many days.

SEDIMENT LOAD: Maximum daily, 120,000 tons, Aug. 7; minimum daily, 0 ton on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS TOTAL AS CACO3 (00900)	
OCT 1996 25...	0845	270	667	8.3	7.0	7.0	641	9.7	95	15	210
MAR 1997 04...	0930	550	555	8.3	12.5	6.0	646	10.6	101	16	160

DATE	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED AS SO4 (00945)
OCT 1996 25...	31	63	12	60	2	4.6	204	5	175	180	120
MAR 1997 04...	15	50	8.8	50	2	4.4	170	4	146	148	90

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
OCT 1996 25...	31	0.60	25	425	0.550	0.010	0.560	0.020	0.28	0.60	0.30
MAR 1997 04...	28	0.70	24	350	1.16	0.040	1.20	<0.015	--	0.90	<0.20

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
OCT 1996 25...	0.300	0.090	0.100	14	5.0	<1.0	4	60	<1.0	134	<1.0
MAR 1997 04...	0.720	0.190	0.200	4.5	--	--	--	--	--	109	--

RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	CHROMIUM, 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)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)
OCT 1996 25...	1.0	<1.0	2.0	<3.0	<1.0	1.0	<0.10	8.0	2.0	1	<1
MAR 1997 04...	--	--	--	<3.0	--	--	--	--	--	--	--

DATE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	NITROGEN, NO2+NO3 TOT. IN BOT. MAT. (MG/KG AS N) (00633)	NITROGEN, NH4 TOT. IN BOT. MAT. (MG/KG AS N) (00611)	NITROGEN, NH4 TOT. IN BOT. MAT. (MG/KG AS N) (00626)	PHOSPHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT. MAT. (UG/G AS AS) (01003)	CADMIUM RECOVERABLE FM BOT. MAT. (UG/G AS CD) (01028)	CHROMIUM, RECOVERABLE FM BOT. MAT. (UG/G AS CR) (01029)	COBALT, RECOVERABLE FM BOT. MAT. (UG/G AS CO) (01038)
OCT 1996 25...	<1.0	1.0	<2.0	1.1	300	160	4	<1	8	<5
MAR 1997 04...	--	--	--	--	--	--	--	--	--	--

DATE	COPPER, RECOVERABLE FM BOT. MAT. (UG/G AS CU) (01043)	IRON, RECOVERABLE FM BOT. MAT. (UG/G AS FE) (01170)	LEAD, RECOVERABLE FM BOT. MAT. (UG/G AS PB) (01052)	MANGANESE, RECOVERABLE FM BOT. MAT. (UG/G AS MN) (01053)	MERCURY RECOVERABLE FM BOT. MAT. (UG/G AS HG) (71921)	ZINC, RECOVERABLE FM BOT. MAT. (UG/G AS ZN) (01093)	RADIUM 226, DIS-SOLVED, 2 SIGMA RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS. (PCI/L) (76001)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS. (UG/L) (75990)
OCT 1996 25...	8	10000	10	200	0.01	30	0.07	0.020	3.3	0.074
MAR 1997 04...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOCITY, MEAN (F/S) (00055)	TEMPERATURE WATER (DEG C) (00010)	SEDIMENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80156)	SEDIMENT, SIEVE DIAM. % FINER THAN .125 MM (70332)
OCT 1996 15...	1050	89	67.0	0.88	1.51	17.0	220	53	88	--
NOV 13...	0955	892	158	1.2	4.50	8.0	3080	7420	10100	--
DEC 17...	1142	935	158	1.4	4.16	4.0	1820	4590	6340	--
JAN 1997 16...	1400	649	166	1.6	2.38	5.5	1410	2470	3500	--
FEB 11...	1157	1010	160	2.5	2.54	6.0	714	1950	2790	--
MAR 18...	0949	735	175	2.2	1.92	11.5	193	383	588	--
APR 15...	1020	1040	153	3.0	2.29	13.0	176	494	750	100
MAY 20...	0958	4220	162	5.7	4.59	17.0	7410	84400	103000	--
JUN 24...	0928	980	114	3.0	2.85	21.5	1790	4740	6540	--
JUL 22...	0916	238	96.0	1.2	2.12	23.5	55	35	59	--
AUG 19...	0920	583	160	1.2	3.13	23.5	1770	2790	3940	--
SEP 16...	0915	800	147	2.6	2.08	12.0	8220	17800	23200	--

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)
OCT 1996										
15...	--	--	--	--	85	89	96	100	--	--
NOV										
13...	--	--	--	--	41	64	91	100	--	1
DEC										
17...	--	--	--	--	31	52	96	100	--	1
JAN 1997										
16...	--	--	--	--	27	42	80	100	--	0
FEB										
11...	--	--	--	--	73	79	92	100	--	0
MAR										
18...	--	--	--	--	58	65	83	100	--	0
APR										
15...	--	--	--	--	--	--	--	--	--	--
MAY										
20...	33	40	48	56	70	88	99	100	--	0
JUN										
24...	--	--	--	--	13	14	37	95	100	1
JUL										
22...	--	--	--	--	78	78	78	78	78	1
AUG										
19...	--	--	--	--	16	43	90	100	--	3
SEP										
16...	46	56	65	73	82	82	88	100	--	1
DATE	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	
OCT 1996										
15...	0	13	93	99	100	--	--	--	--	
NOV										
13...	7	57	94	99	99	99	100	--	--	
DEC										
17...	8	62	96	99	99	100	--	--	--	
JAN 1997										
16...	1	28	97	100	--	--	--	--	--	
FEB										
11...	1	19	83	95	98	99	100	--	--	
MAR										
18...	1	9	54	80	91	97	100	--	--	
APR										
15...	0	5	45	61	65	71	79	91	100	
MAY										
20...	4	28	34	37	39	43	49	65	100	
JUN										
24...	5	42	88	95	95	96	97	100	--	
JUL										
22...	5	31	52	59	62	66	71	76	100	
AUG										
19...	19	75	98	100	--	--	--	--	--	
SEP										
16...	2	21	78	90	94	97	99	100	--	

RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	627	617	608	594	581	---	486	481	350	381	559	---
2	630	648	599	595	589	---	483	519	348	376	599	---
3	632	660	588	600	642	---	478	537	338	378	814	---
4	635	624	596	600	669	---	491	527	332	---	870	---
5	633	621	598	592	629	---	494	508	333	---	638	---
6	636	633	---	---	579	---	481	500	335	---	708	---
7	999	626	608	568	573	---	461	505	336	---	823	---
8	924	624	605	587	568	---	470	525	338	---	807	---
9	844	611	627	593	559	---	473	544	362	420	828	586
10	785	597	641	580	559	---	485	508	372	431	551	585
11	677	600	624	561	560	555	524	479	386	413	480	613
12	669	611	612	553	560	560	515	463	354	430	490	833
13	679	616	---	589	560	563	521	461	332	469	636	531
14	707	615	---	610	554	572	515	464	326	465	468	549
15	719	626	---	603	553	585	517	455	324	439	533	653
16	716	621	---	608	559	582	541	452	322	445	509	657
17	---	618	---	594	568	569	561	442	320	449	471	682
18	---	625	597	603	574	552	574	430	324	463	464	602
19	---	629	629	607	569	557	576	422	326	---	458	528
20	---	627	640	575	576	552	586	413	338	---	464	507
21	---	613	634	566	---	555	605	439	340	---	526	530
22	---	616	622	571	---	553	616	415	341	---	473	650
23	---	609	582	566	---	543	606	406	350	1200	449	689
24	---	610	609	566	---	547	596	409	359	---	433	743
25	---	614	629	572	---	537	566	398	362	---	685	822
26	---	615	633	557	---	526	502	392	370	575	531	588
27	---	595	622	549	---	518	495	381	368	540	456	542
28	---	577	574	561	---	501	470	364	355	652	618	---
29	---	588	563	561	---	491	475	359	365	800	542	490
30	---	602	569	553	---	487	476	357	377	680	---	443
31	663	---	586	557	---	487	---	353	---	---	---	---
MEAN	716	616	608	580	579	542	521	449	346	527	582	611
MAX	999	660	641	610	669	585	616	544	386	1200	870	833
MIN	627	577	563	549	553	487	461	353	320	376	433	443

WTR YR 1997 MEAN 547 MAX 1200 MIN 320

WATER-QUALITY RECORDS
SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN CONCE TRATI (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)
		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH
1	0	.00	2920	3150	743	1210	649	1070	1120	2850	1860	4170
2	0	.00	2620	3090	800	1340	688	1080	1250	3550	1810	3720
3	0	.00	4090	6360	1200	2190	658	1020	2110	6300	1760	3030
4	0	.00	3350	5780	1010	1830	673	1080	797	2010	1710	2480
5	0	.00	2130	3370	628	1120	664	1080	501	1220	1660	2500
6	0	.00	1510	2140	646	1210	632	1010	646	1420	1610	2600
7	4310	8440	1260	1780	713	1350	604	809	1330	3100	1570	2590
8	20000	46700	1270	1850	784	1380	678	734	668	1620	1520	2600
9	16800	21000	1420	2350	733	1110	522	623	637	1930	1480	2360
10	10500	7020	1890	3250	686	1020	978	1440	661	1660	1440	2250
11	5660	2830	2320	3590	710	1240	3910	8820	974	2250	2250	3170
12	3160	784	1630	2300	932	1760	3080	6530	835	1980	4290	5200
13	0	.00	1230	1650	1030	1980	2260	3290	1010	2530	4450	4740
14	0	.00	1080	1410	983	2020	1830	2070	1040	2680	2270	1960
15	150	.00	1110	1440	940	2030	1700	1260	1720	4590	1520	1210
16	0	.00	1380	1880	899	1980	1210	1320	2790	7060	1400	1150
17	0	.00	1140	1640	859	1870	1080	1300	2300	5250	1730	1600
18	0	.00	773	1050	756	1410	978	1060	2690	5900	4510	5140
19	0	.00	724	928	373	343	2350	3200	2540	5320	2620	3420
20	0	.00	865	1150	273	155	3470	7020	2420	5040	2580	3260
21	0	.00	1010	1450	276	220	3080	5650	2350	5330	2980	4320
22	0	.00	1050	1550	428	498	2920	5150	2280	7010	3040	5740
23	440	312	962	1490	712	1440	2500	4500	2220	6200	3030	6450
24	2130	1480	864	1360	1220	2580	3180	5830	2150	4750	3010	7470
25	2340	1410	739	1070	856	1620	3220	6160	2090	4180	3000	8090
26	2560	1320	755	1120	805	1260	2760	5910	2030	4320	2940	7730
27	2810	1540	925	1640	1180	2270	2550	5690	1980	4710	2880	7930
28	3080	2010	827	1390	1220	2750	3350	7770	1920	4630	2820	8040
29	3380	2580	697	1130	985	2190	1440	3440	---	---	2760	8370
30	3710	3710	697	1150	693	1380	1190	2930	---	---	2700	8490
31	3810	4060	---	---	587	1020	1090	2720	---	---	2630	8850
TOTAL	---	105196.00	---	63508	---	45776	---	101566	---	109390	---	140630
DAY	MEAN CONC TRAT (MG/ DAY)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN TRATIO (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN- TRATION (MG/L)	LOAD (TONS/ DAY)
		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER
1	2570	8720	2520	7230	1590	17300	1800	6240	14100	59600	0	.00
2	2500	8680	2580	6390	1590	17500	2280	7410	13100	65000	0	.00
3	2430	8290	2440	5710	3160	35100	1870	5690	11700	54700	0	.00
4	2370	7630	3510	8770	2270	24700	1680	4530	11300	49000	0	.00
5	2300	7330	2950	7300	1920	20500	1590	3880	9870	38300	449	56
6	2240	7670	4460	11300	1970	21300	1500	3410	22100	114000	793	80
7	2170	7590	3960	9480	1360	14800	1410	2800	26700	120000	615	48
8	2110	6730	1700	4200	1560	17400	1330	2180	19400	81000	477	143
9	2050	6100	2200	6350	1900	22100	1130	1700	24100	88800	487	242
10	1970	5230	4760	17100	2090	24400	617	882	31600	116000	3240	2200
11	1710	3860	4340	18800	2180	24600	306	358	33100	113000	15300	11400
12	1700	3920	3220	17500	1940	21200	195	152	11800	34300	35300	37000
13	1970	4630	4940	30000	1520	16400	296	174	17300	48800	14700	14300
14	2100	4890	4610	29400	1290	13500	807	748	20300	58600	9360	10300
15	2390	5230	3970	26800	1270	13200	665	455	27100	79600	23700	34700
16	2310	4430	3360	23900	1290	13100	549	277	21600	52400	34700	48000
17	2190	3880	3020	23300	1160	11700	285	97	12900	25700	25000	38000
18	2320	4070	2650	22400	1150	11400	140	39	8270	13800	15300	22500
19	2770	5660	2490	23300	831	7960	327	64	6510	9040	12200	15800
20	1690	3190	2480	24500	879	7930	1030	120	1250	1060	7640	8000
21	1700	2920	3450	35500	1030	8460	3230	233	1120	657	11600	30100
22	3500	4850	2830	29700	1200	8530	10100	567	1160	719	23400	114000
23	3130	3380	2640	28500	1220	7410	24900	3270	881	350	20000	101000
24	2640	2950	2330	26000	1070	5770	12000	2280	846	269	17000	86500
25	3960	7490	2410	26800	1450	7110	5500	4070	16100	5130	17400	76700
26	5090	14100	2320	25500	1280	5630	3510	2090	8500	8060	13300	40800
27	3610	12600	2260	25300	1390	6100	2100	2060	5060	6140	37300	104000
28	2920	11200	2350	26100	1490	6760	553	485	7320	8210	25800	73700
29	2550	8850	2220	24700	2010	8230	18800	39200	2590	1660	12000	38400
30	2490	7830	1940	21100	1950	7150	25800	90300	17	3.8	5810	17700
31	---	---	1550	16800	---	---	19600	74400	0	.00	---	---
TOTAL	---	193900	---	609730	---	427240	---	260161	---	1253898.80	---	925669.00
YEAR	4236664.80											
e Estimated												

RIO GRANDE BASIN

08360500 ELEPHANT BUTTE RESERVOIR AT ELEPHANT BUTTE, NM

LOCATION.--Lat 33°09'15", long 107°11'28", in NW¹/4 sec.30, T.13 S., R.3 W., Sierra County, Hydrologic Unit 13020211, at dam on Rio Grande, 1 mi west of Elephant Butte, 4 mi northeast of Truth or Consequences (Hot Springs), and at mile 1,383.2.

DRAINAGE AREA.--29,445 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--March 1915 to December 1939 (monthend contents only published in WSP 1312), January 1940 to September 1965 (monthend contents only), October 1965 to current year.

REVISED RECORDS.--WSP 1442: 1954(m). WSP 1632: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 43.3 ft above National Geodetic Vertical Datum of 1929. Oct. 16, 1939, to May 2, 1940, and prior to September 1930, nonrecording gages.

REMARKS.--Reservoir is formed by concrete dam. Storage began Jan. 6, 1915. Dam completed May 13, 1916. Capacity, 2,065,000 acre-ft, survey of 1988 at gage height 4,407.0 ft crest of spillway. Capacity by original survey was 2,638,900 acre-ft. No adjustment made for decrease in capacity due to sedimentation between effective dates of capacity tables. No dead storage. No storage allocated to flood control. Water is used for power development and irrigation on Rio Grande Project of Bureau of Reclamation. A 50,000-acre-ft permanent pool is authorized for recreational purposes.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 2,303,000 acre-ft, June 16-18, 1942, gage height, 4,409.19 ft; minimum daily contents after initial filling, 9,900 acre-ft, Aug. 6, 1954, gage height, 4,258.03 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,869,700 acre-ft, June 23, 24, gage height, 4,401.48 ft; minimum contents, 1,641,000 acre-ft, Sept. 18, gage height, 4,395.18 ft.

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

4,380	1,241.2	4,400	1,819.7
4,390	1,509.1	4,410	2,177.0

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1646700	1655700	1687900	1719300	1753500	1735100	1685400	1661600	1748600	1857800	1748000	1705600
2	1647300	1656600	1688900	1720600	1754200	1736000	1684800	1661600	1753200	1857100	1751200	1702500
3	1648300	1657300	1689500	1721600	1754800	1737000	1682600	1661600	1757700	1855400	1754500	1700200
4	1647300	1657900	1690100	1723800	1755500	1737000	1680000	1661600	1762300	1851400	1758100	1695800
5	1647700	1659700	1691400	1726100	1755100	1738300	1677900	1661600	1765900	1847700	1759000	1692600
6	1648000	1661300	1691700	1728000	1755100	1738000	1676600	1662500	1768500	1843900	1759700	1689500
7	1648300	1661900	1693300	1727700	1753500	1738300	1674700	1661300	1773400	1840200	1763900	1686000
8	1648900	1663200	1694900	1726400	1751900	1736700	1672800	1660100	1778300	1836500	1759000	1682600
9	1650400	1664400	1696400	1727300	1750300	1735100	1671300	1658800	1783600	1831800	1757400	1679100
10	1651400	1665700	1696400	1728000	1748600	1733100	1669700	1657900	1791200	1828500	1755800	1676000
11	1651700	1666900	1698300	1730200	1747300	1731500	1668500	1656900	1797100	1822800	1754200	1672200
12	1652000	1667800	1699300	1732500	1746400	1729900	1667200	1656300	1803400	1819400	1751200	1669700
13	1652300	1669400	1700900	1734400	1744400	1727700	1666000	1657300	1810700	1816100	1752200	1667800
14	1652600	1670000	1701800	1734700	1742500	1725400	1664400	1661600	1816400	1812400	1745700	1666000
15	1652600	1670300	1702500	1736400	1741200	1722900	1663500	1663500	1822100	1809100	1743800	1664400
16	1652000	1671300	1703100	1737000	1739600	1720900	1663200	1666900	1828100	1804700	1743800	1664400
17	1651400	1672200	1704700	1738600	1738600	1718700	1663200	1670300	1836900	1799800	1742500	1664400
18	1652300	1673200	1704000	1739900	1737000	1717400	1661300	1673800	1843600	1796100	1742200	1641000
19	1652300	1674400	1704700	1741200	1737600	1714500	1660400	1676900	1851400	1791500	1739600	1664700
20	1652300	1676300	1705300	1742500	1736000	1712600	1659400	1681900	1857100	1786900	1738600	1667800
21	1651400	1676900	1705900	1743800	1735400	1711000	1658200	1686000	1861200	1781300	1736400	1671000
22	1649800	1677500	1706300	1745400	1735100	1707500	1655400	1691400	1866300	1777700	1734100	1674700
23	1649800	1678500	1706900	1746700	1735100	1704400	1655100	1697100	1869700	1773400	1731500	1681000
24	1649800	1679400	1708200	1748600	1734700	1700900	1655100	1703400	1869700	1770100	1728600	1688900
25	1649800	1680400	1709100	1749600	1736400	1698700	1654200	1709400	1869400	1765200	1726100	1693900
26	1651100	1681600	1710100	1750600	1734400	1695500	1654200	1715500	1868400	1761000	1723200	1698700
27	1652300	1683200	1710700	1751200	1734700	1692600	1654200	1721900	1864600	1756800	1721600	1701500
28	1653200	1684400	1712300	1751900	1734100	1691400	1654200	1728000	1862900	1752200	1719000	1704400
29	1652900	1685700	1713900	1751900	---	1690100	1657600	1733800	1862600	1748600	1717100	1706900
30	1654500	1687000	1715800	1752500	---	1688900	1660100	1739600	1860500	1745100	1713300	1710400
31	1655100	---	1718100	1753200	---	1687600	---	1744100	---	1747000	1709400	---
MAX	1655100	1687000	1718100	1753200	1755500	1738300	1685400	1744100	1869700	1857800	1763900	1710400
MIN	1646700	1655700	1687900	1719300	1734100	1687600	1654200	1656300	1748600	1745100	1709400	1641000
(†)	394.89	4395.91	4396.89	4397.98	4397.39	4395.93	4395.05	4397.70	4401.21	4397.79	4396.62	4396.65
(††)	+9000	+31900	+31100	+35100	-19100	-46500	-27500	+84000	+116400	-113500	-37600	+1000

CAL YR 1996 MAX 2045300 MIN 1634100 (††) -322100
WTR YR 1997 MAX 1869700 MIN 1641000 (††) +64300

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

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

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LOCATION.--Lat 33°08'54", long 107°12'22", Sierra County, Hydrologic Unit 13030101, in Pedro Armendaris Grant, on left bank 1.0 mi downstream from dam, 1.5 mi upstream from Cuchillo Negro River, and at mile 1,382.2.

PERIOD OF RECORD.--January 1915 to current year. Monthly or annual discharge only for some periods, published in WSP 1732. Figures of daily discharge, published in WSP 458 for October to December 1916, are unreliable.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,241.09 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 24, 1980, at datum 1.0 ft higher. See WSP 1732 for history of changes prior to Apr. 24, 1942.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Elephant Butte Reservoir (station 08360500). Diversion for irrigation of about 800,000 acres upstream from station. No flow at times prior to 1929, Mar. 2-4, 1979.

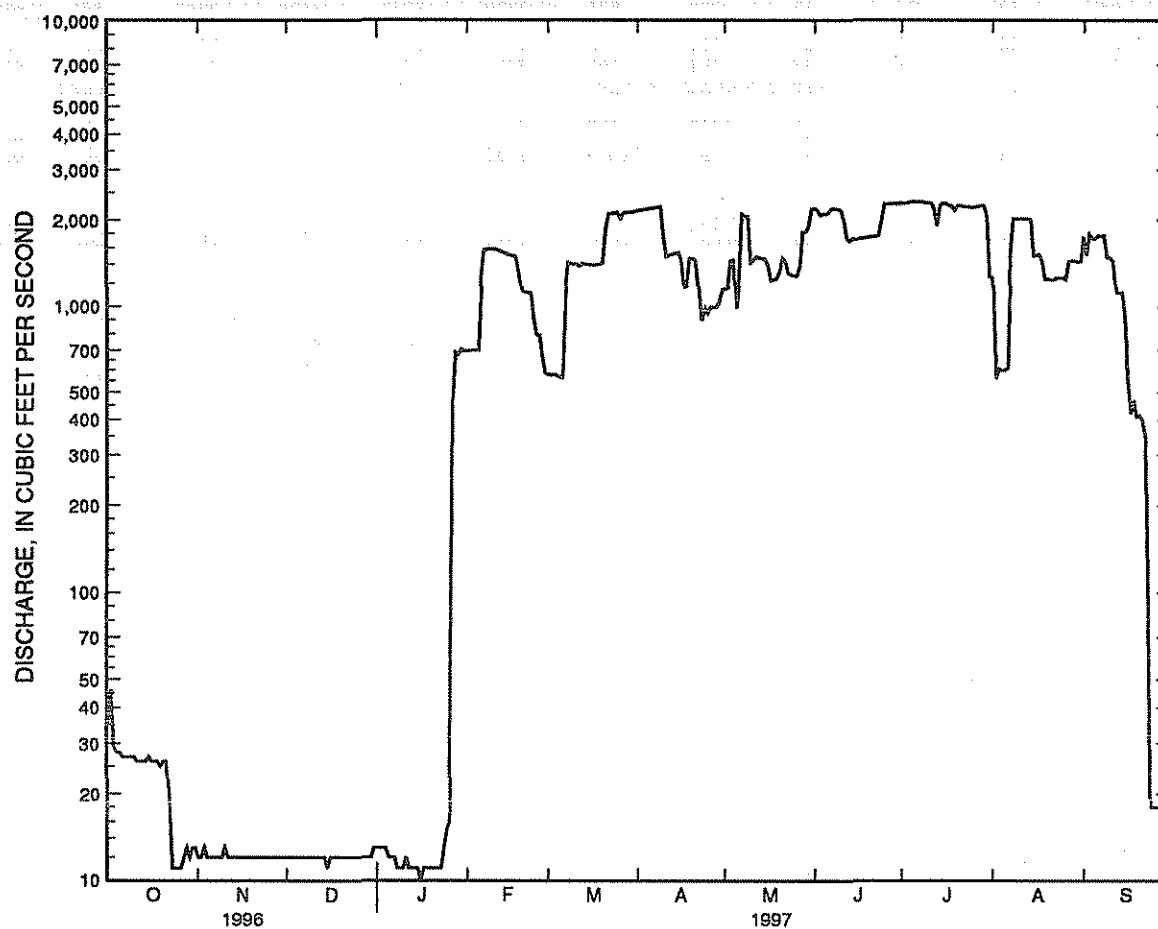
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	12	12	13	699	578	2160	1150	2200	2300	1260	e1750
2	46	12	12	13	700	576	2170	1160	2170	2290	561	e1510
3	29	13	12	13	700	578	2170	1440	2080	2300	606	e1790
4	28	12	12	13	701	572	2180	1450	2110	2320	598	e1730
5	28	12	12	12	701	565	2200	985	2100	2330	601	e1730
6	27	12	12	12	1260	564	2200	1250	2130	2330	609	e1770
7	27	12	12	12	1570	1120	2210	2100	2200	2320	1540	e1760
8	27	12	12	11	1580	1420	2220	2070	2200	2320	2020	e1770
9	27	12	12	11	1590	1410	2230	2070	2180	2310	2020	e1480
10	27	13	12	11	1580	1410	1740	1420	2170	2300	2020	e1480
11	26	12	12	12	1580	1400	1490	1450	2000	2300	2030	e1440
12	26	12	12	11	1570	1380	1510	1490	1740	2190	2030	e1120
13	26	12	12	11	1550	1410	1520	1480	1690	1920	2030	e1120
14	26	12	12	11	1540	1400	1530	1470	1730	2250	2010	e1120
15	27	12	11	11	1520	1400	1540	1470	1710	2300	1500	e929
16	26	12	12	10	1510	1390	1450	1380	1720	2290	1510	e553
17	26	12	12	11	1500	1390	1170	1230	1730	2260	1520	e422
18	26	12	12	11	1490	1390	1180	1240	1740	2250	e1430	e470
19	25	12	12	11	1310	1400	1470	1250	1740	2170	e1240	e412
20	26	12	12	11	1130	1420	1470	1320	1750	2250	e1250	e415
21	26	12	12	11	1120	1870	1450	1470	1750	2250	e1240	e400
22	19	12	12	11	1120	2110	1150	1430	1760	2240	e1240	e354
23	11	12	12	11	1110	2110	894	1300	1760	2230	e1260	e110
24	11	12	12	13	901	2120	986	1290	2000	2230	e1260	e18
25	11	12	12	15	796	2130	947	1280	2280	2220	e1260	e18
26	11	12	12	16	793	2030	996	1280	2280	2230	e1240	e18
27	12	12	12	448	661	2120	996	1370	2280	2240	e1430	e18
28	13	12	12	690	582	2130	993	1820	2290	2250	e1440	e17
29	12	12	12	679	---	2130	1040	1820	2280	2250	e1440	e17
30	13	12	12	708	---	2130	1150	1890	2300	2090	e1430	e18
31	13	---	13	698	---	2150	---	2190	---	1270	e1430	---
TOTAL	713	362	372	3531	32864	45803	46412	46015	60070	68800	43055	25759
MEAN	23.0	12.1	12.0	114	1174	1478	1547	1484	2002	2219	1389	859
MAX	46	13	13	708	1590	2150	2230	2190	2300	2330	2030	1790
MIN	11	12	11	10	582	564	894	985	1690	1270	561	17
AC-FT	1410	718	738	7000	65190	90850	92060	91270	119100	136500	85400	51090

MEAN	332	267	316	337	724	1171	1527	1606	1824	1730	1400	792
MAX	2040	2662	2110	1944	3026	2297	2717	7601	6098	4032	2623	2169
(WY)	1987	1942	1987	1987	1986	1989	1942	1942	1942	1995	1924	1939
MIN	2.41	1.25	1.38	.000	3.38	16.6	188	8.32	284	673	155	2.73
(WY)	1986	1972	1994	1918	1955	1983	1977	1957	1964	1964	1954	1954

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1917 - 1997	
ANNUAL TOTAL	326388		373756		1003	
ANNUAL MEAN	892		1024		2665	
HIGHEST ANNUAL MEAN					1942	
LOWEST ANNUAL MEAN					1964	
HIGHEST DAILY MEAN	1980	Jul 14	2330	Jul 5	8220	May 22 1942
LOWEST DAILY MEAN	11	Oct 23	10	Jan 16	.00	Nov 2 1916
ANNUAL SEVEN-DAY MINIMUM	12	Oct 23	11	Jan 12	.00	Nov 2 1916
INSTANTANEOUS PEAK FLOW					8220	
INSTANTANEOUS PEAK STAGE					9.72	
INSTANTANEOUS LOW FLOW					.00	
ANNUAL RUNOFF (AC-FT)	647400		741300		726800	
10 PERCENT EXCEEDS	1790		2200		2090	
50 PERCENT EXCEEDS	1010		1230		1010	
90 PERCENT EXCEEDS	12		12		5.5	

e Estimated



DAILY MEAN DISCHARGE - 1997 WATER YEAR

08362000 CABALLO RESERVOIR NEAR ARREY, NM

LOCATION.--Lat 32°53'47", long 107°17'30", in SE¹/4SW¹/4 sec.19, T.16 S., R.4 W., Sierra County, Hydrologic Unit 13030101, in control tower of Caballo Dam on Rio Grande, 0.5 mi downstream from mouth of Apache Canyon, 0.9 mi upstream from Bojarquez Bridge, 2 mi upstream from Percha diversion dam, 3.5 mi northeast of Arrey, 5.2 mi south of Caballo, and at mile 1,356.6.

DRAINAGE AREA.--30,700 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--February 1938 to September 1965 (monthend contents only), October 1965 to current year.

REVISED RECORDS.--WSP 978: 1942. WSP 1632: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 43.3 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam, completed Sept. 19, 1938. Storage began Feb. 8, 1938. Capacity by 1983 survey, 331,500 acre-ft between gage heights 4,104 ft, bottom of tunnel entrance of gates and 4,182 ft, gage height above which spillway gates operate automatically. Capacity by original survey was 345,900 acre-ft. No dead storage. Storage held for flood control, 100,000 acre-ft. Water released from Elephant Butte Reservoir for power development is stored in Caballo Reservoir and released for irrigation on Rio Grande Project of Bureau of Reclamation.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 347,000 acre-ft, Mar. 4, 1942, gage height, 4,182.06 ft; minimum contents, 118 acre-ft, Oct. 14, 1938, gage height, 4,108.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 82,290 acre-ft, Feb. 24, gage height, 4,152.06 ft; minimum contents, 28,270 acre-ft, Oct. 1, gage height, 4,137.95 ft.

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

4,125	4,810	4,160	131,200
4,130	11,680	4,170	209,400
4,140	33,770	4,180	308,900
4,150	71,800		

RESERVOIR STORAGE (ACRE-Feet), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28270	34710	38540	41910	44730	79760	61090	75660	76630	67780	75920	58850
2	28470	34910	38720	42010	46070	78730	62320	75260	76320	67320	77850	58380
3	28470	35060	38820	42180	47430	77700	63650	75460	75770	66850	77800	58050
4	28840	35200	38880	42310	48860	76520	65100	75720	75360	66760	76830	57670
5	29330	35320	38980	42450	50090	75310	66900	75970	74160	66660	75110	57500
6	29830	35460	39130	42550	51340	73470	68720	75660	73720	65740	72780	57380
7	30360	35720	39230	43020	53800	71800	70590	74610	73910	66480	70970	57420
8	30630	35840	39350	42920	56800	71360	72290	74710	74110	66290	70200	57380
9	30790	35960	39480	42950	59400	70930	73860	75310	74360	66250	71170	57460
10	31000	36080	39540	43050	62410	70440	75210	75360	74560	66020	74160	57210
11	31220	36170	39770	43190	65060	70060	75720	75410	75460	66160	73170	56180
12	31380	36260	39890	43320	67360	69060	76320	75510	76170	66250	73860	55770
13	31570	36350	39990	43420	69630	68060	76930	75360	76270	66340	73570	55810
14	31760	36460	40090	43560	71310	67320	77540	75870	76020	66430	73120	55850
15	31890	36520	40180	43800	73020	65830	78310	75920	76120	66660	73470	55930
16	32000	36640	40310	43940	74760	64600	78830	76370	76220	66160	72730	55480
17	32190	36760	40470	44010	76520	63340	78780	76630	76320	65420	71990	54600
18	32410	36910	40510	44070	80180	61700	78210	76880	76270	65100	71220	53680
19	32520	37000	40470	44140	81550	59700	78420	77130	76270	64510	70680	52070
20	32630	37190	40630	44210	81920	57920	78620	76980	76070	64280	69870	51150
21	32770	37310	40730	44320	82180	56180	78830	76780	75260	64060	68960	52230
22	32880	37400	40830	44070	82180	55810	79190	76880	74460	64280	68110	53320
23	32880	37520	40930	43490	82230	55400	78780	77030	73620	64190	66850	54440
24	33100	37640	41160	42980	82290	55040	77850	77290	72340	65010	65600	54160
25	33220	37770	41190	42480	82130	55040	77540	77490	70880	65740	64370	53050
26	33470	37890	41220	41980	81600	55120	77030	77750	70390	66850	63070	51880
27	33720	37980	41320	41450	81550	54960	76520	78000	69440	67970	61880	50920
28	33970	38070	41450	41450	80810	55810	76070	77390	68910	69150	60780	49970
29	34080	38170	41580	41480	---	57130	75920	77240	68820	70830	60130	49110
30	34280	38350	41680	42710	---	58470	75770	77240	68300	72880	59700	48190
31	34450	---	41810	43420	---	59830	---	76930	---	74360	59280	---
MAX	34450	38350	41810	44320	82290	79760	79190	78000	76630	74360	77850	58850
MIN	28270	34710	38540	41450	44730	54960	61090	74610	68300	64060	59280	48190
(†)	4140.24	4141.55	4142.63	4143.11	4151.78	4147.39	4150.80	4151.03	4149.27	4150.52	4147.26	4144.46
(††)	+6210	+3900	+3460	+1610	+37390	-20980	+15940	+1160	-8630	+6060	-15080	-11090

CAL YR 1996 MAX 223790 MIN 28240 (††) -119480
WTR YR 1997 MAX 82290 MIN 28270 (††) +19950

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

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

RIO GRANDE BASIN

08362500 RIO GRANDE BELOW CABALLO DAM, NM

LOCATION.--Lat 32°53'05", long 107°17'31", in NE¹/4SW¹/4 sec.30, T.16 S., R.4 W., Sierra County, Hydrologic Unit 13030102, on left bank 2,000 ft upstream from Interstate Highway 25, 4,200 ft downstream from Caballo Dam, 1.2 mi downstream from Apache Canyon, 1.3 mi upstream from Percha diversion dam, 3 mi northeast of Arrey, 5 mi south of Caballo, and at mile 1,355.6.

DRAINAGE AREA.--30,700 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--January 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,140.9 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1938, at datum 7.0 ft higher, Oct. 7-12, 1938, at datum 6.0 ft higher, and Oct. 13, 1938, to Dec. 31, 1945, at datum 5.0 ft higher than present datum.

REMARKS.--Flow regulated by Caballo Reservoir (station 08362000), capacity, 331,500 acre-ft, 1981 survey and Elephant Butte Reservoir (station 08360500), capacity, 2,065,000 acre-ft, 1988 survey. Diversions for irrigation of about 800,000 acres upstream from station. Figures of daily discharge do not include Bonita ditch, which diverts from Caballo Dam and bypasses station for irrigation downstream. See monthly table below for record of ditch. Bureau of Reclamation satellite telemeter at station.

COOPERATION.--Records provided by Bureau of Reclamation.

AVERAGE DISCHARGE.--58 years, 928 ft³/s, 672,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,650 ft³/s, May 20, 1942; minimum daily, 0.1 ft³/s, Oct. 31 to Nov. 14, 1954, Nov. 7 to Dec. 31, 1955, Feb. 15-29, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,640 ft³/s, June 26; minimum daily 1.0 ft³/s, Dec. 22 to Jan 20, and Feb. 7-9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	4.0	2.0	1.0	8.0	1230	1620	1250	2300	2520	406	2020
2	9.0	4.0	2.0	1.0	6.0	1240	1600	1210	2300	2570	600	1930
3	8.0	4.0	2.0	1.0	5.0	1230	1520	1170	2260	2430	1140	1870
4	8.0	4.0	2.0	1.0	2.0	1290	1400	1180	2360	2350	1400	1860
5	8.0	4.0	2.0	1.0	2.0	1340	1360	1180	2410	2420	1680	1860
6	8.0	4.0	2.0	1.0	2.0	1400	1370	1530	2150	2430	1920	1820
7	8.0	4.0	2.0	1.0	1.0	1480	1370	2010	2140	2410	1770	1760
8	7.0	4.0	2.0	1.0	1.0	1590	1450	2010	2110	2360	1600	1760
9	7.0	4.0	2.0	1.0	1.0	1780	1540	1750	2110	2320	1610	1870
10	7.0	4.0	2.0	1.0	70	1780	1560	1490	1940	2250	1610	1980
11	7.0	4.0	2.0	1.0	177	1920	1380	1490	1710	2120	1710	1890
12	7.0	4.0	2.0	1.0	242	2040	1160	1490	1710	2080	2140	1510
13	6.0	4.0	2.0	1.0	288	2040	1160	1410	1770	2080	2330	1300
14	6.0	3.0	2.0	1.0	422	2110	1160	1330	1830	2060	2010	1300
15	6.0	3.0	2.0	1.0	524	2200	1290	1310	1830	2340	1770	1300
16	6.0	3.0	2.0	1.0	536	2210	1430	1250	1640	2620	1850	1220
17	6.0	3.0	2.0	1.0	541	2250	1440	1170	1630	2610	1840	1140
18	6.0	3.0	2.0	1.0	750	2430	1380	1160	1950	2490	1850	1130
19	6.0	3.0	2.0	1.0	1030	2530	1310	1260	1940	2380	1910	1030
20	6.0	3.0	2.0	1.0	1030	2520	1310	1400	2040	2370	1970	936
21	5.0	3.0	2.0	142	1020	2440	1310	1460	2170	2450	1970	922
22	5.0	3.0	1.0	297	1030	2430	1310	1330	2170	2260	2070	328
23	5.0	3.0	1.0	334	1030	2560	1300	1170	2260	1950	2160	575
24	5.0	3.0	1.0	331	1020	2570	1300	1120	2500	1930	2150	758
25	5.0	3.0	1.0	330	920	2370	1180	1110	2630	1780	2130	757
26	5.0	3.0	1.0	328	818	2200	1090	1090	2640	1700	2090	640
27	5.0	3.0	1.0	322	830	2020	1090	1390	2530	1700	2060	533
28	5.0	3.0	1.0	326	1010	1730	1070	1730	2460	1530	1970	524
29	5.0	3.0	1.0	325	---	1610	1140	1730	2460	1400	1960	520
30	4.0	2.0	1.0	334	---	1620	1230	1880	2450	1330	2020	876
31	4.0	---	1.0	180	---	1630	---	2180	---	812	2020	---
TOTAL	194.0	102.0	52.0	3269.0	13316.0	59790	39830	44240	64400	66052	55716	37919
MEAN	6.26	3.40	1.68	105	476	1929	1328	1427	2147	2131	1797	1264
MAX	9.0	4.0	2.0	334	1030	2570	1620	2180	2640	2620	2330	2020
MIN	4.0	2.0	1.0	1.0	1.0	1230	1070	1090	1630	812	406	328
AC-FT	385	202	103	6480	26410	118600	79000	87750	127700	131000	110500	75210
(†)	0	0	0	0	163	124	124	178	178	160	126	89

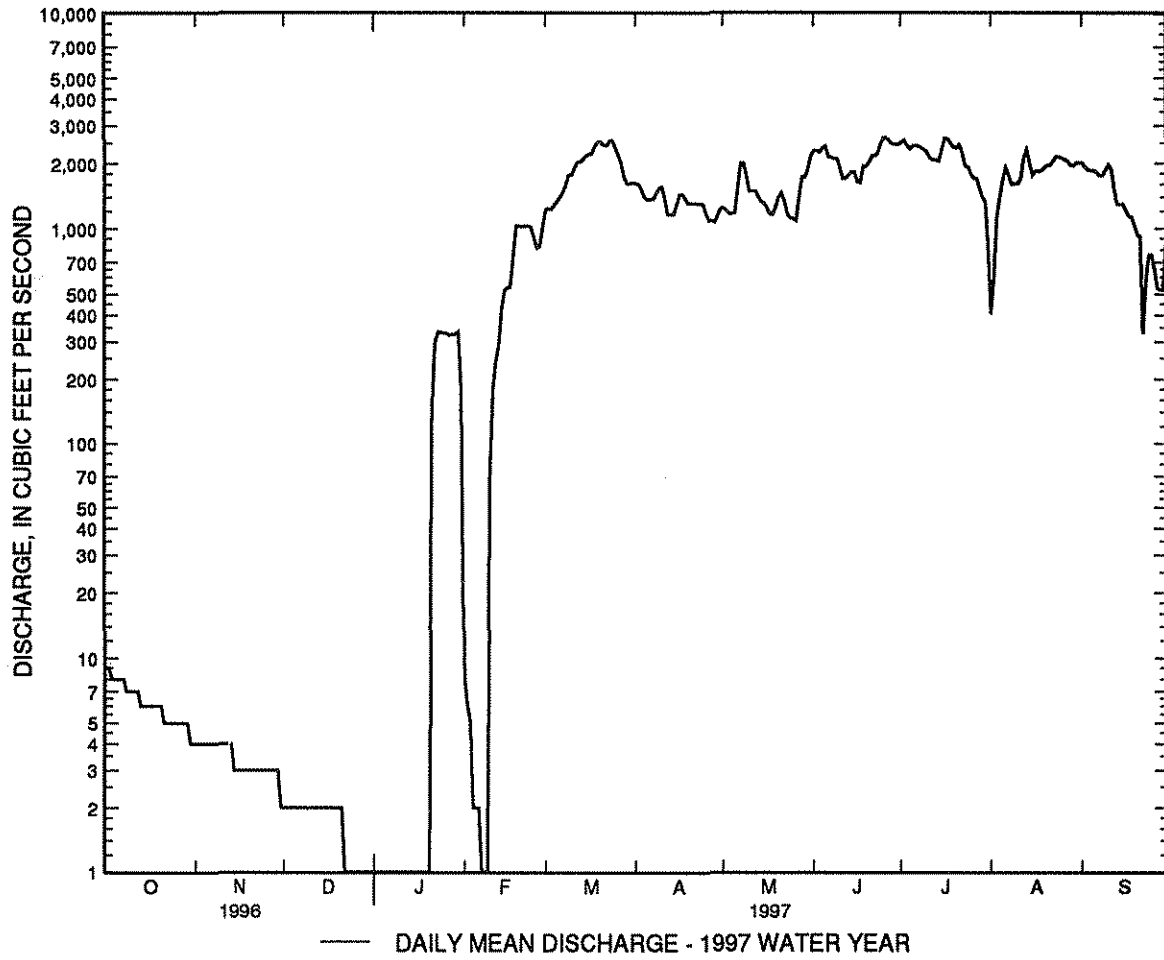
CAL YR 1996 TOTAL 390422.0 MEAN 1067 MAX 2380 MIN 1.0 AC-FT 774400
WTR YR 1997 TOTAL 384880.0 MEAN 1054 MAX 2640 MIN 1.0 AC-FT 763400

(†) DIVERSION, IN ACRE-FEET, BY BONITA DITCH; DIVERTS DIRECTLY FROM CABALLO DAM AND THIS DIVERSION IS NOT INCLUDED IN THE RIVER RECORDS.

RIO GRANDE BASIN

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08362500 RIO GRANDE BELOW CABALLO DAM, NM --Continued



RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TX
(National stream-quality accounting network
and National Water-Quality Assessment Program Station)

WATER-QUALITY RECORDS

LOCATION.--Lat 31°48'10", long 106°32'25", El Paso County, Hydrologic Unit 13030102, on downstream side of first pier from left abutment of Courchesne Bridge at El Paso, 1.7 mi upstream from American Dam, 5.6 mi upstream from Santa Fe Street-Juarez Avenue Bridge between El Paso and Cd. Juarez, Chihuahua, and at mile 1,249.

DRAINAGE AREA.--32,207 mi², approximately, including 2,940 mi² in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--Water years 1930 to current year.

REMARKS.--Records of discharge are given in International Boundary and Water Commission Water Bulletins.

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
OCT 1996												
23...	0815	214	2000	8.6	2.0	9.5	4.2	663	9.0	91	390	--
NOV												
19...	0815	145	2660	8.3	10.0	11.0	8.4	667	9.2	96	480	220
DEC												
12...	0900	94	2810	8.5	5.0	10.0	16	670	9.1	93	480	220
JAN 1997												
29...	1350	335	1360	8.6	15.0	8.5	15	669	11.0	108	270	87
29...	1400	335	1360	8.6	15.5	8.5	15	669	11.0	108	290	110
FEB												
13...	0945	72	1880	8.6	9.5	8.5	8.0	661	9.4	93	350	100
MAR												
11...	1115	833	900	8.3	23.0	13.5	170	668	8.2	90	190	39
APR												
23...	0930	692	1060	8.5	17.5	16.0	35	662	7.8	92	240	63
MAY												
22...	1030	660	1100	8.4	21.0	20.0	44	668	6.8	86	210	26
JUN												
25...	0945	936	1010	8.5	25.0	22.5	43	665	6.7	89	210	39
JUL												
31...	0945	1410	933	8.5	21.5	25.0	48	667	6.0	84	200	37
AUG												
19...	0900	1120	957	8.0	24.0	25.0	47	670	6.3	87	200	35
SEP												
10...	0900	844	1040	8.6	22.5	23.5	28	667	6.0	81	230	60

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 1996											
23...	110	27	270	6	9.4	--	--	--	--	440	260
NOV											
19...	140	32	400	8	12	321	0	263	--	540	400
DEC											
12...	140	31	410	8	11	299	8	258	--	570	430
JAN 1997											
29...	79	17	150	4	7.5	211	5	181	--	230	180
29...	86	18	160	4	7.6	211	5	181	187	230	180
FEB											
13...	100	24	250	6	11	286	8	248	--	400	220
MAR											
11...	55	12	93	3	6.0	181	0	149	--	150	94
APR											
23...	70	16	130	4	8.1	206	5	177	--	210	98
MAY											
22...	61	14	110	3	6.8	199	12	182	--	210	100
JUN											
25...	62	14	110	3	6.5	211	1	174	--	190	86
JUL											
31...	59	13	99	3	6.4	194	4	165	--	180	77
AUG											
19...	58	13	97	3	6.0	191	4	163	--	170	76
SEP											
10...	68	16	120	3	6.8	205	4	175	--	200	87

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS P) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
OCT 1996											
23...	0.70	24	1330	--	0.790	0.050	0.840	0.080	0.22	0.30	0.30
NOV											
19...	0.80	24	1740	1710	1.06	0.040	1.10	0.070	0.23	0.60	0.30
DEC											
12...	0.70	22	1870	1780	0.850	0.040	0.890	0.120	0.28	0.60	0.40
JAN 1997											
29...	0.80	14	840	791	0.480	0.040	0.520	<0.015	--	0.80	0.30
29...	0.80	15	836	810	0.480	0.050	0.530	0.020	--	0.80	--
FEB											
13...	0.80	22	1240	1180	1.02	0.080	1.10	0.210	0.29	0.70	0.50
MAR											
11...	0.70	12	549	514	0.210	0.010	0.220	<0.015	--	1.5	0.30
APR											
23...	0.7	14	654	652	--	<0.01	0.22	0.02	0.20	0.6	0.2
MAY											
22...	0.7	12	664	633	0.271	0.01	0.28	<0.01	--	0.7	0.3
JUN											
25...	0.7	11	631	587	--	<0.01	0.17	<0.01	--	0.7	<0.2
JUL											
31...	0.6	12	588	547	0.341	0.01	0.35	0.02	0.20	0.9	0.2
AUG											
19...	0.7	13	585	535	0.246	0.01	0.26	<0.01	--	0.7	<0.2
SEP											
10...	0.7	15	656	621	--	<0.01	0.12	<0.01	--	0.9	0.2
DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C) (00689)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)
OCT 1996											
23...	0.100	0.060	0.080	3.2	0.60	3.0	<1.0	4	101	<1.0	309
NOV											
19...	0.190	0.140	0.130	3.7	0.60	3.0	<2.0	3	84	<2.0	422
DEC											
12...	0.220	0.140	0.130	<3.6	0.70	3.0	<2.0	3	75	<2.0	429
JAN 1997											
29...	0.220	0.090	0.090	3.6	1.8	5.0	<1.0	2	61	<1.0	198
29...	0.200	0.120	0.100	--	--	<5.0	--	3	61	--	--
FEB											
13...	0.320	0.260	0.260	3.8	0.50	2.0	<1.0	5	87	<1.0	330
MAR											
11...	0.510	0.030	0.040	3.5	3.0	1.0	<1.0	2	60	<1.0	130
APR											
23...	0.16	0.04	0.04	3.5	1.7	1	<1	4	68	<1	194
MAY											
22...	0.18	0.04	0.04	3.5	2.1	2	<1	3	63	<1	169
JUN											
25...	0.19	<0.01	0.02	5.7	2	4	<1	3	72	<1	169
JUL											
31...	0.22	0.03	0.03	3.4	2	4	<1	3	72	<1	158
AUG											
19...	0.19	0.02	0.04	3	2.2	2	<1	3	71	<1	154
SEP											
10...	0.20	0.02	0.01	3.3	1.6	3	<1	3	76	<1	193

RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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)	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)
OCT 1996											
23...	<1.0	2.0	<1.0	2.0	15	<1.0	170	39	--	12	3.0
NOV											
19...	<2.0	<2.0	<2.0	<2.0	<9.0	<2.0	220	87	--	14	<2.0
DEC											
12...	<2.0	2.0	<2.0	<2.0	<9.0	<2.0	230	126	--	14	<2.0
JAN 1997											
29...	<1.0	2.0	<1.0	1.0	<3.0	<1.0	110	22	--	9.0	1.0
29...	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0	110	26	<0.1	<10	<1.0
FEB											
13...	<1.0	<1.0	<1.0	1.0	<3.0	<1.0	160	82	--	12	<1.0
MAR											
11...	<1.0	2.0	<1.0	1.0	<3.0	<1.0	74	3.0	--	7.0	1.0
APR											
23...	<1	2	<1	<1	<3	<1	100	3	--	9	<1
MAY											
22...	<1	3	<1	<1	<3	<1	87	2	--	9	1
JUN											
25...	<1	1	<1	2	<3	<1	89	1	--	9	2
JUL											
31...	<1	2	<1	1	<3	<1	84	1	--	8	1
AUG											
19...	<1	<1	<1	4	<3	<1	80	<1	--	8	<1
SEP											
10...	<1	1	<1	2	<3	<1	95	1	--	8	<1

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN (70331)
OCT 1996											
23...	<1	<1.0	1600	<18	5.0	5.0	--	--	130	75	31
NOV											
19...	<1	<2.0	2100	<18	5.0	5.0	--	--	148	58	25
DEC											
12...	<1	<2.0	2000	<18	3.0	5.0	--	--	139	35	49
JAN 1997											
29...	<1	<1.0	1000	<6	6.0	4.0	--	--	66	60	61
29...	<1	<1.0	1100	<6	6.0	--	--	--	--	--	--
FEB											
13...	<1	<1.0	1400	<6	5.0	5.0	--	--	102	20	37
MAR											
11...	<1	<1.0	730	<6	1.0	3.0	--	--	798	1790	65
APR											
23...	<1	<1	890	<6	<1	4	--	--	182	340	58
MAY											
22...	<1	<1	800	<6	1	3	-69.6	-7.62	206	367	62
JUN											
25...	<1	<1	790	<6	2	4	--	--	231	584	56
JUL											
31...	<1	<1	730	<6	2	3	--	--	326	1240	53
AUG											
19...	<1	<1	720	<6	1	3	--	--	324	980	59
SEP											
10...	<1	<1	850	<6	3	3	--	--	174	397	53

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	PROP- CHLOR, WATER, DISS, REC	BUTYL- ATE, WATER, DISS, REC	SI- MAZINE, WATER, DISS, REC	PRO- METON, WATER, DISS, REC	DEETHYL ATRA- ZINE, WATER, DISS, REC	CYANA- ZINE, WATER, DISS, REC	FONOFOS WATER DISS REC	ALPHA BHC DIS- SOLVED	P, P' DDE DISSOLV	CHLOR- PYRIFOS DIS- SOLVED	LINDANE DIS- SOLVED	
		(UG/L) (04024)	(UG/L) (04028)	(UG/L) (04035)	(UG/L) (04037)	(UG/L) (04040)	(UG/L) (04041)	(UG/L) (04095)	(UG/L) (34253)	(UG/L) (34653)	(38933)	(39341)	
OCT 1996													
23...	0815	<0.007	<0.002	E0.002	<0.018	E0.003	<0.004	<0.003	<0.002	<0.006	E0.003	<0.004	
NOV													
19...	0815	<0.007	<0.002	<0.005	<0.018	E0.002	<0.004	<0.003	<0.002	<0.006	E0.004	<0.004	
DEC													
12...	0900	<0.007	<0.002	<0.005	<0.018	<0.002	<0.004	<0.003	<0.002	<0.006	<0.004	<0.004	
JAN 1997													
29...	1350	<0.007	<0.002	0.005	0.024	<0.002	<0.004	<0.003	<0.002	<0.006	<0.004	<0.004	
FEB													
13...	0945	<0.007	<0.002	<0.005	E0.006	<0.002	<0.004	<0.003	<0.002	<0.006	E0.003	<0.004	
MAR													
11...	1115	<0.007	<0.002	0.009	E0.017	<0.002	<0.004	<0.003	<0.002	<0.006	<0.004	<0.004	
APR													
23...	0930	<0.007	<0.002	0.009	E0.008	<0.002	<0.004	<0.003	<0.002	<0.006	<0.004	<0.004	
MAY													
22...	1030	<0.007	<0.002	0.010	E0.007	<0.002	E0.003	<0.003	<0.002	<0.006	E0.003	<0.004	
JUN													
25...	0945	<0.007	<0.002	0.012	E0.009	<0.002	E0.004	<0.003	<0.002	<0.006	<0.004	<0.004	
JUL													
31...	0945	<0.007	<0.002	0.012	E0.014	E0.002	0.086	<0.003	<0.002	<0.006	<0.004	<0.004	
AUG													
19...	0900	<0.007	<0.002	0.008	E0.006	<0.002	0.078	<0.003	<0.002	E0.002	<0.004	<0.02	
SEP													
10...	0900	<0.007	<0.002	0.006	0.071	<0.002	0.030	<0.003	<0.002	<0.006	0.020	<0.004	
DATE		DI- ELDRIN DIS- SOLVED (UG/L) (39381)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	MALA- THION, DIS- SOLVED (UG/L) (39532)	PARA- THION, DIS- SOLVED (UG/L) (39542)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	2, 6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
OCT 1996													
23...	<0.001	0.013	0.029	<0.004	E0.004	0.009	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004	
NOV													
19...	<0.001	0.006	<0.005	<0.004	<0.002	E0.004	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004	
DEC													
12...	<0.001	E0.003	<0.005	<0.004	<0.002	0.004	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004	
JAN 1997													
29...	<0.001	<0.002	<0.005	<0.004	<0.002	<0.001	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004	
FEB													
13...	<0.001	0.004	<0.005	<0.004	<0.002	<0.001	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004	
MAR													
11...	<0.001	<0.002	<0.005	<0.004	<0.002	E0.003	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004	
APR													
23...	<0.001	0.005	<0.005	<0.004	E0.003	E0.003	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004	
MAY													
22...	<0.001	0.006	<0.005	<0.004	E0.001	E0.003	<0.002	<0.002	<0.004	<0.003	E0.001	<0.004	
JUN													
25...	<0.001	0.004	<0.005	<0.004	<0.002	E0.003	<0.002	<0.002	<0.004	<0.003	<0.002	<0.004	
JUL													
31...	<0.001	0.008	<0.005	<0.004	0.005	E0.002	<0.002	<0.002	<0.004	<0.003	E0.003	<0.004	
AUG													
19...	<0.001	0.005	<0.005	<0.004	<0.002	E0.002	<0.002	<0.002	<0.02	<0.003	<0.002	<0.004	
SEP													
10...	<0.001	0.004	0.026	<0.004	<0.002	<0.001	<0.002	<0.002	0.021	<0.003	<0.002	<0.004	

RIO GRANDE BASIN

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

	PHORATE WATER FLTRD 0.7 U	TER- BACIL WATER FLTRD 0.7 U	LIN- URON WATER FLTRD 0.7 U	METHYL PARA- THION WAT FLT 0.7 U	EPTC WATER FLTRD 0.7 U	PEB- ULATE WATER FLTRD 0.7 U	TEBU- THIURON WATER FLTRD 0.7 U	MOL- INATE WATER FLTRD 0.7 U	ETHO- PROP WATER FLTRD 0.7 U	BEN- FLUR- ALIN WAT FLD 0.7 U	CARBO- FURAN WATER FLTRD 0.7 U	TER- BUFOS WATER FLTRD 0.7 U
DATE	GF, REC (UG/L) (82664)	GF, REC (UG/L) (82665)	GF, REC (UG/L) (82666)	GF, REC (UG/L) (82667)	GF, REC (UG/L) (82668)	GF, REC (UG/L) (82669)	GF, REC (UG/L) (82670)	GF, REC (UG/L) (82671)	GF, REC (UG/L) (82672)	GF, REC (UG/L) (82673)	GF, REC (UG/L) (82674)	GF, REC (UG/L) (82675)
OCT 1996												
23...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013
NOV												
19...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013
DEC												
12...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013
JAN 1997												
29...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013
FEB												
13...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013
MAR												
11...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013
APR												
23...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	E0.010	<0.004	<0.003	<0.002	<0.003	<0.013
MAY												
22...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	E0.004	<0.004	<0.003	<0.002	<0.003	<0.013
JUN												
25...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	E0.004	<0.004	<0.003	<0.002	<0.003	<0.013
JUL												
31...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	E0.003	<0.003	<0.013
AUG												
19...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013
SEP												
10...	<0.002	<0.007	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013
	PRON- AMIDE WATER FLTRD 0.7 U	DISUL- FOTON WATER FLTRD 0.7 U	TRIAL- LATE WATER FLTRD 0.7 U	PRO- PANIL WATER FLTRD 0.7 U	CAR- BARYL WATER FLTRD 0.7 U	THIO- BENCARB WATER FLTRD 0.7 U	DCPA WATER FLTRD 0.7 U	PENDI- METH- ALIN WAT FLT 0.7 U	NAPROP- AMIDE WATER FLTRD 0.7 U	PRO- PARGITE WATER FLTRD 0.7 U	METHYL AZIN- PHOS WAT FLT 0.7 U	PER- METHRIN CIS WAT FLT 0.7 U
DATE	GF, REC (UG/L) (82676)	GF, REC (UG/L) (82677)	GF, REC (UG/L) (82678)	GF, REC (UG/L) (82679)	GF, REC (UG/L) (82680)	GF, REC (UG/L) (82681)	GF, REC (UG/L) (82682)	GF, REC (UG/L) (82683)	GF, REC (UG/L) (82684)	GF, REC (UG/L) (82685)	GF, REC (UG/L) (82686)	GF, REC (UG/L) (82687)
OCT 1996												
23...	<0.003	<0.017	<0.001	<0.004	E0.005	<0.002	0.006	<0.004	<0.003	<0.013	<0.001	<0.005
NOV												
19...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	E0.003	<0.004	<0.003	<0.013	<0.001	<0.005
DEC												
12...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	E0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JAN 1997												
29...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	E0.004	<0.004	<0.003	<0.013	<0.001	<0.005
FEB												
13...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	0.009	<0.004	<0.003	<0.013	<0.001	<0.005
MAR												
11...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	0.004	<0.004	<0.003	<0.013	<0.001	<0.005
APR												
23...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	E0.004	<0.004	<0.003	<0.013	<0.001	<0.005
MAY												
22...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	E0.003	<0.004	<0.003	<0.013	<0.001	<0.005
JUN												
25...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
JUL												
31...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	E0.003	<0.004	<0.003	<0.013	--	<0.005
AUG												
19...	<0.003	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
SEP												
10...	<0.003	<0.017	<0.001	<0.004	E0.010	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

RIO GRANDE BASIN

301

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

CROSS SECTION ANALYSES

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) (00009)	DEPTH AT SAMPLE LOC- ATION, TOTAL (FEET) (81903)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
MAR 1997							
11...	1440	8.00	5.20	1030	8.2	17.0	8.5
11...	1443	28.0	4.60	949	8.3	17.0	8.5
11...	1446	48.0	4.00	944	8.3	17.0	8.5
11...	1448	68.0	3.20	913	8.3	17.0	8.5
11...	1452	88.0	2.60	900	8.3	17.0	8.2
11...	1454	108	2.10	894	8.3	16.5	8.1
11...	1457	128	2.00	873	8.3	17.0	7.8
11...	1500	148	2.20	855	8.3	17.0	8.1
11...	1503	168	2.40	841	8.3	17.0	8.0

(Hydrologic bench-mark station)

DRAINAGE AREA.--53.2 mi².

PERIOD OF RECORD.--October 1963 to current year.

REMARKS.--Records good except for estimated daily discharges, which are poor. About 90 percent of the drainage is in the Pecos Wilderness Area and not subject to development, watershed management, or the building of highways; there is limited cattle grazing by permit.

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1997, BY WATER YEAR (WY)

MEAN	14.3	10.3	7.12	6.12	6.42	12.6	36.1	127	90.8	29.7	44.2	27.7
MAX	25.2	27.5	13.3	9.82	13.2	41.3	88.4	319	263	73.1	159	84.5
(WY)	1986	1995	1985	1986	1995	1989	1985	1973	1997	1988	1991	1988
MIN	5.73	3.72	2.90	1.72	2.43	3.40	11.2	14.2	8.25	8.43	9.23	6.93
(WY)	1965	1990	1990	1964	1964	1964	1971	1967	1967	1989	1989	1978

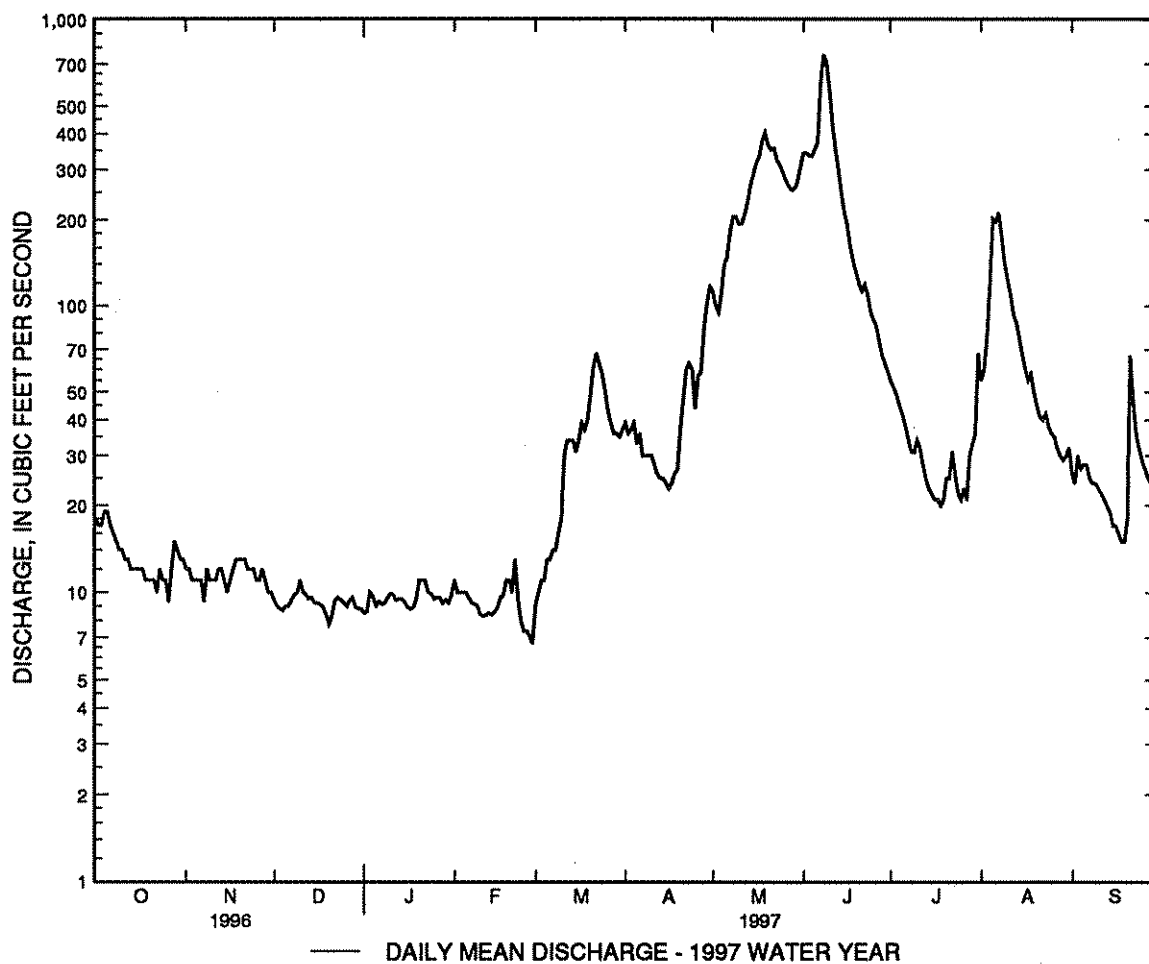
RIO GRANDE BASIN

303

08377900 RIO MORA NEAR TERRERO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1964 - 1997	
ANNUAL TOTAL	6358.3		23781.3		34.5	
ANNUAL MEAN	17.4		65.2		65.3	
HIGHEST ANNUAL MEAN					11.6	
LOWEST ANNUAL MEAN					1973	
HIGHEST DAILY MEAN	72	Aug 30	755	Jun 8	755	Jun 8 1997
LOWEST DAILY MEAN	5.0	Feb 27	6.7	Feb 28	.90	Jan 12 1964
ANNUAL SEVEN-DAY MINIMUM	6.1	Jun 19	7.9	Feb 23	.97	Jan 10 1964
INSTANTANEOUS PEAK FLOW			864	Jun 8	937	May 22 1991
INSTANTANEOUS PEAK STAGE			3.99	Jun 8	4.15	Jun 8 1979
INSTANTANEOUS LOW FLOW			5.8	Feb 26	.90	Jan 12 1964
ANNUAL RUNOFF (AC-FT)	12610		47170		25000	
10 PERCENT EXCEEDS	39		207		83	
50 PERCENT EXCEEDS	12		23		14	
90 PERCENT EXCEEDS	7.2		9.2		5.0	

e Estimated



RIO GRANDE BASIN

08378500 PECOS RIVER NEAR PECOS, NM

LOCATION.--Lat 35°42'30", long 105°40'55", in NE¹/4NE¹/4 sec.17, T.17 N., R.12 E., San Miguel County, Hydrologic Unit 13060001, in Santa Fe National Forest, on left bank 30 ft downstream from bridge on private road, 270 ft upstream from Indian Creek, 2.4 mi downstream from Holy Ghost Creek, 9.0 mi north of Pecos, and at mile 896.6.

DRAINAGE AREA.--189 mi².

PERIOD OF RECORD.--August 1919 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "near Cowles" 1919-25, "at Irvins Ranch" 1926-29, and as "at Irvins Ranch near Pecos" 1930-39.

REVISED RECORDS.--WSP 898: Drainage area. WSP 1312: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 7,502.94 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1977, at site 30 ft upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 75 acres, 1959 determinations, upstream from station. Several observations of water temperature were made during the year. National Weather Service satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1904, was greatest since 1886, from information by local residents.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	46	e39	e35	37	50	127	364	1080	198	148	87
2	43	42	e40	e36	37	44	123	335	1100	186	155	81
3	42	45	e38	e37	35	49	123	312	1060	178	164	89
4	50	45	e37	e38	38	49	129	350	1040	170	202	87
5	57	43	e38	e36	42	47	120	431	1070	163	324	88
6	48	43	e36	e35	38	52	118	466	1130	155	346	85
7	44	39	e35	e37	37	54	110	573	1630	147	398	80
8	42	38	e33	e36	43	53	108	465	1880	141	333	79
9	41	41	e34	e35	40	57	109	470	1490	133	279	78
10	40	40	e36	e37	36	63	112	476	1180	138	248	76
11	39	40	e37	e38	37	74	107	462	1020	133	226	73
12	38	40	e36	e36	35	87	103	464	898	121	198	71
13	37	42	e36	e35	32	93	98	506	784	113	190	69
14	36	43	e35	e37	35	96	93	592	693	106	168	69
15	36	43	e34	e35	39	96	93	661	623	102	155	65
16	35	e38	e33	e36	37	105	94	732	574	101	142	65
17	36	e37	e32	e38	36	115	98	804	506	102	135	62
18	35	e39	e30	e37	35	114	102	893	457	97	145	60
19	35	e38	e29	e35	36	117	112	941	428	95	129	59
20	38	e39	e31	e36	36	133	141	1150	399	115	119	69
21	40	e37	e33	e37	37	162	177	1140	374	108	112	164
22	32	e36	e36	e36	43	178	215	1140	372	113	110	121
23	41	e35	e35	e35	41	167	211	1070	343	100	116	92
24	40	e37	e35	e36	38	162	208	1040	306	88	115	83
25	39	e39	e35	e37	36	151	183	1010	293	81	113	77
26	37	e36	e36	e35	38	133	189	919	285	83	109	72
27	110	e38	e35	e36	35	125	198	831	265	88	100	70
28	51	e37	e36	e37	55	120	260	784	240	92	94	68
29	56	e35	e35	39	---	120	325	787	223	106	91	66
30	48	e36	e35	37	---	119	373	846	210	114	92	63
31	47	---	e35	40	---	124	---	978	---	197	102	---
TOTAL	1358	1187	1085	1130	1064	3109	4559	21992	21953	3864	5358	2368
MEAN	43.8	39.6	35.0	36.5	38.0	100	152	709	732	125	173	78.9
MAX	110	46	40	40	55	178	373	1150	1880	198	398	164
MIN	32	35	29	35	32	44	93	312	210	81	91	59
AC-FT	2690	2350	2150	2240	2110	6170	9040	43620	43540	7660	10630	4700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1997, BY WATER YEAR (WY)

	MEAN	51.8	38.1	29.5	26.5	26.8	41.6	133	341	259	97.5	109	75.7
MAX	217	138	61.9	49.7	45.6	100	366	1158	950	299	402	284	
(WY)	1942	1942	1942	1942	1995	1997	1942	1941	1979	1941	1957	1931	
MIN	11.9	11.6	9.52	11.2	14.8	18.1	40.1	43.7	28.6	20.5	20.0	10.8	
(WY)	1957	1957	1957	1957	1951	1951	1951	1950	1956	1956	1956	1956	

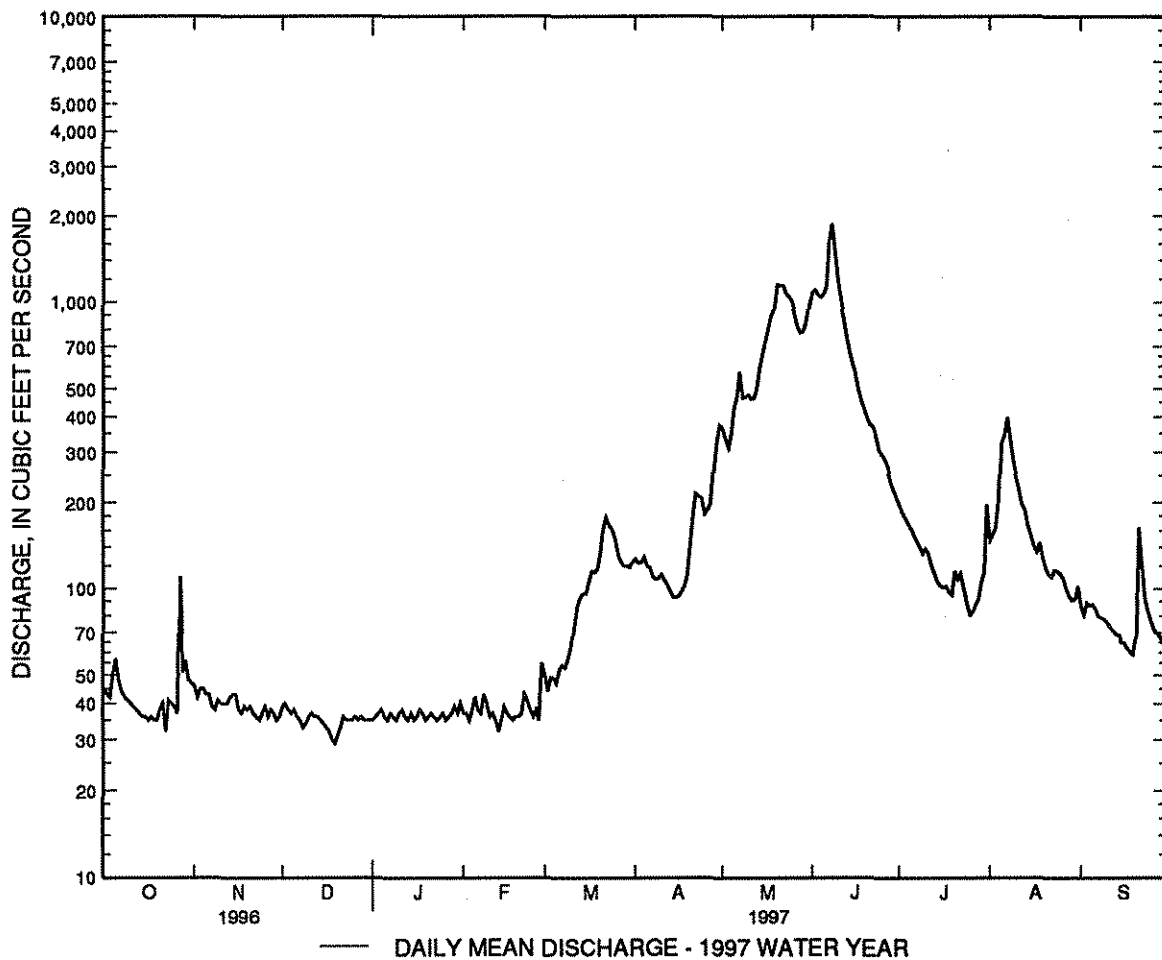
RIO GRANDE BASIN

305

08378500 PECOS RIVER NEAR PECOS, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1920 - 1997	
ANNUAL TOTAL	17236		69027		103	
ANNUAL MEAN	47.1		189		267	1941
HIGHEST ANNUAL MEAN					30.7	1950
LOWEST ANNUAL MEAN					1980	May 22 1991
HIGHEST DAILY MEAN	136	Jul 9	1880	Jun 8	6.0	Dec 22 1956
LOWEST DAILY MEAN	15	Mar 25	29	Dec 19	6.7	Dec 19 1956
ANNUAL SEVEN-DAY MINIMUM	16	Mar 21	32	Dec 15	4500	Sep 21 1929
INSTANTANEOUS PEAK FLOW			2060	Jun 7	6.20	Sep 21 1929
INSTANTANEOUS PEAK STAGE			4.79	Jun 7	2.0	Mar 19 1971
INSTANTANEOUS LOW FLOW			18	Oct 22	74590	
ANNUAL RUNOFF (AC-FT)	34190		136900		252	
10 PERCENT EXCEEDS	82		506		48	
50 PERCENT EXCEEDS	38		81		21	
90 PERCENT EXCEEDS	22		35			

e Estimated



RIO GRANDE BASIN

08379500 PECOS RIVER NEAR ANTON CHICO, NM

LOCATION.--Lat 35°10'44", long 105°06'30", Guadalupe County, Hydrologic Unit 13060001, in Anton Chico Grant, on right bank 2.1 mi upstream from Canon Blanco, 2.3 mi southeast of Anton Chico, 9.7 mi downstream from Tecolote Creek, and at mile 808.0.

DRAINAGE AREA.--1,050 mi², approximately (contributing area).

PERIOD OF RECORD.--April 1910 to May 1916, October 1916 to September 1924, August to December 1925, January 1927 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1342: 1951(M), 1952-53. WSP 1512: 1912-14, 1931, 1933(M), 1935-36(M), 1938(P), 1939-40, 41-42(P), 1945(M), 1946(P). WSP 1712: 1942(P).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,130 ft above National Geodetic Vertical Datum of 1929, from river-profile map. See WSP 1732 for history of changes prior to June 21, 1951.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 4,900 acres, 1959 determinations, upstream and downstream from station. Acequia del Bodo Juan Paiz (no measurements made during the water year) diverts water 8 mi upstream from gage and bypasses this station on left bank; ditch flow not included in record measurements made at point opposite regular gage. A portion of this flow may be returned to the river about 5.0 mi downstream. Several observations of water temperature were made during the year. No flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since 1879 occurred Sept. 29, 1904, discharge about 73,000 ft³/s, from information by a local resident.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	20	77	46	43	54	107	841	911	199	542	47
2	9.7	20	57	42	46	46	113	767	996	165	548	42
3	10	21	52	40	49	43	100	682	999	145	347	42
4	15	20	49	38	49	48	109	609	974	124	888	71
5	31	22	29	43	49	52	128	589	1000	111	700	80
6	24	15	48	e42	47	56	128	659	1020	104	719	92
7	20	11	72	e43	54	56	95	702	1370	95	808	64
8	16	9.0	68	e44	55	61	110	822	2160	83	716	113
9	14	11	62	e43	47	66	93	829	2090	72	582	218
10	12	5.3	59	e45	37	73	100	789	1640	145	727	165
11	13	11	56	e42	48	81	97	766	1330	271	533	205
12	13	8.2	57	e44	45	99	102	707	1130	e51	410	71
13	11	7.3	58	e46	47	137	103	711	1010	e41	820	44
14	10	18	56	e47	47	168	98	732	946	e38	353	35
15	10	62	51	e45	47	184	83	801	857	e36	259	34
16	10	66	52	e48	44	178	86	892	756	e25	218	18
17	10	71	e30	e47	46	187	79	973	689	e27	180	19
18	12	69	e30	e45	48	212	69	1030	624	e22	221	19
19	15	57	e35	e43	56	217	76	1110	551	e23	208	30
20	15	70	e36	e45	58	220	75	1130	509	e26	284	71
21	14	78	e40	e47	67	245	86	1100	462	e32	322	802
22	13	92	e48	e52	67	327	127	1140	423	23	158	732
23	13	91	56	e58	63	384	263	1090	401	33	144	368
24	12	96	46	64	61	357	404	1030	395	41	182	234
25	12	94	45	60	68	344	546	1020	362	35	134	175
26	13	77	43	54	62	316	461	968	414	28	110	136
27	11	71	57	62	61	271	556	885	329	22	106	110
28	12	76	52	64	55	237	719	817	296	70	88	87
29	10	72	47	56	---	154	777	771	265	154	68	72
30	13	72	46	51	---	112	831	763	232	216	78	65
31	24	---	45	43	---	107	---	807	---	426	58	---
TOTAL	427.7	1412.8	1559	1489	1466	5092	6721	26532	25141	2883	11511	4261
MEAN	13.8	47.1	50.3	48.0	52.4	164	224	856	838	93.0	371	142
MAX	31	96	77	64	68	384	831	1140	2160	426	888	802
MIN	9.7	5.3	29	38	37	43	69	589	232	22	58	18
AC-FT	848	2800	3090	2950	2910	10100	13330	52630	49870	5720	22830	8450

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1997, BY WATER YEAR (WY)

	MEAN	61.9	39.0	27.5	24.8	24.5	60.8	180	372	271	133	197	122
MAX	500	279	103	78.3	78.5	249	854	2031	1150	507	928	679	
(WY)	1942	1942	1942	1942	1987	1985	1942	1941	1941	1941	1991	1941	
MIN	.000	.000	.000	1.82	.92	.29	1.54	2.86	4.17	3.81	13.0	.000	
(WY)	1957	1957	1957	1957	1957	1971	1981	1971	1934	1934	1964	1956	

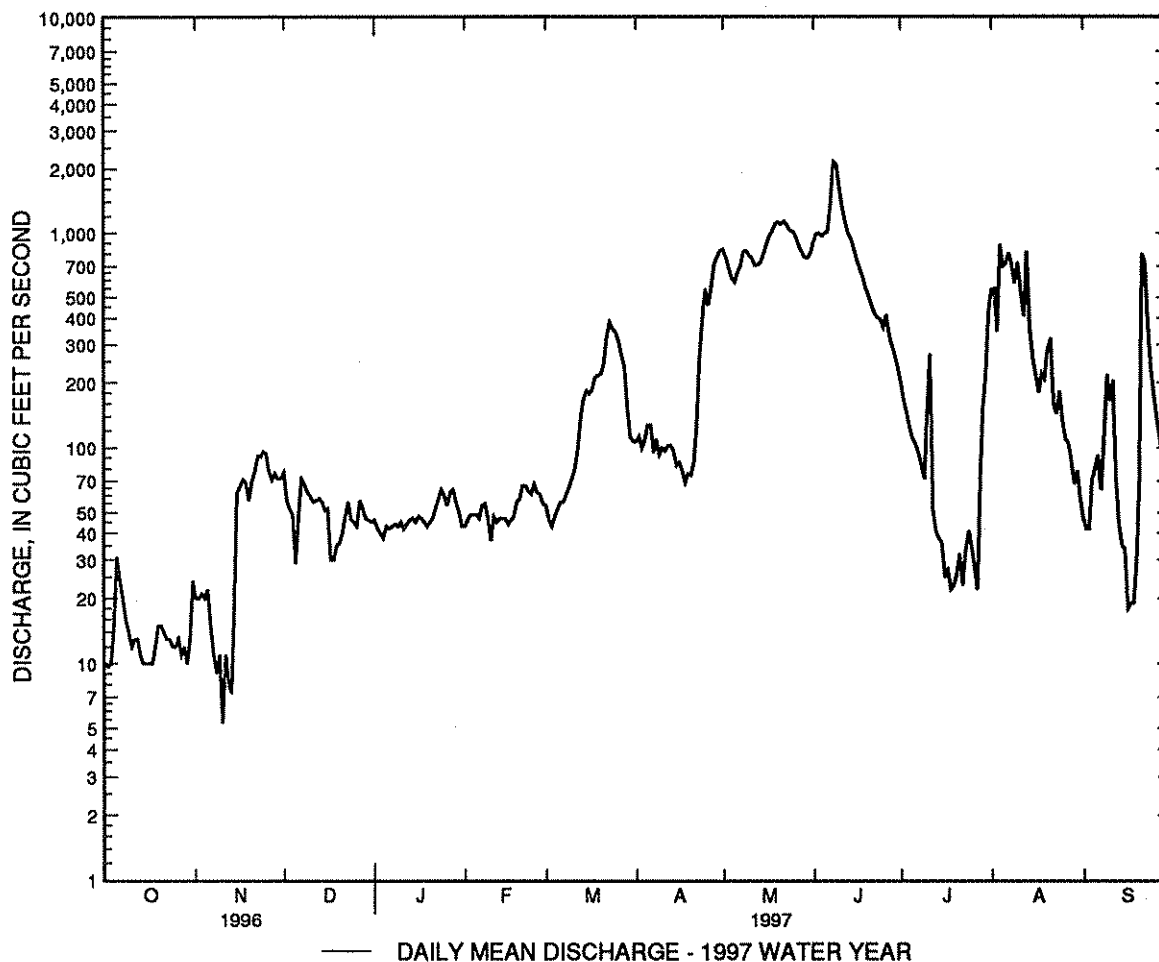
RIO GRANDE BASIN

397

08379500 PECOS RIVER NEAR ANTON CHICO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1929 - 1997
ANNUAL TOTAL	24448.96	88495.5	127
ANNUAL MEAN	66.8	242	489
HIGHEST ANNUAL MEAN			23.4 1941
LOWEST ANNUAL MEAN			10000 1974
HIGHEST DAILY MEAN	2900 Jul 10	2160 Jun 8	10000 Jun 2 1937
LOWEST DAILY MEAN	.07 Apr 26	5.3 Nov 10	.00 Jun 16 1934
ANNUAL SEVEN-DAY MINIMUM	.21 Apr 20	9.0 Nov 7	.00 Jun 16 1934
INSTANTANEOUS PEAK FLOW		3880 Aug 4	40300 Jun 1 1937
INSTANTANEOUS PEAK STAGE		1997 Aug 4	1997 Aug 4 1997
INSTANTANEOUS LOW FLOW		2.2 Nov 10	.00 Apr 24 1996
ANNUAL RUNOFF (AC-FT)	48490	175500	91780
10 PERCENT EXCEEDS	93	804	346
50 PERCENT EXCEEDS	22	71	39
90 PERCENT EXCEEDS	2.5	18	5.0

e Estimated



RIO GRANDE BASIN

08380500 GALLINAS CREEK NEAR MONTEZUMA, NM

LOCATION.--Lat 35°39'07", long 105°19'06", San Miguel County, Hydrologic Unit 13060001, in Las Vegas Grant, on left bank 2.4 mi west of Montezuma, 6.9 mi northwest of Las Vegas, and at mile 74.4.

DRAINAGE AREA.--84 mi², approximately.

PERIOD OF RECORD.--March to September 1915, June 1916 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1964, published as Gallinas River near Montezuma.

REVISED RECORDS.--WSP 898: Drainage area. WSP 1562: 1951(P), 1952(M), 1955(P), 1957. WSP 1632: 1931-32, 1933(M), 1934, 1935(M), 1938, 1939-40(M), 1941-42, 1945, 1949-50(M).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,880 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 21, 1934, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 80 acres, 1959 determination, upstream from station. See tabulations below for monthly precipitation in inches. 1916-1925 not included in statistics.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since about 1900 occurred the night of Sept. 29, 1904 (discharge not determined), from information by local residents and G. B. Monk's report on floods.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	19	13	8.7	e8.3	11	36	207	79	25	47	30
2	10	17	13	8.4	e8.6	12	35	191	79	24	119	28
3	9.7	17	14	9.0	e8.8	15	36	158	74	23	127	34
4	10	18	14	11	e9.0	19	37	143	70	22	137	40
5	12	18	13	9.4	e9.1	20	35	139	251	21	343	90
6	11	17	13	e9.0	e9.2	21	30	130	112	21	310	59
7	9.7	16	12	e8.8	e9.3	24	31	144	196	20	595	47
8	9.2	14	11	e9.0	9.5	30	29	147	558	19	255	57
9	8.9	14	12	e9.5	10	35	28	139	300	19	168	61
10	8.6	13	13	e10	9.5	38	28	126	197	19	124	63
11	8.4	13	14	e9.8	9.7	43	28	121	145	23	97	61
12	8.1	13	13	e9.6	9.4	49	27	120	118	19	78	48
13	7.9	13	12	e9.4	9.6	54	27	120	99	18	80	39
14	7.7	14	13	e9.0	8.5	54	26	126	86	17	69	37
15	7.5	14	11	e9.5	9.0	49	26	127	76	16	57	31
16	7.4	15	14	e10	9.0	52	26	143	70	15	48	28
17	7.3	13	13	e11	e9.0	55	26	154	65	15	48	25
18	7.2	13	e13	e10	e8.8	56	27	148	61	14	58	23
19	7.1	15	e12	e10	e8.6	54	28	153	55	14	47	22
20	7.1	18	e11	e9.8	e9.0	57	32	142	48	16	80	27
21	8.3	19	e11	e9.9	e9.2	69	39	136	47	17	62	243
22	8.1	18	e11	e9.8	e9.5	78	52	134	52	18	70	134
23	8.8	18	e10	e9.8	e9.6	72	56	121	49	18	66	85
24	8.8	17	e10	9.8	e9.1	68	72	116	40	17	76	66
25	8.5	16	10	9.9	e9.8	62	65	116	37	15	67	53
26	8.8	16	9.4	e9.6	e9.9	52	76	101	41	14	57	45
27	10	14	9.2	e9.3	e10	46	157	89	40	15	48	39
28	12	13	8.9	e9.0	11	41	234	78	34	16	42	35
29	24	14	8.4	e8.9	---	39	250	72	30	21	37	32
30	19	13	8.7	e8.6	---	37	253	71	28	23	35	29
31	19	---	8.8	e8.2	---	36	---	76	---	55	34	---
TOTAL	310.1	462	359.4	293.7	260.0	1348	1852	3988	3137	609	3481	1611
MEAN	10.0	15.4	11.6	9.47	9.29	43.5	61.7	129	105	19.6	112	53.7
MAX	24	19	14	11	11	78	253	207	558	55	595	243
MIN	7.1	13	8.4	8.2	8.3	11	26	71	28	14	34	22
AC-FT	615	916	713	583	516	2670	3670	7910	6220	1210	6900	3200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1997, BY WATER YEAR (WY)

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
MEAN	12.5	9.77	6.67	5.55	5.91	12.5	35.7	55.3	23.2	16.5	32.6	21.5
MAX	108	57.5	21.3	13.7	20.5	64.7	184	380	119	105	225	185
(WY)	1942	1942	1958	1989	1987	1987	1958	1941	1979	1991	1991	1991
MIN	.38	.49	.80	1.83	1.49	2.36	3.11	1.96	.74	1.24	1.08	.40
(WY)	1957	1957	1957	1957	1957	1955	1967	1967	1956	1956	1934	1956

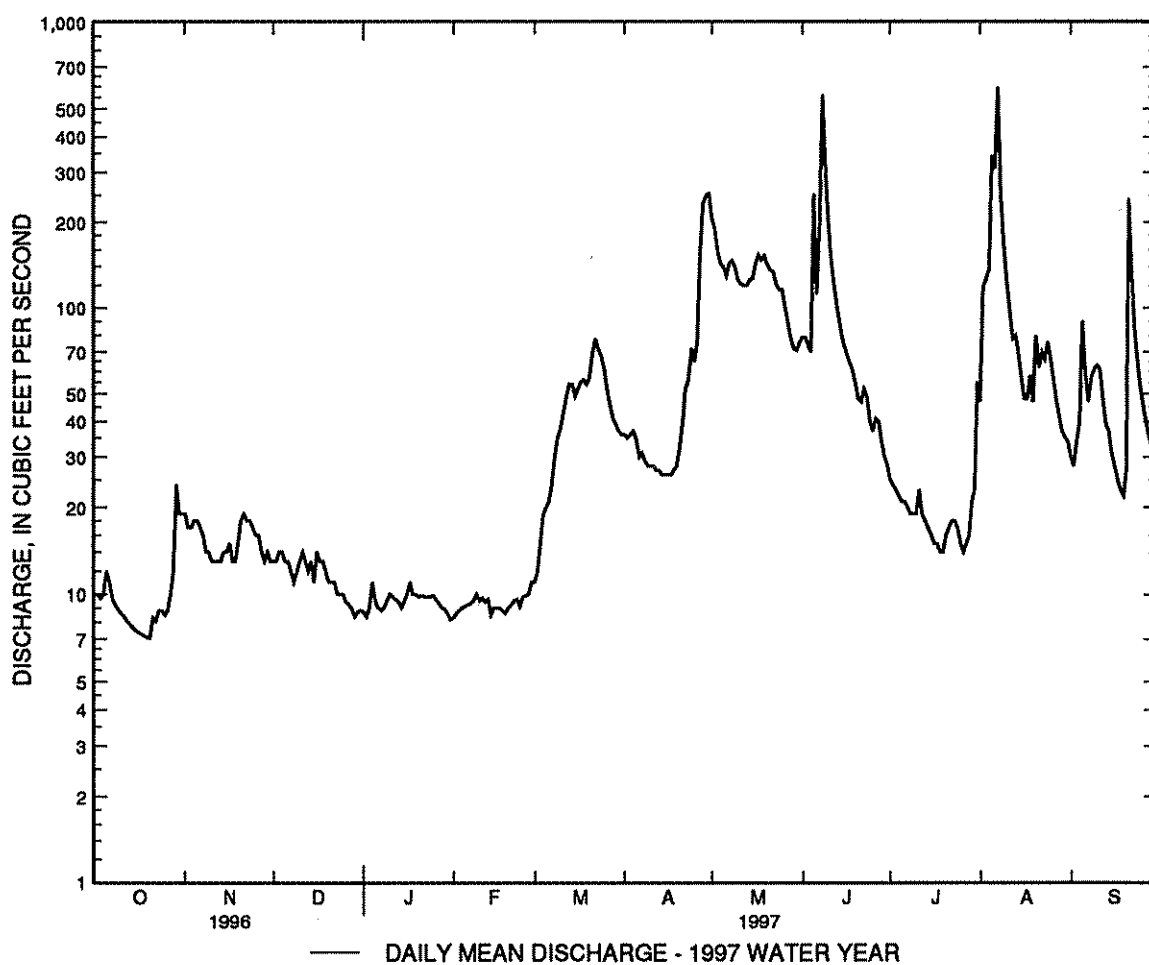
RIO GRANDE BASIN

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08380500 GALLINAS CREEK NEAR MONTEZUMA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1926 - 1997	
ANNUAL TOTAL	5935.3		17711.2		19.9	
ANNUAL MEAN	16.2		48.5		80.7	
HIGHEST ANNUAL MEAN					2.53	
LOWEST ANNUAL MEAN					1580	
HIGHEST DAILY MEAN	351	Aug 27	595	Aug 7	Sep 10 1991	
LOWEST DAILY MEAN	1.4	Jun 9	7.1	Oct 19	Sep 21 1956	
ANNUAL SEVEN-DAY MINIMUM	1.6	Jun 20	7.3	Oct 14	Oct 8 1956	
INSTANTANEOUS PEAK FLOW			1000	Aug 7	Aug 2 1966	
INSTANTANEOUS PEAK STAGE			4.71	Aug 7	Aug 2 1966	
INSTANTANEOUS LOW FLOW			3.4	Feb 14	Sep 21 1956	
ANNUAL RUNOFF (AC-FT)	11770		35130		14420	
10 PERCENT EXCEEDS	26		126		45	
50 PERCENT EXCEEDS	6.6		23		7.7	
90 PERCENT EXCEEDS	2.1		9.0		2.7	

e Estimated



08382500 GALLINAS RIVER NEAR COLONIAS. NM

LOCATION.--Lat 35°10'55", long 104°53'59", Guadalupe County, Hydrologic Unit 13060001, in Anton Chico Grant, and Preston Beck Grants, on right bank 2.3 mi south of San Miguel-Guadalupe County line, 2.4 mi upstream from mouth, 5.8 mi northwest of Colonias, and 9.0 mi east of Dilia. Mouth at Pecos River mile 789.2.

DRAINAGE AREA.--610 mi², approximately.

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,940 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 7,000 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year. No flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about June 1, 1937, reached a stage of about 27.2 ft, discharge determined as 26,700 ft³/s by slope-area measurement made in 1951. A flood of about the same magnitude occurred Sept. 29-30, 1904.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	17	e6.8	e4.0	4.8	7.5	4.0	24	14	9.2	34	31
2	3.6	14	6.9	e4.1	4.6	7.8	4.1	16	11	7.8	350	28
3	3.2	12	7.0	e4.4	4.6	9.7	4.4	13	8.2	7.3	46	29
4	3.4	11	6.4	e4.6	4.5	8.3	5.4	11	8.2	6.9	41	26
5	11	9.6	6.1	e4.7	4.4	7.3	5.4	8.3	458	7.9	30	21
6	8.3	8.8	5.8	e4.3	4.3	6.6	5.2	6.5	79	7.3	27	23
7	6.3	8.5	e5.9	e4.1	4.7	6.0	5.7	5.5	34	6.3	115	71
8	6.3	8.2	6.0	e4.0	4.7	5.5	4.7	6.0	268	11	361	95
9	5.2	7.7	5.7	4.2	5.0	5.3	4.5	7.5	219	26	161	82
10	4.9	7.6	5.6	4.5	5.4	5.2	4.6	96	114	8.1	78	270
11	4.2	7.4	5.2	4.7	5.7	5.0	4.7	62	111	6.7	138	72
12	3.3	7.1	e4.6	3.9	5.5	4.9	4.7	26	77	6.6	50	46
13	3.3	6.9	e4.4	4.2	5.5	4.4	5.2	16	58	8.9	471	36
14	2.9	6.9	e4.2	4.0	5.5	3.9	5.6	12	46	6.5	110	32
15	2.8	6.6	e4.7	5.2	5.4	3.7	5.6	9.5	38	4.8	61	29
16	2.8	6.8	e3.9	6.0	5.5	3.7	5.6	8.3	32	4.1	43	25
17	2.4	6.5	e4.1	5.8	5.5	3.6	5.1	6.5	31	3.6	36	24
18	2.1	6.8	e4.0	5.3	5.3	3.5	4.1	6.9	29	3.5	40	22
19	2.0	7.0	4.1	5.2	5.3	3.5	3.3	6.9	26	3.0	52	23
20	1.8	6.6	3.7	6.0	5.9	3.1	2.4	11	23	14	47	59
21	1.8	6.1	4.6	7.4	6.7	3.1	2.0	16	21	5.7	52	253
22	2.9	6.2	5.5	7.6	7.6	3.6	1.9	23	44	3.0	59	355
23	5.0	6.0	5.5	6.4	7.4	4.3	1.9	20	22	2.8	54	116
24	5.1	6.0	5.1	7.8	7.7	5.5	4.2	19	18	3.2	53	85
25	6.0	6.0	4.2	5.3	7.7	4.4	30	13	16	2.4	54	69
26	5.9	6.0	4.1	5.2	7.7	3.8	32	10	14	33	50	57
27	6.3	6.3	4.2	6.3	7.8	4.0	64	8.8	12	12	49	50
28	8.2	6.5	5.1	5.5	7.4	4.0	88	8.2	11	101	44	45
29	10	6.5	5.2	7.1	---	4.0	60	7.8	12	473	41	42
30	23	7.0	e4.7	6.2	---	3.8	41	6.5	11	27	36	40
31	25	---	e4.3	5.2	---	3.9	---	9.8	---	36	34	---
TOTAL	182.9	235.6	157.6	163.2	162.1	152.9	419.3	501.0	1865.4	858.6	2817	2156
MEAN	5.90	7.85	5.08	5.26	5.79	4.93	14.0	16.2	62.2	27.7	90.9	71.9
MAX	25	17	7.0	7.8	7.8	9.7	88	96	458	473	471	355
MIN	1.8	6.0	3.7	3.9	4.3	3.1	1.9	5.5	8.2	2.4	27	21
AC-FT	363	467	313	324	322	303	832	994	3700	1700	5590	4280

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 ~ 1997, BY WATER YEAR (WY)

MEAN	12.1	5.05	3.27	3.02	3.81	4.56	16.5	17.8	19.1	41.9	64.5	24.1
MAX	166	50.0	18.3	18.9	58.9	48.2	269	261	91.4	222	268	178
(WY)	1958	1987	1987	1992	1987	1958	1958	1973	1986	1988	1991	1972
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	1.09	.000
(WY)	1953	1952	1952	1951	1951	1951	1951	1952	1951	1964	1983	1951

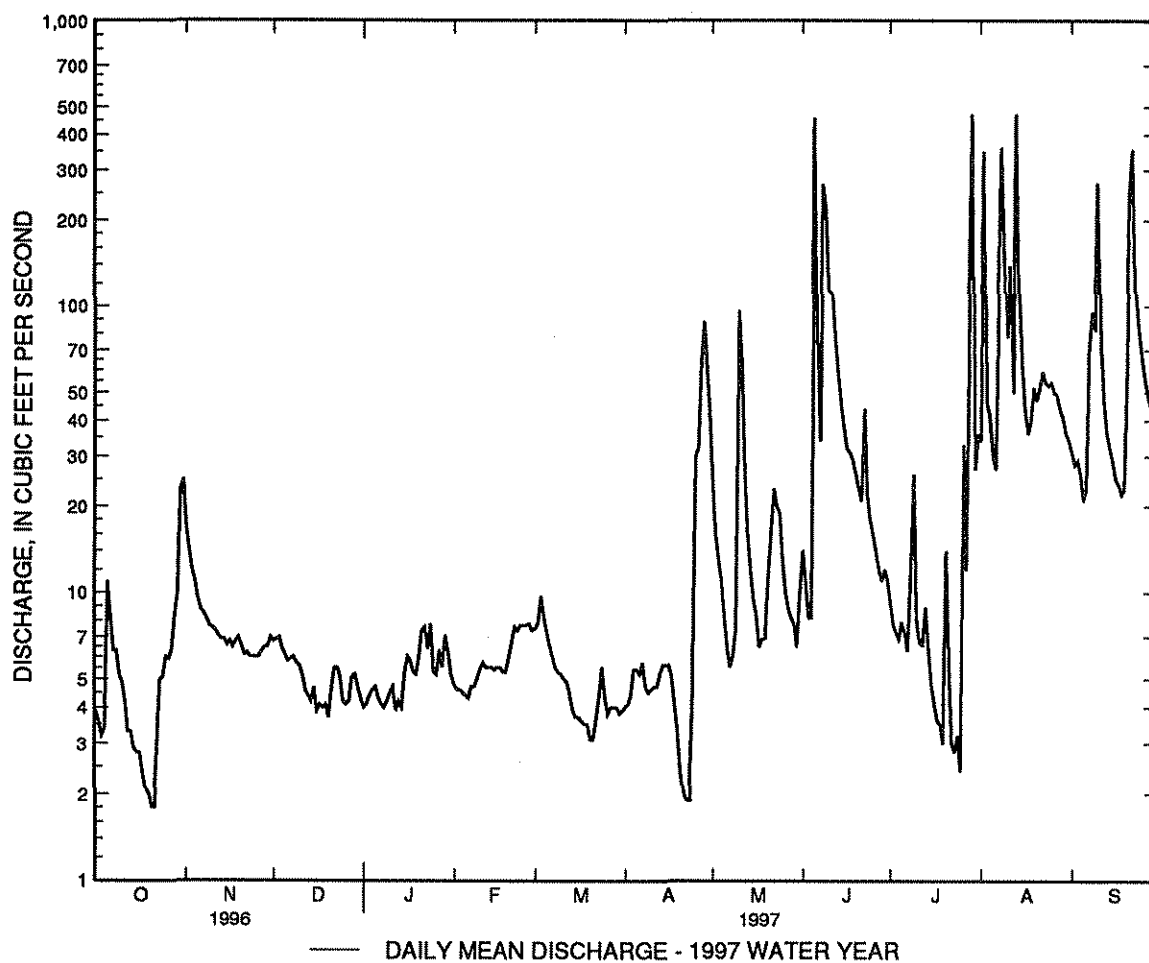
RIO GRANDE BASIN

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08382500 GALLINAS RIVER NEAR COLONIAS, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1951 - 1997
ANNUAL TOTAL	8716.12	9671.6	
ANNUAL MEAN	23.8	26.5	18.3
HIGHEST ANNUAL MEAN			66.6
LOWEST ANNUAL MEAN			.85
HIGHEST DAILY MEAN	1350	473	2640
LOWEST DAILY MEAN	.00	1.8	.00
ANNUAL SEVEN-DAY MINIMUM	.00	2.2	.00
INSTANTANEOUS PEAK FLOW		3720	13700
INSTANTANEOUS PEAK STAGE		10.72	19.67
INSTANTANEOUS LOW FLOW		1.6	.00
ANNUAL RUNOFF (AC-FT)	17290	19180	13250
10 PERCENT EXCEEDS	26	57	27
50 PERCENT EXCEEDS	4.1	6.8	.96
90 PERCENT EXCEEDS	.00	3.8	.00

e Estimated



RIO GRANDE BASIN

08382600 PECOS RIVER ABOVE CANON DEL UTA NEAR COLONIAS, NM

LOCATION.--Lat 35°05'29", long 104°48'00", in T.10 N., R.20 E., Guadalupe County, Hydrologic Unit 13060001, in Anton Chico Grant, on right bank 0.4 mi upstream from Canon del Uta, 2.9 mi southeast of Colonias, and at mile 775.8.

DRAINAGE AREA.--2,330 mi², approximately.

PERIOD OF RECORD.--January 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,800 ft above National Geodetic Vertical Datum of 1929, from U.S. Army Corps of Engineers plan and profile map.

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation for about 11,800 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station. No flow many days most years.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	4.0	9.6	2.9	1.6	1.6	45	680	772	75	247	16
2	2.9	3.7	8.2	2.4	1.6	1.6	45	612	853	44	652	11
3	2.9	3.7	4.5	2.9	1.3	1.6	55	550	912	34	251	11
4	3.2	3.6	4.0	1.8	1.6	1.5	55	478	849	20	322	10
5	3.2	3.5	3.4	1.4	1.6	1.6	56	420	1190	15	602	12
6	3.2	3.7	3.3	1.5	1.6	1.2	70	448	1180	13	428	13
7	3.2	2.9	3.5	1.9	2.6	1.6	64	462	1260	11	560	16
8	3.2	2.6	4.3	1.9	2.6	1.6	47	555	1830	12	777	104
9	3.2	2.6	4.9	1.8	2.5	1.6	46	645	1930	15	566	97
10	3.2	2.4	3.3	2.4	2.4	1.6	48	691	1800	13	359	368
11	3.2	2.3	3.9	2.6	2.4	1.6	52	691	1680	35	616	299
12	3.1	2.3	6.9	2.6	1.9	2.0	59	568	1420	20	308	107
13	2.9	2.0	4.7	2.6	2.0	2.2	70	550	1210	16	856	35
14	2.9	1.9	4.2	2.5	2.3	6.7	71	556	1040	17	564	18
15	3.1	1.6	4.2	2.2	1.9	32	70	652	893	12	251	14
16	3.2	1.4	3.2	1.6	2.3	47	59	753	759	9.9	179	13
17	3.2	1.0	4.0	1.6	2.3	47	58	837	659	11	151	13
18	3.2	1.1	3.7	1.6	2.3	53	57	892	579	15	111	12
19	3.2	1.1	2.7	1.6	2.4	64	51	1010	476	12	163	12
20	3.2	1.1	3.6	1.5	2.4	69	51	1040	397	14	141	36
21	3.2	.99	3.1	1.1	2.4	77	43	1020	333	12	261	316
22	3.2	1.5	2.8	1.1	2.2	92	43	1050	303	14	125	808
23	3.2	2.9	2.4	.90	1.6	128	94	1040	251	16	113	390
24	3.2	4.5	2.4	1.1	1.6	137	189	997	232	11	89	226
25	3.1	12	2.0	1.5	1.6	138	309	958	189	11	107	183
26	2.6	12	2.2	1.5	1.6	143	340	911	201	14	69	136
27	2.6	5.7	3.3	2.1	1.6	133	369	800	166	11	61	85
28	2.8	7.6	4.0	2.6	1.6	120	557	734	145	8.3	58	47
29	3.8	7.9	3.5	2.6	---	103	616	691	115	334	40	40
30	3.7	8.7	3.6	2.2	---	61	649	674	92	139	24	37
31	4.0	---	2.6	1.6	---	56	---	674	---	210	115	---
TOTAL	97.7	112.29	122.0	59.60	55.8	1528.0	4338	22639	23716	1194.2	9166	3485
MEAN	3.15	3.74	3.94	1.92	1.99	49.3	145	730	791	38.5	296	116
MAX	4.0	12	9.6	2.9	2.6	143	649	1050	1930	334	856	808
MIN	2.6	.99	2.0	.90	1.3	1.2	43	420	92	8.3	24	10
AC-FT	194	223	242	118	111	3030	8600	44900	47040	2370	18180	6910

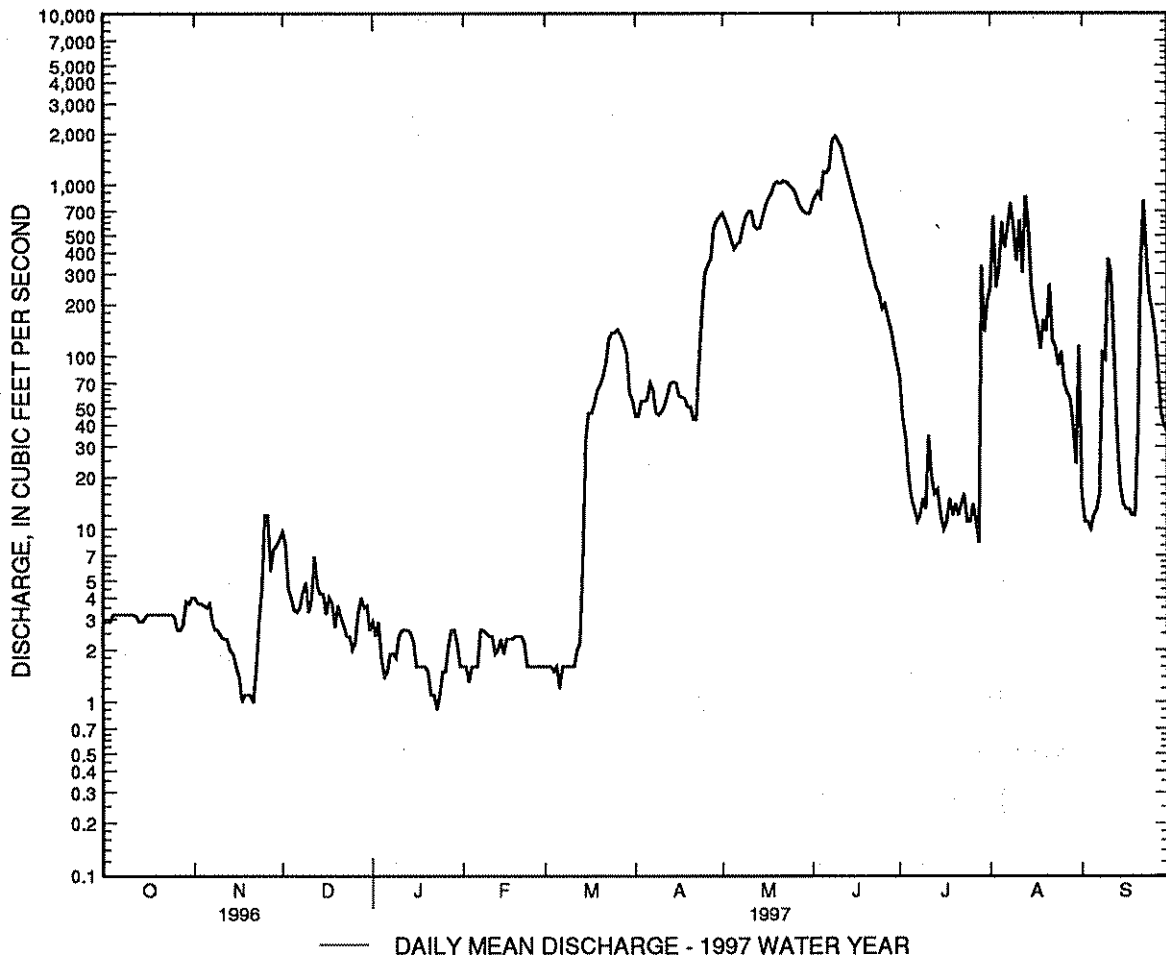
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1997, BY WATER YEAR (WY)

MEAN	22.0	21.9	7.45	4.00	6.01	34.1	108	333	301	114	176	94.6
MAX	139	148	42.0	19.0	73.4	192	382	736	1057	418	1062	660
(WY)	1986	1995	1987	1987	1987	1985	1987	1979	1995	1991	1991	1991
MIN	.000	.000	.000	.000	.000	.000	.000	.26	2.15	3.17	7.60	.000
(WY)	1978	1977	1977	1976	1976	1976	1976	1981	1977	1980	1978	1978

08382600 PECOS RIVER ABOVE CANON DEL UTA NEAR COLONIAS, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1976 - 1997	
ANNUAL TOTAL	14798.85		66513.59		106	
ANNUAL MEAN	40.4		182		245	1991
HIGHEST ANNUAL MEAN					13.3	1978
LOWEST ANNUAL MEAN					2960	Aug 11 1981
HIGHEST DAILY MEAN	2490	Jul 11	1930	Jun 9		
LOWEST DAILY MEAN	.00	Jun 18	.90	Jan 23	.00	Jan 1 1976
ANNUAL SEVEN-DAY MINIMUM	.27	Jun 16	1.2	Nov 16	.00	Jan 1 1976
INSTANTANEOUS PEAK FLOW			2260	Jun 8	12400 ^a	Jun 20 1982
INSTANTANEOUS PEAK STAGE			8.20	Jun 8	11.53	Jul 11 1996
INSTANTANEOUS LOW FLOW			.00	Jan 23	.00	Jan 1 1976
ANNUAL RUNOFF (AC-FT)	29350		131900		76580	
10 PERCENT EXCEEDS	46		676		336	
50 PERCENT EXCEEDS	3.3		13		7.3	
90 PERCENT EXCEEDS	.95		1.6		.00	

e Estimated

a-From rating curve extended above 1,200 ft³/s, on basis of step-backwater analysis of channel.

