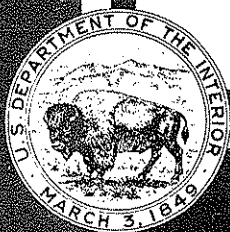


# Water Resources Data for New Mexico Water Year 1976



U.S. GEOLOGICAL SURVEY WATER-**D**ATA REPORT NM-76-1

Prepared in cooperation with the **S**tate of New Mexico  
and with other ag**e**ncies

# FACTORS FOR CONVERTING ENGLISH UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
<i>Length</i>		
inches (in)	$2.54 \times 10^1$	millimeters (mm)
	$2.54 \times 10^{-2}$	meters (m)
feet (ft)	$3.048 \times 10^{-1}$	meters (m)
miles (mi)	$1.609 \times 10^0$	kilometers (km)
<i>Area</i>		
acres	$4.047 \times 10^3$	square meters (m <sup>2</sup> )
	$4.047 \times 10^{-1}$	*hectares (ha)
	$4.047 \times 10^{-1}$	square hectometers (hm <sup>2</sup> )
	$4.047 \times 10^{-3}$	square kilometers (km <sup>2</sup> )
square miles (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometers (km <sup>2</sup> )
<i>Volume</i>		
gallons (gal)	$3.785 \times 10^0$	**liters (l)
	$3.785 \times 10^0$	cubic decimeters (dm <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic meters (m <sup>3</sup> )
million gallons (10 <sup>6</sup> gal)	$3.785 \times 10^3$	cubic meters (m <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic hectometers (hm <sup>3</sup> )
cubic feet (ft <sup>3</sup> )	$2.832 \times 10^1$	cubic decimeters (dm <sup>3</sup> )
	$2.832 \times 10^{-2}$	cubic meters (m <sup>3</sup> )
cfs-days [(ft <sup>3</sup> /s) · d]	$2.447 \times 10^3$	cubic meters (m <sup>3</sup> )
	$2.447 \times 10^{-3}$	cubic hectometers (hm <sup>3</sup> )
acre-feet (acre-ft)	$1.233 \times 10^3$	cubic meters (m <sup>3</sup> )
	$1.233 \times 10^{-3}$	cubic hectometers (hm <sup>3</sup> )
	$1.233 \times 10^{-6}$	cubic kilometers (km <sup>3</sup> )
<i>Flow</i>		
cubic feet per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liters per second (l/s)
	$2.832 \times 10^1$	cubic decimeters per second (dm <sup>3</sup> /s)
	$2.832 \times 10^{-2}$	cubic meters per second (m <sup>3</sup> /s)
gallons per minute (gal/min)	$6.309 \times 10^{-2}$	liters per second (l/s)
	$6.309 \times 10^{-2}$	cubic decimeters per second (dm <sup>3</sup> /s)
	$6.309 \times 10^{-5}$	cubic meters per second (m <sup>3</sup> /s)
million gallons per day (mgal/d)	$4.381 \times 10^1$	cubic decimeters per second (dm <sup>3</sup> /s)
	$4.381 \times 10^{-2}$	cubic meters per second (m <sup>3</sup> /s)
<i>Mass</i>		
tons (short)	$9.072 \times 10^{-1}$	tonnes (t)

\*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p.15, 1972 edition.

\*\*The unit liter is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 3, 1972 edition.

# **Water Resources Data for New Mexico Water Year 1976**



**U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-76-1**

**Prepared in cooperation with the State of New Mexico  
and with other agencies**

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UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

V. E. McKelvey, Director

For additional information on the  
water program in New Mexico write to  
District Chief, Water Resources Division  
U.S. Geological Survey  
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Albuquerque, New Mexico 87125

1977



## PREFACE

This report was prepared by personnel of the New Mexico district of the Water Resources Division of the U.S. Geological Survey under the supervision of W. E. Hale, District Chief, and A. Clebsch Jr., Regional Hydrologist, Central Region. It was done in cooperation with the State of New Mexico and with other agencies.

This report is one of a series issued by State. General direction for the series is by J. S. Cragwall, Jr., Chief Hydrologist, U.S. Geological Survey, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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## WATER RESOURCES DATA FOR NEW MEXICO, 1976

### INTRODUCTION

Water resources data for the 1976 water year for New Mexico consist of records of discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 212 gaging stations; stage and contents for 24 lakes and reservoirs; water quality for 67 gaging stations, 19 partial-record stations, 1 reservoir, 8 springs, and 205 wells; and water levels for 98 observation wells. Also included are 155 crest-stage partial-record stations and 3 low-flow 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 State and Federal agencies in New Mexico.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs 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 and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, 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 may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released in separate reports. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry 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 report is identified as "U.S. Geological Survey Water-Data Report NM-76-1." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia, 22161.

### COOPERATION

The U.S. Geological Survey and organizations of the State of New Mexico have had cooperative agreements for the systematic collection of streamflow records since 1930, for ground-water levels since 1934, and for water-quality records since 1940. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Office of State Engineer of New Mexico, S. E. Reynolds, State engineer.

New Mexico Interstate Stream Commission, S. E. Reynolds, secretary.

Pecos River Commission, H. M. Babcock, federal representative and chairman,  
J. B. Walker, commissioner for New Mexico, R. B. McGowen, Jr., commissioner  
for Texas.

New Mexico State Highway Department, J. A. Bird, State Highway engineer.

Costilla Creek Compact Commission, S. E. Reynolds, commissioner for New Mexico,  
C. J. Kuiper, commissioner for Colorado.

Albuquerque Metropolitan Arroyo Flood Control Authority, J. B. Robert,  
executive engineer.

Financial assistance for the collection of water resources data published in this report was furnished by the Corps of Engineers, U. S. Army, for 31 gaging stations; by the Bureau of Reclamation, U.S. Department of Interior, for 17 gaging stations; by the Bureau of Indian Affairs for 8 gaging stations; by the Federal Highway Administration, U.S. Department of Transportation for research study on small drainage areas; and by Environmental Protection Agency for several water-quality stations.

Assistance in the form of funds or services was also furnished by the New Mexico Environmental Improvement Agency, the New Mexico Institute of Mining and Technology, the city of Ruidoso, and Carlsbad Irrigation District.

Organizations that furnished data are recognized in the station descriptions.

## HYDROLOGIC CONDITIONS

As is common in New Mexico, streamflow varied considerably during the 1976 water year. This holds true with respect to both time and geographic location. The variations are related to differences in precipitation, temperature, topography, and geology. The yearly mean discharge for the 1976 water year and the relation to the median of yearly mean discharge for the base period 1941-70 for four index stations is given below.

Station	Discharge ft <sup>3</sup> /s	Percent of median
Rayado Creek at Sauble Ranch	7.54	68
Pecos River at Santa Rosa	57.8	68
Rio Grande below Taos Junction Bridge	645	103
Gila River near Gila	118	138

Discharge in Rayado Creek was excessive (in highest 25% of record for base period) for the months of December, January and February but was deficient for August and September. Discharge in upper Pecos River basin was deficient for months of October, December, April, May and for year. The total discharge for the first six months of the water year was excessive in both the upper Rio Grande and Gila River basins but was near median for second half of year.

Storage in Conchas, Elephant Butte and Navajo Reservoirs decreased considerably during the year.

No major floods occurred during the year.

Chemical quality of surface water remained the same over most of the state except in the lower Pecos River basin where the discharge weighted average of dissolved-solids content was higher than for several preceeding years. The greatest increase occurred at Pecos River at Pierce Canyon where the dissolved solids increased 164 percent over the previous year.

Water levels continued to decline throughout most of the State due to below average precipitation and heavy ground-water withdrawal.

## DEFINITION OF TERMS

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

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

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C  $\pm$  1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or 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 which produce blue colonies within 24 hours when incubated at 44.5°C  $\pm$  0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines 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  $\pm$  1.0°C on M-enterococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter ( $\text{gm}^3$ ), and periphyton and benthic organisms in grams per square meter ( $\text{gm}^2$ ).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by 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.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common 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 (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

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

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

Discharge weighted average (See weighted average).

Dissolved refers to the amount of substance present in true chemical solution. In practice, however, the term includes all forms of substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (coloidal) suspended particles. Analyses are performed on filtered samples.

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

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

Where  $n_i$  is the number of individuals per taxon,  $n$  is the total number of individuals, and  $s$  is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific 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 river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO<sub>3</sub>).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram ( $\mu\text{g/g}$ ) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter ( $\mu\text{g/L}$ ,  $\mu\text{g/L}$ ) 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.

Milligrams per liter ( $\text{mg/L}$ ,  $\text{mg/L}$ ) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in  $\text{mg/L}$ , and is based on the mass of sediment per liter of water-sediment mixture.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

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 meters ( $\text{m}^2$ ), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters ( $\text{mL}$ ) or liters ( $\text{L}$ ). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle-size is the diameter, in millimeters ( $\text{mm}$ ), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (Pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation.
Silt.....	.004 - .062	Sedimentation.
Sand.....	.062 - 2.	Sedimentation or sieve.
Gravel.....	2.0 - 64.0	Sieve.

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

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

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

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

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

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

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

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

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

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

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

Milligrams of oxygen per area or volume per unit time [ $\text{mg O}_2/(\text{m}^2 \cdot \text{time})$  for periphyton and macrophytes and  $\text{mg O}_2/(\text{m}^3 \cdot \text{time})$  for phytoplankton] are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

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.

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 in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

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

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigated farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Solution is the homogenous mixture of solutes and water. The solutes usually comprise a very small fraction of the total weight of the mixture. For this reason, the terms "solution" and "water" are used interchangeably.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

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

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

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

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom.....Animal  
Phylum.....Arthropoda  
Class.....Insecta  
Order.....Ephemeroptera  
Family.....Ephemeridae  
Genus.....Hexagenia  
Species.....Hexagenia limbata

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total (as used in tables of chemical analyses) refers to the amount of a substance that is present both in solution and in suspension. Analyses are performed on representative samples of water-suspended sediment mixtures.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

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.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

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

#### DOWNSTREAM ORDER AND STATION NUMBER

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 main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is following in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indentation on a list of stations in the front of the report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 08313000, which appears just to the left of the station name, includes the 2-digit part number "08" plus the 6-digit downstream order number "313000." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 07 (Lower Mississippi River basin), Part 08 (Western Gulf of Mexico basin), and Part 09 (Colorado River basin).



## NUMBERING SYSTEM FOR WELLS, SPRINGS, AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells, springs and miscellaneous sites where only random water-quality samples are taken.

The well, spring and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well, spring, or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1 below.

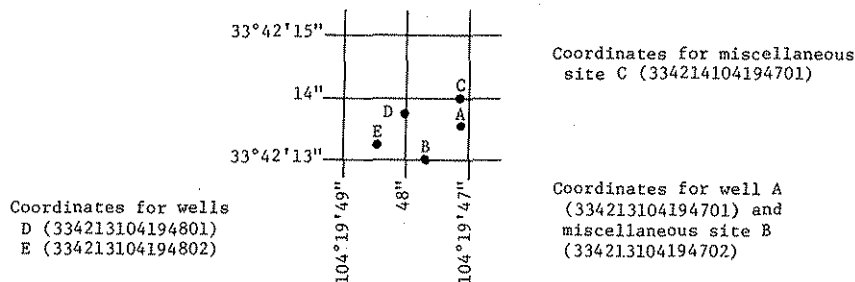


Figure 1.--System for numbering wells, springs, and miscellaneous sites.

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. 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 can locate a well or spring to the nearest 10 acre tract while six digits will locate a site to the nearest 0.16 acre tract. This numbering system is illustrated in NM-75-1 and WSP 1855.

## SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin. Included in this program are stations 08377900, Rio Mora near Terrero and 09430600, Mogollon Creek near Cliff.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality. Included in this network are stations 07227140, Canadian River above New Mexico--Texas State line; 08251500, Rio Grande near Lobatos; 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08358300, Rio Grande conveyance channel at San Marcial; 08358400, Rio Grande floodway at San Marcial; 08407500, Pecos River near Red Bluff; 08481500, Rio Tularosa near Bent; and 09368000, San Juan River at Shiprock.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity. Included in this program are the hydrologic bench-mark stations and station 08407500, Pecos River near Red Bluff.

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 in the conterminous United States. Included in this program are stations 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08358300, Rio Grande conveyance channel at San Marcial; 08358400, Rio Grande floodway at San Marcial; 09368000, San Juan River at Shiprock; and 09431500, Gila River near Red Rock.

Surveillance network stations are surface-water stations selected for water-quality examinations for water-quality control purposes. These stations are usually located at key regulatory streamflow gaging stations or near the statelines. Data for major inorganic constituents, nutrients, dissolved oxygen, and bacteria are collected at all these stations. Data for trace elements, radiochemicals, and pesticides are collected at some of these stations. Included in this network are stations, 07221500, Canadian River near Sanchez; 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08311900, Rio Grande at San Felipe; 08331000, Rio Grande at Isleta; 08354800, Rio Grande conveyance channel at San Acacia; 08354900, Rio Grande floodway at San Acacia; 08358300, Rio Grande conveyance channel at San Marcial; 08358400, Rio Grande floodway at San Marcial; 08363840, Rio Grande at Vinton Bridge near Anthony; 08379500, Pecos River near Anton Chico; 08383500, Pecos River near Puerto de Luna; 08396500, Pecos River near Artesia; 08405260, Pecos River below Six Mile Dam; and 09368000, San Juan River at Shiprock.

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

#### EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

##### Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulation of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights or elevations are included for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations 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 revised figure was first published is given.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

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

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source or indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a table showing daily contents or stage. For some reservoirs a monthly summary table of stage and contents is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given, or if daily stage is published.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

#### Accuracy of field data and computed results

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

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good," within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

#### Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

### EXPLANATION OF WATER-QUALITY RECORDS

#### Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives periods of record for the various types of water-quality data (chemical, specific conductance, biological determination, water temperatures, sediment discharge), period of record and, extremes of pertinent data, and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

### Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

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.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

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

### Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

### Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were 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 time 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 loads 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 quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

### Biology

Generally three types of biological data appear in this report; microbiological data on coliform and streptococci bacteria, phytoplankton data and periphyton data. Methods for the collection and analysis of aquatic biological and aquatic microbiological samples are described by Slack and others (1973).

### Parameter Codes

The five-digit codes shown in parentheses in the column headings of the tables in this report are parameter codes which uniquely identify the data. These are standard codes used to identify the data stored in the files of the National Water Data Storage and Retrieval System which was implemented and is managed by the Water Resources Division (WRD) of the U.S. Geological Survey. These codes are identical to those used by the Environmental Protection Agency (EPA) in all cases where EPA has assigned a parameter code.

## EXPLANATION OF GROUND-WATER LEVEL RECORDS

### Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 1.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

## PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing 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 (Applications of Hydraulics) is on 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 Distribution, 604 South Pickett Street, Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office). Prices are subject to change.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. *Water temperature-influential factors, field measurement, and data presentation*, by H. H. Stevens Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages. \$1.60.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages. \$0.85.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. \$1.90.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. \$1.75.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. \$1.00.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. \$0.20.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. V. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. \$0.40.

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

- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. \$0.35.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. \$0.30.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages. \$0.20.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. \$0.45.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. \$1.25.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. \$0.40.
- 3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. \$0.35. Not currently available.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. \$0.70.
- 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. \$2.50.
- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. \$0.65.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages. \$2.50.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages. \$1.15.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages. \$0.30.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. \$0.20.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages. \$0.65.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. \$0.75.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. \$0.75.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages. \$0.65.
- 5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. \$2.40.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. \$0.80.
- 5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. \$0.90.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by K. V. Slack, R. C. Averett, P. E. Greeson, and R. G. Lipscomb: USGS--TWRI Book 5, Chapter A4. 1973. 165 pages. \$2.85.
- 5-A5.\* *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages. \$16.00.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. \$0.65.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. \$2.30.
- 7-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages. \$0.70.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. \$0.40.

\*Looseleaf format. Available only by subscription. Additional supplements will be issued to subscribers at no extra cost.

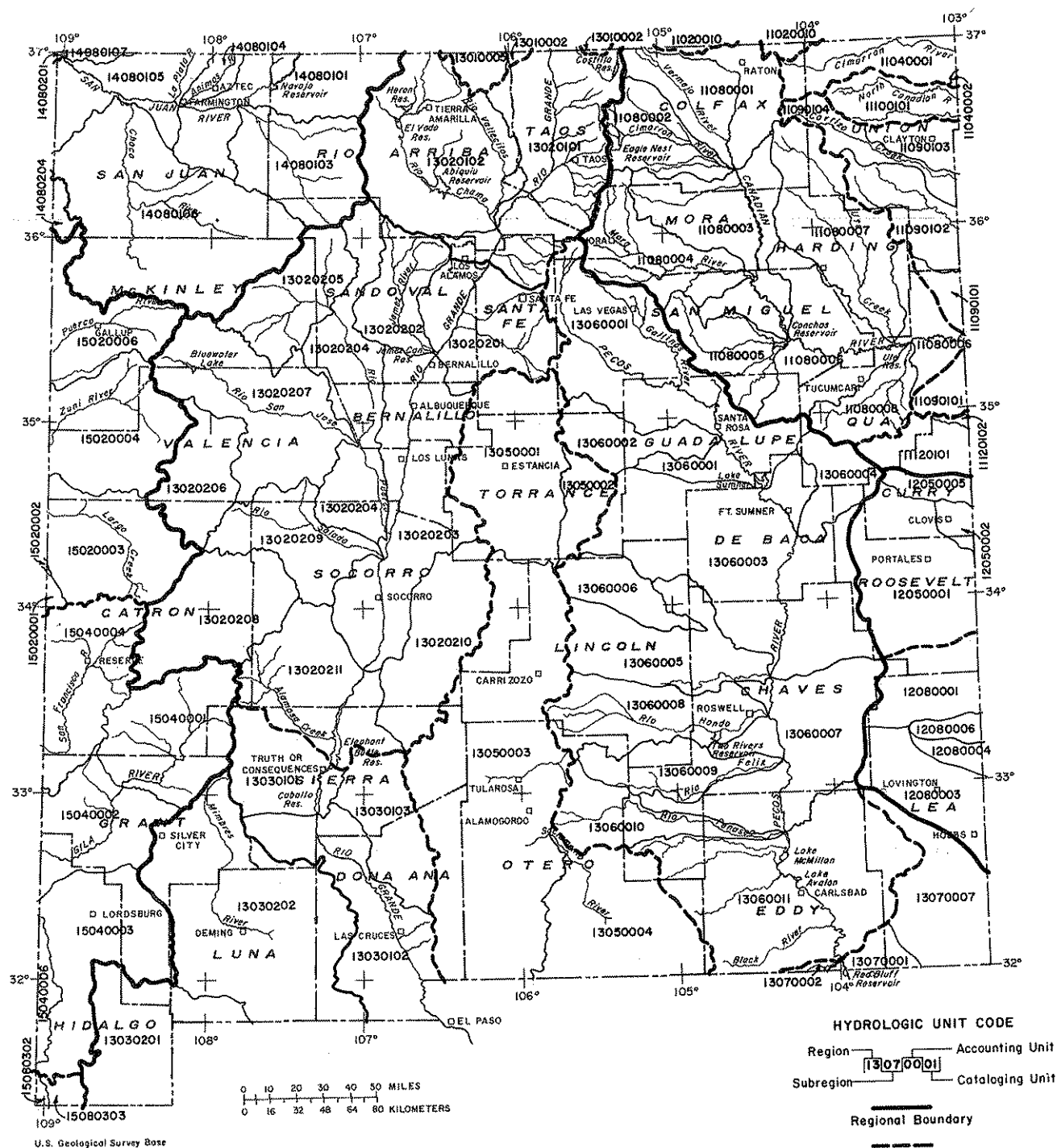


Figure 2.-- Map of New Mexico showing location of hydrologic units.



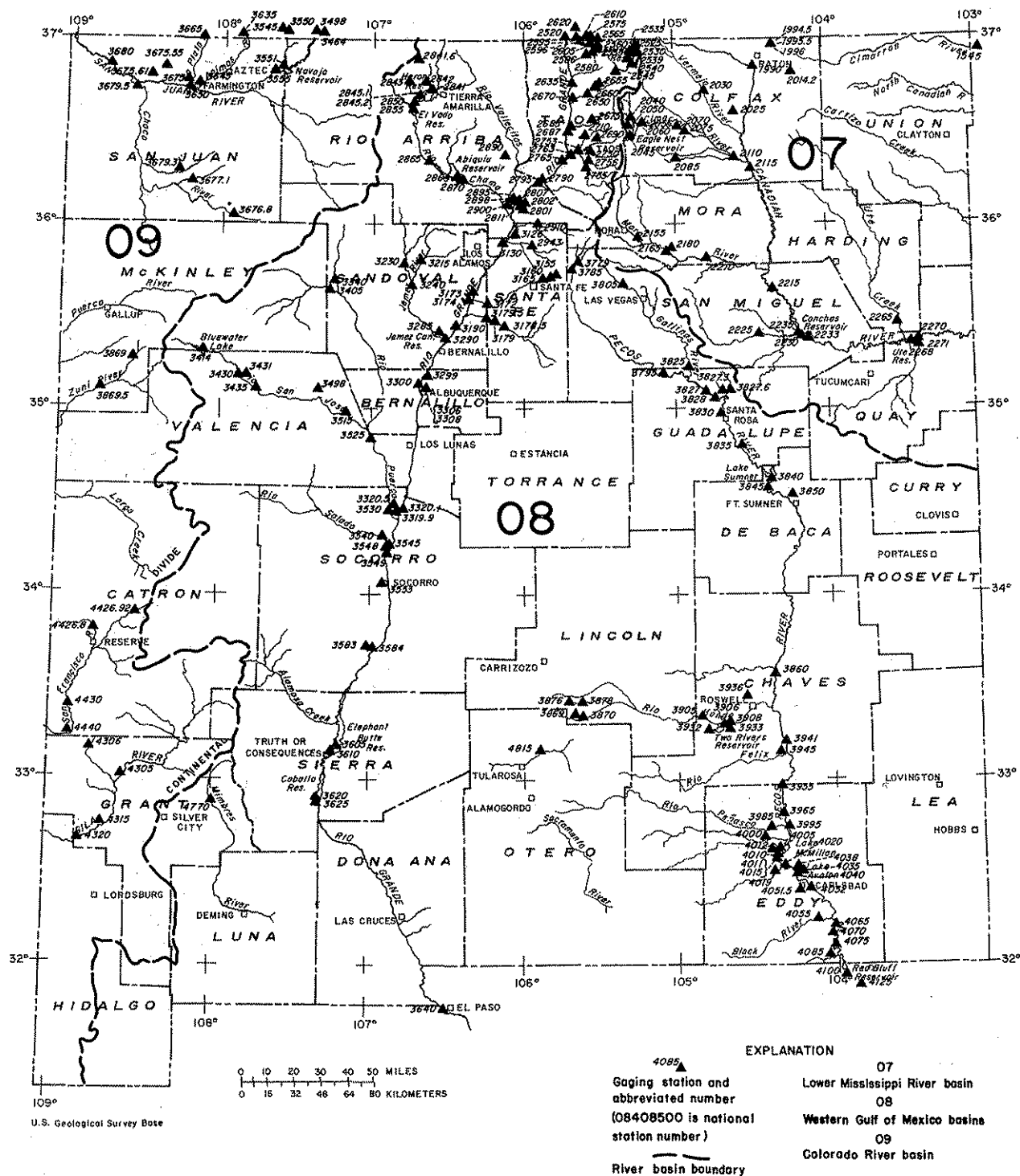


Figure 3. -- Map of New Mexico showing location of surface-water gaging stations.

**BASIN AND STATION NUMBER**

River basin boundary: ~~~~~

Lower Mississippi River basin number: 07

Western Gulf of Mexico basin number: 08

Colorado River basin number: 09

▲ 2271.40

Number by symbol is abbreviated station number. Complete station number of example is:

07 227140

Basin no.      Station no.

Figure 4.-- Map of New Mexico showing location of water-quality gaging stations.

## HYDROLOGIC-DATA STATION RECORDS

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## LOWER MISSISSIPPI RIVER BASIN

## ARKANSAS RIVER BASIN

07154500 CIMARRON RIVER NEAR KENTON, OK

LOCATION.--Lat 36°55'36", long 102°57'31", in SE¼ sec.4, T.5 N., R.1 E., Cimarron County, Hydrologic Unit 11040001, near right bank on downstream side of pier of county road bridge, 1.5 mi (2.4 km) upstream from North Carrizo Creek, 1.7 mi (2.7 km) northeast of Kenton, 2.2 mi (3.5 km) downstream from Carrizozo Creek, and at mile 594.0 (955.7 km).

DRAINAGE AREA.--1,106 mi<sup>2</sup> (2,865 km<sup>2</sup>), of which 68 mi<sup>2</sup> (176 km<sup>2</sup>) is probably noncontributing.

PERIOD OF RECORD.--April 1904 to July 1905 (gage heights only), October 1950 to current year.

REVISED RECORDS.--NSP 1711: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 4,262.08 ft (1,299.082 m) above mean sea level (levels by State Highway Department). April 1904 to July 1905, nonrecording gage at site 0.9 mi (1.4 km) upstream at different datum. Oct. 1, 1950 to Sept. 19, 1967, water-stage recorder at same site and at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records fair. Extensive diversions for irrigation above station.

AVERAGE DISCHARGE.--26 years, 21.7 ft<sup>3</sup>/s (0.615 m<sup>3</sup>/s), 15,720 acre-ft/yr (19.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft<sup>3</sup>/s (1,230 m<sup>3</sup>/s) Oct. 17, 1965, gage height, 22.32 ft (6.803 m), present datum, from rating curve extended above 7,000 ft<sup>3</sup>/s (198 m<sup>3</sup>/s) on basis of contracted-opening measurement of peak flow; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft<sup>3</sup>/s (56.6 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
June 7	0400	*5040 143	13.45 4.100	Sept. 26	0015	2150 60.9	11.07 3.374
June 9	0115	2640 74.8	11.58 3.530	Sept. 27	1845	2880 81.6	11.81 3.600

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	.04	.03	.02	.06	.17	0	0	0	0
2		0	0	.04	.04	0	.06	.13	0	0	15	0
3		0	0	.04	.04	0	.04	.13	0	0	25	0
4		0	0	.04	.04	.03	.04	.13	0	23	12	0
5		0	0	.04	.04	.04	.06	.14	0	5.7	7.0	0
6		0	0	.04	.04	.02	.07	.19	147	.23	.50	0
7		0	0	.04	.04	.02	.07	.21	1650	0	.10	0
8		0	0	.04	.04	.02	.07	.21	18	0	0	0
9		0	0	.04	.06	.02	.06	.21	485	0	0	0
10		0	0	.04	.04	.02	.06	.21	51	0	0	0
11		0	0	.02	.02	.01	.05	.18	.41	0	0	0
12		0	0	.02	.02	0	.04	.17	0	0	0	0
13		0	0	.02	.02	0	136	.17	0	0	8.5	0
14		0	0	.02	.04	0	3.0	.17	0	0	.70	0
15		0	0	.02	.04	0	.32	.14	0	0	.05	0
16		0	0	.02	.03	0	.25	.13	0	0	0	13
17		0	0	.07	.02	.01	.19	.13	0	0	0	165
18		0	0	.07	.03	.01	.15	.13	0	0	0	74
19		4.7	.24	.06	.02	.02	.13	.10	0	0	0	2.3
20		.34	.39	.04	.02	0	.10	.10	0	3.0	0	.05
21		0	.35	.04	.02	0	.10	.10	0	39	0	0
22		0	.04	.04	.02	.01	.07	.10	0	.78	17	0
23		0	.04	.04	.02	.02	.07	.12	0	129	4.2	0
24		0	.04	.04	.01	.01	.07	.13	0	6.7	.03	0
25		0	.04	.04	0	0	.07	.06	0	.50	0	50
26		0	.04	.04	0	0	.07	.03	0	.10	0	412
27		0	.04	.04	.01	.01	.07	0	0	0	0	574
28		0	.04	.04	.02	.01	.07	0	0	0	0	219
29		0	.04	.04	.02	.01	.07	0	0	0	0	10
30		0	.04	.04	---	.03	.15	0	0	0	0	.80
31		---	.04	.04	---	.04	---	0	---	0	0	---
TOTAL	0	5.04	1.38	1.20	.79	.38	141.63	3.69	2351.41	208.01	90.08	1520.15
MEAN	0	.17	.045	.039	.027	.012	4.72	.12	78.4	6.71	2.91	50.7
MAX	0	4.7	.39	.07	.06	.04	136	.21	1650	129	25	574
MIN	0	0	0	.02	0	0	.04	0	0	0	0	0
AC-FT	0	10.0	2.7	2.4	1.6	.8	281	7.3	4660	413	179	3020
CAL YR 1975 TOTAL		466.02		1.28	MAX 168	MIN 0	AC-FT 924					
WTR YR 1976 TOTAL		4323.76		11.8	MAX 1650	MIN 0	AC-FT 8580					



WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

## 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 (10.5 km) northeast of Raton, and at mile 21.5 (34.6 km).

DRAINAGE AREA.--20.8 mi<sup>2</sup> (53.9 km<sup>2</sup>).

PERIOD OF RECORD.--May 1975 to current year.

GAGE.--Nonrecording gage. Altitude of gage is at mean sea level, from topographic map.

REMARKS.--Reservoir is formed by an earthfill dam, completed in 1907; capacity, 59 acre-ft (72,700 m<sup>3</sup>). Reservoir enlarged in 1916; capacity, 1,130 acre-ft (1.39 hm<sup>3</sup>), spillway elevation, 7,479.0 ft (2,279.60 m). Reservoir enlarged again in 1948; capacity, 4,000 acre-ft (4.93 hm<sup>3</sup>), spillway elevation, 7,511.0 ft (2,289.35 m). Elevation of lowest outlet, 7,439.0 ft (2,267.41 m). No dead storage. Water is for municipal use of city of Raton.

COOPERATION.--Elevations furnished by city of Raton. Capacity table furnished by New Mexico Interstate Stream Commission.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 3,970 acre-ft (4.90 hm<sup>3</sup>) May 31, 1975, elevation, 7,510.79 ft (2,289.289 m); minimum observed, 2,500 acre-ft (3.08 hm<sup>3</sup>) Sept. 30, 1976, elevation, 7,497.50 ft (2,285.238 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,220 acre-ft (3.97 hm<sup>3</sup>) May 31, elevation, 7,504.40 ft (2,287.341 m); minimum observed, 2,500 acre-ft (3.08 hm<sup>3</sup>) Sept. 30, elevation, 7,497.50 ft (2,285.238 m).

## 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 (7.1 km) northeast of Raton, and at mile 19.2 (30.9 km).

DRAINAGE AREA.--29.4 mi<sup>2</sup> (76.1 km<sup>2</sup>).

PERIOD OF RECORD.--May 1975 to current year.

GAGE.--Nonrecording gage. Altitude of gage is at mean sea level, from topographic map.

REMARKS.--Reservoir is formed by an earthfill dam, completed in 1892; capacity 100 acre-ft (123,000 m<sup>3</sup>), spillway elevation, 7,078.0 ft (2,157.37 m). Reservoir rehabilitated in 1941; capacity, 71 acre-ft (87,500 m<sup>3</sup>), spillway elevation, 7,089.6 ft (2,160.91 m). Elevation of lowest outlet, 7,064.1 ft (2,153.14 m). No dead storage. Water is for municipal use of city of Raton.

COOPERATION.--Elevations furnished by city of Raton.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 70 acre-ft (86,300 m<sup>3</sup>) May 31, 1975, elevation, 7,089.55 ft (2,160.895 m); minimum observed, 56 acre-ft (69,000 m<sup>3</sup>) Aug. 31, 1976, elevation, 7,086.85 ft (2,160.072 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 68 acre-ft (83,800 m<sup>3</sup>) June 30, elevation 7,089.35 ft (2,160.834 m); minimum observed, 56 acre-ft (69,000 m<sup>3</sup>) Aug. 31, elevation, 7,086.85 ft (2,160.072 m).

## MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
07199450 LAKE MALOYA				07199550 LAKE ALICE		
Sept. 30.....	7505.18	3310	-	7087.8	61	
Oct. 31.....	7503.56	3130	-180	7087.9	62	+1
Nov. 30.....	7502.97	3060	-70	7088.65	65	+3
Dec. 31.....	7503.12	3080	+20	7087.9	62	-3
CAL YR 1975	-	-	-	-	-	-
Jan. 31.....	7502.62	3030	-50	7087.46	59	-3
Feb. 29.....	7502.86	3050	+20	7088.2	63	+4
Mar. 31.....	7503.48	3120	+70	7088.3	64	+1
Apr. 30.....	7503.78	3150	+30	7088.1	62	-2
May 31.....	7504.40	3220	+70	7087.90	62	0
June 30.....	7503.20	3090	-130	7089.35	68	+6
July 31.....	7501.59	2920	-170	7087.8	61	-7
Aug. 31.....	7499.14	2660	-260	7086.85	56	-5
Sept. 30.....	7497.50	2500	-160	7087.4	59	+3
WTR YR 1976	-	-	-810	-	-	-2

## 07199600 CHICORICA CREEK NEAR YANKEE, NM

LOCATION.--Lat 36°55'50", long 104°22'24", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on right bank 1.0 mi (1.6 km) upstream from East Fork, 1.8 mi (2.9 km) downstream from Lake Alice, 2.8 mi (4.5 km) southwest of Yankee, 4.2 mi (6.8 km) northeast of Raton, 4.1 mi (6.6 km) downstream from Lake Maloya, and at mile 17.4 (28.0 km).

DRAINAGE AREA.--32.5 mi<sup>2</sup> (84.2 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,795 ft (2,070 m), from topographic map.

REMARKS.--Water-discharge records fair. Flow regulated by Lake Maloya (station 07199450) and Lake Alice (station 07199550). See tabulation below for monthly diversion from these reservoirs for municipal supply of city of Raton. A ditch on left bank 600 ft (180 m) upstream could divert entire flow of Chicorica Creek during periods of low flow; this ditch was plugged Oct. 11, 1975, and no further diversions were noted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5.0 ft<sup>3</sup>/s (0.142 m<sup>3</sup>/s) June 6, 1976, gage height, 2.40 ft (0.732 m) from rating curve extended above 0.16 ft<sup>3</sup>/s (0.005 m<sup>3</sup>/s) on basis of slope-area measurement at gage-height 9.25 ft (2.819 m); no flow several days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 17, 1965, reached a stage of 9.25 ft (2.819 m), present datum, from floodmarks (discharge, 2,230 ft<sup>3</sup>/s or 63.2 m<sup>3</sup>/s, by slope-area measurement). The flood of May 18, 1955, was computed as 2,230 ft<sup>3</sup>/s (63.2 m<sup>3</sup>/s) by flow-over-dam method at Lake Maloya 4.1 mi (6.6 km) upstream and, according to a local resident, exceeded the flood of June 1965 at the present site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.0 ft<sup>3</sup>/s (0.142 m<sup>3</sup>/s) June 6, gage height, 2.40 ft (0.732 m), from rating curve extended as explained above; no flow Sept. 17-23, 26, 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.10	.10	.10	.09	.08	.13	.18	.16	.05	.27	.03
2	.06	.14	.25	.09	.11	.07	.13	.16	.14	.06	.36	.03
3	.05	.14	.19	.07	.10	.06	.09	.15	.13	.05	.39	.03
4	.04	.14	.17	.08	.05	.06	.07	.14	.14	.06	.20	.02
5	.04	.13	.15	.08	.04	.05	.09	.15	.13	.04	.14	.02
6	.03	.13	.13	.08	.02	.06	.13	.14	1.5	.04	.13	.03
7	.03	.14	.12	.05	.05	.09	.09	.14	.59	.04	.13	.03
8	.04	.13	.11	.04	.05	.11	.08	.13	.51	.03	.12	.03
9	.05	.13	.10	.04	.12	.11	.10	.12	.43	.04	.28	.05
10	.04	.12	.11	.04	.11	.09	.09	.11	.32	.03	.13	.06
11	.03	.12	.11	.06	.07	.08	.07	.10	.23	.04	.13	.05
12	.03	.11	.10	.08	.06	.09	.09	.10	.17	.06	.12	.05
13	.04	.13	.11	.08	.05	.07	.13	.09	.18	.08	.11	.04
14	.05	.10	.11	.10	.08	.06	.10	.09	.19	.07	.11	.04
15	.05	.10	.11	.06	.07	.06	.16	.09	.16	.21	.10	.04
16	.05	.12	.11	.07	.07	.06	.16	.10	.19	.27	.13	.10
17	.04	.10	.10	.07	.06	.08	.15	.10	.16	.12	.12	0
18	.04	.10	.10	.06	.09	.11	.13	.10	.16	.07	.14	0
19	.05	.07	.11	.04	.07	.14	.16	.13	.41	.13	.20	0
20	.05	.07	.11	.08	.07	.12	.19	.13	.26	.37	.14	0
21	.04	.06	.11	.10	.06	.13	.16	.15	.17	.20	.12	0
22	.05	.06	.11	.10	.05	.12	.15	.16	.15	.16	.10	0
23	.05	.08	.11	.12	.06	.11	.14	.17	.21	.13	.11	0
24	.04	.08	.10	.10	.06	.11	.15	.21	.12	.15	.10	.04
25	.03	.08	.10	.09	.07	.11	.15	.25	.08	.13	.09	.17
26	.02	.07	.11	.08	.08	.13	.16	.21	.06	.18	.09	0
27	.06	.08	.11	.09	.07	.11	.17	.18	.05	.15	.08	.28
28	.07	.08	.10	.12	.08	.12	.14	.17	.05	.13	.09	0
29	.07	.07	.10	.11	.08	.13	.39	.16	.04	.12	.09	0
30	.08	.07	.11	.09	---	.12	.32	.31	.04	.13	.09	0
31	.08	---	.11	.06	---	.14	---	.25	---	.18	.06	---
TOTAL	1.47	3.05	3.67	2.43	2.04	2.98	4.29	4.67	7.13	3.52	4.47	1.14
MEAN	.047	.10	.12	.078	.070	.096	.14	.15	.24	.11	.14	.038
MAX	.08	.14	.25	.12	.12	.14	.39	.31	1.5	.37	.39	.28
MIN	.02	.06	.10	.04	.02	.05	.07	.09	.04	.03	.06	0
AC-FT	2.9	6.0	7.3	4.8	4.0	5.9	8.5	9.3	14	7.0	8.9	2.3

WTR YR 1976 TOTAL 40.86 MEAN .11 MAX 1.5 MIN 0 AC-FT 81

## ARKANSAS RIVER BASIN

07199600 CHICORICA CREEK NEAR YANKEE, NM -- Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
OCT 20...	1548	.05	418	8.1	13.0	130	0	34	12	40	1.5	2.5
NOV 14...	1215	.10	416	8.2	2.5	140	0	36	13	31	1.1	1.9
DEC 16...	1610	.16	504	8.0	.5	180	0	46	16	39	1.3	1.8
JAN 15...	1653	.05	488	8.1	.5	180	0	42	18	40	1.3	1.6
FEB 09...	1625	.47	458	7.8	1.0	140	0	35	12	45	1.7	1.7
MAR 09...	1005	.12	445	8.1	2.0	160	0	38	15	42	1.5	1.5
APR 06...	1210	.12	491	7.9	10.0	150	0	37	13	52	1.9	1.7
MAY 04...	1130	.14	514	8.3	17.5	150	0	38	14	46	1.6	2.1
JUN 02...	1130	.14	457	8.2	21.0	160	0	42	14	45	1.5	2.4
JUL 27...	1240	.14	426	7.8	25.0	110	0	28	10	52	2.1	3.3
AUG 24...	1245	.11	413	8.2	20.0	120	0	30	12	23	.9	2.5

DATE	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (REST- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT 20...	227	0	38	3.2	.3	13	250	255	.04	.01	30	10
NOV 14...	218	0	40	2.8	.2	13	--	246	.04	--	--	--
DEC 16...	255	0	49	3.8	.3	14	--	296	.03	--	--	--
JAN 15...	241	0	59	3.3	.2	14	--	297	.08	--	--	--
FEB 09...	225	0	58	3.2	.2	11	--	277	.06	--	--	--
MAR 09...	235	0	67	3.8	.2	11	--	294	.02	--	--	--
APR 06...	239	0	67	5.0	.2	11	305	305	.08	.00	20	20
MAY 04...	234	0	63	3.5	.2	11	288	294	.06	.01	30	20
JUN 02...	239	0	59	3.3	.2	11	--	295	.11	--	--	--
JUL 27...	222	0	43	2.3	.3	11	--	260	.19	--	--	--
AUG 24...	183	0	18	1.9	.2	11	--	189	.10	--	--	--



## 07201420 UÑA DE GATO CREEK BELOW THROTTLE DAM NEAR RATON, NM

LOCATION.--Lat 36°48'52", long 104°13'57", in SE¼SW¼ sec.24, T.30 N., R.25 E., Colfax County, Hydrologic Unit 11080001, on right bank 1.0 mi (1.6 km) downstream from Throttle Dam and 13 mi (21 km) southeast of Raton.

DRAINAGE AREA.--49.5 mi<sup>2</sup> (128.2 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,635 ft (2,020 m), from topographic map.

REMARKS.--Water-discharge records good except those for winter period and those above 5 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s), which are poor. Flow regulated by Throttle Reservoir, capacity 3,300 acre-ft (4.07 km<sup>3</sup>) 1 mi (1.6 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 187 ft<sup>3</sup>/s (5.30 m<sup>3</sup>/s) July 15, 1976, gage height, 3.01 ft (0.917 m), from rating curve extended above 4.4 ft<sup>3</sup>/s (0.12 m<sup>3</sup>/s); minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Feb. 22, 1976, but may have been less during periods of ice effect.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 187 ft<sup>3</sup>/s (5.30 m<sup>3</sup>/s) July 15, gage height, 3.01 ft (0.917 m), from rating curve extended as explained above; minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Feb. 22, but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.20	.23	.13	.16	.08	1.6	1.9	2.0	1.8	.40	.67
2	.14	.22	.17	.08	.15	.08	2.6	1.9	2.0	1.9	.22	.67
3	.14	.22	.16	.10	.13	.07	2.7	2.0	2.2	1.9	.18	.67
4	.14	.22	.15	.13	.12	.07	2.8	2.0	1.9	1.9	.18	.67
5	.14	.22	.15	.15	.10	.08	2.8	2.0	2.4	1.7	.17	.67
6	.14	.22	.14	.14	.08	.09	2.8	2.0	1.9	1.8	.17	.67
7	.14	.21	.14	.08	.11	.10	2.8	2.0	1.9	1.8	.19	.64
8	.14	.20	.14	.07	.12	.10	2.8	2.0	1.9	1.8	.43	.64
9	.14	.21	.16	.08	.12	.09	2.9	2.0	1.9	1.9	.94	.67
10	.15	.22	.19	.10	.10	.10	2.8	2.0	1.9	2.0	.87	.68
11	.16	.22	.17	.12	.09	.10	2.8	2.0	1.9	2.0	.80	.68
12	.16	.22	.17	.15	.09	.09	2.7	2.1	1.9	1.9	.70	.68
13	.16	.22	.16	.18	.09	.09	2.4	2.0	1.9	2.1	.69	.68
14	.17	.21	.16	.20	.10	.09	1.9	2.0	1.8	1.9	.72	.69
15	.17	.20	.16	.16	.10	.09	1.9	2.0	1.8	5.1	.70	.69
16	.18	.21	.20	.18	.09	.09	2.0	2.0	1.8	2.7	.72	.69
17	.18	.20	.19	.20	.11	.09	2.0	2.0	1.8	2.9	.66	.69
18	.18	.22	.17	.16	.10	.09	2.0	2.0	1.8	2.5	.75	.69
19	.18	.22	.18	.11	.10	.09	1.4	2.0	1.8	7.0	.70	.69
20	.18	.20	.18	.20	.10	.09	1.0	2.0	1.8	6.4	.69	.69
21	.18	.19	.18	.22	.08	.09	1.0	2.0	1.8	2.9	.69	4.1
22	.18	.21	.18	.24	.06	.09	1.1	2.0	1.9	2.0	.69	.66
23	.18	.23	.18	.22	.07	.09	1.1	2.0	1.9	1.8	.69	.64
24	.18	.25	.17	.17	.08	.10	1.0	4.2	1.9	1.7	.67	.66
25	.19	.25	.17	.16	.08	.10	1.1	3.3	1.9	1.5	.64	.69
26	.19	.24	.18	.10	.08	.10	1.4	2.2	1.9	1.4	.65	.87
27	.20	.25	.18	.12	.08	.10	1.7	2.1	1.9	1.6	.65	7.1
28	.20	.25	.17	.16	.08	.09	1.7	2.1	1.9	1.6	.65	.64
29	.20	.20	.17	.20	.08	.09	1.9	2.1	2.1	1.6	.64	.19
30	.20	.24	.18	.16	---	.09	1.9	2.1	1.8	.72	.65	.18
31	.20	---	.18	.13	---	.09	---	2.1	---	.25	.67	---
TOTAL	5.23	6.57	5.31	4.60	2.85	2.80	60.6	66.1	57.3	70.07	18.17	29.25
MEAN	.17	.22	.17	.15	.098	.090	2.02	2.13	1.91	2.26	.59	.98
MAX	.20	.25	.23	.24	.16	.10	2.9	4.2	2.4	7.0	.94	7.1
MIN	.14	.19	.14	.07	.06	.07	1.0	1.9	1.8	.25	.17	.18
AC-FT	10	13	11	9.1	5.7	5.6	120	131	114	139	36	58

WTR YR 1976 TOTAL 328.85 MEAN .90 MAX 7.1 MIN .06 AC-FT 652

## ARKANSAS RIVER BASIN

-07201420 UNA DE GATO CREEK BELOW THROTTLE DAM NEAR RATON, NM -- Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
OCT												
20...	1420	.18	687	7.8	13.0	300	70	67	31	38	1.0	4.0
NOV												
14...	1040	.24	748	8.0	1.0	320	84	71	34	31	.8	3.9
DEC												
17...	1250	.21	800	7.8	1.0	350	110	82	36	37	.9	3.9
JAN												
15...	1528	.26	782	7.9	.5	340	110	78	36	35	.8	3.8
FEB												
09...	1520	.16	750	8.1	2.0	330	110	74	36	35	.8	3.6
MAR												
09...	0905	.10	908	7.9	2.0	410	160	90	45	46	1.0	3.3
APR												
06...	1000	2.8	678	7.9	10.0	300	89	68	32	29	.7	3.5
MAY												
04...	0945	2.1	737	8.0	12.0	300	91	65	33	30	.8	3.4
JUN												
02...	0955	2.0	664	7.9	16.0	300	98	64	33	31	.8	3.6
29...	1535	1.9	626	7.8	--	270	94	54	34	31	.8	3.9
JUL												
27...	1100	1.5	560	7.4	18.0	250	94	57	25	25	.7	4.4
AUG												
24...	1145	.64	590	7.8	19.0	270	100	59	30	29	.8	4.3
SEP												
20...	1545	.66	560	8.0	18.0	250	100	48	31	30	.8	4.4

DATE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT												
20...	274	0	150	5.1	.3	11	437	442	.17	.05	60	0
NOV												
14...	285	0	140	3.2	.3	12	--	437	.19	--	--	--
DEC												
17...	295	0	190	4.9	.3	12	--	514	.55	--	--	--
JAN												
15...	288	0	170	4.2	.3	13	--	484	.47	--	--	--
FEB												
09...	272	0	180	4.8	.3	9.8	--	480	.44	--	--	--
MAR												
09...	310	0	250	6.3	.3	9.6	--	605	.29	--	--	--
APR												
06...	259	0	140	3.8	.3	9.7	439	415	.20	.01	50	0
MAY												
04...	253	0	150	3.9	.3	8.8	--	420	.19	--	--	--
JUN												
02...	241	0	170	3.9	.2	6.8	--	432	.15	--	--	--
29...	220	0	160	3.7	.3	5.2	--	401	.08	--	--	--
JUL												
27...	185	0	140	3.2	.3	7.9	--	357	.57	--	--	--
AUG												
24...	208	0	160	3.6	.4	5.7	--	395	.09	--	--	--
SEP												
20...	180	0	170	3.4	.3	6.2	--	383	.16	--	--	--

## 07202000 CHICORICA CREEK NEAR HEBRON, NM

LOCATION.--Lat 36°46'13", long 104°23'45", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec.4, T.29 N., R.24 E., Colfax County, Hydrologic Unit 11080001, at highway bridge near east boundary of Maxwell Grant, 300 ft (91 m) downstream from Una de Gato Creek, 4.4 mi (7.1 km) northeast of Hebron, and 9 mi (14.5 km) south of Raton.

DRAINAGE AREA.--381 mi<sup>2</sup> (987 km<sup>2</sup>).

PERIOD OF RECORD.--Water years 1966 to current year.

REMARKS.--Water discharge measurements were made at the time water-quality samples were collected.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA+MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED POTASSIUM (K) (MG/L) (00935)
OCT 21...	0900	.53	1720	8.0	6.0	670	440	130	85	130	2.2	4.4
NOV 12...	1540	.02	3140	8.0	2.0	1200	940	230	150	320	4.0	5.3
DEC 16...	0950	1.9	2740	7.1	1.0	900	640	180	110	280	4.1	8.0
JAN 15...	0955	1.5	2420	7.0	1.0	840	580	170	100	250	3.8	8.5
FEB 09...	1355	3.4	1650	7.2	2.0	570	390	120	65	170	3.1	5.1
MAR 09...	1230	2.3	2290	7.9	7.0	790	540	150	100	230	3.6	6.3
APR 06...	1400	.23	2890	7.8	16.0	1100	760	190	140	320	4.3	6.6
MAY 04...	1235	.51	1810	8.1	19.0	640	420	120	82	190	3.3	4.9
JUN 02...	1235	1.1	1830	7.9	23.0	680	450	140	81	190	3.2	5.6
JUN 29...	1010	.03	3040	7.7	--	1200	1000	210	160	340	4.3	7.1
JUL 27...	1330	8.3	1150	7.3	20.0	400	260	95	40	100	2.2	6.7
AUG 24...	1355	.72	1120	7.5	21.0	360	250	71	44	95	2.2	5.9

DATE	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SiO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHOPHOSPHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)
OCT 21...	289	0	710	16	.4	8.1	1370	1230	.05	.01	120	0
NOV 12...	312	0	1500	45	.3	7.7	--	2410	.01	--	--	--
DEC 16...	319	0	1100	60	.5	11	--	1960	11	--	--	--
JAN 15...	310	0	1000	51	.4	13	--	1800	13	--	--	--
FEB 09...	213	0	670	32	.4	8.1	--	1210	6.8	--	--	--
MAR 09...	301	0	1000	40	.5	7.8	--	1700	3.9	--	--	--
APR 06...	351	0	1300	45	.5	3.3	2470	2180	.96	.29	170	10
MAY 04...	265	0	770	25	.4	4.5	--	1330	.30	--	--	--
JUN 02...	279	0	770	29	.3	7.3	--	1360	.85	--	--	--
JUN 29...	220	0	1600	35	.4	4.3	--	2470	.30	--	--	--
JUL 27...	178	0	440	19	.4	8.1	--	809	2.7	--	--	--
AUG 24...	133	0	440	14	.3	3.1	--	739	.00	--	--	--

## ARKANSAS RIVER BASIN

07202500 EAGLE TAIL DITCH NEAR MAXWELL, NM

LOCATION.--Lat 36°38'55", long 104°33'31", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on left bank, 25 ft (8 m) upstream from concrete drop structure, 300 ft (91 m) upstream from Crow Creek, and 7.5 mi (12.1 km) 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. Altitude of gage is 6,110 ft (1,860 m), from topographic map. Prior to May 1975, at site about 200 ft upstream at different datum.

REMARKS.--Records good except those for August and September, which are poor. Eagle Tail ditch diverts water from Chicorica Creek for use near Maxwell. No diversions above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 217 ft<sup>3</sup>/s (6.15 m<sup>3</sup>/s) Aug. 27, 1946, from rating extended above 85 ft<sup>3</sup>/s (2.4 m<sup>3</sup>/s); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 129 ft<sup>3</sup>/s (3.65 m<sup>3</sup>/s) July 21, from rating extended above 37 ft<sup>3</sup>/s (1.05 m<sup>3</sup>/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	0	0	2.0	5.6	0	22	10
2					0	0	0	1.0	1.9	0	35	1.5
3					0	0	0	.60	.54	0	48	.20
4					0	0	0	.20	.09	0	68	0
5					0	.01	0	.17	.16	0	11	0
6					0	.16	0	.13	7.9	0	2.8	0
7					0	.44	0	0	20	0	18	0
8					0	.32	0	0	9.8	0	3.2	0
9					0	.12	0	0	36	0	2.9	0
10					1.8	0	0	0	3.3	0	8.7	0
11					2.0	0	0	0	.74	0	6.0	0
12					1.1	0	0	0	.13	0	2.7	0
13					1.2	0	0	0	.01	0	1.0	0
14					1.2	0	0	0	0	0	0	0
15					1.1	1.1	0	0	0	0	0	0
16					.80	.02	0	0	0	37	0	0
17					.18	0	0	0	0	33	0	0
18					.05	0	0	0	0	1.8	0	0
19					0	0	0	0	0	.11	.10	0
20					0	0	0	0	0	13	0	0
21					0	0	0	0	0	129	0	0
22					0	0	0	0	0	44	0	23
23					0	0	0	0	0	7.9	0	9.5
24					0	0	0	0	0	2.5	0	1.4
25					.51	0	0	.18	0	1.3	0	.42
26					.59	0	0	3.4	0	1.5	0	.12
27					.07	0	0	3.3	0	15	0	6.8
28					0	0	0	7.8	0	10	0	81
29					0	0	0	2.1	0	1.3	0	11
30					---	0	9.5	.56	0	.28	0	2.9
31		---			---	0	---	5.6	---	.18	11	---
TOTAL	0	0	0	0	10.60	2.17	9.5	27.04	86.17	297.87	240.40	147.84
MEAN	0	0	0	0	.37	.070	.32	.87	2.87	9.61	7.75	4.93
MAX	0	0	0	0	2.0	1.1	9.5	7.8	36	129	68	81
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	21	4.3	19	54	171	591	477	293
WTR YR 1976	TOTAL 821.59	MEAN 2.24	MAX	129	MIN 0	AC-FT	1630					

## 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 (2.1 km) north of Dawson, 2.3 mi (3.7 km) upstream from Rail Canyon, and at mile 22.5 (36.2 km).

DRAINAGE AREA.--301 mi<sup>2</sup> (780 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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. Altitude of gage is 6,365 ft (1,940 m), from topographic map. See WSP 1311 or 1731 for history of changes prior to Sept. 24, 1953.

REMARKS.--Water-discharge records poor. Diversions for irrigation of small acreage and mountain meadows above station.

AVERAGE DISCHARGE.--52 years (water years 1916-17, 1920, 1928-76), 18.1 ft<sup>3</sup>/s (0.513 m<sup>3</sup>/s), 13,110 acre-ft/yr (16.2 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1926).--Maximum discharge, 12,600 ft<sup>3</sup>/s (357 m<sup>3</sup>/s) June 17, 1965, gage height, 15.25 ft (4.648 m), from rating curve extended above 400 ft<sup>3</sup>/s (11 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred Aug. 2, 1921, when discharge probably exceeded 10,000 ft<sup>3</sup>/s (280 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft<sup>3</sup>/s (23 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
July 20	1400	*a5740 163	11.22 3.420	Sept. 17	2130	889 25.2	5.47 1.667
Aug. 20	1900	2160 61.2	7.28 2.219				

a From rating curve extended above 95 ft<sup>3</sup>/s (2.69 m<sup>3</sup>/s) as explained above.

Minimum discharge, 0.66 ft<sup>3</sup>/s (0.019 m<sup>3</sup>/s) Feb. 13, Apr. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.4	2.1	2.0	4.0	2.3	.87	3.3	14	5.7	98	5.1
2	1.6	2.2	2.8	1.7	3.8	2.1	.96	3.1	11	5.6	29	5.1
3	1.5	2.3	3.7	1.5	4.3	2.0	1.1	3.1	11	39	10	5.1
4	1.6	1.9	3.6	1.4	4.0	2.2	1.2	3.1	15	52	8.0	5.1
5	1.7	1.7	4.4	1.6	4.0	1.6	1.5	3.4	15	6.3	6.2	5.1
6	1.8	1.6	3.4	1.4	3.5	1.8	1.9	3.5	16	7.6	5.0	5.2
7	1.5	1.6	3.7	1.3	4.5	2.1	1.8	3.9	15	5.0	4.4	5.4
8	1.3	1.7	4.3	1.7	5.0	2.7	1.5	4.3	16	3.8	4.4	5.4
9	1.0	1.9	4.1	2.2	6.3	2.6	1.4	4.7	15	3.7	3.9	5.4
10	1.0	2.2	3.8	1.7	3.9	2.5	1.5	5.6	13	3.3	3.5	5.6
11	1.1	2.2	3.6	1.7	3.0	2.4	1.7	6.0	12	3.1	3.4	5.8
12	1.2	1.7	2.8	1.8	2.2	2.0	2.2	7.0	9.4	3.0	3.2	6.0
13	1.3	1.8	2.4	2.2	2.0	1.8	2.9	7.6	8.5	8.9	2.9	6.1
14	1.0	2.4	2.0	2.0	2.7	2.2	2.7	6.6	8.1	8.4	2.6	31
15	.92	1.4	1.9	2.7	2.9	2.3	2.9	6.6	6.2	7.8	2.6	7.6
16	.99	1.7	3.3	2.8	2.3	2.2	2.7	8.0	6.2	7.2	2.5	29
17	1.0	1.8	1.8	3.0	2.0	1.9	2.6	9.8	6.7	13	2.2	158
18	1.0	1.9	1.8	2.8	1.7	1.8	2.6	10	6.9	6.8	2.3	131
19	1.1	1.3	2.0	2.2	1.6	1.6	2.6	13	6.9	3.4	11	14
20	1.4	1.2	2.1	2.4	1.5	1.5	2.4	14	6.5	500	198	7.0
21	1.3	1.2	2.2	2.6	1.5	1.4	2.2	18	6.1	145	40	4.7
22	1.0	1.3	2.2	2.9	1.6	1.6	1.6	22	5.3	20	20	6.6
23	1.0	1.6	2.2	3.4	2.0	1.4	1.4	19	4.9	25	15	5.3
24	.94	2.0	2.2	3.3	2.3	1.4	1.4	23	5.0	30	40	4.1
25	.89	2.2	2.3	2.9	2.6	1.4	1.5	18	5.2	30	14	3.7
26	1.1	1.3	2.4	2.7	2.7	1.3	1.7	17	5.1	100	7.9	5.1
27	1.2	1.4	2.2	2.5	2.4	1.5	1.7	13	5.2	50	5.9	116
28	1.3	1.8	2.0	3.3	2.5	1.3	1.9	13	5.1	23	5.4	9.4
29	1.2	1.6	2.0	3.8	2.5	1.2	2.5	12	5.6	11	5.4	1.6
30	1.1	1.6	2.2	4.0	---	1.1	3.8	14	6.1	8.5	5.4	1.6
31	1.1	---	2.4	3.6	---	1.1	---	15	---	7.0	5.3	---
TOTAL	37.74	51.9	83.9	75.1	85.3	56.3	58.73	310.6	272.0	1143.1	567.4	606.1
MEAN	1.22	1.73	2.71	2.42	2.94	1.82	1.96	10.0	9.07	36.9	18.3	20.2
MAX	1.8	2.4	4.4	4.0	6.3	2.7	3.8	23	16	500	198	158
MIN	.89	1.2	1.8	1.3	1.5	1.1	.87	3.1	4.9	3.0	2.2	1.6
AC-FT	75	103	166	149	169	112	116	616	540	2270	1130	1200

CAL YR 1975 TOTAL 3790.87 MEAN 10.4 MAX 164 MIN .35 AC-FT 7520  
WTR YR 1976 TOTAL 3348.17 MEAN 9.15 MAX 500 MIN .87 AC-FT 6640

## ARKANSAS RIVER BASIN

07203000 VERMEJO RIVER NEAR DAWSON, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945-51, 1964 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA.MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
OCT 21...	1225	1.3	514	8.2	--	180	12	51	13	36	1.2	2.4
NOV 13...	1305	1.2	451	--	7.5	--	--	--	--	--	--	--
JAN 15...	1205	2.4	514	8.1	.5	190	20	53	13	38	1.2	1.9
APR 07...	1330	2.0	508	8.0	15.0	200	38	55	15	33	1.0	2.3
JUL 28...	1225	22	390	7.1	19.0	140	21	41	9.3	20	.7	3.7
SEP 21...	1145	4.0	500	8.0	15.0	200	36	57	14	30	.9	3.4

DATE	RICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTH0. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT 21...	206	0	100	4.5	.7	7.6	307	318	.28	.01	20	0
NOV 13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN 15...	202	0	94	5.2	.7	8.0	305	314	.12	.00	20	0
APR 07...	196	0	100	5.5	.6	7.5	318	316	.14	.01	30	0
JUL 28...	146	0	63	3.4	.6	9.7	218	228	1.1	.03	30	10
SEP 21...	200	0	86	5.1	.6	9.6	313	305	.17	.00	80	30

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PEN- DED SEDI- MENT (MG/L) (80154)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY) (80155)
OCT 21...	1220	1.3	--	1	.00
NOV 13...	1305	1.2	7.5	23	.07
JAN 15...	1205	2.4	.5	10	.06
APR 07...	1330	2.0	15.0	34	.18
JUL 28...	1225	22	19.0	1590	94

## .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 (53 m) upstream from U.S. Highway 64, 250 ft (76 m) northwest of intersection of U.S. Highway 64 and State Highway 38, about 1,000 ft (300 m) upstream from high-water line of Eagle Nest Lake at Eagle Nest.

DRAINAGE AREA.--73.8 mi<sup>2</sup> (191.1 km<sup>2</sup>).

PERIOD OF RECORD.--April 1928 to October 1955 and June 1964 to current year (no winter records except water year 1932). Monthly discharge only for some periods, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near 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 (2,498.564 m) above mean sea level. 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 (49 m) downstream at datum 1.41 ft (0.430 m) lower.

REMARKS.--Records good except those for July and August, which are fair. Diversions for irrigation of about 1,200 acres (4.9 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 240 ft<sup>3</sup>/s (6.80 m<sup>3</sup>/s) Sept. 1, 1946, gage height, 3.10 ft (0.945 m), site and datum then in use; maximum gage height, 3.55 ft (1.082 m) May 12, 1973; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft<sup>3</sup>/s (0.37 m<sup>3</sup>/s) Apr. 13, gage height 1.99 ft (0.607 m), no peak above base of 35 ft<sup>3</sup>/s (0.99 m<sup>3</sup>/s); no flow Sept. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	1.1					---	5.4	2.6	1.1	1.0	.04
2	.57	1.2					---	5.6	2.2	1.2	1.1	.03
3	.60	1.2					---	4.9	1.5	1.0	1.2	.01
4	.59	1.1					---	5.1	1.2	.91	.95	0
5	.60	1.1					5.6	5.6	1.3	1.0	.54	0
6	.60	1.1					5.6	5.9	1.6	.95	.38	.07
7	.58	1.0					5.4	8.0	2.1	.82	.29	.13
8	.52	1.1					6.3	7.5	2.3	2.1	.23	.07
9	.51	1.0					6.0	8.2	2.0	1.5	.21	.07
10	.53	.86					6.6	7.0	1.7	.82	.21	.08
11	.56	.80					7.7	6.8	1.6	.58	.19	.06
12	.55	---					8.2	5.6	1.3	.54	.16	.02
13	.53	---					11	4.8	1.2	.58	.13	.03
14	.54	---					9.8	4.0	.77	.76	.19	.02
15	.58	---					9.0	3.9	1.8	.82	.50	.05
16	.62	---					9.0	4.0	2.4	.88	.44	.07
17	.64	---					8.0	4.6	2.3	1.3	.33	.06
18	.67	---					7.7	5.6	2.1	.68	.05	.03
19	.68	---					7.1	6.1	2.0	.41	.15	.02
20	.69	---					6.2	6.0	1.9	.47	.11	.03
21	.69	---					5.6	6.6	1.8	.76	.15	.03
22	.69	---					5.6	6.4	1.8	.71	.10	.04
23	.71	---					5.6	5.8	1.8	.66	.09	.02
24	.74	---					5.8	5.3	1.7	1.5	.10	.01
25	.81	---					5.4	5.1	1.6	1.6	.10	.04
26	.89	---					4.3	4.9	1.3	2.0	.12	.06
27	.93	---					4.2	4.3	1.2	2.0	.09	.41
28	.87	---					3.7	3.7	1.1	1.9	.05	.50
29	.83	---					3.8	3.5	1.1	1.2	.04	.33
30	.85	---					4.6	3.0	1.2	.76	.04	.32
31	.95	---					---	2.8	---	.54	.06	---
TOTAL	20.69	---	---	---	---	---	---	166.0	50.47	32.05	9.30	2.65
MEAN	.67	---	---	---	---	---	---	5.35	1.68	1.03	.30	.088
MAX	.95	---	---	---	---	---	---	8.2	2.6	2.1	1.2	.50
MIN	.51	---	---	---	---	---	---	2.8	.77	.41	.04	0
AC-FT	41	---	---	---	---	---	---	329	100	64	18	5.3

## ARKANSAS RIVER BASIN

07204500 CIENEGUILLA CREEK NEAR EAGLE NEST, NM

LOCATION.--Lat 36°29'07", long 105°15'54", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank 0.1 mi (0.2 km) downstream from Schoolhouse Draw, 0.4 mi (0.6 km) upstream from high-water line of Eagle Nest Lake, 0.5 mi (0.8 km) east of U.S. Highway 64, and 4.7 mi (7.6 km) south of Eagle Nest.

DRAINAGE AREA.--56 mi<sup>2</sup> (145 km<sup>2</sup>).

PERIOD OF RECORD.--April 1928 to September 1955 and June 1964 to current year (no winter records except in water years 1932, 1948 and 1951). Monthly discharge only for some periods, published in WSP 1311 and 1731. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

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

GAGE.--Water-stage recorder. Concrete control since Sept. 25, 1947. Altitude of gage is 8,195 ft (2,498 m), 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 (0.3 km) downstream at different datums.

REMARKS.--Records good. Diversions for irrigation of about 1,000 acres (4.0 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 505 ft<sup>3</sup>/s (14.3 m<sup>3</sup>/s) June 16, 1965, gage height, 5.61 ft (1.710 m), from rating curve extended above 110 ft<sup>3</sup>/s (3.1 m<sup>3</sup>/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft<sup>3</sup>/s (1.25 m<sup>3</sup>/s) May 2, gage height, 3.59 ft (1.094 m), no peak above base of 70 ft<sup>3</sup>/s (2.0 m<sup>3</sup>/s); maximum gage height, 3.64 ft (1.109 m) Apr. 12; minimum discharge determined, 0.11 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.6					---	37	6.2	1.1	4.9	1.5
2	3.2	3.6					---	40	5.6	1.4	2.8	1.1
3	3.2	3.6					---	32	5.1	1.8	2.6	.84
4	3.0	3.4					---	31	4.9	1.9	1.6	.65
5	2.9	3.1					16	32	5.7	2.5	1.1	.47
6	2.8	3.0					16	32	5.9	2.1	.78	1.6
7	2.7	3.0					16	32	6.0	1.8	.60	2.3
8	2.5	2.9					18	29	5.8	1.6	.57	.93
9	2.6	2.8					23	29	4.6	1.5	.44	.83
10	2.7	2.5					30	26	4.0	1.1	.57	.90
11	2.7	2.5					31	23	3.5	.77	.59	.96
12	2.7	---					33	20	3.0	.70	.57	.70
13	2.6	---					37	19	2.7	.92	.41	.56
14	2.5	---					33	17	2.1	1.2	.32	.50
15	2.6	---					31	15	2.1	1.0	.21	.51
16	2.8	---					32	13	2.4	1.2	.14	.70
17	2.8	---					29	13	2.2	1.7	.14	.59
18	3.0	---					27	13	1.8	1.0	.26	.49
19	3.0	---					26	11	1.9	.61	1.6	.66
20	3.0	---					24	13	1.8	.43	2.2	.78
21	2.9	---					25	13	1.7	1.0	1.4	1.0
22	2.9	---					26	12	1.5	1.5	1.2	1.1
23	3.0	---					26	10	1.7	1.1	.91	.99
24	3.1	---					27	9.5	1.5	2.0	1.5	.71
25	3.0	---					28	9.2	1.2	2.2	1.9	.76
26	3.0	---					29	9.1	1.1	1.5	1.6	.88
27	3.0	---					30	8.1	.95	2.0	1.3	1.9
28	2.9	---					30	7.2	.90	2.5	1.1	1.9
29	2.8	---					31	6.4	.99	1.8	.85	1.3
30	2.9	---					34	6.4	1.1	1.3	1.1	1.1
31	3.1	---					---	6.9	---	.95	1.7	---
TOTAL	89.2	---		---			---	574.8	89.94	44.18	36.96	29.21
MEAN	2.88	---		---			---	18.5	3.00	1.43	1.19	.97
MAX	3.3	---		---			---	40	6.2	2.5	4.9	2.3
MIN	2.5	---		---			---	6.4	.90	.43	.14	.47
AC-FT	177	---		---			---	1140	178	88	73	58



## 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 (76 m) downstream from concrete box culvert on U.S. Highway 64, and 2.6 mi (4.2 km) southwest of Eagle Nest.

DRAINAGE AREA.--10.5 mi<sup>2</sup> (27.2 km<sup>2</sup>).

PERIOD OF RECORD.--April 1928 to September 1955 (no winter records in water years 1929-31, 1933-55), July 1958 to current year (no winter records subsequent to water year 1975). Prior to October 1930 monthly discharge only, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

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

GAGE.--Water-stage recorder. Concrete control Sept. 11, 1931 to May 1933, and since Sept. 13, 1934. Datum of gage is 8,195.16 ft (2,497.885 m) above mean sea level. Prior to May 18, 1928, nonrecording gage at site 88 ft (27 m) upstream at datum 0.98 ft (0.299 m) higher. May 18, 1928 to Sept. 11, 1938, water-stage recorder at site 88 ft (27 m) upstream at datum 0.43 ft (0.131 m) higher.