RIO GRANDE BASIN

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE. NM

LOCATION.--Lat 35°03'35", long 104°45'41", in NE¹/4SE¹/4SE¹/4 sec.25, T.10 N., R.20 E., Guadalupe County, Hydrologic Unit 13060001, at south boundary Preston Beck Grant, on left bank 1.6 mi upstream from River Ranch, 5.8 mi southeast of Colonias, 9.1 mi northwest of Santa Rosa, and at mile 770.8.

DRAINAGE AREA.--2,340 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1976 to current year. Prior to October 1979, published as "above Los Esteros Reservoir."

GAGE.--Water-stage recorder. Elevation of gage is 4,760 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Diversions and ground-water withdrawals for irrigation of about 11,800 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	23	27	19	17	19	83	775	e780	e105	e335	e59
2	25	22	29	19	17	19	80	666	e870	e88	e690	e44
3	26	22	22	19	17	19	77	607	e904	e72	e370	e38
4	38	21	21	19	18	19	116	537	e852	e57	e365	e35
5	51	20	20	20	18	19	97	488	1220	e43	e620	e34
6	25	20	19	21	18	19	94	466	e1110	e38	e540	e33
7	33	20	19	20	19	19	90	482	e1170	e35	e650	e33
8	30	30	19	20	18	19	70	566	1910	e34	e810	e120
9	47	77	22	19	18	19	69	669	e1840	32	e775	e115
10	34	80	22	20	18	20	70	709	e1600	33	e420	e395
11	33	86	27	20	18	19	78	701	e1450	54	e650	e345
12	30	e77	29	19	18	20	88	668	e1330	66	e455	e240
13	29	e66	27	19	19	20	100	631	e1250	53	e860	e155
14	26	e56	28	18	19	31	104	670	e1000	55	e660	e63
15	33	e48	23	18	19	55	91	709	e930	57	e410	e41
16	e28	e40	22	18	19	70	75	763	e840	56	e275	e38
17	e25	e35	24	17	20	69	71	859	e750	e48	e195	e36
18	e23	41	26	17	20	79	62	941	e634	e40	e173	e36
19	e23	23	29	17	21	91	54	982	e506	e38	e180	e35
20	e24	18	29	17	20	97	55	977	e459	e38	e175	e60
21	e29	18	29	17	20	96	48	1030	e396	e37	e191	e345
22	e33	18	29	18	19	110	47	1070	e350	e38	e176	e860
23	e27	26	29	17	20	140	86	1070	e300	e39	e136	e510
24	e24	30	29	16	20	158	229	996	e265	e40	e120	e315
25	e23	85	28	16	20	150	337	946	e222	e37	e128	e225
26	e22	55	26	16	19	152	384	e920	e250	e33	e102	e205
27	e24	29	19	16	19	142	413	e830	e212	e34	e81	e165
28	e23	24	19	16	19	125	607	e760	e180	e33	e69	e110
29	24	32	19	16	---	111	681	e720	e155	e330	e56	e73
30	23	31	19	16	---	79	730	e710	e130	e235	e51	e59
31	23	---	19	17	---	73	---	e700	---	e230	e121	---
TOTAL	883	1173	749	557	527	2078	5186	23618	23865	2128	10839	4822
MEAN	28.5	39.1	24.2	18.0	18.8	67.0	173	762	796	68.6	350	161
MAX	51	86	29	21	21	158	730	1070	1910	330	860	860
MIN	22	18	19	16	17	19	47	466	130	32	51	33
AC-FT	1750	2330	1490	1100	1050	4120	10290	46850	47340	4220	21500	9560

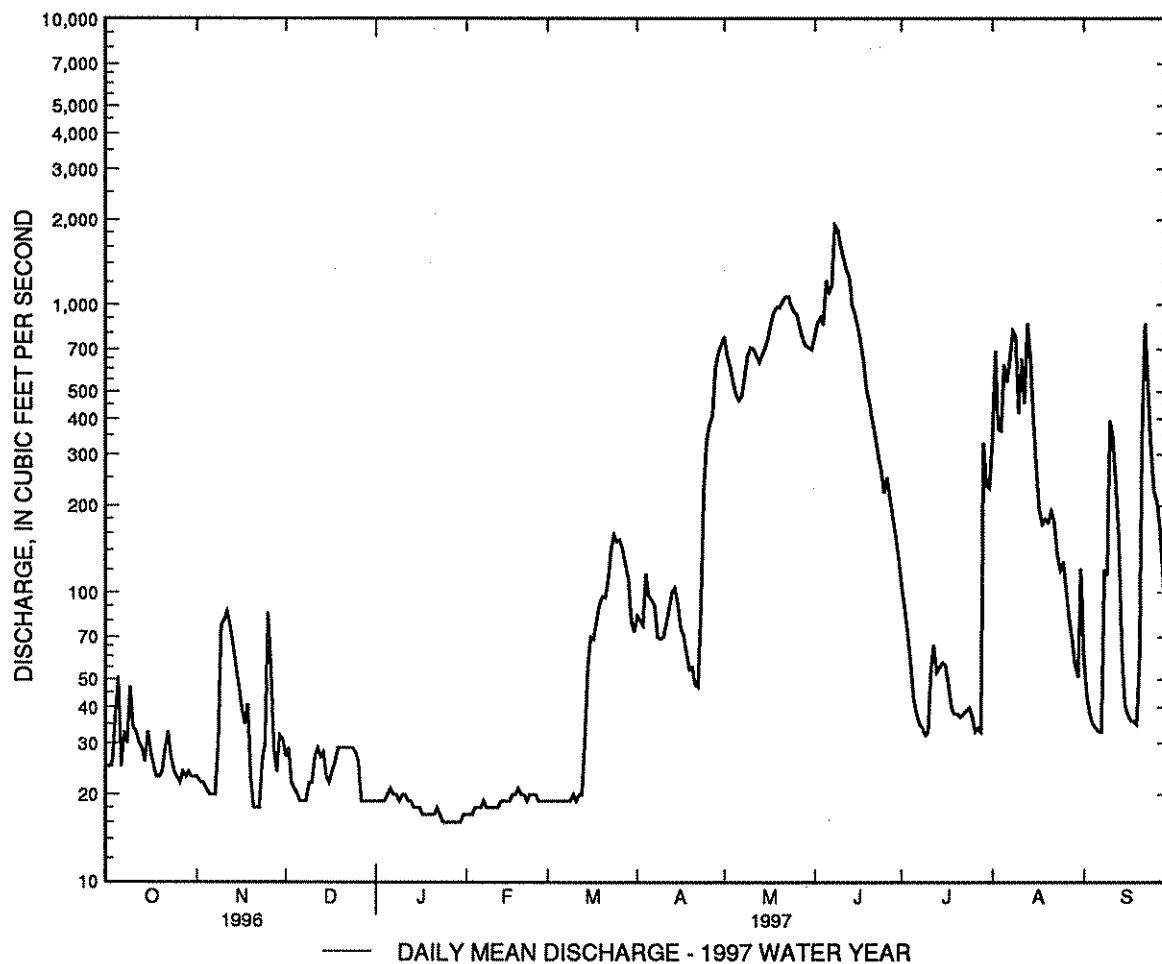
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1997, BY WATER YEAR (WY)

MEAN	42.1	40.8	24.8	21.9	23.4	49.8	122	348	322	147	227	128
MAX	147	176	68.7	46.1	106	207	415	768	945	440	1077	683
{WY}	1986	1995	1987	1987	1987	1985	1987	1985	1979	1991	1991	1991
MIN	6.50	9.53	7.77	7.74	6.40	5.69	4.99	7.93	8.87	18.6	16.1	6.12
{WY}	1979	1982	1978	1978	1978	1978	1978	1981	1977	1980	1978	1978

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1976 - 1997	
ANNUAL TOTAL	29995		76425		129	
ANNUAL MEAN	82.0		209		265	
HIGHEST ANNUAL MEAN					26.1	
LOWEST ANNUAL MEAN					1991	
HIGHEST DAILY MEAN	4310	Jul 10	1910	Jun 8	4310	Jul 10 1996
LOWEST DAILY MEAN	15	Jul 23	16	Jan 24	4.5	Apr 27 1978
ANNUAL SEVEN-DAY MINIMUM	16	Jul 19	16	Jan 24	4.7	Apr 23 1978
INSTANTANEOUS PEAK FLOW			3180	Jun 8	16000 ^a	Jul 11 1996
INSTANTANEOUS PEAK STAGE			11.83	Jun 8	19.06	Jul 11 1996
INSTANTANEOUS LOW FLOW			14	Jan 26	2.9	Aug 21 1984
ANNUAL RUNOFF (AC-FT)	59500		151600		93410	
10 PERCENT EXCEEDS	79		724		363	
50 PERCENT EXCEEDS	26		47		30	
90 PERCENT EXCEEDS	19		19		9.6	

e Estimated

a-From rating curve extended above 1,500 ft³/s, on basis of slope-area measurement of peak flow.

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	
MAR 1997 18...	1345	72	390	8.6	18.0	17.0	650	9.4	115	
DATE		HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
MAR 1997 18...	180	59	7.0	7.0	0.2	1.1	111	86	5.0	
DATE		FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	
MAR 1997 18...	0.30	9.7	242	18	7.0	486	95	50		

RIO GRANDE BASIN

317

08382730 LOS ESTEROS CREEK ABOVE SANTA ROSA LAKE, NM

LOCATION.--Lat 35°05'42", long 104°39'49", Guadalupe County, Hydrologic Unit 13060001, in Preston Beck Grant, on left bank 3.7 mi upstream from mouth, 4.9 mi northeast of Santa Rosa Dam, and 10.4 mi northeast of Santa Rosa. Mouth at Pecos River mile 763.0.

DRAINAGE AREA.--65.6 mi².

PERIOD OF RECORD.--July 1973 to current year. Prior to October 1979, published as "above Los Esteros Reservoir."

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,770 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No known diversions or ground-water withdrawals for irrigation upstream from station. Several observations of water temperature were made during the year. No flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.02	e.00	e.00	.22	e.00
2	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00	.01	e.00
3	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00	.00	e.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	.00
5	14	.00	.00	.00	.00	.00	.00	.00	10	e.00	.00	.30
6	3.2	.00	.00	.00	.00	.00	.00	.00	2.2	e.00	.00	.70
7	.18	.00	.00	.00	.00	.00	.00	.00	2.2	e.00	.00	.53
8	.01	.00	.00	.00	.00	.00	.00	e25	386	.00	.00	.75
9	.00	.00	.00	.00	.00	.00	.00	e4.6	102	.00	.00	.34
10	.00	.00	.00	.00	.00	.00	.00	e.06	e5.3	.00	345	e.40
11	.00	.00	.00	.00	.00	.00	.00	e.00	e.67	.00	e642	.32
12	.00	.00	.00	.00	.00	.00	.00	e.00	.23	.00	e81	.28
13	.00	.00	.00	.00	.00	.00	.00	e.00	e.25	.00	e789	e.28
14	.00	.00	.00	.00	.00	.00	.00	e.00	e.40	.00	e936	e.20
15	.00	.00	.00	.00	.00	.00	.00	e.00	e.11	.00	e57	.08
16	.00	.00	.00	.00	.00	.00	.00	e.00	e.07	.00	e.98	.13
17	.00	.00	.00	.00	.00	.00	.00	e.00	e.23	.00	e.00	e.13
18	.00	.00	.00	.00	.00	.00	.00	e.00	e.27	.00	e.00	e.06
19	.00	.00	.00	.00	.00	.00	.00	e.00	.15	.00	e.00	e.07
20	.00	.00	.00	.00	.00	.00	.00	e.00	.16	.00	e.00	e10
21	.00	.00	.00	.00	.00	.00	.00	e.00	.06	.00	e.00	e14
22	.00	.00	.00	.00	.00	.00	.00	e.00	.06	.00	e.00	e40
23	.00	.00	.00	.00	.00	.00	.72	e.00	e.06	.00	e.00	e.95
24	.00	.00	.00	.00	.00	.00	2.5	e.00	e.00	.00	e.00	e.00
25	.00	.00	.00	.00	.00	.00	5.7	e.00	e3.6	.00	e.00	e.00
26	.00	.00	.00	.00	.00	.00	26	e.00	e.53	.00	e.00	e.00
27	.00	.00	.00	.00	.00	.00	24	e.00	e.00	.00	e.00	e.00
28	.00	.00	.00	.00	.00	.00	15	e.00	e.00	.00	e.00	e.00
29	.00	.00	.00	.00	---	.00	1.4	e.00	e.00	.41	e.00	e.00
30	.00	.00	.00	.00	---	.00	.14	e.00	e.00	2.2	e.00	e.00
31	.00	---	.00	.00	---	.00	---	e.00	---	1.4	e.00	---
TOTAL	17.39	0.00	0.00	0.00	0.00	0.00	75.46	29.68	514.55	4.01	2851.21	69.52
MEAN	.56	.000	.000	.000	.000	.000	2.52	.96	17.2	.13	92.0	2.32
MAX	14	.00	.00	.00	.00	.00	26	25	386	2.2	936	40
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	34	.00	.00	.00	.00	.00	150	59	1020	8.0	5660	138

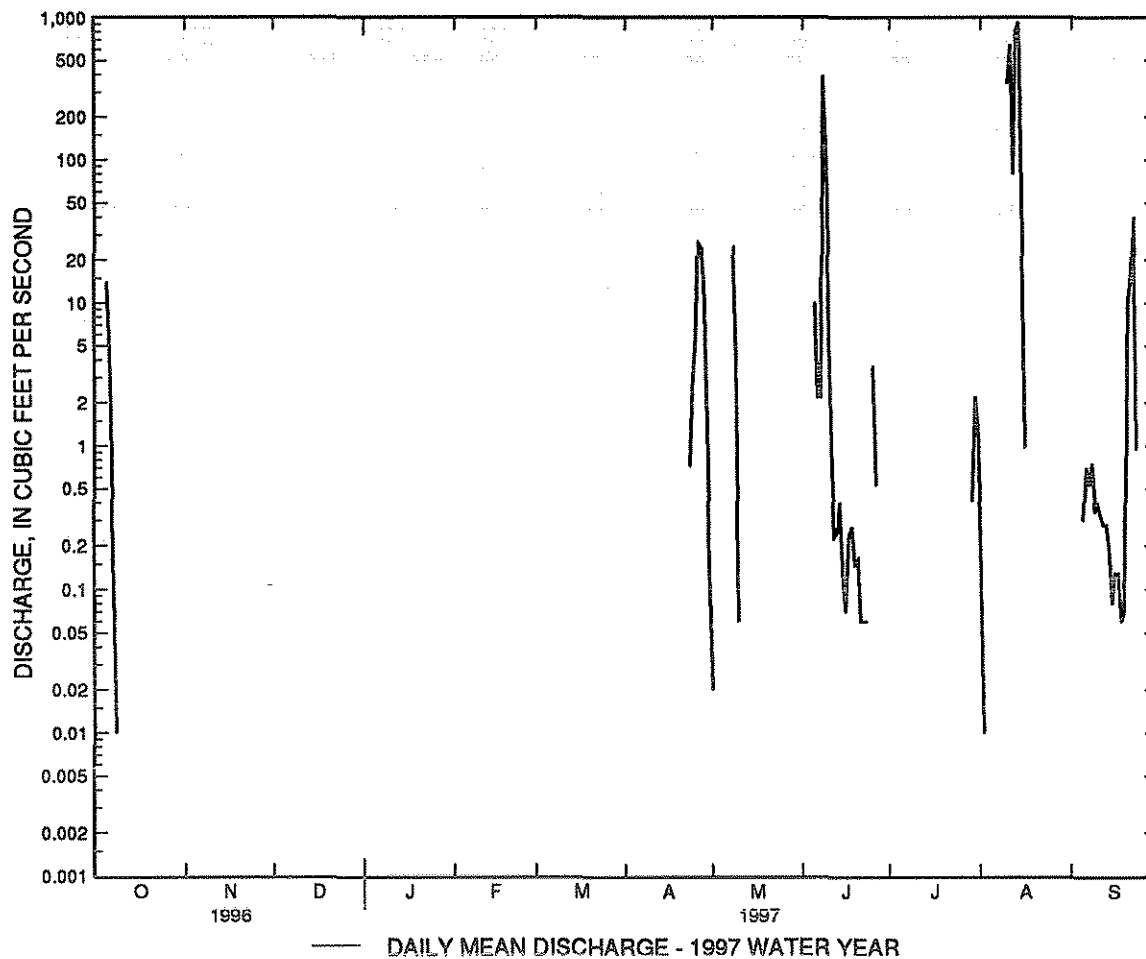
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1997, BY WATER YEAR (WY)

MEAN	.34	.19	.000	.003	.17	.003	.17	.85	4.84	4.51	9.90	2.75
MAX	5.20	2.26	.007	.028	3.74	.045	2.52	10.9	37.9	37.2	92.0	18.1
(WY)	1986	1979	1979	1987	1987	1987	1997	1994	1995	1996	1997	1988
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1974	1974	1974	1974	1974	1974	1974	1974	1974	1980	1979	1973

08382730. LOS ESTEROS CREEK ABOVE SANTA ROSA LAKE, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1973 - 1997
ANNUAL TOTAL	1248.99	3561.82	
ANNUAL MEAN	3.41	9.76	2.03
HIGHEST ANNUAL MEAN			9.76
LOWEST ANNUAL MEAN			.021
HIGHEST DAILY MEAN	770 Jul 10	936 Aug 14	936 Aug 14 1997
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	.00 Jul 27 1973
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Oct 9	.00 Aug 4 1973
INSTANTANEOUS PEAK FLOW		4190 Aug 13	9200 ^a Aug 3 1993
INSTANTANEOUS PEAK STAGE		9.55 Aug 13	13.22 Aug 3 1993
INSTANTANEOUS LOW FLOW		.00 Oct 1	.00 Jul 1 1973
ANNUAL RUNOFF (AC-FT)	2480	7060	1470
10 PERCENT EXCEEDS	.00	.46	.04
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated

a-From rating curve extended 70 ft³/s, on basis of slope-area measurements at gage heights, 6.5 ft and 9.3 ft.

08382810 SANTA ROSA LAKE NEAR SANTA ROSA, NM

LOCATION.--Lat 35°01'47", long 104°41'30", Guadalupe County, Hydrologic Unit 13060001, in Jose Perea Grant, near outlet gates of Santa Rosa Dam on Pecos River, approximately 7.0 mi north of Santa Rosa, and at mile 757.2.

DRAINAGE AREA.--2,430 mi², approximately.

PERIOD OF RECORDS.--April 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Lake is formed by earth and rockfill dam on Pecos River. Storage began on Apr. 22, 1980. Capacity, 439,900 acre-ft, from capacity table effective October 1990, between elevations 4,630.0 ft, invert of outlet structure, and 4,797.0 ft, crest of spillway. Capacity by original survey was 447,100 acre-ft. No dead storage. Lake was created primarily for flood, irrigation, and sediment control. U.S. Army Corps of Engineers satellite telemeter at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 120,481 acre-ft, May 8, 1987, elevation, 4,749.71 ft; no storage for many days, July-Sept., 1980 and June-Aug., 1981.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 99,140 acre-ft, June 9, elevation, 4,745.56 ft; minimum, 32,280 acre-ft, March 26, elevation, 4,720.38 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36810	37120	37900	37960	38910	39740	33670	44130	83890	84860	87570	80990
2	36810	37160	37900	37980	38970	39780	33810	45230	85300	84860	89180	81020
3	36810	37140	37920	38000	38930	39860	34020	46170	86890	84890	89840	80990
4	36910	37200	37970	38000	38910	39820	34130	47010	88360	84860	89700	81020
5	36940	37230	37990	38000	38910	39800	34220	47810	91310	84890	89320	81250
6	37000	37230	38050	38000	38930	39820	34420	48580	92360	84930	88080	81420
7	37010	37270	38080	38040	38990	39820	34600	49330	93320	84960	87160	81480
8	37050	37270	38100	38040	38970	39820	34720	50430	97220	84990	86720	81710
9	37140	37330	38120	38150	38990	39820	34810	51830	99140	84990	85870	81840
10	37050	37340	38120	38190	39090	39840	34900	53070	98840	84960	85370	82700
11	37120	37340	38120	38190	39150	39860	35000	54320	97590	84930	85160	83330
12	37180	37330	38140	38190	39110	39860	35160	55410	95510	84960	83630	83590
13	37180	37360	38160	38210	39150	39860	35340	56420	93960	84960	84360	83690
14	37160	37380	38160	38350	39170	39900	35580	57380	92650	84930	83760	83730
15	37110	37270	38160	38360	39180	40020	35760	58530	91030	84890	82500	83790
16	37070	37290	38160	38460	39200	40200	35840	59770	89810	85030	80630	83830
17	37050	37360	38160	38500	39240	40340	35930	61220	88870	85100	78690	83830
18	37010	37380	38160	38520	39300	40460	35980	62720	88290	85060	78150	83830
19	36960	37490	38160	38540	39340	40700	36020	64300	88010	85030	78250	84020
20	36940	37550	38210	38580	39360	40580	36040	66130	87640	85030	78600	84460
21	37030	37440	38270	38620	39420	38950	36060	67960	87190	85060	79210	85230
22	37050	37450	38290	38660	39440	37100	36110	69860	86650	85060	79600	87940
23	37070	37450	38330	38680	39440	35340	36260	71740	86110	85060	79790	89010
24	37070	37470	38330	38690	39480	33600	36760	73450	85500	85030	80020	89700
25	37050	37600	38340	38750	39540	32370	37610	75150	84960	85030	80210	90260
26	37030	37600	38380	38770	39580	32280	38460	76660	84260	85030	80410	90640
27	37030	37640	38380	38770	39640	32700	39220	78020	84190	85030	80470	90920
28	37030	37680	38420	38770	39680	33000	40380	79240	84490	85130	80570	91030
29	37090	37730	38440	38810	---	33230	41630	80340	84660	86040	80700	91170
30	37140	37820	38440	38830	---	33420	42890	81480	84800	86210	80730	91310
31	37090	---	38490	38930	---	33540	---	82570	---	86890	80930	---
MAX	37180	37820	38490	38930	39680	40700	42890	82570	99140	86890	89840	91310
MIN	36810	37120	37900	37960	38910	32280	33670	44130	83890	84860	78150	80990
(+)	4722.74	4723.14	4723.50	4724.00	4724.38	4721.10	4725.96	4740.82	4741.49	4742.11	4740.32	4743.39
(++)	-200	+730	+670	+440	+750	-6140	+9350	+39680	+2230	+2090	-5960	+10380

CAL YR 1996 MAX 68410 MIN 3600 (++) -19990

WTR YR 1997 MAX 99140 MIN 32280 (++) +54020

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

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

RIO GRANDE BASIN

08382830 PECOS RIVER BELOW SANTA ROSA DAM, NM

LOCATION.--Lat 35°01'27", long 104°41'20", Guadalupe County, Hydrologic Unit 13060001, in Jose Perea Grant, on right bank 0.2 mi downstream from Santa Rosa Dam, 5.7 mi north of Santa Rosa, and at mile 757.0.

DRAINAGE AREA.--2,430 mi², approximately.

PERIOD OF RECORD.--January 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,640 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 31, 1980, at datum about 1.2 ft higher. Prior to Mar. 26, 1982, at site 195 ft upstream at datum 2.36 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow completely regulated by Santa Rosa Lake (08382810) 0.2 mi upstream since April 1980. Diversions and ground-water withdrawals for irrigation of about 12,000 acres, 1959 determination, upstream from station. Several observations of water temperatures were made during the year. U.S. Army Corps of Engineers satellite telemeter at station. No flow for many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	234	.73	.26	.00	.20	.22	.13	.32	.00	.21	.18	.21
2	.68	.49	.32	.00	.17	.24	.13	.36	.00	.16	.22	.21
3	.42	.55	.37	.00	.11	.27	.16	.37	.00	.13	.26	.21
4	.43	.30	.24	.00	.06	.28	.16	.29	.00	.11	486	.28
5	.39	.08	.14	.00	.07	.29	.11	.13	.05	.11	961	1.0
6	.46	.07	.86	e.00	.07	.28	.08	.00	304	.17	1030	.75
7	.91	.00	.56	e.00	.09	.25	.11	.07	569	.17	1100	.68
8	1.1	.00	.43	.00	.08	.00	.14	.12	566	.17	1100	.73
9	1.1	.02	.41	.00	.10	.00	.08	.17	1180	.17	1100	.68
10	1.1	.04	.33	e.00	.18	.05	.09	.24	1720	.17	1090	.23
11	1.1	.04	.30	e.00	.20	.08	.08	.54	1920	.17	1090	.00
12	1.2	.06	.31	e.00	.11	.08	.31	.38	2100	.17	1090	.00
13	1.4	.08	.23	e.00	.14	.01	.44	.00	1620	.17	1090	.04
14	1.6	.08	.09	e.00	.14	.00	.76	.00	1330	.18	1090	.13
15	1.4	.08	.08	e.00	.15	.00	.98	.00	1330	.12	1090	.40
16	1.2	.04	.07	e.00	.20	.02	.80	.00	1050	.17	1080	.14
17	1.3	.12	e.06	e.00	.19	.04	.04	.00	878	.21	1080	.00
18	1.2	.04	e.05	e.00	.23	.04	.02	.00	610	.08	527	.00
19	1.1	.03	e.03	.00	.15	.05	.00	.00	389	.16	.33	.19
20	1.1	.09	e.02	.00	.56	209	.00	.00	391	.19	.31	2.0
21	.86	.13	.01	.00	.32	905	.01	.00	390	.17	.31	.22
22	.78	.13	.00	.00	.28	1080	.02	.00	390	.17	.31	.11
23	.93	.11	.02	.00	.26	1080	.09	.00	390	.17	.31	.00
24	1.0	.08	.00	.00	.26	1110	.16	.00	391	.17	.31	.03
25	1.0	.08	.01	.00	.26	838	e.20	.10	390	.16	.31	.05
26	1.0	.12	.02	.01	.24	241	.04	.23	389	.17	.31	.06
27	.62	.15	.01	.15	.18	.22	.11	.25	168	.15	.31	.08
28	.54	.17	.02	.29	.22	.18	.18	.21	.29	.17	.31	.12
29	.60	.12	.04	.23	---	.14	.12	.07	.26	.21	.31	.20
30	.68	.23	.04	.25	---	.13	.05	.00	.25	.17	.24	.28
31	.74	---	.03	.22	---	.13	---	.00	---	.24	.21	---
TOTAL	261.94	4.26	5.36	1.15	5.22	5466.00	5.60	3.85	18465.85	5.14	15008.54	9.03
MEAN	8.45	.14	.17	.037	.19	176	.19	.12	616	.17	484	.30
MAX	234	.73	.86	.29	.56	1110	.98	.54	2100	.24	1100	2.0
MIN	.39	.00	.00	.00	.06	.00	.00	.00	.00	.08	.18	.00
AC-FT	520	8.4	11	2.3	10	10840	11	7.6	36630	10	29770	18

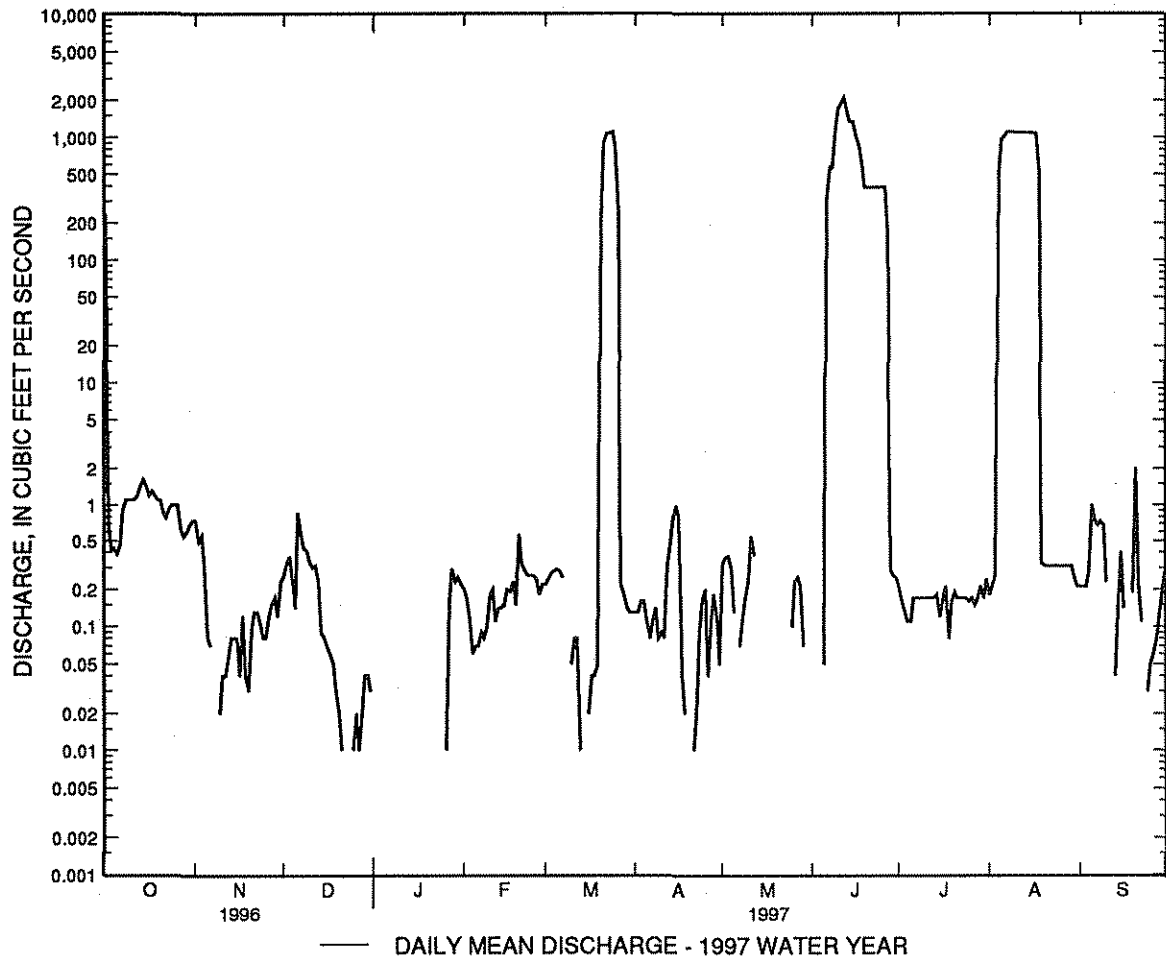
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1997, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	15.0	12.2	8.43	16.8	36.1	45.9	95.8	283	297	172	222	141						
MAX	112	145	59.0	188	249	275	655	672	1026	561	619	649						
(WY)	1993	1987	1987	1996	1995	1995	1989	1989	1995	1983	1994	1988						
MIN	.018	.041	.081	.037	.059	.064	.072	.12	2.05	.047	.056	.040						
(WY)	1990	1990	1990	1997	1990	1990	1983	1997	1984	1989	1996	1989						

08382830 PECOS RIVER BELOW SANTA ROSA DAM, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL TOTAL	41466.42		39241.94		116	
ANNUAL MEAN	113		108		215	
HIGHEST ANNUAL MEAN					35.8	
LOWEST ANNUAL MEAN					2100	
HIGHEST DAILY MEAN	1200	Jun 15	2100	Jun 12		1995
LOWEST DAILY MEAN	.00	Jul 12	.00	Nov 7		1981
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 15	.00	Jan 1		Jun 12 1997
ANNUAL RUNOFF (AC-FT)	82250		77840		84370	Jul 31 1982
10 PERCENT EXCEEDS	664		390		490	Mar 5 1983
50 PERCENT EXCEEDS	.31		.17		1.0	
90 PERCENT EXCEEDS	.02		.00		.04	

e Estimated



08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Lat 34°56'36", long 104°41'55", in NW¹/4SE¹/4 sec.3, T.8 N., R.21 E., Guadalupe County, Hydrologic Unit 13060001, on left bank, 0.4 mi downstream from bridge on Interstate Highway 40, 0.6 mi upstream from bridge on Parker Street in Santa Rosa, 1.9 mi upstream from El Rito Creek, and at mile 748.4.

DRAINAGE AREA.--2,650 mi², approximately (contributing area).

PERIOD OF RECORD.--Water years 1905-07, 1959 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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, OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)		
MAR 1997 19...	0745	8.1	2690	7.7	16.0	8.5	657	9.8	98	<10	151	
DATE		CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL DIS. (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00665)	PHOS- PHORUS ORTHOS DIS- SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	
MAR 1997 19...	0	124	<0.010	0.070	0.160	<0.20	<0.20	<0.010	<0.010	<0.010	0.7	
DATE		ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
MAR 1997 19...	12	<2.0	<1	26	<2.0	<2.0	<2.0	<2.0	6.0	<2.0	39	
DATE		MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR 1997 19...		<0.10	<2.0	7.0	<1	<1	<2.0	10	<2.0	40	0.87	38

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM

LOCATION.--Lat 34°43'48", long 104°31'28", in NE¹/4SE¹/4NW¹/4 sec.20, T.6 N., R.23 E., Guadalupe County, Hydrologic Unit 13060001, on left bank 9.0 mi southeast of Puerto de Luna, 17.5 mi upstream from Sumner Dam, and at mile 719.5.

DRAINAGE AREA.--3,970 mi², approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to current year.

REVISED RECORDS.--WSP 1512: 1939.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,311.34 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 15, 1954, at datum 1.0 ft higher.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow regulated by Santa Rosa Lake (station 08382810) 37.7 mi upstream since April 1980. Diversions for irrigation of about 10,280 acres, 1970 determination, upstream from station. Spring discharge from Blue Hole and Agua Negro upstream from station contribute a substantial inflow. Discharge represents inflow to Lake Sumner. Several observations of water temperature were made during the year. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--41 years (water years 1939-79), 209 ft³/s, 151,400 acre-ft/yr, prior to completion of Santa Rosa Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1886 occurred June 2, 1937, when peak at Santa Rosa was 55,200 ft³/s, and peak inflow to Lake Sumner was about 75,000 ft³/s. Flood of July 24, 1895, was reported as "highest in 10 years." Other major floods occurred on June 9, 1903, Sept. 30, 1904, and May 1, 1914.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	584	87	88	77	85	88	e87	85	77	78	269	84
2	233	84	84	78	87	86	85	82	74	74	147	78
3	116	84	86	77	87	85	95	82	70	71	133	79
4	111	85	85	76	86	84	99	82	65	74	141	81
5	128	84	84	77	87	84	86	81	134	73	971	83
6	103	82	84	84	88	84	82	73	97	93	1110	205
7	92	82	83	87	100	84	83	71	640	188	1240	104
8	90	82	82	101	94	84	83	112	1700	153	1300	92
9	99	82	82	91	92	84	83	199	1460	79	1330	86
10	96	81	81	86	89	83	83	89	1830	79	1370	681
11	87	82	81	94	89	83	82	85	1900	79	1480	317
12	86	83	80	e96	88	82	81	81	2110	82	1410	110
13	82	83	81	e95	90	84	85	79	2070	78	1440	94
14	79	83	82	e95	90	83	82	73	1730	78	1490	90
15	85	84	81	e94	89	83	80	74	1740	75	1480	88
16	83	86	82	e94	88	86	80	98	1680	76	1460	91
17	80	84	81	e93	88	85	79	230	1270	79	1450	79
18	79	84	103	e92	87	89	79	92	1250	80	1710	77
19	84	84	116	e93	94	88	80	86	677	81	465	321
20	85	85	103	92	94	89	79	84	651	82	169	176
21	93	85	82	93	96	440	79	88	640	82	164	181
22	90	83	79	90	97	1080	78	100	639	86	127	139
23	87	83	78	89	91	1110	81	72	637	88	117	104
24	77	82	77	88	90	1140	378	77	631	88	114	95
25	85	83	77	88	90	1150	410	79	708	87	108	88
26	84	84	77	90	92	644	211	73	626	90	99	85
27	83	84	76	89	89	213	130	71	621	99	92	83
28	84	84	77	88	89	e110	104	71	205	107	95	80
29	83	86	77	86	---	e93	92	74	98	187	90	79
30	82	89	78	86	---	e90	87	68	85	192	90	80
31	84	---	77	85	---	e89	---	86	---	1630	86	---
TOTAL	3414	2514	2584	2744	2526	7857	3323	2797	26115	4488	21747	4030
MEAN	110	83.8	83.4	88.5	90.2	253	111	90.2	871	145	702	134
MAX	584	89	116	101	100	1150	410	230	2110	1630	1710	681
MIN	77	81	76	76	85	82	78	68	65	71	86	77
AC-FT	6770	4990	5130	5440	5010	15580	6590	5550	51800	8900	43140	7990

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1997, BY WATER YEAR (WY)

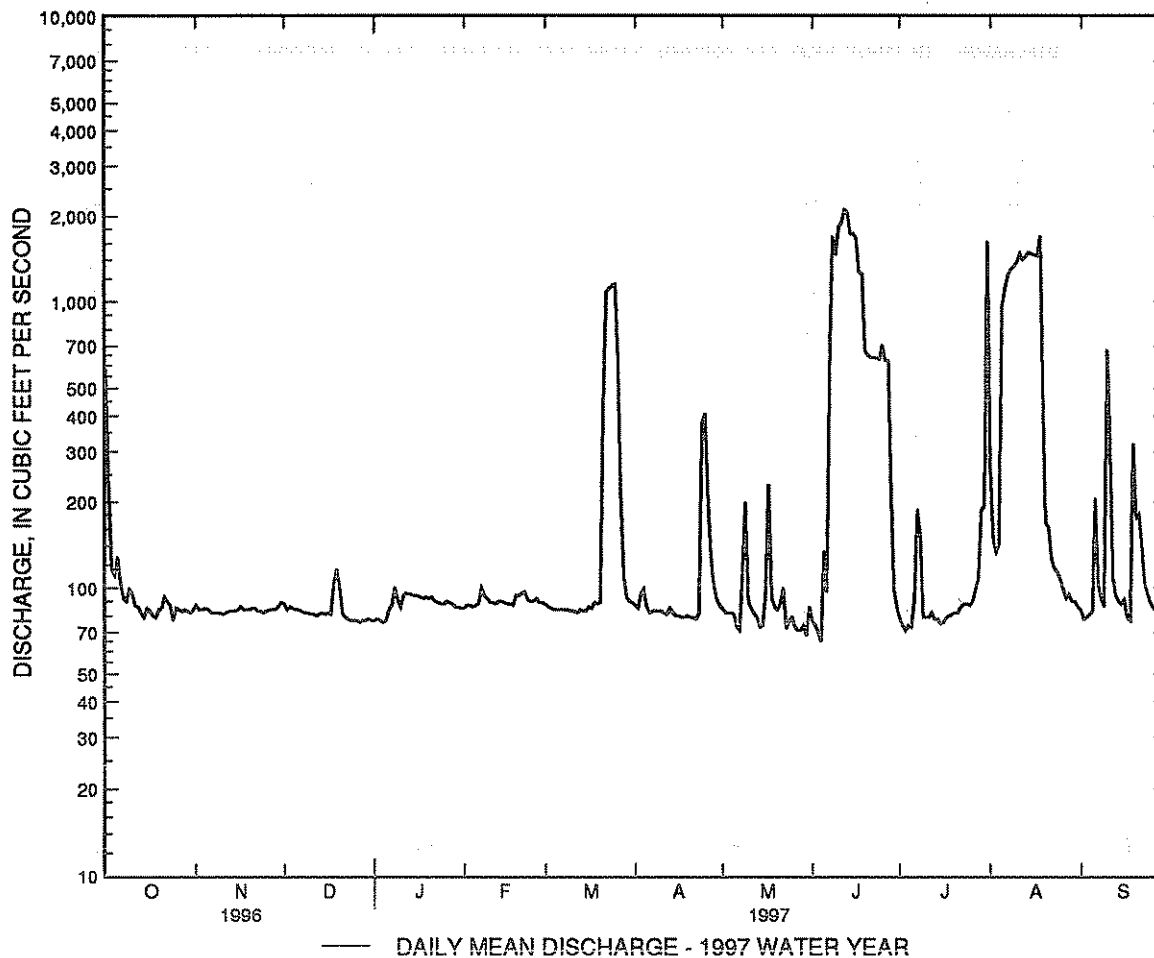
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	104	96.5	94.8	101	114	127	168	352	394	281	336	275						
MAX	225	232	147	252	306	371	685	744	1211	725	706	948						
(WY)	1986	1987	1987	1996	1994	1995	1989	1989	1995	1983	1994	1988						
MIN	73.1	79.5	73.5	80.9	76.7	73.5	67.9	64.0	66.1	72.9	86.1	66.4						
(WY)	1988	1983	1991	1993	1984	1989	1984	1982	1991	1989	1996	1990						

RIO GRANDE BASIN

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL TOTAL	70005		84139		204	
ANNUAL MEAN	191		231		122	
HIGHEST ANNUAL MEAN					318	
LOWEST ANNUAL MEAN					122	
HIGHEST DAILY MEAN	1270	Jun 15	2110	Jun 12	3510	Oct 17 1985
LOWEST DAILY MEAN	45	Jul 29	65	Jun 4	39	Aug 4 1987
ANNUAL SEVEN-DAY MINIMUM	58	Jul 28	73	May 24	43	Jul 29 1987
INSTANTANEOUS PEAK FLOW			7390	Jul 31	48600 ^a	Sep 1 1942
INSTANTANEOUS PEAK STAGE			7.50	Jul 31	17.00	Sep 1 1942
INSTANTANEOUS LOW FLOW			56	Oct 24	11	Jan 31 1951
ANNUAL RUNOFF (AC-FT)	138900		166900		147800	
10 PERCENT EXCEEDS	679		640		613	
50 PERCENT EXCEEDS	83		87		86	
90 PERCENT EXCEEDS	64		78		68	

e Estimated

a-From rating curve extended above 7,400 ft³/s, on basis of flow "at Santa Rosa".

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937-66, 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
NOV 1996 06...	1115	87	2680	7.9	12.0	10.0	651	9.2	96	<10	1700
MAR 1997 19...	1030	81	2930	8.4	17.5	12.0	663	9.8	106	<10	1700
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 CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD CACO3 (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 1996 06...	1600	570	68	100	1	2.2	142	0	116	109	1600
MAR 1997 19...	1600	590	67	98	1	2.2	127	4	110	107	1600
DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	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)
NOV 1996 06...	140	0.70	12	2560	<0.010	<0.050	0.320	<0.20	<0.20	<0.010	0.030
MAR 1997 19...	150	0.70	12	2590	<0.010	<0.050	0.160	<0.20	<0.20	<0.010	<0.010
DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	
NOV 1996 06...	0.030	0.60	9.0	<2.0	<1	29	<2.0	111	<2.0	<2.0	
MAR 1997 19...	<0.010	1.2	--	--	--	--	--	110	--	--	
DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	
NOV 1996 06...	<2.0	3.0	<9.0	<2.0	3.0	<0.10	3.0	4.0	<1	<1	
MAR 1997 19...	--	--	<9.0	--	--	--	--	--	--	--	

RIO GRANDE BASIN

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)
NOV 1996										
06...	<2.0	6.0	<2.0	<0.2	20	210	2	<1	6	<5
MAR 1997										
19...	--	--	--	--	--	--	--	--	--	--

DATE	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1996										
06...	1	5100	<10	470	<0.01	10	<2.0	37	8.7	86
MAR 1997										
19...	--	--	--	--	--	--	--	24	5.2	83

08384000 LAKE SUMNER NEAR FORT SUMNER, NM

LOCATION.--Lat 34°36'30", long 104°23'04", in SE¹/4SW¹/4 sec.34, T.5 N., R.24 E., DeBaca County, Hydrologic Unit 13060001, near center of dam on Pecos River, 5.0 mi northeast of Guadalupe, 12.2 mi northwest of Fort Sumner, and at mile 702.0.

DRAINAGE AREA.--4,390 mi², approximately (contributing area).

PERIOD OF RECORD.--December 1938 to September 1965 (monthend elevations and contents), October 1965 to current year. Monthend elevations September 1937 to November 1938 published in reports of Pecos River Commission. Elevations and contents May 27 1937, to June 10, 1937, in WSP 842. Prior to October 1974, published as "Alamogordo Reservoir."

REVISED RECORDS.--WSP 1732: 1939-54 (contents). WSP 1923: 1939-53(M).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). April 1, 1946, to Sept. 30, 1957, water-stage recorder above elevation 4,234.25 ft, nonrecording gage below. Oct. 1, 1958 to current year, water-stage recorder above elevation 4,238.00 ft, nonrecording gage below.

REMARKS.--Lake is formed by earthfill dam; completed and storage began in August 1937. Capacity, 94,750 acre-ft, from capacity table dated August 1992, between elevation 4,200.0 ft, sill of outlet gate, and elevation 4,275.0 ft, normal operating level. Capacity by original survey was 132,200 acre-feet. Dead storage 2,500 acre-feet. Reservoir is used to store water for irrigation.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 138,300 acre-ft, May 23-30, June 1-10, July 21, Sept. 22, 23, 30, Oct. 12, Nov. 4, 5, 30, Dec. 23, 24, 1941, elevation, 4,275.00 ft; maximum elevation, 4,276.10 ft June 3, Sept. 8, 1958; no storage, July 28 to Aug. 2, 1951, elevation, 4,200.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 42,790 acre-ft, June 17, elevation, 4,260.65 ft; minimum, 19,720 acre-ft, October 1, elevation, 4,250.17 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 0800 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19720	20310	24490	28350	33560	37840	26570	30000	29380	36240	40230	35690
2	20680	20440	24660	28550	33630	37970	26550	30180	29310	36060	38380	35560
3	20880	20630	24760	28700	33830	38200	26440	30250	29200	35960	36210	35460
4	20920	20800	24870	28830	33920	38300	26740	30380	29070	35740	34040	35290
5	20920	20920	25070	28920	34020	38410	26740	30450	28920	35640	32030	35220
6	21160	21050	25290	29000	34120	38510	26550	30430	29090	35560	31520	35170
7	21140	21190	25360	29180	34360	38640	26550	30430	29160	35460	31130	35290
8	21090	21330	25490	29800	34500	38820	26530	30000	30900	35510	30990	35270
9	21070	21450	25670	29910	34580	38800	26370	30120	36340	35590	30990	35170
10	21040	21610	25850	30150	34750	38670	26390	30450	36840	35510	30950	35070
11	20980	21760	25990	30220	34920	38640	26270	30430	37760	35410	30860	36310
12	20970	21920	26050	30330	35120	38610	26150	30360	38980	35270	30950	36770
13	20920	22040	26190	30470	35220	38510	26110	30290	40570	35170	30900	36770
14	20870	22180	26290	30510	35310	38250	26090	30310	41870	35090	30880	36690
15	20830	22360	26450	30740	35460	38170	26150	30200	42200	34920	30900	36590
16	20760	22540	26570	30850	35660	38100	26150	30110	42560	34770	30860	36510
17	20730	22550	26630	31060	35810	38070	26090	30040	42790	34650	30760	36440
18	20610	22750	26700	31310	36010	35760	26110	30290	42430	34510	31360	36360
19	20540	22950	26800	31540	36190	33280	26070	30250	41850	34380	34700	36260
20	20560	23040	26900	31750	36390	30810	26110	30090	40490	34240	35410	36740
21	20510	23130	26780	31930	36640	28480	26110	30070	39090	34120	35640	36740
22	20440	23250	26920	32190	36770	26860	26010	30180	37920	33950	35910	36990
23	20440	23420	27130	32260	36890	26510	25970	30220	36510	33830	36190	37150
24	20420	23530	27170	32520	37070	26230	26090	30130	35140	33730	36210	37150
25	20460	23600	27320	32660	37120	25850	27650	30130	33760	33560	36360	37170
26	20340	23760	27500	32780	37320	25470	28680	30040	34310	33400	36340	37200
27	20310	23870	27690	32900	37450	26530	29090	29840	35220	33300	36260	37200
28	20270	24000	27780	32990	37710	26740	29420	29730	36060	33130	36140	37220
29	20270	24190	27880	33160	---	26800	29660	29640	36340	33180	36040	37100
30	20160	24360	28010	33300	---	26660	29890	29580	36340	33850	35890	37070
31	20170	---	28220	33490	---	26610	---	29420	---	35340	35760	---
MAX	21160	24360	28220	33490	37710	38820	29890	30450	42790	36240	40230	37220
MIN	19720	20310	24490	28350	33560	25470	25970	29420	28920	33130	30760	35070
(+)	4250.44	4252.81	4254.73	4257.05	4258.75	4253.96	4255.49	4255.28	4258.21	4257.81	4257.98	4258.50
(++)	+1870	+4190	+3860	+5270	+4220	-11090	+3270	-470	+6920	-1000	+420	+1310

CAL YR 1996 MAX 43320 MIN 5190 (++) -2110
WTR YR 1997 MAX 42790 MIN 19720 (++) +18770

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

RIO GRANDE BASIN

08384500 PECOS RIVER BELOW SUMNER DAM, NM

LOCATION.--Lat 34°36'15", long 104°23'14", sec.2, T.4 N., R.24 E., DeBaca County, Hydrologic Unit 13060003, on left bank 1,200 ft downstream from Sumner Dam, 2.9 mi upstream from Salado Creek, 4.6 mi northeast of Guadalupe, 12.2 mi northwest of Fort Sumner, and at mile 701.7.

DRAINAGE AREA.--4,390 mi², approximately (contributing area).

PERIOD OF RECORD.--October 1912 to April 1926, August 1926 to current year. Monthly discharge only for some periods, published in WSP 1312. October 1944 to September 1974, published as "below Alamogordo Dam." Prior to October 1944, published as "near Guadalupe."

REVISED RECORDS.--WSP 1512: 1932. WSP 1632: 1942. WSP 1712: 1944.

GAGE.--Water-stage recorder with satellite telemetry and Parshall flume, with concrete control above top of flume. Elevation of gage is 4,142.99 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Sept. 10, 1936 at site 1.5 mi upstream at different datum. Sept. 14, 1936, to Mar. 8, 1941, and June 11 to Sept. 21, 1941, at site 0.2 mi downstream at different datums.

REMARKS.--Records good except for those below 10 ft³/s and estimated daily discharges, which are poor. Flow regulated by Lake Sumner (station 08384000) 0.3 mi upstream, since August 1937 and Santa Rosa Lake (station 08382810) 55.5 mi upstream, since April 1980. Diversions for irrigation of about 12,500 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years (water years 1913-25, 1927-36), 236 ft³/s, 171,000 acre-ft/yr, prior to completion of Sumner Dam.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	6.5	.47	.47	1.2	3.2	101	4.3	100	104	881	105
2	78	.50	.39	.46	1.3	3.2	99	3.8	100	104	1220	107
3	77	.39	.50	.48	1.5	3.4	99	4.1	100	104	1210	105
4	78	.51	.39	.40	1.2	4.0	100	36	100	104	1200	100
5	78	.64	.41	.40	1.2	4.9	99	76	100	104	1200	99
6	78	.55	.47	.47	1.2	7.0	100	92	100	103	1200	98
7	80	.47	.47	.45	1.3	7.5	100	100	101	104	1210	99
8	82	.90	.47	.38	1.4	70	99	100	102	103	1240	98
9	81	.71	.47	.37	1.5	102	99	99	616	100	1240	99
10	82	.70	.47	.35	1.7	103	100	99	1220	99	1240	99
11	82	.70	.35	.34	1.7	102	100	99	1230	99	1260	99
12	82	.70	.46	.23	1.6	102	100	99	1240	99	1260	100
13	82	.72	.47	.30	1.8	101	100	99	1250	99	1260	101
14	82	.77	.47	.44	1.9	101	88	99	1260	99	1270	101
15	81	.68	.36	.57	1.9	100	80	98	1250	99	1260	101
16	81	.53	.34	.49	1.8	101	81	98	1240	99	1270	101
17	81	.53	.32	.53	2.1	893	81	98	1240	99	1280	101
18	81	.56	.28	.64	2.4	1290	81	98	1260	99	e981	101
19	80	.55	.26	.75	2.5	1310	81	98	1250	99	e21	101
20	80	.48	.30	.90	2.4	1310	81	98	1260	98	e4.5	101
21	80	.47	.35	.93	2.8	1290	81	97	1240	97	3.5	101
22	80	.36	.35	.97	2.6	1290	81	97	1250	96	3.7	81
23	80	.32	.24	1.1	2.8	1310	81	97	1250	97	3.7	69
24	79	.32	.23	.99	2.8	1300	31	97	1230	97	3.8	70
25	80	.35	.30	.97	2.8	1280	3.5	97	535	97	44	70
26	80	.39	.41	1.0	2.8	469	3.2	97	103	97	100	71
27	80	.37	.54	.94	2.9	100	3.9	99	102	97	103	71
28	80	.41	.51	.97	3.5	100	4.3	100	103	97	104	70
29	80	.47	.51	1.1	---	100	4.3	100	103	97	104	87
30	80	.47	.58	1.1	---	99	4.4	100	104	97	106	100
31	49	---	.53	1.2	---	99	---	100	---	100	105	---
TOTAL	2452	22.02	12.67	20.69	56.6	13155.2	2166.6	2679.2	21139	3087	22388.2	2806
MEAN	79.1	.73	.41	.67	2.02	424	72.2	86.4	705	99.6	722	93.5
MAX	82	6.5	.58	1.2	3.5	1310	101	100	1260	104	1280	107
MIN	49	.32	.23	.23	1.2	3.2	3.2	3.8	100	96	3.5	69
AC-FT	4860	44	25	41	112	26090	4300	5310	41930	6120	44410	5570

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1997, BY WATER YEAR (WY)

	MEAN	32.0	14.2	20.8	27.8	231	276	345	450	311	296	269
MAX	1184	910	170	143	274	605	1317	1404	2905	970	967	2789
(WY)	1942	1943	1942	1942	1995	1944	1942	1973	1937	1983	1994	1941
MIN	29.7	.21	.086	.18	.22	2.05	45.6	61.5	61.5	47.4	50.9	36.7
(WY)	1975	1989	1989	1994	1954	1948	1957	1956	1963	1991	1991	1972

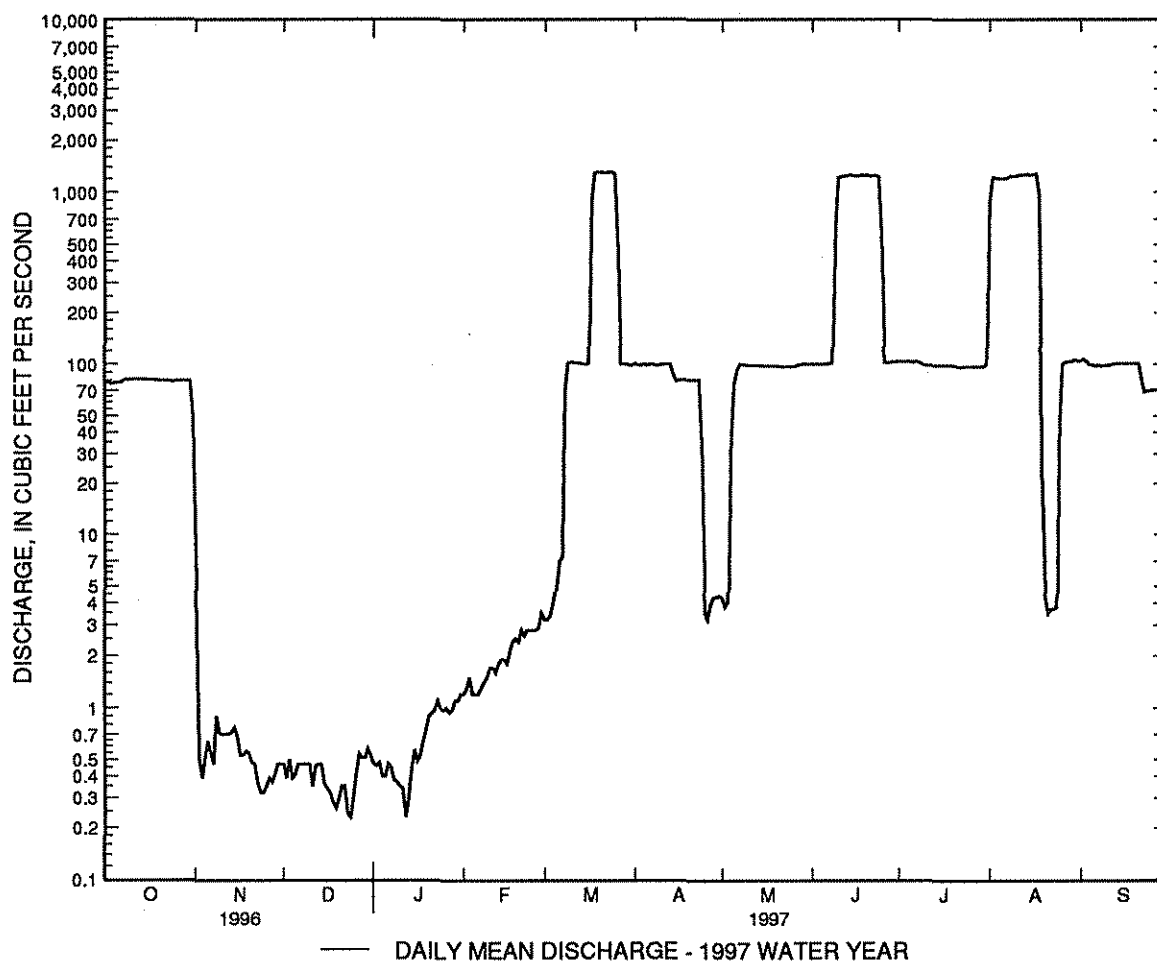
RIO GRANDE BASIN

329

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1937 - 1997	
ANNUAL TOTAL	67682.69		69985.18		201	
ANNUAL MEAN	185		192		710	
HIGHEST ANNUAL MEAN					91.9	
LOWEST ANNUAL MEAN					1941	
HIGHEST DAILY MEAN	1330	May 8	1310	Mar 19	26400	Sep 1 1942
LOWEST DAILY MEAN	.23	Dec 24	.23	Dec 24	.00	Sep 1 1937
ANNUAL SEVEN-DAY MINIMUM	.29	Dec 18	.29	Dec 18	.00	Feb 18 1952
ANNUAL RUNOFF (AC-FT)	134200		138800		145500	
10 PERCENT EXCEEDS	873		1200		788	
50 PERCENT EXCEEDS	86		81		83	
90 PERCENT EXCEEDS	.47		.47		.50	

e Estimated



RIO GRANDE BASIN

08385000 FORT SUMNER MAIN CANAL NEAR FORT SUMNER, NM

LOCATION.--Lat 34°30'30", long 104°16'40", in SE¹/4SW¹/4SW¹/4 sec.1, T.3 N., R.25 E., DeBaca County, Hydrologic Unit 13060003, on right bank of concrete canal, 200 ft downstream from diversion dam on Pecos River, 3.0 mi northwest of Fort Sumner, and at Pecos River mile 684.8.

PERIOD OF RECORD.--March 1939 to February 1943 (published in WSP 1732), April 1954 to current year (monthly discharge only prior to October 1965).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,034.7 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to March 1954, at site 2.4 mi downstream at different datum. April 1954 to March 1965, at site 1.1 mi downstream at datum 1.7 ft lower.

REMARKS.--Records good, except for estimated daily discharges, which are poor. Canal diverts water from Pecos River for irrigation of about 6,600 acres, 1961 determination, by the Fort Sumner Irrigation District. Several observations of water temperature were made during the year. No flow for many days each year.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	.00	.00	.00	.00	.00	97	e.00	96	101	e.00	94
2	77	.00	.00	.00	.00	.00	97	e.00	95	101	e.00	94
3	76	.00	.00	.00	.00	.00	98	e.00	96	103	e.00	e94
4	77	.00	.00	.00	.00	.00	98	e.00	96	101	e.00	e94
5	89	.00	.00	.00	.00	.00	97	41	97	103	e.00	e94
6	88	.00	.00	.00	.00	.00	96	66	96	100	e.00	e94
7	52	.00	.00	.00	.00	.00	96	90	97	97	e.00	e94
8	86	.00	.00	.00	.00	.00	95	94	101	95	70	e94
9	79	.00	.00	.00	.00	.03	95	95	94	101	99	e93
10	79	.00	.00	.00	.00	65	95	94	101	100	98	93
11	80	.00	.00	.00	.00	90	95	95	57	100	97	95
12	82	.00	.00	.00	.00	91	95	94	e.00	e99	96	93
13	83	.00	.00	.00	.00	91	89	94	e.00	e98	e96	92
14	83	.00	.00	.00	.00	91	80	93	e.00	e99	96	92
15	83	.00	.00	.00	.00	92	78	93	e.00	e99	e94	91
16	83	.00	.00	.00	.00	92	75	93	70	e98	89	88
17	83	.00	.00	.00	.00	94	80	93	99	e98	90	92
18	83	.00	.00	.00	.00	90	78	92	99	e98	42	91
19	84	.00	.00	.00	.00	84	77	91	98	e99	e.00	91
20	87	.00	.00	.00	.00	98	76	90	98	e98	e.00	91
21	88	.00	.00	.00	.00	111	76	90	98	e98	e.00	91
22	87	.00	.00	.00	.00	110	77	89	98	e99	e.00	92
23	83	.00	.00	.00	.00	110	78	88	97	e98	e.00	68
24	80	.00	.00	.00	.00	110	39	90	97	e99	e.00	51
25	79	.00	.00	.00	.00	111	e.00	89	99	e98	e.00	59
26	75	.00	.00	.00	.00	103	e.00	91	104	e99	65	89
27	73	.00	.00	.00	.00	100	e.00	96	102	e98	94	88
28	73	.00	.00	.00	.00	99	e.00	95	102	e99	94	87
29	69	.00	.00	.00	---	98	e.00	95	101	e98	94	89
30	66	.00	.00	.00	---	98	e.00	95	101	e.00	94	141
31	47	---	.00	.00	---	98	---	95	---	e.00	94	---
TOTAL	2432	0.00	0.00	0.00	0.00	2126.03	2057.00	2421.00	2489.00	2874.00	1502.00	2709
MEAN	78.5	.000	.000	.000	.000	68.6	68.6	78.1	83.0	92.7	48.5	90.3
MAX	89	.00	.00	.00	.00	111	98	96	104	103	99	141
MIN	47	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	51
AC-FT	4820	.00	.00	.00	.00	4220	4080	4800	4940	5700	2980	5370

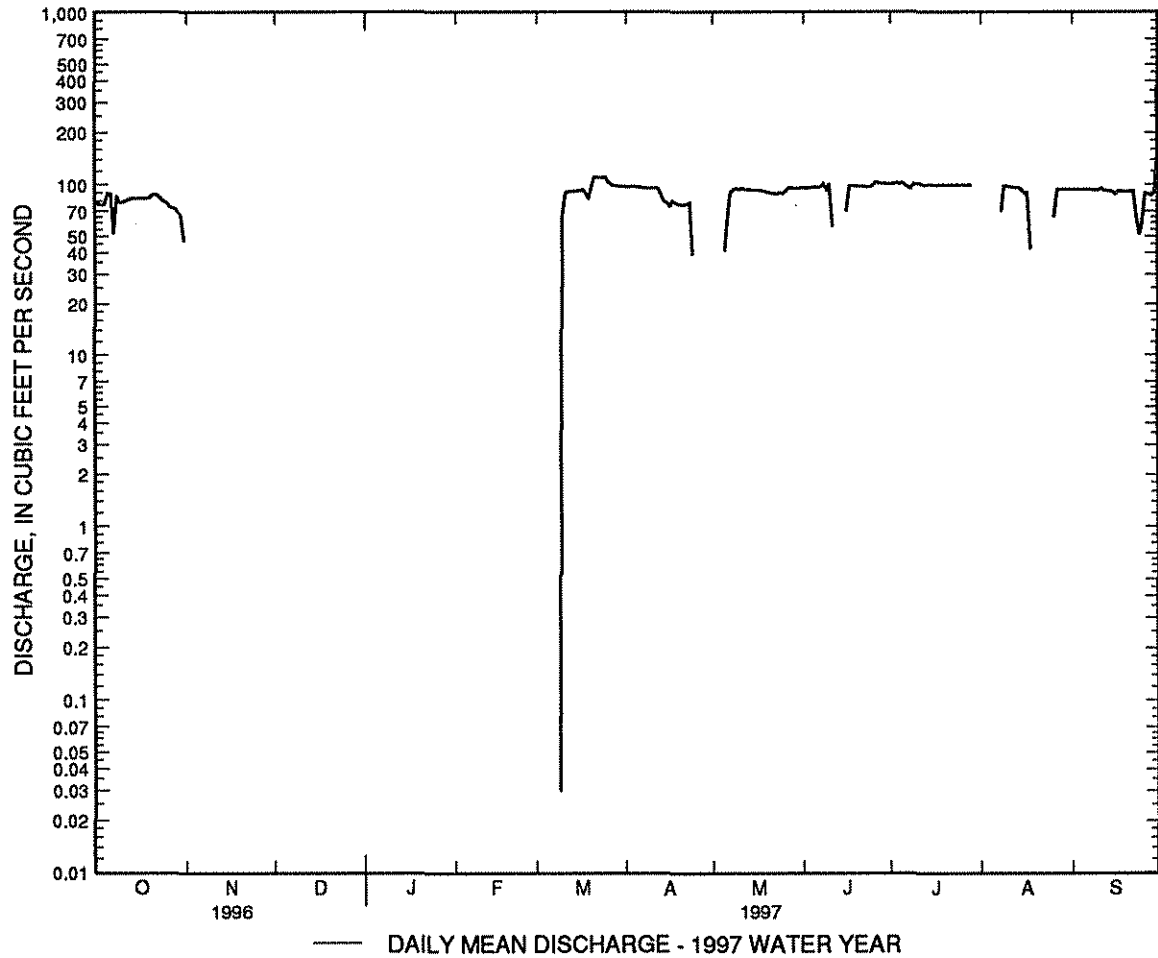
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1997, BY WATER YEAR (WY)

MEAN	68.0	.87	.42	7.60	6.06	55.7	75.0	78.1	84.5	80.9	78.4	73.5
MAX	98.0	3.57	19.6	43.5	46.2	95.8	98.6	105	108	108	99.9	101
(WY)	1974	1983	1940	1967	1988	1988	1987	1989	1973	1942	1955	1955
MIN	.000	.000	.000	.000	.000	.000	35.4	.000	46.8	29.6	31.3	1.33
(WY)	1942	1942	1941	1940	1940	1942	1942	1942	1941	1972	1990	1942

08385000 FORT SUMNER MAIN CANAL NEAR FORT SUMNER, NM - Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1939 - 1997
ANNUAL TOTAL	22568.00	18610.03	
ANNUAL MEAN	61.7	51.0	51.3
HIGHEST ANNUAL MEAN			61.8
LOWEST ANNUAL MEAN			25.3
HIGHEST DAILY MEAN	102 Aug 19	141 Sep 30	174 Jul 22 1941
LOWEST DAILY MEAN	.00 Jan 1	.00 Nov 1	.00 Apr 5 1939
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Nov 1	.00 Nov 5 1939
ANNUAL RUNOFF (AC-FT)	44760	36910	37200
10 PERCENT EXCEEDS	95	99	97
50 PERCENT EXCEEDS	85	77	71
90 PERCENT EXCEEDS	.00	.00	.00

e Estimated



08385500 PECOS RIVER NEAR FORT SUMNER, NM

LOCATION.--Lat 34°28'42", long 104°16'18", in SE¹/4SW¹/4 sec.13 T. 3 N., R.25 E., DeBaca County, Hydrologic Unit 13060003 on right bank 100 ft upstream from Atchison, Topeka and Santa Fe Railway Bridge, 0.8 mi upstream from U.S. Highway 60 and 2.5 mi downstream from Fort Sumner Diversion dam.

DRAINAGE AREA.--5,300 mi², approximately.

PERIOD OF RECORD.--June to July 1904, July 1904 to June 1905 (gage heights and discharge measurements only). Daily discharges July 18 to August 11, 1904 are unreliable and should not be used, July 1905 to February 1910, September 1912 to December 1913, July 1994 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,020 above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 5, 1905, staff gage at site 2.5 mi upstream at different datum. July 5, 1905 to Dec. 31, 1913, staff gage at site 1.5 mi upstream at different datum.

REMARKS.--Records good. Diversion above gage for about 6,100 acres (1961 determination) part of which are below gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined, probably exceeded 53,000 ft³/s, Sept. 30, 1904, gage height, 17.95 ft, from floodmarks, site and datum then in use; minimum daily 0.3 ft³/s, Aug. 17, 1922.

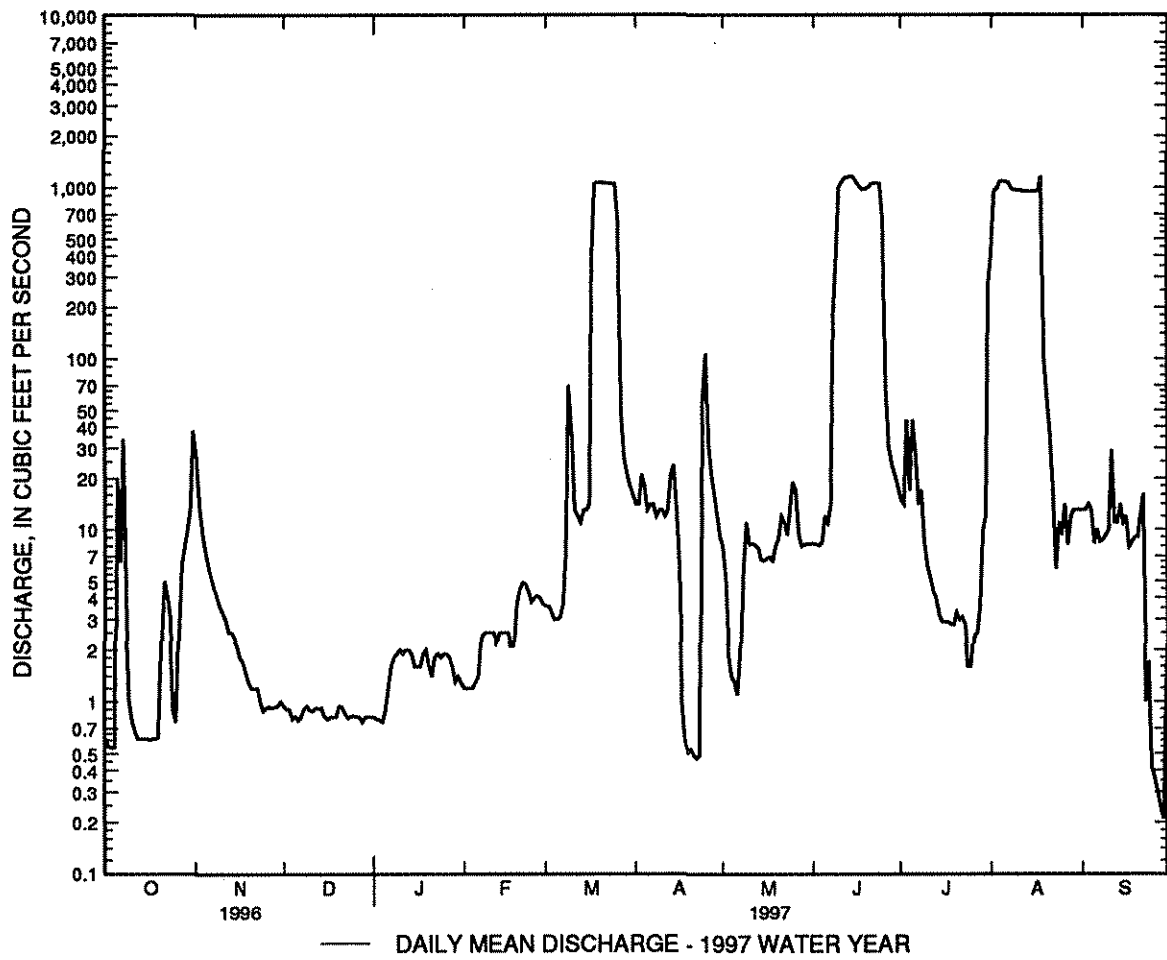
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,160 ft³/s, June 14, Aug. 18; minimum daily, 0.21 ft³/s, Sept. 29.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	27	.94	.81	1.2	3.6	14	7.9	8.3	15	403	13
2	.55	14	.90	.79	1.2	3.6	14	5.1	8.2	14	959	13
3	.54	9.5	.90	.78	1.2	3.3	21	1.9	8.1	44	982	14
4	.54	7.5	.79	.76	1.2	3.0	18	1.4	8.4	17	1090	13
5	20	6.2	.82	.89	1.3	3.0	13	1.3	12	44	1090	8.3
6	6.5	5.3	.78	1.2	1.4	3.1	14	1.1	11	28	1080	10
7	34	4.6	.81	1.6	2.4	3.7	14	1.9	14	14	1070	8.5
8	3.0	4.1	.91	1.8	2.5	7.3	12	5.9	179	17	979	8.7
9	1.0	3.6	.94	1.9	2.5	70	13	11	412	8.4	966	9.3
10	.77	3.3	.89	2.0	2.5	37	13	8.2	1010	6.2	964	10
11	.67	3.0	.88	1.9	2.5	13	12	8.3	1080	5.3	961	29
12	.61	2.5	.92	2.0	2.2	12	13	8.1	1140	4.4	953	11
13	.61	2.5	.91	2.0	2.5	11	21	7.8	1150	4.0	951	11
14	.61	2.3	.92	1.9	2.5	13	24	6.7	1160	3.2	948	14
15	.61	2.1	.82	1.6	2.5	13	13	6.6	1150	2.9	951	11
16	.60	1.8	.79	1.6	2.5	14	5.8	6.8	1070	2.9	949	12
17	.61	1.7	.81	1.6	2.1	397	.91	6.9	1020	2.9	956	7.9
18	.61	1.5	.81	1.9	2.1	1050	.58	6.6	978	2.8	1160	8.5
19	.62	1.3	.81	2.0	3.7	1070	.51	8.0	980	2.8	101	9.0
20	2.0	1.2	.94	1.6	4.5	1070	.53	8.9	1000	3.3	61	9.0
21	5.0	1.2	.93	1.4	4.9	1060	.49	12	1050	3.0	36	12
22	4.1	1.2	.85	1.8	4.8	1060	.47	11	1060	3.1	17	16
23	3.1	1.0	.80	1.9	4.4	1060	.49	9.3	1060	2.8	5.9	1.0
24	.89	.88	.82	1.8	3.8	1050	58	13	1050	1.6	11	1.7
25	.76	.92	.83	1.9	4.0	1050	107	19	665	1.6	9.3	.42
26	2.5	.93	.81	1.9	4.1	644	33	17	73	2.4	14	.36
27	6.1	.92	.81	1.8	4.0	49	21	9.4	30	2.5	8.2	.30
28	7.9	.93	.76	1.6	3.7	26	16	8.0	24	3.6	12	.24
29	9.9	.94	.81	1.3	---	21	12	8.2	21	9.8	13	.21
30	13	1.0	.81	1.4	---	18	9.0	8.2	18	12	13	1.7
31	38	---	.81	1.3	---	16	---	8.3	---	265	13	---
TOTAL	166.31	114.92	26.33	48.73	78.2	9854.6	494.78	243.8	17450.0	549.5	17726.4	264.13
MEAN	5.36	3.83	.85	1.57	2.79	318	16.5	7.86	582	17.7	572	8.80
MAX	38	27	.94	2.0	4.9	1070	107	19	1160	265	1160	29
MIN	.54	.88	.76	.76	1.2	3.0	.47	1.1	8.1	1.6	5.9	.21
AC-FT	330	228	52	97	155	19550	981	484	34610	1090	35160	524

CAL YR 1996 TOTAL 42882.81 MEAN 117 MAX 1220 MIN .54 AC-FT 85060
WTR YR 1997 TOTAL 47017.70 MEAN 129 MAX 1160 MIN .21 AC-FT 93260

08385500 PECOS RIVER NEAR FORT SUMNER, NM -- Continued



RIO GRANDE BASIN

08385522 PECOS RIVER BELOW TAIBAN CREEK NEAR FORT SUMNER, NM

LOCATION.--Lat 34°19'56", long 104°10'48", NW¹/4NE¹/4 sec.11, T.1 N., R.26 E., De Baca County, Hydrologic Unit 13060003, on left bank 0.6 mi downstream from Taiban Creek, 11.0 mi southeast of Fort Sumner, and at mile 665.7.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 3,910 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except for those above 1,000 ft³/s, and estimated daily discharges, which are poor. Flow partly regulated by Sumner Dam (station 08384000) 23 mi upstream. Diversion for irrigation of about 19,100 acres (1959 determination) above station. Discharge represents in general, return flow from irrigated areas in Fort Sumner Irrigation Project.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	69	20	16	14	22	38	48	49	74	263	53
2	34	39	20	16	14	21	31	46	53	74	1070	55
3	44	32	20	16	14	21	50	42	43	73	1100	63
4	53	27	21	16	14	21	81	39	55	84	1400	56
5	392	e27	20	16	14	20	70	38	49	80	1250	55
6	85	e27	19	18	15	21	72	42	53	114	1130	53
7	85	e25	19	e15	16	21	81	55	61	78	1130	53
8	69	24	19	e13	16	21	81	51	239	79	1090	48
9	67	24	18	e12	16	41	82	50	357	e76	1130	53
10	67	23	18	e13	16	66	74	49	1180	e72	1130	111
11	72	22	18	e13	17	56	56	48	1220	59	1310	111
12	70	22	18	e14	17	42	61	45	1250	59	1190	110
13	69	21	19	e14	18	39	103	44	1240	56	1110	131
14	60	21	19	e14	18	43	108	40	1270	43	1120	103
15	64	21	19	e13	17	46	82	41	1280	42	1090	101
16	70	22	20	e13	18	41	63	43	1220	45	1030	104
17	67	22	18	e14	18	128	44	43	1200	43	1030	104
18	62	22	18	e14	18	1080	49	40	1180	35	1890	92
19	63	21	18	e14	22	1110	44	42	1170	39	188	81
20	73	20	18	e15	21	1110	44	54	1160	46	96	91
21	71	20	e18	e15	22	1120	40	56	1140	39	76	92
22	68	20	e18	e14	22	1120	37	70	1140	43	71	117
23	65	20	e19	e14	23	1130	41	64	1140	41	67	93
24	50	21	19	e15	24	1130	166	73	e1130	39	64	80
25	46	21	19	15	26	1180	254	93	935	40	59	82
26	67	21	20	15	23	951	131	90	140	47	58	74
27	73	21	18	16	22	110	71	68	82	39	58	60
28	78	20	18	16	22	63	61	62	78	54	58	69
29	103	20	18	16	---	45	54	49	76	70	56	58
30	70	20	17	16	---	46	50	41	75	100	56	56
31	68	---	17	15	---	47	---	43	---	393	57	---
TOTAL	2362	735	580	456	517	10912	2219	1609	20265	2176	21427	2409
MEAN	76.2	24.5	18.7	14.7	18.5	352	74.0	51.9	676	70.2	691	80.3
MAX	392	69	21	18	26	1180	254	93	1280	393	1890	131
MIN	34	20	17	12	14	20	31	38	43	35	56	48
AC-FT	4690	1460	1150	904	1030	21640	4400	3190	40200	4320	42500	4780

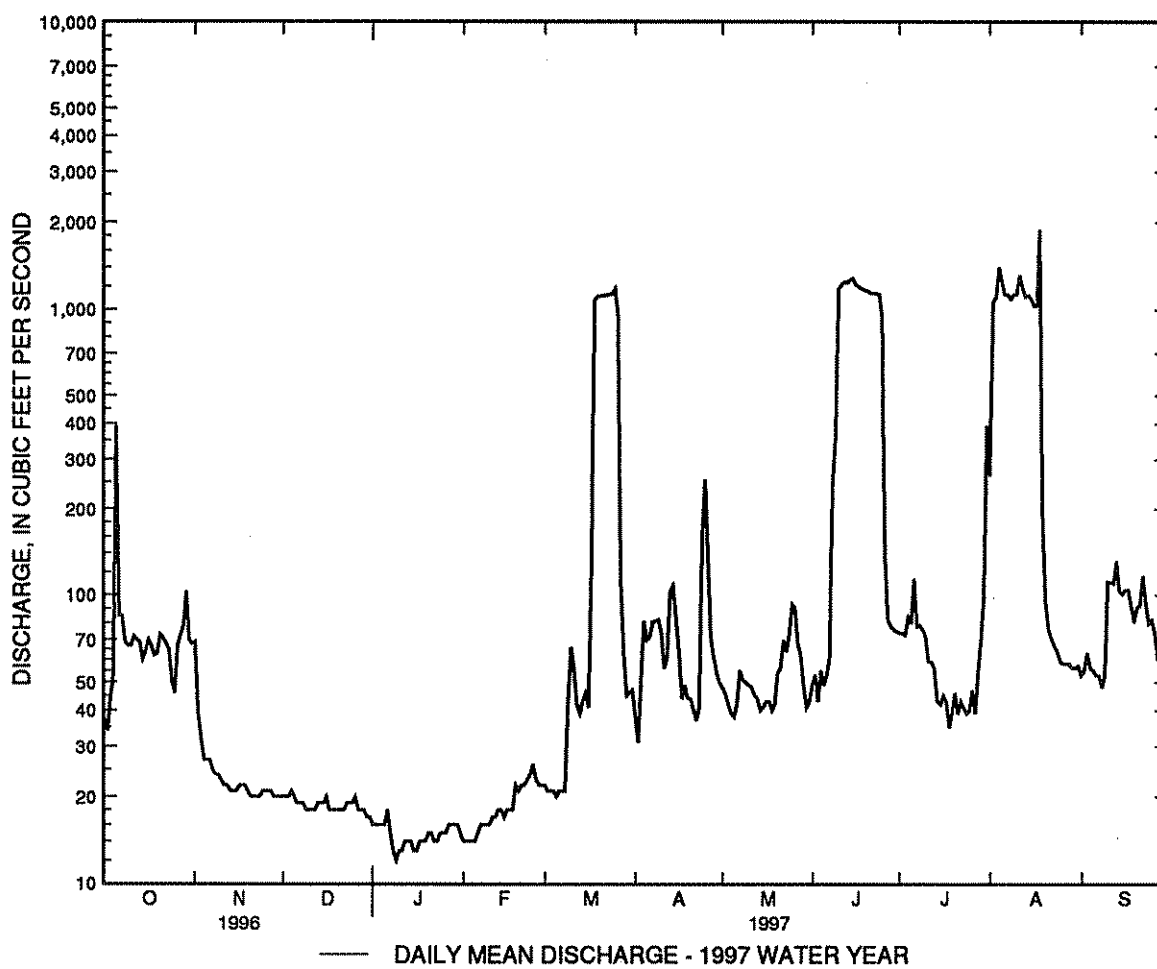
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997
MEAN	216	30.9	27.7	32.4	100	181
MAX	370	35.4	58.9	62.6	253	352
(WY)	1994	1994	1996	1996	1995	1997
MIN	66.3	24.5	18.7	14.7	15.1	38.3
(WY)	1996	1997	1997	1997	1993	1993

08385522 PECOS RIVER BELOW TAIBAN CREEK NEAR FORT SUMNER, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1992 - 1997
ANNUAL TOTAL	58500	65667	
ANNUAL MEAN	160	180	201
HIGHEST ANNUAL MEAN			253
LOWEST ANNUAL MEAN			163
HIGHEST DAILY MEAN	1330	1890	1890
LOWEST DAILY MEAN	17	14	11
ANNUAL SEVEN-DAY MINIMUM	18	13	12
INSTANTANEOUS PEAK FLOW		3230	3230
INSTANTANEOUS PEAK STAGE		7.41	7.41
INSTANTANEOUS LOW FLOW		6.9	6.9
ANNUAL RUNOFF (AC-FT)	116000	130300	145700
10 PERCENT EXCEEDS	754	1080	959
50 PERCENT EXCEEDS	56	49	59
90 PERCENT EXCEEDS	20	16	18

e Estimated



08385522 PECOS RIVER BELOW TAIBAN CREEK NEAR FORT SUMNER, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1992 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
NOV 1996										
07...	1000	28	2650	8.0	9.0	6.0	3.2	667	11.2	104
MAR 1997										
18...	1345	1220	2410	8.4	22.0	14.0	94	672	10.6	118
JUN										
25...	1245	1260	980	7.7	31.0	23.0	19	665	10.6	143
AUG										
13...	0900	1470	1070	7.6	28.5	24.5	--	628	8.0	118

DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
NOV 1996										
07...	1300	1100	400	83	130	2	2.5	250	0	205
MAR 1997										
18...	1300	1200	430	54	78	0.9	3.0	121	2	103
JUN										
25...	490	380	160	22	31	0.6	2.4	123	0	101
AUG										
13...	570	470	190	24	33	0.6	2.5	128	0	105

DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 1996									
07...	159	1200	140	0.70	0.15	14	2090	224	<9.0
MAR 1997									
18...	113	1200	110	0.6	0.06	9.8	1990	93.9	13
JUN									
25...	104	400	38	0.3	0.02	7.8	725	58.0	8
AUG									
13...	104	450	39	0.4	--	9.5	812	60.7	200

RIO GRANDE BASIN

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08385630 PECOS RIVER NEAR DUNLAP, NM

LOCATION.--Lat 34°03'52", long 104°18'22", in SE¹/4NW¹/4, sec. 10, T.3 S., R.25 E., DeBaca County, Hydrologic Unit 13060003, on left bank 1.2 mi south of Van Eaton Ranch, 2.5 mi upstream from Arroyo de la Mora, 2.7 mi downstream from Blanco Canyon, 15 mi east of Dunlap, NM, and at mile 638.1

PERIOD OF RECORD.--August 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,760 ft above National Geodetic Vertical Datum of 1929, from river profile map.

REMARKS.--Records fair except for those above 600 ft³/s, and estimated daily discharges, which are fair. Flow partly regulated by Lake Summer (station 08384000). Diversion for irrigation of about 19,100 acres (1959 determination) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,390 ft³/s, August 18, 1997; minimum daily, 5.5 ft³/s, July 26, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,390 ft³/s August 18, June 14; minimum daily, 5.5 ft³/s, July 26.

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

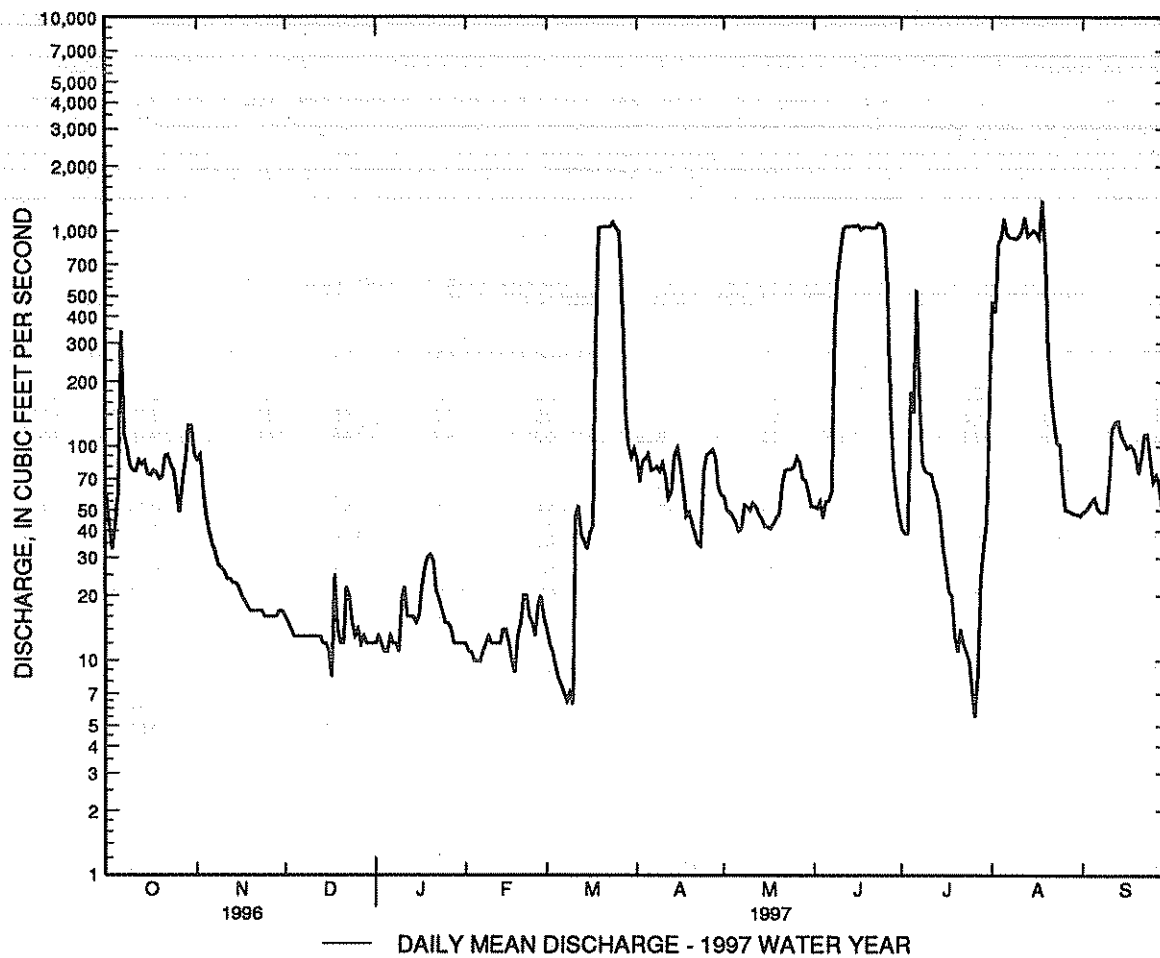
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	86	16	12	12	14	87	58	52	41	469	e49
2	43	91	15	13	11	12	68	50	51	39	420	e50
3	33	63	14	12	11	11	85	49	55	39	872	e52
4	43	48	13	11	10	9.5	87	47	46	180	935	e55
5	60	40	13	11	10	8.3	92	44	55	144	1150	57
6	341	35	13	13	9.9	7.7	77	40	55	531	971	51
7	113	32	13	12	11	7.1	78	41	61	159	934	49
8	98	28	13	12	12	6.5	80	53	355	83	937	49
9	81	27	13	11	13	7.1	76	52	630	76	921	49
10	77	26	13	19	12	6.3	83	50	824	75	941	71
11	76	24	13	22	12	47	73	54	1030	74	1010	120
12	86	24	13	16	12	52	57	52	1060	64	1160	129
13	82	23	13	16	12	38	61	48	1060	59	951	131
14	85	23	12	16	14	36	90	46	1060	48	977	113
15	74	22	12	15	14	33	98	42	1060	33	1010	105
16	73	20	11	16	12	39	82	42	1070	27	986	98
17	77	19	8.4	22	10	42	63	41	1020	21	928	101
18	75	18	25	27	8.8	306	47	43	1050	20	1390	98
19	70	17	14	30	13	e1030	49	46	1050	13	815	89
20	71	17	12	31	15	e1050	44	48	1040	11	266	74
21	90	17	12	29	20	e1050	39	66	1040	14	172	89
22	91	17	22	21	20	e1050	35	77	1040	12	129	113
23	82	17	20	19	16	e1050	34	78	1090	11	103	114
24	77	16	15	17	15	e1100	76	78	1080	10	102	86
25	62	16	13	15	13	e1030	91	80	1010	7.3	65	68
26	49	16	14	15	18	e1000	93	89	573	5.5	50	73
27	69	16	12	14	20	496	96	84	153	8.9	e50	66
28	87	16	13	12	16	147	89	70	79	24	e49	54
29	125	17	12	12	---	100	64	69	59	34	e48	56
30	125	17	12	12	---	88	59	61	48	44	e48	51
31	91	---	12	12	---	97	---	52	---	178	e47	---
TOTAL	2665	848	426.4	515	372.7	9970.5	2153	1750	18856	2085.7	18906	2360
MEAN	86.0	28.3	13.8	16.6	13.3	322	71.8	56.5	629	67.3	610	78.7
MAX	341	91	25	31	20	1100	98	89	1090	531	1390	131
MIN	33	16	8.4	11	8.8	6.3	34	40	46	5.5	47	49
AC-FT	5290	1680	846	1020	739	19780	4270	3470	37400	4140	37500	4680

CAL YR 1996 TOTAL 55553.6 MEAN 152 MAX 1100 MIN 8.4 AC-FT 110200
WTR YR 1997 TOTAL 60908.3 MEAN 167 MAX 1390 MIN 5.5 AC-FT 120800

e Estimated

RIO GRANDE BASIN

08385630 PECOS RIVER NEAR DUNLAP, NM -- Continued



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LOCATION.--Lat 33°41'09", long 104°18'59", in SW¹/4NE¹/4 sec. 31, T.7 S., R.26 E., Chaves County, Hydrologic Unit 13060007, on left bank 0.5 mi upstream from Eightmile Draw, 2.5 mi upstream from boundary for Bitter Lake National Wildlife Refuge, 4.6 miles downstream from Sand Creek and at mile 596.3.

GAGE.--Water-stage recorder. Elevation of gage is 3,550 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow partly regulated by Lake Sumner (station 08384000). Diversion for irrigation of about 19,100 acres (1959 determination) above station.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e40	105	e12	e9.2	e7.0	19	e78	e91	e42	e107	e162	e60
2	e40	97	e11	e9.5	e7.0	17	e72	e67	e36	e96	e500	e50
3	e41	108	e10	e9.6	e7.0	14	e214	e57	e33	e86	e600	e50
4	34	71	e9.8	e9.7	e6.0	13	e436	e51	e37	e117	e1280	e45
5	33	51	e9.4	e9.4	e8.0	11	e143	e46	e43	e235	e1380	e45
6	38	47	e9.8	e9.4	8.1	9.7	e123	e41	e51	e500	e1310	e40
7	e230	44	e10	e9.8	10	8.9	e98	e39	e64	e331	e1260	e40
8	172	43	e9.4	e10	10	9.0	e95	e36	e200	e230	e1180	e30
9	104	e32	e8.8	e10	11	9.1	e94	e116	e30	e128	e1110	e30
10	90	e29	e8.4	e9.9	11	8.4	e94	e61	e650	e109	e1110	e40
11	70	e26	e8.2	e9.5	12	7.7	e98	e47	e1010	e97	e1100	e40
12	63	e23	e8.1	e9.8	13	7.5	e93	e48	e1150	e90	e1700	e80
13	72	e21	e8.4	e10	15	28	e73	e47	e1250	e85	e1270	e80
14	68	e18	e8.8	e10	17	38	e67	e43	e1200	e79	e1250	e85
15	80	e16	e8.4	e10	15	32	e86	e40	e1200	e74	e1250	e90
16	69	e14	e8.7	e11	14	29	e108	e38	e1190	e65	e1280	e81
17	63	e17	e8.9	e13	14	27	e89	e36	e1100	e56	e1150	66
18	56	e12	e8.6	e15	13	30	e72	e34	e1100	e51	e1600	65
19	66	e11	e8.5	e13	14	e350	e57	e35	e1100	e48	e2220	74
20	55	e11	e8.1	e13	14	e900	e49	e36	e1100	e42	e960	66
21	79	e10	e8.7	e18	19	e1100	e44	e45	e1120	e37	e540	62
22	101	e10	e9.5	e17	21	e1050	e38	e70	e1100	e35	e360	108
23	109	e11	e9.4	e17	21	e1050	e37	e63	e1080	e38	e250	110
24	90	e10	e9.8	e16	20	e1100	e50	e56	e1000	e34	e210	103
25	79	e9.8	e12	e15	21	e1170	e280	e63	e990	e35	e150	95
26	59	e10	e13	e12	21	e1150	e410	e56	e980	e31	e150	63
27	51	e10	e11	e11	18	e1000	e350	e60	e550	e26	e100	54
28	56	e11	e10	e9.0	18	e342	e383	e67	e299	e26	e80	52
29	85	e12	e9.7	e8.0	---	e238	e196	e60	e160	e39	e80	42
30	118	e13	e9.5	e8.0	---	e131	e126	e52	e127	e115	e70	36
31	172	---	e9.5	e8.0	---	e88	---	e47	---	e104	e60	---
TOTAL	2483	902.8	295.4	349.8	385.1	9987.3	4153	1648	19992	3146	25722	1882
MEAN	80.1	30.1	9.53	11.3	13.8	322	138	53.2	666	101	830	62.7
MAX	230	108	13	18	21	1170	436	116	1250	500	2220	110
MIN	33	9.8	8.1	8.0	6.0	7.5	37	34	30	26	60	30
AC-FT	4930	1790	586	694	764	19810	8240	3270	39650	6240	51020	3730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

MEAN	176	36.6	23.9	27.7	80.7	180	131	188	516	218	465	175
MAX	312	49.4	50.9	63.1	203	322	409	574	905	540	830	481
(WY)	1994	1994	1996	1996	1995	1997	1993	1996	1995	1993	1997	1995
MIN	53.9	27.6	9.53	11.3	12.2	29.5	27.4	53.2	188	60.3	126	62.7
(WY)	1996	1995	1997	1997	1993	1993	1995	1997	1993	1994	1996	1997

RIO GRANDE BASIN

08385648 PECOS RIVER ABOVE ACME, NM -- Contined

SUMMARY STATISTICS

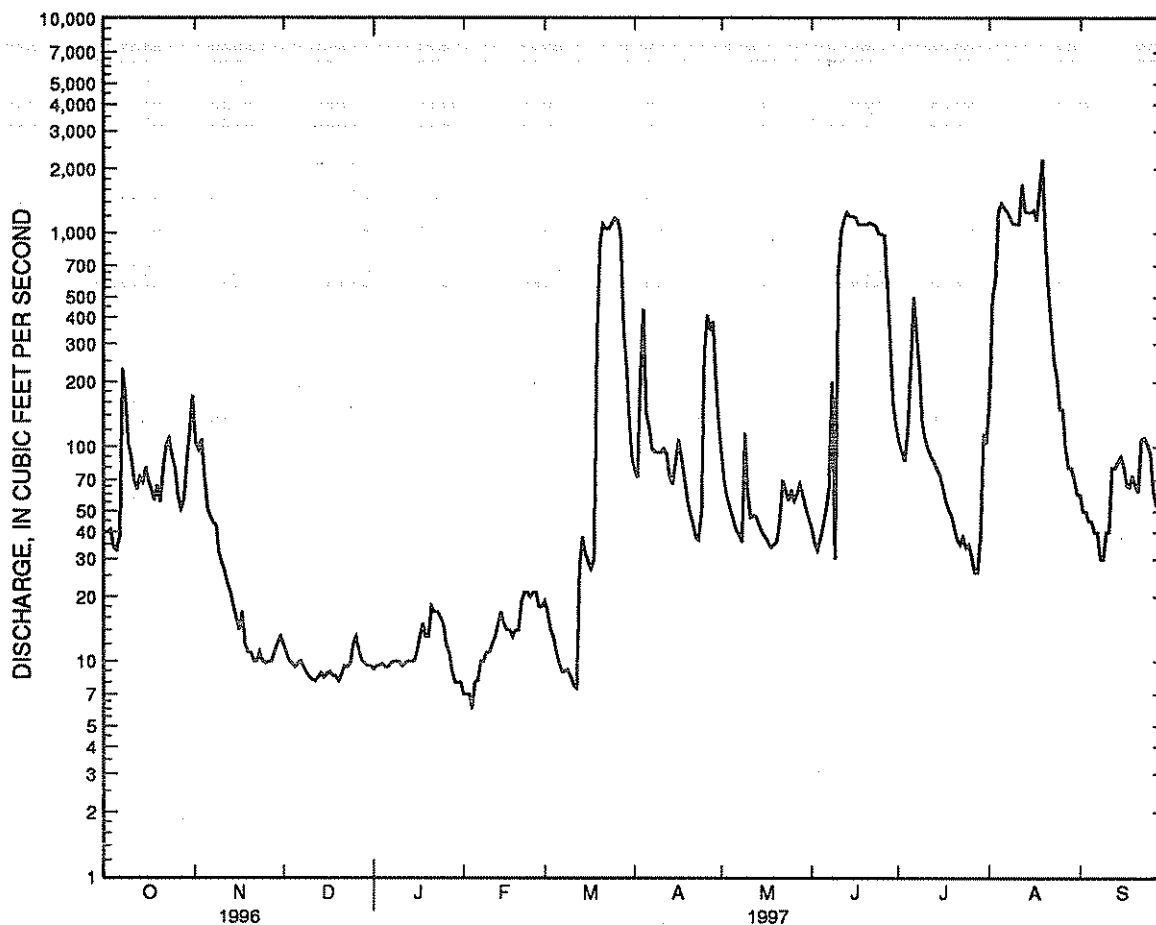
FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1992 - 1997

ANNUAL TOTAL	57592.3	70946.4	185	
ANNUAL MEAN	157	194	228	1995
HIGHEST ANNUAL MEAN			159	1996
LOWEST ANNUAL MEAN			2220	Aug 19 1997
HIGHEST DAILY MEAN	1170	May 12	2220	Aug 19 1997
LOWEST DAILY MEAN	6.5	Jun 12	6.0	Feb 4
ANNUAL SEVEN-DAY MINIMUM	8.4	Dec 10	7.3	Jan 29
ANNUAL RUNOFF (AC-FT)	114200	140700	134200	3.5
10 PERCENT EXCEEDS	580	1000	791	May 19 1995
50 PERCENT EXCEEDS	56	47	56	
90 PERCENT EXCEEDS	11	9.5	13	

e Estimated



— DAILY MEAN DISCHARGE - 1997 WATER YEAR

08386000 PECOS RIVER NEAR ACME, NM

LOCATION.--Lat 33°32'10", long 104°22'34", in SW¹/4NW¹/4 sec.14, T.9 S., R.25 E., Chaves County, Hydrologic Unit 13060007, on right bank 3.0 mi downstream from U.S. Highway 70, 3.7 mi downstream from Salt Creek, 4.7 mi southwest of Acme, 14 mi northeast of Roswell, and at mile 585.3.

DRAINAGE AREA.--11,380 mi², approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to June 1923, July 1937 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 3,510 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 1, 1938, at site on highway bridge 3 mi upstream at various datums. Since Oct. 25, 1963, supplemental water-stage recorder at site opposite base gage at same datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow regulated by Lake Sumner (station 08384000) 117 mi upstream since August 1937 and Santa Rosa Lake (station 08382810) 172 mi upstream since April 1980. Diversions for irrigation of about 20,000 acres, 1959 determination, upstream from station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 28, 1937, reached a discharge of 53,000 ft³/s, gage height, 14.82 ft, from floodmarks, site and datum then in use, from slope-area measurement, but may have been exceeded by the flood of Oct. 1, 1904.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e38	90	12	9.9	6.2	19	134	99	36	92	64	52
2	e38	83	11	10	6.1	19	115	77	28	71	524	50
3	e38	84	10	10	6.0	16	179	61	25	54	485	48
4	e32	74	9.5	10	5.4	14	268	56	22	74	1260	44
5	28	53	9.0	10	5.2	12	197	54	30	72	1380	42
6	29	41	9.6	10	5.2	11	134	43	30	562	1300	38
7	217	33	9.5	11	7.1	9.7	116	39	46	386	1240	36
8	191	27	8.9	12	7.4	9.8	97	35	143	276	1170	32
9	115	24	8.5	11	7.8	10	91	46	290	128	1090	30
10	105	22	8.2	11	8.2	9.0	89	86	623	98	1090	41
11	87	20	8.0	10	8.8	8.4	87	47	1000	84	1080	40
12	79	19	7.9	9.1	11	8.3	86	44	1140	74	1690	76
13	76	18	7.9	9.7	13	7.0	68	44	1220	68	1260	80
14	73	17	8.1	9.7	16	37	56	40	1180	62	1220	84
15	71	17	7.9	9.9	16	36	58	34	1190	55	1230	86
16	69	16	8.0	11	14	27	85	32	1180	48	1270	72
17	58	14	8.5	11	13	23	83	30	1180	42	1140	69
18	53	13	8.4	10	12	19	64	28	1090	36	1580	61
19	56	12	8.4	9.9	14	378	51	26	1100	29	2200	66
20	55	12	8.1	12	14	902	40	27	1090	21	941	63
21	56	11	8.1	17	19	1050	37	36	1110	17	521	59
22	68	10	9.5	19	20	1030	34	57	1090	14	352	97
23	81	11	9.0	18	20	1060	31	60	1050	16	249	106
24	75	9.8	9.0	16	21	1100	35	51	992	15	204	93
25	66	9.2	13	13	21	1150	280	55	979	13	145	94
26	59	9.7	13	11	22	1150	414	50	970	13	142	67
27	49	9.6	12	10	21	985	351	48	526	11	97	53
28	40	10	11	8.5	19	372	207	56	356	17	80	48
29	53	12	9.9	7.9	---	276	174	55	191	16	72	40
30	67	13	9.7	7.5	---	208	124	45	127	41	63	37
31	112	---	9.7	7.1	---	159	---	41	---	87	56	---
TOTAL	2234	794.3	291.3	342.2	359.4	10115.2	3785	1502	20034	2592	25195	1804
MEAN	72.1	26.5	9.40	11.0	12.8	326	126	48.5	668	83.6	813	60.1
MAX	217	90	13	19	22	1150	414	99	1220	562	2200	106
MIN	28	9.2	7.9	7.1	5.2	7.0	31	26	22	11	56	30
AC-FT	4430	1580	578	679	713	20060	7510	2980	39740	5140	49970	3580

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
MEAN	148	53.5	26.2	25.9	29.1	167	210	282	319	316	270	299
MAX	2200	858	236	190	234	595	1217	2680	2186	1611	813	3527
(WY)	1942	1943	1942	1942	1987	1941	1942	1941	1941	1960	1997	1941
MIN	.000	.000	.000	.000	.000	.16	3.58	1.81	.000	.19	.90	.000
(WY)	1948	1948	1948	1948	1953	1954	1967	1946	1947	1954	1947	1947

RIO GRANDE BASIN

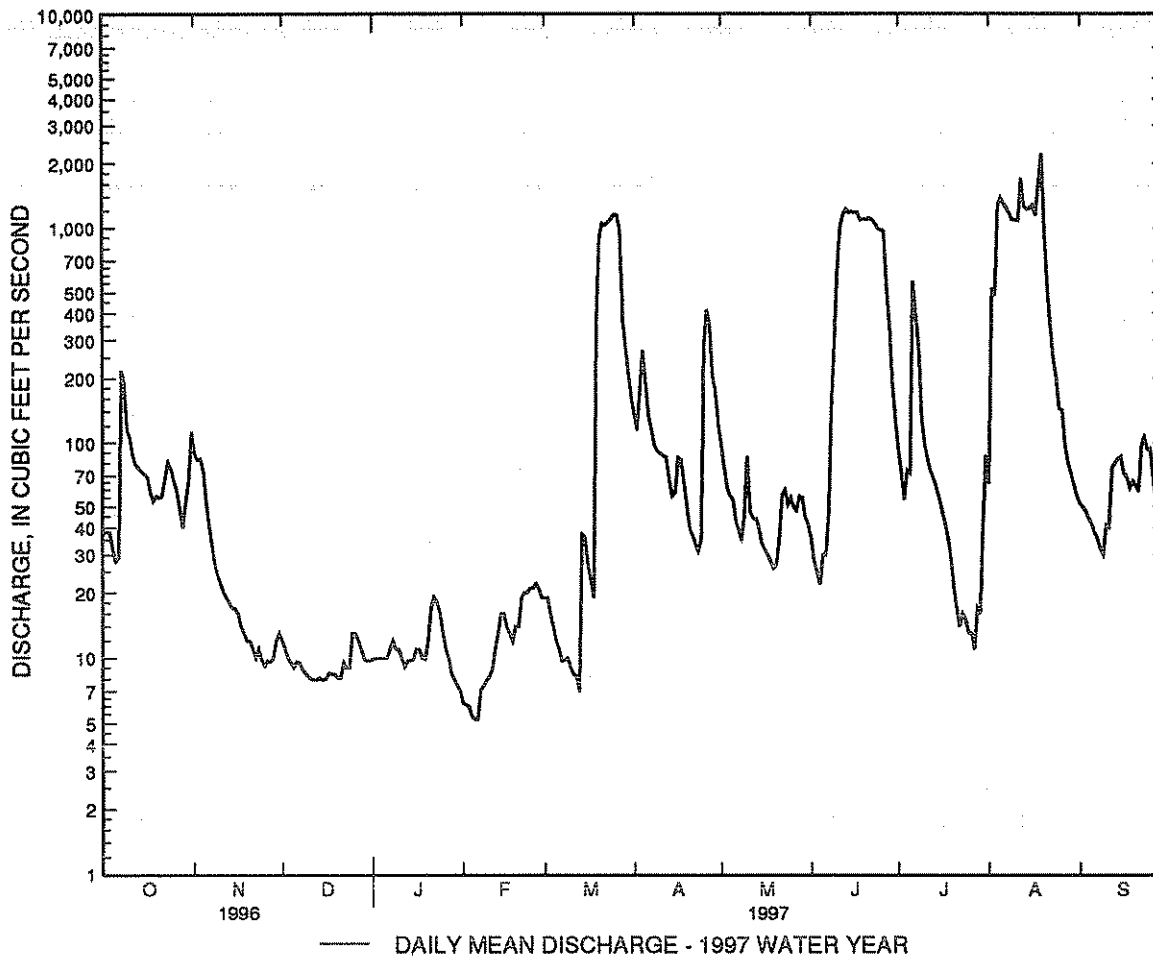
08386000 PECOS RIVER NEAR ACME, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1938 - 1997
ANNUAL TOTAL	54035.00	69048.4	
ANNUAL MEAN	148	189	180
HIGHEST ANNUAL MEAN			964
LOWEST ANNUAL MEAN			56.8
HIGHEST DAILY MEAN	1110 May 9	2200 Aug 19	29500 Sep 23 1941
LOWEST DAILY MEAN	.40 Jun 12	5.2 Feb 5	.00 May 23 1938
ANNUAL SEVEN-DAY MINIMUM	2.1 Jun 7	5.9 Jan 31	.00 May 23 1938
INSTANTANEOUS PEAK FLOW		3520 Aug 19	45000 ^a Sep 23 1941
INSTANTANEOUS PEAK STAGE		7.09 Aug 19	13.71 ^b Sep 23 1941
INSTANTANEOUS LOW FLOW		5.0 Feb 5	.00 Aug 12 1995
ANNUAL RUNOFF (AC-FT)	107200	137000	130000
10 PERCENT EXCEEDS	598	988	682
50 PERCENT EXCEEDS	42	41	23
90 PERCENT EXCEEDS	8.9	9.1	1.0

e Estimated

a-From slope-area measurement, but may have exceeded by the flood of Oct. 1, 1904.