REMARKS.--Records good. Diversions for irrigation of about 300 acres (1.2 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years (water years 1932, 1959-75), 2.51 ft<sup>3</sup>/s (0.071 m<sup>3</sup>/s), 1,820 acre-ft/yr (2.24 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (1930-55 AND SINCE 1957).--Maximum discharge, 128 ft<sup>3</sup>/s (3.62 m<sup>3</sup>/s) Aug. 5, 1969, gage height, 2.86 ft (0.871 m), from rating curve extended above 32 ft<sup>3</sup>/s (0.91 m<sup>3</sup>/s); maximum gage height recorded, 3.38 ft (1.030 m) Apr. 2, 1937 (ice jam), site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) at 1530 hours July 16, gage height, 1.20 ft (0.366 m), no peak above base of 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s); minimum determined, 0.12 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Aug. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.6					---	5.9	1.4	1.6	.74	.31
2	1.6	1.7					---	5.3	1.4	1.7	.76	.30
3	1.6	1.7					---	4.9	1.3	1.6	1.5	.28
4	1.5	1.6					---	5.8	1.3	1.5	.87	.25
5	1.5	1.6					2.5	6.2	1.6	1.6	.59	.24
6	1.5	1.6					2.5	5.8	1.3	1.6	.50	.35
7	1.4	1.6					2.5	5.4	1.3	1.6	.46	.80
8	1.3	1.6					2.9	5.2	1.2	1.6	.43	.60
9	1.3	1.6					3.2	4.9	1.1	1.5	.43	.57
10	1.3	1.6					3.9	3.7	.83	1.5	.47	.61
11	1.3	1.6					4.8	3.5	.72	1.4	.47	.57
12	1.3	---					5.4	3.5	.68	1.5	.45	.53
13	1.3	---					6.4	3.3	.61	1.9	.41	.53
14	1.3	---					5.8	3.3	.50	1.8	.39	.49
15	1.3	---					4.8	3.2	.79	1.9	.35	.49
16	1.3	---					4.2	3.3	2.0	2.6	.36	.45
17	1.3	---					3.3	3.2	2.3	2.0	.32	.41
18	1.3	---					2.9	3.1	2.2	1.6	.17	.41
19	1.3	---					2.7	3.2	2.1	1.5	.32	.41
20	1.3	---					2.3	3.0	2.0	1.5	.26	.38
21	1.3	---					2.3	2.8	1.9	1.6	.28	.41
22	1.3	---					2.7	2.6	2.0	1.6	.29	.48
23	1.3	---					3.4	2.3	2.0	1.8	.28	.47
24	1.3	---					4.8	2.1	2.0	2.0	.34	.50
25	1.3	---					6.1	1.7	1.9	1.9	.34	.57
26	1.3	---					6.9	1.7	1.8	1.8	.32	.61
27	1.3	---					7.2	1.5	1.8	2.0	.29	.99
28	1.4	---					7.0	1.3	1.7	1.7	.27	.84
29	1.4	---					7.0	1.3	1.5	.79	.25	.76
30	1.4	---					6.6	1.3	1.5	.66	.28	.71
31	1.5	---					---	1.5	---	.62	.32	---
TOTAL	42.4	---		---			---	105.8	44.73	49.97	13.51	15.32
MEAN	1.37	---		---			---	3.41	1.49	1.61	.44	.51
MAX	1.6	---		---			---	6.2	2.3	2.6	1.5	.99
MIN	1.3	---		---			---	1.3	.50	.62	.17	.24
AC-FT	84	---		---			---	210	89	99	27	30

## ARKANSAS RIVER BASIN

## 07205500 EAGLE NEST LAKE NEAR EAGLE NEST, NM

LOCATION.--Lat 36°31'53", long 105°13'44", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, at upstream face of Eagle Nest Dam on Cimarron River, 2.5 mi (4.0 km) southeast of Eagle Nest, 6.7 mi (10.8 km) west of Ute Park, and at mile 48.7 (78.4 km).

DRAINAGE AREA.--167 mi<sup>2</sup> (433 km<sup>2</sup>).

PERIOD OF RECORD.--December 1927 to December 1944 (monthend contents only, published in WSP 1311), May 1950 to September 1965 (monthend contents only), October 1965 to current year. Prior to January 1972 published as Eagle Nest Reservoir.

REVISED RECORDS.--WSP 1281: Drainage area.

GAGE.--Nonrecording gage read several times a month at random intervals. Datum of gage is 8,056.8 ft (2,455.71 m) above mean sea level. Prior to October 1964 gage heights were raised by addition of 8,000 ft (2,438.4 m) 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 (97.6 hm<sup>3</sup>) between gage heights 35.0 ft (10.67 m), sill of outlet gate, and 137.0 ft (41.76 m), 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 (10 km<sup>2</sup>) above reservoir.

COOPERATION.--Supplemental gage readings furnished by employee of Springer Land and Cattle Co. and by Cimarron River watermaster.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 78,800 acre-ft (97.2 hm<sup>3</sup>) May 31, 1942, gage height, 136.9 ft (41.73 m); minimum observed, 635 acre-ft (783,000 m<sup>3</sup>) Dec. 14, 1954, gage height, 61.33 ft (18.693 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 22,970 acre-ft (28.3 hm<sup>3</sup>) Apr. 26, gage height, 105.10 ft (32.034 m); minimum observed, 14,540 acre-ft (17.9 km<sup>3</sup>) Sept. 27, gage height, 96.05 ft (29.276 m).

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	19350	19790	---	---	---	---	21240	---	---	---
2	---	---	---	---	---	20890	---	---	---	---	17060	---
3	---	19260	---	---	20440	---	---	22800	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	22070	22700	---	18870	---	---
6	21990	---	---	---	---	---	---	---	---	---	---	15260
7	---	---	---	---	---	---	---	---	20960	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	20540	21250	---	---	---	---	16920	---
10	---	19210	---	---	20630	21260	---	22640	---	---	---	---
11	---	---	---	---	20660	---	---	---	---	---	---	---
12	---	19160	---	---	---	---	---	---	---	17990	---	---
13	21570	---	---	---	---	---	22480	---	---	---	---	14900
14	---	---	---	---	---	---	---	---	20740	---	---	---
15	---	---	19620	---	---	21520	---	---	---	---	---	---
16	---	---	---	20190	---	---	---	---	---	---	16630	---
17	---	19210	---	---	---	---	---	22160	---	---	---	---
18	---	---	---	---	20760	---	---	---	---	---	---	---
19	---	---	---	20290	---	---	22700	---	---	17360	---	---
20	---	---	---	---	20870	---	---	---	---	---	---	14670
21	---	---	---	---	---	---	---	---	20340	---	---	14740
22	20440	---	---	---	---	21730	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	16460	---
24	---	19260	---	---	---	---	---	21720	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	22970	---	---	17230	---	---
27	19400	---	---	---	---	---	---	---	---	---	---	14540
28	---	---	---	---	---	---	---	---	19740	17150	---	---
29	---	---	19790	---	20900	---	---	---	---	---	---	---
30	---	19340	---	---	---	---	22900	---	19210	---	15660	14500
31	19300	---	19800	20400	---	21900	---	21200	---	17100	15500	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
(†)	---	---	---	---	---	---	---	---	---	---	---	---
(‡)	-2900	+40	+460	+600	+500	+1000	+1000	-1700	-1990	-2110	-1600	-1000

CAL YR 1975 † +640

WTR YR 1976 ‡ -7700

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

NOTE.--Monthend contents interpolated or estimated on basis of inflow to and releases from Lake except May 31 and June 30.

## 07206000 CIMARRON RIVER BELOW EAGLE NEST DAM, NM

LOCATION.--Lat 36°31'55", long 105°13'43", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left bank 300 ft (91 m) downstream from Eagle Nest Dam, 2.5 mi (4.0 km) southeast of Eagle Nest, 6.7 mi (10.8 km) west of Ute Park, and at mile 48.6 (78.2 km).

DRAINAGE AREA.--167 mi<sup>2</sup> (433 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1281: Drainage area.

GAGE.--Water-stage recorder. Parshall flume since May 15, 1951. Altitude of gage is 8,080 ft (2,463 m), from topographic map. Prior to May 15, 1951, at datum 0.81 ft (0.247 m) higher.

REMARKS.--Water-discharge records good except those below 2 ft<sup>3</sup>/s (0.06 m<sup>3</sup>/s), which are poor. Flow regulated by Eagle Nest Lake (station 07205500). Diversions for irrigation of about 2,500 acres (10 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--26 years, 13.7 ft<sup>3</sup>/s (0.388 m<sup>3</sup>/s), 9,930 acre-ft/yr (12.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 205 ft<sup>3</sup>/s (5.81 m<sup>3</sup>/s) June 14, 1955, gage height, 2.79 ft (0.850 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 114 ft<sup>3</sup>/s (3.23 m<sup>3</sup>/s) Oct. 17, 22, gage height, 2.03 ft (0.619 m); no flow Feb. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	13	.51	.20	.10	5.3	11	43	29	108	16	15
2	24	11	.42	.20	.10	5.3	11	47	26	108	16	15
3	23	9.9	.42	.20	.10	5.3	11	49	26	28	15	15
4	20	7.3	.42	.20	.10	2.7	11	54	26	.21	12	15
5	20	5.9	.40	.20	.10	.25	11	59	15	50	12	18
6	20	5.7	.40	.20	.10	.25	8.2	60	26	67	12	20
7	20	6.0	.40	.15	.10	.25	5.3	60	31	67	12	22
8	20	5.9	.40	.15	.10	.33	5.7	16	27	67	17	24
9	20	5.9	.35	.15	2.6	.33	5.7	43	23	67	20	25
10	19	5.6	.35	.15	4.6	.33	5.7	60	23	67	21	25
11	19	5.6	.35	.15	4.3	.42	5.7	60	23	63	21	25
12	21	5.7	.35	.15	3.7	.52	5.7	60	15	62	21	26
13	23	5.7	.30	.15	3.1	6.3	5.7	60	20	58	21	26
14	25	5.7	.30	.15	2.9	11	5.7	60	23	54	5.9	26
15	26	3.3	.30	.15	2.9	11	5.7	42	26	54	17	26
16	26	1.5	.30	.10	2.6	9.4	5.7	54	30	54	25	26
17	63	1.3	.30	.10	2.6	9.4	5.7	60	30	38	26	26
18	112	1.7	.30	.10	2.4	9.0	8.6	60	30	35	28	22
19	112	2.0	.30	.10	2.4	9.0	10	60	16	24	9.9	20
20	112	2.0	.25	.10	2.4	9.0	24	60	22	25	.25	20
21	112	2.0	.25	.10	2.4	12	38	60	26	30	.25	17
22	111	2.1	.25	.10	1.2	13	40	14	29	31	7.5	15
23	111	2.2	.25	.10	0	13	42	47	35	31	9.8	15
24	110	2.0	.25	.10	1.4	13	42	60	40	23	9.9	15
25	110	2.0	.25	.10	2.4	12	44	61	39	17	46	15
26	110	1.5	.25	.10	3.7	12	44	49	23	15	82	15
27	86	.46	.25	.10	5.0	13	44	35	45	16	82	12
28	18	.43	.25	.10	5.0	14	44	36	58	17	81	9.9
29	16	.46	.20	.10	5.0	14	44	25	90	16	81	3.9
30	13	.83	.20	.10	---	14	44	29	108	16	81	.18
31	13	---	.20	.10	---	12	---	31	---	16	48	---
TOTAL	1559	124.68	9.72	4.15	63.40	237.38	594.1	1514	980	1324.21	856.50	554.98
MEAN	50.3	4.16	.31	.13	2.19	7.66	19.8	48.8	32.7	42.7	27.6	18.5
MAX	112	13	.51	.20	5.0	14	44	61	108	108	82	26
MIN	13	.43	.20	.10	0	.25	5.3	14	15	.21	.25	.18
AC-FT	3090	247	19	8.2	126	471	1180	3000	1940	2630	1700	1100

CAL YR 1975 TOTAL 6468.92 MEAN 17.7 MAX 112 MIN .20 AC-FT 12830  
WTR YR 1976 TOTAL 7822.12 MEAN 21.4 MAX 112 MIN 0 AC-FT 15520

NOTE.--No gage-height record Dec. 5 to Feb. 10.

## ARKANSAS RIVER BASIN

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

## WATER-QUALITY RECORDS

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

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
OCT												
22...	1350	113	313	7.9	9.0	130	0	38	9.1	13	.5	2.5
NOV												
12...	1225	5.8	324	7.7	4.5	130	0	38	9.6	13	.5	2.4
DEC												
15...	1150	.30	133	7.5	.5	59	0	16	4.7	5.1	.3	1.0
JAN												
16...	1540	.12	354	7.6	1.5	150	0	44	9.8	14	.5	2.6
FEB												
10...	1130	5.7	320	7.9	1.5	150	0	42	10	14	.5	2.4
MAR												
10...	1020	.35	347	7.8	2.0	150	0	43	11	14	.5	2.6
APR												
05...	1645	11	315	--	5.0	140	0	39	9.8	13	.5	2.5
MAY												
05...	1100	60	311	7.9	10.0	130	0	37	9.2	13	.5	2.1
SEP												
21...	1620	15	309	7.6	15.0	130	0	38	9.3	14	.5	2.4

DATE	RICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT												
22...	179	0	15	4.2	.6	9.3	179	181	.20	.10	30	10
NOV												
12...	178	0	8.2	4.1	.5	9.1	--	174	.41	--	--	--
DEC												
15...	75	0	6.7	1.8	.3	12	--	85	.16	--	--	--
JAN												
16...	198	0	15	4.4	.5	12	--	204	.82	--	--	--
FEB												
10...	199	0	15	4.6	.5	9.2	--	198	.41	--	--	--
MAR												
10...	199	0	15	5.0	.5	10	--	202	.58	--	--	--
APR												
05...	175	--	14	4.3	.4	8.8	195	180	.41	.07	30	0
MAY												
05...	167	0	18	4.4	.5	7.7	181	175	.15	.04	30	30
SEP												
21...	170	0	15	4.3	.5	6.8	--	177	.67	--	--	--

## 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 (370 m) downstream from Turkey Creek Canyon, 3.6 mi (5.8 km) west of Cimarron, and at mile 31.6 (50.8 km).

DRAINAGE AREA.--294 mi<sup>2</sup> (761 km<sup>2</sup>).

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

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

GAGE.--Water-stage recorder. Concrete control since Nov. 6, 1963. Datum of gage is 6,599.58 ft (2,011.552 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Eagle Nest Lake (station 07205500). Diversions above station for irrigation of about 3,500 acres (14 km<sup>2</sup>), part of which is below station. Philmont ditch (formerly known as Cimarroncito ditch) diverts from left bank 1.5 mi (2.3 km) above station, flumes under river 0.9 mi (1.4 km) above and bypasses station for off-channel storage and irrigation below; see tabulation below for monthly diversions. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 20.6 ft<sup>3</sup>/s (0.583 m<sup>3</sup>/s), 14,920 acre-ft/yr (18.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft<sup>3</sup>/s (439 m<sup>3</sup>/s) June 17, 1965, gage height, 12.42 ft (3.786 m), from floodmark, from rating curve extended above 800 ft<sup>3</sup>/s (23 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 4.88 ft (1.487 m) and 12.42 ft (3.786 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 612 ft<sup>3</sup>/s (17.3 m<sup>3</sup>/s) Aug. 1, gage height, 3.81 ft (1.161 m); minimum, 0.41 ft<sup>3</sup>/s (0.012 m<sup>3</sup>/s) Jan. 21, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	21	5.5	2.5	3.5	11	17	59	45	88	69	24
2	19	19	6.1	2.5	4.0	11	16	60	39	91	30	20
3	20	17	9.0	2.5	4.7	12	16	58	37	62	25	18
4	18	16	8.5	3.0	4.1	11	16	57	37	15	21	18
5	17	14	5.1	3.0	4.4	9.0	16	64	32	22	19	18
6	17	13	4.0	2.5	4.1	8.1	16	66	29	54	19	21
7	16	12	4.0	2.5	4.5	7.7	14	66	44	56	18	23
8	16	12	3.5	2.5	4.3	7.3	13	48	42	58	18	24
9	16	11	3.0	3.5	4.4	6.5	14	34	35	59	23	25
10	16	11	3.0	3.5	6.0	6.2	15	64	33	58	23	25
11	16	11	3.0	3.5	6.3	5.8	16	63	33	57	23	21
12	16	10	3.0	3.5	7.6	5.3	17	62	29	54	23	20
13	17	9.0	3.0	3.5	7.7	5.6	19	63	24	63	23	21
14	17	10	3.0	3.0	8.3	9.9	18	66	29	52	20	21
15	19	9.9	2.5	3.5	9.2	12	18	58	28	49	8.6	22
16	20	7.6	3.0	3.5	9.3	12	17	55	35	51	23	22
17	27	6.2	2.5	3.5	8.3	14	16	67	34	43	26	22
18	89	6.1	2.5	3.5	8.0	14	16	68	33	31	32	20
19	96	7.7	3.0	3.0	7.0	14	17	68	29	29	29	17
20	98	8.0	3.0	3.0	6.0	14	18	69	21	20	10	16
21	99	7.7	3.0	3.0	7.0	14	35	69	28	26	6.6	15
22	100	10	3.0	3.0	8.0	17	40	51	27	27	4.7	12
23	101	11	3.0	3.5	8.0	17	45	42	26	28	10	11
24	103	11	3.0	3.0	8.0	17	48	76	31	34	12	10
25	104	11	3.0	3.0	8.2	18	52	69	32	27	16	7.7
26	104	7.0	3.5	2.5	10	18	55	67	27	31	69	7.8
27	96	6.0	3.5	2.5	12	18	56	54	22	23	73	10
28	28	6.0	3.0	3.0	11	18	57	51	43	22	75	10
29	25	4.5	3.0	3.5	11	19	58	45	58	20	76	12
30	23	4.6	3.5	3.5	---	19	60	40	86	19	77	7.3
31	21	---	3.5	3.5	---	18	---	46	---	19	70	---
TOTAL	1392	310.3	115.2	95.5	204.9	389.4	831	1825	1048	1288	971.9	520.8
MEAN	44.9	10.3	3.72	3.08	7.07	12.6	27.7	58.9	34.9	41.5	31.4	17.4
MAX	104	21	9.0	3.5	12	19	60	76	86	91	77	25
MIN	16	4.5	2.5	2.5	3.5	5.3	13	34	21	15	4.7	7.3
AC-FT	2760	615	228	189	406	772	1650	3620	2080	2550	1930	1030
(†)	391	0	0	0	0	0	0	282	92	220	0	96
CAL YR 1975 TOTAL	9303.7		MEAN 25.5	MAX 118	MIN 1.1	AC-FT 18450	† 649					
WTR YR 1976 TOTAL	8992.0		MEAN 24.6	MAX 104	MIN 2.5	AC-FT 17840	† 1,080					

† Diversion, in acre-feet, by Philmont ditch; data furnished by Cimarron River Watermaster.

## 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 (2.6 km) downstream from confluence of North and South Ponil Creeks, and 4.7 mi (7.6 km) northwest of Cimarron.

DRAINAGE AREA.--171 mi<sup>2</sup> (443 km<sup>2</sup>).

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. Altitude of gage is 6,630 ft (2,021 m), from topographic map. Prior to May 8, 1922, at site 0.1 mi (0.2 km) downstream at different datum. May 8, 1922 to Aug. 8, 1929, at site 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Diversions for irrigation of about 250 acres (1.0 km<sup>2</sup>) above station. Diversions 1,000 ft (300 m) below station for irrigation of about 300 acres (1.2 km<sup>2</sup>). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years (water years 1916-23, 1928, 1951-76), 11.2 ft<sup>3</sup>/s (0.317 m<sup>3</sup>/s) 8,110 acre-ft/yr (10.0 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,630 ft<sup>3</sup>/s (159 m<sup>3</sup>/s) June 17, 1965, gage height, 11.13 ft (3.392 m), from rating curve extended above 110 ft<sup>3</sup>/s (3.1 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 4.55 ft (1.387 m), 5.80 ft (1.768 m), 7.15 ft (2.179 m), and 11.13 ft (3.392 m); no flow many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge for flood of Aug. 8, 1929, which destroyed gage, was estimated as 5,200 ft<sup>3</sup>/s (150 m<sup>3</sup>/s) by State Engineer.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft<sup>3</sup>/s (5.7 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
July 13	1615	*842 23.8	4.97 1.515	July 31	2030	488 13.8	4.00 1.219
July 20	1530	415 11.8	3.72 1.134	Aug. 1	1430	614 17.4	4.40 1.341
July 26	1345	206 5.83	2.78 .847				

No flow July 12.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.4	1.1	.80	.90	1.7	3.5	13	7.7	.86	76	.68
2	1.1	1.5	1.5	.70	.90	1.9	3.4	14	7.2	.98	28	.59
3	1.2	1.4	1.4	.60	1.0	2.1	3.0	12	6.5	2.2	20	.41
4	1.1	1.4	1.4	.70	.85	1.5	3.2	11	6.1	.84	15	.25
5	.97	1.4	1.5	.80	.80	1.3	3.8	12	6.2	.88	9.4	.15
6	.86	1.4	1.4	.70	.70	1.7	4.0	13	6.2	1.4	6.4	.12
7	.79	1.4	1.5	.60	.75	2.0	4.0	17	13	.70	4.8	.79
8	.66	1.5	1.5	.70	.90	2.4	4.4	16	26	.32	3.6	.51
9	.64	1.4	1.6	.90	.98	2.0	5.2	15	11	.17	2.7	1.4
10	.77	1.3	1.6	1.0	1.6	2.0	6.2	15	5.9	.13	2.5	1.4
11	.76	1.4	1.5	.90	1.4	2.1	7.3	16	4.5	.04	2.0	1.1
12	.74	.98	1.5	.90	1.3	1.6	9.0	16	3.7	0	1.8	.59
13	.67	.73	1.5	1.0	1.4	1.6	11	16	3.3	27	1.3	.36
14	.83	.84	1.5	.70	1.7	1.8	12	17	2.9	3.6	1.2	.31
15	.97	.87	1.0	.90	1.5	1.8	12	17	2.5	1.5	.74	.36
16	1.1	.91	1.1	1.0	1.3	1.7	10	18	2.6	1.1	.52	7.1
17	1.1	.85	.90	1.0	1.2	1.8	9.1	19	2.2	.74	.47	3.8
18	1.1	.80	.80	.90	.80	1.8	8.8	18	2.0	.52	.56	3.4
19	1.1	.75	1.0	.80	.75	2.1	8.2	19	2.0	.13	4.0	11
20	1.1	.65	1.1	1.0	.70	2.0	7.6	20	1.5	24	6.6	3.7
21	1.1	.65	1.1	1.0	.86	1.8	6.5	19	1.2	5.2	3.4	1.9
22	.96	.70	1.2	1.0	1.5	2.3	6.6	18	.81	4.0	2.9	1.4
23	.94	.80	1.1	1.1	2.0	2.6	7.3	16	.74	8.4	4.5	.95
24	.94	.80	1.0	1.0	2.0	3.0	8.5	14	.71	13	5.5	.78
25	.85	.80	.90	.80	1.5	3.0	9.6	14	.58	14	3.8	.79
26	.93	.75	1.1	.70	1.5	3.5	11	14	.41	26	2.6	.92
27	1.0	.80	1.0	.70	1.5	3.1	12	12	.24	11	1.6	2.7
28	.98	1.0	.90	.90	1.6	3.7	12	11	.19	12	1.2	3.2
29	1.1	.90	.80	1.0	1.6	3.5	13	9.2	.13	6.7	.89	2.3
30	1.1	.85	.90	1.0	---	2.9	14	9.0	.62	3.8	.70	1.8
31	1.2	---	1.0	.90	---	2.9	---	8.9	---	32	.73	---
TOTAL	29.76	30.93	37.40	26.70	35.49	69.2	236.2	459.1	128.63	212.03	215.41	54.76
MEAN	.96	1.03	1.21	.86	1.22	2.23	7.67	14.8	4.29	6.84	6.95	1.83
MAX	1.2	1.5	1.6	1.1	2.0	3.7	14	20	26	32	76	11
MTN	.64	.65	.80	.60	.70	1.3	3.0	8.9	.13	0	.47	.12
AC-FT	59	61	74	53	70	137	469	911	255	421	427	109

CAL YR 1975 TOTAL 3226.19 MEAN 8.84 MAX 68 MIN .08 AC-FT 6400  
WTR YR 1976 TOTAL 1535.61 MEAN 4.20 MAX 76 MIN 0 AC-FT 3050

LOCATION.--Lat 36°22'20", long 104°58'10", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank at Sauble Ranch (Carson-Maxwell Base Camp of Philmont Scout Ranch), 2.5 mi (4.0 km) upstream from State Highway 21, 4.0 mi (6.4 km) downstream from Bonito Creek, and 9.8 mi (15.8 km) southwest of Cimarron.

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

GAGE.--Water-stage recorder. Altitude of gage is 6,720 ft (2,048 m), from topographic map. See WSP 1921 for history of changes prior to Oct. 1, 1954. Oct. 1, 1954 to June 16, 1965, at site 270 ft (82 m) downstream at datum 2.79 ft (0.850 m) lower.

AVERAGE DISCHARGE.--57 years (water years 1912, 1914, 1916-20, 1924, 1928-76), 13.9 ft<sup>3</sup>/s (0.394 m<sup>3</sup>/s), 10,070 acre-ft/yr (12.4 km<sup>3</sup>/yr).

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft<sup>3</sup>/s (0.96 m<sup>3</sup>/s) May 1, gage height, 2.65 ft (0.808 m), no peak above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s); maximum gage height, 3.34 ft (1.018 m) Jan. 13 (backwater from ice); minimum discharge, 0.62 ft<sup>3</sup>/s (0.018 m<sup>3</sup>/s) Nov. 12, result of freezeup.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	4.3	5.4	4.5	4.0	5.3	8.1	27	16	4.5	5.9	2.8
2	7.0	4.3	5.2	4.0	3.8	5.3	8.9	27	15	5.0	13	2.2
3	7.1	4.2	5.2	3.5	3.9	5.0	9.1	25	14	7.3	11	2.0
4	6.6	4.1	5.2	4.0	3.8	4.4	9.7	24	13	5.8	7.7	1.8
5	6.3	3.8	5.2	4.4	3.8	4.6	9.8	26	13	6.1	5.6	1.6
6	5.9	3.7	5.2	4.0	3.7	5.2	11	28	13	5.2	4.5	1.5
7	5.8	3.8	5.2	4.0	3.8	4.6	11	29	14	4.3	4.0	2.7
8	5.9	3.7	5.2	4.4	4.3	4.8	12	27	15	3.9	3.7	1.8
9	6.0	3.7	5.2	4.3	4.6	4.2	13	26	13	4.5	3.1	2.2
10	5.8	3.1	5.2	3.8	5.1	4.0	15	24	11	3.1	3.2	2.1
11	5.8	3.4	5.2	3.8	4.9	4.4	16	23	11	2.8	2.8	1.9
12	5.6	2.0	5.2	3.8	5.0	4.2	18	23	10	2.8	2.6	1.6
13	5.6	3.3	5.2	4.0	5.1	4.0	19	23	9.8	6.1	2.2	1.2
14	5.5	3.7	5.0	3.8	5.4	4.2	19	23	9.3	4.8	2.0	1.4
15	5.6	4.1	4.6	4.0	4.9	4.4	19	23	9.2	3.6	1.9	1.5
16	5.5	4.0	5.6	4.3	4.6	4.4	18	23	8.9	4.1	1.7	1.5
17	5.5	4.3	5.4	4.4	4.0	5.0	18	24	8.1	3.7	2.1	1.4
18	5.3	4.5	5.6	4.3	4.4	5.7	17	25	7.8	2.9	2.0	1.1
19	5.2	4.2	5.4	4.2	5.0	6.5	17	25	7.6	2.4	5.6	2.1
20	5.0	4.2	5.0	4.4	5.2	5.6	17	25	7.3	2.9	5.3	2.1
21	5.0	3.6	4.8	4.6	5.4	5.4	17	24	6.8	6.3	3.9	2.8
22	4.7	4.6	4.8	4.6	5.6	6.2	18	23	6.2	6.6	3.8	4.1
23	4.5	5.0	4.7	4.8	5.8	7.5	18	22	6.0	5.0	3.3	2.4
24	4.2	5.2	4.8	4.8	5.4	8.0	20	21	5.8	8.9	3.9	2.0
25	4.0	5.2	5.0	4.0	5.0	8.5	21	21	5.8	7.9	4.4	2.1
26	4.7	4.8	4.8	3.5	5.0	9.0	23	20	5.3	7.6	4.0	2.3
27	4.5	5.4	4.2	3.5	5.0	8.2	24	19	5.2	8.1	3.0	5.5
28	4.7	5.6	4.4	4.0	5.1	8.4	24	17	4.9	9.7	3.1	6.0
29	4.4	5.6	4.4	4.2	5.2	7.8	25	16	4.8	7.0	2.5	4.6
30	4.2	5.4	4.6	4.2	---	7.2	26	17	4.3	5.7	2.2	3.7
31	4.3	---	4.8	4.0	---	7.5	---	18	---	4.9	3.8	---
TOTAL	167.5	126.8	155.7	128.1	136.8	179.5	501.6	718	281.1	163.5	127.8	72.0
MEAN	5.40	4.23	5.02	4.13	4.72	5.79	16.7	23.2	9.37	5.27	4.12	2.40
MAX	7.3	5.6	5.6	4.8	5.8	9.0	26	29	16	9.7	13	6.0
MIN	4.0	2.0	4.2	3.5	3.7	4.0	8.1	16	4.3	2.4	1.7	1.1
AC=FT	332	252	309	254	271	356	995	1420	558	324	253	143
CAL YR 1975	TOTAL	4690.9	MEAN	12.9	MAX	87	MIN	2.0	AC=FT	9300		
WTR YR 1976	TOTAL	2758.4	MEAN	7.54	MAX	29	MIN	1.1				

LOCATION.--Lat 36°21'37", long 104°35'53", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left bank at Springer, 400 ft (120 m) downstream from bridge on State Highway 199, 0.3 mi (0.5 km) upstream from Salado Creek, and at mile 8.2 (13.2 km).

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.

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1954. Altitude of gage is 5,770 ft (1,759 m), from topographic map. See WSP 1311 or 1731 for history of changes prior to July 17, 1942.

AVERAGE DISCHARGE.--52 years (water years 1921, 1925, 1927-76), 16.9 ft<sup>3</sup>/s (0.479 m<sup>3</sup>/s), 12,240 acre-ft/yr (15.1 hm<sup>3</sup>/yr).

EXTREMES OUTSIDE PERIOD OF RECORD:--Maximum stage, about 22 ft (6.7 m) Sept. 29, 1904 (backwater from debris on railroad bridge). Another major flood occurred June 11, 1913. Maximum discharge of these floods probably exceeded 10,000 ft<sup>3</sup>/s (280 m<sup>3</sup>/s), but probably were less than the 1965 flood.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33 ft<sup>3</sup>/s (0.93 m<sup>3</sup>/s) Sept. 15, gage height, 3.84 ft (1.170 m), no peak above base of 280 ft<sup>3</sup>/s (7.9 m<sup>3</sup>/s); minimum, 0.04 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Sept. 9, 10, 13.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	1.1	2.2	1.7	2.5	1.5	1.2	1.7	3.3	1.2	.45	.41
2	.42	1.3	2.2	1.6	2.4	1.4	1.5	1.9	3.1	1.1	.71	.34
3	.41	1.2	2.1	1.6	2.4	1.4	2.1	1.8	2.9	.88	2.0	.36
4	.39	1.2	2.0	1.7	2.3	1.3	2.3	1.8	2.7	.75	3.7	.30
5	.35	1.3	2.0	1.7	2.3	1.4	2.1	1.8	2.4	.83	3.7	.23
6	.31	1.3	1.9	2.1	2.3	1.6	2.3	1.8	2.3	.84	3.4	.10
7	.25	1.3	1.8	1.7	2.3	1.8	2.1	1.8	3.8	.82	3.4	.08
8	.20	1.2	1.8	1.9	2.3	1.8	2.1	1.9	3.7	.60	3.0	.06
9	.19	1.2	1.8	2.1	2.3	1.9	2.0	3.0	3.6	.48	2.3	.04
10	.24	1.2	1.8	2.7	2.2	1.7	1.8	5.6	3.5	.28	2.0	.05
11	.25	1.2	1.8	2.7	2.1	1.7	.69	3.8	3.4	.23	2.6	.06
12	.24	1.1	1.8	2.8	2.2	1.4	.87	2.7	3.3	.19	2.2	.06
13	.21	1.1	1.8	2.2	2.0	1.4	1.2	3.3	3.2	.17	2.2	.05
14	.24	1.2	1.6	2.4	2.8	1.7	1.2	2.7	3.1	.26	2.1	.06
15	.28	1.3	1.5	2.5	2.3	1.7	1.3	2.1	4.1	.19	1.6	.78
16	.32	1.3	1.6	2.5	2.0	1.6	1.3	2.0	3.9	.16	1.2	.18
17	.37	1.4	1.6	2.5	1.8	1.6	1.3	2.2	3.1	.16	1.7	.12
18	.39	1.6	1.4	2.4	1.7	1.6	2.0	2.4	3.0	.19	1.7	.12
19	.41	2.0	1.5	2.5	1.6	1.5	1.6	2.8	2.7	.22	3.8	.11
20	.48	1.4	1.8	2.0	1.6	1.3	1.6	3.0	3.4	1.1	2.9	.18
21	.53	1.4	1.9	1.7	1.2	1.2	1.5	3.0	3.3	.99	2.3	2.0
22	.57	1.6	1.9	1.9	1.5	1.3	1.3	3.6	2.9	.50	2.2	2.0
23	.61	1.7	1.8	2.1	1.6	1.6	1.2	4.1	2.3	.71	2.0	1.4
24	.61	1.8	1.9	2.2	1.6	.96	1.1	3.3	1.9	1.5	1.5	.80
25	.66	1.7	2.0	2.0	1.4	1.2	1.1	3.8	2.3	.89	1.1	.60
26	.71	1.6	2.1	1.9	1.5	1.4	.98	3.9	2.0	.63	.89	.70
27	.65	1.8	2.1	2.1	1.5	1.2	.98	3.7	1.8	.50	.83	4.5
28	.64	2.0	1.8	2.4	1.6	1.2	1.0	3.6	1.5	.56	.72	2.8
29	.80	1.9	1.8	2.6	1.5	1.2	1.3	3.5	1.1	.40	.72	3.5
30	.82	1.8	2.1	2.8	---	1.3	1.7	3.4	1.4	.36	.61	2.3
31	.90	---	2.2	2.4	---	1.2	---	3.6	---	.36	.46	---
TOTAL	13.89	43.2	57.6	67.4	56.8	45.06	44.72	89.6	85.0	18.05	59.99	24.29
MEAN	.45	1.44	1.86	2.17	1.96	1.45	1.49	2.89	2.83	.58	1.94	.81
MAX	.90	2.0	2.2	2.8	2.8	1.9	2.3	5.6	4.1	1.5	3.8	4.5
MIN	.19	1.1	1.4	1.6	1.2	.96	.69	1.7	1.1	.16	.45	.04
AC-FT	.28	.86	1.14	1.34	1.13	.89	.89	1.78	1.69	.36	1.19	.48
CAL YR 1975	TOTAL	744.54	MEAN	2.04	MAX	26	MIN	.10	AC-FT	1480		
WTR YR 1976	TOTAL	605.60	MEAN	1.65	MAX	5.6	MIN	.04	AC-FT	1200		



## 07211500 CANADIAN RIVER NEAR TAYLOR SPRINGS, NM

LOCATION.--Lat 36°17'49", long 104°29'36", in NW¼SE¼ sec.21, T.24 N., R.23 E., Colfax County, Hydrologic Unit 11080003, on left bank at head of gorge, 2.0 mi (3.2 km) south of Taylor Springs, 2.3 mi (3.7 km) downstream from Cimarron River, 2.4 mi (3.9 km) upstream from Chico Creek, 7.1 mi (11.4 km) southeast of Springer, and at mile 850.4 (1,368.3 km).

DRAINAGE AREA.--2,850 mi<sup>2</sup> (7,380 km<sup>2</sup>).

PERIOD OF RECORD.--January 1940 to September 1958, annual maximum, water years 1959-63, June 1964 to current year. Water-year estimate for 1940, published in WSP 1311.

REVISED RECORDS.--WSP 1177: Drainage area. WSP 1281: 1941-42(P), 1945-47(M), 1948-50(P).

GAGE.--Water-stage recorder. Altitude of gage is 5,635 ft (1,718 m), from topographic map. Prior to June 10, 1964, water-stage recorder at site 1.7 mi (2.7 km) downstream at different datum; operated as crest-stage gage at that site and datum during water years 1959-64.

REMARKS.--Records poor. Diversions for irrigation of about 30,000 acres (120 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years (water years 1940-58, 1965-76), 86.1 ft<sup>3</sup>/s (2.438 m<sup>3</sup>/s), 62,380 acre-ft/yr (76.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 162,000 ft<sup>3</sup>/s (4,590 m<sup>3</sup>/s) June 18, 1965, gage height, 47.4 ft (14.448 m), from floodmarks, from rating curve extended above 7,000 ft<sup>3</sup>/s (200 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood prior to 1965 occurred Sept. 29, 1904, discharge published as 91,100 ft<sup>3</sup>/s (2,580 m<sup>3</sup>/s) in WSP 842, 847.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,350 ft<sup>3</sup>/s (208 m<sup>3</sup>/s) at 1530 hours July 20, gage height 7.34 ft (2.237 m), no other peak above base of 3,000 ft<sup>3</sup>/s (85 m<sup>3</sup>/s); no flow at times.

NOTE.--No gage-height record Nov. 10 to Dec. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	1.2	1.8	2.5	9.0	4.9	2.0	2.6	4.0	.97	24	.19
2	.52	1.5	2.2	2.0	10	4.2	1.9	2.8	4.2	1.0	49	.14
3	.24	1.6	2.5	2.0	11	4.0	1.7	2.6	4.0	.90	92	.13
4	.29	1.6	2.5	2.0	11	4.5	1.7	2.3	3.7	.83	224	.02
5	.24	1.5	2.5	2.5	11	4.9	1.8	2.3	4.2	.70	59	0
6	.16	1.4	2.5	2.0	8.5	5.4	1.9	2.3	5.2	.76	19	0
7	.01	1.3	2.5	2.0	14	5.9	2.0	2.3	5.4	.76	9.9	.01
8	.14	1.3	2.5	2.0	11	5.9	2.0	2.3	5.2	.58	5.7	0
9	.11	1.2	3.0	2.5	10	5.2	1.9	2.6	5.2	.40	3.5	0
10	.02	1.2	3.0	3.5	9.9	4.7	1.8	2.9	4.5	.29	3.0	0
11	.14	1.2	2.9	3.5	8.7	4.7	1.8	3.4	4.0	.19	2.3	0
12	.12	1.2	3.0	3.5	8.4	3.5	1.7	2.9	2.9	.06	2.8	0
13	.09	1.2	2.8	3.5	7.3	3.7	1.8	2.4	2.4	.01	2.3	0
14	.09	1.4	2.6	3.0	11	3.7	1.8	2.6	1.9	4.0	1.9	0
15	.19	1.6	2.5	3.5	9.9	3.5	2.3	2.4	1.7	2.2	1.7	25
16	.24	1.6	2.5	4.0	8.4	3.5	3.0	2.0	2.6	201	1.5	105
17	.40	1.6	2.0	4.5	7.3	3.5	2.8	1.9	2.4	24	1.3	9.8
18	.46	1.6	2.0	4.0	6.2	3.4	2.6	1.9	2.0	6.8	1.2	4.4
19	.40	1.4	2.5	4.0	5.7	3.0	2.4	2.4	1.9	2.6	7.4	2.4
20	.52	1.0	3.0	4.5	4.9	2.3	2.6	2.8	1.9	941	4.2	1.8
21	.52	1.0	3.0	5.0	4.9	2.0	2.6	3.0	2.0	629	15	1.5
22	.58	1.2	3.0	5.5	5.7	2.0	2.4	3.2	2.0	62	14	1.6
23	.64	1.4	3.0	6.0	5.7	1.8	2.0	3.5	1.8	27	4.7	1.9
24	.64	1.4	2.5	5.5	5.4	1.8	1.8	4.0	1.5	8.0	4.1	1.5
25	.76	1.4	2.5	5.0	5.4	1.7	1.7	1.8	1.1	2.3	2.6	1.3
26	.83	1.2	3.0	5.0	5.4	1.8	1.6	8.7	1.2	24	1.7	47
27	.83	1.4	3.0	5.5	5.4	2.0	1.6	5.2	1.1	171	1.1	142
28	.90	1.6	2.5	7.0	5.7	1.9	1.7	4.9	.90	16	.76	64
29	.97	1.4	2.5	8.0	5.4	1.9	2.2	3.7	.90	3.3	.58	19
30	1.0	1.4	3.0	9.0	---	2.0	2.4	3.4	.83	1.2	.40	8.4
31	1.1	---	3.0	9.0	---	2.2	---	3.7	---	.46	.34	---
TOTAL	13.73	41.0	81.8	131.5	232.2	105.5	61.5	111.0	82.63	2133.31	560.98	437.09
MEAN	.44	1.37	2.64	4.24	8.01	3.40	2.05	3.58	2.75	68.8	18.1	14.6
MAX	1.1	1.6	3.0	9.0	14	5.9	3.0	18	5.4	941	224	142
MIN	.01	1.0	1.8	2.0	4.9	1.7	1.6	1.9	.83	.01	.34	0
AC-FT	27	81	162	261	461	209	122	220	164	4230	1110	867
CAL YR 1975 TOTAL	2215.72											
WTR YR 1976 TOTAL	3992.24											
MEAN 6.07												
MAX 130												
MIN 0												
AC-FT 4390												
MIN 0												
AC-FT 7920												

NOTE.--No gage-height record Nov. 10 to Dec. 11.

## 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 (14 m) upstream from bridge on State Highway 3 at La Cueva, 0.3 mi (0.5 km) downstream from La Cueva damsite, and at mile 86.8 (139.7 km).

DRAINAGE AREA.--173 mi<sup>2</sup> (448 km<sup>2</sup>).

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

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

GAGE.--Water-stage recorder. Altitude of gage is 7,000 ft (2,134 m), from topographic map. Prior to Apr. 15, 1931, nonrecording gage, and Apr. 15, 1931 to Apr. 18, 1962, water-stage recorder near present site at different datums. Apr. 19, 1962 to Mar. 13, 1974, water-stage recorder at site 700 ft (210 m) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 7,000 acres (28 km<sup>2</sup>), part of which is below 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.

AVERAGE DISCHARGE.--49 years (water years 1907-10, 1932-76), 27.6 ft<sup>3</sup>/s (0.782 m<sup>3</sup>/s), 20,000 acre-ft/yr (24.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1930).--Maximum discharge, 1,530 ft<sup>3</sup>/s (43.3 m<sup>3</sup>/s) Sept. 23, 1941 gage height, 7.58 ft (2.310 m), site and datum then in use, from rating curve extended above 400 ft<sup>3</sup>/s (11 m<sup>3</sup>/s); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1904, may have exceeded 20,000 ft<sup>3</sup>/s (570 m<sup>3</sup>/s); another major flood occurred June 11, 1913, but is believed less than that of 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 148 ft<sup>3</sup>/s (4.19 m<sup>3</sup>/s) Sept. 16, gage height, 3.08 ft (0.939 m), no peak above base of 300 ft<sup>3</sup>/s (8.5 m<sup>3</sup>/s); minimum, 0.67 ft<sup>3</sup>/s (0.019 m<sup>3</sup>/s) Dec. 30, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	9.9	4.0	3.5	6.1	5.5	2.8	5.4	12	20	53	25
2	28	6.6	2.5	3.0	5.2	4.8	2.9	4.4	14	18	65	25
3	33	7.1	2.8	3.0	5.0	4.0	3.1	3.9	15	17	53	24
4	33	7.1	3.3	3.0	4.7	5.8	3.1	3.8	22	22	49	22
5	31	6.6	3.0	4.0	4.6	7.5	2.9	3.8	20	21	39	22
6	27	6.4	2.9	5.0	4.4	8.0	3.1	5.2	20	18	33	20
7	23	4.8	2.1	4.0	4.3	7.8	3.0	5.7	29	18	31	19
8	23	5.9	2.5	5.0	4.2	7.8	2.7	5.4	36	18	28	19
9	27	5.4	7.3	7.0	4.4	7.6	2.0	5.0	59	16	26	23
10	28	3.6	12	7.0	4.3	7.8	1.5	4.6	55	16	24	22
11	27	3.7	8.4	6.0	4.2	7.7	1.8	4.4	51	16	25	20
12	28	3.3	6.0	5.5	4.2	7.0	2.9	2.5	46	13	23	14
13	26	3.4	9.0	4.5	3.9	6.5	2.5	3.3	42	10	18	14
14	23	4.0	10	4.0	5.2	6.0	2.2	3.5	36	14	16	18
15	15	3.7	9.5	3.5	5.0	5.9	2.5	2.4	24	16	18	17
16	10	3.7	10	8.6	3.9	5.8	2.4	3.0	21	16	14	23
17	11	3.7	10	14	3.1	6.2	2.1	4.1	21	15	15	17
18	12	4.3	8.5	9.9	5.0	6.9	1.9	3.8	18	12	14	16
19	9.2	7.0	8.0	9.1	5.5	5.6	2.9	4.3	20	12	38	16
20	9.2	5.7	9.0	10	4.7	4.6	5.6	4.7	21	14	44	18
21	8.5	4.8	9.0	10	4.0	4.3	5.3	5.7	19	21	37	20
22	5.6	4.5	8.8	10	3.5	4.1	5.3	14	16	23	32	22
23	5.8	4.3	8.6	11	4.0	3.9	5.4	11	16	17	28	19
24	9.3	4.1	9.1	11	4.2	3.9	4.5	9.3	17	26	33	16
25	9.1	4.2	9.2	7.0	4.0	3.8	2.2	9.5	20	22	33	22
26	10	4.0	9.3	6.5	3.7	3.6	2.1	9.8	17	24	31	22
27	10	4.0	9.3	6.8	3.8	3.7	2.0	10	15	35	27	25
28	10	4.2	9.0	7.1	5.5	3.9	1.9	11	17	37	25	27
29	11	5.1	6.5	7.3	7.9	4.0	3.8	9.8	19	37	21	25
30	10	4.0	5.0	7.3	---	3.8	4.4	11	21	33	25	22
31	11	---	4.0	6.9	---	2.8	---	12	---	31	24	---
TOTAL	550.7	149.1	218.6	210.5	132.5	170.6	90.8	196.3	759	628	942	614
MEAN	17.8	4.97	7.05	6.79	4.57	5.50	3.03	6.33	25.3	20.3	30.4	20.5
MAX	33	9.9	12	14	7.9	8.0	5.6	14	59	37	65	27
MIN	5.6	3.3	2.1	3.0	3.1	2.8	1.5	2.4	12	10	14	14
AC-FT	1090	296	434	418	263	338	180	389	1510	1250	1870	1220
(†)	520	821	560	400	282	193	198	263	245	508	364	322

CAL YR 1975 TOTAL 9422.80 MEAN 25.8 MAX 134 MIN .65 AC-FT 18690 † 5900  
WTR YR 1976 TOTAL 4662.10 MEAN 12.7 MAX 65 MIN 1.5 AC-FT 9250 † 4680

† Diversion, in acre-feet, by La Cueva Canal.

LOCATION.--Lat 35°53'27", long 105°09'47", Mora County, Hydrologic Unit 11080004, in Mora Grant, on right bank, 0.7 mi (1.1 km) upstream from bridge on State Highway 160, 1.2 mi (1.9 km) east of Golondrinas, 1.9 mi (3.1 km) upstream from Coyote Creek, 4.7 mi (7.6 km) downstream from Rito Cebolla, and at mile 75.8 (122.0 km).

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

GAGE.--Water-stage recorder. Altitude of gage is 6,750 ft (2,057 m), from topographic map. Mar. 10, 1915 to June 4, 1921, water-stage recorder at site 2.8 mi (4.5 km) upstream at different datum. July 6, 1921 to Jan. 5, 1929, nonrecording gage or water-stage recorder at site 0.7 mi (1.1 km) downstream at datum about 14 ft (4.3 m) lower and Jan. 6, 1929 to Apr. 1, 1972, water-stage recorder at site 0.7 mi (1.1 km) downstream at datum about 15 ft (4.6 m) lower.

AVERAGE DISCHARGE.--59 years (water years 1916-20, 1922, 1924-76), 33.9 ft<sup>3</sup>/s (0.960 m<sup>3</sup>/s), 24,560 acre-ft/yr (30.3 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft<sup>3</sup>/s (396 m<sup>3</sup>/s) Aug. 22, 1952, gage height, 14.4 ft (4.39 m), site and datum then in use, from rating curve extended above 660 ft<sup>3</sup>/s (19 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 25,000 ft<sup>3</sup>/s (710 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 293 ft<sup>3</sup>/s (8.30 m<sup>3</sup>/s) Sept. 14, gage height 2.48 ft (0.756 m), no peak above base of 400 ft<sup>3</sup>/s (11 m<sup>3</sup>/s); minimum, 0.62 ft<sup>3</sup>/s (0.018 m<sup>3</sup>/s) Feb. 9, result of freezeup.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	11	6.1	6.5	12	11	7.0	9.4	3.2	19	45	25
2	26	10	5.2	5.0	11	8.9	6.2	10	3.1	13	109	28
3	32	8.7	4.0	5.0	11	8.5	6.3	4.3	2.4	12	84	28
4	32	8.9	4.3	6.0	10	8.8	7.1	2.1	6.8	10	58	23
5	31	8.2	3.8	8.0	9.5	10	7.8	2.3	8.4	15	43	24
6	28	8.1	3.4	7.0	9.7	11	6.6	2.5	7.9	10	35	24
7	25	7.1	3.4	6.0	9.5	11	6.8	2.9	17	11	32	22
8	24	7.2	3.4	8.0	6.5	9.5	6.0	3.0	26	8.8	29	21
9	25	8.2	3.4	11	4.7	9.9	6.0	2.5	61	7.7	25	24
10	28	6.9	8.8	11	7.7	9.6	4.9	1.8	56	6.5	23	25
11	26	4.7	8.9	10	8.7	9.8	3.8	1.6	48	6.7	24	24
12	28	4.5	6.9	10	11	10	4.5	1.8	41	9.1	23	18
13	26	4.4	6.9	9.0	5.8	9.3	6.8	1.6	31	5.2	20	16
14	26	4.3	12	8.0	5.2	9.0	5.3	1.6	26	5.9	15	47
15	21	4.1	13	7.0	6.1	9.4	5.9	1.7	18	10	19	25
16	15	3.4	13	9.0	6.9	9.1	6.7	1.5	12	7.9	14	26
17	14	3.3	12	15	4.9	8.9	5.4	1.4	11	7.8	14	24
18	15	4.2	12	20	4.8	9.1	4.6	1.5	7.2	5.5	15	21
19	14	7.4	13	14	6.5	8.6	2.8	1.5	5.9	5.5	31	19
20	12	6.4	12	16	5.8	5.1	2.8	1.5	6.2	11	57	21
21	12	6.3	11	17	5.0	4.9	2.7	2.6	7.7	16	41	21
22	10	5.4	12	17	4.5	4.6	2.5	1.6	3.7	26	41	23
23	8.3	7.6	12	18	6.0	5.4	2.8	8.6	5.1	14	33	22
24	11	6.1	12	18	6.5	5.2	3.0	6.5	6.2	30	35	16
25	12	5.8	12	14	5.8	5.3	2.4	4.0	8.7	27	34	21
26	12	5.5	12	11	7.2	4.8	1.7	3.4	9.5	23	28	22
27	13	5.8	12	12	8.8	5.8	1.7	2.4	6.4	35	29	24
28	13	5.8	11	12	7.1	5.7	1.7	1.9	7.8	34	28	27
29	12	8.2	11	13	7.1	6.7	1.9	2.1	11	34	21	24
30	12	5.5	9.0	13	---	9.9	4.1	2.0	13	30	20	20
31	12	---	8.0	14	---	8.2	---	2.4	---	28	26	---
TOTAL	604.3	193.0	277.5	350.5	215.3	253.0	137.8	94.0	477.2	484.6	1051	705
MEAN	19.5	6.43	8.95	11.3	7.42	8.16	4.59	3.03	15.9	15.6	33.9	23.5
MAX	32	11	13	20	12	11	7.8	10	61	35	109	47
MIN	8.3	3.3	3.4	5.0	4.5	4.6	1.7	1.4	2.4	5.2	14	16
AC=FT	1200	383	550	695	427	502	273	186	947	961	2080	1400

CAL YR 1975	TOTAL	9875.5	MEAN	27.1	MAX	235	MIN	3.3	AC-FT	19590
WTR YR 1976	TOTAL	4843.2	MEAN	13.2	MAX	109	MIN	1.4	AC-FT	9610

## ARKANSAS RIVER BASIN

07218000 COYOTE CREEK NEAR COLONDRINAS, NM

LOCATION.--Lat 35°55'00", long 105°09'49", Mora County, Hydrologic Unit 11080004, in Mora Grant, on left bank 0.5 mi (0.8 km) downstream from Coyote Creek damsite, 2.3 mi (3.7 km) northeast of Golondrinas, and at mile 2.7 (4.3 km).

DRAINAGE AREA.--215 mi<sup>2</sup> (557 km<sup>2</sup>).

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

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

GAGE.--Water-stage recorder. Altitude of gage is 6,785 ft (2,068 m), from topographic map. Prior to Apr. 26, 1938, at site 0.4 mi (0.6 km) downstream at different datum (nonrecording gage prior to Apr. 20, 1929). Apr. 26, 1938 to Sept. 25, 1946, at site 139 ft (42 m) downstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Diversions (including off-channel storage) for irrigation of about 4,000 acres (16 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 11.6 ft<sup>3</sup>/s (0.329 m<sup>3</sup>/s), 8,400 acre-ft/yr (10.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,050 ft<sup>3</sup>/s (115 m<sup>3</sup>/s) Aug. 17, 1961, gage height, 9.60 ft (2.926 m), from rating curve extended above 250 ft<sup>3</sup>/s (7.1 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 5.54 ft (1.689 m), 7.74 ft (2.359 m), and 9.60 ft (2.926 m); maximum gage height, 10.1 ft (3.08 m) Aug. 30, 1936 (site and datum then in use); no flow Aug. 4, 1945, Apr. 10, May 9, 10, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51 ft<sup>3</sup>/s (1.44 m<sup>3</sup>/s) July 26, gage height 1.99 ft (0.607 m), no peak above base of 180 ft<sup>3</sup>/s (5.1 m<sup>3</sup>/s); maximum gage height, 2.06 ft (0.628 m) Jan. 28 (backwater from ice); minimum discharge, 0.23 ft<sup>3</sup>/s (0.007 m<sup>3</sup>/s) June 28, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	5.4	4.5	4.5	7.7	4.0	2.1	2.6	1.2	.39	3.5	1.9
2	4.4	5.6	4.9	4.0	6.8	4.3	2.3	2.0	.49	.36	15	1.8
3	4.4	4.9	5.0	4.5	6.8	3.9	2.2	1.8	.40	.63	7.9	1.7
4	4.4	3.4	5.0	5.5	6.8	4.4	2.0	2.7	.42	.41	9.6	1.4
5	3.0	3.0	4.7	7.0	6.9	4.7	2.2	3.8	.43	.34	6.2	1.1
6	2.6	2.8	4.8	6.5	7.4	5.5	2.1	4.6	.50	.45	4.5	.66
7	3.3	2.7	4.8	6.0	7.0	8.3	2.0	7.3	.77	.34	3.3	.75
8	4.1	2.9	4.8	7.0	6.8	8.2	2.1	5.2	2.9	.34	3.1	.68
9	3.7	3.1	4.6	9.0	7.0	8.0	2.1	6.3	3.2	.33	3.3	.2
10	3.3	3.6	4.8	10	7.4	10	1.2	5.3	2.2	.31	3.4	1.4
11	3.3	3.9	4.8	9.0	8.1	11	.74	4.9	2.0	.32	3.7	2.0
12	6.6	3.8	5.4	9.0	7.3	8.5	.77	4.0	1.4	.33	3.5	3.6
13	3.6	4.0	5.4	8.0	7.8	7.0	.93	2.9	1.4	.36	3.0	3.2
14	2.9	4.5	5.3	8.0	13	6.8	.88	2.1	1.4	.41	2.2	5.0
15	3.0	4.2	6.0	9.0	12	5.0	.91	2.1	1.3	.43	.46	4.0
16	3.4	4.2	7.0	8.5	9.1	3.4	.86	2.2	1.3	.54	.39	4.7
17	4.0	4.0	6.0	8.5	8.5	2.5	.86	1.4	2.1	.48	.33	7.1
18	4.3	3.2	6.0	9.0	8.0	2.5	.82	.56	3.1	.45	.83	4.2
19	4.7	3.3	7.0	7.0	8.0	2.5	.85	.55	3.0	.45	6.2	3.6
20	5.2	3.2	7.0	8.0	7.0	2.2	1.1	.90	3.0	.56	4.9	6.5
21	4.7	3.0	7.5	8.5	6.0	2.0	1.1	1.0	2.9	.94	3.7	6.2
22	4.7	2.9	7.5	8.5	6.0	2.0	1.1	.43	2.7	1.1	3.4	4.5
23	5.2	3.4	7.5	8.3	6.0	1.9	1.1	.33	1.7	.83	3.2	3.8
24	5.5	3.4	8.0	8.0	5.5	1.8	1.2	.29	1.1	5.4	3.1	3.8
25	5.8	3.1	8.0	7.0	5.4	1.9	1.2	.35	1.0	4.6	3.0	3.8
26	5.9	5.0	8.0	6.5	5.2	1.8	1.3	.51	.72	10	2.9	3.8
27	6.0	5.6	8.0	7.0	4.2	1.9	1.4	1.4	.72	9.3	3.0	5.2
28	5.9	5.0	7.0	8.0	3.8	1.9	1.5	1.6	.53	3.7	2.7	6.2
29	5.2	4.8	6.0	8.5	4.1	1.9	1.6	1.7	.24	3.2	1.4	4.5
30	4.7	5.6	6.0	8.5	---	2.0	2.3	1.6	.28	2.8	.63	4.0
31	5.0	---	5.0	8.1	---	2.0	---	1.6	---	2.7	2.7	---
TOTAL	137.0	117.5	186.3	234.9	205.6	133.8	42.82	74.02	44.40	52.80	115.04	102.29
MEAN	4.42	3.92	6.01	7.58	7.09	4.32	1.43	2.39	1.48	1.70	3.71	3.41
MAX	6.6	5.6	8.0	10	13	11	2.3	7.3	3.2	10	15	7.1
MIN	2.6	2.7	4.5	4.0	3.8	1.8	.74	.29	.24	.31	.33	.66
AC-FT	272	233	370	466	408	265	85	147	88	105	228	203
CAL YR 1975	TOTAL	3490.70	MEAN	9.56	MAX	125	MIN	.43	AC-FT	6920		
WTR YR 1976	TOTAL	1446.47	MEAN	3.95	MAX	15	MIN	.24	AC-FT	2870		

## 07221000 MORA RIVER NEAR SHOEMAKER, NM

LOCATION.--Lat 35°48'01", long 104°46'58", Mora County, Hydrologic Unit 11080004, in Mora Grant, on left bank 5.5 mi (8.8 km) east of Shoemaker, 12.3 mi (19.8 km) upstream from Pedros Creek, and at mile 39.4 (63.4 km).

DRAINAGE AREA.--1,104 mi<sup>2</sup> (2,859 km<sup>2</sup>), of which 71 mi<sup>2</sup> (184 km<sup>2</sup>) is probably noncontributing.

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

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1281: 1931(M), 1933-34(M), 1937(M), 1938(P), 1939-40(M), 1941-42(P). WSP 1731: 1921, 1928, 1951(M). WDR NM-75-1: 1974.

GAGE.--Water-stage recorder. Altitude of gage is 6,145 ft (1,873 m), from topographic map. Prior to Oct. 10, 1934, at site 2,000 ft (610 m) upstream at different datum.

REMARKS.--Records good except those for December and January, which are fair. Diversions for irrigation of about 26,000 acres (110 km<sup>2</sup>) above station. Off-channel lakes make it possible to divert and store water during non-irrigation season. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--58 years (water years 1915-18, 1920-24, 1928-76), 57.9 ft<sup>3</sup>/s (1.640 m<sup>3</sup>/s), 41,950 acre-ft/yr (51.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft<sup>3</sup>/s (430 m<sup>3</sup>/s) June 3, 1948, gage height, 12.79 ft (3.898 m), from rating curve extended above 2,800 ft<sup>3</sup>/s (79 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 10.09 ft (3.075 m) and 12.79 ft (3.898 m); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 30,000 ft<sup>3</sup>/s (850 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 503 ft<sup>3</sup>/s (14.2 m<sup>3</sup>/s) Aug. 2, gage height 3.08 ft (0.939 m), no peak above base of 800 ft<sup>3</sup>/s (23 m<sup>3</sup>/s); minimum, 0.45 ft<sup>3</sup>/s (0.013 m<sup>3</sup>/s) Nov. 25, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	11	9.2	30	30	5.6	5.0	7.5	4.0	2.6	5.8	5.3
2	27	11	9.5	29	29	5.0	5.3	5.3	3.8	2.7	16	5.7
3	21	10	10	24	27	5.2	4.8	5.2	3.8	3.0	134	5.7
4	27	11	11	24	25	5.8	4.6	4.6	3.6	10	56	5.3
5	29	10	11	25	26	5.5	4.8	4.9	3.7	11	32	5.1
6	27	10	11	26	25	5.7	4.6	5.0	3.7	4.5	23	5.0
7	26	7.3	11	24	26	5.6	4.5	4.7	3.5	3.6	17	5.6
8	23	7.3	11	22	22	5.6	4.6	4.4	21	2.8	10	5.4
9	18	7.2	13	26	12	5.6	4.6	4.4	3.3	2.2	10	5.0
10	17	7.2	13	27	11	5.6	4.5	4.4	2.5	2.4	10	4.8
11	19	7.2	13	26	9.3	5.5	4.4	4.4	9.1	2.6	8.1	4.6
12	17	6.9	14	26	7.6	5.0	4.7	4.3	5.7	3.7	7.7	5.0
13	19	6.9	13	24	7.7	5.2	4.6	4.6	7.1	2.7	7.2	4.8
14	16	7.0	13	26	10	5.4	4.4	4.4	6.4	2.5	7.2	5.7
15	11	7.1	11	29	9.5	5.4	5.1	4.1	5.9	3.5	5.6	6.9
16	12	7.3	13	26	8.2	5.4	4.7	4.1	5.3	5.8	5.1	12
17	10	7.6	12	25	8.0	5.3	4.4	4.2	4.2	3.5	4.9	4.9
18	9.2	7.9	12	26	7.9	5.2	4.4	4.1	3.5	2.7	4.8	28
19	10	9.6	15	22	7.5	4.7	4.4	4.2	3.7	2.7	9.8	13
20	10	7.6	17	25	6.9	4.4	4.5	4.2	3.1	48	5.7	17
21	11	7.0	19	27	6.0	4.4	4.3	4.1	2.6	27	8.1	12
22	8.7	7.0	19	28	6.6	4.4	4.4	4.1	1.8	9.6	7.3	11
23	8.7	7.8	21	28	6.2	4.5	4.4	3.9	1.9	6.0	8.8	8.0
24	9.2	7.3	22	25	5.9	4.4	4.4	4.3	2.0	6.6	8.8	9.8
25	8.7	7.0	23	23	6.0	4.5	4.1	4.6	3.1	5.7	9.2	9.2
26	9.6	6.5	27	21	6.6	4.6	4.0	5.2	3.1	4.9	6.8	8.0
27	10	8.9	29	26	6.6	4.7	4.0	4.3	3.0	21	6.4	8.5
28	11	8.9	27	30	6.2	4.8	4.3	4.6	2.7	11	6.1	8.8
29	12	8.1	27	33	6.0	4.9	4.7	4.1	2.3	8.2	5.9	9.2
30	11	7.6	36	33	---	4.9	6.2	4.1	2.4	6.8	5.7	10
31	13	---	29	33	---	4.8	---	4.3	---	6.0	5.6	---
TOTAL	491.1	243.2	521.7	819	371.7	157.6	137.7	140.6	131.8	235.3	459.1	293.4
MEAN	15.8	8.11	16.8	26.4	12.8	5.08	4.59	4.54	4.39	7.59	14.8	9.78
MAX	30	11	36	33	30	5.8	6.2	7.5	21	48	134	49
MIN	8.7	6.5	9.2	21	5.9	4.4	4.0	3.9	1.8	2.2	4.8	4.6
AC-FT	974	482	1030	1620	737	313	273	279	261	467	911	582
CAL YR 1975	TOTAL	11904.9	MEAN	32.6	MAX	423	MIN	4.7	AC-FT	23610		
WTR YR 1976	TOTAL	4002.2	MEAN	10.9	MAX	134	MIN	1.8	AC-FT	7940		

## ARKANSAS RIVER BASIN

07221500 CANADIAN RIVER NEAR SANCHEZ, NM  
(Surveillance network station)

LOCATION.--Lat 35°39'08", long 104°22'39", in SW¼ sec.34, T.17 N., R.24 E., San Miguel County, Hydrologic Unit 11080003 on right bank 1,000 ft (300 m) downstream from bridge on State Highway 65, 0.9 mi (1.4 km) upstream from Lagartija Creek, 3.2 mi (5.1 km) northeast of Sanchez, 10 mi (16 km) downstream from Mora River, 25 mi (40 km) southwest of Mosquero, and at mile 777.0 (1,250.2 km).

DRAINAGE AREA.--6,015 mi<sup>2</sup> (15,579 km<sup>2</sup>), of which 303 mi<sup>2</sup> (785 km<sup>2</sup>) 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). The revised figures of discharge for September 1942, as published in WSP 1281, supersede those published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 4,495 ft (1,370 m), from topographic map. See WSP 2121 for history of changes prior to November 1966. Supplemental water-stage recorder at site 0.6 mi (1.0 km) upstream used at various times since 1966.