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



RIO GRANDE BASIN

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08386000 PECOS RIVER NEAR ACME, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	
OCT 1996 03...	1145	5.1	3040	8.0	20.5	15.5	680	10.6	121	<10	<1	
MAR 1997 20...	0830	880	2680	8.3	14.0	9.5	678	9.4	93	<0	<3	
DATE	TIME	STREP-TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CAC03 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)
OCT 1996 03...	65	1300	1200	390	82	210	3	3.8	84	0	69	
MAR 1997 20...	930	1400	1300	430	69	120	1	3.5	126	2	107	
DATE	TIME	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SI02) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 1996 03...	83	1300	290	0.50	11	2330	<0.010	0.200	0.070	--	0.20	
MAR 1997 20...	104	1300	170	0.6	8.8	2190	<0.010	0.160	0.160	0.14	0.80	
DATE	TIME	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)
OCT 1996 03...	<0.20	0.030	<0.010	<0.010	2.4	12	<2.0	<1	63	<2.0	223	
MAR 1997 20...	0.30	0.450	<0.010	<0.010	21	--	--	--	--	--	107	
DATE	TIME	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
OCT 1996 03...	<2.0	<2.0	<2.0	5.0	16	<2.0	3.0	<0.10	3.0	12	<1	
MAR 1997 20...	--	--	--	--	36	--	--	--	--	--	--	

RIO GRANDE BASIN

08386000 PECOS RIVER NEAR ACME, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)
OCT 1996 03...	<2.0	5.0	<2.0	<0.2	1200	120	2	<1	2	<5
MAR 1997 20...	--	--	--	--	--	--	--	--	--	--
DATE	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SED. SUSP. SIEVE DIAM. * FINER THAN .062 MM (70331)	
OCT 1996 03...	2	2000	<10	150	<0.01	5	7.0	82	1.1	70
MAR 1997 20...	--	--	--	--	--	--	--	5100	12100	91

08387000 RIO RUIDOSO AT HOLLYWOOD, NM

LOCATION.--Lat 33°19'36", long 105°37'38", in SE¹/4SE¹/4NE¹/4 sec.25, T.11 S., R.13 E., Lincoln County, Hydrologic Unit 13060008, on center pier on downstream side of bridge on Blooming Dale Road in Ruidoso Downs, 0.1 mi north of U.S. Highway 70, 0.7 mi downstream from Gavilan Canyon, 1.7 mi downstream from Carrizo Creek, and at mile 24.4.

DRAINAGE AREA.--120 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1953 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,420 ft above National Geodetic Vertical Datum of 1929, from topographic map. Mar. 14, 1953 to Mar. 28, 1985, at site 0.95 mi downstream at different datum.

REMARKS.--Water-discharge records good. Village of Ruidoso diverts from right bank 7.0 mi upstream for municipal use and returns a portion of this water as effluent from sewage disposal plant downstream from the gage.

AVERAGE DISCHARGE.--28 years (1954-81), 14.9 ft³/s, 10,800 acre-ft/yr, for period when sewage disposal plant effluent was discharged upstream from gage.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29, 1941, is probably the highest since at least 1904 (discharge not determined).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	8.4	9.5	9.4	8.5	11	25	41	26	9.9	121	28
2	14	8.4	10	9.7	8.7	13	25	44	25	10	121	26
3	14	8.4	9.8	10	9.1	13	29	41	23	12	78	25
4	14	8.4	9.9	12	9.4	13	30	37	22	11	74	25
5	15	8.4	9.8	12	9.4	13	26	35	20	13	189	25
6	13	8.4	10	11	9.1	14	24	36	21	11	156	23
7	13	8.7	10	10	8.6	14	23	39	38	10	89	22
8	13	8.4	10	10	9.0	16	23	40	34	10	63	21
9	12	8.4	10	10	9.8	19	23	38	29	9.9	50	25
10	12	8.4	10	10	9.9	21	24	39	28	11	42	23
11	11	8.4	10	10	10	23	24	39	24	12	36	20
12	11	8.4	10	9.7	11	26	27	45	22	10	38	24
13	11	8.4	10	10	11	28	25	46	20	10	43	20
14	11	8.4	10	10	9.2	28	23	45	18	10	66	20
15	8.8	8.4	10	10	9.5	26	23	44	16	10	51	19
16	8.6	9.2	9.7	9.0	9.6	28	23	45	15	10	46	20
17	10	8.4	10	8.9	9.5	30	23	49	15	10	41	18
18	10	8.6	8.9	8.8	10	29	24	46	13	10	41	18
19	10	8.5	9.2	8.8	11	28	27	49	12	10	35	19
20	13	8.6	9.2	9.1	9.6	29	31	50	11	11	31	17
21	14	8.7	9.2	10	10	33	36	64	11	11	30	23
22	13	8.7	9.4	9.5	10	36	40	76	11	11	31	38
23	11	8.9	9.4	9.2	11	40	43	69	11	10	57	39
24	9.4	8.9	9.6	9.2	10	41	45	57	9.5	14	65	36
25	9.1	9.0	9.9	8.9	9.6	40	37	49	9.9	16	62	33
26	9.4	8.9	9.9	9.1	10	32	32	43	12	20	54	29
27	11	9.0	9.7	9.6	11	25	29	39	12	22	47	26
28	11	9.2	9.4	9.4	12	23	29	34	11	33	41	24
29	10	9.7	9.2	8.9	---	23	33	31	11	66	37	23
30	9.3	10	9.4	8.6	---	26	40	29	10	86	32	22
31	8.5	---	9.4	8.4	---	26	---	28	---	105	30	---
TOTAL	355.1	260.6	300.5	299.2	275.5	767	866	1367	540.4	604.8	1897	731
MEAN	11.5	8.69	9.69	9.65	9.84	24.7	28.9	44.1	18.0	19.5	61.2	24.4
MAX	15	10	10	12	12	41	45	76	38	105	189	39
MIN	8.5	8.4	8.9	8.4	8.5	11	23	28	9.5	9.9	30	17
AC-FT	704	517	596	593	546	1520	1720	2710	1070	1200	3760	1450

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1997, BY WATER YEAR (WY)

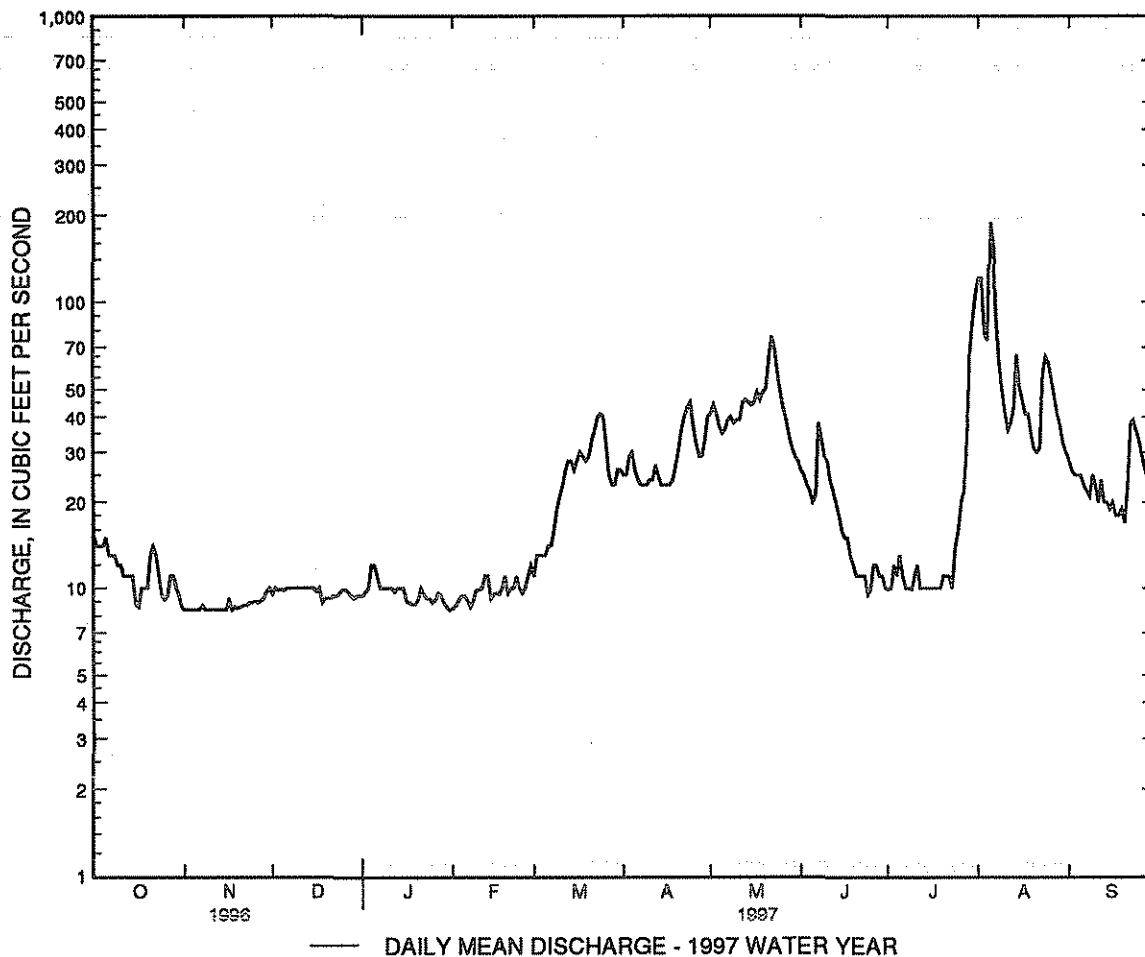
MEAN	21.9	17.3	22.8	18.1	22.3	35.2	44.2	37.9	20.3	19.2	41.0	28.2
MAX	80.8	69.0	130	61.5	58.6	91.2	104	101	52.3	49.9	162	63.4
{WY}	1987	1987	1985	1985	1985	1985	1992	1992	1986	1986	1984	1988
MIN	7.69	7.43	6.59	7.74	8.49	12.3	8.26	6.08	5.96	7.94	8.25	12.5
{WY}	1995	1982	1982	1982	1990	1996	1996	1996	1982	1982	1983	1983

08387000 RIO RUIDOSO AT HOLLYWOOD, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1982 - 1997
ANNUAL TOTAL	5038.8	8264.1	
ANNUAL MEAN	13.8	22.6	27.4
HIGHEST ANNUAL MEAN			49.7 1987
LOWEST ANNUAL MEAN			11.9 1994
HIGHEST DAILY MEAN	59 Aug 28	189 Aug 5	1130 Dec 20 1984
LOWEST DAILY MEAN	5.1 May 17	8.4 Nov 1	1.9 Aug 27 1994
ANNUAL SEVEN-DAY MINIMUM	5.6 May 12	8.4 Nov 8	2.4 Aug 24 1994
INSTANTANEOUS PEAK FLOW		249 Aug 4	2120 ^a Aug 11 1984
INSTANTANEOUS PEAK STAGE		2.98 Aug 4	10.05 ^b Jun 17 1965
INSTANTANEOUS LOW FLOW		7.9 Nov 13	.30 Jan 1 1962
ANNUAL RUNOFF (AC-FT)	9990	16390	19860
10 PERCENT EXCEEDS	28	43	55
50 PERCENT EXCEEDS	10	13	17
90 PERCENT EXCEEDS	6.4	8.9	8.4

a-From rating curve extended above 510 ft³/s, on basis of slope-area measurement of peak flow.

b-Site and datum then in use.



RIO GRANDE BASIN

08387000 RIO RUIDOSO AT HOLLYWOOD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-67, 1987 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
MAR 1997 20...	1240	27	660	25.0	13.5	610	9.8	118	<1	K6
DATE		ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
MAR 1997 20...	12	<1.0	<1	20	<1.0	<1.0	<1.0	<1.0	<1.0	
DATE		LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
MAR 1997 20...	<1.0	4.0	<0.10	1.0	<1.0	<1	<1.0	3.0	<1.0	

RIO GRANDE BASIN

08387600 EAGLE CREEK BELOW SOUTH FORK, NEAR ALTO, NM

LOCATION.--Lat 33°23'57", long 105°43'11", in SW¹/4SW¹/4 sec.31, T.10 S., R.13 E., Lincoln County, Hydrologic Unit 13060008, in Lincoln National Forest on right bank 300 ft upstream from culvert under State Road 532, 400 ft downstream from South Fork, and 2.5 mi west of Alto. Mouth at Rio Ruidoso mile 11.3.

DRAINAGE AREA.--8.14 mi².

PERIOD OF RECORD.--August 1969 to December 1980, April 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,600 ft above National Geodetic Vertical Datum of 1929, from topographic map. August 26, 1969 to December 31, 1980, at site 360 ft downstream at datum 6.0 ft higher.

REMARKS.--Records good. No diversions for irrigation upstream from station. Some water is stored in small unregulated recreational ponds on the Mescalero Apache Indian Reservation upstream. Several observations of water temperature were made during the year.

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

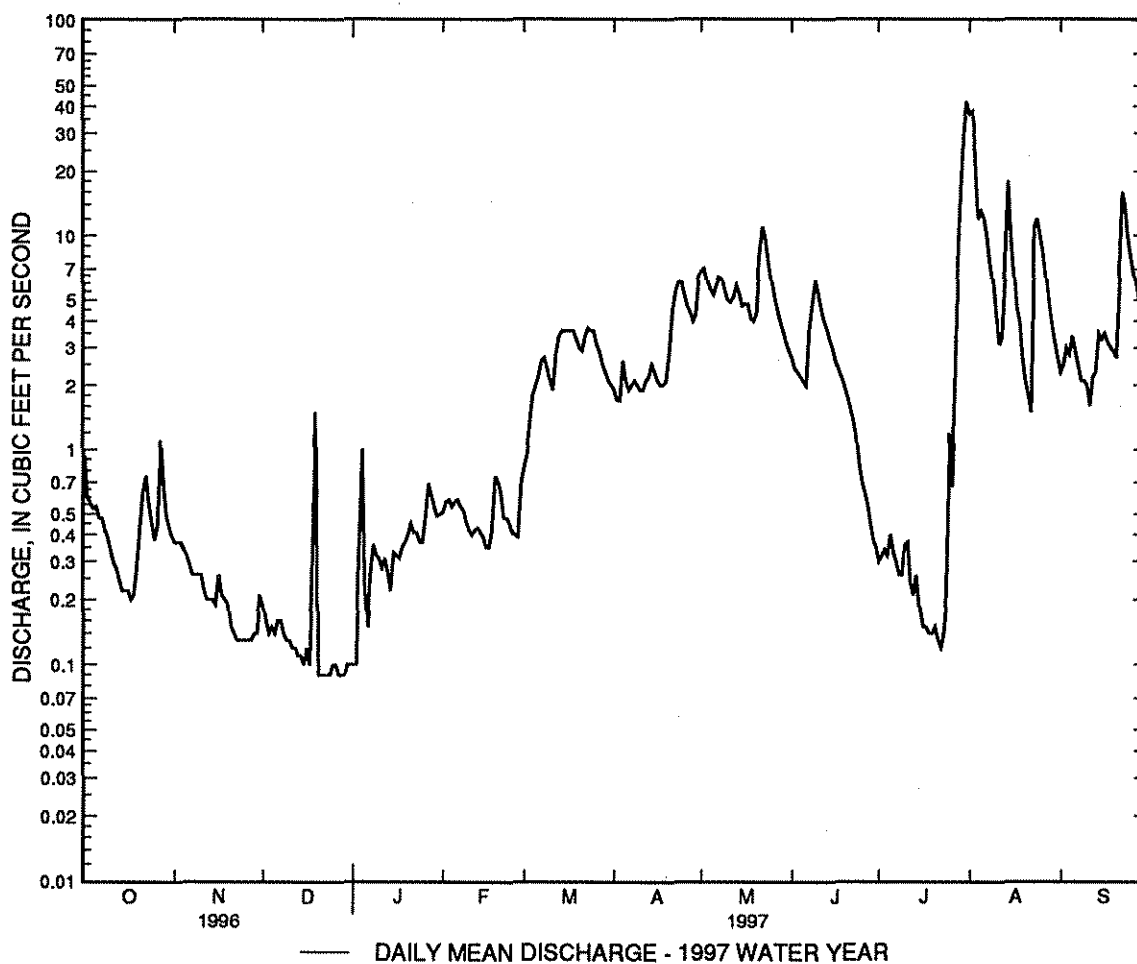
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	.37	.19	.10	.51	.84	1.9	6.8	2.7	.30	37	2.3
2	.60	.37	.16	.10	.57	.96	1.7	7.0	2.4	.32	38	2.5
3	.56	.37	.14	.31	.58	1.3	1.7	6.1	2.3	.34	19	3.0
4	.53	.34	.15	1.0	.54	1.8	2.6	5.6	2.2	.32	12	2.8
5	.54	.32	.14	.24	.57	2.0	2.1	5.3	2.1	.40	13	3.4
6	.48	.29	.16	.15	.58	2.2	1.9	5.9	2.0	.33	12	2.9
7	.48	.26	.16	.26	.54	2.6	2.0	6.4	3.6	.30	9.9	2.5
8	.42	.26	.14	.36	.52	2.7	2.1	6.3	4.7	.26	7.4	2.1
9	.39	.26	.13	.32	.46	2.4	2.0	5.5	6.2	.26	6.0	2.1
10	.34	.26	.13	.31	.42	2.1	1.9	5.0	5.4	.36	4.3	2.0
11	.30	.22	.12	.28	.40	1.9	1.9	4.9	4.6	.37	3.1	1.6
12	.28	.20	.12	.31	.42	2.8	2.1	5.2	4.0	.24	3.4	2.2
13	.25	.20	.11	.27	.43	3.4	2.2	5.9	3.7	.21	6.8	2.3
14	.22	.20	.11	.22	.41	3.6	2.5	5.4	3.3	.26	18	3.5
15	.22	.19	.10	.33	.39	3.6	2.3	4.7	3.0	.18	10	3.3
16	.22	.26	.12	.32	.35	3.6	2.1	4.8	2.6	.15	6.8	3.5
17	.20	.21	.10	.31	.35	3.6	2.0	4.8	2.4	.15	4.6	3.2
18	.21	.20	.30	.35	.42	3.6	2.0	4.1	2.2	.14	4.0	3.0
19	.28	.19	1.5	.37	.75	3.3	2.1	4.0	2.0	.14	2.7	2.9
20	.43	.15	.09	.40	.70	3.0	2.8	4.4	1.8	.15	2.1	2.7
21	.64	.14	.09	.45	.62	2.9	4.4	8.0	1.6	.13	1.8	5.8
22	.75	.13	.09	.41	.48	3.4	5.5	11	1.4	.12	1.5	16
23	.56	.13	.09	.41	.48	3.7	6.1	9.8	1.2	.14	11	14
24	.45	.13	.09	.37	.45	3.6	6.1	7.7	.87	.21	12	10
25	.38	.13	.10	.37	.41	3.6	5.3	6.2	.71	1.2	10	8.1
26	.44	.13	.10	.48	.40	3.1	4.7	5.2	.63	.67	8.3	6.7
27	1.1	.13	.09	.69	.39	2.9	4.4	4.5	.55	2.1	6.4	5.7
28	.66	.14	.09	.61	.70	2.5	4.0	4.0	.45	7.2	4.9	4.8
29	.49	.14	.09	.54	---	2.3	4.3	3.6	.38	17	3.9	4.2
30	.43	.21	.10	.49	---	2.1	6.4	3.2	.35	32	3.2	4.1
31	.39	---	.10	.50	---	2.0	---	2.9	---	42	2.7	---
TOTAL	14.17	6.53	5.20	11.63	13.84	83.40	93.1	174.2	71.34	107.95	285.8	133.2
MEAN	.46	.22	.17	.38	.49	2.69	3.10	5.62	2.38	3.48	9.22	4.44
MAX	1.1	.37	1.5	1.0	.75	3.7	6.4	11	6.2	.42	38	16
MIN	.20	.13	.09	.10	.35	.84	1.7	2.9	.35	.12	1.5	1.6
AC-FT	28	13	10	23	27	165	185	346	142	214	567	264

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1997, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
MEAN	2.47	1.98	2.08	1.63	2.26	3.83	5.01	4.07	1.41	1.84	3.91	3.87
MAX	14.4	17.3	19.5	7.89	8.19	10.6	14.0	15.8	5.94	5.50	16.3	9.26
(WY)	1975	1979	1979	1979	1979	1979	1973	1973	1979	1990	1988	1974
MIN	.29	.17	.17	.22	.25	.14	.088	.000	.014	.10	.31	.35
(WY)	1990	1996	1997	1990	1996	1996	1996	1996	1996	1971	1994	1994

08387600 EAGLE CREEK BELOW SOUTH FORK, NEAR ALTO, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1970 - 1997
ANNUAL TOTAL	232.47	1000.36	
ANNUAL MEAN	.64	2.74	2.81
HIGHEST ANNUAL MEAN			8.48
LOWEST ANNUAL MEAN			.39
HIGHEST DAILY MEAN	13 Sep 13	42 Jul 31	170 Dec 19 1978
LOWEST DAILY MEAN	.00 Apr 26	.09 Dec 20	.00 Jul 9 1989
ANNUAL SEVEN-DAY MINIMUM	.00 Apr 26	.09 Dec 20	.00 Jun 17 1990
INSTANTANEOUS PEAK FLOW		71 Jul 30	206 ^a Dec 19 1978
INSTANTANEOUS PEAK STAGE		6.87 Jul 30	6.87 Jul 30 1997
INSTANTANEOUS LOW FLOW		.09 Dec 15	.00 Jul 9 1989
ANNUAL RUNOFF (AC-FT)	461	1980	2040
10 PERCENT EXCEEDS	1.6	6.2	7.1
50 PERCENT EXCEEDS	.20	1.0	1.2
90 PERCENT EXCEEDS	.00	.14	.23

a-From rating curve extended above 40 ft³/s.

RIO GRANDE BASIN

08390500 RIO HONDO AT DIAMOND A RANCH, NEAR ROSWELL, NM

LOCATION.--33°20'57", long 104°51'05", in NE¹/4NE¹/4 sec.20, T.11 S, R.21 E., Chaves County, Hydrologic Unit 13060008, on right bank 40 ft downstream from bridge on Mossman Road at Diamond A Ranch farm, 1.3 mi south of U.S. Highway 70-380, 13 mi upstream from Two Rivers Reservoir, 21 mi upstream from mouth of Rocky Arroyo, 18 mi west of Roswell, and at mile 44.7.

DRAINAGE AREA.--947 mi², contributing area.

PERIOD OF RECORD.--May 1908 to August 1909, May 1939 to current year. Monthly discharge only for 1908-9, published in Technical Report 7, State of New Mexico, State Engineer Office, "Streamflow and Reservoir Content, 1888-1954."

REVISED RECORDS.--WSP 1392: Drainage area. WSP 1512: 1939-40(P), 1941, 1942-43(P), 1946(P).

GAGE.--Water-stage recorder with satellite telemetry and concrete control. Elevation of gage is 4,190 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 11, 1965, at site on left bank at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions and ground-water withdrawals upstream from station for irrigation above and below station of about 6,500 acres, 1959 determination. Several observations of water temperature were made during the year. No flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on June 1, 1937, reached a discharge of 24,900 ft³/s at Riverside, about 13 mi upstream. Other major floods occurred Oct. 31, 1901, Sept. 29, 30, 1904, and July 25, 1905.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	.00	.00	.00	.00	.00	.00	.00	.00	.00	168	13
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	172	5.1
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	196	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	100	.00
5	1.9	.00	.00	.00	.00	.00	.00	.00	.00	.00	71	.00
6	54	.00	.00	.00	.00	.00	.00	.00	.00	.00	212	.00
7	10	.00	.00	.00	.00	.00	.00	.00	151	.00	203	.00
8	1.5	.00	.00	e.00	.00	.00	.00	.00	660	.00	123	.00
9	.00	.00	.00	e.00	.00	.00	.00	.00	100	.00	70	.00
10	.00	.00	.00	e.00	.00	.00	.00	.00	61	.00	46	.00
11	.00	.00	.00	e.00	.00	.00	.00	.00	48	.00	38	.00
12	.00	.00	.00	e.00	.08	.00	.00	.00	38	.00	20	13
13	.00	.00	.00	e.00	1.3	.00	3.1	.00	31	.00	12	4.3
14	.00	.00	3.8	e.00	2.5	.00	2.2	.00	26	.00	13	3.0
15	.00	.00	6.3	e.00	2.8	.00	.00	.00	23	.00	48	.00
16	.00	.00	11	e.00	.00	.00	.00	.00	18	.00	35	25
17	.00	.00	.18	e.00	.00	.00	.00	.00	13	.00	24	4.9
18	.00	.00	e123	e.00	.00	.00	.06	.00	4.0	.00	22	.10
19	.00	.00	e34	e.00	.00	.00	.57	.00	.00	.00	24	.00
20	.00	.00	e2.7	e.00	.00	.00	.24	.00	.00	.00	9.5	.00
21	.00	.00	e.00	e.00	.00	.00	.00	3.4	.00	.00	2.3	.00
22	.00	.00	e.00	e.00	.00	.00	.01	23	.00	.00	2.2	.00
23	.00	.00	e.00	.00	.00	.00	.00	27	.00	.00	7.1	11
24	.00	.00	.00	.00	.00	.00	.00	25	.00	.00	72	20
25	.00	.00	.00	.00	.66	.00	.00	19	.00	.00	80	21
26	.00	.00	.00	.00	1.4	.00	24	12	.00	.00	61	16
27	.00	.00	.00	.00	.00	.00	17	5.8	.00	.00	49	12
28	.00	.00	.00	.00	.00	.00	9.7	.07	.00	.00	37	9.3
29	.00	.00	.00	.00	---	.00	.12	.00	.00	.00	26	1.4
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	20	.00
31	.00	---	.00	.00	---	.00	---	.00	---	125	16	---
TOTAL	71.00	0.00	180.98	0.00	8.74	0.00	57.00	115.27	1173.00	125.00	1979.1	159.10
MEAN	2.29	.000	5.84	.000	.31	.000	1.90	3.72	39.1	4.03	63.8	5.30
MAX	54	.00	123	.00	2.8	.00	24	27	660	125	212	25
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.2	.00
AC-FT	141	.00	359	.00	17	.00	113	229	2330	248	3930	316

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

	MEAN	27.8	17.5	20.0	17.5	13.7	14.3	28.1	30.7	24.8	28.4	41.3	53.7
MAX	458	199	222	160	97.5	153	199	519	334	163	241	1090	
(WY)	1942	1942	1979	1985	1987	1987	1987	1941	1986	1955	1984	1941	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1941	1949	1940	1952	1940	1950	1946	1951	1951	1975	1960	1943	

RIO GRANDE BASIN

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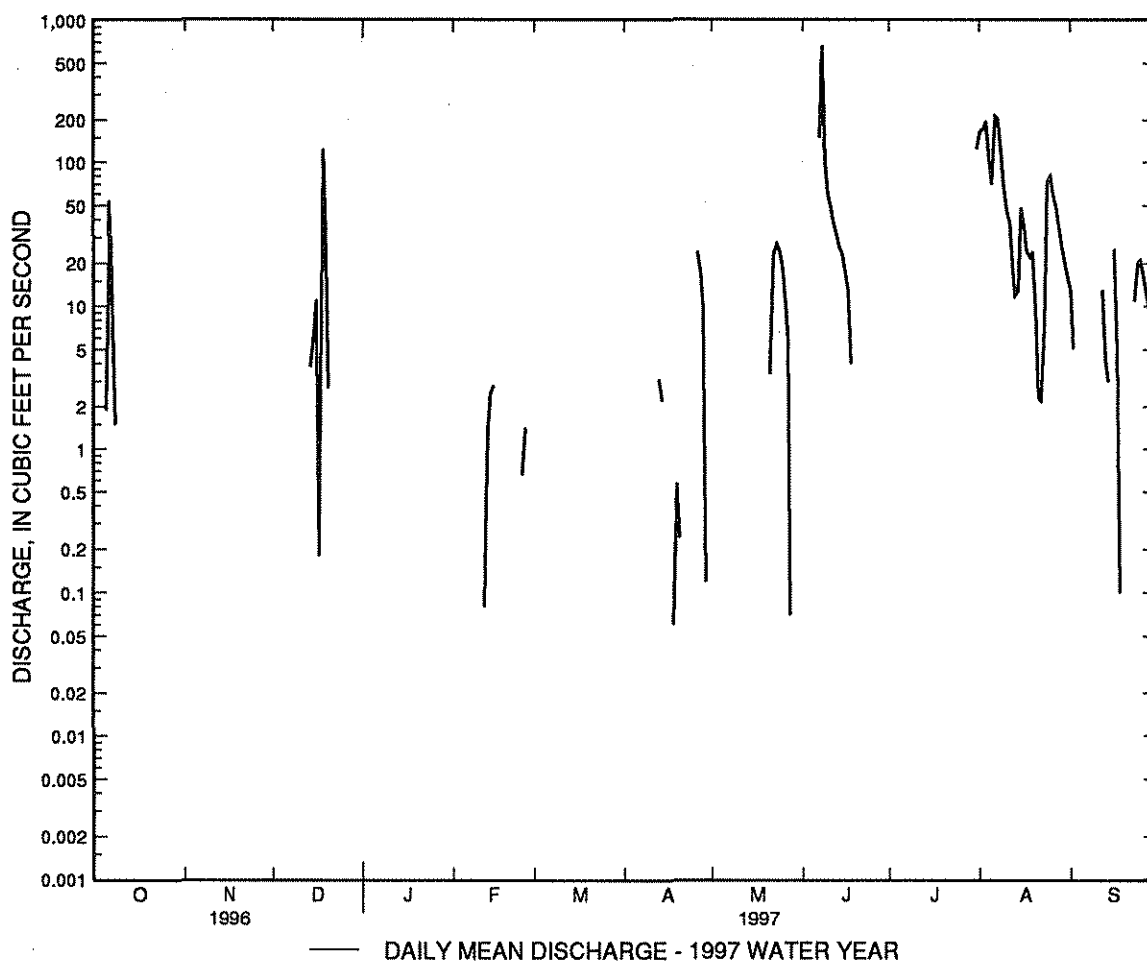
08390500 RIO HONDO AT DIAMOND A RANCH, NEAR ROSWELL, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1993	
ANNUAL TOTAL	7799.52		3869.19		26.5	
ANNUAL MEAN	21.3		10.6		181	
HIGHEST ANNUAL MEAN					1.30	
LOWEST ANNUAL MEAN					1941	
HIGHEST DAILY MEAN	2510	Sep 12	660	Jun 8	8380	Sep 22 1941
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 2	.00	Oct 1 1939
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 9	.00	Oct 1 1939
INSTANTANEOUS PEAK FLOW			3900	Jun 8	54800 ^a	Jun 18 1965
INSTANTANEOUS PEAK STAGE			25.58	Jun 8	28.78 ^b	Sep 22 1941
INSTANTANEOUS LOW FLOW			.00	Oct 2	.00	Oct 1 1939
ANNUAL RUNOFF (AC-FT)	15470		7670		19230	
10 PERCENT EXCEEDS	15		24		68	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

a-From rating curve extended above 3,100 ft/s. on basis of slope-area measurement of peak flow.

b-Maximum gage height, 28.78 ft, Sept. 22, 1941.



RIO GRANDE BASIN

08390600 TWO RIVERS RESERVOIR NEAR ROSWELL, NM

LOCATION.--08390610 Rio Hondo Reservoir: Lat 33°17'55", long 104°43'20", in SW¹/4SE¹/4NE¹/4 sec.4, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, near center of Diamond A Dam on Rio Hondo, 13 mi southwest of Roswell at mile 33.4. 08390620 Rocky Arroyo Reservoir: Lat 33°16'20", long 104°43'20", in NW¹/4SE¹/4NE¹/4sec.16, T.12 S., R.22 E., at left end of Rocky Dam on Rocky Arroyo, and 14 mi southwest of Roswell.

DRAINAGE AREA.--1,027 mi²; Rio Hondo, 963 mi²; Rocky Arroyo, 64 mi².

PERIOD OF RECORD.--July 1963 to current year (prior to October 1965 monthend contents only). Prior to October 1966, contents at 0800 hours.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Two Rivers Reservoir, completed July 16, 1963, is formed by earthfill dams on Rio Hondo, which forms Rio Hondo Reservoir, and on Rocky Arroyo, which forms Rocky Arroyo Reservoir. Above elevation 3,980.0 ft, the pools of the two reservoirs combine to form Two Rivers Reservoir with a total capacity of 163,800 acre-ft, at elevation 4,032.0 ft, crest of ungated spillway. Capacity by original survey was 167,900 acre-ft. Capacity of Rio Hondo Reservoir, 142 acre-ft, from capacity table dated January 1990, between elevations 3,957.0 ft, sill of outlet gate, and 3,980.0. Capacity of Rocky Arroyo Reservoir, 12,860 acre-ft, from capacity table dated January 1990, between elevations 3,945.0, sill of outlet gate, and 3,980.0 ft. No dead storage in Rio Hondo Reservoir or Rocky Arroyo Reservoir. Primary objective of project is flood control. Outlet conduits in Rocky Dam have fixed openings. Figures given herein represent total contents at 2400 hours.

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

EXTREMES FOR PERIOD OF RECORD.--Rio Hondo Reservoir: Maximum contents, 1,260 acre-ft, July 29, 1965, elevation, 3,985.7 ft; no storage most of time. Rocky Arroyo Reservoir: Maximum contents, 6,090 acre-ft, June 18, 1965, elevation, 3,970.7 ft; no storage most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, Rio Hondo Reservoir, 651 acre-ft, June 8; elevation 3,985.33 ft; Rocky Arroyo Reservoir, 374 acre-ft, July 31; elevation 3,955.70 ft; no contents both reservoirs most of time.

CONTENTS, IN ACRE-FEET, AND ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
NO CONTENTS AT 2400 HOURS DURING YEAR EXCEPT:

RIO HONDO RESERVOIR

DATE	ELEVATION	CONTENTS
JUNE 7	3970.73	3
JUNE 8	3985.33	651
JUNE 9	3982.55	329
JUNE 10	3979.63	122

ROCKY ARROYO RESERVOIR

DATE	ELEVATION	CONTENTS
JULY 31	3955.89	374

RIO GRANDE BASIN

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08390800 RIO HONDO BELOW DIAMOND A DAM, NEAR ROSWELL, NM

LOCATION.--Lat 33°18'05", long 104°43'12", in NE¹/4SE¹/4NE¹/4 sec.4, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, on left bank 500 ft downstream from outlet conduit of Diamond A Dam (Two Rivers Reservoir), 13 mi southwest of Roswell, and at mile 33.3.

DRAINAGE AREA.--963 mi², contributing area.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder with satellite telemetry and concrete control. Elevation of gage is 3,949.68 ft above National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions and ground-water withdrawals for irrigation of about 6,500 acres, 1959 determination, upstream from station. This record represents the outflow from Two Rivers Reservoir through Diamond A Dam 0.1 mi upstream; flow from reservoir can also be discharged into Rocky Arroyo through Rocky Dam (see REMARKS for station 08390600). Several observations of water temperature were made during the year.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	e.00	174	3.8
2	e.00	e.00	.00	.00	.00	.00	.00	.00	.00	e.00	184	1.4
3	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	204	.00
4	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	154	.00
5	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	79	.00
6	23	.00	.00	.00	.00	.00	.00	.00	.00	.00	187	.00
7	4.7	.00	.00	.00	.00	.00	.00	.00	31	.00	203	.00
8	.06	.00	.00	.00	.00	.00	.00	.00	159	.00	166	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	138	.00	122	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	158	.00	86	.00
11	e.00	.00	.00	.00	.00	.00	.00	.00	75	.00	70	.00
12	e.00	.00	.00	.00	.00	.00	.00	.00	55	.00	47	.00
13	e.00	.00	.00	.00	.00	.00	.00	.00	41	.00	44	.00
14	e.00	.00	.00	.00	.00	.00	.00	.00	35	.00	42	.00
15	e.00	.00	.00	.00	.00	.00	.00	.00	32	.00	56	.00
16	e.00	.00	.00	.00	.00	.00	.00	.00	29	.00	50	9.9
17	e.00	.00	.00	.00	.00	.00	.00	.00	18	.00	44	6.7
18	e.00	.00	.00	.00	.00	.00	.00	.00	e1.0	.00	43	.26
19	e.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	43	.00
20	e.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	42	.00
21	e.00	.00	.00	.00	.00	.00	.00	.00	e.00	.00	41	.00
22	e.00	.00	.00	.00	.00	.00	.00	1.4	e.00	.00	39	.00
23	e.00	.00	.00	.00	.00	.00	.00	14	e.00	.00	39	.00
24	e.00	.00	.00	.00	.00	.00	.00	12	e.00	.00	66	14
25	e.00	.00	.00	.00	.00	.00	.00	5.3	e.00	.00	83	13
26	e.00	.00	.00	.00	.00	.00	1.1	.46	e.00	.00	62	3.7
27	e.00	.00	.00	.00	.00	.00	7.4	.00	e.00	.00	53	.09
28	e.00	.00	.00	.00	.00	.00	1.4	.00	e.00	.00	35	.00
29	e.00	.00	.00	.00	---	.00	.00	.00	e.00	.00	19	.00
30	e.00	.00	.00	.00	---	.00	.00	.00	e.00	.00	5.7	.00
31	e.00	---	.00	.00	---	.00	---	.00	---	123	3.9	---
TOTAL	27.76	0.00	0.00	0.00	0.00	0.00	9.90	33.16	772.00	123.00	2486.6	52.85
MEAN	.90	.000	.000	.000	.000	.000	.33	1.07	25.7	3.97	80.2	1.76
MAX	23	.00	.00	.00	.00	.00	7.4	14	159	123	204	14
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.9	.00
AC-FT	55	.00	.00	.00	.00	.00	.00	66	1530	244	4930	105

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1997, BY WATER YEAR (WY)

	1964	1964	1964	1964	1964	1964	1964	1964	1967	1971	1974	1975	1973
MEAN	13.9	12.1	15.8	16.6	14.2	14.6	21.0	17.0	9.29	7.82	26.1	26.0	
MAX	151	122	118	128	82.9	122	176	127	74.7	52.3	137	116	
(WY)	1986	1987	1985	1985	1987	1987	1987	1987	1992	1986	1984	1988	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
(WY)	1964	1964	1964	1964	1964	1964	1964	1967	1971	1974	1975	1973	

08390800 RIO HONDO BELOW DIAMOND A DAM, NEAR ROSWELL, NM -- Continued

SUMMARY STATISTICS

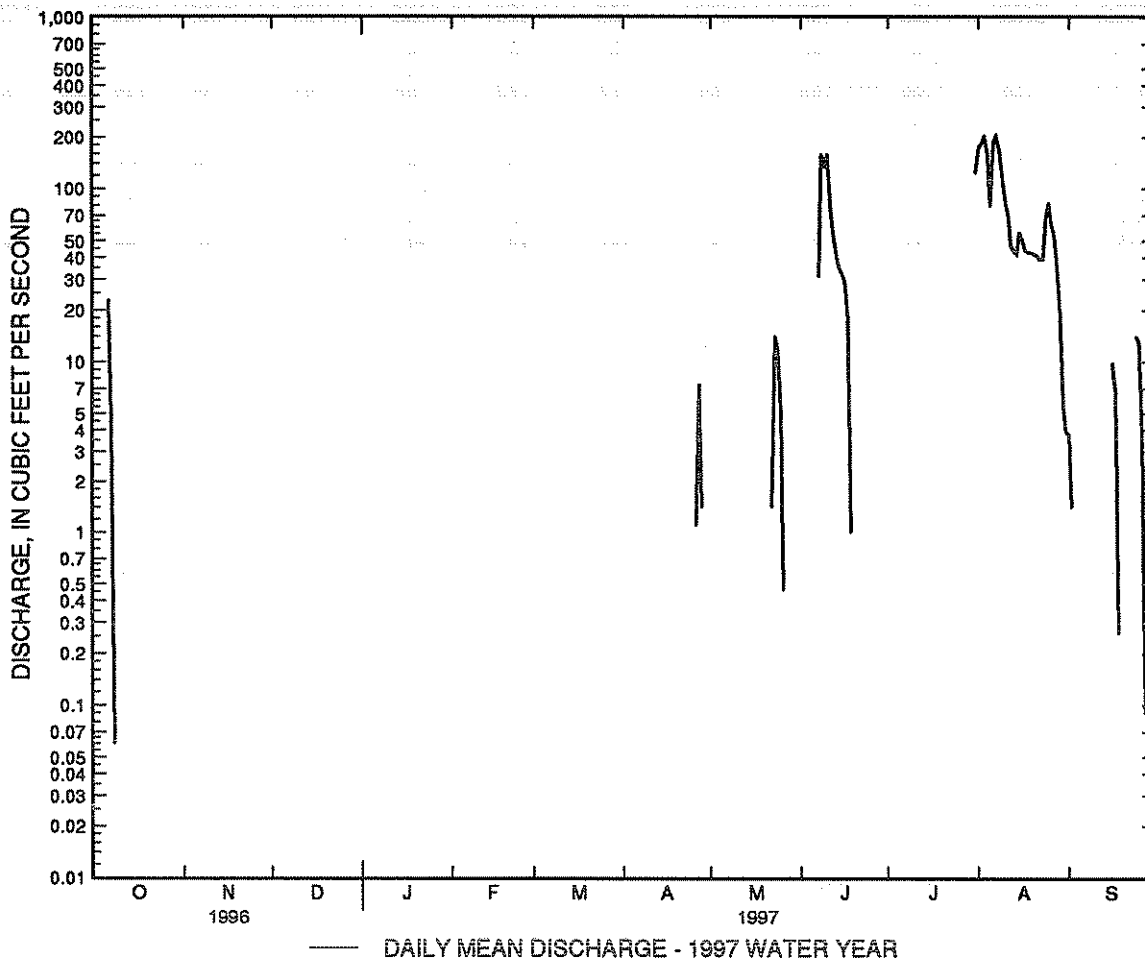
FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1964 - 1997

ANNUAL TOTAL	1811.66	3505.27	16.2	1987
ANNUAL MEAN	4.95	9.60	24	1976
HIGHEST ANNUAL MEAN			85.6	
LOWEST ANNUAL MEAN				
HIGHEST DAILY MEAN	224 Jul 1	204 Aug 3	459 Sep 8	1965
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	.00 Oct 1	1963
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Oct 9	.00 Oct 1	1963
INSTANTANEOUS PEAK FLOW		269 Jul 31	659 Jul 29	1965
INSTANTANEOUS PEAK STAGE		3.15 Jun 8	4.91 Jul 29	1965
INSTANTANEOUS LOW FLOW		.00 Oct 1	.00 Oct 1	1963
ANNUAL RUNOFF (AC-FT)	3590	6950	11740	
10 PERCENT EXCEEDS	5.1	33	56	
50 PERCENT EXCEEDS	.00	.00	.00	
90 PERCENT EXCEEDS	.00	.00	.00	

e Estimated



RIO GRANDE BASIN

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08393500 RIO HONDO AT ROSWELL, NM

LOCATION.--Lat 33°22'19", long 104°32'42", in NE¹/4SE¹/4 sec.7, T.11 S., R.24 E., Chaves County, Hydrologic Unit 13060008, on left bank 0.3 mi upstream from bridge on Sunset Ave. in Roswell, 6.3 mi downstream from Rocky Arroyo and 11.7 mi upstream from mouth. Mouth at Pecos River mile 566.0.

DRAINAGE AREA.--1,070 mi², approximately, (contributing area).

PERIOD OF RECORD.--February 1981 to May 1997 (discontinued). Records for June 1903 to February 1906, published in WSP 358, are unreliable and should not be used.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 3,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Flow regulated by Two Rivers Reservoir (station 08390600) 21.7 mi upstream. Diversions and ground-water withdrawals for irrigation upstream from station. No flow most of time.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
2	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
3	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
4	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
5	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
6	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
7	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
8	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
9	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
10	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
11	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
12	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
13	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
14	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
15	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
16	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
17	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
18	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
19	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
20	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
21	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
22	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
23	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
24	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
25	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
26	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
27	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
28	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
29	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
30	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
31	.00	---	.00	.00	---	.00	---	.00	---	---	---	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---	---
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	---	---	---	---
MAX	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
MIN	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---

CAL YR 1996 TOTAL 527.28 MEAN 1.44 MAX 100 MIN .00 AC-FT 1050

RIO GRANDE BASIN

08393610 RIO HONDO NEAR ROSWELL, NM

LOCATION.--Lat 30°24'26", long 104°28'27", in SW¹/4SW¹/4 sec. 25, T.10 S., R.24 E., Chaves County, Hydrologic Unit 13060008, on right bank at bridge 0.70 mi downstream from Berrendo Creek, 1.1 mi north on State Road 265 (intersection of Red Bridge Road and US 380) and 3.0 mi west to Main Street. Mouth at Pecos River mi 588.

DRAINAGE.-- 2,900 mi², approximately. (contributing area)

PERIOD OF RECORD.--June to September 1997.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 3,500 ft. above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Two Rivers Reservoir (083906000) 25.2 mi upstream. Diversions and ground-water withdrawals for irrigation upstream from station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,470 ft³/s, June 5, 1997, gage height, 10.61 ft, on basis of slope-area measurement of peakflow, minimum 25 ft³/s, Sept. 13, 1997,

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period June to September, 1,470 ft³/s, from slope-area measurement of peakflow, gage height, 10.61 ft; minimum daily 2.6 ft³/s, Sept. 17.

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	5.3	9.3	94	3.3
2	---	---	---	---	---	---	---	---	5.2	9.7	57	3.2
3	---	---	---	---	---	---	---	---	5.2	8.7	62	3.2
4	---	---	---	---	---	---	---	---	6.3	49	40	3.2
5	---	---	---	---	---	---	---	---	140	16	13	3.2
6	---	---	---	---	---	---	---	---	9.6	13	41	3.4
7	---	---	---	---	---	---	---	---	9.5	4.7	95	3.1
8	---	---	---	---	---	---	---	---	61	4.1	66	2.8
9	---	---	---	---	---	---	---	---	76	4.3	38	2.8
10	---	---	---	---	---	---	---	---	40	4.7	21	20
11	---	---	---	---	---	---	---	---	34	5.4	12	12
12	---	---	---	---	---	---	---	---	4.5	5.1	7.2	3.7
13	---	---	---	---	---	---	---	---	3.8	5.2	5.7	2.8
14	---	---	---	---	---	---	---	---	3.2	5.4	12	2.8
15	---	---	---	---	---	---	---	---	3.2	6.3	9.5	2.9
16	---	---	---	---	---	---	---	---	3.0	6.0	5.5	3.1
17	---	---	---	---	---	---	---	---	3.0	6.0	7.1	2.6
18	---	---	---	---	---	---	---	---	3.6	5.8	57	6.3
19	---	---	---	---	---	---	---	---	5.0	6.4	4.6	7.5
20	---	---	---	---	---	---	---	---	5.3	7.1	4.2	7.2
21	---	---	---	---	---	---	---	---	5.4	6.4	4.1	7.8
22	---	---	---	---	---	---	---	---	5.7	6.6	4.8	30
23	---	---	---	---	---	---	---	---	5.9	6.1	7.3	6.1
24	---	---	---	---	---	---	---	---	5.6	6.8	3.9	5.5
25	---	---	---	---	---	---	---	---	5.7	7.2	9.9	5.3
26	---	---	---	---	---	---	---	---	6.3	7.4	12	6.0
27	---	---	---	---	---	---	---	---	7.0	9.8	6.5	5.9
28	---	---	---	---	---	---	---	---	8.3	11	4.2	4.0
29	---	---	---	---	---	---	---	---	9.0	9.2	4.2	3.4
30	---	---	---	---	---	---	---	---	8.9	6.4	3.7	4.2
31	---	---	---	---	---	---	---	---	---	60	3.3	---
TOTAL	---	---	---	---	---	---	---	---	494.5	319.1	715.7	177.3
MEAN	---	---	---	---	---	---	---	---	16.5	10.3	23.1	5.91
MAX	---	---	---	---	---	---	---	---	140	60	95	30
MIN	---	---	---	---	---	---	---	---	3.0	4.1	3.3	2.6
AC-FT	---	---	---	---	---	---	---	---	981	633	1420	352

LOCATION.--Lat 32°59'21", long 104°19'17", in SW1/4NE1/4 sec.27, T.15 S., R.26 E., Chaves County, Hydrologic Unit 13060007, on right bank 750 ft upstream from bridge on Yuma Road, 3.5 mi east of Lake Arthur, 7 mi upstream from Cottonwood Creek, 15 mi northeast of Artesia, and at mile 522.0.

PERIOD OF RECORD.--August 1938 to current year.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Lake Sumner (station 08384000) 180 mi upstream, since August 1937, and by Two Rivers Reservoir (station 08390600) 77 mi upstream, since July 1963. Diversions and ground-water withdrawals for irrigation of about 124,000 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year. No flow at times.

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

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)

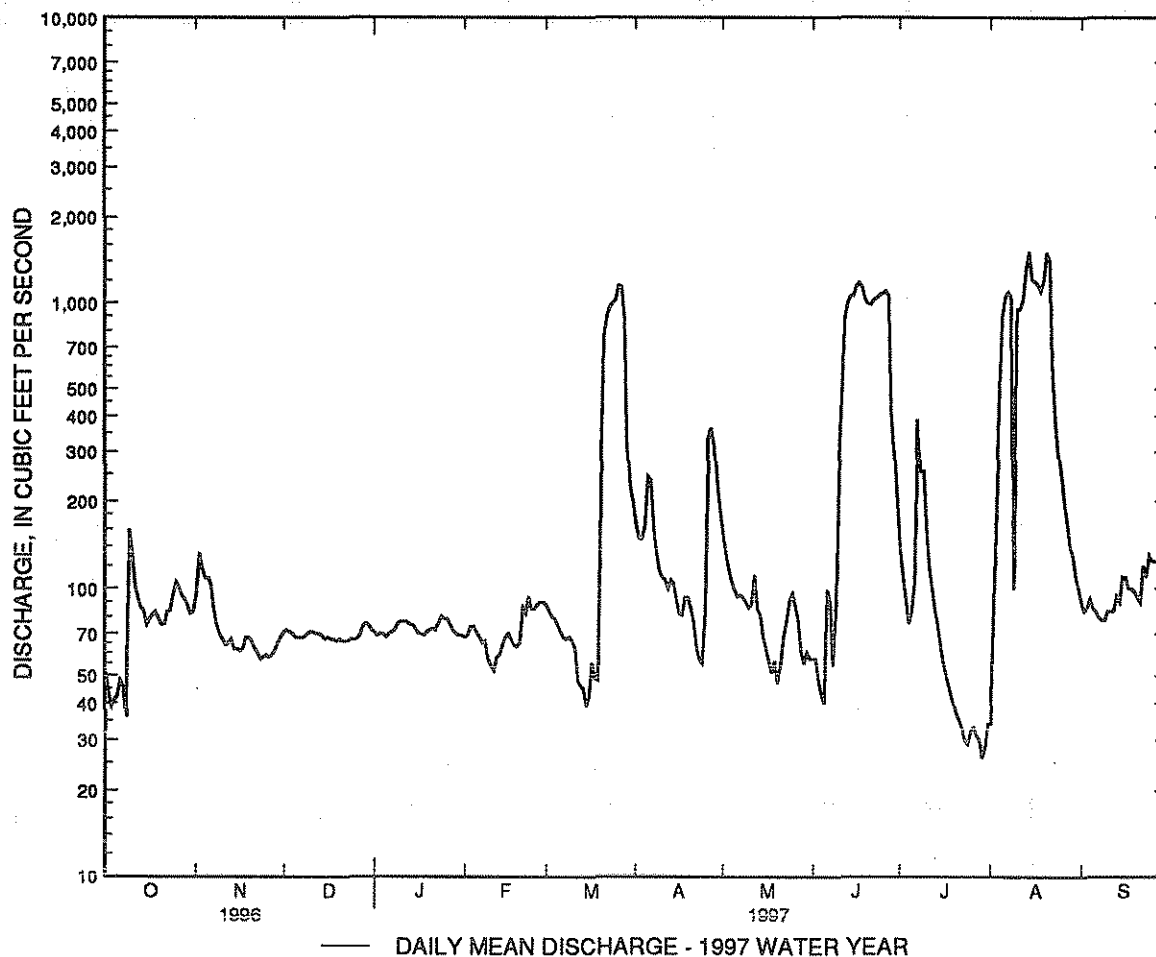
MEAN	246	120	95.4	94.4	85.7	180	226	315	332	335	278	371
MAX	3701	983	546	451	446	682	1308	3673	2436	1521	913	5407
(WY)	1942	1942	1942	1942	1942	1941	1942	1941	1941	1960	1941	1941
MIN	3.89	32.0	29.9	34.5	26.6	16.6	7.35	11.9	4.78	1.02	.42	1.30
(WY)	1965	1968	1967	1965	1965	1967	1967	1975	1977	1954	1964	1964

08395500 PECOS RIVER NEAR LAKE ARTHUR, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1938 - 1997	
ANNUAL TOTAL	71490		74647		224	
ANNUAL MEAN	195		205		1314	
HIGHEST ANNUAL MEAN					62.2	
LOWEST ANNUAL MEAN					39800	
HIGHEST DAILY MEAN	2710	Jun 30	1510	Aug 14		Sep 24 1941
LOWEST DAILY MEAN	12	Jun 12	26	Jul 29	.00	Aug 21 1947
ANNUAL SEVEN-DAY MINIMUM	16	Jun 8	30	Jul 24	.10	Jul 26 1954
INSTANTANEOUS PEAK FLOW			1650	Aug 14	49600 ^a	Sep 24 1941
INSTANTANEOUS PEAK STAGE			7.93	Aug 14	21.90	Sep 24 1941
INSTANTANEOUS LOW FLOW			22	Jul 29	.00 ^b	Oct 1 1946
ANNUAL RUNOFF (AC-FT)	141800		148100		162200	
10 PERCENT EXCEEDS	695		901		666	
50 PERCENT EXCEEDS	88		81		71	
90 PERCENT EXCEEDS	42		52		15	

e Estimated

a-From rating curve extended above 16,100 ft³/s, on basis of slope-area measurements at gage height 21.77 ft.
b-Also occurred in 1947, 1953, 1954, 1962, 1964.



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LOCATION.--Lat 32°50'27", long 104°19'23", in NW1/4NW1/4 sec.18, T.17 S., R.27 E., Eddy County, Hydrologic Unit 13060007, on left bank 250 ft upstream from bridge on U.S. Highway 82, 4.3 mi east of Artesia, 7.0 mi upstream from Rio Penasco, and at mile 503.9.

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WSP 1312 and 1512: 1913, 1915, 1917-18(M), 1920, 1923, 1931-36. WSP 1712: 1906(M), 1908-11(M), 1919, 1921- 23(M), 1929, 1931-32(M), 1935-36(M), 1937, 1939(M), 1941(M). See also PERIOD OF RECORD.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Considerable flow regulation by Lake Sumner (station 08384000) since August 1937, and by Two Rivers Reservoir (station 08390600) since July 1963. Diversions and ground-water withdrawals for irrigation of about 154,000 acres, 1959 determination, upstream from station. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1893 occurred Oct. 2, 1904, discharge not determined; the peak inflow to Lake McMillan, which includes Rio Penasco and Fourmile Draw, was estimated at 82,000 ft³/s. The second highest flood occurred July 25, 1905, discharge downstream from Rio Penasco, 50,300 ft³/s, based on gain in storage and spill from Lake McMillan. The floods in August 1893 and October 1904 damaged McMillan Dam and washed out Avalon Dam.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	78	65	70	67	88	213	155	e56	163	40	87
2	61	98	67	70	66	86	168	131	e56	137	54	83
3	54	111	66	69	69	83	148	116	e54	119	106	84
4	51	100	66	70	73	79	141	106	e48	105	307	87
5	52	97	65	69	70	78	186	102	e47	106	777	89
6	52	99	63	69	70	74	225	95	58	121	928	82
7	55	85	64	71	66	72	180	91	99	294	1090	77
8	49	75	64	70	63	70	137	87	66	392	1020	75
9	75	68	64	72	64	70	122	82	50	274	988	74
10	128	63	66	79	56	70	117	80	169	196	931	83
11	96	61	67	76	53	68	109	76	389	145	930	81
12	85	59	67	76	59	62	108	100	609	124	965	80
13	80	62	66	75	61	50	108	89	857	107	1070	90
14	76	60	66	68	61	47	112	78	929	95	1370	83
15	70	58	64	63	65	44	106	70	958	84	1160	107
16	68	56	63	79	67	39	95	62	988	76	1060	100
17	70	55	63	71	68	48	89	58	1000	68	1040	100
18	72	59	62	71	65	57	99	52	981	63	976	96
19	72	62	62	71	63	50	105	52	e985	56	1090	91
20	69	62	63	73	62	81	101	51	e960	49	1480	86
21	67	60	65	74	76	552	95	57	e945	46	1350	80
22	70	57	62	74	83	702	82	65	e950	42	469	114
23	74	55	63	75	90	811	74	69	e975	39	329	101
24	78	54	62	78	90	922	71	89	e990	36	246	121
25	86	55	64	80	86	954	77	100	1000	34	203	120
26	93	55	65	79	85	1010	211	e90	1020	39	172	117
27	86	54	66	77	88	1050	412	e82	1100	38	141	112
28	82	56	68	73	89	933	376	e66	634	37	136	105
29	82	60	72	71	---	495	233	e58	284	35	117	91
30	77	61	73	70	---	285	189	e56	204	31	104	83
31	74	---	72	69	---	240	---	e60	---	32	95	---
TOTAL	2269	2035	2025	2252	1975	9270	4489	2525	17461	3183	20744	2781
MEAN	73.2	67.8	65.3	72.6	70.5	299	150	81.5	582	103	669	92.7
MAX	128	111	73	80	90	1050	412	155	1100	392	1480	121
MIN	49	54	62	63	53	39	71	51	47	31	40	74
AC-FT	4500	4040	4020	4470	3920	18390	8900	5010	34630	6310	41150	5520

MEAN	251	131	106	105	95.8	186	226	357	385	333	269	370
MAX	4203	1240	614	499	504	768	1292	3834	3495	1453	880	5704
(WY)	1942	1942	1942	1942	1942	1941	1942	1941	1937	1960	1941	1941
MIN	2.26	31.5	33.6	34.6	28.5	21.7	10.7	15.8	5.42	.77	.065	.27
(WY)	1965	1968	1967	1965	1972	1981	1967	1975	1977	1954	1964	1964

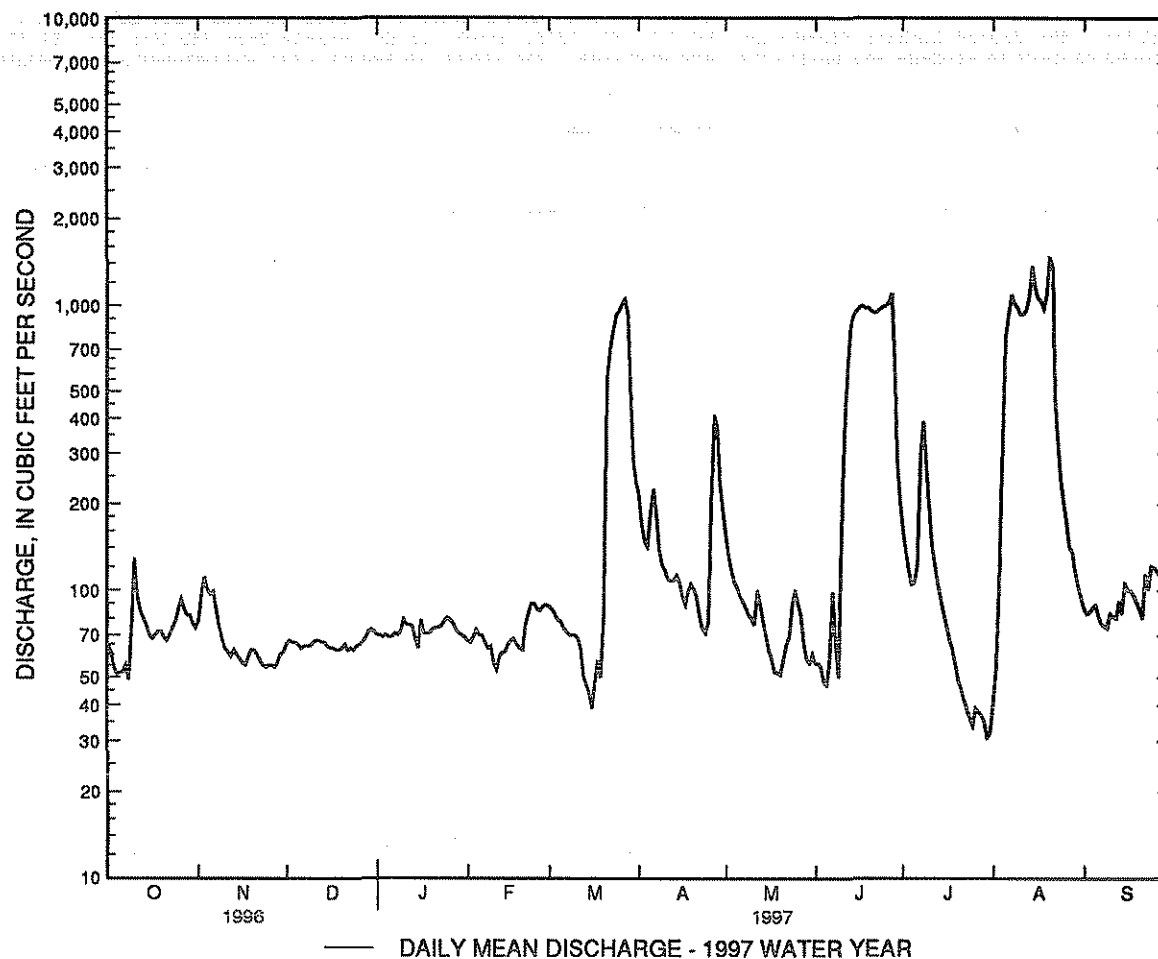
RIO GRANDE BASIN

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1937 - 1997
ANNUAL TOTAL	64569	71009	
ANNUAL MEAN	176	195	235
HIGHEST ANNUAL MEAN			1378
LOWEST ANNUAL MEAN			64.8
HIGHEST DAILY MEAN	1630	1480	44300
LOWEST DAILY MEAN	15	31	.00
ANNUAL SEVEN-DAY MINIMUM	20	35	.00
INSTANTANEOUS PEAK FLOW		1830	51500 ^a
INSTANTANEOUS PEAK STAGE		9.57	1015.00
INSTANTANEOUS LOW FLOW		7.5	.00
ANNUAL RUNOFF (AC-FT)	128100	140800	170500
10 PERCENT EXCEEDS	627	829	663
50 PERCENT EXCEEDS	81	78	77
90 PERCENT EXCEEDS	48	55	16

e Estimated

a-From a slope-area measurement made at a site 15 mi upstream.



RIO GRANDE BASIN

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08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
NOV 1996 12...	1245	59	7170	7.9	16.5	12.0	687	8.0	85	22	2000	
MAR 1997 21...	0800	505	4620	7.9	17.0	14.0	678	9.8	109	<10	1700	
DATE		HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD CO3 CACO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 1996 12...	1800	520	170	910	9	7.6	184	0	151	146	1700	
MAR 1997 21...	1600	470	120	460	5	5.7	143	0	117	149	1600	
DATE		CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
NOV 1996 12...	1600	0.80	14	5020	0.980	0.020	1.00	0.270	0.03	0.40	0.30	
MAR 1997 21...	700	0.70	8.2	3440	--	<0.010	0.280	0.400	0.20	0.90	0.60	
DATE		PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SE) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
NOV 1996 12...	<0.010	<0.010	0.020	3.2	8.0	<3.0	<1	46	<3.0	398	<3.0	
MAR 1997 21...	0.100	<0.010	<0.010	49	--	--	--	--	--	244	--	
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, DIS-SOLVED TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
NOV 1996 12...	<3.0	<3.0	4.0	<15	<3.0	10	<0.10	3.0	4.0	2	1	
MAR 1997 21...	--	--	--	12	--	--	--	--	--	--	--	

RIO GRANDE BASIN

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SILVER, DIS- SOLVED (UG/L AS AG (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)
NOV 1996 12...	<3.0	5.0	<2.0	<0.2	30	220	2	<1	3	<5
MAR 1997 21...	--	--	--	--	--	--	--	--	--	--
DATE	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1996 12...	<1	2900	<10	220	<0.01	7	7.0	72	12	78
MAR 1997 21...	--	--	--	--	--	--	--	9910	13500	95

08398500 RIO PENASCO AT DAYTON, NM

LOCATION.--Lat 32°44'36", long 104°24'49", in NE¹/4SE¹/4 sec.18, T.18 S., R.26 E., Eddy County, Hydrologic Unit 13060010, on left bank 1.2 mi upstream from U.S. Highway 285, 1.9 mi northwest of old Dayton railway station, 5.6 mi upstream from mouth, and 7.0 mi south of Artesia. Mouth at Pecos River mile 496.4.

DRAINAGE AREA.--1,060 mi², approximately.

PERIOD OF RECORD.--April 1951 to current year. Prior to October 1953, published as "near Dayton."

REVISED RECORDS.--WSP 1242: 1951(M). WSP 1512: 1956. WSP 1923: 1955.

GAGE.--Water-stage recorder and rock and concrete control. Elevation of gage is 3,385.19 ft above National Geodetic Vertical Datum of 1929. Prior to May 9, 1968, at site 2.4 mi downstream, at datum 44.30 ft lower. May 9, 1968 to June 12, 1975, at present site at datum 1.98 ft higher.

REMARKS.--Records good. Diversions and ground-water withdrawals for irrigation of about 3,000 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year. No flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about Sept. 22, 1941, reached a stage of about 9 ft, from floodmark, previous site and datum, discharge not determined. Peak discharge at discontinued station "near Dunken" (station 08397600), about 60 mi upstream, was 70,000 ft³/s, determined in 1956, from rating curve extended above a slope-area measurement of 36,000 ft³/s, for peak of Oct. 6 or 7, 1954.

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

[illegible]

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1997, BY WATER YEAR (WY)

MEAN	5.30	1.59	.000	.000	.000	.000	.018	1.26	12.9	9.18	16.5	11.1
MAX	201	72.8	.016	.000	.000	.000	.70	41.0	528	221	328	372
(WY)	1955	1984	1975	1952	1952	1952	1957	1965	1986	1968	1966	1974
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1952	1952	1952	1952	1952	1952	1951	1952	1951	1954	1951	1951

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1951 - 1997
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ANNUAL TOTAL	300.64						
ANNUAL MEAN	.82					4.92	
HIGHEST ANNUAL MEAN						43.4	1986
LOWEST ANNUAL MEAN						.000	1959
HIGHEST DAILY MEAN	90	Jun 28				9490	Aug 23 1966
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1		.00	Apr 1 1951
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1		.00	Apr 1 1951
INSTANTANEOUS PEAK FLOW			.00	Sep 30		29800 ^a	Aug 23 1966
INSTANTANEOUS PEAK STAGE			.00	Sep 30		16.40 ^b	Aug 23 1966
INSTANTANEOUS LOW FLOW			.00	Oct 1		.00	Oct 1 1993
ANNUAL RUNOFF (AC-FT)	596					3570	
10 PERCENT EXCEEDS	.00		.00			.00	
50 PERCENT EXCEEDS	.00		.00			.00	
90 PERCENT EXCEEDS	.00		.00			.00	

a-From rating curve extended above 7,800 ft³/s, on basis of slope-area measurements at gage heights 6.82 ft and 7.90 ft, at previous site and datum.
b-From floodmarks, present site and datum.

RIO GRANDE BASIN

08399500 PECOS RIVER (KAISER CHANNEL) NEAR LAKEWOOD, NM

LOCATION.--Lat 32°41'22", long 104°17'53", in NW¹/4SE¹/4 sec.5, T.19 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on left bank 3.0 mi upstream from high-water line of former Lake McMillan, 6.0 mi northeast of Lakewood, 12 mi southeast of Artesia, and at mile 492.1.

PERIOD OF RECORD.--May 1950 to current year. Prior to October 1954, published as Kaiser Lake-McMillan Channel near Lakewood.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 3,268.53 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Mar. 23, 1955, at site 3.0 mi downstream at datum 7.83 ft lower. Mar. 23, 1955 to Sept. 30, 1963, at present site at datum 2.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Considerable flow regulation by Lake Sumner (station 08384000) since August 1937, and by Two Rivers Reservoir (station 08390600) since July 1963. Diversions and ground-water withdrawals for irrigation of about 170,000 acres, 1959 determination, upstream from station. Above about 1,500 ft³/s, flow will begin bypassing station and depending on the magnitude and duration of flow, may reach Brantley Lake (station 08401450). Several observations of water temperature were made during the year. Instantaneous peaks are not published because flood channel is separate from Kaiser Channel and is not gaged.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	72	60	66	66	89	162	173	53	213	e38	e92
2	43	84	64	65	65	87	140	149	53	166	e50	e86
3	38	111	65	65	67	85	135	125	54	128	65	e87
4	34	100	65	66	73	80	133	111	45	100	219	e84
5	35	99	65	66	72	78	164	104	39	86	704	e80
6	36	99	63	64	67	76	238	96	33	91	840	e78
7	39	93	62	66	65	73	214	91	115	185	974	e73
8	38	77	63	67	61	70	142	85	91	414	958	e68
9	34	67	62	67	62	70	119	77	59	254	950	e66
10	130	60	64	71	55	71	110	71	165	197	906	72
11	103	57	66	74	51	69	100	67	440	130	885	74
12	87	55	66	71	55	66	98	80	636	99	908	69
13	81	61	65	73	58	52	92	93	921	e100	941	83
14	75	64	65	73	57	45	102	72	953	e91	1090	72
15	75	58	63	59	61	44	100	68	987	e86	1040	95
16	66	56	e61	69	64	39	85	55	1010	e82	949	95
17	69	57	e62	67	66	41	76	50	1030	e73	923	95
18	72	57	e60	65	64	58	80	45	1040	e66	889	94
19	76	64	e57	65	62	53	94	39	976	e60	941	88
20	73	63	61	67	60	52	93	43	984	e52	1090	83
21	68	62	58	70	63	638	83	41	988	e47	1120	75
22	69	57	56	71	84	801	72	56	981	e44	519	106
23	76	56	57	70	82	848	60	61	983	e40	398	101
24	80	51	57	73	93	888	53	72	978	e37	e290	115
25	89	52	56	78	86	913	56	87	977	e35	e230	120
26	97	53	58	78	84	947	158	89	975	e37	e200	118
27	94	52	58	76	87	997	486	82	1030	e39	e160	112
28	83	53	60	71	90	926	416	73	753	e37	e140	106
29	82	57	65	68	---	526	263	58	373	e36	e130	93
30	76	59	67	66	---	222	204	52	282	e32	e110	83
31	72	---	68	66	---	185	---	56	---	e33	e96	---
TOTAL	2137	2006	1919	2133	1920	9189	4328	2421	18004	3090	18753	2663
MEAN	68.9	66.9	61.9	68.8	68.6	296	144	78.1	600	99.7	605	88.8
MAX	130	111	68	78	93	997	486	173	1040	414	1120	120
MIN	34	51	56	59	51	39	53	39	33	32	38	66
AC-FT	4240	3980	3810	4230	3810	18230	8580	4800	35710	6130	37200	5280

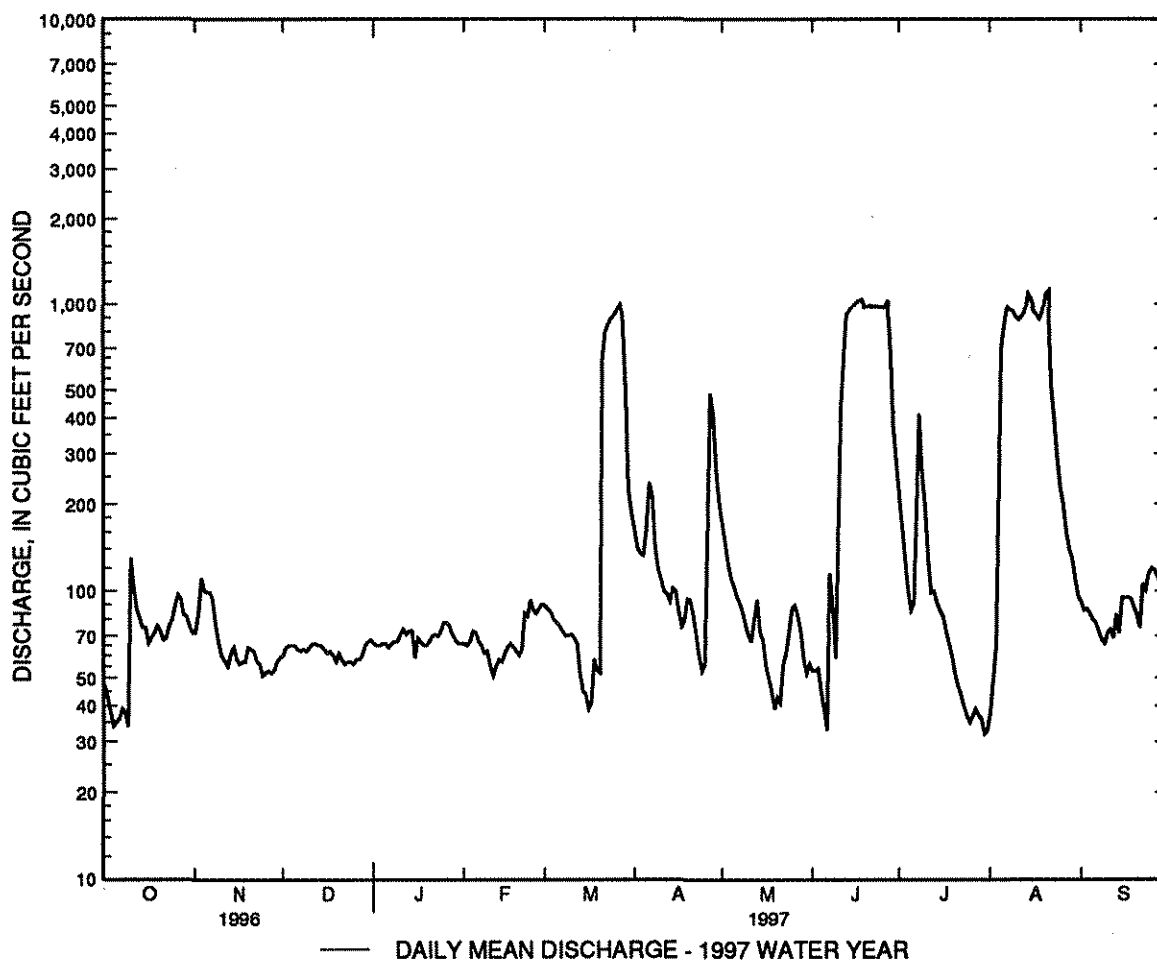
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1997, BY WATER YEAR (WY)

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
MEAN	136	83.0	77.8	78.8	73.8	153	155	246	247	270	251	200
MAX	695	307	272	307	291	417	489	1220	748	886	698	800
(WY)	1955	1987	1987	1987	1987	1987	1987	1987	1995	1960	1994	1988
MIN	.000	26.1	29.2	31.4	25.3	19.2	8.12	15.3	1.86	.041	.000	.000
(WY)	1965	1968	1965	1965	1972	1971	1967	1964	1977	1990	1964	1964

08399500 PECOS RIVER (KAISER CHANNEL) NEAR LAKEWOOD, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1950 - 1997	
ANNUAL TOTAL	61970		68563		164	
ANNUAL MEAN	169		188		353	
HIGHEST ANNUAL MEAN					64.1	
LOWEST ANNUAL MEAN					2920	
HIGHEST DAILY MEAN	1260	Jul 1	1120	Aug 21		1987
LOWEST DAILY MEAN	10	Jun 13	32	Jul 30		1964
ANNUAL SEVEN-DAY MINIMUM	12	Jun 9	36	Jul 25		1960
INSTANTANEOUS PEAK FLOW			1230	Aug 21		1951
INSTANTANEOUS PEAK STAGE			9.94	Aug 21		1953
INSTANTANEOUS LOW FLOW			32	Jul 30		1996
ANNUAL RUNOFF (AC-FT)	122900		136000			1995
10 PERCENT EXCEEDS	685		843			
50 PERCENT EXCEEDS	76		73			
90 PERCENT EXCEEDS	39		52			

e Estimated



LOCATION.--Lat 32°40'20", long 104°22'07", in SW¹/4NW¹/4SE¹/4 sec.10, T.19 S., R.26 E., Eddy County, Hydrologic Unit 13060011, in left side of channel 360 ft downstream from ford on Lakewood-Dayton road, 1.9 mi downstream from U.S. Highway 285, 2.8 mi north of Lakewood, 3.8 mi upstream from mouth, and 11.5 mi south of Artesia. Mouth at Pecos River mile 490.6.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS. --WDR NM-68-1: 1967.

Oct. 1, 1951 to June 19, 1962, at site 1.8 mi upstream at datum 30.61 ft higher. June 19, 1962 to Oct. 12, 1966, at site 410 ft upstream at datum 6.08 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. No surface diversions upstream from station. No flow most of time.

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

[illegible]

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 ~ 1997, BY WATER YEAR (WY)

MEAN	1.77	.000	.000	.000	.000	.000	.001	.93	9.45	2.93	16.6	10.0
MAX	73.0	.003	.000	.000	.000	.000	.047	35.2	403	78.0	488	424
(WY)	1955	1959	1952	1952	1952	1952	1982	1979	1986	1968	1966	1974
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1952	1952	1952	1952	1952	1952	1952	1952	1953	1954	1952	1952

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1952 - 1997
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ANNUAL TOTAL	32.10						
ANNUAL MEAN	.088					3.56	
HIGHEST ANNUAL MEAN						41.6	1966
LOWEST ANNUAL MEAN						.000	1969
HIGHEST DAILY MEAN	32	Jul 15				13000	Aug 23 1966
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1		.00	Oct 1 1951
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1		.00	Oct 1 1951
INSTANTANEOUS PEAK FLOW			.00	Sep 30		29300 ^a	Aug 23 1966
INSTANTANEOUS PEAK STAGE			.00	Sep 30		19.90 ^b	Aug 23 1966
INSTANTANEOUS LOW FLOW			.00	Oct 1		.00	Oct 1 1951
ANNUAL RUNOFF (AC-FT)	64					2580	
10 PERCENT EXCEEDS	.00		.00			.00	
50 PERCENT EXCEEDS	.00		.00			.00	
90 PERCENT EXCEEDS	.00		.00			.00	

e Estimated

a-From rating curve extended above 5,000 ft³/s, on basis of slope-area measurement of peak flow.

b-From floodmarks, present datum.

08401200 SOUTH SEVEN RIVERS NEAR LAKEWOOD, NM

LOCATION.--Lat 32°35'19", long 104°25'17", in SE¹/4SE¹/4NW¹/4 sec.7, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on downstream side of center pier of bridge on U.S. Highway 285, 0.4 mi south of Seven Rivers, 2.6 mi upstream from mouth, and 4.0 mi southwest of Lakewood. Mouth at Pecos River mile 480.9.

DRAINAGE AREA.--220 mi², approximately.

PERIOD OF RECORD.--October 1963 to April 1997.

GAGE.--Water-stage recorder. Elevation of gage is 3,280 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 8, 1965, at site 400 ft upstream at datum 0.52 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. No surface diversions upstream from station, ground-water withdrawals for 240 acres, upstream from station. Several observations of water temperature were made during the year. No flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1941, about 30,000 ft³/s, gage height, 22.8 ft, from old debris on left bank, former site and datum, from rating curve extended above 5,700 ft³/s on basis of slope-area measurement at gage height 21.8 ft. Probable date of flood, Oct. 7, 1954.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
2	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
3	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
4	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
5	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
6	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
7	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
8	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
9	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
10	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
11	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
12	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
13	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
14	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
15	e.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
16	e.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
17	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
18	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
19	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
20	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
21	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
22	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
23	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
24	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
25	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
26	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
27	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
28	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
29	.00	.00	.00	.00	---	.00	.00	---	---	---	---	---
30	.00	.00	.00	.00	---	.00	.00	---	---	---	---	---
31	.00	---	.00	.00	---	.00	---	---	---	---	---	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	---	---	---	---
MEAN	.000	.000	.000	.000	.000	.000	.000	---	---	---	---	---
MAX	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
MIN	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---
AC-FT	.00	.00	.00	.00	.00	.00	.00	---	---	---	---	---

CAL YR 1996 TOTAL 2638.06 MEAN 7.21 MAX 1320 MIN .00 AC-FT 5230

e Estimated

RIO GRANDE BASIN

08401450 BRANTLEY LAKE NEAR CARLSBAD, NM

LOCATION.--Lat 32°32'48", long 104°22'43", in NE¹/4SE¹/4NE¹/4 sec.28, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, in control tower at Brantley Dam, 2.4 mi downstream from South Seven Rivers, 4.2 mi southeast of Seven Rivers, 6.0 mi south of Lakewood, 11.5 mi northwest of Carlsbad, and at mile 478.6.

DRAINAGE AREA.--17,650 mi², approximately (contributing area).

PERIOD OF RECORD.--August 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,202.5 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Lake is formed by a concrete and earthfill dam on Pecos River. Storage began August 31, 1988. Capacity, 1,008,000 acre-ft, from capacity table dated June 1992, between elevations 3,202.5 ft and 3,303.5 ft. Dead storage 2,010 acre-ft. Lake was created primarily for irrigation storage and flood control.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 49,270 acre-ft, Sept. 22-24, 1991, elevation, 3,257.60 ft; minimum contents, 2,040 acre-ft, May 26, 1990, elevation, 3,224.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 43,620 acre-ft, August 26, elevation, 3,254.30 ft; minimum, 17,670 acre-ft, November 14, elevation, 3,242.93 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 0700 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30410	23030	18660	20510	22710	24800	37160	31410	24150	40500	21850	41130
2	29880	22500	18760	20580	22790	24900	36570	31620	23820	40440	21470	41130
3	29420	22100	18780	20670	22910	24990	36120	31740	23500	40190	26910	40390
4	28890	21790	18810	20730	22930	25030	35700	31810	23130	39990	20580	40130
5	28440	21360	18880	20780	22970	25090	35280	31940	22620	39790	20550	39790
6	28310	21280	18910	20860	23050	25130	35030	32010	22100	39770	21550	39400
7	28130	20510	18970	20990	23130	25190	35000	31890	21910	39680	22870	39040
8	27950	20070	19020	21060	23150	25260	34490	31810	21850	39910	24600	38900
9	27710	19510	19100	21150	23210	25340	34210	31570	21100	40020	26280	38820
10	27510	19300	19160	21190	23260	25360	33650	31410	21100	39910	27930	38430
11	27460	18880	19240	21250	23300	25400	33230	31360	22080	39650	29010	38210
12	27350	18510	19330	21340	23540	25490	32810	31410	22640	39210	30160	37910
13	27240	18090	19380	21400	23580	25530	32420	31430	23720	38680	31000	37610
14	27110	17670	19470	21430	23640	25530	32080	31590	25170	38080	32200	37450
15	26980	17840	19560	21530	23660	25470	31720	31570	26700	37050	33780	37370
16	26660	17970	19590	21570	23740	25490	31340	31570	28350	35800	35100	37160
17	26340	17970	19650	21640	23780	25490	31050	31260	29530	34460	36330	36810
18	25910	18020	19630	21730	23840	25530	30790	30740	30670	33160	37880	36440
19	25590	18090	19680	21850	23960	25490	30510	30070	31810	31840	39180	35860
20	25450	18170	19750	21920	24000	25530	30350	29440	32520	30510	40500	35360
21	25280	18240	19840	21980	24110	25590	30420	28920	33380	29300	41850	35280
22	24950	18270	19840	22080	24110	26790	30320	28470	34230	27910	42820	35650
23	24680	18320	19910	22130	24170	28370	29880	28040	35210	27220	42940	35670
24	24490	18400	19950	22190	24230	29900	29440	27690	36010	26470	43290	35540
25	24290	18390	20000	22250	24370	31550	29120	27470	36940	25720	43290	35520
26	24040	18440	20070	22310	24490	32790	29030	27220	37720	24990	43620	35620
27	23780	18450	20110	22400	24620	34540	29420	27090	38900	24580	43560	35780
28	23540	18470	20180	22460	24700	36280	30270	26700	39990	24030	43230	35860
29	23320	18610	20250	22500	---	37800	30910	26190	40470	23520	42790	35910
30	23110	18660	20340	22580	---	37940	31220	25660	40590	22890	42230	35650
31	23090	---	20420	22660	---	37530	---	24840	---	22190	41710	---
MAX	30410	23030	20420	22660	24700	37940	37160	32010	40590	40500	43620	41130
MIN	23090	17670	18660	20510	22710	24800	29030	24840	21100	22190	20550	35280
(†)	3245.93	3243.52	3244.52	3245.71	3246.73	3252.16	3249.67	3246.80	3253.26	3245.47	3253.65	3251.45
(††)	-7940	-4430	+1760	+2240	+2040	+12830	-6310	-6380	+15740	-18390	+19520	-6060

CAL YR 1996 MAX 39260 MIN 13530 (††) -8090
WTR YR 1997 MAX 43620 MIN 17670 (††) +4620

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

369

LOCATION.--Lat 32°32'38", long 104°22'00", in NE¹/4NW¹/4SE¹/4 sec.27, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on left bank 0.8 mi downstream from Brantley Dam, 3.2 mi downstream from South Seven Rivers, 4.7 mi southeast of Seven Rivers, 6.4 mi south of Lakewood, 11.0 mi northwest of Carlsbad, and at mile 477.8.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 3,191.15 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation reference point). Prior to October 1971, at site 1.3 mi upstream at different datum. October 1971 to June 4, 1985, at site 0.8 mi upstream at datum 7.29 ft higher. Prior to October 1988, at site 0.2 mi downstream at same datum.

REMARKS.--Water-discharge records poor. Flow completely regulated by Brantley Lake (station 08401450) 0.8 mi upstream since August 1988. Diversions and ground-water withdrawals for irrigation of about 173,000 acres, 1959 determination, upstream from station. Several observations of water temperature were made during the year.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e365	e210	e33	e28	e24	e24	e342	20	306	165	235	286
2	e330	e320	e32	e27	e24	e24	e410	e20	247	147	266	218
3	e300	e320	e33	e27	e24	e24	e412	20	242	146	282	192
4	e300	e330	e32	e28	e24	e24	e311	20	280	144	308	224
5	e230	e330	e32	e27	e24	e24	e244	22	299	88	267	241
6	e160	e345	e24	e28	e24	e24	e228	98	207	82	231	211
7	e145	e320	e20	e29	e24	e25	e260	130	152	102	125	139
8	e158	e300	e20	e29	e24	e25	e372	144	94	161	26	76
9	e142	e300	e20	e28	e24	e25	e432	115	61	229	27	e152
10	e142	e300	e20	27	e24	e25	e330	101	61	264	156	197
11	e140	e300	e20	27	e30	e26	e280	58	116	273	264	197
12	e135	e300	e22	27	e27	e26	e280	29	149	309	285	196
13	e132	e315	e24	26	e26	e27	e280	25	121	330	287	137
14	e132	e170	e25	26	e26	e27	e280	27	102	481	257	105
15	e170	e29	e24	26	e26	27	e275	27	80	636	241	137
16	e220	e32	e24	26	e26	27	e254	121	180	700	243	217
17	e250	e32	e24	26	e26	27	e230	274	309	711	124	278
18	e249	e32	e25	e26	e26	27	e208	328	376	709	103	322
19	e212	e32	e26	e26	e26	27	e160	353	395	704	208	306
20	e194	e32	e27	e25	e26	27	e115	369	398	700	270	139
21	e200	e32	e26	e26	e26	27	e115	312	398	739	316	50
22	e215	e32	e26	e26	e26	27	e261	280	388	535	304	83
23	e215	e32	e27	e25	e26	27	316	258	384	411	141	103
24	e201	e32	e26	e24	e26	26	335	219	386	409	58	103
25	e207	e32	e26	e24	e25	e26	180	204	412	405	59	60
26	e215	e32	e26	e23	e25	e26	57	167	430	298	117	29
27	e215	e32	e26	e23	e24	e26	22	207	379	272	213	29
28	e215	e33	e26	e24	e24	e130	21	305	298	289	278	29
29	e202	e31	e27	e24	---	e340	20	336	189	313	321	137
30	e180	e32	e28	e24	---	e335	20	397	175	357	335	258
31	e140	---	e29	e24	---	e330	---	419	---	285	333	---
TOTAL	6311	4669	800	806	707	1832	7050	5405	7614	11394	6680	4851
MEAN	204	156	25.8	26.0	25.3	59.1	235	174	254	368	215	162
MAX	365	345	33	29	30	340	432	419	430	739	335	322
MIN	132	29	20	23	24	24	20	20	61	82	26	29
AC-FT	12520	9260	1590	1600	1400	3630	13980	10720	15100	22600	13250	9620

MEAN	158	48.1	49.8	44.3	55.7	75.6	230	215	220	230	200	168
MAX	412	222	460	297	300	149	307	1058	641	527	305	500
(WY)	1995	1992	1992	1987	1987	1994	1986	1973	1992	1995	1995	1991
MIN	22.6	5.92	1.22	3.49	20.6	19.1	136	79.9	66.5	11.3	18.4	50.9
(WY)	1979	1989	1995	1995	1978	1990	1981	1976	1977	1976	1981	1976

08401500 PECOS RIVER BELOW BRANTLEY DAM NEAR CARLSBAD, NM -- Continued

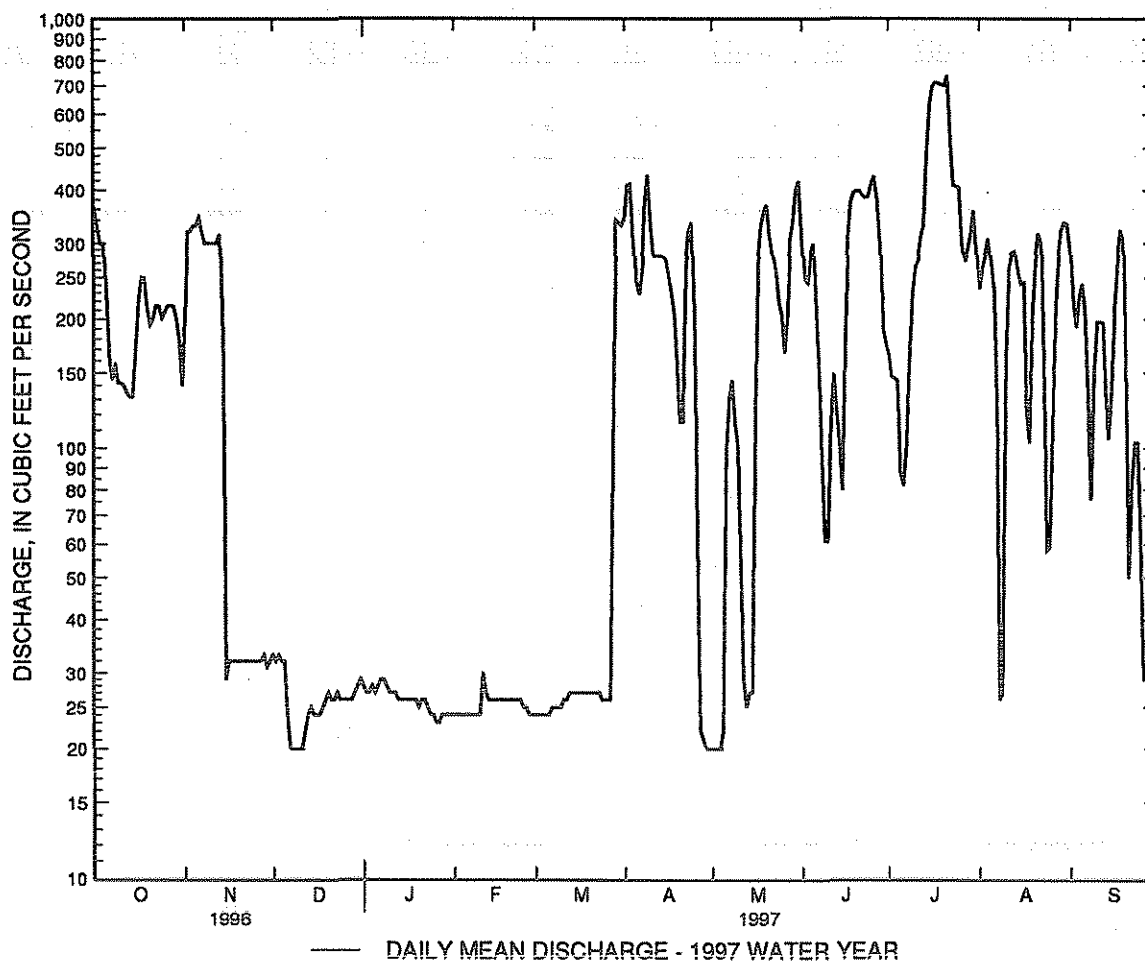
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1972 - 1997
ANNUAL TOTAL	63778.85	58119	
ANNUAL MEAN	174	159	148
HIGHEST ANNUAL MEAN			282
LOWEST ANNUAL MEAN			69.5
HIGHEST DAILY MEAN	713 May 22	739 Jul 21	2050 Sep 3 1972
LOWEST DAILY MEAN	.45 Jan 18	20 Dec 7	.30 Nov 20 1994
ANNUAL SEVEN-DAY MINIMUM	2.2 Jan 6	20 Apr 28	.33 Nov 22 1988
ANNUAL RUNOFF (AC-FT)	126500	115300	107300
10 PERCENT EXCEEDS	379	335	331
50 PERCENT EXCEEDS	145	130	80
90 PERCENT EXCEEDS	5.4	24	21

e Estimated

a-From rating curve extended above 780 ft³/s.

b-Also occurred July 24, 1950.

c-Site and datum then in use.



08401500 PECOS RIVER BELOW BRANTLEY DAM NEAR CARLSBAD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1962, 1978-79, 1981 to current year.

REMARKS.--This station prior to Brantley Dam was called Pecos River below Major Johnson Springs near Carlsbad, NM.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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 1996												
13...	1020	315	3110	8.1	11.0	10.5	687	10.6	107	960	270	70
MAR 1997												
21...	1130	27	7600	8.4	27.0	17.0	680	10.8	129	1900	490	160

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV 1996											
13...	310	4	4.5	93	850	540	0.60	9.6	2110	184	<9.0
MAR 1997											
21...	1000	10	7.3	129	--	--	--	--	--	334	<15

08401900 ROCKY ARROYO AT HIGHWAY BRIDGE, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'23", long 104°22'28", in SE¹/4SE¹/4 sec.3, T.21 S., R.25 E., Eddy County, Hydrologic Unit 13060011, at downstream end of bridge pier nearest left bank on U.S. Highway 285, 2.1 mi upstream from mouth and 10 mi northwest of Carlsbad. Mouth at Pecos River mile 475.2.

DRAINAGE AREA.--285 mi², approximately.

PERIOD OF RECORD.--November 1963 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,250 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to February 1985, at site 60 ft downstream at same datum.

REMARKS.--Records good. Diversions for irrigation of 220 acres, upstream from station. Several observations of water temperature were made during the year. No flow during water year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Since about 1941 the maximum discharge probably occurred Oct. 7, 1954, discharge, 63,600 ft³/s, gage height, 19.2 ft, from floodmarks, on downstream end of bridge pier, by slope-area measurement at site 5 mi upstream.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	244	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	244.01	0.00	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	8.13	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	244	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	484	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1997, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1964	9.06	185	1975	.000	1964
1965	.25	7.67	1975	.000	1964
1966	.017	.56	1975	.000	1964
1967	.000	.002	1975	.000	1964
1968	.000	.000	1975	.000	1964
1969	.000	.000	1975	.000	1964
1970	.000	.000	1975	.000	1964
1971	.000	.000	1975	.000	1964
1972	.000	.000	1975	.000	1964
1973	.000	.000	1975	.000	1964
1974	.000	.000	1975	.000	1964
1975	.000	.000	1975	.000	1964
1976	.000	.000	1975	.000	1964
1977	.000	.000	1975	.000	1964
1978	.000	.000	1975	.000	1964
1979	.000	.000	1975	.000	1964
1980	.000	.000	1975	.000	1964
1981	.000	.000	1975	.000	1964
1982	.000	.000	1975	.000	1964
1983	.000	.000	1975	.000	1964
1984	.000	.000	1975	.000	1964
1985	.000	.000	1975	.000	1964
1986	.000	.000	1975	.000	1964
1987	.000	.000	1975	.000	1964
1988	.000	.000	1975	.000	1964
1989	.000	.000	1975	.000	1964
1990	.000	.000	1975	.000	1964
1991	.000	.000	1975	.000	1964
1992	.000	.000	1975	.000	1964
1993	.000	.000	1975	.000	1964
1994	.000	.000	1975	.000	1964
1995	.000	.000	1975	.000	1964
1996	.000	.000	1975	.000	1964
1997	.000	.000	1975	.000	1964

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1964 - 1997

ANNUAL TOTAL	1945.50	244.01	6.40
ANNUAL MEAN	5.32	.67	53.9
HIGHEST ANNUAL MEAN			.000
LOWEST ANNUAL MEAN			.000
HIGHEST DAILY MEAN	834	244	13900
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		4090	31600 ^a
INSTANTANEOUS PEAK STAGE		9.10	15.35
INSTANTANEOUS LOW FLOW		.00	.00
ANNUAL RUNOFF (AC-FT)	3860	484	4640
10 PERCENT EXCEEDS	.00	.00	.00
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

a-From rating curve extended above 8,500 ft³/s, on basis of slope-area measurement of peak flow.

08402000 PECOS RIVER AT DAMSITE 3, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'40", long 104°19'58", sec.6, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank at damsite 3 of Carlsbad Project of Bureau of Reclamation, about 1 mi upstream from flow line of Lake Avalon, 1.3 mi downstream from Rocky Arroyo, 8.0 mi northwest of Carlsbad, and at mile 473.8.

DRAINAGE AREA.--17,980 mi², approximately (contributing area).

PERIOD OF RECORD.--August 1939 to December 1940, August 1944 to current year.

REVISED RECORDS.--WSP 1512: 1946-47(M), 1948(P), 1949, 1950(P). WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,171.31 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Aug. 10, 1944, at site 1,000 ft downstream at datum 1.00 ft higher. Aug. 10, 1944 to Dec. 31, 1966, at present datum 1.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Brantley Lake (station 08401450) 4.8 mi upstream and other reservoirs and diversion dams. Diversions and ground-water withdrawals for irrigation of about 17,300 acres, 1959 determination, upstream from station. Discharge represents inflow to Lake Avalon. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks that probably exceeded 40,000 ft³/s occurred in Aug. 1893, Oct. 2, 1904, July 25, 1905, Apr. 17, 1915, Aug. 7, 1916, and May 30, 1937, based primarily on records for station "at Carlsbad." Peak of May 22, 1941, was estimated at 60,000 ft³/s. Floods of 1893 and 1904 originated upstream from McMillan Dam and contributed to the two failures of Avalon Dam.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	356	195	29	28	22	23	327	25	337	163	236	297
2	320	304	30	27	22	23	398	26	238	141	258	222
3	286	304	29	26	23	23	402	26	238	135	279	186
4	286	323	30	27	23	23	328	26	267	136	306	211
5	211	338	29	26	23	23	262	26	296	100	282	232
6	136	340	20	27	23	23	222	71	213	68	232	211
7	135	314	19	28	23	23	241	119	137	93	152	146
8	135	296	19	27	23	24	348	132	94	142	27	80
9	132	294	19	26	23	24	420	115	49	220	24	117
10	132	291	19	24	23	24	356	93	49	266	115	186
11	131	290	19	24	23	24	282	67	86	286	248	188
12	129	288	20	24	28	24	282	28	130	317	282	188
13	129	288	22	24	25	25	282	27	113	344	289	141
14	129	164	23	24	25	25	282	26	92	490	263	93
15	157	25	22	24	25	25	282	26	73	683	235	114
16	210	30	23	24	25	25	264	87	137	765	235	190
17	234	31	23	24	25	25	247	256	288	785	146	266
18	220	31	23	24	25	25	217	333	374	784	81	317
19	175	31	25	25	25	26	191	363	404	780	182	317
20	150	31	26	25	25	26	120	390	408	770	257	167
21	177	31	25	25	25	26	115	344	410	808	307	48
22	202	31	25	25	25	26	128	289	408	617	312	70
23	202	31	26	25	25	26	321	264	406	438	169	87
24	178	32	24	25	25	25	348	217	405	432	53	88
25	179	31	24	25	25	25	209	192	425	429	53	66
26	202	31	25	24	24	25	70	163	450	329	90	30
27	201	31	25	25	23	25	28	183	577	265	186	27
28	203	30	25	25	23	25	26	290	319	286	264	26
29	198	31	26	23	---	123	25	344	206	312	317	100
30	147	29	27	23	---	326	25	401	158	360	340	237
31	94	---	28	22	---	319	---	447	---	309	339	---
TOTAL	5776	4516	749	775	674	1454	7048	5396	7787	12053	6559	4648
MEAN	186	151	24.2	25.0	24.1	46.9	235	174	260	389	212	155
MAX	356	340	30	28	28	326	420	447	577	808	340	317
MIN	94	25	19	22	22	23	25	25	49	68	24	26
AC-FT	11460	8960	1490	1540	1340	2880	13980	10700	15450	23910	13010	9220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1997, BY WATER YEAR (WY)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
MEAN	197	74.5	72.0	62.4	67.7	86.2	251	194	226	250	265	211
MAX	2609	464	421	284	293	382	345	1055	1892	794	2267	1156
(WY)	1955	1987	1992	1987	1987	1987	1945	1973	1986	1960	1966	1974
MIN	9.91	5.71	1.04	1.98	19.5	17.7	133	46.4	18.6	10.8	21.5	12.3
(WY)	1965	1989	1995	1995	1993	1965	1981	1946	1946	1976	1947	1964

RIO GRANDE BASIN

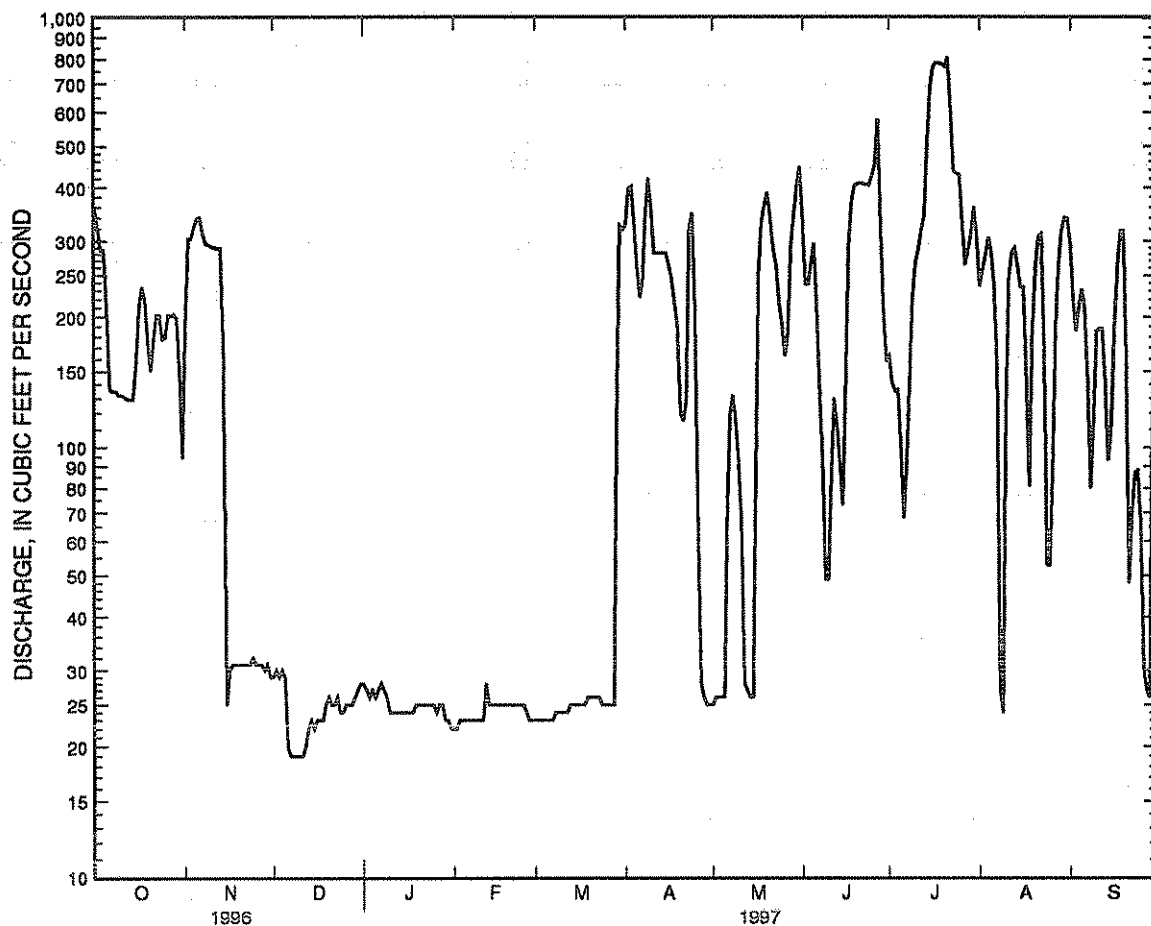
08402000 PECOS RIVER AT DAMSITE 3, NEAR CARLSBAD, NM -- Continued

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1939 - 1997

ANNUAL TOTAL	65375.86	57435	164	
ANNUAL MEAN	179	157	395	1955
HIGHEST ANNUAL MEAN			66.8	1977
LOWEST ANNUAL MEAN				
HIGHEST DAILY MEAN	793 Aug 28	808 Jul 21	39000	Aug 23 1966
LOWEST DAILY MEAN	.90 Jan 19	19 Dec 7	.00	Dec 21 1988
ANNUAL SEVEN-DAY MINIMUM	1.7 Jan 16	19 Dec 6	.46	Dec 15 1988
INSTANTANEOUS PEAK FLOW		1630 Jun 27	69000 ^a	Aug 23 1966
INSTANTANEOUS PEAK STAGE		4.93 Jun 27	21.32 ^b	Aug 23 1966
INSTANTANEOUS LOW FLOW		16 Dec 6	.00	Dec 21 1988
ANNUAL RUNOFF (AC-FT)	129700	113900	118500	
10 PERCENT EXCEEDS	389	344	342	
50 PERCENT EXCEEDS	145	115		
90 PERCENT EXCEEDS	3.2	24	22	

e Estimated

a-From rating curve extended above 25,000 ft³/s, on basis of slope-area measurement at gage height 19.53 ft.
b-From floodmarks at present datum.



— DAILY MEAN DISCHARGE - 1997 WATER YEAR

RIO GRANDE RIVER

375

08403500 CARLSBAD MAIN CANAL AT HEAD, NEAR CARLSBAD, NM

LOCATION.--Lat 32°29'25", long 104°15'08", in NW¹/4SW¹/4SW¹/4 sec.12, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 220 ft downstream from headgates in Avalon Dam, and 3.3 mi north of Carlsbad. Pecos River mile 467.2.

PERIOD OF RECORD.--July 1939 to current year (monthly discharge only, July 1939 to September 1965). January 1941 to March 1951 published in WSP 1732.

GAGE.--Water-stage recorder with satellite telemetry and concrete control. Elevation of gage is 3,156.50 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to March 1951, at site 20 ft upstream at datum 0.9 ft higher.

REMARKS.--Records good. Carlsbad Main Canal diverts water from Lake Avalon (station 08403800) for irrigation of about 25,000 acres in the Carlsbad Irrigation District. About 1,600 acres are irrigated on the left bank, most of it upstream from gaging station 08405200. The remaining acreage (most of which is downstream from station 08405200) is on the right bank. Several observations of water temperature were made during the year. No flow for many days.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	.07	.00	.00	.00	.00	348	.00	248	123	224	199
2	307	.00	.00	.00	.00	.00	360	.00	221	119	221	191
3	280	.00	.00	.00	.00	.00	317	.00	225	123	240	243
4	284	.00	.00	.00	.00	.00	285	.00	259	129	292	259
5	205	.00	.00	.00	.00	.00	272	.00	239	104	270	236
6	176	.00	.00	.00	.00	.00	248	91	180	124	238	160
7	166	.00	.00	.00	.00	.00	306	152	141	114	151	129
8	150	.00	.00	.00	.00	.00	318	123	110	126	106	132
9	139	.00	.00	.00	.00	.00	307	136	100	172	118	167
10	117	.00	.00	.00	.00	.00	259	90	94	184	131	171
11	125	.00	.00	.00	.00	.00	209	44	115	151	211	162
12	161	.00	.00	.00	.00	.00	197	.00	98	187	253	139
13	148	.00	.00	.00	.00	.00	197	.00	98	185	236	114
14	137	.00	.00	.00	.00	.00	228	.00	98	253	209	116
15	183	.00	.00	.00	.00	.00	229	.00	108	309	183	135
16	217	.00	.00	.00	.00	.00	231	101	209	347	149	189
17	210	.00	.00	.00	.00	.00	262	300	271	364	136	266
18	164	.00	.00	.00	.00	.00	246	324	303	346	184	293
19	133	.00	.00	.00	.00	.00	199	353	355	359	191	238
20	127	.00	.00	.00	.00	.00	160	355	330	348	232	182
21	187	.00	.00	.00	.00	.00	203	341	334	325	254	166
22	167	.00	.00	.00	.00	.00	287	305	319	347	218	124
23	170	.00	.00	.00	.00	.00	305	223	366	357	184	80
24	192	.00	.00	.00	.00	80	286	189	368	375	177	67
25	210	.00	.00	.00	.00	202	217	132	374	345	177	18
26	204	.00	.00	.00	.00	254	66	132	376	330	147	.00
27	182	.00	.00	.00	.00	305	.00	216	354	253	190	.00
28	196	.00	.00	.00	.00	280	.00	298	263	216	265	.00
29	199	.00	.00	.00	---	252	.00	333	161	224	266	111
30	178	.00	.00	.00	---	259	.00	355	161	254	260	220
31	107	---	.00	.00	---	305	---	320	---	206	228	---
TOTAL	5731	0.07	0.00	0.00	0.00	1937.00	6542.00	4913.00	6878	7399	6341	4507.00
MEAN	185	.002	.000	.000	.000	62.5	218	158	229	239	205	150
MAX	310	.07	.00	.00	.00	305	360	355	376	375	292	293
MIN	107	.00	.00	.00	.00	.00	.00	.00	94	104	106	.00
AC-FT	11370	.1	.00	.00	.00	3840	12980	9740	13640	14680	12580	8940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1997, BY WATER YEAR (WY)

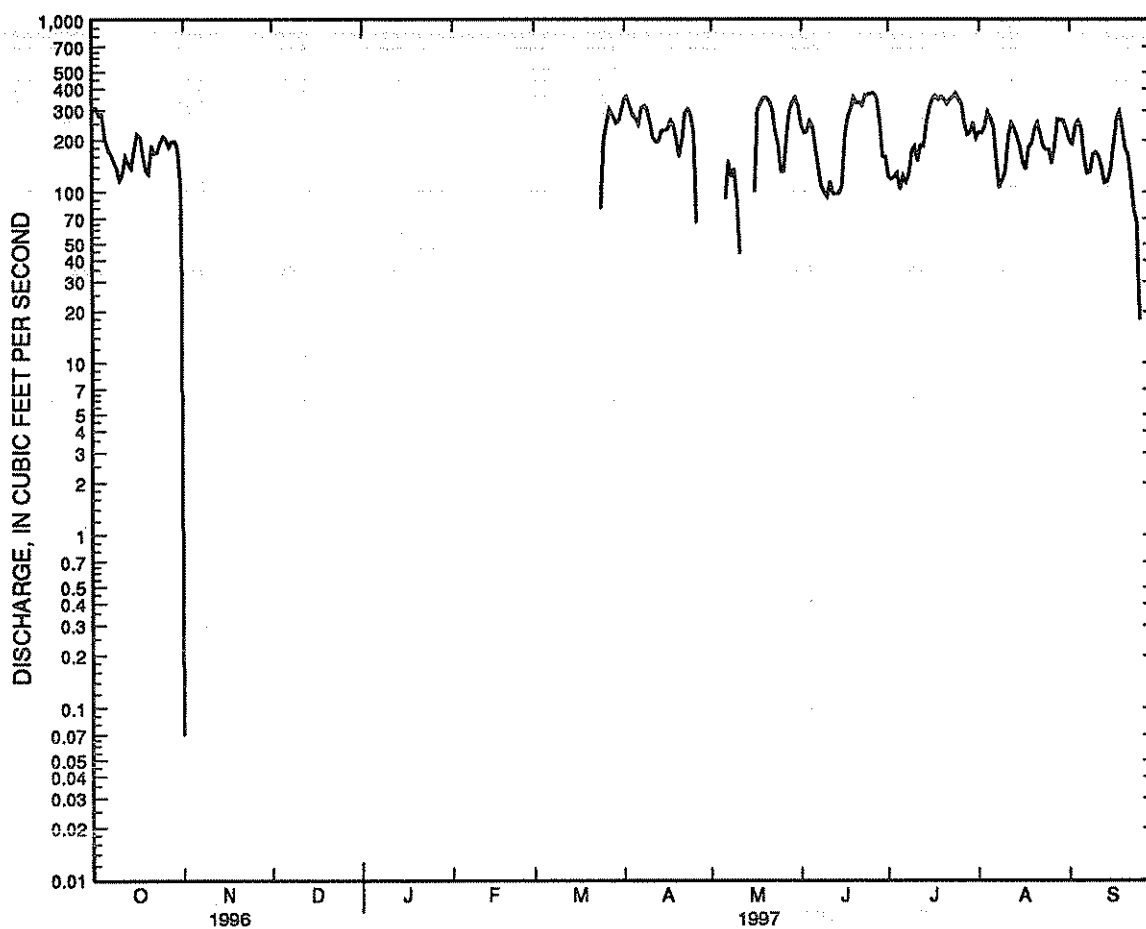
	MEAN	82.8	4.35	7.71	11.5	22.8	75.1	246	132	160	201	204	140
MAX	212	112	172	120	208	227	386	228	297	391	463	298	
(WY)	1980	1955	1947	1956	1950	1940	1943	1996	1942	1940	1943	1939	
MIN	.000	.000	.000	.000	.000	.000	.000	167	6.58	.000	.000	2.81	.000
(WY)	1953	1942	1941	1942	1941	1948	1967	1953	1953	1976	1981	1964	

RIO GRANDE BASIN

08403500 CARLSBAD MAIN CANAL AT HEAD, NEAR CARLSBAD, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1939 - 1997
ANNUAL TOTAL	44654.91	44248.07	
ANNUAL MEAN	122	121	106
HIGHEST ANNUAL MEAN			174
LOWEST ANNUAL MEAN			51.8
HIGHEST DAILY MEAN	367	376	526 ^a
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
ANNUAL RUNOFF (AC-FT)	88570	87770	77050
10 PERCENT EXCEEDS	285	305	294
50 PERCENT EXCEEDS	127	116	68
90 PERCENT EXCEEDS	.00	.00	.00

a-Also occurred Sept. 16, 1946.



— DAILY MEAN DISCHARGE - 1997 WATER YEAR

08403800 LAKE AVALON NEAR CARLSBAD, NM

LOCATION.--Lat 32°29'27", long 104°15'05", in NW¹/4SW¹/4 sec.12, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on headwall at outlet gate of dam on Pecos River, 3.3 mi north of Carlsbad, and at mile 467.2.

DRAINAGE AREA.--18,070 mi², approximately (contributing area).

PERIOD OF RECORD.--January 1939 to September 1965 (monthend gage heights and contents), October 1965 to current year. Monthend gage heights January 1919 to December 1938 in files of Pecos River Commission.

REVISED RECORDS.--WSP 898: 1939.

GAGE.--Nonrecording gage. Elevation of gage is 3,157.0 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Lake is formed by Avalon Dam, an earthfill structure. The original Eddy (Avalon) Dam was completed and storage began in 1891. The dam was destroyed by the flood of Aug. 3, 1893; repaired immediately. The dam was destroyed again Oct. 2, 1904; construction of present dam commenced on June 1, 1906, and was 88 percent complete June 30, 1907. Capacity (based on February 1996 survey) 4,470 acre-ft between gage heights 0.0 (sill of outlet gates) and 20.4 ft crest of spillway 2. No dead storage. No storage allocated to flood control. New capacity table put into use January 1, 1997. Figures given herein represent usable contents. Water is used by Carlsbad Irrigation District

COOPERATION.--Records provided by Carlsbad Irrigation District.

EXTREMES FOR PERIOD OF RECORD (SINCE 1938).--Maximum contents, 11,000 acre-ft, May 22, 1941, gage height, 25.0 ft; no storage at times when natural flow is passing through reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,030 acre-ft, Feb. 28, Mar. 1-24, gage height, 17.40; minimum 324 acre-ft, Mar. 30, gage height, 14.50.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 0800 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	919	919	1210	1990	2420	3030	509	966	1030	1330	1330	1330
2	919	864	1280	1990	2420	3030	563	1030	1090	1330	1460	1400
3	919	811	1280	1990	2420	3030	563	1030	1150	1330	1530	1330
4	919	760	1280	1990	2420	3030	848	1090	1150	1270	1660	1150
5	975	811	1340	1990	2490	3030	848	1090	1150	1270	1660	1150
6	919	811	1340	2060	2490	3030	790	1150	1210	1210	1510	1090
7	919	919	1410	2060	2490	3030	732	1030	1210	1210	1660	1090
8	864	864	1410	2060	2490	3030	619	966	1150	1150	1530	1150
9	811	864	1470	2060	2570	3030	619	966	1090	1090	1400	966
10	811	864	1470	2130	2570	3030	907	966	966	1090	1210	848
11	864	811	1470	2130	2570	3030	1030	966	848	1090	1090	907
12	811	811	1470	2200	2570	3030	1150	966	907	1150	1090	966
13	811	811	1470	2200	2570	3030	1270	966	966	1460	1150	966
14	760	760	1470	2200	2640	3030	1400	1030	907	1860	1150	966
15	710	457	1470	2200	2640	3030	1460	1030	848	1660	1210	966
16	616	493	1470	2280	2640	3030	1530	1030	619	1400	1400	907
17	662	573	1540	2280	2640	3030	1530	966	509	1400	1590	907
18	662	616	1540	2280	2640	3030	1460	907	509	1270	1210	848
19	710	616	1660	2280	2720	3030	1460	848	563	1210	1210	907
20	760	616	1660	2280	2720	3030	1330	790	619	1210	1210	848
21	919	660	1660	2280	2720	3030	1210	848	675	1150	1270	790
22	919	710	1660	2350	2790	3030	966	848	848	1210	1400	790
23	975	760	1680	2420	2790	3030	1330	848	907	1330	1460	732
24	975	811	1680	2420	2870	3030	1330	907	907	1150	1270	675
25	919	864	1680	2420	2870	2570	790	907	790	1270	1150	732
26	919	864	1680	2420	2950	2420	790	907	907	1210	1090	732
27	919	864	1680	2420	2950	2350	848	966	1150	1150	966	732
28	919	975	1680	2420	3030	1150	907	907	1210	1150	966	732
29	919	1090	1750	2420	---	848	907	907	1270	1150	1030	790
30	919	1150	1750	2420	---	324	966	848	1330	1330	966	732
31	864	---	1750	2420	---	509	---	907	---	1400	1150	---
MAX	975	1150	1750	2420	3030	3030	1530	1150	1330	1860	1660	1400
MIN	616	457	1210	1990	2420	324	509	790	509	1090	966	675
(†)	15.80	16.30	17.20	17.90	18.70	14.90	15.70	15.60	16.30	16.40	16.00	15.30
(††)	0	+286	+600	+500*	+610	-2521	+457	-59	+423	+70	-250	-418

CAL YR 1996 MAX 3790 MIN .00 (††) +1750

WTR YR 1997 MAX 3030 MIN 324 (††) -358

* Computed on basis of capacity table put into use January 1, 1997.

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

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

RIO GRANDE BASIN

08404000 PECOS RIVER BELOW AVALON DAM, NM

LOCATION.--Lat 32°28'55", long 104°15'47", in SW¹/4SW¹/4NE¹/4 sec.14, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 4,800 ft downstream from Avalon Dam, 4.5 mi northwest of Carlsbad, and at mile 466.3.

DRAINAGE AREA.--18,080 mi², approximately (contributing area).

PERIOD OF RECORD.--January 1906 to March 1907 (published as "at Avalon"), June 1951 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 3,130 ft above National Geodetic Vertical Datum of 1929, from topographic map. January 1906 to March 1907, nonrecording gage at site 0.5 mi upstream at different datum.

REMARKS.--Records good. Flow completely regulated by Lake Avalon (station 08403800) 0.9 mi upstream. Diversions and ground-water withdrawals upstream from station for irrigation of about 198,000 acres, 1959 determination. Station bypassed by Carlsbad Main Canal (station 08403500). Several observations of water temperature were made during the year. No flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1904, caused in part by failure of Avalon Dam, probably exceeded 90,000 ft³/s, and is probably the greatest flood since 1842. A major flood occurred Aug. 3, 1893, and was described as "greatest in 50 years"; it damaged McMillan Dam, then under construction, and washed out the original Avalon Dam. Another major flood occurred Aug. 7, 1916, discharge 70,000 ft³/s, at site 6.5 mi downstream.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	175	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	313	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	312	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	312	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	317	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	317	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	314	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	309	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	304	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	304	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	302	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	301	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	301	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	295	.00	.00	.00	.00	.00	.00	.00	213	.00	.00
15	.00	102	.00	.00	.00	.00	.00	.00	.00	366	.00	.00
16	.00	.94	.00	.00	.00	.00	.00	.00	.00	356	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	349	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	343	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	339	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	335	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	335	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	282	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.6	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.64	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
TOTAL	0.00	4278.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2922.25	0.00	0.00
MEAN	.000	143	.000	.000	.000	.000	.000	.000	.000	94.3	.000	.000
MAX	.00	317	.00	.00	.00	.00	.00	.00	.00	366	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	8490	.00	.00	.00	.00	.00	.00	.00	5600	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1997, BY WATER YEAR (WY)

	MEAN	100	25.0	23.2	10.1	11.4	4.66	1.30	41.1	57.3	33.9	59.1	53.0
MAX	2365	445	435	237	255	188	59.6	739	1832	595	2034	1113	
(WY)	1955	1987	1992	1987	1987	1987	1987	1973	1986	1960	1966	1974	
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1952	1952	1952	1952	1952	1952	1952	1952	1951	1951	1951	1951	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1951 - 1997

ANNUAL TOTAL	11924.07	7201.19		
ANNUAL MEAN	32.6	19.7	35.6	
HIGHEST ANNUAL MEAN			206	1955
LOWEST ANNUAL MEAN			.000	1953
HIGHEST DAILY MEAN	335	May 24	366	Jul 15
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1
INSTANTANEOUS PEAK FLOW			55500 ^a	Aug 23 1966
INSTANTANEOUS PEAK STAGE			26.40 ^b	Aug 23 1966
ANNUAL RUNOFF (AC-FT)	23650	14280	25790	
10 PERCENT EXCEEDS	210	.00	.00	
50 PERCENT EXCEEDS	.00	.00	.00	
90 PERCENT EXCEEDS	.00	.00	.00	

a-From rating curve extended above 33,000 ft³/s, on basis of computation of peak flow over Tansill Dam 5.8 mi downstream.

b-From floodmarks.

RIO GRANDE RIVER

379

08405150 DARK CANYON DRAW AT CARLSBAD, NM

LOCATION.--Lat 32°24'24", long 104°13'34", in NE¹/4NW¹/4SE¹/4 sec.7, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on downstream side of bridge on Canal Street in Carlsbad, and 0.6 mi upstream from mouth. Mouth at Pecos River mile 459.2.

DRAINAGE AREA.--450 mi², approximately.

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,088.21 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharges, which are poor. A Soil Conservation Service flood-control project on Hackberry Draw, an upstream tributary, has some effect on flood peaks and flow duration. Ground-water withdrawals upstream from station for irrigation of approximately 2,100 acres, 1973 determination, and for municipal supply for Carlsbad. Several observations of water temperature were made during the year. No flow during water year.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 23, 1966, reached a discharge of 66,000 ft³/s, as determined by slope-area measurement at site 1.2 mi upstream. Another flood of approximately the same magnitude occurred Sept. 20, 1941. Other major peaks occurred July 17, 1906, July 24, 1908, July 24, 1911, Apr. 18, 1915, Aug. 8, 1916, Sept. 15, 1919, Aug. 4, 1925, and May 23, 1941.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00	e.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	e.00	e.00	e.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	e.00	e.00	e.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	e.00	e.00	e.00
31	.00	---	.00	.00	---	.00	---	.00	---	e.00	e.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1997, BY WATER YEAR (WY)

	MEAN	8.16	.82	.000	.000	.000	.000	.000	.45	15.8	.50	6.74	26.8
MAX	196	19.7	.000	.000	.000	.000	.000	.000	8.81	386	12.4	162	331
(WY)	1975	1979	1974	1973	1973	1973	1973	1973	1979	1986	1981	1984	1980
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1974	1974	1974	1973	1973	1973	1973	1973	1973	1973	1973	1973	1973

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1973 - 1997

ANNUAL MEAN										5.08		
HIGHEST ANNUAL MEAN										31.7		1986
LOWEST ANNUAL MEAN										.000		1976
HIGHEST DAILY MEAN										8750		Sep 26 1980
LOWEST DAILY MEAN				.00	Jan 1		.00	Oct 1		.00		Jan 1 1973
ANNUAL SEVEN-DAY MINIMUM				.00	Jan 1		.00	Oct 1		.00		Jan 1 1973
INSTANTANEOUS PEAK FLOW							.00	Sep 30		27000		Sep 26 1980
INSTANTANEOUS PEAK STAGE							.00	Sep 30		12.53		Jun 24 1986
INSTANTANEOUS LOW FLOW							.00	Oct 1		.00		Oct 1 1993
ANNUAL RUNOFF (AC-FT)										3680		
10 PERCENT EXCEEDS				.00			.00			.00		
50 PERCENT EXCEEDS				.00			.00			.00		
90 PERCENT EXCEEDS				.00			.00			.00		

e Estimated

08405200 PECOS RIVER BELOW DARK CANYON DRAW, AT CARLSBAD, NM

LOCATION.--Lat 32°24'37", long 104°12'58", in NE¹/4SW¹/4NW¹/4 sec.8, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on left bank 700 ft downstream from mouth of Dark Canyon Draw, 0.3 mi downstream from Lower Tansill Dam and Bataan recreational area, 0.8 mi downstream from bridge on U.S. Highway 62-180 in Carlsbad, and at mile 459.1.

DRAINAGE AREA.--18,550 mi², approximately, contributing area.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with satellite telemetry and concrete control. Elevation of gage is 3,075.19 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Flow regulated by Lake Avalon (station 08403800) 8.1 mi upstream and by several other reservoirs and up to Nov. 1982 at low stages by power plant. Power plant discontinued operation Nov. 1982. Gage is bypassed on left bank by Carlsbad Main Canal East, which irrigates several hundred acres adjacent to and downstream from gage and on right bank by Carlsbad Main Canal South, which with supplemental ground-water withdrawals irrigates about 23,000 acres downstream. Diversions and ground-water withdrawals upstream from station for irrigation of about 198,000 acres, 1959 determination. No flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 23, 1966, reached a stage of about 22 ft, discharge not determined. (For dates of other historical floods see station 08404000.)

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	77	16	17	18	19	21	25	31	16	16	23
2	27	289	17	32	16	20	17	24	30	17	14	23
3	31	294	17	24	17	20	22	25	30	16	14	17
4	26	296	19	16	16	22	21	28	31	16	38	21
5	24	297	19	17	16	15	22	29	33	18	22	18
6	20	300	37	19	17	18	20	35	24	23	19	20
7	20	310	31	18	16	18	20	36	22	18	16	20
8	21	325	24	18	15	19	22	e32	28	16	16	18
9	20	295	26	18	17	16	22	e33	26	20	17	18
10	16	290	22	17	17	15	20	e33	28	21	15	17
11	17	294	22	17	17	18	17	e30	31	20	39	24
12	18	309	18	17	44	19	17	e26	24	21	21	18
13	18	284	19	16	21	18	17	e22	29	17	18	17
14	19	295	20	17	17	15	19	e20	e55	95	23	18
15	22	189	15	18	17	18	19	19	e25	347	24	18
16	27	29	18	17	17	19	19	18	e40	337	20	17
17	27	22	16	17	17	19	19	20	e18	331	20	17
18	24	23	16	17	18	18	22	25	e17	330	22	19
19	22	23	18	17	19	20	26	24	e16	337	24	18
20	22	21	17	17	18	20	25	20	e14	327	24	18
21	21	22	18	18	17	21	27	35	e15	321	22	24
22	19	22	18	17	16	20	27	21	e15	321	21	59
23	19	23	18	19	16	21	28	20	e14	45	20	31
24	22	14	17	18	18	23	38	21	e14	20	19	29
25	23	17	17	18	17	23	44	22	12	16	19	32
26	23	19	18	19	18	21	47	24	16	17	17	35
27	21	19	18	19	18	23	42	24	35	21	17	44
28	18	22	18	15	19	21	42	24	24	23	17	43
29	21	24	17	17	---	24	43	26	27	24	25	38
30	26	17	17	18	---	24	24	32	17	25	27	37
31	27	---	17	19	---	23	---	34	---	20	26	---
TOTAL	682	4461	600	563	509	610	769	807	741	3196	652	751
MEAN	22.0	149	19.4	18.2	18.2	19.7	25.6	26.0	24.7	103	21.0	25.0
MAX	31	325	37	32	44	24	47	36	55	347	39	59
MIN	16	14	15	15	15	15	17	18	12	16	14	17
AC-FT	1350	8850	1190	1120	1010	1210	1530	1600	1470	6340	1290	1490

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1997, BY WATER YEAR (WY)

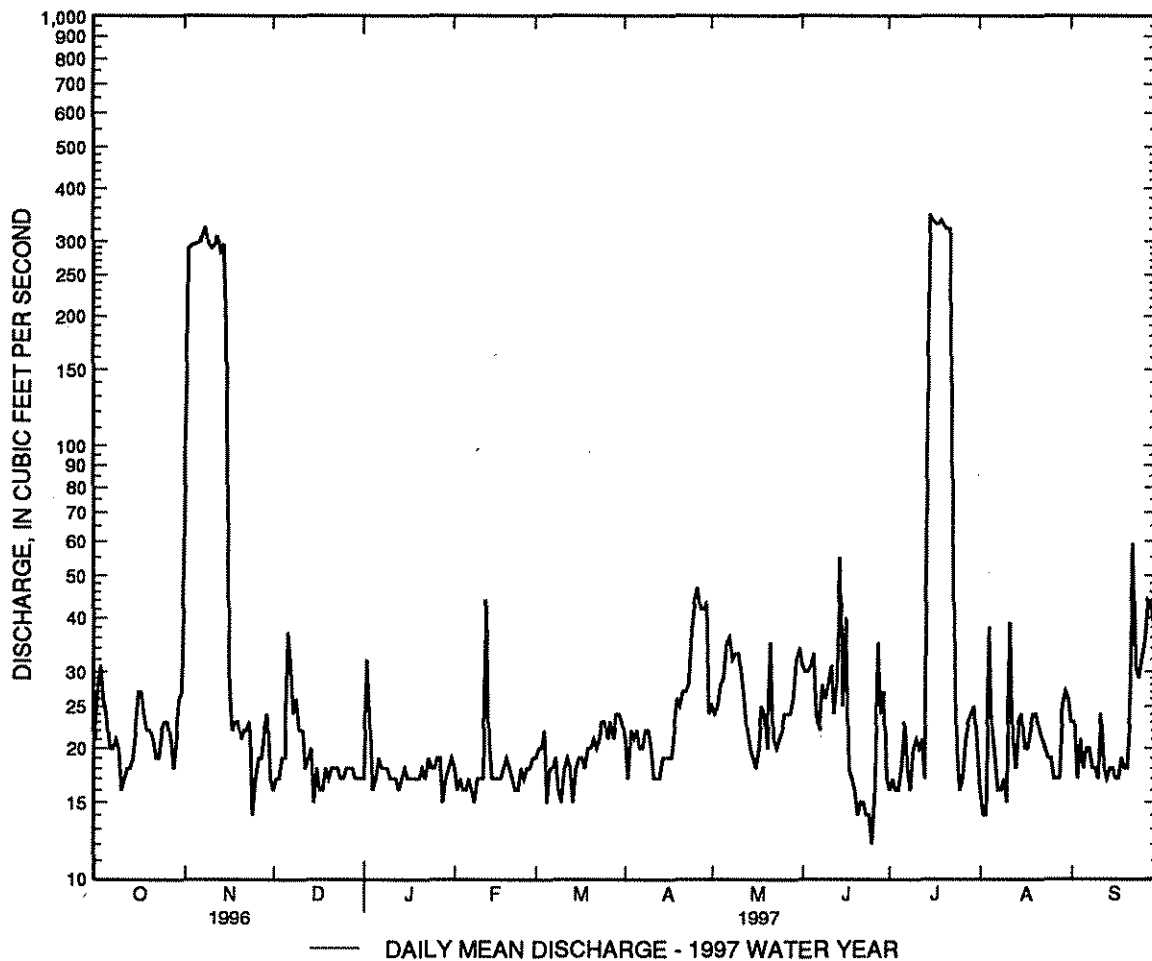
	MEAN	78.2	58.5	48.2	38.4	40.2	30.7	20.2	119	52.3	39.5	120
MAX	727	527	367	319	305	249	103	702	2041	345	674	1253
(WY)	1975	1987	1992	1987	1987	1987	1987	1973	1986	1986	1984	1974
MIN	9.11	8.07	6.27	9.80	10.5	6.02	.087	1.11	.34	.080	.18	3.22
(WY)	1978	1978	1991	1978	1978	1978	1972	1972	1974	1977	1976	1977

08405200 PECOS RIVER BELOW DARK CANYON DRAW, AT CARLSBAD, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1970 - 1997	
ANNUAL TOTAL	17631.7		14341		59.7	
ANNUAL MEAN	48.2		39.3		242	
HIGHEST ANNUAL MEAN					10.9	
LOWEST ANNUAL MEAN					22800	
HIGHEST DAILY MEAN	337	May 25	347	Jul 15	1987	
LOWEST DAILY MEAN	4.2	Jul 23	12	Jun 25	1977	
ANNUAL SEVEN-DAY MINIMUM	8.3	May 10	14	Jun 19	Jun 24 1986	
INSTANTANEOUS PEAK FLOW			523	Nov 12	Jun 16 1971	
INSTANTANEOUS PEAK STAGE			3.63	Nov 12	Apr 16 1972	
INSTANTANEOUS LOW FLOW			7.9	Jan 3	Aug 10 1984	
ANNUAL RUNOFF (AC-FT)	34970		28450		15.22 ^b	
10 PERCENT EXCEEDS	242		39		Aug 10 1984	
50 PERCENT EXCEEDS	17		20		Mar 25 1995	
90 PERCENT EXCEEDS	10		16		4.5	

e Estimated

a-From rating curve extended above 12,000 ft³/s, on basis of slope-area measurement of peak flow.
b-From floodmarks.



08405200 PECOS RIVER BELOW DARK CANYON DRAW, AT CARLSBAD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Replaces station 08405000 Pecos River at Carlsbad, New Mexico at which sample collection was discontinued after September, 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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 1996												
15...	1200	248	3330	7.9	16.5	13.5	680	12.4	135	1100	300	81
MAR 1997												
24...	1450	19	3100	8.3	25.0	20.0	677	11.8	148	1100	280	99
JUL												
02...	1330	19	3880	7.8	39.0	30.0	682	10.2	154	1400	340	130
31...	1015	3.7	3310	7.1	31.0	27.0	690	9.0	127	1300	400	86
AUG												
15...	1330	6.1	3370	7.5	37.0	31.0	680	7.2	110	1300	340	100
SEP												
09...	0920	3.7	4150	7.3	28.0	25.0	686	7.5	103	1500	370	130

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 1996											
15...	350	5	4.8	102	940	590	0.60	7.7	2340	198	<9.0
MAR 1997											
24...	290	4	4.3	154	970	500	0.70	12	2250	181	<9.0
JUL											
02...	390	5	5.7	144	1200	660	0.8	18	2780	274	<9
31...	300	4	4.5	100	1100	490	0.6	23	2480	196	<9
AUG											
15...	330	4	4.8	117	1100	560	0.6	24	2550	221	<9
SEP											
09...	410	5	5.0	160	1300	690	0.8	24	3000	289	24

LOCATION.--Lat 32°13'44", long 104°09'02", in SW1/4NW1/4SW1/4 sec.12, T.24 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on right bank 0.6 mi upstream from Black River diversion dam, 4.8 mi west of Malaga, and 7.1 mi upstream from mouth. Mouth at Pecos River mile 436.3.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 20 or 21, 1941, reached a stage of 19.0 ft, present site and datum, determined in 1947 from well-defined floodmarks, discharge, 33,000 ft³/s, from rating curve extended above 1,400 ft³/s on basis of slope-area measurements at gage heights 8.41 ft and 12.60 ft.

MEAN	13.1	9.62	9.85	10.8	10.5	6.94	10.6	12.9	14.9	14.8	24.8	20.5
MAX	80.4	33.0	17.5	18.7	19.7	15.0	55.5	106	87.8	111	553	121
(WY)	1955	1966	1989	1987	1987	1993	1954	1965	1986	1960	1966	1955
MIN	2.54	1.15	3.79	2.82	4.11	2.01	4.67	4.27	2.82	3.06	3.26	3.42
(WY)	1980	1978	1964	1964	1960	1978	1978	1974	1974	1974	1965	1977

RIO GRANDE BASIN

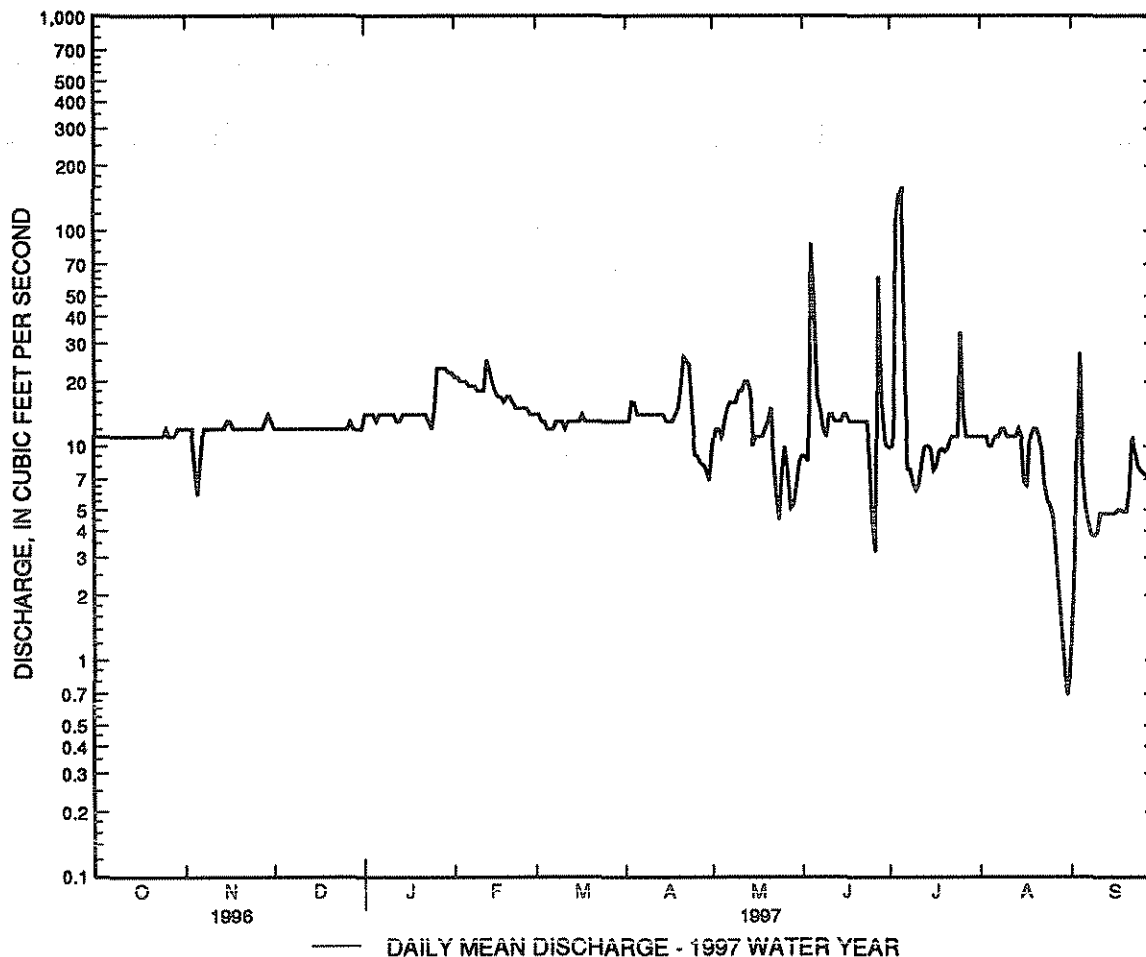
08405500 BLACK RIVER ABOVE MALAGA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1948 - 1997
ANNUAL TOTAL	7688.3	4939.92	
ANNUAL MEAN	21.0	13.5	13.3
HIGHEST ANNUAL MEAN			58.3
LOWEST ANNUAL MEAN			6.82
HIGHEST DAILY MEAN	1180 Sep 11	159 Jul 5	12000 Aug 23 1966
LOWEST DAILY MEAN	1.5 Jul 31	.69 Aug 31	.69 Aug 31 1997
ANNUAL SEVEN-DAY MINIMUM	5.2 May 23	1.6 Aug 27	1.0 Nov 9 1977
INSTANTANEOUS PEAK FLOW		1110 Jul 3	74600 ^a Aug 23 1966
INSTANTANEOUS PEAK STAGE		4.29 Jul 3	21.70 ^b Aug 23 1966
INSTANTANEOUS LOW FLOW		.62 Aug 31	.51 Jun 1 1983
ANNUAL RUNOFF (AC-FT)	15250	9800	9630
10 PERCENT EXCEEDS	20	18	14
50 PERCENT EXCEEDS	12	12	8.4
90 PERCENT EXCEEDS	9.3	6.4	4.2

e Estimated

a-From rating curve extended above 5,900 ft³/s, on basis of slope-area measurements at gage heights 12.60 ft and 21.7 ft.

b-From floodmarks.



RIO GRANDE RIVER

385

08406500 PECOS RIVER NEAR MALAGA, NM

LOCATION.---Lat 32°12'30", long 104°01'20", in SW¹/4NW¹/4NE¹/4 sec.19, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, on right bank 3.1 mi southeast of Malaga, 4.3 mi downstream from Black River, and at mile 432.2.

DRAINAGE AREA.---19,190 mi², approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.---May 1920 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.---WSP 1632: 1925, 1932-37.

GAGE.---Water-stage recorder. Elevation of gage is 2,895.64 ft above National Geodetic Vertical Datum of 1929. May 1, 1920 to Mar. 24, 1949, at datum 3 ft higher.

REMARKS.---Water-discharge records good except for estimated daily discharges, which are poor. Flow regulated by many reservoirs and diversion dams. Diversions and ground-water withdrawals upstream from station for irrigation of about 202,000 acres, 1959 determination. Harroun canal bypasses gage on left bank and irrigates approximately 1,000 acres adjacent to and downstream from gage. This bypass is not gaged.

AVERAGE DISCHARGE.---16 years (water years 1921-36), 274 ft³/s, 198,500 acre-ft/yr, prior to completion of Lake Sumner.

EXTREMES OUTSIDE PERIOD OF RECORD.---A major flood occurred in 1904, discharge not determined. Flood of Aug. 7, 1916, reached a discharge of 70,000 ft³/s, at Carlsbad, 27 mi upstream. Flood in September 1919 reached a stage of 29.4 ft, present datum, discharge, 40,400 ft³/s.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	133	87	75	70	61	50	65	73	66	60	e47
2	78	126	79	74	70	62	57	64	59	53	60	e47
3	75	285	77	75	69	62	67	59	59	58	71	e47
4	87	319	78	87	68	63	73	57	55	209	61	e65
5	87	320	77	76	68	61	81	57	106	207	123	e65
6	90	324	79	71	67	61	73	58	64	117	115	e60
7	68	327	79	75	68	56	78	61	50	86	76	e59
8	61	340	97	79	69	58	70	65	117	65	72	e58
9	60	366	92	77	68	61	64	72	57	51	67	e55
10	70	333	85	77	68	60	66	69	51	44	58	69
11	70	335	88	75	69	58	68	74	54	48	54	68
12	65	335	82	72	80	56	61	76	51	53	56	67
13	66	349	79	73	109	58	57	71	53	44	102	78
14	67	330	78	73	100	59	59	63	53	51	85	72
15	66	333	77	74	81	56	63	59	53	76	69	65
16	57	233	74	75	74	53	63	57	63	355	88	64
17	56	113	72	74	71	59	62	54	64	349	101	63
18	58	101	73	73	70	64	62	61	51	349	77	61
19	77	93	73	73	67	60	56	55	42	338	82	60
20	80	92	74	73	67	57	57	53	64	348	71	68
21	72	89	77	73	66	57	74	69	70	353	72	69
22	79	86	78	70	60	56	66	103	62	351	e70	113
23	79	86	79	68	59	55	60	119	51	336	e70	129
24	73	86	77	68	58	54	59	70	45	146	e65	91
25	74	81	76	70	62	58	67	58	44	76	e60	69
26	72	76	75	70	64	65	84	61	44	79	e58	74
27	75	77	76	71	62	68	93	56	107	68	e58	68
28	84	82	77	70	61	80	82	58	132	63	e58	65
29	73	88	76	68	---	67	71	61	101	67	e62	63
30	70	91	74	63	---	52	69	60	67	66	e62	62
31	72	---	74	68	---	50	---	70	---	62	e55	---
TOTAL	2241	6029	2439	2260	1965	1847	2012	2035	1962	4634	2238	2041
MEAN	72.3	201	78.7	72.9	70.2	59.6	67.1	65.6	65.4	149	72.2	68.0
MAX	90	366	97	87	109	80	93	119	132	355	123	129
MIN	56	76	72	63	58	50	53	53	42	44	54	47
AC-FT	4450	11960	4840	4480	3900	3660	3990	4040	3890	9190	4440	4050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)

	268	144	121	109	94.1	65.3	56.3	217	172	106	151	277
MEAN	268	144	121	109	94.1	65.3	56.3	217	172	106	151	277
MAX	5302	1338	822	738	557	290	697	6887	2984	1171	4200	6975
(WY)	1942	1942	1942	1942	1942	1987	1942	1941	1941	1941	1966	1941
MIN	8.49	7.82	7.87	10.5	11.9	9.41	8.80	7.85	8.93	6.70	6.20	8.27
(WY)	1978	1978	1978	1978	1965	1978	1965	1978	1977	1977	1977	1977

RIO GRANDE BASIN

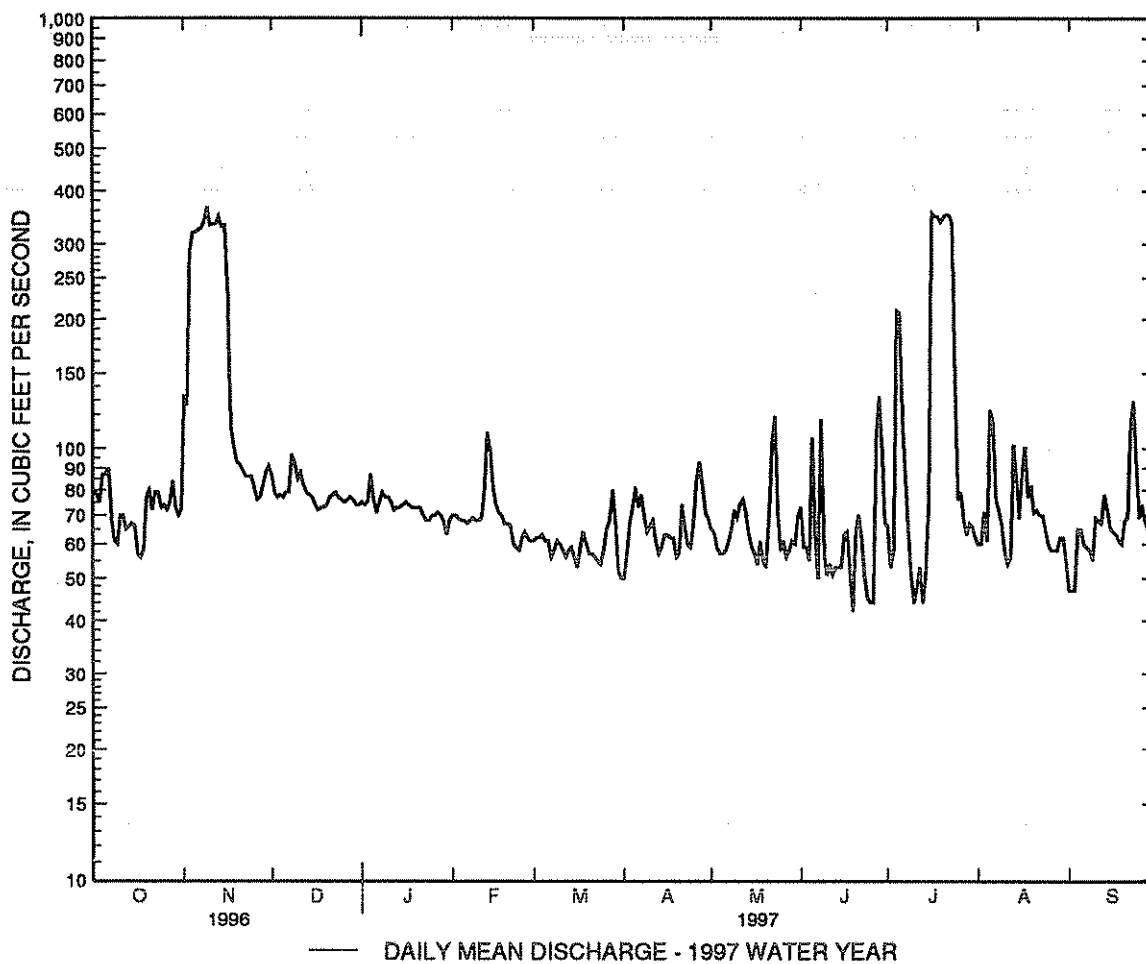
08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1938 - 1997	
ANNUAL TOTAL	36285		31703		149	
ANNUAL MEAN	99.1		86.9		16.8	
HIGHEST ANNUAL MEAN					1652	
LOWEST ANNUAL MEAN					1941	
HIGHEST DAILY MEAN	1160	Sep 12	366	Nov 9	68000	Aug 23 1966
LOWEST DAILY MEAN	25	May 22	42	Jun 19	3.7	May 20 1991
ANNUAL SEVEN-DAY MINIMUM	34	May 17	51	Jul 8	4.5	May 18 1991
INSTANTANEOUS PEAK FLOW			412	Nov 9	120000 ^a	Aug 23 1966
INSTANTANEOUS PEAK STAGE			5.56	Nov 9	42.10 ^b	Aug 23 1966
INSTANTANEOUS LOW FLOW			39	Jun 19	3.7	Oct 20 1976
ANNUAL RUNOFF (AC-FT)	71970		62880		107700	
10 PERCENT EXCEEDS	285		111		196	
50 PERCENT EXCEEDS	67		69		53	
90 PERCENT EXCEEDS	46		56		15	

e Estimated

a-From rating curve extended above 36,000 ft³/s, on basis of slope-area measurement of peak flow.

b-From floodmarks.



RIO GRANDE RIVER

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08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
NOV 1996												
14...	1445	335	3560	8.0	26.5	14.5	687	11.6	128	1200	320	94
MAR 1997												
24...	1230	53	6090	8.2	23.0	19.0	685	11.8	145	2000	480	190
JUN												
16...	1400	70	6480	7.8	32.0	26.5	683	15.8	225	2100	510	200
JUL												
31...	1145	35	E5060	7.3	32.0	29.0	692	9.5	--	1800	510	130
AUG												
15...	1015	70	5980	7.4	35.0	29.0	685	9.0	133	2000	510	180
SEP												
09...	1220	60	6490	7.8	36.0	27.5	692	8.0	114	2100	510	190

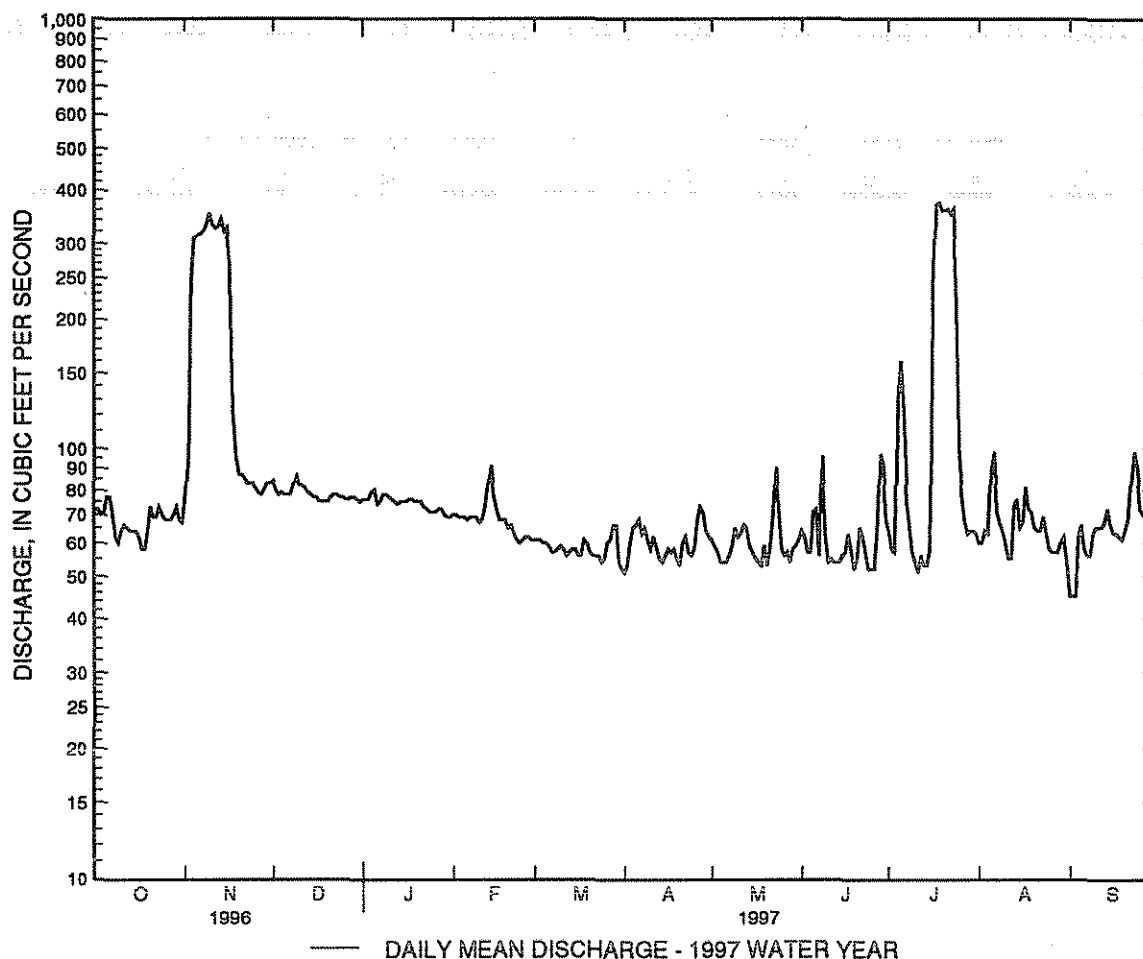
DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 1996											
14...	380	5	5.6	118	1000	670	0.70	9.1	2550	233	<9.0
MAR 1997											
24...	730	7	10	184	1700	1300	0.80	8.8	4530	370	<15
JUN											
16...	740	7	11	149	1700	1300	0.8	20	4640	427	<12
JUL											
31...	540	6	9.2	125	1400	890	0.7	30	3580	324	<15
AUG											
15...	700	7	9.4	146	1700	1200	0.8	22	4490	379	210
SEP											
09...	730	7	10	138	1800	1300	0.9	17	4660	397	<15

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1938 - 1997	
ANNUAL TOTAL	34469		30519		128	
ANNUAL MEAN	94.2		83.6		1694	
HIGHEST ANNUAL MEAN					1941	
LOWEST ANNUAL MEAN					18.7	
HIGHEST DAILY MEAN	1290	Sep 12	373	Jul 18	65000	Aug 23 1966
LOWEST DAILY MEAN	31	May 22	45	Sep 1	2.1	Jun 22 1978
ANNUAL SEVEN-DAY MINIMUM	36	May 17	53	Aug 28	2.6	Jul 21 1966
INSTANTANEOUS PEAK FLOW			378	Nov 9	65000 ^a	Aug 23 1966
INSTANTANEOUS PEAK STAGE			3.12	Nov 9	31.60	Aug 23 1966
INSTANTANEOUS LOW FLOW			46	Jun 24	.54	May 30 1965
ANNUAL RUNOFF (AC-FT)	68370		60530		92500	
10 PERCENT EXCEEDS	281		90		138	
50 PERCENT EXCEEDS	62		66		46	
90 PERCENT EXCEEDS	45		55		13	

e Estimated

a-From floodmarks.



RIO GRANDE RIVER

389

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM

LOCATION.--Lat 32°11'19", long 103°58'43", in SW¹/4SW¹/4NW¹/4 sec.27, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, on right bank 550 ft upstream from Pierce Canyon Crossing, 6.0 mi southeast of Malaga, and at mile 425.7.

DRAINAGE AREA.--19,260 mi², approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to September 1941, August 1951 to current year.

REVISED RECORDS.--WSP 898: 1938(M). WSP 1712: 1959.

GAGE.--Water-stage recorder. Elevation of gage is 2,889.18 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). July 1938 to Sept. 1941, at datum 1.19 ft higher.

REMARKS.--Water-discharge records good except those above 300 ft³/s, which are fair, and estimated daily discharges which are poor. Flow regulated by many reservoirs and diversion dams. Diversions and ground- water withdrawals upstream from station for irrigation of about 202,000 acres, 1959 determination.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	77	84	76	70	61	51	61	64	64	60	e45
2	72	97	80	76	70	61	53	59	62	58	60	e45
3	70	239	78	76	69	61	60	57	57	57	64	e45
4	71	309	79	79	69	60	65	54	57	131	63	e62
5	77	313	78	80	69	60	66	54	71	160	89	e66
6	77	316	78	74	68	59	68	54	72	120	98	e58
7	70	320	78	75	69	57	63	56	56	76	71	e56
8	62	331	82	78	69	57	65	59	96	66	67	e56
9	60	353	86	78	69	58	61	65	63	57	64	63
10	64	333	82	77	67	59	58	62	54	54	60	65
11	66	325	82	76	68	58	62	63	55	51	55	65
12	65	328	81	75	73	56	59	66	54	56	55	65
13	64	342	79	74	83	57	55	65	54	53	73	67
14	64	319	78	75	91	58	54	59	54	53	76	72
15	64	326	77	75	77	58	56	57	56	58	65	66
16	62	272	77	75	72	56	58	55	57	255	67	63
17	58	123	75	76	68	56	57	54	63	370	81	63
18	58	97	75	76	68	61	58	53	57	373	72	62
19	64	87	75	75	68	60	55	59	52	358	71	61
20	73	87	75	75	65	57	53	53	55	359	65	64
21	69	85	77	75	66	56	60	58	65	361	e64	68
22	69	83	78	73	63	56	62	69	62	351	e64	84
23	73	83	78	72	61	56	57	90	57	361	e69	98
24	70	83	77	71	60	54	56	72	52	217	e63	90
25	68	81	77	71	61	55	58	58	52	99	e58	72
26	68	79	76	71	62	60	67	56	52	78	e57	70
27	68	78	76	72	62	61	73	57	66	68	e57	71
28	70	80	77	72	61	66	71	54	97	63	e57	68
29	73	83	77	70	---	66	64	58	91	64	e60	67
30	68	83	76	69	---	54	62	59	68	64	e62	67
31	67	---	75	69	---	52	---	61	---	63	e54	---
TOTAL	2096	5812	2423	2306	1918	1806	1807	1857	1871	4618	2041	1964
MEAN	67.6	194	78.2	74.4	68.5	58.3	60.2	59.9	62.4	149	65.8	65.5
MAX	77	353	86	80	91	66	73	90	97	373	98	98
MIN	58	77	75	69	60	52	51	53	52	51	54	45
AC-FT	4160	11530	4810	4570	3800	3580	3580	3680	3710	9160	4050	3900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)

MEAN	173	93.6	90.3	78.6	70.9	51.5	38.5	224	171	101	162	267
MAX	2718	544	519	359	358	299	149	7108	3040	1184	4182	7129
(WY)	1955	1987	1992	1987	1987	1987	1987	1941	1941	1941	1966	1941
MIN	8.70	6.77	9.39	10.6	12.6	10.1	7.46	6.35	7.78	4.43	6.18	5.73
(WY)	1978	1978	1978	1965	1965	1978	1978	1978	1971	1966	1964	1977

RIO GRANDE BASIN

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 0.2 mi downstream from streamflow gaging station.

PERIOD OF RECORD.--Water years 1938-41, 1952 to current year.

REMARKS.--No significant inflow between streamflow gaging station and sampling cross-section.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV 1996												
14...	1530	319	3820	8.0	26.0	15.0	689	11.6	129	--	--	--
MAR 1997												
24...	1330	56	8620	8.3	23.5	19.0	684	13.5	167	2000	480	200
JUN												
17...	0915	66	9130	7.2	22.5	23.0	688	13.9	186	2200	510	220
JUL												
31...	1300	45	6690	7.9	32.0	29.5	687	8.7	130	1800	480	140
AUG												
15...	1215	47	7510	7.7	35.0	29.0	685	9.4	140	2000	490	180
SEP												
09...	1110	46	8860	7.9	32.0	27.0	690	8.4	120	2200	520	210

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	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 1996											
14...	--	--	--	119	--	--	--	--	--	218	<9.0
MAR 1997											
24...	1300	13	36	177	1800	2200	0.80	7.7	6130	476	<30
JUN											
17...	1300	12	36	138	1800	2200	0.8	25	6190	536	58
JUL											
31...	1100	11	36	118	1500	1700	0.4	28	5000	825	<15
AUG											
15...	1000	10	28	133	1700	1900	0.8	27	5410	411	<15
SEP											
09...	1200	11	32	132	1900	2100	0.9	17	6010	482	<30

RIO GRANDE RIVER

391

08407500 PECOS RIVER AT RED BLUFF, NM

LOCATION.--Lat 32°04'30", long 104°02'21", in SW¹/4NW¹/4NE¹/4 sec.1, T.26 S., R.28 E., Eddy County, Hydrologic Unit 13060011, on right bank at Red Bluff, 0.2 mi downstream from Red Bluff Draw, 1.6 mi northwest of the El Paso Natural Gas (Pecos River) compressor station, 5.2 mi north of the New Mexico-Texas State line, 5.5 mi upstream from Delaware River, and at mile 411.2.

DRAINAGE AREA.--19,540 mi², approximately (contributing area).

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,850.05 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Discharge records good. Flow regulated by many reservoirs and diversion dams. Diversions and ground-water withdrawals upstream from station for irrigation of about 202,000 acres, 1959 determination. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1904 reached a stage of 28.0 ft, from information by Panhandle and Santa Fe Railway Co. (For dates of other historical floods see stations 08404000, 08406500.)

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	79	92	76	69	63	42	57	64	64	65	47
2	81	125	88	76	71	63	41	55	68	61	57	43
3	77	168	81	76	71	63	52	52	55	51	58	43
4	76	311	81	78	69	63	58	49	55	108	64	59
5	87	324	81	85	69	63	61	47	54	386	65	69
6	86	328	80	76	69	62	69	47	97	194	148	72
7	86	330	81	74	69	60	60	48	60	108	94	56
8	68	340	83	78	69	56	64	51	229	82	70	59
9	62	351	98	80	70	59	56	66	90	63	65	53
10	62	363	92	79	69	60	52	61	55	52	60	61
11	69	344	87	77	69	60	53	59	49	47	52	63
12	68	351	89	76	76	57	54	66	51	49	49	62
13	64	356	84	74	85	55	48	67	49	51	60	62
14	65	359	82	75	112	56	46	61	49	46	90	76
15	65	356	79	75	94	56	47	54	50	50	72	70
16	64	347	78	75	81	54	50	51	51	129	62	58
17	57	231	76	76	75	52	50	49	60	321	86	58
18	54	136	74	76	73	56	53	47	59	333	85	56
19	58	105	76	75	74	58	51	54	49	333	71	54
20	77	99	75	75	68	55	45	49	43	331	74	54
21	76	96	77	75	69	52	46	52	59	339	67	62
22	71	93	79	74	66	52	58	64	62	338	66	99
23	78	91	81	71	61	51	53	100	57	340	78	112
24	77	88	79	68	60	50	49	100	47	301	65	118
25	72	87	79	69	61	48	52	63	43	188	60	81
26	72	84	78	71	64	52	62	52	43	101	56	67
27	70	80	77	71	65	57	76	55	62	82	55	70
28	73	84	78	71	64	61	80	50	104	66	56	65
29	80	89	79	70	---	70	68	53	116	61	63	61
30	71	91	77	68	---	55	60	57	87	64	66	60
31	70	---	76	65	---	45	---	56	---	61	59	---
TOTAL	2217	6286	2517	2305	2012	1764	1656	1792	2017	4800	2138	1970
MEAN	71.5	210	81.2	74.4	71.9	56.9	55.2	57.8	67.2	155	69.0	65.7
MAX	87	363	98	85	112	70	80	100	229	386	148	118
MIN	54	79	74	65	60	45	41	47	43	46	49	43
AC-FT	4400	12470	4990	4570	3990	3500	3280	3550	4000	9520	4240	3910

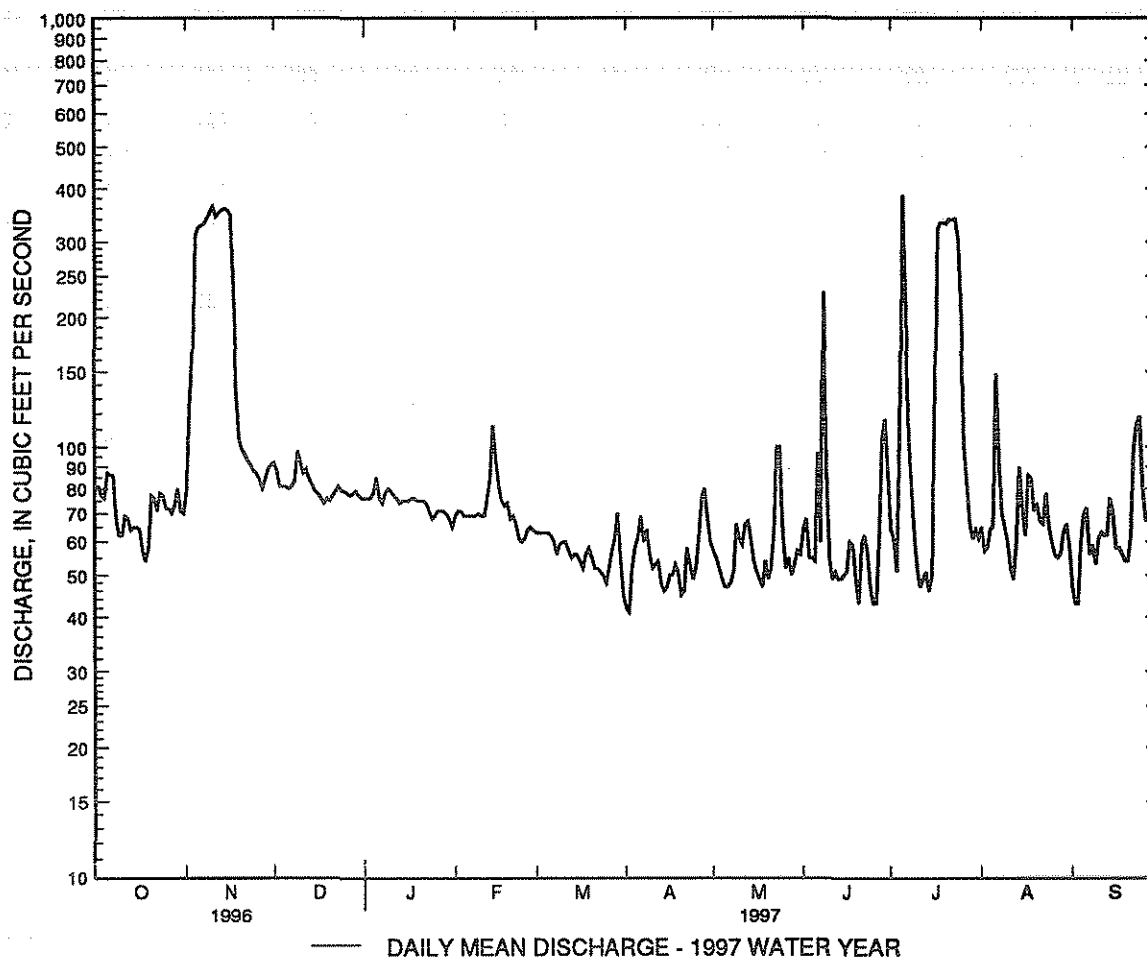
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)

	MEAN	274	150	125	113	97.6	70.3	58.6	220	182	114	158	285
MAX	5255	1382	813	703	534	295	681	6954	3181	1273	4210	6521	
(WY)	1942	1942	1942	1942	1942	1942	1942	1941	1941	1941	1966	1941	
MIN	10.0	6.71	8.57	10.7	13.7	7.76	6.38	7.90	4.30	2.55	5.08	5.77	
(WY)	1965	1978	1978	1965	1965	1978	1978	1971	1990	1966	1964	1977	

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1938 - 1997
ANNUAL TOTAL	36381	31474	
ANNUAL MEAN	99.4	86.2	154
HIGHEST ANNUAL MEAN			1655
LOWEST ANNUAL MEAN			19.2
HIGHEST DAILY MEAN	632 Sep 12	386 Jul 5	50700 Aug 24 1966
LOWEST DAILY MEAN	29 May 23	41 Apr 2	.22 Aug 1 1966
ANNUAL SEVEN-DAY MINIMUM	34 May 17	49 Apr 14	.33 Jul 26 1966
ANNUAL RUNOFF (AC-FT)	72160	62430	111800 ^a
10 PERCENT EXCEEDS	317	108	208
50 PERCENT EXCEEDS	67	68	57
90 PERCENT EXCEEDS	47	50	14

a-From rating curve extended above 32,000 ft³/s, on basis of slope-area measurement of peak flow.



RIO GRANDE RIVER

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08408500 DELAWARE RIVER NEAR RED BLUFF, NM

LOCATION.--Lat 32°01'23", long 104°03'15", in NE¹/4SW¹/4SE¹/4 sec.23, T.26 S., R.28 E., Eddy County, Hydrologic Unit 13070002, near center of channel on downstream side of pier of bridge on U.S. Highway 285, 2.1 mi north of the New Mexico-Texas State line, 3.6 mi southwest of Red Bluff, 3.7 mi upstream from mouth and 14 mi south of Malaga. Mouth at Pecos River mile 405.6.

DRAINAGE AREA.--689 mi².

PERIOD OF RECORD.--April 1912 to September 1913, May 1914 to June 1915, October 1937 to current year. Published as "near Malaga" 1912-13, and as "near Angeles, Tex." 1914-15.

GAGE.--Water-stage recorder. Elevation of gage is 2,900.66 ft above National Geodetic Vertical Datum of 1929 (U.S. Boundary Commission post). Prior to May 1914, at site 3.0 mi upstream at different datum. May 1914 to June 1915, at site 2.5 mi downstream at different datum.

REMARKS.--Records good. One small upstream diversion. Several observations of water temperature were made during the year. No flow for many days most years.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.7	1.9	2.2	1.8	1.9	1.6	1.1	.67	.18	.00	.00
2	1.9	1.7	1.9	2.2	1.8	1.9	1.8	1.1	.47	.16	.00	.00
3	1.8	1.8	1.9	2.4	1.9	1.8	7.3	.99	.38		.00	.00
4	1.9	1.8	1.9	2.5	1.9	1.8	7.2	.88	1.0	118	.00	.00
5	2.0	1.6	2.0	2.5	1.9	1.7	1.9	.91	8.0	107	.00	.00
6	1.9	1.5	2.0	2.5	1.9	1.7	1.8	.88	1.6	7.5	.00	.00
7	1.8	1.4	2.0	2.6	1.8	1.7	1.8	.82	.59	3.3	.00	.00
8	1.7	1.5	2.0	2.7	1.8	1.7	1.7	.72	160	2.5	.00	.00
9	1.7	1.5	2.1	2.7	1.8	1.7	1.6	.83	135	2.2	.00	.00
10	1.6	1.5	2.3	2.7	1.8	1.7	1.7	.79	19	2.1	.00	.00
11	1.6	1.6	2.2	2.6	1.8	1.7	1.5	.74	6.9	2.1	.00	.00
12	1.4	1.6	2.2	2.6	2.0	1.7	1.5	.82	3.3	2.0	.00	.00
13	1.4	1.6	2.3	2.5	2.0	1.8	1.6	.88	2.2	2.0	6.5	.00
14	1.4	1.6	2.3	2.4	1.9	1.6	1.7	.74	1.5	1.9	1.7	.00
15	1.4	1.6	2.3	2.3	1.8	1.6	1.8	.67	1.3	1.8	1.4	.00
16	1.4	1.7	2.3	2.3	1.8	1.6	1.8	.57	1.0	1.6	1.3	.00
17	1.3	1.6	2.2	2.2	1.7	1.6	1.7	.50	.84	1.5	1.3	.00
18	1.3	1.6	2.2	2.3	1.7	1.6	1.7	.48	.69	1.5	1.2	.00
19	1.4	1.6	2.2	2.4	1.8	1.6	1.7	.45	.54	1.4	7.0	.00
20	1.4	1.6	2.3	2.5	1.9	1.6	1.5	.48	.50	1.4	5.2	.00
21	1.4	1.6	2.4	2.4	1.8	1.6	1.4	19	.40	1.3	1.7	.00
22	1.5	1.6	2.4	2.2	1.8	1.7	1.7	20	.33	.12	1.4	.06
23	1.6	1.6	2.4	2.2	1.7	1.7	1.7	3.8	.28	.01	1.3	.00
24	1.6	1.7	2.3	2.2	1.8	1.7	1.5	1.7	.21	.01	1.0	.00
25	1.6	1.6	2.3	2.1	1.9	1.7	1.7	1.2	.19	.01	.00	.00
26	1.6	1.6	2.3	2.1	1.9	1.7	1.9	.93	.19	.00	.00	.00
27	1.6	1.7	2.4	2.1	1.9	1.7	1.8	.73	11	.00	.00	.00
28	1.6	1.9	2.4	2.0	1.9	1.7	1.6	.66	2.2	.00	.00	.00
29	1.7	2.0	2.3	2.1	---	1.7	1.6	.61	.48	.00	.00	.00
30	1.7	1.9	2.2	2.0	---	1.6	1.3	.71	.25	.00	.00	.00
31	1.7	---	2.2	2.0	---	1.6	---	1.4	---	.00	.00	---
TOTAL	49.8	49.3	68.1	72.5	51.5	52.4	61.1	66.09	361.01	352.59	31.00	0.06
MEAN	1.61	1.64	2.20	2.34	1.84	1.69	2.04	2.13	12.0	11.4	1.00	.002
MAX	2.0	2.0	2.4	2.7	2.0	1.9	7.3	20	160	118	7.0	.06
MIN	1.3	1.4	1.9	2.0	1.7	1.6	1.3	.45	.19	.00	.00	.00
AC-FT	99	98	135	144	102	104	121	131	716	699	61	.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)

	MEAN	3.48	3.25	3.32	3.10	2.77	5.72	9.50	18.4	14.1	22.2	22.0
MAX	748	18.9	7.99	8.57	8.77	9.44	135	233	281	166	326	303
(WY)	1956	1979	1987	1987	1987	1987	1954	1941	1938	1952	1966	1978
MIN	.000	.030	.17	.41	.13	.42	.23	.003	.000	.000	.000	.000
(WY)	1952	1965	1966	1965	1966	1993	1968	1950	1950	1947	1983	1953

RIO GRANDE BASIN

08408500 DELAWARE RIVER NEAR RED BLUFF, NM -- Continued

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

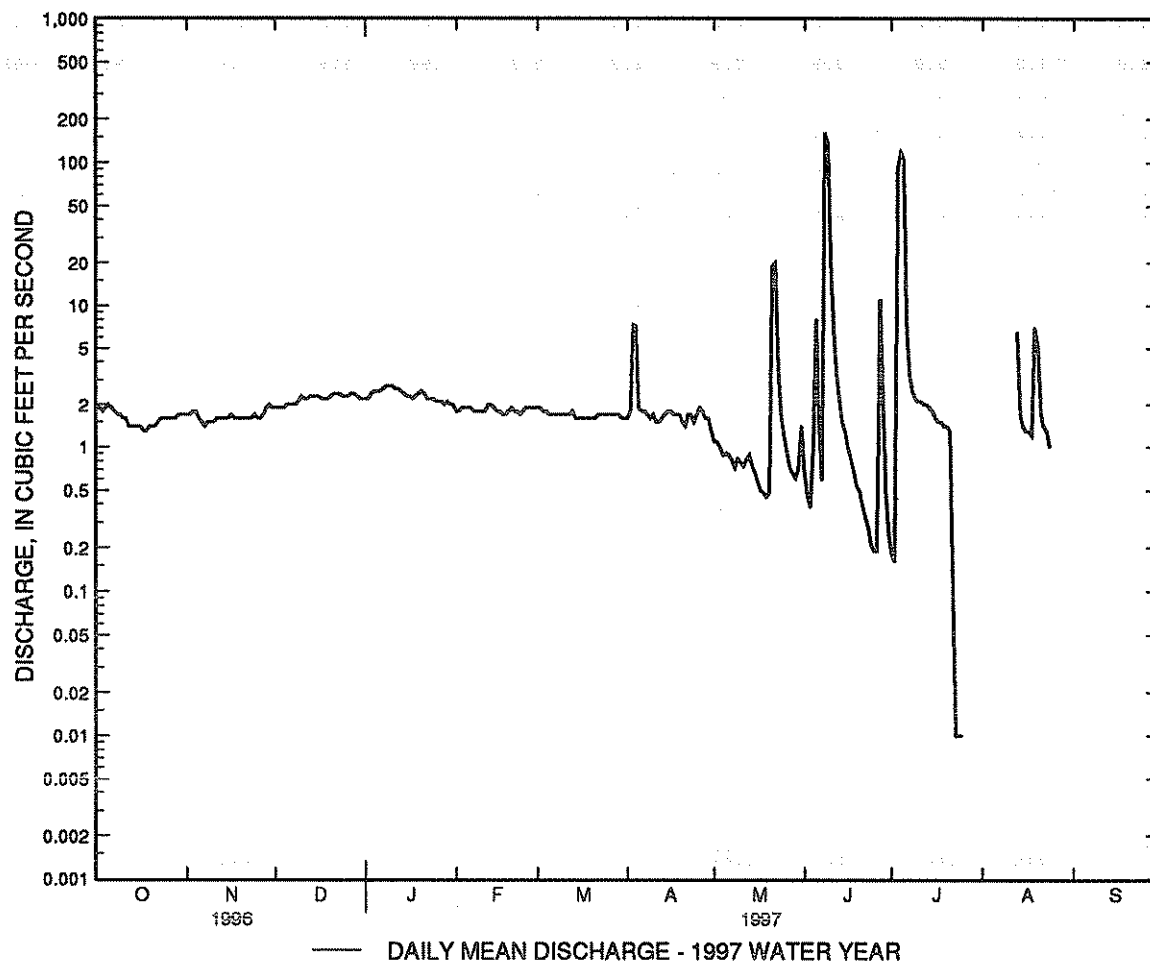
FOR 1997 WATER YEAR

WATER YEARS 1938 - 1997

ANNUAL TOTAL	2846.81	1215.45	11.5	
ANNUAL MEAN	7.78	3.33	66.1	1956
HIGHEST ANNUAL MEAN			1.78	1993
LOWEST ANNUAL MEAN				
HIGHEST DAILY MEAN	466	160	22000	Oct 2 1955
LOWEST DAILY MEAN	.00	.00	.00	Jun 12 1938
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00	Jul 29 1946
INSTANTANEOUS PEAK FLOW		1270	81400 ^a	Oct 2 1955
INSTANTANEOUS PEAK STAGE		6.95	27.00 ^b	Oct 2 1955
INSTANTANEOUS LOW FLOW		.00	.00	Jun 11 1938
ANNUAL RUNOFF (AC-FT)	5650	2410	8300	
10 PERCENT EXCEEDS	4.2	2.4	7.0	
50 PERCENT EXCEEDS	1.8	1.7	2.2	
90 PERCENT EXCEEDS	.00	.00	.00	

a-From rating curve extended above 6,500 ft³/s, on basis of slope-area measurements at gage heights, 12.84 ft, 17.55 ft, and 27.0 ft.

b-From floodmarks.



08410000 RED BLUFF RESERVOIR NEAR ORLA, TX

LOCATION.--Lat 31°54'04", long 103°54'35", Reeves County, Hydrologic Unit 13070001, at right end of Red Bluff Dam on the Pecos River, 2.8 mi upstream from Salt Creek, and 5.2 mi north of Orla.

DRAINAGE AREA.--20,720 mi², approximately (contributing area).

PERIOD OF RECORD.--February 1937 to current year. Monthly contents only for some periods, published in WSP 1312.

GAGE.--Nonrecording gage. Datum of gage is 0.43 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by a rock-faced earthfill dam 9,200 ft long. The dam was completed and storage began in September 1936. The dam and reservoir are owned and operated by the Red Bluff Water Power Control District. The water is used for power development and for irrigation from Mentone to Grandfalls. The uncontrolled emergency spillway, 790 ft wide, is a cut through natural ground located to the right of right end of dam. The controlled service spillway is equipped with 12 tainter gates that are 25 by 15 ft high. Inflow is regulated by many reservoirs and diversion dams. The capacity curve is based on Geological Survey topographic map and aerial photography, survey of 1986. Figures given herein represent total contents. Data regarding the dam and reservoir are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	2,856.0	-
Crest of emergency spillway	2,845.0	324,000
Top of gates (top of conservation pool)	2,842.0	289,700
Crest of service spillway and bottom of tainter gates	2,827.0	155,700
Lowest gated outlet (invert)	2,764.0	2,800

COOPERATION.--Gage-height records and capacity curve were furnished by Red Bluff Water Power and Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 352,000 acre-ft, Sept. 27, 28, 1941, gage height, 2,846.2 ft, observed on nonrecording gage at service spillway (affected by variable drawdown due to flow through tainter gates); minimum observed, 11,080 acre-ft, May 13, 1948, gage height, 2,781.4 ft.

EXTREMES (AT 0800) FOR CURRENT YEAR.--Maximum contents observed, 81,150 acre-ft, Mar. 26-27, gage height, 2,813.66 ft; minimum observed, 48,690 acre-ft, Aug. 4-5, gage height, 2,804.74 ft.

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

2,805.0	49,440	2,810.0	66,220	2,816.0	91,830
2,806.0	52,460	2,812.0	74,090	2,818.0	101,700
2,808.0	59,000	2,814.0	82,630	2,820.0	112,200

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 0800 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64520	64920	71280	73890	77110	79930	78280	73130	64670	60910	49920	49770
2	64590	64850	71360	74010	77190	80020	77610	73130	64370	60270	49490	49800
3	64670	64780	71440	74130	77270	80100	76940	73170	64080	59570	49090	49740
4	64740	64740	71520	74260	77360	80190	76270	73170	63780	59010	48690	49680
5	64810	65040	71600	74380	77440	80280	75600	73210	63490	59010	48690	49620
6	64890	65400	71680	74510	77520	80370	74930	72890	63190	58870	48720	49550
7	64960	65850	71760	74640	77610	80450	74260	72560	62970	58670	48720	49490
8	65040	66290	71840	74760	77690	80540	73610	72200	62970	58130	48750	49440
9	65110	66750	71920	74890	77780	80630	72970	71760	62970	57530	48780	49380
10	65180	67220	72000	75010	77860	80710	72320	71400	63040	56860	48810	49320
11	65260	67680	72080	75100	77940	80710	72320	71040	63040	56190	48830	49260
12	65330	68140	72160	75180	78070	80760	72360	70670	63040	55520	48860	49200
13	65400	68610	72240	75260	78190	80760	72400	70310	63040	54890	48890	49230
14	65480	69070	72320	75350	78320	80800	72440	69950	63040	54250	48920	49260
15	65550	69530	72400	75430	78450	80800	72480	69690	63040	53610	48980	49320
16	65590	69920	72480	75520	78580	80850	72520	69340	63040	53100	49030	49380
17	65630	70150	72560	75600	78710	80850	72560	68990	63040	52650	49090	49440
18	65660	70230	72640	75730	78840	80890	72770	68640	62900	52650	49150	49490
19	65700	70310	72720	75850	78970	80930	72680	68300	62750	52680	49200	49350
20	65740	70390	72800	75970	79100	80970	72600	67950	62600	52680	49260	49200
21	65770	70470	72890	76100	79230	81020	72520	67640	62460	52710	49320	49060
22	65660	70550	72970	76230	79320	81060	72440	67450	62320	52710	49380	49150
23	65520	70630	73050	76350	79410	81060	72480	67260	62180	52750	49440	49150
24	65370	70710	73130	76350	79500	81110	72560	66990	62040	52750	49490	49150
25	65260	70790	73210	76480	79590	81110	72640	66680	61890	52780	49550	49150
26	65220	70880	73290	76600	79670	81150	72720	66370	61750	52620	49620	49200
27	65180	70960	73370	76690	79760	81150	72800	66110	61610	52160	49680	49350
28	65150	71040	73450	76770	79840	80630	72890	65850	61610	51700	49710	49490
29	65110	71120	73530	76850	---	80060	72970	65550	61540	51250	49740	49650
30	65070	71200	73610	76940	---	79500	73050	65260	61470	50800	49740	49800
31	65000	---	73690	77020	---	78930	---	64960	---	50340	49770	---
MAX	65770	71200	73690	77020	79840	81150	78280	73210	64670	60910	49920	49800
MIN	64520	64740	71280	73890	77110	78930	72320	64960	61470	50340	48690	49060
(†)	2809.67	2811.28	2811.90	2812.70	2813.36	2813.15	2811.74	2809.66	2808.70	2805.30	2805.11	2805.12
(††)	+560	+6200	+2490	+3330	+2820	-910	-5880	-8090	-3490	-11130	-570	+30

CAL YR 1996 MAX 77520 MIN 56690 (††) +1010
WTR YR 1997 MAX 81150 MIN 48690 (††) +14640

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

08412500 PECOS RIVER NEAR ORLA, TX

LOCATION.--Lat 31°52'21", long 103°49'52", Reeves County, Hydrologic Unit 1300001, on right bank at bridge on Farm Road 652, 5.5 mi downstream from Salt Creek (Screw Bean Arroyo), 5.9 mi northeast of Orla, and 8.5 mi downstream from Red Bluff Reservoir.

DRAINAGE AREA.--21,210 mi² approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1937 to current year.

REVISED RECORDS.--WSP 928: 1937.

GAGE.--Water-stage recorder. Datum of gage is 2,730.86 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 16, 1969, at site 6.9 mi downstream at datum 12.81 ft lower.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Most of flow is releases from storage in Red Bluff Reservoir (station 08410000) 8.5 mi upstream. Occasional runoff occurs from draws between dam and station. There are many diversions above Red Bluff Reservoir for irrigation.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	97	11	3.5	2.4	4.5	344	9.7	197	348	233	8.2
2	10	110	11	4.1	2.3	4.5	346	8.7	196	351	234	16
3	9.2	110	11	3.9	2.5	4.2	347	8.5	195	351	234	67
4	9.0	111	11	3.2	2.5	4.0	348	8.4	195	373	186	68
5	8.6	111	11	2.8	2.3	5.3	350	45	194	381	64	67
6	8.8	108	11	3.1	2.2	4.6	348	201	200	356	65	67
7	8.7	102	11	3.5	2.5	4.1	347	200	197	354	66	67
8	8.5	102	11	3.2	2.0	4.1	346	200	257	351	58	66
9	8.2	103	11	3.0	1.7	3.7	346	206	197	349	e12	66
10	8.3	103	11	2.9	1.7	3.3	246	234	114	348	e12	68
11	8.4	103	11	3.0	1.7	3.5	15	234	39	346	e11	66
12	8.2	103	11	e3.3	1.8	3.6	13	226	37	345	e53	54
13	7.8	104	11	e3.3	4.9	3.7	11	205	36	344	e55	11
14	7.6	104	11	e3.0	4.9	3.5	9.7	201	36	343	e53	9.3
15	7.3	104	11	e2.6	4.3	3.2	8.4	202	36	326	e53	8.8
16	7.2	104	11	e2.3	3.7	3.3	8.7	202	36	284	e53	9.1
17	7.1	104	10	2.2	3.6	3.5	9.1	202	37	283	e53	8.3
18	7.4	105	10	2.0	3.7	3.1	20	201	74	283	e55	84
19	9.2	105	10	2.0	3.4	3.2	96	200	73	284	e52	79
20	8.6	71	10	2.0	4.3	3.1	96	198	73	284	e52	79
21	23	14	10	3.7	4.0	3.1	97	178	73	285	e51	79
22	86	12	10	3.7	4.2	2.6	73	177	73	285	e11	80
23	75	12	e8.9	3.3	4.0	2.9	11	175	73	286	e11	63
24	76	11	e8.1	2.5	3.9	3.0	9.7	162	73	287	e11	11
25	74	12	e7.3	2.2	4.4	2.8	9.6	164	72	287	e9.0	8.9
26	43	11	e6.1	2.3	4.8	3.2	11	165	73	284	e9.0	8.2
27	38	11	e5.5	2.0	4.3	91	10	169	75	283	e8.0	7.5
28	38	12	e5.0	2.9	4.5	293	10	186	73	281	e8.0	7.0
29	38	11	e4.8	2.8	---	294	10	188	73	281	8.6	6.5
30	55	11	e4.5	2.7	---	298	9.8	194	148	266	8.6	6.4
31	94	---	e4.2	2.4	---	312	---	198	---	234	8.6	---
TOTAL	809.1	2181	290.4	89.4	92.5	1381.6	3906.0	5148.3	3225	9743	1797.8	1246.2
MEAN	26.1	72.7	9.37	2.88	3.30	44.6	130	166	108	314	58.0	41.5
MAX	94	111	11	4.1	4.9	312	350	234	257	381	234	84
MIN	7.1	11	4.2	2.0	1.7	2.6	8.4	8.4	36	234	8.0	6.4
AC-FT	1600	4330	576	177	183	2740	7750	10210	6400	19330	3570	2470

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)
1938	157	5717	1.78	1948
1939	70.1	1474	1.38	1960
1940	42.3	838	1.77	1962
1941	39.3	712	.76	1965
1942	45.0	617	.46	1965
1943	86.8	288	.84	1965
1944	198	601	1.05	1965
1945	200	2717	5.86	1978
1946	227	3481	17.1	1953
1947	239	1425	8.11	1984
1948	195	686	.74	1965
1949	234	6515		1953

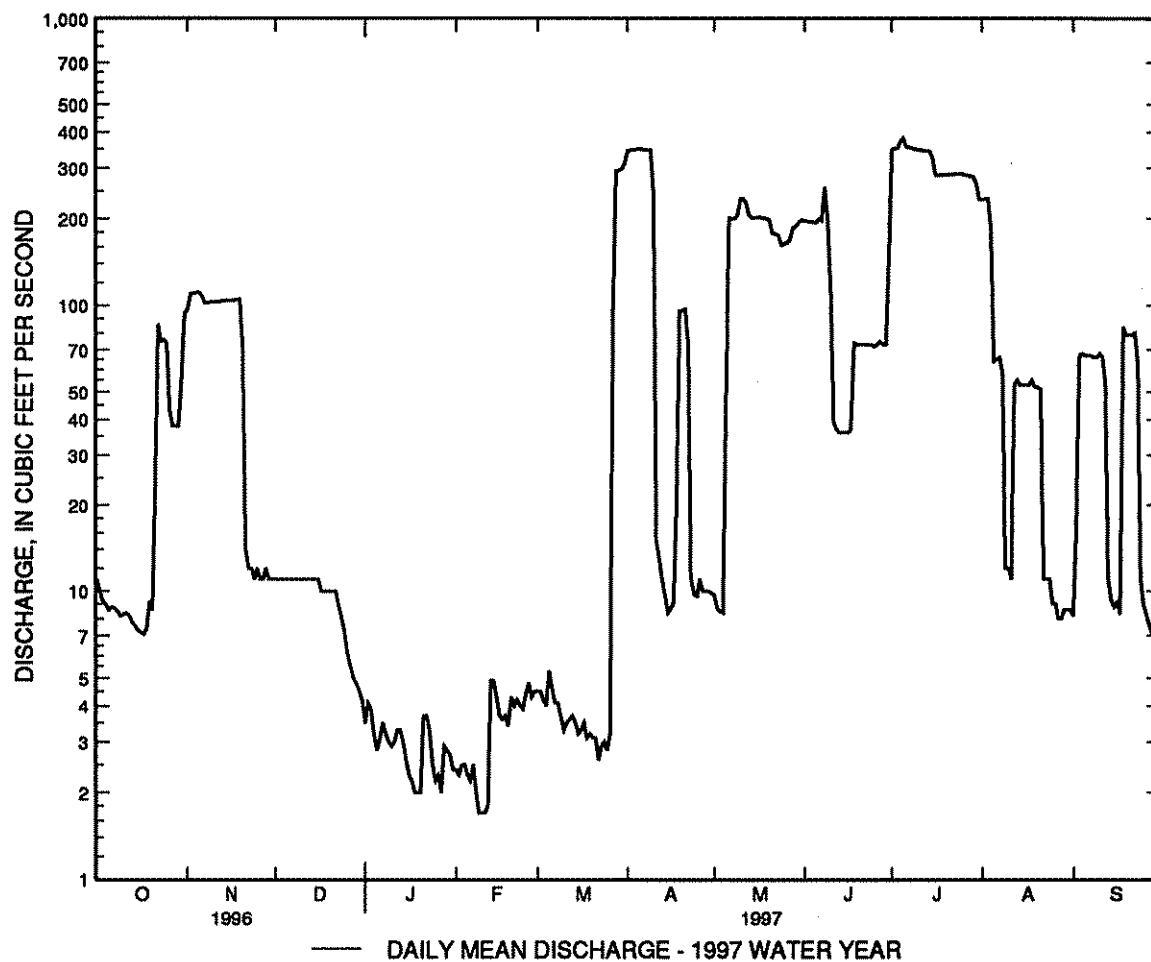
RIO GRANDE RIVER

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08412500 PECOS RIVER NEAR ORLA, TX -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1938 - 1997	
ANNUAL TOTAL	26991.0		29910.3		145	
ANNUAL MEAN	73.7		81.9		1284	
HIGHEST ANNUAL MEAN					13.1	
LOWEST ANNUAL MEAN					1941	
HIGHEST DAILY MEAN	1140	Jul 16	381	Jul 5	23700	Sep 28 1941
LOWEST DAILY MEAN	4.2	Dec 31	1.7	Feb 9	.00	Sep 9 1946
ANNUAL SEVEN-DAY MINIMUM	5.3	Dec 25	1.9	Feb 6	.00	Jul 7 1965
INSTANTANEOUS PEAK FLOW			422	Jul 4	23700	Sep 29 1941
INSTANTANEOUS PEAK STAGE			5.10	Jul 4	20.74	Sep 29 1941
INSTANTANEOUS LOW FLOW			1.7	Feb 9	.00	Sep 9 1946
ANNUAL RUNOFF (AC-FT)	53540		59330		104900	
10 PERCENT EXCEEDS	239		284		365	
50 PERCENT EXCEEDS	12		12		34	
90 PERCENT EXCEEDS	8.0		3.1		5.3	

e Estimated



RIO GRANDE BASIN

08412500 PECOS RIVER NEAR ORLA, TX -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: July 1937 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1937 to current year.

WATER TEMPERATURE: March 1953 to current year.

REMARKS.--October 1937 to September 1969, this station was published as 08410100 Pecos River below Red Bluff Dam, near Orla. Water-quality station operation transferred from the Texas District to the New Mexico District beginning with the 1993 water year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 29,400 microsiemens May 16, 1978; minimum daily, 1,600 microsiemens June 19, 1984.

WATER TEMPERATURE: Maximum daily, 32.0 °C, Aug 4, 1991; minimum daily, 0.0 °C, many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 20,000 microsiemens Mar.7; minimum daily, 7,390 microsiemens Aug. 13 .

WATER TEMPERATURE: Maximum daily, 28.5 °C, Aug.22; minimum daily 0 °C, Jan. 13

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) OF (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
NOV 1996									
14...	1300	105	8260	8.1	26.0	14.0	693	11.4	125
MAR 1997									
24...	1030	4.2	15900	7.9	21.0	18.0	690	11.0	136
JUN									
17...	1300	36	9240	7.8	36.0	25.0	691	10.3	142
AUG									
01...	1015	250	8690	7.8	30.0	26.0	704	8.0	110
15...	0915	66	8610	7.7	31.0	26.0	688	9.8	138
SEP									
08...	1245	59	9030	8.0	34.5	26.0	694	9.1	127

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)
NOV 1996									
14...	2100	2100	530	200	1200	11	31	101	0
MAR 1997									
24...	2900	2800	730	270	2700	22	33	146	0
JUN									
17...	2200	2100	540	212	1250	12	33	101	0
AUG									
01...	2300	2200	560	229	1320	12	33	110	0
15...	2300	2200	570	215	1230	11	31	88	0
SEP									
08...	2300	2200	570	216	1230	11	31	100	0

DATE	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 1996									
14...	83	--	2000	2000	0.90	13	6020	--	--
MAR 1997									
24...	120	--	2500	4100	1.2	5.7	10400	--	--
JUN									
17...	83	--	2000	2100	0.84	18	6260	--	--
AUG									
01...	90	84	2000	2000	0.69	25	6250	531	<30
15...	72	--	2000	2100	0.86	25	6230	--	--
SEP									
08...	82	--	2100	2100	0.87	11	6230	--	--

MIMBRES RIVER BASIN

08477110 MIMBRES RIVER AT MIMBRES, NM

LOCATION.--Lat 32°51'17", long 107°58'23", in NW1/4SW1/4 sec.3, T.17 S., R.11 W., Grant County, Hydrologic Unit 13030202, on left bank 100 ft downstream from Willow Springs Canyon, 0.3 mi east of Mimbres, 1.1 mi downstream from Shepard Canyon, 2.5 mi downstream from Bear Canyon, and at mile 73.1.

DRAINAGE AREA.--216 mi².

PERIOD OF RECORD.--March 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,920 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 17, 1979, at datum 2.29 ft higher.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	13	e8.2	e7.0	8.2	7.0	5.4	11	7.7	1.5	e38	12
2	13	12	e8.2	e7.0	7.9	6.5	6.8	11	6.4	1.6	e70	11
3	12	12	e8.2	e7.0	7.9	5.4	8.0	11	4.7	1.6	e100	12
4	13	12	e8.1	e7.0	7.9	4.7	9.6	11	5.0	1.6	e80	13
5	13	11	e8.1	e7.1	4.8	4.2	10	9.8	4.5	1.8	e65	16
6	14	11	e8.0	7.1	3.6	4.4	10	9.1	5.4	1.9	60	14
7	13	11	e7.9	7.4	3.1	5.6	9.9	10	6.1	3.5	51	14
8	12	11	e7.8	7.4	4.4	8.7	9.7	11	6.8	3.9	49	14
9	13	11	e7.8	7.4	3.2	8.3	9.9	12	4.8	5.0	42	16
10	11	11	e7.7	7.4	3.4	11	9.7	9.9	4.5	5.2	37	16
11	11	10	e7.6	7.4	3.5	12	11	10	4.0	5.3	33	17
12	13	10	e7.5	7.4	3.8	11	10	10	5.0	4.3	32	43
13	14	9.5	e7.4	7.7	4.4	10	9.6	9.4	5.8	3.7	57	38
14	12	8.7	e7.3	7.9	4.7	8.7	9.4	10	6.8	3.1	50	30
15	13	8.8	e7.2	8.0	4.7	8.4	9.6	9.5	6.8	2.7	43	29
16	11	9.0	e7.2	8.5	6.0	7.6	11	9.9	5.3	3.3	36	33
17	11	9.3	e7.1	8.6	5.1	7.6	10	10	5.5	2.8	32	29
18	11	9.2	e7.0	8.3	5.1	7.1	12	9.7	4.4	2.9	30	28
19	10	9.3	e6.9	8.3	4.9	8.6	12	13	4.4	2.7	28	28
20	13	9.1	e6.9	8.3	5.1	7.5	11	15	4.4	2.7	26	30
21	13	9.0	e6.9	8.3	5.2	6.8	12	12	4.3	3.0	23	93
22	12	e9.0	e6.9	8.2	5.6	6.6	11	12	4.0	2.7	19	181
23	13	e8.9	e7.0	8.1	5.6	6.9	11	10	3.2	2.3	17	103
24	15	e8.8	e7.0	8.0	5.6	6.2	12	10	2.9	e2.5	30	68
25	15	e8.6	e7.0	8.0	5.9	6.6	11	10	2.9	e2.5	29	46
26	16	e8.5	e7.0	8.0	5.6	7.2	13	9.7	2.8	e2.5	17	32
27	15	e8.4	e7.0	8.5	6.8	7.4	14	6.5	3.4	e3.5	17	25
28	16	e8.3	e7.0	9.1	8.8	7.8	13	4.2	3.0	e3.2	16	22
29	15	e8.3	e7.0	8.8	---	7.6	12	5.7	3.0	e3.6	14	19
30	14	e8.2	e7.0	8.5	---	7.4	11	5.4	2.3	e6.0	13	19
31	13	---	e7.0	8.4	---	5.9	---	6.3	---	e16	13	---
TOTAL	404	293.9	228.9	244.1	150.8	230.7	314.6	304.1	140.1	108.9	1167	1051
MEAN	13.0	9.80	7.38	7.87	5.39	7.44	10.5	9.81	4.67	3.51	37.6	35.0
MAX	16	13	8.2	9.1	8.8	12	14	15	7.7	16	100	181
MIN	10	8.2	6.9	7.0	3.1	4.2	5.4	4.2	2.3	1.5	13	11
AC-FT	801	583	454	484	299	458	624	603	278	216	2310	2080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1997, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
MEAN	13.6	13.6	35.7	30.3	29.9	33.6	23.8	16.0	8.55	11.6	31.0	13.8
MAX	67.9	43.9	186	163	99.1	93.2	89.5	64.9	23.0	52.1	234	48.6
(WY)	1986	1979	1985	1993	1995	1992	1992	1992	1992	1986	1988	1988
MIN	2.56	2.47	3.65	4.24	3.11	2.16	2.34	1.84	2.82	1.64	3.30	2.64
(WY)	1995	1981	1981	1981	1981	1990	1990	1990	1996	1994	1994	1978

MIMBRES RIVER BASIN

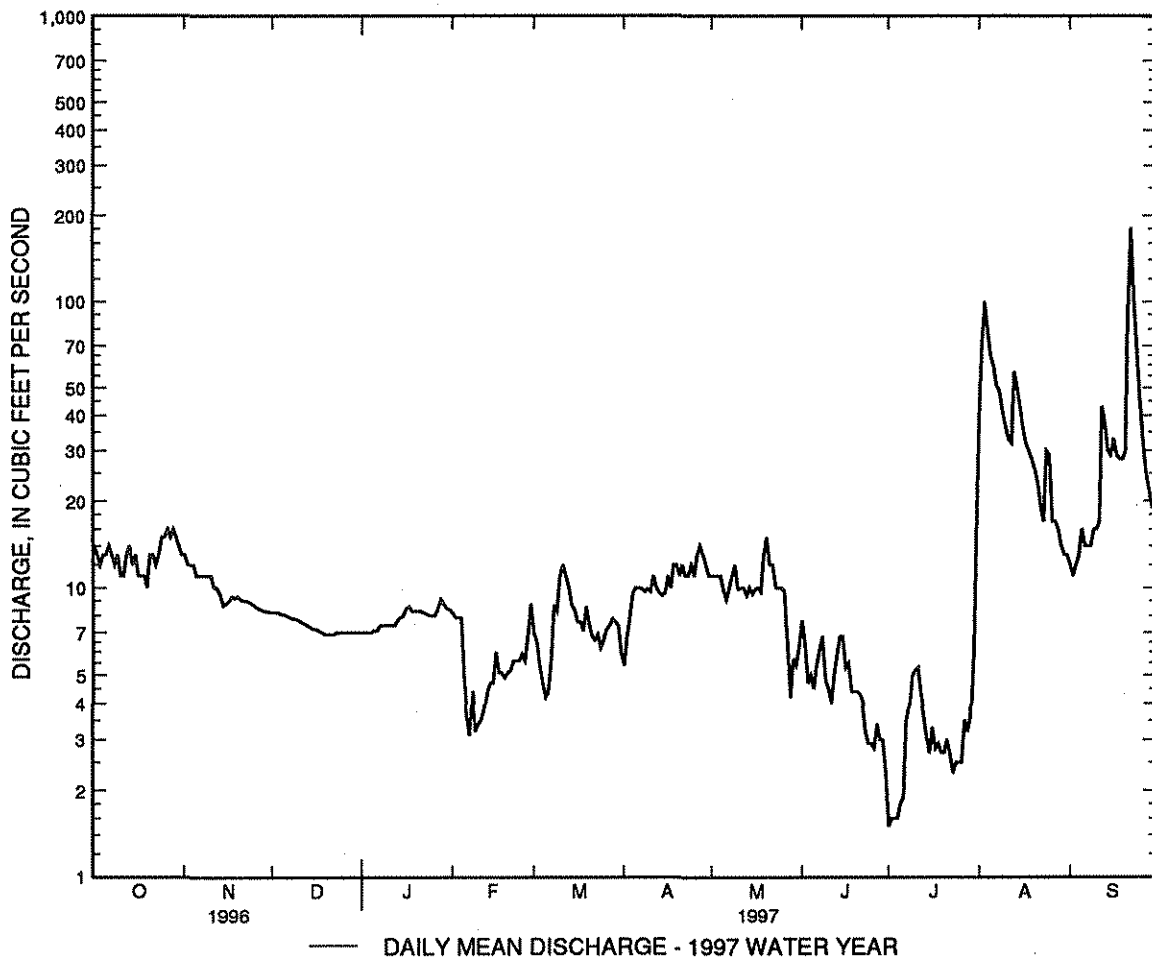
401

08477110 MIMBRES RIVER AT MIMBRES, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1978 - 1997
ANNUAL TOTAL	3097.21	4638.1	
ANNUAL MEAN	8.46	12.7	21.9
HIGHEST ANNUAL MEAN			45.1
LOWEST ANNUAL MEAN			5.08
HIGHEST DAILY MEAN	224 Sep 15	181 Sep 22	2500 Dec 28 1984
LOWEST DAILY MEAN	.90 Jun 22	1.5 Jul 1	.07 Jul 11 1994
ANNUAL SEVEN-DAY MINIMUM	1.1 Jun 19	1.8 Jun 30	.34 Jul 8 1994
INSTANTANEOUS PEAK FLOW		1080 Aug 3	6360 ^a Dec 28 1984
INSTANTANEOUS PEAK STAGE		4.38 Aug 3	8.05 ^b Dec 28 1984
INSTANTANEOUS LOW FLOW		1.3 Jul 2	.22 Aug 22 1980
ANNUAL RUNOFF (AC-FT)	6140	9200	15840
10 PERCENT EXCEEDS	14	27	51
50 PERCENT EXCEEDS	5.4	8.5	8.7
90 PERCENT EXCEEDS	1.9	3.7	2.9

e Estimated

a-From floodmarks.

b-From rating curve extended above 450 ft³/s, on basis of slope-area measurement at gage heights 6.70 ft and 8.05 ft.


TULAROSA VALLEY BASIN

08480595 SALT CREEK AT TULAROSA, NM
(Formerly published as Salt Creek at RR316 on WSMR, NM)

LOCATION.--Lat 33°16'32", long 106°23'50", in SE¹/4NE¹/4 sec.16, T.12 S., R.6 E., Sierra County Hydrologic Unit 10301103, on right bank, 360 ft upstream from Range Road 316, .5 mi east of Range Road 7, and about 65 miles north of small missile range on U.S. Highway 70.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Published as Salt Creek at RR316 on WSMR, August 1995 to September 1996.

GAGE.--Water-stage recorder. Elevation of gage is 4,020 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 88 ft³/s, July 3, 1996, gage height, 6.10 ft; minimum no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 79 ft³/s, July 24, 1997, gage height, 5.73 ft; minimum discharge, 0 ft³/s, Oct. 25, Dec. 4 and June 6.

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

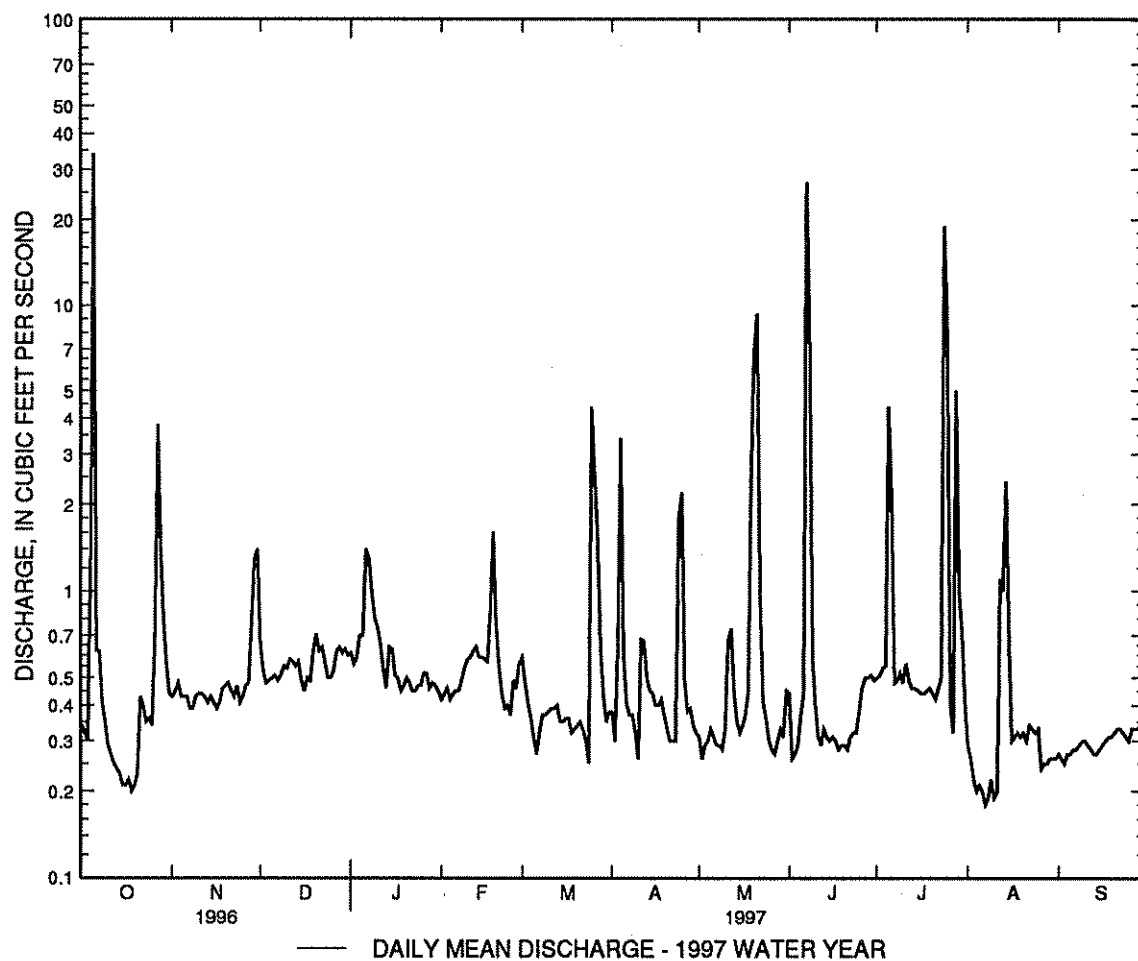
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	.43	.66	.61	.42	.59	.38	.31	.44	.50	.29	e.27
2	.32	.45	.53	.56	.44	.48	.30	.26	.26	.51	.26	e.26
3	.30	.48	.48	.59	.46	.41	.63	.29	.27	.54	.22	e.25
4	1.3	.43	.49	.70	.42	.36	3.4	.30	.29	.55	.20	e.27
5	.34	.43	.50	.70	.44	.31	.60	.33	.37	4.4	.21	e.27
6	.62	.43	.51	1.4	.45	.27	.40	.31	.44	2.0	.20	e.28
7	.62	.39	.49	1.3	.45	.32	.37	.29	.27	.48	.18	e.28
8	.41	.39	.51	1.0	.49	.37	.37	.29	9.3	.49	.19	e.29
9	.35	.43	.55	.81	.54	.37	.32	.28	.59	.52	.22	e.30
10	.29	.44	.54	.75	.58	.38	.26	.33	.40	.48	.19	e.30
11	.27	.44	.58	.66	.59	.39	.68	.67	.31	.56	.20	e.29
12	.25	.43	.57	.54	.62	.39	.67	.74	.29	.49	1.1	e.28
13	.24	.41	.55	.46	.64	.40	.50	.45	.33	.46	1.0	e.27
14	.23	.43	.57	.64	.59	.35	.45	.35	.31	.46	2.4	e.27
15	.21	.41	.49	.63	.59	.35	.44	.32	.30	.45	.71	e.28
16	.21	.39	.45	.51	.58	.36	.40	.34	.31	.44	.30	e.29
17	.22	.41	.50	.50	.57	.36	.40	.37	.30	.44	.31	e.30
18	.20	.46	.49	.45	.84	.32	.42	.45	.28	.45	e.32	e.31
19	.21	.47	.62	.47	1.6	.33	.37	2.5	.29	.46	e.31	e.31
20	.23	.48	.71	.50	.77	.34	.33	6.8	.29	.44	e.32	e.32
21	.43	.45	.62	.48	.55	.35	.30	9.3	.28	.42	e.30	e.33
22	.40	.43	.64	.45	.44	.33	.30	.92	.31	.46	e.34	e.33
23	.35	.47	.57	.45	.39	.30	.30	.41	.32	.50	e.33	e.32
24	.36	.41	.50	.47	.40	.25	1.8	.36	.32	19	e.32	e.31
25	.34	.43	.50	.47	.37	4.4	2.2	.30	.38	8.7	.33	e.30
26	.68	.47	.53	.52	.49	2.5	.49	.28	.46	.40	.24	e.33
27	3.8	.48	.62	.52	.46	1.6	.38	.27	.50	.32	.25	e.33
28	1.4	.77	.64	.46	.56	.63	.39	.30	.50	5.0	.25	e.33
29	.81	1.3	.61	.48	---	.43	.34	.33	.51	1.0	.26	e.34
30	.56	1.4	.63	.47	---	.35	.32	.31	.49	.72	e.26	e.33
31	.44	---	.60	.45	---	.38	---	.45	---	.41	e.26	---
TOTAL	50.39	15.24	17.25	19.00	15.74	18.97	18.51	29.21	46.44	52.05	12.27	8.94
MEAN	1.63	.51	.56	.61	.56	.61	.62	.94	1.55	1.68	.40	.30
MAX	.34	1.4	.71	1.4	1.6	4.4	3.4	9.3	.27	.19	2.4	.34
MIN	.20	.39	.45	.45	.37	.25	.26	.26	.26	.32	.18	.25
AC-FT	100	30	34	38	31	38	37	58	92	103	24	18

e Estimated

TULAROSA VALLEY BASIN

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08480595 SALT CREEK AT TULAROSA, NM -- Continued



TULAROSA VALLEY BASIN

08480595 SALT CREEK AT TULAROSA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD---Water years August 1995 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

		DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	
FEB 1997													
MAR	28...	1115	0.61	31800	8.1	12.0	7.0	649	11.7	128	4000	840	
MAR													
MAY	18...	1230	0.40	30000	8.1	13.5	22.5	667	10.9	161	3800	840	
MAY													
AUG	21...	1130	6.6	18800	7.9	17.5	16.5	661	7.7	97	2400	650	
AUG													
	06...	1200	0.29	27100	8.0	30.0	22.5	662	9.3	137	3900	860	
DATE		MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM, AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)
FEB 1997													
MAR	28...	460	6000	41	140	265	0	217	178	3900	9500	3.9	--
MAR													
MAY	18...	420	5400	38	140	236	0	193	174	3600	8000	4.6	2.3
MAY													
AUG	21...	180	3300	29	91	116	0	95	95	2400	5500	1.1	0.83
AUG													
	06...	410	5200	37	120	195	0	160	170	3800	8100	4.1	2.0
DATE		SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
FEB 1997													
MAR	28...	24	22000	21000	--	<0.010	<0.050	0.120	0.18	0.40	0.30	0.090	0.010
MAR													
MAY	18...	20	20500	18600	--	0.010	<0.050	0.120	0.18	0.30	0.30	<0.010	<0.010
MAY													
AUG	21...	7.6	1300	12100	0.702	0.04	0.74	0.14	0.65	2.5	0.8	1.2	<0.01
AUG													
	06...	45	19800	18700	--	<0.01	0.11	0.10	0.27	0.6	0.4	0.01	<0.01
DATE		PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	
FEB 1997													
MAR	28...	<0.010	2900	<0.00	2	1	100	31	1100	887	<2	<4	
MAR													
MAY	18...	<0.010	550	60	2	1	100	33	930	964	<2	<2.0	
MAY													
AUG	21...	0.01	17000	<60.0	4	1	<100	95	520	433	<1	<1	
AUG													
	06...	0.01	180	<70.0	2	2	<100	55	1000	956	<10	<10	

TULAROSA VALLEY BASIN

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08480595 SALT CREEK AT TULAROSA, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI) (01132)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
FEB 1997											
28...	<1	<1.0	2	<1	840	<48	<4	<4	1200	1400	120
MAR											
18...	<1	<1.0	4	2.0	490	<45	<4	<4.0	1200	1400	150
MAY											
21...	22	<4	25	2	18000	<36	27	<4	740	780	710
AUG											
06...	<10	<10	<10	<10	200	<42	<10	<10	1400	1300	100

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	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)
FEB 1997											
28...	90	<0.1	<0.1	3	3	<2	<4	18000	18000	10	<48
MAR											
18...	120	<0.10	<0.1	3	2	<2	<1.0	20000	19000	<10	<45
MAY											
21...	160	<0.1	<0.1	9	10	<5	<1	14000	12000	90	<36
AUG											
06...	58	<0.1	<0.1	2	1	<10	<10	18000	19000	<10	<42

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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)
FEB 1997					
28...	1115	<0.010	<0.010	<0.010	<0.010
MAR					
18...	1230	<0.010	<0.010	<0.010	<0.010
MAY					
21...	1130	<0.01	<0.01	<0.01	<0.01
AUG					
06...	1200	<0.01	<0.01	<0.01	<0.01

SAN JUAN RIVER BASIN

09343300 RIO BLANCO BELOW BLANCO DIVERSION DAM, NEAR PAGOSA SPRINGS, CO

LOCATION.--Lat 37°12'13", long 106°48'38", in NE¹/4NW¹/4 sec.11, T.34 N., R.1 E., Archuleta County, Hydrologic Unit 14080101, on left bank 250 downstream from Blanco Diversion Dam, 1.1 mi downstream for Leche Creek, and 12 mi southeast of Pagosa Springs.