REMARKS.--Water-discharge records good except those for April and June, which are poor. Diversions for irrigation of about 56,000 acres (230 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--43 years (water years 1913-14, 1936-76), 198 ft<sup>3</sup>/s (5.607 m<sup>3</sup>/s), 143,500 acre-ft/yr (177 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 145,000 ft<sup>3</sup>/s (4,110 m<sup>3</sup>/s) June 18, 1965, gage height, about 38.1 ft (11.61 m), from floodmarks, present site and datum, from rating curve extended above 91,000 ft<sup>3</sup>/s (2,600 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29 or 30, 1904, probably exceeded 100,000 ft<sup>3</sup>/s (2,800 m<sup>3</sup>/s), but is believed to have been less than the peak of June 18, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,400 ft<sup>3</sup>/s (125 m<sup>3</sup>/s) at 2300 hours July 13, gage height 7.77 ft (2.368 m), no other peak above base of 3,500 ft<sup>3</sup>/s (99 m<sup>3</sup>/s); no flow July 10-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	13	12	28	29	7.7	4.0	7.4	2.5	.05	26	9.9
2	33	15	13	28	29	7.4	3.3	6.0	3.0	.12	93	8.3
3	31	15	12	32	28	7.4	3.1	5.2	5.0	.21	229	7.4
4	27	14	12	34	26	7.7	3.1	4.7	6.6	.12	232	5.5
5	25	15	13	36	25	7.4	4.0	6.0	23	.21	229	4.5
6	21	15	12	39	24	7.4	4.5	7.7	4.5	.21	211	5.2
7	23	13	13	31	23	8.0	4.7	7.4	4.0	.21	111	5.8
8	25	13	14	28	26	8.3	5.0	6.4	5.0	.12	65	5.0
9	24	13	14	33	26	8.7	5.0	5.5	28	.04	49	4.3
10	23	13	14	28	26	8.0	4.5	4.7	10	0	37	3.5
11	21	13	15	24	25	7.4	4.5	3.3	5.0	0	31	3.3
12	18	12	15	24	20	7.4	4.0	3.1	3.0	0	30	2.9
13	17	12	16	25	17	6.7	4.5	3.1	2.0	196	23	3.5
14	17	11	16	24	25	5.7	4.5	2.9	1.5	600	16	3.3
15	17	11	15	22	23	5.5	5.0	2.0	1.0	47	15	3.1
16	16	11	15	25	21	5.5	6.0	1.4	1.5	19	13	3.3
17	19	11	17	25	19	5.7	5.0	.86	1.0	12	13	3.1
18	16	12	14	25	17	5.7	4.0	.54	.60	7.7	9.9	6.4
19	14	19	13	24	15	5.7	4.0	.73	.44	4.5	191	201
20	13	16	13	23	15	5.5	4.0	50	.96	3.3	139	481
21	13	13	18	18	13	5.2	4.0	56	1.4	221	49	69
22	12	13	18	20	12	5.0	3.5	7.1	1.2	525	61	28
23	11	13	22	22	13	4.3	3.0	3.8	.96	214	37	18
24	11	14	23	25	12	4.7	2.5	3.1	.69	159	40	13
25	12	12	22	29	11	4.3	2.0	4.0	.69	69	19	11
26	12	11	23	31	9.9	3.5	1.5	3.0	.56	52	12	8.7
27	11	12	30	23	9.0	3.1	1.5	2.5	.44	33	31	25
28	11	12	31	28	9.0	3.3	1.7	2.0	.21	73	23	21
29	12	12	29	27	8.3	3.5	1.9	1.5	.05	148	17	103
30	12	12	26	26	---	4.3	4.3	1.5	.05	62	14	72
31	12	---	31	29	---	4.5	---	2.0	---	37	12	---
TOTAL	564	391	551	836	556.2	184.5	112.6	215.43	214.75	2483.79	2077.9	1139.0
MEAN	18.2	13.0	17.8	27.0	19.2	5.95	3.75	6.95	7.16	80.1	67.0	38.0
MAX	35	19	31	39	29	8.7	6.0	56	66	600	232	481
MIN	11	11	12	18	8.3	3.1	1.5	.54	.05	0	9.9	2.9
AC-FT	1120	776	1090	1660	1100	366	223	427	426	4930	4120	2260
CAL YR 1975 TOTAL	14242.90			MEAN 39.0	MAX 329	MIN 4.3	AC-FT 28250					
WTR YR 1976 TOTAL	9326.17			MEAN 25.5	MAX 600	MIN 0	AC-FT 18500					

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

		INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA+MG) (MG/L) (00900)
OCT										
02...	1245	35	555	--	--	18.5	45	--	--	--
09...	1115	24	554	--	--	17.5	50	--	--	--
16...	1300	16	600	--	--	18.0	30	--	--	--
21...	1400	14	690	8.2	30.5	20.0	25	--	8	230
23...	1120	10	575	--	--	16.5	25	--	--	--
30...	0955	12	589	--	--	14.0	--	--	--	--
NOV										
06...	1237	14	606	--	--	18.0	20	--	--	--
11...	1400	14	650	8.4	18.0	12.0	25	8.5	10	250
13...	1415	12	665	--	--	20.0	10	--	--	--
26...	1106	11	665	--	--	2.0	10	--	--	--
DEC										
06...	1000	12	700	--	--	6.0	25	--	--	--
09...	1440	14	700	8.3	19.5	9.0	15	9.7	4	260
11...	1030	14	645	--	--	7.0	20	--	--	--
18...	1300	13	701	--	--	6.0	10	--	--	--
28...	1430	31	675	--	--	6.0	10	--	--	--
JAN										
10...	1600	26	670	--	--	4.0	8	--	--	--
13...	1130	23	600	8.3	9.0	4.0	15	10.3	5	260
16...	1130	31	643	--	--	8.0	10	--	--	--
23...	1520	33	658	--	--	9.5	15	--	--	--
30...	1200	26	754	--	--	12.0	15	--	--	--
FEB										
06...	1520	24	788	--	--	2.0	10	--	--	--
10...	1110	25	910	8.2	15.5	10.0	25	8.3	8	350
13...	0930	16	1040	--	--	10.0	25	--	--	--
20...	1530	15	1560	--	--	9.0	20	--	--	--
27...	1049	8.0	1520	--	--	13.0	15	--	--	--
MAR										
05...	1520	7.4	1270	--	--	12.0	8	--	--	--

		INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)
MAR												
12...	1100	8.4	1140	--	--	12.0	9	--	--	--	--	--
25...	1130	4.3	1360	8.0	25.0	8.5	9	8.2	11	510	350	110
26...	1440	3.3	1360	--	--	19.5	6	--	--	--	--	--
APR												
07...	1620	4.7	1020	--	--	22.0	9	--	--	--	--	--
15...	0845	3.5	995	--	--	11.5	13	--	--	--	--	--
22...	1130	3.1	800	7.8	28.0	22.5	12	7.5	19	300	120	62
23...	1515	4.1	837	--	--	--	10	--	--	--	--	--
30...	1545	5.0	818	--	--	11.5	22	--	--	--	--	--
MAY												
07...	1550	8.0	730	--	--	12.0	20	--	--	--	--	--
12...	1330	2.8	700	9.2	18.0	19.5	25	8.2	19	260	89	54
13...	0947	2.9	727	--	--	15.5	16	--	--	--	--	--
20...	1445	.73	227	--	--	24.0	2000	--	--	--	--	--
27...	0815	2.5	415	--	--	15.5	130	--	--	--	--	--
JUN												
02...	1010	1.0	617	--	--	22.5	75	--	--	--	--	--
10...	0940	4.0	461	--	--	23.5	140	--	--	--	--	--
10...	1130	5.7	448	7.5	28.5	25.5	260	6.9	25	170	60	46
18...	1000	.46	909	--	--	20.0	25	--	--	--	--	--
25...	1130	.38	--	--	--	25.0	20	--	--	--	--	--
JUL												
02...	0845	.69	1260	--	--	23.5	8	--	--	--	--	--
08...	1707	.82	1260	--	--	27.5	5	--	--	--	--	--
15...	1100	24	220	8.0	26.0	25.0	2000	--	85	92	0	28
AUG												
26...	1300	13	460	8.0	34.0	29.0	85	7.7	27	180	51	48
SEP												
30...	1200	72	1250	7.8	22.0	15.0	140	8.8	31	430	320	100

## ARKANSAS RIVER BASIN

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	NON-CAR-BONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORPTION RATIO (00931)	DIS-SOLVED PHOSPHATE (K) (MG/L) (00935)	DIS-SOLVED TANTALUM (K) (MG/L) (00440)	DIS-SOLVED BICARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)
OCT										
02...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
21...	61	54	24	39	1.1	2.3	211	0	140	--
23...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	--	--	--	--	--	--	--	--	--	--
11...	72	57	26	44	1.2	2.3	198	9	150	--
13...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
DEC										
06...	--	--	--	--	--	--	--	--	--	--
09...	65	58	28	43	1.2	2.6	238	0	140	--
11...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JAN										
10...	--	--	--	--	--	--	--	--	--	--
13...	71	62	25	36	1.0	1.9	228	0	140	--
16...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
FEB										
06...	--	--	--	--	--	--	--	--	--	--
10...	180	82	36	65	1.5	2.8	209	0	310	--
13...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
MAR										
05...	--	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED MAGNESIUM (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORPTION RATIO (00931)	DIS-SOLVED PHOSPHATE (K) (MG/L) (00935)	DIS-SOLVED BICARBONATE (CO3) (MG/L) (00440)	DIS-SOLVED CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SI02) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)
MAR												
12...	--	--	--	--	--	--	--	--	--	--	--	--
25...	58	110	2.1	3.9	197	--	500	45	.5	4.7	992	929
26...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
07...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
22...	35	69	1.7	3.9	220	0	220	23	.6	4.4	954	927
23...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
07...	--	--	--	--	--	--	--	--	--	--	--	--
12...	31	55	1.5	3.5	201	5	170	20	.6	6.3	478	445
13...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
02...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	13	27	.9	3.7	132	0	100	8.8	.4	7.6	274	273
18...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
02...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
15...	5.4	9.0	.4	3.8	115	0	23	2.9	.3	7.4	140	139
AUG												
26...	15	29	.9	3.7	159	0	110	10	.4	8.0	280	303
SEP												
30...	44	100	2.1	5.5	133	0	520	29	.4	4.1	933	869



07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUORIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)
OCT									
02...	--	--	--	--	--	.00	--	.09	.33
09...	--	--	--	--	--	.00	--	.02	.44
16...	--	--	--	--	--	.00	--	.03	.11
21...	12	.4	8.6	383	384	.00	.00	.02	.51
23...	--	--	--	--	--	.00	--	.02	.60
30...	--	--	--	--	--	.00	--	.00	.35
NOV									
06...	--	--	--	--	--	.00	--	.00	.46
11...	14	.5	5.0	419	406	.00	.00	.00	.39
13...	--	--	--	--	--	.00	--	.05	.53
26...	--	--	--	--	--	.12	--	.04	.23
DEC									
06...	--	--	--	--	--	.01	--	.02	.20
09...	14	.7	9.8	432	414	.08	.07	.00	.33
11...	--	--	--	--	--	.06	--	.04	.72
18...	--	--	--	--	--	.01	--	.00	.38
28...	--	--	--	--	--	.01	--	.00	.40
JAN									
10...	--	--	--	--	--	.01	--	.04	.11
13...	11	.5	11	410	400	.02	.01	.01	.28
16...	--	--	--	--	--	.03	--	.02	.28
23...	--	--	--	--	--	.00	--	.03	.21
30...	--	--	--	--	--	.01	--	.04	.45
FEB									
06...	--	--	--	--	--	.00	--	.04	.25
10...	18	.4	5.3	652	623	.01	.01	.02	.36
13...	--	--	--	--	--	.01	--	.01	.32
20...	--	--	--	--	--	.01	--	.02	.37
27...	--	--	--	--	--	.01	--	.06	.32
MAR									
05...	--	--	--	--	--	.01	--	.04	.29

DATE	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS- SOLVED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDED ORGANIC CARBON (C) (MG/L) (00689)
OCT									
02...	33	.08	--	--	--	--	--	--	--
09...	.46	.09	--	--	--	--	--	--	--
16...	.14	.05	--	--	--	--	--	--	--
21...	.53	.05	.00	70	0	--	--	3.0	.7
23...	.62	.06	--	--	--	--	--	--	--
30...	.35	.04	--	--	--	--	--	--	--
NOV									
06...	.46	.01	--	--	--	--	--	--	--
11...	.39	.02	.01	70	10	10	--	3.3	.1
13...	.58	.01	--	--	--	--	--	--	--
26...	.39	.00	--	--	--	--	--	--	--
DEC									
06...	.23	.02	--	--	--	--	--	--	--
09...	.41	.03	.00	80	70	--	--	6.9	.5
11...	.82	.02	--	--	--	--	--	--	--
18...	.39	.00	--	--	--	--	--	--	--
28...	.41	.02	--	--	--	--	--	--	--
JAN									
10...	.16	.01	--	--	--	--	--	--	--
13...	.31	.02	.00	60	0	--	--	1.5	.3
16...	.33	.02	--	--	--	--	--	--	--
23...	.24	.02	--	--	--	--	--	--	--
30...	.50	.03	--	--	--	--	--	--	--
FEB									
06...	.29	.00	--	--	--	--	--	--	--
10...	.39	.03	.00	60	0	0	2.6	2.3	--
13...	.34	.05	--	--	--	--	--	--	--
20...	.40	.02	--	--	--	--	--	--	--
27...	.39	.04	--	--	--	--	--	--	--
MAR									
05...	.34	.01	--	--	--	--	--	--	--

## ARKANSAS RIVER BASIN

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOL- VED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDE D ORGANIC CARBON (C) (MG/L) (00689)
MAR												
12...	.00	--	.03	.18	.21	.08	--	--	--	--	--	--
25...	.03	.03	.02	.40	.45	.01	.00	100	0	--	3.0	1.2
26...	.00	--	.03	.35	.38	.01	--	--	--	--	.01	--
APR												
07...	.00	--	.04	.35	.39	.04	--	--	--	--	--	--
15...	.01	--	.03	.20	.24	.18	--	--	--	--	--	--
22...	.01	.01	.00	.31	.32	.03	.00	110	60	--	12	1.2
23...	.00	--	.03	.21	.24	.05	--	--	--	--	--	--
30...	.01	--	.01	.89	.91	.08	--	--	--	--	--	--
MAY												
07...	.01	--	.01	.48	.50	.05	--	--	--	--	--	--
12...	.02	.02	.01	.55	5.8	.02	.00	0	0	10	5.4	--
13...	.01	--	.02	.46	.49	.04	--	--	--	--	--	--
20...	.50	--	.17	9.8	11	4.5	--	--	--	--	--	--
27...	.17	--	.09	.75	1.0	.15	--	--	--	--	--	--
JUN												
02...	.01	--	.07	.60	.68	.09	--	--	--	--	--	--
10...	.20	--	.08	.76	1.0	.16	--	--	--	--	--	--
10...	.24	.22	.01	.86	1.1	.23	.00	60	50	--	8.3	1.8
18...	.00	--	.06	.43	.49	.04	--	--	--	--	--	--
25...	.00	--	.08	.51	.59	.03	--	--	--	--	--	--
JUL												
02...	.01	--	.06	.45	.52	.02	--	--	--	--	--	--
08...	.01	--	.17	.73	.91	.03	--	--	--	--	--	--
15...	.64	.41	.04	4.5	5.1	1.2	.02	90	100	--	14	4.5
AUG												
26...	.02	.01	.01	.71	.74	.16	.00	60	20	--	7.4	2.0
SEP												
30...	.03	.02	.06	1.0	1.1	.19	.00	100	10	--	4.1	2.2

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL	DIS-	DIS-	TOTAL	DIS-	TOTAL	DIS-	TOTAL	DIS-	TOTAL	DIS-
		ARSENIC (AS) (UG/L) (01002)	SOLVED ARSENIC (AS) (UG/L) (01000)	SOLVED BORON (B) (UG/L) (01020)	CAD- MIUM (CD) (UG/L) (01027)	SOLVED CAD- MIUM (CD) (UG/L) (01025)	CHRO- MIUM (CR) (UG/L) (01034)	SOLVED CHRO- MIUM (CR) (UG/L) (01030)	CORALT (CO) (UG/L) (01037)	SOLVED CORALT (CO) (UG/L) (01035)	COPPER (CU) (UG/L) (01042)	SOLVED COPPER (CU) (UG/L) (01040)
NOV												
11...	1400	1	1	70	10	0	<10	0	<50	0	<10	2
FEB												
10...	1110	2	2	60	<10	0	0	0	<50	0	10	0
MAY												
12...	1330	1	0	0	0	0	20	3	0	0	1	0
DATE	TIME	TOTAL	DIS-	DIS-	TOTAL	DIS-	TOTAL	DIS-	TOTAL	DIS-	TOTAL	DIS-
		IRON (FE) (UG/L) (01045)	SOLVED IRON (FE) (UG/L) (01046)	SOLVED LEAD (PB) (UG/L) (01051)	MAN- GANESE (MN) (UG/L) (01055)	SOLVED MAN- GANESE (MN) (UG/L) (01056)	MERCURY (HG) (UG/L) (71900)	SOLVED MERCURY (HG) (UG/L) (71890)	SELE- NIUM (SE) (UG/L) (01147)	SOLVED SELE- NIUM (SE) (UG/L) (01145)	ZINC (ZN) (UG/L) (01092)	SOLVED ZINC (ZN) (UG/L) (01090)
NOV												
11...	950	10	<100	2	50	10	.0	.0	1	1	0	0
FEB												
10...	1200	0	<100	1	80	0	.0	.0	0	0	10	0
MAY												
12...	650	0	0	0	60	10	.3	.2	0	0	10	0

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN *									
10...	1130	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## ARKANSAS RIVER BASIN

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07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCEI (COL- ONIES PER 100 ML) (31679)
OCT 21...	1400	10	20
NOV 11...	1400	1	2200
DEC 09...	1440	0	11
JAN 13...	1130	0	7
FEB 10...	1110	3	4
MAR 25...	1130	280	9
APR 22...	1130	80	32
MAY 12...	1330	16	120
JUN 10...	1130	410	420
JUL 15...	1100	5700	5000
AUG 26...	1300	230	420
SEP 30...	1200	360	460

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PEN- DED SEDI- MENT (MG/L) (80154)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 21...	1400	14	20.0	251	9.5	21
NOV 11...	1400	14	12.0	85	3.2	40
DEC 09...	1440	14	9.0	26	.98	94
JAN 13...	1130	23	4.0	72	4.5	38
FEB 10...	1110	25	10.0	82	5.5	54
MAR 25...	1130	4.3	8.5	37	.43	81
APR 22...	1130	3.1	22.5	186	1.6	19
MAY 12...	1330	2.8	19.5	32	.24	92
JUN 10...	1130	5.7	25.5	358	5.5	97
JUL 15...	1100	24	25.0	3220	209	94
AUG 26...	1300	13	29.0	144	5.1	100
SEP 30...	1200	72	15.0	256	50	98

## ARKANSAS RIVER BASIN

## 07222500 CONCHAS RIVER AT VARIADERO, NM

LOCATION.--Lat 35°24'10", long 104°26'35", in NE¼NE¼ sec.36, T.14 N., R.23 E., San Miguel County, Hydrologic Unit 11080005, on left bank 1.5 mi (2.4 km) northeast of Variadero, 14 mi (23 km) west of Conchas Dam, and at mile 15.0 (24.1 km).

DRAINAGE AREA.--523 mi<sup>2</sup> (1,355 km<sup>2</sup>), of which 130 mi<sup>2</sup> (337 km<sup>2</sup>) is probably noncontributing.

PERIOD OF RECORD.--October 1936 to current year.

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

GAGE.--Water-stage recorder. Altitude of gage is 4,390 ft (1,340 m), from topographic map. Prior to Mar. 30, 1942, at site 1.5 mi (2.4 km) upstream at different datum. Mar. 30, 1942 to May 18, 1950, at present site at datum 0.5 ft (0.15 m) higher.

REMARKS.--Records fair. Diversions for irrigation of about 300 acres (1.2 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 15.8 ft<sup>3</sup>/s (0.447 m<sup>3</sup>/s), 11,450 acre-ft/yr (14.1 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,000 ft<sup>3</sup>/s (1,250 m<sup>3</sup>/s) Sept. 1, 1942, gage height, 19.96 ft (6.084 m), present datum, from rating curve extended above 760 ft<sup>3</sup>/s (22 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 10.5 ft (3.20 m) and 19.96 ft (6.084 m), present datum; no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft<sup>3</sup>/s (42 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
July 14	0300	*a4620 131	7.67 2.338	July 20	2400	1590 45.0	4.55 1.387
July 16	0030	1760 49.8	4.76 1.451	July 24	0030	1870 53.0	4.90 1.494

a From rating curve extended above 760 ft<sup>3</sup>/s (22 m<sup>3</sup>/s) as explained above.

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	0	0	0	.08	0	0	.16	0
2			0	0	0	0	0	0	0	0	.39	0
3			0	0	0	0	0	0	0	0	.38	0
4			0	0	0	0	0	0	0	.35	.82	0
5			0	0	0	0	.17	1.3	0	17	.23	0
6			0	0	0	0	.05	.28	0	2.1	6.8	0
7			0	.01	.01	0	0	.04	.52	.27	3.4	.58
8			0	0	.01	.01	0	.01	0	.03	1.8	.11
9			0	0	.01	.01	0	.01	0	0	.95	2.1
10			0	0	0	0	0	0	0	0	.65	.55
11			0	0	0	.01	0	0	0	0	.50	.10
12			0	0	0	0	0	0	0	0	.33	0
13			.01	0	0	0	0	0	0	0	.22	0
14			0	0	.33	0	0	0	0	.822	.10	0
15			0	0	.13	0	0	0	0	152	.04	0
16			0	0	.06	0	0	0	0	253	.01	0
17			0	0	.02	0	0	0	0	8.7	.01	0
18			0	0	.02	0	0	0	0	6.1	0	0
19			0	0	.02	0	0	0	0	2.3	.24	0
20			0	0	.02	0	0	0	0	43	.22	0
21			.01	0	0	0	0	0	0	242	.02	.05
22			0	0	0	0	0	0	0	14	103	.01
23			0	0	.01	0	0	0	0	23	.21	0
24			.01	0	0	0	0	0	0	660	5.6	0
25			.01	0	0	0	0	0	0	72	2.7	0
26			0	.01	0	0	0	0	0	19	1.4	0
27			0	0	0	0	0	0	0	5.9	.55	.22
28			.01	0	0	0	0	0	0	3.2	.22	8.4
29			.01	0	0	0	0	0	0	1.9	.19	4.9
30			.01	0	---	0	.59	0	0	1.1	.01	2.2
31		---	.01	0	---	0	---	0	---	.65	0	---
TOTAL	0	0	.08	.02	.64	.03	.81	1.72	.52	2384.25	332.12	87.53
MEAN	0	0	.003	.0006	.022	.001	.027	.056	.017	76.9	10.7	2.92
MAX	0	0	.01	.01	.33	.01	.59	1.3	.52	822	103	58
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	.2	.04	1.3	.06	1.6	3.4	1.0	4730	659	174
CAL YR 1975	TOTAL	1272.18	MEAN	3.49	MAX	710	MIN	0	AC-FT	2520		
WTR YR 1976	TOTAL	2807.72	MEAN	7.67	MAX	822	MIN	0	AC-FT	5570		

## ARKANSAS RIVER BASIN

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## 07223000 BELL RANCH CANAL BELOW CONCHAS DAM, NM

LOCATION.--Lat 35°24'10", long 104°11'07", San Miguel County, Hydrologic Unit 11080006, in Pablo Montoya Grant, on left bank, 1,270 ft (390 m) downstream from Conchas Dam and 23.5 mi (37.8 km) north of Newkirk.

PERIOD OF RECORD.--October 1942 to current year. Prior to October 1965, published as "near Conchas Dam."

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 4,150 ft (1,265 m), from headgate elevations.

REMARKS.--Records good. Canal diverts from Conchas Lake (station 07223500) for irrigation of about 700 acres (3 hm<sup>2</sup>) on Bell Ranch. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 21 ft<sup>3</sup>/s (0.595 m<sup>3</sup>/s) July 10-13, Sept. 7-10, 1948, June 27, Aug. 7, 1951; no flow many days each year.

## MONTHLY DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Month	Maximum	Minimum	Mean	Diversion in acre-feet
October.....	7.2	0	4.00	246
November.....	3.2	0	1.05	63
December.....	2.8	0	.77	47
CAL YR 1975.....	12	0	2.57	1860
January.....	0	0	0	0
February.....	0	0	0	0
March.....	4.5	0	1.47	90
April.....	6.9	3.4	4.98	296
May.....	5.7	0	1.59	98
June.....	7.0	0	2.65	158
July.....	6.6	.10	5.30	326
August.....	8.1	4.8	6.54	402
September.....	5.9	0	3.52	210
WTR YR 1976.....	8.1	0	2.67	1940

## 07223300 CONCHAS CANAL BELOW CONCHAS DAM, NM

LOCATION.--Lat 35°22'51", long 104°10'58", San Miguel County, Hydrologic Unit 11080006, in Pablo Montoya Grant, in Conchas Canal operations building below Conchas Dam, and 21.5 mi (34.6 km) north of Newkirk. Water-quality sampling site 1.0 mi (1.6 km) downstream.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1945 to June 1949, April 1954 to June 1955, September 1961 to current year.

GAGE.--Flowmeters in each of two 90 in (2.286 m) diameter steel diversion conduits. Prior to Nov. 19, 1948, water-stage recorder at site 0.2 mi (0.3 km) downstream. Nov. 19, 1948 to Dec. 31, 1973, water-stage recorder at site 1.0 mi (1.6 km) downstream.

REMARKS.--Water is diverted from Conchas Lake for irrigation of about 35,000 acres (140 km<sup>2</sup>) on Tucumcari Project (1966 conditions).

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 751 ft<sup>3</sup>/s (21.3 m<sup>3</sup>/s) Aug. 31, 1961; no flow many days each year.

## MONTHLY DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Month	Mean	Diversion in acre-feet
October.....	114	6980
November.....	0	0
December.....	0	0
CAL YR 1975.....	83.8	60640
January.....	0	0
February.....	0	0
March.....	0	0
April.....	0	0
May.....	0	0
June.....	0	0
July.....	13.9	852
August.....	244	15000
September.....	82.9	4930
WTR YR 1976.....	38.2	27760

## ARKANSAS RIVER BASIN

07223300 CONCHAS CANAL BELOW CONCHAS DAM, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

REMARKS.--No flow during most of each winter. Sample taken from Conchas Lake when Conchas Canal not flowing.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHO/S) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)
OCT								
02...	1135	162	804	--	--	20.0	2	--
09...	1230	167	836	--	--	19.0	8	--
16...	1137	204	870	--	--	17.5	6	--
21...	1730	.50	850	8.5	26.0	17.5	5	--
23...	1235	--	802	--	--	15.5	5	--
30...	1130	--	911	--	--	16.0	--	--
NOV								
26...	0955	--	884	--	--	8.5	5	--
DEC								
06...	1115	--	889	--	--	8.0	5	--
09...	1710	--	1210	7.5	14.0	10.0	6	11.6
11...	1200	--	903	--	--	9.5	7	--
18...	1345	--	904	--	--	9.0	7	--
28...	1545	--	899	--	--	4.0	5	--
JAN								
10...	1500	--	872	--	--	3.0	3	--
13...	1530	--	850	8.4	10.0	5.0	15	9.5
16...	1245	--	917	--	--	6.5	7	--
23...	1632	--	920	--	--	5.5	4	--
30...	1315	--	916	--	--	8.0	6	--
FEB								
06...	1640	--	930	--	--	2.5	9	--
10...	0900	--	860	8.1	15.0	7.0	35	9.0
13...	1050	--	917	--	--	9.0	9	--
20...	1650	--	908	--	--	7.0	20	--
27...	1200	--	907	--	--	10.0	7	--
MAR								
05...	1645	--	920	--	--	7.5	10	--
12...	1215	--	917	--	--	8.0	14	--
25...	0930	--	900	7.8	18.0	9.5	24	9.6
26...	1606	--	918	--	--	13.0	9	--
APR								
07...	1445	--	910	--	--	15.0	4	--
15...	0720	--	989	--	--	12.8	8	--
22...	0900	--	900	7.9	20.5	15.5	8	9.8
23...	1400	--	912	--	--	17.5	21	--
30...	1430	--	908	--	--	14.5	12	--
MAY								
07...	1420	--	901	--	--	16.0	3	--
12...	1000	--	930	9.3	17.0	16.0	20	8.2
13...	0825	--	902	--	--	16.5	4	--
20...	1635	--	892	--	--	23.0	3	--
27...	0945	--	896	--	--	19.5	3	--
JUN								
02...	1130	--	--	--	--	24.5	6	--
10...	0900	--	860	8.1	26.5	21.0	30	8.0
10...	1125	--	848	--	--	24.0	3	--
18...	1125	--	909	--	--	21.0	2	--
25...	0920	--	910	--	--	25.0	2	--
JUL								
02...	1015	--	912	--	--	24.0	2	--
08...	1945	--	900	--	--	25.0	1	--
15...	0900	--	900	7.9	21.5	24.5	30	--
AUG								
26...	1000	230	800	8.1	27.5	24.5	4	7.3
SEP								
02...	0910	--	801	--	--	22.0	12	--
08...	1030	--	816	--	--	22.1	10	--
15...	1150	--	832	--	--	23.1	--	--
22...	1030	--	792	--	--	21.0	10	--
29...	1345	--	792	--	--	22.0	4	--
30...	0900	--	800	7.9	15.5	19.0	10	7.7

## ARKANSAS RIVER BASIN

55

07223300 CONCHAS CANAL BELOW CONCHAS DAM, NM -- Continued

DATE	TOTAL NITRITE PLUS NITRATE (N) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (00631)	TOTAL AMMONIA NITRO- GEN (N) (00610)	TOTAL ORGANIC NITRO- GEN (N) (00605)	TOTAL NITRO- GEN (N) (00600)	TOTAL PHOS- PHORUS (P) (00665)	DIS- SOLVED ORTHO, PHOS- PHORUS (P) (00671)
OCT							
02...	.00	--	.03	2.7	2.7	.02	--
09...	.01	--	.02	.46	.49	.03	--
16...	.01	--	.04	.23	.28	.01	--
21...	.03	.03	.02	.74	.79	.04	.01
23...	.01	--	.03	.33	.37	.03	--
30...	.00	--	.02	.86	.88	.03	--
NOV							
26...	.02	--	.02	.60	.64	.00	--
DEC							
06...	.01	--	.00	.48	.49	.01	--
09...	.01	.01	.08	1.0	1.1	.01	.00
11...	.01	--	.03	.82	.86	.02	--
18...	.03	--	.06	.50	.59	.01	--
28...	.03	--	.01	.45	.49	.01	--
JAN							
10...	.04	--	.02	.75	.81	.01	--
13...	.04	.04	.01	.45	.50	.01	.00
16...	.07	--	.04	.73	.84	.01	--
23...	.02	--	.04	.52	.58	.01	--
30...	.09	--	.04	.83	.96	.01	--
FEB							
06...	.04	--	.04	.57	.65	.00	--
10...	.04	.04	.04	.57	.65	.07	.00
13...	.07	--	.04	.52	.63	.04	--
20...	.06	--	.02	.49	.57	.02	--
27...	.04	--	.04	.42	.50	.01	--
MAR							
05...	.08	--	.00	.57	.65	.02	--
12...	.03	--	.04	.54	.61	.03	--
25...	.06	.06	.04	.35	.45	.04	.00
26...	.04	--	.03	.65	.72	.02	--
APR							
07...	.04	--	.04	.43	.51	.04	--
15...	.04	--	.03	.35	.42	.10	--
22...	.01	.01	.00	.57	.58	.03	.00
23...	.00	--	.03	.53	.56	.06	--
30...	.01	--	.01	.57	.59	.02	--
MAY							
07...	.04	--	.02	.03	.09	.02	--
12...	.01	.01	.03	.75	.79	.04	.00
13...	.01	--	.02	.37	.40	.03	--
20...	.01	--	.01	.31	.33	.00	--
27...	.00	--	.01	.37	.38	.03	--
JUN							
02...	.00	--	.00	.49	.49	.13	--
10...	.05	.05	.02	.31	.38	.04	.01
10...	.00	--	.04	.33	.37	.01	--
18...	.00	--	.04	.36	.40	.02	--
25...	.00	--	.03	.24	.27	.01	--
JUL							
02...	.01	--	.00	.36	.37	.01	--
08...	.00	--	.02	.58	.60	.01	--
15...	.03	.03	.02	.18	.23	.08	.01
AUG							
26...	.07	.02	.00	.00	.07	.02	.00
SEP							
02...	.01	--	.05	--	--	--	--
08...	.04	--	.01	.64	.69	.05	--
15...	.02	--	.02	.47	.51	.01	--
22...	.07	--	.00	.39	.46	.04	--
29...	.28	--	.04	.41	.73	.04	--
30...	.09	.04	.00	.45	.54	.01	.00

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN*									
10...	0900	ND	ND	ND	ND	ND	ND	ND	ND

\*Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## 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 (39 km) north of Newkirk, and at mile 746.0 (1,200.3 km).

DRAINAGE AREA.--7,409 mi<sup>2</sup> (19,189 km<sup>2</sup>), of which 433 mi<sup>2</sup> (1,121 km<sup>2</sup>), is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Lake is formed by dam consisting of concrete main section and earthfill wings, completed Sept. 15, 1939; storage began Dec. 29, 1938. Capacity, 330,100 acre-ft (407 hm<sup>3</sup>) between elevations 4,060.0 ft (1,237.49 m) and 4,201.0 ft (1,280.46 m), crest of 300 ft (91.4 m) ungated service spillway. Inactive storage, 70,490 acre-ft (86.9 hm<sup>3</sup>) at elevation 4,155.0 ft (1,266.44 m). Lake usually not drawn below elevation, 4,157.35 ft (1,267.160 m), sill of irrigation outlet, capacity, 77,790 acre-ft (95.9 hm<sup>3</sup>), except for minor sluicing and operation of small powerplant; during 1954-55, 1964 and 1976 there was some pumping into Conchas Canal. Capacity of 198,800 acre-ft (245 hm<sup>3</sup>) between elevations 4,201.0 ft (1,280.46 m), crest of 300 ft (91.4 m) ungated service spillway, and 4,218.0 ft (1,285.65 m), crest of 3,000 ft (914 m) 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. Diversion above station for irrigation of about 57,000 acres (230 km<sup>2</sup>). Direct diversions through Conchas Dam to Bell Ranch Canal and Conchas Canal (stations 07223000, 07223300) irrigate about 36,000 acres (150 km<sup>2</sup>) near Tucumcari, and on Bell Ranch.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 479,600 acre-ft (591 hm<sup>3</sup>) Apr. 24, 1942, elevation, 4,208.41 ft (1,282.723 m); minimum after initial filling, 78,080 acre-ft (96.3 hm<sup>3</sup>) Sept. 18, 1976, elevation, 4,157.44 ft (1,267.188 m); minimum elevation, 4,155.80 ft (1,266.688 m) Sept. 24, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 95,690 acre-ft (118 hm<sup>3</sup>) July 29, elevation, 4,162.61 ft (1,268.764 m); minimum, 78,080 acre-ft (96.3 hm<sup>3</sup>) Sept. 18, elevation, 4,157.44 ft (1,267.188 m).

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Corps of Engineers in 1970)

4155	70490
4160	86520
4165	104600

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90830	82240	81640	81840	82930	83500	82270	80820	80470	79750	94930	83430
2	90480	82240	81640	81840	82960	83460	82240	80760	80400	79660	94720	82960
3	90130	82240	81640	81840	83000	83430	82170	80730	80340	79660	94680	82500
4	89780	82200	81640	81840	83000	83360	82140	80730	80430	79660	94640	81970
5	89330	82170	81640	81840	83060	83260	82140	81020	80660	79690	94680	81510
6	88880	82170	81640	81870	83130	83260	82100	80990	81120	79690	94640	81090
7	88400	82140	81640	81970	83200	83260	82040	80960	81640	79590	94350	80700
8	87950	82070	81640	82040	83230	83260	81970	80960	81840	79490	94000	80300
9	87540	82040	81640	82070	83300	83230	81940	80920	81840	79430	93640	79850
10	87100	82010	81640	82070	83300	83230	81870	80890	81810	79300	93210	79460
11	86620	81910	81610	82140	83360	83200	81810	80860	81680	79240	92780	79070
12	86280	81870	81610	82170	83400	83130	81810	80820	81580	79140	92280	78690
13	85840	81840	81610	82170	83460	83100	81780	80790	81480	79400	91750	78370
14	85440	81810	81610	82200	83530	83100	81710	80730	81250	85000	91260	78300
15	84960	81780	81580	82240	83600	83030	81680	80660	81180	86890	90690	78240
16	84500	81780	81580	82300	83700	83000	81550	80600	81050	87610	90240	78170
17	83960	81780	81580	82370	83700	83000	81380	80530	80890	87710	89720	78140
18	83530	81870	81550	82400	83660	82960	81320	80500	80760	87710	89200	78080
19	83160	81970	81550	82370	83660	82960	81250	80430	80700	87610	88810	80400
20	82930	81940	81550	82440	83560	82900	81180	80370	80630	87750	88710	82670
21	82900	81940	81550	82470	83560	82800	81150	80340	80560	89020	88400	83160
22	82800	81940	81550	82500	83600	82760	81090	80340	80430	89920	88190	83530
23	82700	81940	81580	82530	83600	82760	81020	80300	80370	90450	87920	83600
24	82630	81910	81640	82570	83600	82730	80960	80240	80300	93780	87400	83600
25	82600	81910	81640	82600	83530	82630	80920	80400	80210	95330	87000	83560
26	82570	81870	81640	82670	83500	82570	80790	80820	80110	95550	86420	83530
27	82470	81840	81680	82700	83500	82500	80700	80790	80040	95580	85810	83800
28	82370	81780	81740	82730	83500	82470	80630	80700	79950	95580	85340	83960
29	82370	81740	81810	82760	83500	82370	80760	80630	79910	95620	84830	84060
30	82340	81680	81840	82800	---	82340	80790	80560	79850	95510	84360	84200
31	82270	---	81840	82860	---	82340	---	80500	---	95180	83960	---
MAX	90830	82240	81840	82860	83700	83500	82270	81020	81840	95620	94930	84200
MIN	82270	81680	81550	81840	82930	82340	80630	80240	79850	79140	83960	78080
(†)	4158.73	4158.55	4158.60	4158.91	4159.10	4158.75	4158.28	4158.19	4157.99	4162.47	4159.24	4159.31
(‡)	-8920	-590	+160	+1020	+640	-1160	-1550	-290	-650	+15330	-11220	+240
CAL YR 1975	MAX	133000	MIN	81550	†	-47460						
WTR YR 1976	MAX	95620	MIN	78080	†	-6990						

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.



## ARKANSAS RIVER BASIN

57

07226500 UTE CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°26'18", long 103°31'31", in NW¼SE¼ sec.15, T.14 N., R.32 E., Harding County, Hydrologic Unit 11080007, on right bank 1.9 mi (3.1 km) downstream from Alamosa Creek, 4.5 mi (7.2 km) upstream from State Road 155, 4.7 mi (7.6 km) upstream from high-water line of Ute Reservoir, 8.2 mi (13.2 km) northwest of Logan, and at mile 10.0 (16.1 km).

DRAINAGE AREA.--2,060 mi<sup>2</sup> (5,335 km<sup>2</sup>), of which 617 mi<sup>2</sup> (1,598 km<sup>2</sup>) is probably noncontributing.

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

REVISED RECORDS.--WSP 1281: 1942-48, 1950, 1951(P). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 3,815 ft (1,163 m), from topographic map. See WSP 2121 for history of changes prior to Oct. 1, 1964.

REMARKS.--Records poor. Diversions for irrigation of a few hundred acres above station. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--34 years, 24.7 ft<sup>3</sup>/s (0.700 m<sup>3</sup>/s), 17,900 acre-ft/yr (22.1 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft<sup>3</sup>/s (694 m<sup>3</sup>/s) May 28, 1946, July 12, 1951, gage height, 8.4 ft (2.56 m), site and datum then in use, from rating curve extended above 7,700 ft<sup>3</sup>/s (220 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 5.2 ft (1.58 m) and 7.2 ft (2.19 m); maximum gage height, 8.76 ft (2.670 m) July 17, 1972; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1, 1914, reached a stage of 22.95 ft (6.995 m) site and datum then in use. Another major flood reached a stage of 16.0 ft (4.88 m), 1942 datum, sometime in 1941, from information furnished by Bureau of Reclamation, discharge, about 70,000 ft<sup>3</sup>/s (2,000 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,220 ft<sup>3</sup>/s (34.6 m<sup>3</sup>/s) July 14, gage height, 3.18 ft (0.969 m), no peak above base of 3,700 ft<sup>3</sup>/s (100 m<sup>3</sup>/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	0	0	0	0
2								0	0	0	25	0
3								0	7.8	0	26	0
4								0	7.9	64	0	0
5								0	1.0	0	0	0
6								0	0	0	0	0
7								0	0	0	0	0
8								0	0	0	0	0
9								0	0	0	0	0
10								0	0	0	0	0
11								0	0	0	0	0
12								0	0	0	0	0
13								0	0	0	0	0
14								0	0	144	0	3.7
15								0	0	0	0	29
16								0	0	0	0	6.1
17								0	0	.12	0	3.0
18								0	0	0	0	0
19								0	0	0	0	0
20								0	0	165	0	0
21								0	0	63	16	0
22								0	0	15	.08	0
23								0	0	2.0	0	0
24								0	0	0	0	0
25								7.8	0	0	0	0
26								0	0	0	0	0
27								0	0	0	0	0
28								0	0	0	0	455
29								0	0	0	0	121
30								0	0	0	0	.72
31		---			---		---	0	---	0	0	---
TOTAL	0	0	0	0	0	0	0	7.8	16.7	455.12	67.08	618.52
MEAN	0	0	0	0	0	0	0	.25	.56	14.7	2.16	20.6
MAX	0	0	0	0	0	0	0	7.8	7.9	165	26	455
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	15	33	903	133	1230
CAL YR 1975	TOTAL	2135.45	MEAN 5.85	MAX 420	MIN 0	AC-FT	4240					
WTR YR 1976	TOTAL	1165.22	MEAN 3.18	MAX 455	MIN 0	AC-FT	2310					

## ARKANSAS RIVER BASIN

## 07226800 UTE RESERVOIR NEAR LOGAN, NM

LOCATION.--Lat 35°20'35", long 103°26'37", in NW¼ sec.21, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080006, on face of Ute Dam on Canadian River, 2.5 mi (4.0 km) southwest of Logan, 3.5 mi (5.6 km) downstream from Ute Creek, and at mile 673.1 (1,083.0 km).

DRAINAGE AREA.--11,140 mi<sup>2</sup> (28,853 km<sup>2</sup>), of which 1,110 mi<sup>2</sup> (2,875 km<sup>2</sup>) is probably noncontributing.

## WATER-DISCHARGE RECORDS

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

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

REMARKS.--Reservoir is formed by earthfill dam 121 ft (37 m) high above streambed, 2,050 ft (620 m) long; an earth-dike section on north (left) bank of Canadian River is 2,860 ft (870 m) long and has a maximum height of 27 ft (8 m); a concrete spillway section 840 ft (260 m) long is constructed between main embankment and the dike. Construction completed in May 1963; storage began Dec. 13, 1962. Capacity, 109,600 acre-ft (135 hm<sup>3</sup>) at elevation 3,760.0 ft (1,146.05 m), crest of 840 ft (260 m) ungated service spillway. Top of dam is at elevation 3,801.0 ft (1,158.54 m). Maximum design capacity of 307,000 acre-ft (379 hm<sup>3</sup>) at elevation 3,791.0 ft (1,155.50 m), 31.0 ft (9.4 m) above crest of spillway, allows 197,400 acre-ft (243 hm<sup>3</sup>) of capacity for protection of the structure. Dead storage, 20,710 acre-ft (25.5 hm<sup>3</sup>) at elevation 3,725.0 ft (1,135.38 m), sill of outlet gate; inactive pool of 49,870 acre-ft (61.5 hm<sup>3</sup>) below elevation 3,741.6 ft (1,140.44 m) is maintained for fish and wildlife. Figures given herein represent total contents. Reservoir is planned to furnish water for municipal and industrial uses and for recreational purposes; some incidental flood control. Diversions above station for irrigation of about 90,000 acres (360 km<sup>2</sup>).

COOPERATION.--Capacity table furnished by New Mexico Interstate Stream Commission.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 119,900 acre-ft (148 hm<sup>3</sup>) June 17, 1969, elevation, 3,762.4 ft (1,146.78 m); minimum observed, 22,230 acre-ft (27.4 hm<sup>3</sup>) Aug. 7, 1964, elevation, 3,726.2 ft (1,135.75 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 91,980 acre-ft (113 hm<sup>3</sup>) Oct. 1, elevation, 3,755.50 ft (1,144.676 m); minimum, 83,430 acre-ft (103 hm<sup>3</sup>) July 3, elevation, 3,753.11 ft (1,143.948 m).

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by New Mexico Interstate Stream Commission in 1963)

3752	79640
3754	86550
3756	93840

CONTENTS, IN ACRE-Feet, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91980	89780	88870	88330	87620	87330	85420	84990	83700	83600	89530	88080
2	91870	89820	88870	88330	87620	87220	85170	84890	83630	83460	89740	88150
3	91830	89740	88870	88150	87620	87040	85100	84960	83910	83950	90140	88120
4	91760	89740	88690	88150	87620	86970	85200	85130	84470	84430	90070	88010
5	91680	89710	88690	88190	87620	87080	85200	84850	84820	84990	89930	87970
6	91650	89670	88620	88230	87620	87000	85030	84750	84890	85030	89850	88080
7	91610	89630	88620	88150	87620	86900	84990	84820	85520	85030	89710	88150
8	91460	89600	88620	88150	87620	86900	84960	84850	85700	84920	89630	88010
9	91350	89600	88590	88150	87620	86800	84920	84820	85770	84780	89490	87970
10	91350	89560	88590	88150	87510	86700	84890	84780	85730	84680	89420	87900
11	91280	89530	88550	88150	87580	86700	84890	84780	85560	84610	89310	87900
12	91170	89530	88510	88150	87540	86600	84850	84640	85350	84500	89340	87790
13	91060	89530	88510	87970	87470	86500	84820	84540	85310	84400	89050	87620
14	90950	89490	88480	87970	87580	86400	84680	84610	85060	85770	89050	88410
15	90910	89490	88440	88050	87540	86400	84920	84540	84960	85980	88870	88840
16	90800	89450	88410	88050	87620	86300	84680	84360	84890	86330	88730	89420
17	90730	89420	88370	88050	87370	86260	84500	84360	84610	86480	88620	89530
18	90690	89340	88330	88010	87440	86190	84430	84360	84540	86480	88550	89780
19	90690	89310	88510	87970	87440	86940	84470	84260	84570	86370	88550	89740
20	90660	89240	88510	87790	87440	86940	84330	84330	84540	86440	88660	90180
21	90580	89160	88510	87790	87260	86970	84360	84290	84430	88440	88660	90730
22	90550	89160	88510	87790	87260	87150	84330	84260	84330	89020	88660	90730
23	90440	89130	88330	87790	87260	87150	84260	84090	84260	89090	88550	90690
24	90330	89090	88330	87790	87260	87080	84150	83980	84150	89240	88590	90620
25	90330	89050	88330	87790	87260	86090	83980	83950	84120	89710	88510	90550
26	90220	89050	88330	87510	87260	85520	84050	83950	84020	89710	88480	90470
27	90070	89050	88330	87620	87260	85590	84020	84050	83980	89710	88190	90440
28	90000	89050	88330	87620	87260	85420	83840	83980	83840	89630	88120	90950
29	90000	89050	88330	87620	87290	85310	83880	83950	83500	89740	88050	91320
30	89930	88870	88330	87620	---	85310	84850	83770	83670	89670	87970	91350
31	89850	---	88330	87620	---	85350	---	83770	---	89560	88010	---
MAX	91980	89820	88870	88330	87620	87330	85420	85130	85770	89740	90140	91350
MIN	89850	88870	88330	87510	87260	85310	83840	83770	83500	83460	87970	87620
(†)	3754.92	3754.65	3754.50	3754.30	3754.21	3753.66	3753.52	3753.21	3753.18	3754.84	3754.41	3755.33
(‡)	-2130	-980	-540	-710	-330	-1940	-500	-1080	-100	+5890	-1550	+3340

CAL YR 1975 MAX 94100 MIN 84990 † -870  
WTR YR 1976 MAX 91980 MIN 83460 ‡ -630

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

## ARKANSAS RIVER BASIN

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07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

## WATER-QUALITY RECORDS

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

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

REMARKS.--Samples for chemical analyses are collected semi-annually at surface, and/or bottom levels of selected sites.

Site locations are as follows: Site A, 0.4 mi (0.6 km) upstream from Ute Dam; Site B, 0.6 mi (1.0 km) upstream from Ute Dam; Site C, 1.9 mi (3.1 km) upstream from Ute Dam; Site D, on the Ute Creek arm, 5.7 mi (9.2 km) upstream from Ute Dam; Site E, 3.8 mi (6.1 km) upstream from Ute Dam at confluence of Ute Creek and Canadian River arms; Site F, on the Canadian River arm, 9.1 mi (14.6 km) upstream from Ute Dam; Site G, on the Ute Creek arm, 6.9 mi (11.1 km) upstream from Ute Dam; Site H, on the Canadian River arm, 12.8 mi (20.6 km) upstream from Ute Dam; Site I, on the Canadian River arm, 5.0 mi (8.0 km) upstream from Ute Dam.

07226510 UTE RESERVOIR AT SITE F (LAT 35 20 21 , LONG 103 33 07 )

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DEPTH (FT) (000003)	DEPTH OF RESER- VOIR (FT) (72025)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED OXYGEN (MG/L) (00300)	HARD- NESS (CA+MG) (MG/L) (00900)
MAR 24...	1105	15	20	1050	8.4	9.5	9.5	10.0	220
SEP 28...	1230	20	25	900	8.0	14.0	19.0	7.1	160

DATE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
MAR 24...	0	40	30	160	4.7	6.7	288	4	250
SEP 28...	0	32	20	130	4.4	5.8	247	0	190

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
MAR 24...	47	.9	.3	709	681	.03	.00	250	10
SEP 28...	38	.8	2.7	557	542	.12	.00	230	10

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
MAR 24...	1105	0	0
SEP 28...	1230	16	19

## ARKANSAS RIVER BASIN

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226515 UTE RESERVOIR AT SITE I (LAT 35 21 03 , LONG 103 31 00 )

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DEPTH (FT) (00003)	DEPTH OF RESER- VOIR (FT) (72025)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED OXYGEN (MG/L) (00300)	HARD- NESS (CA+MG) (MG/L) (00900)
MAR 24...	1125	28	33	1040	8.3	22.0	8.5	10.3	200
SEP 28...	1310	35	40	1050	8.2	14.5	20.0	7.2	180

DATE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
MAR 24...	0	36	27	150	4.6	6.7	275	0	240
SEP 28...	0	33	23	160	5.2	6.6	268	0	250

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
MAR 24...	43	.9	1.1	658	642	.45	.00	170	40
SEP 28...	45	1.0	2.1	648	653	.06	.00	260	30

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIFS PER 100 ML) (31679)
MAR 24...	1125	0	0
SEP 28...	1310	1	15

ARKANSAS RIVER BASIN

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07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226520 UTE RESERVOIR AT SITE G (LAT 35 23 35, LONG 103 30 00)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DEPTH (FT) (000003)	DEPTH OF RESER- VOIR (FT) (72025)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED OXYGEN (MG/L) (00300)	HARD- NESS (CA, MG) (MG/L) (00900)
MAR 24...	1152	2.5	5.0	1000	8.3	22.5	12.0	9.4	210
SEP 28...	1340	5.0	10	990	8.2	16.5	18.0	7.8	170

DATE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
MAR 24...	0	39	27	150	4.5	7.0	285	0	230
SEP 28...	0	32	22	150	5.0	6.5	262	0	240

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
MAR 24...	47	.9	1.6	644	652	.04	.00	270	40
SEP 28...	42	.9	2.9	620	626	.06	.01	250	10

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PFR 100 ML) (31679)
MAR 24...	1152	4	4
SEP 28...	1340	120	26

## ARKANSAS RIVER BASIN

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226560 UTE RESERVOIR AT SITE B (LAT 35 20 32 , LONG 103 27 16 )

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DEPTH (FT) (00003)	DEPTH OF RESER- VOIR (FT) (72025)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)
MAR										
24...	0900	43	48	1150	8.1	17.0	8.0	8	10.6	17
24...	1030	5.0	48	1000	8.1	20.0	8.0	7	10.0	18
SEP										
28...	0910	5.0	60	1000	8.1	15.5	20.0	9	7.1	18
28...	1000	55	60	1050	8.1	15.5	20.0	20	7.1	5

DATE	HARD- NESS (CA+MG) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)
MAR									
24...	190	0	35	24	150	4.8	6.6	272	0
24...	180	0	34	24	150	4.8	6.7	273	0
SEP									
28...	210	0	44	24	160	4.8	6.9	262	0
28...	190	0	34	25	160	5.1	6.4	262	0

DATE	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)
MAR									
24...	220	56	.9	1.5	653	629	.08	.08	.02
24...	220	59	.9	1.5	651	631	.06	.06	.04
SEP									
28...	250	47	.9	2.3	667	665	.02	.01	.01
28...	260	48	1.1	2.0	647	666	.06	.02	.04

DATE	TOTAL ORGANIC NITRO- GEN (N) (00605)	TOTAL NITRO- GEN (N) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDE D ORGANIC CARBON (C) (MG/L) (00689)
MAR									
24...	.38	.48	.01	.00	210	0	10	--	--
24...	.35	.45	.01	.00	210	20	0	--	--
SEP									
28...	.46	.49	.00	.00	270	20	0	4.6	2.0
28...	.48	.58	.02	.01	270	10	0	5.1	.6

## ARKANSAS RIVER BASIN

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07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226560 UTE RESERVOIR AT SITE B -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)
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MAR												
24...	0900	1	1	210	<10	1	0	0	<50	0	10	2
24...	1030	2	1	210	<10	0	10	0	<50	0	10	1
SEP												
28...	0910	2	2	270	<10	1	0	0	<50	0	<10	2
28...	1000	3	3	270	<10	1	0	0	<50	0	<10	0

DATE	TIME	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
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MAR												
24...	120	0	<100	0	10	10	.0	.0	1	1	10	0
24...	80	20	<100	0	10	0	.0	.0	1	1	10	0
SEP												
28...	220	20	<100	4	20	0	--	.0	1	1	--	0
28...	250	10	<100	3	20	0	.0	.0	1	1	10	0

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL NON- FILT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDE GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDE GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED GROSS BETA AS AS SR90 /Y90 (PC/L) (80050)	SUS- PENDE GROSS BETA AS AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED GROSS RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)
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MAR										
24...	0900	11	30	.4	14	3.0	11	2.6	.11	8.5
SEP										
28...	1000	2	29	<.4	22	.7	18	.6	.23	13

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL PCB (UG/L) (39516)	TOTAL ALDRIN (UG/L) (39330)	TOTAL CHLOR- DANE (UG/L) (39350)	TOTAL DDD (UG/L) (39360)	TOTAL DDE (UG/L) (39365)	TOTAL DOT (UG/L) (39370)	TOTAL DI- AZINON (UG/L) (39570)	TOTAL DI- ELDRIN (UG/L) (39380)	TOTAL ENDRIN (UG/L) (39390)	TOTAL ETHION (UG/L) (39398)	TOTAL HEPTA- CHLOR (UG/L) (39410)
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MAR												
24...	0900	.0	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00
SEP												
28...	1000	.0	.00	.0	.00	.00	.00	.00	.00	.00	.00	.00

DATE	TIME	TOTAL HEPTA- CHLOR EPOXIDE (UG/L) (39420)	TOTAL LINDANE (UG/L) (39340)	TOTAL MALA- THION (UG/L) (39530)	TOTAL METHYL PARA- THION (UG/L) (39600)	TOTAL METHYL TRI- THION (UG/L) (39790)	TOTAL PARA- THION (UG/L) (39540)	TOTAL TOX- APHENE (UG/L) (39400)	TOTAL TRI- THION (UG/L) (39786)	TOTAL 2,4-D (UG/L) (39730)	TOTAL 2,4,5-T (UG/L) (39740)	TOTAL SILVEX (UG/L) (39760)
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MAR												
24...		.00	.00	.00	.00	.00	.00	0	.00	.00	.00	.00
SEP												
28...		.00	.00	.00	.00	.00	.00	0	.00	.00	.02	.00

## ARKANSAS RIVER BASIN

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226560 UTE RESERVOIR AT SITE B -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
MAR			
24...	0900	0	0
24...	1030	0	0
SEP			
28...	0910	0	28
28...	1000	9	23

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SEP. 28, 1976  
0910 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

120 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...OOCYSTACEAE			
....ANKISTRODES MUS		2	2
....NEPHROCYTIUM		6	5
....OOCYSTIS		13	11
....TETRAEDRON			1
...SCENEDESMACEAE			
D ....CRUCIGENIA		18	15
D ....SCENEDESMUS		29	25
..VOLVOCALES			
...PHACOTACEAE			
L ....PHACOTUS			0
..ZYGNEMATALES			
...DESMIDIACEAE	PLACODERM DESMIDS		
....STAUSTRUM			
	TOTALS	69	60
			2.092=DI
CHRYSPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		2	1
...PENNALES	PENNATE		
...NITZSCHIA			
	TOTALS	2	1
		3	2
			1.000=DI
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
L ....AGMENELLUM			0
D ....ANACYSTIS		23	19
...OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIA			
	TOTALS	22	19
		44	38
			1.000=DI
EUGLENOPHYTA	EUGLENOIDS		
..EUGLENOPHYCEAE			
...EUGLENALES			
...EUGLENACEAE			
L ....PHACUS			0

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 1.113  
 CLASS 1.113  
 ORDER 1.571  
 FAMILY 2.101  
 GENERA 2.761



## 07227000 CANADIAN RIVER AT LOGAN, NM

LOCATION.--Lat 35°21'25", long 103°25'03", in NE¼ sec.15, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080006, on left bank 1,100 ft (340 m) upstream from bridge on U.S. Highway 54, 0.7 mi (1.1 km) south of Logan, 1.4 mi (2.3 km) upstream from Chicago, Rock Island & Pacific Railroad Co. bridge, 2.0 mi (3.2 km) downstream from Ute Dam, 4.3 mi (6.9 km) upstream from Revuelto Creek, and at mile 672.0 (1,081.2 km).

DRAINAGE AREA.--11,141 mi<sup>2</sup> (28,855 km<sup>2</sup>), of which 1,110 mi<sup>2</sup> (2,875 km<sup>2</sup>) is probably noncontributing.

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

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

GAGE.--Water-stage recorder. Datum of gage is 3,668.1 ft (1,118.04 m) above mean sea level. See WSP 1311 or 1731 for history of changes prior to Oct. 1, 1934.

REMARKS.--Records fair. Flow regulated by Conchas Lake, 45 mi (72 km) upstream (station 07223500) and Ute Reservoir, 2 mi (3 km) upstream (station 07226800). Diversions for irrigation of about 90,000 acres (360 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years (1908-09, 1911-13, 1926-38) 392 ft<sup>3</sup>/s (11.10 m<sup>3</sup>/s), 284,000 acre-ft/yr (350 hm<sup>3</sup>/yr), prior to completion of Conchas Dam; 24 years (1938-62), 257 ft<sup>3</sup>/s (7.278 m<sup>3</sup>/s), 186,200 acre-ft/yr (230 hm<sup>3</sup>/yr), prior to completion of Ute Dam; 14 years (1962-76), 32.4 ft<sup>3</sup>/s (0.918 m<sup>3</sup>/s), 23,470 acre-ft/yr (28.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1925).--Maximum discharge, 219,000 ft<sup>3</sup>/s (6,200 m<sup>3</sup>/s) Sept. 22, 1941, gage height, 29.3 ft (8.93 m) from floodmarks, from rating curve extended above 75,000 ft<sup>3</sup>/s (2,100 m<sup>3</sup>/s); no flow at times prior to completion of Ute Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 278,000 ft<sup>3</sup>/s (7,870 m<sup>3</sup>/s) Sept. 30, 1904, gage height, about 36.5 ft (11.13 m), site and datum used in 1909, from rating curve extended above 14,000 ft<sup>3</sup>/s (400 m<sup>3</sup>/s), from Ninth Biennial Report of State Engineer.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 191 ft<sup>3</sup>/s (5.41 m<sup>3</sup>/s) Aug. 10, gage height, 2.94 ft (0.896 m); minimum, 0.80 ft<sup>3</sup>/s (0.023 m<sup>3</sup>/s) Dec. 1, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	1.8	1.4	2.2	2.9	2.2	2.0	2.4	1.6	2.0	2.2	2.4
2	2.4	1.8	1.4	2.4	2.9	2.2	2.0	2.2	1.6	2.0	4.4	2.4
3	2.4	1.8	1.4	2.4	2.6	2.2	2.0	2.0	1.6	2.0	2.9	2.4
4	2.4	1.8	1.4	2.4	2.6	2.2	2.4	2.0	4.2	2.2	2.4	2.4
5	2.4	1.8	1.4	2.6	2.6	2.0	2.2	2.4	7.0	2.0	2.4	2.4
6	2.4	1.8	1.4	2.4	2.8	2.0	2.0	2.2	1.8	2.0	2.4	2.9
7	2.2	1.8	1.4	2.4	3.0	2.0	2.0	2.2	1.8	2.0	2.4	3.2
8	2.2	1.8	1.4	2.4	3.2	2.0	2.0	2.2	1.8	2.0	2.4	3.2
9	2.2	1.8	1.4	2.4	3.2	2.0	2.0	2.2	1.8	2.0	2.4	2.9
10	2.2	1.8	1.3	2.4	2.9	2.0	2.0	2.0	1.8	2.0	2.3	2.9
11	2.2	1.8	1.3	2.4	2.9	2.0	1.8	2.0	1.6	2.0	2.4	2.9
12	2.2	1.8	1.3	2.4	2.9	1.6	2.0	1.8	1.4	2.2	2.0	2.9
13	2.2	1.8	1.4	2.4	2.9	1.8	2.0	2.0	1.4	2.2	2.4	2.9
14	2.2	1.8	1.4	2.4	2.9	1.8	2.0	2.0	1.4	10	2.2	13
15	2.2	1.8	1.4	2.4	2.9	1.8	2.2	2.0	1.4	2.2	2.0	2.9
16	2.2	1.8	1.4	2.4	2.9	1.8	2.2	1.8	1.6	2.2	1.8	2.9
17	2.0	1.8	1.4	2.4	2.9	1.8	2.0	1.8	1.4	1.8	1.8	2.9
18	2.0	2.0	1.6	2.4	2.9	1.8	2.0	1.6	1.6	1.8	2.0	2.6
19	2.0	2.9	1.6	2.4	3.2	2.0	2.2	1.6	2.0	1.8	2.4	2.6
20	2.0	1.8	1.6	2.4	2.9	1.8	2.2	1.8	1.8	3.6	2.6	2.6
21	1.8	1.8	1.8	2.5	2.8	1.8	2.2	2.4	1.8	3.1	2.4	2.6
22	1.8	2.0	1.8	2.6	2.7	1.8	2.2	1.8	1.8	2.0	2.4	2.6
23	1.8	1.6	1.8	2.6	2.4	1.8	2.2	1.6	1.8	2.2	2.4	2.6
24	1.8	1.6	2.0	2.6	2.4	1.8	2.2	1.6	1.8	2.4	2.4	2.6
25	1.8	1.6	2.0	2.6	2.4	1.8	2.2	1.8	1.8	2.2	2.2	2.6
26	1.8	1.6	2.0	2.6	2.4	1.8	2.2	2.2	1.8	2.0	2.2	2.6
27	1.8	1.6	2.0	2.6	2.2	1.8	2.2	1.8	1.8	2.2	2.2	2.9
28	1.8	1.6	2.0	2.6	2.2	1.8	2.2	1.6	1.8	2.6	2.2	2.6
29	1.8	1.8	2.0	2.6	2.2	2.0	2.9	1.6	1.8	2.4	2.2	2.5
30	1.8	1.8	2.0	2.6	---	2.0	3.2	1.6	2.2	2.2	2.4	2.5
31	1.8	---	2.0	2.9	---	2.0	---	2.0	---	2.2	2.4	---
TOTAL	64.2	54.3	49.7	76.8	79.7	59.4	64.9	60.2	59.0	75.5	93.9	91.4
MEAN	2.07	1.81	1.60	2.48	2.75	1.92	2.16	1.94	1.97	2.44	3.03	3.05
MAX	2.4	2.9	2.0	2.9	3.2	2.2	3.2	2.4	7.0	10	23	13
MIN	1.8	1.6	1.3	2.2	2.2	1.6	1.8	1.6	1.4	1.8	1.8	2.4
AC-FT	127	108	99	152	158	118	129	119	117	150	186	181

CAL YR 1975 TOTAL 782.6 MEAN 2.14 MAX 17 MIN 1.3 AC-FT 1550  
WTR YR 1976 TOTAL 829.0 MEAN 2.27 MAX 23 MIN 1.3 AC-FT 1640



07227100 REVUELTO CREEK NEAR LOGAN, NM -- Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA,MG) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)
NOV 12...	1300	.01	4460	8.2	--	13.5	330	0
DEC 09...	0710	1.0	3860	8.3	1.5	2.0	270	0
JAN 14...	1215	.01	3120	8.0	8.0	4.0	380	110
FEB 09...	1710	.30	4460	8.0	22.0	11.0	310	45
APR 21...	1400	.01	6520	8.1	--	26.5	330	0
JUN 09...	1530	8.9	653	8.4	--	29.0	35	0
JUL 14...	1130	--	482	9.0	--	24.0	15	0
SEP 29...	1530	34	523	8.0	--	23.0	43	0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
NOV 12...	64	41	830	20	5.6	413	0	400	990
DEC 09...	54	32	720	19	4.5	366	0	380	830
JAN 14...	76	47	520	12	4.5	335	0	550	500
FEB 09...	51	44	780	19	4.6	321	0	410	990
APR 21...	45	53	1300	31	7.8	433	0	400	1700
JUN 09...	9.4	2.8	140	10	1.9	211	4	130	23
JUL 14...	4.3	1.0	99	11	1.9	124	0	95	20
SEP 29...	12	3.2	99	6.6	2.4	173	0	95	24

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
NOV 12...	1.0	8.4	2500	2540	.14	.01	570	0
DEC 09...	.8	8.2	--	2210	.02	--	--	--
JAN 14...	.8	7.2	--	1870	.18	--	--	--
FEB 09...	.9	6.3	--	2450	.04	--	--	--
APR 21...	1.2	6.7	--	3730	.02	--	--	--
JUN 09...	.6	10	419	432	1.2	.11	290	70
JUL 14...	.4	6.4	--	293	.94	--	--	--
SEP 29...	.5	7.9	--	336	1.5	--	--	--

## ARKANSAS RIVER BASIN

07227100 REVUELTO CREEK NEAR LOGAN, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDI- MENT (MG/L) (80154)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY) (80155)
JAN 14...	1215	.01	4.0	81	.00
FEB 09...	1710	.30	11.0	58	.05
APR 21...	1400	.01	26.5	22	.00
JUN 09...	1530	8.9	29.0	318	7.6
SEP 29...	1530	34	23.0	1950	179

## ARKANSAS RIVER BASIN

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07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM  
(National stream-quality accounting network station)

LOCATION.--Lat 35°23'35", long 103°02'30", in SW¼ sec.32, T.14 N., R.37 E., Quay County, Hydrologic Unit 11080006, 0.1 mi (0.2 km) upstream from New Mexico-Texas State line, 5.5 mi (8.8 km) downstream from Rana Canyon, and 14.7 mi (23.7 km) north of Glenrio.

DRAINAGE AREA.--12,616 mi<sup>2</sup> (32,675 km<sup>2</sup>).

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

REMARKS.--Water-discharge measurements were made at the time water-quality samples were collected.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	AIR TEMPERATURE (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARDNESS (CA+MG) (MG/L) (00900)
OCT 21...	0930	5.2	7500	8.1	21.0	13.0	4	--	56	570
NOV 12...	0915	5.5	8200	8.4	6.5	3.5	4	12.0	58	600
DEC 09...	0930	8.5	8500	8.4	9.0	3.0	10	12.0	48	660
JAN 14...	0920	7.2	8400	8.4	.5	.0	15	12.2	60	760
FEB 09...	1335	12	7600	8.6	25.5	14.0	25	8.5	65	620
MAR 24...	1500	5.1	6400	8.0	26.0	23.5	5	8.4	88	610
APR 21...	1130	4.9	12000	8.0	22.5	23.0	24	9.9	27	710
MAY 13...	1000	3.0	8040	7.9	19.0	15.5	17	9.3	58	600
JUN 09...	1000	94	1240	8.3	27.5	21.5	12000	8.1	27	50
SEP 29...	1030	112	1150	8.1	19.5	13.5	200	9.1	180	51

DATE	NON-CARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DISSOLVED SULFATE (SO4) (MG/L) (00945)
OCT 21...	350	110	72	1500	27	9.2	274	0	410
NOV 12...	360	120	73	1700	30	9.4	288	0	450
DEC 09...	410	140	76	1700	29	9.9	314	0	390
JAN 14...	470	160	87	2000	32	9.6	350	0	570
FEB 09...	400	130	72	1600	28	9.8	275	0	430
MAR 24...	400	110	81	1700	30	11	256	0	440
APR 21...	480	130	93	1900	31	11	280	0	520
MAY 13...	360	110	79	1600	28	18	289	0	440
JUN 09...	0	12	4.9	240	15	2.8	198	0	140
SEP 29...	0	13	4.5	220	13	2.8	178	0	76

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

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SiO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF TUEENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)
OCT 21...	2200	.5	8.8	4420	4450	.03	.03	.01	.29
NOV 12...	2500	.5	7.8	4910	5000	.06	.06	.00	.21
DEC 09...	2500	.5	9.8	5190	4980	.39	.37	.02	.20
JAN 14...	3000	.5	9.7	6290	6010	.31	.30	.02	.36
FEB 09...	2500	.6	8.2	4940	4890	.32	.31	.03	.22
MAR 24...	2600	.6	5.3	5250	5070	.00	.02	.01	.21
APR 21...	3100	.6	4.8	5920	5900	.01	.00	.00	.22
MAY 13...	2500	.7	6.5	4760	4900	.03	.03	.02	.78
JUN 09...	210	.6	7.6	696	720	.86	.81	.04	5.9
SEP 29...	240	.5	6.3	632	655	1.0	.93	.14	.83

DATE	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DIS-SOLVED ORTHO. PHOSPHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS-SOLVED ORGANIC CARBON (C) (MG/L) (00681)	SUSPENDED ORGANIC CARBON (C) (MG/L) (00689)
OCT 21...	.33	.01	.01	370	10	40	--	3.7	--
NOV 12...	.27	.01	.01	360	10	90	--	3.2	.3
DEC 09...	.61	.01	.01	340	0	--	--	3.8	.1
JAN 14...	.69	.01	.01	400	0	--	--	1.4	.3
FEB 09...	.57	.01	.00	320	0	110	2.3	1.8	.6
MAR 24...	.22	.00	.00	340	0	--	--	4.0	.8
APR 21...	.23	.04	.00	380	160	--	--	2.9	1.7
MAY 13...	.83	.05	.00	300	30	140	--	4.4	--
JUN 09...	6.8	11	.03	250	80	--	--	--	--
SEP 29...	2.0	.43	.00	170	20	0	--	2.9	3.0

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS-SOLVED ARSENIC (AS) (UG/L) (01000)	DIS-SOLVED BORON (B) (UG/L) (01020)	TOTAL CADMIUM (CD) (UG/L) (01027)	DIS-SOLVED CADMIUM (CD) (UG/L) (01025)	TOTAL CHROMIUM (CR) (UG/L) (01034)	DIS-SOLVED CHROMIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS-SOLVED COPPER (CU) (UG/L) (01040)
OCT 21...	0930	2	2	370	20	0	30	0	<50	0	0	0
NOV 12...	0915	1	1	360	20	0	20	0	250	0	10	0
FEB 09...	1335	2	2	320	<10	0	0	0	<50	1	10	0
MAY 13...	1000	2	1	300	0	0	10	0	0	0	1	0
SEP 29...	1030	19	5	170	10	2	200	0	400	0	190	10

## ARKANSAS RIVER BASIN

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

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MANGANESE (MN) (UG/L) (01055)	DIS- SOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELENIUM (SE) (UG/L) (01147)	DIS- SOLVED SELENIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
OCT 21...	130	10	100	0	60	40	.0	.0	1	0	5	5
NOV 12...	200	10	<100	0	130	90	.0	.0	2	2	10	0
DEC 09...	480	0	<100	1	150	110	.0	.0	1	1	10	0
MAY 13...	440	30	10	10	180	140	.7	.6	0	0	20	20
SEP 29...	130000	20	400	5	6400	0	.1	.0	1	1	--	10

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT 21...	0930	51	150
NOV 12...	0915	4	52
DEC 09...	0930	7	5
JAN 14...	0920	7	820
FEB 09...	1335	0	3
MAR 24...	1500	0	60
APR 21...	1130	0	10
MAY 13...	1000	0	28
JUN 09...	1000	10000	7400
SEP 29...	1030	14000	880

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 21, 1975  
0930 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,600 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
..OOCYSTACEAE			
....ANKISTRODES MUS			
	TOTALS	78	5
		78	5
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
..COSCINODISCACEAE			
D ....CYCLOTELLA		580	37
..PENNIALES	PENNATE		
..ACHNANTHACEAE		39	2
..ACHNANTHES			
..CYMBELLACEAE			
L ....AMPHORA			0
..NAVICULACEAE	NAVICULOID		
..NAVICULA		120	7
..NITZSCHACEAE			
D ....NITZSCHIA		470	30
..SURIPELLACEAE			
D ....SURIPELLA			
	TOTALS	270	17
		1,500	93
			1.931=DI

## ARKANSAS RIVER BASIN

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 L - LESS THEN 1% MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.286  
 CLASS 0.286  
 ORDER 1.206  
 FAMILY 2.121  
 GENERA 2.121

NOV. 12, 1975  
 0915 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1.800 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
....OOCYSTACEAE			0
L ....ANKISTRODESMUS			
....SCENEDESMACEAE			
....SCENEDESMUS			
	TOTALS	27	2
		27	0.000=DI
CHRYSPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CFNTRALES	CENTRIC		
....COSCINODISCACEAE		54	3
....CYCLOTELLA		95	5
....MELOSTIRA			
..PENNALES	PENNATE		
....EUNOTIACEAE			
....EUNOTIA		14	1
....FRAGILARIACEAE			
....SYNEDRA		14	1
....NAVICULACEAE	NAVICULOID		
....AMPHIPRORA		41	2
....NAVICULA		200	11
....NITZSCHIA			
D ....NITZSCHIA		410	23
....SURIPELLACEAE			
....SURIPELLA			
	TOTALS	54	3
		880	49
			2.234=DI
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..CHROOCOCCALES	COCCOID		
....CHROOCOCCACEAE			
D ....AGMENELLUM		430	24
....ANACYSTIS		120	7
....OSCILLATORIALES	FILAMENTOUS		
....OSCILLATORIA			
D ....OSCILLATORIA			
	TOTALS	340	19
		890	50
			1.429=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 L - LESS THEN 1% MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.098  
 CLASS 1.098  
 ORDER 1.893  
 FAMILY 2.498  
 GENERA 2.899



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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DEC. 9, 1975  
0930 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

230 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
...CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		11	5
...PENNACEAE	PENNATE		
...FRAGILARIACEAE			
....SYNEDRA		22	10
...NAVICULACEAE	NAVICULOID		
D ...NAVICULA		78	33
...NITZSCHACEAE			
D ...NITZSCHIA			
TOTALS		120 230	52 100

1.549=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
ORDER 0.276  
FAMILY 1.549  
GENERA 1.549

JAN. 14, 1976  
0920 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

150 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...VOLVOCALES			
...CHLAMYDOMONADACEAE			
....CHLAMYDOMONAS		8	5
TOTALS		8	5
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
...PENNACEAE	PENNATE		
...CYMBELLACEAE			
L ...AMPHORA			0
...DIATOMACEAE			
...DIATOMA		8	5
...NAVICULACEAE	NAVICULOID		
L ...CALONEIS			0
D ...NAVICULA		80	53
...NITZSCHACEAE			
D ...NITZSCHIA		56	37
TOTALS		140	95

1.233=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
L - LESS THEN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
PHYL/DIV 0.297  
CLASS 0.297  
ORDER 0.297  
FAMILY 1.465  
GENERA 1.465

## ARKANSAS RIVER BASIN

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

FEB. 9, 1976  
1335 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,900 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
D ....AMPHIPRORA		620	33	
L ....GYROSIGMA			0	
D ....NAVICULA		350	19	
...PINNULARIA		88	5	
...NITZSCHIAEAE				
D ....NITZSCHIA		710	38	
	TOTALS	1,800	95	1.739=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
L ....AGMENELLUM			0	
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIAEAE				
...OSCILLATORIA		88	5	
	TOTALS	88	5	0.000=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 0.276  
 CLASS 0.276  
 ORDER 0.276  
 FAMILY 1.201  
 GENERA 1.933

APR. 21, 1976  
1130 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

2,600 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
L ....CHLAMYDOMONAS			0	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
...AMPHIPRORA		180	7	
L ....CALONEIS			0	
L ....GYROSIGMA			0	
L ....MASTOGLAIA			0	
D ....NAVICULA		620	24	
...NITZSCHIAEAE				
L ....NANTZSCHIA			0	
D ....NITZSCHIA		1,700	67	
...SURIPELLACEAE				
...SURIPELLA		44	2	
	TOTALS	2,600	100	1.247=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIAEAE				
L ....OSCILLATORIA			0	

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 1.010  
 GENERA 1.247

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

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAY 13, 1976

1000 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...SCENEDESMACEAE			
....SCENEDESMUS			
	TOTALS	120 120	12 12
			0.000=DI
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...FRAGILARIACEAE			
...SYNEDRA		30	3
...NAVICULACEAE	NAVICULOID		
....CALONEIS		30	3
D ....NAVICULA		330 400	32 38
	TOTALS		
			0.773=DI
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIACEAE			
D ....OSCILLATORIA		520 520	50 50
	TOTALS		
			0.000=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES: BASED ON ACTUAL COUNTS:  
 PHYL/DIV 1.394  
 CLASS 1.394  
 ORDER 1.394  
 FAMILY 1.543  
 GENERA 1.689

JUNE 9, 1976

1000 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,900 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE			
D ....COCCONEIS		760	40
...DIATOMACEAE			
D ....DIATOMA		380	20
...NAVICULACEAE	NAVICULOID		
D ....CALONEIS		380	20
...NITZSCHIAEAE			
D ....NITZSCHIA		380 1,900	20 100
	TOTALS		
			1.922=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES: BASED ON ACTUAL COUNTS:  
 FAMILY 1.922  
 GENERA 1.922

SEP. 29, 1976

1030 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

- - - NO ORGANISMS REPORTED - - -

NOTE: ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

## ARKANSAS RIVER BASIN

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

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## PERIPHYTON

DATE	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	PERI- PHYTON BIOMASS TOTAL WET WEIGHT G/SQ M (00572)	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL A MG/SQ M (32228)	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL B MG/SQ M (32226)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	Sampling method
DEC 09...	27	6.30	5.00	.300	.000	3800	Polyethylene strip
JAN 14...	36	11.0	10.0	.300	.000	1200	"
FEB 09...	26	.000	.000	.000	.000	0	"
MAY 13...	23	29.1	26.7	.378	.000	6300	"

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DFG C) (00010)	SUS- PENDE D SEDIM- ENT (MG/L) (80154)	SUS- PENDE D SEDIM- ENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 21...	0930	5.2	13.0	16	.22	50
NOV 12...	0915	5.5	3.5	17	.25	48
DEC 09...	0930	8.5	3.0	32	.73	29
JAN 14...	0920	7.2	.0	24	.47	54
FEB 09...	1335	12	14.0	65	2.1	54
MAR 24...	1500	5.1	23.5	12	.17	94
APR 21...	1130	4.9	23.0	40	.53	94
MAY 13...	1000	3.0	15.5	39	.32	67
JUN 09...	1000	94	21.5	17800	4520	98
SEP 29...	1030	112	13.5	16300	4930	98

## 7.7

LOCATION.--Lat 37°04'42", long 105°45'22", in sec.22, T.33 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank at highway bridge, 6 mi (10 km) north of Colorado-New Mexico State line, 7 mi (11 km) downstream from Culebra Creek, 10 mi (16 km) east of Lobatos, and 14 mi (23 km) east of Antonito.

WATER-DISCHARGE RECORDS

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,450 ft<sup>3</sup>/s (41.1 m<sup>3</sup>/s) May 31, gage height, 3.23 ft (0.985 m); maximum gage height, 3.40 ft (1.036 m) Nov. 27 (backwater from ice); minimum daily discharge, 31 ft<sup>3</sup>/s (0.88 m<sup>3</sup>/s) Sept. 10, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	274	466	330	230	225	520	532	594	1140	574	192	65
2	266	706	360	225	230	562	502	496	925	562	188	62
3	254	1040	325	235	230	574	520	466	800	538	206	58
4	246	1140	330	225	240	570	568	594	925	496	234	46
5	238	1240	355	215	245	500	664	664	961	514	238	44
6	226	1290	360	210	250	475	776	685	1040	502	206	43
7	226	1330	360	205	255	500	800	792	1240	466	192	41
8	223	1340	360	200	265	495	728	760	1270	425	164	40
9	209	1350	360	205	295	505	706	622	1220	400	145	33
10	212	1240	360	210	320	490	629	508	1250	360	151	31
11	216	1070	360	205	330	502	636	508	1230	302	167	34
12	212	970	360	205	355	490	760	514	1150	266	212	44
13	220	934	360	210	390	460	864	514	925	230	202	40
14	216	907	350	215	410	450	832	520	808	198	174	38
15	212	898	325	215	430	460	657	526	760	174	151	40
16	212	907	295	225	430	455	514	671	699	154	133	43
17	209	916	285	230	430	450	425	943	699	170	115	34
18	212	916	270	235	430	455	380	1020	692	170	105	33
19	234	952	265	240	430	484	350	1060	768	164	90	32
20	254	925	265	240	410	502	320	1020	736	157	80	33
21	258	916	270	240	375	508	290	856	792	190	120	34
22	254	792	275	245	380	502	266	776	824	184	139	34
23	246	671	290	245	385	502	242	792	816	170	181	31
24	258	375	295	245	375	514	238	736	752	192	184	36
25	325	340	290	240	380	574	278	678	671	216	157	44
26	395	274	285	235	395	615	345	792	550	209	130	37
27	405	320	285	230	425	671	375	916	636	242	142	44
28	425	410	275	230	460	699	410	943	636	250	120	62
29	450	370	270	230	500	685	455	1110	657	238	102	118
30	455	295	265	230	---	636	574	1320	643	223	85	118
31	440	---	255	230	---	587	---	1340	---	184	73	---
TOTAL	8482	25300	9690	6980	10275	16392	15636	23736	26215	9120	4778	1392
MEAN	274	843	313	225	354	529	521	766	874	294	154	46.4
MAX	455	1350	360	245	500	699	864	1340	1270	574	238	118
MIN	209	274	255	200	225	450	238	466	550	154	73	31
AC-FT	16820	50180	19220	13840	20380	32510	31010	47080	52000	18090	9480	2760
CAL YR 1975	TOTAL	235271	MEAN	645	MAX	2400	MIN	145	AC-FT	466700		

## RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, CO --- Continued

## WATER-QUALITY RECORDS

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

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)
OCT										
31...	1200	601	225	8.0	6.0	3	10.0	66	3	20
NOV										
28...	1200	--	275	7.6	.0	3	11.7	98	12	30
JAN										
05...	1200	--	275	7.6	.0	3	10.3	96	9	30
30...	1200	--	242	7.8	.0	3	9.7	79	1	24
FEB										
27...	1330	--	275	8.2	.5	5	10.8	86	7	26
MAR										
30...	1200	--	218	7.2	4.0	13	9.8	76	12	23
MAY										
04...	1300	601	203	7.8	11.5	26	8.6	59	4	18
25...	1300	--	370	8.4	14.0	10	9.7	120	46	36
JUL										
02...	1200	--	340	8.1	19.0	4	9.2	100	31	31
AUG										
02...	1200	--	400	7.9	21.0	20	7.5	110	11	34
30...	1330	--	380	8.2	20.0	7	8.0	120	7	35
SEP										
30...	1400	--	325	8.4	18.0	10	12.0	110	12	31
DATE		DIS- SOLVED MAG- NE- SIUM (MG) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	RICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)
OCT										
31...		4.0	11	.6	2.7	77	0	25	2.7	.2
NOV										
28...		5.5	18	.8	3.1	104	0	48	4.2	.3
JAN										
05...		5.2	15	.7	3.4	106	0	33	3.1	.2
30...		4.6	14	.7	2.9	95	0	30	3.3	.3
FEB										
27...		5.2	19	.9	3.3	97	0	48	5.5	.3
MAR										
30...		4.5	12	.6	2.7	78	0	37	3.1	.2
MAY										
04...		3.5	12	.7	2.4	67	0	32	3.5	.2
25...		6.4	23	.9	4.0	86	0	85	6.3	.3
JUL										
02...		6.4	23	1.0	3.5	89	0	68	6.1	.4
AUG										
02...		6.3	42	1.7	5.2	122	0	88	8.9	.6
30...		6.8	29	1.2	4.5	132	0	69	8.0	.4
SEP										
30...		6.7	32	1.4	5.1	113	0	75	7.0	.5

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SILICA (SI02) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (070300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (070301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (006630)	TOTAL NITRO- GEN (N) (MG/L) (006600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED IRON (FE) (01046)	DIS- SOLVED MAN- GANESE (MN) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (006680)
OCT 31...	22	141	126	.02	.87	.07	--	--	--
NOV 28...	30	187	190	.29	.59	.06	30	30	3.5
JAN 05...	33	172	175	.35	.75	.09	--	--	--
30...	29	158	155	.39	.88	.06	--	--	--
FEB 27...	25	180	180	.25	.54	.10	60	20	2.9
MAR 30...	24	145	145	.16	.61	.14	--	--	--
MAY 04...	20	131	125	.02	.77	.19	--	--	--
25...	23	246	227	.07	.72	.11	100	40	26
JUL 02...	21	206	203	.03	.16	.12	--	--	--
AUG 02...	23	273	268	.01	.56	.24	30	20	6.0
30...	21	231	239	.00	.15	.11	--	--	--
SEP 30...	22	239	235	.00	.55	.16	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL CORALT (CO) (UG/L) (01037)	DIS- SOLVED CORALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)
NOV 28...	1200	1	1	<10	0	0	0	<50	1	<10	1	420
FEB 27...	1330	2	1	<10	1	0	0	<50	0	10	1	340
MAY 25...	1300	3	2	0	0	20	0	0	0	10	1	1400
AUG 02...	1200	3	2	<10	0	0	0	<50	0	30	1	2500

DATE	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV 28...	30	<100	1	50	30	.0	.0	0	0	90	0
FEB 27...	60	<100	2	50	20	.0	.0	1	0	30	10
MAY 25...	100	5	0	100	40	.3	.3	--	1	40	0
AUG 02...	30	<100	0	200	20	.1	.0	0	0	40	0

## RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN		CHLOR-DANE		DDD		DDE		DDT	
		TOTAL ALDRIN (UG/L) (39330)	IN BOTTOM MA- TERIAL (UG/KG) (39333)	TOTAL CHLOR- DANE (UG/L) (39350)	IN BOTTOM MA- TERIAL (UG/KG) (39351)	TOTAL DDD (UG/L) (39360)	IN BOTTOM MA- TERIAL (UG/KG) (39363)	TOTAL DDE (UG/L) (39365)	IN BOTTOM MA- TERIAL (UG/KG) (39368)	TOTAL DDT (UG/L) (39370)	IN BOTTOM MA- TERIAL (UG/KG) (39373)
NOV 28...	1200	ND	--	ND	--	ND	--	ND	--	ND	--
FER 27...	1330	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 25...	1300	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 02...	1200	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	DI-AZINON		DI-ELDRIN		ENDRIN		ETHION		HEPTA-CHLOR	
	TOTAL DI-AZINON (UG/L) (39570)	IN BOTTOM MA- TERIAL (UG/KG) (39571)	TOTAL DI-ELDRIN (UG/L) (39380)	IN BOTTOM MA- TERIAL (UG/KG) (39383)	TOTAL ENDRIN (UG/L) (39390)	IN BOTTOM MA- TERIAL (UG/KG) (39393)	TOTAL ETHION (UG/L) (39398)	IN BOTTOM MA- TERIAL (UG/KG) (39399)	TOTAL HEPTA-CHLOR (UG/L) (39410)	IN BOTTOM MA- TERIAL (UG/KG) (39413)
NOV 28...	ND	--	ND	--	ND	--	ND	--	ND	--
FER 27...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 02...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	HEPTA-CHLOR EPOXIDE		LINDANE		MALA-THION		METHYL PARA-THION		METHYL TRI-THION	
	TOTAL HEPTA-CHLOR EPOXIDE (UG/KG) (39423)	IN BOTTOM MA- TERIAL (UG/L) (39340)	TOTAL LINDANE (UG/KG) (39343)	IN BOTTOM MA- TERIAL (UG/L) (39343)	TOTAL MALA-THION (UG/L) (39530)	IN BOTTOM MA- TERIAL (UG/KG) (39531)	TOTAL METHYL PARA-THION (UG/L) (39600)	IN BOTTOM MA- TERIAL (UG/L) (39601)	TOTAL METHYL TRI-THION (UG/L) (39790)	IN BOTTOM MA- TERIAL (UG/KG) (39791)
NOV 28...	--	ND	--	ND	--	ND	ND	--	ND	--
FER 27...	--	ND	--	ND	--	ND	ND	--	ND	--
MAY 25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 02...	--	ND	--	ND	--	ND	ND	--	ND	--

DATE	PARA-THION		TOX-APHENE		TRI-THION		2,4-D		2,4,5-T		SILVEX	
	TOTAL PARA-THION (UG/KG) (39541)	IN BOTTOM MA- TERIAL (UG/L) (39400)	TOTAL TOX-APHENE (UG/KG) (39403)	IN BOTTOM MA- TERIAL (UG/L) (39403)	TOTAL TRI-THION (UG/L) (39786)	IN BOTTOM MA- TERIAL (UG/KG) (39787)	TOTAL 2,4-D (UG/L) (39730)	IN BOTTOM MA- TERIAL (UG/KG) (39731)	TOTAL 2,4,5-T (UG/L) (39740)	IN BOTTOM MA- TERIAL (UG/KG) (39741)	TOTAL SILVEX (UG/L) (39760)	IN BOTTOM MA- TERIAL (UG/KG) (39761)
NOV 28...	--	ND	--	ND	--	ND	--	ND	--	ND	--	--
FER 27...	--	ND	--	ND	--	ND	--	ND	--	ND	--	--
MAY 25...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 02...	--	ND	--	ND	--	ND	--	ND	--	ND	--	--



## RIO GRANDE BASIN

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08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	IMME- DIATE COLI- FORM (COL. PER 100 ML) (31501)	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT				
31...	1200	25	--	100
NOV				
28...	1200	97	2	52
JAN				
05...	1200	9	<1	8
30...	1200	34	34	60
FEB				
27...	1330	2	<1	9
MAR				
30...	1200	22	1	40
MAY				
04...	1300	--	68	160
25...	1300	19	13	48
JUL				
02...	1200	--	77	24
AUG				
02...	1200	200	58	26
30...	1330	<1	<1	<1
SEP				
30...	1400	--	44	310

## RIO GRANDE BASIN

## 08252000 RIO GRANDE AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 37°00'03", long 105°43'19", Costilla County, Hydrologic Unit 13010002, in Sangre de Cristo Grant, on left bank 0.6 mi (1.0 km) upstream from Colorado-New Mexico State line, 1.7 mi (2.7 km) upstream from Costilla Creek, and 5.5 mi (8.8 km) west of Jarosa.

PERIOD OF RECORD.---October 1953 to current year.

REVISED RECORDS.--WSP 1732: 1954(M).

GAGE.--Water-stage recorder. Altitude of gage is 7,390 ft (2,252 m) from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

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

AVERAGE DISCHARGE.--23 years, 334 ft<sup>3</sup>/s (9.456 m<sup>3</sup>/s), 242,000 acre-ft/yr (298 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,150 ft<sup>3</sup>/s (118 m<sup>3</sup>/s) May 29, 1958, gage height, 7.07 ft (2.155 m); no flow at times in 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1905 (daily discharge, 13,100 ft<sup>3</sup>/s or 371 m<sup>3</sup>/s at station near Lobatos 5.8 mi or 9.3 km upstream), was probably the greatest since at least 1828.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,440 ft<sup>3</sup>/s (40.8 m<sup>3</sup>/s) May 31, gage height, 4.57 ft (1.393 m); maximum gage height, 4.88 ft (1.487 m) Nov. 23 (ice jam); minimum daily discharge, 29 ft<sup>3</sup>/s (0.82 m<sup>3</sup>/s) Sept. 19, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	286	470	325	235	230	515	547	563	1160	555	183	64
2	280	623	355	230	230	550	508	498	932	551	178	57
3	264	938	330	230	230	570	519	438	810	519	186	50
4	258	1050	330	230	235	520	567	555	880	487	213	46
5	249	1170	350	220	245	490	648	615	950	487	225	42
6	243	1220	360	215	250	470	738	653	986	490	204	41
7	237	1240	360	210	255	487	795	720	1180	456	186	41
8	234	1260	360	205	260	490	734	730	1250	421	169	41
9	228	1270	360	205	285	504	694	611	1190	398	152	38
10	228	1200	360	210	315	484	658	504	1200	368	152	31
11	228	1010	360	210	325	476	627	487	1180	314	166	31
12	222	915	360	205	350	484	730	504	1130	280	204	36
13	225	875	360	210	380	473	830	494	938	237	213	38
14	234	855	355	215	405	445	825	508	810	207	180	34
15	222	835	330	215	425	462	680	508	785	183	155	34
16	222	840	300	220	430	459	527	611	725	149	138	38
17	216	850	290	230	430	456	435	860	716	160	125	34
18	216	850	275	235	430	459	388	944	707	163	108	30
19	237	885	265	240	430	462	359	974	775	155	103	29
20	249	860	265	240	415	515	330	956	752	149	92	30
21	258	820	270	240	385	531	295	835	785	143	106	30
22	255	743	275	245	380	523	264	748	820	201	138	30
23	243	600	285	245	385	515	240	761	800	155	157	29
24	258	400	295	245	380	531	231	734	752	143	189	29
25	308	345	290	245	380	567	252	666	671	204	160	35
26	388	285	285	240	390	619	302	748	547	189	130	38
27	404	315	285	235	415	662	356	885	595	213	128	35
28	418	395	280	230	450	702	381	910	603	237	125	48
29	452	380	270	230	490	698	431	1080	623	219	97	86
30	459	310	265	230	---	653	515	1300	611	213	84	115
31	448	---	260	230	---	599	---	1350	---	183	76	---
TOTAL	8669	23809	9710	7025	10210	16371	15406	22750	25863	8849	4722	1260
MEAN	280	794	313	227	352	528	514	734	862	285	152	42.0
MAX	459	1270	360	245	490	702	830	1350	1250	555	225	115
MIN	216	285	260	205	230	445	231	438	547	143	76	29
AC-FT	17190	47230	19260	13930	20250	32470	30560	45120	51300	17550	9370	2500

CAL YR 1975 TOTAL 229884 MEAN 630 MAX 2440 MIN 145 AC-FT 456000  
WTR YR 1976 TOTAL 154644 MEAN 423 MAX 1350 MIN 29 AC-FT 306700

## 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 (580 m) upstream from normal high-water line of Costilla Reservoir, 2.1 mi (3.4 km) northeast of Costilla Dam, 16 mi (26 km) south-east of Costilla, and at mile 36.9 (59.4 km).

DRAINAGE AREA.--25.1 mi<sup>2</sup> (65.0 km<sup>2</sup>).

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Prior to October 1951, published as "above reservoir, near Costilla."

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

GAGE.--Water-stage recorder. Concrete control since Sept. 17, 1965. Altitude of gage is 9,429 ft (2,874 m), from topographic map. See WSP 1923 for history of changes prior to Sept. 17, 1965.

REMARKS.--Records good. Natural flow may be augmented by transbasin diversions or irrigation returns from about 1,300 acres (5.3 km<sup>2</sup>) irrigated from Casias Creek (station 08253000). Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,870 ft<sup>3</sup>/s (110 m<sup>3</sup>/s) July 22, 1954, gage height, 6.3 ft (1.92 m), from floodmarks, present site and datum, 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, 36 ft<sup>3</sup>/s (1.02 m<sup>3</sup>/s) June 6, gage height, 2.58 ft (0.786 m), no peak above base of 40 ft<sup>3</sup>/s (1.1 m<sup>3</sup>/s); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2							---	13	6.7	6.5	2.9
2	2.2							---	15	6.7	6.0	2.4
3	2.1							---	15	6.0	6.0	2.1
4	2.0							---	17	5.6	4.7	2.2
5	2.0							---	18	5.8	3.8	2.1
6	1.9							---	22	6.0	3.4	2.4
7	1.9							---	23	5.8	3.4	2.8
8	1.8							---	22	6.5	3.4	2.4
9	---							---	22	5.4	3.8	2.5
10	---							---	19	4.0	3.8	2.5
11	---							7.9	18	3.8	3.8	2.5
12	---							7.6	16	6.1	3.4	2.3
13	---							7.4	14	7.0	3.1	2.3
14	---							9.0	13	7.8	3.1	2.4
15	---							12	12	6.1	2.6	2.8
16	---							13	12	4.1	2.5	2.9
17	---							14	11	5.1	2.6	2.5
18	---							14	11	4.7	3.2	2.3
19	---							14	9.9	4.5	5.2	2.3
20	---							14	9.3	8.4	4.5	2.6
21	---							15	9.0	9.2	3.8	2.4
22	---							15	10	8.4	3.2	2.2
23	---							14	10	8.1	4.2	2.1
24	---							15	9.0	7.9	5.9	2.3
25	---							15	8.1	7.0	4.1	2.8
26	---							13	7.2	8.7	2.8	2.9
27	---							12	7.0	7.9	2.5	3.2
28	---							13	6.7	5.8	2.5	3.2
29	---							13	7.4	4.9	2.4	2.6
30	---							13	7.2	4.5	2.4	2.4
31	---							13	---	4.6	2.9	---
TOTAL	---	-	-	-	-	-	-	---	393.8	193.1	115.5	75.3
MEAN	---	-	-	-	-	-	-	---	13.1	6.23	3.73	2.51
MAX	---	-	-	-	-	-	-	---	23	9.2	6.5	3.2
MIN	---	-	-	-	-	-	-	---	6.7	3.8	2.4	2.1
AC=FT	---	-	-	-	-	-	-	---	781	383	229	149

## RIO GRANDE BASIN

08253000 CASIAS CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°53'48", long 105°15'35", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 200 ft (61 m) downstream from road crossing, 900 ft (270 m) upstream from normal high-water line of Costilla Reservoir, 1.8 mi (2.9 km) northeast of Costilla Dam, and 16 mi (26 km) southeast of Costilla.

DRAINAGE AREA.--16.6 mi<sup>2</sup> (43.0 km<sup>2</sup>).

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Records for Nov. 1-7, 1947, and Nov. 1-16, 1948, published in WSP 1118 and 1148, are unreliable and should not be used.

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,404 ft (2,866 m), from topographic map. Prior to July 18, 1940, water-stage recorder and wooden control 100 ft (30 m) downstream at datum 1.56 ft (0.475 m) lower.

REMARKS.--Records good. Diversion 3.5 mi (5.6 km) upstream for irrigation of about 1,300 acres (5.3 km<sup>2</sup>), part of which is in Costilla Creek basin. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft<sup>3</sup>/s (5.13 m<sup>3</sup>/s) July 20, 1971, gage height, 2.07 ft (0.631 m), from rating curve extended above 85 ft<sup>3</sup>/s (2.4 m<sup>3</sup>/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27 ft<sup>3</sup>/s (0.76 m<sup>3</sup>/s) June 6, gage height, 1.01 ft (0.308 m), no peak above base of 35 ft<sup>3</sup>/s (1.0 m<sup>3</sup>/s); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0								12	10	8.4	6.9
2	4.0								12	11	8.4	6.5
3	4.0								13	9.8	7.7	6.1
4	3.7								15	8.8	7.7	6.1
5	3.4								16	8.8	6.9	5.8
6	3.4								18	8.8	6.5	5.8
7	3.4								20	8.4	6.5	6.1
8	3.4								20	9.3	6.1	5.8
9									21	8.4	6.5	5.8
10									21	7.3	6.1	5.8
11								4.5	21	6.9	5.8	5.4
12								4.5	20	8.4	5.8	5.0
13								4.2	18	8.8	5.4	4.7
14								4.5	17	10	5.4	4.7
15								4.2	16	8.4	5.4	5.0
16								3.7	15	7.7	5.4	5.4
17								4.7	15	7.7	5.4	5.4
18								5.8	14	7.3	5.4	5.0
19								6.5	13	7.3	6.9	5.0
20								6.5	13	10	7.3	5.0
21								6.9	13	11	7.3	5.0
22								7.3	15	11	6.9	4.7
23								6.9	15	9.8	7.7	4.7
24								6.9	13	9.8	9.3	5.0
25								7.7	13	9.3	8.4	5.4
26								7.3	12	9.8	7.3	5.8
27								7.3	11	9.8	6.9	5.8
28								8.4	11	8.4	6.9	5.8
29								11	11	7.3	6.9	5.4
30								12	11	6.9	6.5	5.0
31								12		6.9	7.3	
TOTAL									455	273.1	210.4	163.9
MEAN									15.2	8.81	6.79	5.46
MAX									21	11	9.3	6.9
MIN									11	6.9	5.4	4.7
AC-FT									902	542	417	325

## 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 (61 m) upstream from road crossing, 1,300 ft (400 m) upstream from normal high-water line of Costilla Reservoir, 0.6 mi (1.0 km) north of Costilla Dam, and 16 mi (26 km) southeast of Costilla.

DRAINAGE AREA.--2.15 mi<sup>2</sup> (5.57 km<sup>2</sup>).

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732.

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 9,487 ft (2,892 m), from topographic map. Prior to June 27, 1940, water-stage recorder and wooden control at datum 0.99 ft (0.302 m) lower.

REMARKS.--Records fair. No diversions above or below station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18 ft<sup>3</sup>/s (0.51 m<sup>3</sup>/s) Aug. 11, 1941, July 12, 1957; maximum gage height, 1.73 ft (0.527 m) Aug. 11, 1941; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6.4 ft<sup>3</sup>/s (0.18 m<sup>3</sup>/s) at 1430 hours July 12, gage height, 0.83 ft (0.253 m), no other peak above base of 6.0 ft<sup>3</sup>/s (0.2 m<sup>3</sup>/s); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88							---	2.3	3.0	2.1	1.4
2	.88							---	2.4	2.9	1.9	1.4
3	.82							---	2.4	2.7	1.9	1.4
4	.82							---	2.6	2.6	1.9	1.4
5	.82							---	2.7	2.5	1.8	1.4
6	.77							---	3.2	2.5	1.7	1.5
7	.71							---	3.7	2.4	1.7	1.4
8	.71							---	3.8	2.3	1.7	1.4
9	---							---	3.8	2.2	1.9	1.4
10	---							---	3.8	2.1	1.8	1.4
11	---							1.0	3.9	2.1	1.8	1.4
12	---							1.0	4.0	2.7	1.8	1.3
13	---							1.0	4.1	2.2	1.7	1.3
14	---							1.2	4.3	2.2	1.7	1.3
15	---							1.3	4.4	1.9	1.6	1.4
16	---							1.5	4.3	1.9	1.5	1.3
17	---							1.6	4.4	1.8	1.5	1.2
18	---							1.6	4.2	1.8	1.5	1.2
19	---							1.6	4.2	1.7	1.9	1.4
20	---							1.7	4.0	1.9	1.8	1.4
21	---							1.8	3.9	2.3	1.7	1.3
22	---							1.7	3.8	1.9	1.6	1.3
23	---							1.6	3.6	1.9	1.9	1.2
24	---							1.7	3.4	1.9	1.9	1.2
25	---							1.8	3.4	1.8	1.6	1.4
26	---							1.9	3.3	2.1	1.5	1.3
27	---							1.9	3.2	2.1	1.4	1.4
28	---							2.0	3.2	1.9	1.6	1.3
29	---							2.1	3.2	1.8	1.5	1.3
30	---							2.2	3.1	1.8	1.4	1.2
31	---							2.2	---	2.0	1.4	---
TOTAL	---	-	-	-	-	-	-	---	106.6	66.9	52.7	40.2
MEAN	---	-	-	-	-	-	-	---	3.55	2.16	1.70	1.34
MAX	---	-	-	-	-	-	-	---	4.4	3.0	2.1	1.5
MIN	---	-	-	-	-	-	-	---	2.3	1.7	1.4	1.2
AC-FT	---	-	-	-	-	-	-	---	211	133	105	80

## RIO GRANDE BASIN

## 08253900 COSTILLA RESERVOIR NEAR COSTILLA, NM

LOCATION.--Lat 36°52'32", long 105°16'45", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on face of Costilla Dam on Costilla Creek, 16 m (26 km) southeast of Costilla, and at mile 34.8 (56.0 km).

DRAINAGE AREA.--54.6 mi<sup>2</sup> (141.4 km<sup>2</sup>).

PERIOD OF RECORD.--May 1922 to September 1965 (monthend contents only), October 1965 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.--Inclined staff gage painted on base of railroad rail on left side of control tower of Dam. Altitude of gage is -107 ft (-33 m), from topographic map.

REMARKS.--Reservoir is formed by earthfill dam faced with rock. Storage began in 1920. Capacity 15,740 acre-ft (19.4 hm<sup>3</sup>) between gage heights 9,405.0 ft (2,866.64 m), sill of outlet, and 9,513.0 ft (2,899.56 m), crest of ungated spillway cut in natural rock. No dead storage. By order of New Mexico State Engineer storage is limited to 14,540 acre-ft (17.9 hm<sup>3</sup>) maximum, and 10,880 acre-ft (13.4 hm<sup>3</sup>) for not to exceed 60 days. Diversions for irrigation of about 1,300 acres (5.26 km<sup>2</sup>) above Reservoir. Reservoir is used for irrigation.

COOPERATION.--Gage readings were collected in cooperation with New Mexico Interstate Stream Commission.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 15,130 acre-ft (18.7 hm<sup>3</sup>) June 13, 1938, June 20-23, 1941, gage height, 9,511.5 ft (2,899.11 m); no contents October 1925 to February 1926, September 1956, Aug. 22 to Sept. 24, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 4,430 acre-ft (5.46 hm<sup>3</sup>) May 18, 19, 21, gage height, 9,476.1 ft (2,888.32 m); minimum observed, 307 acre-ft (379,000 m<sup>3</sup>) Sept. 13, 14, gage height, 9,431.5 ft (2,874.72 m).

Capacity table (gage height, in feet, and contents, in acre-ft)  
(Based on original survey, furnished by New Mexico Interstate Stream Commission)

9,430	270	9,460	1,760
9,440	556	9,470	3,260
9,450	959	9,480	5,270

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	4070	2330	---	335
2	---	---	---	---	---	---	---	---	4010	2270	1380	324
3	---	---	---	---	---	---	---	---	3870	---	1310	317
4	---	---	---	---	---	---	---	---	3810	---	1300	---
5	---	---	---	---	---	---	---	---	---	2260	1290	---
6	---	---	---	---	---	---	---	---	---	2230	1280	312
7	---	---	---	---	---	---	---	---	3870	2170	---	312
8	---	---	---	---	---	---	---	---	3850	2140	---	312
9	891	---	---	---	---	---	---	---	3810	2090	1230	312
10	---	1340	---	---	---	---	---	---	3760	---	1170	312
11	---	---	---	---	---	---	---	4230	3700	---	1050	---
12	---	---	---	---	---	---	---	---	---	2070	964	---
13	---	---	---	---	---	---	---	---	---	1990	869	307
14	---	---	---	---	---	---	---	---	3680	1890	---	307
15	---	---	---	---	---	---	---	---	3550	1830	---	348
16	---	---	---	---	---	---	---	---	3440	1770	851	372
17	---	---	---	---	---	---	---	4410	3330	---	691	406
18	---	---	---	---	---	---	---	4430	3210	---	625	---
19	---	---	---	---	---	---	---	4430	---	1720	510	---
20	---	---	---	---	---	---	---	4410	---	1630	447	444
21	---	---	---	---	---	---	---	4430	3140	1550	---	466
22	---	---	---	---	---	---	---	---	2980	1500	---	487
23	---	---	---	---	---	---	---	---	2920	1460	432	506
24	---	---	---	---	---	---	---	4390	2780	---	406	523
25	---	---	---	---	---	3000	---	4350	2670	---	395	---
26	---	---	---	---	---	---	---	4310	---	1440	378	---
27	---	---	---	---	---	---	---	4250	---	1420	362	590
28	---	---	---	---	---	---	---	4190	2570	1410	---	614
29	---	---	---	---	2600	---	---	---	2510	1380	---	632
30	---	1600	---	---	---	---	3900	---	2390	1360	354	654
31	1200	---	1900	2200	---	3100	---	4130	---	1390	345	---
(†)	-	-	-	-	-	-	-	9474.6	9464.7	-	9433.0	9442.8
(‡)	+450	+400	+300	+300	+400	+500	+800	+230	-1740	-1000	-1045	+309

CAL YR 1975..... ‡ +300

WTR YR 1976..... ‡ -96

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

NOTE.--Contents interpolated at end of month except May 31, June 30, Aug. 31 and Sept. 30.

## 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 left bank 125 ft (38 m) downstream from Costilla Dam, 16 mi (26 km) southeast of Costilla, and at mile 34.7 (55.8 km).

DRAINAGE AREA.--54.6 mi<sup>2</sup> (141.4 km<sup>2</sup>).

PERIOD OF RECORD.--April 1937 to current year (no winter records 1937-44, 1947-49). 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. Altitude of gage is 9,290 ft (2,832 m), from topographic map.

REMARKS.--Records good except those below 1.0 ft<sup>3</sup>/s (0.03 m<sup>3</sup>/s), which are poor. Flow regulated by Costilla Reservoir (station 08253900). Diversions for irrigation of about 1,300 acres (5.3 km<sup>2</sup>) above Reservoir. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years (1944-47, 1949-76), 16.4 ft<sup>3</sup>/s (0.464 m<sup>3</sup>/s), 11,880 acre-ft/yr (14.6 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 286 ft<sup>3</sup>/s (8.10 m<sup>3</sup>/s) May 9, 10, 1942, gage height, 2.65 ft (0.808 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 88 ft<sup>3</sup>/s (2.49 m<sup>3</sup>/s) June 14, gage height, 1.81 ft (0.552 m); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.01	.01	.01	.01	.01	.01	.03	67	53	13	16
2	.05	.01	.01	.01	.01	.01	.01	.03	67	32	29	16
3	.03	.01	.01	.01	.01	.01	.01	.03	67	20	25	12
4	.01	.01	.01	.01	.01	.01	.01	.03	42	21	20	9.3
5	.01	.01	.01	.01	.01	.01	.01	.03	21	28	20	9.3
6	.01	.01	.01	.01	.01	.01	.01	.03	28	37	16	9.3
7	.01	.01	.01	.01	.01	.01	.01	.03	58	37	12	9.7
8	.01	.01	.01	.01	.01	.01	.01	.03	63	36	19	9.7
9	.01	.01	.01	.01	.01	.01	.01	.03	70	25	45	9.7
10	.01	.01	.01	.01	.01	.01	.01	.03	70	18	52	9.7
11	.03	.01	.01	.01	.01	.01	.01	.03	47	22	51	9.7
12	.01	.01	.01	.01	.01	.01	.01	.05	28	46	51	9.7
13	.01	.01	.01	.01	.01	.01	.01	.03	38	54	29	4.9
14	.01	.01	.01	.01	.01	.01	.01	.03	75	49	12	.09
15	.01	.01	.01	.01	.01	.01	.01	.03	84	46	22	.09
16	.01	.01	.01	.01	.01	.01	.02	.05	84	27	52	.09
17	.01	.01	.01	.01	.01	.01	.02	6.6	84	14	51	.09
18	.01	.01	.01	.01	.01	.01	.02	20	53	24	49	.07
19	.03	.01	.01	.01	.01	.01	.02	25	30	60	46	.07
20	.03	.01	.01	.01	.01	.01	.02	24	40	54	20	.05
21	.03	.01	.01	.01	.01	.01	.02	22	75	50	12	.05
22	.03	.01	.01	.01	.01	.01	.02	22	84	42	15	.05
23	.03	.01	.01	.01	.01	.01	.02	27	83	25	26	.03
24	.03	.01	.01	.01	.01	.01	.02	42	79	17	25	.03
25	.03	.01	.01	.01	.01	.01	.02	42	49	23	21	.03
26	.03	.01	.01	.01	.01	.01	.02	42	28	41	20	.03
27	.01	.01	.01	.01	.01	.01	.02	42	36	29	15	.03
28	.01	.01	.01	.01	.01	.01	.02	31	63	25	11	.03
29	.01	.01	.01	.01	.01	.01	.02	22	63	26	13	.03
30	.01	.01	.01	.01	---	.01	.02	34	59	17	16	.01
31	.01	---	.01	.01	---	.01	---	71	---	8.9	16	---
TOTAL	.61	.30	.31	.31	.29	.31	.45	473.12	1735	1006.9	824	135.87
MEAN	.020	.010	.010	.010	.010	.010	.015	15.3	57.8	32.5	26.6	4.53
MAX	.07	.01	.01	.01	.01	.01	.02	71	84	60	52	16
MIN	.01	.01	.01	.01	.01	.01	.01	.03	21	8.9	11	.01
AC-FT	1.2	.6	.6	.6	.6	.6	.9	938	3440	2000	1630	269
CAL YR 1975 TOTAL	5550.40											
WTR YR 1976 TOTAL	4177.47											
MEAN 15.2												
MAX 112												
MIN .01												
AC-FT 11010												
AC-FT 8290												

NOTE.--No gage-height record Nov. 10 to May 11.

## 08254500 COSTILLA CREEK NEAR AMALIA, NM

LOCATION.--Lat 36°52'33", long 105°23'22", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on right bank 0.5 mi (0.8 km) upstream from second bridge upstream from Amalia, 2.4 mi (3.9 km) downstream from Latir Creek, 5.8 mi (9.3 km) southeast of Amalia, 10.5 mi (16.9 km) southeast of Costilla, and at mile 25.4 (40.9 km).

DRAINAGE AREA.--152 mi<sup>2</sup> (394 km<sup>2</sup>).

PERIOD OF RECORD.--May 1949 to September 1959 and April 1961 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1732.

REVISED RECORDS.--WSP 1732: 1956(M). WSP 1923: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Sept. 27, 1965. Altitude of gage is 8,521 ft (2,597 m), from topographic map. May 1949 to May 2, 1956, at site 40 ft (12 m) upstream at datum 0.81 ft (0.247 m) lower. May 3, 1956 to Sept. 27, 1965, at site 10 ft (3 m) downstream at datum 1.81 ft (0.552 m) lower.

REMARKS.--Records good. Flow regulated by Costilla Reservoir (station 08253900) about 10 mi (16 km) upstream. Diversions for irrigation of about 1,300 acres (5.3 km<sup>2</sup>) above Costilla Reservoir. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 689 ft<sup>3</sup>/s (19.5 m<sup>3</sup>/s) Apr. 25, 1958, gage height, 3.70 ft (1.128 m), site and datum then in use; maximum gage height, 3.11 ft (0.948 m) July 27, 1966; minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 109 ft<sup>3</sup>/s (3.09 m<sup>3</sup>/s) June 6, gage height, 2.35 ft (0.716 m); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6						---	41	100	64	26	24
2	4.6						---	40	100	52	42	23
3	4.6						---	38	98	32	45	20
4	4.4						---	41	82	31	34	16
5	4.4						---	45	57	36	31	15
6	4.2						---	46	62	47	27	15
7	4.2						---	54	100	47	22	17
8	4.0						---	46	95	47	22	16
9	---						---	44	100	40	51	17
10	---						---	37	96	27	62	17
11	---						---	38	81	27	62	16
12	---						---	42	56	53	60	15
13	---						---	42	57	65	46	14
14	---						---	32	46	94	63	22
15	---						---	30	52	101	56	22
16	---						---	27	57	100	46	57
17	---						---	22	64	98	26	58
18	---						---	21	79	78	24	58
19	---						---	20	84	49	68	58
20	---						---	20	84	50	68	37
21	---						---	21	82	84	68	22
22	---						---	24	79	95	59	21
23	---						---	28	75	96	43	35
24	---						---	32	89	89	33	37
25	---						---	33	89	71	31	30
26	---						---	38	88	42	65	28
27	---						---	40	83	42	50	24
28	---						---	40	75	73	39	19
29	---						---	45	64	75	38	19
30	---						---	45	65	72	31	23
31	---						---	102	---	19	23	---
TOTAL	---	-	-	-	-	-	---	1911	2393	1395	1123	335.6
MEAN	---	-	-	-	-	-	---	61.6	79.8	45.0	36.2	11.2
MAX	---	-	-	-	-	-	---	102	101	68	62	24
MIN	---	-	-	-	-	-	---	37	42	19	19	5.1
AC-FT	---	-	-	-	-	-	---	3790	4750	2770	2230	666



## 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 (21 m) downstream from bridge on State Highway 196, 0.5 mi (0.8 km) upstream from diversion dam, 1.6 mi (2.6 km) southeast of Costilla, and at mile 15.9 (25.6 km).

DRAINAGE AREA.--195 mi<sup>2</sup> (505 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to current year (no winter records 1936-43). Monthly discharge for March 1943 and calendar-year estimates for 1942-43, published in WSP 1312.

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

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1952. Altitude of gage is 7,900 ft (2,408 m), from topographic map. Prior to June 18, 1944, at site 200 ft (61 m) downstream at different datum. June 18, 1944 to Sept. 30, 1964, at site 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Water-discharge records fair except those for December and January, which are poor. Regulation by Costilla Reservoir (station 08253900) 19 mi (31 km) upstream. Diversions for irrigation of about 2,000 acres (8.1 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--35 years (1941-76), 41.2 ft<sup>3</sup>/s (1.167 m<sup>3</sup>/s), 29,850 acre-ft/yr (36.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,150 ft<sup>3</sup>/s (32.6 m<sup>3</sup>/s) May 11, 1942, gage height, 5.37 ft (1.637 m), site and datum then in use; minimum, 0.34 ft<sup>3</sup>/s (0.010 m<sup>3</sup>/s) Mar. 15, 1969, result of freezeup.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 112 ft<sup>3</sup>/s (3.17 m<sup>3</sup>/s) May 31, gage height, 2.74 ft (0.835 m), no peak above base of 175 ft<sup>3</sup>/s (5.0 m<sup>3</sup>/s); minimum, 1.6 ft<sup>3</sup>/s (0.045 m<sup>3</sup>/s) Nov. 13, Mar. 14, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	8.3	6.5	6.0	8.7	13	19	47	104	65	31	26
2	6.9	8.0	7.0	5.5	8.8	12	20	48	102	59	42	25
3	6.8	7.6	7.5	6.0	9.0	13	19	44	104	39	54	23
4	6.3	7.9	7.5	6.0	9.9	9.3	21	48	96	36	42	18
5	6.1	7.7	8.0	6.0	11	9.3	22	52	66	37	37	17
6	5.6	7.9	8.3	7.0	11	11	22	52	63	49	33	17
7	5.5	8.1	8.1	6.0	11	12	22	59	92	49	26	19
8	5.0	9.0	8.6	6.0	11	14	27	53	90	49	25	18
9	4.9	8.4	8.8	7.0	13	12	30	53	99	46	45	18
10	5.2	6.2	10	7.0	15	12	40	46	97	32	58	19
11	5.0	7.0	9.8	6.5	12	14	45	45	88	29	58	18
12	4.9	4.8	10	7.0	13	10	47	49	62	45	58	16
13	4.8	5.0	9.7	7.5	13	11	50	49	58	60	51	15
14	4.7	6.7	9.3	6.5	13	11	47	52	80	60	28	11
15	4.6	7.3	7.8	6.5	12	12	39	57	93	56	24	8.8
16	4.7	7.1	7.0	7.0	13	11	35	61	96	52	48	8.9
17	5.5	7.7	7.5	8.0	8.8	13	32	65	94	32	56	7.9
18	5.5	8.3	7.0	8.5	10	16	30	78	86	27	57	7.2
19	5.6	7.1	7.0	8.0	11	18	30	83	58	53	59	6.7
20	5.5	6.6	7.5	8.0	9.8	14	28	85	53	61	46	7.1
21	5.9	6.1	7.0	8.0	8.0	14	28	89	74	63	28	6.4
22	6.1	5.5	7.0	8.5	8.5	15	30	83	89	64	25	6.2
23	6.6	5.5	7.0	9.0	9.0	18	32	81	93	53	32	6.0
24	5.3	5.5	7.0	10	9.0	18	37	94	90	39	40	6.1
25	4.5	6.0	6.5	9.5	9.5	21	38	97	79	36	35	7.4
26	6.2	5.5	6.5	8.6	9.5	22	43	95	50	58	31	8.7
27	7.1	6.0	7.0	9.1	9.9	17	45	91	47	56	29	10
28	6.2	6.5	7.0	9.3	11	22	46	86	66	45	23	11
29	6.1	6.5	6.5	9.3	11	17	50	70	71	41	23	10
30	6.5	6.0	7.0	8.7	---	15	51	66	71	38	24	8.6
31	8.2	---	7.0	8.7	---	15	---	102	---	24	26	---
TOTAL	178.6	205.8	238.4	234.7	309.4	441.6	1025	2080	2411	1453	1194	387.0
MEAN	5.76	6.86	7.69	7.57	10.7	14.2	34.2	67.1	80.4	46.9	38.5	12.9
MAX	8.2	9.0	10	10	15	22	51	102	104	65	59	26
MIN	4.5	4.8	6.5	5.5	8.0	9.3	19	44	47	24	23	6.0
AC-FT	354	408	473	466	614	876	2030	4130	4780	2880	2370	768

CAL YR 1975 TOTAL 14336.4 MEAN 39.3 MAX 185 MIN 3.5 AC-FT 28440  
WTR YR 1976 TOTAL 10158.5 MEAN 27.8 MAX 104 MIN 4.5 AC-FT 20150

## RIO GRANDE BASIN

08255500 COSTILLA CREEK NEAR COSTILLA, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to July 1976 (discontinued).

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE D SEDI- MENT (MG/L) (80154)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
07...	1420	5.6	13.0	8	.12	89
NOV						
17...	1440	7.7	5.0	3	.06	83
DEC						
10...	1500	10	.5	10	.27	77
JAN						
06...	1555	6.5	.0	3	.05	93
21...	1535	8.4	.0	2	.05	98
FEB						
19...	1345	14	1.0	63	2.4	67
APR						
13...	1605	43	8.0	65	7.5	--
MAY						
26...	0800	96	--	118	31	--
JUL						
08...	0945	48	--	42	5.4	--

## 08260500 COSTILLA CREEK BELOW DIVERSION DAM, AT COSTILLA, NM

LOCATION.--Lat 36°58'03", long 105°31'00", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on right bank 650 ft (200 m) downstream from diversion dam, 1.1 mi (1.8 km) southeast of Costilla, and at mile 15.3 (24.6 km).

DRAINAGE AREA.--197 mi<sup>2</sup> (510 km<sup>2</sup>).

PERIOD OF RECORD.--April 1952 to current year (no winter records).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,861 ft (2,396 m), from topographic map.

REMARKS.--Records poor. Flow partly regulated by Costilla Reservoir (station 08253900) 20 mi (32 km) upstream, and by canal headgates or sluice gates at diversion dam. Diversions above station for irrigation of about 5,000 acres (20 km<sup>2</sup>), 3,000 acres (12 km<sup>2</sup>) of which are below station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 525 ft<sup>3</sup>/s (14.9 m<sup>3</sup>/s) July 22, 1954, gage height, 4.03 ft (1.228 m); maximum gage height, 5.05 ft (1.539 m) July 24, 1957 (backwater from debris); no flow Oct. 14, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably exceeded 1,000 ft<sup>3</sup>/s (28 m<sup>3</sup>/s), based on records for upstream station (station 08255500).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 55 ft<sup>3</sup>/s (1.6 m<sup>3</sup>/s) May 21, gage height, 3.24 ft (0.988 m); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.67						---	13	14	7.2	9.1	1.3
2	.62						---	12	12	4.1	7.8	1.3
3	.62						---	6.8	12	2.7	5.9	1.3
4	.61						---	2.2	11	2.9	3.6	1.1
5	.58						---	3.1	9.5	2.8	3.6	1.1
6	.51						---	4.1	10	3.5	3.4	1.2
7	.52						---	12	18	2.9	3.3	1.3
8	---						---	5.6	8.7	2.8	3.5	1.2
9	---						---	5.4	9.1	2.6	3.8	1.1
10	---						---	2.3	9.1	2.3	4.7	1.0
11	---						---	2.2	8.7	2.3	4.6	.94
12	---						---	2.3	8.1	2.6	8.8	.87
13	---						---	.97	2.6	9.1	21	.87
14	---						---	1.4	4.7	12	12	.80
15	---						---	.73	12	9.1	2.4	.67
16	---						---	.73	10	7.8	2.3	.67
17	---						---	.73	13	7.2	2.1	.67
18	---						---	.73	17	15	2.4	.67
19	---						---	.73	20	26	4.3	.67
20	---						---	.73	19	5.6	4.0	.73
21	---						---	.73	27	9.5	4.5	.73
22	---						---	.73	31	9.1	5.7	.73
23	---						---	.73	18	8.5	3.4	.73
24	---						---	.80	21	8.4	2.9	.73
25	---						---	.80	18	6.9	2.7	.73
26	---						---	14	18	2.8	5.1	.80
27	---						---	23	15	2.6	4.1	.80
28	---						---	11	14	5.2	3.0	.80
29	---						---	12	12	9.1	3.1	.80
30	---						---	13	10	11	3.3	.80
31	---						---	---	17	---	3.2	---
TOTAL	---	-	-	-	-	-	---	370.3	295.1	102.9	130.1	27.11
MEAN	---	-	-	-	-	-	---	11.9	9.84	3.32	4.20	.90
MAX	---	-	-	-	-	-	---	31	26	7.2	21	1.3
MIN	---	-	-	-	-	-	---	2.2	2.6	2.1	1.3	.67
AC-FT	---	-	-	-	-	-	---	734	585	204	258	54

## 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 (0.6 km) downstream from old State Highway 3, 0.5 mi (0.8 km) upstream from New Mexico-Colorado State line, 0.9 mi (1.4 km) south of Garcia, and at mile 13.3 (21.4 km).

DRAINAGE AREA.--200 mi<sup>2</sup> (520 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--June 1944 to current year (no winter records).

GAGE.--Water-stage recorder. Concrete control since Oct. 9, 1956. Altitude of gage is 7,758 ft (2,365 m), from topographic map. Prior to Apr. 20, 1950, at site 0.4 mi (0.6 km) downstream at different datum.

REMARKS.--Records good except those below 2 ft<sup>3</sup>/s (0.06 m<sup>3</sup>/s), which are fair. Flow partly regulated by Costilla Reservoir (station 08253900) 22 mi (35 km) upstream. Diversions above station for irrigation of about 5,500 acres, (22 km<sup>2</sup>), 2,000 acres (8.1 km<sup>2</sup>) of which are below station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 460 ft<sup>3</sup>/s (13.0 m<sup>3</sup>/s) July 24, 1957, gage height, 4.76 ft (1.451 m); no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably reached a discharge of 1,000 ft<sup>3</sup>/s (28 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft<sup>3</sup>/s (0.96 m<sup>3</sup>/s) May 21, June 19, gage height, 2.99 ft (0.911 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

OAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0						---	6.3	8.0	3.2	.98	
2	0						---	6.2	6.3	1.9	1.3	
3	0						---	3.0	6.8	.50	.68	
4	0						---	0	6.8	.34	.02	
5	0						---	.17	6.0	.28	0	
6	0						---	.70	6.3	.47	0	
7	0						---	5.8	9.7	0	0	
8	0						---	3.4	4.7	0	0	
9	0						---	2.7	4.9	0	0	
10	---						---	.36	4.9	0	0	
11	---						---	0	5.3	0	0	
12	---						0	0	4.7	0	0	
13	---						0	0	6.8	0	3.0	
14	---						0	0	8.6	0	5.9	
15	---						0	2.2	8.1	0	0	
16	---						0	3.0	6.8	0	.32	
17	---						0	5.1	5.5	0	0	
18	---						0	7.3	7.9	0	0	
19	---						0	11	16	0	0	
20	---						0	12	.02	0	0	
21	---						0	17	3.0	.02	0	
22	---						0	20	3.9	.42	0	
23	---						0	11	2.5	0	0	
24	---						0	12	2.9	0	0	
25	---						0	8.7	3.0	0	0	
26	---						2.8	8.1	.08	.26	0	
27	---						11	6.8	0	.28	0	
28	---						2.4	6.3	.67	0	0	
29	---						4.5	3.9	2.6	0	0	
30	---						5.8	3.4	4.7	0	0	
31	---						---	7.6	---	0	0	---
TOTAL	---	-	-	-	-	-	---	174.03	157.47	7.67	12.20	0
MEAN	---	-	-	-	-	-	---	5.61	5.25	.25	.39	0
MAX	---	-	-	-	-	-	---	20	16	3.2	5.9	0
MIN	---	-	-	-	-	-	---	0	0	0	0	0
AC-FT	---	-	-	-	-	-	---	345	312	15	24	0

## PRINCIPAL DIVERSIONS FROM COSTILLA CREEK, NEW MEXICO-COLORADO

Records of discharge are collected at 8 gaging stations on 3 diversions from Costilla Creek. Water diverted is used for irrigation in the Sangre de Cristo Grant in New Mexico and Colorado below the gaging station on Costilla Creek near Costilla, NM (station 08255500). Records collected during irrigation season only. Several observations of water temperature were made at each site during the year.

- 08256000 ACEQUIA MADRE AT COSTILLA, NM.--Lat 36°58'03", long 105°30'57", Taos County, Hydrologic Unit 13020101, 275 ft (84 m) downstream from diversion dam, and 1.2 mi (1.9 km) southeast of the intersection of State Highways 3 and 196 at Costilla. PERIOD OF RECORD, May 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,870 ft (2,399 m), from topographic map. Acequia diverts from right bank of Costilla Creek.  
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s) June 25, 1944, July 31, 1945; no flow at times.  
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 17 ft<sup>3</sup>/s (0.48 m<sup>3</sup>/s) June 20; no flow at times.
- 08256500 MESA DITCH NEAR GARCIA, CO.--Lat 36°59'50", long 105°30'49", Costilla County, Hydrologic Unit 13020101, 429 ft (130 m) north of milepost No. 136 + 54 on New Mexico-Colorado State line, and 1.4 mi (2.3 km) east of Garcia. PERIOD OF RECORD, June 1944 to September 1965, May 1969 to current year. GAGE, nonrecording gage and Parshall flume. Altitude of gage is 7,780 ft (2,371 m), from topographic map. Prior to June 1971, recording gage near present site at different datum. Ditch diverts from right bank of Acequia Madre for irrigation in Colorado.  
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 21 ft<sup>3</sup>/s (0.59 m<sup>3</sup>/s) June 25, 1944, Aug. 3, 7, 1945; no flow at times.  
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1.7 ft<sup>3</sup>/s (0.048 m<sup>3</sup>/s) June 8; no flow most of time.
- 08257500 CORDILLERA DITCH AT GARCIA, CO.--Lat 36°59'41", long 105°31'39", Taos County, Hydrologic Unit 13020101, 570 ft (170 m) south of New Mexico-Colorado State line, and 0.9 mi (1.4 km) southeast of Garcia. PERIOD OF RECORD, June 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,750 ft (2,362 m), from topographic map. Ditch diverts from left bank of Acequia Madre for irrigation in Colorado.  
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) June 13, 15, July 11, 1961; no flow at times.  
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) May 12, 13; no flow many days.
- 08258000 CERRO CANAL AT COSTILLA, NM.--Lat 36°57'56", long 105°31'07", Taos County, Hydrologic Unit 13020101, 1,400 ft (430 m) downstream from diversion dam, and 1.2 mi (1.9 km) southeast of the intersection of State Highways 3 and 196 at Costilla. PERIOD OF RECORD, April 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,870 ft (2,399 m), from topographic map. Canal diverts from left bank of Costilla Creek.  
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 135 ft<sup>3</sup>/s (3.82 m<sup>3</sup>/s) Aug. 5, 6, 1970; no flow at times.  
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 77 ft<sup>3</sup>/s (2.18 m<sup>3</sup>/s) June 9, 16, 17; no flow part of Apr. 26, 27.
- 08258600 CERRO CANAL BELOW ASSOCIATION DITCH AT COSTILLA, NM.--Lat 36°57'41", long 105°32'05", Taos County, Hydrologic Unit 13020101, 220 ft (67 m) downstream from Association ditch, and 1.2 mi (1.9 km) south of the intersection of State Highways 3 and 196 at Costilla. PERIOD OF RECORD, May 1972 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,820 ft (2,384 m), from topographic map.  
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 81 ft<sup>3</sup>/s (2.29 m<sup>3</sup>/s) July 18, 19, 1973; no flow at times.  
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 46 ft<sup>3</sup>/s (0.88 m<sup>3</sup>/s) Apr. 13; no flow part of Apr. 27, June 19, Aug. 14.
- 08259500 NEW MEXICO BRANCH CERRO CANAL NEAR JAROSO, CO.--Lat 36°59'37", long 105°34'28", Taos County, Hydrologic Unit 13020101, 45 ft (14 m) downstream from headgate, and 2.7 mi (4.3 km) east of Jaroso. PERIOD OF RECORD, June 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,680 ft (2,341 m), from topographic map. Canal diverts from left bank of Cerro Canal for irrigation in New Mexico.  
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 29 ft<sup>3</sup>/s (0.82 m<sup>3</sup>/s) July 21, 1948; no flow at times.  
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5.8 ft<sup>3</sup>/s (0.16 m<sup>3</sup>/s) July 20; no flow many days.
- 08259600 CERRO CANAL AT STATE LINE NEAR JAROSO, CO.--Lat 36°59'41", long 105°34'36", Taos County, Hydrologic Unit 13020101, 780 ft (240 m) downstream from head of N. Mex. branch Cerro Canal, and 2.7 mi (4.3 km) east of Jaroso. PERIOD OF RECORD, April 1973 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,680 ft (2,341 m), from topographic map. Flow measured is delivered to Colorado.  
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 68 ft<sup>3</sup>/s (1.93 m<sup>3</sup>/s) July 18, 19, 1973; no flow at times.  
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 41 ft<sup>3</sup>/s (1.16 m<sup>3</sup>/s) Apr. 14; no flow Sept. 20, 21.
- 08262000 EASTDALE NO. 1 INTAKE CANAL NEAR JAROSO, CO.--Lat 37°02'25", long 105°36'18" (corrected), Costilla County, Hydrologic Unit 13020101, 750 ft (230 m) downstream from headgate, and 2.8 mi (4.5 km) north of Jaroso. PERIOD OF RECORD, June 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,585 ft (2,312 m), from topographic map. Canal diverts from right bank of Costilla Creek to Eastdale Reservoir No. 1 for irrigation in Colorado.  
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 112 ft<sup>3</sup>/s (3.17 m<sup>3</sup>/s) May 16, 1958; no flow for long periods.  
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 42 ft<sup>3</sup>/s (1.19 m<sup>3</sup>/s) Apr. 13; no flow for long periods.

## MONTHLY DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	08256000 Acequia Madre	08256500 Mesa ditch	08257500 Cordillera ditch	08258000 Cerro Canal at Costilla	08258600 Cerro Canal below Association ditch	08259500 New Mexico branch Cerro Canal	08259600 Cerro Canal at State line nr Jaroso	08262000 Eastdale No. 1 intake canal
October . . . . .	-	-	-	-	-	-	-	0
November . . . . .	-	-	-	-	-	-	-	0
December . . . . .	-	-	-	-	-	-	-	0
January . . . . .	-	-	-	-	-	-	-	-
February . . . . .	-	-	-	-	-	-	-	-
March . . . . .	-	-	-	-	-	-	-	68
April . . . . .	-	-	-	-	-	-	-	1,210
May . . . . .	758	2.7	30	2,630	1,130	147	973	23
June . . . . .	758	6.8	15	3,470	1,090	84	983	0
July . . . . .	772	4.2	15	1,920	1,040	76	918	0
August . . . . .	640	0	7.5	1,490	675	62	605	0
September . . . . .	344	2.3	11	372	212	0	178	0

## 08263500 RIO GRANDE NEAR CERRO, NM

LOCATION.--Lat 36°44'24", long 105°40'59", in NE 1/4 sec. 20, T. 29 N., R. 12 E., Taos County, Hydrologic Unit 13020101, on left bank 4 mi (6 km) southwest of Cerro, 5.5 mi (8.8 km) northwest of Questa, 7.4 mi (11.9 km) upstream from Red River, and at mile 1.693.1 (2.724.2 km).

DRAINAGE AREA.--8,440 mi<sup>2</sup> (21,860 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--May 1948 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,110 ft (2,167 m), from topographic map.

REMARKS.--Records good except those for September, which are poor. Diversions above station for irrigation of about 620,000 acres (2,500 km<sup>2</sup>) in Colorado and 7,000 acres (28 km<sup>2</sup>) in New Mexico. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 383 ft<sup>3</sup>/s (10.85 m<sup>3</sup>/s), 277,500 acre-ft/yr (342 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,740 ft<sup>3</sup>/s (276 m<sup>3</sup>/s) June 22, 1949, gage height, 15.78 ft (4,810 m); minimum, 43 ft<sup>3</sup>/s (1.22 m<sup>3</sup>/s) Sept. 22, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft<sup>3</sup>/s (28 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Nov. 9	1530	1350	38.2	7.17	2.185
May 31	2000	*1380	39.1	7.24	2.207

Minimum discharge, about 62 ft<sup>3</sup>/s (1.76 m<sup>3</sup>/s) about Sept. 24.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	314	521	310	272	258	555	604	613	1220	602	222	116
2	304	564	406	243	260	590	553	606	1040	579	227	107
3	297	937	369	260	262	631	540	496	874	559	253	100
4	289	1090	340	262	268	606	577	533	851	536	254	96
5	279	1190	373	245	275	508	643	648	979	494	251	90
6	274	1260	391	238	282	484	739	706	976	521	246	90
7	267	1290	389	237	287	550	832	732	1100	494	224	88
8	260	1320	383	232	290	566	802	832	1220	470	214	86
9	255	1330	389	227	309	544	744	706	1180	427	198	84
10	251	1310	387	237	347	536	732	620	1170	406	190	84
11	256	1160	385	238	355	510	667	533	1160	364	185	80
12	251	1020	383	232	374	514	719	550	1120	321	198	76
13	248	970	387	234	406	514	854	533	1010	297	240	78
14	255	940	387	242	438	488	871	566	840	270	224	80
15	256	925	374	242	462	482	802	546	813	240	202	78
16	250	913	338	248	466	480	636	581	757	220	185	78
17	248	931	316	260	458	486	519	797	724	200	180	76
18	245	940	314	260	466	480	444	964	712	210	175	74
19	251	967	299	265	460	484	406	973	755	210	170	70
20	270	937	294	268	468	508	374	1010	781	200	165	70
21	282	885	290	270	414	542	344	925	768	230	150	68
22	287	840	306	268	402	550	314	821	832	240	165	68
23	279	700	314	274	431	538	289	786	808	230	190	66
24	274	640	323	272	408	536	268	805	805	220	205	64
25	292	400	323	270	410	559	267	734	719	240	210	68
26	369	340	318	267	414	611	301	719	629	270	185	76
27	423	290	313	260	440	658	358	890	583	260	160	86
28	438	425	314	258	476	712	402	928	631	280	165	75
29	474	468	299	260	512	719	444	1010	641	270	160	83
30	514	340	297	256	---	702	519	1210	648	253	140	126
31	517	---	296	256	---	650	---	1330	---	240	125	---
TOTAL	9469	25843	10607	7853	11098	17293	16564	23703	26346	10353	6058	2481
MEAN	305	861	342	253	383	558	552	765	878	334	195	82.7
MAX	517	1330	406	274	512	719	871	1330	1220	602	254	126
MIN	245	290	290	227	258	480	267	496	583	200	125	64
AC-FT	18780	51260	21040	15580	22010	34300	32850	47010	52260	20540	12020	4920
CAL YR 1975 TOTAL	242111		MEAN 663	MAX 2360	MIN 175	AC-FT 480200						
WTR YR 1976 TOTAL	167668		MEAN 458	MAX 1330	MIN 64	AC-FT 332600						

## 08265000 RED RIVER NEAR QUESTA, NM

LOCATION.--Lat 36°42'12", long 105°34'04", in NE¼SE¼ sec.32, T.29 N., R.13 E. (projected), Taos County, Hydrologic Unit 13020101, in Carson National Forest, on left bank 1.3 mi (2.1 km) upstream from Cabresto Creek, 1.5 mi (2.4 km) east of Questa, and at mile 9.0 (14.5 km).

DRAINAGE AREA.--113 mi<sup>2</sup> (293 km<sup>2</sup>).

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

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

GAGE.--Water-stage recorder. Wood or concrete control since Mar. 20, 1936. Datum of gage is 7,451.92 ft (2,271.345 m) above mean sea level. See WSP 1923 for history of changes prior to Oct. 4, 1938.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of a few hundred acres above station. Figures of discharge do not include flow in South ditch which diverts from left bank 1,500 ft (460 m) upstream and bypasses gage for irrigation and stock water below. Several observations of water temperature were made during the year.

Since January 1966 tailings pipelines from Molybdenum Corp. of America (Molycorp) refinery 5.5 mi (8.8 km) upstream bypass gage on left bank and discharge into settling pond 3 mi (5 km) downstream. Effluent from this pond enters Red River as surface water and is included in discharge at Red River at mouth near Questa (station 08267000). See tabulation below for monthly discharge through tailings pipelines (records furnished by Molycorp).

AVERAGE DISCHARGE.--52 years (1912-25, 1926-65) 55.9 ft<sup>3</sup>/s (1.583 m<sup>3</sup>/s), 40,500 acre-ft/yr (49.9 hm<sup>3</sup>/yr), prior to extensive upstream diversions by Molycorp; 11 years (1965-76) 31.2 ft<sup>3</sup>/s (0.884 m<sup>3</sup>/s), 22,600 acre-ft/yr (27.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1929).--Maximum discharge, 886 ft<sup>3</sup>/s (25.1 m<sup>3</sup>/s) May 25, 1942, from rating curve extended above 450 ft<sup>3</sup>/s (13 m<sup>3</sup>/s); maximum gage height, 4.47 ft (1.362 m) June 14, 1973; minimum discharge, 1.5 ft<sup>3</sup>/s (0.042 m<sup>3</sup>/s) Nov. 23, 1957.

The maximum discharge of May 25, 1942, may have been equalled or exceeded by the peak of June 15, 1921.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 184 ft<sup>3</sup>/s (5.21 m<sup>3</sup>/s) June 6, gage height, 3.57 ft (1.088 m), no other peak above base of 160 ft<sup>3</sup>/s (4.5 m<sup>3</sup>/s); minimum, 3.2 ft<sup>3</sup>/s (0.091 m<sup>3</sup>/s) Nov. 23, but may have been less during periods of ice effect.