DRAINAGE AREA.--69.1 mi².

PERIOD OF RECORD.--March 1971 to current year.

GAGE.--Water-stage recorder with satellite telemetry and Parshall flume. Datum of gage is 7,858.04 ft above sea level, (levels by Bureau of Reclamation).

REMARKS.--Records good except for estimated daily discharges, which are poor. Flows controlled by diversion dam upstream.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	22	e18	17	e18	16	e20	41	555	24	23	23
2	20	21	e17	e16	21	16	e18	41	594	22	22	22
3	20	22	e16	e15	20	20	e18	42	270	24	22	24
4	26	20	e15	14	18	19	22	44	246	26	21	25
5	23	20	e16	14	18	e15	21	44	222	24	71	25
6	22	20	18	14	18	e17	23	39	137	22	22	25
7	22	21	e18	e14	15	20	22	40	135	22	28	25
8	22	22	e19	e15	e16	24	21	42	236	26	24	25
9	22	28	21	e16	18	29	21	41	74	29	26	25
10	21	40	23	e17	e17	36	21	40	15	26	29	26
11	20	43	23	e17	e16	38	21	40	24	25	24	26
12	19	30	22	18	18	27	20	41	24	25	23	26
13	18	21	21	18	19	22	25	59	23	25	22	25
14	18	18	22	e18	17	23	27	68	23	24	24	25
15	19	18	18	e18	17	30	22	165	26	21	25	25
16	18	18	e18	e17	20	29	21	200	24	26	25	22
17	18	e16	e17	e17	23	34	23	144	21	31	25	20
18	17	18	e15	e16	22	36	23	122	21	31	25	22
19	17	e17	e16	e16	24	31	24	127	22	30	24	24
20	22	e18	e17	e15	26	33	24	66	22	30	24	24
21	15	19	e17	e15	23	35	23	179	23	30	24	e240
22	17	19	e17	e16	20	28	20	394	23	26	24	e80
23	18	19	e17	e16	21	28	20	292	23	25	24	20
24	19	19	e16	e16	20	e26	21	139	22	24	24	19
25	19	18	e16	16	20	e18	21	117	21	20	24	20
26	16	18	e16	16	18	e17	20	88	23	21	26	22
27	20	18	e15	e16	18	e19	21	49	22	21	24	24
28	24	e17	16	17	17	e20	21	43	21	21	23	23
29	24	18	16	17	---	e21	21	48	18	23	23	22
30	23	19	16	17	---	e19	31	69	21	25	22	22
31	23	---	16	18	---	e19	---	204	---	24	23	---
TOTAL	621	637	548	502	538	765	656	3068	2931	773	790	976
MEAN	20.0	21.2	17.7	16.2	19.2	24.7	21.9	99.0	97.7	24.9	25.5	32.5
MAX	26	43	23	18	26	38	31	394	594	31	71	240
MIN	15	16	15	14	15	15	18	39	15	20	21	19
AC-FT	1230	1260	1090	996	1070	1520	1300	6090	5810	1530	1570	1940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

	MEAN	38.8	29.6	19.9	16.6	19.2	38.0	48.2	110	138	69.1	38.2	38.1
MAX	145	98.3	35.6	26.4	40.0	103	200	340	654	330	99.8	161	
(WY)	1987	1987	1987	1986	1995	1989	1989	1984	1985	1995	1995	1982	
MIN	16.1	13.5	8.52	7.58	10.0	17.5	20.4	40.5	18.9	19.7	15.0	15.8	
(WY)	1993	1990	1990	1990	1990	1981	1974	1996	1977	1972	1972	1974	

SAN JUAN RIVER BASIN

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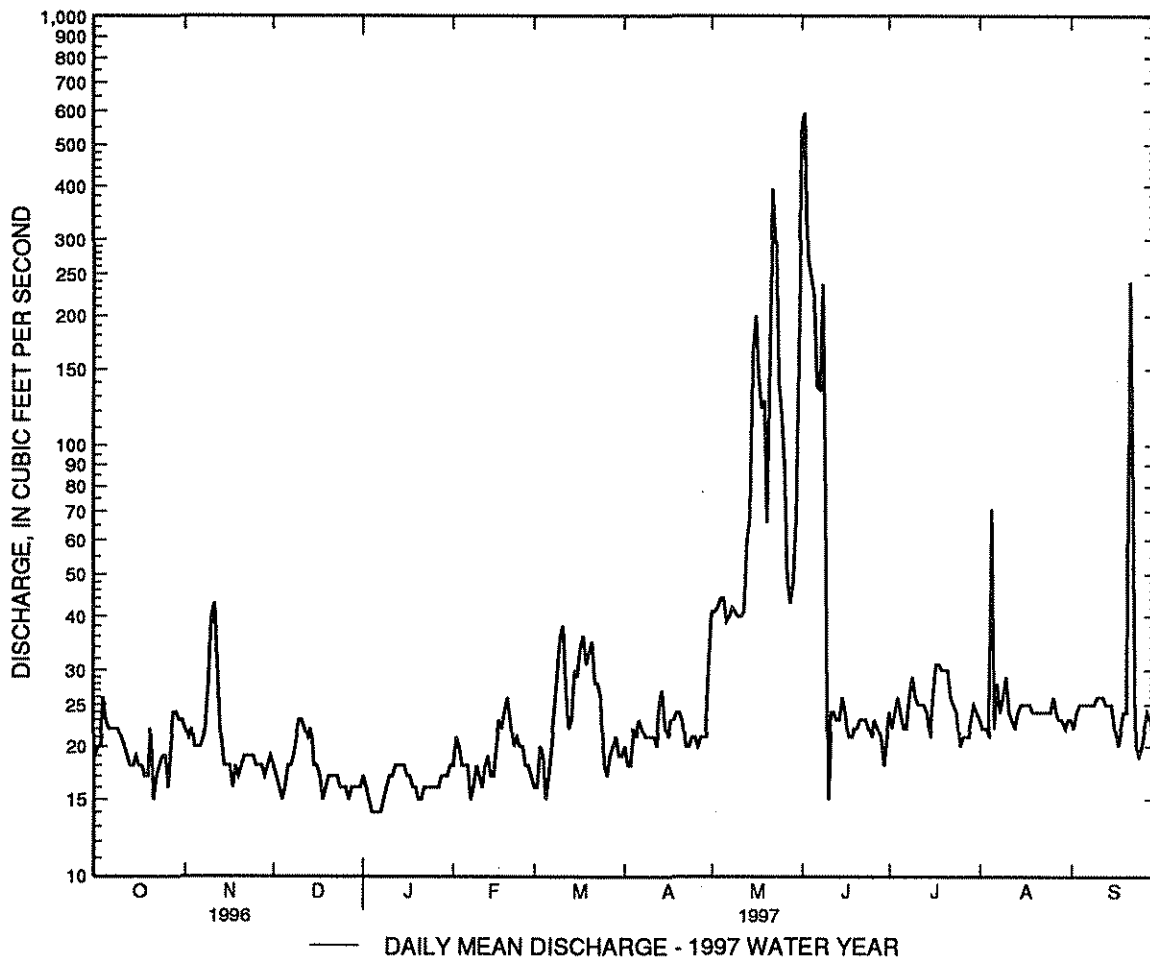
09343300 RIO BLANCO BELOW BLANCO DIVERSION DAM, NEAR PAGOSA SPRINGS, CO -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	8501.7		12805		51.3	
ANNUAL MEAN	23.2		35.1		135	
HIGHEST ANNUAL MEAN					19.5	
LOWEST ANNUAL MEAN					1330	
HIGHEST DAILY MEAN	68	Sep 14	594	Jun 2	Jun 8 1985	
LOWEST DAILY MEAN	9.7	Aug 18	14 ^a	Jan 4	1.0 Jan 28 1981	
ANNUAL SEVEN-DAY MINIMUM	12	Aug 15	15	Jan 2	6.8 Dec 31 1989	
INSTANTANEOUS PEAK FLOW			1350	Jun 1	3130 Aug 24 1992	
INSTANTANEOUS PEAK STAGE			4.58 ^b	Jun 1	5.14 Aug 24 1992	
ANNUAL RUNOFF (AC-FT)	16860		25400		37180	
10 PERCENT EXCEEDS	34		41		104	
50 PERCENT EXCEEDS	22		22		23	
90 PERCENT EXCEEDS	14		16		15	

e-Estimated.

a-Also occurred Jan 5-7. Jan 7 was estimated.

b-Maximum gage height, 4.67 ft, Sep 21, backwater from log jam in flume.



SAN JUAN RIVER BASIN

09344400 NAVAJO RIVER BELOW OSO DIVERSION DAM, NEAR CHROMO, CO

LOCATION.--Lat 37°01'49", long 106°44'14", in NE¹/₄ sec.9, T.32 N., R.2 E., Archuleta County, Hydrologic Unit 14080101, on left bank 600 downstream from Oso Diversion Dam, 5.8 mi east of Chromo, and 6 mi upstream from Little Navajo River.

DRAINAGE AREA.--100.5 mi².

PERIOD OF RECORD.--March 1971 to current year.

GAGE.--Water-stage recorder with satellite telemetry and Parshall flume. Datum of gage is 7,648.40 ft above sea level, (levels by Bureau of Reclamation). Prior to Sept. 5, 1979, at same site, at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flows controlled by diversion dam upstream.

COOPERATION.--Records collected by U.S. Bureau of Reclamation, computed by Colorado Division of Water Resources and reviewed by Geological Survey.

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

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	37	34	36	40	36	40	92	403	57	63	58
2	31	36	34	36	39	36	39	91	303	56	64	57
3	31	43	27	36	39	37	40	91	282	57	64	56
4	44	40	24	33	37	38	40	93	318	58	64	85
5	43	36	27	31	38	35	39	93	241	57	68	84
6	42	32	31	31	37	36	39	90	82	57	72	77
7	26	32	e29	32	33	39	39	90	74	86	160	71
8	31	35	30	e32	33	43	45	89	78	76	60	64
9	36	38	31	e33	36	47	44	89	66	61	56	62
10	35	40	33	42	e34	51	42	89	66	58	58	69
11	34	43	35	42	37	51	42	89	62	57	57	71
12	34	44	35	38	37	39	42	89	57	57	56	67
13	34	39	35	37	38	37	43	89	56	56	56	63
14	36	36	37	38	36	38	42	93	56	57	55	66
15	35	36	33	e34	36	39	42	100	57	58	56	62
16	34	36	33	e35	38	39	44	103	57	59	55	101
17	34	35	32	e35	40	38	40	117	57	59	56	72
18	32	36	e26	e36	40	38	39	113	66	58	56	66
19	33	38	e24	e36	41	38	38	107	68	58	55	63
20	37	37	26	e37	43	40	38	99	65	58	56	83
21	33	35	30	e38	41	40	39	124	65	56	56	463
22	27	35	31	e37	39	40	38	115	60	55	65	451
23	31	38	31	e38	41	40	38	92	60	57	66	255
24	30	35	e30	e37	39	40	38	92	60	61	55	181
25	32	36	31	e36	39	38	38	92	59	61	56	149
26	29	39	e30	37	37	37	39	92	57	63	56	128
27	33	35	35	41	39	38	38	90	56	64	56	113
28	38	34	37	e38	36	39	40	90	58	113	56	88
29	39	35	37	39	---	40	40	90	58	63	55	76
30	36	35	37	38	---	39	61	93	57	63	56	77
31	38	---	37	39	---	39	---	122	---	63	59	---
TOTAL	1057	1106	982	1128	1063	1225	1226	2998	3104	1919	1923	3378
MEAN	34.1	36.9	31.7	36.4	38.0	39.5	40.9	96.7	103	61.9	62.0	113
MAX	44	44	37	42	43	51	61	124	403	113	160	463
MIN	26	32	24	31	33	35	38	89	56	55	55	56
AC-FT	2100	2190	1950	2240	2110	2430	2430	5950	6160	3810	3810	6700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

MEAN	53.6	46.3	38.5	35.3	37.2	60.1	57.9	130	158	93.8	65.0	61.6
MAX	161	132	71.9	51.3	52.7	135	183	271	720	406	124	146
(WY)	1987	1987	1987	1985	1986	1989	1993	1984	1985	1995	1982	1982
MIN	26.3	27.4	21.3	19.8	24.4	32.0	37.5	86.9	44.7	40.2	28.1	28.4
(WY)	1981	1990	1977	1990	1990	1977	1973	1996	1977	1972	1972	1978

SAN JUAN RIVER BASIN

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09344400 NAVAJO RIVER BELOW OSO DIVERSION DAM, NEAR CHROMO, CO -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	16012		21109		70.6	
ANNUAL MEAN	43.7		57.8		158	
HIGHEST ANNUAL MEAN					41.5	
LOWEST ANNUAL MEAN					1160	
HIGHEST DAILY MEAN	93	May 16	463	Sep 21	Jun 9 1985	
LOWEST DAILY MEAN	24 ^a	Aug 7	24 ^b	Dec 4	10 ^c	
ANNUAL SEVEN-DAY MINIMUM	26	Aug 7	28	Dec 18	13	
INSTANTANEOUS PEAK FLOW			1050	Jun 1	1330	
INSTANTANEOUS PEAK STAGE			4.62	Jun 1	4.92 ^d	
ANNUAL RUNOFF (AC-FT)	31760		41870		51170	
10 PERCENT EXCEEDS	59		90		120	
50 PERCENT EXCEEDS	38		40		48	
90 PERCENT EXCEEDS	30		33		31	

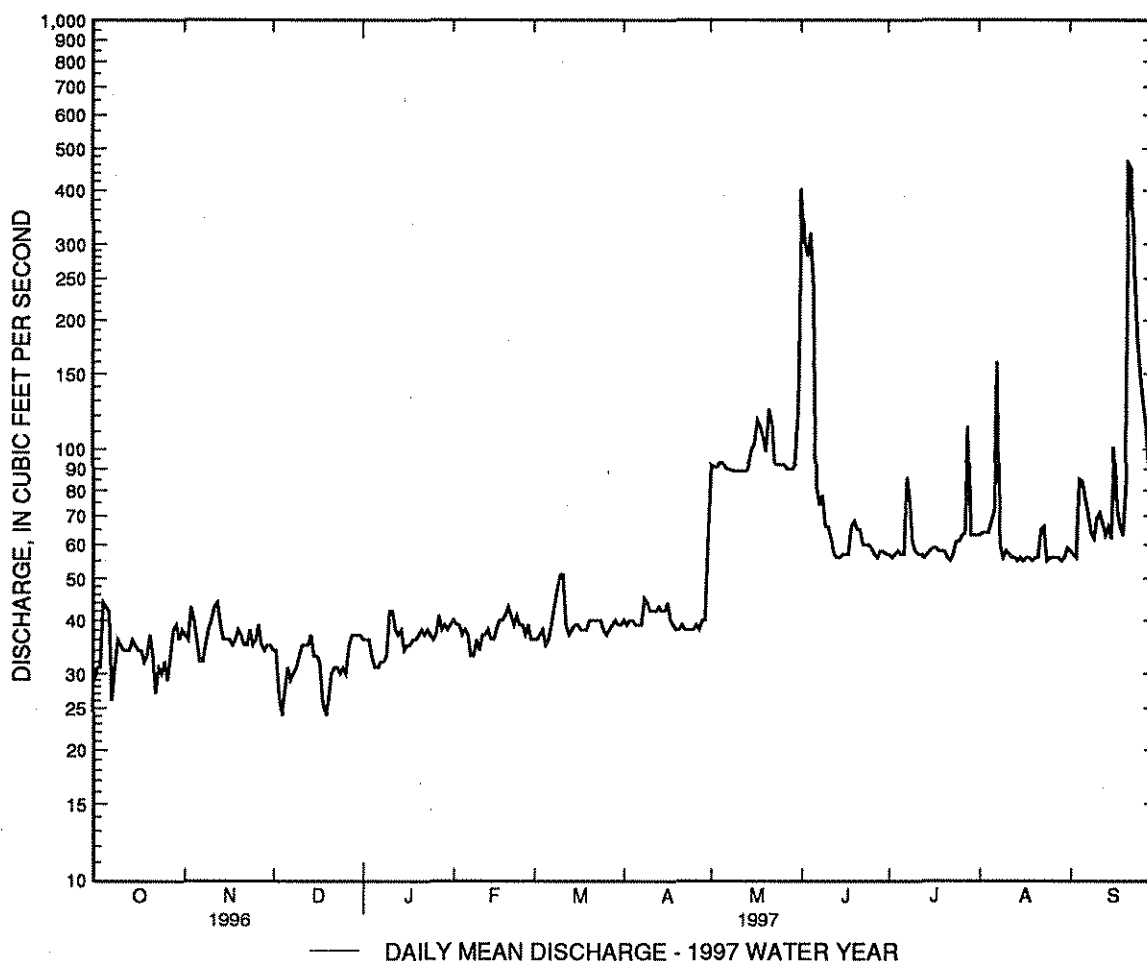
e-Estimated.

a-Also occurred Aug 13, Dec 4, and Dec 19. Dec 19 was estimated.

b-Also occurred Dec 19 as an estimated day.

c-Also occurred Oct 11, 1981.

d-Maximum gage height, 5.07 ft, Feb 13, 1994, backwater from ice.



SAN JUAN RIVER BASIN

09346400 SAN JUAN RIVER NEAR CARRACAS, CO

LOCATION.--Lat 37°00'49", long 107°18'42", in SE1/4SW1/4 sec.17, T.32 N., R.4 W., Archuleta County, Hydrologic Unit 14080101, on right bank just upstream from flow line of Navajo Reservoir, 3 mi northwest of Carracas, 7.2 mi upstream from Piedra River, and at mile 332.8.

DRAINAGE AREA.--1,230 mi², approximately.

PERIOD OF RECORD.--October 1961 to current year. Water-quality data available, July 1969 to August 1973. Sediment data available, August 1973.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 6,090 ft above National Geodetic Vertical Datum of 1929, from river-profile map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 11,000 acres upstream from station. High-water diversions upstream from station into Rio Grande basin through Azotea tunnel (08284160) began in March 1971. Several observations of specific conductance and water temperature were obtained and are published in "Water resources data for Colorado."

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e140	162	e150	e140	e160	183	965	1000	3170	1090	614	561
2	e140	153	127	e140	e170	169	932	959	3820	970	451	409
3	e140	159	e130	e140	e180	196	802	879	3660	866	428	362
4	e450	196	138	e170	e180	204	898	982	3510	789	459	341
5	e350	176	135	e280	e170	186	940	1280	3600	740	572	364
6	e300	159	178	e250	e170	166	632	1500	3110	680	537	299
7	e270	153	190	e200	e160	203	625	1660	2620	633	577	275
8	e250	132	157	e140	e150	264	597	1670	3080	594	472	237
9	e220	140	156	e140	e140	384	624	1690	2470	540	367	218
10	e200	156	185	e140	e160	439	610	1700	1870	524	357	237
11	e180	172	196	e150	e170	549	570	1600	1940	494	885	244
12	e170	182	204	e150	e170	693	485	1610	2080	484	681	275
13	e160	182	193	e160	e180	818	465	1750	2120	449	586	260
14	e150	176	186	e140	e190	879	422	2000	1950	418	451	245
15	e140	172	163	e130	e180	902	427	2180	1920	386	416	243
16	e140	196	143	e150	e180	1030	434	2470	2090	360	353	309
17	e140	160	e120	e150	e210	1240	526	2520	1910	344	323	298
18	e140	153	e110	e140	e240	1280	669	2500	1850	337	316	249
19	e130	172	e100	e140	244	1380	775	2580	2000	382	352	232
20	e130	175	e95	e170	283	1660	901	2430	1950	373	297	236
21	e150	200	e130	e170	284	1990	1100	2850	2050	391	274	2230
22	e130	204	e150	e170	221	2000	1150	2930	1950	409	310	2810
23	e110	273	e150	e170	219	1840	1150	2850	1910	392	332	1750
24	e120	244	e150	e170	204	1780	1220	2400	1800	412	332	1160
25	e130	187	e140	e170	204	1250	1030	2180	1650	352	307	897
26	129	166	e140	e160	204	1050	801	1970	1460	301	478	719
27	132	182	e140	e160	193	1100	726	1720	1340	393	412	636
28	165	169	e150	e160	197	1110	844	1640	1210	462	325	544
29	230	172	e150	e160	---	1090	938	1620	1180	425	295	472
30	190	e160	e150	e160	---	915	874	1810	1140	516	276	432
31	166	---	e140	e160	---	902	---	2310	---	921	304	---
TOTAL	5592	5283	4646	5030	5413	27852	23132	59240	66410	16427	13139	17544
MEAN	180	176	150	162	193	898	771	1911	2214	530	424	585
MAX	450	273	204	280	284	2000	1220	2930	3820	1090	885	2810
MIN	110	132	95	130	140	166	422	879	1140	301	274	218
AC-FT	11090	10480	9220	9980	10740	55240	45880	117500	131700	32580	20600	34800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

MEAN	309	245	175	159	201	626	1107	1772	1885	684	333	299
MAX	932	983	406	296	481	1369	2524	3195	4039	2427	733	880
(WY)	1987	1987	1987	1987	1986	1995	1979	1973	1985	1995	1993	1982
MIN	106	104	72.9	74.7	85.0	134	233	395	251	132	69.0	61.2
(WY)	1979	1990	1990	1990	1990	1977	1977	1977	1977	1972	1972	1978

SAN JUAN RIVER BASIN

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09346400 SAN JUAN RIVER NEAR CARRACAS, CO -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1971 - 1997	
ANNUAL TOTAL	104486		249708		650 ^a	
ANNUAL MEAN	285		684		1191	
HIGHEST ANNUAL MEAN					200	
LOWEST ANNUAL MEAN					6700 ^b	
HIGHEST DAILY MEAN	1720	May 17	3820	Jun 2	28 ^c	1985
LOWEST DAILY MEAN	63	Aug 20	95 ^c	Dec 20	39	1977
ANNUAL SEVEN-DAY MINIMUM	66	Aug 14	121	Dec 16	8590 ^d	Mar 12 1985
INSTANTANEOUS PEAK FLOW			4650	Jun 2	8.10 ^g	Sep 14 1974
INSTANTANEOUS PEAK STAGE			5.61 ^f	Jun 2	287	Sep 14 1978
ANNUAL RUNOFF (AC-FT)	207200		495300		112	Mar 6 1995
10 PERCENT EXCEEDS	479		1930			
50 PERCENT EXCEEDS	185		325			
90 PERCENT EXCEEDS	115		140			

e-Estimated.

a-Average discharge for 9 years (water years 1962-70), 632 ft³/s; 457900 acre-ft/yr, prior to completion of Azotea tunnel.

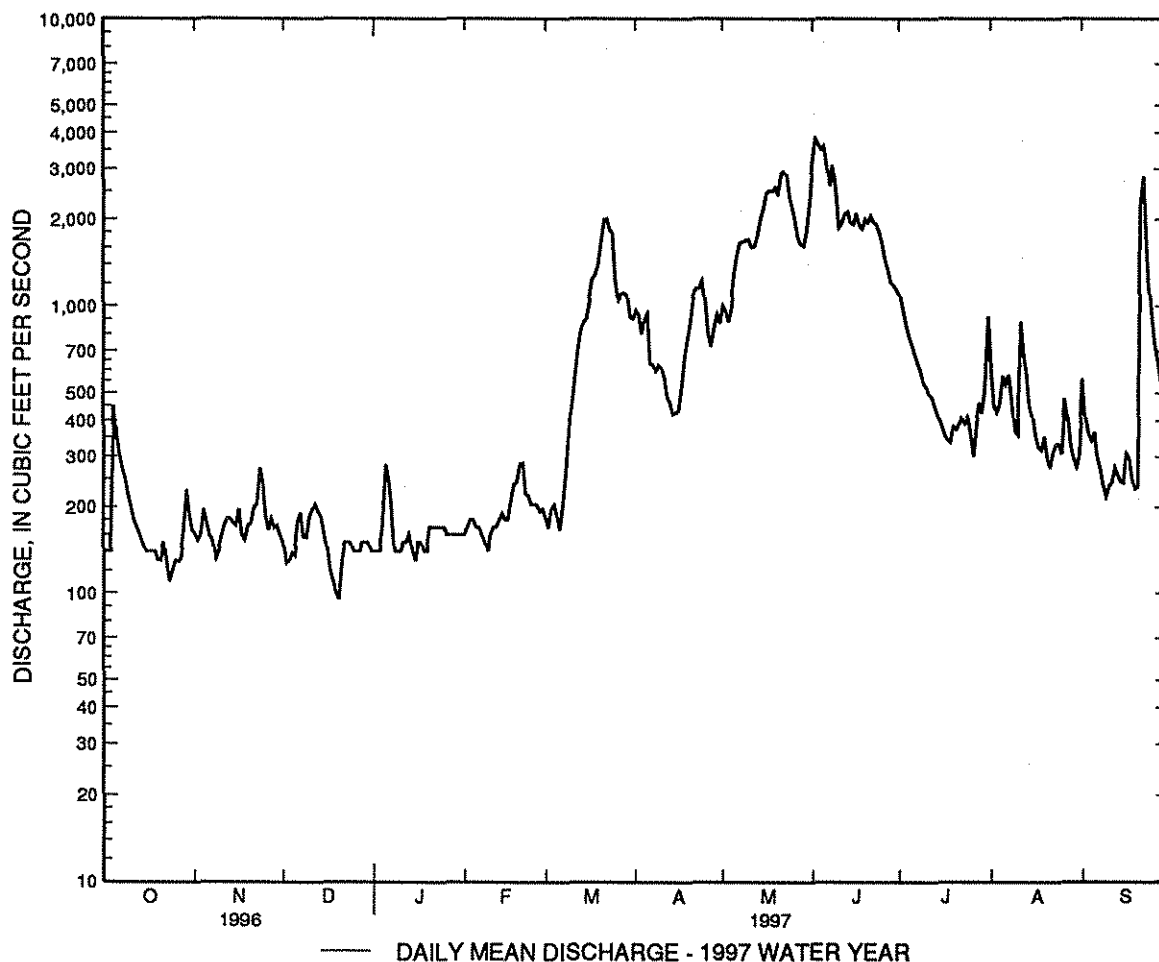
b-Also maximum daily discharge for period of record.

c-Minimum daily discharge for period of record, about 5 ft³/s, Dec 10, 1961, result of freezeup.

d-Maximum discharge and stage for period of record, 9730 ft³/s, Sep 6, 1970, gage height, 8.34 ft, from rating curve extended above 6000 ft³/s, on basis of slope-area measurement of peak flow.

f-Maximum gage height, 6.99 ft, Dec 24, backwater from ice.

g-Maximum gage height for statistical period, and period of record, 9.63 ft, Jan 4, 1994, backwater from ice.



SAN JUAN RIVER BASIN

09349800 PIEDRA RIVER NEAR ARBOLES, CO

LOCATION.--Lat 37°05'18", long 107°23'50", in NE1/4SW1/4 sec.21, T.33 N., R.5 W., Archuleta County, Hydrologic Unit 14080102, on left bank 3 mi downstream from Ignacio Creek, 4.6 mi northeast of Arboles Post Office, and 2.5 mi upstream from Navajo Reservoir.

DRAINAGE AREA.--629 mi².

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

GAGE.--Water-stage recorder with satellite telemetry, and crest-stage gage. Elevation of gage is 6,147.52 ft above National Geodetic Vertical Datum of 1929, from Colorado State Highway Department bench mark.

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e98	113	109	e78	e90	107	1260	1140	2450	919	836	463
2	e110	102	75	e75	e92	106	1140	1010	2710	799	602	406
3	e140	108	e75	e76	e98	120	1020	953	2400	696	586	328
4	e180	120	52	e76	e103	131	1120	1100	2420	623	522	283
5	e185	116	52	e76	e96	118	923	1420	2520	566	600	279
6	e175	109	57	e76	e99	116	718	1650	2480	501	619	264
7	e165	104	59	e76	e99	141	669	1730	2350	463	617	274
8	e160	91	73	e76	e90	168	653	1650	2540	434	560	240
9	e150	91	86	e74	e82	206	668	1550	2090	405	485	216
10	e135	99	95	e76	e90	245	653	1540	1830	386	487	211
11	e125	106	106	e78	e94	311	587	1480	1880	356	668	219
12	e115	111	116	e76	e96	404	524	1600	1850	367	521	209
13	e110	118	111	e74	e98	496	490	1780	1880	333	508	193
14	e108	118	102	e70	106	558	480	1990	1730	304	466	191
15	e108	118	93	e70	94	589	503	2120	1600	272	415	179
16	e102	118	70	e74	95	672	544	2360	1650	224	355	272
17	e100	104	e68	e80	106	795	666	2430	1500	234	331	233
18	e95	104	e68	e80	123	858	828	2330	1500	228	323	201
19	e90	120	e64	e86	145	958	988	2220	1560	243	353	185
20	e92	116	e49	e90	156	1260	1150	2250	1630	271	284	176
21	e105	126	e58	e98	156	1620	1370	2710	1650	273	252	1450
22	e84	144	e82	e99	124	1760	1510	3080	1560	244	268	3010
23	e82	190	e84	e99	134	1780	1500	2650	1500	358	292	2280
24	e82	175	e84	e99	131	1770	1360	2460	1370	333	269	1540
25	e82	148	e80	e96	126	1300	1130	2300	1210	266	252	1140
26	89	139	e74	e94	121	1100	948	2070	1060	226	410	901
27	87	139	e76	e91	121	1170	897	1810	964	305	368	759
28	118	119	e78	e89	131	1280	1080	1710	881	321	296	649
29	173	128	e81	e89	---	1360	1190	1650	1010	450	255	560
30	135	131	e78	e90	---	1210	1110	1760	972	685	256	498
31	116	---	e78	e90	---	1180	---	2000	---	1160	269	---
TOTAL	3696	3625	2433	2571	3096	23889	27679	58503	52747	13245	13325	17809
MEAN	119	121	78.5	82.9	111	771	923	1887	1758	427	430	594
MAX	185	190	116	99	156	1780	1510	3080	2710	1160	836	3010
MIN	82	91	49	70	82	106	480	953	881	224	252	176
AC-FT	7330	7190	4830	5100	6140	47380	54900	116000	104600	26270	26430	35320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1997, BY WATER YEAR (WY)

MEAN	174	126	90.5	76.0	95.7	333	891	1318	1083	354	213	217
MAX	618	517	257	153	244	895	2126	2926	2526	1133	551	943
(WY)	1973	1987	1987	1987	1986	1995	1979	1979	1979	1975	1968	1970
MIN	51.2	48.4	31.2	31.2	34.7	47.4	126	168	121	69.8	37.0	35.3
(WY)	1979	1968	1990	1990	1964	1964	1977	1977	1977	1972	1972	1978

SAN JUAN RIVER BASIN

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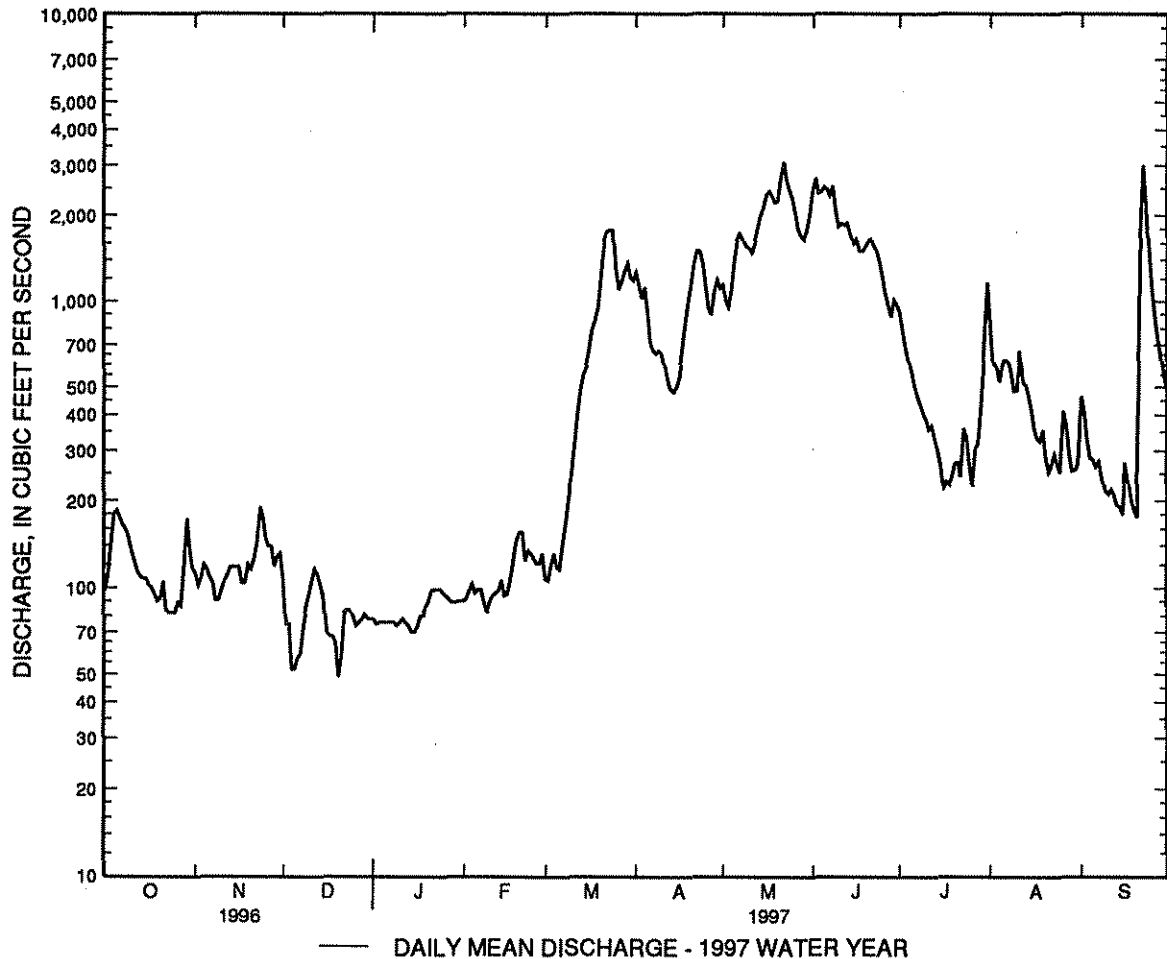
09349800 PIEDRA RIVER NEAR ARBOLES, CO -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1963 - 1997	
ANNUAL TOTAL	57410		222618		415	
ANNUAL MEAN	157		610		822	
HIGHEST ANNUAL MEAN					94.0	
LOWEST ANNUAL MEAN					19	
HIGHEST DAILY MEAN	912	May 7	3080	May 22	5360	Sep 6 1970
LOWEST DAILY MEAN	33	Aug 19	49 ^a	Dec 20	19	Nov 29 1989
ANNUAL SEVEN-DAY MINIMUM	35	Aug 14	63	Dec 2	26	Dec 11 1989
INSTANTANEOUS PEAK FLOW			3570	May 22	8370 ^a	Sep 6 1970
INSTANTANEOUS PEAK STAGE			4.75	May 22	6.38 ^b	Sep 6 1970
ANNUAL RUNOFF (AC-FT)	113900		441600		300500	
10 PERCENT EXCEEDS	292		1730		1230	
50 PERCENT EXCEEDS	105		256		151	
90 PERCENT EXCEEDS	53		80		55	

e-Estimated.

a-From rating curve extended above 4,400 ft³/s, on basis of slope-area measurement of peak flow.

b-Gage height, 6.38 ft, recorded, 7.55 ft, from floodmarks.



SAN JUAN RIVER BASIN

09354500 LOS PINOS RIVER AT LA BOCA, CO

LOCATION.--Lat 37°00'34", long 107°35'56", in NE¹/4NW¹/4 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, 0.1 mi upstream from Spring Creek, and 2 mi upstream from maximum elevation of Navajo Reservoir.

DRAINAGE AREA.--510 mi², approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733. Water-quality data available, July 1969 to August 1973, January 1988 to September 1991.

GAGE.--Water-stage recorder. Datum of gage is 6,143.59 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Vallecito Reservoir (station 09353000) 24 mi upstream since April 1941. Diversions for irrigation of about 33,000 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e80	52	e61	e49	e52	e76	684	601	279	747	1880	388
2	e62	50	e54	e46	e56	e84	594	657	276	630	1320	337
3	e80	56	e54	e55	e59	e95	568	640	507	386	1310	309
4	e140	79	e50	e80	e56	e95	627	640	1150	414	1160	322
5	e200	59	e48	e70	e54	e80	622	663	1600	359	786	322
6	e150	49	e54	e65	e50	e100	598	640	1680	345	886	309
7	e120	42	e64	e60	e43	e150	663	611	1790	253	873	295
8	e105	38	e56	e46	e45	e200	664	598	1980	175	763	283
9	e94	40	e56	e46	e48	e450	623	522	1960	153	502	279
10	e86	42	56	e48	e50	e600	466	520	1960	148	485	283
11	e80	42	e68	e50	e54	e720	441	480	1920	148	513	295
12	e74	42	e70	e53	e56	e850	420	502	1550	150	432	317
13	e80	42	e66	e50	58	e950	410	436	1540	145	410	304
14	e110	42	e62	e45	53	1050	400	e470	1480	145	395	330
15	e160	46	e58	e43	54	950	306	e520	1480	130	363	335
16	e170	77	e50	e49	56	913	232	e580	1480	113	354	413
17	e180	58	e42	e50	62	936	241	e620	947	120	349	364
18	e150	56	e37	e48	70	889	270	e660	874	132	384	349
19	e70	63	e32	e50	93	846	287	e640	852	145	359	345
20	e56	65	e40	e54	107	797	308	e620	845	188	327	353
21	e64	62	e50	e56	112	944	326	e600	852	159	304	935
22	e55	59	e54	e57	e105	952	362	e680	887	173	295	1720
23	e48	84	e56	e56	e95	929	499	e660	1320	173	299	1830
24	e48	77	e52	e55	e100	905	520	e620	1220	170	283	1760
25	51	64	e47	e54	e92	764	491	e560	1010	158	283	1770
26	51	59	e48	e51	e92	713	452	e470	624	164	279	1770
27	56	63	e50	e49	e88	726	430	e430	610	170	279	1740
28	92	e57	e51	e52	e88	760	430	e410	696	232	271	1710
29	107	e52	e51	e51	---	782	435	e370	746	451	263	1420
30	70	e64	e49	e51	---	727	451	331	754	678	265	575
31	56	---	e48	e51	---	705	---	288	---	1980	294	---
TOTAL	2945	1681	1634	1640	1948	19738	13820	17039	34869	9534	16966	21762
MEAN	95.0	56.0	52.7	52.9	69.6	637	461	550	1162	308	547	725
MAX	200	84	70	80	112	1050	684	680	1980	1980	1880	1830
MIN	48	38	32	43	43	76	232	288	276	113	263	279
AC-FT	5840	3330	3240	3250	3860	39150	27410	33800	69160	18910	33650	43160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1997, BY WATER YEAR (WY)

	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
MEAN	192	137	103	75.6	99.9	224	353	445	519	308	222	214
MAX	672	709	396	182	362	972	1339	1719	1555	1381	878	725
(WY)	1987	1987	1983	1985	1993	1993	1979	1958	1979	1957	1957	1997
MIN	47.9	32.1	33.8	33.9	38.6	45.1	22.8	44.3	74.5	81.6	80.4	58.3
(WY)	1978	1960	1964	1978	1978	1977	1951	1951	1977	1959	1977	1951

SAN JUAN RIVER BASIN

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

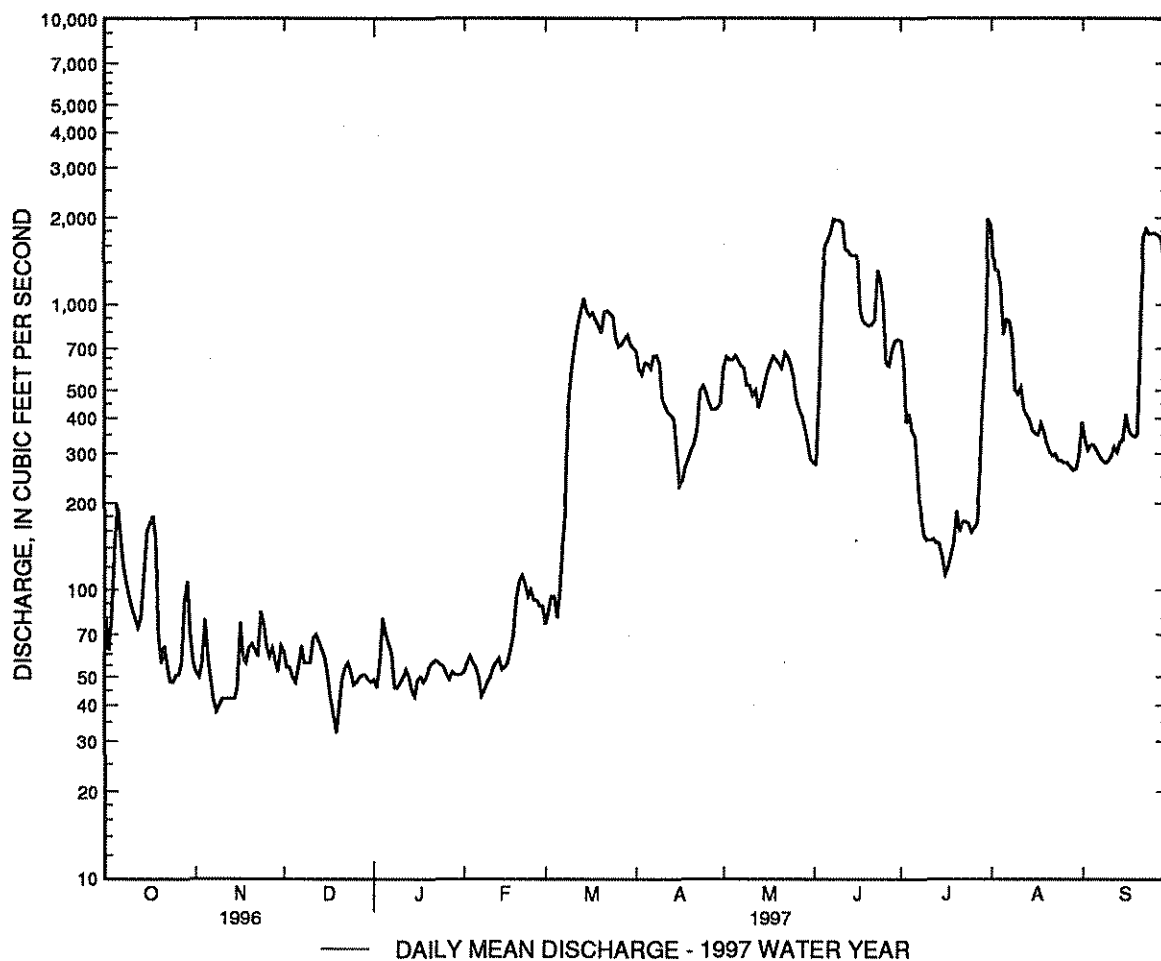
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1951 - 1997	
ANNUAL TOTAL	32644		143576		245	
ANNUAL MEAN	89.2		393		582	
HIGHEST ANNUAL MEAN					77.4	
LOWEST ANNUAL MEAN					4560	
HIGHEST DAILY MEAN	380	Jul 9	1980 ^a	Jun 8	1973	
LOWEST DAILY MEAN	12	Apr 23	32 ^e	Dec 19	1959	
ANNUAL SEVEN-DAY MINIMUM	25	Apr 17	41	Nov 7	Jul 27 1957	
INSTANTANEOUS PEAK FLOW			2080	Jul 31	6.1	
INSTANTANEOUS PEAK STAGE			6.46	Jul 31	8.3	
ANNUAL RUNOFF (AC-FT)	64750		284800		Apr 30 1977	
10 PERCENT EXCEEDS	151		935		6400 ^b	
50 PERCENT EXCEEDS	75		253		Jul 27 1957	
90 PERCENT EXCEEDS	47		50		8.95 ^c	
					177400	
					558	
					133	
					50	

e-Estimated.

a-Also occurred Jul 31.

b-From rating curve extended above 5100 ft³/s.

c-Maximum gage height, 9.00 ft, backwater from ice, sometime during period, Dec 23, 1990 to Jan 17, 1991.



SAN JUAN RIVER BASIN

09355000 SPRING CREEK AT LA BOCA, CO

LOCATION.--Lat 37°00'40", long 107°35'47", in SE¹/4SW¹/4 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 mi², approximately.

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

GAGE.--Water-stage recorder. Elevation of gage is 6,160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e80	52	e61	e49	e52	e76	684	601	279	747	1880	388
2	e62	50	e54	e46	e56	e84	594	657	276	630	1320	337
3	e80	56	e54	e55	e59	e95	568	640	507	386	1310	309
4	e140	79	e50	e80	e56	e95	627	640	1150	414	1160	322
5	e200	59	e48	e70	e54	e80	622	663	1600	359	786	322
6	e150	49	e54	e65	e50	e100	598	640	1680	345	886	309
7	e120	42	e64	e60	e43	e150	663	611	1790	253	873	295
8	e105	38	e56	e46	e45	e200	664	598	1980	175	763	283
9	e94	40	e56	e46	e48	e450	623	522	1960	153	502	279
10	e86	42	56	e48	e50	e600	466	520	1960	148	485	283
11	e80	42	e68	e50	e54	e720	441	480	1920	148	513	295
12	e74	42	e70	e53	e56	e850	420	502	1550	150	432	317
13	e80	42	e66	e50	58	e950	410	436	1540	145	410	304
14	e110	42	e62	e45	53	1050	400	e470	1480	145	395	330
15	e160	46	e58	e43	54	950	306	e520	1480	130	363	335
16	e170	77	e50	e49	56	913	232	e580	1480	113	354	413
17	e180	58	e42	e50	62	936	241	e620	947	120	349	364
18	e150	56	e37	e48	70	889	270	e660	874	132	384	349
19	e70	63	e32	e50	93	846	287	e640	852	145	359	345
20	e56	65	e40	e54	107	797	308	e620	845	188	327	353
21	e64	62	e50	e56	112	944	326	e600	852	159	304	935
22	e55	59	e54	e57	e105	952	362	e680	887	173	295	1720
23	e48	84	e56	e56	e95	929	499	e660	1320	173	299	1830
24	e48	77	e52	e55	e100	905	520	e620	1220	170	283	1760
25	51	64	e47	e54	e92	764	491	e560	1010	158	283	1770
26	51	59	e48	e51	e92	713	452	e470	624	164	279	1770
27	56	63	e50	e49	e88	726	430	e430	610	170	279	1740
28	92	e57	e51	e52	e88	760	430	e410	696	232	271	1710
29	107	e52	e51	e51	---	782	435	e370	746	451	263	1420
30	70	e64	e49	e51	---	727	451	331	754	678	265	575
31	56	---	e48	e51	---	705	---	288	---	1980	294	---
TOTAL	2945	1681	1634	1640	1948	19738	13820	17039	34869	9534	16966	21762
MEAN	95.0	56.0	52.7	52.9	69.6	637	461	550	1162	308	547	725
MAX	200	84	70	80	112	1050	684	680	1980	1980	1880	1830
MIN	48	38	32	43	43	76	232	288	276	113	263	279
AC-FT	5840	3330	3240	3250	3860	39150	27410	33800	69160	18910	33650	43160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1997, BY WATER YEAR (WY)

MEAN	192	137	103	75.6	99.9	224	353	445	519	308	222	214
MAX	672	709	396	182	362	972	1339	1719	1555	1381	878	725
(WY)	1987	1987	1983	1985	1993	1993	1979	1958	1979	1957	1957	1997
MIN	47.9	32.1	33.8	33.9	38.6	45.1	22.8	44.3	74.5	81.6	80.4	58.3
(WY)	1978	1960	1964	1978	1978	1977	1951	1951	1977	1959	1977	1951

SAN JUAN RIVER BASIN

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09355000 SPRING CREEK AT LA BOCA, CO -- Continued

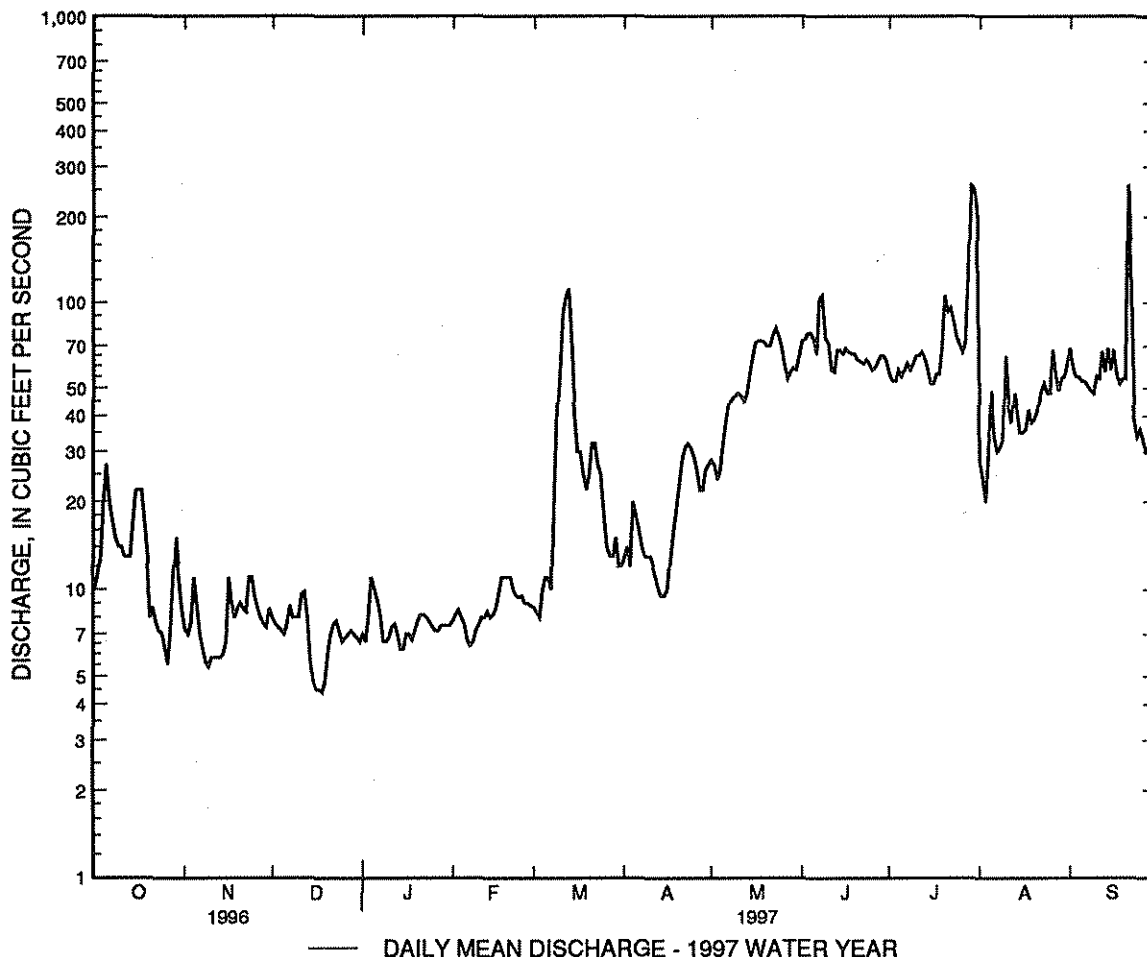
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1951 - 1997	
ANNUAL TOTAL	32644		143576		245	
ANNUAL MEAN	89.2		393		582	
HIGHEST ANNUAL MEAN					77.4	
LOWEST ANNUAL MEAN					1973	
HIGHEST DAILY MEAN	380	Jul 9	1980 ^a	Jun 8	4560	Jul 27 1957
LOWEST DAILY MEAN	12	Apr 23	32 ^e	Dec 19	6.1	May 1 1977
ANNUAL SEVEN-DAY MINIMUM	25	Apr 17	41	Nov 7	8.3	Apr 30 1977
INSTANTANEOUS PEAK FLOW			2080	Jul 31	6400 ^b	Jul 27 1957
INSTANTANEOUS PEAK STAGE			6.46	Jul 31	8.95 ^c	Jul 27 1957
ANNUAL RUNOFF (AC-FT)	64750		284800		177400	
10 PERCENT EXCEEDS	151		935		558	
50 PERCENT EXCEEDS	75		253		133	
90 PERCENT EXCEEDS	47		50		50	

e-Estimated.

a-Also occurred Jul 31.

b-From rating curve extended above 5100 ft³/s.

c-Maximum gage height, 9.00 ft, backwater from ice, sometime during period, Dec 23, 1990 to Jan 17, 1991.



SAN JUAN RIVER BASIN

09355100 NAVAJO RESERVOIR NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'28", long 107°36'31", in SW¹/4SE¹/4 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 mi², 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, 1,542,700 acre-ft, Sept. 30, elevation, 6,074.41 ft; minimum contents, 1,178,300 acre-ft, Oct. 31, elevation, 6,046.21 ft.

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

6,015	864.5	6,035	1,056.7	6,055	1,281.3	6,075	1,546.2
6,020	910.1	6,040	1,109.4	6,060	1,343.5	6,080	1,619.5
6,025	957.2	6,045	1,164.3	6,065	1,408.3	6,085	1,696.0
6,030	1,006.0	6,050	1,221.6	6,070	1,475.8	6,090	1,775.7

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY OBSERVATION AT 2400 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1202200	1180900	1186300	1187600	1191500	1200200	1284500	1352100	1418200	1464700	1454700	1478500
2	1201400	1180200	1186600	1187800	1191600	1200400	1285700	1356000	1421400	1463500	1457600	1479200
3	1200500	1179900	1186600	1188000	1192000	1200600	1287900	1359300	1423800	1462000	1460900	1478800
4	1199700	1180000	1186400	1188600	1192300	1200600	1290400	1363300	1426700	1460300	1463100	1478800
5	1198800	1180000	1186300	1189000	1192300	1200600	1291400	1368300	1431800	1458700	1465800	1478500
6	1198700	1179500	1186300	1189400	1192300	1200300	1291700	1373700	1436100	1456600	1468400	1478300
7	1198100	1179400	1186400	1189400	1192300	1200200	1292200	1379900	1440700	1454700	1471000	1477900
8	1197800	1179400	1186600	1189500	1192300	1200600	1292300	1385400	1446400	1453200	1472700	1477500
9	1197300	1179600	1186600	1189400	1192300	1202100	1293100	1391300	1449700	1450800	1473500	1477100
10	1196100	1179800	1187200	1189400	1192300	1204300	1294400	1396200	1452000	1448700	1474500	1476000
11	1195000	1179900	1188100	1189500	1192700	1207200	1295900	1401100	1453900	1446300	1476400	1475200
12	1193800	1179800	1188400	1189700	1192800	1210700	1297800	1406400	1455300	1444300	1477200	1474700
13	1192800	1180100	1188800	1189700	1193300	1215200	1298900	1410700	1456100	1443400	1478200	1474500
14	1191800	1180100	1188800	1189700	1193400	1219100	1300300	1414200	1456800	1442600	1478500	1475000
15	1190500	1180400	1188900	1189700	1193600	1223300	1301200	1417700	1457600	1441400	1478500	1475300
16	1188900	1180800	1188400	1189700	1194100	1228500	1302200	1419900	1459600	1440500	1478200	1475900
17	1188200	1180900	1188300	1189600	1194300	1232900	1303300	1422700	1460200	1439200	1478200	1476500
18	1187500	1181100	1188100	1189600	1194500	1235800	1305400	1424900	1460700	1438200	1478800	1477000
19	1186600	1181500	1187900	1189500	1195200	1239400	1307600	1426200	1462000	1437800	1478600	1477500
20	1185900	1181800	1187600	1189600	1195900	1243500	1310600	1427800	1462800	1437200	1478800	1479400
21	1184900	1182200	1187500	1189700	1196700	1249000	1314500	1429800	1463600	1436400	1478500	1492500
22	1183800	1182600	1187400	1189700	1197200	1254700	1319000	1432900	1464400	1436100	1477900	1505000
23	1183000	1183200	1187400	1189800	1197600	1259400	1323800	1434500	1466500	1436100	1477600	1513800
24	1181700	1183900	1187400	1190000	1197900	1264500	1328700	1434500	1468100	1435600	1477100	1520500
25	1181000	1184200	1187400	1190400	1198300	1266800	1332500	1433900	1469000	1434400	1477400	1526200
26	1180300	1184600	1187400	1190800	1198900	1269700	1335500	1431700	1468500	1433300	1477800	1530900
27	1179900	1185000	1187300	1191100	1199500	1272200	1338200	1428100	1467600	1432600	1477900	1535200
28	1179900	1185200	1187400	1191100	1199900	1274800	1342000	1425100	1467000	1434500	1477100	1538900
29	1179900	1185900	1187500	1191300	---	1278100	1345400	1420500	1465900	1436700	1476700	1541900
30	1179200	1186300	1187100	1191300	---	1280200	1348700	1417400	1465000	1442000	1476700	1542700
31	1178300	---	1187300	1191300	---	1282300	---	1416200	---	1449700	1476800	---
MAX	1202200	1186300	1188900	1191300	1199900	1282300	1348700	1434500	1469000	1464700	1478800	1542700
MIN	1178300	1179400	1186300	1187600	1191500	1200200	1284500	1352100	1418200	1432600	1454700	1474500
(†)	6046.21	6046.61	6046.70	6047.05	6047.80	6054.74	6060.07	6065.26	6068.87	6067.75	6069.73	6074.41
(††)	-24500	+8000	+1000	+4000	+8600	+82400	+66400	+67500	+48800	-15300	+27100	+65900

CAL YR 1996 MAX 1477400 MIN 1178300 (††) -274200
WTR YR 1997 MAX 1542700 MIN 1178300 (††) +339900

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

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

SAN JUAN RIVER BASIN

419

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'05", long 107°41'51", in NW¹/4NE¹/4 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 mi², 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 mi² 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, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	643	653	241	268	250	268	1770	631	5490	2500	607	620
2	640	654	240	264	248	268	1770	627	5540	2150	603	620
3	646	660	240	265	239	289	1770	627	5610	2070	607	620
4	654	606	251	265	224	311	1790	629	5620	2060	596	620
5	636	439	264	264	243	430	1780	646	5240	2050	595	620
6	633	345	264	264	262	529	1780	645	4660	2040	589	620
7	633	331	268	261	268	527	1780	625	4650	1750	585	619
8	638	305	268	260	268	531	1760	628	4600	1450	587	615
9	643	300	268	260	268	531	1580	632	4600	1430	587	613
10	635	290	268	256	268	531	1130	636	4310	1390	591	573
11	634	287	266	257	264	531	698	647	4240	1340	589	600
12	633	282	264	264	257	530	520	966	4380	1330	589	600
13	633	284	265	269	259	536	508	1500	4410	1320	591	600
14	629	285	258	270	261	531	516	2060	4410	1070	593	600
15	629	290	260	266	260	531	585	2700	4390	631	600	604
16	633	295	268	264	260	531	633	3350	4080	576	647	602
17	633	282	277	264	260	814	627	3730	3660	577	647	603
18	634	267	251	264	260	1430	620	3760	3690	583	632	606
19	640	244	255	264	257	1770	621	3960	3700	581	620	609
20	641	245	277	264	254	1770	617	4330	3680	581	620	612
21	640	248	272	261	257	1780	622	4790	3660	581	620	688
22	640	249	269	268	260	1780	623	5240	3670	581	620	614
23	640	252	278	268	260	1790	630	5270	3290	581	621	610
24	640	250	273	268	260	1780	636	5260	2790	581	621	609
25	639	245	272	268	263	1770	627	5280	2780	581	621	609
26	633	235	272	269	264	1740	627	5320	2790	581	623	611
27	633	236	272	267	265	1750	627	5370	2780	581	620	612
28	647	236	272	256	270	1750	629	5430	2790	642	620	611
29	640	241	272	260	---	1740	634	5430	2800	552	614	611
30	645	244	272	260	---	1750	628	5440	2780	741	615	612
31	647	---	269	255	---	1750	---	5450	---	623	621	---
TOTAL	19784	9780	8206	8173	7229	32569	29138	91609	121090	34104	18891	18363
MEAN	638	326	265	264	258	1051	971	2955	4036	1100	609	612
MAX	654	660	278	270	270	1790	1790	5450	5620	2500	647	688
MIN	629	235	240	255	224	268	508	625	2780	552	585	573
AC-FT	39240	19400	16280	16210	14340	64600	57800	181700	240200	67650	37470	36420
(†)	6900	0	0	0	0	2600	8200	24000	35800	41900	28700	14500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1997, BY WATER YEAR (WY)

	MEAN	879	907	1026	1076	1080	1177	1439	1765	1849	1283	964	915
MAX	2131	3018	2886	2768	2382	4216	4768	4962	5169	5126	3508	2674	
(WY)	1966	1966	1966	1986	1987	1993	1979	1985	1979	1979	1973	1973	
MIN	298	240	162	115	149	207	244	279	300	320	353	338	
(WY)	1963	1963	1963	1963	1963	1964	1964	1967	1967	1967	1963	1963	

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

SAN JUAN RIVER BASIN

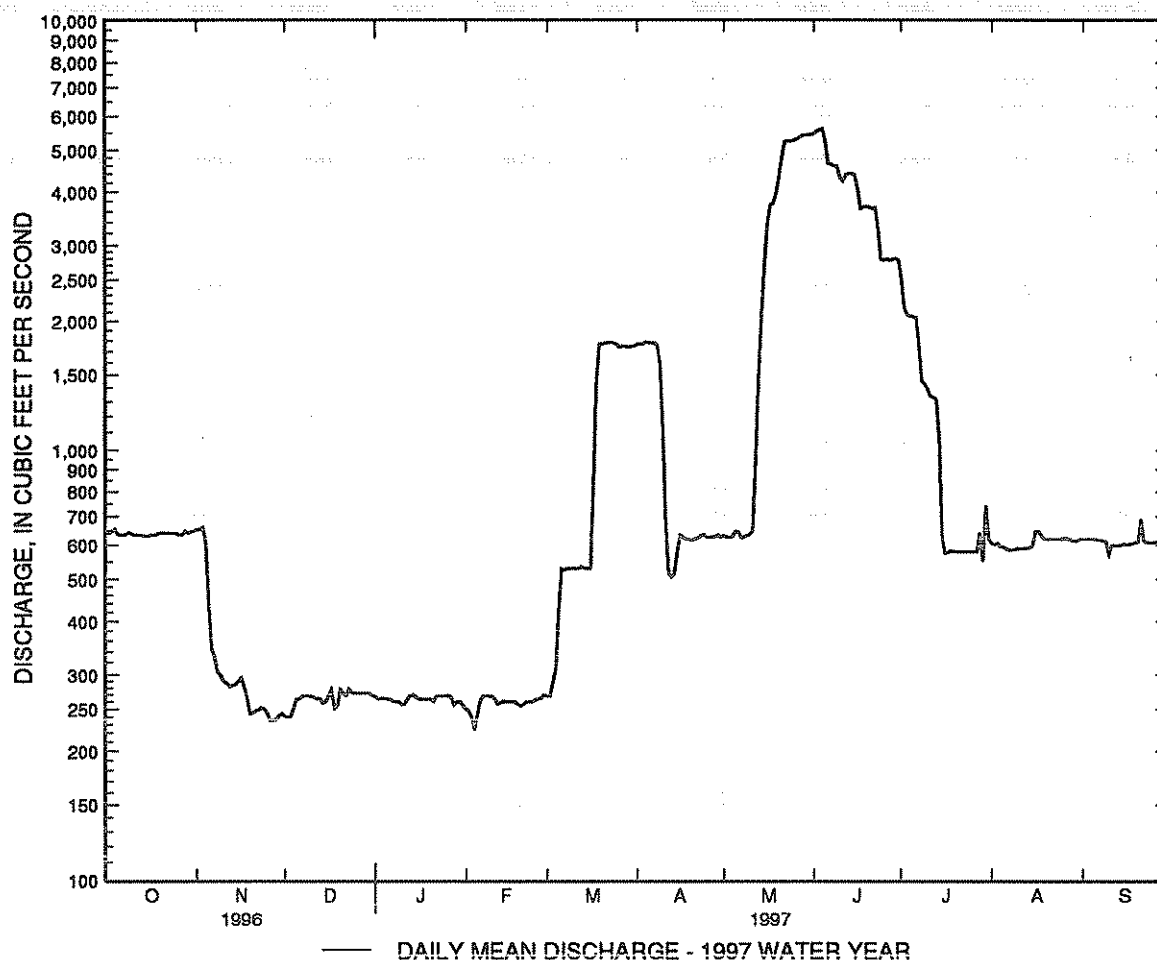
09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1963 - 1997
ANNUAL TOTAL	235366	398936	
ANNUAL MEAN	643	1093	1197 ^a
HIGHEST ANNUAL MEAN			2686 1987
LOWEST ANNUAL MEAN			280 1963
HIGHEST DAILY MEAN	2580 Jun 12	5620 Jun 4	6420 Jun 21 1965
LOWEST DAILY MEAN	232 Jan 11	224 Feb 4	30 Mar 12 1964
ANNUAL SEVEN-DAY MINIMUM	239 Nov 26	239 Nov 26	108 Jan 10 1963
INSTANTANEOUS PEAK FLOW			18900 ^b Jul 27 1957
INSTANTANEOUS PEAK STAGE			11.00 ^c Jul 27 1957
INSTANTANEOUS LOW FLOW		120 Sep 10	8.0 Feb 28 1963
ANNUAL RUNOFF (AC-FT)	466800	791300	866900
10 PERCENT EXCEEDS	654	3660	2640
50 PERCENT EXCEEDS	504	612	672
90 PERCENT EXCEEDS	264	260	400

a-Average discharge for 7 years (water year 1956-62), 1,304 ft³/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 ft³/s, June 20, 1965, gage height 4.75 ft.



SAN JUAN RIVER BASIN

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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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	
OCT 1996 29...	0845	640	220	8.0	2.5	5.5	2.2	621	10.4	
FEB 1997 04...	0845	230	270	8.2	2.0	3.0	3.1	623	11.5	
APR 08...	1000	1760	265	7.6	2.0	4.0	9.0	623	10.3	
AUG 06...	1200	587	271	7.9	23.0	8.0	7.0	626	10.6	
DATE		OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)
OCT 1996 29...	101	83	14	25	5.0	11	0.5	1.5	84	
FEB 1997 04...	105	98	--	30	5.6	14	0.6	1.8	--	
APR 08...	96	99	20	30	6.0	14	0.6	1.8	97	
AUG 06...	109	100	26	31	6.2	14	0.6	1.8	94	
DATE		CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
OCT 1996 29...	0	69	72	37	1.6	0.20	12	134	135	
FEB 1997 04...	--	--	82	51	2.2	0.20	11	162	165	
APR 08...	0	80	84	48	2.3	0.2	11	167	161	
AUG 06...	0	77	83	47	2.2	0.2	11	174	160	

LOCATION.--Lat 37°02'17", long 107°52'25", in sec.7, T.32 N., R.9 W., La Plata County, Colorado, Hydrologic Unit 14080104, on right bank 0.8 mi downstream from Florida River, 2.5 mi upstream from Colorado-New Mexico State line, 8.5 mi north of Cedar Hill, and at mile 32.9.

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WSP 1563: 1940 and 1946 (monthly figures only).

REMARKS.--Water-discharge records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 20,000 acres upstream from station. During water years 1944-49, Twin Rocks Canal diverted upstream from station for irrigation downstream. Slight regulation by Lemon Dam about 30 mi upstream on Florida River since November 1963 (capacity, 40,100 acre-ft).

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	336	418	431	325	e360	e420	e1500	1600	6850	3230	2370	842
2	310	402	394	316	e365	e380	e1450	1550	7770	2900	1840	802
3	559	404	e280	391	e375	e360	e1400	1450	7120	2680	1930	743
4	1160	422	e290	461	e340	e350	e1500	1520	6810	2530	1860	681
5	878	392	e350	390	e360	e360	e1400	1880	7050	2360	2190	661
6	769	405	e400	371	e370	e370	e1380	2370	6570	2140	2580	641
7	735	397	421	e340	e370	e380	e1300	2760	5750	1840	2090	610
8	753	376	407	e320	e360	e400	e1100	2750	5440	1640	1710	575
9	749	369	392	e320	e340	e430	e1000	2570	4720	1520	1490	545
10	742	384	459	e330	e320	e480	e980	2490	4230	1500	1530	534
11	716	389	587	e350	e325	e570	e970	2470	4230	1540	2290	565
12	635	388	535	e360	e335	e660	e965	2790	4490	1470	1820	663
13	578	390	475	e365	e350	e740	e960	3330	4570	1500	1570	747
14	525	401	434	e350	e365	e1000	e940	3980	4210	1550	1410	738
15	492	430	410	e300	e360	e1020	e840	4380	4090	1520	1320	794
16	498	461	e350	e340	e350	e1020	761	4900	3990	1460	1190	1240
17	515	424	e300	e330	e360	e1110	853	5400	4130	1380	1080	1250
18	484	403	e250	e305	e375	e1110	990	5600	4680	1340	1010	1050
19	465	420	e200	e320	e390	e1110	1160	5460	4940	1430	955	962
20	466	443	e250	e360	e410	e1200	1400	5040	5210	1470	889	919
21	443	494	e290	e370	e420	e1500	1700	5270	5300	1440	834	2280
22	412	555	e310	e340	e425	e1900	1920	5400	5020	1440	786	4610
23	391	686	e320	e360	e410	e1900	1880	4650	4850	1570	783	3710
24	388	605	e300	e370	e390	e1900	1730	4330	4560	1600	776	2840
25	398	536	e300	e350	e415	e1700	1480	4180	3890	1450	770	2480
26	414	507	e320	e355	e400	e1500	1330	3860	3470	1300	844	2250
27	421	492	e340	e360	e390	e1600	1290	3500	3240	1300	961	1850
28	557	462	347	e350	e440	e1600	1430	3260	3050	1390	849	1600
29	499	458	332	e350	---	e1600	1660	3140	3090	1920	769	1380
30	448	502	315	e360	---	e1500	1640	3470	3210	2070	716	1260
31	429	---	324	e365	---	e1500	---	5280	---	3300	753	---
TOTAL	17165	13415	11113	10874	10470	31670	38909	110630	146530	55780	41965	39822
MEAN	554	447	358	351	374	1022	1297	3569	4884	1799	1354	1327
MAX	1160	686	587	461	440	1900	1920	5600	7770	3300	2580	4610
MIN	310	369	200	300	320	350	761	1450	3050	1300	716	534
AC-FT	34050	26610	22040	21570	20770	62820	77180	219400	290600	110600	83240	78990

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1997, BY WATER YEAR (WY)

MEAN	465	342	269	246	262	432	1088	2531	3047	1272	624	533
MAX	2479	1069	555	388	467	1043	2192	5686	6145	3710	1681	1922
(WY)	1942	1942	1987	1973	1987	1993	1985	1941	1957	1957	1957	1970
MIN	169	158	159	169	151	141	273	449	458	223	222	155
(WY)	1957	1934	1957	1954	1964	1977	1977	1977	1934	1934	1996	1956

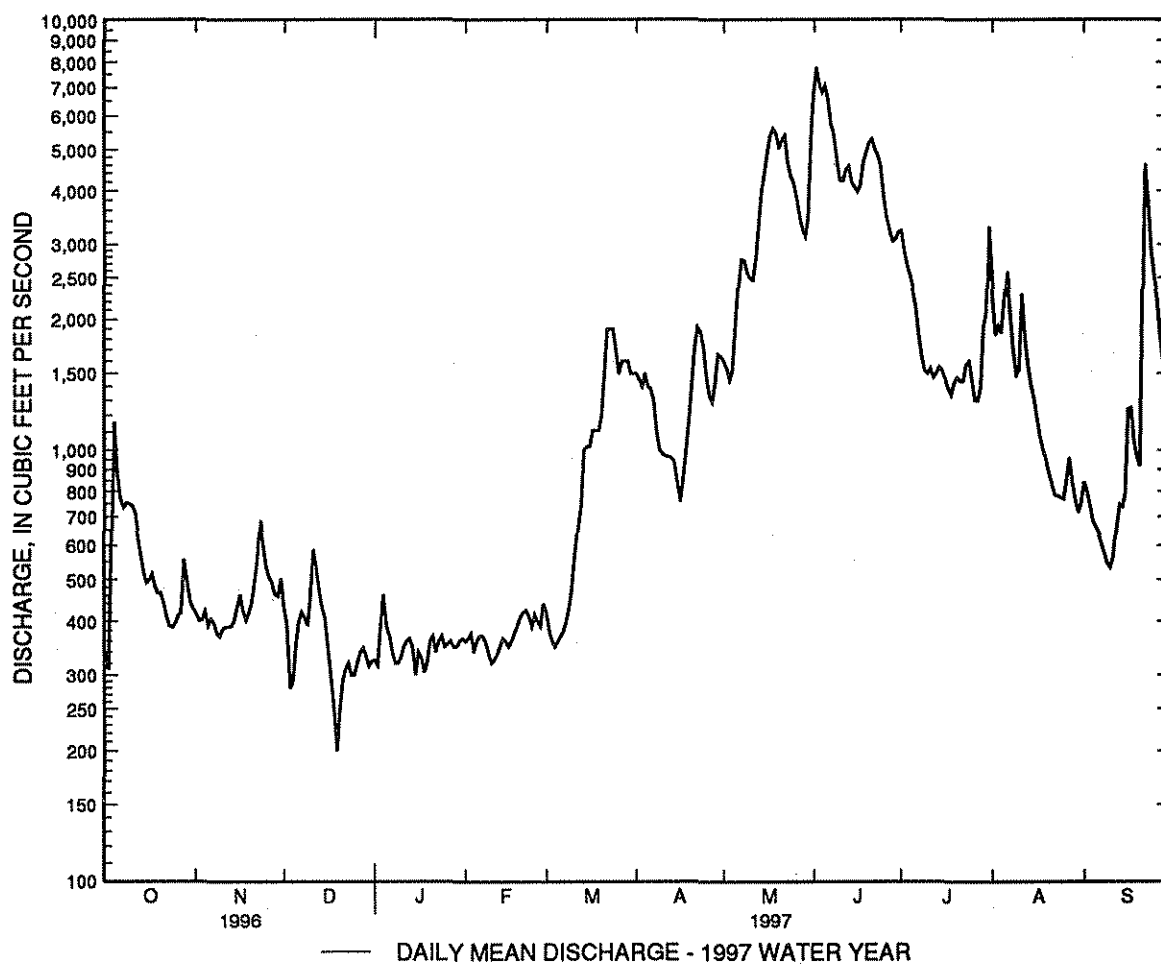
SAN JUAN RIVER BASIN

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09363500 ANIMAS RIVER NEAR CEDAR HILL, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1934 - 1997	
ANNUAL TOTAL	218295		528343		935	
ANNUAL MEAN	596		1448		1713	1941
HIGHEST ANNUAL MEAN					340	1977
LOWEST ANNUAL MEAN					11800	Jun 19 1949
HIGHEST DAILY MEAN	3550	May 17	7770	Jun 2	.00	Nov 1 1933
LOWEST DAILY MEAN	130	Aug 17	200	Dec 19	.00	Nov 1 1933
ANNUAL SEVEN-DAY MINIMUM	150	Aug 16	274	Dec 17	11.45	Jun 19 1949
INSTANTANEOUS PEAK FLOW			8420	Jun 2	63	Jan 21 1935
INSTANTANEOUS PEAK STAGE			10.03	Jun 2	677700	
INSTANTANEOUS LOW FLOW			200	Dec 19	2440	
ANNUAL RUNOFF (AC-FT)	433000		1048000		410	
10 PERCENT EXCEEDS	1270		4030		210	
50 PERCENT EXCEEDS	397		794			
90 PERCENT EXCEEDS	223		349			

e Estimated



SAN JUAN RIVER BASIN

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM -- Continued

PERIOD OF RECORD.--Water years 1943, 1945, 1958-59, 1969-73, 1975, 1987 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
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OCT 1996	29...	1100	487	485	8.3	2.5	4.5	615	10.9	105	<10	200
FEB 1997	03...	1400	334	531	8.7	4.0	3.0	614	11.8	109	<10	220

DATE	HARD-NESS NONCARE 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 (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
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OCT 1996	29...	85	61	11	21	0.7	2.8	138	0	114	120	110
FEB 1997	03...	--	71	11	19	0.6	2.6	--	--	--	129	120

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, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
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OCT 1996	29...	15	0.30	8.1	298	0.200	0.020	0.220	0.060	0.70	<0.20	0.260
FEB 1997	03...	14	0.40	6.9	323	0.150	0.030	0.180	<0.015	<0.20	<0.20	<0.010

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SE) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
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OCT 1996	29...	0.010	<0.010	6.1	6.0	<1.0	<1	99	<1.0	49	<1.0	1.0
FEB 1997	03...	<0.010	<0.010	2.5	12	<1.0	<1	72	<1.0	53	<1.0	2.0

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
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OCT 1996	29...	<1.0	2.0	<3.0	<1.0	19	<0.10	2.0	1.0	1	<1
FEB 1997	03...	<1.0	1.0	<3.0	<1.0	47	<0.10	1.0	<1.0	1	1

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)
OCT 1996 29...	<1.0	9.0	5.0	4.5	300	380	4	<1	5	10
FEB 1997 03...	<1.0	14	--	--	--	--	--	--	--	--
DATE	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1996 29...	27	14000	30	610	0.01	150	1.0	534	702	90
FEB 1997 03...	--	--	--	--	--	--	1.0	66	60	75

09364500 ANIMAS RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'17", long 108°12'05", in SW¹/4SW¹/4 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 mi², approximately.

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,280 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 1, 1905, non recording gage at old bridge 0.1 mi upstream at different datum. Sept. 17, 1912, to Oct. 4, 1938, water-stage recorder at site 0.8 mi downstream at lower datums (datum lowered 2.0 ft Aug. 15, 1927, and raised 0.2 ft Dec. 16, 1929). Oct. 5, 1938, to Nov. 1, 1973, at site 900 ft downstream at datum 1.74 ft lower.

REMARKS.--Water-discharge records good. Diversions for irrigation of about 30,000 acres upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, when a stage of about 16.5 ft was reached (datum in use Oct. 1938 to Nov. 1973). Flood of Sept. 6, 1909, reached a stage of 11.1 ft, 1904-5 site and datum (discharge, about 19,000 ft³/s).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	495	479	352	349	391	1770	1820	5960	3120	2820	843
2	201	473	422	348	356	368	1720	1770	7290	2790	2120	738
3	366	460	422	356	361	379	1620	1600	7560	2490	1970	656
4	815	480	396	439	361	409	1860	1580	6830	2320	2320	605
5	919	453	403	401	347	402	1870	1850	7030	2150	2180	566
6	771	447	421	384	360	383	1660	2320	6800	2010	2840	550
7	733	436	428	361	363	397	1570	2750	6150	1880	2340	514
8	720	416	413	334	331	417	1550	2870	5660	1650	1910	503
9	717	400	406	300	323	469	1460	2620	4950	1490	1540	461
10	693	400	418	295	332	539	1370	2390	4250	1440	1460	421
11	669	406	526	312	341	651	1330	2200	4050	1440	2170	443
12	610	400	539	355	355	808	1250	2360	4300	1420	1930	501
13	541	399	475	355	367	1010	1170	2840	4510	1360	1570	622
14	508	410	437	333	361	1250	1130	3440	4190	1460	1400	620
15	488	429	407	271	348	1260	1070	3920	3920	1440	1280	713
16	475	472	377	330	353	1240	1020	4390	3830	1410	1090	952
17	507	452	364	305	379	1390	1040	4850	3960	1340	944	1360
18	505	434	295	291	388	1470	1170	5090	4440	1240	870	1030
19	471	436	232	304	414	1460	1330	5090	4820	1300	808	912
20	489	455	341	344	419	1660	1630	4790	5130	1360	771	834
21	485	466	355	366	427	2090	1900	4820	5330	1420	698	1680
22	466	482	364	334	411	2310	2220	5300	5070	1420	640	4840
23	446	630	388	355	391	2280	2240	4570	4900	1510	593	4290
24	452	608	346	356	398	2340	2230	4070	4590	1590	573	3250
25	454	546	335	326	414	2130	1970	3930	3960	1460	596	2780
26	457	518	338	346	400	1880	1710	3600	3350	1310	657	2500
27	493	511	367	346	388	1800	1550	3230	3130	1230	749	2030
28	588	492	373	345	426	1850	1600	2940	2950	1670	703	1750
29	645	469	368	337	---	1870	1900	2770	2930	2070	632	1430
30	548	514	363	336	---	1850	1940	2920	3070	2400	549	1250
31	514	---	357	353	---	1750	---	4350	---	3450	656	---
TOTAL	16957	13989	12155	10570	10463	38503	47850	103040	144910	54640	41379	39644
MEAN	547	466	392	341	374	1242	1595	3324	4830	1763	1335	1321
MAX	919	630	539	439	427	2340	2240	5300	7560	3450	2840	4840
MIN	201	399	232	271	323	368	1020	1580	2930	1230	549	421
AC-FT	33630	27750	24110	20970	20750	76370	94910	204400	287400	108400	82080	78630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1997, BY WATER YEAR (WY)

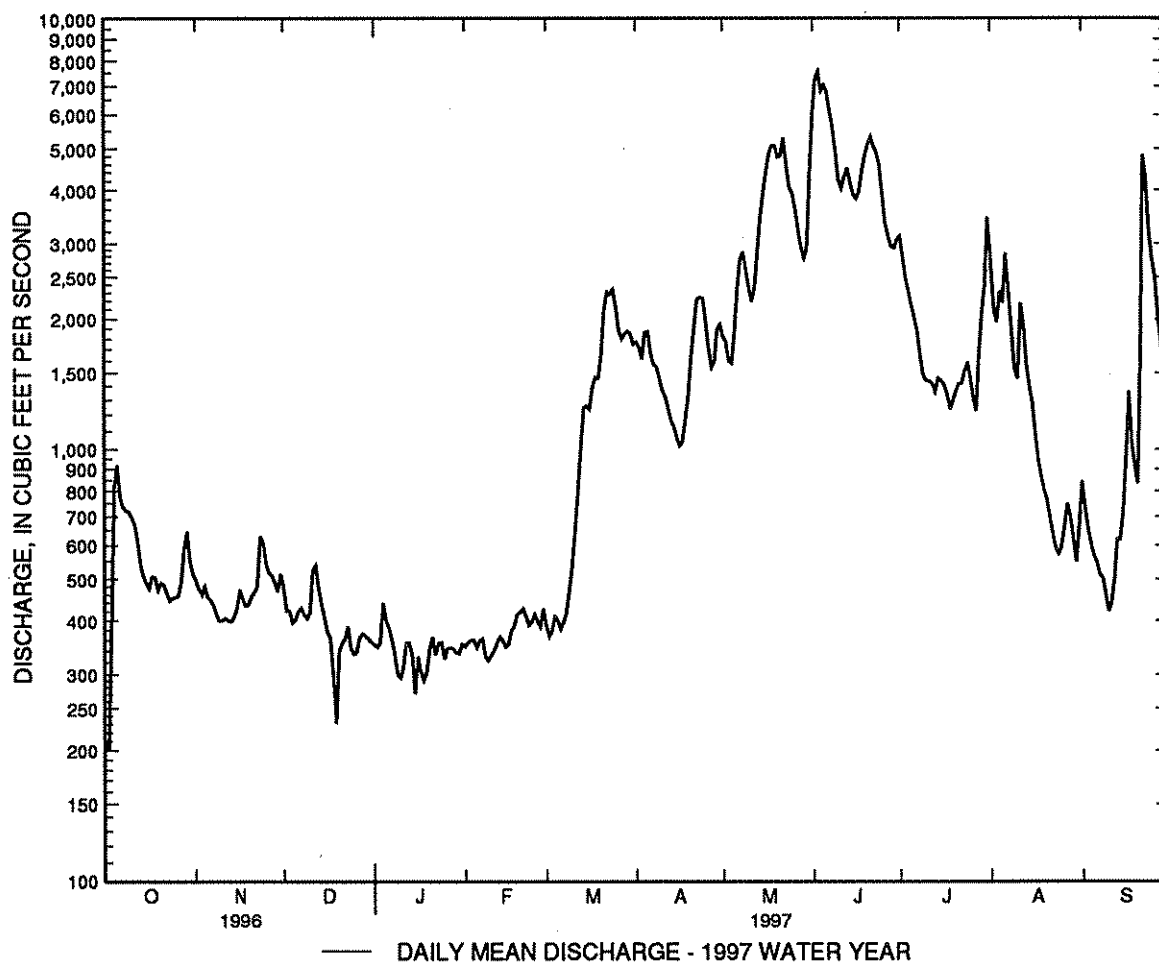
MEAN	431	353	296	275	300	460	998	2415	3018	1135	496	445
MAX	2726	1140	609	554	675	1242	2489	6126	6930	3609	1971	2182
(WY)	1942	1942	1987	1920	1920	1997	1979	1920	1920	1957	1921	1925
MIN	87.0	152	174	163	162	112	54.1	195	235	46.4	40.2	10.6
(WY)	1957	1935	1964	1996	1964	1977	1977	1977	1934	1934	1996	1956

SAN JUAN RIVER BASIN

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09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1914 - 1997
ANNUAL TOTAL	181704.82	534100	
ANNUAL MEAN	496	1463	886
HIGHEST ANNUAL MEAN			1734 1920
LOWEST ANNUAL MEAN			239 1977
HIGHEST DAILY MEAN	3400 May 17	7560 Jun 3	11000 Jun 19 1949
LOWEST DAILY MEAN	.00 Aug 8	201 Oct 2	.00 Aug 8 1996
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 13	311 Jan 14	.00 Aug 13 1996
INSTANTANEOUS PEAK FLOW		8420 Jun 2	25000 ^a Jun 29 1927
INSTANTANEOUS PEAK STAGE		9.13 Jun 2	9.32 Jun 18 1995
INSTANTANEOUS LOW FLOW		117 Dec 19	.00 Aug 8 1996
ANNUAL RUNOFF (AC-FT)	360400	1059000	641900
10 PERCENT EXCEEDS	1040	3920	2340
50 PERCENT EXCEEDS	337	738	378
90 PERCENT EXCEEDS	58	353	186

a-From rating curve extended above 10,000 ft³/s.

SAN JUAN RIVER BASIN

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

		DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	
OCT 1996 28...	1230	609	575	8.3	9.0	7.5	628	10.0	102	<10	240	110	
FEB 1997 04...	1130	369	639	8.5	4.5	2.5	632	12.5	111	<10	270	--	
DATE	TIME	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 MG/L AS) (00453)	CAR- BONATE WATER DIS IT FIELD (MG/L AS MG/L AS) (00452)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
OCT 1996 28...	75	12	29	0.8	2.6	159	0	130	137	140	18	0.40	
FEB 1997 04...	85	13	30	0.8	2.5	--	--	--	143	160	17	0.50	
DATE	TIME	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS MG) (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)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 1996 28...	4.9	361	0.080	0.030	0.110	0.030	0.20	<0.20	0.040	<0.010	<0.010	3.4	
FEB 1997 04...	6.2	401	0.100	0.020	0.120	<0.015	0.30	<0.20	0.020	<0.010	<0.010	2.8	
DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SE) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	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)
OCT 1996 28...	11	<1.0	<1	68	<1.0	67	<1.0	1.0	<1.0	2.0	<3.0	<1.0	
FEB 1997 04...	9.0	<1.0	<1	74	<1.0	62	<1.0	2.0	<1.0	1.0	<3.0	<1.0	
DATE	TIME	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1996 28...	51	<0.10	1.0	2.0	<1	<1	<1.0	9.0	2.0	124	204	87	
FEB 1997 04...	70	<0.10	2.0	<1.0	1	1	<1.0	6.0	2.0	97	97	89	

SAN JUAN RIVER BASIN

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09365000 SAN JUAN RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'22", long 108°13'30", in NW¹/4SE¹/4 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 mi², 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 good 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, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	807	1430	804	716	727	761	3360	e2600	11000	5660	e3900	e1680
2	788	1300	714	712	736	716	3180	e2500	12200	4900	e3300	e1560
3	1540	1270	708	737	760	722	3170	e2400	12300	4500	e2900	e1440
4	2000	1300	682	860	712	812	3160	e2300	11600	4330	e3300	e1350
5	2030	1100	709	800	659	808	3150	e2800	11800	4170	e4700	e1260
6	1630	843	762	790	688	1050	3350	e3300	11100	4050	e3900	1260
7	1550	744	780	744	721	1090	3230	e3500	10700	3820	e3000	e1210
8	1550	743	747	705	676	1130	3130	e3600	10100	3040	e2700	e1200
9	1570	707	735	645	656	1260	3030	e3400	9340	2820	e2500	e1180
10	1500	711	756	641	668	1300	2680	e3200	8540	2790	e2400	e1160
11	1470	725	948	670	688	1450	2200	e2800	8120	2670	3030	e1100
12	1410	719	940	745	705	1610	1790	e3000	8630	2660	2470	1050
13	1320	730	843	735	753	1890	1640	4000	8900	2580	2150	1280
14	1250	756	811	686	721	2140	1560	4670	8580	2660	2050	1480
15	1260	788	760	604	694	2190	e1700	5950	8340	2030	1930	1660
16	1240	890	734	640	708	2130	e1720	7080	8190	1810	1790	e1950
17	1280	831	737	622	744	2280	e1750	8090	7680	1720	e1750	2190
18	1250	791	607	588	757	2950	e1800	8200	8140	1600	e1700	e2200
19	1210	762	e640	601	811	3320	e2000	8060	8490	1690	e1600	e1800
20	1240	764	e680	644	843	3400	e2350	8060	8680	1770	e1550	e2270
21	1220	789	e730	663	832	3780	e2700	8580	8830	1830	e1500	4710
22	1210	805	771	645	793	4020	e2900	9660	8620	1820	e1400	5360
23	1200	1030	814	703	772	4000	e3000	8930	8300	1970	e1340	4510
24	1200	984	737	721	774	4030	e3000	8440	7340	1950	e1300	3620
25	1190	887	703	673	811	3810	e2800	8300	6710	1830	e1320	3280
26	1250	843	703	e740	778	3420	e2600	7870	6070	1640	e1400	3040
27	1340	846	739	e760	759	3360	e2300	7620	5810	1510	e1480	2690
28	1530	801	773	e770	824	3370	e2300	7590	5620	2060	e1500	2380
29	1680	781	764	730	---	3390	e2800	7560	5570	3390	e1540	2110
30	1550	884	747	733	---	3400	e2700	7770	5680	e3800	e1360	1880
31	1480	---	729	742	---	3350	---	9250	---	e5500	e1520	---
TOTAL	42745	26554	23307	21765	20770	72939	77050	181080	260980	88570	68280	63860
MEAN	1379	885	752	702	742	2353	2568	5841	8699	2857	2203	2129
MAX	2030	1430	948	860	843	4030	3360	9660	12300	5660	4700	5360
MIN	788	707	607	588	656	716	1560	2300	5570	1510	1300	1050
AC-FT	84780	52670	46230	43170	41200	144700	152800	359200	517700	175700	135400	126700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1997, BY WATER YEAR (WY)

MEAN	1206	1008	988	1011	1144	1592	3052	5056	5505	2252	1278	1152
MAX	7271	3549	3381	3271	3032	5304	9133	18830	14990	8639	4938	3331
(WY)	1942	1987	1966	1986	1987	1993	1932	1941	1941	1957	1957	1970
MIN	286	315	362	329	374	349	391	576	517	192	166	170
(WY)	1957	1951	1957	1963	1964	1964	1964	1977	1934	1934	1939	1956

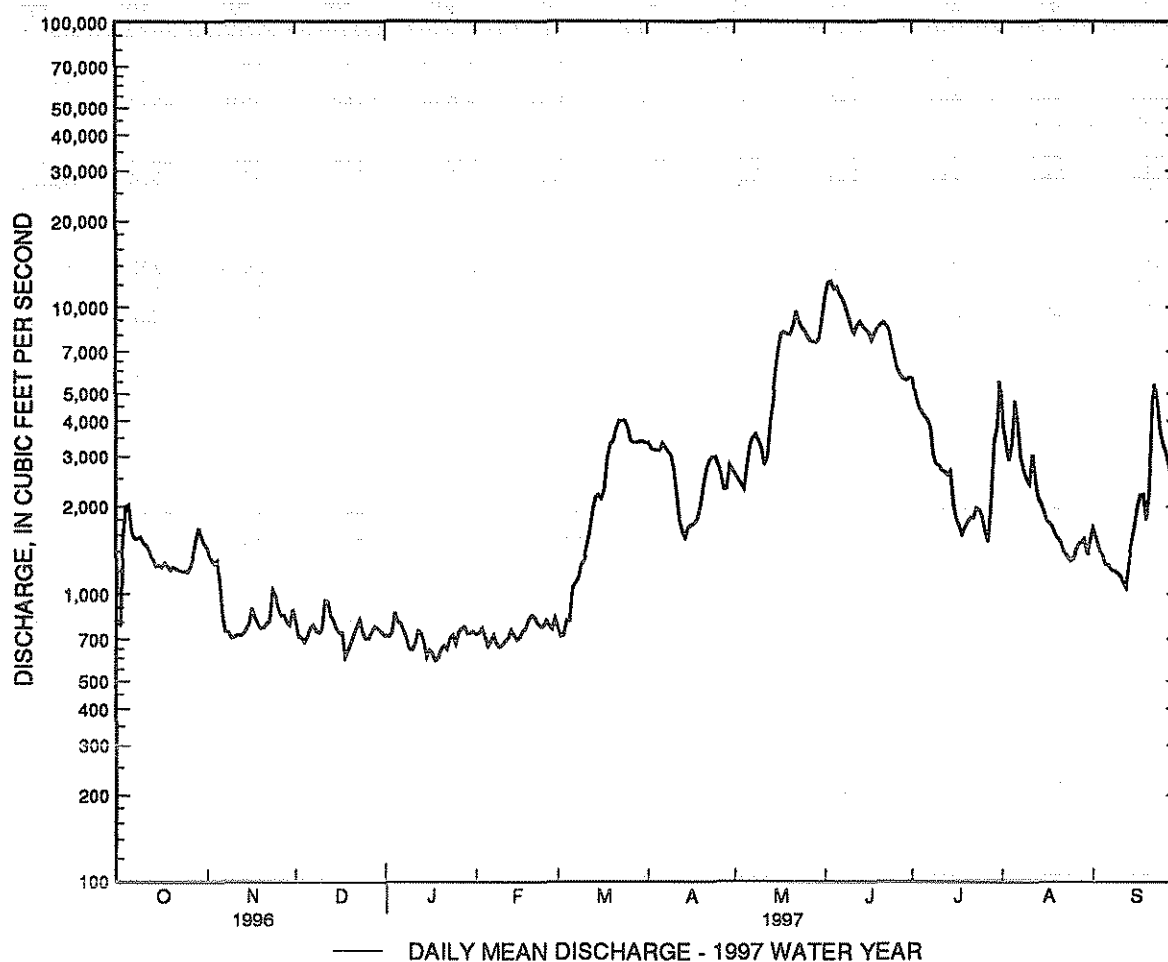
SAN JUAN RIVER BASIN

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1931 - 1997
ANNUAL TOTAL	438824	947900	
ANNUAL MEAN	1199	2597	2104
HIGHEST ANNUAL MEAN			5054
LOWEST ANNUAL MEAN			728
HIGHEST DAILY MEAN	3780 May 17	12300 Jun 3	30000 May 14 1941
LOWEST DAILY MEAN	412 Aug 16	588 Jan 18	27 Aug 22 1939
ANNUAL SEVEN-DAY MINIMUM	433 Aug 13	623 Jan 15	37 Jul 1 1934
INSTANTANEOUS PEAK FLOW		13000 Jun 2	68000 ^a Jun 29 1927
INSTANTANEOUS PEAK STAGE		7.77 Jun 2	10.20 ^b Jun 29 1927
INSTANTANEOUS LOW FLOW		283 Dec 19	14 Aug 22 1939
ANNUAL RUNOFF (AC-FT)	870400	1880000	1525000
10 PERCENT EXCEEDS	2960	7600	5100
50 PERCENT EXCEEDS	853	1560	1120
90 PERCENT EXCEEDS	561	713	450

e Estimated

a-Site and datum then in use.

b-From rating curve extended above 37,000 ft³/s.

LOCATION.--Lat 36°59'51", long 108°11'17", in NW¹/4SE¹/4 sec.10, T.32 N., R.13 W., La Plata County, Colorado, Hydrologic Unit 14080105, on right bank at Colorado-New Mexico State line, 0.2 mi downstream from Ponds Arroyo, and 4.8 mi north of La Plata, NM.

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

GAGE---Water-stage recorder with satellite telemetry. Datum of gage is 5,975.15 ft above National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Mar. 17, 1934. Mar. 17, 1934 to July 1, 1996, water-stage recorder at same site, and at datum 3.12 ft higher.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e80	52	e61	e49	e52	e76	684	601	279	747	1880	388
2	e62	50	e54	e46	e56	e84	594	657	276	630	1320	337
3	e80	56	e54	e55	e59	e95	568	640	507	386	1310	309
4	e140	79	e50	e80	e56	e95	627	640	1150	414	1160	322
5	e200	59	e48	e70	e54	e80	622	663	1600	359	786	322
6	e150	49	e54	e65	e50	e100	598	640	1680	345	886	309
7	e120	42	e64	e60	e43	e150	663	611	1790	253	873	295
8	e105	38	e56	e46	e45	e200	664	598	1980	175	763	283
9	e94	40	e56	e46	e48	e450	623	522	1960	153	502	279
10	e86	42	56	e48	e50	e600	466	520	1960	148	485	283
11	e80	42	e68	e50	e54	e720	441	480	1920	148	513	295
12	e74	42	e70	e53	e56	e850	420	502	1550	150	432	317
13	e80	42	e66	e50	58	e950	410	436	1540	145	410	304
14	e110	42	e62	e45	53	1050	400	e470	1480	145	395	330
15	e160	46	e58	e43	54	950	306	e520	1480	130	363	335
16	e170	77	e50	e49	56	913	232	e580	1480	113	354	413
17	e180	58	e42	e50	62	936	241	e620	947	120	349	364
18	e150	56	e37	e48	70	889	270	e660	874	132	384	349
19	e70	63	e32	e50	93	846	287	e640	852	145	359	345
20	e56	65	e40	e54	107	797	308	e620	845	188	327	353
21	e64	62	e50	e56	112	944	326	e600	852	159	304	935
22	e55	59	e54	e57	e105	952	362	e680	887	173	295	1720
23	e48	84	e56	e56	e95	929	499	e660	1320	173	299	1830
24	e48	77	e52	e55	e100	905	520	e620	1220	170	283	1760
25	51	64	e47	e54	e92	764	491	e560	1010	158	283	1770
26	51	59	e48	e51	e92	713	452	e470	624	164	279	1770
27	56	63	e50	e49	e88	726	430	e430	610	170	279	1740
28	92	e57	e51	e52	e88	760	430	e410	696	232	271	1710
29	107	e52	e51	e51	---	782	435	e370	746	451	263	1420
30	70	e64	e49	e51	---	727	451	331	754	678	265	575
31	56	---	e48	e51	---	705	---	288	---	1980	294	---
TOTAL	2945	1681	1634	1640	1948	19738	13820	17039	34869	9534	16966	21762
MEAN	95.0	56.0	52.7	52.9	69.6	637	461	550	1162	308	547	725
MAX	200	84	70	80	112	1050	684	680	1980	1980	1880	1830
MIN	48	38	32	43	43	76	232	288	276	113	263	279
AC-FT	5840	3330	3240	3250	3860	39150	27410	33800	69160	18910	33650	43160

MEAN	192	137	103	75.6	99.9	224	353	445	519	308	222	214
MAX	672	709	396	182	362	972	1339	1719	1555	1381	878	725
(WY)	1987	1987	1983	1985	1993	1993	1979	1958	1979	1957	1957	1997
MIN	47.9	32.1	33.8	33.9	38.6	45.1	22.8	44.3	74.5	81.6	80.4	58.3
(WY)	1978	1960	1964	1978	1978	1977	1951	1951	1977	1959	1977	1951

SAN JUAN RIVER BASIN

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

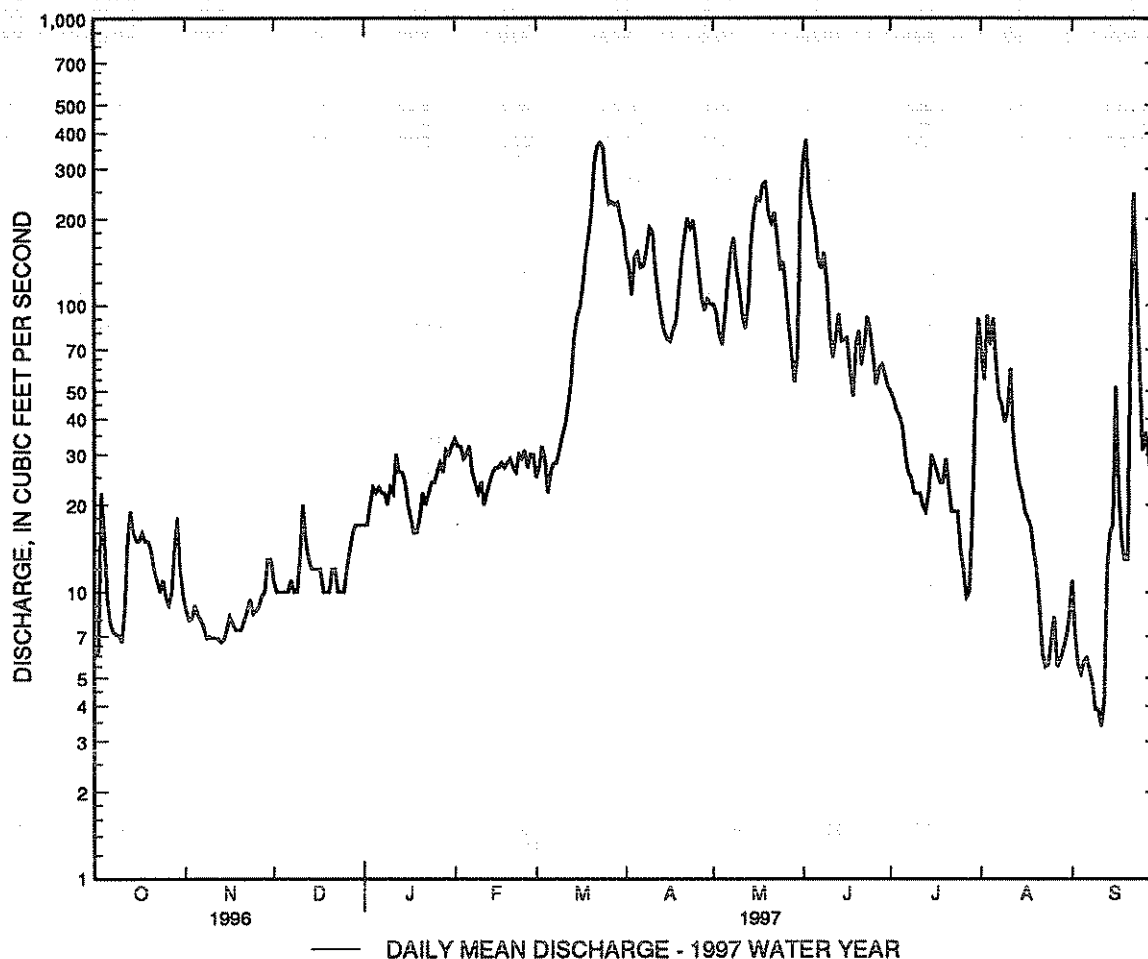
SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1951 - 1997	
ANNUAL TOTAL	32644		143576		245	
ANNUAL MEAN	89.2		393		582	
HIGHEST ANNUAL MEAN					77.4	
LOWEST ANNUAL MEAN					4560	
HIGHEST DAILY MEAN	380	Jul 9	1980 ^a	Jun 8	4560	Jul 27 1957
LOWEST DAILY MEAN	12	Apr 23	32 ^c	Dec 19	6.1	May 1 1977
ANNUAL SEVEN-DAY MINIMUM	25	Apr 17	41	Nov 7	8.3	Apr 30 1977
INSTANTANEOUS PEAK FLOW			2080	Jul 31	6400 ^b	Jul 27 1957
INSTANTANEOUS PEAK STAGE			6.46	Jul 31	8.95 ^c	Jul 27 1957
ANNUAL RUNOFF (AC-FT)	64750		284800		177400	
10 PERCENT EXCEEDS	151		935		558	
50 PERCENT EXCEEDS	75		253		133	
90 PERCENT EXCEEDS	47		50		50	

e-Estimated.

a-Also occurred Jul 31.

b-From rating curve extended above 5100 ft³/s.

c-Maximum gage height, 9.00 ft, backwater from ice, sometime during period, Dec 23, 1990 to Jan 17, 1991.



LOCATION.--Lat 36°44'23", long 108°14'51", in NE¹/4SW¹/4 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.

PERIOD OF RECORD.--March 1938 to current year.

REVISED RECORDS.--WSP 1243: 1944-45. WSP 1313: 1943-44(M), 1946-50(M). WSP 1733: 1951(M).

GAGE.--Water-stage recorder. Elevation of gage is 5,210 ft above National Geodetic Vertical Datum of 1929, from river-profile map. Prior to July 28, 1978, at elevation 1.0 ft higher. December 6, 1990 to July 1, 1993 at site 1,000 ft downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 24,000 acres upstream from station. Several observations of water temperature were made during the year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909, and Oct. 5 or 6, 1911 and September 10, 1939.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	20	15	e12	39	43	129	75	239	3.0	e21	23
2	8.3	19	14	e12	39	e42	116	82	290	1.9	e26	2.9
3	63	18	13	e13	39	e40	98	67	249	1.4	e33	3.0
4	69	18	13	e15	38	40	156	53	187	1.2	e40	2.8
5	39	17	16	e20	39	41	145	53	169	1.2	55	2.8
6	33	17	18	e25	40	42	136	78	136	1.3	50	3.4
7	32	16	20	e32	40	45	140	95	128	1.3	28	3.4
8	e30	15	17	30	36	47	157	118	143	1.3	24	2.7
9	e28	e14	16	27	37	49	170	104	e126	1.4	23	2.1
10	e27	e12	17	30	38	52	176	89	e90	1.5	27	1.9
11	e25	e11	24	32	38	55	149	75	e85	1.6	37	1.4
12	e23	9.8	24	34	40	60	123	75	e68	1.7	33	1.1
13	e20	8.9	20	34	40	68	104	76	e51	1.8	25	1.1
14	e17	8.1	18	33	40	83	90	92	e37	1.9	24	20
15	e15	7.5	16	e29	36	99	77	127	e30	2.0	22	3.7
16	e13	7.8	19	e28	37	109	70	152	e23	2.0	21	7.7
17	e11	8.1	19	e27	36	119	59	170	e15	2.2	20	9.1
18	9.0	7.9	15	e27	38	134	54	174	e11	2.2	20	5.0
19	7.9	8.2	15	e26	38	149	70	189	e9.0	2.3	21	4.3
20	8.0	7.9	15	e25	42	158	89	166	e9.3	2.5	22	4.0
21	8.1	7.8	16	e24	41	164	114	150	e8.5	2.5	23	61
22	8.3	7.6	15	e24	38	171	138	179	e8.3	6.3	23	237
23	8.4	7.8	16	e26	37	175	142	153	e9.4	9.7	23	89
24	8.5	7.5	15	e29	39	177	159	130	e9.3	7.1	23	49
25	8.6	7.4	15	e31	39	179	147	132	e9.1	6.4	23	35
26	8.9	7.1	15	35	43	178	118	127	e8.6	6.0	25	32
27	11	8.3	16	39	41	175	97	121	e8.0	5.8	26	32
28	30	10	15	37	40	175	83	122	e7.4	e6.8	27	31
29	34	15	13	37	---	175	82	122	e6.7	e9.9	29	31
30	22	18	11	37	---	165	81	124	6.3	e12	30	31
31	21	---	e12	37	---	160	---	164	---	e16	33	---
TOTAL	652.3	347.7	503	867	1088	3369	3469	3634	2176.9	124.2	857	733.4
MEAN	21.0	11.6	16.2	28.0	38.9	109	116	117	72.6	4.01	27.6	24.7
MAX	69	20	24	39	43	179	176	189	290	16	55	237
MIN	5.3	7.1	11	12	36	40	54	53	6.3	1.2	20	1.1
AC-FT	1290	690	998	1720	2160	6680	6880	7210	4320	246	1700	1451

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)

MEAN	20.4	12.9	14.2	18.4	24.6	36.2	90.8	68.8	35.3	8.99	11.8	11.4
MAX	537	141	73.1	100	89.3	166	408	783	252	117	64.5	170
(WY)	1942	1987	1987	1979	1979	1993	1980	1941	1957	1986	1957	1941
MIN	.000	.000	.000	.032	1.00	.16	.000	.000	.000	.000	.000	.000
(WY)	1947	1955	1956	1957	1957	1959	1951	1939	1939	1948	1960	1955

SAN JUAN RIVER BASIN

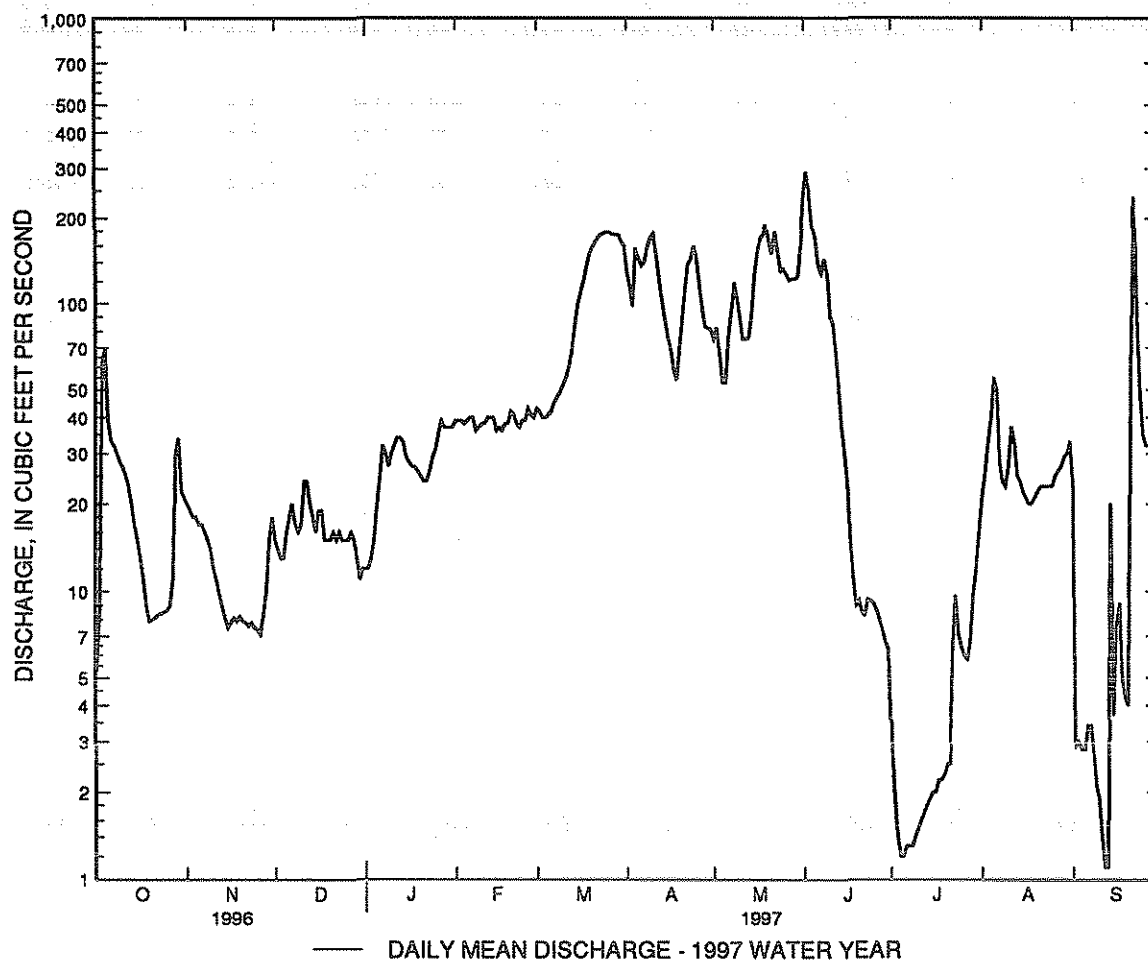
09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1938 - 1997
ANNUAL TOTAL	3731.49	17821.5	
ANNUAL MEAN	10.2	48.8	29.3
HIGHEST ANNUAL MEAN			134 1941
LOWEST ANNUAL MEAN			.48 1956
HIGHEST DAILY MEAN	69 Oct 4	290 Jun 2	2370 May 13 1941
LOWEST DAILY MEAN	.00 Jul 31	1.1 Sep 12	.00 Mar 1 1938
ANNUAL SEVEN-DAY MINIMUM	.00 Jul 31	1.3 Jul 3	.00 Mar 1 1938
INSTANTANEOUS PEAK FLOW		530 Sep 22	5770 ^b Aug 21 1990
INSTANTANEOUS PEAK STAGE		4.27 Sep 22	13.60 ^a Aug 21 1990
INSTANTANEOUS LOW FLOW		1.1 Sep 12	.00 Aug 1 1996
ANNUAL RUNOFF (AC-FT)	7400	35350	21260
10 PERCENT EXCEEDS	27	144	68
50 PERCENT EXCEEDS	5.0	27	4.0
90 PERCENT EXCEEDS	.02	4.7	.00

e Estimated

a-From floodmarks.

b-From rating curve extended on basis of slope-area measurement of peak flow.