DISCHARGE\* IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	16	3.4	9.0	11	11	12	64	114	58	29	19
2	21	17	4.0	7.0	11	10	13	63	115	60	29	18
3	21	16	4.4	6.0	11	9.8	13	66	124	54	50	17
4	21	15	4.3	7.0	9.7	8.7	15	74	133	52	45	15
5	19	15	4.5	8.0	10	8.0	16	78	139	54	35	14
6	21	14	4.6	10	9.9	10	17	75	145	51	31	14
7	19	14	4.6	10	8.9	11	17	74	152	47	29	17
8	18	14	5.5	9.0	8.8	12	18	69	151	46	27	16
9	20	15	6.4	10	10	11	22	65	157	46	26	15
10	19	14	7.6	11	12	9.7	29	64	156	42	27	16
11	19	15	8.8	11	9.4	11	36	66	151	40	25	15
12	20	12	10	11	11	9.5	40	76	139	40	24	15
13	19	12	11	11	11	9.0	43	75	126	43	23	14
14	20	13	12	10	11	10	41	79	116	43	22	14
15	19	13	9.6	11	9.6	11	37	92	109	40	20	14
16	20	14	10	11	9.1	11	34	105	101	38	20	14
17	20	15	11	11	9.4	11	30	114	96	38	20	13
18	20	15	11	11	8.5	12	30	123	92	35	20	12
19	20	14	10	11	9.0	12	29	123	89	34	24	12
20	20	12	10	10	9.7	12	27	122	87	33	21	13
21	20	7.2	11	10	7.3	10	29	128	87	38	21	12
22	19	5.2	11	10	7.0	11	32	130	90	41	26	13
23	19	8.4	11	10	10	14	38	124	92	36	19	13
24	16	9.0	10	11	14	14	44	121	84	37	23	12
25	16	9.5	9.0	9.9	13	16	49	121	80	36	22	14
26	17	7.0	10	7.8	12	16	57	113	74	46	19	17
27	17	8.0	10	9.4	11	14	60	108	68	42	17	20
28	17	7.0	9.5	12	11	15	61	115	66	37	17	18
29	18	5.4	9.0	12	11	16	69	120	63	31	17	17
30	17	4.2	9.0	11	---	13	70	124	60	28	15	15
31	16	---	9.5	11	---	12	---	117	---	27	16	---
TOTAL	590	355.9	261.7	309.1	296.3	360.7	1028	2988	3256	1293	753	448
MEAN	19.0	11.9	8.44	9.97	10.2	11.6	34.3	96.4	109	41.7	24.3	14.9
MAX	22	17	12	12	14	16	70	130	157	60	50	20
MIN	16	4.2	3.4	6.0	7.0	8.0	12	63	60	27	15	12
AC-FT	1170	706	519	613	588	715	2040	5930	6460	2560	1490	889
(†)	634	613	609	598	577	640	598	641	609	632	590	612
CAL YR 1975 TOTAL	15650.6											
WTR YR 1976 TOTAL	11939.7											
MEAN	42.9											
MAX	190											
MIN	3.4											
AC-FT	31040											
WTR	23680											

† Diversion, in acre-ft, through Molycorp tailings pipelines.

## 08266000 CABRESTO CREEK NEAR QUESTA, NM

LOCATION.--Lat 36°43'50", long 105°33'12", in SE¼SE¼ sec.21, T.29 N., R.13 E., Taos County, Hydrologic Unit 13020101, in Carson National Forest, on right bank 900 ft (270 m) downstream from Llano ditch heading, 2.6 mi (4.2 km) downstream from Lake Fork, 3 mi (5 km) northeast of Questa, and at mile 3.5 (5.6 km).

DRAINAGE AREA.--36.7 mi<sup>2</sup> (95.1 km<sup>2</sup>).

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

REVISED RECORDS.--WSP 1712: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,845 ft (2,391 m) above mean sea level (river-profile survey).

REMARKS.--Records good. Llano ditch (station 08265500), the only diversion above station, diverts from right bank 900 ft (270 m) above gage for irrigation of about 800 acres (3.2 km<sup>2</sup>) below. See tabulation below for monthly diversion of Llano ditch (records of daily discharge available in District files). Flow regulated by Cabresto Reservoir (capacity, 732 acre-feet or 903,000 m<sup>3</sup>, after reconstruction in 1928) on Lake Fork 1 mi (2 km) above mouth. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 9.42 ft<sup>3</sup>/s (0.267 m<sup>3</sup>/s), 6,820 acre-ft/yr (8.41 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft<sup>3</sup>/s (4.98 m<sup>3</sup>/s) June 8, 1957, gage height, 4.44 ft (1.353 m); minimum, 0.44 ft<sup>3</sup>/s (0.012 m<sup>3</sup>/s) Dec. 2, 1950, result of freezeup.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26 ft<sup>3</sup>/s (0.74 m<sup>3</sup>/s) Apr. 28, gage height, 1.68 ft (0.512 m); maximum gage height, 1.95 ft (0.594 m) Apr. 12 (backwater from checkboard); minimum discharge, 1.2 ft<sup>3</sup>/s (0.034 m<sup>3</sup>/s) Jan. 2, Feb. 18, Mar. 12, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	5.6	2.5	4.3	4.7	5.0	6.3	20	13	10	11	6.3
2	3.2	5.5	3.0	3.2	4.6	5.0	6.2	18	12	10	10	6.2
3	3.2	5.6	3.5	3.1	4.6	5.1	6.3	16	12	11	13	5.6
4	3.3	5.5	3.3	3.8	4.5	4.3	6.7	16	12	11	11	5.3
5	3.2	5.4	3.5	4.4	4.4	4.2	6.9	16	12	11	9.7	5.2
6	3.2	5.4	3.7	4.5	4.4	4.6	7.0	15	12	10	9.2	5.3
7	3.3	5.2	4.0	4.5	4.3	5.1	7.1	15	13	11	8.9	5.6
8	3.3	5.1	4.5	4.3	4.3	5.2	7.9	14	12	11	8.7	5.3
9	3.4	5.2	4.8	4.7	4.6	5.0	8.8	14	12	11	8.8	5.2
10	3.4	4.7	5.0	4.7	4.7	4.9	10	14	12	10	8.8	5.4
11	3.3	4.9	5.4	4.7	4.3	5.1	13	14	11	10	8.4	5.3
12	3.4	3.9	5.5	4.7	4.5	4.4	14	14	11	11	8.2	5.0
13	3.5	4.0	5.5	4.7	4.5	4.1	14	13	11	11	8.2	4.9
14	3.7	4.2	5.5	4.6	4.7	4.6	13	13	11	11	8.3	4.7
15	3.9	4.1	3.7	4.7	4.3	5.1	12	14	12	11	7.6	4.7
16	4.0	4.0	3.9	4.7	4.5	4.6	12	14	12	11	7.3	4.7
17	4.0	4.0	4.2	4.7	4.2	5.1	10	14	11	11	7.2	4.7
18	4.0	4.1	4.1	4.7	3.3	5.2	11	14	11	11	7.5	4.5
19	4.1	3.9	3.9	4.7	4.0	5.8	10	14	11	12	7.9	4.5
20	4.2	3.7	4.1	4.6	4.0	5.1	9.9	14	11	12	7.2	4.6
21	4.1	3.6	5.3	4.7	3.5	4.5	10	14	11	10	7.2	4.5
22	4.2	2.7	5.5	5.0	3.5	5.3	11	13	11	9.9	6.8	4.4
23	4.3	3.3	5.4	5.1	4.6	6.0	11	13	11	9.0	6.8	4.4
24	4.2	4.4	5.3	5.2	4.8	6.5	13	12	10	9.5	7.2	4.3
25	4.0	4.6	4.7	4.8	4.7	6.8	15	12	10	9.4	7.3	4.7
26	4.2	4.5	5.2	3.9	4.6	7.0	17	11	11	12	6.6	5.2
27	4.3	4.6	5.1	4.7	4.8	6.5	19	12	11	13	6.2	5.9
28	4.4	5.0	4.9	5.0	4.9	7.5	21	11	12	11	6.1	5.8
29	4.5	4.1	4.4	4.9	5.0	6.6	24	11	12	9.7	6.2	5.4
30	4.8	2.6	4.3	4.9	---	5.7	22	11	11	9.0	6.0	5.1
31	5.4	---	4.8	4.8	---	5.6	---	13	---	8.6	6.2	---
TOTAL	119.2	133.4	138.5	141.3	127.8	165.5	355.1	429	344	328.1	249.5	152.7
MEAN	3.85	4.45	4.47	4.56	4.41	5.34	11.8	13.8	11.5	10.6	8.05	5.09
MAX	5.4	5.6	5.5	5.2	5.0	7.5	24	20	13	13	13	6.3
MIN	3.2	2.6	2.5	3.1	3.3	4.1	6.2	11	10	8.6	6.0	4.3
AC-FT	236	265	275	280	253	328	704	851	682	651	495	303
(†)	0	--	--	--	--	--	--	970	499	183	.6	0
CAL YR 1975	TOTAL	3510.8	MEAN 9.62	MAX 47	MIN 2.0	AC-FT 6960						
WTR YR 1976	TOTAL	2684.1	MEAN 7.33	MAX 24	MIN 2.5	AC-FT 5320						

† Diversion, in acre-ft, by Llano ditch.



REMARKS.--Water-discharge measurements were made at the time water-quality samples were collected.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPERATURE (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	HARDNESS (CA+MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)
OCT 01...	0915	45	295	7.7	5.5	10.5	3	120	40
NOV 18...	0940	41	503	7.5	7.0	7.0	2	200	130
DEC 09...	1700	31	310	7.6	0	10.0	3	110	28
JAN 05...	1035	46	691	7.1	-4.0	4.5	2	310	240
FEB 19...	1030	54	550	9.9	10.0	10.0	7	230	210
MAR 17...	0905	30	324	9.4	--	6.0	3	85	29
APR 14...	0920	49	247	7.6	6.0	9.0	9	94	26
MAY 13...	1025	105	213	7.5	12.0	8.0	20	90	30
JUN 09...	1310	188	205	7.4	17.0	12.0	25	73	19
JUL 07...	1525	68	396	7.5	--	17.0	4	160	93
AUG 05...	1300	65	517	7.2	24.0	17.5	10	220	160
31...	1450	41	420	7.8	20.0	17.0	--	--	--

[illegible]

## RIO GRANDE BASIN

08266800 RED RIVER AT FISH HATCHERY, NEAR QUESTA, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT								
01...	.8	17	--	189	.18	--	--	--
NOV								
18...	.9	19	--	324	.28	--	--	--
DEC								
09...	1.0	20	201	200	.48	.05	--	--
JAN								
05...	1.1	17	479	476	.73	.01	--	--
FEB								
19...	1.0	.7	396	381	.03	.00	--	--
MAR								
17...	1.0	7.3	160	161	.00	.00	--	--
APR								
14...	.7	17	163	165	.30	.01	30	70
MAY								
13...	.5	14	139	143	.17	.01	--	--
JUN								
09...	.4	9.5	111	106	.20	.03	--	--
JUL								
07...	.8	15	256	250	.27	.04	--	--
AUG								
05...	.8	13	343	346	.01	.01	--	--
31...	--	--	--	--	--	--	--	--

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL MOLYB- DENUM (MO) (UG/L) (01062)
OCT				
01...	0915	--	--	60
NOV				
18...	0940	--	--	94
DEC				
09...	1700	--	--	76
JAN				
05...	1035	--	--	290
FEB				
19...	1030	--	--	190
MAR				
17...	0905	--	--	66
APR				
14...	0920	30	70	45
MAY				
13...	1025	--	--	30
JUN				
09...	1310	--	--	23
JUL				
07...	1525	--	--	140
AUG				
05...	1300	--	--	270

08266800 RED RIVER AT FISH HATCHERY, NEAR QUESTA, NM -- Continued

## INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	TEMPER- ATURE (DEG C) (00010)	SUS- PEN- DED SEDIM- ENT (MG/L) (80154)	SUS- PEN- DED SEDIM- ENT DIS- CHARGE (T/DAY) (80155)
NOV					
03...	1410	39	10.0	12	1.3
10...	0720	36	10.5	53	5.2
18...	0940	41	7.0	56	6.3
DEC					
09...	1700	31	10.0	15	1.3
JAN					
05...	1035	46	4.5	18	2.2
22...	0950	44	4.5	17	2.0
FEB					
19...	1030	54	1.0	9	1.3
MAR					
17...	0905	30	6.0	81	6.6
APR					
14...	0920	49	9.0	127	17
MAY					
13...	1025	105	8.0	102	29
JUN					
09...	1310	188	12.0	156	79
JUL					
07...	1525	68	17.0	52	9.5



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 (150 m) upstream from first diversion, 1.6 mi (2.6 km) east of Valdez, 3.8 mi (6.1 km) downstream from South Fork, and at mile 9.2 (14.8 km).

DRAINAGE AREA.--36.2 mi<sup>2</sup> (93.8 km<sup>2</sup>).

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. Altitude of gage is 7,650 ft (2,332 m), from topographic map. Prior to Oct. 28, 1938, at datum 1.92 ft (0.585 m) lower.

REMARKS.--Records good except those for winter period, which are fair. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years, 34.0 ft<sup>3</sup>/s (0.963 m<sup>3</sup>/s), 24,630 acre-ft/yr (30.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 541 ft<sup>3</sup>/s (15.3 m<sup>3</sup>/s) May 13, 1941; maximum gage height, 4.81 ft (1.466 m) Jan. 5, 1970 (ice jam); minimum discharge, about 1 ft<sup>3</sup>/s (0.03 m<sup>3</sup>/s) Jan. 27, 1942, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 80 ft<sup>3</sup>/s (2.3 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 8	0730	ice jam	*3.74 1.140	June 11	0115	*154 4.36	2.96 0.902
May 18	1945	147 4.16	2.88 .878	Aug. 3	0545	94 2.66	2.59 .789

Minimum recorded discharge, 6.3 ft<sup>3</sup>/s (0.18 m<sup>3</sup>/s) Feb. 21, 23 (result of freezeup), but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	14	9.5	9.5	8.8	11	19	36	102	51	24	19
2	20	14	10	9.0	8.8	10	20	36	112	50	23	18
3	19	14	11	8.5	8.7	10	23	38	116	45	45	17
4	19	14	11	9.0	8.6	9.3	26	42	129	43	29	17
5	18	14	11	9.0	8.6	9.0	28	44	136	41	24	16
6	18	14	11	10	8.7	9.5	29	46	137	38	22	17
7	18	14	11	9.5	8.4	10	29	45	131	36	21	17
8	17	13	11	9.5	8.5	11	32	43	122	35	22	17
9	17	13	11	10	9.1	10	34	41	140	33	24	16
10	17	13	11	9.6	9.7	10	32	40	143	31	24	17
11	16	13	11	9.2	8.8	11	34	42	141	30	24	17
12	16	13	11	8.9	9.0	10	33	47	130	30	23	16
13	16	12	11	9.0	9.2	11	31	49	122	31	24	16
14	16	13	11	8.9	9.4	12	28	52	112	30	23	15
15	16	13	10	8.7	9.1	11	27	72	104	27	23	15
16	16	13	10	8.7	9.0	12	25	102	95	32	22	15
17	16	13	11	8.9	8.8	11	20	121	90	27	22	15
18	15	13	10	9.0	9.0	13	22	131	83	25	21	14
19	15	13	10	8.9	9.0	13	20	138	78	25	23	14
20	15	13	10	9.1	8.9	13	19	138	75	24	22	14
21	15	13	10	9.0	8.5	12	21	134	73	25	21	14
22	15	12	10	9.0	9.0	15	25	127	73	25	20	14
23	15	11	10	9.1	10	16	30	115	72	25	20	14
24	14	12	10	9.0	10	17	33	107	66	25	22	14
25	13	12	10	9.0	10	19	34	107	63	25	21	16
26	14	10	10	8.5	9.9	20	35	99	59	30	21	17
27	14	11	10	8.5	9.6	20	36	98	57	27	20	21
28	14	12	10	8.7	9.8	20	36	106	55	25	19	18
29	14	10	10	8.9	10	19	39	113	54	24	19	17
30	14	9.5	10	8.9	---	18	39	121	52	23	19	16
31	14	---	10	8.8	---	20	---	102	---	23	19	---
TOTAL	497	378.5	322.5	280.3	264.9	412.8	859	2532	2922	961	706	483
MEAN	16.0	12.6	10.4	9.04	9.13	13.3	28.6	81.7	97.4	31.0	22.8	16.1
MAX	21	14	11	10	10	20	39	138	143	51	45	21
MIN	13	9.5	9.5	8.5	8.4	9.0	19	36	52	23	19	14
AC-FT	986	751	640	556	525	819	1700	5020	5800	1910	1400	958
CAL YR 1975 TOTAL	12220.4			MEAN 33.5	MAX 152	MIN 6.5	AC-FT 24240					
WTR YR 1976 TOTAL	10619.0			MEAN 29.0	MAX 143	MIN 8.4	AC-FT 21060					

## RIO GRANDE BASIN

08268500 ARROYO HONDO AT ARROYO HONDO, NM

LOCATION.--Lat 36°31'56", long 105°41'06", Taos County, Hydrologic Unit 13020101, in Arroyo Hondo Grant, on left bank 0.9 mi (1.4 km) downstream from Arroyo Hondo, and at mile 1.4 (2.3 km).

DRAINAGE AREA.--65.6 mi<sup>2</sup> (169.9 km<sup>2</sup>).

PERIOD OF RECORD.--April 1910 to June 1912 (discharge measurements and fragmentary gage-height record), July 1912 to December 1928 (fragmentary), and January 1932 to current year. Monthly discharge only for some periods, published in WSP 1312. Statement in WSP 328 that there was no flow in January and much of February 1912 is erroneous. Published as Rio Hondo near Arroyo Hondo prior to 1928, and as Rio Hondo at Arroyo Hondo 1928-65.

REVISED RECORDS.--WSP 1342: 1915, 1932(M), 1934-38(M). WSP 1712: Drainage area. WSP 1732: 1926. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 6,670 ft (2,033 m), from topographic map. See WSP 1923 for history of changes prior to Sept. 11, 1963. Sept. 11, 1963 to Apr. 2, 1969, at site 25 ft (8 m) downstream on right bank at same datum.

REMARKS.--Records good. Diversions above station for irrigation of about 2,500 acres (10 km<sup>2</sup>). Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--60 years (1912-28, 1932-76), 26.7 ft<sup>3</sup>/s (0.756 m<sup>3</sup>/s), 19,340 acre-ft/yr (23.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1937).--Maximum discharge, 1,060 ft<sup>3</sup>/s (30.0 m<sup>3</sup>/s) July 19, 1948, gage height, 3.75 ft (1.143 m), from rating curve extended above 200 ft<sup>3</sup>/s (5.7 m<sup>3</sup>/s); maximum gage height, 3.90 ft (1.189 m) June 15, 1973; minimum discharge, 3.8 ft<sup>3</sup>/s (0.11 m<sup>3</sup>/s) Aug. 1, 6, 1963.

Maximum gage height observed, 5.45 ft (1.661 m), site and datum then in use, Aug. 23, 1935; discharge uncertain, but probably exceeded 1,200 ft<sup>3</sup>/s (34 m<sup>3</sup>/s). A minimum daily discharge of 3 ft<sup>3</sup>/s (0.08 m<sup>3</sup>/s) occurred Oct. 19, 1912. Discharge not determined for the major floods of Oct. 6, 1911, Sept. 1, 1932 and July 22, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 174 ft<sup>3</sup>/s (4.93 m<sup>3</sup>/s) at 2000 hours Aug. 24, gage height, 3.58 ft (1.091 m), no other peak above base of 75 ft<sup>3</sup>/s (2.1 m<sup>3</sup>/s); minimum, 4.6 ft<sup>3</sup>/s (0.13 m<sup>3</sup>/s) part of each day Apr. 24-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	7.7	16	14	18	20	14	20	22	10	9.0	10.
2	8.4	7.5	23	11	18	20	13	18	25	9.7	8.6	8.1
3	8.3	7.3	24	11	18	19	14	19	29	10	10	7.8
4	7.6	7.3	22	13	18	18	15	21	35	10	9.1	7.5
5	7.4	7.3	21	15	19	18	15	25	41	10	8.3	6.9
6	7.4	7.2	20	17	20	18	15	28	48	9.5	8.1	7.6
7	7.3	7.3	21	15	19	19	15	28	46	9.0	8.2	7.2
8	7.3	7.2	21	13	19	20	15	28	46	9.5	8.0	6.5
9	7.2	7.0	21	15	21	19	16	27	51	10	8.5	6.4
10	7.4	6.8	21	17	22	19	16	24	54	9.3	8.5	6.8
11	7.4	8.2	21	17	20	19	16	12	61	9.3	8.8	6.5
12	7.4	7.2	21	17	20	18	15	8.9	54	9.1	8.1	6.2
13	7.4	7.2	21	17	20	18	11	9.2	46	9.3	7.9	6.2
14	7.4	7.7	21	16	22	18	8.5	9.3	34	9.5	7.7	5.6
15	7.7	9.0	16	17	20	19	8.7	14	33	9.2	7.4	5.7
16	7.8	8.6	16	18	19	18	8.6	21	31	9.1	7.3	5.7
17	7.7	8.6	17	19	19	19	8.2	25	28	8.7	7.4	5.8
18	7.6	9.5	16	19	16	19	8.3	33	30	8.4	7.6	5.6
19	7.5	10	16	19	19	20	8.4	36	27	8.3	9.3	5.8
20	7.4	8.7	16	18	18	19	7.6	33	26	8.7	7.9	6.1
21	7.4	7.9	19	17	15	17	7.1	33	23	13	8.0	6.0
22	7.3	9.0	20	17	14	15	6.4	34	31	11	7.4	6.1
23	7.5	16	20	18	18	15	5.3	32	21	10	9.6	6.0
24	7.3	22	20	18	19	15	5.4	29	19	10	16	6.0
25	7.4	20	17	18	18	16	5.0	26	19	9.8	16	7.3
26	7.3	15	18	13	18	16	5.0	19	10	11	13	7.0
27	7.4	21	18	15	18	16	5.4	21	10	10	12	7.9
28	7.3	23	18	19	19	16	5.4	21	10	9.8	12	6.6
29	7.3	21	14	20	19	15	5.4	21	10	9.5	13	6.2
30	7.3	14	15	19	---	15	15	24	11	9.1	12	6.1
31	7.8	---	18	18	---	14	---	23	---	8.9	12	---
TOTAL	233.5	326.2	588	510	543	547	313.7	722.4	931	298.7	296.7	199.2
MEAN	7.53	10.49	19.0	16.5	18.7	17.6	10.5	23.3	31.0	9.64	9.57	6.64
MAX	8.6	23	24	20	22	20	16	36	61	13	16	10
MIN	7.2	6.8	14	11	14	14	5.0	8.9	10	8.3	7.3	5.6
AC-FT	463	647	1170	1010	1080	1080	622	1430	1850	592	589	395

CAL YR 1975 TOTAL 6914.8 MEAN 18.9 MAX 90 MIN 5.0 AC-FT 13720  
WTR YR 1976 TOTAL 5509.4 MEAN 15.1 MAX 61 MIN 5.0 AC-FT 10930

RIO GRANDE BASIN

103

08268700 RIO GRANDE NEAR ARROYO HONDO, NM

LOCATION.--Lat 36°32'04", long 105°42'34", in NW¼ sec.31, T.27 N., R.12 E., Taos County, Hydrologic Unit 13020101, on right bank 350 ft (110 m) downstream from Arroyo Hondo, 400 ft (120 m) downstream from bridge on county road, 2.2 mi (3.5 km) west of Arroyo Hondo, 11.6 mi (18.7 km) northwest of Taos, and at mile 1,677.4 (2,698.9 km).

DRAINAGE AREA.--8,760 mi<sup>2</sup> (22,690 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--February 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,470 ft (1,972 m), from topographic map.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,500 km<sup>2</sup>) in Colorado and 15,000 acres (61 km<sup>2</sup>) in New Mexico. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 569 ft<sup>3</sup>/s (16.11 m<sup>3</sup>/s), 412,200 acre-ft/yr (508 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft<sup>3</sup>/s (125 m<sup>3</sup>/s) June 22, 1965, gage height, 5.81 ft (1.771 m); maximum gage height, 5.82 ft (1.774 m) May 23, 1973; minimum discharge, 136 ft<sup>3</sup>/s (3.85 m<sup>3</sup>/s) Aug. 2, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,400 ft<sup>3</sup>/s (40 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 9	0945	1430 40.5	3.44 1.049
May 31	2345	*1600 45.3	3.65 1.113

Minimum discharge, 164 ft<sup>3</sup>/s (4.64 m<sup>3</sup>/s) part of each day Sept. 22-25.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	431	607	407	409	396	659	708	760	1470	771	349	229
2	418	635	507	365	398	686	654	772	1300	733	351	215
3	410	938	498	375	403	719	632	677	1120	714	352	204
4	399	1160	471	385	406	728	660	677	1070	684	427	202
5	391	1270	487	374	404	641	718	816	1230	647	378	195
6	383	1350	506	371	410	600	809	876	1240	657	381	190
7	376	1390	511	364	415	620	910	896	1360	646	358	191
8	369	1400	509	356	415	671	904	994	1520	616	342	187
9	369	1420	514	356	427	649	848	899	1500	579	323	185
10	362	1410	510	372	471	642	835	806	1470	555	304	185
11	364	1280	511	377	482	616	780	694	1470	522	299	180
12	364	1120	508	374	496	612	806	707	1420	469	307	173
13	358	1060	514	370	530	613	939	709	1310	436	342	173
14	364	1030	517	372	567	593	978	722	1090	400	347	180
15	368	1020	489	381	584	582	930	732	1030	369	316	179
16	359	1000	464	386	591	584	760	761	978	348	296	179
17	360	1010	438	397	574	589	639	959	925	320	279	180
18	353	1020	431	397	575	586	559	1190	916	326	273	181
19	356	1060	419	401	566	591	520	1210	924	323	261	173
20	374	1030	403	403	609	601	488	1250	967	322	265	172
21	387	985	414	401	532	637	461	1190	940	364	240	171
22	392	928	426	400	497	648	433	1070	1010	324	246	172
23	389	818	442	406	554	639	408	1010	1000	370	295	166
24	375	726	450	409	538	635	395	1030	991	335	309	166
25	387	509	445	406	530	654	390	962	910	333	347	170
26	449	465	447	393	530	699	420	911	836	379	309	179
27	521	391	444	383	554	743	478	1060	743	368	279	193
28	533	492	447	391	580	802	543	1130	800	382	273	190
29	558	581	423	395	614	821	583	1200	796	396	280	191
30	601	503	422	395	---	803	661	1410	803	377	252	214
31	610	---	434	396	---	756	---	1560	---	371	238	---
TOTAL	12730	28608	14408	11960	14648	20419	19849	29640	33139	14436	9618	5565
MEAN	411	954	465	386	505	659	662	956	1105	466	310	186
MAX	610	1420	517	409	614	821	978	1560	1520	771	427	229
MIN	353	391	403	356	396	582	390	677	743	320	238	166
AC-FT	25250	56740	28580	23720	29050	40500	39370	58790	65730	28630	19080	11040
CAL YR 1975 TOTAL	291653		MEAN 799	MAX 2550	MIN 280	AC-FT 578500						
WTR YR 1976 TOTAL	215020		MEAN 587	MAX 1560	MIN 166	AC-FT 426500						

## RIO GRANDE BASIN

08269000 RIO PUEBLO DE TAOS NEAR TAOS, NM

LOCATION.--Lat 36°26'22", long 105°30'11", in SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.36, T.26 N., R.13 E., Taos County, Hydrologic Unit 13020101, in Taos Pueblo Grant, on right bank 2.3 mi (3.7 km) east of Taos Pueblo, 4.5 mi (7.2 km) northeast of Taos, 5.8 mi (9.3 km) upstream from Rio Lucero, and at mile 15.1 (24.3 km).

DRAINAGE AREA.--66.6 mi<sup>2</sup> (172.5 km<sup>2</sup>).

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

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

GAGE.--Water-stage recorder. Concrete control since Nov. 20, 1962. Altitude of gage is 7,380 ft (2,249 m), from topographic map. See WSP 1923 for history of changes prior to Nov. 20, 1962.

REMARKS.--Records good except those for winter period, which are poor. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years (1910-16, 1940-51, 1962-76), 27.6 ft<sup>3</sup>/s (0.782 m<sup>3</sup>/s), 20,000 acre-ft/yr (24.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 970 ft<sup>3</sup>/s (27.5 m<sup>3</sup>/s) May 14, 1941, gage height, 3.90 ft (1.189 m), from floodmark, site and datum then in use, from rating curve extended above 290 ft<sup>3</sup>/s (8.2 m<sup>3</sup>/s); minimum, about 0.9 ft<sup>3</sup>/s (0.03 m<sup>3</sup>/s) Jan. 9, 1964, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 60 ft<sup>3</sup>/s (1.7 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Feb. 23	0530	ice jam	*1.53, 0.466
May 4	2400	84 2.38	1.34 .408
May 17	2215	*107 3.03	1.42 .433

Minimum discharge, 3.0 ft<sup>3</sup>/s (0.085 m<sup>3</sup>/s) Nov. 12, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.3	7.0	7.5	7.0	10	14	65	58	19	10	8.3
2	11	8.5	7.5	7.0	7.0	9.9	15	63	59	21	11	7.5
3	11	8.5	7.5	7.0	7.0	9.4	17	64	61	18	15	7.0
4	10	8.2	7.5	7.5	7.1	8.2	20	75	63	17	12	6.6
5	10	8.1	7.9	7.5	7.1	8.0	21	83	64	18	10	6.4
6	9.8	8.4	8.4	8.0	7.1	9.0	21	77	63	17	9.4	7.4
7	9.5	8.2	7.9	8.0	7.1	9.8	21	71	61	16	8.9	13
8	9.2	8.2	7.4	8.1	7.1	9.8	24	67	60	16	8.7	8.3
9	9.0	7.9	7.4	8.2	8.0	9.1	28	61	59	15	8.7	7.7
10	9.0	7.6	7.4	8.0	10	9.5	35	58	56	14	9.6	8.6
11	8.9	7.9	7.9	7.4	8.3	9.7	39	60	53	13	8.6	8.2
12	8.7	4.3	7.9	7.3	9.4	8.4	42	68	49	14	8.5	7.3
13	8.6	5.8	7.9	7.4	9.6	9.0	42	68	44	14	7.9	6.8
14	8.6	7.2	7.9	7.0	9.7	8.4	42	68	40	15	7.6	6.7
15	8.8	7.7	6.7	7.4	9.0	9.2	38	75	37	15	7.2	6.6
16	8.8	7.5	7.5	7.3	9.0	8.5	34	95	35	16	7.0	7.0
17	8.7	8.4	8.0	7.2	8.1	9.8	27	101	32	18	7.3	6.9
18	8.6	8.5	8.0	7.1	7.5	11	29	104	30	13	7.8	6.6
19	8.4	7.6	7.5	7.2	8.5	14	26	103	29	12	11	6.5
20	8.4	7.9	7.5	6.9	9.0	13	24	97	28	11	9.0	6.6
21	8.2	7.3	8.0	7.0	8.0	12	27	96	27	13	9.3	6.6
22	8.1	7.1	8.0	7.0	7.0	13	34	92	27	13	9.2	7.7
23	8.1	7.0	7.9	7.5	7.0	14	43	82	28	12	8.0	6.6
24	7.9	7.5	7.9	7.2	7.5	16	53	75	26	13	9.5	6.4
25	7.6	7.5	7.9	7.1	7.5	18	59	73	24	13	9.1	6.7
26	8.6	6.5	8.0	7.0	8.0	19	66	68	23	13	12	7.7
27	8.2	7.0	8.0	6.5	8.4	18	70	62	21	13	8.9	12
28	7.9	8.0	7.9	7.0	8.8	18	72	63	20	14	8.0	10
29	7.7	7.4	7.5	7.3	9.7	16	77	65	20	11	8.2	9.4
30	7.5	7.0	8.0	7.1	---	14	73	66	19	11	7.6	8.6
31	8.0	---	8.0	7.0	---	13	---	62	---	10	8.9	---
TOTAL	273.8	227.0	239.8	226.7	234.5	364.7	1133	2327	1216	448	283.9	231.7
MEAN	8.83	7.57	7.74	7.31	8.09	11.8	37.8	75.1	40.5	14.5	9.16	7.72
MAX	11	8.5	8.4	8.2	10	19	77	104	64	21	15	13
MIN	7.5	4.3	6.7	6.5	7.0	8.0	14	58	19	10	7.0	6.4
AC-FT	543	450	476	450	465	723	2250	4620	2410	889	563	460
CAL YR 1975	TOTAL	9427.8	MEAN 25.8	MAX 154	MIN 4.0	AC-FT 18700						
WTR YR 1976	TOTAL	7206.1	MEAN 19.7	MAX 104	MIN 4.3	AC-FT 14290						



## 08271000 RIO LUCERO NEAR ARROYO SECO, NM

LOCATION.--Lat 36°30'30", long 105°31'49", Taos County, Hydrologic Unit 13020101, in Tract C Taos Pueblo Grant, on right bank 200 ft (61 m) upstream from diversion dam for Tenorio and Indian ditches, 2.2 mi (3.5 km) east of Arroyo Seco, 7.4 mi (11.9 km) northeast of Taos, and at mile 8.1 (13.0 km).

DRAINAGE AREA.--16.6 mi<sup>2</sup> (43.0 km<sup>2</sup>).

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

REVISED RECORDS.--WSP 1512: 1912, 1916, 1949. WSP 1732: Drainage area. WDR NM-75-1: 1973. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control since Nov. 21, 1962. Datum of gage is 8,051.44 ft (2,454.079 m) above mean sea level. See WSP 1923 for history of changes prior to Nov. 21, 1962.

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

AVERAGE DISCHARGE.--37 years (1910-15, 1933-51, 1962-76), 21.7 ft<sup>3</sup>/s (0.615 m<sup>3</sup>/s), 15,720 acre-ft/yr (19.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 300 ft<sup>3</sup>/s (8.50 m<sup>3</sup>/s) May 13, 1941, gage height, 3.12 ft (0.951 m), datum then in use; minimum discharge, about 1.4 ft<sup>3</sup>/s (0.04 m<sup>3</sup>/s) Nov. 2, 1951, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 68 ft<sup>3</sup>/s (1.93 m<sup>3</sup>/s) June 4, gage height, 1.51 ft (0.460 m), no peak above base of 70 ft<sup>3</sup>/s (2.0 m<sup>3</sup>/s); minimum recorded, 3.6 ft<sup>3</sup>/s (0.10 m<sup>3</sup>/s) Nov. 12, Feb. 11, 12 (result of freezeup), but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	9.5	6.4	5.4	5.0	7.3	8.8	23	49	26	10	9.5
2	14	9.2	6.6	5.4	5.1	7.1	9.4	22	56	25	10	8.9
3	13	9.2	6.8	5.2	5.1	6.4	11	24	62	24	15	8.5
4	13	9.0	7.0	5.2	5.2	6.2	12	27	65	23	13	8.3
5	13	8.9	7.2	5.4	5.6	6.0	13	28	65	22	12	8.2
6	12	8.8	7.0	5.4	5.3	5.9	13	27	63	21	11	9.2
7	12	8.5	7.0	5.6	5.2	6.0	13	26	63	20	10	8.2
8	12	8.5	7.0	5.7	5.2	6.4	14	25	64	19	11	8.0
9	12	8.3	7.0	6.2	5.7	6.3	17	23	65	18	11	8.5
10	12	7.8	7.3	5.8	5.9	6.6	20	23	65	18	11	8.9
11	11	7.3	7.3	5.2	5.3	6.8	22	25	63	17	11	8.6
12	11	6.0	7.2	5.2	5.4	6.6	22	28	57	17	11	8.1
13	11	8.1	7.2	5.3	5.5	6.4	20	29	49	18	11	7.8
14	11	8.2	7.0	4.7	5.7	6.3	18	32	45	17	10	7.7
15	11	8.3	6.9	5.1	5.6	6.2	16	39	43	15	10	7.8
16	11	8.0	7.2	5.2	5.6	6.3	14	46	41	15	9.8	8.4
17	10	8.0	7.4	5.2	5.4	7.0	12	52	40	15	9.9	7.8
18	10	7.6	7.0	5.5	5.2	8.3	13	60	38	16	10	7.4
19	10	8.1	7.0	5.6	5.8	9.8	11	61	36	15	12	7.2
20	10	8.8	6.6	5.3	5.8	9.6	11	55	35	14	10	7.2
21	9.9	9.7	6.4	5.3	5.6	8.7	13	55	34	13	11	7.2
22	10	9.2	6.2	5.5	5.4	8.8	16	54	34	12	9.8	7.5
23	10	8.0	6.1	5.5	5.6	9.8	21	48	34	12	10	6.9
24	8.9	8.4	6.0	5.4	5.8	11	25	47	32	12	11	6.9
25	9.4	8.0	5.8	5.3	6.1	13	26	46	31	11	11	7.7
26	10	7.0	5.8	4.9	5.8	14	28	42	30	12	10	8.3
27	9.8	8.0	5.7	5.0	5.7	13	27	42	29	11	9.7	10
28	9.5	9.0	5.7	5.0	6.0	12	26	46	28	11	10	9.6
29	9.4	7.0	5.6	5.2	6.8	11	27	51	27	10	9.6	9.3
30	9.5	6.6	5.6	5.4	---	9.4	25	61	27	10	9.6	9.0
31	9.7	---	5.4	5.2	---	8.8	---	49	---	10	9.8	---
TOTAL	339.1	247.0	204.4	165.3	161.4	257.0	524.2	1216	1370	499	330.2	246.6
MEAN	10.9	8.23	6.59	5.33	5.57	8.29	17.5	39.2	45.7	16.1	10.7	8.22
MAX	14	9.7	7.4	6.2	6.8	14	28	61	65	26	15	10
MIN	8.9	6.0	5.4	4.7	5.0	5.9	8.8	22	27	10	9.6	6.9
AC-FT	673	490	405	328	320	510	1040	2410	2720	990	655	489

CAL YR 1975 TOTAL 7819.9 MEAN 21.4 MAX 104 MIN 4.5 AC-FT 15510  
WTR YR 1976 TOTAL 5560.2 MEAN 15.2 MAX 65 MIN 4.7 AC-FT 11030



## 08275300 RIO PUEBLO DE TAOS NEAR RANCHITO, NM

LOCATION.--Lat 36°23'38", long 105°37'23", Taos County, Hydrologic Unit 13020101, in Gijosa Grant, on left bank 1,100 ft (340 m) downstream from Rio Fernando de Taos, 1.6 mi (2.6 km) southwest of Ranchito, and at mile 7.9 (12.7 km).

DRAINAGE AREA.--199 mi<sup>2</sup> (515 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 6,747 ft (2,056 m), from topographic map.

REMARKS.--Records fair. Diversions for irrigation of about 9,000 acres (36 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 26.9 ft<sup>3</sup>/s (0.762 m<sup>3</sup>/s), 19,490 acre-ft/yr (24.0 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 702 ft<sup>3</sup>/s (19.9 m<sup>3</sup>/s) May 21, 1973, gage height, 4.24 ft (1.292 m); maximum gage height, 4.45 ft (1.356 m) Jan. 22, 1975 (backwater from ice); minimum discharge, 0.21 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Aug. 24, 1972, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 83 ft<sup>3</sup>/s (2.35 m<sup>3</sup>/s) May 19, gage height, 2.56 ft (0.780 m), no peak above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s); maximum gage height, 2.94 ft (0.896 m) Jan. 5 (backwater from ice); minimum discharge, 1.3 ft<sup>3</sup>/s (0.037 m<sup>3</sup>/s) June 27, result of regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	15	14	21	19	23	59	36	4.0	8.2	4.0
2	12	12	17	13	22	21	23	59	33	4.0	6.6	4.3
3	12	12	18	13	23	19	22	55	33	4.3	5.0	4.6
4	11	12	18	14	21	17	24	62	39	3.8	4.4	4.3
5	12	12	19	15	21	19	25	71	44	3.8	4.0	3.9
6	12	12	17	15	22	19	26	71	44	4.0	3.7	3.7
7	12	11	17	16	22	22	25	64	45	4.5	3.5	3.9
8	12	11	17	16	24	25	26	59	43	4.2	3.4	4.2
9	11	11	17	17	29	21	27	56	40	3.6	3.8	4.1
10	12	11	17	15	29	19	32	51	38	4.4	4.9	4.8
11	12	11	18	17	22	20	36	50	36	3.9	4.4	5.0
12	11	11	19	18	23	18	38	54	34	3.8	4.3	4.4
13	11	12	19	19	24	19	40	54	32	4.3	4.4	3.6
14	11	13	19	17	26	17	41	51	29	5.7	4.0	3.7
15	12	14	17	18	23	18	41	56	28	5.5	3.3	3.5
16	12	14	18	18	22	16	40	64	25	4.7	2.9	4.0
17	12	14	18	18	20	18	35	73	19	5.4	2.9	4.2
18	12	15	18	19	18	18	34	78	19	4.9	3.2	4.6
19	12	21	17	17	18	19	33	78	18	3.9	5.2	4.2
20	11	18	15	18	18	19	26	70	15	3.9	4.3	4.1
21	11	15	15	19	17	17	24	70	14	6.9	4.8	4.0
22	12	14	17	21	19	19	28	67	13	9.4	6.0	3.7
23	11	14	17	20	19	21	33	61	11	8.1	5.7	3.7
24	11	16	17	19	18	22	39	55	9.8	7.5	7.2	3.6
25	11	18	17	18	18	23	46	49	8.6	7.7	7.6	3.6
26	12	16	16	18	17	24	51	44	6.1	7.3	4.3	4.2
27	12	17	16	18	17	24	58	39	4.9	7.5	3.7	8.5
28	12	20	15	19	17	27	59	38	4.3	6.4	3.6	8.7
29	11	16	14	19	17	25	64	38	3.4	5.6	3.6	7.6
30	11	15	15	21	---	23	65	39	4.3	5.6	3.5	7.1
31	12	---	15	20	---	21	---	38	---	6.0	3.7	---
TOTAL	360	421	524	539	607	629	1084	1773	729.4	164.6	140.1	137.8
MEAN	11.6	14.0	16.9	17.4	20.9	20.3	36.1	57.2	24.3	5.31	4.52	4.59
MAX	12	21	19	21	29	27	65	78	45	9.4	8.2	8.7
MIN	11	11	14	13	17	16	22	38	3.4	3.6	2.9	3.5
AC-FT	714	835	1040	1070	1200	1250	2150	3520	1450	326	278	273
CAL YR 1975 TOTAL	10273.5			MEAN 28.1	MAX 173	MIN 4.5	AC-FT 20380					
WTR YR 1976 TOTAL	7108.9			MEAN 19.4	MAX 78	MIN 2.9	AC-FT 14100					

## RIO GRANDE BASIN

08275500 RIO GRANDE DEL RANCHO NEAR TALPA, NM

LOCATION.--Lat 36°17'52", long 105°34'55", Taos County, Hydrologic Unit 13020101, in Carson National Forest, Rancho del Rio Grande Grant, on left bank 1.4 mi (2.3 km) downstream from Rito de la Olla (locally known as Pot Creek), 3.2 mi (5.1 km) south of Talpa, 4.3 mi (6.9 km) upstream from Rio Chiquito, and at mile 6.9 (11.1 km).

DRAINAGE AREA.--83 mi<sup>2</sup> (210 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1955, published as Rio Grande del Rancho near Ranchos de Taos, and October 1955 to September 1960 as Rio Grande de Ranchos near Taipa.

GAGE.--Water-stage recorder. Altitude of gage is 7,238 ft (2,206 m), from topographic map. Prior to Nov. 11, 1952, nonrecording gage at site 1,035 ft (320 m) downstream at lower datum. Nov. 11, 1952 to Nov. 5, 1968, water-stage recorder at site 1,000 ft (300 m) downstream at lower datum.

REMARKS.--Records good. Minor diversions for irrigation above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--24 years, 19.4 ft<sup>3</sup>/s (0.549 m<sup>3</sup>/s), 14,060 acre-ft/yr (17.3 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 497 ft<sup>3</sup>/s (14.1 m<sup>3</sup>/s) May 21, 1973, gage height, 3.87 ft (1.180 m); maximum gage height, 4.01 ft (1.222 m) Sept. 10, 1964, site and datum then in use; minimum discharge, 0.2 ft<sup>3</sup>/s (0.01 m<sup>3</sup>/s) Jan. 5, 1955, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 154 ft<sup>3</sup>/s (4.36 m<sup>3</sup>/s) at 1300 hours May 18, gage height, 2.19 ft (0.668 m), no other peak above base of 60 ft<sup>3</sup>/s (1.7 m<sup>3</sup>/s); minimum, 2.2 ft<sup>3</sup>/s (0.062 m<sup>3</sup>/s) Feb. 22, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	5.6	5.6	5.0	6.1	8.0	13	57	69	13	9.9	7.5
2	9.2	5.5	7.5	4.5	6.1	8.1	14	53	64	12	13	7.1
3	8.9	5.8	8.2	5.0	6.1	8.2	15	53	62	12	11	5.7
4	8.6	5.7	7.8	6.0	5.9	7.6	16	60	63	11	9.6	5.1
5	8.3	5.9	7.7	5.5	5.7	7.2	16	69	60	11	8.7	5.0
6	8.1	5.8	7.2	6.5	5.5	7.0	17	73	59	11	8.0	5.0
7	8.3	5.8	7.3	7.1	5.6	8.9	17	70	57	10	7.5	5.9
8	8.1	6.1	7.3	7.0	5.7	8.8	19	69	54	10	7.4	5.4
9	8.1	5.9	7.0	7.0	7.0	7.9	21	64	52	9.8	7.0	5.2
10	8.1	5.4	6.8	7.0	8.6	8.0	27	63	49	9.1	7.6	5.8
11	7.9	5.9	6.8	6.1	6.9	8.5	32	67	47	8.8	6.7	6.4
12	7.7	4.5	6.3	6.3	7.4	6.9	39	80	43	8.9	6.4	5.6
13	7.5	3.9	5.9	6.0	7.6	7.2	40	85	38	10	5.9	5.2
14	7.7	5.1	5.9	5.7	7.8	7.6	40	91	35	13	5.8	4.9
15	7.6	5.9	3.9	6.2	7.2	8.4	36	109	32	11	5.5	5.1
16	8.0	6.1	4.2	6.3	7.5	7.4	33	129	30	9.6	5.2	5.2
17	8.0	6.3	5.4	6.0	6.7	8.9	29	142	27	10	6.3	5.3
18	7.9	6.6	4.9	5.9	5.0	9.3	26	148	25	8.7	7.2	5.3
19	7.7	7.7	5.0	5.6	6.3	10	25	143	23	7.8	12	5.1
20	7.6	7.4	5.4	5.1	6.8	10	22	125	22	7.6	11	5.2
21	7.5	5.2	6.1	5.4	4.4	9.1	22	115	20	17	9.7	5.3
22	7.4	5.2	6.2	6.4	4.7	11	24	115	20	22	7.9	5.2
23	7.7	5.5	5.7	6.8	6.7	12	28	110	19	17	7.2	5.2
24	7.3	6.5	5.4	6.3	7.8	13	34	103	18	14	8.6	5.4
25	6.8	7.6	5.2	6.0	7.3	15	40	99	17	13	7.5	5.8
26	7.1	5.9	5.6	5.2	7.1	16	46	92	16	13	6.5	6.9
27	7.3	7.3	5.9	5.0	7.2	15	54	84	14	12	6.1	8.7
28	7.4	8.5	5.5	6.5	7.5	16	58	80	14	11	5.6	9.9
29	6.3	7.2	4.8	6.5	7.7	15	62	80	14	9.9	5.6	8.6
30	5.0	4.8	5.9	6.3	---	13	62	80	14	9.7	5.3	7.0
31	5.5	---	6.0	6.0	---	11	---	76	---	9.1	5.9	---
TOTAL	238.0	180.6	188.4	186.2	191.9	310.0	927	2784	1077	352.0	237.6	179.0
MEAN	7.68	6.02	6.08	6.01	6.62	10.0	30.9	89.8	35.9	11.4	7.66	5.97
MAX	9.4	8.5	8.2	7.1	8.6	16	62	148	69	22	13	9.9
MIN	5.0	3.9	3.9	4.5	4.4	6.9	13	53	14	7.6	5.2	4.9
AC-FT	472	358	374	369	381	615	1840	5520	2140	698	471	355
CAL YR 1975	TOTAL	8070.9	MEAN	22.1	MAX	167	MIN	3.5	AC-FT	16010		
WTR YR 1976	TOTAL	6851.7	MEAN	18.7	MAX	148	MIN	3.9	AC-FT	13590		

LOCATION.--Lat 36°19'55", long 105°34'42", Taos County, Hydrologic Unit 13020101, in Carson National Forest, Rancho del Rio Grande Grant, on right bank 1 mi (2 km) southeast of Talpa, and at mile 2.1 (3.4 km).

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

GAGE.--Water-stage recorder. Altitude of gage is 7,223 ft (2,202 m), from topographic map.

REMARKS.--Records good. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 7.92 ft<sup>3</sup>/s (0.224 m<sup>3</sup>/s), 5,740 acre-ft/yr (7.08 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 303 ft<sup>3</sup>/s (8.58 m<sup>3</sup>/s) July 22, 1976, gage height, 2.75 ft (0.838 m); maximum gage height, 3.50 ft (1.067 m) May 20, 1973 (backwater from debris); minimum discharge, 0.16 ft<sup>3</sup>/s (0.005 m<sup>3</sup>/s) Jan. 31, 1972, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 25 ft<sup>3</sup>/s (0.7 m<sup>3</sup>/s) and maximum (\*);

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
May 17	1300	48	1.36	2.01	0.613	July 22	1600	*303	8.58	2.75	0.838
July 7	1930	63	1.78	2.12	.646	July 26	0400	25	.71	1.81	.552

Minimum discharge, 0.88 ft<sup>3</sup>/s (0.025 m<sup>3</sup>/s) Feb. 22, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	3.7	3.0	3.1	2.8	3.7	6.3	26	17	5.7	5.2	3.9
2	4.5	3.6	4.6	2.8	2.8	3.7	6.6	26	16	5.8	5.9	3.4
3	4.3	3.8	5.1	3.0	2.8	3.7	7.0	25	15	5.5	5.0	3.1
4	4.3	3.9	4.7	3.0	2.8	3.6	7.4	27	14	5.1	4.6	2.9
5	4.1	3.9	4.5	2.8	2.8	3.5	7.4	32	14	5.4	4.1	2.7
6	4.1	3.8	4.3	2.9	2.6	3.2	7.6	32	13	5.3	3.7	2.6
7	4.1	3.7	4.3	2.8	2.6	4.1	8.0	32	14	7.2	3.6	3.1
8	3.9	3.9	4.2	2.7	2.8	4.0	9.0	32	12	5.2	3.6	2.8
9	4.1	3.8	4.1	2.7	3.0	3.8	10	31	12	5.0	3.6	2.8
10	4.1	3.2	4.1	2.6	3.5	3.9	12	31	11	4.7	3.7	3.1
11	4.0	3.6	4.1	2.5	3.1	4.1	13	32	11	4.6	3.4	3.1
12	4.0	2.5	3.7	2.7	3.4	3.6	16	36	10	4.5	3.4	2.7
13	3.9	2.6	3.5	2.7	3.4	3.7	17	37	9.7	4.9	3.1	2.5
14	4.1	3.0	3.5	2.7	3.5	3.8	17	40	9.1	5.9	3.1	2.5
15	3.8	3.4	2.4	2.8	3.3	4.4	16	40	8.9	6.1	2.9	2.5
16	3.9	3.4	2.5	2.8	3.3	3.8	14	40	8.7	5.6	2.7	2.6
17	3.9	3.5	3.4	2.8	3.1	4.5	12	43	8.3	6.4	3.1	2.5
18	3.9	3.6	2.9	2.8	2.4	4.6	12	45	8.0	5.1	3.4	2.4
19	3.9	3.6	2.8	2.8	3.0	5.2	11	43	7.8	4.5	4.7	2.3
20	3.8	3.5	3.1	2.7	3.2	5.1	10	40	7.5	4.4	4.5	2.5
21	3.8	3.0	3.7	2.7	1.9	4.6	11	36	7.2	5.3	3.8	2.5
22	3.8	2.4	3.4	2.9	2.2	5.4	12	34	7.2	9.0	3.6	2.5
23	3.8	2.5	3.3	2.9	3.2	6.1	13	33	7.2	7.3	3.4	2.4
24	3.7	3.1	3.3	2.8	3.4	6.5	15	31	6.9	6.1	4.1	2.3
25	3.3	4.2	3.1	2.8	3.4	7.1	17	30	6.4	6.0	3.6	2.4
26	3.7	3.1	3.2	2.3	3.4	7.5	20	28	6.1	13	3.5	3.1
27	3.7	4.3	3.2	2.9	3.5	7.0	24	24	5.9	7.4	3.2	3.6
28	3.7	4.3	3.1	3.2	3.5	7.9	27	22	5.7	6.2	3.1	3.7
29	3.6	3.6	2.7	2.9	3.7	7.0	29	20	5.7	5.4	3.1	3.4
30	3.5	2.2	3.3	2.8	---	6.3	29	20	5.9	4.9	2.9	3.0
31	3.7	---	3.3	2.8	---	5.3	---	19	---	4.4	3.1	---
TOTAL	121.7	102.7	110.4	86.7	88.4	150.7	416.3	987	291.2	181.9	114.7	84.9
MEAN	3.93	3.42	3.56	2.80	3.05	4.86	13.9	31.8	9.71	5.87	3.70	2.83
MAX	4.7	4.3	5.1	3.2	3.7	7.9	29	45	17	13	5.9	3.9
MIN	3.3	2.2	2.4	2.3	1.9	3.2	6.3	19	5.7	4.4	2.7	2.3
AC-FT	241	204	219	172	175	299	826	1960	578	361	228	168
CAL YR 1975	TOTAL	3260.6	MEAN	8.93	MAX	59	MIN	1.3	AC-FT	6470		
WTR YR 1976	TOTAL	2736.6	MEAN	7.48	MAX	45	MIN	1.9	AC-FT	5430		

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 (3.1 km) southwest of Los Cordovas, 2.5 mi (4.0 km) downstream from Rio Grande del Rancho, and at mile 5.1 (8.2 km).

DRAINAGE AREA.--380 mi<sup>2</sup> (984 km<sup>2</sup>).

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

REVISED RECORDS.--WSP 1732: 1957(M). WSP 1923: 1957(P), 1958.

GAGE.--Water-stage recorder. Concrete control since July 16, 1963. Datum of gage is 6,652 ft (2,028 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 12,000 acres (49 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 46.9 ft<sup>3</sup>/s (1.328 m<sup>3</sup>/s), 33,980 acre-ft/yr (41.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,380 ft<sup>3</sup>/s (67.4 m<sup>3</sup>/s) Aug. 24, 1957, gage height, 5.80 ft (1.768 m), from rating curve extended above 900 ft<sup>3</sup>/s (25 m<sup>3</sup>/s); minimum, 1.9 ft<sup>3</sup>/s (0.054 m<sup>3</sup>/s) July 31, Aug. 1, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 230 ft<sup>3</sup>/s (6.5 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
July 7	2000	*952 27.0	4.35 1.326
July 31	1930	315 8.92	3.15 .960

Minimum discharge, 8.3 ft<sup>3</sup>/s (0.24 m<sup>3</sup>/s) July 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	27	32	27	34	40	46	109	75	10	16	12
2	22	26	34	24	35	44	45	110	67	10	15	12
3	20	26	35	24	37	41	46	99	67	10	13	12
4	20	25	36	27	36	38	54	108	67	10	12	11
5	19	25	37	30	38	36	54	126	64	9.4	11	11
6	20	25	37	33	40	39	56	138	64	9.3	11	11
7	20	25	37	31	41	47	55	134	64	51	11	11
8	20	25	37	30	43	52	57	129	61	22	11	12
9	20	24	38	32	51	45	61	119	59	13	11	12
10	20	24	39	33	58	42	68	113	54	12	13	13
11	19	24	39	34	46	42	68	114	54	11	12	13
12	19	23	38	36	46	37	74	121	49	11	12	12
13	19	23	41	32	46	39	80	122	42	12	12	11
14	19	25	41	30	51	37	90	122	39	14	11	11
15	20	27	34	31	45	39	90	136	35	13	10	11
16	21	27	30	31	44	35	85	161	33	12	10	15
17	21	27	33	31	40	37	76	187	26	12	10	13
18	21	29	32	30	34	37	70	192	24	11	11	13
19	21	38	31	31	37	39	69	192	24	10	17	12
20	21	34	31	30	39	39	59	187	23	10	15	12
21	21	30	33	28	30	36	56	171	23	13	15	12
22	21	26	35	29	30	39	57	158	20	18	15	11
23	22	26	35	32	35	41	61	155	19	17	15	12
24	23	31	35	33	38	43	68	139	17	15	24	11
25	23	33	30	32	38	46	80	119	16	16	17	12
26	24	30	33	26	38	49	88	105	13	16	13	13
27	24	32	34	29	38	49	93	92	11	17	12	21
28	23	37	35	31	38	55	97	90	11	16	12	21
29	24	32	28	33	38	52	107	90	9.8	15	11	18
30	24	28	32	34	---	48	116	88	11	15	11	17
31	26	---	33	33	---	42	---	84	---	23	12	---
TOTAL	660	834	1075	947	1164	1305	2126	4010	1141.8	453.7	401	388
MEAN	21.3	27.8	34.7	30.5	40.1	42.1	70.9	129	38.1	14.6	12.9	12.9
MAX	26	38	41	36	58	55	116	192	75	51	24	21
MIN	19	23	28	24	30	35	45	84	9.8	9.3	10	11
AC-FT	1310	1650	2130	1880	2310	2590	4220	7950	2260	900	795	770

CAL YR 1975 TOTAL 17674.2 MEAN 48.4 MAX 330 MIN 7.9 AC-FT 35060  
WTR YR 1976 TOTAL 14505.5 MEAN 39.6 MAX 192 MIN 9.3 AC-FT 28770

LOCATION.--Lat 36°19'12", long 105°45'14", in NW¼NE¼ sec.15, T.24 N., R. 11 E., Taos County, Hydrologic Unit 13020101, on left bank 1.7 mi (2.7 km) downstream from bridge on State Highway 96, 2.0 mi (3.2 km) downstream from Rio Pueblo de Taos, 11.8 mi (19.0 km) southwest of Taos, and at mile 1,657.7 (2,667.2 km).

WATER-DISCHARGE RECORDS

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft<sup>3</sup>/s (45 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
June 1	0300	1760	49.8	5.37	1.637	July 31	2215	*3440	97.4	6.46	1.969
June 9	0715	1660	47.0	5.29	1.612						

Minimum discharge, 198 ft<sup>3</sup>/s (5.61 m<sup>3</sup>/s) part or all of each day Sept. 23-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	468	668	461	450	431	699	769	855	1640	794	545	270
2	453	691	543	415	433	728	713	892	1440	749	390	254
3	445	919	562	380	440	757	683	807	1240	738	399	242
4	432	1220	523	400	441	790	709	768	1150	699	460	236
5	425	1340	531	405	444	711	764	923	1300	668	410	232
6	417	1440	556	410	455	647	853	1020	1330	662	419	222
7	411	1480	563	400	460	656	955	1050	1430	693	399	227
8	402	1510	559	384	457	719	980	1130	1600	667	379	223
9	401	1520	563	389	472	704	926	1070	1610	606	363	220
10	399	1510	563	407	531	692	912	957	1560	574	348	220
11	397	1400	564	412	530	668	870	838	1570	545	338	219
12	398	1230	559	408	539	653	866	834	1510	493	341	209
13	392	1150	568	407	574	661	1000	853	1410	458	362	207
14	394	1110	573	401	615	644	1090	848	1180	427	388	213
15	403	1100	541	413	627	623	1070	884	1080	400	355	212
16	394	1080	513	419	641	624	903	923	1030	379	336	215
17	401	1090	487	430	620	630	757	1110	958	354	317	212
18	395	1100	471	431	614	629	662	1400	949	348	313	215
19	393	1160	458	434	599	631	616	1460	939	350	311	208
20	410	1140	440	435	665	636	573	1490	995	349	302	204
21	423	1070	455	430	585	673	539	1430	963	353	280	203
22	432	1000	464	432	520	688	510	1280	1020	392	272	204
23	432	919	480	441	591	685	486	1190	1030	406	320	199
24	419	845	491	446	596	681	474	1200	1010	365	334	198
25	426	594	484	441	578	694	478	1120	955	360	396	201
26	470	533	489	425	572	734	508	1050	877	420	349	210
27	557	453	488	414	602	787	570	1140	761	411	315	235
28	578	518	489	425	618	849	633	1250	809	408	301	239
29	599	629	467	429	650	880	677	1300	808	436	313	228
30	645	570	453	434	---	863	765	1500	818	420	291	241
31	669	---	471	430	---	813	---	1700	---	690	277	---
TOTAL	13880	30989	15829	12977	15900	21849	22311	34272	34972	15614	10923	6618
MEAN	448	1033	511	419	548	705	744	1106	1166	504	352	221
MAX	669	1520	573	450	665	880	1090	1700	1640	794	545	270
MIN	392	453	440	380	431	623	474	768	761	348	272	198
AC-FT	27530	61470	31400	25740	31540	43340	44250	67980	69370	30970	21670	13130
CAL YR 1975	TOTAL	325123	MEAN	891	MAX	2880	MIN	340	AC-FT	644900		
WTR YR 1976	TOTAL	236134	MEAN	645	MAX	1700	MIN	198	AC-FT	468400		

## RIO GRANDE BASIN

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

## WATER-QUALITY RECORDS

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

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)
OCT								
02...	1505	442	263	8.4	18.0	1	92	0
JAN								
08...	1620	390	274	7.9	1.0	0	96	1
28...	1155	414	292	8.3	1.0	2	110	14
FEB								
20...	1210	662	290	7.8	4.0	1	100	16
MAY								
18...	1100	1450	228	7.5	14.0	30	81	15
JUN								
11...	1245	1550	291	7.5	18.0	10	100	28
JUL								
09...	1445	608	302	7.9	21.0	1	110	25
SEP								
02...	1020	243	340	8.3	18.0	5	120	26

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
OCT									
02...	27	5.9	17	.8	3.1	110	1	32	5.0
JAN									
08...	29	5.8	17	.8	2.9	116	0	32	4.5
28...	32	6.7	16	.7	3.4	114	0	47	5.1
FEB									
20...	30	6.1	18	.8	3.2	102	0	58	5.4
MAY									
18...	25	4.6	13	.6	2.4	81	0	43	4.1
JUN									
11...	32	6.0	19	.8	3.4	93	0	68	5.6
JUL									
09...	33	6.4	20	.8	3.4	102	0	68	6.0
SEP									
02...	36	7.1	22	.9	3.6	114	0	58	6.0

DATE	DIS- SOLVED FLUO- RIDE (F) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT								
02...	.4	24	172	170	.07	.01	30	10
JAN								
08...	.5	29	176	180	.51	.03	--	--
28...	.5	28	192	197	.44	.05	--	--
FEB								
20...	.4	23	187	197	.45	.05	--	--
MAY								
18...	.3	18	152	152	.25	.03	40	80
JUN								
11...	.3	18	196	199	.19	.06	--	--
JUL								
09...	.4	22	201	210	.17	.07	--	--
SEP								
02...	.6	24	232	215	.25	.05	--	--



RIO GRANDE BASIN

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

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL MOLYB- DENUM (MO) (UG/L) (01062)
OCT				
02...	1505	30	10	0
JAN				
08...	1620	--	--	10
28...	1155	--	--	19
FEB				
20...	1210	--	--	16
MAY				
18...	1100	40	80	2
JUN				
11...	1245	--	--	2
JUL				
09...	1445	--	--	12
SEP				
02...	1020	--	--	37

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND).

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUL *									
09...	1445	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## RIO GRANDE BASIN

08279000 EMBUDO CREEK AT DIXON, NM

LOCATION.--Lat 36°12'39", long 105°54'47", in NE¼SE¼ sec.19, T.23 N., R.10 E., Rio Arriba County, Hydrologic Unit 13020101, on right bank 750 ft (230 m) upstream from U.S. Highway 64, 0.5 mi (0.8 km) upstream from mouth, 0.5 mi (0.8 km) east of Embudo Post Office, and 1.7 mi (2.7 km) northwest of Dixon.

DRAINAGE AREA.--305 mi<sup>2</sup> (790 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

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

GAGE.---Water-stage recorder. Datum of gage is 5,858.60 ft (1,785.701 m) above mean sea level. Prior to Nov. 30, 1938, at site about 1 mi (2 km) upstream at different datums. Nov. 30, 1938 to Aug. 1, 1941, at site about 0.9 mi (1.4 km) upstream at datum about 59.9 ft (18.26 m) higher. Aug. 2, 1941 to Sept. 1, 1971, at site 750 ft (230 m) downstream at datum 9.10 ft (2.774 m) lower. April 1956 to Sept. 21, 1962, crest-stage gage.

REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 6,500 acres (26 km<sup>2</sup>), a small part of which is below gage.

AVERAGE DISCHARGE.—45 years (1923-25, 1926-55, 1962-76), 76.6 ft<sup>3</sup>/s (2,169 m<sup>3</sup>/s), 55,500 acre-ft/yr (68.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1941).--Maximum discharge, 2,280 ft<sup>3</sup>/s (64.6 m<sup>3</sup>/s Aug. 4, 1967, gage height, 7.6 ft (2.32 m), from rating curve extended above 410 ft<sup>3</sup>/s (12 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) June 26, 27, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft<sup>3</sup>/s (31.7 m<sup>3</sup>/s) at 1930 hours July 28, gage height, 4.63 ft (1.411 m), no other peak above base of 800 ft<sup>3</sup>/s (23 m<sup>3</sup>/s); minimum, 7.4 ft<sup>3</sup>/s (0.21 m<sup>3</sup>/s) July 11; result of regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	37	31	28	29	39	55	137	147	15	40	17
2	73	38	41	27	29	36	55	128	134	14	80	16
3	70	36	44	28	29	36	57	126	133	14	53	14
4	64	35	43	30	30	34	62	134	136	14	32	13
5	60	36	42	29	31	28	62	151	134	14	23	13
6	57	35	41	31	31	33	65	179	142	13	18	12
7	53	35	40	30	30	38	69	184	161	13	14	14
8	50	34	40	31	31	41	72	179	148	13	12	14
9	51	33	39	31	37	37	77	163	158	12	12	14
10	50	31	40	31	55	39	87	156	148	12	14	17
11	49	32	39	29	37	40	98	153	145	11	12	16
12	45	28	38	29	38	32	109	166	129	11	12	16
13	43	27	40	31	39	35	126	170	118	11	10	15
14	46	33	38	27	42	35	125	172	103	12	9.9	15
15	46	33	29	29	35	37	128	189	95	12	10	14
16	44	31	27	30	37	33	123	207	86	12	11	15
17	44	31	30	31	33	40	110	220	76	13	12	17
18	42	34	28	30	27	42	108	228	66	13	14	17
19	41	40	27	31	33	48	105	226	61	14	32	15
20	40	37	29	27	33	45	101	214	56	14	36	14
21	38	33	33	27	25	41	97	227	52	13	26	16
22	37	31	38	30	27	44	96	230	47	25	23	15
23	39	33	37	30	30	50	100	210	47	36	22	16
24	41	38	37	31	32	54	108	204	41	35	27	16
25	37	40	28	29	31	56	114	195	36	46	26	16
26	37	36	31	25	31	61	122	177	32	45	21	20
27	36	37	34	25	33	57	133	157	29	50	20	48
28	35	45	34	30	35	61	141	155	23	75	18	50
29	34	42	25	31	37	59	149	156	19	55	16	40
30	34	30	28	31	---	54	147	164	17	50	14	35
31	36	---	32	30	---	49	---	156	---	45	15	---
TOTAL	1447	1041	1083	909	967	1334	3001	5513	2719	732	684.9	570
MEAN	46.7	34.7	34.9	29.3	33.3	43.0	100	178	90.6	23.6	22.1	19.0
MAX	75	45	44	31	55	61	149	230	161	75	80	50
MIN	34	27	25	25	25	28	55	126	17	11	9.9	12
AC-FT	2870	2060	2150	1800	1920	2650	5950	10940	5390	1450	1360	1130
CAL YR 1975	TOTAL	30703.0	MEAN	84.1	MAX	394	MIN	13	AC-FT	60900		
WTR YR 1976	TOTAL	20000.9	MEAN	54.6	MAX	230	MIN	9.9	AC-FT	39670		

08279000 EMBUDO CREEK AT DIXON, NM -- Continued

## WATER-QUALITY RECORDS

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

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
OCT												
15...	1210	47	394	8.1	9.0	190	1	64	7.4	8.0	.3	1.4
NOV												
14...	1050	29	406	8.1	5.5	190	2	63	7.6	8.4	.3	1.3
DEC												
08...	1120	35	377	8.1	4.0	190	21	62	8.6	8.0	.3	1.2
JAN												
08...	1100	29	374	8.1	.0	170	5	58	7.0	8.1	.3	1.2
FEB												
02...	1020	22	380	7.9	3.5	180	4	59	7.0	8.6	.3	1.2
MAR												
30...	1210	48	308	8.0	10.0	140	4	47	6.4	7.0	.3	1.0
APR												
28...	1025	155	213	7.6	9.0	100	6	33	4.3	3.6	.2	.8
MAY												
26...	1405	175	222	7.6	17.0	110	12	37	4.4	3.6	.2	.9
JUN												
24...	0855	42	370	8.0	12.0	190	12	64	7.3	7.6	.2	1.4
AUG												
16...	1005	11	410	7.6	17.0	180	3	60	7.6	13	.4	1.5
SEP												
16...	1040	15	370	7.7	16.5	190	19	63	7.5	13	.4	1.6

DATE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT												
15...	231	0	22	4.1	.3	13	248	234	.06	.01	30	0
NOV												
14...	228	0	24	3.6	.3	14	--	235	.12	--	--	--
DEC												
08...	206	0	22	4.3	.3	12	--	221	.19	--	--	--
JAN												
08...	206	0	25	3.8	.3	14	--	220	.26	--	--	--
FEB												
02...	210	0	25	4.6	.3	12	--	222	.16	--	--	--
MAR												
30...	170	0	23	5.4	.2	9.1	--	183	.10	--	--	--
APR												
28...	115	0	15	2.1	.2	8.0	138	125	.23	.00	30	20
MAY												
26...	120	0	13	2.2	.1	8.7	--	130	.15	--	--	--
JUN												
24...	217	0	18	4.1	.3	14	--	225	.19	--	--	--
AUG												
16...	217	0	21	6.7	.5	16	--	235	.39	--	--	--
SEP												
16...	206	0	23	6.8	.4	16	--	236	.65	--	--	--

## RIO GRANDE BASIN

08279500 RIO GRANDE AT EMBUDO, NM

LOCATION.--Lat 36°12'20", long 105°57'49", in SW¼SW¼ sec.23, T.23 N., R.9 E., Rio Arriba County, Hydrologic Unit 13020101, on right bank 0.2 mi (0.3 km) downstream from bridge at Embudo, 2.8 mi (4.5 km) downstream from Embudo Creek, and at mile 1,643.1 (2,643.7 km).