LOCATION.--Lat 36°46'52", long 108°41'23", in SE¹/₄ 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.

WATER-DISCHARGE RECORDS

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

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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	747	1330	798	576	781	655	3080	1940	10200	4950	4570	4790
2	716	1270	734	576	763	595	3030	1810	11500	4530	2900	4590
3	1220	1190	684	573	770	588	2950	1620	12400	4030	2900	4000
4	2520	1210	629	594	759	624	3790	1530	11600	3920	3100	2030
5	2170	1110	577	600	689	653	3810	1660	11500	3810	4620	1010
6	1610	895	578	601	656	734	3250	2190	11200	3700	4780	994
7	1560	745	580	592	624	836	3050	2680	10300	3660	4220	948
8	1520	741	583	599	602	854	2960	2850	10600	3030	2690	817
9	1360	696	593	573	571	934	2810	2770	9850	2750	2220	738
10	1240	692	578	523	563	1100	2520	2600	8620	2700	2030	691
11	1240	698	582	543	578	1210	2060	2440	7810	2490	2520	671
12	1210	691	574	593	585	1330	1710	2530	8280	2480	2680	767
13	1140	703	576	527	611	1470	1520	3290	8540	2300	2280	850
14	1060	730	570	561	604	1620	1470	4440	8350	2400	2050	1220
15	1070	709	571	500	588	1700	1430	5840	7930	1990	1850	1110
16	1090	771	587	530	573	1680	1400	6940	7800	1600	1660	1580
17	1070	775	592	514	588	1740	1400	8510	7100	1530	1570	2120
18	1060	739	598	559	603	2170	1460	8820	7370	1410	1480	1580
19	1040	720	589	541	621	2750	1550	8930	7820	1420	1310	1370
20	1040	695	601	557	658	3060	1710	9200	7920	1580	1140	1250
21	1020	712	595	560	740	3440	1940	9250	8130	1600	e1920	4650
22	989	694	587	630	713	3810	2260	10700	8010	1590	e1850	7420
23	1010	789	590	746	695	3720	2400	10200	7710	1750	e1920	5450
24	1010	869	604	753	671	3770	2610	9050	6840	1730	e1960	3680
25	1020	791	612	714	659	3610	2610	8790	6220	1690	e2860	3120
26	975	746	619	697	643	3270	2210	8370	5490	1540	e2110	2790
27	964	801	605	970	633	3170	1930	7830	5020	1410	e1620	2450
28	987	760	596	1100	698	3180	1850	7530	4870	1420	e1650	2100
29	1660	750	597	923	---	3180	2020	7200	4770	3280	e1460	1810
30	1490	806	594	842	---	3190	2050	7150	4830	3350	e1760	1610
31	1330	---	581	789	---	3130	---	8120	---	6430	3290	---
TOTAL	38138	24828	18754	19956	18239	63773	68840	176780	248580	82070	74970	68206
MEAN	1230	828	605	644	651	2057	2295	5703	8286	2647	2418	2274
MAX	2520	1330	798	1100	781	3810	3810	10700	12400	6430	4780	7420
MIN	716	691	570	500	563	588	1400	1530	4770	1410	1140	671
AC-FT												

MEAN	1266	1103	1066	1075	1223	1656	3067	4931	5412	2243	1317	1204
MAX	8370	3997	3420	3169	3314	5099	9275	19790	15540	8869	5171	3329
(WY)	1942	1987	1966	1966	1987	1993	1937	1941	1941	1957	1957	1938
MIN	247	365	386	390	395	359	274	268	630	185	126	44.4
(WY)	1957	1935	1957	1963	1964	1964	1977	1977	1977	1963	1939	1956

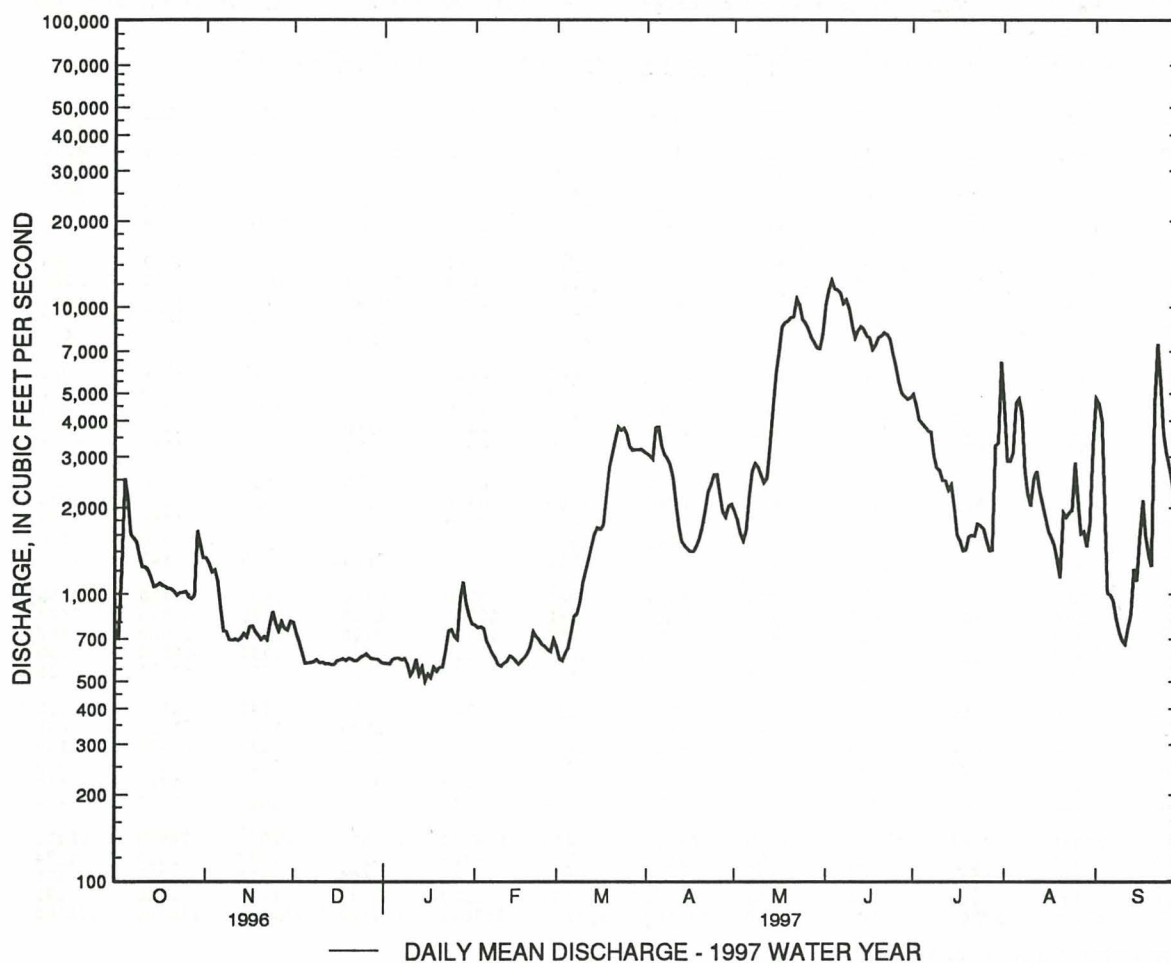
SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1935 - 1997	
ANNUAL TOTAL	358307		903134		2131	
ANNUAL MEAN	979		2474		5324	
HIGHEST ANNUAL MEAN					702	
LOWEST ANNUAL MEAN					1941	
HIGHEST DAILY MEAN	3550	May 18	12400	Jun 3	33300	Oct 14 1941
LOWEST DAILY MEAN	140	Aug 6	500	Jan 15	8.0	Aug 25 1939
ANNUAL SEVEN-DAY MINIMUM	148	Jul 31	533	Jan 13	13	Jul 24 1959
INSTANTANEOUS PEAK FLOW			12800	Jun 3	80000	Aug 11 1929
INSTANTANEOUS PEAK STAGE			13.70	Jun 3	14.02	Jun 19 1995
INSTANTANEOUS LOW FLOW			321	Jan 15	8.0 ^a	Aug 25 1939
ANNUAL RUNOFF (AC-FT)	710700		1791000		1544000	
10 PERCENT EXCEEDS	2220		7270		5080	
50 PERCENT EXCEEDS	760		1480		1150	
90 PERCENT EXCEEDS	330		589		451	

e Estimated

a-Also occurred Aug. 26, 1939.



SAN JUAN RIVER BASIN

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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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
OCT 1996 30...	1200	1450	593	8.3	9.5	6.5	638	10.3	100	54	170
FEB 1997 05...	1045	699	740	8.2	13.0	3.0	638	11.2	100	34	240
DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 1996 30...	50	54	7.7	55	2	2.8	142	0	117	122	150
FEB 1997 05...	110	76	13	59	2	2.8	166	0	136	155	210
DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)
OCT 1996 30...	12	0.40	9.7	364	0.450	0.010	0.460	0.030	--	3.2	<0.20
FEB 1997 05...	16	0.50	8.1	470	0.590	0.020	0.610	0.060	0.14	0.80	0.20
DATE	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
OCT 1996 30...	1.30	<0.010	<0.010	24	6.0	<1.0	<1	71	<1.0	50	<1.0
FEB 1997 05...	0.340	0.040	0.010	15	4.0	<1.0	1	94	<1.0	57	<1.0
DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)
OCT 1996 30...	1.0	<1.0	3.0	<3.0	<1.0	2.0	<0.10	2.0	2.0	2	2
FEB 1997 05...	3.0	<1.0	2.0	<3.0	<1.0	4.0	<0.10	2.0	<1.0	2	1

WATER-QUALITY RECORDS

[illegible]

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	P,P'- DDE, TOTAL (UG/L) (39365)	P,P'- DDT, UNFLT RECOVER (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, I TOTAL (UG/L) (39388)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	TOX- APHENE, TOTAL (UG/L) (39400)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)
OCT 1996									
30...	--	--	--	--	--	--	--	--	--
FEB 1997									
05...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<1.00	<0.010	<0.010

[illegible]

SAN JUAN RIVER BASIN

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09371010 SAN JUAN RIVER AT FOUR CORNERS, CO

LOCATION.--Lat 37°00'20", long 109°02'00", SE¹/4NE¹/4 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 mi², 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, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e750	1380	877	666	e880	e710	3260	2420	9710	5510	5110	e1780
2	e720	1300	802	661	e850	e700	3210	2320	10800	5240	3390	e3750
3	e1320	1210	723	668	e840	e690	3110	2170	11700	4600	3110	e3150
4	e2200	1210	723	e680	e830	e700	3530	1940	11900	4370	3390	e1210
5	e2700	1220	701	e690	e800	e740	4410	1980	11200	4250	4990	e1180
6	e1600	1030	e720	e690	758	e780	3410	2380	11200	4090	4830	e1100
7	e1500	822	e720	e690	705	825	3130	3050	10400	4030	4830	e1080
8	e1400	792	e720	e645	673	845	3090	3500	10500	3610	3100	e1040
9	e1300	752	e720	e650	631	883	3050	3340	10200	3160	2500	e950
10	e1200	727	e710	637	605	997	2940	3060	9170	3060	2410	e910
11	e1200	725	e700	644	606	1130	2500	2880	8350	2860	2430	e900
12	e1180	730	e700	e650	628	1340	1940	2780	8190	2770	2890	1770
13	e1100	722	e700	e660	631	1680	1560	3350	8610	2620	2420	1570
14	e1050	762	e690	e680	631	1980	1440	4660	8500	2600	2070	1590
15	e1040	756	e680	e700	625	2040	1380	5850	8100	2480	1840	1830
16	e980	785	e660	713	603	2040	1360	6660	8070	1950	1630	2580
17	e1020	855	e650	e750	604	2430	1380	8090	7630	1820	e1600	2220
18	1010	804	e650	808	628	2350	1480	8730	7550	1690	e1500	1870
19	1010	778	e640	823	617	2880	1630	8880	7880	1620	e1400	1580
20	973	762	e610	e830	674	3360	1870	9200	8020	1800	e1250	1470
21	1010	767	e640	e840	788	3810	2230	9280	8210	1790	e1200	3800
22	980	761	e660	e860	788	4280	2600	e10400	8210	1820	e1150	7290
23	985	781	e680	e860	732	4180	2910	e11000	7920	1880	e900	5820
24	980	965	e700	867	694	4080	3140	e10000	7480	1930	e890	4130
25	958	898	e700	885	671	3980	3130	e8900	6930	1900	e860	3450
26	950	831	e710	859	646	3550	2760	e8260	6280	1770	e840	3180
27	1070	826	e730	e1100	634	3330	2350	e8100	5780	1640	e1810	2910
28	1690	836	706	e1200	696	3340	2180	8180	5600	1560	e1900	2540
29	2440	821	711	e1100	---	3380	2280	8030	5420	2630	e1800	2210
30	1680	827	698	e1000	---	3420	2470	7950	5460	3070	e1760	1960
31	1480	---	684	e920	---	3330	---	8340	---	5750	e1690	---
TOTAL	39476	26435	21715	24426	19468	69780	75730	185680	254970	89870	71490	70820
MEAN	1273	881	700	788	695	2251	2524	5990	8499	2899	2306	2361
MAX	2700	1380	877	1200	880	4280	4410	11000	11900	5750	5110	7290
MIN	720	722	610	637	603	690	1360	1940	5420	1560	840	900
AC-FT	78300	52430	43070	48450	38610	138400	150200	368300	505700	178300	141800	140500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1997, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
MEAN	1273	1391	1424	1509	1618	2190	3115	4793	5473	2539	1408	1379
MAX	2959	3732	3466	3300	3365	5454	7893	10220	10370	6846	3016	3243
(WY)	1987	1987	1987	1987	1987	1993	1979	1979	1979	1979	1986	1986
MIN	634	838	700	760	695	707	606	1030	1236	714	259	467
(WY)	1978	1980	1997	1990	1997	1990	1996	1981	1989	1996	1978	1989

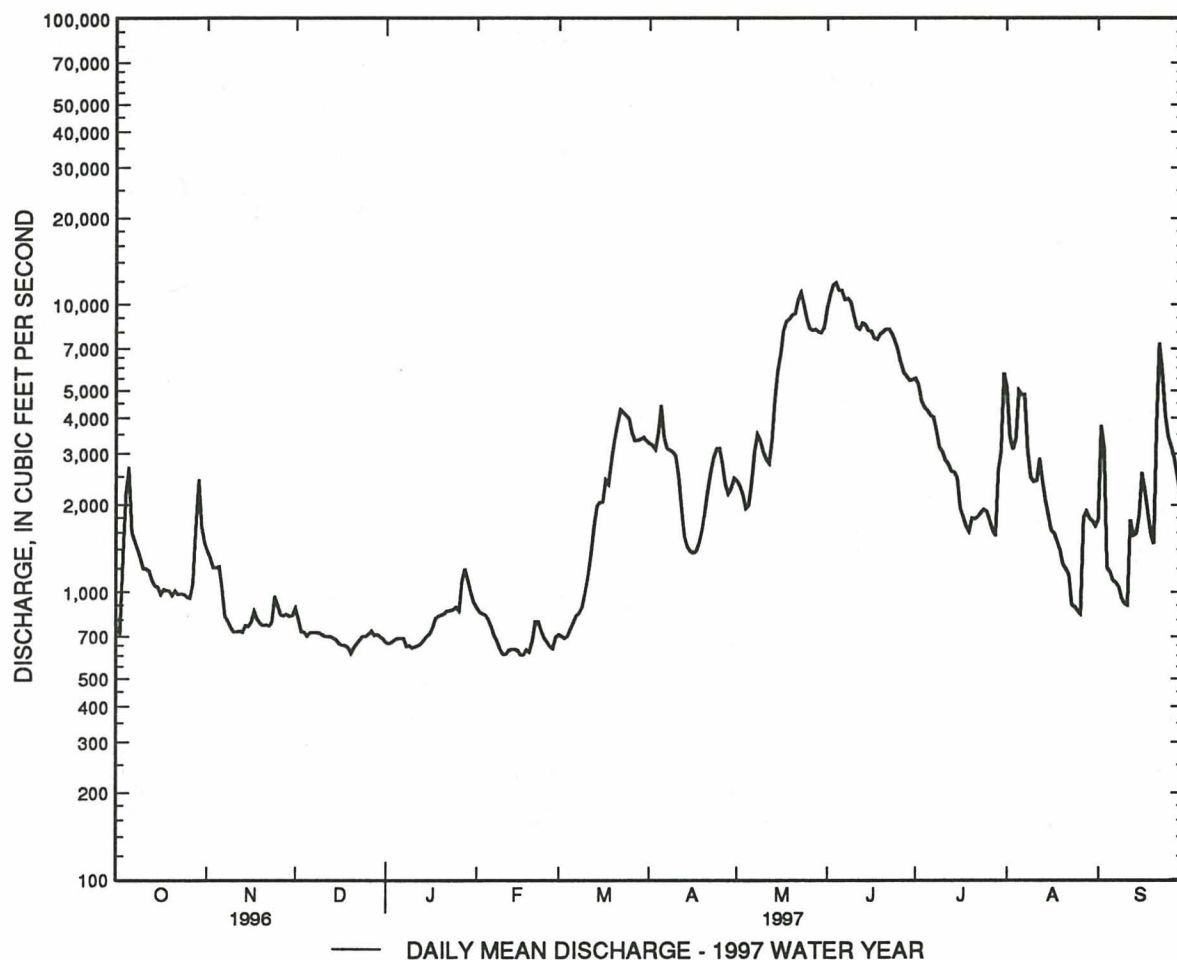
SAN JUAN RIVER BASIN

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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1978 - 1997	
ANNUAL TOTAL	397370		949860		2343	
ANNUAL MEAN	1086		2602		4180	
HIGHEST ANNUAL MEAN					991	
LOWEST ANNUAL MEAN					16400	
HIGHEST DAILY MEAN	3540	May 18	11900	Jun 4	110	May 29 1979
LOWEST DAILY MEAN	180	Aug 17	603	Feb 16	126	Aug 17 1978
ANNUAL SEVEN-DAY MINIMUM	190	Aug 15	618	Feb 11	16900	Aug 14 1978
INSTANTANEOUS PEAK FLOW			12600	Jun 4	6.25 ^a	May 29 1979
INSTANTANEOUS PEAK STAGE			5.79	Jun 4	110	May 29 1979
INSTANTANEOUS LOW FLOW			546	Feb 16	1697000	Aug 19 1978
ANNUAL RUNOFF (AC-FT)	788200		1884000			
10 PERCENT EXCEEDS	2530		7730			
50 PERCENT EXCEEDS	838		1570			
90 PERCENT EXCEEDS	397		682			

e Estimated

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



SAN JUAN RIVER BASIN

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09368000 SAN JUAN RIVER AT SHIPROCK, NM

LOCATION.--Lat 36°46'52", long 108°41'23", in SE¹/₄ 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 mi², 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, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	747	1330	798	576	781	655	3080	1940	10200	4950	4570	4790
2	716	1270	734	576	763	595	3030	1810	11500	4530	2900	4590
3	1220	1190	684	573	770	588	2950	1620	12400	4030	2900	4000
4	2520	1210	629	594	759	624	3790	1530	11600	3920	3100	2030
5	2170	1110	577	600	689	653	3810	1660	11500	3810	4620	1010
6	1610	895	578	601	656	734	3250	2190	11200	3700	4780	994
7	1560	745	580	592	624	836	3050	2680	10300	3660	4220	948
8	1520	741	583	599	602	854	2960	2850	10600	3030	2690	817
9	1360	696	593	573	571	934	2810	2770	9850	2750	2220	738
10	1240	692	578	523	563	1100	2520	2600	8620	2700	2030	691
11	1240	698	582	543	578	1210	2060	2440	7810	2490	2520	671
12	1210	691	574	593	585	1330	1710	2530	8280	2480	2680	767
13	1140	703	576	527	611	1470	1520	3290	8540	2300	2280	850
14	1060	730	570	561	604	1620	1470	4440	8350	2400	2050	1220
15	1070	709	571	500	588	1700	1430	5840	7930	1990	1850	1110
16	1090	771	587	530	573	1680	1400	6940	7800	1600	1660	1580
17	1070	775	592	514	588	1740	1400	8510	7100	1530	1570	2120
18	1060	739	598	559	603	2170	1460	8820	7370	1410	1480	1580
19	1040	720	589	541	621	2750	1550	8930	7820	1420	1310	1370
20	1040	695	601	557	658	3060	1710	9200	7920	1580	1140	1250
21	1020	712	595	560	740	3440	1940	9250	8130	1600	e1920	4650
22	989	694	587	630	713	3810	2260	10700	8010	1590	e1850	7420
23	1010	789	590	746	695	3720	2400	10200	7710	1750	e1920	5450
24	1010	869	604	753	671	3770	2610	9050	6840	1730	e1960	3680
25	1020	791	612	714	659	3610	2610	8790	6220	1690	e2860	3120
26	975	746	619	697	643	3270	2210	8370	5490	1540	e2110	2790
27	964	801	605	970	633	3170	1930	7830	5020	1410	e1620	2450
28	987	760	596	1100	698	3180	1850	7530	4870	1420	e1650	2100
29	1660	750	597	923	---	3180	2020	7200	4770	3280	e1460	1810
30	1490	806	594	842	---	3190	2050	7150	4830	3350	e1760	1610
31	1330	---	581	789	---	3130	---	8120	---	6430	3290	---
TOTAL	38138	24828	18754	19956	18239	63773	68840	176780	248580	82070	74970	68206
MEAN	1230	828	605	644	651	2057	2295	5703	8286	2647	2418	2274
MAX	2520	1330	798	1100	781	3810	3810	10700	12400	6430	4780	7420
MIN	716	691	570	500	563	588	1400	1530	4770	1410	1140	671
AC-FT	75650	49250	37200	39580	36180	126500	136500	350600	493100	162800	148700	135300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1997, BY WATER YEAR (WY)

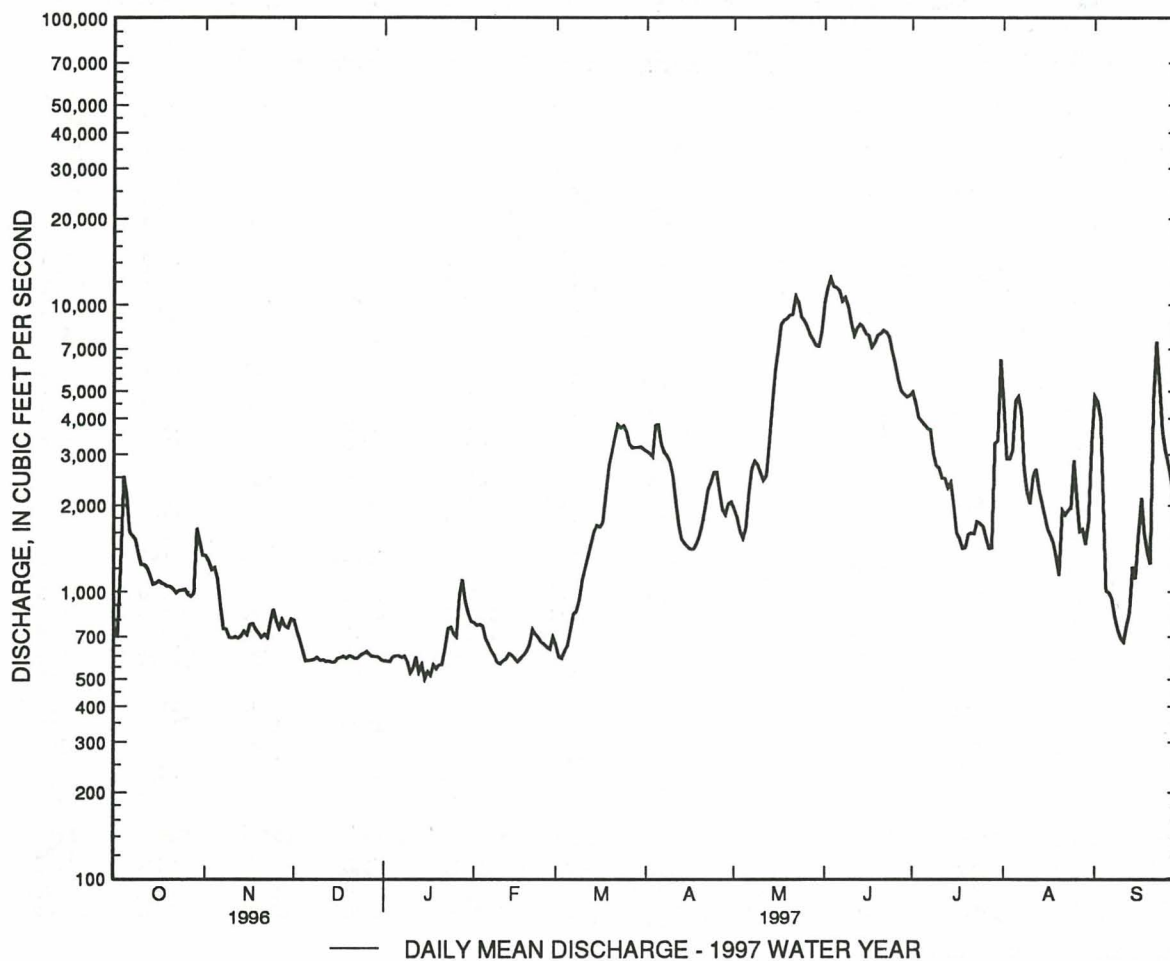
	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
MEAN	1266	1103	1066	1075	1223	1656	3067	4931	5412	2243	1317	1204
MAX	8370	3997	3420	3169	3314	5099	9275	19790	15540	8869	5171	3329
(WY)	1942	1987	1966	1966	1987	1993	1937	1941	1941	1957	1957	1938
MIN	247	365	386	390	395	359	274	268	630	185	126	44.4
(WY)	1957	1935	1957	1963	1964	1964	1977	1977	1977	1963	1939	1956

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1935 - 1997	
ANNUAL TOTAL	358307		903134		2131	
ANNUAL MEAN	979		2474		5324	1941
HIGHEST ANNUAL MEAN					702	1963
LOWEST ANNUAL MEAN					33300	Oct 14 1941
HIGHEST DAILY MEAN	3550	May 18	12400	Jun 3	8.0	Aug 25 1939
LOWEST DAILY MEAN	140	Aug 6	500	Jan 15	13	Jul 24 1959
ANNUAL SEVEN-DAY MINIMUM	148	Jul 31	533	Jan 13	80000	Aug 11 1929
INSTANTANEOUS PEAK FLOW			12800	Jun 3	14.02	Jun 19 1995
INSTANTANEOUS PEAK STAGE			13.70	Jun 3	8.0 ^a	Aug 25 1939
INSTANTANEOUS LOW FLOW			321	Jan 15		
ANNUAL RUNOFF (AC-FT)	710700		1791000		1544000	
10 PERCENT EXCEEDS	2220		7270		5080	
50 PERCENT EXCEEDS	760		1480		1150	
90 PERCENT EXCEEDS	330		589		451	

e Estimated

a-Also occurred Aug. 26, 1939.



SAN JUAN RIVER BASIN

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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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	
OCT 1996 30...	1200	1450	593	8.3	9.5	6.5	638	10.3	100	54	170	
FEB 1997 05...	1045	699	740	8.2	13.0	3.0	638	11.2	100	34	240	
DATE		HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1996 30...	50	54	7.7	55	2	2.8	142	0	117	122	150	
FEB 1997 05...	110	76	13	59	2	2.8	166	0	136	155	210	
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
OCT 1996 30...	12	0.40	9.7	364	0.450	0.010	0.460	0.030	--	3.2	<0.20	
FEB 1997 05...	16	0.50	8.1	470	0.590	0.020	0.610	0.060	0.14	0.80	0.20	
DATE		PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
OCT 1996 30...	1.30	<0.010	<0.010	24	6.0	<1.0	<1	71	<1.0	50	<1.0	
FEB 1997 05...	0.340	0.040	0.010	15	4.0	<1.0	1	94	<1.0	57	<1.0	
DATE		CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
OCT 1996 30...	1.0	<1.0	3.0	<3.0	<1.0	2.0	<0.10	2.0	2.0	2	2	
FEB 1997 05...	3.0	<1.0	2.0	<3.0	<1.0	4.0	<0.10	2.0	<1.0	2	1	

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MANGA- NESE, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS ZN) (01093)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	
	OCT 1996										
	30...	9	11000	10	340	0.01	40	2.0	5550	21700	84
	FEB 1997										
05...	--	--	--	--	--	--	3.0	3200	6040	96	

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	P, P'- DDE, TOTAL (UG/L) (39365)	P, P'- DDT UNFLT RECOVER (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, I TOTAL (UG/L) (39388)	ENDRIN WATER UNFLTRD REC (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	TOX- APHENE, TOTAL (UG/L) (39400)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)
OCT 1996									
30...	--	--	--	--	--	--	--	--	--
FEB 1997									
05...	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<1.00	<0.010	<0.010

[illegible]

SAN JUAN RIVER BASIN

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09371010 SAN JUAN RIVER AT FOUR CORNERS, CO

LOCATION.--Lat 37°00'20", long 109°02'00", SE¹/4NE¹/4 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 mi², 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, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e750	1380	877	666	e880	e710	3260	2420	9710	5510	5110	e1780
2	e720	1300	802	661	e850	e700	3210	2320	10800	5240	3390	e3750
3	e1320	1210	723	668	e840	e690	3110	2170	11700	4600	3110	e3150
4	e2200	1210	723	e680	e830	e700	3530	1940	11900	4370	3390	e1210
5	e2700	1220	701	e690	e800	e740	4410	1980	11200	4250	4990	e1180
6	e1600	1030	e720	e690	758	e780	3410	2380	11200	4090	4830	e1100
7	e1500	822	e720	e690	705	825	3130	3050	10400	4030	4830	e1080
8	e1400	792	e720	e645	673	845	3090	3500	10500	3610	3100	e1040
9	e1300	752	e720	e650	631	883	3050	3340	10200	3160	2500	e950
10	e1200	727	e710	637	605	997	2940	3060	9170	3060	2410	e910
11	e1200	725	e700	644	606	1130	2500	2880	8350	2860	2430	e900
12	e1180	730	e700	e650	628	1340	1940	2780	8190	2770	2890	1770
13	e1100	722	e700	e660	631	1680	1560	3350	8610	2620	2420	1570
14	e1050	762	e690	e680	631	1980	1440	4660	8500	2600	2070	1590
15	e1040	756	e680	e700	625	2040	1380	5850	8100	2480	1840	1830
16	e980	785	e660	713	603	2040	1360	6660	8070	1950	1630	2580
17	e1020	855	e650	e750	604	2430	1380	8090	7630	1820	e1600	2220
18	1010	804	e650	808	628	2350	1480	8730	7550	1690	e1500	1870
19	1010	778	e640	823	617	2880	1630	8880	7880	1620	e1400	1580
20	973	762	e610	e830	674	3360	1870	9200	8020	1800	e1250	1470
21	1010	767	e640	e840	788	3810	2230	9280	8210	1790	e1200	3800
22	980	761	e660	e860	788	4280	2600	e10400	8210	1820	e1150	7290
23	985	781	e680	e860	732	4180	2910	e11000	7920	1880	e900	5820
24	980	965	e700	867	694	4080	3140	e10000	7480	1930	e890	4130
25	958	898	e700	885	671	3980	3130	e8900	6930	1900	e860	3450
26	950	831	e710	859	646	3550	2760	e8260	6280	1770	e840	3180
27	1070	826	e730	e1100	634	3330	2350	e8100	5780	1640	e1810	2910
28	1690	836	706	e1200	696	3340	2180	e180	5600	1560	e1900	2540
29	2440	821	711	e1100	---	3380	2280	8030	5420	2630	e1800	2210
30	1680	827	698	e1000	---	3420	2470	7950	5460	3070	e1760	1960
31	1480	---	684	e920	---	3330	---	8340	---	5750	e1690	---
TOTAL	39476	26435	21715	24426	19468	69780	75730	185680	254970	89870	71490	70820
MEAN	1273	881	700	788	695	2251	2524	5990	8499	2899	2306	2361
MAX	2700	1380	877	1200	880	4280	4410	11000	11900	5750	5110	7290
MIN	720	722	610	637	603	690	1360	1940	5420	1560	840	900
AC-FT	78300	52430	43070	48450	38610	138400	150200	368300	505700	178300	141800	140500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1997, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	1273	1391	1424	1509	1618	2190	3115	4793	5473	2539	1408	1379								
MAX	2959	3732	3466	3300	3365	5454	7893	10220	10370	6846	3016	3243								
(WY)	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998								
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								

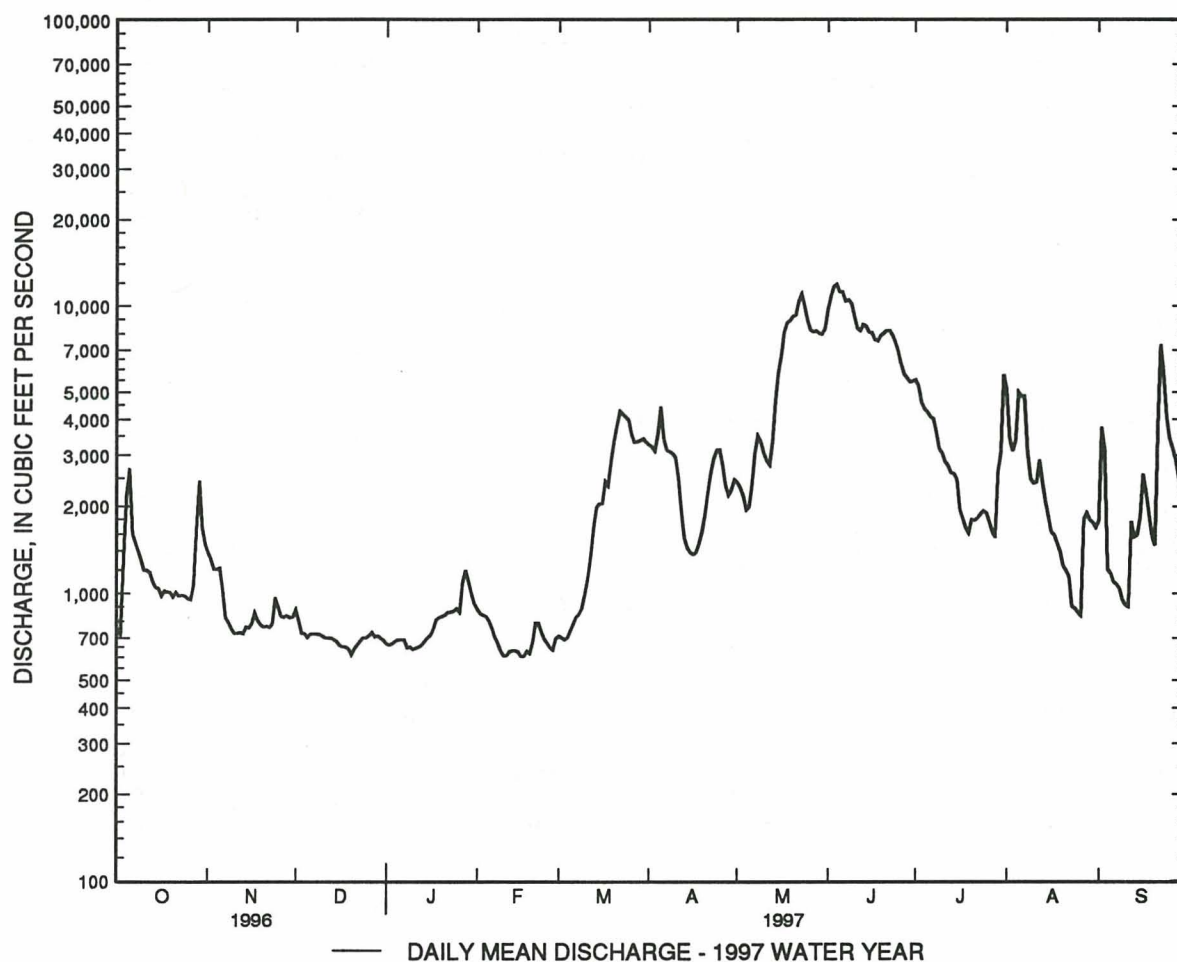
SAN JUAN RIVER BASIN

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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1978 - 1997	
ANNUAL TOTAL	397370		949860		2343	
ANNUAL MEAN	1086		2602		4180	1987
HIGHEST ANNUAL MEAN					991	1990
LOWEST ANNUAL MEAN					16400	May 29 1979
HIGHEST DAILY MEAN	3540	May 18	11900	Jun 4	110	Aug 17 1978
LOWEST DAILY MEAN	180	Aug 17	603	Feb 16	126	Aug 14 1978
ANNUAL SEVEN-DAY MINIMUM	190	Aug 15	618	Feb 11	16900	May 29 1979
INSTANTANEOUS PEAK FLOW			12600	Jun 4	6.25 ^a	May 29 1979
INSTANTANEOUS PEAK STAGE			5.79	Jun 4	110	Aug 19 1978
INSTANTANEOUS LOW FLOW			546	Feb 16	1697000	
ANNUAL RUNOFF (AC-FT)	788200		1884000		5650	
10 PERCENT EXCEEDS	2530		7730		1480	
50 PERCENT EXCEEDS	838		1570		708	
90 PERCENT EXCEEDS	397		682			

e Estimated

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



SAN JUAN RIVER BASIN

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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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT 1996 30...	0900	1660	777	8.2	5.5	5.5	880	645	10.7
FEB 1997 05...	0830	797	823	8.2	1.0	3.0	1300	644	11.4
APR 09...	0945	3030	528	8.0	15.0	8.5	590	639	9.6
AUG 07...	0930	5870	689	7.8	23.0	18.5	14000	650	6.7

DATE	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)
OCT 1996 30...	101	160	48	54	7.1	96	3	3.4	142
FEB 1997 05...	101	270	140	83	16	70	2	2.9	168
APR 09...	98	180	77	52	13	33	1	2.2	131
AUG 07...	84	52	0	18	1.6	120	7	3.5	131

	CAR-BONATE WATER	ALKA-LINITY WAT DIS	ALKA-LINITY	SULFATE	CHLO-RIDE,	FLUO-RIDE,	SILICA, DIS-	SOLIDS, RESIDUE AT 180	SOLIDS, SUM OF CONSTI-
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SAN JUAN RIVER BASIN

09386900 RIO NUTRIA NEAR RAMAH, NM

LOCATION.--Lat 35°16'57", long 108°33'10", in NW¹/4SW¹/4 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 mi².

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

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.41	.34	e.10	5.2	.49	1.1	.57	.17	.11	2.6	35
2	.13	.30	.50	e.10	11	.93	.99	.48	.14	.11	.64	3.1
3	.13	.26	.66	e.10	14	5.6	.88	.47	.13	.11	.39	.64
4	.13	.26	.43	e.10	12	22	2.5	.36	.12	.12	1.5	.31
5	.13	.22	.29	e.10	4.8	28	3.2	.31	.12	.12	150	.25
6	.13	.19	.26	e.10	3.8	16	9.7	.27	.12	.12	143	.22
7	.13	.18	.28	e.10	1.7	32	17	.22	.39	.12	24	.19
8	.13	.17	.44	e.10	1.1	41	37	.22	8.9	.12	1.5	.21
9	.13	.15	1.1	e.10	.75	40	38	.20	2.1	.13	.36	.21
10	.13	.15	1.5	e.10	.49	38	22	.23	.72	.14	2.8	.18
11	.13	.13	1.3	e.10	.68	42	13	.22	.43	.15	.78	.19
12	.13	.12	1.5	e.10	.82	49	11	.21	.31	.14	30	.21
13	.13	.13	.82	e.11	1.3	51	18	.20	.31	.12	9.9	.17
14	.12	.14	.55	e.12	1.0	51	12	.18	.25	.12	.80	.82
15	.13	.15	.35	e.13	.77	86	4.2	.18	.22	.12	.28	.38
16	.13	.21	e.15	e.15	1.2	120	2.3	.18	.21	.12	.18	.39
17	.13	.16	e.15	e.17	6.3	102	1.5	.20	.20	.11	.15	.30
18	.13	.15	e.13	e.19	18	93	1.3	.22	.18	.11	.41	.22
19	.13	.15	e.12	.22	20	69	1.1	.29	.16	.12	.18	.19
20	.17	.15	e.10	.27	25	57	.84	.61	.15	.12	.15	.18
21	.16	.22	e.10	.42	15	55	.66	.51	.15	.13	.15	.21
22	.15	.24	e.10	.53	3.4	45	.58	1.0	.15	.17	.18	113
23	.15	.35	e.10	.73	1.7	32	.53	.73	.14	.23	.17	21
24	.14	3.7	e.10	.86	1.4	19	1.9	.52	.13	.18	.15	1.8
25	.14	.66	e.10	.65	1.1	12	7.3	.43	.13	.15	6.4	.60
26	.15	.34	e.10	.68	.97	5.3	7.4	.36	.13	.15	30	.37
27	.23	.27	e.10	.96	1.2	3.6	3.8	.28	.13	.16	3.1	.27
28	.83	.26	e.10	1.5	.83	2.1	2.5	.25	.11	.21	.54	.23
29	4.2	.30	e.10	2.1	---	1.5	1.4	.25	.12	.22	.24	.22
30	4.6	.40	e.10	2.2	---	1.2	.84	.21	.11	.31	.22	.19
31	.80	---	e.10	3.1	---	1.1	---	.18	---	54	23	---
TOTAL	14.18	10.52	12.07	16.29	155.51	1121.82	224.52	10.54	16.63	58.34	433.77	181.25
MEAN	.46	.35	.39	.53	5.55	36.2	7.48	.34	.55	1.88	14.0	6.04
MAX	4.6	3.7	1.5	3.1	25	120	38	1.0	8.9	54	150	113
MIN	.12	.12	.10	.10	.49	.49	.53	.18	.11	.11	.15	.17
AC-FT	28	21	24	32	308	2230	445	21	33	116	860	360

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1997, BY WATER YEAR (WY)

MEAN	.40	.66	.87	1.23	6.31	32.6	33.5	3.59	.34	.63	1.76	.69
MAX	2.43	5.43	3.76	18.9	57.1	135	187	33.8	1.33	3.52	14.0	6.04
(WY)	1973	1995	1984	1993	1995	1993	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

SAN JUAN RIVER BASIN

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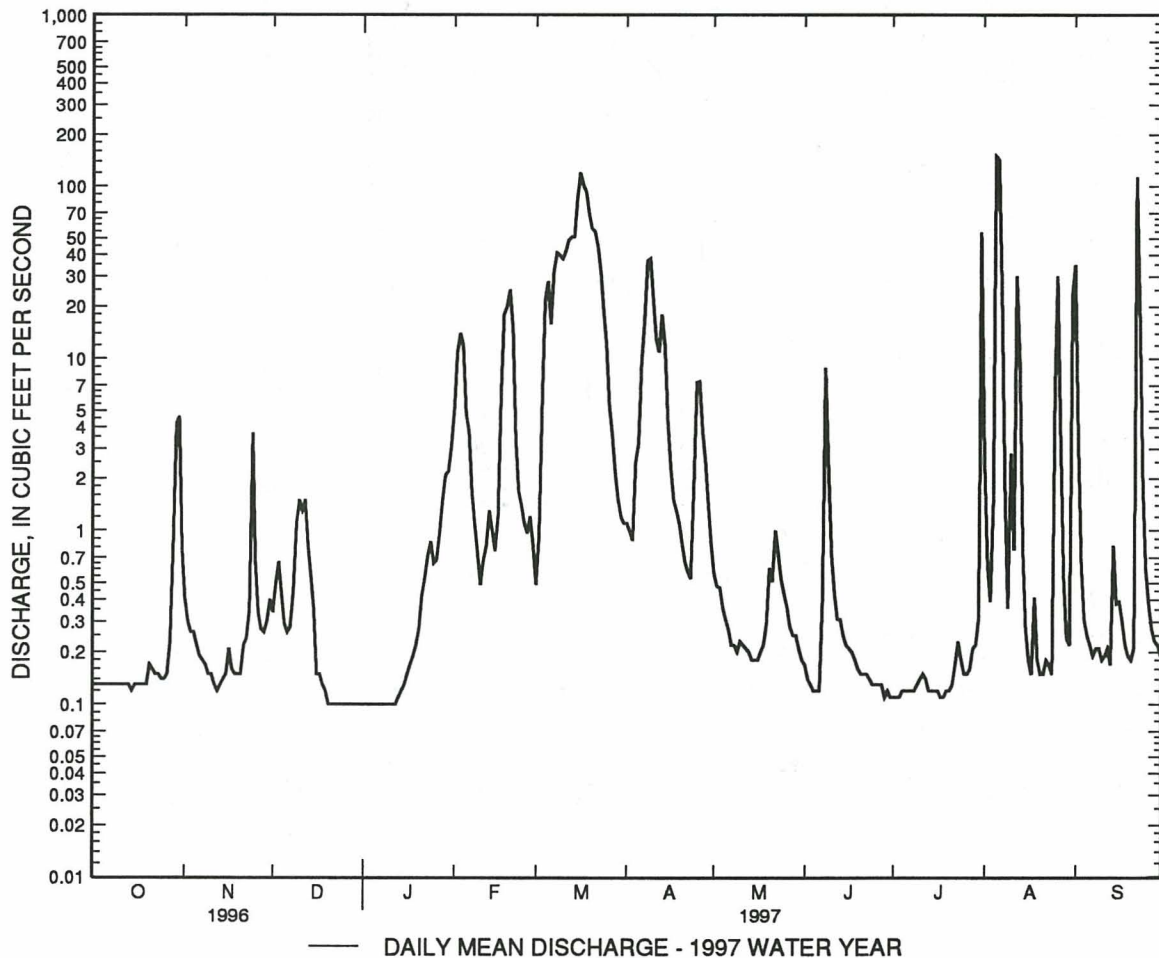
09386900 RIO NUTRIA NEAR RAMAH, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1970 - 1997
ANNUAL TOTAL	280.59	2255.44	
ANNUAL MEAN	.77	6.18	6.87
HIGHEST ANNUAL MEAN			22.4
LOWEST ANNUAL MEAN			.13
HIGHEST DAILY MEAN	45 Aug 23	150 Aug 5	1030 Mar 6 1995
LOWEST DAILY MEAN	.03 Aug 18	.10 Dec 20	.00 Oct 1 1969
ANNUAL SEVEN-DAY MINIMUM	.04 Aug 14	.10 Dec 20	.00 Oct 1 1969
INSTANTANEOUS PEAK FLOW		583 Aug 5	1850 ^b Mar 5 1995
INSTANTANEOUS PEAK STAGE		8.06 Aug 5	9.34 ^a Mar 5 1995
INSTANTANEOUS LOW FLOW		.07 Nov 12	.07 Nov 12 1996
ANNUAL RUNOFF (AC-FT)	557	4470	4970
10 PERCENT EXCEEDS	.82	18	9.4
50 PERCENT EXCEEDS	.18	.28	.18
90 PERCENT EXCEEDS	.09	.12	.05

e Estimated

a-Datum then in use.

b-From rating curve extended above 470 ft³/s; maximum gage height, 7.90 ft, Mar. 12, 1985.



LOCATION.--Lat 35°06'03", long 108°45'03", in NE¹/₄ 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.

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

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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.88	1.2	4.3	1.4	.65	e.00	.00	.00	.00	.03
2	.00	.00	.83	1.2	3.6	e1.3	.57	e.00	.00	.00	.00	.00
3	.00	.00	.92	1.9	3.1	e1.1	.54	e.00	.00	.00	12	.00
4	.00	.00	.77	3.2	2.9	e1.0	.66	e.00	.00	.00	.57	.00
5	.00	.00	.83	3.4	4.5	e1.0	.72	e.00	.00	.00	3.1	.00
6	.00	.00	.89	1.4	3.7	e.90	.84	e.00	.00	.00	1.1	.00
7	.00	.00	1.5	.84	3.2	e.90	.60	e.00	.00	.00	.04	.00
8	.00	.00	1.8	.97	3.1	e.80	.55	e.00	.00	.00	.00	.00
9	.00	.00	1.6	.91	3.2	e.80	.51	e.00	.00	.00	.00	.00
10	.00	.00	1.8	.76	3.1	e.70	.61	e.00	.00	.00	.00	.00
11	.00	.00	1.6	.78	2.8	e.80	.62	e.00	.00	.00	.00	.00
12	.00	.00	1.6	1.1	2.2	e.90	.58	e.00	.00	.00	.00	.00
13	.00	.00	1.6	1.3	2.3	e2.1	.63	e.00	.00	.00	.00	.00
14	.00	.00	e1.0	1.1	2.1	e4.4	e.70	e.00	.00	.00	.00	.00
15	.00	.00	e1.0	.85	1.2	e7.1	e.70	e.00	.00	.00	.00	.00
16	.00	.00	.79	.90	1.2	e16	e.60	e.00	.00	.00	.00	.00
17	.00	.00	.67	.88	1.4	e14	e.60	e.00	.00	.00	.00	.00
18	.00	.00	e.60	.79	1.3	e10	e.50	e.00	.00	.00	.00	.00
19	.00	.00	.63	1.1	1.3	e8.2	e.50	e.00	.00	.00	.00	.00
20	.00	.00	.61	1.1	1.1	e6.1	e.50	e.00	.00	.00	.00	.00
21	.00	.00	.71	1.2	1.0	e4.3	e.50	e.00	.00	.00	.00	5.0
22	.00	.00	.69	1.3	.88	e2.1	e.40	e.00	.00	.00	.00	6.0
23	.00	.00	.73	1.4	.96	e1.8	e.30	e.00	.00	.00	.00	1.4
24	.00	.00	.82	1.5	.91	e1.6	e.20	e.00	.00	.00	.00	.56
25	.00	.00	.80	2.0	.89	e1.4	e.10	e.00	.00	.00	.00	.16
26	.00	.00	.84	e10	.98	e1.1	e.00	e.00	.00	.00	7.8	.00
27	.00	.00	.76	e15	1.4	e1.0	e.00	e.00	.00	.00	5.9	.00
28	.00	.00	.73	e10	1.5	.91	e.00	e.00	.00	.00	1.3	.00
29	.00	.44	.84	6.6	---	.76	e.00	e.00	.00	.00	6.4	.00
30	.00	.88	.89	4.2	---	.73	e.00	.00	.00	.00	.58	.00
31	.00	---	1.0	3.5	---	.72	---	.00	---	.00	.29	---
TOTAL	0.00	1.32	30.73	82.38	60.12	95.92	13.68	0.00	0.00	0.00	39.08	13.15
MEAN	.0000	.0044	.99	2.66	2.15	3.09	.46	.0000	.0000	.0000	1.26	.44
MAX	.00	.88	1.8	15	4.5	16	.84	.00	.00	.00	12	6.0
MIN	.00	.00	.60	.76	.88	.70	.00	.00	.00	.00	.00	.00
AC-FT	.00	2.6	61	163	119	190	27	.00	.00	.00	78	2

MEAN	1.61	1.43	1.34	3.05	10.7	444	53.3	5.50	.19	2.94	6.05	2.59
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

SAN JUAN RIVER BASIN

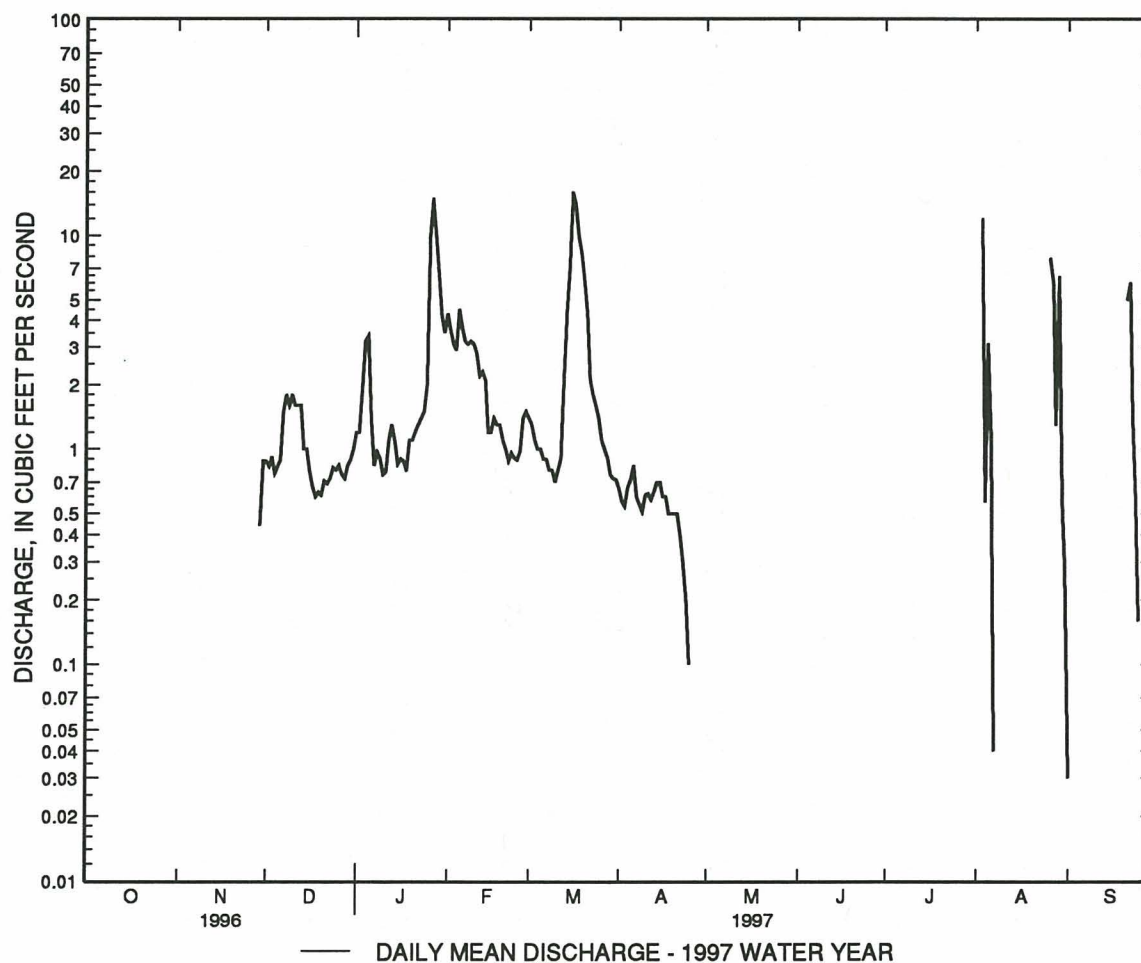
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09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1970 - 1997	
ANNUAL TOTAL	414.67		336.38		11.1	
ANNUAL MEAN	1.13		.92		46.9	
HIGHEST ANNUAL MEAN					.50	
LOWEST ANNUAL MEAN					1530	
HIGHEST DAILY MEAN	12	Mar 22	16	Mar 16		Mar 13 1985
LOWEST DAILY MEAN	.00	Apr 20	.00	Oct 1		May 22 1970
ANNUAL SEVEN-DAY MINIMUM	.00	Apr 20	.00	Oct 1		May 22 1970
INSTANTANEOUS PEAK FLOW			336	Aug 3	5200 ^a	Aug 4 1974
INSTANTANEOUS PEAK STAGE			4.38	Aug 3	6.61	Aug 4 1974
INSTANTANEOUS LOW FLOW					.00	Oct 1 1995
ANNUAL RUNOFF (AC-FT)	822		667		8010	
10 PERCENT EXCEEDS	5.4		2.1		10	
50 PERCENT EXCEEDS	.00		.00		.79	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

a-From rating curve extended above 670 ft³/s on basis of slope-area measurements at gage heights 4.05 ft, 3.95 ft and 6.61 ft.



GILA RIVER BASIN

09430500 GILA RIVER NEAR GILA, NM

LOCATION.--Lat 33°03'40", long 108°32'12", in NE¹/4NW¹/4 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 mi².

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	376	123	102	190	244	211	136	72	31	956	90
2	97	299	115	101	187	215	203	138	68	30	987	88
3	92	250	111	102	191	211	197	146	63	27	526	77
4	89	216	110	112	195	266	191	147	59	27	315	72
5	89	192	109	112	196	360	192	144	58	27	212	72
6	89	176	107	112	191	427	184	146	58	26	196	75
7	90	163	108	114	185	494	175	153	59	25	214	72
8	87	153	110	112	173	571	163	165	60	24	239	70
9	84	145	111	106	167	635	155	168	60	e23	202	66
10	83	139	111	102	161	610	149	157	59	e24	158	65
11	81	133	112	105	153	568	145	167	57	e24	130	68
12	79	129	113	109	147	545	148	166	54	e26	112	77
13	78	124	115	113	145	551	147	158	56	27	130	73
14	78	122	115	122	143	560	141	148	54	27	179	73
15	79	119	115	122	137	556	137	138	52	27	163	81
16	81	117	113	114	133	533	130	133	51	25	144	94
17	81	116	110	112	133	507	128	144	49	25	124	86
18	80	115	109	121	135	484	129	140	45	27	113	79
19	79	114	104	125	142	444	135	140	43	31	102	77
20	85	113	104	127	146	415	137	144	40	32	96	80
21	85	112	104	142	153	404	136	144	39	33	89	5220
22	85	111	106	158	157	411	144	135	37	37	89	11200
23	85	114	107	161	157	421	162	122	36	51	83	3020
24	86	116	108	158	156	406	196	114	35	53	87	1190
25	85	113	106	152	152	390	215	107	34	46	102	546
26	92	113	105	148	154	354	209	98	33	105	103	332
27	108	111	104	162	152	319	189	93	36	68	96	229
28	333	110	102	196	223	281	167	87	36	55	87	179
29	1520	112	102	209	---	253	149	83	34	67	81	149
30	817	129	101	210	---	234	140	79	34	158	76	134
31	511	---	101	199	---	219	---	76	---	420	74	---
TOTAL	5509	4452	3371	4140	4554	12888	4904	4116	1471	1628	6265	23734
MEAN	178	148	109	134	163	416	163	133	49.0	52.5	202	791
MAX	1520	376	123	210	223	635	215	168	72	420	987	11200
MIN	78	110	101	101	133	211	128	76	33	23	74	65
AC-FT	10930	8830	6690	8210	9030	25560	9730	8160	2920	3230	12430	47080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1997, BY WATER YEAR (WY)

MEAN	119	99.7	170	177	241	320	220	143	60.4	65.0	142	154
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

GILA RIVER BASIN

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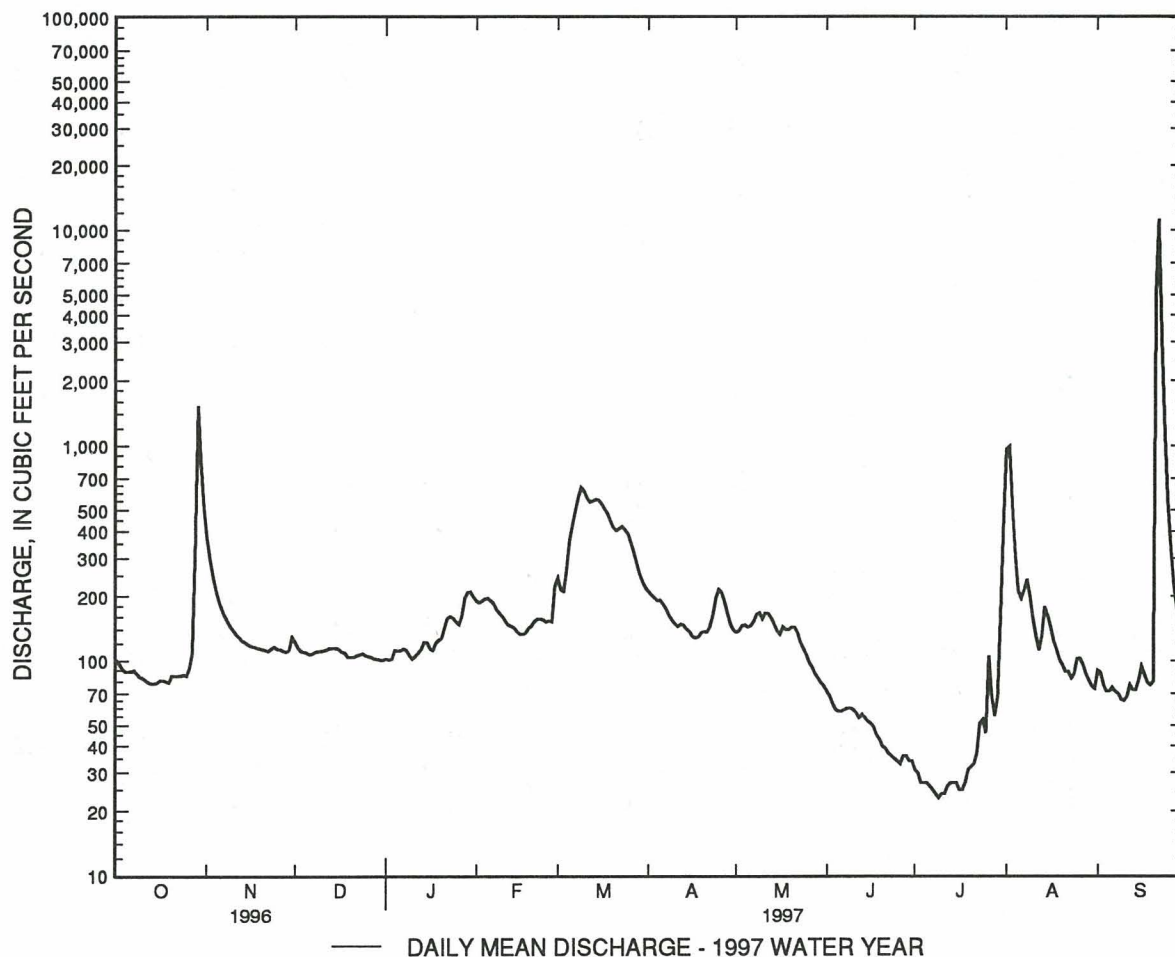
09430500 GILA RIVER NEAR GILA, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1928 - 1997	
ANNUAL TOTAL	38988		77032		160	
ANNUAL MEAN	107		211		477	1979
HIGHEST ANNUAL MEAN					47.8	1956
LOWEST ANNUAL MEAN						
HIGHEST DAILY MEAN	2160	Sep 15	11200	Sep 22	23400	Dec 28 1984
LOWEST DAILY MEAN	21	Jun 7	23	Jul 9	15	Jul 16 1971
ANNUAL SEVEN-DAY MINIMUM	22	Jun 20	25	Jul 6	16	Jul 14 1971
INSTANTANEOUS PEAK FLOW			18200	Sep 22	35200 ^a	Dec 28 1984
INSTANTANEOUS PEAK STAGE			11.18	Sep 22	13.00 ^b	Dec 28 1984
INSTANTANEOUS LOW FLOW			23	Jul 8	14	Jul 15 1971
ANNUAL RUNOFF (AC-FT)	77330		152800		115600	
10 PERCENT EXCEEDS	164		332		317	
50 PERCENT EXCEEDS	68		115		74	
90 PERCENT EXCEEDS	29		48		40	

e Estimated

a-From rating curve extended above 7,000 ft³/s on basis of slope-area measurement at gage height 12.5 ft; maximum gage height, 17.2 ft from floodmark, Sept. 29, 1941.

b-From floodmarks.



GILA RIVER BASIN

09430600 MOGOLLON CREEK NEAR CLIFF, NM

(Hydrologic bench-mark station)

LOCATION.--Lat 33°10'00", long 108°38'57", in SE¹/4SE¹/4 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 mi².

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	54	13	7.6	54	36	41	24	4.0	1.1	16	3.6
2	7.4	42	17	7.4	57	65	39	25	3.7	1.1	12	2.4
3	6.9	35	16	8.3	54	95	37	22	3.4	1.0	7.9	2.0
4	6.7	30	14	25	51	109	38	21	3.2	1.0	13	1.9
5	7.8	25	13	18	46	120	36	22	3.0	1.0	12	2.0
6	6.7	22	14	16	41	126	33	23	8.2	1.0	9.6	2.5
7	6.4	20	17	16	35	146	31	21	13	1.0	9.2	1.9
8	5.9	17	20	14	31	151	30	18	6.3	.87	8.7	2.0
9	5.6	15	22	19	28	139	31	16	4.8	.81	7.0	1.6
10	5.2	14	25	20	25	131	32	14	3.9	.81	5.5	1.4
11	5.0	13	24	24	23	130	33	14	4.0	.81	4.4	1.6
12	4.8	12	24	20	22	132	30	14	4.9	.81	4.2	1.5
13	4.6	12	22	23	21	130	27	12	3.7	.78	4.0	1.4
14	4.6	11	21	28	18	120	25	10	3.2	.65	9.8	1.4
15	7.3	11	19	22	17	114	24	9.6	2.8	.65	12	1.5
16	6.3	12	17	35	17	113	26	11	2.4	2.0	11	1.6
17	4.9	11	16	40	18	98	32	12	2.1	.70	8.4	1.3
18	4.5	9.9	18	52	21	93	33	11	1.8	.72	6.9	1.7
19	4.4	9.6	18	60	24	99	32	12	1.5	1.7	6.0	15
20	7.7	9.6	18	69	26	110	35	18	1.3	1.0	5.1	6.2
21	5.7	9.7	15	74	25	122	38	15	1.3	3.3	4.3	678
22	5.2	9.7	12	68	24	114	43	12	1.3	2.3	4.5	433
23	5.1	11	10	54	23	94	44	11	1.3	.88	5.7	126
24	5.0	10	9.3	45	23	76	38	9.9	1.3	.63	6.9	69
25	4.8	9.3	8.9	42	22	61	33	9.0	1.3	1.8	9.0	47
26	6.1	8.7	9.8	48	21	55	26	8.0	1.2	1.3	5.0	36
27	60	8.5	8.5	77	24	53	22	7.1	1.2	.75	4.0	29
28	514	9.5	8.2	74	28	44	19	6.4	1.1	4.1	3.5	24
29	272	12	7.9	61	---	41	21	5.7	1.1	24	3.5	20
30	117	13	7.7	51	---	41	22	5.0	1.1	15	3.0	17
31	73	---	7.7	48	---	42	---	4.5	---	17	2.9	---
TOTAL	1188.5	486.5	473.0	1166.3	819	3000	951	423.2	93.4	90.57	225.0	1533.5
MEAN	38.3	16.2	15.3	37.6	29.3	96.8	31.7	13.7	3.11	2.92	7.26	51.1
MAX	514	54	25	77	57	151	44	25	13	24	16	678
MIN	4.4	8.5	7.7	7.4	17	36	19	4.5	1.1	.63	2.9	1.3
AC-FT	2360	965	938	2310	1620	5950	1890	839	185	180	446	3040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1997, BY WATER YEAR (WY)

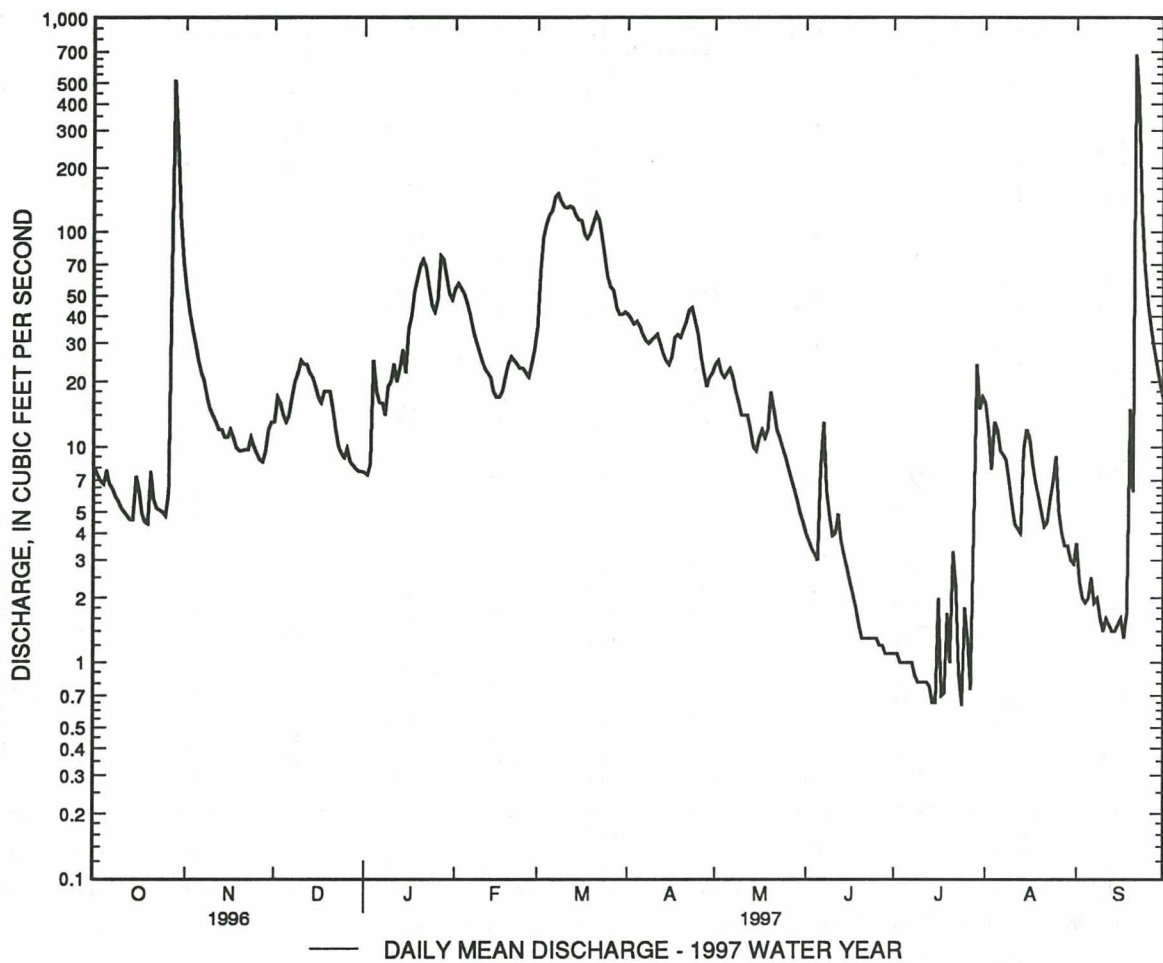
	MEAN	23.0	18.9	47.5	38.1	60.5	71.9	55.8	28.6	3.56	7.67	17.5	17.4
MAX	237	166	410	298	211	272	182	160	24.1	57.0	83.7	120	
(WY)	1973	1979	1979	1993	1968	1978	1973	1992	1992	1996	1996	1975	
MIN	.14	1.07	1.03	1.14	1.44	1.33	.90	.057	.000	.000	1.02	.34	
(WY)	1980	1971	1974	1971	1971	1971	1971	1996	1971	1980	1975	1987	

GILA RIVER BASIN

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09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1967 - 1997	
ANNUAL TOTAL	7442.66		10449.97		32.7	
ANNUAL MEAN	20.3		28.6		97.0	
HIGHEST ANNUAL MEAN					1.83	
LOWEST ANNUAL MEAN					6000	
HIGHEST DAILY MEAN	514	Oct 28	678	Sep 21	Dec 19 1978	
LOWEST DAILY MEAN	.00	May 8	.63	Jul 24	Jun 17 1967	
ANNUAL SEVEN-DAY MINIMUM	.00	May 8	.76	Jul 9	Jun 23 1967	
INSTANTANEOUS PEAK FLOW			1230	Sep 22	10800	
INSTANTANEOUS PEAK STAGE			5.97	Sep 22	13.70	
INSTANTANEOUS LOW FLOW			.53	Jul 24	.00	
ANNUAL RUNOFF (AC-FT)	14760		20730		23690	
10 PERCENT EXCEEDS	53		63		87	
50 PERCENT EXCEEDS	4.1		13		7.0	
90 PERCENT EXCEEDS	.00		1.4		.40	



GILA RIVER BASIN

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 mi².

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,090 ft above National Geodetic Vertical Datum of 1929, from plane table survey. Prior to Dec. 31, 1907, nonrecording gage at site 13.5 mi upstream at different datum. May 14, 1908, to July 16, 1909, nonrecording gage at site 0.2 mi downstream at different datum. June 13, 1980 to Feb. 23, 1983 at site 1,300 ft downstream at same datum.

REMARKS.--Water-discharge records good. Diversions for irrigation of about 5,000 acres upstream from station.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	169	453	143	107	227	498	361	230	78	38	610	62
2	155	381	137	107	227	427	352	219	77	36	979	59
3	139	342	131	104	233	428	339	222	73	36	703	55
4	130	308	127	108	237	482	336	229	74	36	487	48
5	123	295	123	113	237	582	328	227	67	28	342	45
6	123	272	121	117	234	675	307	214	67	24	328	42
7	126	256	117	118	230	746	303	212	60	32	238	42
8	126	255	117	116	220	830	313	215	69	37	239	41
9	117	223	117	121	211	915	297	233	76	39	276	38
10	98	211	119	125	202	933	283	234	72	37	201	36
11	95	202	119	122	195	863	280	227	65	29	157	36
12	105	214	116	123	189	801	282	224	61	36	121	36
13	104	204	116	125	183	782	284	235	63	41	171	58
14	104	193	116	133	175	781	259	201	65	42	160	42
15	108	174	114	135	167	763	234	187	62	44	185	78
16	113	180	105	134	161	716	226	183	60	46	161	52
17	114	171	105	132	160	684	246	185	58	46	131	52
18	114	169	114	132	160	654	251	183	57	47	108	52
19	119	163	112	145	174	602	252	183	53	52	111	56
20	127	150	110	157	174	562	256	188	52	53	99	59
21	130	141	107	176	181	544	259	198	47	64	92	4020
22	129	119	108	214	193	523	251	189	45	59	79	12700
23	118	128	109	216	208	527	254	172	35	45	76	3250
24	105	123	107	209	213	513	290	159	35	56	137	2050
25	102	133	109	194	220	480	313	149	44	64	80	1360
26	121	125	110	178	228	463	324	142	40	77	74	1020
27	143	125	109	184	237	440	311	121	42	108	74	824
28	308	129	106	233	339	432	264	109	44	132	68	663
29	1490	137	107	250	---	412	248	98	43	127	67	542
30	1030	143	107	245	---	388	240	91	41	222	62	451
31	612	---	107	233	---	374	---	85	---	346	108	---
TOTAL	6697	6119	3565	4806	5815	18820	8543	5744	1725	2079	6724	27869
MEAN	216	204	115	155	208	607	285	185	57.5	67.1	217	929
MAX	1490	453	143	250	339	933	361	235	78	346	979	12700
MIN	95	119	105	104	160	374	226	85	35	24	62	36
AC-FT	13280	12140	7070	9530	11530	37330	16950	11390	3420	4120	13340	55280

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1997, BY WATER YEAR (WY)

	208	156	348	332	431	503	310	198	62.3	75.4	212	247
MEAN	208	156	348	332	431	503	310	198	62.3	75.4	212	247
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

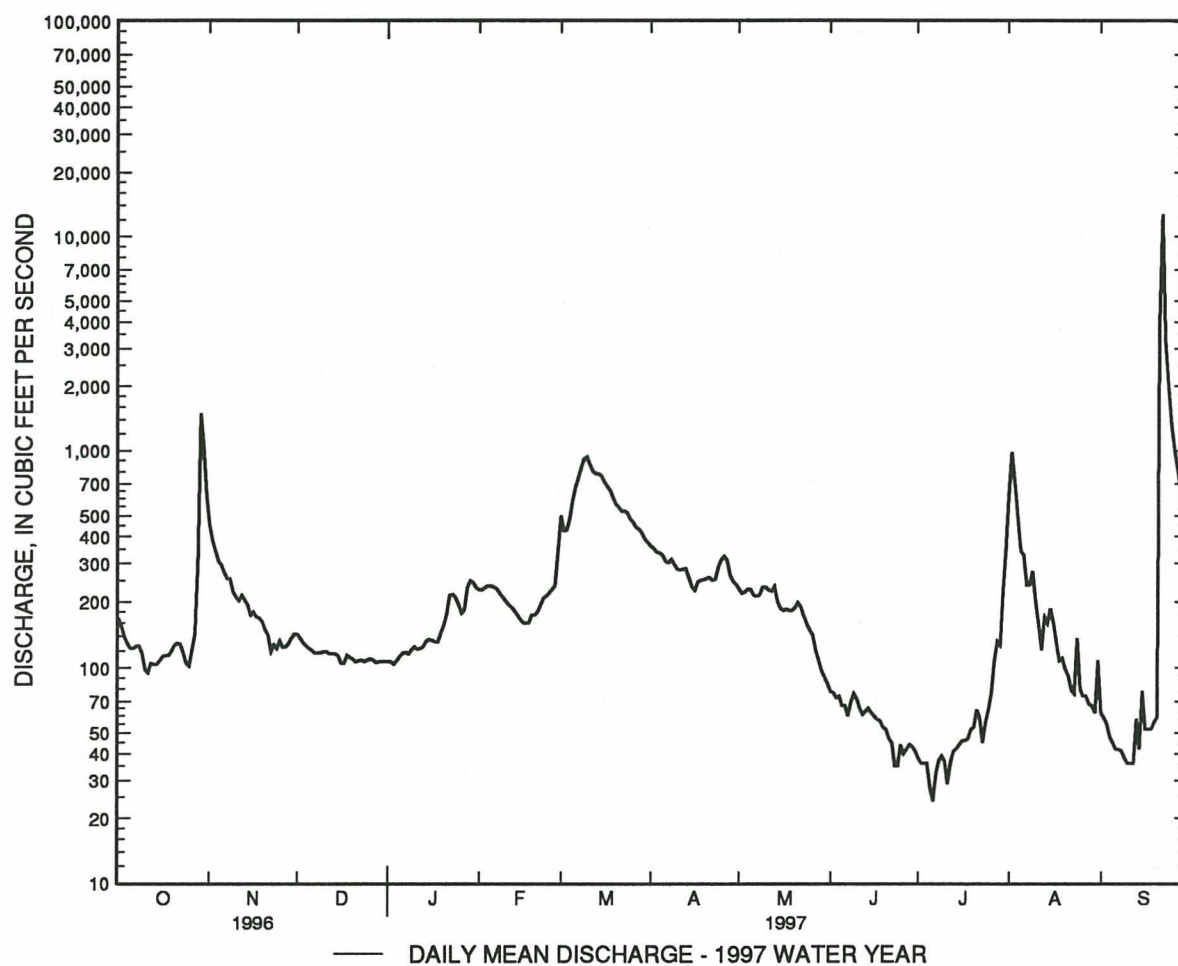
GILA RIVER BASIN

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09431500 GILA RIVER NEAR REDROCK, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1963 - 1997	
ANNUAL TOTAL	47834.1		98506		256	
ANNUAL MEAN	131		270		664	
HIGHEST ANNUAL MEAN					57.2	
LOWEST ANNUAL MEAN					34000	
HIGHEST DAILY MEAN	2260	Sep 15	12700	Sep 22	34000	Dec 19 1978
LOWEST DAILY MEAN	8.2	Jun 6	24	Jul 6	3.6	Jul 20 1978
ANNUAL SEVEN-DAY MINIMUM	14	Jun 2	32	Jul 5	4.9	Jul 16 1971
INSTANTANEOUS PEAK FLOW			16700	Sep 22	48800	Dec 19 1978
INSTANTANEOUS PEAK STAGE			15.71	Sep 22	29.80	Dec 19 1978
INSTANTANEOUS LOW FLOW			22	Jul 6	2.2	Aug 5 1947
ANNUAL RUNOFF (AC-FT)	94880		195400		185700	
10 PERCENT EXCEEDS	250		491		558	
50 PERCENT EXCEEDS	90		143		100	
90 PERCENT EXCEEDS	21		47		35	

e Estimated



GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	
NOV 1996												
05...	1530	299	310	8.1	23.5	16.5	9.4	656	5.8	69	<10	
JAN 1997												
09...	1500	131	363	8.3	5.0	12.0	4.3	661	15.1	162	<10	
FEB												
20...	1630	175	318	8.0	18.0	11.5	2.2	655	10.1	108	<10	
MAY												
15...	1400	191	302	8.5	22.0	22.0	33	654	--	--	<10	
JUN												
26...	1300	40	400	8.5	33.0	25.0	4.5	654	7.3	104	<10	
AUG												
08...	1030	234	304	7.6	27.5	22.5	--	--	--	--	--	
SEP												
05...	1100	48	378	8.7	29.5	21.5	10	661	7.9	104	<10	
DATE		COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)
NOV 1996												
05...	27	210	100	--	30	6.3	23	1	1.9	--	--	--
JAN 1997												
09...	K19	36	120	15	36	7.4	28	1	1.7	127	0	0
FEB												
20...	52	41	100	0	31	6.3	25	1	1.5	130	0	0
MAY												
15...	40	85	95	0	29	5.6	23	1	1.9	137	--	--
JUN												
26...	63	230	130	0	39	7.7	29	1	2.5	145	14	14
AUG												
08...	--	--	--	--	--	--	--	--	--	--	0	0
SEP												
05...	60	230	130	0	40	7.9	28	1	2.5	158	6	6
DATE		ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
NOV 1996												
05...	--	110	25	10	1.7	--	210	166	74	<0.010	0.490	0.490
JAN 1997												
09...	104	130	31	12	1.7	32	238	212	6	--	--	--
FEB												
20...	107	112	27	10	1.8	30	209	198	8	--	--	--
MAY												
15...	112	107	26	9.4	1.8	34	207	198	101	--	--	--
JUN												
26...	143	142	39	11	1.8	30	265	247	17	--	--	--
AUG												
08...	114	--	--	--	--	--	--	--	--	--	--	--
SEP												
05...	139	143	32	12	1.9	33	256	241	29	--	--	--

GILA RIVER BASIN

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09431500 GILA RIVER NEAR REDROCK, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01097)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)
NOV 1996											
05...	<0.010	0.35	0.090	0.060	--	<1	<1.0	1	1	16	<10
JAN 1997											
09...	--	<0.20	0.070	--	9.4	--	<1	1	2	15	--
FEB											
20...	--	<0.20	0.050	--	<10.0	--	<1	1	1	13	--
MAY											
15...	--	0.37	0.140	--	<10.0	--	<1	1	1	14	--
JUN											
26...	--	--	--	--	<10.0	--	<1	2	2	18	--
AUG											
08...	--	0.45	0.150	--	--	--	--	--	--	--	--
SEP											
05...	--	<0.20	0.050	--	19.0	--	<1	1	2	22	--
DATE	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)
NOV 1996											
05...	<0.50	30	34	<1	<1.0	<1	1.1	--	5	1.0	1100
JAN 1997											
09...	<0.5	--	44.0	--	<1	--	<5	<3	--	<10	--
FEB											
20...	<0.5	--	36.8	--	<1	--	<5	<3	--	<10	--
MAY											
15...	<0.5	--	38.4	--	<1	--	<5	<3	--	<10	--
JUN											
26...	<0.5	--	44.0	--	<1	--	<5	<3	--	<10	--
AUG											
08...	--	--	--	--	--	--	--	--	--	--	--
SEP											
05...	<0.5	--	47.6	--	<1	--	<5	<3	--	<10	--
DATE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
NOV 1996											
05...	8.0	2	<1.0	--	60	4.0	<0.10	0.1	--	<100	<10
JAN 1997											
09...	<3	--	<10	19	--	2	<0.1	<0.1	<10	--	<10
FEB											
20...	<3	--	<100	18	--	<4	<0.1	<0.1	<10	--	<10
MAY											
15...	<3	--	<100	18	--	<4	<0.1	<0.1	<10	--	<10
JUN											
26...	<3	--	<100	20	--	<4	<0.1	<0.1	<10	--	<10
AUG											
08...	--	--	--	--	--	--	--	--	--	--	--
SEP											
05...	<10	--	<100	22	--	5	<0.1	<0.1	<10	--	<10

GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1996										
05...	<1	<1	<1.0	--	--	<10	<3.0	85	69	50
JAN 1997										
09...	--	<1	<1	160	<6	--	<3	26	9.2	83
FEB										
20...	--	<1	<1	130	<6	--	<3	27	13	78
MAY										
15...	--	<1	<1	130	<10	--	<20	156	80	85
JUN										
26...	--	<1	<1	180	<10	--	<3	46	5.0	90
AUG										
08...	--	--	--	--	--	--	--	--	--	--
SEP										
05...	--	<1	<1	170	<10	--	<20	40	5.2	85

455

LOCATION.--Lat 32°38'53", long 108°50'43", in SE¹/4SW¹/4 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.

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.

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.

AVERAGE DISCHARGE.--70 (water years 1928-97), 216 ft³/s, 155,500 acre-ft/yr; median of yearly mean discharges, 150 ft³/s, 109,000 acre-ft/yr.

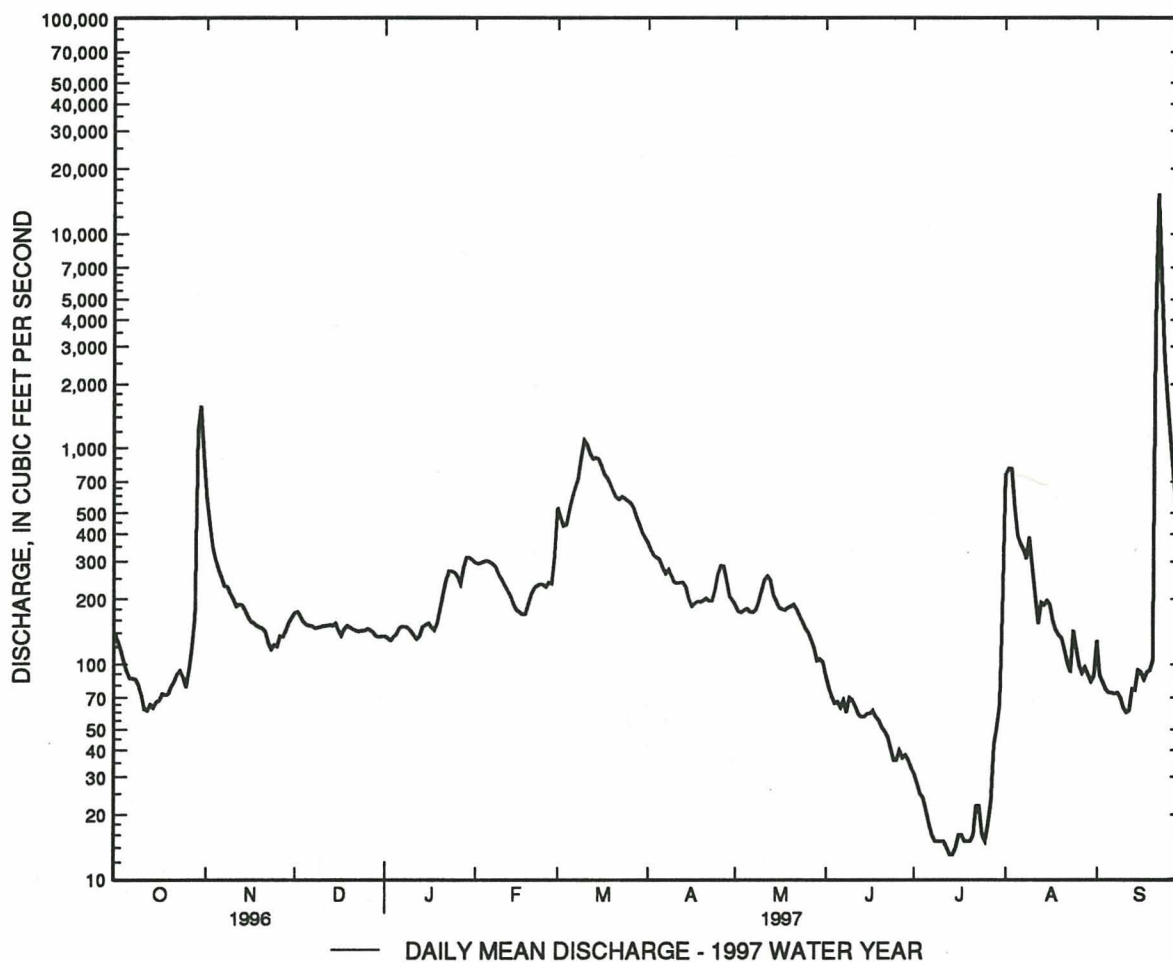
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	593	173	135	296	527	362	188	88	31	755	129
2	128	442	175	132	293	476	337	176	78	28	806	89
3	116	348	166	129	296	436	319	174	71	25	801	83
4	103	305	157	134	300	441	313	178	66	24	533	77
5	93	276	152	138	302	514	307	181	67	21	395	74
6	86	253	151	147	298	589	280	175	63	18	361	74
7	86	230	150	150	291	655	264	174	68	16	341	73
8	85	229	147	150	283	721	275	178	60	15	309	74
9	80	212	148	147	261	893	257	194	70	15	388	70
10	72	200	149	142	247	1090	240	219	68	15	284	63
11	62	185	151	136	232	1040	237	246	64	15	205	60
12	61	189	151	131	218	942	239	257	59	14	154	61
13	65	188	152	135	207	891	239	e246	57	13	193	77
14	63	178	151	149	190	902	228	210	57	13	188	76
15	67	166	155	152	178	891	199	196	59	14	197	94
16	68	158	143	155	175	826	186	183	59	16	189	92
17	73	155	136	148	170	755	191	180	61	16	159	85
18	72	151	146	144	170	725	195	178	57	15	144	92
19	73	148	151	155	189	675	194	183	55	15	137	94
20	79	147	148	179	211	629	197	e185	51	15	133	104
21	83	141	145	210	225	592	202	e189	49	16	116	4080
22	90	125	143	244	231	579	196	e180	46	22	101	15300
23	93	117	142	271	235	596	197	e168	41	22	92	6130
24	87	123	143	270	234	582	221	e158	36	16	144	2680
25	78	121	143	266	228	569	261	e147	36	15	119	1710
26	93	135	146	255	239	556	287	e140	40	18	99	1120
27	119	134	144	235	236	529	285	e130	37	23	91	748
28	168	143	140	280	315	479	243	e119	38	42	97	528
29	1210	156	135	313	---	442	206	e104	36	51	90	396
30	1580	165	134	312	---	405	198	e106	33	65	83	315
31	936	---	135	305	---	383	---	102	---	192	88	---
TOTAL	6208	6113	4602	5849	6750	20330	7355	5444	1670	836	7792	34648
MEAN	200	204	148	189	241	656	245	176	55.7	27.0	251	1155
MAX	1580	593	175	313	315	1090	362	257	88	192	806	15300
MIN	61	117	134	129	170	383	186	102	33	13	83	60
AC-FT	12310	12130	9130	11600	13390	40320	14590	10800	3310	1660	15460	68720
CFSM	.06	.06	.05	.06	.08	.20	.08	.05	.02	.01	.08	.36
IN.	.07	.07	.05	.07	.08	.24	.09	.06	.02	.01	.09	.44

MEAN	161	131	254	319	366	429	270	152	51.3	74.6	203	208
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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1932 - 1997	
ANNUAL TOTAL	58536.7		107597		213	
ANNUAL MEAN	160		295		746	
HIGHEST ANNUAL MEAN					43.1	
LOWEST ANNUAL MEAN					1.7	
HIGHEST DAILY MEAN	3650	Sep 15	15300	Sep 22	33100	Dec 19 1978
LOWEST DAILY MEAN	7.3	Jun 20	13	Jul 13	29	Jul 11 1956
INSTANTANEOUS PEAK FLOW			19300		58700 ^a	
INSTANTANEOUS PEAK STAGE			14.91		2.0	
ANNUAL SEVEN-DAY MINIMUM	8.0	Jun 18	14	Jul 9	2.0	Sep 26 1956
ANNUAL RUNOFF (AC-FT)	116100		213400		154100	
ANNUAL RUNOFF (CFSM)	.050		.092		.066	
ANNUAL RUNOFF (INCHES)	.68		1.25		.90	
10 PERCENT EXCEEDS	268		531		460	
50 PERCENT EXCEEDS	106		154		92	
90 PERCENT EXCEEDS	23		44		22	

e Estimated

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

GILA RIVER BASIN

457

09442680 SAN FRANCISCO RIVER NEAR RESERVE, NM

LOCATION.--Lat 33°44'12", long 108°46'14", in NE¹/4NW¹/4SE¹/4 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 mi², approximately.

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

REVISED RECORDS.--WDR NM-78-1: 1977. WDR NM-84-1: 1973, 1979-80.

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 15 ft, as determined in 1962 from old floodmarks. Major floods of Nov. 26, 1905 and Dec. 3, 1906, exceeded 20,000 ft³/s at Alma (downstream). See WSP 1313.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	18	9.4	6.9	22	26	20	7.4	6.2	.83	2.1	7.5
2	4.5	16	9.6	6.7	23	24	19	7.0	11	.58	.91	7.8
3	4.6	14	8.9	9.0	23	28	17	7.1	5.0	.79	4.2	7.0
4	67	14	7.6	9.3	23	35	20	6.9	4.9	.54	6.7	5.9
5	71	13	7.8	9.0	23	43	20	5.0	3.2	.33	8.7	6.2
6	10	15	9.6	8.7	21	55	18	5.5	3.1	.51	11	6.5
7	5.5	15	11	12	18	81	16	4.8	27	.89	3.2	6.1
8	4.0	14	9.6	10	18	143	14	4.7	42	1.1	2.9	7.4
9	3.2	12	9.0	11	16	176	13	5.8	31	.77	3.3	6.6
10	2.4	12	9.0	10	15	185	12	8.5	22	.79	3.4	9.5
11	2.1	12	9.3	9.4	12	193	9.6	9.5	7.1	.72	4.0	7.0
12	1.8	11	9.1	10	14	223	11	9.5	6.3	.58	18	9.1
13	2.1	11	9.1	10	15	232	11	6.3	10	.81	19	7.9
14	2.7	12	8.9	11	13	239	11	6.7	8.2	.65	2.0	7.9
15	2.7	12	7.6	10	12	228	10	6.6	7.5	.38	.45	9.3
16	2.7	11	5.1	10	12	204	8.0	14	7.1	.38	.45	13
17	2.6	9.8	8.5	11	12	188	9.2	27	3.5	.29	.47	12
18	2.1	9.8	5.3	10	13	148	9.4	29	1.6	.24	.74	9.8
19	2.1	9.1	5.7	11	14	122	9.1	23	1.1	.38	.75	9.1
20	3.1	8.7	6.5	11	16	108	9.6	24	.92	.77	.76	9.0
21	4.1	9.1	7.1	12	18	101	9.2	28	1.1	.79	.98	66
22	3.1	8.8	7.9	14	20	90	12	28	3.1	1.8	.87	49
23	2.7	11	8.1	14	20	79	9.4	23	3.3	2.7	1.9	28
24	2.7	9.6	9.0	14	19	e69	8.1	24	2.8	1.3	2.8	20
25	3.4	7.9	8.2	10	20	e61	6.5	27	.65	.89	14	17
26	6.9	8.9	7.8	15	21	55	8.0	21	1.2	1.2	5.9	15
27	27	8.4	8.1	24	23	47	8.1	14	1.3	1.1	4.5	14
28	217	8.3	8.2	24	24	38	7.7	15	2.2	1.4	3.9	15
29	81	9.9	8.8	23	---	30	7.8	11	1.9	2.1	4.3	15
30	26	10	8.8	21	---	25	7.2	10	1.4	4.3	5.5	12
31	18	---	9.0	20	---	22	---	9.2	---	15	6.9	---
TOTAL	592.7	341.3	257.6	387.0	500	3298	350.9	428.5	227.67	44.91	144.58	415.6
MEAN	19.1	11.4	8.31	12.5	17.9	106	11.7	13.8	7.59	1.45	4.66	13.9
MAX	217	18	11	24	24	239	20	29	42	15	19	66
MIN	1.8	7.9	5.1	6.7	12	22	6.5	4.7	.65	.24	.45	5.9
AC-FT	1180	677	511	768	992	6540	696	850	452	89	287	824

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1997, BY WATER YEAR (WY)

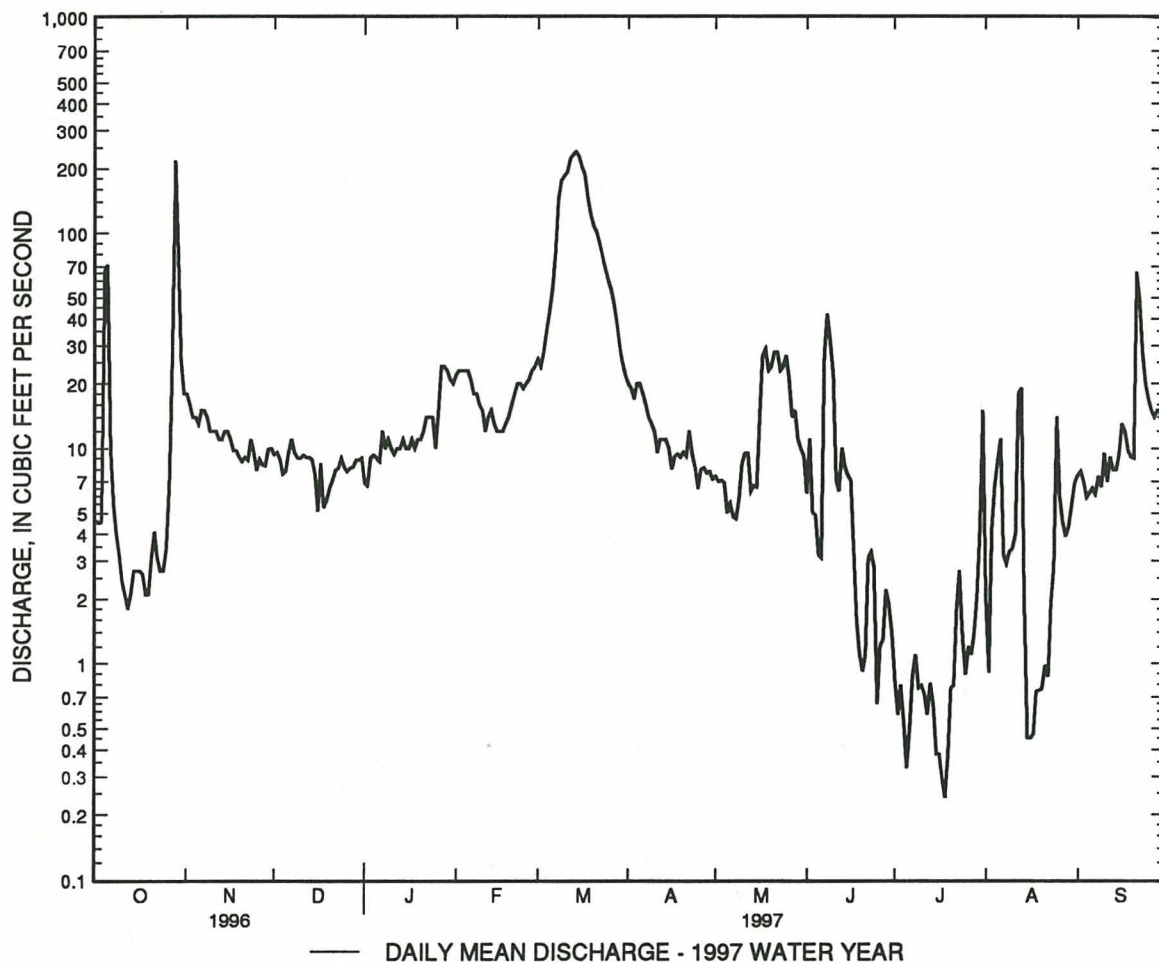
	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
MEAN	29.8	19.4	21.3	22.0	41.1	79.5	54.1	20.1	6.62	8.51	15.9	18.8
MAX	430	211	159	159	231	336	398	162	39.7	28.3	79.2	172
(WY)	1984	1979	1979	1993	1993	1985	1973	1973	1992	1967	1967	1983
MIN	3.27	5.18	5.11	5.68	5.14	4.04	3.38	2.70	1.39	1.34	4.55	3.09
(WY)	1983	1976	1978	1970	1964	1959	1967	1959	1990	1995	1961	1959

GILA RIVER BASIN

09442680 SAN FRANCISCO RIVER NEAR RESERVE, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1959 - 1997
ANNUAL TOTAL	2832.11	6988.76	28.4
ANNUAL MEAN	7.74	19.1	101
HIGHEST ANNUAL MEAN			5.94
LOWEST ANNUAL MEAN			1973
HIGHEST DAILY MEAN	217 Oct 28	239 Mar 14	5000 Oct 20 1972
LOWEST DAILY MEAN	.82 Jul 19	.24 Jul 18	.24 Jul 18 1997
ANNUAL SEVEN-DAY MINIMUM	.90 Jul 21	.44 Jul 14	.44 Jul 14 1997
INSTANTANEOUS PEAK FLOW		1780 Oct 4	9830 Oct 1 1983
INSTANTANEOUS PEAK STAGE		4.12 Oct 4	11.71 Oct 1 1983
INSTANTANEOUS LOW FLOW			.69 Jul 24 1995
ANNUAL RUNOFF (AC-FT)	5620	13860	20580
10 PERCENT EXCEEDS	11	28	56
50 PERCENT EXCEEDS	6.4	9.3	8.6
90 PERCENT EXCEEDS	2.1	1.2	3.5

e Estimated



09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM

LOCATION.--Lat 33°14'48", long 108°52'47", in NE¹/4NW¹/4 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 mi².

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

REVISED RECORDS.--WSP 1213: 1931, 1934, 1936-37, 1940-42, 1943-44(M), 1945-47. WSP 1283: Drainage area. WDR NM-78-1: 1977. WDR NM-79-1: 1973, 1975-77 (P).

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

REMARKS.--Records fair. Diversions for irrigation of about 2,000 acres upstream from station. Gage height and rain gage satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916 when discharges of 60,000 ft³/s or greater were computed for station at Clifton, AZ. On Nov. 26, 1905, a peak of 25,000 ft³/s was measured (by float-area method) at station at Alma (about 12 mi upstream, drainage area, 1,560 mi²); a similar measurement of 21,000 ft³/s was made at the Alma station for peak of Dec. 3, 1906.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	184	43	30	75	87	99	51	24	18	12	22
2	22	138	42	32	73	78	92	55	24	17	17	24
3	27	110	40	33	72	81	85	52	23	16	33	24
4	26	89	39	32	70	107	89	57	25	17	66	22
5	27	77	37	33	72	143	91	56	30	15	56	22
6	32	68	36	38	76	140	89	59	32	17	86	20
7	42	58	34	39	75	144	82	66	52	16	24	17
8	37	53	34	37	71	148	76	67	77	15	19	15
9	32	50	35	37	67	154	77	61	57	14	17	15
10	28	46	35	35	61	176	74	59	45	15	15	17
11	25	40	35	36	60	182	72	62	32	15	15	22
12	28	37	34	38	55	191	72	64	36	13	15	18
13	27	35	34	41	52	194	67	54	31	13	17	18
14	26	35	34	43	49	201	62	47	30	13	37	16
15	26	36	33	45	48	202	62	45	27	12	48	13
16	25	38	34	42	46	205	48	44	23	11	33	13
17	26	35	33	39	46	211	50	54	25	10	25	13
18	25	33	32	38	47	206	44	54	25	11	22	13
19	24	34	30	38	46	205	36	51	24	12	19	13
20	26	34	29	38	45	195	35	54	25	13	16	12
21	24	33	30	39	45	188	34	53	24	11	19	236
22	24	34	32	40	46	172	38	46	24	13	24	218
23	23	36	31	41	49	183	56	40	27	11	23	79
24	23	34	29	42	49	199	65	42	24	10	42	52
25	24	35	28	43	55	203	65	35	25	10	27	30
26	27	37	28	44	59	184	61	29	23	12	28	20
27	30	36	28	70	61	169	55	29	21	12	22	14
28	152	37	29	97	91	146	46	28	21	12	20	11
29	214	42	30	87	---	126	47	26	20	13	21	8.4
30	207	43	31	83	---	113	52	24	18	13	20	8.2
31	190	---	30	80	---	105	---	23	---	12	21	---
TOTAL	1488	1597	1029	1410	1661	5038	1921	1487	894	412	859	1025.6
MEAN	48.0	53.2	33.2	45.5	59.3	163	64.0	48.0	29.8	13.3	27.7	34.2
MAX	214	184	43	97	91	211	99	67	77	18	86	236
MIN	19	33	28	30	45	78	34	23	18	10	12	8.2
AC-FT	2950	3170	2040	2800	3290	9990	3810	2950	1770	817	1700	2030

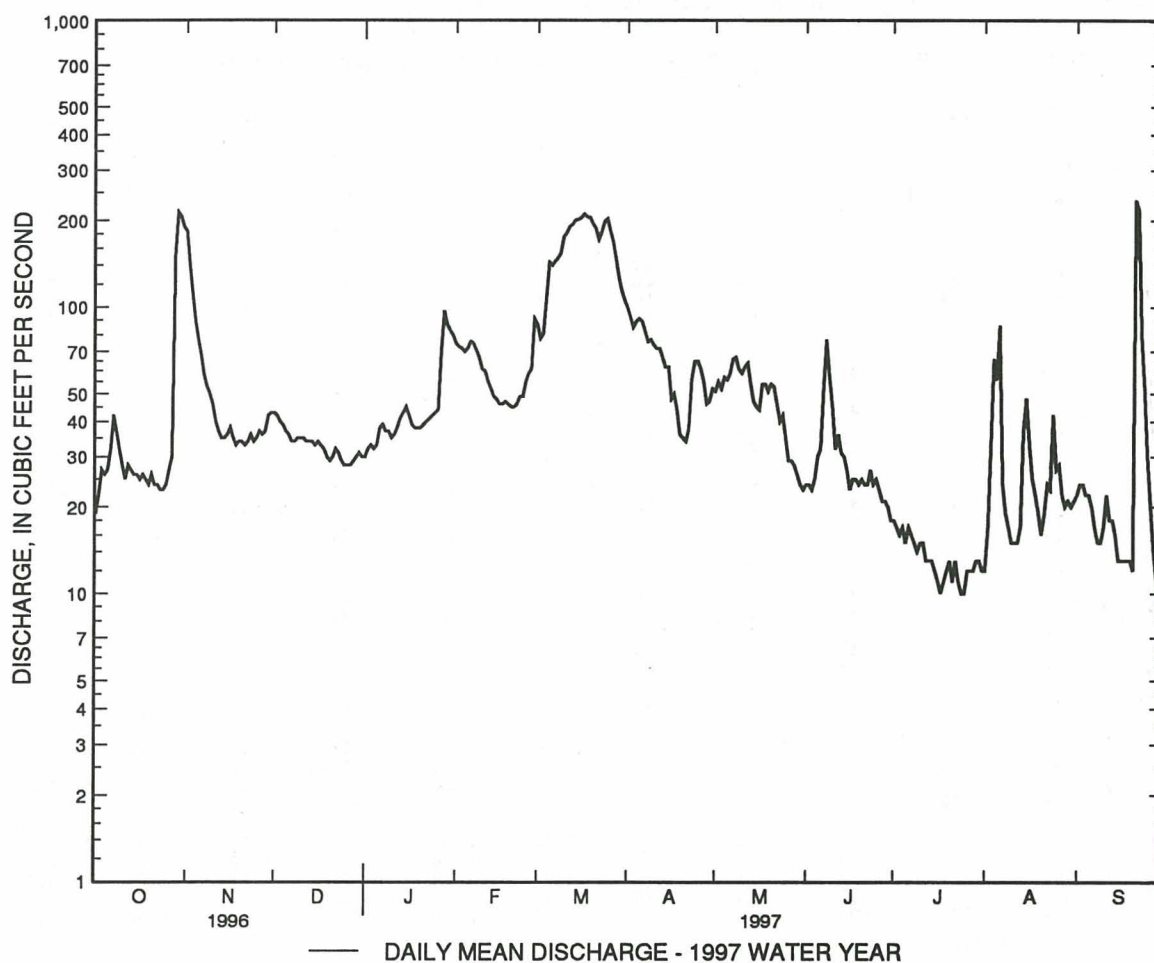
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1997, BY WATER YEAR (WY)

	MEAN	85.3	49.8	87.9	102	131	197	144	77.1	28.9	37.6	76.3	58.7
MAX	2026	520	1068	1568	1034	1036	1049	593	146	108	392	368	
(WY)	1984	1979	1979	1993	1993	1985	1973	1973	1992	1930	1957	1988	
MIN	9.77	10.8	12.9	13.5	14.9	11.3	10.3	8.65	5.70	13.2	13.7	7.66	
(WY)	1966	1957	1954	1956	1956	1959	1957	1956	1956	1963	1960	1956	

GILA RIVER BASIN

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM -- Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1928 - 1997	
ANNUAL TOTAL	13116		18821.6		89.5	
ANNUAL MEAN	35.8		51.6		13.9	1979
HIGHEST ANNUAL MEAN					351	1956
LOWEST ANNUAL MEAN					2.5	1956
HIGHEST DAILY MEAN	369	Aug 10	236	Sep 21	27500	Oct 2 1983
LOWEST DAILY MEAN	11	Jun 2	8.2	Sep 30	3.9	Jun 25 1956
ANNUAL SEVEN-DAY MINIMUM	12	Jun 1	11	Jul 21	37100	Jun 22 1956
INSTANTANEOUS PEAK FLOW			792	Sep 21	18.15	Oct 2 1983
INSTANTANEOUS PEAK STAGE			3.37	Sep 21	1.5	Oct 2 1983
INSTANTANEOUS LOW FLOW			6.1	Sep 29		Dec 3 1906
ANNUAL RUNOFF (AC-FT)	26020		37330		64850	
10 PERCENT EXCEEDS	50		106		174	
50 PERCENT EXCEEDS	32		36		32	
90 PERCENT EXCEEDS	16		15		15	



07 LOWER MISSISSIPPI RIVER BASIN NUMBER 4051▲CREST-STAGE STATION AND ABBREVIATED NUMBER--
Complete national station number is: 08 405100
08 WESTERN GULF OF MEXICO BASIN NUMBER
Basin number + station number

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

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 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
ARKANSAS RIVER BASIN								
Carrizozo Creek near Kenton, OK. (07154400)	Lat 36°52'55", long 103°01'05", Union County, Hydrologic Unit 11040001, under bridge on New Mexico State Highway 406; 4 mi southwest of Kenton, OK. Drainage area is 111 mi ² .	1953-	08-21-97	7.31	4,250	07-06-58	12.22	15,600
Trementina Creek at Trementina. (07222300)	Lat 35°29'28", long 104°24'59", San Miguel County, Hydrologic Unit 11080005, at bridge on State Highway 419; at Trementina. Drainage area is 63.9 mi ² .	1959-	08-21-97	6.98	5,830	09-11-65	12.00	14,100
Carrizo Creek near Roy. (07226300)	Lat 36°02'58", long 103°57'48", Harding County, Hydrologic Unit 11080007, 800 ft down- stream from State Highway 120, and 15 mi northeast of Roy. Drainage area is a68 mi ² .	1954-	08-21-97	5.20	783	08-11-81	7.1	11,800
Tramperos Creek near Stead. (07227200)	Lat 36°04'15", long 103°12'10", in NW ¹ / ₂ NW ¹ / ₂ sec.10, T.21 N., R.35 E., Union County, Hydrologic Unit 11090102, at bridge on State Highway 402, 2.1 mi south of Stead, and 26 mi south of Clayton. Drainage area is a556 mi ² .	1966-73* 1974-	08-05-97	5.29	352	10-17-65	16.5	12,300
BRAZOS RIVER BASIN								
Blackwater Draw tributary near Floyd. (08079300)	Lat 34°14'52", long 103°44'51", Roosevelt County, Hydrologic Unit 12050001, 0.5 mi down- stream from section road, and 10 mi west of Floyd. Drainage area is a10 mi ² .	1963-	08-11-97	1.70	130	- -69	5.96	3,400

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum		Period of record maximum		Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
			Date		Date							
BRAZOS RIVER BASIN -- Continued												
Running Water Draw near Clovis. (08080600)	Lat 34°31'55", long 103°12'05", Curry County, Hydrologic Unit 12050005, 0.25 mi upstream from State Highway 209; and 8 mi north of Clovis. Drainage area is 109 mi ² .	1953-56 1957-64* 1965-	-	-97	---	k	07-24-72	---	8,000			
RIO GRANDE BASIN												
Canjilon Creek above Abiquiu Reservoir. (08286650)	Lat 36°18'55", long 106°29'05", Rio Arriba County, Hydrologic Unit 13020102, in Piedra Lumbre Grant, 300 ft upstream from bridge on U.S. Highway 84, 0.2 mi northwest of entrance to Ghost Ranch and about 12 mi northwest of Abiquiu. Drainage area is 144 mi ² .	1965-	05-17-97	4.53	478	07-10-90	5.66	689				
Bland Canyon near Cochiti Pueblo. (08313400)	Lat 35°42'11", long 106°24'56", Sandoval County, Hydrologic Unit 13020201, 200 ft south of Forest Service Road, 0.3 mi inside Santa Fe National Forest, and 7.5 mi north of Cochiti Pueblo. Drainage area is 7.57 mi ² .	1962-	04-24-97	3.13	139	08-10-85	3.54	243				
Capulin Canyon above Ranger Cabin, Bandelier National Monument (08313365)	Lat 35°46'36", long 106°21'00", Sandoval County, Hydrologic Unit 13020201, about .4 mi ² downstream from west park boundary, 2.25mi ² upstream from Ranger cabin. Drainage area is 6.5mi ² .	1996-	09-07-97	9.52	310	09-02-96	13.66	3,020				
Capulin Canyon at Ranger Cabin, Bandelier National Mounument (083133655)	Lat 35°45'28", long 106°19'46", Sandoval County Hydrologic Unit 13020201, at Ranger cabin, Drainage area is 8.3 mi ² .	1997-	09-03-97	7.20	220	09-03-97	7.20	220				
Capulin Canyon below Ranger Cabin, Bandelier National Mounument (08313366)	Lat 35°45'21", long 106°19'36", Sandoval County Hydrologic Unit 13020201, about .25 mi downstream from Ranger cabin, Drainage area is 8.4 mi ² .	1996-	09-07-97	<4.62	<300	06-26-96	9.30	2,700				
Capulin Canyon below Painted Cave, Bandelier National Mounmnet (08313368)	Lat 35°44'21", long 106°19'09", Sandoval County, Hydrologic Unit 13020201, about .25 mi downstream from Ranger cabin, and 2.25 mi upstream from mouth. Drainage area is 31.9 mi ² .	1996-	09-07-97	4.21	380	06-26-96	7.90	3,630				
San Cristobal Arroyo near Galisteo. (08317600)	Lat 35°22'55", long 105°51'05", Santa Fe County, Hydrologic Unit 13020201, at bridge on U.S. Highway 285, 5.5 mi east of Galisteo. Drainage area is 116 mi ² .	1955-	09-21-97	9.16	3,790	08-17-61	13.34	9,500				

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
RIO GRANDE BASIN -- Continued								
San Pedro Creek near Golden. (08318900)	Lat 35°13'45", long 106°47'45", Sandoval County, Hydrologic Unit 13020201, 1 mi downstream from bridge on State Highway 14 and 5.5 mi southwest of Golden. Drainage area is 45.2 mi ² .	1953-	09-21-97	1.13	820	09-24-55	12.45	10,800
Tijeras Arroyo at Albuquerque. (08330500)	Lat 35°03'40", long 106°28'40", Bernalillo County, Hydrologic Unit 13020203, 300 ft south of old U.S. Highway 66, and 0.4 mi southeast of city limits of Albuquerque. Drainage area is 75.3 mi ² .	1943-48* 1958-	10-04-96	2.38	685	06-24-67	6.85	6,500
Canada Montoso near Scholle. (08331650)	Lat 34°23'11", long 106°28'37", Socorro County, Hydrologic Unit 13020203, 130 ft upstream from dip on abandoned highway, 500 ft upstream from bridge on U.S. Highway 60, and 3.6 mi southwest of Scholle. Drainage area is 35 mi ² .	1961-	07-31-97	7.47	5,600	08-09-67	7.02	4,700
Rio Puerco at Cuba (08332525)	Lat 36°38'00", long 106°58'48", Sandoval County, Hydrologic Unit 1302024, on downstream side of bridge of State Road 197, 0.50 mi to southwest of State Highway 44, and 1.0 mi southwest of Cuba.	1997	06-06-97	11.04	2,730	06-06-97	11.04	2,730
La Jencia Creek near Magdalena. (08353500)	Lat 34°09'45", long 107°12'35", Socorro County, Hydrologic Unit 13020209, 3.5 mi north- east of Magdalena. Drainage area is 195 mi ² .	1957-	07-31-97	1.92	700	09- -62	10.85	4,830
Alamosa Creek near Monticello. (08360000)	Lat 33°34'09", long 107°35'33", Socorro County, Hydrologic Unit 13020211, on left bank at Alamosa damsite and downstream from Old Fort Ojo Caliente, just downstream from Wildhorse Creek, 15 mi northwest of Monticello. Drainage area is 403 mi ² .	1931-42* 1956-58 1958-71* 1973-95g 1997-	09-22-97	6.46	2,300	08-13-64	14.04	10,800
Tecolote Creek at Tecolote. (08379300)	Lat 35°27'20", long 105°16'55", San Miguel County, Hydrologic Unit 13060001, on bridge on old U.S. Highway 85 at Tecolote. Drainage area is 122 mi ² .	1954-	- - 97	<4.87	<322	08-17-61	12.92	12,300
Pintada Arroyo near Santa Rosa. (08383300)	Lat 34°53'20", long 104°43'50", Guadalupe County, at bridge on U.S. Highway 54, and 4.5 miles southwest of Santa Rosa. Drainage area is 896 mi ² .	1959-86 1996-	09-09-97	9.51	1,600	06-26-96	12.97	5,000

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
RIO GRANDE BASIN -- Continued								
Yeso Creek near Fort Sumner. (08385600)	Lat 34°16'32", long 104°17'28", De Baca County, Hydrologic Unit 13060003, at abandoned bridge 1 mi downstream from State Highway 20, and 14.5 mi south of Fort Sumner. Drainage area is 242 mi ² .	1937-95 1997-	06-08-97	6.31	3,700	10-07-54	11.60	14,800
Rio Bonito near Fort Stanton. (08389000)	Lat 33°31'05", long 105°29'10", Lincoln County, Hydrologic Unit 13060008, at bridge on U.S. Highway 380, 2.5 mi northeast of Fort Stanton. Drainage area is 85 mi ² .	1955-95 1997-	04-12-97	4.57	560	05-17-79	7.20	4,100
North Spring River at Roswell. (08393600)	Lat 33°23'47", long 105°32'53", Chavez County, Roswell Municipal Golf Course, 2,400 ft upstream from Montana Ave in Roswell. Drainage area is 19.5 mi ² .	1958-86 1997-	05-21-97	4.97	(+)	05-03-81	3.50	95
Rio Penasco near Dunken. (08397600)	Lat 33°52'55", long 105°10'40", Chavez County, Hydrologic Unit 13060010, on bridge on State Highway 24, 5 mi north of Dunken. Drainage area is 583 mi ² .	1952-56 1956-62* 1963-95 1997-	- -97	<5.75	<62	07-06-58	13.36	10,200
Eight Mile Draw near Roswell. (08393900)	Lat 33°24'05", long 104°37'54", Chavez County, Hydrologic Unit 13060008, 6.5 mi west of Roswell. Drainage area is 397 mi ² .	1941 1952-	05-21-97	3.22	360	07-13-91	17.80	10,300
Mosley Canyon near Whites City. (08405100)	Lat 32°15'27", long 104°22'43", Eddy County, Hydrologic Unit 13060011, 600 ft downstream from dip on Dark Canyon Road, and 5.5 mi north of Whites City. Drainage area is 14.6 mi ² .	1959- ---	- -97	---	(k)	05-30-65	13.70	16,400
MIMBRES BASIN								
Mimbres River at Deming. (08478500)	Lat 32°17'00", long 107°45'35", Luna County, Hydrologic Unit 13030202, culvert on U.S. Highway 180, at north end of Deming. Drainage area is 1,370 mi ² .	1954-79 1983-	09-22-97	6.23	670	10-20-72	6.68	2,690

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
TULAROSA BASIN								
White Oaks Canyon near Carrizozo. (08480150)	Lat 33°43'51", long 105°50'11", Lincoln County, Hydrologic Unit 13050003, 100 ft upstream from culvert on U.S. Highway 54, 6 mi north of Carrizozo. Drainage area is 31 mi ² .	1959- 1961-	09-22-97	4.13	1,580	07-26-59	14.30	7,690
SAN JUAN RIVER BASIN -- Continued								
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-	- -97	<1.62	<42	08-02-65	10.37	2,520
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-	- -97	<2.84	<242	09-02-88	8.55	1,920
GILA RIVER BASIN								
Duck Creek at Cliff. (09430900)	Lat 32°58'03", long 108°36'36", Grant County, Hydrologic Unit 15040002, at Cliff 100 ft downstream from bridge on State Highway 211, and 0.6 mi upstream from mouth. Drainage area is 228 mi ² .	1957-	09-22-97	2.99	1,160	01-18-93	11.76	7,400
Mangas Creek near Cliff. (09431130)	Lat 32°51'39", long 108°34'01", Grant County, Hydrologic Unit 15040002, on right bank, about 0.5 mi upstream of U.S. Forest Service Road 806, in close proximity to Bill Evans Lake, 7 mi south of Cliff. Drainage area is	1986-	09-22-97	9.49	720	09-07-90	5.04	1,400

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES
Annual maximum discharge at crest-stage partial-record stations

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Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)

GILA RIVER BASIN -- Continued

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-	- -97	---	(k)	10-13-74	7.78	3,400
Tularosa River near Reserve (09442740)	Lat 33°44'00", long 108°52'15", Catron County, 150 ft west of Eagle Peak Lookout road and 3.3 mi northeast of Reserve. Drainage area is 426 mi ² .	1956-87 1997-	09-20-97	4.71	5.30	10-02-83	9.80	3,020

- < Less than.
- + Discharge not yet determined.
- * Operated as continuous-record gaging station.
- a Approximately.
- b Peak too low to register on gage.
- c Estimated.
- d From floodmark.
- e Gage height not determined.

- f Contributing area.
- g Discontinued at end of year.
- h Revised.
- j May not have been peak for year.
- k No evidence of any flow during water year.
- m No record.
- n Correction.

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

Discharge Measurements Made at Miscellaneous Sites during Water Year 1997

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Discharge (ft ³ /s)
ARKANSAS BASIN						
Conchas Canal 07223300	Canadian River	Lat 35°22'51", long 104°10'58", in San Miguel County, Hydrologic Unit 11080006, in Pablo Montoya Grant, in Conchas Canal Operations building downstream from Conchas Dam, and 21.5 mi north of New Kirk.	---	1997	10-15-96 01-23-97 02-18-97 03-17-97 04-21-97 05-21-97 08-21-97	194 0.75 0.20 0.22 1.6 148 120
RIO GRANDE BASIN						
La Cienega Stream	Santa Fe River	Lat 35°34'35", long 106°05'45", in SW ¹ /4NE ¹ /4 sec. 33, T. 16 N., R. 8 E., Santa Fe County, Hydrologic Unit 13020201, 0.5 mi downstream from I-25 bridge, 1.8 mi northeast of Cienega School, 12.1 mi southwest of Santa Fe.	---	1986 1989 1991-	02-21-97 03-20-97 06-23-97 08-22-97	0.56 0.56 0.57 0.46
Lea Lake Drain 08394018	Pecos River	Lat 33°18'56", long 104°19'56", in SW ¹ /4SE ¹ /4SW ¹ /4 sec. 34, T. 11 S., R. 26 Chaves County, Hydrologic Unit 13060007, on downstream side of road crossing at Bottomless Lakes State Park near Roswell.	---	1976-	10-04-95 01-11-96 04-16-96 07-22-96 10-03-96 01-17-97 04-08-97 07-07-97	5.33 7.91 6.38 8.08 5.81 6.68 5.92 5.74
Blue Springs 08405450	Black River	Lat 32°11'07", long 104°16'50", in SW ¹ /4NE ¹ /4SW ¹ /4 sec. 27, T. 24 S., R. 26 E., Eddy County, Hydrologic Unit 13060011, upstream from all diversions, 5.5 mi east of Whites City.	---	1907 1919-20 1923 1935 1952-70 1974-	10-12-95 01-16-96 07-22-96 10-08-96 01-17-97	12.9 13.9 13.2 13.8 14.
Castle Springs 08405490	Black River	Lat 32°11'59", long 104°15'13", in SW ¹ /4SW ¹ /4SW ¹ /4 sec. 24, T. 24 S., R. 26 E., Eddy County, Hydrologic Unit 13060011, upstream from mouth at Black River Village, 7.2 mi east of Whites City.	---	1975-	10-12-95 01-16-96 07-22-96 10-08-96 01-17-97	0.40 0.32 0.23 .628 .740
GILA RIVER BASIN						
Mangas Creek 09431100	Gila River	Lat 32°50'48", long 108°30'57", in NW ¹ /4NE ¹ /4 sec. 8, T. 17 S., R. 16 W., Grant County, Hydrologic Unit 15040002, 0.4 mi northwest of Mangas Springs.	177	1970 1997	10-05-95 12-07-95 03-07-96 06-03-96 10-04-96 01-09-97 09-04-97	6.44 6.38 5.72 4.82 4.60 5.43 4.12

Leasburg Canal Seepage Investigation

REACH.--The seepage investigation was conducted along a 10.6-mile reach from the Leasburg Canal below Check No. 1 near Leasburg, New Mexico, to the Leasburg Canal above Doña Ana County Road D018 near Las Cruces, New Mexico. Canal miles are referenced downstream from the Leasburg Canal Heading at the Rio Grande, which is designated as canal mile 0.0.

PREVIOUS INVESTIGATIONS.--None.

DATE.--August 28, 1997.

WEATHER.--Weather was favorable for the seepage investigation; no precipitation occurred. The average daily temperature at Las Cruces, New Mexico on August 28, 1997 was 27 degrees Celsius, with a low of 17 degrees Celsius and a high of 37 degrees Celsius.

STREAMFLOW.--The canal seepage investigation was conducted during the irrigation-season at typical operating stage. Mean discharge at canal mile 1.3 was 389 ft³/s. Discharge measurements indicate a channel loss of 53 ft³/s from canal mile 1.3 to canal mile 11.9. The indicated channel loss is shown below. Side-channel outflow (diversion headings) is considered a withdrawal and not a loss; side-channel inflow (return inlets) is considered a contribution and not a gain. Channel loss includes seepage from the unlined channel, evaporation from the water surface, and transpiration by vegetation along the channel banks.

REMARKS.--The seepage investigation is rated good based upon steady streamflow conditions. The canal heading and all diversion gates were set prior to the seepage investigation on August 27. Side-channel outflow and inflow were minimal with most diversion headings closed for the seepage investigation. A temporary staff-gage at the downstream site (canal mile 11.9) showed steady canal stage during the seepage investigation, with a slight increase in stage of 0.02 feet on August 28 from 1000 hours to 1700 hours. Discharge measurements were conducted by the U.S. Geological Survey and the Elephant Butte Irrigation District. Individual discharge measurements were rated good (within 5 percent) throughout the stream reach. The indicated channel loss of 53 ft³/s along the 10.6-mile reach represents a canal loss of approximately 13.6 percent, or approximately 5.0 ft³/s per mile. Accuracy of discharge measurements needs to be considered when evaluating indicated channel loss. Special cooperation and assistance by the Elephant Butte Irrigation District and local farmers is gratefully acknowledged.

Canal mile	Stream	Location	Time	Water temper- ature (°C)	Specific conduc- tance (µS/cm)	Discharge, in ft ³ /s			
						Main stream	Outflow	Inflow	Channel loss
August 28, 1997									
1.3	Leasburg Canal	Below Check No. 1 at walkway near	1040	23.5	691	393	--	--	--
		Leasburg	1240	24.0	693	394	--	--	--
		Lat 32°28'51", long 106°55'04"	1445	24.5	691	387	--	--	--
			1640	25.0	688	382	--	--	--
		¹ Mean value	--	--	691	389	--	--	--
2.4	Selden Lateral	Heading	0850	--	--	--	0	--	--
		Lat 32°28'41", long 106°54'00"							
3.3	Baca Lateral	Heading	1330	25.0	691	--	² 0.045	--	--
		Lat 32°28'05", long 106°53'27"							
4.0	Kerr Lateral	Heading	0900	--	--	--	0	--	--
		Lat 32°27'36", long 106°53'12"							
4.2	American Bend Lateral	Heading	1230	25.0	691	--	22.5	--	--
		Lat 32°27'21", long 106°53'07"							
6.5	Hill Lateral	Heading	1100	24.0	691	--	19.6	--	--
		Lat 32°25'44", long 106°51'46"							
6.5	Rio Rancho Lateral	Heading	0950	--	--	--	0	--	--
		Lat 32°25'45", long 106°51'47"							
6.5	Doña Ana Lateral	Heading	0900	24.0	691	--	³ 25.8	--	--
		Lat 32°25'46", long 106°51'43"							
7.1	Rio Rancho	Return Inlet	0945	--	--	--	--	0	--
		Lat 32°25'19", long 106°51'26"							
8.3	Picacho Canal	Heading	1515	26.0	689	--	76.0	--	--
		Lat 32°24'25", long 106°50'46"							
8.5	Propeck Lateral	Heading	0945	--	--	--	0	--	--
		Lat 32°24'17", long 106°50'40"							
10.5	Spillway No. 5	Heading	1220	25.1	691	--	² 1.46	--	--
		Lat 32°22'40", long 106°49'23"							
11.2	Taylor Lateral	Heading	1030	24.3	691	--	14.8	--	--
		Lat 32°22'22", long 106°49'14"							
--	Turnouts	Miscellaneous leaky turnouts	--	--	--	--	⁴ 0.09	--	--
		Canal miles 1.3-11.9							
11.9	Leasburg Canal	Above County Road D018 (Lopez Rd)	1040	22.0	690	180	--	--	--
		approximately 20 feet above	1240	25.6	690	175	--	--	--
		Doña Ana Lateral Return Inlet	1435	26.7	690	174	--	--	--
		Lat 32°21'44", long 106°48'58"	1630	26.9	--	175	--	--	--
		¹ Mean value	--	--	690	176	--	--	53

1. Mean value of multiple measurements.

2. Leakage at closed heading.

3. Flume rating.

4. Total leakage at closed turnouts.

Rio Grande Seepage Investigation

REACH.--The seepage investigation was conducted along a 62.4-mile reach from the Rio Grande below Leasburg Dam near Radium Springs, New Mexico, to the Rio Grande at El Paso, Texas (08364000). River miles are referenced upstream from the Rio Grande at El Paso, Texas, which is designated as river mile 1,249.9.

PREVIOUS INVESTIGATIONS.--A seepage investigation from the gaging station "below Caballo Dam" (08362500) to a site 0.3 mi upstream from the gaging station "at El Paso" (08364000) was conducted by the U.S. Geological Survey on February 12-13, 1974. Seepage investigations from below Leasburg Dam near Radium Springs, New Mexico, to El Paso, Texas (08364000) were conducted on January 5-6, 1988, January 10-11, 1989, January 9-10, 1990, January 8-9, 1991, January 26-27, 1993, January 11-12, 1995, and January 23-24, 1996. A seepage investigation from below Leasburg Dam near Radium Springs, New Mexico, to NM-227 Bridge near Vado, New Mexico was conducted on December 17, 1991.

DATE.--January 28-29, 1997.

WEATHER.--Weather was favorable for the seepage investigation; no precipitation occurred. Temperature extremes at Las Cruces, New Mexico, ranged from a low of -1 degree Celsius on January 28 to a high of 14 degrees Celsius on January 29.

STREAMFLOW.--The seepage investigation was conducted during a scheduled winter release from Caballo Reservoir of approximately 300 ft³/s. Discharge measurements indicate a net seepage loss of 78 ft³/s from river mile 1,312.3 to river mile 1,249.9. Indicated gains (+) and losses (-) throughout the reach are shown below. Tributary flow recorded as inflow is considered a contribution and not a gain; no outflow (diversions) occurred during the investigation. Evaporation from the water surface of the river in January is considered negligible.

REMARKS.--The seepage investigation is rated good based upon steady streamflow conditions. Recorded river stage in the Rio Grande at NM-227 Bridge near Vado, New Mexico (site 17), indicates steady stage with a slight change in the outside-gage-height from 0.09 feet on January 28 at 1320 to 0.11 feet on January 29 at 0820. Individual discharge measurements were rated good (within 5 percent) to fair (within 8 percent) throughout most of the stream reach. Discharge measurements at Picacho Drain (site 11) and Keystone Reservoir Outlet (site 33) were rated poor (over 8 percent) based on poor channel conditions. These two minor inflow sites only represent a total measured discharge of 4.41 ft³/s. Accuracy of discharge measurements needs to be considered when evaluating indicated gains and losses.

Site number	River mile	Stream	Location	Time	Water temperature (°C)	Specific conductance (µS/cm)	Discharge, in ft ³ /s		
							Main stream	Inflow	Gain or loss
January 28, 1997									
1	1,312.3	Rio Grande	Below Leasburg Dam, Radium Springs Lat 32°28'41", long 106°55'10"	0845	7.0	1,050	331	--	--
2	1,310.2	Rio Grande	Near Leasburg Lat 32°27'21", long 106°54'08"	1020	8.0	1,050	313	--	-18
3	1,307.6	Selden Drain	Near Leasburg Lat 32°25'38", long 106°52'50"	1120	--	--	--	0	--
4	1,306.3	Rio Grande	Near Hill Lat 32°25'05", long 106°52'01"	1135	8.5	1,070	312	--	-1
5	1,302.7	Rio Grande	At Shalem Bridge near Doña Ana Lat 32°22'34", long 106°51'16"	1345	10.5	1,070	332	--	+20
6	1,301.2	Wasteway no. 5	Near Doña Ana Lat 32°22'14", long 106°50'14"	1500	--	--	--	0	--
7	1,298.8	Rio Grande	Near Picacho Lat 32°20'18", long 106°50'09"	0830	5.2	1,070	329	--	-3
8	1,295.6	Rio Grande	Below Picacho Bridge near Las Cruces Lat 32°17'45", long 106°49'25"	1015	6.4	1,080	311	--	-18
9	1,295.4	Wastewater inflow	City of Las Cruces Lat 32°17'35", long 106°49'26"	1200	17.9	1,420	--	¹ 15.8	--
10	1,293.1	Rio Grande	At NM-359 Bridge near Mesilla Lat 32°15'49", long 106°49'29"	1215	8.7	1,090	331	--	+4
11	1,291.8	Picacho Drain	Above Mesilla Dam Lat 32°14'34", long 106°48'56"	1515	11.2	1,430	--	2.60	--
12	1,291.7	Rio Grande	Below Picacho Drain Lat 32°14'30", long 106°48'49"	1345	9.7	1,090	328	--	-6
13	1,289.5	Rio Grande	Below Mesilla Dam Lat 32°13'17", long 106°47'15"	0845	7.5	1,090	308	--	-20
14	1,287.3	Rio Grande	At NM-28 Bridge near San Pablo Lat 32°12'24", long 106°45'32"	1010	7.5	1,090	290	--	-18
15	1,283.6	Santo Tomas River Drain	Near San Miguel Lat 32°10'16", long 106°43'11"	1250	--	--	--	0	--
16	1,282.7	Rio Grande	At NM-228 Bridge near San Miguel Lat 32°09'43", long 106°42'58"	1150	7.5	1,090	301	--	+11
17	1,277.8	Rio Grande	At NM-227 Bridge near Vado Lat 32°06'48", long 106°40'05"	1320	10.5	1,090	--	--	--
January 29, 1997									
17	1,277.8	Rio Grande	At NM-227 Bridge near Vado Lat 32°06'48", long 106°40'05"	0820	6.5	1,090	285	--	-16
18	1,276.6	Del Rio Drain	Near Vado Lat 32°06'09", long 106°39'27"	1000	9.0	1,310	--	22.4	--
19	1,273.8	Rio Grande	At NM-226 Bridge near Berino Lat 32°03'56", long 106°39'45"	1115	7.0	1,120	294	--	-13

Rio Grande Seepage Investigation -- Continued

Site number	River mile	Stream	Location	Time	Water temperature (°C)	Specific conductance (µS/cm)	Discharge, in ft ³ /s		
							Main stream	Inflow	Gain or loss
January 29, 1997									
20	1,271.6	La Mesa Drain	Near Chamberino Lat 32°02'15", long 106°39'23"	1325	9.5	1,820	--	8.72	--
21	1,271.5	Rio Grande	Below La Mesa Drain near Chamberino Lat 32°02'12", long 106°39'18"	1420	9.5	1,180	308	--	+5
22	1,268.5	Rio Grande	At NM-225 Bridge near Anthony Lat 31°59'58", long 106°38'07"	0855	5.4	1,140	314	--	+6
23	1,268.5	Pipe inflow	At NM-225 Bridge near Anthony Lat 31°59'58", long 106°38'07"	0950	--	--	--	0.23	--
24	1,265.4	East Drain	Near Vinton, Tex. Lat 31°58'09", long 106°36'17"	1010	7.8	3,040	--	4.79	--
25	1,264.7	Rio Grande	At Vinton Bridge near Vinton, Tex. Lat 31°57'33", long 106°36'16"	1125	6.6	1,180	323	--	+4
26	1,261.6	Rio Grande	At TX-259 Bridge, Cafutillo, Tex. Lat 31°54'54", long 106°36'06"	1345	8.2	1,160	311	--	-12
27	1,259.3	Rio Grande	At Borderland Bridge near Borderland, Tex. Lat 31°53'09", long 106°35'55"	1450	8.9	1,170	314	--	+3
28	1,256.2	Rio Grande	At TX-260 Bridge near Santa Teresa Lat 31°50'46", long 106°36'18"	1540	9.5	1,160	333	--	+19
29	1,252.8	Rio Grande	Near Sunland Park Lat 31°48'24", long 106°34'57"	1024	--	1,180	285	--	-48
30	1,251.0	Wastewater inflow	Sunland Plant, City of Sunland Park Lat 31°47'55", long 106°33'25"	1250	18.5	1,500	--	1.18	--
31	1,250.9	Rio Grande	At Sunland Park Bridge, Sunland Park Lat 31°47'56", long 106°33'16"	1720	9.0	1,180	304	--	+18
32	1,250.3	Montoya Drain	Near Sunland Park Lat 31°48'10", long 106°32'47"	1320	12.5	2,120	--	24.5	--
33	1,250.1	Keystone Reservoir outlet	Near El Paso, Tex. Lat 31°48'18", long 106°32'39"	1710	17.7	14,480	--	² 1.81	--
33A	1,250.0	Temporary well inflow	Above Courchesne Bridge near El Paso, Tex. Lat 31°48'13", long 106°32'28"	1620	--	4,900	--	³ 0.04	--
34	1,249.9	Rio Grande	At Courchesne Bridge, El Paso, Tex. Lat 31°48'09", long 106°32'26"	1535	--	1,380	335	--	+5

1. Reported discharge.

2. Storm drain inflow.

3. Temporary well inflow to the Rio Grande at left bank approximately 400 feet upstream from the Courchesne Bridge. Shallow wells were pumped for the purpose of dewatering at road construction sites along Doniphan Drive.

Eastside Canal Seepage Investigation

REACH.--The seepage investigation was conducted along a 9.4-mile reach from Eastside Canal below the heading near Mesilla, New Mexico, to Eastside Canal at Doña Ana County Road B31 near Mesquite, New Mexico. Canal miles are referenced downstream from the Eastside Canal Heading at the Rio Grande, which is designated as canal mile 0.0.

PREVIOUS INVESTIGATIONS.--None.

DATE.--September 25, 1997.

WEATHER.--Precipitation occurred prior to the seepage investigation on September 21, 1997 with 0.28-inch of rainfall reported at Las Cruces, New Mexico. Weather was favorable for the seepage investigation with no precipitation on September 25, 1997. The average daily temperature at Las Cruces, New Mexico on September 25, 1997 was 23 degrees Celsius, with a low of 17 degrees Celsius and a high of 29 degrees Celsius.

STREAMFLOW.--The canal seepage investigation was conducted during the irrigation-season at low operating stage. Mean discharge at canal mile 0.1 was 88.3 ft³/s. Discharge measurements indicate a channel loss of 15.2 ft³/s from canal mile 0.1 to canal mile 9.5. The indicated channel loss is shown below. Side-channel outflow (diversion headings) is considered a withdrawal and not a loss; side-channel inflow (return inlets) is considered a contribution and not a gain. Channel loss includes seepage from the unlined channel, evaporation from the water surface, and transpiration by vegetation along the channel banks.

REMARKS.--The canal heading and all diversion gates were set prior to the seepage investigation on September 24. The relatively low water order and canal stage was due to prior effective rainfall. Side-channel outflow and inflow were minimal with most diversion headings closed for the seepage investigation. The seepage investigation is rated good based upon steady streamflow conditions. The staff-gage at the upstream site (canal mile 0.1) showed steady canal stage during the seepage investigation with no change in stage at a gage-height of 1.73 feet on September 25 at 1000 hours to 1635 hours. A temporary staff-gage at the downstream site (canal mile 9.5) showed steady canal stage, with a slight decrease in stage of 0.01 feet on September 25 from 1000 hours to 1648 hours. Discharge measurements were conducted by the U.S. Geological Survey and the Elephant Butte Irrigation District. Individual discharge measurements were rated good (within 5 percent) throughout most of the canal reach. Discharge measurements were rated fair (within 8 percent) at the Middle Lateral Return Inlet, and poor (over 8 percent) at the Las Cruces Lateral Return Inlet and Bannock Lateral Heading based on poor channel conditions. These three minor discharge measurements represent a total discharge of 3.99 ft³/s, or a net outflow of 0.01 ft³/s. The indicated channel loss of 15.2 ft³/s along the 9.4-mile reach represents a canal loss of approximately 17.2 percent, or approximately 1.6 ft³/s per mile. The relatively low canal stage could result in some bank storage return to the canal. Accuracy of discharge measurements needs to be considered when evaluating indicated channel loss. Special cooperation and assistance by the Elephant Butte Irrigation District and local farmers is gratefully acknowledged.

Canal mile	Stream	Location	Time	Water temper- ature (°C)	Specific conduc- tance (µS/cm)	Discharge, in ft ³ /s			
						Main stream	Outflow	Inflow	Channel loss
September 25, 1997									
0.1	Eastside Canal	At walkway below heading near Mesilla, NM	1030	21.0	878	88.4	--	--	--
		Lat 32°13'44", long 106°47'45"	1230	22.5	856	88.4	--	--	--
			1430	24.0	855	88.0	--	--	--
			1630	24.5	<u>839</u>	<u>88.5</u>	--	--	--
		¹ Mean value	--	--	857	88.3	--	--	--
1.6	Louisiana Lat- eral	Return Inlet	0850	--	--	--	--	0	--
		Lat 32°13'19", long 106°46'16"							
3.1	Freudenthal Lateral	Return Inlet	0900	--	--	--	--	0	--
		Lat 32°12'50", long 106°44'51"							
4.3	Mesilla Lateral	Return Inlet	0950	--	--	--	--	0	--
		Lat 32°12'09", long 106°43'59"							
4.3	Spillway No. 15	Heading	0940	17.0	714	--	² 0.007	--	--
		Lat 32°12'09", long 106°43'59"							
4.3	Brazito River Lateral	Heading	0950	--	--	--	0	--	--
		Lat 32°12'10", long 106°43'59"							
5.0	Middle Lateral	Return Inlet	1130	22.0	731	--	--	1.48	--
		Lat 32°11'43", long 106°43'23"							
5.3	Brazito Lateral	Heading	1020	21.0	873	--	² 0.153	--	--
		Lat 32°11'36", long 106°43'11"							
5.8	Las Cruces Lat- eral	Return Inlet	1400	24.2	539	--	--	0.51	--
		Lat 32°11'33", long 106°42'44"							
7.1	Bannock Lateral	Heading	1300	22.0	856	--	2.0	--	--
		Lat 32°10'39", long 106°41'59"							
7.1	Lake Lateral	Heading	1045	--	--	--	0	--	--
		Lat 32°10'39", long 106°41'59"							
8.8	Mitchell Lat- eral	Heading	1330	--	--	--	0	--	--
		Lat 32°09'19", long 106°41'08"							
--	Turnouts	Miscellaneous leaky turnouts	--	--	--	--	³ 0.13	--	--
		Canal miles 0.1-9.5							
9.5	Eastside Canal	At County Road B31 near Mesquite, NM	1030	19.8	860	73.0	--	--	--
			1230	21.5	859	73.3	--	--	--
		Lat 32°08'47", long 106°40'49"	1430	23.4	860	72.5	--	--	--
			1630	23.8	<u>855</u>	<u>72.4</u>	--	--	--
		¹ Mean value	--	--	858	72.8	--	--	15.2

1. Mean value of multiple measurements.

2. Leakage at closed heading measured with Parshall Flume.

3. Total leakage at closed turnouts.

Westside Canal Seepage Investigation

REACH.--The seepage investigation was conducted along a 12.0-mile reach from Westside Canal below the heading near Mesilla, New Mexico, to Westside Canal above the NM226 Bridge near Chamberino, New Mexico. Canal miles are referenced downstream from the Westside Canal Heading at the Rio Grande, which is designated as canal mile 0.0.

PREVIOUS INVESTIGATIONS.--None.

DATE.--September 11, 1997.

WEATHER.--Weather was favorable with no precipitation during the seepage investigation. The average daily temperature at Las Cruces, New Mexico on September 11, 1997 was 26 degrees Celsius, with a low of 19 degrees Celsius and a high of 32 degrees Celsius.

STREAMFLOW.--The canal seepage investigation was conducted during the irrigation-season at typical operating stage. Mean discharge at canal mile 0.2 was 616 ft³/s. Discharge measurements indicate a channel loss of 62 ft³/s from canal mile 0.2 to canal mile 12.2. The indicated channel loss is shown below. Side-channel outflow (diversion headings) is considered a withdrawal and not a loss; side-channel inflow (return inlets) is considered a contribution and not a gain. Channel loss includes seepage from the unlined channel, evaporation from the water surface, and transpiration by vegetation along the channel banks.

REMARKS.--The seepage investigation is rated good based upon steady streamflow conditions. The canal heading and all diversion gates were set prior to the seepage investigation on September 10. Side-channel outflow and inflow were minimal with most diversion headings closed for the seepage investigation. The staff-gage at the upstream site (canal mile 0.2) showed steady canal stage during the seepage investigation, with a slight decrease in stage of 0.03 feet on September 11 from 3.58 feet at 1000 hours to 3.55 feet at 1715 hours. The staff-gage at the downstream site (canal mile 12.2) showed no change in stage at a gage-height of 9.10 feet on September 11 from 1000 hours to 1715 hours. Discharge measurements were conducted by the U.S. Geological Survey and the Elephant Butte Irrigation District. Individual discharge measurements were rated good (within 5 percent), except for the Corpening Lateral Return Inlet which was rated poor (over 8 percent) with an estimated discharge of 1.5 ft³/s. The indicated channel loss of 62 ft³/s along the 12.0-mile reach represents a canal loss of approximately 10.1 percent, or approximately 5.2 ft³/s per mile. Accuracy of discharge measurements needs to be considered when evaluating indicated channel loss. Special cooperation and assistance by the Elephant Butte Irrigation District and local farmers is gratefully acknowledged.

Canal mile	Stream	Location	Time	Water temper- ature (°C)	Specific conduc- tance (µS/cm)	Discharge, in ft ³ /s			
						Main stream	Outflow	Inflow	Channel loss
September 11, 1997									
0.2	Westside Canal	At walkway below heading near	1040	23.5	692	619	--	--	--
		Mesilla, NM	1240	23.5	700	618	--	--	--
		Lat 32°13'31", long 106°47'48"	1440	24.0	706	606	--	--	--
			1640	26.0	707	622	--	--	--
		¹ Mean value	--	--	701	616	--	--	--
0.9	Santo Tomas	Heading	1220	27.0	727	--	31.1	--	--
	Lateral	Lat 32°13'01", long 106°47'19"							
5.2	Rodriguez Lateral	Heading	1115	--	--	--	0	--	--
		Lat 32°10'01", long 106°44'47"							
5.9	Upper Chamberino	Heading	1330	26.4	697	--	153	--	--
	Lateral	Lat 32°09'24", long 106°44'28"							
6.6	Brown Lateral	Return Inlet	1100	--	--	--	--	0	--
		Lat 32°08'56", long 106°44'10"							
7.9	Arkansas Lateral	Return Inlet	1045	--	--	--	--	0	--
		Lat 32°07'52", long 106°43'37"							
8.3	Fink Lateral	Heading	1030	--	--	--	² 0.001	--	--
		Lat 32°07'37", long 106°43'25"							
10.6	Corpening Lateral	Return Inlet	1730	25.0	713	--	--	³ 1.5	--
		Lat 32°05'46", long 106°42'22"							
11.3	Walters Lateral	Return Inlet	1320	--	--	--	--	0	--
		Lat 32°05'14", long 106°42'04"							
--	Turnouts	Miscellaneous leaky turnouts	--	--	--	--	⁴ 0.2	--	--
		Canal miles 0.2-12.2							
12.2	Westside Canal	At walkway above NM226 Bridge	1040	24.5	693	372	--	--	--
		near Chamberino, NM	1240	25.0	698	370	--	--	--
		Lat 32°04'31", long 106°41'39"	1440	25.7	696	371	--	--	--
			1640	26.1	698	370	--	--	--
		¹ Mean value	--	--	696	371	--	--	62

1. Mean value of multiple measurements.
2. Estimated leakage at closed heading.
3. Estimated discharge.
4. Total leakage at closed turnouts.

Water-quality partial-record stations and water-quality miscellaneous sites are surface-water locations where chemical-quality, biological, and/or sediment data are collected on a limited frequency over a short period of years or once only for use in hydrologic investigations. Continuous streamflow recording gages are not located at these stations or sites.

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

RIO GRANDE BASIN

The following water-quality tables for miscellaneous sites in the Rio Grande basin are identified by 15-digit latitude-longitude site numbers and are in order by ascending site number (shown before the site name). Inorganic analyses tables are followed by organic-compound analyses tables. This departure from the normal downstream order for surface-water sites was taken to facilitate locating these sites in this report and for comparing results for the same group of analyses

315454106360610 - RIO GRANDE AT TX 259 BRIDGE, CANUTILLO, TX

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300) (00301)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	
JAN 1997 29...	1030	311	1160	8.4	9.0	7.0	23	670	10.7	101	260	
DATE		HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JAN 1997 29...	85	75	17	130	4	8.0	206	3	173	177	180	
DATE		CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
JAN 1997 29...	150	0.80	13	712	681	0.340	0.040	0.380	0.060	0.80	0.180	
DATE		PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
JAN 1997 29...	0.070	0.060	<5.0	<2	65	<1.0	<1.0	<3.0	<1.0	8.0	<1.0	
DATE		LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	
JAN 1997 29...	110	4.0	<0.1	<10	<1.0	<1	<1.0	1000	<6	<3.0		

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

RIO GRANDE BASIN -- Continued

320648106400510 - RIO GRANDE AT NM 227 BRIDGE NEAR VADO, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
JAN 1997 29...	0830	285	1040	8.5	2.5	6.0	30	667	10.6	98	250
DATE	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
JAN 1997 29...	86	76	15	110	3	7.3	191	6	166	166	150
DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
JAN 1997 29...	140	0.80	12	652	615	0.530	0.060	0.590	0.080	1.0	0.270
DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
JAN 1997 29...	0.080	0.090	<5.0	2	75	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0
DATE	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	
JAN 1997 29...	94	3.0	<0.1	20	<1.0	<1	<1.0	920	<6	<3.0	

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

RIO GRANDE BASIN -- Continued

321317106471510 - RIO GRANDE BELOW MESILLA DAM NR SANTO TOMAS, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)
JAN 1997 28...	1340	308	1050	8.5	9.0	9.5	32	671	10.3	103	260
DATE	HARD-NESS NONCARE DISSOLV FLD. AS CAC03 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
JAN 1997 28...	97	76	16	110	3	7.3	191	2	160	166	150
DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
JAN 1997 28...	140	0.80	12	647	611	0.210	0.040	0.250	0.120	1.0	0.240
DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
JAN 1997 28...	0.040	0.040	<5.0	2	70	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0
DATE	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	
JAN 1997 28...	96	6.0	<0.1	<10	<1.0	<1	<1.0	930	<6	9.0	

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

RIO GRANDE BASIN -- Continued

321551106492910 - RIO GRANDE AT CALLE DEL NORTE BRDG NR MESILLA, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, 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)
OCT 1996												
08...	0845	172	1190	8.2	16.5	18.0	666	7.9	96	280	83	18
09...	0815	154	1240	8.4	14.5	18.0	664	8.0	98	310	93	20
DEC												
10...	0845	48	1600	8.3	10.0	10.0	663	9.4	96	370	110	23
11...	0810	48	1620	8.4	14.5	9.5	664	9.9	101	340	100	22
FEB 1997												
11...	0915	45	1650	8.4	10.0	6.0	662	9.4	88	370	110	23
12...	0815	43	1650	8.4	6.5	7.5	664	9.8	94	370	110	24
27...	0930	563	853	8.5	10.5	6.0	657	10.4	97	200	57	13
28...	0830	530	854	8.5	11.5	7.5	652	9.7	94	200	58	14
DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT 1996												
08...	4.0	3.2	1200	5.0	<1	<1.0	142	<10	<1.0	<1	<1.0	<1
09...	3.9	3.2	1000	5.0	<1	<1.0	154	<10	<1.0	<1	<1.0	<1
DEC												
10...	4.1	3.5	50	7.0	<1	<1.0	99	<10	<1.0	<1	<1.0	<1
11...	3.7	3.5	50	6.0	<1	<1.0	96	<10	<1.0	<1	<1.0	<1
FEB 1997												
11...	3.9	3.4	90	5.0	<1	<1.0	105	<10	<1.0	<1	<1.0	<1
12...	5.1	3.4	120	4.0	1	<1.0	109	<10	<1.0	<1	<1.0	<1
27...	6.1	3.8	1100	6.0	1	<1.0	61	<10	<1.0	<1	<1.0	1
28...	6.7	3.6	1200	4.0	2	<1.0	66	<10	<1.0	<1	<1.0	<1
DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	
OCT 1996												
08...	2.0	1	<1.0	5	2.0	<1	<1.0	30	1.0	<0.10	<0.1	
09...	3.0	<1	<1.0	2	1.0	<1	<1.0	30	1.0	<0.10	<0.1	
DEC												
10...	1.0	<1	<1.0	1	2.0	<1	<1.0	20	11	<0.10	<0.1	
11...	1.0	<1	<1.0	1	2.0	<1	<1.0	20	10	<0.10	<0.1	
FEB 1997												
11...	2.0	<1	<1.0	<1	4.0	<1	<1.0	20	10	<0.10	<0.1	
12...	1.0	<1	<1.0	<1	<1.0	<1	<1.0	30	9.0	<0.10	<0.1	
27...	1.0	<1	<1.0	2	<1.0	2	<1.0	150	2.0	<0.10	<0.1	
28...	1.0	<1	<1.0	2	<1.0	2	<1.0	160	1.0	<0.10	<0.1	
DATE	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	
OCT 1996												
08...	7	7.0	2	2.0	<1	<1	<1	<1.0	<10	5.0	4.0	
09...	7	8.0	2	2.0	<1	<1	<1	<1.0	<10	<1.0	4.0	
DEC												
10...	8	9.0	<1	2.0	<1	<1	<1	<1.0	<10	7.0	4.0	
11...	8	9.0	1	2.0	<1	<1	<1	<1.0	<10	6.0	4.0	
FEB 1997												
11...	9	10	1	1.0	<1	<1	<1	<1.0	<10	6.0	5.0	
12...	10	12	1	1.0	<1	<1	<1	<1.0	<10	6.0	6.0	
27...	6	6.0	2	<1.0	<1	<1	<1	<1.0	<10	10	3.0	
28...	6	7.0	2	1.0	<1	<1	<1	<1.0	<10	5.0	3.0	

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

RIO GRANDE BASIN -- Continued

321739106485910 - CITY OF LAS CRUCES WASTE WATER TREATMENT PLANT, NM

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 1996												
08...	0935	1230	7.3	--	25.5	666	5.7	80	250	71	18	8.0
09...	0945	1240	7.5	--	26.0	664	6.2	89	250	73	17	7.4
DEC												
10...	1030	1270	7.3	17.0	21.0	663	6.8	88	280	81	18	9.6
11...	1030	1290	7.3	17.0	21.0	663	6.9	90	260	78	17	39
FEB 1997												
11...	1100	1410	7.8	18.0	18.0	660	6.7	82	320	95	21	18
12...	1015	1430	7.5	12.0	19.0	665	7.1	88	320	93	21	10
27...	1130	1410	7.3	16.0	18.0	655	6.7	83	320	95	21	8.6
28...	0945	1410	7.5	14.5	10.5	654	7.2	76	320	93	21	9.9
DATE		CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, TOTAL (UG/L AS SB) (01097)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
OCT 1996												
08...	6.5	20	14	<1	<1.0	7.0	<10	<1.0	<1	<1.0	<1	<1
09...	6.3	30	11	<1	<1.0	7.0	<10	<1.0	<1	<1.0	<1	<1
DEC												
10...	10	60	11	<1	1.0	16	<10	<1.0	<1	<1.0	<1	<1
11...	7.8	720	12	1	1.0	17	<10	<1.0	<1	<1.0	<1	3
FEB 1997												
11...	10	50	9	<1	1	19	<10	<1	<1	<1	<1	<1
12...	7.1	50	9.0	<1	1.0	20	<10	<1.0	<1	<1.0	<1	<1
27...	7.6	50	8.0	<1	1.0	15	<10	<1.0	<1	<1.0	<1	<1
28...	7.6	50	8.0	1	1.0	15	<10	<1.0	<1	<1.0	<1	<1
DATE		CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)
OCT 1996												
08...	2.0	<1	<1.0	<1	<1.0	<1	<1.0	60	55	<0.10	<0.1	<0.1
09...	2.0	<1	<1.0	<1	<1.0	<1	<1.0	60	51	<0.10	<0.1	<0.1
DEC												
10...	<1.0	<1	<1.0	3	2.0	<1	<1.0	40	31	<0.10	<0.1	<0.1
11...	1.0	<1	<1.0	56	8.0	8	<1.0	70	37	<0.10	<0.1	<0.1
FEB 1997												
11...	1	<1	<1	3	2	<1	<1	60	47	<0.1	<0.1	<0.1
12...	2.0	<1	<1.0	2	1.0	<1	<1.0	60	51	<0.10	<0.1	<0.1
27...	2.0	<1	<1.0	5	1.0	1	<1.0	50	45	<0.10	<0.1	<0.1
28...	2.0	<1	<1.0	3	3.0	<1	<1.0	80	79	<0.10	<0.1	<0.1
DATE		MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
OCT 1996												
08...	18	20	2	3.0	<1	<1	<1	<1.0	20	15	9.0	9.0
09...	16	20	2	3.0	<1	<1	<1	<1.0	10	11	8.0	8.0
DEC												
10...	19	22	2	2.0	1	1	<1	<1.0	30	25	7.0	7.0
11...	16	18	3	2.0	1	1	3	<1.0	100	46	7.0	7.0
FEB 1997												
11...	27	28	2	2	1	1	<0	<1	30	31	11	11
12...	40	42	2	3.0	1	1	<1	<1.0	30	40	13	13
27...	27	30	2	2.0	1	1	<1	<1.0	30	24	11	11
28...	27	31	2	2.0	1	1	<1	<1.0	20	24	12	12

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

RIO GRANDE BASIN -- Continued

321745106492510 - RIO GRANDE BELOW PICACHO BRIDGE NR LAS CRUCES, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	
JAN 1997 28...	1130	311	1030	8.6	8.5	7.5	32	672	10.8	103	260	
DATE		HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CaCO3 (39086)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
JAN 1997 28...	91	76	16	110	3	6.2	190	6	165	167	150	
DATE		CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
JAN 1997 28...	140	0.80	12	639	612	0.070	0.010	0.080	<0.015	0.80	0.090	
DATE		PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
JAN 1997 28...	<0.010	<0.010	<5.0	2	67	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0	
DATE		LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	
JAN 1997 28...	97	2.0	<0.1	10	<1.0	<1	<1.0	930	<6	3.0		

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

RIO GRANDE BASIN -- Continued

321837106493810 - RIO GRANDE AT PICACHO BRDG NR LAS CRUCES, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (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)
OCT 1996												
08...	1225	186	1160	8.4	25.5	19.5	666	8.4	105	280	83	18
09...	1115	210	1300	8.4	25.0	21.5	664	7.8	102	330	100	20
DEC												
10...	1210	52	1640	8.3	21.0	13.0	662	9.1	100	370	110	24
11...	1145	50	1630	8.5	12.0	12.5	663	9.4	102	370	110	23
FEB 1997												
11...	1230	45	1650	8.7	18.0	11.5	659	10.0	107	400	120	24
12...	1145	45	1650	8.4	13.5	11.0	664	10.0	105	370	110	24
27...	1315	596	851	8.5	17.5	9.5	654	9.6	98	200	58	14
28...	1130	580	845	8.5	12.0	8.5	654	10.0	100	190	56	13

DATE	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM UNFLTRD (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT 1996												
08...	4.3	3.3	1400	5.0	<1	<1.0	138	<10	<1.0	<1	<1.0	<1
09...	3.7	3.1	970	5.0	<1	<1.0	164	<10	<1.0	<1	<1.0	<1
DEC												
10...	2.9	3.1	70	5.0	<1	<1.0	113	<10	<1.0	<1	<1.0	1
11...	2.9	3.2	50	5.0	<1	<1.0	112	<10	<1.0	<1	<1.0	<1
FEB 1997												
11...	3.9	3.4	80	4.0	1	<1.0	124	<10	<1.0	<1	<1.0	<1
12...	3.9	2.7	80	5.0	<1	<1.0	121	<10	<1.0	<1	<1.0	<1
27...	5.1	3.6	1100	4.0	1	<1.0	65	<10	<1.0	<1	<1.0	<1
28...	5.9	3.7	1100	4.0	1	<1.0	64	<10	<1.0	<1	<1.0	<1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
OCT 1996											
08...	2.0	1	<1.0	3	5.0	<1	<1.0	50	2.0	<0.10	<0.1
09...	3.0	<1	<1.0	2	2.0	<1	<1.0	40	2.0	<0.10	<0.1
DEC											
10...	2.0	<1	<1.0	<1	4.0	<1	<1.0	50	34	<0.10	<0.1
11...	2.0	<1	<1.0	<1	4.0	<1	<1.0	40	32	<0.10	<0.1
FEB 1997											
11...	2.0	<1	<1.0	<1	3.0	<1	<1.0	40	21	<0.10	<0.1
12...	2.0	<1	<1.0	<1	4.0	<1	<1.0	40	19	<0.10	<0.1
27...	1.0	<1	<1.0	2	<1.0	1	<1.0	160	2.0	<0.10	<0.1
28...	1.0	1	<1.0	2	2.0	2	<1.0	160	2.0	<0.10	<0.1

DATE	DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
OCT 1996											
08...	7	7.0	2	2.0	<1	<1	<1	<1.0	<10	4.0	3.0
09...	6	8.0	2	3.0	<1	<1	<1	<1.0	<10	2.0	4.0
DEC											
10...	7	8.0	2	2.0	<1	<1	<1	<1.0	<10	6.0	4.0
11...	7	8.0	1	2.0	<1	<1	<1	<1.0	<10	5.0	4.0
FEB 1997											
11...	7	8.0	<1	2.0	<1	<1	<1	<1.0	10	14	4.0
12...	6	7.0	<1	1.0	<1	<1	<1	<1.0	<10	6.0	4.0
27...	6	6.0	2	<1.0	<1	<1	<1	<1.0	<10	4.0	3.0
28...	5	6.0	2	<1.0	<1	<1	<1	<1.0	<10	3.0	3.0

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

RIO GRANDE BASIN -- Continued

322841106551010 - RIO GRANDE BELOW LEASBURG DAM, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	
JAN 1997 28...	0915	331	1030	8.5	3.0	6.0	32	671	10.6	97	260	
DATE		HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD HCO3 (MG/L AS) (00453)	CAR-BONATE WATER DIS IT FIELD CO3 (MG/L AS) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD CACO3 (MG/L AS) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
JAN 1997 28...	95	76	16	110	3	6.8	187	5	161	163	150	
DATE		CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
JAN 1997 28...	140	0.80	11	620	609	0.070	0.010	0.080	<0.015	0.90	0.100	
DATE		PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
JAN 1997 28...	<0.010	<0.010	<5.0	2	82	<1.0	<1.0	<3.0	<1.0	4.0	<1.0	
DATE		LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	
JAN 1997 28...	94	4.0	<0.1	<10	<1.0	<1	<1.0	930	<6	<3.0		

RIO GRANDE BASIN -- Continued

353744106420110 - VALLECITO CR NR JEMEZ RES BNDRY NR JEMEZ, NM

[illegible]

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

RIO GRANDE BASIN -- Continued

353744106420110 - VALLECITO CR NR JEMEZ RES BNDRY NR JEMEZ, NM -- Continued

	ALPHA SED BOT MAT DRY WGT AS TH-230 (PCI/G) (04125)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY TH-230 (PCI/G) (75955)	GROSS BETA, DIS- SOLVED (PCI/L) AS CS-137 (PCI/L) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	PLUTON- IUM-238 BED MAT (PCI/G) (50423)	PLUTON- IUM-238 BED MAT (PCI/G) (50422)	PLUTON- IUM-239/240 BED MAT (PCI/G) (50420)	PLUTON- IUM-239/240 BED MAT (PCI/G) (50421)			
APR 1997 10...	--	--	<4.0	1.03	--	--	--	--			
MAY 13...	16	4.63	--	--	<0.1	0.022	<0.1	0.010			
DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
MAY 13...	1145	3.8	2	<10	<0.1	1.6	46	16	4	8	<2
DATE		GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NIUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)
MAY 13...	7	<8	<4	1.3	27	13	20	0.35	470	<0.02	
DATE		MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)
MAY 13...	<2	27	8	16	0.03	1.8	3	<0.1	0.1	1.2	
DATE		STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD (UG/G) (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
MAY 13...	140	<0.05	<40	9	<5	2.3	27	22	2	38	

RIO GRANDE BASIN -- Continued

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ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

RIO GRANDE BASIN -- Continued

354013106443510 - RIO GUADALUPE AT MOUTH NEAR CANON, NM -- Continued

DATE	ALPHA SED BOT MAT DRY WGT AS TH-230 (PCI/G) (04125)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY TH-230 (PCI/G) (75955)	GROSS BETA, DIS- SOLVED (PCI/L) AS CS-137 (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	PLUTON- IUM-238 BED MAT (PCI/G) (50423)	PLUTON- IUM-238 BED MAT 2 SIGMA (PCI/G) (50422)	PLUTON- IUM-239/240 BED MAT (PCI/G) (50420)	PLUTON- IUM-239/240 BED MAT 2 SIGMA (PCI/G) (50421)			
DEC 1996 17...	--	--	8.0	2.6	--	--	--	--			
MAR 1997 20...	--	--	6.8	1.6	--	--	--	--			
MAY 06...	17	4.74	--	--	<0.1	0.014	<0.1	0.012			
DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
MAY 06...	1430	3.0	2	<10	0.1	2.9	52	21	5	9	<2
DATE	TIME	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)
MAY 06...	9	<8	<4	1.5	30	17	20	0.64	430	<0.02	
DATE	TIME	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIوبيUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)
MAY 06...	<2	34	9	15	0.04	2.2	4	<0.1	0.1	1.4	
DATE	TIME	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD (UG/G) (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
MAY 06...	100	<0.05	<40	10	<5	3.1	31	28	3	45	

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

RIO GRANDE BASIN -- Continued

354014106443310 - JEMEZ R UPSTREAM OF RIO GUADALUPE NR CANON, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	
		DEC 1996 17...	1100	18	700	8.6	-3.0	0.5	621	11.8	101	120	39
DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
		DEC 1996 17...	76	3	12	161	15	96	1.3	50	401	391	0.040
DATE	TIME	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. TOTAL (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, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)
		DEC 1996 17...	0.050	0.020	<0.20	<0.20	0.040	0.040	0.020	540	16	89	<100
DATE	TIME	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LITHIUM, TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)
		DEC 1996 17...	<1	<1	<1	<1	420	35	<1	930	40	16	<0.10
DATE	TIME	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA SED BOT MAT DRY WGT AS TH-230 (PCI/G) (04125)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY AS TH-230 (PCI/G) (75955)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	URANIUM -238 WATER DISSOLV (PCI/L) (22603)
		DEC 1996 17...	<1	<1	<1	140	<10	5.6	2.7	--	--	23	6.0
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	
		DEC 1996 17...	1100	18	700	8.6	-3.0	0.5	621	11.8	101	120	39
DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
		DEC 1996 17...	76	3	12	161	15	96	1.3	50	401	391	0.040
DATE	TIME	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. TOTAL (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, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)
		DEC 1996 17...	0.050	0.020	<0.20	<0.20	0.040	0.040	0.020	540	16	89	<100
DATE	TIME	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LITHIUM, TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)
		DEC 1996 17...	<1	<1	<1	<1	420	35	<1	930	40	16	<0.10
DATE	TIME	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA SED BOT MAT DRY WGT AS TH-230 (PCI/G) (04125)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY AS TH-230 (PCI/G) (75955)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	URANIUM -238 WATER DISSOLV (PCI/L) (22603)
		DEC 1996 17...	<1	<1	<1	140	<10	5.6	2.7	--	--	23	6.0
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	
		DEC 1996 17...	1100	18	700	8.6	-3.0	0.5	621	11.8	101	120	39
DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
		DEC 1996 17...	76	3	12	161	15	96	1.3	50	401	391	0.040
DATE	TIME	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. TOTAL (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, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)
		DEC 1996 17...	0.050	0.020	<0.20	<0.20	0.040	0.040	0.020	540	16	89	<100
DATE	TIME	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LITHIUM, TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)
		DEC 1996 17...	<1	<1	<1	<1	420	35	<1	930	40	16	<0.10
DATE	TIME	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA SED BOT MAT DRY WGT AS TH-230 (PCI/G) (04125)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY AS TH-230 (PCI/G) (75955)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	URANIUM -238 WATER DISSOLV (PCI/L) (22603)
		DEC 1996 17...	<1	<1	<1	140	<10	5.6	2.7	--	--	23	6.0
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	
		DEC 1996 17...	1100	18	700	8.6	-3.0	0.5	621	11.8	101	120	39
DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
		DEC 1996 17...	76	3	12	161	15	96	1.3	50	401	391	0.040
DATE	TIME	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. TOTAL (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, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)
		DEC 1996 17...	0.050	0.020	<0.20	<0.20	0.040	0.040	0.020	540	16	89	<100
DATE	TIME	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LITHIUM, TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)
		DEC 1996 17...	<1	<1	<1	<1	420	35	<1	930	40	16	<0.10
DATE	TIME	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA SED BOT MAT DRY WGT AS TH-230 (PCI/G) (04125)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY AS TH-230 (PCI/G) (75955)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	URANIUM -238 WATER DISSOLV (PCI/L) (22603)
		DEC 1996 17...	<1	<1	<1	140	<10	5.6	2.7	--	--	23	6.0
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	
		DEC 1996 17...	1100	18	700	8.6	-3.0	0.5	621	11.8	101	120	39
DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
		DEC 1996 17...	76	3	12	161	15	96	1.3	50	401	391	0.040
DATE	TIME	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. TOTAL (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, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)
		DEC 1996 17...	0.050	0.020	<0.20	<0.20	0.040	0.040	0.020	540	16	89	<100
DATE	TIME	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LITHIUM, TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)
		DEC 1996 17...	<1	<1	<1	<1	420	35	<1	930	40	16	<0.10
DATE	TIME	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA SED BOT MAT DRY WGT AS TH-230 (PCI/G) (04125)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY AS TH-230 (PCI/G) (75955)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	URANIUM -238 WATER DISSOLV (PCI/L) (22603)
		DEC 1996 17...	<1	<1	<1	140	<10	5.6	2.7	--	--	23	6.0
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	
		DEC 1996 17...	1100	18	700	8.6	-3.0	0.5	621	11.8	101	120	39
DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
		DEC 1996 17...	76	3	12	161	15	96	1.3	50	401	391	0.040
DATE	TIME	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. TOTAL (MG/L AS N) (006								

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

RIO GRANDE BASIN -- Continued

354014106443310 - JEMEZ R UPSTREAM OF RIO GUADALUPE NR CANON, NM -- Continued

DATE	U-238 2 SIGMA WATER, DISS, (PCI/L) (75991)	URANIUM -234 WATER, DISSOLV (PCI/L) (22610)	U-234 2 SIGMA WATER, DISS, (PCI/L) (75992)	URANIUM -235 WATER, DISS (PCI/L) (22620)	U-235 2 SIGMA WATER, DISS, (PCI/L) (75994)	PLUTON- IUM-238 BED MAT (PCI/G) (50423)	PLUTON- IUM-238 BED MAT 2 SIGMA (PCI/G) (50422)	PLUTON- IUM- 239/240 BED MAT (PCI/G) (50420)	PLUTON- IUM- 239/240 BED MAT (PCI/G) (50421)	AMERI- CIUM- 241 WATER FILT (PCI/L) (29867)	
DEC 1996 17...	0.16	0.3	0.20	<0.1	0.070	--	--	--	--	<0.1	
MAR 1997 20...	--	--	--	--	--	--	--	--	--	--	
MAY 06...	--	--	--	--	--	<0.1	0.011	<0.1	0.009	--	
DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
DMAY 06...	1330	5.4	2	<10	0.1	2.6	56	22	5	8	<2
DATE		GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)
MAY 06...	9	<8	<4	1.6	34	17	30	0.81	480	<0.02	
DATE		MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)
MAY 1997 06...	<2	36	10	15	0.04	2.3	5	0.3	<0.1	1.4	
DATE		STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD (UG/G) (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
MAY 06...	130	<0.05	<40	8	<5	2.8	34	27	2	49	

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

RIO GRANDE BASIN -- Continued

354856106312810 - E FK JEMEZ R NR NFS BOUNDARY NR JEMEZ SPRINGS, N

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (MG/L) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	
APR 1997 10...	1515	39	74	7.4	7.5	5.5	550	9.4	104	18	5.3	1.2	
DATE		SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
APR 1997 10...	4.6	0.5	2.0	23	4.1	3.7	0.2	23	88	59	0.040	0.010	
DATE		NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ANTI-MONY, TOTAL RECOV-ERABLE (UG/L AS SB) (01097)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)
APR 1997 10...	0.050	0.020	0.58	0.80	0.60	0.060	0.010	0.020	1000	<1	<1	<100	
DATE		BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	
APR 1997 10...	<10	<1	1	<1	2	690	190	<1	<10	10	6		
DATE		MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS BETA, DIS-SOLVED AS (PCI/L) (03515)	BETA, 2 SIGMA WATER, DISS AS CS-137 (PCI/L) (75989)	
APR 1997 10...	<0.1	<1	2	<1	<1	40	<10	<3.0	0.210	<4.0	0.880		

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

RIO GRANDE BASIN -- Continued

354940106383610 - EAST FORK JEMEZ R AT MOUTH NEAR JEMEZ SPRINGS, NM -- Continued

DATE	ALPHA SED BOT MAT DRY WGT AS TH-230 (PCI/G) (04125)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY TH-230 (PCI/G) (75955)	GROSS BETA, DIS- SOLVED (PCI/L) AS CS-137 (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	PLUTON- IUM-238 BED MAT (PCI/G) (50423)	PLUTON- IUM-238 2 SIGMA BED MAT (PCI/G) (50422)	PLUTON- IUM-239/240 BED MAT (PCI/G) (50420)	PLUTON- IUM-239/240 2 SIGMA BED MAT (PCI/G) (50421)			
DEC 1996 17...	--	--	<4.0	1.2	--	--	--	--			
APR 1997 07...	--	--	<4.0	0.790	--	--	--	--			
AUG 11...	19	5.11	--	--	<0.1	0.005	<0.1	0.009			
DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
AUG 11...	1500	2.7	3	<10	0.1	1.1	62	16	5	5	<2
DATE		GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)
AUG 11...	13	<8	<4	1.5	34	20	40	0.35	360	<0.02	
DATE		MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)
AUG 11...	<2	23	7	36	0.03	2.4	4	0.1	0.1	2.0	
DATE		STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD (UG/G) (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
AUG 11...	160	<0.05	<40	13	<5	4.6	32	25	3	45	

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

RIO GRANDE BASIN -- Continued

354942106101610 - MORTANDAD CYN AT MOUTH NR SAN ILDEFONSO PUEBLO, NM -- Continued

		URANIUM -235 WATER, DISS (PCI/L) (22620)	U-235 2 SIGMA WATER, DISS, (PCI/L) (75994)	STRON- TIUM 90 DIS- SOLVED (PCI/L) (13503)	PLUTON- IUM-238 BED MAT (PCI/G) (50423)	PLUTON- IUM-238 BED MAT (PCI/G) (50422)	PLUTON- IUM- 239/240 BED MAT (PCI/G) (50420)	PLUTON- IUM- 239/240 BED MAT (PCI/G) (50421)	AMERI- CIUM- 241 WATER FILT (PCI/L) (29867)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	
SEP 1997	11...	<0.1	0.009	<0.5	--	--	--	--	<0.1	<30	30	
11...		--	--	--	<0.1	0.083	<0.1	0.018	--	--	--	
DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (UG/G) (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	
SEP 1997	11...	1230	2.0	2	<10	0.1	0.96	56	19	5	9	<2
DATE		GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (UG/G) (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (UG/G) (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	
SEP 1997	11...	13	<8	<4	1.4	32	14	20	0.35	360	<0.02	
DATE		MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (UG/G) (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (UG/G) (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (UG/G) (34960)	
SEP 1997	11...	<2	24	9	26	0.04	2.4	4	0.1	0.1	1.9	
DATE		STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD (UG/G) (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	
SEP 1997	11...	180	<0.05	<40	9	<5	2.5	33	20	2	44	

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

RIO GRANDE BASIN -- Continued

354943106384110 - SAN ANTONIO CREEK AT MOUTH NEAR JEMEZ SPRINGS, NM -- Continued

DATE	ALPHA SED BOT MAT DRY WGT AS TH-230 (PCI/G) (04125)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY TH-230 (PCI/G) (75955)	GROSS BETA, DIS- SOLVED (PCI/L) AS CS-137 (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	PLUTON- IUM-238 BED MAT (PCI/G) (50423)	PLUTON- IUM-238 BED MAT (PCI/G) (50422)	PLUTON- IUM- 239/240 BED MAT (PCI/G) (50420)	PLUTON- IUM- 239/240 BED MAT (PCI/G) (50421)			
DEC 1996 17...	--	--	4.6	1.5	--	--	--	--			
APR 1997 07...	--	--	<4.0	0.830	--	--	--	--			
AUG 11...	16	4.68	--	--	<0.1	0.005	<0.1	0.012			
DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
AUG 11...	1630	3.9	3	<10	0.2	1.4	73	21	7	7	<2
DATE	TIME	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)
AUG 11...	13	<8	<4	1.8	40	18	30	0.47	540	0.03	
DATE	TIME	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)
AUG 11...	<2	29	9	38	0.05	2.3	5	0.2	0.1	1.8	
DATE	TIME	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD (UG/G) (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
AUG 11...	170	0.05	<40	12	<5	4.3	37	28	3	62	

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

RIO GRANDE BASIN -- Continued

355223106371710 - REDONDO CR AT NFS-BACA BNDRY NR JEMEZ SPRINGS, NM -- Continued

DATE	ALPHA SED BOT MAT DRY WGT AS TH-230 (PCI/G) (04125)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY TH-230 (PCI/G) (75955)	GROSS BETA, DIS- SOLVED (PCI/L) AS CS-137 (PCI/L) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	PLUTON- IUM-238 BED MAT (PCI/G) (50423)	PLUTON- IUM-238 BED MAT 2 SIGMA (PCI/G) (50422)	PLUTON- IUM- 239/240 SUS SED BED MAT (PCI/G) (50420)	PLUTON- IUM- 239/240 SUS SED BED MAT (PCI/G) (50421)			
NOV 1996 26...	--	--	<4.0	1.0	--	--	--	--			
APR 1997 10...	--	--	<4.0	0.890	--	--	--	--			
MAY 13...	18	4.84	--	--	<0.1	0.011	<0.1	0.010			
DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
MAY 13...	1500	2.8	2	<10	0.1	0.63	65	8	3	5	<2
DATE		GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)
MAY 13...	10	<8	<4	1.1	40	14	20	0.18	450	0.02	
DATE		MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)
MAY 13...	<2	36	4	24	0.03	3.0	3	<0.1	0.1	1.7	
DATE		STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD (UG/G) (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
MAY 13...	150	<0.05	<40	7	<5	3.0	16	21	2	40	

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

RIO GRANDE BASIN -- Continued

355410106371510 - SULPHUR CR AT NFS-BACA BNDRY NR JEMEZ SPRINGS, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD) (UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	
NOV 1996 26...	1500	0.16	1780	2.6	-0.5	1.0	566	9.8	94	230	74	12	
APR 1997 07...	1515	6.1	250	4.0	5.0	3.5	566	9.8	100	46	15	2.3	
MAY 13...	1600	--	--	--	--	--	--	--	--	--	--	--	
DATE		SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)
NOV 1996 26...	14	0.4	17	570	3.4	<0.10	58	754	<0.010	<0.050	0.360	0.04	
APR 1997 07...	4.0	0.3	4.3	85	1.8	<0.1	23	156	<0.010	<0.050	0.060	0.24	
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	
DATE		NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	CADMIUM, WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
NOV 1996 26...	0.40	0.40	0.070	0.070	0.120	24000	<1	1	<100	<10	<1	<1	
APR 1997 07...	0.40	0.30	0.070	<0.010	0.010	2800	<1	2	<100	<10	<1	1	
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	
DATE		COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)
NOV 1996 26...	7	3	12000	11000	1	30	1200	1100	<0.10	<1	14	<1	
APR 1997 07...	2	1	3400	1500	2	<10	200	190	<0.1	<1	4	<1	
MAY 13...	--	--	--	--	--	--	--	--	--	--	--	--	
DATE		SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA SED BOT MAT DRY WGT AS TH-230 (PCI/G) (04125)	ALPHA, 2 SIGMA SED, BOT MAT TOT DRY AS TH-230 (PCI/G) (75955)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS (PCI/L) (75989)	URANIUM -238 WATER DISSOLV (PCI/L) (22603)	U-238 2 SIGMA WATER, DISS, (PCI/L) (75991)	
NOV 1996 26...	<1	280	80	<3.0	2.2	--	--	29	7.8	0.3	0.16		
APR 1997 07...	<1	80	20	<3.0	0.240	--	--	<4.0	0.850	--	--		
MAY 13...	--	--	--	--	--	--	22	5.55	--	--	--		

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

RIO GRANDE BASIN -- Continued

355410106371510 - SULPHUR CR AT NFS-BACA BNDRY NR JEMEZ SPRINGS, NM

DATE	URANIUM -234 WATER DISSOLV (PCI/L) (22610)	U-234 2 SIGMA WATER, DISS, (PCI/L) (75992)	URANIUM -235 WATER, DISS, (PCI/L) (22620)	U-235 2 SIGMA WATER, DISS, (PCI/L) (75994)	PLUTON- IUM-238 BED MAT (PCI/G) (50423)	PLUTON- IUM-238 BED MAT 2 SIGMA (PCI/G) (50422)	PLUTON- IUM- 239/240 BED MAT 2 SIGMA (PCI/G) (50420)	PLUTON- IUM- 239/240 BED MAT 2 SIGMA (PCI/G) (50421)	AMERI- CIUM- 241 WATER FILT (PCI/L) (29867)		
NOV 1996 26...	0.3	0.16	<0.1	0.046	--	--	--	--	<0.1		
APR 1997 07...	--	--	--	--	--	--	--	--	--		
MAY 13...	--	--	--	--	<0.1	0.016	<0.1	0.006	--		
DATE	TIME	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)
MAY 13...	1600	13	1	<10	<0.1	0.10	52	18	4	6	<2
DATE		GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)
MAY 13...	11	<8	<4	1.8	31	15	30	0.29	140	0.49	
DATE		MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)
MAY 13...	3	22	7	20	0.04	2.1	4	0.2	0.1	0.41	
DATE		STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	SULFUR BOT MAT <63U WS FIELD (UG/G) (34970)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)
MAY 13...	49	0.46	<40	9	<5	3.6	35	18	2	28	

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

RIO GRANDE BASIN -- Continued

355632106383610 - SAN ANTONIO CR AT SAN ANTONIO HOT SPRING, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV 1996 26...	1215	8.4	120	8.0	5.0	1.5	564	10.7	103	30	9.9	1.4
DATE		SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
NOV 1996 26...	10	0.8	2.2	42	12	1.8	1.3	51	140	115	0.010	
DATE		NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, 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, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ANTI-MONY, TOTAL (UG/L AS SB) (01097)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)
NOV 1996 26...	<0.050	<0.015	0.30	0.20	<0.010	<0.010	<0.010	700	<1	<1	<100	
DATE		BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE) (01012)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV 1996 26...	<10	<1	<1	<1	<1	580	330	<1	30	<10	6.0	
DATE		MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)
NOV 1996 26...	<0.10	3	<1	<1	<1	50	<10	<3.0	0.44	<4.0	1.2	

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

RIO GRANDE BASIN -- Continued

353744106420110 - VALLECITO CR NR JEMEZ RES BNDRY NR JEMEZ, NM

		PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	P,P'- DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P,P'- DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)	P,P'- DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	
MAY 13...	1145	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	
DATE	TIME	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG) (81886)
MAY 13...	<0.1	<0.1	<10	<0.1	<0.1	<0.8	<1	<0.1	<1	

354013106443510 - RIO GUADALUPE AT MOUTH NEAR CANON, NM

DATE	TIME	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	P,P'- DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P,P'- DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)	P,P'- DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	
MAY 06...	1430	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	
DATE	TIME	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG) (81886)
MAY 06...	<0.1	<0.1	<10	<0.1	<0.1	<0.8	<1	<0.1	<1	

354014106443310 - JEMEZ R UPSTREAM OF RIO GUADALUPE NR CANON, NM

DATE	TIME	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	P,P'- DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P,P'- DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)	P,P'- DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	
MAY 06...	1330	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	
DATE		ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG) (81886)
MAY 06...	<0.1	<0.1	<10	<0.1	<0.1	<0.1	<1	<0.1	<1	

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

RIO GRANDE BASIN -- Continued

354943106384110 - SAN ANTONIO CREEK AT MOUTH NEAR JEMEZ SPRINGS, NM

DATE	TIME	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	P,P'- DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P,P'- DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)	P,P'- DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)
AUG 11...	1630	<1	<0.1	<0.1	<1	<0.5	0.9	6.4	<0.1

DATE	TIME	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG) (81886)
AUG 11...	<0.1	<0.1	<10	<0.1	<0.1	<0.8	<1	<0.1	<1	

355223106371710 - REDONDO CR AT NFS-BACA BNDRY NR JEMEZ SPRINGS, NM

DATE	TIME	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	P,P'- DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P,P'- DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)	P,P'- DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)
MAY 13...	1500	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1

DATE	TIME	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG) (81886)
MAY 13...	<0.1	<0.1	<10	<0.1	<0.1	<0.8	<1	<0.1	<1	

355410106371510 - SULPHUR CR AT NFS-BACA BNDRY NR JEMEZ SPRINGS, NM

DATE	TIME	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	P,P'- DDD, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39363)	P,P'- DDE, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39368)	P,P'- DDT, RECOVER IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)
MAY 13...	1600	<1	<0.1	<0.1	<1	0.2	<0.1	0.5	0.3

DATE	TIME	ENDO- SULFAN I TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG) (81886)
MAY 13...	<0.1	<0.1	<10	<0.1	<0.1	<0.8	<1	<0.1	<1	

WATER QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

TULAROSA VALLEY BASIN

The following water-quality tables for miscellaneous sites in the Tularosa Valley Basin are identified by 15-digit latitude-longitude site numbers are in order by ascending site numbers as shown before the site names. The inorganic analyses tables are followed by the organic-compound analyses table for these sites. This departure from the normal downstream order for surface-water sites was taken to facilitate locating these sites in this report and for comparing results for the same group of analyses

330508106085910 - TULAROSA CREEK AT WSMR ROAD 9, NR TULAROSA, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)
JUN 1997 03...	1220	0.06	4740	8.2	37.5	20.0	3.0	657	17.3	225	2300	2200
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 DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB AS (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
JUN 1997 03...	550	230	330	3	10	182	0	149	156	2200	480	
DATE		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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
JUN 1997 03...	1.1	0.24	33	4350	3940	<0.01	0.08	0.03	0.20	0.2	<0.01	
DATE		PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
JUN 1997 03...	0.01	30	26.0	2	1	<100	22	270	252	<1	<1	
DATE		CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
JUN 1997 03...	<1	<1.0	<1	<1	10	<9	<1	<1	50	54	20	
DATE		MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
JUN 1997 03...	5	<0.1	<0.1	1	<1	<1	<1	9200	9100	<10	18	

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

TULAROSA VALLEY BASIN -- Continued

330716106234510 - SALT CREEK 3 AT RANGE ROAD 6 ON WSMR, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (00301)	HARD-NESS TOTAL (MG/L CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	
AUG 1997	06...	1015	*0.0	47900	8.9	28.0	24.0	664	5.3	87	6200	6100	1100
DATE	TIME	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)
AUG 1997	06...	850	11000	62	250	17	22	50	57	6800	16000	1.5	3.5
DATE	TIME	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	
AUG 1997	06...	21	39400	36200	<0.01	<0.05	0.13	1.5	2.9	1.6	0.07	<0.01	
DATE	TIME	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	
AUG 1997	06...	0.01	130	<125	2	1	<100	110	1800	1630	<10	<10	
DATE	TIME	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	
AUG 1997	06...	<10	<10	<10	<10	140	<75	<10	<10	2700	2600	190	
DATE	TIME	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	
AUG 1997	06...	<25	<0.1	<0.1	3	3	<10	<10	24000	25000	<10	<75	

* Sample collected from ponded water immediately after rainfall-runoff event.

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

TULAROSA VALLEY BASIN -- Continued

331158106265710 - SALT CREEK NR NW-50 ON WSMR, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (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)	
AUG 1997 05...	1100	0.17	40300	9.1	24.0	23.0	666	7.9	122	5900	5900	990	
DATE		MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)
AUG 1997 05...	830	10000	58	240	0	38	64	65	6100	16000	3.3	3.2	
DATE		SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	
AUG 1997 05...	18	36600	34700	<0.01	<0.05	0.11	1.2	1.6	1.3	<0.01	<0.01		
DATE		PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	
AUG 1997 05...	0.01	---	<125	3	2	<100	120	1600	1480	<10	<10		
DATE		CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	
AUG 1997 05...	<10	<10	<10	<10	90	<75	<10	<10	2900	2700	120		
DATE		MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	
AUG 1997 05...	35	<0.1	<0.1	<1	<1	<10	<10	24000	24000	<10	<75		

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

TULAROSA VALLEY BASIN -- Continued

331657106185010 - MALPAIS MARSH NR OSCURA, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
JUN 1997 04...	0930	0.42	7070	7.2	24.0	20.0	0.74	659	5.7	75	2600
DATE	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD CACO3 (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
JUN 1997 04...	2500	740	170	710	6	6.6	90	0	74	78	2100
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)	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)
JUN 1997 04...	1300	1.5	0.39	19	5460	5160	<0.01	0.14	0.11	<0.2	<0.01
DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
JUN 1997 04...	<0.01	20	<20.0	<1	<1	<100	16	250	241	<2	<2
DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
JUN 1997 04...	<2	3.1	<2	<2	40	17	<2	<2	50	69	40
DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	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)	
JUN 1997 04...	33	<0.1	2	1	<2	<2	13000	14000	<10	<12	

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

TULAROSA VALLEY BASIN -- Continued

332057106211310 - SALT CREEK 4 AT RANGE ROAD 7 ON WSMR, NM

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
AUG 1997 05...	1345	0.25	30100	7.8	28.0	25.5	662	8.0	125	3800	3600	990
DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	
AUG 1997 05...	310	5900	42	130	212	0	174	182	3000	9600	5.0	
DATE	BROMIDE DIS-SOLVED (MG/L AS BR) (71870)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	
AUG 1997 05...	1.9	33	21300	20000	<0.01	0.05	0.13	0.4	<0.2	<0.01	<0.01	
DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	
AUG 1997 05...	0.01	30	<75.0	2	2	<100	32	690	650	<10	<10	
DATE	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	
AUG 1997 05...	<10	<10	<10	<10	130	55	<10	<10	1500	1300	160	
DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR) (01082)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	
AUG 1997 05...	150	<0.1	<0.1	1	<1	<10	<10	19000	20000	20	78	

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

TULAROSA VALLEY BASIN -- Continued

330716106234510 - SALT CREEK 3 AT RANGE ROAD 6 ON WSMR, NM

DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	2, 4-DP TOTAL (UG/L) (82183)
AUG 1997 06...	1015	<0.01	<0.01	<0.01	<0.01

331158106265710 - SALT CREEK NR NW-50 ON WSMR, NM

DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	2, 4-DP TOTAL (UG/L) (82183)
AUG 1997 05...	1100	<0.01	<0.01	<0.01	<0.01

331657106185010 - MALPAIS MARSH NR OSCURA, NM

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)
JUN 1997 04...	0930	<0.01	<0.01	<0.01	<0.01

332057106211310 - SALT CREEK 4 AT RANGE ROAD 7 ON WSMR, NM

DATE	TIME	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	2, 4-DP TOTAL (UG/L) (82183)
AUG 1997 05...	1345	<0.01	<0.01	<0.01	<0.01

OBSERVATION WELL--
Number indicates closely
spaced wells

- Nonrecording

Figure 8.--Location of observation wells.

GROUND-WATER LEVELS

BERNALILLO COUNTY
Albuquerque Area

350256106390801. Local number, 10N.03E.32.314.

LOCATION.--Lat 35°02'56", long 106°39'08", Hydrologic Unit 13020203. Owner: City of Albuquerque.

AQUIFER.--Santa Fe Group.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 16 in., depth 764 ft, perforated 188-764 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 4,941 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Lost several days of record due to recorder malfunction.

PERIOD OF RECORD.--1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.07 ft below land-surface datum, Jan. 5, 1987; lowest measured, 45.23 ft below land-surface datum, July 16, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.84	34.78	36.64	35.65	35.92	35.59	37.11	36.19	39.06	40.12	36.69	---
10	37.24	35.80	35.70	35.43	35.01	36.50	36.57	38.14	38.01	39.88	38.13	---
15	36.64	36.42	36.78	34.43	35.78	36.92	36.04	38.74	37.59	39.67	39.24	---
20	37.02	37.81	36.47	34.39	36.19	37.32	37.30	37.86	37.80	39.87	36.27	---
25	36.68	37.19	36.07	34.47	35.61	38.14	36.71	37.10	38.97	39.20	---	36.12
EOM	35.59	37.24	36.04	35.86	35.61	37.29	35.84	38.11	39.90	38.31	---	36.08

WTR YEAR 1997 HIGHEST 34.34 JAN 22, 1997 LOWEST 40.38 JUNE 28, 1997

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, 43.71 ft below land-surface datum, June 27, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	42.17	NOV 27	41.65	DEC 27	41.59	JAN 29	41.47	MAR 3	41.02	MAR 27	41.36
APR 29	41.49	MAY 30	42.00	JUNE 27	42.79	JULY 25	43.69	AUG 27	43.33	SEP 25	43.23

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 1996 TO SEPTEMBER 1997

WATER DATE	LEVEL
Jan. 9	269.85
Aug. 15	not measured

GROUND-WATER LEVELS

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CHAVES COUNTY
Roswell Basin -- Continued

332615104303601. Local number, 10S.24E.21.212222.

LOCATION.--Lat 33°26'15", long 104°30'36", Hydrologic Unit 13060008. Owner: Pecos Valley Artesian Conservancy District.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled artesian observation well completed in San Andres Limestone, diameter 10 in., depth 324 ft.

INSTRUMENTATION.--Monthly steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,580.65 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.60 ft above land-surface datum.

REMARKS.--Recorder removed Nov. 26, 1990. Monthly steel-tape measurements.

PERIOD OF RECORD.--June 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.06 ft below land-surface datum, Jan. 19, 1946; lowest measured, 74.40 ft below land-surface datum, July 30, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	35.20	NOV 25	33.70	DEC 24	32.50	JAN 24	31.20	FEB 25	30.40	MAR 25	34.10
APR 25	35.50	MAY 23	35.80	JUNE 25	35.20	JULY 25	41.50	AUG 25	39.70	SEP 25	37.30

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 1996 TO SEPTEMBER 1997

WATER DATE	LEVEL
Jan. 16	171.16
Aug. 12	176.22

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 1996 TO SEPTEMBER 1997

WATER DATE	LEVEL
Jan. 16	not measured
Aug. 14	15.36

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 1996 TO SEPTEMBER 1997

WATER DATE	LEVEL
Jan. 15	67.10
Aug. 14	68.33

GROUND-WATER LEVELS

CHAVES COUNTY
Roswell Basin -- Continued

331525104245201. (formerly 331205104245101) Local number, 12S.25E.23.344412.

LOCATION.--Lat 33°15'25", long 104°24'52", Hydrologic Unit 13060007. Owner: Pecos Valley Artesian Conservancy District.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 9 to 7 in., depth 930 ft, 9 in. casing 0-304 ft, 7 in. casing 304-714 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,539 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.90 ft above land-surface datum.

REMARKS.--Lost record due to recorder malfunction.

PERIOD OF RECORD.--Jan. 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.97 ft below land-surface datum, Feb. 9, 1993; lowest measured, 199.68 ft below land-surface datum, June 20, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	44.63	25.19	14.28	11.91	11.53	13.85	104.32	72.16	104.69	126.23	133.99	90.81
10	46.94	21.56	12.86	8.81	9.53	21.66	107.31	72.34	103.62	125.18	121.93	82.28
15	---	20.55	12.08	8.51	8.22	35.26	104.32	67.47	92.44	120.20	119.42	61.66
20	---	19.73	10.64	9.24	10.66	59.65	105.26	76.40	108.29	136.99	105.07	63.24
25	29.86	17.01	11.95	9.14	6.23	84.79	96.25	63.37	123.32	146.90	103.47	49.08
EOM	30.01	15.24	10.37	9.20	5.06	92.77	82.49	96.29	120.08	142.10	96.89	47.94

WTR YEAR 1997 HIGHEST 5.06 FEB 28, 1997 LOWEST 151.55 JUL 24, 1997

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 punch.

DATUM.--Elevation of land-surface datum is 3,540 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf 2.90 ft above land-surface datum.

REMARKS.--Lost several days of record, due to recorder malfunction.

PERIOD OF RECORD.--1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 101.06 ft below land-surface datum, May 18, 1997; lowest measured, 111.17 below land-surface datum, Sep. 22, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	102.60	102.47	102.26	102.05	101.67	101.49	101.30	101.21	101.19	101.32	101.48	101.67
10	102.61	102.49	102.26	102.02	101.63	101.35	101.31	101.15	101.24	101.35	101.53	101.68
15	102.57	102.43	102.26	101.96	101.59	101.33	101.33	101.11	101.25	101.38	101.53	101.70
20	102.51	102.38	102.10	101.86	101.42	101.30	101.34	101.16	101.27	101.39	101.64	101.84
25	102.42	102.36	102.06	101.79	---	101.33	101.33	101.16	101.29	101.42	101.65	101.80
EOM	102.51	102.30	102.09	101.70	101.42	101.31	101.26	101.20	101.31	101.47	101.67	101.78

WTR YEAR 1997 HIGHEST 101.06 MAY 18, 1997 LOWEST 102.79 OCT 17, 1997

331213104241601. (formerly 331216104241701) Local number, 13S.25E.12.311134.

LOCATION.--Lat 33°12'16", long 104°24'17", Hydrologic Unit 13060007. Owner: Hal Bogle.

AQUIFER.--Alluvium

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 13 in., depth 190 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,506 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.80 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1939 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.23 ft below land-surface datum, Feb. 3, 1942; lowest measured, 91.46 ft below land-surface datum, Aug. 14, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

WATER DATE	LEVEL
Jan. 15	84.59
Aug. 14	91.46

GROUND-WATER LEVELS

513

CHAVES COUNTY
Roswell Basin -- Continued

331002104254701. (formerly 331002104272001) Local number, 13S.25E.27.211144.
 LOCATION.--Lat 33°10'02", long 104°25'47", Hydrologic Unit 13060007. Owner: Hal Bogle.
 AQUIFER.--San Andres Limestone.
 WELL CHARACTERISTICS.--Drilled artesian observation well completed in San Andres Limestone, diameter 10 in., depth 880 ft.
 INSTRUMENTATION.--Monthly steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 3,523.76 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf 3.59 ft above land-surface datum.
 REMARKS.--Recorder removed Nov. 25, 1990. Monthly steel-tape measurements.
 PERIOD OF RECORD.--1940 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.24 ft above land-surface datum, Feb. 26, 1997; lowest measured, 198.30 ft below land-surface datum, July 18, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	31.21	NOV 25	12.35	DEC 24	3.90	JAN 24	2.04	FEB 26	0.24	MAR 25	110.90
APR 25	133.26	MAY 23	73.31	JUNE 25	152.01	JULY 25	173.30	AUG 25	119.46	SEP 25	48.10

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 16	282.83
Aug. 14	not measured

330646104173301. (formerly 330640104174501) Local number, 14S.26E.12.431331.
 LOCATION.--Lat 33°06'40", long 104°17'45", Hydrologic Unit 13060007. Owner: C. B. Donaghy.
 AQUIFER.--Valley Fill.
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 13 in., depth 125 ft, cased 0-125 ft, perforated 50-115 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 3,396.4 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing at land-surface datum.
 PERIOD OF RECORD.--Jan. 1940 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.50 ft below land-surface datum, Jan. 22, 1942; lowest measured, 23.77 ft below land-surface datum, Aug. 25, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 15	17.19
Aug. 14	17.44

330404104221201. Local number, 14S.26E.30.44444.
 LOCATION.--Lat 33°04'04", long 104°22'12", Hydrologic Unit 13060007. Owner: Bartlett.
 AQUIFER.--San Andres Limestone.
 WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 5/8 in., depth 1,150 ft, cased to 740 ft, open hole 740-1,150 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 3,484 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.00 ft above land-surface datum.
 PERIOD OF RECORD.--Feb. 1970 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 58.10 ft below land-surface datum, Feb. 11, 1993; lowest measured, 276.99 ft below land-surface datum, Aug. 17, 1995.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 15	71.63
Aug. 14	272.04

GROUND-WATER LEVELS

CIBOLA COUNTY
Grants-Bluewater Area

350346107521201. (formerly 350400107510501) Local number, 10N.10W.26.331.
 LOCATION.--Lat 35°04'00", long 107°51'05", Hydrologic Unit 13020207. Owner: Monico Mirabal.
 AQUIFER.--Glorieta Sandstone of Permian Age.
 WELL CHARACTERISTICS.--Drilled artesian irrigation well, diameter 16 in., depth 216 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 6,455 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1/2 in. hole in pump base, 1.00 ft above land-surface datum.
 PERIOD OF RECORD.--Feb. 1952 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.18 ft below land-surface datum, Feb. 21, 1952; lowest measured, 34.69 ft below land-surface datum, Jan. 17, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 7	29.04
Aug. 12	28.98

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 7	23.02
Aug. 12	25.90

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 7	79.27
Aug. 12	80.62

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 27	98.60
July 12	116.26

GROUND-WATER LEVELS

515

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 7	84.92
Aug. 12	85.78

COLFAX COUNTY
Capulin Basin

364522104034501. (formerly 364500104031501) Local number, 29N.27E.16.222.
 LOCATION.--Lat 36°45'00", long 104°03'15", Hydrologic Unit 11040001. Owner: John King.
 AQUIFER.--Alluvium.
 WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 8 in., depth 120 ft, cased to 20 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 6,821.5 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.50 ft above land-surface datum.
 PERIOD OF RECORD.--Feb. 1957 to Feb. 1969, Feb. 1971 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.65 ft below land-surface datum, Feb. 3, 1960; lowest measured, 9.37 ft below land-surface datum, Aug. 13, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 23	not measured
July 23	8.09

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 26	136.37
Aug. 4	136.48

GROUND-WATER LEVELS

CURRY COUNTY
Clovis Area

341836103052001. Local number, 01N.37E.17.113133

LOCATION.--Lat 34°18'53", long 103°05'26", Hydrologic Unit 12050002. Owner: Don Oppliger.

AQUIFER.--Ogallala.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 16 in., depth 373 ft, screened 293-373 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 4,113 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of recorder shelter apron, 3.93 ft above land-surface datum.

REMARKS.--Records good.

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, 263.20 ft below land-surface datum, Sept. 1, 1997

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	256.13	255.99	255.77	256.05	254.95	255.41	256.72	257.23	258.79	260.78	262.57	262.46
10	256.14	256.00	255.88	255.75	255.47	255.80	256.45	257.53	258.61	260.86	262.71	262.66
15	256.13	255.88	256.21	255.23	255.41	256.84	256.60	257.76	258.48	261.34	261.87	262.60
20	255.96	255.99	256.15	255.28	255.03	257.09	256.51	257.79	259.08	261.72	261.76	262.67
25	255.96	256.07	255.88	255.57	254.91	257.27	256.68	257.62	259.89	261.92	261.75	262.57
EOB	256.16	255.88	256.02	255.38	255.11	256.74	256.47	258.25	260.37	262.34	262.87	262.46

WTR YEAR 1997 HIGHEST 254.84 FEB 26, 1997 LOWEST 263.20 SEP 1, 1997

342358103093601. Local number, 02N.36E.15.11111.

LOCATION.--Lat 34°23'58", long 103°09'36", Hydrologic Unit 12050002. Owner: Anne Humphreys.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table irrigation well; diameter, depth and casing information not available.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,227 ft above National Geodetic Vertical Datum of 1929. Measuring

point: Top of concrete base 1.20 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 266.89 ft below land-surface datum, Jan. 4, 1974; lowest measured, 291.29 ft below land-surface datum, Aug. 6, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 21	288.28
July 22	pumping

342736103203701. (formerly 342815103270001) Local number, 03N.34E.23.433133.

LOCATION.--Lat 34°27'36", long 103°20'37", Hydrologic Unit 12050001. Owner: Archie Baker.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 16 in., depth 418 ft, cased to 418 ft, perforated 365-418 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,432 ft above National Geodetic Vertical Datum of 1929. Measuring

point: Top of casing, 0.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 340.62 ft below land-surface datum, Mar. 16, 1957; lowest measured, 359.69 ft below land-surface datum, July 22, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 23	359.18
July 22	359.69

GROUND-WATER LEVELS

517

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, 296.71 ft above land-surface datum, Apr. 4, 1997; lowest measured, 309.92 ft below land-surface datum, Jan. 9, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	DAILY HIGHEST VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	297.46	---	297.18	297.44	297.33	---	296.89	297.25	296.94	297.05	297.03	296.95
10	297.58	---	297.25	297.07	297.17	---	296.89	297.15	297.20	297.06	297.07	296.98
15	297.44	297.19	297.58	296.95	---	---	297.22	297.23	297.05	297.20	296.88	297.00
20	297.17	---	297.08	---	296.84	297.17	297.07	297.20	297.05	297.18	297.15	297.10
25	297.12	---	297.07	297.03	297.33	297.35	297.15	296.98	297.20	297.06	297.03	296.99
EOM	---	296.96	297.38	297.32	296.88	297.14	297.04	297.17	297.12	297.12	297.12	297.01

WTR YEAR 1997 HIGHEST 296.71 APR 4, 1997 LOWEST 297.80 DEC 15, 1996

343615103123801. Local number, 05N.35E.35.31324.
 LOCATION.--Lat 34°36'15", long 103°12'38", Hydrologic Unit 12050005. Owner: S. W. Pipkin.
 AQUIFER.--Ogallala formation.
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 527 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 4,504 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 0.50 ft above land-surface datum.
 PERIOD OF RECORD.--Jan. 1954 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 376.40 ft below land-surface datum, Mar. 26, 1954; lowest measured, 451.72 ft below land-surface datum, July 22, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 24	451.19
July 22	451.72

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 20	12.36
July 24	10.26

GROUND-WATER LEVELS

DONA ANA COUNTY
Rincon and Mesilla Valleys -- Continued

321606106462901. (formerly 321620106461501) Local number, 23S.02E.31.213.
 LOCATION.--Lat 32°16'20", long 106°46'15", Hydrologic Unit 13030102. Owner: New Mexico State University.
 AQUIFER.--Valley Fill.
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 14 in., reported depth 70 ft, cased to 70 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 3,880 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 5/8 in. hole in pump base, 1.08 ft above land-surface datum.
 PERIOD OF RECORD.--Feb. 1948, Apr. 1957 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.13 ft below land-surface datum, Feb. 10, 1948; lowest measured, 29.12 ft below land-surface datum, Jan. 7, 1958.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 20	19.85
July 24	18.53

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 17	53.46
Aug. 14	61.06

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	61.40	NOV 20	60.63	DEC 20	59.94	JAN 17	59.53	FEB 27	59.04	MAR 19	59.33
APR 23	60.63	MAY 16	61.15	JUNE 20	61.82	JULY 24	61.97	AUG 22	61.79	SEP 19	61.79

GROUND-WATER LEVELS

519

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 17	106.30
Aug. 14	119.41

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 16	544.46
Aug. 11	508.63

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 punch.
 DATUM.--Elevation of land-surface datum is 3,402.1 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 3.40 ft above land-surface datum.
 REMARKS.--Lost record due to recorder malfunction.
 PERIOD OF RECORD.--June 1961 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.57 ft below land-surface datum, Feb. 20, 1989; lowest measured, 209.15 ft below land-surface datum, July 31-Aug. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	123.49	98.71	89.61	81.58	77.95	73.71	120.81	116.51	122.18	144.10	158.19	152.14
10	116.73	97.51	88.82	80.53	76.15	76.36	124.09	116.86	125.67	---	157.75	149.46
15	112.59	95.35	87.37	---	74.68	89.54	123.02	122.94	131.44	146.41	155.51	139.38
20	108.93	94.56	85.69	78.49	73.27	102.85	124.35	126.73	136.34	150.46	152.71	138.62
25	104.19	93.09	84.07	78.35	72.68	109.38	122.93	119.44	144.64	159.73	149.61	128.58
EOM	101.32	90.81	82.74	79.29	72.42	113.15	117.44	122.07	140.49	163.47	151.69	124.59

WTR YEAR 1997 HIGHEST 72.29 FEB 27, 1997 LOWEST 164.71 JUL 31, 1997

GROUND-WATER LEVELS

EDDY COUNTY
Roswell Basin -- Continued

324620104255101. Local number, 18S.26E.06.442212B.

LOCATION.--Lat 32°46'20", long 104°24'45", Hydrologic Unit 13060007. Owner: Pecos Valley Artesian Conservancy District.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 7 in., depth 246 ft, casing 0-246 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,402 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 2.70 ft above land-surface datum.

REMARKS.--Lost record due to recorder malfunction.

PERIOD OF RECORD.--1963 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 106.83 ft below land-surface datum, Jan. 7, 1974; lowest measured, 142.37 ft below land-surface datum, Aug. 16 and 17, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	137.85	---	128.42	125.09	122.07	120.08	124.27	130.73	132.34	136.28	140.83	---
10	137.34	---	127.92	124.36	121.70	119.67	125.71	130.85	132.78	136.83	140.95	---
15	136.51	---	127.47	123.88	121.31	119.98	127.18	131.19	133.09	137.67	140.95	---
20	135.68	---	126.67	123.28	120.55	120.82	128.45	131.79	133.53	138.54	140.90	---
25	---	130.06	126.06	122.92	120.22	121.73	129.81	131.81	134.50	139.39	---	---
EOM	---	129.21	125.61	122.28	120.01	123.33	130.27	132.22	135.36	140.42	---	---

WTR YEAR 1997 HIGHEST 119.58 MAR 12, 1997 LOWEST 141.00 AUG 10, 1997

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, 125.27 ft below land-surface datum, Sept. 19, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	124.92	NOV 20	124.92	DEC 20	124.99	JAN 21	124.87	FEB 26	124.87	MAR 19	125.05
APR 23	125.00	MAY 16	125.03	JUNE 20	124.94	JULY 24	125.12	AUG 22	125.21	SEP 19	125.27

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 17	39.74
Aug. 14	pumping

GROUND-WATER LEVELS

521

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	34.38	NOV 20	35.35	DEC 20	35.74	JAN 21	35.62	FEB 27	34.84	MAR 19	35.12
APR 24	33.85	MAY 16	33.87	JUNE 20	34.61	JULY 24	34.01	AUG 22	33.39	SEP 19	33.01

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 punch.
 DATUM.--Elevation of land-surface datum is 3,121.84 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder shelf, 4.14 ft above land-surface datum.
 REMARKS.--Records good.
 PERIOD OF RECORD.--April 1962 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.98 ft below land-surface datum, June 14, 1987; lowest measured, 26.07 ft below land-surface datum, Aug. 2, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.34	22.04	21.67	21.83	21.85	21.78	22.07	22.47	22.74	23.10	23.13	23.12
10	22.27	21.90	21.78	21.76	21.83	21.80	22.14	22.45	22.95	23.09	23.00	23.20
15	22.17	21.66	21.93	21.82	21.78	21.88	22.25	22.53	22.87	23.24	22.74	23.02
20	22.15	21.71	21.78	21.78	21.54	21.95	22.32	22.76	23.03	23.23	22.99	23.19
25	21.94	21.82	21.75	21.82	21.62	22.05	22.43	22.47	23.26	23.34	23.03	22.88
EOM	22.04	21.69	21.86	21.78	21.54	22.17	22.20	22.72	22.91	23.32	23.13	22.90

WTR YEAR 1997 HIGHEST 21.53 FEB 27, 1997 LOWEST 23.44 JUL 30, 1997

322712104074501. (formerly 322710104073901) Local number, 21S.28E.30.14123.
 LOCATION.--Lat 32°27'10", long 104°07'39", Hydrologic Unit 13060011. Owner: Forrest Miller.
 AQUIFER.--Capitan Limestone.
 WELL CHARACTERISTICS.--Drilled exploration well, diameter 8 5/8 - 5 1/2 in., reported depth 1,060 ft, plugged back, total depth 906 ft.
 INSTRUMENTATION.--Digital recorder, 1-hour punch.
 DATUM.--Elevation of land-surface datum is 3,181.71 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.64 ft above land-surface datum.
 REMARKS.--Records good.
 PERIOD OF RECORD.--1963 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.13 ft below land-surface datum, June 29, 1987; lowest measured, 98.68 ft below land-surface datum, Aug. 3, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	93.38	93.39	92.96	92.76	92.61	92.41	92.83	93.21	93.54	93.91	94.06	94.00
10	93.40	93.27	93.01	92.68	92.59	92.59	92.97	93.24	93.56	93.84	93.80	93.96
15	93.39	93.00	93.06	92.65	92.54	92.63	93.01	93.17	93.73	93.93	93.65	93.85
20	93.44	93.02	93.02	92.58	92.33	92.75	93.08	93.59	93.76	94.02	93.70	93.93
25	93.27	93.11	92.94	92.54	92.42	92.79	93.18	93.30	93.94	94.10	93.84	93.78
EOM	93.34	92.96	92.86	92.56	92.28	92.98	93.03	93.45	93.70	94.11	93.83	93.72

WTR YEAR 1997 HIGHEST 92.28 FEB 28, 1997 LOWEST 94.29 JUL 24, 1997

GROUND-WATER LEVELS

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 punch.
 DATUM.--Elevation of land-surface datum is 3,225 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.40 ft above land-surface datum.
 REMARKS.--Records good.
 PERIOD OF RECORD.--July 1942 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 131.50 ft below land-surface datum, Oct. 14, 1942; lowest measured, 214.82 ft below land-surface datum, Sep. 15, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	155.74	153.41	148.78	146.34	145.32	145.20	148.56	154.24	154.14	156.61	158.03	157.61
10	156.67	152.54	148.32	146.00	145.42	145.22	150.02	153.81	154.91	156.86	157.92	156.85
15	157.21	151.43	148.10	145.85	145.40	145.25	151.33	153.15	154.59	156.44	157.93	155.78
20	156.83	150.68	147.48	145.58	145.04	145.46	152.17	152.88	154.12	156.70	158.11	155.61
25	155.74	150.18	147.01	145.45	145.13	145.83	153.32	153.29	154.46	157.75	158.27	155.05
EOM	154.55	149.42	146.70	145.30	144.95	147.38	154.37	153.87	155.39	158.16	157.57	153.94

WTR YEAR 1997 HIGHEST 144.95 FEB 28, 1997 LOWEST 158.51 AUG 23, 1997

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 21	28.93
Aug. 11	27.60

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 punch.
 DATUM.--Elevation of land-surface datum is 3,501.7 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.17 ft above land-surface datum.
 REMARKS.--Lost record due to recorder malfunction.
 PERIOD OF RECORD.--1963 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 369.53 ft below land-surface datum, June 27, 1986; lowest measured, 404.06 ft below land-surface datum, July 10, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	400.14	399.97	399.65	399.79	399.83	399.78	400.29	---	---	401.82	401.51	---
10	400.12	400.02	399.73	399.80	399.85	399.87	400.87	---	---	401.72	401.14	401.96
15	400.02	399.79	399.88	399.83	399.85	399.88	401.07	---	---	401.97	401.56	401.83
20	399.97	399.80	399.76	399.85	399.67	399.97	401.10	401.54	---	401.93	401.73	401.98
25	399.87	399.88	399.78	399.81	399.69	400.09	---	401.29	401.91	402.03	401.82	401.72
EOM	399.95	399.62	399.84	399.77	399.57	400.18	---	---	401.67	402.02	401.89	401.09

WTR YEAR 1997 HIGHEST 399.57 FEB 27, 1997 LOWEST 402.11 SEP 3, 1997

GROUND-WATER LEVELS

523

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 21	55.71
Aug. 11	53.35

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 22	57.11
Aug. 11	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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 22	44.39
Aug. 11	45.96

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. "P" indicates well pumping.
 PERIOD OF RECORD.--Mar. 1984 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 268.84 ft below land-surface datum, Jan. 14, 1986; lowest measured, 404.60 s ft below land-surface datum, Jan. 6, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	
Jan. 24	387.98	S
July 3	391.04	P

GROUND-WATER LEVELS

GRANT COUNTY
Silver City Area

324600108222501. Local number, 18S.15W.11.323.

LOCATION.--Lat 32°46'00", long 108°22'25", Hydrologic Unit 15040002. Owner: Town of Silver City.