DRAINAGE AREA.--10,400 mi<sup>2</sup> (26,940 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

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

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

GAGE.--Water-stage recorder. Datum of gage is 5,789.14 ft (1,764.530 m) above mean sea level. Jan. 1 to Feb. 28, 1889, nonrecording gage 1.2 mi (1.9 km) upstream at different datum. March 1889 to December 1903, nonrecording gage 1,300 ft (400 m) upstream at different datum. September 1912 to June 1914, water-stage recorder on downstream end of bridge pier at site 200 ft (60 m) upstream at present datum.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,500 km<sup>2</sup>) in Colorado and 40,000 acres (160 km<sup>2</sup>) in New Mexico. Several observations of water temperature were made during the year. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--41 years (water years 1890-1930), 1,238 ft<sup>3</sup>/s (35.06 m<sup>3</sup>/s), 896,900 acre-ft/yr (1,106 hm<sup>3</sup>/yr); 46 years (water years 1931-76), 779 ft<sup>3</sup>/s (22.06 m<sup>3</sup>/s), 564,400 acre-ft/yr (696 hm<sup>3</sup>/yr), subsequent to upstream development.

EXTREMES FOR PERIOD OF RECORD (1889-1903 AND SINCE 1911).--Maximum discharge, 16,200 ft<sup>3</sup>/s (459 m<sup>3</sup>/s) June 19, 1903, gage height, about 15.9 ft (4.85 m); minimum daily, 130 ft<sup>3</sup>/s (3.68 m<sup>3</sup>/s) June 30, 1902.

A flood of about 14,000 ft<sup>3</sup>/s (400 m<sup>3</sup>/s) occurred between May 20 and June 10, 1905, from a comparison of records for Lobatos and Otowi Bridge. Another major flood occurred Sept. 29 or 30, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,290 ft<sup>3</sup>/s (64.9 m<sup>3</sup>/s) at 0200 hours Aug. 1, gage height, 5.67 ft (1.728 m), no other peak above base of 2,000 ft<sup>3</sup>/s (57 m<sup>3</sup>/s); minimum, 210 ft<sup>3</sup>/s (5.95 m<sup>3</sup>/s) Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	539	701	503	476	460	727	846	987	1700	816	786	293
2	527	718	555	423	462	763	791	1020	1520	763	449	283
3	514	862	613	403	470	799	761	961	1350	758	443	270
4	497	1180	570	435	478	841	781	908	1260	717	494	255
5	485	1280	565	438	476	751	832	1060	1350	688	446	251
6	471	1370	595	434	488	686	918	1190	1410	669	445	243
7	459	1410	598	422	491	698	1010	1230	1500	683	427	245
8	450	1440	596	407	490	769	1070	1260	1630	711	400	244
9	448	1450	595	409	508	763	1020	1250	1680	627	386	238
10	449	1460	599	425	590	745	1010	1120	1610	585	377	240
11	443	1380	599	434	569	727	1010	1020	1630	561	360	240
12	442	1230	594	432	569	692	996	1000	1570	513	359	232
13	436	1150	602	433	607	709	1120	1020	1480	474	366	227
14	437	1110	605	422	657	709	1200	1010	1280	441	405	225
15	446	1110	572	430	663	680	1210	1070	1160	413	377	228
16	444	1090	543	442	686	663	1070	1120	1120	387	353	229
17	443	1090	516	453	663	669	911	1260	1040	364	334	232
18	437	1110	495	456	640	680	805	1540	1020	348	332	231
19	431	1160	479	460	646	692	739	1630	991	355	362	227
20	443	1150	463	455	692	692	691	1620	1040	352	360	221
21	457	1100	476	453	623	721	642	1590	1020	351	331	222
22	466	1030	493	456	564	751	617	1480	1050	417	306	219
23	470	944	508	467	612	757	602	1370	1080	473	332	219
24	466	831	519	479	629	757	593	1370	1050	400	378	215
25	458	690	504	472	596	769	599	1300	1000	407	431	218
26	486	569	512	450	596	811	636	1210	921	481	391	229
27	583	511	516	437	618	859	714	1230	802	507	354	278
28	612	519	518	451	646	919	784	1350	818	525	327	293
29	628	673	487	459	680	955	833	1380	824	477	333	264
30	672	612	474	464	---	931	909	1540	834	463	319	267
31	705	---	492	462	---	886	---	1720	---	436	296	---
TOTAL	15244	30930	16756	13739	16869	23571	25720	38816	36740	16162	12059	7278
MEAN	492	1031	541	443	582	760	857	1252	1225	521	389	243
MAX	705	1460	613	479	692	955	1210	1720	1700	816	786	293
MIN	431	511	463	403	460	663	593	908	802	348	296	215
AC-FT	30240	61350	33240	27250	33460	46750	51020	76990	72870	32060	23920	14440
CAL YR 1975 TOTAL	345714				2930			685700				
WTR YR 1976 TOTAL	253884				1720			503600				

## 08281100 RIO GRANDE ABOVE SAN JUAN PUEBLO, NM

LOCATION.--Lat 36°03'58", long 106°04'34", in NE¼SE¼ sec.10, T.21 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020101, in San Juan Pueblo Grant, on left bank 0.8 mi (1.3 km) upstream from bridge on State Highway 74, 1.0 mi (1.6 km) northwest of San Juan Pueblo, 1.8 mi (2.9 km) upstream from Rio Chama, 5.1 mi (8.2 km) north of Espanola, and at mile 1,630.1 (2,622.8 km).

DRAINAGE AREA.--10,550 mi<sup>2</sup> (27,320 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,630 ft (1,716 m), from topographic map.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,500 km<sup>2</sup>) in Colorado and 42,000 acres (170 km<sup>2</sup>) in New Mexico. Several observations of water temperature were made during the year. San Juan lateral and San Juan Pueblo ditch, both on left bank, and Guique ditch, on right bank, bypass gage for irrigation of several hundred acres below station. See tabulation below for monthly and yearly diversion, as furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--13 years, 688 ft<sup>3</sup>/s (19.48 m<sup>3</sup>/s), 498,500 acre-ft/yr (615 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,310 ft<sup>3</sup>/s (179 m<sup>3</sup>/s) May 22, 1973, gage height, 5.86 ft (1.786 m); minimum, 96 ft<sup>3</sup>/s (2.72 m<sup>3</sup>/s) Aug. 1, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--For years of outstanding floods see records for Rio Grande at Embudo (station 08279500).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,120 ft<sup>3</sup>/s (60.0 m<sup>3</sup>/s) at 0430 hours Aug. 1, gage height 3.29 ft (0.997 m), no other peak above base of 2,000 ft<sup>3</sup>/s (57 m<sup>3</sup>/s); minimum, 177 ft<sup>3</sup>/s (5.01 m<sup>3</sup>/s) Sept. 24.

DISCHARGE\* IN CUBIC FEET PER SECOND\* WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	489	705	541	490	445	706	812	900	1630	722	736	265
2	483	716	553	450	447	746	762	932	1460	682	423	249
3	474	804	638	430	452	792	715	893	1290	661	405	239
4	467	1190	598	450	460	834	723	828	1180	629	423	232
5	457	1310	581	450	460	750	769	954	1240	600	383	226
6	443	1410	611	450	466	674	844	1130	1330	577	366	214
7	430	1460	620	440	468	675	954	1200	1430	586	350	215
8	435	1480	626	420	469	750	1020	1210	1550	627	315	213
9	428	1480	623	430	479	749	980	1240	1620	559	305	219
10	425	1490	630	436	557	722	951	1090	1530	512	310	221
11	412	1420	626	451	552	704	962	966	1540	495	300	224
12	401	1260	621	447	554	671	934	913	1490	463	295	215
13	394	1170	630	440	581	677	1060	951	1410	443	300	201
14	402	1130	634	432	637	670	1180	926	1220	417	320	197
15	415	1120	609	436	647	641	1200	969	1070	381	300	200
16	415	1090	575	446	669	627	1080	1020	1030	351	289	197
17	411	1090	543	459	656	627	886	1140	950	337	276	201
18	410	1100	520	464	619	630	775	1420	912	311	274	200
19	397	1200	511	469	634	623	699	1520	880	311	317	205
20	400	1190	506	466	657	638	653	1530	931	301	319	202
21	414	1130	496	457	611	662	581	1510	956	302	293	201
22	425	1060	512	454	552	689	533	1400	966	364	270	186
23	433	980	528	460	585	704	515	1300	1010	448	278	197
24	440	857	543	471	609	700	501	1270	976	378	326	192
25	426	754	529	467	580	705	509	1230	942	366	360	195
26	440	587	525	447	581	758	529	1140	858	383	349	205
27	514	526	530	433	591	803	594	1140	755	435	315	254
28	558	499	535	442	620	851	669	1260	735	403	289	278
29	566	681	512	455	661	898	729	1280	733	421	278	239
30	607	655	505	456	---	887	824	1420	727	394	271	233
31	679	---	506	450	---	851	---	1610	---	356	274	---
TOTAL	14092	31544	17517	13948	16299	22414	23943	36292	34351	14215	10309	6515
MEAN	455	1051	565	450	562	723	798	1171	1145	459	333	217
MAX	679	1490	638	490	669	898	1200	1610	1630	722	736	278
MIN	394	499	496	420	445	623	501	828	727	301	270	186
AC-FT	27950	62570	34740	27670	32330	44460	47490	71990	68140	28200	20450	12920
(†)	0	0	-	-	-	-	-	-	54	11	27	36
(††)	522	36	-	-	-	10	121	418	413	497	377	240
(‡)	464	55	-	-	-	-	120	377	290	297	286	228

CAL YR 1975 TOTAL 349408 MEAN 957 MAX 3070 MIN 352 AC-FT 693100  
WTR YR 1976 TOTAL 241439 MEAN 660 MAX 1630 MIN 186 AC-FT 478900

† Diversion in acre-feet, by San Juan lateral.

†† Diversion, in acre-feet, by San Juan Pueblo ditch.

‡ Diversion, in acre-feet, by Guique ditch.

NOTE.--San Juan lateral was closed for rehabilitation from July 2, 1975 to June 2, 1976. Diversions normally carried by this ditch were routed thru San Juan Pueblo ditch and included as San Juan Pueblo ditch diversions.



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 (0.3 km) upstream from Azotea Creek, and 6.2 mi (10.0 km) southwest of Chama.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 7,519.87 ft (2,292.056 m) above mean sea level (levels by Bureau of Reclamation).

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft<sup>3</sup>/s (30.6 m<sup>3</sup>/s) May 13, 1975, gage height, 7.46 ft (2.274 m); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft<sup>3</sup>/s (28.9 m<sup>3</sup>/s) June 6, gage height, 7.21 ft (2.198 m); minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Feb. 18 to Mar. 27.

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	.99	.84	.84	.84	.10	105	290	654	169	106	7.1
2	6.5	.99	.84	.84	.84	.10	172	418	769	158	47	3.2
3	5.6	.99	.84	.84	.84	.10	257	473	746	142	38	1.7
4	5.6	.44	.84	.84	.84	.10	270	423	770	120	79	1.2
5	5.4	.23	.84	.84	.84	.10	245	425	880	100	35	1.2
6	2.7	.23	.84	.84	.84	.10	193	501	789	.82	19	1.2
7	.33	.69	.84	.84	.84	.10	175	510	811	75	17	1.2
8	.33	.84	.84	.84	.84	.10	247	404	821	76	16	.99
9	.14	.84	.84	.84	.84	.10	291	322	764	69	28	.99
10	.56	.84	.84	.84	.84	.10	362	337	766	51	23	40
11	.56	.84	.84	.84	.84	.10	475	381	634	42	16	55
12	.56	.44	.84	.84	.84	.10	472	453	536	42	13	26
13	.56	.84	.84	.84	.84	.10	397	465	492	93	8.4	2.4
14	.56	.84	.84	.84	.84	.10	256	592	448	87	6.7	1.0
15	.56	.84	.84	.84	.84	.10	205	740	401	49	5.7	1.0
16	.56	.84	.84	.84	.84	.10	174	616	379	38	3.2	1.0
17	.56	.84	.84	.84	.84	.10	145	643	325	49	3.2	1.3
18	.56	.84	.84	.84	.10	.10	136	861	263	44	4.0	1.3
19	.56	.84	.84	.84	.10	.10	139	808	301	27	17	1.3
20	.56	.84	.84	.84	.10	.10	141	685	329	17	10	1.3
21	.56	.84	.84	.84	.10	.10	163	704	354	15	11	1.3
22	.56	.84	.84	.84	.10	.10	170	660	360	17	6.7	1.3
23	.56	.84	.84	.84	.10	.10	190	530	329	13	3.5	1.3
24	.56	.84	.84	.84	.10	.10	224	523	259	9.5	4.3	1.3
25	.84	.84	.84	.84	.10	.10	275	543	218	21	21	42
26	1.2	.84	.84	.84	.10	.10	248	502	192	28	6.4	184
27	1.2	.84	.84	.84	.10	.10	273	619	186	125	3.8	123
28	.99	.84	.84	.84	.10	.55	343	741	182	62	2.8	103
29	.99	.84	.84	.84	.10	24	420	777	160	32	2.8	68
30	.99	.84	.84	.84	---	49	331	765	158	21	24	55
31	.99	---	.84	.84	---	51	---	570	---	41	5.9	---
TOTAL	49.50	23.88	26.04	26.04	15.48	127.25	7494	17281	14276	1914.5	587.4	730.58
MEAN	1.60	.80	.84	.84	.53	4.10	250	557	476	61.8	18.9	24.4
MAX	7.3	.99	.84	.84	.84	51	475	861	880	169	106	184
MIN.	.14	.23	.84	.84	.10	.10	105	290	158	9.5	2.8	.99
AC-FT	98	47	52	52	31	252	14860	34280	28320	3800	1170	1450
CAL YR 1975	TOTAL	73139.38	MEAN 200	MAX 990	MIN .14	AC-FT	145100					
WTR YR 1976	TOTAL	42551.67	MEAN 116	MAX 880	MIN .10	AC-FT	84400					

## RIO GRANDE BASIN

08284200 WILLOW CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM  
(Formerly published as Willow Creek above Heron Reservoir, near Park View)

LOCATION.—Lat 36°44'33", long 106°37'34", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on right bank 200 ft (61 m) downstream from bridge, 0.2 mi (0.3 km) downstream from Iron Spring Creek, 3.3 mi (5.3 km) west of Los Ojos, and at mile 9.7 (15.6 km).

DRAINAGE AREA, ~112 mi<sup>2</sup> (290 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Concrete control since June 6, 1963. Datum of gage is 7,196.29 ft (2,193.429 m) above mean sea level (levels by Bureau of Reclamation). Prior to Apr. 1, 1971, at site 900 ft (270 m) 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 furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--8 years (water years 1963-70), 10.5 ft<sup>3</sup>/s (0.297 m<sup>3</sup>/s), 7,610 acre-ft/yr (9.38 hm<sup>3</sup>/yr), prior to completion of Azotea tunnel; 6 years (water years 1971-76), 138 ft<sup>3</sup>/s (3.908 m<sup>3</sup>/s), 99,980 acre-ft/yr (123 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft<sup>3</sup>/s (45.3 m<sup>3</sup>/s) Aug. 11, 1967, gage height, 3.88 ft (1.183 m), site and datum than in use, prior to completion of Azotea tunnel; no flow at times most years prior to 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 935 ft<sup>3</sup>/s (26.5 m<sup>3</sup>/s) June 5, gage height, 4.72 ft (1.439 m); minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Oct. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.1	.49	.56	.76	12	99	275	646	170	98	7.6
2	5.4	.59	.46	.56	.76	10	178	384	768	163	59	5.8
3	4.6	.54	.48	.56	.76	15	254	472	746	150	40	3.2
4	4.1	.45	.45	.56	.76	10	280	426	755	130	87	1.7
5	4.0	.42	.40	.56	.76	7.6	255	408	850	111	42	.88
6	3.0	.29	.45	.56	.76	9.6	210	492	782	91	24	.80
7	1.8	.20	.49	.56	.76	20	169	512	786	82	17	1.2
8	.48	.16	.52	.56	.76	23	245	424	815	86	16	1.1
9	.26	.13	.59	.52	.76	30	288	335	760	84	15	1.8
10	.18	.30	.59	.52	2.9	42	346	347	770	64	34	2.5
11	.12	.30	.59	.52	4.1	33	466	375	640	48	18	85
12	.10	.27	.52	.52	4.1	14	484	462	527	43	17	34
13	.18	.30	.49	.52	9.3	12	428	458	486	68	12	13
14	.34	.32	.52	.52	14	18	286	572	445	120	8.2	3.4
15	.34	.38	.52	.49	12	24	231	725	384	60	5.4	1.8
16	.40	.38	.49	.49	4.6	31	196	640	370	46	4.1	1.4
17	.40	.40	.49	.49	3.7	51	157	621	333	45	2.4	1.1
18	.40	.40	.59	.49	2.5	67	141	861	271	59	2.8	1.2
19	.38	.94	.52	.49	1.8	58	153	806	304	34	7.0	1.4
20	.48	.80	.45	.45	1.2	38	145	694	338	20	10	1.3
21	.76	.49	.67	.45	.96	25	176	708	346	16	9.5	1.5
22	.88	.38	.76	.49	.67	30	173	678	356	16	14	1.8
23	1.1	.27	.88	.52	.72	40	185	548	346	15	8.6	1.2
24	1.3	.30	.80	.56	1.3	38	212	522	275	12	4.5	.76
25	1.1	.34	.80	.59	1.6	38	271	550	243	20	12	1.7
26	.80	.21	.80	.63	2.4	31	262	502	216	36	9.5	159
27	.49	.30	.88	.67	3.3	20	271	610	208	151	6.6	129
28	.59	.40	.76	.67	4.8	14	319	732	200	92	4.3	120
29	.45	.40	.67	.72	9.0	13	416	756	173	46	2.5	82
30	.42	.42	.59	.76	---	58	336	780	173	32	8.2	60
31	.82	---	.56	.76	---	54	---	570	---	42	8.6	---
TOTAL	36.97	12.18	18.27	17.32	91.79	886.2	7632	17245	14312	2152	607.2	727.14
MEAN	1.19	.41	.59	.56	3.17	28.6	254	556	477	69.4	19.6	24.2
MAX	5.4	1.1	.88	.76	14	67	484	861	850	170	98	159
MIN	.10	.13	.40	.45	.67	7.6	99	275	173	12	2.4	.76
AC=FT	73	24	36	34	182	1760	15140	34210	28390	4270	1200	1440
CAL YR 1975	TOTAL	81381.23	MEAN 223	MAX 1020	MIN 10	AC=FT	161400					
WTR YR 1976	TOTAL	43738.07	MEAN 120	MAX 861	MIN .10	AC=FT	86750					



08284300 HORSE LAKE CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM  
(Formerly published as Horse Lake Creek above Heron Reservoir, near Park View)

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 (6.0 km) northwest of Heron Dam, 7.8 mi (12.6 km) downstream from Horse Lake, and 9.9 mi (15.9 km) west of Los Ojos.

DRAINAGE AREA.--45 mi<sup>2</sup> (120 km<sup>2</sup>), approximately.

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

GAGE.--Water-stage recorder. Concrete control since June 10, 1963. Datum of gage is 7,188.85 ft (2,191.161 m) above mean sea level (levels by Bureau of Reclamation). Prior to July 1, 1971, at site 1,100 ft (340 m) upstream at higher datums.

REMARKS.--Divisions above station for irrigation of meadows and for off-channel stock tanks.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--11 years (water years 1963-73), 1.10 ft<sup>3</sup>/s (0.031 m<sup>3</sup>/s), 797 acre-ft/yr (983,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,960 ft<sup>3</sup>/s (112 m<sup>3</sup>/s) July 30, 1968, gage height, 4.9 ft (1.49 m), site and datum then in use, from rating curve extended above 37 ft<sup>3</sup>/s (1.05 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 3.20 ft (0.975 m) and 4.9 ft (1.49 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft<sup>3</sup> (0.62 m<sup>3</sup>/s) Mar. 17, gage height, 1.75 ft (0.533 m), no peak above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.02				---	.05	.01		0		0
2	0	0				---	.04	.01		0		0
3	0	0				---	.03	.01		0		0
4	0	---				---	.03	.01		0		0
5	0	---				---	.04	.01		0		0
6	0	---				---	.05	.01		0		0
7	0	---				---	.04	.11		0		0
8	0	---				1.6	.03	.05		0		0
9	.30	---				2.3	.03	.04		0		0
10	.66	---				2.8	.03	.02		0		0
11	.96	---				3.0	.02	.01		0		0
12	1.1	---				2.4	.02	0		0		0
13	1.1	---				1.2	.03	0		0		0
14	.46	---				1.4	.03	0		0		0
15	.08	---				1.8	.06	0		0		0
16	.03	---				3.8	.14	0		0		0
17	.02	---				6.7	.20	0		0		0
18	.02	---				2.8	.18	0		0		0
19	.02	---				3.1	.18	0		0		0
20	.02	---				1.0	.10	0		0		0
21	.02	---				.42	.05	0		0		0
22	.02	---				.24	.03	0		0		0
23	.02	---				.18	.03	0		0		0
24	.02	---				.14	.02	0		0		0
25	.02	---				.09	.01	0		.02		0
26	.02	---				.06	.01	0		0		0
27	.01	---				.05	0	0		0		1.1
28	0	---				.07	0	0		0		1.1
29	0	---				.09	.01	0		0		.01
30	0	---				.06	.01	0		0		0
31	.02	---				.05	---	0	---	0		---
TOTAL	4.92	---		---		---	1.50	.29	0	.02	0	2.21
MEAN	.16	---		---		---	.050	.009	0	.0006	0	.074
MAX	1.1	---		---		---	.20	.11	0	.02	0	1.1
MIN	0	---		---		---	0	0	0	0	0	0
AC-FT	9.8	---		---		---	3.0	.6	0	.04	0	4.4

## RIO GRANDE BASIN

08284510 HERON RESERVOIR NEAR LOS OJOS, NM  
(Formerly published as Heron Reservoir near Park View)

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 (0.3 km) upstream from Rio Chama, 5.1 mi (8.2 km) northeast of El Vado Dam, and 8.7 mi (14.0 km) southwest of Los Ojos.

DRAINAGE AREA.--193 mi<sup>2</sup> (500 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Mar. 24, 1971, nonrecording gage. Published as "near Park View" prior to 1976.

REMARKS.--Reservoir is formed by earthfill dam; storage began Oct. 21, 1970. Total capacity 401,300 acre-ft (495 hm<sup>3</sup>) at elevation 7,186.1 ft (2,190.32 m) low point on crest of uncontrolled spillway, including 1,340 acre-ft (1.65 hm<sup>3</sup>) of dead storage at elevation 7,003.0 ft (2,134.51 m), 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 furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 252,800 acre-ft (312 hm<sup>3</sup>) Sept. 12, 1975, elevation, 7,157.59 ft (2,181.633 m); no storage prior to Oct. 21, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 251,700 acre-ft (310 hm<sup>3</sup>) Oct. 1, elevation, 7,157.43 ft (2,181.633 m); minimum, 140,100 acre-ft (173 hm<sup>3</sup>) Apr. 13, elevation, 7,128.13 ft (2,172.6 m).

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Bureau of Reclamation in 1971)

7,120	116,500	7,150	219,800
7,130	146,000	7,160	263,900
7,140	180,400		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	251700	249600	248800	177600	164100	164800	161000	147800	181400	205400	206900	205300
2	251600	249500	248800	174800	164100	164800	158400	148500	182900	205600	206900	205300
3	251600	249500	248800	172100	164100	164900	155900	149400	184400	205900	207000	205200
4	251500	249500	248700	169400	164200	164900	153500	150300	185900	206000	207100	205200
5	251500	249400	247400	166400	164200	165000	151000	151000	187600	206200	206900	205100
6	251400	249400	245300	164500	164200	165000	149100	152100	189000	206200	206800	205200
7	251200	249400	243300	163900	164200	165100	147500	153100	190600	206300	206700	205000
8	251200	249300	241200	163900	164200	165200	145900	153900	192200	206200	206700	204800
9	251100	249200	239100	164000	164300	165200	144500	154600	195600	206300	206700	204900
10	251000	249100	237000	164000	164400	165300	143000	155200	195100	206400	206600	204900
11	251000	249000	235000	164000	164400	165400	141800	155900	196200	206400	206500	205000
12	250900	249000	233000	164000	164500	165500	140500	156700	197100	206400	206400	205000
13	250800	249000	230900	164000	164500	165500	140100	157500	198000	206500	206400	205000
14	250800	248900	228900	164000	164600	165500	140700	158500	198700	206600	206300	204800
15	250700	248900	226300	164000	164600	165600	141100	160000	199300	206600	206200	204700
16	250700	248800	223200	164000	164600	165600	141500	161200	199600	206700	206200	204700
17	250600	248800	220200	164000	164700	165700	141800	162300	200200	206700	206100	204600
18	250500	248900	217200	164000	164700	165800	142100	164000	200600	206700	206000	204600
19	250500	249000	214300	164000	164700	165900	142500	165600	201100	206600	206000	204600
20	250500	248900	211200	164000	164700	166000	142600	167000	201800	206600	206000	204400
21	250300	248900	208300	164000	164700	166100	143100	168300	202400	206400	206000	204400
22	249900	248800	205300	164000	164700	166200	143300	169600	203000	206400	206000	204300
23	249800	248800	202600	164000	164700	166300	143600	170600	203500	206400	206100	204200
24	249800	248800	199800	164000	164700	166400	144000	171600	203900	206300	205900	204200
25	249700	248700	197000	164000	164700	166400	144500	172600	204200	206300	205800	204400
26	249700	248600	194300	164000	164700	166400	144900	173500	204600	206300	205800	204800
27	249600	248800	191100	164100	164700	166500	145300	174700	204900	206600	205700	205400
28	249600	248900	188600	164100	164700	166500	145800	176100	205200	206700	205700	205500
29	249500	248900	185700	164100	164700	166100	146600	177500	205100	206700	205600	205600
30	249500	248900	183100	164100	---	164900	147200	179100	205200	206600	205600	205800
31	249600	---	180400	164100	---	163300	---	180100	---	206600	205400	---
MAX	251700	249600	248800	177600	164700	166500	161000	180100	205200	206700	207100	205800
MIN	249500	248600	180400	163900	164100	163300	140100	147800	181400	205400	205400	204200
(†)	7156.88	7156.72	7140.00	7135.43	7135.60	7135.22	7130.39	7139.91	7146.42	7146.79	7146.48	7146.57
(‡)	-2100	-700	-68500	-16300	+600	-1400	-16100	+32900	+25100	+1400	-1200	+400
CAL YR 1975	MAX	252800	MIN	125900	‡	+30600						
WTR YR 1976	MAX	251700	MIN	140100	‡	-45900						

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

## 08284520 WILLOW CREEK BELOW HERON DAM, NM

LOCATION.--Lat 36°39'56", long 106°42'13", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, in outlet conduits of Heron Dam, 0.2 mi (0.3 km) upstream from Rio Chama, 5.1 mi (8.2 km) northeast of El Vado Dam, and 8.7 mi (14.0 km) southwest of Los Ojos.

DRAINAGE AREA.--193 mi<sup>2</sup> (500 km<sup>2</sup>).

PERIOD OF RECORD.--January 1971 to current year.

GAGE.--Totalizing flowmeters in each of two outlet conduits in Heron Dam.

REMARKS.--Flow regulated by Heron Dam (station 08284510) since Oct. 21, 1970. Outlet conduits are 14-in (0.356 m) and 120-in (3.048 m) in diameter.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--5 years, 97.7 ft<sup>3</sup>/s (2.767 m<sup>3</sup>/s), 70,780 acre-ft/yr (87.3 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,220 ft<sup>3</sup>/s (62.9 m<sup>3</sup>/s) Dec. 12, 1973; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,510 ft<sup>3</sup>/s (42.8 m<sup>3</sup>/s) Dec. 16-18; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0		0	1370		0	1250		0	4.0	41	59
2	0		0	1370		0	1500		0	0	41	0
3	0		0	1370		0	1500		0	0	20	0
4	0		0	1360		0	1500		0	0	75	0
5	0		634	1360		0	1500		0	0	70	0
6	0		1010	1000		0	1180		0	0	8.1	0
7	0		1010	314		0	991		12	70	0	79
8	0		1010	0		0	987		20	49	0	50
9	0		1010	0		0	1000		20	0	0	0
10	0		1010	0		0	1040		20	0	73	0
11	0		1010	0		0	1040		20	0	48	0
12	0		1010	0		0	1150		21	8.7	0	0
13	0		997	0		0	569		21	65	0	0
14	0		997	0		0	0		8.6	45	0	0
15	0		1300	0		0	16		125	10	0	50
16	0		1510	0		0	13		92	10	0	33
17	0		1510	0		0	0		8.1	10	85	0
18	0		1510	0		0	0		0	10	55	0
19	0		1500	0		0	12		0	16	0	0
20	0		1500	0		0	20		0	58	0	0
21	115		1500	0		0	20		0	45	0	41
22	69		1490	0		0	26		68	20	0	29
23	0		1430	0		0	30		56	20	0	0
24	0		1390	0		0	30		21	20	66	0
25	0		1390	0		0	30		21	20	40	0
26	0		1390	0		0	30		21	20	0	0
27	0		1390	0		0	30		21	37	0	0
28	0		1390	0		0	30		37	30	0	32
29	0		1380	0		177	12		166	31	0	22
30	0		1380	0	---	623	0		112	41	0	0
31	0	---	1380	0	---	820	---		---	41	81	---
TOTAL	184	0	34038	8144	0	1620	15506	0	890.7	680.7	703.1	395
MEAN	5.94	0	1098	263	0	52.3	517	0	29.7	22.0	22.7	13.2
MAX	115	0	1510	1370	0	820	1500	0	166	70	85	79
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	365	0	67510	16150	0	3210	30760	0	1770	1350	1390	783
CAL YR 1975	TOTAL	64089.50	MEAN 176	MAX 1600	MIN 0	AC-FT 127100						
WTR YR 1976	TOTAL	62161.50	MEAN 170	MAX 1510	MIN 0	AC-FT 123300						

## RIO GRANDE BASIN

## 08285000 EL VADO RESERVOIR NEAR TIERRA AMARILLA, NM

LOCATION.--Lat 36°35'39", long 106°44'00", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, at outlet tower of dam on Rio Chama, at village of El Vado, 12.4 mi (20.0 km) southwest of Tierra Amarilla, and at mile 77.7 (125.0 km).

DRAINAGE AREA.--873 mi<sup>2</sup> (2,261 km<sup>2</sup>), of which about 100 mi<sup>2</sup> (260 km<sup>2</sup>) probably is noncontributing.

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

GAGE.--Water-stage recorder. Prior to October 1967, nonrecording gage only below gage height 6,879.3 ft (2,096.81 m). Datum of gage is 8.21 ft (2.502 m) above mean sea level.

REMARKS.--Reservoir is formed by rockfill dam, steel faced. Storage began in January 1935. Capacity 196,500 acre-ft (242 hm<sup>3</sup>) between gage heights 6,759.0 ft (2,060.14 m) and 6,902.0 ft (2,103.73 m) top of spillway gate. Dead storage, 1,060 acre-ft (1.31 hm<sup>3</sup>) below 6,775.0 ft (2,065.02 m), sill of outlet works. Figures given herein represent total contents. Reservoir is used to impound water for irrigation by Middle Rio Grande Conservancy District and, since December 1972, for storage of contract water from San Juan-Chama Project. Rehabilitation of outlet works, completed in December 1966, increased valve-controlled release from about 1,750 ft<sup>3</sup>/s (50 m<sup>3</sup>/s) to about 6,000 ft<sup>3</sup>/s (170 m<sup>3</sup>/s).

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 204,900 acre-ft (253 hm<sup>3</sup>), of which 7,400 acre-ft (9.12 hm<sup>3</sup>) was uncontrolled storage, June 4, 5, 1948, gage height, 6,904.2 ft (2,104.40 m); no storage at times prior to December 1966.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 189,000 acre-ft (233 hm<sup>3</sup>) June 17-23, gage height 6,899.8 ft (2,103.06 m); minimum, 79,860 acre-ft (98.5 hm<sup>3</sup>) Sept. 30, gage height, 6,856.2 ft (2,089.77 m).

Capacity table (gage height, in feet, and contents, in acre-feet)  
(Based on survey by Bureau of Reclamation in 1966)

6,840	53,770
6,860	86,770
6,880	130,800
6,900	189,800

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163800	155500	132400	126300	123000	126700	131100	156500	180100	184000	151000	116400
2	163500	155500	130300	126000	123000	126900	131500	156000	181000	183100	151000	114800
3	162900	155000	128600	125800	123100	127100	132000	156200	181800	182100	151100	112900
4	162600	154400	126500	125800	123200	127300	132700	156400	182700	181000	151100	111100
5	162300	153800	125800	125500	123300	127400	133500	156500	183400	180000	151000	109300
6	162000	153500	126000	124800	123400	127500	134100	156800	184100	179000	150900	107600
7	161400	153500	126000	122300	123500	127700	134700	156500	185000	178100	150800	105900
8	161100	153500	126300	121300	123600	127900	135600	155800	185800	177000	150700	104200
9	160600	153500	126300	121300	123800	127800	136600	154700	186600	175800	150200	102600
10	160200	153500	126300	121300	123900	127500	138000	154600	187100	174500	149300	100900
11	159700	153500	126500	121600	124000	127300	140100	155500	187600	172900	148400	99160
12	159400	153500	126500	121600	124200	127000	143600	156700	188000	171700	147200	97420
13	158800	152900	126800	121600	124400	126700	147400	157000	188300	170500	145200	95640
14	158500	152400	126800	121800	124700	126400	149300	157300	188500	169400	142800	93990
15	157900	151500	126800	121800	124900	126300	150600	157700	188700	168100	140500	92340
16	157600	150900	127000	121800	125000	126500	151600	158500	188900	166800	138500	90700
17	157300	150100	127000	121800	125100	126700	152400	158600	189000	165600	137000	89320
18	156700	149500	127300	122100	125200	126900	153100	159500	189000	164300	135300	88030
19	156400	149000	127300	122100	125300	127200	154000	159400	189000	163100	133600	86730
20	156100	148100	127300	122100	125400	127300	154700	161500	189000	161900	132300	85360
21	155800	147300	127300	122300	125500	127600	155600	163800	189000	160700	131000	84250
22	155500	146200	127500	122300	125600	127800	156000	166200	189000	159500	129600	83280
23	155500	145300	127500	122300	125700	128100	155800	168100	189000	158200	128200	82460
24	155500	144500	127300	122300	125900	128400	155900	169700	188700	157000	126900	81640
25	155500	143100	127300	122500	126000	128900	156300	171400	188000	155800	125600	80940
26	155500	141500	127000	122500	126100	129300	156600	173100	187200	154700	124300	80220
27	155500	140100	127000	122500	126200	129900	156800	174500	186600	153900	122900	80000
28	155500	138200	126800	122800	126300	130300	157200	175900	185800	153100	121600	79890
29	155500	136400	126800	122800	126500	130500	158000	177100	185300	152300	120200	79890
30	155500	134200	126500	122800	---	130700	157700	178200	184700	151600	118900	79860
31	155500	---	126300	122900	---	130800	---	179200	---	151000	117600	---
MAX	163800	155500	132400	126300	126500	130800	158000	179200	189000	184000	151100	116400
MIN	155500	134200	125800	121300	123000	126300	131100	154600	180100	151000	117600	79860
(†)	6889.0	6881.3	6878.2	6876.8	6878.3	6880.0	6889.7	6896.8	6898.4	6887.4	6874.6	6856.2
(‡)	-8300	-21300	-7900	-3400	+3600	+4300	+26900	+21500	+5500	-33700	-33400	-37740
CAL YR 1975	MAX	179100	MIN	86400	‡	+39900						
WTR YR 1976	MAX	189000	MIN	79860	‡	-83940						

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

## 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 (2.4 km) downstream from El Vado Dam, 2.8 mi (4.5 km) upstream from Rio Nuevas, 13 mi (21 km) southwest of Tierra Amarilla, and at mile 76.2 (122.6 km).

DRAINAGE AREA.--877 mi<sup>2</sup> (2,271 km<sup>2</sup>), of which about 100 mi<sup>2</sup> (260 km<sup>2</sup>) is probably noncontributing.

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

REVISED RECORDS.--WSP 1312: 1914, 1949. WSP 1392: 1949.

GAGE.--Water-stage recorder. Datum of gage is 6,696.12 ft (2,040.977 m) above mean sea level. Prior to October 1935, at site 1.5 mi (2.4 km) upstream at different datum. October 1935 to September 1938 at site 1.1 mi (1.8 km) upstream at datum 30.34 ft (9.248 m) higher.

REMARKS.--Records good. Flow regulated since 1935 by El Vado Reservoir (station 08285000). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions for irrigation of about 10,600 acres (43 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years (water years 1914-15, 1921-23) 448 ft<sup>3</sup>/s (12.69 m<sup>3</sup>/s), 324,600 acre-ft/yr (400 hm<sup>3</sup>/yr), prior to completion of El Vado Dam; 35 years (water years 1936-70), 373 ft<sup>3</sup>/s (10.56 m<sup>3</sup>/s), 270,200 acre-ft/yr (333 hm<sup>3</sup>/yr), prior to release of transmountain water; 6 years (water years 1971-76), 356 ft<sup>3</sup>/s (10.08 m<sup>3</sup>/s), 257,900 acre-ft/yr (318 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft<sup>3</sup>/s (255 m<sup>3</sup>/s) May 22, 1920, gage height, 12 ft (3.7 m), site and datum then in use, from rating curve extended above 3,500 ft<sup>3</sup>/s (99 m<sup>3</sup>/s); no flow Mar. 25, 26, 31, 1955. Maximum discharge since construction of El Vado Dam in 1935, 6,010 ft<sup>3</sup>/s (170 m<sup>3</sup>/s) May 17, 1941, gage height, 6.89 ft (2.100 m).

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,880 ft<sup>3</sup>/s (53.2 m<sup>3</sup>/s) May 4, gage height, 4.45 ft (1.698 m); minimum daily, 16 ft<sup>3</sup>/s (0.45 m<sup>3</sup>/s) many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	34	1030	1490	16	16	1220	1690	118	412	99	686
2	134	34	1030	1490	16	16	1520	1690	118	457	116	817
3	219	326	1030	1490	16	16	1520	1700	118	515	110	928
4	219	412	1030	1490	16	16	1530	1730	118	515	137	928
5	219	289	1020	1490	16	16	1530	1780	118	515	123	928
6	219	135	1020	1490	16	16	1280	1780	118	515	54	920
7	219	34	1020	1490	16	16	1060	1730	118	515	52	912
8	219	33	1020	628	16	16	1060	1670	113	578	52	912
9	219	31	1020	18	18	137	1060	1670	113	651	269	912
10	219	30	1020	16	18	232	1060	1350	113	651	509	912
11	219	29	1020	16	18	232	1070	1170	113	651	509	904
12	219	118	1020	16	18	232	698	1300	113	651	636	904
13	219	244	1020	16	18	232	54	1580	110	651	993	904
14	219	338	1020	16	18	232	52	1800	110	651	1130	896
15	219	390	1260	16	18	125	79	1810	182	644	1130	896
16	219	390	1490	16	18	18	113	1820	182	644	982	840
17	219	390	1490	16	18	18	113	1820	110	637	819	728
18	219	390	1490	16	18	18	113	1820	110	637	926	672
19	219	390	1490	16	18	18	113	1160	110	637	840	672
20	219	440	1490	16	18	16	113	457	110	637	700	665
21	219	480	1490	16	18	16	113	268	107	637	700	665
22	215	480	1490	16	18	16	398	113	155	637	700	550
23	102	474	1490	16	18	16	721	113	158	637	700	440
24	26	522	1490	16	18	16	721	116	256	637	693	440
25	26	676	1490	16	16	16	721	116	418	630	693	440
26	24	805	1490	16	16	16	831	88	418	538	693	440
27	24	805	1490	16	16	16	984	58	418	451	686	385
28	29	937	1490	16	16	16	1030	91	412	451	686	250
29	33	1030	1490	16	16	178	1180	116	412	451	686	133
30	33	1030	1490	16	---	646	1490	118	412	451	686	91
31	34	---	1490	16	---	896	---	118	---	323	686	---
TOTAL	4874	11716	39420	11428	496	3486	23547	32842	5581	17607	17795	20770
MEAN	157	391	1272	369	17.1	112	785	1059	186	568	574	692
MAX	219	1030	1490	1490	18	896	1530	1820	418	651	1130	928
MIN	24	29	1020	16	16	16	52	58	107	323	52	91
AC-FT	9670	23240	78190	22670	984	6910	46710	65140	11070	34920	35300	41200
CAL YR 1975	TOTAL	194100	MEAN 532	MAX 3260	MIN 24	AC-FT 385000						
WTR YR 1976	TOTAL	189562	MEAN 518	MAX 1820	MIN 16	AC-FT 376000						

## 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 (12 m) downstream from site of former bridge, 7.7 mi (12.4 km) downstream from Rio Gallina, 9 mi (14 km) northwest of Youngsville, 15.6 mi (25.1 km) upstream from Abiquiu Dam, 30.3 mi (48.8 km) downstream from El Vado Dam, and at mile 47.4 (76.3 km).

DRAINAGE AREA.--1,600 mi<sup>2</sup> (4,144 km<sup>2</sup>), of which about 100 mi<sup>2</sup> (260 km<sup>2</sup>) is probably noncontributing.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 6,275 ft (1,913 m), from topographic map.

REMARKS.--Water-discharge records good except those for January, which are fair. Flow regulated by El Vado Reservoir (station 08285000). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions for irrigation of about 15,000 acres (61 km<sup>2</sup>) above station. Corps of Engineers gage height telemeter at station.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 358 ft<sup>3</sup>/s (10.14 m<sup>3</sup>/s), 259,400 acre-ft/yr (320 hm<sup>3</sup>/yr), prior to release of transmountain water; 6 years (water years 1971-76), 379 ft<sup>3</sup>/s (10.73 m<sup>3</sup>/s), 274,600 acre-ft/yr (339 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,550 ft<sup>3</sup>/s (185 m<sup>3</sup>/s) May 20, 1973, gage height, 8.70 ft (2.652 m); minimum 7.5 ft<sup>3</sup>/s (0.21 m<sup>3</sup>/s) Oct. 17, 18, 1963.

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

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,850 ft<sup>3</sup>/s (52.4 m<sup>3</sup>/s) May 14-18, gage height, 5.20 ft (1.585 m); minimum 9.3 ft<sup>3</sup>/s (0.26 m<sup>3</sup>/s) Feb. 2, result of freezeup, but may have been less during period of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	38	995	1530	20	24	1010	1740	118	432	212	687
2	31	37	1000	1530	20	28	1530	1740	116	436	177	729
3	169	44	1000	1520	22	26	1520	1740	114	524	132	930
4	199	452	1000	1520	24	24	1530	1770	112	533	103	930
5	205	287	1000	1520	28	23	1590	1830	111	529	171	930
6	207	254	1000	1510	27	25	1480	1840	112	529	87	943
7	207	70	1010	1510	25	24	1150	1800	114	529	56	969
8	210	38	1000	1170	30	25	1150	1730	128	545	55	930
9	212	34	1020	86	41	25	1150	1730	114	637	55	930
10	214	33	1020	44	67	173	1150	1570	111	637	475	924
11	216	31	1020	35	37	223	1160	1160	109	637	504	918
12	216	30	1030	32	34	226	1110	1370	109	656	508	912
13	219	161	1030	35	34	228	157	1530	109	632	874	906
14	219	284	1030	30	60	228	96	1850	108	632	1150	906
15	221	364	1130	32	47	228	94	1850	108	637	1150	900
16	221	367	1490	33	34	80	130	1850	256	632	1100	900
17	221	367	1490	29	28	30	143	1850	120	622	835	778
18	221	367	1490	28	25	28	140	1850	111	622	906	661
19	221	373	1500	26	26	25	138	1590	109	617	999	656
20	219	379	1510	25	26	24	138	512	109	617	751	661
21	219	443	1510	24	21	24	128	480	109	613	707	687
22	219	443	1510	25	21	24	179	169	111	613	702	637
23	211	443	1520	26	24	24	734	155	208	637	777	446
24	55	454	1520	26	27	24	729	147	127	637	778	450
25	32	552	1520	25	22	24	729	143	432	613	718	496
26	30	751	1520	23	22	23	751	138	439	614	707	484
27	29	767	1520	24	23	23	1010	89	436	692	702	550
28	28	821	1520	26	22	25	1040	70	432	481	702	572
29	30	1000	1530	24	23	28	1180	106	432	443	734	182
30	34	988	1520	21	---	401	1430	119	439	443	697	125
31	36	---	1520	20	---	870	---	118	---	526	687	---
TOTAL	4803	10672	39475	12509	860	3207	24476	34636	5563	17947	18211	21729
MEAN	155	356	1273	404	29.7	103	816	1117	185	579	587	724
MAX	221	1000	1530	1530	67	870	1590	1850	439	692	1150	969
MIN	28	30	995	20	20	23	94	70	108	432	55	125
AC-FT	9530	21170	78300	24810	1710	6360	48550	68700	11030	35600	36120	43100
CAL YR 1975	TOTAL	202646	MEAN 555	MAX 3200	MIN 24	AC-FT 401900						
WTR YR 1976	TOTAL	194088	MEAN 530	MAX 1850	MIN 20	AC-FT 385000						

08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD RECORD.--Water years 1962 to current year.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDIM- ENT (MG/L) (R0154)	SUS- PENDED SEDIM- ENT DIS- CHARGE (T/DAY) (H0155)	SUS. SED. FALL DIAM. % FINER THAN (70337)
FER 03...	1055	17	730	3.5	18	.83	--
MAR 02...	1040	26	963	7.0	343	24	--
MAR 31...	1130	874	336	--	645	1520	--
APR 26...	1535	741	282	10.5	86	172	--
MAY 24...	1340	148	346	17.0	56	22	--
JUN 23...	1055	182	309	17.0	10	4.9	--
AUG 12...	1120	518	230	15.0	422	590	41
SEP 13...	1330	926	260	15.0	406	1020	--

DATE	SUS. SED. FALL DIAM. % FINER THAN (70338)	SUS. SED. FALL DIAM. % FINER THAN (70340)	SUS. SED. FALL DIAM. % FINER THAN (70331)	SUS. SED. FALL DIAM. % FINER THAN (70332)	SUS. SED. FALL DIAM. % FINER THAN (70333)	SUS. SED. FALL DIAM. % FINER THAN (70334)
FER 03...	--	--	--	--	--	--
MAR 02...	--	--	--	--	--	--
MAR 31...	--	--	--	--	--	--
APR 26...	--	--	--	--	--	--
MAY 24...	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--
AUG 12...	46	62	93	97	99	100
SEP 13...	--	--	--	--	--	--

## 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 (10.6 km) northwest of Abiquiu, and at mile 32.1 (51.6 km).

DRAINAGE AREA.--2,146 mi<sup>2</sup> (5,558 km<sup>2</sup>), of which about 100 mi<sup>2</sup> (260 km<sup>2</sup>) is probably noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Reservoir is formed by earthfill dam, completed Feb. 5, 1963. Capacity, 1,215,000 acre-ft (1.50 km<sup>3</sup>) between elevations 6,060 ft (1,847 m), invert of outlet tunnel, and 6,350 ft (1,935 m), crest of spillway, based on capacity table effective Jan. 1, 1976. No dead storage. Reservoir is used for flood control and, since March 1976, for recreation. A desilting pool of about 2,000 acre-ft (2.5 hm<sup>3</sup>) was maintained from May 1968 to 1974, when it was increased to 4,000 acre-ft (4.9 hm<sup>3</sup>) and continued until December 1975. A recreation pool of about 25,000 acre-ft (31 hm<sup>3</sup>) has been maintained since March 1976.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 205,300 acre-ft (253 hm<sup>3</sup>) June 22, 1973, elevation, 6,219.93 ft (1,895.835 m); no storage at times prior to May 1968 and Jan. 11 to Mar. 25, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 37,580 acre-ft (46.3 hm<sup>3</sup>) May 19, elevation 6,161.44 ft (1,878.007 m); no storage Jan. 11 to Mar. 25.

## Capacity tables (elevation, in feet, and contents, in acre-feet)

Oct. 1 to Dec. 31 (Based on survey by Corps of Engineers in 1973)		Jan. 1 to Sept. 30 (Based on survey by Corps of Engineers in 1976)	
6115	3460	6060	0
6120	5410	6070	7
6130	10470	6080	52
6140	16820	6090	221
		6100	766
		6110	1940
		6120	4180
		6130	9030
		6140	15520
		6150	24140
		6160	35590
		6170	51510

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 0800 (OCT. 1 TO DEC. 31), AT 2400 (JAN. 1 TO SEPT. 30)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14830	4050	4080	3220		0	3050	29450	27330	26730	26680	25660
2	13500	4040	4080	3200		0	6790	30180	27320	26690	26600	25750
3	11300	4030	4060	3190		0	9770	30850	27340	26770	26270	25850
4	9470	4170	4040	3180		0	12860	31640	27340	26790	26050	25780
5	7710	4120	4010	3190		0	15940	32510	27410	26770	26090	25690
6	5880	4000	4010	3190		0	18660	33420	27390	26670	26060	25650
7	4160	4030	4010	3180		0	20480	34270	27480	26560	26010	25620
8	4180	3940	4010	2990		0	22320	34950	27440	26600	25980	25520
9	4100	4030	4000	1640		0	23860	35620	27340	26620	25960	25480
10	4010	4010	4010	931		0	25140	35830	27260	26520	26060	25460
11	4080	4010	4010	0		0	26920	35080	27240	26410	25970	25470
12	4060	4000	4030	0		0	28160	34720	27240	26480	25990	25460
13	4030	4010	4040	0		0	28440	34600	27250	26420	26100	25470
14	3980	4050	4040	0		0	28500	35080	27230	26370	26080	25500
15	4010	4010	4020	0		0	28520	35480	27160	26360	25950	25500
16	4050	4050	4410	0		0	28520	36190	27210	26570	25900	25640
17	4010	4060	4140	0		0	28550	36680	27060	26500	25810	26160
18	4050	4080	4160	0		0	28610	37210	27090	26370	25980	26060
19	4030	4070	4130	0		0	28540	37310	27130	26290	25990	25790
20	4020	4060	4120	0		0	28460	35250	27160	26250	25790	25550
21	4040	4080	4100	0		0	28490	34000	27110	26350	25780	25510
22	4050	4050	4100	0		0	28440	32480	27020	26380	25800	25470
23	4060	4000	4100	0		0	28680	30920	27000	26370	26080	25410
24	4180	4010	4120	0		0	28510	29300	26840	26330	25960	25470
25	4050	4110	4120	0		0	28310	28190	26980	26300	25740	25490
26	4050	4110	4110	0		5.0	28230	27770	26860	26270	25770	25460
27	4050	4060	4110	0		18	28550	27700	26890	26280	25730	25670
28	4030	4060	4110	0		32	28500	27560	26900	26270	25690	25670
29	4010	4390	4090	0		89	28500	27430	26840	26180	25750	25340
30	4010	4120	4080	0		400	28710	27340	26750	26180	25740	25400
31	4040	---	4060	0		2080	---	27340	---	26840	25680	---
MAX	14830	4390	4410	3220		2080	28710	37310	27480	26840	26680	26160
MIN	3980	3940	4000	0		0	3050	27340	26750	26180	25680	25340
(†)	6116.61	6116.84	6116.69	-		6110.91	6154.37	6153.12	6152.56	6152.65	6151.53	6151.26
(‡)	-10770	+80	-60	a-3220		0	+2080	+26630	-1370	-590	+90	-280
CAL YR 1975	MAX	110300	MIN	3940		‡	-14270					
WTR YR 1976	MAX	37310	MIN	0		‡	a+11940					

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

a Computed on basis of revised capacity table put into use Jan. 1, 1976.



LOCATION.--Lat 36°14'12", long 106°24'59", in SE4SE4 sec.8, T.23 N., R.5 E., Rio Arriba County, Hydrologic Unit 13020102, on right bank 0.8 mi (1.3 km) downstream from Abiquiú Dam, 5.9 mi (9.5 km) northwest of Abiquiú, and at mile 31.3 (50.4 km).

WATER-DISCHARGE RECORDS

REMARKS.--Water-discharge records good except those for January to March, which are fair. Flow controlled by El Vado Reservoir (station 08285000) 46.4 mi (74.7 km) upstream and Abiquiu Reservoir (station 08286900) 0.8 mi (1.3 km) upstream. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 54.5 mi (87.7 km) upstream. Diversions for irrigation of about 17,600 acres (71 km<sup>2</sup>) above station. Corps of Engineers gauge height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 2,990  $\text{ft}^3/\text{s}$  (84.7  $\text{m}^3/\text{s}$ ) July 1, 1965, gage height, 6.69 ft (2.039 m), datum then in use; maximum gage height, 7.29 ft (2.222 m) Jan. 14, 1967 (backwater from ice); minimum discharge, about 0.5  $\text{ft}^3/\text{s}$  (0.01  $\text{m}^3/\text{s}$ ) Mar. 17, 1966, Jan. 28, 1972.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	422	54	1980	1530	35	48	50	1300	130	456	383	736
2	1000	54	1090	1530	33	44	57	1300	119	456	237	718
3	1130	54	1090	1530	32	42	65	1290	96	477	309	882
4	1110	366	1090	1530	33	38	71	1300	100	524	216	985
5	1980	441	1070	1530	35	41	74	1300	101	537	130	985
6	999	311	1060	1530	33	38	140	1300	103	580	116	985
7	467	178	1060	1530	34	44	156	1300	100	580	80	980
8	235	55	1060	1470	37	40	165	1300	141	524	69	982
9	257	48	1060	850	44	42	267	1300	172	628	66	964
10	233	52	1060	413	64	91	430	1370	147	693	403	959
11	234	48	1060	320	57	227	438	1440	109	693	601	942
12	233	40	1060	56	47	258	215	1450	99	665	525	934
13	239	116	1060	58	40	248	70	1470	89	663	794	912
14	230	308	1060	61	56	262	70	1500	88	670	1140	908
15	222	406	1070	59	71	280	82	1510	132	648	1200	922
16	227	423	1440	57	48	203	95	1520	201	648	1140	914
17	224	430	1590	54	39	80	95	1520	192	671	924	843
18	227	439	1510	61	37	59	99	1530	78	699	858	759
19	237	442	1540	48	36	57	160	1550	78	668	1020	831
20	231	441	1540	30	36	48	175	1470	78	650	886	815
21	234	491	1540	41	35	45	125	1230	115	632	753	746
22	234	524	1540	54	33	42	172	982	143	634	736	733
23	211	518	1540	38	37	42	563	974	180	654	730	534
24	140	513	1540	38	46	41	812	971	179	660	875	446
25	63	625	1540	30	40	40	810	753	337	661	854	527
26	37	796	1540	30	32	40	738	364	452	667	716	567
27	45	873	1540	30	44	40	793	159	407	545	752	615
28	49	863	1540	30	36	40	990	178	407	497	745	718
29	39	1070	1530	35	45	40	1100	192	459	498	736	404
30	39	1140	1530	36	---	40	1210	160	477	458	733	128
31	48	---	1530	35	---	46	---	130	---	461	747	---
TOTAL	10376	12119	40560	14644	1195	2646	10287	34113	5509	18497	19474	23374
MEAN	335	404	1308	472	41.2	85.4	343	1100	184	597	628	779
MAX	1130	1140	1590	1530	71	280	1210	1550	477	699	1200	985
MIN	37	40	1060	30	32	38	50	130	78	456	66	128
AC-FT	20580	24040	80450	29050	2370	5250	20400	67660	10930	36690	38630	46360
CAL YR 1975	TOTAL	235263	MEAN	645	MAX	1740	MIN	10	AC-FT	466600		
WTR YR 1976	TOTAL	192794	MEAN	527	MAX	1590	MIN	30	AC-FT	382400		

08287000 RIO CHAMA BELOW ABIQUIU DAM, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (000095)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDI- MENT (MG/L) (80154)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)
FEH 03...	1400	46	1010	3.5	27400	3400	36	44	72	99	100
MAR 02...	1340	44	1070	10.0	16800	2000	--	--	--	--	--
31...	1320	75	805	12.0	107000	21700	43	54	84	100	--
APR 15...	1040	65	310	9.0	34	6.0	--	--	--	--	--
27...	1105	841	302	11.0	57	129	--	--	--	--	--
MAY 25...	1230	707	257	13.0	39	74	--	--	--	--	--
AUG 12...	1345	525	355	19.0	21	30	--	--	--	--	--
SEP 14...	1205	966	256	16.0	73	190	--	--	--	--	--

LOCATION.--Lat 36°20'59", long 106°02'37", in NW¼NE¼ sec.1, T.24 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, on left bank 400 ft (120 m) upstream from bridge on State Highway 96, 2.4 mi (3.9 km) south of La Madera, 2.6 mi (4.2 km) downstream from confluence of Rio Vallecitos and Rio Tusas, 3.1 mi (5.0 km) north of Ojo Caliente, and at mile 19.9 (32.0 km).

REVISED RECORDS.--WSP 1712: 1959.

REMARKS.--Records fair. Diversions above station for irrigation of about 3,500 acres (14 km<sup>2</sup>), 1962 determination. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,140 ft<sup>3</sup>/s (88.9 m<sup>3</sup>/s) Apr. 21, 1958, gage height, 6.42 ft (1.957 m), from rating curve extended above 1,300 ft<sup>3</sup>/s (36.8 m<sup>3</sup>/s); maximum gage height, 7.25 ft (2.210 m), from floodmarks, June 19, 1966; minimum discharge 0.2 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Aug. 17, 1956.

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 378 ft<sup>3</sup>/s (10.7 m<sup>3</sup>/s) Apr. 29, gage height, 5.00 ft (1.524 m), no peak above base of 600 ft<sup>3</sup>/s (17 m<sup>3</sup>/s); maximum gage height, 5.08 ft (1.548 m) Apr. 11; minimum discharge, 1.8 ft<sup>3</sup>/s (0.051 m<sup>3</sup>/s) Dec. 29, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	15	16	6.5	16	29	34	138	18	3.9	5.2	6.0
2	5.6	15	19	6.0	17	28	41	164	18	4.2	5.5	5.6
3	6.3	14	20	6.0	18	25	58	194	16	3.8	5.1	5.5
4	6.8	13	20	7.0	18	27	80	184	16	3.6	4.9	5.1
5	8.3	13	19	9.0	20	20	89	185	15	3.7	4.1	4.8
6	8.3	14	19	11	21	22	90	199	15	3.6	4.6	4.8
7	8.4	13	19	10	20	27	115	190	23	3.6	4.7	4.8
8	8.2	12	19	10	21	29	131	166	22	3.5	4.8	4.6
9	9.0	12	19	11	24	25	147	159	17	3.6	5.2	4.3
10	9.1	12	19	12	26	20	174	159	16	3.3	5.1	4.5
11	9.0	11	18	11	23	23	237	147	15	3.2	5.2	4.7
12	9.2	10	18	12	23	19	262	169	14	7.3	5.3	4.6
13	9.8	9.4	20	12	24	17	241	140	13	7.9	5.3	4.5
14	9.9	10	20	11	31	18	179	143	12	4.2	5.4	4.4
15	8.9	12	12	12	25	20	125	141	11	3.8	4.9	4.3
16	9.3	12	13	12	25	19	91	133	11	3.7	4.7	4.4
17	9.3	13	15	13	24	23	75	118	10	3.7	4.6	4.4
18	8.2	15	15	14	19	25	66	109	9.5	3.4	4.8	4.4
19	7.8	19	14	15	21	29	70	103	8.3	4.3	5.1	4.1
20	7.4	18	15	13	24	29	63	113	7.7	4.9	5.0	4.2
21	8.0	15	16	13	18	25	66	109	7.2	5.2	5.0	4.1
22	8.4	12	18	13	16	28	83	96	6.7	9.0	4.9	4.2
23	12	12	18	14	18	31	110	79	6.2	6.7	5.3	4.3
24	14	14	17	15	21	35	159	66	6.0	5.6	8.9	4.2
25	14	16	14	14	21	40	203	57	5.7	5.3	6.1	4.5
26	14	14	16	12	21	45	219	52	5.5	5.1	5.8	4.8
27	14	14	15	13	22	41	215	44	5.4	5.2	6.1	5.5
28	13	17	8.6	15	25	44	206	39	5.0	11	5.3	9.0
29	14	19	8.3	16	25	40	249	33	4.2	7.4	4.5	9.5
30	14	13	8.0	17	---	36	179	24	3.9	5.9	4.7	8.7
31	15	---	7.1	16	---	32	---	21	---	5.2	4.9	---
TOTAL	305.1	408.4	495.0	371.5	627	871	4057	3674	343.3	154.8	161.0	152.8
MEAN	9.84	13.6	16.0	12.0	21.6	28.1	135	119	11.4	4.99	5.19	5.09
MAX	15	19	20	17	31	45	262	199	23	11	8.9	9.5
MIN	5.6	9.4	7.1	6.0	16	17	34	21	3.9	3.2	4.1	4.1
AC-FT	605	810	982	737	1240	1730	8050	7290	681	307	319	303
CAL YR 1975	TOTAL	32434.0	MEAN	88.9	MAX	1150	MIN	2.2	AC-FT	64330		
WTR YR 1976	TOTAL	11620.9	MEAN	31.8	MAX	262	MIN	3.2	AC-FT	23050		

## RIO GRANDE BASIN

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

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--May, 1976.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)
MAY 18...	1645	235	7.0	18.0	120	38	5.6

DATE	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
MAY 18...	8.5	.3	1.8	40	110	10

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED RERYL- LIUM (RE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	DIS- SOLVED COBALT (CO) (UG/L) (01035)
MAY 18...	1645	100	2	50	<1	<3	40	0	<3	<3

DATE	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)
MAY 18...	2	<1	<4	110	9	30	10	.0	<2

DATE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TAN- IUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (Zr) (UG/L) (01160)
MAY 18...	<3	0	<0	150	<3	<3	2.0	10	<4

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)
MAY 18...	1645	3.3

## 08290000 RIO CHAMA NEAR CHAMITA, NM

LOCATION.--Lat 36°04'26", long 106°06'40", in NE¼NE¼ sec.8, T.21 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, in San Juan Pueblo Grant, at downstream end of pier nearest left bank of bridge on U.S. Highway 285, 0.5 mi (0.8 km) west of Chamita, 2.5 mi (4.0 km) northwest of San Juan Pueblo, and at mile 2.8 (4.5 km).

DRAINAGE AREA.--3,144 mi<sup>2</sup> (8,143 km<sup>2</sup>), of which about 100 mi<sup>2</sup> (260 km<sup>2</sup>) is probably noncontributing.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as Chama River near Chamita prior to 1928, and Chama River at Chamita 1929-30.

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

GAGE.--Water-stage recorder. Concrete control since Jan. 1, 1964. Datum of gage is 5,653.61 ft (1,723.220 m) above mean sea level. Prior to Oct. 4, 1933, at railroad bridge 2.3 mi (3.7 km) downstream at different datums. Oct. 4, 1933 to Mar. 1, 1942, at site 50 ft (15 m) downstream at datum 0.22 ft (0.067 m) higher. Mar. 2, 1942 to Dec. 31, 1963, at site 200 ft (60 m) downstream, present datum.

REMARKS.--Water-discharge records good except those for February, which are fair. Diversions above station for irrigation of about 27,600 acres (112 km<sup>2</sup>). Chamita ditch, on left bank, and Hernandez ditch, on right bank, bypass gage for irrigation of several hundred acres below station; see tabulation below for monthly diversion during irrigation season. Flow regulated by El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900), 74.9 mi (120.5 km) and 29.3 mi (47.1 km) upstream, respectively. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 83.0 mi (133.5 km) upstream. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--58 years (water years 1913-70), 541 ft<sup>3</sup>/s (15.32 m<sup>3</sup>/s), 392,000 acre-ft/yr (483 hm<sup>3</sup>/yr), prior to release of transmountain water; 6 years (water years 1971-76), 444 ft<sup>3</sup>/s (12.57 m<sup>3</sup>/s), 321,700 acre-ft/yr (397 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft<sup>3</sup>/s (425 m<sup>3</sup>/s) May 22, 1920, from rating curve extended above 2,300 ft<sup>3</sup>/s (65 m<sup>3</sup>/s); maximum gage height, 10.45 ft (3.185 m) Aug. 22, 1961; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The floods of Sept. 29, 1904, and Oct. 4 or 5, 1911, probably exceeded 15,000 ft<sup>3</sup>/s (420 m<sup>3</sup>/s). Another major flood occurred in 1884, from newspaper accounts.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,210 ft<sup>3</sup>/s (62.6 m<sup>3</sup>/s) Aug. 24, gage height, 5.55 ft (1.692 m); minimum 17 ft<sup>3</sup>/s (0.48 m<sup>3</sup>/s) June 21.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	81	1050	1510	80	85	47	1450	91	362	433	629
2	836	83	1100	1510	80	75	86	1470	96	372	272	589
3	1140	81	1100	1480	75	67	91	1550	74	365	279	684
4	1110	131	1090	1530	75	69	110	1550	63	423	293	874
5	1070	436	1070	1530	80	66	121	1580	63	426	138	887
6	1020	313	1080	1510	80	64	119	1600	93	444	113	876
7	683	252	1070	1510	80	64	170	1630	76	491	91	889
8	237	145	1060	1480	80	66	195	1620	65	418	58	888
9	270	78	1070	1080	85	66	246	1600	110	469	62	839
10	255	78	1070	376	90	66	463	1630	99	563	126	858
11	232	80	1060	336	85	191	520	1740	74	576	601	834
12	239	77	1040	235	80	248	560	1770	63	575	427	828
13	241	70	1020	115	75	251	293	1790	53	561	533	819
14	247	168	1010	120	80	254	235	1830	42	620	976	773
15	233	330	992	100	90	259	186	1830	49	573	1110	817
16	235	360	1260	90	80	261	172	1840	83	668	1070	834
17	243	380	1590	90	75	171	163	1840	138	627	896	830
18	224	392	1440	100	70	96	145	1810	74	654	774	618
19	248	419	1500	90	70	76	142	1830	32	702	1040	709
20	250	399	1510	60	70	73	218	1790	26	613	948	737
21	245	416	1530	70	65	70	158	1610	24	673	655	611
22	246	468	1540	80	65	68	124	1090	60	557	665	612
23	249	461	1540	70	70	69	344	1080	87	684	627	498
24	204	453	1520	70	80	70	796	1040	111	642	848	332
25	158	489	1530	65	75	71	859	911	129	642	913	367
26	102	657	1530	65	70	71	898	540	339	626	650	440
27	79	826	1530	65	80	62	859	186	298	693	659	468
28	77	797	1530	65	75	54	1070	167	299	490	656	642
29	84	958	1530	70	80	55	1310	163	318	489	633	504
30	70	1160	1530	75	---	54	1390	158	387	421	606	177
31	67	---	1530	80	---	50	---	120	---	411	628	---
TOTAL	10677	11038	40022	15627	2240	3262	12090	40815	3516	16830	17780	20463
MEAN	344	368	1291	504	77.2	105	403	1317	117	543	574	682
MAX	1140	1160	1590	1530	90	261	1390	1840	387	702	1110	889
MIN	67	70	992	60	65	50	47	120	24	362	58	177
AC-FT	21180	21890	79380	31000	4440	6470	23980	80960	6970	33380	35270	40590
(†)	652	-	-	-	-	-	488	822	1040	835	607	669
(‡)	245	-	-	-	-	-	780	1060	910	702	306	443

CAL YR 1975 TOTAL 259576 MEAN 711 MAX 2180 MIN 30 AC-FT 514900 † Diversion, in acre-ft, by Chamita ditch.  
WTR YR 1976 TOTAL 194360 MEAN 531 MAX 1840 MIN 24 AC-FT 385500 ‡ Diversion, in acre-ft, by Hernandez ditch.

NOTE.--No gage-height record Jan. 19 to Mar. 2.

## RIO GRANDE BASIN

08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

## WATER-QUALITY RECORDS

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

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (000095)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDIM- ENT CHARGE (MG/L) (80154)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN (70337)
JAN							
16...	1040	81	864	32.0	5310	1160	--
MAR							
03...	1530	70	842	--	3020	571	66
19...	1215	81	711	--	3310	724	--
31...	1205	68	695	6.0	675	124	--
APR							
29...	1130	1390	308	12.0	3710	13900	--
MAY							
26...	1100	579	307	17.0	120	188	--
JUN							
23...	0855	42	388	18.0	23	2.6	--
JUL							
08...	1430	79	831	4.0	2260	482	--
AUG							
17...	1250	1030	273	20.0	542	1510	37
SEP							
17...	1120	841	266	16.0	299	679	--

DATE	SUS. SED. FALL DIAM. % FINER THAN (70338)	SUS. SED. FALL DIAM. % FINER THAN (70340)	SUS. SED. SIEVE DIAM. % FINER THAN (70331)	SUS. SED. SIEVE DIAM. % FINER THAN (70332)	SUS. SED. SIEVE DIAM. % FINER THAN (70333)	SUS. SED. SIEVE DIAM. % FINER THAN (70334)
JAN						
16...	--	--	--	--	--	--
MAR						
03...	86	97	98	99	99	100
19...	--	--	--	--	--	--
31...	--	--	--	--	--	--
APR						
29...	--	--	--	--	--	--
MAY						
26...	--	--	--	--	--	--
JUN						
23...	--	--	--	--	--	--
JUL						
08...	--	--	--	--	--	--
AUG						
17...	41	50	73	93	93	100
SEP						
17...	--	--	--	--	--	--

## Diversions from Rio Chama

During the irrigation season records of discharge are collected on all 17 ditches and 2 pumps which divert from Rio Chama below El Vado Dam. All sites are located in Hydrologic Unit 13020102. All measuring devices consist of totalizing type flowmeters. All ditches are also equipped with Parshall flumes. In most cases meters on ditches are located below the most downstream wasteway and above any irrigated land. Flows tabulated represent water that is delivered to each ditch or portion thereof and may include waste water from another ditch. No attempt is made to credit for water returned to Rio Chama or delivered to another ditch.