AQUIFER.--Gila Conglomerate.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 12 in., depth 580 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 5,845 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 12 in. casing, 1.50 ft above land-surface datum.

REMARKS.--Lost several months of record, due to recorder malfunction.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 262.34 ft below land-surface datum, Mar. 3, 1962; lowest measured, 296.24 ft below land-surface datum, June 10, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	293.28	293.43	294.01	294.45	294.82	295.29	295.17	295.77	295.86	---	---	---
10	293.35	293.61	294.08	294.61	295.01	295.16	295.17	295.76	296.17	---	---	---
15	293.22	293.28	294.24	294.87	295.21	295.13	295.52	295.81	---	---	---	---
20	293.10	293.70	294.28	294.79	294.87	295.21	295.43	295.84	---	---	---	---
25	293.04	293.90	294.24	294.89	294.88	295.07	295.29	295.81	---	---	---	---
EOM	293.42	293.70	294.56	294.90	294.67	295.23	295.57	296.02	---	---	---	---

WTR YEAR 1997 HIGHEST 293.04 OCT 25, 1996 LOWEST 296.24 JUN 10, 1997

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 punch.

DATUM.--Elevation of land-surface datum is 5,162.7 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.10 ft above land-surface datum.

REMARKS.--Records good.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 343.67 ft below land-surface datum, July 27, 1992; lowest measured, 362.36 ft below land-surface datum, Apr. 12, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	351.91	352.43	352.35	352.71	352.86	353.05	351.79	350.68	348.69	347.77	347.53	347.20
10	351.99	352.52	352.34	352.65	352.92	352.98	351.68	350.35	348.44	347.32	347.34	347.13
15	352.03	352.56	352.43	352.74	352.95	352.80	351.58	350.15	348.04	347.44	347.11	347.18
20	352.16	352.66	352.40	352.86	352.88	352.51	351.45	349.76	347.82	347.56	347.16	347.43
25	352.14	352.56	352.49	352.96	352.87	352.36	351.22	349.71	347.68	347.71	347.11	347.31
EOM	352.42	352.47	352.67	352.84	352.81	352.04	350.83	349.10	347.46	347.74	347.61	347.41

WTR YEAR 1997 HIGHEST 347.10 AUG 22, 1997 LOWEST 353.68 JAN 16, 1997

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 14	49.90
July 23	50.82

GROUND-WATER LEVELS

525

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 13	12.07
July 7	13.82

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 14	155.54
July 8	157.10

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, 181.44 ft below land-surface datum, July 7, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 14	87.28
July 7	181.44 S

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 15	53.95
July 8	55.50

GROUND-WATER LEVELS

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 15	181.06
July 8	pumping

HIDALGO COUNTY
San Simon Valley

315738109004001. Local number, 27S.21W.17.124.
 LOCATION.--Lat 34°57'38", long 109°00'40", Hydrologic Unit 15040006. Owner: E. J. Bagwell.
 AQUIFER.--Bolson.
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 220 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 4,020 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in west side of pump base, 1.00 ft above land-surface datum.
 PERIOD OF RECORD.--Jan. 1978, Jan. 1980, July 1984 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 120.98 ft above land-surface datum, Jan. 10, 1980; lowest measured, 126.79 ft below land-surface datum, July 9, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 16	126.66
July 9	126.79

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 16	121.59
July 9	122.19

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 13	47.23
July 7	47.20

GROUND-WATER LEVELS

527

HIDALGO COUNTY
Playas Valley -- Continued

312938108302301. Local number, 32S.16W.30.134.

LOCATION.--Lat 31°29'38", long 108°30'23", Hydrologic Unit 13030201. Owner: C. C. Edwards.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 150 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,490 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 3/4 in. pipe nipple inside pump shell, 1.45 ft above land-surface datum.

PERIOD OF RECORD.--Mar. 1952 to current year.

REMARKS.--"P" indicates well pumping.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 85.11 ft below land-surface datum, Mar. 27, 1952; lowest measured, 129.10P ft below land-surface datum, Aug. 20, 1962.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 13	86.47
July 7	86.61

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 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 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	61.38	61.33	61.30	61.25	61.20	61.19	61.19	61.15	61.11	61.09	61.07	61.03
10	61.36	61.33	61.31	61.24	61.21	61.18	61.17	61.14	61.11	61.09	61.06	60.94
15	61.35	61.32	61.30	61.25	61.21	61.19	61.18	61.09	61.10	61.08	61.06	60.95
20	61.36	61.32	61.28	61.22	61.20	61.20	61.17	61.12	61.10	61.08	61.07	60.95
25	61.33	61.32	61.27	61.21	61.18	61.20	61.15	61.12	61.10	61.07	61.05	60.96
EOM	61.35	61.30	61.26	61.21	61.19	61.17	61.15	61.11	61.10	61.07	61.04	60.95

WTR YEAR 1997 HIGHEST 60.95 SEP 30, 1997 LOWEST 61.42 OCT 7, 1996

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 2	31.70
Aug. 19	31.54

GROUND-WATER LEVELS

LEA COUNTY
Tatum-Lovington-Hobbs Area -- Continued

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

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 2	43.85
Aug. 19	43.97

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 2	71.86
Aug. 19	76.14

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 punch.
 DATUM.--Elevation of land-surface datum is 3,926 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelf, 4.00 ft above land-surface datum.
 REMARKS.--Records good.
 PERIOD OF RECORD.--Aug. 1971 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.67 ft below land-surface datum, Feb. 5, 1995; lowest measured, 67.11 ft below land-surface datum, Aug. 24, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	58.01	57.77	57.63	57.56	57.49	57.43	57.36	57.42	57.45	57.53	57.70	57.65
10	57.99	57.76	57.62	57.55	57.46	57.40	57.35	57.44	57.48	57.55	57.72	57.64
15	57.91	57.70	57.63	57.53	57.46	57.40	57.38	57.44	57.48	57.60	57.71	57.62
20	57.87	57.69	57.61	57.52	57.42	57.38	57.35	57.46	57.49	57.61	57.73	57.62
25	57.82	57.68	57.59	57.49	57.42	57.40	57.35	57.44	57.52	57.62	57.72	57.58
EOM	57.81	57.66	57.57	57.49	57.42	57.37	57.39	57.46	57.53	57.68	57.68	57.53

WTR YEAR 1997 HIGHEST 57.34 APR 24, 1997 LOWEST 58.03 OCT 1, 1996

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 2	73.50
Aug. 19	69.23

GROUND-WATER LEVELS

529

LEA COUNTY

Tatum-Lovington Hobbs Area -- Continued

325132103112501. Local number, 17S.38E.07.111311.

LOCATION.--Lat 32°51'32", long 103°11'25", Hydrologic Unit 12080003. Owner: L. R. Seblings.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., reported depth 125 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,740 ft above National Geodetic Vertical Datum of 1929. Measuring point: Edge of pipe on west side of pump, 0.95 ft above land-surface datum.

PERIOD OF RECORD.--July 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.59 ft below land-surface datum, Mar. 21, 1952; lowest measured, 74.15 ft below land-surface datum, July 22, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 3	68.81
Aug. 19	pumping

324745103082001. Local number, 17S.38E.34.113143.

LOCATION.--Lat 32°47'45", long 103°08'20", Hydrologic Unit 12080003. Owner: W. E. Busby.

AQUIFER.--Ogallala formation.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 12 in., depth 125 ft, cased to 90 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,660 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.78 ft below land-surface datum, Jan. 15, 1944; lowest measured, 68.85 ft below land-surface datum, Aug. 19, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 3	68.15
Aug. 19	68.85

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 9	35.49
Aug. 12	37.56

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 9	45.68
Aug. 12	45.40

GROUND-WATER LEVELS

LUNA COUNTY
Nutt-Hockett

322927107220101. (formerly 322930107221001) Local number, 21S.05W.08.444.
LOCATION.--Lat 32°29'30", long 107°22'10", Hydrologic Unit 13030202. Owner: Leonard Farms.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 435 ft, cased to 435 ft.
INSTRUMENTATION.--Periodic steel-tape measurements.
DATUM.--Elevation of land-surface datum is 4,530 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in NE side of pump shell, 1.60 ft above land-surface datum.
PERIOD OF RECORD.--Nov. 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 102.06 ft below land-surface datum, Jan. 17, 1962; lowest measured, 213.12 ft below land-surface datum, Jan. 22, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 22	213.12
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 several days of record due to recorder malfunction.
PERIOD OF RECORD.--Apr. 1939 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 71.61 ft below land-surface datum, May 6-13, 1940; lowest measured, 113.30 ft below land-surface datum, Aug. 12 and 20, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	103.09	---	---	102.05	102.02	102.49	103.23	104.30	104.81	105.03	103.93	102.80
10	103.08	---	---	102.01	102.05	102.56	103.29	104.35	105.01	104.97	103.66	102.77
15	103.04	---	---	101.96	102.38	102.64	103.60	104.40	105.08	104.86	103.40	102.75
20	102.91	---	---	---	102.30	102.84	103.65	104.60	104.99	104.70	103.30	102.72
25	---	---	102.04	101.92	102.32	102.94	104.05	104.64	105.03	104.47	103.10	102.69
EOM	---	---	102.08	101.98	102.31	103.21	104.15	104.84	105.03	104.21	102.94	102.58

WTR YEAR 1997 HIGHEST 101.88 JAN 17, 1997 LOWEST 105.15 JUL 4, 1997

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 22	173.93
July 1	177.16

GROUND-WATER LEVELS

531

LUNA COUNTY
Mimbres Valley -- Continued

321010107260201. (formerly 321015107260501) Local number, 25S.06W.02.111.
 LOCATION.--Lat 32°10'15", long 107°26'05", Hydrologic Unit 13030202. Owner: C. W. Johnson, Jr.
 AQUIFER.--Bolson deposits.
 WELL CHARACTERISTICS.--Drilled artesian irrigation well, diameter 16 in., depth 235 ft, perforated 180-235 ft, gravel packed.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 4,090 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.30 ft above land-surface datum.
 PERIOD OF RECORD.--May 1952 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.45 ft below land-surface datum, Mar. 14, 1953; lowest measured, 117.66 ft below land-surface datum, Aug. 6, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 23	20.88
July 2	32.20

320918107293301. (formerly 320915104294501) Local number, 25S.06W.07.211.
 LOCATION.--Lat 32°09'15", long 107°29'45", Hydrologic Unit 13030202. Owner: H. C. Telles.
 AQUIFER.--Bolson deposits.
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 230 ft, cased to 230 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 4,084.22 ft above National Geodetic Vertical Datum of 1929. Measuring point: Hole in pump base, 1.20 ft above land-surface datum (since Jan. 15, 1966).
 PERIOD OF RECORD.--Jan. 1953 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.34 ft below land-surface datum, Mar. 14, 1953; lowest measured, 122.16 ft below land-surface datum, Aug. 13, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 23	82.14
July 2	82.06

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.--Monthly 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, 221.86 ft below land-surface datum, Aug. 20, 1996.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	212.56	NOV 20	207.16	DEC 23	202.99	JAN 22	196.19	FEB 20	201.76	MAR 20	211.63
APR 22	215.19	MAY 19	218.19	JUNE 24	220.23	JULY 18	220.95	AUG 20	219.91	SEP 23	215.19

315517107375001. (formerly 315525107374501) Local number, 27S.08W.35.122.
 LOCATION.--Lat 31°55'25", long 107°37'45", Hydrologic Unit 13030202. Owner: M. M. Gibson.
 AQUIFER.--Bolson deposits.
 WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 12 to 8 in., depth 550 ft, cased to 550 ft, perforated 155-550 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 4,070 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.20 ft above land-surface datum.
 PERIOD OF RECORD.--July 1952 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.84 ft below land-surface datum, Mar. 16, 1953; lowest measured, 119.34 ft below land-surface datum, Aug. 3, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 22	79.29
July 1	88.52

GROUND-WATER LEVELS

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 22	38.69
July 1	39.12

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 22	16.62
July 1	16.49

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 27	88.90
July 22	89.65

353645108011501. Local number, 16N.11W.17.4322.
 LOCATION.--Lat 35°36'45", long 108°01'15", Hydrologic Unit 14080106. Owner: Navajo Nation.
 AQUIFER.--Gallup Sandstone.
 WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 5/8 in., depth 570 ft, cased to 570 ft, perforated 470-570 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 7,070 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.53 ft above land-surface datum.
 PERIOD OF RECORD.--July 1959 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 252.31 ft below land-surface datum, Feb. 24, 1997; lowest measured, 318.28 ft below land-surface datum, July 21, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 24	252.31
Aug. 12	252.55

GROUND-WATER LEVELS

533

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.

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	
Feb. 25	183.05	P
Aug. 12	133.42	

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, 244.32 ft below land-surface datum, Feb. 24, 1997; lowest measured, 350.38 ft below land-surface datum, Oct. 8, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 24	244.32
Aug. 12	243.49

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 24	125.48
Aug. 12	125.51

OTERO COUNTY
Tularosa-Alamogordo Area

330321106011101. (formerly 330324106011201) Local number, 14S.10E.31.144.

LOCATION.--Lat 33°03'21", long 106°01'11", Hydrologic Unit 13050003. Owner: Luther Watson.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, depth 230 ft, diameter 17 in., casing 0-130 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,450 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top edge of 1 in. hole in pump base, 0.70 ft above land-surface datum.

PERIOD OF RECORD.--Apr. 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 73.75 ft below land-surface datum, Apr. 8, 1952; lowest measured, 134.21 ft below land-surface datum, Aug. 3, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 21	89.29
July 25	93.97

GROUND-WATER LEVELS

OTERO COUNTY
Crow Flats Basin
(Salt Basin)

320657105061501. Local number, 25S.18E.21.233.
 LOCATION.--Lat 32°06'57", long 105°06'15", Hydrologic Unit 13050004. Owner: Gene Lewis.
 AQUIFER.--Bolson deposits.
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth unknown.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 3,690 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 0.50 ft above land-surface datum.
 PERIOD OF RECORD.--Apr. 1956 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.80 ft below land-surface datum, Apr. 20, 1956; lowest measured, 101.55 ft below land-surface datum, Sep. 15, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 21	89.52
Aug. 11	91.30

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 22	55.78
Aug. 11	62.26

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 22	48.00
Aug. 11	pumping

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 13	74.55
June 17	74.64

GROUND-WATER LEVELS

535

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 13	pumping
Sep. 17	50.50

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 13	120.00
Sep. 17	120.14

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 13	not measured
July 24	51.07

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan.	not measured
July 23	89.69

GROUND-WATER LEVELS

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan.	not measured
July 23	166.14

ROOSEVELT COUNTY
Portales Valley

341014103264401. Local number, 01S.33E.35.434344.

LOCATION.--Lat 34°10'14", long 103°26'44", Hydrologic Unit 12050002. Owner: Jones

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 16 in., depth 84 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 4,066 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1.80 in. shaft hole, in center of pump, 2.80 ft above land-surface datum.

REMARKS.--Recorder installed Apr. 25, 1996. Lost record several days due to recorder malfunction.

PERIOD OF RECORD.--Apr. to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 66.37 ft below land-surface datum, Apr. 25, 1996; lowest measured, 67.42 ft below land-surface datum, Sep. 16, 1997

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	66.69	66.74	66.79	66.87	66.91	67.00	67.05	67.12	67.16	67.22	67.31	---
10	66.68	66.74	66.80	66.88	66.92	67.00	67.06	67.13	67.19	67.24	67.31	---
15	66.69	66.76	66.81	66.89	66.93	67.01	67.07	67.15	67.18	67.23	67.32	---
20	66.71	66.76	66.84	66.89	66.94	67.01	67.08	67.15	67.18	67.25	67.32	67.33
25	66.72	66.78	66.84	66.89	66.96	67.03	67.13	67.16	67.20	67.30	67.31	67.31
BOM	66.75	66.80	66.86	66.90	66.97	67.02	67.11	67.16	67.21	67.31	---	67.29

WTR YEAR 1997 HIGHEST 66.67 OCT 1, 1996 LOWEST 67.42 SEP 16, 1997

341037103254501. Local number, 01S.33E.36.23111.

LOCATION.--Lat 34°10'37", long 103°25'45", Hydrologic Unit 12050002. Owner: State of New Mexico.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 18 in., depth 105 ft.

INSTRUMENTATION.--Periodic steel tape measurements.

DATUM.--Elevation of land-surface datum is 4,048 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.95 ft above land-surface datum.

REMARKS.--Recorder removed Apr. 25, 1996.

PERIOD OF RECORD.--Jan. 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.19 ft below land-surface datum, Jan. 25, 1952; lowest measured, 86.65 ft below land-surface datum, Jan. 23, 1997.

DATE	WATER LEVEL
Jan. 23	86.65
July 22	not measured

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 8	55.48
July 22	dry

GROUND-WATER LEVELS

537

ROOSEVELT COUNTY
Portales Valley -- Continued

340753103083101. Local number, 02S.36E.14.311111.

LOCATION.--Lat 34°07'53", long 103°08'31", Hydrologic Unit 12050001. Owner: Rogers.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 16 in., depth 151 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 3,938 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.37 ft above land-surface datum, Jan. 6, 1975; lowest measured, 79.44 ft below land-surface datum, July 25, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
July 22	pumping

340844103055001. Local number, 02S.37E.07.432222.

LOCATION.--Lat 34°08'44", long 103°05'50", Hydrologic Unit 12050001. Owner: Rogers.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 13.5 in., depth 204 ft, cased to 204 ft, perforated 151-204 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 3,982 ft above National Geodetic Vertical Datum of 1929. Measuring point: Edge of recorder shelter, 3.00 ft. above land-surface datum.

REMARKS.--Recorder installed June 2, 1992. Lost record, due to recorder malfunction.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 103.78 ft below land-surface datum, June 2 1992; lowest measured, 128.46 ft below land-surface datum, Sept. 17, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	122.86	122.57	121.95	121.25	120.64	120.14	120.80	121.11	122.28	124.74	---	---
10	122.88	122.84	121.78	121.12	120.54	120.08	120.61	120.91	121.35	126.08	---	---
15	123.20	122.33	---	121.02	120.45	119.93	120.89	121.16	121.89	126.92	---	---
20	122.76	122.17	121.51	120.88	120.27	120.08	121.19	122.30	123.01	127.05	---	127.92
25	122.69	122.11	121.39	120.80	120.14	121.44	120.84	121.15	122.99	---	---	127.47
EOM	122.63	121.99	121.34	120.73	120.15	122.13	120.62	121.23	123.82	---	---	127.03

WTR YEAR 1997 HIGHEST 119.93 MAR 15, 1997 LOWEST 128.46 SEP 17, 1997

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 4	93.76
July 22	93.25 P

GROUND-WATER LEVELS

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Jan. 29	24.60
Aug. 15	24.56

SAN JUAN COUNTY
San Juan Basin

364534108292701. Local number, 29N.15W.02.232.
 LOCATION.--Lat 36°57'34", long 108°9'22'70", 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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 27	10.00
Aug. 11	9.27

364744108225001. Local number, 30N.15W.23.4411.
 LOCATION.--Lat 36°47'44", long 108°22'50", Hydrologic Unit 14080105. Owner: B.L.M.
 AQUIFER.--Pictured Cliffs Sandstone.
 WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in., depth 729.5 ft, cased to 729.5 ft, perforated 613-729.5 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 5,290 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.00 ft above land-surface datum.
 PERIOD OF RECORD.--Feb. 1978 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 123.75 ft below land-surface datum, Feb. 21, 1978; lowest measured, 164.80 ft below land-surface datum, Aug. 11, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 27	163.00
Aug. 11	164.80

GROUND-WATER LEVELS

539

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.--"S" indicates nearby well pumping. "P" indicates well pumping.
 PERIOD OF RECORD.--Feb. 1950 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.75 ft below land-surface datum, Feb. 22, 1950; lowest measured, 181.55P ft below land-surface datum, Aug. 4, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	
Mar. 5	146.80	
Aug. 7	157.91	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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	
Mar. 5	pumping	
Aug. 7	127.65	

350859106002901. Local number, 11N.09E.29.143.
 LOCATION.--Lat 35°08'59", long 106°00'29", Hydrologic Unit 13050001. Owner: King Bros.
 AQUIFER.--Alluvium.
 WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 15 in., depth unknown.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 6,274 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.80 ft above land-surface datum.
 PERIOD OF RECORD.--July 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.93 ft below land-surface datum, Apr. 1, 1987; lowest measured, 139.10 ft below land-surface datum, Aug. 7, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	
Mar. 5	138.84	
Aug. 7	139.10	

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.
 REMARKS.--"P" indicates well pumping.
 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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL	
Mar. 6	263.49	
Aug. 15	264.79	P

GROUND-WATER LEVELS

SANTA FE COUNTY
Santa Fe Area -- Continued

353516106035801. Local number, 16N.08E.26.32112.

LOCATION.--Lat 35°35'16", long 106°03'58", Hydrologic Unit 13020201. Owner: State Highway Dept.

AQUIFER.--Tesuque Formation of Santa Fe Group.

WELL CHARACTERISTICS.--Drilled water-table unused irrigation well, diameter 10 in., depth 160 ft, cased to 160 ft, perforated 125-160 ft.

INSTRUMENTATION.--Digital recorder, 1-hour punch.

DATUM.--Elevation of land-surface datum is 6,285 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.25 ft above land-surface datum.

REMARKS.--Records good.

PERIOD OF RECORD.--July 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 125.62 ft below land-surface datum, June 11, 1973; lowest measured, 130.92 ft below land-surface datum, Sept. 29, 1997

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	130.64	130.62	130.61	130.64	130.61	130.65	130.60	130.58	130.51	130.56	130.63	130.71
10	130.62	130.67	130.66	130.66	130.62	130.54	130.51	130.52	130.57	130.59	130.66	130.71
15	130.62	130.60	130.66	130.73	130.68	130.59	130.57	130.59	130.54	130.60	130.62	130.75
20	130.66	130.67	130.62	130.63	130.57	130.53	130.53	130.54	130.55	130.63	130.66	130.73
25	130.53	130.68	130.60	130.66	130.50	130.63	130.61	130.56	130.61	130.61	130.69	130.77
EOM	130.67	130.72	130.69	130.64	130.60	130.50	130.57	130.52	130.58	130.66	130.73	130.78

WTR YEAR 1997 HIGHEST 130.44 APR 9, 1997 LOWEST 130.92 SEP 29, 1997

353735105581201. (formerly 353753105580501) Local number, 16N.09E.10.42114.

LOCATION.--Lat 35°37'53", long 105°58'05", Hydrologic Unit 13020201. Owner: Paul Ragel.

AQUIFER.--Ancha Formation of Santa Fe Group.

WELL CHARACTERISTICS.--Drilled domestic well, diameter 6 in., depth 243 ft.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 6,820 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1/2 in. plug in cover plate, 6.00 ft below land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 149.52 ft below land-surface datum, Dec. 11, 1957; lowest measured, 230.44 ft below land-surface datum, Aug. 22, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 6	228.82
Aug. 15	229.42

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 21	240.30 R
Aug. 14	230.79

GROUND-WATER LEVELS

541

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 28	46.54
July 24	47.28

325921107185101. (formerly 325550107184001) Local number, 15S.05W.24.312.

LOCATION.--Lat 32°59'20", long 107°18'40", Hydrologic Unit 13030101. Owner: William M. Dawson.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth and casing information not available.

INSTRUMENTATION.--Periodic steel-tape measurements.

DATUM.--Elevation of land-surface datum is 4,279 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.20 ft above land-surface datum.

PERIOD OF RECORD.--May 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.97 ft below land-surface datum, July 27, 1992; lowest measured, 43.16 ft below land-surface datum, July 24, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 28	42.40
July 24	43.16

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 28	20.94
July 24	22.65

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 27	68.85
Aug. 4	69.11

GROUND-WATER LEVELS

TAOS COUNTY
Sunshine Valley -- Continued

365644105363501. (formerly 365650105370001) Local number, 01S.74W.24.244.
 LOCATION.--Lat 36°56'44", long 105°36'35", Hydrologic Unit 13020101. Owner: Dimmitt.
 AQUIFER.--Valley Fill.
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 270 ft.
 INSTRUMENTATION.--Continuous strip-chart recorder
 DATUM.--Elevation of land-surface datum is 7,620 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 3.00 ft above land-surface datum.
 REMARKS.--Lost record due to recorder malfunction.
 PERIOD OF RECORD.--June 1955 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 182.78 ft below land-surface datum, Jan. 17, 1996; lowest measured, 213.53 ft below land-surface datum, Aug. 10, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	184.12	183.75	183.57	---	---	184.10	183.44	184.31	184.10	184.42	184.57	184.45
10	184.14	184.08	183.66	---	---	184.15	183.66	184.27	184.29	184.37	184.42	184.40
15	183.89	183.49	183.97	---	---	183.94	184.17	184.24	184.10	184.54	184.22	184.36
20	183.58	183.82	---	---	---	184.13	183.99	184.18	184.23	184.52	184.52	184.43
25	183.33	183.97	---	---	---	184.01	184.00	183.98	184.42	184.45	184.46	184.43
EOM	183.81	183.44	---	---	183.30	183.88	183.98	184.29	184.40	184.65	184.31	184.41

WTR YEAR 1997 HIGHEST 183.33 OCT 25, 1996 LOWEST 184.97 MAR 19, 1997

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Feb. 27	69.46
Aug. 4	not measured

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 5	95.05
Aug. 7	pumping

GROUND-WATER LEVELS

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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, 129.74 ft below land-surface datum, Sep. 17, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 5	124.21
Aug. 7	pumping

344234106070601. (formerly 344234106074901) Local number, 06N.08E.32.212.
 LOCATION.--Lat 34°42'34", long 106°07'06", Hydrologic Unit 13050001. Owner: Robert McMath.
 AQUIFER.--Valley Fill.
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 18 in., reported depth 209 ft, cased to 84 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 6,174 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of 1 1/2 in. hole in pump base, 0.04 ft above land-surface datum.
 PERIOD OF RECORD.--Feb. 1947 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.22 ft below land-surface datum, Feb. 18, 1947; lowest measured, 84.64 ft below land-surface datum, July 27, 1992.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 5	82.09
Aug. 7	pumping

344604105574601. (formerly 344622105575501) Local number, 06N.09E.11.211.
 LOCATION.--Lat 34°46'04", long 105°57'46", Hydrologic Unit 13050001. Owner: Paragon Corp.
 AQUIFER.--Valley Fill.
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 18 in., reported depth 148 ft, cased to 140 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 6,086 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.75 ft above land-surface datum.
 PERIOD OF RECORD.--May 1949 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.07 ft below land-surface datum, May 4, 1949; lowest measured, 28.65 ft below land-surface datum, July 13, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 5	22.50
Aug. 7	22.89

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, 67.40 ft below land-surface datum, Aug. 7, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Mar. 5	58.13
Aug. 7	67.40

GROUND-WATER LEVELS

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, 158.58 ft below land-surface datum, Aug. 19, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Apr. 22	150.50
July 23	150.69

361847103064701. (formerly 361910103170501) Local number, 24N.36E.17.244.
 LOCATION.--Lat 36°18'47", long 103°06'47", Hydrologic Unit 11090103. Owner: Glen Burrows.
 AQUIFER.--Ogallala formation.
 WELL CHARACTERISTICS.--Drilled water-table unused well, diameter 20 in., depth 231 ft.
 INSTRUMENTATION.--Continuous strip-chart recorder.
 DATUM.--Elevation of land-surface datum is 4,707 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.95 ft above land-surface datum.
 REMARKS.--Lost several months of record due to recorder malfunctionation
 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, 100.34 ft below land-surface datum, Sep. 20, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
 DAILY HIGHEST VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	99.35	---	---	---	99.62	99.71	99.69	---	99.85	100.00	100.15	100.21
10	99.36	---	---	---	99.63	99.69	99.75	---	99.90	100.04	100.15	100.24
15	---	---	---	---	99.63	99.73	99.79	99.84	99.87	100.14	100.16	100.21
20	---	---	---	---	99.60	99.73	99.81	99.86	99.90	100.18	100.19	100.29
25	---	---	---	99.54	99.59	99.78	---	99.85	99.98	100.20	100.18	100.26
EOM	---	---	---	99.57	99.61	99.75	---	99.88	99.99	100.15	100.22	100.27

WTR YEAR 1997 HIGHEST 99.26 OCT 4, 1996 LOWEST 100.34 SEP 20, 1997

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Apr. 22	96.51
July 23	96.33

363410103064801. Local number, 27N.36E.17.434.
 LOCATION.--Lat 36°34'10", long 103°06'48", Hydrologic Unit 11100101. Owner: Paul Carter.
 AQUIFER.--Ogalalla formation.
 WELL CHARACTERISTICS.--Drilled water-table irrigation well, diameter 16 in., depth 200 ft.
 INSTRUMENTATION.--Periodic steel-tape measurements.
 DATUM.--Elevation of land-surface datum is 4,837 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, north side, 1.20 ft above land-surface datum.
 PERIOD OF RECORD.--Feb. 1967 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 81.16 ft below land-surface datum, Jan. 21, 1975; lowest measured, 97.44 ft below land-surface datum, Jan. 26, 1993.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Apr. 22	94.96
July 23	95.34

GROUND-WATER LEVELS

545

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 1996 TO SEPTEMBER 1997

DATE	WATER LEVEL
Apr. 22	not measured
July 23	35.92

QUALITY OF GROUND WATER

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; 112 HCBL-Cenozoic, Pleistocene, Hueco Bolson Deposits; 112 SNTF-Cenozoic, Pleistocene, Santa Fe Formation; 121 TSUQ-Cenozoic, Tertiary, Pliocene, Tesuque Formation, Undifferentiated Unit; 210 MNCS-Mesozoic, Cretaceous, Mancos Shale; 313 SADR-Paleozoic, Permian, Guadalupian, San Andres Limestone of Manzano Group; 325 MDER-Paleozoic, Middle Pennsylvanian, Des Moinesian, Madera Limestone; 400 PCMB-Paleozoic, Precambrian, Precambrian Erathem.

REMARKS.--Ground Water sites in this table are segregated by county which appear alphabetically. The sites are then listed in ascending well numbers that are explained at the beginning of this report.

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

BERNALILLO COUNTY

LOCAL IDENT- IFIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)
08N.06E.04.221	345714106185001	001	GW	09-04-97	1000	--	--	--	7390	20
08N.06E.11.311	345549106172101	001	GW	09-10-97	1000	--	--	--	7400	10
08N.06E.11.313	345550106171501	001	GW	09-10-97	1100	--	--	--	7410	10
09N.06E.03.321	350157106172501	001	GW	08-28-97	1030	--	--	--	7080	15
09N.06E.04.332	350140106183401	001	GW	08-18-97	1100	--	--	--	7365	10
09N.06E.04.413	350154106180901	001	GW	08-22-97	1000	--	360.00	7225	15	
09N.06E.04.443	350144106175001	001	GW	08-22-97	1100	--	130.00	7138	15	
09N.06E.22.442	345907106172101	001	GW	09-22-97	1100	--	--	7318	15	
09N.06E.30.123	345845106203501	001	GW	09-24-97	0930	--	--	7510	15	
09N.06E.33.131	345735106184501	001	GW	08-29-97	1100	--	--	7465	10	
09N.06E.33.223	345753106175901	001	GW	08-12-97	1030	--	--	7300	15	
09N.06E.33.324	345733106181901	001	GW	09-04-97	1100	--	--	7280	15	
09N.06E.34.432	345726106170401	001	GW	09-05-97	1100	--	--	7230	15	
10N.05E.11.324	350615106223301	001	GW	08-05-97	1000	210MNCS	80.00	6580	--	
10N.05E.12.121	350648106213801	001	GW	08-26-97	1100	--	--	6680	10	
10N.05E.12.212	350647106212301	001	GW	08-27-97	1100	--	--	6660	10	
10N.05E.12.411	350617106212201	001	GW	08-26-97	1200	--	--	6560	15	
10N.05E.14.241	350546106220601	001	GW	08-21-97	1230	--	200.00	6435	--	
10N.05E.30.213A	350410106262601	001	GW	08-07-97	1100	110AVMB	120.00	6030	15	
10N.06E.05.441	350655106185601	001	GW	08-08-97	1100	--	300.00	6880	15	
10N.06E.07.331	350604106205801	001	GW	08-06-97	1200	--	85.00	6520	15	
10N.06E.08.313	350609106195101	001	GW	08-26-97	1000	--	--	6830	15	
10N.06E.13.321	350525106151701	001	GW	08-27-97	1000	325MDER	275.00	6775	10	
10N.06E.13.321A	350526106151801	001	GW	08-14-97	1100	--	380	6785	15	
10N.06E.16.123	350557106182701	001	GW	09-02-97	1630	--	450.00	7010	20	
10N.06E.31.341	350239106202601	001	GW	08-20-97	1100	--	180.00	7185	10	
11N.05E.24.222	351011106210101	001	GW	08-15-97	1030	--	--	6910	20	
11N.05E.24.412	350949106211801	001	GW	09-24-97	1130	--	260.00	6940	20	
11N.05E.24.443	350930106210701	001	GW	08-05-97	0900	--	120.00	6860	10	
11N.05E.25.143A	350859106214301	001	GW	08-11-97	1130	--	--	6980	15	
11N.05E.36.314	350802106215401	001	GW	08-07-97	1000	231SNRS	200.00	6855	15	
11N.06E.27.342	350840106171601	001	GW	08-04-97	1230	--	320.00	6780	10	
11N.06E.28.413	350847106181401	001	GW	09-02-97	1130	--	--	6715	15	

QUALITY OF GROUND WATER

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

BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	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)
08N.06E.04.221	09-04-97	6.0	650	7.8	20.5	16.5	592	0.2	200	0
08N.06E.11.311	09-10-97	12.0	1200	7.3	20.5	15.0	--	--	500	250
08N.06E.11.313	09-10-97	3.0	1210	7.1	20.0	15.0	--	--	500	250
09N.06E.03.321	08-28-97	10.0	985	7.4	21.5	16.0	595	8.8	440	170
09N.06E.04.332	08-18-97	12.0	712	7.8	22.0	19.0	--	--	260	0
09N.06E.04.413	08-22-97	12.0	1220	7.3	21.0	14.0	615	7.9	510	320
09N.06E.04.443	08-22-97	18.0	1050	7.3	23.0	17.5	--	--	430	160
09N.06E.22.442	09-22-97	12.0	630	7.5	19.5	15.0	--	0.1	250	0
09N.06E.30.123	09-24-97	6.0	954	7.3	12.5	12.0	586	2.7	420	80
09N.06E.33.131	08-29-97	10.0	930	7.4	23.0	17.0	--	--	410	130
09N.06E.33.223	08-12-97	6.0	1390	7.2	23.5	14.5	--	1.0	580	310
09N.06E.33.324	09-04-97	7.0	1280	7.2	19.5	13.5	595	6.8	520	250
09N.06E.34.432	09-05-97	6.0	919	7.4	24.0	14.0	595	0.3	390	110
10N.05E.11.324	08-05-97	--	918	7.0	20.0	17.5	--	--	420	96
10N.05E.12.121	08-26-97	6.0	2660	7.6	24.0	15.0	--	--	430	0
10N.05E.12.212	08-27-97	5.0	4010	7.1	22.5	19.0	605	3.5	2200	1700
10N.05E.12.411	08-26-97	10.0	1400	7.1	24.0	15.0	--	--	670	430
10N.05E.14.241	08-21-97	--	3110	7.5	26.0	23.0	615	4.6	1200	870
10N.05E.30.213A	08-07-97	15.0	1230	6.9	17.5	17.0	--	2.0	520	270
10N.06E.05.441	08-08-97	15.0	1780	7.4	20.0	16.5	--	0.9	720	450
10N.06E.07.331	08-06-97	10.0	1750	7.1	22.0	14.0	--	1.0	690	410
10N.06E.08.313	08-26-97	12.0	662	7.3	21.0	15.0	602	2.9	310	60
10N.06E.13.321	08-27-97	8.0	1920	7.3	22.5	15.5	602	6.8	760	530
10N.06E.13.321A	08-14-97	10.0	1430	7.8	21.5	19.5	--	--	230	0
10N.06E.16.123	09-02-97	7.5	1550	7.4	23.0	15.0	600	4.9	650	400
10N.06E.31.341	08-20-97	10.0	752	7.5	23.0	18.0	--	--	350	31
11N.05E.24.222	08-15-97	10.0	577	7.5	24.5	14.5	595	5.7	270	25
11N.05E.24.412	09-24-97	10.0	691	7.4	14.0	13.0	600	6.1	310	57
11N.05E.24.443	08-05-97	10.0	1310	7.0	20.0	14.0	--	--	550	250
11N.05E.25.143A	08-11-97	5.0	1250	7.3	22.5	15.5	--	1.0	550	290
11N.05E.36.314	08-07-97	8.0	1810	7.7	13.5	14.0	--	1.0	840	630
11N.06E.27.342	08-04-97	8.0	1040	7.0	24.5	15.0	--	--	450	290
11N.06E.28.413	09-02-97	8.0	1010	7.3	28.0	16.0	610	3.9	470	150

QUALITY OF GROUND WATER

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

BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	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)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
08N.06E.04.221	09-04-97	48	21	59	2	5.1	296	279	32
08N.06E.11.311	09-10-97	170	21	32	0.6	2.1	253	230	110
08N.06E.11.313	09-10-97	170	22	33	0.6	2.3	252	179	110
09N.06E.03.321	08-28-97	130	27	31	0.7	2.0	269	227	96
09N.06E.04.332	08-18-97	60	27	49	1	6.0	321	328	34
09N.06E.04.413	08-22-97	170	19	25	0.5	1.1	186	191	120
09N.06E.04.443	08-22-97	120	29	36	0.8	2.0	265	206	110
09N.06E.22.442	09-22-97	77	15	37	1	2.5	259	268	42
09N.06E.30.123	09-24-97	130	23	22	0.5	1.8	343	287	42
09N.06E.33.131	08-29-97	130	21	29	0.6	1.6	280	236	59
09N.06E.33.223	08-12-97	170	39	50	0.9	3.7	277	208	82
09N.06E.33.324	09-04-97	170	27	36	0.7	2.1	275	282	92
09N.06E.34.432	09-05-97	120	22	25	0.5	2.7	281	284	64
10N.05E.11.324	08-05-97	130	26	30	0.6	0.8	328	338	130
10N.05E.12.121	08-26-97	73	60	470	10	4.3	729	635	620
10N.05E.12.212	08-27-97	440	270	170	2	13	512	425	1900
10N.05E.12.411	08-26-97	140	76	49	0.8	2.9	244	186	440
10N.05E.14.241	08-21-97	290	110	240	3	3.2	312	353	790
10N.05E.30.213A	08-07-97	160	31	44	0.9	5.8	247	248	150
10N.06E.05.441	08-08-97	200	54	71	1	3.8	273	282	130
10N.06E.07.331	08-06-97	190	50	71	1	2.8	280	249	66
10N.06E.08.313	08-26-97	100	14	11	0.3	1.5	251	224	48
10N.06E.13.321	08-27-97	240	37	55	0.9	1.5	230	234	120
10N.06E.13.321A	08-14-97	39	33	220	6	4.2	389	399	89
10N.06E.16.123	09-02-97	190	44	42	0.7	2.4	252	219	210
10N.06E.31.341	08-20-97	95	28	20	0.5	1.7	322	294	40
11N.05E.24.222	08-15-97	94	8.9	9.1	0.2	0.7	247	251	20
11N.05E.24.412	09-24-97	110	9.6	12	0.3	0.8	256	198	27
11N.05E.24.443	08-05-97	180	21	31	0.6	1.1	293	246	30
11N.05E.25.143A	08-11-97	170	27	23	0.4	1.5	251	262	41
11N.05E.36.314	08-07-97	260	46	58	0.9	2.6	211	212	460
11N.06E.27.342	08-04-97	140	21	23	0.5	1.9	159	164	93
11N.06E.28.413	09-02-97	150	25	21	0.4	1.6	318	329	37

QUALITY OF GROUND WATER

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

BERNALILLO COUNTY -- Continued

LOCAL IDENT- IFIER	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)
08N.06E.04.221	09-04-97	12	2.0	12	358	--	<0.01	<0.05	0.04
08N.06E.11.311	09-10-97	140	0.2	18	649	--	<0.01	3.0	<0.01
08N.06E.11.313	09-10-97	150	0.2	18	622	--	<0.01	3.4	<0.01
09N.06E.03.321	08-28-97	89	0.4	15	544	--	<0.01	3.8	<0.01
09N.06E.04.332	08-18-97	18	1.2	14	407	--	<0.01	0.17	<0.01
09N.06E.04.413	08-22-97	180	0.2	15	660	--	<0.01	2.6	<0.01
09N.06E.04.443	08-22-97	100	0.6	14	548	--	<0.01	1.8	<0.01
09N.06E.22.442	09-22-97	19	0.4	23	378	--	<0.01	<0.05	0.04
09N.06E.30.123	09-24-97	75	0.2	12	500	--	<0.01	4.5	<0.01
09N.06E.33.131	08-29-97	80	0.2	17	497	--	<0.01	3.6	<0.01
09N.06E.33.223	08-12-97	220	0.7	14	715	--	<0.01	2.0	0.03
09N.06E.33.324	09-04-97	170	0.3	17	714	--	<0.01	7.5	0.02
09N.06E.34.432	09-05-97	87	0.7	16	507	--	<0.01	<0.05	0.03
10N.05E.11.324	08-05-97	21	0.2	19	570	--	<0.01	3.3	0.02
10N.05E.12.121	08-26-97	100	1.1	12	1730	--	0.02	<0.05	0.79
10N.05E.12.212	08-27-97	220	<0.1	23	3290	--	<0.01	0.09	1.8
10N.05E.12.411	08-26-97	59	0.5	18	905	0.281	0.02	0.30	0.04
10N.05E.14.241	08-21-97	380	0.3	26	2090	--	<0.01	7.3	<0.01
10N.05E.30.213A	08-07-97	120	1.7	20	738	--	<0.01	15	0.01
10N.06E.05.441	08-08-97	320	0.2	16	990	--	<0.01	7.1	0.02
10N.06E.07.331	08-06-97	330	0.2	21	918	--	<0.01	8.6	0.02
10N.06E.08.313	08-26-97	26	0.2	14	357	--	<0.01	1.5	0.03
10N.06E.13.321	08-27-97	380	0.2	22	1030	--	<0.01	7.2	<0.01
10N.06E.13.321A	08-14-97	160	8.1	11	801	--	<0.01	0.45	0.04
10N.06E.16.123	09-02-97	210	0.3	15	879	--	<0.01	7.5	<0.01
10N.06E.31.341	08-20-97	25	0.5	17	409	--	<0.01	1.1	<0.01
11N.05E.24.222	08-15-97	23	0.3	20	330	--	<0.01	0.78	<0.01
11N.05E.24.412	09-24-97	50	0.3	15	346	--	<0.01	0.68	<0.01
11N.05E.24.443	08-05-97	180	0.2	29	695	--	<0.01	16	0.02
11N.05E.25.143A	08-11-97	200	0.2	27	673	--	<0.01	5.5	<0.01
11N.05E.36.314	08-07-97	200	0.2	23	1210	--	<0.01	6.4	<0.01
11N.06E.27.342	08-04-97	150	0.3	19	580	--	<0.01	5.5	0.02
11N.06E.28.413	09-02-97	86	0.2	26	577	--	<0.01	8.1	<0.01

QUALITY OF GROUND WATER

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

BERNALILLO COUNTY -- Continued

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)
08N.06E.04.221	09-04-97	<0.2	<0.01	<0.01	0.3	<1	200	70	31
08N.06E.11.311	09-10-97	0.2	<0.01	0.01	3.9	<1	47.9	5	<1
08N.06E.11.313	09-10-97	<0.2	<0.01	0.01	3.6	<1	53.1	<3	<1
09N.06E.03.321	08-28-97	<0.2	0.02	0.02	1.1	<1	61.8	<3	<1
09N.06E.04.332	08-18-97	<0.2	<0.01	<0.01	1.1	<1	111	<3	<1
09N.06E.04.413	08-22-97	0.5	<0.01	<0.01	3.2	<1	42.3	<3	<1
09N.06E.04.443	08-22-97	<0.2	<0.01	0.01	1.5	<1	69.5	<3	<1
09N.06E.22.442	09-22-97	<0.2	<0.01	<0.01	0.5	<1	67.2	11	49
09N.06E.30.123	09-24-97	<0.2	<0.01	0.01	2	<1	37.4	3	<1
09N.06E.33.131	08-29-97	<0.2	0.01	0.02	2.6	<1	51.3	<3	<1
09N.06E.33.223	08-12-97	<0.2	<0.01	<0.01	3.4	1	143	6	4
09N.06E.33.324	09-04-97	<0.2	<0.01	<0.01	3.1	<1	59.7	<3	4
09N.06E.34.432	09-05-97	<0.2	<0.01	<0.01	1.2	4	72.0	25	18
10N.05E.11.324	08-05-97	<0.2	0.02	0.02	3.2	<1	44.0	4	1
10N.05E.12.121	08-26-97	0.9	0.01	0.04	1.6	<1	215	52	26
10N.05E.12.212	08-27-97	1.9	<0.01	<0.01	2.8	<1	148	130	120
10N.05E.12.411	08-26-97	<0.2	<0.01	<0.01	--	<1	88.5	<3	18
10N.05E.14.241	08-21-97	<0.2	<0.01	0.02	1.9	<1	124	<9	7
10N.05E.30.213A	08-07-97	0.2	<0.01	0.01	1	<1	49.3	<3	1
10N.06E.05.441	08-08-97	<0.2	0.02	0.01	3	<1	55.1	6	<1
10N.06E.07.331	08-06-97	0.4	0.02	0.02	4.1	<1	120	5	<1
10N.06E.08.313	08-26-97	<0.2	<0.01	0.02	0.5	<1	39.0	<3	<1
10N.06E.13.321	08-27-97	<0.2	0.01	0.02	2.6	<1	63.8	<3	<1
10N.06E.13.321A	08-14-97	<0.2	<0.01	<0.01	1.6	<1	331	7	<1
10N.06E.16.123	09-02-97	<0.2	<0.01	0.03	1.5	<1	56.1	<3	<1
10N.06E.31.341	08-20-97	<0.2	<0.01	0.01	0.9	<1	72.2	<3	<1
11N.05E.24.222	08-15-97	<0.2	<0.01	0.01	0.1	<1	18.5	<3	<1
11N.05E.24.412	09-24-97	<0.2	<0.01	0.01	0.5	<1	22.4	<3	<1
11N.05E.24.443	08-05-97	<0.2	<0.01	0.02	2.5	<1	64.4	<3	<1
11N.05E.25.143A	08-11-97	<0.2	0.04	0.04	5.9	1	98.2	<3	6
11N.05E.36.314	08-07-97	<0.2	<0.01	0.01	2.2	<1	265	<3	<1
11N.06E.27.342	08-04-97	0.2	0.07	0.04	1.5	<1	60.6	<3	<1
11N.06E.28.413	09-02-97	0.2	0.06	0.07	2.1	1	97.4	<3	<1

CHAVES COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT
13S.25E.24.11131	331056104242001	005		GW	05-22-97	1325	313SADR
LOCAL IDENT- I- FIER	DATE	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	
13S.25E.24.11131	05-22-97	915.00	3505	1100	7.2	21	

QUALITY OF GROUND WATER

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

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)	DEPTH OF HOLE TOTAL (FEET) (72001)
21S.04E.10.322 (HTA-12)	322943106312301	013	GW	01-17-97	1030	400PCMB	--	5765	--	
		013	GW	04-08-97	1510	400PCMB	--	5765	--	
		013	GW	07-24-97	1530	400PCMB	--	5765	--	
21S.04E.10.411B (HTA-11)	322941106311301	013	GW	01-17-97	0850	400PCMB	--	5690	--	
		013	GW	04-08-97	1250	400PCMB	--	5690	--	
21S.04E.10.411C (HTA-10A)	322941106311502	013	GW	07-24-97	1320	400PCMB	--	5690	--	
		013	GW	01-17-97	1030	400PCMB	--	--	--	
		013	GW	04-08-97	1405	400PCMB	--	--	--	
		013	GW	07-24-97	1440	400PCMB	--	--	--	
21S.04E.14.114 (HTA-3)	322910106303601	013	GW	01-16-97	1635	400PCMB	157.00	5150	--	
25S.04E.11.123	320906106302901	013	GW	04-09-97	1250	400PCMB	157.00	5150	--	
		013	GW	07-25-97	0940	400PCMB	157.00	5150	--	
		013	GW	09-04-97	0900	--	--	4110	--	
25S.04E.12.121	Dona Ana	320914106292701	013	GW	09-04-97	1030	--	660	4080	1100

LOCAL IDENT- I- FIER	DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM SOLVED AS (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)
21S.04E.10.322 (HT	01-17-97	936	7.1	18.0	390	110	28	63	1
	04-08-97	995	7.0	19.5	390	110	29	66	1
	07-24-97	1000	7.3	20.0	390	110	28	62	1
21S.04E.10.411B (H	01-17-97	847	7.2	19.0	360	100	27	57	1
	04-08-97	959	7.3	19.5	380	110	28	58	1
	07-24-97	987	7.3	20.0	380	110	27	58	1
21S.04E.10.411C (H	01-17-97	890	7.1	19.0	360	100	26	57	1
	04-08-97	931	7.3	19.5	360	98	27	59	1
	07-24-97	961	7.4	20.0	360	100	27	58	1
21S.04E.14.114 (HT	01-16-97	736	6.9	19.0	300	88	19	56	1
	04-09-97	797	7.3	20.0	290	83	20	58	1
	07-25-97	809	7.3	20.5	290	86	19	56	1
25S.04E.11.123	09-04-97	665	7.6	28.0	--	--	--	--	--
25S.04E.12.121 D	09-04-97	415	7.8	25.0	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT MG/L AS CaCO3 (39086)	ALKA- LINITY LAB FIELD AS (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)
21S.04E.10.322 (HT	01-17-97	1.4	--	--	--	270	200	33	4.5
	04-08-97	1.3	--	--	--	271	200	32	3.9
	07-24-97	1.2	--	--	--	268	200	32	3.4
21S.04E.10.411B (H	01-17-97	1.1	--	--	--	255	170	35	5.0
	04-08-97	1.1	--	--	--	211	170	33	4.4
	07-24-97	1	--	--	--	232	170	32	4.5
21S.04E.10.411C (H	01-17-97	1.4	--	--	--	248	170	33	5.1
	04-08-97	1.4	--	--	--	248	160	32	4.2
	07-24-97	1.3	--	--	--	196	160	31	4.3
21S.04E.14.114 (HT	01-16-97	0.90	--	--	--	228	130	29	5.7
	04-09-97	0.9	--	--	--	229	130	28	4.7
	07-25-97	0.8	--	--	--	227	130	27	4.2
25S.04E.11.123	09-04-97	--	246	0	202	--	--	--	--
25S.04E.12.121 D	09-04-97	--	137	0	112	--	--	--	--

QUALITY OF GROUND WATER

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

DONA ANA COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)
21S.04E.10.322 (HT)	01-17-97	0.26	26	636	628	44	<3.0	19	290
	04-08-97	0.28	24	657	626	41.0	<3	20	300
	07-24-97	0.27	24	661	619	43.6	<3	20	270
21S.04E.10.411B (H)	01-17-97	0.29	26	608	575	61	<3.0	15	270
	04-08-97	0.25	25	635	552	59.3	<3	16	270
	07-24-97	0.25	24	643	561	59.9	<3	16	260
21S.04E.10.411C (H)	01-17-97	0.44	26	596	568	67	<3.0	15	260
	04-08-97	0.25	25	615	560	58.7	<3	16	260
	07-24-97	0.24	24	622	527	67.2	<3	16	250
21S.04E.14.114 (HT)	01-16-97	0.23	27	496	493	37	4.0	23	260
	04-09-97	0.20	25	516	488	33.1	<3	24	270
	07-25-97	0.19	25	518	485	35.4	5	24	250
25S.04E.11.123	09-04-97	--	--	--	--	--	--	--	--
25S.04E.12.121 D	09-04-97	--	--	--	--	--	--	--	--

LINCOLN COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)
MOUND SPRING (UPPER POND)	332535106170501	027	SP	06-04-97	1200	110AVMB	4980	7.1	34.0	
WEST MOUND SPRING NR OSCUR	332508106173401	027	SP	06-03-97	1515	110AVMB	4560	7.2	38.0	
LOCAL IDENT- I- FIER	DATE	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L 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)
MOUND SPRING (UPPE	06-04-97	23.0	42	654	--	2200	2100	660	140	350
WEST MOUND SPRING	06-03-97	20.5	0.61	652	0.2	2200	2000	640	130	280
LOCAL IDENT- I- FIER	DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
MOUND SPRING (UPPE	06-04-97	3	4.7	149	0	122	121	1900	710	1.2
WEST MOUND SPRING	06-03-97	3	4.8	137	0	112	107	1800	640	1.2
LOCAL IDENT- I- FIER	DATE	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
MOUND SPRING (UPPE	06-04-97	0.35	26	4250	3890	0.604	0.20	0.81	0.30	<0.2
WEST MOUND SPRING	06-03-97	0.36	27	3960	3650	--	<0.01	0.87	0.08	<0.2

QUALITY OF GROUND WATER

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

LINCOLN COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	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)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)
MOUND SPRING (UPPE	06-04-97	<0.01	<0.01	50	13.1	<1	<1	<100	10	230
WEST MOUND SPRING	06-03-97	<0.01	<0.01	500	11.2	<1	<1	<100	11	200

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

LOCAL IDENT- I- FIER	DATE	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)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)
MOUND SPRING (UPPE	06-04-97	222	<1	<1	<1	<1.0	<1	<1	50
WEST MOUND SPRING	06-03-97	184	<1	<1	<1	<1.0	1	<1	590

LOCAL IDENT- I- FIER	DATE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	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 DIS- SOLVED (UG/L AS HG) (71890)
MOUND SPRING (UPPE	06-04-97	32	<1	<1	50	58	20	5	<0.1
WEST MOUND SPRING	06-03-97	<9	<1	<1	50	52	20	<3	<0.1

LOCAL IDENT- I- FIER	DATE	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	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 (UPPE	06-04-97	2	3	<1	<1	9300	8800	<10	20
WEST MOUND SPRING	06-03-97	3	3	<1	<1	9600	8800	30	34

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 (UPPER POND)	06-04-97	1200	<0.01	<0.01	<0.01	<0.01
WEST MOUND SPRING NR OSCUR	06-03-97	1515	--	--	--	--

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

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)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)
14S.08E.35.144 BARREL SPR	330323106093601	035	SP	06-03-97	0930	110AVMB	--	4118	2370	
17S.09E.25.213	324845105581101	035	GW	03-17-97	1345	--	243.00	4129	872	
17S.10E.18.442A	324924105564201	035	GW	03-17-97	1145	--	--	--	809	
17S.10E.19.123 BOLES 2 HOL	324916105571501	035	GW	03-13-97	1015	--	--	--	1040	
17S.10E.19.141 BOLES 15 HO	324917105571901	035	GW	03-14-97	1245	--	--	--	1150	
17S.10E.19.144 BOLES 5 HOL	324917105571601	035	GW	03-13-97	1145	--	--	--	1480	
17S.10E.31.244	324648105564501	035	GW	03-11-97	1230	110AVMB	966.00	4191	1190	
17S.10E.31.411	324713105571201	035	GW	03-12-97	1045	--	--	--	1010	
17S.10E.32.113	324716105564401	035	GW	03-12-97	1330	110AVMB	370.00	4212	1380	
GARTON FLOWING WELL NR WSM	324630106084401	035	GW	06-02-97	1520	110AVMB	--	--	12200	
MALPAIS SPRING NR OSCURA,	331715106183301	035	SP	06-04-97	1040	110AVMB	--	--	6270	

LOCAL IDENT- IFIER	DATE	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)	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)
14S.08E.35.144 BA	06-03-97	7.0	28.5	21.0	1.30	658	4.8	1100	970	290
17S.09E.25.213	03-17-97	7.3	--	20.5	--	--	--	--	--	--
17S.10E.18.442A	03-17-97	7.3	--	22.0	--	--	--	--	--	--
17S.10E.19.123 BOL	03-13-97	7.4	--	20.5	--	--	--	--	--	--
17S.10E.19.141 BOL	03-14-97	7.4	--	21.0	--	--	--	--	--	--
17S.10E.19.144 BOL	03-13-97	7.4	--	22.5	--	--	--	--	--	--
17S.10E.31.244	03-11-97	7.3	--	26.0	--	--	--	--	--	--
17S.10E.31.411	03-12-97	7.3	--	25.0	--	--	--	--	--	--
17S.10E.32.113	03-12-97	7.3	--	25.5	--	--	--	--	--	--
GARTON FLOWING WEL	06-02-97	7.0	--	28.0	15	659	0.6	2400	2300	670
MALPAIS SPRING NR	06-04-97	7.7	33.5	15.0	0.40	659	7.6	2300	2200	650

LOCAL IDENT- IFIER	DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)
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14S.08E.35.144 BA	06-03-97	100	100	1	2.1	210	0	172	178
17S.09E.25.213	03-17-97	--	--	--	--	--	--	181	--
17S.10E.18.442A	03-17-97	--	--	--	--	--	--	176	--
17S.10E.19.123 BOL	03-13-97	--	--	--	--	--	--	175	--
17S.10E.19.141 BOL	03-14-97	--	--	--	--	--	--	171	--

17S.10E.19.144 BOL	03-13-97	--	--	--	--	--	--	175	--
17S.10E.31.244	03-11-97	--	--	--	--	--	--	167	--
17S.10E.31.411	03-12-97	--	--	--	--	--	--	170	--
17S.10E.32.113	03-12-97	--	--	--	--	--	--	162	--
GARTON FLOWING WEL	06-02-97	180	2000	18	36	117	0	96	101

MALPAIS SPRING NR	06-04-97	150	590	5	7.8	59	0	48	51
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LOCAL IDENT- IFIER	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)	RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)
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14S.08E.35.144 BA	06-03-97	910	200	0.6	0.20	23	1880	1740	1.28
17S.09E.25.213	03-17-97	220	38	--	--	--	--	--	--
17S.10E.18.442A	03-17-97	200	29	--	--	--	--	--	--
17S.10E.19.123 BOL	03-13-97	290	61	--	--	--	--	--	--
17S.10E.19.141 BOL	03-14-97	320	79	--	--	--	--	--	--

17S.10E.19.144 BOL	03-13-97	450	120	--	--	--	--	--	--
17S.10E.31.244	03-11-97	370	62	--	--	--	--	--	--
17S.10E.31.411	03-12-97	280	54	--	--	--	--	--	--
17S.10E.32.113	03-12-97	500	65	--	--	--	--	--	--
GARTON FLOWING WEL	06-02-97	3000	2700	2.8	0.65	18	9210	8700	--

MALPAIS SPRING NR	06-04-97	1900	1100	1.2	0.43	28	5100	4540	--
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QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

OTERO COUNTY -- Continued

LOCAL IDENT- I- FIER	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 DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
14S.08E.35.144 BA	06-03-97	0.01	1.3	0.07	<0.2	<0.01	<0.01	20	12.2
17S.09E.25.213	03-17-97	--	--	--	--	--	--	--	--
17S.10E.18.442A	03-17-97	--	--	--	--	--	--	--	--
17S.10E.19.123 BOL	03-13-97	--	--	--	--	--	--	--	--
17S.10E.19.141 BOL	03-14-97	--	--	--	--	--	--	--	--
17S.10E.19.144 BOL	03-13-97	--	--	--	--	--	--	--	--
17S.10E.31.244	03-11-97	--	--	--	--	--	--	--	--
17S.10E.31.411	03-12-97	--	--	--	--	--	--	--	--
17S.10E.32.113	03-12-97	--	--	--	--	--	--	--	--
GARTON FLOWING WEL	06-02-97	<0.01	0.06	0.11	<0.2	<0.01	<0.01	350	<0.00
MALPAIS SPRING NR	06-04-97	<0.01	3.3	0.12	<0.2	<0.01	<0.01	20	26.6
LOCAL IDENT- I- FIER	DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
14S.08E.35.144 BA	06-03-97	<1	<1	<100	12	80	64.8	<1	<1
17S.09E.25.213	03-17-97	--	--	--	--	--	--	--	--
17S.10E.18.442A	03-17-97	--	--	--	--	--	--	--	--
17S.10E.19.123 BOL	03-13-97	--	--	--	--	--	--	--	--
17S.10E.19.141 BOL	03-14-97	--	--	--	--	--	--	--	--
17S.10E.19.144 BOL	03-13-97	--	--	--	--	--	--	--	--
17S.10E.31.244	03-11-97	--	--	--	--	--	--	--	--
17S.10E.31.411	03-12-97	--	--	--	--	--	--	--	--
17S.10E.32.113	03-12-97	--	--	--	--	--	--	--	--
GARTON FLOWING WEL	06-02-97	37	14	100	17	680	632	<4	<4
MALPAIS SPRING NR	06-04-97	1	<1	<100	10	250	223	<2	<2
LOCAL IDENT- I- FIER	DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
14S.08E.35.144 BA	06-03-97	<1	<1.0	<1	<1	30	<9	<1	<1
17S.09E.25.213	03-17-97	--	--	--	--	--	--	--	--
17S.10E.18.442A	03-17-97	--	--	--	--	--	--	--	--
17S.10E.19.123 BOL	03-13-97	--	--	--	--	--	--	--	--
17S.10E.19.141 BOL	03-14-97	--	--	--	--	--	--	--	--
17S.10E.19.144 BOL	03-13-97	--	--	--	--	--	--	--	--
17S.10E.31.244	03-11-97	--	--	--	--	--	--	--	--
17S.10E.31.411	03-12-97	--	--	--	--	--	--	--	--
17S.10E.32.113	03-12-97	--	--	--	--	--	--	--	--
GARTON FLOWING WEL	06-02-97	<4	<4	<4	<4	2800	800	<4	<4
MALPAIS SPRING NR	06-04-97	<2	3.4	<2	<2	<10	<12	<2	<2

QUALITY OF GROUND WATER

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

OTERO COUNTY -- Continued

LOCAL IDENT- IFIER	DATE	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 DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)
14S.08E.35.144 BA	06-03-97	20	24	10	<3	<0.1	2	1	<1
17S.09E.25.213	03-17-97	--	--	--	--	--	--	--	--
17S.10E.18.442A	03-17-97	--	--	--	--	--	--	--	--
17S.10E.19.123 BOL	03-13-97	--	--	--	--	--	--	--	--
17S.10E.19.141 BOL	03-14-97	--	--	--	--	--	--	--	--
17S.10E.19.144 BOL	03-13-97	--	--	--	--	--	--	--	--
17S.10E.31.244	03-11-97	--	--	--	--	--	--	--	--
17S.10E.31.411	03-12-97	--	--	--	--	--	--	--	--
17S.10E.32.113	03-12-97	--	--	--	--	--	--	--	--
GARTON FLOWING WEL	06-02-97	290	320	210	210	0.2	<1	<1	<4
MALPAIS SPRING NR	06-04-97	50	65	10	<4	<0.1	5	7	<2

LOCAL IDENT- IFIER	DATE	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)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	C-13 / C-12 STABLE ISOTOPE RATIO PER MIL (82081)
14S.08E.35.144 BA	06-03-97	<1	4600	4800	<10	<9	--	--
17S.09E.25.213	03-17-97	--	--	--	--	--	1	-7.1
17S.10E.18.442A	03-17-97	--	--	--	--	--	1	-7.5
17S.10E.19.123 BOL	03-13-97	--	--	--	--	--	1	-7.0
17S.10E.19.141 BOL	03-14-97	--	--	--	--	--	1	-7.0
17S.10E.19.144 BOL	03-13-97	--	--	--	--	--	3	-7.8
17S.10E.31.244	03-11-97	--	--	--	--	--	1	-6.3
17S.10E.31.411	03-12-97	--	--	--	--	--	1	-6.6
17S.10E.32.113	03-12-97	--	--	--	--	--	1	-7.1
GARTON FLOWING WEL	06-02-97	<4	13000	12000	<10	52	--	--
MALPAIS SPRING NR	06-04-97	<2	12000	11000	<10	<12	--	--

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

LOCAL IDENT- IFIER	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)
MALPAIS SPRING NR OSCURA,	06-04-97	1040	<0.01	<0.01	<0.01	<0.01

QUALITY OF GROUND WATER

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

SANDOVAL COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)
16N.02E.15.314 JEMEZ COMMU	353655106431901	043	GW	05-02-97	1030	5700	--	--	--	--
16N.02E.29.321 INDIAN SPRI	353525106450201	043	SP	03-20-97	1410	--	5770	6.6	58.5	--
16N.02E.16.411	353700106435801	043	GW	03-27-97	1120	--	825	7.6	14.5	--
16N.02E.04.424	353840106433101	043	GW	03-27-97	1310	--	590	7.6	15.0	--
16N.02E.01.433 UNNAMED SPR	353824106410501	043	SP	09-10-97	1145	--	480	7.0	--	--

LOCAL IDENT- I- FIER	DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
16N.02E.15.314 JEM	05-02-97	--	--	--	--	--	--	--	--	--
16N.02E.29.321 IND	03-20-97	230	71	12	1100	33	73	828	280	1200
16N.02E.16.411	03-27-97	190	57	12	91	3	13	285	41	80
16N.02E.04.424	03-27-97	150	44	9.5	61	2	9.2	216	11	59
16N.02E.01.433 UNN	09-10-97	150	47	8.5	40	1	9.8	201	31	5.4

LOCAL IDENT- I- FIER	DATE	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)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
16N.02E.15.314 JEM	05-02-97	--	--	--	--	--	--	--	--	--
16N.02E.29.321 IND	03-20-97	6.9	--	38	3430	3270	<0.010	<0.050	0.430	0.40
16N.02E.16.411	03-27-97	1.3	0.25	52	532	521	<0.010	<0.050	0.250	--
16N.02E.04.424	03-27-97	1.2	0.16	44	379	370	<0.010	<0.050	0.050	--
16N.02E.01.433 UNN	09-10-97	1.4	0.08	12	268	275	<0.01	<0.05	0.18	<0.2

LOCAL IDENT- I- FIER	DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHOPHOS- PHORUS 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)	ANTI- MONY, TOTAL SOLVED (UG/L AS SB) (01097)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC TOTAL (UG/L AS AS) (01002)
16N.02E.15.314 JEM	05-02-97	--	--	--	--	--	--	--	--	--
16N.02E.29.321 IND	03-20-97	0.40	<0.010	<0.010	<0.010	10	--	94	--	410
16N.02E.16.411	03-27-97	0.20	--	0.040	0.050	--	4.0	--	<1.0	--
16N.02E.04.424	03-27-97	<0.20	--	0.060	0.070	--	5.0	--	<1.0	--
16N.02E.01.433 UNN	09-10-97	0.2	<0.01	<0.01	<0.01	20	--	9	--	48

LOCAL IDENT- I- FIER	DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM 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)
16N.02E.15.314 JEM	05-02-97	--	--	--	--	--	--	--	--	--
16N.02E.29.321 IND	03-20-97	--	<100	--	<10	--	<1	--	<1	--
16N.02E.16.411	03-27-97	20	--	355	--	<1.0	--	<1.0	--	3.0
16N.02E.04.424	03-27-97	34	--	332	--	<1.0	--	<1.0	--	2.0
16N.02E.01.433 UNN	09-10-97	--	<100	--	<10	--	<1	--	<1	--

QUALITY OF GROUND WATER

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

SANDOVAL COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI) (01132)
16N.02E.15.314 JEM	05-02-97	--	--	--	--	--	--	--	--	--
16N.02E.29.321 IND	03-20-97	<1	--	<1	--	890	<15	<1	--	6300
16N.02E.16.411	03-27-97	--	<1.0	--	<1.0	--	540	--	<1.0	--
16N.02E.04.424	03-27-97	--	<1.0	--	<1.0	--	510	--	<1.0	--
16N.02E.01.433 UNN	09-10-97	<1	--	<1	--	690	300	<1	--	200

LOCAL IDENT- I- FIER	DATE	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)
16N.02E.15.314 JEM	05-02-97	--	--	--	--	--	--	--	--	--
16N.02E.29.321 IND	03-20-97	80	70	--	5	--	<1	--	<1	--
16N.02E.16.411	03-27-97	--	664	<0.1	--	8.0	--	<1.0	--	<1
16N.02E.04.424	03-27-97	--	308	<0.1	--	6.0	--	<1.0	--	<1
16N.02E.01.433 UNN	09-10-97	160	170	--	8	--	<1	--	<1	--

LOCAL IDENT- I- FIER	DATE	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)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS BETA, DIS- SOLVED AS CS-137 (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)
16N.02E.15.314 JEM	05-02-97	--	--	--	--	--	--	--	--	--
16N.02E.29.321 IND	03-20-97	<1	--	2600	<10	--	41	22.9	87	23.2
16N.02E.16.411	03-27-97	--	<1.0	--	--	2.0	<3.0	2.0	25	7.6
16N.02E.04.424	03-27-97	--	<1.0	--	--	5.0	<3.0	1.7	20	5.9
16N.02E.01.433 UNN	09-10-97	<1	--	310	<10	--	12	4.05	15	4.42

LOCAL IDENT- I- FIER	DATE	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	URANIUM -238 WATER DISSOLV (PCI/L) (22603)	U-238 2 SIGMA WATER, DISS, (PCI/L) (75991)	URANIUM -234 WATER DISSOLV (PCI/L) (22610)	U-234 2 SIGMA WATER, DISS, (PCI/L) (75992)	URANIUM -235 WATER, DISS, (PCI/L) (22620)	U-235 2 SIGMA WATER, DISS, (PCI/L) (75994)	STRON- TIUM 90 DIS- SOLVED (PCI/L) (13503)	PLUTO- NIUM238 WATER FILT (PCI/L) (22001)
16N.02E.15.314 JEM	05-02-97	--	--	--	--	--	--	--	--	--
16N.02E.29.321 IND	03-20-97	--	--	--	--	--	--	--	--	--
16N.02E.16.411	03-27-97	<1.0	<0.1	0.068	0.2	0.12	<0.1	0.058	--	<0.1
16N.02E.04.424	03-27-97	<1.0	<0.1	0.061	<0.1	0.092	<0.1	0.005	--	<0.1
16N.02E.01.433 UNN	09-10-97	--	<0.1	0.030	0.1	0.034	<0.1	0.008	<0.5	<0.1

LOCAL IDENT- I- FIER	DATE	PLUTON- IUM-238 SUS SED (PCI/G) (49974)	PLUTON- IUM-238 SUS SED (PCI/G) (49975)	PLUTON- IUM-239/240 SUS SED (PCI/G) (49976)	PLUTON- IUM-239/240 SUS SED (PCI/G) (49977)	AMERIC- IUM-241 SUS SED (PCI/G) (49980)	AMERIC- IUM-241 SUS SED (PCI/G) (49981)	AMERI- CIUM-241 WATER FILT (PCI/L) (29867)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)
16N.02E.15.314 JEM	05-02-97	<0.1	0.016	<0.1	0.016	<0.1	0.010	--	--	--
16N.02E.29.321 IND	03-20-97	--	--	--	--	--	--	--	--	--
16N.02E.16.411	03-27-97	--	--	--	--	--	--	<0.1	--	--
16N.02E.04.424	03-27-97	--	--	--	--	--	--	<0.1	--	--
16N.02E.01.433 UNN	09-10-97	--	--	--	--	--	--	<0.1	<30	30

QUALITY OF GROUND WATER

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

SANTA FE COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)
19N.07E.12.233 SACRED SPRI	355333106085901	049	SP	07-08-97	1200	121TSUQ	--	--	--	--
19N.07E.13.412 HALLADAY HO	355241106085201	049	GW	08-13-97	1400	--	--	--	--	59
19N.07E.15.434 WELL LA-5	355220106110001	049	GW	07-07-97	1500	121TSUQ	1750	5840	--	--
19N.07E.22.131 BASALT SPRI	355158106114201	049	SP	08-14-97	1300	--	--	6000	--	--
19N.08E.05.443 SAN ILDEFON	355401106065801	049	GW	07-07-97	1230	--	--	5670	--	--

LOCAL IDENT- IFIER	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)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
19N.07E.12.233 SAC	07-08-97	--	730	7.1	--	16.0	55	21	0.40	22
19N.07E.13.412 HAL	08-13-97	3.3	210	9.0	--	17.0	10	3.9	0.02	44
19N.07E.15.434 WEL	07-07-97	--	180	8.2	--	19.5	52	20	0.76	14
19N.07E.22.131 BAS	08-14-97	--	--	--	23.0	12.0	57	16	4.0	45
19N.08E.05.443 SAN	07-07-97	--	460	8.3	--	13.5	45	17	0.94	81

LOCAL IDENT- IFIER	DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
19N.07E.12.233 SAC	07-08-97	1	2.3	106	4.3	1.7	0.5	<0.01	25	162
19N.07E.13.412 HAL	08-13-97	6	0.7	88	14	4.5	0.5	0.06	26	153
19N.07E.15.434 WEL	07-07-97	0.9	2.4	79	4.7	2.5	0.5	0.05	39	143
19N.07E.22.131 BAS	08-14-97	3	8.6	94	22	30	0.5	0.02	60	272
19N.08E.05.443 SAN	07-07-97	5	0.9	180	33	8.8	0.1	0.10	24	294

LOCAL IDENT- IFIER	DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AMMONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
19N.07E.12.233 SAC	07-08-97	142	<0.01	<0.05	<0.01	0.8	0.4	0.06	<0.01	0.01
19N.07E.13.412 HAL	08-13-97	149	<0.01	0.54	<0.01	<0.2	<0.2	<0.01	<0.01	0.01
19N.07E.15.434 WEL	07-07-97	133	<0.01	0.54	<0.01	<0.2	<0.2	<0.01	<0.01	<0.01
19N.07E.22.131 BAS	08-14-97	259	<0.01	2.2	<0.01	0.5	0.5	2.1	2.0	2.1
19N.08E.05.443 SAN	07-07-97	281	<0.01	1.5	<0.01	<0.2	<0.2	0.03	0.01	0.02

LOCAL IDENT- IFIER	DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)	ANTI- MONY, TOTAL (UG/L AS SB) (01097)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
19N.07E.12.233 SAC	07-08-97	300	<1	3	100	<10	<1	<1	<1	<1
19N.07E.13.412 HAL	08-13-97	30	2	8	<100	<10	<1	11	<1	<1
19N.07E.15.434 WEL	07-07-97	<10	<1	3	<100	<10	<1	5	<1	<1
19N.07E.22.131 BAS	08-14-97	940	1	3	<100	<10	<1	<1	3	8
19N.08E.05.443 SAN	07-07-97	<10	<1	2	<100	<10	<1	1	<1	<1

QUALITY OF GROUND WATER

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

SANTA FE COUNTY -- Continued

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)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI) (01132)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
19N.07E.12.233 SAC	07-08-97	540	140	<1	40	30	17	1	<1	<1
19N.07E.13.412 HAL	08-13-97	50	7	<1	40	<10	<1	4	<1	<1
19N.07E.15.434 WEL	07-07-97	80	8	<1	30	<10	3	2	<1	<1
19N.07E.22.131 BAS	08-14-97	530	10	1	20	30	3	7	8	<1
19N.08E.05.443 SAN	07-07-97	<10	<3	<1	110	<10	1	<1	<1	2

LOCAL IDENT- I- FIER	DATE	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR) (01082)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ALPHA RADIO- DISS WAT TH-230 (PCI/L) (04126)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	GROSS BETA, DIS- SOLVED AS CS-137 (03515)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (75989)	URANIUM -238 WATER DISSOLV (PCI/L) (22603)	U-238 2 SIGMA WATER, DISS, (PCI/L) (75991)
19N.07E.12.233 SAC	07-08-97	<1	420	<10	<3.0	1.43	<4.0	3.75	0.1	0.074
19N.07E.13.412 HAL	08-13-97	<1	140	<10	<3.0	1.95	5.3	3.86	0.6	0.103
19N.07E.15.434 WEL	07-07-97	<1	200	30	<3.0	2.05	<4.0	3.75	0.3	0.140
19N.07E.22.131 BAS	08-14-97	<1	90	<10	<3.0	1.67	8.8	4.06	<0.1	0.025
19N.08E.05.443 SAN	07-07-97	<1	180	<10	13	4.06	16	4.40	7.9	1.41

LOCAL IDENT- I- FIER	DATE	URANIUM -234 WATER DISSOLV (PCI/L) (22610)	U-234 2 SIGMA WATER, DISS, (PCI/L) (75992)	URANIUM -235 WATER, DISS (PCI/L) (22620)	U-235 2 SIGMA WATER, DISS, (PCI/L) (75994)	STRON- TIUM 90 DIS- SOLVED (PCI/L) (13503)	PLUTO- NIUM238 WATER FILT (PCI/L) (22001)	AMERI- CIUM 241 WATER FILT (PCI/L) (29867)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)
19N.07E.12.233 SAC	07-08-97	0.1	0.083	<0.1	0.026	<0.5	<0.1	<0.1	5	1
19N.07E.13.412 HAL	08-13-97	0.9	0.141	<0.1	0.011	<0.5	<0.1	<0.1	<30	30
19N.07E.15.434 WEL	07-07-97	0.7	0.213	<0.1	0.035	<0.5	<0.1	<0.1	--	--
19N.07E.22.131 BAS	08-14-97	<0.1	0.031	<0.1	0.009	<0.5	<0.1	<0.1	60	30
19N.08E.05.443 SAN	07-07-97	12	2.17	0.4	0.154	<0.5	<0.1	<0.1	12	1

CHEMICAL ANALYSES OF ORGANIC COMPOUNDS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

LOCAL IDENT- I- FIER	DATE	TIME	TOLUENE M-NITRO WATER, FLTRD, GF 0.7U REC (UG/L) (49221)	TOLUENE P-NITRO WATER, FLTRD, GF 0.7U REC (UG/L) (49222)	TOLUENE O-NITRO WATER, FLTRD, GF 0.7U REC (UG/L) (49223)	ANILINE 4METHYL 35DNTR WAT,FLT GF 0.7U REC (UG/L) (49224)	ANILINE 2METHYL 35DNTR WAT,FLT GF 0.7U REC (UG/L) (49225)	TOLUENE 246-TRI NITRO- WAT,FLT GF 0.7U REC (UG/L) (49226)
19N.07E.12.233 SACRED SPRI	07-08-97	1200	<0.25	<0.25	<0.25	<0.10	<0.10	<0.10
19N.07E.13.412 HALLADAY HO	08-13-97	1400	<0.25	<0.25	<0.25	<0.10	<0.10	<0.10
19N.07E.15.434 WELL LA-5	07-07-97	1500	<0.25	<0.25	<0.25	<0.10	<0.10	<0.10
19N.07E.22.131 BASALT SPRI	08-14-97	1300	<0.25	<0.25	<0.25	<0.10	<0.10	<0.10
19N.08E.05.443 SAN ILDEFON	07-07-97	1230	<0.25	<0.25	<0.25	<0.10	<0.10	<0.10

LOCAL IDENT- I- FIER	DATE	TOLUENE 2,6-DI- NITRO- WAT,FLT GF 0.7U REC (UG/L) (49227)	TOLUENE 2,4-DI- NITRO- WAT,FLT GF 0.7U REC (UG/L) (49228)	BENZENE NITRO- WATER FLTRD, GF 0.7U REC (UG/L) (49229)	BENZENE M-DI- NITRO- WAT,FLT GF 0.7U REC (UG/L) (49230)	BENZENE 123-TRI NITRO- WAT,FLT GF 0.7U REC (UG/L) (49232)	RDX, WATER, FLTRD, GF 0.7U REC (UG/L) (49233)	HMX, WATER, FLTRD, GF 0.7U REC (UG/L) (49234)
19N.07E.12.233 SAC	07-08-97	<0.25	<0.10	<0.25	<0.10	<0.25	<0.25	<0.250
19N.07E.13.412 HAL	08-13-97	<0.25	<0.10	<0.25	<0.10	<0.25	<0.25	<0.250
19N.07E.15.434 WEL	07-07-97	<0.25	<0.10	<0.25	<0.10	<0.25	<0.25	<0.250
19N.07E.22.131 BAS	08-14-97	<0.25	<0.10	<0.25	<0.10	<0.25	<0.25	<0.250
19N.08E.05.443 SAN	07-07-97	<0.25	<0.10	<0.25	<0.10	<0.25	<0.25	<0.250

QUALITY OF GROUND WATER

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

EL PASO COUNTY, TEXAS

LOCAL IDENT- IFIER	STATION	NUMBER	COUNTY	SITE	DATE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)
JL-49-13-504 FB-5A	314851106254001	141	GW	12-12-96	1027	--	--	--	785.00	--
JL-49-05-318	315816106243201	141	GW	08-21-97	1620	112SNTF	378.38	500.00	500	500
JL-49-05-323	315932106245101	141	GW	08-19-97	1330	112SNTF	--	500.00	500	500
JL-49-05-504	315543106263201	141	GW	08-27-97	0900	112SNTF	--	1152	1150	1150
JL-49-05-901	315448106242401	141	GW	08-27-97	1120	112SNTF	--	727.00	727	727
JL-49-05-918 ARMY NO. 14A	315305106232002	141	GW	08-28-97	1130	112HCBL	--	940	--	--
JL-49-06-111 (HB-6)	315817106202601	141	GW	11-22-96	1130	--	--	560.00	--	--
		141	GW	08-18-97	1430	--	--	560.00	--	--
JL-49-06-503 (HB-5)	315636106191902	141	GW	11-26-96	1330	--	--	601.00	--	--
		141	GW	08-20-97	1430	--	--	601	--	--
JL-49-06-603 (HB-8)	315541106171701	141	GW	11-25-96	1330	--	--	600.00	--	--
		141	GW	08-21-97	1230	--	--	600	--	--
JL-49-06-702 (R-15)	315452106203201	141	GW	08-27-97	1900	112SNTF	326.00	360.00	360	360
JL-49-06-703 (R-16)	315452106203202	141	GW	08-22-97	1200	112SNTF	329.20	550.00	550	550
JL-49-06-901 (HB-4)	315331106171001	141	GW	11-20-96	1500	--	--	550.00	--	--
		141	GW	08-22-97	1130	--	--	550.00	--	--
JL-49-13-303	315211106232201	141	GW	11-19-96	1105	--	--	--	--	--
JL-49-13-305 TOBIN 13A	315133106232001	141	GW	09-03-97	1200	--	--	795	--	--
JL-49-13-307	315132106242002	141	GW	12-13-96	0930	--	--	812	--	--
JL-49-13-311	315211106241901	141	GW	08-28-97	1000	--	--	--	--	--
JL-49-13-506	314831106260001	141	GW	08-20-97	1900	112SNTF	316.00	736.00	736	736
JL-49-13-520 FB 6A	314853106252301	141	GW	12-13-96	1000	--	--	--	--	--
JL-49-13-524	314815106260501	141	GW	12-12-96	1100	--	--	--	--	--
JL-49-13-628 BIGGS 2B	314940106233701	141	GW	08-28-97	1400	--	--	1030	--	--
JL-49-13-630 FB 7A	314853106245001	141	GW	09-03-97	1400	--	--	990	--	--
JL-49-13-634 BIGGS 1B	314951106230702	141	GW	09-04-97	1200	112HCBL	--	900	--	--
JL-49-14-101 TOBIN 16	315214106222101	141	GW	09-03-97	1000	--	--	819	--	--
JL-49-14-202 (HB-7)	315123106174501	141	GW	11-18-96	1405	--	--	500.00	--	--
		141	GW	08-22-97	1600	--	--	500.00	--	--
JL-49-14-303 (HB-3)	315004106163902	141	GW	11-19-96	1300	--	--	500.00	--	--
		141	GW	08-14-97	1430	--	--	500.00	--	--
JL-49-14-521 SITE MONITOR	314836106180301	141	GW	08-27-97	1230	--	--	480.00	--	--
JL-49-21-318	314421106233403	141	GW	08-26-97	1930	112SNTF	91.00	378.00	358	358
JL-49-21-321	314421106233406	141	GW	08-26-97	1430	112SNTF	105.15	1057	1054	1054
JL-49-21-322	314421106233407	141	GW	08-26-97	1100	112SNTF	107.60	678	669	669

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

EL PASO COUNTY, TEXAS -- Continued

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)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE OF (MM HG) (00025)
JL-49-13-504	FB-5A	12-12-96	--	3877	--	1000	692	7.9	22.5	--
JL-49-05-318		08-21-97	450	4015	--	--	704	7.9	26.5	659
JL-49-05-323		08-19-97	300	4038	--	--	431	7.8	26.5	658
JL-49-05-504		08-27-97	481	4120	--	--	572	7.5	28.5	658
JL-49-05-901		08-27-97	348	3940	--	--	742	7.6	27.0	660
JL-49-05-918	ARMY	08-28-97	--	3910	--	1110	570	8.0	24.5	--
JL-49-06-111	(HB-6)	11-22-96	--	4014	--	--	745	7.6	24.5	--
		08-18-97	--	4014	--	--	--	--	--	--
JL-49-06-503	(HB-5)	11-26-96	--	3973	--	--	1340	7.6	23.0	--
		08-20-97	--	3970	--	--	1230	7.9	25.0	--
JL-49-06-603	(HB-8)	11-25-96	--	4010	--	--	1710	7.3	23.0	--
		08-21-97	--	4010	--	--	1760	7.5	24.5	--
JL-49-06-702	(R-15)	08-27-97	320	3914	--	--	740	7.9	25.5	--
JL-49-06-703	(R-16)	08-22-97	510	3914	--	--	1920	7.3	25.0	--
JL-49-06-901	(HB-4)	11-20-96	--	4005	--	--	1710	8.1	23.5	--
		08-22-97	--	4005	--	--	1800	8.1	24.0	--
JL-49-13-303		11-19-96	--	--	60	--	704	8.2	23.0	--
JL-49-13-305	TOBI	09-03-97	--	3910	--	800	570	8.0	--	--
JL-49-13-307		12-13-96	--	3897	--	--	830	7.9	24.0	--
JL-49-13-311		08-28-97	--	--	--	--	750	7.9	24.5	--
JL-49-13-506		08-20-97	716	3884	--	--	480	8.2	26.0	--
JL-49-13-520	FB 6A	12-13-96	--	--	30	1000	1070	7.6	24.0	--
JL-49-13-524		12-12-96	--	--	--	--	715	7.7	23.0	--
JL-49-13-628	BIGG	08-28-97	--	3910	--	1210	655	8.0	26.0	--
JL-49-13-630	FB 7A	09-03-97	--	--	--	--	710	7.9	--	--
JL-49-13-634	BIGGS	09-04-97	--	3920	--	1100	665	7.9	25.0	--
JL-49-14-101	TOBI	09-03-97	--	3940	--	820	590	8.0	--	--
JL-49-14-202	(HB-7)	11-18-96	--	3972	--	--	1190	8.0	23.5	--
		08-22-97	--	3972	--	--	1200	8.1	25.0	--
JL-49-14-303	(HB-3)	11-19-96	--	--	--	--	1240	7.5	24.5	--
		08-14-97	--	--	--	--	1450	7.2	24.0	--
JL-49-14-521	SITE	08-27-97	--	4000	--	--	1210	7.8	25.5	--
JL-49-21-318		08-26-97	348	3686	--	--	4350	8.1	24.5	669
JL-49-21-321		08-26-97	1044	3686	--	--	14200	7.5	23.5	--
JL-49-21-322		08-26-97	659	3686	--	--	1190	8.3	23.0	669

QUALITY OF GROUND WATER

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

EL PASO COUNTY, TEXAS -- Continued

LOCAL IDENT- IFIER	DATE	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)	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)
JL-49-13-504	FB-5A 12-12-96	--	140	0	37	12	67	2	5.4
JL-49-05-318	08-21-97	4.0	120	0	36	8.4	91	4	7.6
JL-49-05-323	08-19-97	2.9	64	0	19	4.0	60	3	4.1
JL-49-05-504	08-27-97	5.0	180	0	41	18	49	2	3.9
JL-49-05-901	08-27-97	4.3	110	0	29	9.0	100	4	9.6
JL-49-05-918	ARMY 08-28-97	--	71	0	19	5.8	74	4	9.5
JL-49-06-111	(HB-6 11-22-96	--	140	57	42	7.3	100	4	7.2
	08-18-97	--	140	--	43	7.0	98	4	6.6
JL-49-06-503	(HB-5 11-26-96	--	250	110	71	16	180	5	10
	08-20-97	--	230	93	68	15	160	5	8.8
JL-49-06-603	(HB-8 11-25-96	--	350	280	96	27	250	6	12
	08-21-97	--	350	280	93	27	240	6	12
JL-49-06-702	(R-15 08-27-97	0.8	94	0	28	6.0	110	5	5.6
JL-49-06-703	(R-16 08-22-97	0.05	270	200	77	18	250	7	9.8
JL-49-06-901	(HB-4 11-20-96	--	290	230	79	23	270	7	11
	08-22-97	--	290	200	77	23	230	6	12
JL-49-13-303	11-19-96	--	65	0	17	5.4	75	4	8.9
JL-49-13-305	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-13-307	12-13-96	--	97	0	25	8.2	110	5	10
JL-49-13-311	08-28-97	--	100	0	27	8.5	110	5	9.6
JL-49-13-506	08-20-97	0.1	94	0	22	9.4	63	3	5.3
JL-49-13-520	FB 6A 12-13-96	--	310	170	81	26	61	2	5.6
JL-49-13-524	12-12-96	--	210	18	47	22	50	2	4.4
JL-49-13-628	BIGG 08-28-97	--	69	0	18	5.6	99	5	9.3
JL-49-13-630	FB 7A 09-03-97	--	--	--	32	13	89	--	5.8
JL-49-13-634	BIGGS 09-04-97	--	--	--	--	--	--	--	--
JL-49-14-101	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-14-202	(HB-7 11-18-96	--	160	66	42	12	170	6	8.3
	08-22-97	--	160	74	43	13	160	6	8.6
JL-49-14-303	(HB-3 11-19-96	--	230	130	62	19	190	5	11
	08-14-97	--	230	100	60	18	190	6	11
JL-49-14-521	SITE 08-27-97	--	130	21	35	9.8	170	7	8.2
JL-49-21-318	08-26-97	0.2	780	--	180	81	560	9	20
JL-49-21-321	08-26-97	--	--	--	--	--	--	--	--
JL-49-21-322	08-26-97	0.8	95	14	30	4.9	190	9	3.8

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

EL PASO COUNTY, TEXAS -- Continued

LOCAL IDENT- IFIER	DATE	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT.WH. GRAN T. FIELD CACO3 (MG/L) (29813)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
JL-49-13-504	FB-5A 12-12-96	194	0	--	159	--	45	65	0.50
JL-49-05-318	08-21-97	187	--	152	153	151	74	70	0.8
JL-49-05-323	08-19-97	126	--	101	103	102	33	37	0.9
JL-49-05-504	08-27-97	258	--	210	211	209	49	19	1.6
JL-49-05-901	08-27-97	182	--	147	150	149	78	83	1.0
JL-49-05-918	ARMY 08-28-97	137	--	--	112	--	43	60	0.8
JL-49-06-111	(HB-6 11-22-96	94	1	--	77	--	18	190	0.60
	08-18-97	--	--	--	--	--	19	180	0.5
JL-49-06-503	(HB-5 11-26-96	170	0	--	139	--	190	210	0.50
	08-20-97	171	0	--	140	--	190	210	0.5
JL-49-06-603	(HB-8 11-25-96	84	0	--	69	--	310	360	0.40
	08-21-97	81	0	--	66	--	320	360	0.4
JL-49-06-702	(R-15 08-27-97	155	--	126	127	125	52	110	0.8
JL-49-06-703	(R-16 08-22-97	82	--	68.0	67	61	24	510	0.5
JL-49-06-901	(HB-4 11-20-96	78	0	--	64	--	180	450	0.40
	08-22-97	113	0	--	93	--	210	360	0.4
JL-49-13-303	11-19-96	156	0	--	128	--	48	38	1.1
JL-49-13-305	TOBI 09-03-97	164	0	--	134	--	--	--	--
JL-49-13-307	12-13-96	202	--	--	165	--	88	68	1.3
JL-49-13-311	08-28-97	187	0	153	153	--	85	76	1.2
JL-49-13-506	08-20-97	204	--	165	167	159	25	29	0.6
JL-49-13-520	FB 6A 12-13-96	168	0	--	138	--	75	160	1.0
JL-49-13-524	12-12-96	233	0	--	191	--	64	40	0.50
JL-49-13-628	BIGG 08-28-97	174	0	--	143	--	66	73	0.9
JL-49-13-630	FB 7A 09-03-97	200	0	--	164	--	62	80	1.1
JL-49-13-634	BIGGS 09-04-97	164	0	--	134	--	--	--	--
JL-49-14-101	TOBI 09-03-97	131	0	--	107	--	--	--	--
JL-49-14-202	(HB-7 11-18-96	109	0	--	89	--	91	260	0.50
	08-22-97	106	0	--	87	--	91	250	0.4
JL-49-14-303	(HB-3 11-19-96	124	0	--	102	--	250	220	0.60
	08-14-97	153	0	--	125	--	250	220	0.6
JL-49-14-521	SITE 08-27-97	132	0	--	108	--	130	200	0.5
JL-49-21-318	08-26-97	--	--	--	--	132	330	1100	0.4
JL-49-21-321	08-26-97	--	--	--	--	--	--	--	--
JL-49-21-322	08-26-97	98	--	86.0	87	86	59	270	0.8

QUALITY OF GROUND WATER

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

EL PASO COUNTY, TEXAS -- Continued

LOCAL IDENT- IFIER	DATE	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
JL-49-13-504	FB-5A 12-12-96	--	27	--	369	2.87	0.030	2.90	0.020
JL-49-05-318	08-21-97	0.23	31	433	419	--	<0.01	1.8	<0.01
JL-49-05-323	08-19-97	0.14	29	269	257	--	<0.01	1.8	<0.01
JL-49-05-504	08-27-97	0.18	30	357	346	--	<0.01	1.7	<0.01
JL-49-05-901	08-27-97	0.19	30	455	441	--	<0.01	1.5	<0.01
JL-49-05-918	ARMY 08-28-97	--	30	--	318	--	<0.01	1.7	0.02
JL-49-06-111	(HB-6 11-22-96	--	25	--	442	0.730	0.020	0.750	0.040
	08-18-97	--	26	--	--	--	<0.01	1.9	0.05
JL-49-06-503	(HB-5 11-26-96	--	28	--	814	5.09	0.010	5.10	<0.015
	08-20-97	--	26	--	782	--	<0.01	5.1	<0.01
JL-49-06-603	(HB-8 11-25-96	--	19	--	1130	1.79	0.010	1.80	0.090
	08-21-97	--	18	--	1120	0.652	0.02	0.68	0.08
JL-49-06-702	(R-15 08-27-97	0.18	23	428	417	1.62	0.09	1.7	<0.01
JL-49-06-703	(R-16 08-22-97	0.45	24	1240	962	0.989	0.06	1.1	0.03
JL-49-06-901	(HB-4 11-20-96	--	20	--	1080	0.330	0.040	0.370	0.020
	08-22-97	--	25	--	994	0.504	0.03	0.53	0.02
JL-49-13-303	11-19-96	--	29	--	309	--	<0.010	2.10	<0.015
JL-49-13-305	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-13-307	12-13-96	--	34	--	457	2.68	0.020	2.70	0.020
JL-49-13-311	08-28-97	--	33	--	454	--	<0.01	2.2	<0.01
JL-49-13-506	08-20-97	0.12	26	297	289	1.53	0.01	1.5	0.03
JL-49-13-520	FB 6A 12-13-96	--	31	--	547	4.68	0.020	4.70	0.020
JL-49-13-524	12-12-96	--	28	--	391	4.19	0.010	4.20	0.020
JL-49-13-628	BIGG 08-28-97	--	30	--	394	--	<0.01	1.3	<0.01
JL-49-13-630	FB 7A 09-03-97	--	27	--	--	--	<0.01	1.8	<0.02
JL-49-13-634	BIGGS 09-04-97	--	--	--	--	--	--	--	--
JL-49-14-101	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-14-202	(HB-7 11-18-96	--	27	--	671	1.08	0.020	1.10	0.020
	08-22-97	--	27	--	651	1.08	0.02	1.1	<0.01
JL-49-14-303	(HB-3 11-19-96	--	29	--	850	1.28	0.020	1.30	<0.015
	08-14-97	--	28	--	857	1.35	0.01	1.4	<0.01
JL-49-14-521	SITE 08-27-97	--	30	--	662	1.12	0.01	1.1	0.01
JL-49-21-318	08-26-97	0.43	30	2630	2360	--	<0.01	0.05	0.02
JL-49-21-321	08-26-97	--	--	--	--	--	--	--	--
JL-49-21-322	08-26-97	0.20	32	662	640	--	<0.01	<0.05	0.04

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

EL PASO COUNTY, TEXAS -- Continued

LOCAL IDENT- IFIER	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)	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)
JL-49-13-504	FB-5A 12-12-96	<0.20	<0.010	<0.010	--	--	--	4	160
JL-49-05-318	08-21-97	<0.2	<0.01	<0.01	0.1	3	<1	4	78
JL-49-05-323	08-19-97	<0.2	<0.01	<0.01	0.3	3	<1	3	47
JL-49-05-504	08-27-97	<0.2	<0.01	0.01	0.1	4	<1	1	137
JL-49-05-901	08-27-97	<0.2	<0.01	0.01	0.1	4	<1	4	42
JL-49-05-918	ARMY 08-28-97	<0.2	<0.01	<0.01	--	--	--	6	61
JL-49-06-111	(HB-6 11-22-96	<0.20	<0.010	<0.010	--	--	--	2	140
	08-18-97	<0.2	<0.01	<0.01	--	--	--	2	140
JL-49-06-503	(HB-5 11-26-96	<0.20	<0.010	<0.010	--	--	--	1	50
	08-20-97	<0.2	<0.01	<0.01	--	--	--	<1	44
JL-49-06-603	(HB-8 11-25-96	<0.20	<0.010	<0.010	--	--	--	<1	39
	08-21-97	<0.2	<0.01	<0.01	--	--	--	<1	37
JL-49-06-702	(R-15 08-27-97	<0.2	0.05	<0.01	0.1	3	<1	<1	41
JL-49-06-703	(R-16 08-22-97	<0.2	<0.01	<0.01	0.1	4	<1	<1	213
JL-49-06-901	(HB-4 11-20-96	<0.20	<0.010	<0.010	--	--	--	1	51
	08-22-97	<0.2	<0.01	<0.01	--	--	--	2	39
JL-49-13-303	11-19-96	<0.20	<0.010	0.010	--	--	--	5	47
JL-49-13-305	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-13-307	12-13-96	<0.20	0.020	<0.010	--	--	--	4	35
JL-49-13-311	08-28-97	<0.2	<0.01	0.01	--	--	--	4	38
JL-49-13-506	08-20-97	<0.2	<0.01	<0.01	1.1	4	<1	4	147
JL-49-13-520	FB 6A 12-13-96	<0.20	<0.010	<0.010	--	--	--	2	230
JL-49-13-524	12-12-96	<0.20	<0.010	<0.010	--	--	--	2	110
JL-49-13-628	BIGG 08-28-97	<0.2	<0.01	<0.01	--	--	--	8	56
JL-49-13-630	FB 7A 09-03-97	<0.2	0.01	<0.01	--	--	--	3	56
JL-49-13-634	BIGGS 09-04-97	--	--	--	--	--	--	--	--
JL-49-14-101	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-14-202	(HB-7 11-18-96	<0.20	<0.010	<0.010	--	--	--	3	56
	08-22-97	<0.2	0.03	<0.01	--	--	--	3	56
JL-49-14-303	(HB-3 11-19-96	<0.20	<0.010	<0.010	--	--	--	2	24
	08-14-97	<0.2	0.02	<0.01	--	--	--	2	22
JL-49-14-521	SITE 08-27-97	<0.2	<0.01	<0.01	--	--	--	8	38
JL-49-21-318	08-26-97	<0.2	<0.01	<0.01	1.2	8	<2	2	104
JL-49-21-321	08-26-97	--	--	--	--	--	--	--	--
JL-49-21-322	08-26-97	<0.2	<0.01	<0.01	0.2	7	<1	20	67

QUALITY OF GROUND WATER

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

EL PASO COUNTY, TEXAS -- Continued

LOCAL IDENT- IFIER	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)
JL-49-13-504	FB-5A 12-12-96	<0.50	101	<1.0	<5.0	<3.0	20	<3.0	<10
JL-49-05-318	08-21-97	<1	--	<1	7	<1	<1	4	<1
JL-49-05-323	08-19-97	<1	--	<1	4	<1	<1	20	<1
JL-49-05-504	08-27-97	<1	--	<1	3	<1	12	<3	1
JL-49-05-901	08-27-97	<1	--	<1	7	<1	2	<3	<1
JL-49-05-918	ARMY 08-28-97	<0.5	135	1	15	<3	<10	30	<10
JL-49-06-111	(HB-6 11-22-96	<0.50	79	<1.0	<5.0	<3.0	<10	330	<10
	08-18-97	<0.5	76.4	<1	<5	3	<10	810	<10
JL-49-06-503	(HB-5 11-26-96	<0.50	223	<1.0	<5.0	<3.0	<10	12	<10
	08-20-97	<0.5	199	<1	<5	<3	<10	43	<10
JL-49-06-603	(HB-8 11-25-96	<0.50	161	1.0	<5.0	20	<10	3100	<10
	08-21-97	<0.5	159	<1	<5	<3	<10	2300	10
JL-49-06-702	(R-15 08-27-97	<1	--	<1	1	<1	<1	24	<1
JL-49-06-703	(R-16 08-22-97	<1	--	<1	<1	<1	<1	4100	<1
JL-49-06-901	(HB-4 11-20-96	<0.50	141	<1.0	<5.0	<3.0	<10	25	<10
	08-22-97	<0.5	165	<1	<5	<3	<10	44	<10
JL-49-13-303	11-19-96	<0.50	122	<1.0	9.0	<3.0	<10	4.0	<10
JL-49-13-305	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-13-307	12-13-96	<0.50	156	<1.0	9.0	<3.0	<10	4.0	<10
JL-49-13-311	08-28-97	<0.5	159	<1	9	<3	<10	<3	<10
JL-49-13-506	08-20-97	<1	--	<1	<1	<1	<1	120	<1
JL-49-13-520	FB 6A 12-13-96	<0.50	97	<1.0	<5.0	<3.0	<10	<3.0	<10
JL-49-13-524	12-12-96	<0.50	96	<1.0	<5.0	<3.0	10	4.0	<10
JL-49-13-628	BIGG 08-28-97	<0.5	157	<1	8	<3	<10	6	<10
JL-49-13-630	FB 7A 09-03-97	<0.5	124	<1	7	<3	<10	7	10
JL-49-13-634	BIGGS 09-04-97	--	--	--	--	--	--	--	--
JL-49-14-101	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-14-202	(HB-7 11-18-96	<0.50	128	2.0	<5.0	<3.0	<10	30	10
	08-22-97	<0.5	117	<1	<5	<3	<10	17	<10
JL-49-14-303	(HB-3 11-19-96	<0.50	199	<1.0	<5.0	<3.0	<10	41	<10
	08-14-97	<0.5	207	<1	<5	<3	<10	31	<10
JL-49-14-521	SITE 08-27-97	<0.5	144	<1	<5	4	<10	66	<10
JL-49-21-318	08-26-97	<2	--	<2	<2	<2	<2	<9	<2
JL-49-21-321	08-26-97	--	--	--	--	--	--	--	--
JL-49-21-322	08-26-97	<1	--	<1	<1	<1	<1	<3	<1

QUALITY OF GROUND WATER

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

EL PASO COUNTY, TEXAS -- Continued

LOCAL IDENT- IFIER	DATE	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)
JL-49-13-504	FB-5A 12-12-96	48	<1.0	<0.1	10	<10	2	<1.0	1200
JL-49-05-318	08-21-97	--	<1	--	8	<1	4	<1	--
JL-49-05-323	08-19-97	--	23	--	5	<1	2	<1	--
JL-49-05-504	08-27-97	--	<1	--	18	<1	1	<1	--
JL-49-05-901	08-27-97	--	<1	--	7	<1	4	<1	--
JL-49-05-918	ARMY 08-28-97	52	1	<0.1	<10	10	3	1	550
JL-49-06-111	(HB-6 11-22-96	46	37	<0.1	<10	<10	1	<1.0	1000
	08-18-97	46	32	<0.1	<10	<10	1	<1	960
JL-49-06-503	(HB-5 11-26-96	77	18	<0.1	<10	<10	2	<1.0	1700
	08-20-97	77	16	<0.1	<10	<10	3	<1	1600
JL-49-06-603	(HB-8 11-25-96	130	190	<0.1	<10	<10	1	<1.0	2100
	08-21-97	130	150	<0.1	<10	<10	2	<1	2100
JL-49-06-702	(R-15 08-27-97	--	29	--	6	<1	2	<1	--
JL-49-06-703	(R-16 08-22-97	--	74	--	3	1	1	<1	--
JL-49-06-901	(HB-4 11-20-96	130	24	0.2	10	<10	<1	<1.0	1800
	08-22-97	120	23	<0.1	<10	<10	1	<1	1700
JL-49-13-303	11-19-96	50	<1.0	<0.1	<10	<10	2	<1.0	500
JL-49-13-305	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-13-307	12-13-96	57	<1.0	<0.1	<10	<10	4	<1.0	690
JL-49-13-311	08-28-97	62	<1	<0.1	<10	<10	4	<1	770
JL-49-13-506	08-20-97	--	14	--	6	<1	<1	<1	--
JL-49-13-520	FB 6A 12-13-96	26	<1.0	<0.1	20	<10	3	<1.0	2100
JL-49-13-524	12-12-96	27	<1.0	<0.1	<10	<10	2	<1.0	1200
JL-49-13-628	BIGG 08-28-97	76	<1	<0.1	<10	<10	3	<1	560
JL-49-13-630	FB 7A 09-03-97	39	1	<0.1	20	<10	2	<1	1100
JL-49-13-634	BIGGS 09-04-97	--	--	--	--	--	--	--	--
JL-49-14-101	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-14-202	(HB-7 11-18-96	75	6.0	<0.1	<10	<10	2	<1.0	970
	08-22-97	82	6	0.2	10	<10	2	<1	950
JL-49-14-303	(HB-3 11-19-96	100	41	<0.1	20	<10	2	<1.0	1300
	08-14-97	100	23	<0.1	<10	<10	2	<1	1300
JL-49-14-521	SITE 08-27-97	83	2	<0.1	<10	<10	4	<1	890
JL-49-21-318	08-26-97	--	61	--	6	3	<1	<2	--
JL-49-21-321	08-26-97	--	--	--	--	--	--	--	--
JL-49-21-322	08-26-97	--	6	--	5	<1	<1	<1	--

QUALITY OF GROUND WATER

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

EL PASO COUNTY, TEXAS -- Continued

LOCAL IDENT- IFIER	DATE	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	TRITIUM TOTAL (PCI/L) (07000)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (75985)	C-13 / C-12 STABLE ISOTOPE RATIO PER MIL (82081)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL (82082)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL (82085)
JL-49-13-504	FB-5A 12-12-96	14	<3.0	--	--	--	--	--	--
JL-49-05-318	08-21-97	--	83	4	0.7	0.6	-7.9	-66.9	-9.48
JL-49-05-323	08-19-97	--	143	1	1.2	0.6	-7.5	-65.8	-9.28
JL-49-05-504	08-27-97	--	21	6	0.8	0.6	-8.2	-63.0	-8.96
JL-49-05-901	08-27-97	--	5	5	0.5	0.6	-8.1	-69.8	-9.78
JL-49-05-918	ARMY 08-28-97	15	<3	--	--	--	--	--	--
JL-49-06-111	(HB-6 11-22-96	<6	<3.0	--	--	--	--	--	--
	08-18-97	7	<3	--	--	--	--	--	--
JL-49-06-503	(HB-5 11-26-96	<6	<3.0	--	--	--	--	--	--
	08-20-97	<6	<3	--	--	--	--	--	--
JL-49-06-603	(HB-8 11-25-96	<6	<3.0	--	--	--	--	--	--
	08-21-97	<6	6	--	--	--	--	--	--
JL-49-06-702	(R-15 08-27-97	--	73	2	0.4	0.6	-8.4	-67.4	-9.67
JL-49-06-703	(R-16 08-22-97	--	353	<1	0.4	0.6	-7.2	-71.9	-10.17
JL-49-06-901	(HB-4 11-20-96	<6	<3.0	--	--	--	--	--	--
	08-22-97	<6	15	--	--	--	--	--	--
JL-49-13-303	11-19-96	14	<3.0	--	--	--	--	--	--
JL-49-13-305	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-13-307	12-13-96	13	26	--	--	--	--	--	--
JL-49-13-311	08-28-97	11	8	--	--	--	--	--	--
JL-49-13-506	08-20-97	--	<1	2	0.7	0.6	-9.3	-65.6	-9.33
JL-49-13-520	FB 6A 12-13-96	9	12	--	--	--	--	--	--
JL-49-13-524	12-12-96	11	13	--	--	--	--	--	--
JL-49-13-628	BIGG 08-28-97	16	8	--	--	--	--	--	--
JL-49-13-630	FB 7A 09-03-97	14	10	--	--	--	--	--	--
JL-49-13-634	BIGGS 09-04-97	--	--	--	--	--	--	--	--
JL-49-14-101	TOBI 09-03-97	--	--	--	--	--	--	--	--
JL-49-14-202	(HB-7 11-18-96	<6	<3.0	--	--	--	--	--	--
	08-22-97	6	7	--	--	--	--	--	--
JL-49-14-303	(HB-3 11-19-96	<6	<3.0	--	--	--	--	--	--
	08-14-97	6	3	--	--	--	--	--	--
JL-49-14-521	SITE 08-27-97	10	8	--	--	--	--	--	--
JL-49-21-318	08-26-97	--	8	16	25	1.7	-9.7	-76.8	-9.82
JL-49-21-321	08-26-97	--	--	--	--	--	--	-71.9	-10.26
JL-49-21-322	08-26-97	--	1	<1	1.1	0.6	-10.5	-76.4	-10.43

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