- 08286300 MONASTERY PUMP NEAR ALIRE, NM.--Lat 36°22'45", long 106°40'55", in SE¼SW¼, sec.24, T.25 N., R.2 E., Rio Arriba County, in Santa Fe National Forest, totalizing flowmeter on discharge pipe of pump on left bank of Rio Chama, at Christ of the Desert Monastery, 8.8 mi (14.2 km) southwest of Alire, and 24 mi (39 km) northwest of Abiquiu. Period of record, April 1972 to current year.
- 08287020 ABEYTA TRUJILLO DITCH NEAR ABIQUIU, NM.--Lat 36°14'03", long 106°23'22", Rio Arriba County, in Carson National Forest, totalizing flowmeter and Parshall flume on left bank 0.9 mi (1.4 km) downstream from heading located on left bank of Rio Chama, and 4.5 mi (7.2 km) northeast of Abiquiu. Period of record, April 1972 to current year.
- 08287040 WINFIELD MORTON PUMP NEAR ABIQUIU, NM.--Lat 36°12'40", long 106°20'48", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter on discharge pipe of pump on left bank of Jose Pablo Gonzales ditch 700 ft (210 m) downstream from ditch heading located on left bank of Rio Chama, and 1.4 mi (2.3 km) west of Abiquiu. Period of record, April 1972 to current year.
- 08287060 JOSE PABLO GONZALES DITCH NEAR ABIQUIU, NM.--Lat 36°12'25", long 106°20'35", Rio Arriba County, in Town of Abiquiu Grant, totalizing flowmeter and Parshall flume on left bank, 0.5 mi (0.8 km) downstream from Winfield Morton pump, 0.6 mi (1.0 km) downstream from heading located on left bank of Rio Chama, and 1.2 mi (1.9 km) west of Abiquiu. Period of record, April 1972 to current year.
- 08287150 GONZALES DITCH AT ABIQUIU, NM.--Lat 36°12'46", long 106°19'16", Rio Arriba County, in Town of Abiquiu Grant, totalizing flowmeter and Parshall flume on right bank, 0.2 mi (0.3 km) downstream from heading located on right bank of Rio Chama, and 0.4 mi (0.6 km) northwest of Abiquiu. Period of record, April 1972 to current year.
- 08287200 LA FUENTE DITCH NEAR ABIQUIU, NM.--Lat 36°12'52", long 106°16'27", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank, 100 ft (30 m) downstream from culvert on U.S. Highway 84, 0.4 mi (0.6 km) downstream from heading located on right bank of Rio Chama, and 2.5 mi (4.0 km) east of Abiquiu. Period of record, April 1972 to current year.
- 08287250 QUINTANA DITCH NEAR ABIQUIU, NM.--Lat 36°12'55", long 106°16'26", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 100 ft (30 m) upstream from culvert on U.S. Highway 84, 0.2 mi (0.3 km) downstream from heading located on right bank of Rio Chama, and 2.6 mi (4.2 km) east of Abiquiu. Period of record, April 1972 to current year.
- 08287270 VALENTINE MARTINEZ DITCH NEAR ABIQUIU, NM.--Lat 36°12'55", long 106°16'12", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank on north side of U.S. Highway 84, 0.2 mi (0.3 km) downstream from heading located on left bank of Quintana ditch (station 08287250), and 2.8 mi (4.5 km) east of Abiquiu. Period of record, April 1972 to current year.
- 08287300 MARIANO DITCH NEAR ABIQUIU, NM.--Lat 36°13'05", long 106°16'09", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank 0.5 mi (0.8 km) downstream from heading located on left bank of Rio Chama, and 2.9 mi (4.7 km) east of Abiquiu. Period of record, April 1972 to current year.
- 08287400 FERRAN DITCH NEAR ABIQUIU, NM.--Lat 36°12'57", long 106°14'34", Rio Arriba County, in Carson National Forest, totalizing flowmeter and Parshall flume on left bank just downstream from siphon, 40 ft (12 m) upstream from forest boundary, 0.2 mi (0.3 km) downstream from culvert on State Highway 96, 0.4 mi (0.6 km) downstream from tail of Mariano ditch (station 08287300), 0.9 mi (1.4 km) downstream from heading located on left bank of Rio Chama, and 4.4 mi (7.1 km) east of Abiquiu. Period of record, April 1972 to current year.
- 08287600 TIERRA AZUL DITCH NEAR MEDANALES, NM.--Lat 36°12'06", long 106°14'11", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank 1.1 mi (1.8 km) downstream from heading located on right bank of Rio Chama, and 3.5 mi (5.6 km) northwest of Medanales. Period of record, April 1972 to current year.
- 08288050 JOSE V. MARTINEZ DITCH NEAR MEDANALES, NM.--Lat 36°11'44", long 106°13'39", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank 0.1 mi (0.2 km) downstream from heading located on left bank of Rio Chama, and 2.9 mi (4.7 km) northwest of Medanales. Period of record, April 1972 to current year.
- 08288100 MANZANARES AND MONTOYA DITCH NEAR MEDANALES, NM.--Lat 36°11'13", long 106°12'35", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 0.2 mi (0.3 km) downstream from heading located on right bank of Rio Chama, and 1.7 mi (2.7 km) northeast of Medanales. Period of record, April 1972 to current year.
- 08288150 RIO DE CHAMA DITCH NEAR MEDANALES, NM.--Lat 36°11'13", long 106°12'02", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter, water-stage recorder, and Parshall flume on left bank, 0.5 mi (0.8 km) downstream from tail of Jose V. Martinez ditch (station 08288050), 0.7 mi (1.1 km) downstream from heading located on left bank of Rio Chama, and 1.3 mi (2.1 km) northwest of Medanales. Period of record, April 1972 to current year.
- 08288200 MARTINEZ AND DURANES DITCH (UPPER) NEAR MEDANALES, NM.--Lat 36°10'55", long 106°11'59", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 300 ft (91 m) downstream from tail of Manzanares and Montoya ditch (station 08288100), 0.7 mi (1.1 km) downstream from heading located on right bank of Rio Chama, and 1.1 mi (1.8 km) northwest of Medanales. Period of record, April 1972 to current year.
- 08288250 MARTINEZ AND DURANES DITCH (LOWER) NEAR MEDANALES, NM.--Lat 36°09'26", long 106°10'24", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 0.9 mi (1.4 km) downstream from culvert on State Highway 233, 1.4 mi (2.3 km) south of Medanales, 2.5 mi (4.0 km) downstream from "upper" gage (station 08288200), and 3.2 mi (5.1 km) downstream from heading located on right bank of Rio Chama. Period of record, April 1972 to current year.
- 08288300 CHILI DITCH NEAR HERNANDEZ, NM.--Lat 36°07'00", long 106°09'11", in SW¼SW¼ sec.24, T.22 N., R.7 E., Rio Arriba County, totalizing flowmeter and Parshall flume on left bank, 0.4 mi (0.6 km) downstream from heading located on right bank of Rio Chama, 0.5 mi (0.8 km) upstream from siphon under Rio del Oso, and 4.1 mi (6.6 km) northwest of Hernandez. Period of record, April 1972 to current year.

## Diversions from Rio Chama - Continued

08289500 CHAMITA DITCH NEAR CHAMITA, NM.--Lat 36°04'57", long 106°06'54", in SW¼NE¼ sec.5, T.21 N., R.8 E., in Rio Arriba County, in San Juan Pueblo Grant, totalizing flowmeter, water-stage recorder, and Parshall flume on left bank, 30 ft (9 m) upstream from flume over Arroyo de la Penita, 0.7 mi (1.1 km) downstream from heading located on left bank of Rio Chama, and 1.0 mi (1.6 km) northwest of Chamita. Period of record, March 1936 to April 1941, February 1963 to current year (records furnished by Bureau of Reclamation August 1966 to December 1972).

08289800 HERNANDEZ DITCH AT HERNANDEZ, NM.--Lat 36°04'52", long 106°07'16", Rio Arriba County, in Bartolome Sanchez Grant, totalizing flowmeter, water-stage recorder, and Parshall flume on right bank, 0.7 mi (1.1 km) downstream from heading located on right bank of Rio Chama, 1.1 mi (1.8 km) north of Hernandez, and 1.3 mi (2.1 km) northwest of Chamita. Period of record, March 1963 to current year (records furnished by Bureau of Reclamation July 1965 to December 1971).

08290100 SALAZAR DITCH AT HERNANDEZ, NM.--Lat 36°03'44", long 106°06'31", in SE¼SE¼ sec.8, T.21 N., R.8 E., Rio Arriba County, in San Juan Pueblo Grant, totalizing flowmeter and Parshall flume on right bank, 0.1 mi (0.2 km) downstream from heading located on right bank of Rio Chama, and 0.6 mi (1.0 km) east of Hernandez. Period of record, April 1972 to current year.

## Diversions from Rio Chama, in acre-feet, irrigation season 1976

Diversion	APR	MAY	JUN	JUL	AUG	SEP	OCT
08286300 Monastery pump	0	0	0	.7	.7	.3	0
08287020 Abeyta Trujillo ditch	a	476	412	539	413	374	86
08287040 Winfield Morton pump	45	110	65	74	0	0	0
08287060 Jose Pablo Gonzales ditch	607	634	667	914	512	a	292
08287150 Gonzales ditch	25	241	148	171	124	118	37
08287200 La Puente ditch	0	61	106	260	213	166	0
08287250 Quintana ditch	41	80	68	80	57	113	49
08287270 Valentine Martinez ditch	22	9.0	21	7.3	22	14	1.9
08287300 Mariano ditch	154	235	288	302	0	150	0
08287400 Ferran ditch	7.2	287	33	16	43	51	0
08287600 Tierra Azul ditch	145	597	424	1,110	b0	4.6	0
08288050 Jose V. Martinez ditch	51	231	256	990	687	86	b50
08288100 Manzanares and Montoya ditch	21	48	45	8.9	5.7	8.8	2.5
08288150 Rio de Chama ditch	478	667	536	655	483	529	b500
08288200 Martinez and Duranes ditch (upper)	652	949	693	497	526	568	348
08288250 Martinez and Duranes ditch (lower)	75	a	a	85	458	689	392
08288300 Chili ditch	189	231	136	63	110	144	129
08289500 Chamita ditch	488	822	1,040	835	607	669	600
08289800 Hernandez ditch	780	1,060	910	702	306	443	b250
08290100 Salazar ditch	437	610	598	444	b400	364	382

a No record.

b Record estimated.



## 08291000 SANTA CRUZ RIVER AT CUNDIYO, NM

LOCATION.--Lat 35°57'53", long 105°54'14", in SE¼NW¼ sec.17, T.20 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, on left bank 135 ft (41 m) downstream from bridge on State Highway 4, 200 ft (61 m) downstream from confluence of Rio Medio and Rio Frijoles, 0.6 mi (1.0 km) northwest of Cundiyo, 1.8 mi (2.9 km) upstream from Santa Cruz Dam, and at mile 11.9 (19.1 km).

DRAINAGE AREA.--86 mi<sup>2</sup> (220 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1953, published as Rio Santa Cruz at Cundiyo.

REVISED RECORDS.--WSP 1392: 1931(M), 1932-33, 1934-39(M), 1942, 1943(M).

GAGE.--Water-stage recorder. Concrete control since Jan. 3, 1954. Altitude of gage is 6,460 ft (1,969 m), from topographic map. Sept. 1, 1930 to Aug. 12, 1932, water-stage recorder at site about 1 mi (2 km) downstream at different datum. Aug. 13, 1932 to Oct. 29, 1934, water-stage recorder at site 35 ft (11 m) upstream at datum 0.42 ft (0.128 m) higher. Oct. 30, 1934 to Jan. 2, 1954, water-stage recorder at present site at datum 0.64 ft (0.195 m) lower.

REMARKS.--Remarks good except those for winter period, which are fair. Diversions for irrigation of about 1,000 acres (4.05 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years, 28.6 ft<sup>3</sup>/s (0.810 m<sup>3</sup>/s), 20,720 acre-ft/yr (25.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft<sup>3</sup>/s (68.5 m<sup>3</sup>/s) Sept. 24, 1931, gage height, 7.8 ft (2.38 m), site and datum then in use, from rating curve extended above 170 ft<sup>3</sup>/s (4.81 m<sup>3</sup>/s); minimum, 0.19 ft<sup>3</sup>/s (0.005 m<sup>3</sup>/s) Mar. 13, 1954, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
July 13	1700	*a1570 44.5	b5.5 1.68	Aug. 19	0400	254 7.19	3.00 .914
Aug. 10	2100	176 4.98	2.76 .841				

a From rating curve extended above 400 ft<sup>3</sup>/s (11 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 5.5 ft (1.68 m).

b From floodmarks.

Minimum discharge, 0.87 ft<sup>3</sup>/s (0.025 m<sup>3</sup>/s) Nov. 13, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	13	9.5	9.5	8.0	10	16	42	67	21	27	17
2	17	13	10	9.0	8.0	10	18	40	68	22	42	16
3	17	13	11	8.0	8.0	9.8	20	43	68	20	30	13
4	17	13	11	8.5	7.9	8.3	20	47	68	19	26	13
5	16	12	10	8.5	8.0	8.5	21	51	69	20	21	13
6	15	11	10	9.0	8.1	11	22	57	69	19	15	14
7	15	11	11	8.5	8.5	9.8	22	59	70	18	14	15
8	14	11	11	8.0	9.0	10	24	56	69	18	14	13
9	14	10	10	8.5	8.5	9.7	25	51	70	16	14	16
10	14	7.8	11	9.0	9.6	9.8	29	50	68	18	26	16
11	14	9.4	11	8.5	8.0	9.9	32	50	65	22	32	15
12	11	3.2	10	8.5	8.6	9.4	32	56	59	21	20	14
13	12	5.1	9.8	9.0	8.8	9.2	33	56	57	21	17	12
14	14	10	9.4	9.0	10	9.7	33	58	55	32	15	12
15	15	11	8.7	9.0	8.7	10	29	63	53	25	14	12
16	15	11	11	9.0	9.1	10	25	70	49	19	12	12
17	14	12	11	9.5	7.5	11	19	76	44	23	14	14
18	14	12	10	9.5	6.1	13	22	81	43	19	16	15
19	14	9.9	9.5	9.7	7.0	17	22	77	40	15	63	14
20	14	10	10	9.0	8.2	15	20	73	38	15	31	14
21	15	10	10	9.5	6.7	13	22	88	36	17	23	13
22	14	9.7	10	9.5	7.0	15	30	83	36	25	22	12
23	14	12	9.6	9.0	8.0	16	37	77	34	21	21	13
24	11	11	9.0	9.0	8.5	17	46	72	32	22	22	14
25	11	11	8.0	8.5	8.7	22	45	70	30	21	24	14
26	14	11	10	8.4	8.7	24	48	67	27	30	20	18
27	14	12	11	8.0	9.2	22	51	67	24	28	18	20
28	13	11	9.8	8.0	9.1	21	49	68	23	26	16	24
29	13	9.9	9.0	8.2	9.7	18	51	68	24	23	16	18
30	13	9.0	9.5	8.3	---	16	46	66	23	20	15	17
31	13	---	10	8.5	---	16	---	67	---	19	16	---
TOTAL	439	315.0	310.8	272.1	241.2	411.1	909	1949	1478	705	676	443
MEAN	14.2	10.5	10.0	8.78	8.32	13.3	30.3	62.9	49.3	22.7	21.8	14.8
MAX	18	13	11	9.7	10	24	51	88	70	71	63	24
MIN	11	3.2	8.0	8.0	6.1	8.3	16	40	23	15	12	12
AC-FT	871	625	616	540	478	815	1800	3870	2930	1400	1340	879
CAL YR 1975 TOTAL	10397.0			MEAN 28.5	MAX 109	MIN 3.2	AC-FT 20620					
WTR YR 1976 TOTAL	8149.2			MEAN 22.3	MAX 88	MIN 3.2	AC-FT 16160					

## 08294200 NAMBE FALLS RESERVOIR NEAR NAMBE, NM

LOCATION.--Lat 35°50'46", Long 105°54'17", in NE¼SW¼ sec.29, T.19 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, in Nambé Indian Reservation, 300 ft (91 m) upstream from Nambé Falls, 2.6 mi (4.2 km) upstream from confluence of Rio Nambé and Rio En Medio, 4.4 mi (7.1 km) southeast of Nambé Pueblo, and 5.4 mi (8.7 km) southeast of Nambé.

DRAINAGE AREA.--25.0 mi<sup>2</sup> (64.8 km<sup>2</sup>).

PERIOD OF RECORD.--February to September 1976.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (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 (2.49 hm<sup>3</sup>) at elevation 6,826.6 ft (2,080.75 m), crest of ogee weir spillway, including 237 acre-ft (292,000 m<sup>3</sup>) of storage in a permanent pool between elevation 6,760.9 ft (2,060.72 m), invert of outlet conduits, and 6,780.0 ft (2,066.54 m). Dead storage 121 acre-ft (149,000 m<sup>3</sup>) below elevation 6,760.9 ft (2,060.72 m). Outlet conduits are one 6-in (0.152 m) and two 12-in (0.305 m) diameter pipes. Reservoir is used for storage of irrigation water and for recreation. Figures given herein represent total storage.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR CURRENT YEAR.--Maximum contents during period February to September, 967 acre-ft (1.19 hm<sup>3</sup>) July 30 to Aug. 1, elevation 6,803.9 ft (2,073.83 m); no storage prior to Feb. 13.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Bureau of Reclamation in 1976)

6710	0	6750	49	6790	565
6720	2	6760	114	6800	838
6730	5	6770	208	6810	1,200
6740	17	6780	358		

CONTENTS, IN ACRE-FEET, PERIOD FEBRUARY 1976 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	42	194	281	456	772	967	967
2					---	48	201	279	475	763	966	960
3					---	55	210	281	523	754	974	953
4					---	60	218	281	553	743	985	946
5					---	64	227	284	577	731	998	936
6					---	72	231	284	602	720	709	933
7					---	74	236	285	638	704	720	926
8					---	81	239	285	664	693	731	919
9					---	85	240	287	693	666	743	913
10					---	92	247	284	723	666	754	916
11					---	97	254	282	751	666	777	916
12					---	101	260	287	769	651	789	916
13					---	108	263	289	783	638	801	913
14					---	112	264	290	801	627	807	909
15					---	118	266	293	804	615	817	903
16					---	122	266	303	810	592	817	890
17					---	129	261	317	814	575	814	876
18					---	133	260	327	814	558	807	860
19					---	141	260	334	814	541	832	845
20					---	149	257	337	814	521	848	823
21					---	154	254	344	810	507	864	807
22					0	158	254	349	814	507	876	789
23					2.0	163	255	351	814	512	890	772
24					2.0	165	258	351	810	512	903	751
25					11	169	264	355	807	514	919	731
26					19	173	272	360	801	532	929	715
27					24	177	276	360	798	556	939	704
28					29	182	282	373	795	570	950	698
29					35	184	284	395	789	582	960	704
30					---	185	282	422	780	590	967	712
31					---	187	---	438	---	640	967	---
MAX	---	---	---	---	---	187	284	438	814	772	967	967
MIN	---	---	---	---	---	42	194	279	456	507	651	698
(†)	---	---	---	---	6747.0	6768.0	6775.5	6784.2	6798.1	6793.0	6803.9	6795.7
(‡)	---	---	---	---	+35	+152	+95	+156	+342	-140	+327	-255

WTR YR 1976 MAX 967 MIN 0 ‡ +712

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

## 08294300 RIO NAMBE AT NAMBE FALLS, NEAR NAMBE, NM

LOCATION.--Lat 35°50'46", long 105°54'29", in NW¼SW¼ sec.29, T.19 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, in Nambé Indian Reservation, on left bank 800 ft (240 m) downstream from Nambé Falls, 1,100 ft (335 m) downstream from Nambé Falls Dam, 2.4 mi (3.9 km) upstream from confluence of Rio Nambé and Rio En Medio, 4.2 mi (6.8 km) southeast of Nambé Pueblo and 5.2 mi (8.4 km) south-east of Nambé.

DRAINAGE AREA.--25.1 mi<sup>2</sup> (65.0 km<sup>2</sup>).

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,513.68 ft (1,985.370 m) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Flow regulated by Nambé Falls Dam (station 08294200) since Feb. 22, 1976. Outlet conduits are one 6-inch (0.152 m) and two 12-inch (0.305 m) diameter pipes. No diversions above station.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--12 years (water years 1964-75), 10.7 ft<sup>3</sup>/s (0.303 m<sup>3</sup>/s), 7,750 acre-ft/yr (9.56 hm<sup>3</sup>/yr), prior to completion of Nambé Falls Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,090 ft<sup>3</sup>/s (30.9 m<sup>3</sup>/s) Aug. 8, 1967, gage height, about 6.0 ft (1.83 m), from floodmarks, from rating curve extended above 44 ft<sup>3</sup>/s (1.25 m<sup>3</sup>/s) on basis of field estimate of peak flow; minimum determined, 0.50 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) Mar. 19, 1971, Feb. 26, Feb. 28 to Mar. 2, Mar. 5, 1976, but may have been less during periods of ice effect.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s) May 21, 22, 23, 24, gage height, 1.05 ft (0.320 m); minimum daily, 0.50 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) Feb. 26, Feb. 28 to Mar. 2, Mar. 5, but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	6.1	5.2	5.8	3.1	.50	.89	13	15	16	9.5	10
2	8.7	6.1	5.2	7.6	3.1	.50	.75	13	15	16	8.7	11
3	8.7	5.8	5.2	5.2	3.1	.75	.75	13	16	16	8.7	11
4	8.3	5.8	5.0	13	3.3	.60	.76	14	16	16	7.7	11
5	8.3	5.5	5.0	9.1	3.5	.50	1.8	15	15	16	4.9	11
6	7.9	5.5	5.0	4.1	3.5	.70	3.5	16	15	16	4.9	11
7	7.3	5.5	5.0	3.1	3.5	.75	4.0	16	15	16	4.9	11
8	7.6	5.5	5.0	3.3	3.5	.80	4.7	16	15	16	4.9	11
9	7.3	5.5	5.0	3.3	3.7	.80	5.0	16	15	16	4.9	10
10	7.0	5.4	4.7	3.1	4.3	.80	5.2	16	15	16	4.9	8.3
11	7.0	5.5	4.5	3.1	3.7	.80	5.2	15	16	16	4.9	8.3
12	6.7	2.4	4.5	3.1	3.7	.85	6.7	16	17	15	4.9	7.9
13	6.7	3.7	4.5	2.9	4.1	.85	8.7	17	17	15	4.9	7.9
14	6.7	6.0	4.5	3.1	4.3	.90	8.7	17	17	16	4.9	8.3
15	6.7	6.1	4.1	3.1	3.9	.90	8.7	17	17	18	4.9	10
16	6.7	5.7	4.7	3.1	4.3	.90	8.7	16	18	18	6.1	12
17	6.7	5.8	4.9	3.6	3.3	1.0	8.7	18	18	18	7.9	12
18	6.7	5.7	5.2	3.1	3.5	1.0	8.7	20	18	18	7.9	13
19	6.7	5.0	6.0	2.7	3.7	1.0	8.7	20	18	17	6.3	13
20	6.4	5.2	6.6	2.4	3.9	1.0	8.5	20	18	16	4.9	13
21	6.4	5.7	7.0	2.7	3.9	1.0	8.0	23	18	17	5.2	13
22	6.1	5.4	5.5	2.7	3.5	2.1	7.6	24	17	18	5.5	13
23	6.4	5.4	4.7	2.7	3.5	3.3	8.1	24	16	18	5.5	13
24	5.2	5.4	4.7	2.6	1.1	3.3	8.3	24	16	18	5.5	13
25	5.8	5.4	4.9	2.6	.80	3.3	8.3	22	16	18	5.5	13
26	6.4	5.4	4.9	2.6	.50	3.3	9.4	22	15	14	5.5	13
27	6.4	5.4	4.7	3.3	.70	3.3	10	19	15	10	5.5	13
28	6.1	5.2	4.3	3.3	.50	3.3	12	15	14	10	4.7	11
29	6.1	5.2	4.9	2.7	.50	3.3	14	15	15	11	4.7	5.5
30	5.8	5.2	5.5	2.9	---	3.3	14	15	16	11	6.2	5.8
31	6.1	---	4.9	2.7	---	2.4	---	15	---	11	9.8	---
TOTAL	214.0	161.5	155.8	118.6	88.00	47.80	208.35	542	484	483	185.2	324.0
MEAN	6.90	5.38	5.03	3.83	3.03	1.54	6.95	17.5	16.1	15.6	5.97	10.8
MAX	9.1	6.1	7.0	13	4.3	3.3	14	24	18	18	9.8	13
MIN	5.2	2.4	4.1	2.4	.50	.50	.75	13	14	10	4.7	5.5
AC-FT	424	320	309	235	175	95	413	1080	960	958	367	643

CAL YR 1975 TOTAL 4231.40 MEAN 11.6 MAX 39 MIN 2.4 AC-FT 8390  
WTR YR 1976 TOTAL 3012.25 MEAN 8.23 MAX 24 MIN .50 AC-FT 5970

## RIO GRANDE BASIN

## 08312600 POJOAQUE RIVER AT SAN ILDEFONSO PUEBLO, NM

LOCATION.--Lat 35°53'51", long 106°06'24", Santa Fe County, Hydrologic Unit 13020101, in San Ildefonso Pueblo Grant, on right bank 0.7 mi (1.1 km) northeast of San Ildefonso Pueblo, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--184 mi<sup>2</sup> (477 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--May 1972 to current year (operated as a miscellaneous measurement site and high-flow station only).

GAGE.--Water-stage recorder. Altitude of gage is 5,560 ft (1,695 m), from topographic map.

REMARKS.--Records poor. Diversions for irrigation of about 4,900 acres (19.8 km<sup>2</sup>), 1973 determination, above station. Flow regulated by Nambé Falls Reservoir (station 08294200) since 1975. Mean daily discharge computed only when flow exceeds about 40 ft<sup>3</sup>/s (1.13 m<sup>3</sup>/s). Several observations of water temperature were made during the year. See table below for results of discharge measurements made during year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,100 ft<sup>3</sup>/s (173 m<sup>3</sup>/s) Aug. 19, 1972, gage height, 6.80 ft (2.073 m), from floodmarks, from rating curve extended above 110 ft<sup>3</sup>/s (3.12 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 5.12 ft (1.561 m) and 6.80 ft (2.073 m); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft<sup>3</sup>/s (14 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
July 21	2130	575 16.3	4.20 1.280	Aug. 19	0600	1270 36.0	4.80 1.463
July 31	1930	*a2650 75.0	5.50 1.676	Aug. 31	1830	803 22.7	4.43 1.350

a From rating curve extended as explained above.

Minimum discharge not determined.

## DISCHARGE MEASUREMENTS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 to SEPTEMBER 1976

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Oct. 14	e0.65	Feb. 11	e4.5	May 11	e1.6	July 26	2.6
27	e2.0	23	e3.6	25	e1.0	Aug. 2	8.5
Nov. 10	e1.0	Mar. 15	e3.2	June 15	.29	10	.62
25	e10	25	e2.0	25	.25	25	2.3
Jan. 13	e8.0	Apr. 15	e2.1	July 13	.07	Sept. 10	2.1
27	e2.1	26	e1.6	22	e8.9	24	.23

e Estimated.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										-	-	
2										-	-	
3										-	-	
4										-	-	
5										-	-	
6										-	-	
7										-	-	
8										-	-	
9										-	-	
10										-	-	
11										-	-	
12										-	-	
13										-	-	
14										-	-	
15										-	-	
16										-	-	
17										-	-	
18										-	-	
19										-	-	
20										-	-	
21										-	-	
22										40	-	
23										-	-	
24										-	-	
25										-	-	
26										-	-	
27										-	-	
28										-	-	
29										-	-	
30										-	-	
31										190	110	

## RIO GRANDE BASIN

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

LOCATION.--Lat 35°52'29", long 106°08'30", in SW¼SW¼ sec.18, T.19 N., R.8 E., Santa Fe County, Hydrologic Unit 13020101, in San Ildefonso Pueblo Grant, near right bank on downstream end of pier of former railway bridge, 400 ft (120 m) downstream from bridge on State Highway 4, 1.8 mi (2.9 km) southwest of San Ildefonso Pueblo, 2.5 mi (4.0 km) downstream from Pojoaque River, 6.8 mi (10.9 km) west of Pojoaque, and at mile 1,614.2 (2,597.2 km).

DRAINAGE AREA.--14,300 mi<sup>2</sup> (37,000 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1895 to December 1905, June 1909 to current year. Monthly discharge only for some periods, published in WSP 1312. In early reports this record was published as "at Water Tank," as "at Rio Grande," and as "near Buckman."

REVISED RECORDS.--WSP 828: Drainage area. WSP 1512: 1895-99, 1904-6, 1911-12, 1914, 1931(M), 1935. WSP 1712: 1904(M).

GAGE.--Water-stage recorder. Datum of gage is 5,488.48 ft (1,672.889 m) above mean sea level. See WSP 1312, 1732, or 1923 for history of changes prior to June 1, 1910.

REMARKS.--Water-discharge records good. Considerable regulation by Heron Reservoir (station 08284510), El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900) on Rio Chama, which can contribute a major portion of the total flow. Flow affected by release of transmountain water from Heron Reservoir since May 1971. Diversions above station for irrigation of about 620,000 acres (2,500 km<sup>2</sup>) in Colorado and 75,000 acres (300 km<sup>2</sup>) in New Mexico. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft<sup>3</sup>/s (691 m<sup>3</sup>/s) May 23, 1920; maximum gage height, 14.5 ft (4.42 m) Sept. 29, 1904, present site and datum; minimum daily discharge, 60 ft<sup>3</sup>/s (1.70 m<sup>3</sup>/s) July 4, 5, 1902.

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,480 ft<sup>3</sup>/s (127 m<sup>3</sup>/s) July 31, gage height, 6.45 ft (1.965 m), no peak above base of 5,200 ft<sup>3</sup>/s (150 m<sup>3</sup>/s); minimum, 394 ft<sup>3</sup>/s (11.2 m<sup>3</sup>/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	584	795	1660	2130	569	815	925	2520	1990	1200	1410	1030
2	1210	801	1670	2040	565	864	919	2530	1810	1160	975	930
3	1650	844	1790	2030	569	900	869	2550	1590	1130	836	954
4	1610	1250	1760	2070	579	962	877	2480	1470	1170	774	1160
5	1560	1850	1740	2120	587	879	934	2600	1480	1150	637	1160
6	1520	1800	1750	2110	599	795	1010	2820	1690	1140	546	1160
7	1280	1770	1770	2110	603	797	1180	2890	1760	1210	509	1170
8	687	1680	1760	2090	601	892	1340	2900	1840	1170	450	1160
9	701	1630	1760	1840	609	893	1370	2930	1970	1140	420	1130
10	704	1630	1770	1040	684	856	1590	2790	1870	1210	448	1130
11	657	1580	1770	943	730	941	1680	2730	1830	1200	890	1130
12	652	1410	1770	760	710	1020	1720	2690	1750	1160	880	1090
13	638	1300	1780	656	720	1020	1530	2730	1660	1120	833	1060
14	662	1330	1790	591	806	1020	1550	2750	1470	1150	1350	1030
15	660	1520	1760	580	821	990	1550	2800	1280	1140	1510	1080
16	662	1540	1890	585	831	971	1450	2860	1270	1130	1470	1070
17	676	1550	2270	609	815	833	1240	2980	1260	1110	1310	1090
18	655	1570	2110	620	752	785	1080	3250	1170	1090	1140	935
19	664	1700	2150	613	760	778	977	3390	1020	1100	1720	969
20	667	1680	2130	590	776	786	1030	3420	1040	1110	1390	1010
21	676	1630	2140	571	752	797	875	3300	1080	1220	1010	906
22	692	1630	2180	566	684	825	781	2770	1080	1130	1010	868
23	708	1570	2190	577	679	840	894	2630	1190	1210	965	818
24	687	1410	2210	609	728	838	1510	2550	1170	1200	1160	621
25	613	1390	2180	598	708	840	1600	2430	1160	1130	1410	643
26	564	1340	2180	548	703	878	1660	2010	1300	1160	1120	734
27	591	1460	2190	523	708	931	1650	1600	1190	1330	1060	810
28	651	1390	2180	548	737	981	1900	1640	1140	1210	1040	1040
29	685	1650	2150	582	772	1050	2190	1640	1140	1170	988	949
30	709	1860	2130	589	---	1040	2370	1790	1230	1020	973	526
31	761	---	2150	582	---	993	---	1980	---	1450	1050	---
TOTAL	25436	44560	60730	32420	20157	27810	40251	80950	42900	36220	31284	29363
MEAN	821	1485	1959	1046	695	897	1342	2611	1430	1168	1009	979
MAX	1650	1860	2270	2130	831	1050	2370	3420	1990	1450	1720	1170
MIN	564	795	1660	523	565	778	781	1600	1020	1020	420	526
AC-FT	50450	88380	120500	64310	39980	55160	79840	160600	85090	71840	62050	58240
CAL YR 1975 TOTAL	630285			1727	MAX 4670	MIN 375	AC-FT 1250000					
WTR YR 1976 TOTAL	472081			1290	MAX 3420	MIN 420	AC-FT 936400					

## RIO GRANDE BASIN

08113000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM --- Continued

## WATER-QUALITY RECORDS

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

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1946 to current year.

WATER TEMPERATURES: October 1948 to current year.

HARDNESS: October 1946 to current year.

DISSOLVED SOLIDS: October 1946 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1947 to current year.

INSTRUMENTATION.--Continuous water-temperature recorder since April, 1954.

REMARKS.--Daily mean temperature is computed by averaging the maximum and minimum temperatures for each day.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,310 micromhos Aug. 5, 1963; minimum daily, 165 micromhos June 13, 1952.

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

HARDNESS: Maximum, 702 mg/L Aug. 5, 1963; minimum, 79 mg/L Nov. 7-13, 1975.

DISSOLVED SOLIDS: Maximum, 1,030 mg/L Aug. 5, 1963; minimum, 131 mg/L May 16-31, 1975.

SEDIMENT CONCENTRATIONS: Maximum daily, 43,500 mg/L Aug. 21, 1955; minimum daily, 11 mg/L July 27, 1963, and Feb. 7, 1974.

SEDIMENT LOADS: Maximum daily, 366,000 tons (332,000 tonnes) Aug. 23, 1961; minimum daily, 3 tons (2.7 tonnes) July 27, 1963.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 479 micromhos Mar. 11; minimum daily, 203 micromhos Jan. 7.

WATER TEMPERATURES: Maximum, 26.0°C July 8; minimum, 0.0°C on many days during December and January.

HARDNESS: Maximum, 170 mg/L Oct. 1-7, minimum 79 mg/L Nov. 7-13.

DISSOLVED SOLIDS: Maximum, 293 mg/L Oct. 1-7; minimum, 136 mg/L Nov. 7-13.

SEDIMENT CONCENTRATIONS: Maximum daily, 25,500 mg/L July 31; minimum daily, 62 mg/L June 24.

SEDIMENT LOADS: Maximum daily, 170,000 tons (154,000 tonnes) July 31; minimum daily, 123 tons (112 tonnes) Oct. 27.

## CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)
OCT												
01-07	1340	450	7.7	170	61	51	10	27	.9	3.2	131	0
08-26	664	378	8.2	140	29	43	8.4	22	.8	3.1	138	0
27-31	679	325	8.1	120	12	38	6.7	21	.8	3.2	135	0
NOV												
01-06	1220	299	7.8	110	20	32	6.5	18	.8	2.6	106	0
07-13	1570	217	7.9	79	14	24	4.6	12	.6	2.1	79	0
14-30	1540	272	8.0	100	19	31	6.1	15	.6	2.0	102	0
DEC												
01-31	1960	273	7.8	110	20	34	6.5	13	.5	2.4	112	0
JAN												
01-09	2060	218	--	84	19	24	5.9	12	.6	1.8	79	--
10-11	992	255	--	90	15	25	6.7	17	.8	2.3	91	--
12-31	595	298	--	95	23	25	7.8	23	1.0	3.0	87	--
FEB												
01-06	578	371	--	130	17	39	8.0	24	.9	3.2	138	--
07-10	624	301	--	92	13	24	7.9	24	1.1	2.9	97	--
11-25	751	350	--	120	19	35	7.6	24	1.0	3.1	121	--
26-29	710	286	--	85	12	22	7.2	23	1.1	2.9	88	--
MAR												
01-10	865	350	8.3	120	16	36	7.4	23	.9	2.9	127	0
11-16	994	399	8.1	150	33	44	8.9	24	.9	3.1	138	0
17-31	880	315	8.3	120	14	35	6.7	20	.8	2.8	123	0
APR												
01-20	1240	275	8.1	100	11	31	5.9	16	.7	2.4	111	0
21-30	1540	312	8.0	120	21	36	6.8	16	.6	2.4	118	0
MAY												
01-31	2610	261	8.2	110	23	32	6.2	13	.6	2.1	101	0
JUN												
01-15	1700	290	7.8	110	26	35	5.8	18	.7	3.0	104	0
16-30	1160	352	7.9	130	34	40	7.2	22	.8	3.5	117	0
JUL												
01-31	1170	344	8.1	140	32	45	6.4	20	.7	3.0	130	0
AUG												
01-31	1010	376	7.7	140	31	46	6.4	19	.7	3.3	135	0
SEP												
01-30	979	316	7.8	120	35	39	5.7	15	.6	2.3	105	0
WTD. AVG.	--	302	8.0	116	24	35	6.5	17	.7	2.6	111	0
TIME WTD.												
AVG.	1290	315	8.0	118	24	36	6.7	18	.7	2.7	114	0
TOT. LOAD (TONS)	--	--	--	--	--	45200	8300	21500	--	3290	142000	0

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

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (REST- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS- SOLVED SOLIDS (TONS PER DAY) (70302)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT												
01-07	110	8.1	.4	18	--	293	.40	1060	.23	--	--	--
08-26	72	6.8	.4	20	--	244	.33	437	.12	--	--	--
27-31	47	6.7	.4	23	--	213	.29	391	.17	--	--	--
NOV												
01-06	55	5.3	.4	21	--	194	.26	639	.15	--	--	--
07-13	31	3.5	.3	19	--	136	.19	577	.13	--	--	--
14-30	45	4.2	.3	18	--	172	.23	715	.10	--	--	--
DEC												
01-31	48	4.1	.4	18	--	183	.25	968	.30	--	--	--
JAN												
01-09	45	2.7	.2	12	--	143	.19	795	.08	--	--	--
10-11	49	4.7	.3	15	--	165	.22	442	.00	--	--	--
12-31	72	7.3	.4	15	--	196	.27	315	.01	--	--	--
FEB												
01-06	64	8.3	.4	22	--	239	.33	373	.53	--	--	--
07-10	60	8.0	.4	16	--	191	.26	322	.01	--	--	--
11-25	68	7.4	.4	17	--	223	.30	452	.16	--	--	--
26-29	58	7.2	.4	16	--	180	.24	345	.01	--	--	--
MAR												
01-10	59	7.8	.4	23	--	224	.30	523	.39	--	--	--
11-16	79	7.3	.3	15	--	253	.34	679	.80	--	--	--
17-31	49	6.6	.4	23	--	206	.28	489	.35	--	--	--
APR												
01-20	44	5.5	.6	21	--	183	.25	613	.35	--	--	--
21-30	56	5.0	.3	16	--	198	.27	823	.20	--	--	--
MAY												
01-31	51	3.7	.2	15	--	173	.24	1220	.08	--	--	--
JUN												
01-15	58	5.4	.3	18	--	196	.27	900	.24	--	--	--
16-30	78	6.7	.4	18	--	234	.32	733	.12	--	--	--
JUL												
01-31	70	9.8	.3	20	--	240	.33	758	.22	--	--	--
AUG												
01-31	66	4.9	.4	19	--	233	.32	635	.35	--	--	--
SEP												
01-30	53	3.5	.3	15	--	187	.25	494	.32	--	--	--
WTD. AVG.	57	5.3	.3	18	--	197	.27	--	.21	--	--	--
TIME WTD.												
AVG.	59	5.8	.4	18	--	204	.28	--	.23	--	--	--
TOT. LOAD (TONS)	72200	6740	428	22500	--	251000	--	--	271	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA+MG) (MG/L) (00900)
OCT										
09...	1030	721	390	8.6	15.5	11.0	75	9.1	14	160
NOV										
06...	0915	1760	280	7.8	15.0	8.0	45	9.6	17	97
DEC										
02...	1325	1680	300	8.6	11.5	3.0	250	12.3	15	110
JAN										
08...	0930	2030	270	8.4	-1.0	.5	200	12.0	2	100
FEB										
05...	0900	580	310	8.2	5.5	3.0	180	9.4	15	150
MAR										
11...	1015	855	335	8.0	10.0	5.5	170	9.9	18	120
APR										
07...	1030	1040	300	7.7	17.0	9.0	57	11.1	25	100
MAY										
05...	1020	2540	275	8.0	15.0	11.0	85	8.9	18	110
JUN										
02...	0900	1810	280	8.4	24.0	16.0	30	8.3	59	93
JUL										
15...	0930	1160	310	7.7	33.0	22.0	30	9.0	3	110
AUG										
04...	0930	733	355	7.7	22.5	18.5	150	7.7	48	150
SEP										
01...	1400	1020	340	8.0	24.5	19.5	110	8.2	19	140

## RIO GRANDE BASIN

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

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	NON-CAR-BONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORPTION (MG/L) (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)
OCT 09...	44	49	9.1	24	.8	3.1	141	0	82	7.3
NOV 06...	23	29	5.9	15	.7	2.5	90	0	49	4.5
DEC 02...	17	34	5.9	14	.6	2.3	113	0	42	3.3
JAN 08...	17	32	5.9	12	.5	2.3	106	0	46	3.1
FEB 05...	27	46	8.0	25	.9	3.5	147	0	70	7.2
MAR 11...	14	37	7.2	22	.9	3.2	132	0	54	6.3
APR 07...	6	30	6.3	17	.7	3.1	116	0	44	5.4
MAY 05...	20	30	7.3	13	.6	2.2	103	0	52	3.4
JUN 02...	15	29	5.0	15	.7	2.8	95	0	44	4.6
JUL 15...	24	35	6.3	17	.7	2.6	109	0	60	4.8
AUG 04...	45	49	6.6	19	.7	3.2	128	0	71	5.4
SEP 01...	44	45	5.8	16	.6	2.6	112	0	73	4.3

DATE	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SiO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS-SOLVED NITRATE (N) (MG/L) (00618)	DIS-SOLVED NITRITE (N) (MG/L) (00613)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)
OCT 09...	.3	18	263	263	.05	.00	.05	.05	.01	.30
NOV 06...	.3	18	176	169	--	--	.09	.08	.03	1.1
DEC 02...	.3	19	183	178	--	--	.23	.22	.00	.96
JAN 08...	.3	18	170	173	--	--	.21	.14	.04	.63
FEB 05...	.5	23	236	257	--	--	.32	.32	.08	.65
MAR 11...	.4	23	223	220	--	--	.33	.32	.04	1.2
APR 07...	.3	22	187	186	--	--	.29	.22	.04	.76
MAY 05...	.3	15	163	175	--	--	.15	.14	.04	.84
JUN 02...	.5	20	166	168	--	--	.09	.09	.02	.55
JUL 15...	.3	17	198	197	--	--	.04	.03	.02	.39
AUG 04...	.4	19	235	238	--	--	.15	.14	.01	1.1
SEP 01...	.3	16	214	218	--	--	.03	.01	.03	.79



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

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRO- GEN (N) (006600)	TOTAL PHOS- PHORUS (P) (006655)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (006711)	DIS- SOLVED BORON (B) (01020)	DIS- SOLVED IRON (FE) (01046)	DIS- SOLVED MAN- GANESE (MN) (01056)	TOTAL ORGANIC CARBON (C) (00680)	DIS- SOL- VED ORGANIC CARBON (C) (00681)	SUS- PENDEO ORGANIC CARBON (C) (00689)
OCT 09...	.36	.12	.01	50	530	--	--	5.0	19
NOV 06...	1.2	.21	.02	40	150	0	--	3.3	--
DEC 02...	1.2	.17	.02	90	10	--	--	4.6	--
JAN 08...	.88	.10	.00	20	10	--	--	5.8	1.3
FEB 05...	1.1	.21	.01	40	0	20	4.1	2.4	.6
MAR 11...	1.5	.19	.01	40	0	--	--	2.0	1.6
APR 07...	1.1	.36	.04	40	0	--	--	3.9	4.6
MAY 05...	1.0	.52	.01	0	10	10	11	3.5	>3.3
JUN 02...	.66	.15	.03	40	100	--	--	5.3	--
JUL 15...	.45	.10	.04	40	60	--	--	4.6	--
AUG 04...	1.3	.48	.05	50	60	--	--	16	4.9
SEP 01...	.85	.47	.00	50	0	0	--	15	12

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (01002)	DIS- SOLVED ARSENIC (AS) (01000)	DIS- SOLVED BORON (B) (01020)	TOTAL CAD- MIUM (CD) (01027)	DIS- SOLVED CAD- MIUM (CD) (01025)	TOTAL CHRO- MIUM (CR) (01034)	DIS- SOLVED CHRO- MIUM (CR) (01030)
OCT 09...	1030	--	--	50	--	--	--	--
NOV 06...	0915	3	2	40	0	0	10	2
DEC 02...	1325	--	--	90	--	--	--	--
JAN 08...	0930	--	--	20	--	--	--	--
FEB 05...	0900	6	2	40	<10	1	10	0
MAR 11...	1015	--	--	40	--	--	--	--
APR 07...	1030	--	--	40	--	--	--	--
MAY 05...	1020	14	1	0	<10	1	20	0
JUN 01-15	--	--	--	--	--	--	--	--
JUN 02...	0900	--	--	40	--	--	--	--
JUN 16-30	--	--	--	--	--	--	--	--
JUL 15...	0930	--	--	40	--	--	--	--
AUG 04...	0930	--	--	50	--	--	--	--
SEP 01...	1400	5	4	50	<10	0	20	0

## RIO GRANDE BASIN

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

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL COPALT (CO) (01037)	DIS- SOLVED COPALT (CO) (01035)	TOTAL COPPER (CU) (01042)	DIS- SOLVED COPPER (CU) (01040)	TOTAL IRON (FE) (01045)	DIS- SOLVED IRON (FE) (01046)	TOTAL LEAD (PB) (01051)	DIS- SOLVED LEAD (PB) (01049)	TOTAL MAN- GANESE (MN) (01055)
OCT 09...	--	--	--	--	--	530	--	--	--
NOV 06...	<50	1	<10	3	3900	150	<100	2	290
DEC 02...	--	--	--	--	--	10	--	--	--
JAN 08...	--	--	--	--	--	10	--	--	--
FEB 05...	<50	2	20	2	5900	0	<100	3	220
MAR 11...	--	--	--	--	--	0	--	--	--
APR 07...	--	--	--	--	--	0	--	--	--
MAY 05...	<50	0	10	1	11000	10	<100	3	440
JUN 01-15	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	100	--	--	--
16-30	--	--	--	--	--	--	--	--	--
JUL 15...	--	--	--	--	--	60	--	--	--
AUG 04...	--	--	--	--	--	60	--	--	--
SEP 01...	<50	0	10	2	9700	0	<100	3	380

DATE	DIS- SOLVED MAN- GANESE (MN) (01056)	TOTAL MERCURY (HG) (71900)	DIS- SOLVED MERCURY (HG) (71890)	TOTAL MOLYB- DENUM (MO) (01062)	TOTAL SELE- NIUM (SE) (01147)	DIS- SOLVED SELE- NIUM (SE) (01145)	TOTAL ZINC (ZN) (01092)	DIS- SOLVED ZINC (ZN) (01090)
OCT 09...	--	--	--	6	--	--	--	--
NOV 06...	0	.0	.0	5	0	0	20	10
DEC 02...	--	--	--	5	--	--	--	--
JAN 08...	--	--	--	2	--	--	--	--
FEB 05...	20	.0	.0	13	1	0	20	0
MAR 11...	--	--	--	5	--	--	--	--
APR 07...	--	--	--	3	--	--	--	--
MAY 05...	10	.0	.0	1	1	0	40	0
JUN 01-15	--	--	--	3	--	--	--	--
02...	--	--	--	5	--	--	--	--
16-30	--	--	--	4	--	--	--	--
JUL 15...	--	--	--	5	--	--	--	--
AUG 04...	--	--	--	13	--	--	--	--
SEP 01...	0	.0	.0	5	0	0	40	0

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

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL NON- FILT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDED GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED GROSS BETA AS AS SR90 /Y90 (PC/L) (80050)	SUS- PENDED GROSS BETA AS AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)	DIS- SOLVED URANIUM (U) (UG/L) (80020)
NOV 06...	0915	200	3.0	12	5.5	7.8	4.4	6.2	.06	--	.90
MAY 05...	1020	730	5.1	64	4.1	22	3.3	20	.04	1.2	--

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN * 02...	0900	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT 09...	1030	1500	200
NOV 06...	0915	420	280
DEC 02...	1325	1700	600
JAN 08...	0930	270	100
FEB 05...	0900	630	170
MAR 11...	1015	430	190
APR 07...	1030	500	340
MAY 05...	1020	420	25
JUN 02...	0900	250	180
JUL 15...	0930	830	250
AUG 04...	0930	1200	1400
SEP 01...	1400	4100	1400

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 9, 1975  
1030 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

6,500 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALFS				
..OOCYSTACEAE				
L ....ANKISTRODESMUS			0	
..SCENEDESMACEAE				
..SCENEDESMUS				
	TOTALS	320 320	5 5	0.000=DI
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCACEAE				
..CYCLOTELLA		530	8	
..MELOSIRA		81	1	
..PENNIALES	PENNATE			
..ACHNANTHACEAE				
L ....ACHNANTHES			0	
..COCCONEIS		81	1	
..CYMBELLACEAE				
..CYMBELLA		40	1	
L ....EPITHEMIA			0	
..DIATOMACEAE				
..DIATOMA		360	6	
..FRAGILARIACEAE				
..FRAGILARIA		930	14	
L ....SYNEDRA			0	
..GOMPHONEMACEAE				
..GOMPHONEMA		120	2	
..NAVICULACEAE	NAVICULOID			
D ....NAVICULA		1,300	19	
..PINNULARIA		40	1	
..NITZSCHACEAE				
..NITZSCHIA		320	5	
..SURIRELLACEAE				
..SURIRELLA		40 3,800	1 59	2.650=DI
	TOTALS			
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
..NOSTOCACEAE				
D ....APHANIZOMENON		2,400 2,400	37 37	0.000=DI
	TOTALS			

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%

L - LESS THAN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 1.199  
 CLASS 1.199  
 ORDER 1.569  
 FAMILY 2.654  
 GENERA 2.747

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NOV. 6, 1975  
0915 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

15,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALFS				
..CHARACIACEAE				
L ..SCHROEDERIA			0	
..OOCYSTACEAE				
..ANKISTRODESMUS		95	1	
..SCENEDESMACEAF				
..SCENEDESMUS				
	TOTALS	760 850	5 6	0.503=DI
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINOIDISCEAE				
..CYCLOTELLA		190	1	
..PENNALFS	PENNATE			
..ACHNANTHACEAE				
..ACHNANTHES		280	2	
..COCCONEIS		760	5	
..PHOICOSPHENIA		95	1	
..CYMBELLACEAE				
..CYMBELLA		280	2	
..DIATOMACEAE				
..DIATOMA		190	1	
..FRAGILARIACEAE				
D ..FRAGILARIA		3,000	20	
..SYNEDRA		280	2	
..GOMPHONEMACEAE				
..GOMPHONEMA		280	2	
..NAVICULACEAE	NAVICULOID			
..NAVICULA		2,000	13	
..NITZSCHACEAE				
D ..NITZSCHIA		2,200	15	
..GURIRELLACEAE				
..GURIRELLA				
	TOTALS	95 9,700	1 65	2.719=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
..NOSTOCACEAE				
..ANABAENA		570	4	
..OSCILLATORIACEAE				
D ..LYNGBYA		2,800	19	
..OSCILLATORIA		950	6	
	TOTALS	4,400	29	1.264=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.160  
 CLASS 1.160  
 ORDER 1.250  
 FAMILY 2.933  
 GENERA 3.325

## RIO GRANDE BASIN

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DEC. 2, 1975  
1325 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

170 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
BACILLARIOPHYCEAE	DIATOMS		
PENNALES	PENNATE		
ACHNANTHACEAE			
D COCCONEIS		170	100
FRAGILARIACEAE			
L HANNAEA			0
GOMPHONEMACEAE			
L GOMPHONEMA			0
NAVICULACEAE	NAVICULOID		
L NAVICULA			0
NITZSCHACEAE			
L NITZSCHIA			0
TOTALS		170	100

0.000=D1

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER , 200-X MICROSCOPE

JAN. 8, 1976  
0930 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

290 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
BACILLARIOPHYCEAE	DIATOMS		
PENNALES	PENNATE		
ACHNANTHACEAE			
D RHOICOSPHEA		140	50
DIATOMACEAE			
L DIATOMA			0
GOMPHONEMACEAE			
L GOMPHONEMA			0
NAVICULACEAE	NAVICULOID		
L NAVICULA			0
NITZSCHACEAE			
D NITZSCHIA			
TOTALS		290	100

1.000=D1

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER , 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 1.000  
 GENERA 1.000

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

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

FEB. 5, 1976

0900 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

ORGANISM NAME	1,700 CELLS/ML COMMON NAME	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCIINODISCACEAE			
....CYCLOTELLA		95	6
..PENNALES	PENNATE		
...CYMBELLACEAE			
....CYMBELLA		47	3
....EPITHEMIA		47	3
...DIATOMACEAE			
....DIATOMA		95	6
...GOMPHONEMACEAE			
D ....GOMPHONEMA		380	22
...NAVICULACEAE	NAVICULOID		
D ....NAVICULA		850	50
...NITZSCHACEAE			
....NITZSCHIA			
TOTALS		1,700	101

2.085=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 ORDER 0.310  
 FAMILY 2.029  
 GENERA 2.085

MAR. 11, 1976

1015 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

4,600 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA			
.CHLOROPHYCEAE	GREEN ALGAE		
..VOLVOCALES			
...CHLAMYDOMONADACEAE			
....CHLAMYDOMONAS			
TOTALS		150	3

CHRYSTOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCIINODISCACEAE			
L ....CYCLOTELLA			0
L ....MELOSIRA			0
..PENNALES	PENNATE		
...ACHNANTHACEAE			
L ....ACHNANTHES			0
L ....COCCONEIS			0
...CYMBELLACEAE			
....CYMBELLA		440	10
...DIATOMACEAE			
....DIATOMA		150	3
...FRAGILARIACEAE			
D ....FRAGILARIA		1,500	32
L ....SYNEDRA			0
...GOMPHONEMACEAE			
....GOMPHONEMA		300	6
...NAVICULACEAE	NAVICULOID		
L ....CALONEIS			0
D ....NAVICULA		1,800	39
...NITZSCHACEAE			
....NITZSCHIA		300	6
...SURIRELLACEAE			
L ....SURIRELLA			0
TOTALS		4,400	96

2.074=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 0.206  
 CLASS 0.206  
 ORDER 0.206  
 FAMILY 2.212  
 GENERA 2.212

## RIO GRANDE BASIN

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

APR. 7, 1976  
1030 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

25,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...MICRACTINIACEAE				
....MICRACTINIUM				
	TOTALS	<u>1,900</u> 1,900	<u>8</u> 8	0.000=DI
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		380	2	
...PENNULES	PENNATE			
...ACHNANTHACEAE				
....COCCONEIS		1,900	8	
...DIATOMACEAE				
....DIATOMA		1,100	5	
...FRAGILARIACEAE				
D ...FRAGILARIA		11,000	44	
...GOMPHONEMATACEAE				
....GOMPHONEMA		1,100	5	
...NAVICULACEAE	NAVICULOID			
D ...NAVICULA		4,200	17	
...NITZSCHACEAE				
....NITZSCHIA		<u>3,400</u> 23,000	<u>14</u> 95	2.183=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:PHYL/DIV 0.387  
CLASS 0.387  
ORDER 0.499  
FAMILY 2.405  
GENERA 2.405



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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAY 5, 1976  
1020 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

3.000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..SCENEDESMACEAE				
....SCENEDESMUS				
	TOTALS	410	14	0.000=DI
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINODISCEAE				
....CYCLOTELLA		100	3	
..PENNALES	PENNATE			
..ACHNANTHACEAE				
....ACHNANTHES		51	2	
....COCCONEIS		100	3	
....RHODOSPHENIA		51	2	
....CYMBELLACEAE				
....CYMBELLA		51	2	
....EPITHEMIA		51	2	
....DIATOMACEAE				
....DIATOMA		51	2	
..FRAGILARIACEAE				
D ..FRAGILARIA		1,200	41	
..GOMPHONEMACEAE				
....GOMPHONEMA		150	5	
....NAVICULACEAE	NAVICULOID			
....NAVICULA		410	14	
....NITZSCHIACEAE				
....NITZSCHIA		260	8	
....SURIARELLACEAE				
....SURIARELLA		100	3	
	TOTALS	2,600	87	2.606=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 0.573  
 CLASS 0.573  
 ORDER 0.779  
 FAMILY 2.649  
 GENERA 2.825

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JUNE 2, 1976  
0900 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

7.800 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...SCENEDESMACEAE				
....ACTINASTRUM				
	TOTALS	510 510	6 6	0.000=DI
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINOIDISCEAE				
D ....CYCLOTELLA		2,000	26	
....MELOSTOMA		510	6	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...COCCONEIS		250	3	
...CYMBELLACEAE				
....CYMBELLA		130	2	
...FRAGILARIACEAE				
....FRAGILARIA		880	11	
L ....SYNEDRA			0	
...GOMPHONEMATACEAE				
....GOMPHONEMA		880	11	
...NAVICULACEAE	NAVICULOID			
....CALONEIS		130	2	
....NAVICULA		630	8	
...NITZSCHACEAE				
D ....NITZSCHIA		1,400 6,800	18 87	2.737=DI
	TOTALS			
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
....ANACYSTIS				
	TOTALS	510 510	6 6	0.000=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%

L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED

ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER + 200-X MICROSCOPE

DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.684

CLASS 0.684

ORDER 1.512

FAMILY 2.772

GENERA 3.068

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JULY 15, 1976

0930 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

7,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALFS				
..HYDRODICTYACEAE				
L ....PEDIASTRUM			0	
..OOCYSTACEAE				
..ANKISTHODESMUS		230	3	
L ....KIRCHNERIELLA			0	
..OOCYSTIS		300	4	
..PLANKTOSPHAERIA		76	1	
..SELENASTRUM		76	1	
..TREPIDARIA		76	1	
..SCENEDESMACEAE				
..ACTINASTRUM		300	4	
..SCENEDESMUS		760	11	
L ....TETRASTRUM			0	
..VOLVOCALES				
..CHLAMYDOMONADACEAE				
L ....CHLAMYDOMONAS			0	
..ZYGNEATALES				
..DESMIDIACEAE	PLACODERM DESMIDS			
L ....COSMARUM			0	
	TOTALS	1,800	25	2.336=DI
CHRYSTOPHYTA				
..RACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCINOIDISCEAE				
D ....CYCLOTELLA		2,900	41	
..HELOSIRA		230	3	
..PENNATES	PENNATE			
..ACHNANTHACEAE				
..COCCONEIS		450	6	
..RHOICOSPHEMIA		150	2	
..CYMAPELLACEAE				
L ....EPITHEMIA			0	
..DIATOMACEAE				
..DIATOMA		150	2	
..FRAGILARIACEAE				
..FRAGILARIA		230	3	
..GOMPHONEMACEAE				
..GOMPHONEMA		76	1	
..NAVICULACEAE	NAVICULOID			
..NAVICULA		760	11	
..NITZSCHACEAE				
L ....DENTICULA			0	
..NITZSCHIA		300	4	
	TOTALS	5,200	73	2.200=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%

L - LESS THEN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED

ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.824

CLASS 0.824

ORDER 1.547

FAMILY 2.473

GENERA 3.059

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

AUG. 4, 1976  
0930 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

12,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...HYDRODICTYACEAE				
...PEDIASTRUM		1,700	14	
...OOCYSTACEAE				
...ANKISTHODESMUS		950	8	
...DICTYOSPHAERIUM		1,700	14	
...KIRCHNERIELLA		210	2	
...OOCYSTIS		110	1	
L ...WESTELLA			0	
...SCENEDESMACEAE				
...SCENEDESMUS		1,500	12	
...TETRASTRUM		840	7	
...TETRASPORALES				
...PALMELLACEAE				
...GLOEOCYSTIS				
	TOTALS	110 7,000	1 59	2.546=DI
CHRYSDOPHYTA	DIATOMS			
..RACILLARIOPHYCEAE	CENTRIC			
..CENTRALES				
...COSCINODISCAEAE				
D ...CYCLOTELLA		1,900	15	
...MELOSIIRA		210	2	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...COCCONEIS		320	3	
...DIATOMACEAE				
...DIATOMA		110	1	
...FRAGILARIACEAE				
...FRAGILARIA		420	3	
...NAVICULACEAE	NAVICULOID			
...NAVICULA		210	2	
...NITZSCHACEAE				
...NITZSCHIA		1,200	9	
	TOTALS	4,300	35	2.190=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE	COCCOID			
...CHROOCOCCALES				
...CHROOCOCCACEAE		840	7	
...ANACYSTIS		840	7	0.000=DI
	TOTALS			
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENACEAE				
...EUGLENALES				
...EUGLENAEAE				
...TRACHELOMONAS		110	1	0.000=DI
	TOTALS	110	1	

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-HAFTR CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 1.314  
 CLASS 1.314  
 ORDER 1.778  
 FAMILY 2.939  
 GENERA 3.540

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SEP. 1, 1976  
1400 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

4,500 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		91	2	
...SCENEDESMACEAE				
....CRUCIGENIA		360	8	
....SCENEDESMUS		270	6	
	TOTALS	720	16	1.406=DI
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINOIDISCEAE				
D ....CYCLOTELLA		1,000	22	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...COCCONEIS		91	2	
...CYMBELLACEAE				
....CYMBELLA		91	2	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		360	8	
...NITZSCHIACEAE				
....NITZSCHIA		450	10	
	TOTALS	2,000	44	1.838=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
D ....ANACYSTIS		1,800	40	
	TOTALS	1,800	40	0.000=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 ANALYSIS METHOD: SFDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 1.473  
 CLASS 1.473  
 ORDER 1.913  
 FAMILY 2.369  
 GENERA 2.507

## RIO GRANDE BASIN

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

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## PERIPHYTON

DATE	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL A MG/SQ M (32228)	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL B MG/SQ M (32226)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	Sampling method
OCT 09...	30	5.40	2.60	1.20	.200	2300	Polyethylene strip
DEC 02...	26	9.30	3.20	2.50	.600	2400	"
JAN 08...	37	.000	.000	.000	.000	0	"
APR 07...	27	8.20	7.40	3.30	.200	260	"
MAY 05...	28	4.08	3.69	.681	.000	570	"
JUL 15...	43	8.31	2.62	3.85	.994	1500	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PEN- DED SEDIM- ENT (MG/L) (80154)	SUS- PEN- DED SEDIM- ENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)
OCT 09...	1030	721	11.0	284	553	--	--	--	--
NOV 06...	0930	1750	8.0	938	4430	--	--	--	29
DEC 02...	1325	1680	3.0	797	3620	44	48	49	--
JAN 08...	0930	2030	.5	643	3520	--	--	--	--
15...	1700	580	2.5	1800	2820	73	89	96	--
FEB 05...	0900	580	3.0	317	496	--	--	--	--
15...	0930	855	5.0	653	1510	--	--	--	--
MAR 11...	1015	855	5.5	287	663	--	--	--	--
15...	0700	998	5.0	5020	13500	50	70	97	--
APR 07...	1030	1040	9.0	660	1850	--	--	--	56
15...	0845	1540	8.0	252	1050	42	47	56	--
MAY 01...	0845	2530	8.5	2790	19100	15	20	33	62
05...	1020	2540	11.0	1760	12100	12	15	23	50
JUN 02...	0900	1810	16.0	250	1220	--	--	--	--
JUL 15...	0930	1160	22.0	127	398	--	--	--	--
18...	0830	1110	19.5	2960	8870	58	73	95	--
AUG 02...	0830	924	17.0	14300	35700	48	62	82	90
12...	0650	859	18.0	10600	24600	53	61	81	93
25...	0650	1350	16.5	10400	37900	41	49	66	79
SEP 01...	1400	1020	19.5	2340	6440	--	--	--	--
28...	1700	1010	17.5	3520	9600	34	43	65	75

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

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	SUS. SED. FALL DIAM. % FINER THAN (70343)	SUS. SED. FALL DIAM. % FINER THAN (70344)	SUS. SED. FALL DIAM. % FINER THAN (70345)	SUS. SED. FALL DIAM. % FINER THAN (70331)	SUS. SED. FALL DIAM. % FINER THAN (70332)	SUS. SED. FALL DIAM. % FINER THAN (70333)	SUS. SED. FALL DIAM. % FINER THAN (70334)	SUS. SED. FALL DIAM. % FINER THAN (70335)	SUS. SED. FALL DIAM. % FINER THAN (70336)
OCT 09...	--	--	--	52	71	88	99	100	--
NOV 06...	59	84	100	--	--	--	--	--	--
DEC 02...	--	--	--	56	63	73	87	93	94
JAN 08...	--	--	--	62	--	--	--	--	--
15...	--	--	--	99	99	99	100	--	--
FEB 05...	--	--	--	91	--	--	--	--	--
15...	--	--	--	91	95	99	100	--	--
MAR 11...	--	--	--	84	91	96	100	--	--
15...	--	--	--	99	99	100	--	--	--
APR 07...	84	96	100	--	--	--	--	--	--
15...	--	--	--	76	88	99	100	--	--
MAY 01...	82	99	100	--	--	--	--	--	--
05...	76	98	100	--	--	--	--	--	--
JUN 02...	--	--	--	37	46	69	100	--	--
JUL 15...	--	--	--	77	83	90	97	99	100
18...	--	--	--	99	100	--	--	--	--
AUG 02...	98	100	--	--	--	--	--	--	--
12...	98	100	--	--	--	--	--	--	--
25...	91	98	100	--	--	--	--	--	--
SEP 01...	--	--	--	22	--	--	--	--	--
28...	88	99	100	--	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. ° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	358	311	299	228	310	350	276	275	271	362	396	371
2	456	310	284	210	389	348	305	285	263	341	470	336
3	444	293	280	221	380	354	292	267	275	339	370	324
4	446	302	290	208	380	357	295	265	277	332	363	311
5	462	328	284	227	387	347	297	261	288	319	374	298
6	466	265	284	221	379	343	295	260	300	322	388	293
7	466	244	286	203	330	347	295	241	275	325	408	298
8	409	223	282	220	288	350	285	251	288	329	421	287
9	402	213	277	224	298	353	270	246	277	318	411	288
10	410	205	277	250	292	348	295	255	275	306	469	286
11	384	204	277	260	387	479	274	269	290	313	466	294
12	387	211	280	380	370	408	272	271	310	300	475	295
13	384	222	280	302	360	380	250	275	336	303	379	293
14	391	259	293	316	343	377	254	279	327	305	394	292
15	381	296	279	275	343	377	242	267	316	312	362	290
16	368	284	278	264	318	376	242	259	342	334	326	284
17	367	258	275	301	327	344	254	252	363	372	303	313
18	371	261	270	349	293	334	270	251	373	405	289	306
19	371	259	268	313	278	337	288	235	391	324	311	324
20	371	261	262	289	365	335	303	243	381	419	295	335
21	371	261	265	321	376	328	322	232	394	358	299	338
22	364	252	270	262	375	325	331	235	358	403	383	335
23	371	250	271	250	383	331	338	248	367	355	323	327
24	361	261	268	290	364	316	341	254	354	391	318	342
25	378	275	270	297	376	318	311	264	320	325	474	346
26	371	283	266	250	313	322	300	261	329	331	372	331
27	354	280	267	273	300	315	297	284	325	331	390	352
28	341	282	267	286	267	307	303	323	326	439	378	369
29	326	292	266	306	265	290	308	313	354	374	367	339
30	307	294	263	311	---	281	303	295	325	357	347	403
31	301	---	270	304	---	278	---	293	---	342	335	---
MONTH	385	265	276	271	339	344	290	265	322	345	376	320
YEAR	MAX	479	MIN	203	MEAN	317						

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

WATER TEMPERATURE (DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.0	11.5	15.0	10.0	6.0	8.0	2.5	0.0	1.0	2.0	0.5	1.0
2	18.0	13.0	15.5	11.5	5.5	8.5	3.5	0.5	2.0	1.0	0.5	1.0
3	18.5	14.0	16.0	11.5	7.0	9.0	4.5	1.0	3.0	1.0	0.5	1.0
4	18.0	13.5	16.0	11.0	7.0	9.0	4.5	1.5	3.0	0.5	0.0	0.0
5	18.0	13.0	15.5	11.0	7.0	9.0	5.0	2.0	3.5	1.5	0.0	1.0
6	17.5	13.5	15.5	10.5	7.0	9.0	4.5	2.0	3.0	2.0	0.5	1.0
7	16.5	13.5	15.0	10.5	7.0	9.0	4.0	1.5	3.0	2.0	0.0	1.0
8	17.0	13.0	15.0	10.0	7.0	8.5	4.0	1.5	3.0	2.0	0.0	1.0
9	15.5	10.5	13.0	10.0	7.0	8.5	5.0	1.5	3.0	2.0	0.0	1.0
10	16.0	11.0	13.5	9.0	5.0	7.0	5.0	1.5	3.0	3.0	0.5	2.0
11	16.0	11.0	13.5	8.5	6.0	7.0	4.0	1.5	3.0	3.0	0.0	1.5
12	16.5	12.0	14.0	7.0	4.0	5.5	4.0	1.0	2.5	3.0	0.0	1.5
13	15.5	12.0	14.0	7.0	3.0	5.0	4.0	2.5	3.0	3.5	0.0	2.0
14	13.5	9.0	11.0	6.5	3.0	5.0	3.5	2.0	3.0	3.0	0.0	1.5
15	13.5	8.5	11.0	7.5	3.5	5.5	3.5	1.0	2.0	3.0	0.0	1.5
16	13.5	8.0	11.0	7.0	4.0	5.5	3.0	0.0	1.5	4.0	0.0	2.0
17	13.5	8.5	11.0	7.5	4.0	6.0	3.5	0.0	2.0	4.5	0.5	2.5
18	14.0	9.0	11.5	7.0	4.5	6.0	3.5	0.0	2.0	5.5	0.5	3.0
19	14.0	9.0	11.5	6.5	5.0	6.0	3.0	0.0	1.5	5.0	3.0	4.0
20	14.0	9.0	11.5	6.0	4.0	5.0	2.5	0.0	1.0	5.0	1.0	3.0
21	14.5	10.0	12.0	5.0	3.5	4.0	2.5	1.0	2.0	5.5	1.0	3.0
22	14.5	10.0	12.0	3.5	1.5	2.5	5.0	2.5	4.0	5.0	1.0	3.0
23	13.5	10.0	12.0	4.0	0.5	2.0	4.5	2.5	3.5	5.5	1.0	3.0
24	10.0	6.5	8.0	4.0	1.0	2.5	5.0	2.5	4.0	4.5	1.5	3.0
25	10.0	4.5	7.0	4.5	1.5	3.0	4.5	1.5	3.0	3.5	1.5	2.5
26	10.0	4.5	7.0	3.5	1.5	2.5	4.5	1.0	3.0	4.0	0.5	2.0
27	11.0	5.5	8.0	4.0	1.5	3.0	4.0	1.5	3.0	3.5	0.5	2.0
28	10.5	6.0	8.0	4.5	2.5	3.5	3.5	1.5	2.5	5.0	0.5	3.0
29	11.5	6.0	9.0	4.5	2.0	3.0	2.5	0.5	1.5	6.0	1.0	3.5
30	11.0	6.5	9.0	1.5	1.0	1.0	2.5	0.5	1.5	6.5	2.0	4.0
31	10.5	8.0	9.0	---	---	---	2.0	0.5	1.0	6.5	2.5	4.5
MONTH	18.5	4.5	12.0	11.5	0.5	5.5	5.0	0.0	2.5	6.5	0.0	2.0
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.5	2.0	4.0	8.5	6.0	7.0	12.0	6.0	9.0	13.5	8.0	11.0
2	6.5	2.0	4.0	9.0	5.5	7.0	13.0	8.0	10.5	15.5	9.5	12.5
3	7.0	2.5	5.0	9.0	5.5	7.0	13.0	8.0	10.5	14.5	11.0	13.0
4	6.5	4.0	5.0	7.0	4.0	5.5	14.0	10.0	12.0	15.5	11.5	13.5
5	7.5	4.0	6.0	6.5	2.0	4.0	13.0	9.0	11.0	14.0	11.5	13.0
6	7.0	5.0	6.0	7.5	2.0	5.0	12.5	8.0	10.0	13.5	11.5	12.5
7	7.5	4.0	6.0	9.5	4.5	7.0	13.0	8.0	10.5	13.5	10.5	12.0
8	9.0	4.5	7.0	9.5	6.5	8.0	13.0	9.5	11.0	12.5	9.5	11.0
9	10.5	6.5	8.5	10.0	6.0	8.0	13.5	9.0	11.0	15.5	9.5	12.5
10	9.0	7.0	8.0	9.0	6.0	7.5	14.0	10.0	12.0	17.0	11.5	14.0
11	8.5	4.5	6.5	9.0	6.0	7.5	14.0	10.0	12.0	16.5	12.0	14.0
12	9.0	5.0	7.0	8.5	4.5	6.5	13.0	11.0	12.0	16.5	12.5	14.5
13	9.0	5.5	7.0	9.5	5.0	7.0	13.5	10.0	12.0	16.0	10.5	13.0
14	9.0	7.0	8.0	8.5	5.0	7.0	12.0	10.0	11.0	18.0	11.5	15.0
15	8.5	5.0	7.0	9.5	5.5	7.5	10.5	8.5	9.5	18.5	13.0	16.0
16	8.0	5.0	6.5	10.0	5.0	7.5	8.5	6.5	7.5	17.5	12.0	15.0
17	7.0	4.5	6.0	11.0	6.5	9.0	7.5	5.0	6.0	17.5	16.5	17.0
18	7.0	2.5	5.0	12.5	6.5	9.5	11.0	4.5	8.0	16.5	13.0	15.0
19	7.5	3.5	5.5	11.0	8.5	10.0	12.0	8.0	10.0	16.0	12.5	14.0
20	5.0	3.5	4.0	9.5	5.5	7.5	14.0	7.0	10.5	16.0	12.0	14.0
21	5.5	1.0	3.0	10.5	5.0	8.0	16.0	9.0	12.5	17.0	12.5	15.0
22	6.5	1.0	4.0	11.0	5.0	8.0	15.5	11.0	13.0	16.0	13.0	14.5
23	7.0	2.0	4.5	11.0	6.5	9.0	17.0	11.0	14.0	17.5	12.5	15.0
24	8.0	4.0	6.0	13.0	7.0	10.0	16.0	11.0	13.5	17.5	13.0	15.0
25	9.0	4.0	6.5	13.0	8.0	10.5	14.5	10.0	12.0	16.0	14.0	15.0
26	9.5	4.5	7.0	11.5	7.0	9.0	14.0	10.0	12.0	18.5	12.5	15.5
27	9.5	5.0	7.0	11.0	6.5	9.0	13.5	10.5	12.0	19.5	14.0	17.0
28	10.5	5.5	8.0	9.0	7.5	8.0	15.0	9.5	12.0	18.5	15.0	17.0
29	9.5	5.5	7.5	8.0	6.0	7.0	13.5	11.0	12.0	20.0	15.0	17.5
30	---	---	---	9.5	5.0	7.0	13.0	9.5	11.0	19.0	14.5	17.0
31	---	---	---	11.0	4.5	8.0	---	---	---	19.0	13.5	16.0
MONTH	10.5	1.0	6.0	13.0	2.0	7.5	17.0	4.5	11.0	20.0	8.0	14.5



## RIO GRANDE BASIN

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

WATER TEMPERATURE (DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.5	15.0	18.0	20.5	17.5	19.0	22.5	19.0	21.0	21.0	15.5	18.0
2	20.0	15.5	18.0	21.0	17.5	19.0	24.0	17.5	21.0	22.0	16.0	19.0
3	21.0	16.0	18.5	24.0	17.5	21.0	23.5	19.0	21.0	22.5	16.5	19.5
4	21.5	15.5	18.0	23.5	18.0	21.0	24.0	18.0	21.0	22.0	16.5	19.0
5	20.0	16.0	18.0	24.0	19.0	21.5	25.5	19.0	22.0	20.5	15.5	18.0
6	19.0	15.0	17.0	24.0	19.0	21.5	24.0	18.5	21.0	19.5	16.5	18.0
7	20.5	15.0	18.0	25.0	19.0	22.0	23.5	18.5	21.0	19.5	15.5	17.5
8	21.0	16.5	19.0	26.0	20.0	23.0	24.0	17.0	20.5	20.0	15.0	17.5
9	22.0	16.5	19.0	25.5	19.5	22.5	21.5	18.5	20.0	17.0	15.0	16.0
10	21.5	17.0	19.0	24.5	20.5	22.5	22.0	17.0	19.5	16.0	14.0	15.0
11	20.5	16.0	18.0	23.5	20.5	22.0	21.0	18.0	19.5	20.0	13.5	17.0
12	20.5	14.5	17.5	23.5	18.5	21.0	23.5	17.0	20.0	21.5	16.5	19.0
13	20.0	14.0	17.0	23.5	18.5	21.0	23.5	18.0	21.0	21.5	16.5	19.0
14	19.5	14.5	17.0	24.0	19.5	22.0	22.5	17.0	20.0	21.0	17.5	19.0
15	20.0	13.5	17.0	24.0	18.5	21.0	22.0	17.5	20.0	21.0	16.5	19.0
16	19.5	14.0	17.0	23.5	19.5	21.5	21.5	16.5	19.0	21.5	17.0	19.0
17	21.0	15.5	18.0	23.5	18.5	21.0	22.5	18.0	20.0	20.0	16.5	18.0
18	21.5	16.5	19.0	24.5	19.5	22.0	21.5	18.0	20.0	21.5	16.0	19.0
19	22.5	16.0	19.0	25.0	19.5	22.0	19.5	16.5	18.0	20.0	15.0	17.5
20	23.0	17.5	20.0	23.5	19.5	21.5	21.0	16.5	19.0	19.0	15.5	17.0
21	23.0	18.5	21.0	23.0	19.0	21.0	23.0	18.0	20.5	18.5	14.0	16.0
22	23.0	18.5	21.0	22.0	19.0	20.5	23.5	18.5	21.0	19.5	15.0	12.0
23	22.5	18.5	20.5	23.0	18.5	21.0	21.5	18.5	20.0	19.5	14.0	17.0
24	22.5	16.5	19.5	20.5	18.0	19.0	21.5	17.5	19.5	18.5	15.5	17.0
25	22.0	16.0	19.0	22.5	18.5	20.5	22.5	16.5	19.5	18.0	15.0	16.5
26	21.5	16.5	19.0	24.0	19.0	21.5	21.5	18.0	20.0	18.0	14.5	16.0
27	21.5	17.5	19.5	24.0	19.0	21.5	22.0	17.5	20.0	16.5	14.5	15.5
28	22.5	17.5	20.0	24.0	18.0	21.0	22.0	17.5	20.0	18.0	13.5	16.0
29	21.5	17.5	19.5	24.5	19.5	22.0	22.5	17.0	20.0	19.0	13.5	16.0
30	21.5	17.5	19.5	25.5	20.0	23.0	21.5	17.0	19.0	19.5	13.0	16.0
31	---	---	---	24.0	18.0	21.0	20.5	16.0	18.0	---	---	---
MONTH	23.0	13.5	18.5	26.0	17.5	21.5	25.5	16.0	20.0	22.5	13.0	17.5
YEAR	26.0	0.0	11.5									

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
1	151	238	171	367	1070	4800	776	4460	517	794	286	629
2	1610	5560	180	389	1000	4510	817	4500	505	770	257	600
3	2070	9220	168	383	1010	4880	840	4600	378	581	283	688
4	1340	5820	685	2310	942	4480	852	4760	351	549	384	997
5	1100	4630	2050	10200	661	4140	1040	5950	484	767	291	691
6	929	3810	1090	5300	920	4350	889	5060	353	571	221	474
7	819	2830	835	3990	964	4700	785	4470	348	567	183	394
8	350	649	630	2860	1360	6460	517	2920	340	552	201	484
9	340	644	1280	5630	932	4430	588	2920	545	896	264	637
10	340	646	715	3150	1420	6790	402	1130	683	1260	242	559
11	280	497	524	2240	945	4520	327	833	347	684	2150	5460
12	173	305	480	1830	725	3460	306	628	756	1450	6280	17300
13	112	193	339	1190	1400	6730	627	1110	976	1900	3900	10700
14	189	338	571	2050	810	3910	2510	4010	787	1710	4050	11200
15	206	367	747	3070	644	3080	2100	3290	735	1630	4940	13200
16	390	697	608	2530	985	5030	1490	2350	1240	2780	4910	12900
17	232	423	533	2230	1870	11500	1450	2380	1100	2420	2800	6300
18	124	219	433	1840	1290	7350	827	1380	878	1780	890	1890
19	154	276	841	3860	1080	6270	912	1510	626	1280	372	781
20	225	405	864	3920	1170	6730	749	1190	442	926	297	630
21	213	389	457	2010	925	5340	810	1250	450	914	258	555
22	175	327	531	2340	864	5090	530	810	347	641	190	423
23	180	344	450	1910	848	5010	357	556	345	632	187	424
24	147	273	461	1760	968	5780	563	926	348	684	215	486
25	110	182	455	1710	850	5000	528	853	317	606	222	503
26	263	400	480	1740	949	5590	280	414	295	560	275	652
27	77	123	648	2550	880	5200	217	306	278	531	246	618
28	86	151	720	2700	900	5300	283	419	268	533	225	596
29	324	608	810	3610	891	5170	460	723	291	607	235	666
30	245	469	1100	5520	815	4690	433	689	---	---	209	587
31	191	392	---	---	669	3880	536	842	---	---	152	408
MONTH	---	41425	---	85189	---	164170	---	67239	---	29575	---	92432

## RIO GRANDE BASIN

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	103	257	2930	19900	568	3050	95	308	10800	41500	3260	9070
2	116	288	2440	16700	365	1780	105	329	12400	33200	1290	3240
3	335	786	2180	15000	318	1370	109	333	2490	5580	1900	4890
4	181	429	2110	14100	357	1420	115	363	2150	4490	1450	4540
5	209	527	2080	14600	252	1010	130	404	1450	2490	1160	3630
6	277	755	2280	17400	553	2770	120	369	1210	1780	1340	4200
7	1160	3700	2340	18300	490	2330	143	467	867	1190	2370	7490
8	830	3900	2100	16400	383	1900	318	1000	603	733	1570	4920
9	526	1950	2160	17100	477	2540	396	1220	824	934	973	2970
10	2730	11700	1970	14800	367	1850	269	879	3280	4010	1020	3110
11	1710	7760	1620	11900	328	1620	168	544	3600	8610	1040	3170
12	1200	5570	2000	14500	315	1490	178	557	7340	17700	1460	4300
13	510	2110	1830	13500	249	1120	154	466	1420	3190	1400	4010
14	314	1310	1660	12300	404	1600	200	621	3250	11800	918	2550
15	238	996	1430	10800	168	581	150	462	2680	10900	1080	3150
16	212	830	1670	12900	121	415	269	833	2420	9600	1020	2950
17	161	539	1760	14200	135	459	1670	5000	1590	5620	1960	5770
18	120	350	1900	16700	112	354	1950	5740	1890	5820	1230	3110
19	110	290	1820	16700	76	209	1220	4100	7350	35400	1160	3030
20	255	709	1470	13600	128	359	11800	38100	3100	11600	1020	2780
21	232	548	1410	12600	91	265	6770	33100	1890	5150	810	1980
22	121	255	1210	9050	87	254	4930	15700	4440	12100	1080	2530
23	126	294	1040	7390	277	890	3100	12700	1490	3880	1040	2300
24	5280	21500	840	5780	62	196	5310	17200	2800	9860	687	1150
25	3140	13600	999	6550	87	272	1100	3360	9700	36900	810	1410
26	2120	9500	776	4210	139	488	1620	5240	2420	7320	785	1560
27	1950	8690	730	3150	84	270	2960	10600	1680	4810	2070	4530
28	3030	15500	640	2830	74	228	11300	36900	1360	3820	3660	10300
29	3660	21600	392	1740	74	228	2940	9290	1560	4160	1550	3970
30	3270	20900	532	2570	99	329	920	2530	1910	5020	2130	3030
31	---	---	534	2850	---	---	25500	170000	3000	8500	---	---
MONTH	---	156243	---	360120	---	31647	---	378715	---	317587	---	115640

TOTAL LOAD FOR YEAR: 1839982 TONS.

## 08315500 MCCLURE RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'18", long 105°50'06", in NE¼SW¼ sec.24, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, on outlet tower at McClure Dam on Santa Fe River, 2.1 mi (3.4 km) upstream from Nichols Reservoir, 5.8 mi (9.3 km) east of Santa Fe, and at mile 34.0 (54.7 km).

DRAINAGE AREA.--17.4 mi<sup>2</sup> (45.1 km<sup>2</sup>).

PERIOD OF RECORD.--September 1929, July to October 1930, April 1931 to June 1946, September 1947 to current year. Prior to October 1947, published in WSP 1312. Prior to October 1965, monthend contents only.

GAGE.--Water-stage recorder. Altitude of gage is 7,788 ft (2,374 m), 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 (50.57 m) lower.

REMARKS.--Reservoir is formed by earthfill dam, completed in 1926, capacity, 561 acre-ft (692,000 m<sup>3</sup>), raised 3 ft (0.9 m), in 1935, capacity, 650 acre-ft (801,000 m<sup>3</sup>), and raised 36.5 ft (11.13 m) more in 1947, capacity, 2,615 acre-ft (3.22 hm<sup>3</sup>) at gage height 96.6 ft (29.44 m), 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 (3.70 hm<sup>3</sup>). Radial gates were removed during 1972, capacity, 2,615 acre-ft (3.22 hm<sup>3</sup>). No dead storage. Water is for municipal use of city of Santa Fe.

COOPERATION.--Supplementary stage readings and capacity table furnished by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,140 acre-ft (3.87 hm<sup>3</sup>) June 25, 1960, gage height, 103.7 ft (31.61 m); no contents Jan. 25 to May 8, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,640 acre-ft (3.26 hm<sup>3</sup>) May 21 to June 7, gage height 96.9 ft (29.54 m); minimum, 2,230 acre-ft (2.75 hm<sup>3</sup>) Aug. 30, 31, Sept. 19-27; minimum gage height, 91.0 ft (27.74 m) Sept. 20-26.

Capacity table (gage height, in feet, and contents, in acre-feet)  
(Based on survey by Public Service Co. of New Mexico in 1947)

91	2230
93	2360
95	2500
97	2640

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2620	2630	2620	2620	2540	2350	2280	2430	2640	2610	2270	2240
2	2620	2630	2620	2620	2530	2350	2280	2440	2640	2600	2270	2240
3	2620	2630	2620	2620	2520	2340	2280	2450	2640	2580	2280	2250
4	2620	2630	2620	2620	2490	2340	2280	2460	2640	2560	2270	2250
5	2620	2630	2620	2620	2460	2340	2280	2470	2640	2540	2270	2250
6	2620	2620	2620	2620	2440	2330	2280	2490	2640	2520	2260	2250
7	2620	2620	2620	2620	2430	2330	2280	2500	2640	2490	2250	2260
8	2620	2620	2620	2620	2420	2330	2280	2510	2630	2470	2250	2260
9	2620	2620	2620	2620	2420	2330	2280	2520	2630	2460	2240	2260
10	2620	2620	2620	2620	2420	2330	2290	2530	2630	2440	2250	2270
11	2620	2620	2620	2620	2420	2320	2290	2540	2630	2420	2250	2270
12	2620	2620	2620	2620	2410	2320	2290	2550	2630	2410	2250	2270
13	2620	2620	2620	2620	2400	2320	2300	2560	2630	2400	2250	2270
14	2620	2620	2620	2620	2400	2310	2310	2580	2630	2380	2250	2270
15	2620	2620	2620	2620	2400	2310	2310	2590	2630	2370	2260	2270
16	2620	2620	2620	2620	2400	2310	2320	2610	2630	2360	2260	2270
17	2620	2620	2620	2620	2400	2310	2320	2630	2620	2330	2260	2260
18	2630	2620	2620	2620	2400	2310	2320	2630	2620	2320	2260	2250
19	2630	2620	2620	2620	2390	2300	2330	2630	2620	2310	2270	2230
20	2630	2620	2620	2610	2390	2300	2330	2630	2620	2290	2270	2230
21	2630	2620	2620	2610	2380	2290	2330	2640	2620	2270	2280	2230
22	2630	2620	2620	2600	2380	2290	2340	2640	2620	2270	2280	2230
23	2630	2620	2620	2590	2380	2290	2350	2640	2620	2260	2290	2230
24	2630	2620	2620	2570	2380	2290	2360	2640	2620	2250	2290	2230
25	2630	2620	2620	2570	2370	2290	2370	2640	2620	2250	2300	2230
26	2630	2620	2620	2560	2370	2290	2380	2640	2620	2250	2310	2230
27	2630	2620	2620	2560	2360	2290	2390	2640	2620	2240	2290	2230
28	2630	2620	2620	2590	2360	2290	2400	2640	2610	2240	2270	2240
29	2630	2620	2620	2560	2360	2290	2410	2640	2610	2250	2240	2240
30	2630	2620	2620	2550	---	2290	2420	2640	2610	2250	2230	2240
31	2630	---	2620	2540	---	2280	---	2640	---	2260	2230	---
MAX	2630	2630	2620	2620	2540	2350	2420	2640	2640	2610	2310	2270
MIN	2620	2620	2620	2540	2360	2280	2280	2430	2610	2240	2230	2230
(†)	96.8	96.7	96.7	95.6	92.9	91.8	93.9	96.9	96.6	91.5	91.1	91.2
(‡)	+10	-10	0	-80	-180	-80	+140	+220	-30	-350	-30	+10
CAL YR 1975	MAX	2640	MIN	1800	†	+830						
WTR YR 1976	MAX	2640	MIN	2230	‡	-380						

† Gage height, in feet, at end of month.

‡ Change in contents, in acre-feet.

## 08316000 SANTA FE RIVER NEAR SANTA FE, NM

LOCATION.--Lat 35°41'12", long 105°50'35", in NE¼ 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 (0.6 km) downstream from McClure Dam, 5.3 mi (8.5 km) east of Santa Fe, and at mile 33.6 (54.1 km).

DRAINAGE AREA.--18.2 mi<sup>2</sup> (47.1 km<sup>2</sup>).

PERIOD OF RECORD.--June 1910, January 1913 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1953, published as Santa Fe Creek near Santa Fe.

REVISED RECORDS.--WSP 1512: 1933, 1936-37(M), 1942, drainage area. WSP 1732: 1923, 1925. WDR NM-75-1: 1927.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,718 ft (2,352 m), from topographic map. See WSP 1312 for history of changes prior to Oct. 1, 1947.

REMARKS.--Records good. Flow regulated by McClure Reservoir (station 08315500), completed in 1926, raised in 1935 and again in 1947. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--63 years, 7.94 ft<sup>3</sup>/s (0.225 m<sup>3</sup>/s), 5,750 acre-ft/yr (7.09 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,500 ft<sup>3</sup>/s (42.5 m<sup>3</sup>/s) Aug. 14, 1921, gage height, 5.17 ft (1.576 m), site and datum then in use, from rating curve extended above 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s); minimum, 0.08 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) July 31, Aug. 1, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s) occurred Aug. 19, 1872, and Sept. 29 or 30, 1904. Without regulation the flood of Sept. 23, 1929, might have exceeded 1,500 ft<sup>3</sup>/s (42.5 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21 ft<sup>3</sup>/s (0.59 m<sup>3</sup>/s) May 22, gage height, 2.18 ft (0.664 m); minimum, 0.80 ft<sup>3</sup>/s (0.023 m<sup>3</sup>/s) Sept. 1-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	2.3	1.9	1.9	6.5	3.3	3.3	3.5	15	3.7	1.2	.85
2	4.7	2.2	1.9	1.6	5.4	3.3	3.3	3.7	15	8.7	1.2	.80
3	4.4	2.0	2.0	1.6	3.3	3.3	3.3	3.7	15	12	4.0	.80
4	4.0	2.0	2.0	1.6	3.3	3.3	3.3	3.7	15	12	7.0	.80
5	3.8	2.0	2.2	1.6	3.3	3.3	3.3	3.8	15	12	7.0	.80
6	3.7	1.9	2.0	1.6	3.3	3.3	3.3	3.8	14	12	7.0	.84
7	3.5	1.8	2.0	1.6	3.3	3.3	3.3	3.8	14	12	7.0	.84
8	3.3	1.8	2.0	1.6	3.3	3.3	3.3	3.8	13	10	7.0	.80
9	3.3	1.8	2.0	1.6	3.3	3.3	3.3	4.0	14	9.3	4.0	.80
10	3.3	1.6	2.0	1.6	3.5	3.3	3.3	4.0	13	9.2	1.0	.80
11	3.3	1.5	2.0	1.5	3.5	3.3	3.3	4.0	12	9.1	1.0	.80
12	3.2	1.3	2.0	1.5	3.5	3.3	3.3	4.0	11	9.1	1.0	.80
13	3.0	1.3	2.2	1.5	3.5	3.3	3.3	4.0	9.6	9.1	1.0	.80
14	2.6	1.4	2.0	1.5	3.5	3.3	3.3	4.0	8.2	9.1	1.0	.80
15	2.6	1.5	1.9	1.5	3.5	3.3	3.3	4.0	7.4	9.1	1.0	.80
16	2.6	1.5	1.9	1.5	3.3	3.3	3.3	4.0	7.0	9.1	.88	4.3
17	2.6	1.5	1.9	1.5	3.3	3.3	3.3	8.1	6.4	9.0	.88	6.8
18	2.6	2.4	1.9	1.5	3.3	3.3	3.3	15	6.0	8.9	.89	6.8
19	2.6	3.7	1.9	4.4	3.3	3.3	3.3	16	5.7	8.8	.89	6.7
20	2.6	3.0	1.9	6.8	3.3	3.3	3.3	17	5.3	8.8	.88	3.3
21	2.5	1.9	2.2	6.8	3.3	3.3	3.3	20	5.1	8.8	.88	.96
22	2.5	1.9	2.3	6.8	3.3	3.3	3.3	20	5.0	6.9	.88	.96
23	2.3	1.9	2.2	6.8	3.3	3.3	3.3	19	4.5	6.0	.88	.96
24	1.9	1.8	2.2	6.8	3.3	3.3	3.5	18	4.1	5.8	.88	.96
25	1.9	1.9	1.9	6.8	3.3	3.3	3.5	18	3.9	5.8	.88	.96
26	2.0	1.6	1.8	6.8	3.3	3.3	3.5	17	3.8	5.8	.88	.96
27	2.2	1.6	1.8	6.8	3.3	3.3	3.5	15	3.8	5.8	7.8	1.0
28	2.0	2.0	1.9	6.8	3.3	3.3	3.5	15	3.8	3.7	13	.99
29	2.0	3.7	1.9	6.8	3.3	3.3	3.5	16	3.9	1.2	12	.96
30	2.0	2.0	1.8	6.8	---	3.3	3.5	17	3.9	1.2	5.9	.96
31	2.0	---	1.9	6.8	---	3.3	---	16	---	1.2	.88	---
TOTAL	89.2	58.8	61.5	114.3	102.2	102.3	100.4	308.9	263.4	243.2	100.68	49.70
MEAN	2.88	1.96	1.98	3.69	3.52	3.30	3.35	9.96	8.78	7.85	3.25	1.66
MAX	4.7	3.7	2.3	6.8	6.5	3.3	3.5	20	15	12	13	6.8
MIN	1.9	1.3	1.8	1.5	3.3	3.3	3.3	3.5	3.8	1.2	.88	.80
AC=FT	177	117	122	227	203	203	199	613	522	482	200	99

CAL YR 1975 TOTAL 2825.50 MEAN 7.74 MAX 35 MIN 1.0 AC=FT 5600  
WTR YR 1976 TOTAL 1594.58 MEAN 4.36 MAX 20 MIN .80 AC=FT 3160

## 08316500 NICHOLS RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'24", long 105°52'46", in SE¼NE¼ sec.21, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, on outlet tower at Nichols Dam on Santa Fe River, 0.6 mi (1.0 km) east of Twomile Reservoir, 3.3 mi (5.3 km) east of Santa Fe, and at mile 31.0 (49.9 km).

DRAINAGE AREA.--22.8 mi<sup>2</sup> (59.1 km<sup>2</sup>).

PERIOD OF RECORD.--March 1943 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7,313.2 ft (2,229.06 m) above mean sea level.

REMARKS.--Reservoir is formed by earthfill dam. No contents prior to Mar. 16, 1943. Capacity, 685 acre-ft (845,000 m<sup>3</sup>) between gage heights 121.2 ft (36.94 m), bottom of lower operational gate and 167.0 ft (50.90 m), crest of spillway. Dead storage, 14 acre-ft (17,300 m<sup>3</sup>). Water is for municipal use of city of Santa Fe.

COOPERATION.--Supplementary stage readings and survey to compute capacity table furnished by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 836 acre-ft (1.03 km<sup>3</sup>) June 8, 1952, gage height, 171.8 ft (52.36 m); minimum, 16 acre-ft (19,700 m<sup>3</sup>) Feb. 11 to Mar. 10, 1944, Feb. 1-19, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 670 acre-ft (826,000 m<sup>3</sup>) Oct. 1, gage height, 166.5 ft (50.75 m); minimum, 203 acre-ft (250,000 m<sup>3</sup>) Sept. 16, gage height, 145.1 ft (44.23 m).

Capacity table (gage height, in feet, and contents, in acre-feet)  
(Based on survey by Public Service Co. of New Mexico in 1943)

145	202
150	279
160	491
170	776

CONTENTS, IN ACRE-Feet, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	667	606	563	558	367	257	325	400	468	294	340	271
2	664	598	563	550	375	248	329	398	472	298	335	270
3	664	593	566	544	375	240	331	394	477	313	333	260
4	661	587	566	534	377	237	335	394	482	325	338	250
5	658	585	566	528	377	237	336	396	486	333	344	239
6	652	582	566	518	377	239	340	398	489	340	346	236
7	649	577	566	507	380	243	344	398	494	348	342	236
8	646	574	566	491	382	246	346	394	494	350	346	237
9	646	569	566	472	382	251	350	389	491	350	348	236
10	643	566	566	458	384	254	352	380	489	352	342	233
11	643	563	563	444	384	256	356	367	491	354	331	231
12	646	558	563	435	384	259	358	356	491	356	313	226
13	646	555	563	421	377	262	360	344	482	358	298	217
14	646	550	563	410	371	263	363	329	475	358	285	209
15	646	544	563	394	363	265	367	312	465	360	273	205
16	646	542	561	375	360	265	371	294	456	360	260	208
17	649	539	561	365	352	266	375	283	447	362	248	214
18	649	542	561	358	346	268	377	285	438	363	239	225
19	649	547	561	356	340	274	382	300	426	360	234	237
20	652	550	561	352	331	283	384	317	412	360	231	239
21	652	550	561	352	323	288	389	342	403	360	228	236
22	655	550	563	352	313	294	391	367	394	362	225	236
23	655	550	563	352	306	298	396	391	382	360	222	233
24	652	552	563	352	292	300	398	407	369	360	219	229
25	643	552	563	352	286	304	403	419	360	356	217	229
26	637	552	563	352	279	306	407	428	348	354	212	229
27	634	552	563	352	273	308	407	435	335	352	220	233
28	628	555	563	352	268	312	407	440	321	354	245	229
29	622	561	563	354	263	313	403	447	310	348	266	228
30	617	561	563	358	---	315	398	454	300	346	277	226
31	609	---	563	362	---	319	---	463	---	344	274	---
MAX	667	606	566	558	384	319	407	463	494	363	348	271
MIN	609	539	561	352	263	237	325	283	300	294	212	205
(†)	164.4	162.6	162.7	154.3	149.0	152.1	156.0	158.8	151.1	153.4	149.7	146.6
(‡)	-61	-48	+2	-201	-99	+56	+79	+65	-163	+44	-70	-48

CAL YR 1975 MAX 704 MIN 127 ‡ +265  
WTR YR 1976 MAX 667 MIN 205 ‡ -444

† 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 NW¼ sec.8, T.15 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, on right bank at foot of La Bajada Hill, 5.0 mi (8.0 km) upstream from Cochiti Dam, 6.3 mi (10.1 km) east of Pena Blanca, and at mile 8.2 (13.2 km).

DRAINAGE AREA.--231 mi<sup>2</sup> (598 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 5,505 ft (1,678 m), from topographic map.

REMARKS.--Records good. 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 (1.6 km<sup>2</sup>) above station. Several observations of water temperature were made during the year. 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 (0.6 km) upstream and bypasses gage; ditch flow not included in record.

AVERAGE DISCHARGE.--6 years, 8.20 ft<sup>3</sup>/s (0.232 m<sup>3</sup>/s), 5,940 acre-ft/yr (7.32 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft<sup>3</sup>/s (323 m<sup>3</sup>/s) July 26, 1971, gage height, 9.58 ft (2.920 m), from rating curve extended above 120 ft<sup>3</sup>/s (3.40 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 5.69 ft (1.734 m) and 9.58 ft (2.920 m); no flow July 16-18, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 286 ft<sup>3</sup>/s (8.10 m<sup>3</sup>/s) July 22, gage height, 2.63 ft (0.802 m), no peak above base of 300 ft<sup>3</sup>/s (8.5 m<sup>3</sup>/s); minimum, 0.47 ft<sup>3</sup>/s (0.013 m<sup>3</sup>/s) July 19, 20.

## DISCHARGE MEASUREMENTS, IN CUBIC FEET PER SECOND, OF DITCH, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Oct. 16	0	Jan. 28	0	May 28	0.81	Aug. 18	*0.44
Nov. 13	0	Mar. 2	0	June 21	.90	19	*.44
Dec. 11	0	Apr. 5	*.10	July 21	1.36	Sept. 15	.53
Jan. 8	0	30	*1.0	22	.53		

\* Estimated.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	7.4	6.5	8.0	8.4	8.9	6.0	4.6	2.4	1.6	18	2.9
2	4.9	7.7	8.5	7.0	8.5	9.3	6.3	4.6	2.0	1.7	5.1	3.1
3	4.9	7.2	8.8	6.0	8.5	9.2	6.3	4.2	2.2	2.5	24	2.9
4	4.2	6.2	8.2	7.0	8.4	8.9	6.0	4.2	2.2	1.7	5.1	3.4
5	4.7	6.6	8.5	7.5	8.8	9.5	5.6	4.5	2.2	2.2	3.5	3.5
6	4.0	6.5	8.1	8.0	9.6	9.5	6.0	5.3	2.7	2.0	2.8	3.0
7	4.2	7.0	8.0	7.5	9.1	9.9	6.3	5.4	3.6	1.7	2.4	4.3
8	4.2	7.0	8.2	7.0	8.8	11	5.1	4.8	2.7	1.8	3.1	2.8
9	5.1	7.1	8.2	8.0	8.7	9.5	5.1	4.7	3.0	2.4	2.5	2.9
10	5.4	7.4	8.2	9.0	9.9	8.9	4.7	4.2	2.5	2.1	2.2	4.4
11	5.8	7.0	8.3	8.5	9.0	8.0	5.1	3.8	2.3	6.8	2.1	4.0
12	5.8	7.2	8.1	9.0	8.8	8.0	5.1	3.3	2.2	6.5	2.8	4.0
13	4.9	6.8	8.1	9.0	8.9	8.6	6.0	3.4	2.2	3.1	2.8	3.7
14	5.6	6.9	8.1	9.5	11	8.6	5.6	3.2	1.8	3.5	2.5	4.0
15	5.8	6.6	7.4	9.8	9.9	8.3	5.8	3.1	1.6	3.5	3.2	3.3
16	5.6	6.5	7.4	9.6	9.7	7.7	6.0	3.1	1.5	2.8	2.6	4.6
17	5.3	6.8	7.6	9.4	9.3	7.4	5.8	2.8	1.4	2.5	2.1	3.6
18	5.7	7.3	7.2	9.0	8.9	7.4	5.4	2.7	1.5	2.3	5.8	3.5
19	6.4	10	7.7	8.9	8.9	7.4	4.9	2.5	1.5	1.8	36	4.0
20	5.5	8.8	6.9	8.7	8.5	8.3	5.1	3.0	1.7	.82	9.0	4.0
21	4.8	8.0	8.0	8.4	8.8	8.6	4.4	3.0	1.6	1.7	7.4	2.9
22	4.8	7.9	8.3	8.4	8.8	8.0	4.0	2.8	1.7	27	6.4	2.9
23	5.1	7.5	8.6	8.9	9.0	7.7	4.4	2.8	1.6	14	4.8	4.1
24	5.6	7.4	8.6	9.0	9.2	7.4	4.0	2.4	2.0	18	19	3.6
25	6.0	7.2	7.9	8.4	8.9	7.1	4.0	2.4	2.0	6.7	6.1	3.7
26	6.7	7.3	7.8	8.1	8.8	8.3	3.5	2.4	1.7	5.5	5.3	4.3
27	6.8	7.8	8.8	7.6	9.1	7.7	3.9	2.8	2.1	18	5.3	6.1
28	5.9	7.7	8.3	8.2	8.6	7.1	3.9	2.8	1.9	16	4.9	7.0
29	6.1	9.1	6.5	8.6	8.3	6.5	3.5	2.5	1.7	6.1	4.9	6.4
30	6.5	5.0	7.5	8.6	---	6.5	3.9	2.5	1.5	4.1	4.2	5.6
31	7.0	---	8.5	8.6	---	6.8	---	2.4	---	3.6	3.7	---
TOTAL	167.5	218.9	246.8	259.2	261.1	256.0	151.7	106.2	61.0	174.02	209.6	118.5
MEAN	5.40	7.30	7.96	8.36	9.00	8.26	5.06	3.43	2.03	5.61	6.76	3.95
MAX	7.0	10	8.8	9.8	11	11	6.3	5.4	3.6	27	36	7.0
MIN	4.0	5.0	6.5	6.0	8.3	6.5	3.5	2.4	1.4	.82	2.1	2.8
AC-FT	332	434	490	514	518	508	301	211	121	345	416	235

CAL YR 1975 TOTAL 2659.54 MEAN 7.29 MAX 123 MIN .55 AC-FT 5280  
WTR YR 1976 TOTAL 2230.52 MEAN 6.09 MAX 36 MIN .82 AC-FT 4420

## 08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM

LOCATION.--Lat 35°37'01", long 106°18'58", in NW¼SW¼ sec.16, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, in control tower at Cochiti Dam, 1.7 mi (2.7 km) northeast of Cochiti Pueblo, and at mile 1,588.1 (2,555.3 km).

DRAINAGE AREA.--14,900 mi<sup>2</sup> (38,600 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>), in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--November 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Apr. 15, 1975, at site 1.3 mi (2.1 km) 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 498,100 acre-ft (614 hm<sup>3</sup>) between elevation 5,190.0 ft (1,581.91 m) and 5,450.0 ft (1,661.16 m), crest of service spillway. Dead storage 2,220 acre-ft (2.74 hm<sup>3</sup>) below elevation 5,255.0 ft (1,601.72 m), invert of outlet structure. Lake was created primarily for flood and sediment control. A 50,000 acre-ft (62 hm<sup>3</sup>) permanent pool is authorized for recreational purposes.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 60,950 acre-ft (75.2 hm<sup>3</sup>) Jan. 9, 1976, elevation, 5,331.60 ft (1,625.072 m); no storage prior to Nov. 12, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 60,950 acre-ft (75.2 hm<sup>3</sup>) Jan. 9, elevation, 5,331.60 ft (1,625.072 m); minimum, 38,090 acre-ft (47.0 hm<sup>3</sup>) Oct. 2, elevation, 5,312.90 ft (1,619.372 m).

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Corps of Engineers in 1972)

5310	35140	5330	58730
5320	46010	5340	73410

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38160	46610	46420	56790	49560	47610	47490	47630	47710	47630	48230	47600
2	38850	46540	46430	57220	50540	47790	47590	47600	47440	47490	47320	47470
3	40650	46480	46620	57580	51410	47850	47450	47750	47350	47300	47480	47420
4	42090	46610	46770	58110	50790	47860	47530	47720	47470	47290	47590	47590
5	43340	46800	46790	58810	48620	47730	47720	47750	47650	47450	47390	47560
6	44720	46920	46790	59560	47550	47410	47770	48010	47650	47560	47270	47500
7	46070	47090	46880	60150	47420	47320	47830	47980	47450	47610	47370	47480
8	46440	47180	46920	60680	47360	47500	47770	47840	47590	47530	47330	47470
9	46620	47130	46970	60950	47390	47610	47570	47720	47940	47470	47290	47480
10	46480	47040	47030	59800	47600	47470	47650	47450	47780	47620	47410	47510
11	46440	46920	47020	58330	47730	47490	47630	47500	47540	47660	47540	47440
12	46420	46500	46920	56760	47740	47650	47720	47560	47550	47530	47370	47380
13	46420	46290	46840	54780	47680	47610	47590	47610	47480	47450	47270	47430
14	46540	46320	46780	52800	47570	47570	47600	47590	47440	47990	48040	47450
15	46620	46680	46670	50800	47440	47590	47590	47540	47290	47750	48220	47540
16	46660	46700	46600	49500	47530	47720	47410	47540	47360	47440	47770	47570
17	46670	46480	47410	48930	47600	47560	47490	47830	47440	47360	47570	47990
18	46670	46420	47980	48380	47660	47500	47540	48220	47490	47380	47320	47610
19	46620	46550	48580	47770	47620	47490	47410	48230	47350	47720	47770	47540
20	46610	46600	49200	47670	47590	47490	47530	48000	47390	47770	47660	47490
21	46600	46560	49830	47560	47600	47500	47500	47840	47650	47990	47410	47490
22	46640	46520	50540	47470	47450	47560	47450	47390	47750	48090	47390	47550
23	46620	46360	51240	47530	47370	47670	47610	47450	47680	47630	47370	47560
24	46660	46180	51960	47540	47570	47630	47720	47630	47450	47430	47730	47500
25	46560	46160	52670	47540	47660	47510	47500	47570	47360	47310	47890	47540
26	46410	46220	53310	47540	47670	47500	47590	47600	47610	47550	47510	47730
27	46430	46600	53980	47540	47570	47570	47650	47610	47590	47690	47490	47680
28	46740	46500	54570	47670	47530	47680	47770	47600	47370	47540	47490	47750
29	46890	46530	55158	47590	47540	47800	47870	47610	47370	47430	47470	47730
30	46830	46700	55700	47770	---	47670	47800	47670	47570	47330	47560	47550
31	46740	---	56220	48710	---	47510	---	47650	---	47790	47500	---
MAX	46890	47180	56220	60950	51410	47860	47870	48230	47940	48090	48230	47990
MIN	38160	46160	46420	47470	47360	47320	47410	47390	47290	47290	47270	47380
(†)	5320.62	5320.58	5328.15	5322.26	5321.29	5321.27	5321.51	5321.38	5321.32	5321.50	5321.26	5321.30
(‡)	+8610	-40	+9520	-7510	-1170	-30	+290	-150	-80	+220	-290	+50
CAL YR 1975	MAX	56220	MIN	3570	‡	+51810						
WTR YR 1976	MAX	60950	MIN	38160	‡	+9420						

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

## RIO GRANDE BASIN

08317400 RIO GRANDE BELOW COCHITI DAM, NM

LOCATION.--Lat 35°37'05", long 106°19'24", in SW¼ sec.17, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, on right bank, 320 ft (98 m) upstream from bridge on State Highway 22, 700 ft (210 m) downstream from Cochiti Dam, 1.4 mi (2.3 km) northeast of Cochiti Pueblo, and at mile 1,587.6 (2,554.4 km). Prior to Jan. 9, 1976, at site 320 ft (98 m) downstream.

DRAINAGE AREA.--14,900 mi<sup>2</sup> (38,600 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 5,226.08 ft (1,592.909 m) above mean sea level (Corps of Engineers bench mark). Prior to Nov. 14, 1973, at site 2.4 mi (3.9 km) downstream at altitude 5,210 ft (1,588 m), from topographic map. Nov. 14 1973 to Jan. 8, 1976, at site 320 ft (98 m) downstream at datum 1.79 ft (0.546 m) lower.

REMARKS.--Water-discharge 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 above station for irrigation of about 620,000 acres (2,500 km<sup>2</sup>) in Colorado and about 81,000 acres (330 km<sup>2</sup>) 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 (24 km<sup>2</sup>) below station; see tabulation below for monthly and yearly diversion, as furnished by Middle Rio Grande Conservancy District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 10,300 ft<sup>3</sup>/s (292 m<sup>3</sup>/s) July 26, 1971 (gage height, 7.90 ft or 2.408 m), site and datum then in use, from rating curve extended above 2,600 ft<sup>3</sup>/s (74 m<sup>3</sup>/s); minimum, 8.1 ft<sup>3</sup>/s (0.23 m<sup>3</sup>/s) Nov. 12, 1973, result of closure of Cochiti Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 15, 1941, reached a discharge of 23,400 ft<sup>3</sup>/s (663 m<sup>3</sup>/s) at a nearby site upstream from mouth of Santa Fe River. The flood of May 23, 1920, probably exceeded 23,400 ft<sup>3</sup>/s (663 m<sup>3</sup>/s), and is likely the highest since 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,140 ft<sup>3</sup>/s (88.9 m<sup>3</sup>/s) May 20, gage height, 4.89 ft (1.490 m); minimum, 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s) Mar. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	416	755	1770	1800	108	737	742	2340	1860	913	1180	862		
2	419	755	1550	1760	109	687	681	2230	1800	963	1310	826		
3	425	755	1600	1710	114	781	731	2120	1410	956	567	737		
4	584	935	1610	1720	915	864	628	2180	1110	846	570	844		
5	617	1380	1650	1720	1790	920	616	2190	1040	784	575	921		
6	540	1520	1630	1760	1210	926	754	2310	1390	784	384	954		
7	394	1460	1620	1760	676	785	868	2520	1590	877	275	932		
8	338	1470	1640	1750	638	686	1090	2580	1290	956	274	914		
9	363	1470	1650	1770	587	784	1170	2680	1370	867	222	877		
10	443	1470	1640	1780	563	869	1180	2620	1590	815	175	858		
11	460	1470	1690	1770	637	779	1330	2440	1520	902	478	916		
12	422	1470	1710	1750	720	833	1330	2400	1390	966	723	869		
13	383	1300	1720	1730	752	922	1290	2440	1320	887	610	797		
14	358	1120	1720	1720	855	923	1220	2480	1210	847	613	764		
15	378	1160	1710	1700	879	856	1260	2520	1020	952	1130	763		
16	419	1420	1710	1350	777	787	1270	2520	916	968	1360	797		
17	429	1530	1720	938	764	826	963	2540	917	818	1190	842		
18	439	1470	1720	937	740	701	847	2640	893	737	914	923		
19	450	1470	1710	935	779	667	818	2940	853	724	1280	807		
20	451	1550	1670	724	781	661	736	3100	753	855	1390	772		
21	451	1550	1690	649	779	664	720	2940	712	887	949	709		
22	452	1550	1670	607	780	657	620	2620	766	1050	795	631		
23	454	1550	1670	546	702	659	592	2100	964	1100	751	593		
24	452	1440	1670	548	650	725	1170	1980	1040	1160	804	454		
25	452	1330	1710	548	681	757	1470	2030	919	894	1120	367		
26	455	1180	1710	549	740	725	1340	1570	842	754	1130	422		
27	367	1160	1720	549	790	732	1280	1270	965	864	865	608		
28	295	1390	1740	552	795	753	1510	1220	956	969	830	745		
29	412	1440	1760	641	800	828	1800	1280	833	846	775	759		
30	515	1710	1760	486	---	913	2100	1480	809	752	749	468		
31	642	---	1800	108	---	910	---	1740	---	628	799	---		
TOTAL	13675	40230	52340	36867	21111	24317	32126	70020	34048	27321	24787	22731		
MEAN	441	1341	1688	1189	728	784	1071	2259	1135	881	800	758		
MAX	642	1710	1800	1800	1790	926	2100	3100	1860	1160	1390	954		
MIN	295	755	1550	108	108	657	592	1220	712	628	175	367		
AC-FT	27120	79800	103800	73130	41870	48230	63720	138900	67530	54190	49170	45090		
(†)	7730	0	0	0	0	6910	7960	8820	9160	8830	8510	8380		
(‡)	3040	0	0	0	0	1770	3150	3290	3390	3860	3900	3890		
CAL YR 1975	TOTAL	541419	MEAN	1483	MAX	4500	MIN	295	AC-FT	1074000	†	60310	‡	23510
WTR YR 1976	TOTAL	399573	MEAN	1092	MAX	3100	MIN	108	AC-FT	792600	†	66300	‡	26290

† Diversion, in acre-feet, by Cochiti eastside main canal at head.

‡ Diversion, in acre-feet, by Sili main canal at head.



08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to current year.

WATER TEMPERATURES: July 1971 to current year.

SUSPENDED SEDIMENT DISCHARGE: July 1974 to current year.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 504 micromhos Nov. 6, 1974; minimum daily, 185 micromhos May 9, 1975.

WATER TEMPERATURES: Maximum, 30.5°C July 16-17, 1971; minimum, 0.0°C on several days during winter months.

SEDIMENT CONCENTRATIONS: Maximum daily, 343 mg/L June 16, 1975; minimum daily, 6 mg/L on several days during December 1974, January and July 1975.

SEDIMENT LOADS: Maximum daily, 3,540 tons (3,210 tonnes) June 16, 1975; minimum daily, 3.3 tons (3 tonnes) Sept. 12, 1974.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 585 micromhos Mar. 9; minimum daily, 244 micromhos May 25.

WATER TEMPERATURES: Maximum, 22.5°C Oct. 4; minimum, 0.0°C Feb. 4.

SEDIMENT CONCENTRATIONS: Maximum daily, 180 mg/L Mar. 17; minimum daily, 7 mg/L July 15.

SEDIMENT LOADS: Maximum daily, 599 tons (543 tonnes) May 7; minimum daily, 7.4 tons (6.7 tonnes) Feb. 2.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	440	470	456	278	---	371	342	286	256	353	342	---
2	442	499	450	---	---	370	342	289	394	350	330	---
3	438	501	450	---	---	370	341	---	431	355	347	---
4	436	499	443	---	---	371	---	281	394	353	368	---
5	275	496	437	---	270	371	---	289	376	355	384	---
6	283	504	422	---	371	370	328	268	342	340	404	---
7	281	500	418	---	371	371	330	268	361	346	373	---
8	283	499	418	273	372	371	---	267	350	344	382	---
9	280	494	420	272	372	585	---	274	345	342	377	---
10	286	493	418	272	372	371	---	267	357	340	370	---
11	283	492	416	271	363	372	---	270	346	336	379	---
12	282	485	413	271	391	374	---	252	370	334	366	---
13	282	485	424	272	377	372	---	253	347	350	386	---
14	282	484	413	271	389	371	---	250	324	368	384	---
15	281	476	412	271	375	370	---	251	348	366	366	---
16	296	477	412	277	374	369	---	250	344	371	368	335
17	281	474	414	276	373	376	---	255	330	355	376	---
18	283	474	417	306	372	379	255	277	351	352	391	---
19	279	474	422	308	387	369	---	257	402	349	380	---
20	280	466	425	476	370	369	---	256	358	345	372	---
21	280	464	422	321	369	368	292	258	346	341	375	---
22	278	464	415	322	369	369	288	260	342	341	---	---
23	459	466	416	317	369	375	277	261	341	349	---	---
24	279	463	414	347	369	370	280	252	344	341	---	---
25	277	462	408	330	369	344	275	244	343	347	---	---
26	287	461	406	371	375	343	278	248	339	342	---	---
27	280	434	394	---	368	346	279	248	356	341	---	---
28	281	458	394	---	368	345	275	255	378	341	---	---
29	483	460	394	---	368	344	279	249	353	342	---	---
30	486	458	396	---	---	345	288	249	354	327	361	---
31	478	---	395	---	---	345	---	251	---	339	335	---
MONTH	327	478	418	---	369	372	---	261	354	347	---	---
YEAR	MAX	585	MIN	244	MEAN	358						

08317400 RIO GRANDE BELOW COCHITI DAM, NM --- Continued

WATER TEMPERATURE (DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCTOBER				NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.0	21.0	21.5	12.5	12.0	12.0	4.0	2.5	3.5	---	---	---
2	22.0	21.0	21.5	12.0	12.0	12.0	3.5	3.0	3.0	---	---	---
3	22.0	20.5	21.5	12.0	11.5	12.0	3.0	3.0	3.0	---	---	---
4	22.5	21.0	21.5	12.0	11.5	12.0	3.0	3.0	3.0	---	---	---
5	22.0	21.0	21.5	12.0	11.5	12.0	3.0	3.0	3.0	---	---	---
6	21.5	21.0	21.5	12.0	11.5	11.5	---	---	---	---	---	---
7	21.5	21.0	21.0	11.5	11.0	11.5	---	---	---	---	---	---
8	22.0	21.0	21.0	11.0	10.5	11.0	---	---	---	---	---	---
9	21.5	20.5	21.0	11.0	10.0	10.5	---	---	---	2.0	2.0	2.0
10	20.5	19.5	20.0	10.5	10.0	10.5	---	---	---	2.0	2.0	2.0
11	20.5	19.5	20.0	10.0	9.5	10.0	---	---	---	2.0	2.0	2.0
12	20.0	19.5	20.0	10.0	9.5	9.5	---	---	---	2.0	2.0	2.0
13	---	---	---	9.5	9.0	9.5	---	---	---	2.0	2.0	2.0
14	---	---	---	9.5	9.0	9.0	---	---	---	2.0	1.5	2.0
15	---	---	---	9.0	8.5	9.0	---	---	---	2.0	1.5	2.0
16	15.5	14.5	15.0	8.5	8.0	8.5	---	---	---	2.0	2.0	2.0
17	15.0	14.0	14.5	8.5	8.0	8.0	---	---	---	2.0	2.0	2.0
18	15.0	14.0	14.5	8.0	6.5	7.5	---	---	---	2.0	2.0	2.0
19	14.5	13.5	14.5	7.0	6.0	6.5	---	---	---	2.0	2.0	2.0
20	14.5	13.5	14.0	7.5	7.0	7.0	---	---	---	2.0	2.0	2.0
21	14.5	13.5	14.0	7.0	6.5	6.5	---	---	---	2.0	2.0	2.0
22	14.5	13.5	14.0	7.0	6.0	6.5	---	---	---	2.0	2.0	2.0
23	14.0	13.0	13.5	6.5	6.5	6.5	---	---	---	2.5	2.0	2.0
24	13.5	13.0	13.0	6.5	6.0	6.5	---	---	---	2.5	2.0	2.0
25	13.5	12.5	13.0	6.5	5.5	6.0	---	---	---	2.5	2.0	2.0
26	13.5	12.5	13.0	6.0	5.5	5.5	---	---	---	2.5	2.0	2.0
27	15.5	11.0	13.0	5.5	5.0	5.5	---	---	---	2.5	2.0	2.5
28	15.0	9.0	11.5	5.0	4.0	4.5	---	---	---	2.5	2.5	2.5
29	12.5	9.5	11.5	4.5	4.0	4.5	---	---	---	2.5	2.5	2.5
30	12.5	12.0	12.0	4.0	4.0	4.0	---	---	---	6.5	0.5	3.0
31	13.0	12.0	12.0	---	---	---	---	---	---	---	---	---
MONTH	22.5	9.0	16.5	12.5	4.0	8.5	---	---	---	---	---	---
FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	5.5	5.0	5.0	---	---	---	12.5	12.0	12.5
2	---	---	---	5.5	5.0	5.0	9.0	8.0	8.5	12.5	12.0	12.0
3	---	---	---	5.5	5.0	5.5	9.5	8.5	9.0	12.5	11.5	12.0
4	4.0	0.0	2.5	5.5	5.5	5.5	9.5	8.5	8.5	13.0	12.0	12.5
5	3.0	3.0	3.0	5.5	5.5	5.5	9.5	8.0	9.0	13.5	12.5	13.0
6	3.0	3.0	3.0	6.0	5.5	6.0	9.5	8.5	9.0	13.5	12.5	13.0
7	3.0	3.0	3.0	6.0	5.5	5.5	10.5	9.0	9.5	13.0	12.5	12.5
8	3.0	3.0	3.0	6.5	6.0	6.0	10.5	9.5	10.0	12.5	12.5	12.5
9	4.0	3.0	3.0	6.5	6.0	6.5	10.0	9.5	10.0	12.5	12.0	12.5
10	3.5	3.0	3.0	6.5	6.0	6.5	11.0	10.0	10.5	12.5	12.0	12.5
11	3.5	3.0	3.5	6.5	6.0	6.5	11.0	10.0	10.5	13.0	12.0	13.0
12	4.0	3.5	3.5	6.5	6.0	6.0	11.0	10.0	10.5	16.0	12.5	13.5
13	4.0	3.5	3.5	6.5	6.0	6.0	11.5	10.0	11.0	14.0	13.5	13.5
14	4.5	3.5	4.0	6.5	6.0	6.5	11.5	10.5	11.0	14.0	13.5	13.5
15	4.0	4.0	4.0	6.5	6.0	6.5	11.5	11.0	11.0	14.5	13.5	14.0
16	4.5	4.0	4.0	7.0	6.5	6.5	11.5	11.0	11.0	14.0	13.0	13.5
17	5.0	4.0	4.5	7.0	6.5	6.5	11.0	10.5	11.0	15.0	13.5	14.5
18	4.5	4.0	4.5	7.5	6.5	7.0	11.0	10.5	10.5	15.0	14.0	14.5
19	4.5	4.5	4.5	7.5	7.0	7.0	11.0	10.5	10.5	16.0	14.5	15.0
20	4.5	4.0	4.5	7.5	7.0	7.5	11.0	10.5	10.5	15.5	15.0	15.5
21	5.0	4.0	4.5	7.5	7.0	7.5	11.0	10.5	10.5	16.0	15.0	15.5
22	5.0	4.5	5.0	7.5	7.5	7.5	11.0	10.0	10.5	16.0	15.0	15.5
23	5.0	4.5	4.5	8.0	7.5	7.5	11.0	10.0	10.5	16.5	15.5	16.0
24	5.0	4.5	5.0	8.0	7.5	7.5	11.5	10.5	11.0	16.0	15.5	15.5
25	5.0	4.5	5.0	8.5	8.0	8.0	11.5	10.5	11.0	16.0	15.5	16.0
26	5.0	4.5	5.0	8.0	7.5	8.0	11.5	10.5	11.0	16.5	15.5	16.0
27	5.0	5.0	5.0	8.5	7.5	8.0	12.0	11.0	11.5	15.5	15.5	15.5
28	5.5	5.0	5.0	8.5	8.0	8.0	12.0	11.5	12.0	16.5	15.5	16.0
29	5.5	5.0	5.5	8.5	8.0	8.5	13.0	11.5	12.0	16.0	15.0	16.0
30	---	---	---	8.5	8.5	8.5	13.5	12.5	13.0	16.5	16.0	16.5
31	---	---	---	8.5	8.0	8.5	---	---	---	17.0	16.5	16.5
MONTH	4.5	0.0	4.0	8.5	5.0	7.0	13.5	8.0	10.5	17.0	11.5	14.0

## 08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

WATER TEMPERATURE (DEG. ° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.0	16.5	16.5	20.5	19.0	19.5	21.5	20.5	21.0	21.0	20.0	20.5
2	17.0	16.5	16.5	20.5	19.5	20.0	21.5	20.0	21.5	20.5	19.5	20.0
3	17.5	16.5	17.0	20.0	20.0	20.0	21.0	20.0	20.5	20.0	20.0	20.0
4	17.0	16.5	17.0	21.0	19.5	20.0	21.5	20.5	21.0	20.0	19.5	20.0
5	17.5	16.5	17.0	20.5	19.5	20.0	21.0	20.5	20.5	20.0	19.5	20.0
6	18.5	17.0	17.5	20.5	19.5	20.0	21.5	20.0	20.5	20.0	19.5	20.0
7	18.5	17.5	18.0	21.0	20.0	20.5	21.0	20.0	20.5	20.0	20.0	20.0
8	18.5	17.5	18.0	21.0	20.0	20.5	21.0	20.0	20.5	20.5	19.5	20.0
9	18.5	18.0	18.0	21.0	20.0	20.5	21.0	20.0	20.5	19.5	19.0	19.5
10	18.5	17.5	18.5	21.0	19.5	20.5	21.0	20.0	20.5	19.5	19.0	19.5
11	19.0	18.0	18.5	21.0	20.0	20.5	22.0	20.0	21.0	19.5	19.0	19.5
12	19.0	18.0	18.5	21.5	20.5	21.0	21.5	21.0	21.0	19.5	18.5	19.0
13	18.5	18.0	18.5	21.0	20.5	21.0	21.5	20.5	21.0	19.5	17.5	19.0
14	19.0	18.0	18.5	21.5	20.5	21.0	21.5	21.0	21.0	19.5	19.0	19.0
15	18.5	17.5	18.0	21.5	20.5	21.0	21.5	20.5	21.0	19.0	19.0	19.0
16	18.0	17.5	18.0	21.5	20.5	21.0	21.5	20.5	21.0	19.5	19.0	19.0
17	18.5	17.5	18.0	21.5	20.5	21.0	21.5	20.5	21.0	19.5	19.0	19.0
18	18.5	17.5	18.0	21.0	20.5	21.0	21.5	20.5	21.0	19.5	19.0	19.5
19	18.5	17.5	18.0	21.5	21.0	21.0	22.0	21.0	21.5	19.0	18.5	19.0
20	18.5	17.5	18.0	22.0	21.0	21.5	22.0	21.0	21.5	19.0	18.5	19.0
21	18.5	17.5	18.0	21.5	21.0	21.5	21.0	20.5	21.0	19.0	18.5	19.0
22	19.5	18.0	18.5	21.5	21.0	21.5	21.0	20.0	20.5	19.0	18.5	18.5
23	19.0	18.5	19.0	21.5	21.0	21.5	21.5	20.0	20.5	19.0	18.0	18.5
24	19.0	19.0	19.0	21.5	21.0	21.0	21.5	20.5	21.0	18.5	18.0	18.5
25	19.0	18.5	19.0	21.0	20.5	21.0	21.5	21.0	21.0	18.5	18.0	18.0
26	19.0	---	---	21.5	20.5	21.0	21.0	20.5	21.0	18.5	18.0	18.0
27	19.5	19.0	19.5	21.5	20.5	21.0	21.0	19.5	20.5	18.5	17.5	18.0
28	19.5	18.5	19.5	21.5	20.5	21.0	21.0	20.0	20.5	18.5	18.0	18.0
29	20.0	18.5	19.5	21.0	20.5	21.0	20.5	20.0	20.5	18.0	17.5	18.0
30	19.5	19.0	19.5	21.5	20.0	21.0	21.0	20.0	20.5	18.0	17.0	17.5
31	---	---	---	21.0	20.0	20.5	21.0	20.5	20.5	---	---	---
MONTH	20.0	16.5	18.0	22.0	19.0	21.0	22.0	19.5	21.0	21.0	17.0	19.0
YEAR	22.5	0.0	13.0									

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
1	22	25	71	145	50	239	119	578	30	8.7	34	68
2	28	32	59	120	40	167	100	475	25	7.4	31	58
3	29	33	50	102	75	324	95	439	25	7.7	57	120
4	29	46	49	124	74	322	85	395	20	49	45	105
5	26	43	37	138	66	294	85	395	19	92	41	102
6	37	54	47	193	64	282	80	380	31	101	46	115
7	58	62	46	181	60	262	70	333	28	51	45	95
8	46	42	36	143	62	275	62	293	29	50	47	87
9	50	49	33	131	64	285	72	344	35	55	58	123
10	47	56	44	175	61	270	49	235	35	53	50	117
11	38	47	50	198	57	260	63	301	31	53	50	105
12	42	48	47	187	60	277	59	279	38	74	59	133
13	42	43	43	151	59	274	65	304	45	91	51	127
14	39	38	39	118	60	279	62	288	64	148	56	140
15	36	37	45	141	59	272	61	280	47	112	44	102
16	103	117	42	161	60	277	61	222	44	92	40	85
17	53	61	33	136	62	288	62	157	45	93	180	401
18	54	64	34	135	63	293	50	126	36	72	74	140
19	38	46	35	139	60	277	49	124	49	103	31	56
20	30	37	33	138	58	262	58	113	35	74	41	73
21	68	83	33	138	58	265	54	95	42	88	35	63
22	50	61	35	146	63	284	50	82	35	74	39	69
23	36	44	34	142	59	266	49	72	36	68	42	75
24	35	43	59	229	60	271	42	62	33	58	33	65
25	35	43	35	126	60	277	41	61	49	90	29	59
26	54	66	39	124	60	277	40	59	74	148	34	67
27	51	51	41	128	62	288	40	59	30	64	42	83
28	59	47	46	173	67	315	35	52	29	62	37	75
29	54	60	36	140	66	314	35	61	35	76	42	94
30	46	64	31	143	61	290	30	39	---	---	46	113
31	42	73	---	---	61	296	30	8.7	---	---	33	81
MONTH	---	1615.0	---	4445.0	---	8622.0	---	6711.7	---	2114.8	---	3196.0

## RIO GRANDE BASIN

08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	22	44	60	379	22	110	19	47	21	67	20	47
2	34	63	85	512	27	131	20	52	11	39	18	40
3	33	65	95	544	53	202	24	62	18	28	18	36
4	30	51	99	583	46	138	23	53	28	43	25	57
5	35	58	93	550	42	118	21	44	56	87	20	50
6	35	71	60	374	26	98	21	44	50	52	25	64
7	27	63	88	599	34	146	16	38	35	26	20	50
8	60	177	57	397	25	87	21	54	44	33	18	44
9	60	190	74	535	26	96	16	37	40	24	16	38
10	55	175	64	453	25	107	18	40	36	17	16	37
11	50	180	53	349	30	123	14	34	39	50	18	45
12	50	180	56	363	50	188	18	47	27	53	17	40
13	45	157	54	356	32	114	14	34	36	59	16	34
14	45	148	46	308	28	91	12	27	34	56	15	31
15	40	136	44	299	30	83	7	18	44	134	15	31
16	45	154	48	327	26	64	25	65	37	136	16	34
17	50	130	52	357	29	72	23	51	33	106	17	39
18	61	140	50	356	41	99	12	24	40	99	18	45
19	50	110	38	302	56	129	21	41	36	124	17	37
20	45	89	36	301	33	67	13	30	42	158	17	35
21	40	78	42	333	35	67	13	31	48	123	16	31
22	33	55	35	248	39	81	16	45	45	97	16	27
23	35	56	38	215	34	88	23	68	40	81	16	26
24	32	101	34	182	25	70	25	78	45	98	15	18
25	29	115	42	230	20	50	26	63	40	121	13	13
26	32	116	23	97	17	39	29	59	35	107	16	18
27	25	86	24	82	17	44	23	54	35	82	20	33
28	40	163	31	102	29	75	30	78	30	67	25	50
29	59	287	24	83	18	40	22	50	25	52	20	41
30	53	301	23	92	14	31	20	41	32	65	18	23
31	---	---	22	103	---	---	13	22	17	37	---	---
MONTH	---	3739.0	---	10611.0	---	2848.0	---	1431.0	---	2321.0	---	1114.0

TOTAL LOAD FOR YEAR: 48168.5 TONS.

LOCATION.--Lat 35°26'58", long 106°09'08", in NE¼ sec.13, T.14 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, on right bank at site of former railroad bridge at Waldo, 800 ft (240 m) downstream from Waldo Gulch, 1.8 mi (2.9 km) northwest of Cerrillos, 4.0 mi (6.4 km) upstream from Galisteo Dam, and at mile 15.8 (25.4 km).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft<sup>3</sup>/s (71 m<sup>3</sup>/s) and maximum (\*):

Minimum discharge, 0.03 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) June 24, 25, July 5.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	1.1	1.5	1.0	1.3	1.3	.88	.95	.35	.12	9.0	4.0
2	.95	1.0	1.5	.95	1.3	1.3	.74	.74	.31	.12	4.0	1.0
3	.88	.95	1.5	.90	1.2	1.2	.81	.62	.35	.12	250	.50
4	.68	.95	1.5	.90	1.5	1.8	.88	.62	.35	.12	80	.40
5	.68	.95	1.5	1.0	1.6	2.0	.88	.95	.27	.15	3.0	.30
6	.68	.95	1.3	1.0	2.0	1.8	.88	1.2	.31	.19	2.0	2.0
7	.68	1.0	1.2	1.1	1.6	1.6	.88	1.1	.35	.15	40	10
8	.57	1.0	1.3	1.3	1.5	2.2	.88	1.0	.39	.12	20	2.9
9	.74	.95	1.3	1.6	1.5	1.5	.95	.88	.35	.12	5.0	1.3
10	.74	.95	1.3	2.2	2.2	1.8	.95	.88	.27	.12	3.0	1.1
11	.81	.95	1.2	1.8	1.5	1.6	.95	.88	.27	.15	1.0	.88
12	.74	.95	1.2	2.4	1.5	1.5	1.0	.81	.31	3.3	.80	.68
13	.68	.95	1.3	2.4	1.6	2.8	.95	.74	.31	1.9	.70	.62
14	.81	.88	1.2	2.0	2.6	2.2	1.0	.74	.31	500	.60	.52
15	.95	.95	1.0	1.8	1.8	1.5	1.6	.62	.31	20	.50	7.0
16	.95	.95	1.1	2.9	1.5	2.4	1.3	.62	.31	5.2	.40	2.0
17	.95	.95	1.1	2.6	1.3	1.8	1.2	.68	.27	2.7	.40	1.0
18	.95	1.2	1.6	2.2	1.3	1.1	1.6	.81	.23	1.5	90	.70
19	.95	2.9	1.5	2.0	1.3	1.1	1.3	.74	.23	.95	200	.47
20	.95	1.5	1.3	2.0	1.1	1.0	1.5	.83	.23	48	17	.68
21	.95	1.2	1.6	2.4	1.2	1.6	1.0	.68	.19	21	1.0	1.0
22	1.0	1.1	1.8	2.2	1.2	2.4	1.0	.62	.23	400	.80	1.1
23	.95	1.1	1.6	2.4	1.3	2.0	.95	.52	.19	150	230	.74
24	.88	1.0	1.6	2.4	1.3	1.5	.95	.47	.15	160	563	.88
25	.95	.95	1.5	1.8	1.2	1.1	1.0	.43	.12	200	10	1.1
26	.95	.95	1.5	1.6	1.2	1.1	1.0	.52	.09	15	4.0	1.3
27	.95	1.3	1.6	1.8	1.2	1.2	1.2	.44	.12	5.0	2.0	1.8
28	.95	1.3	1.5	2.0	1.3	1.5	1.5	.39	.09	5.0	1.0	1.8
29	.95	1.4	1.1	1.8	1.3	1.5	1.3	.35	.09	2.0	.50	1.0
30	.95	1.3	1.1	1.5	---	1.2	1.0	.43	.12	1.0	.50	.88
31	.95	---	1.0	1.3	---	1.0	---	.62	---	4.0	2.0	---
TOTAL	26.65	33.58	42.3	55.25	42.4	49.6	32.03	21.88	7.47	1548.03	1542.20	49.65
MEAN	.86	1.12	1.36	1.78	1.46	1.60	1.07	.71	.25	49.9	49.7	1.66
MAX	1.0	2.9	1.8	2.9	2.6	2.8	1.6	1.2	.39	500	563	10
MIN	.57	.88	1.0	.90	1.1	1.0	.74	.35	.09	.12	.40	.30
AC-FT	53	67	84	110	84	98	64	43	15	3079	3060	98
CAL YR 1975	TOTAL	1668.62	MEAN	4.57	MAX	255	MIN	.09	AC-FT	3310		
WTR YR 1976	TOTAL	3451.04	MEAN	9.43	MAX	563	MIN	.09	AC-FT	6850		

## RIO GRANDE BASIN

08317900 GALISTEO RESERVOIR NEAR CERRILLOS, NM

LOCATION.--Lat 35°27'44", long 106°12'30", in NW¼ sec.9, T.14 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, at Galisteo Dam on Galisteo Creek, 5.0 mi (8.0 km) northwest of Cerrillos, and at mile 11.8 (19.0 km).

DRAINAGE AREA.--596 mi<sup>2</sup> (1,544 km<sup>2</sup>).

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

GAGE.--Water-stage recorder above elevation 5,500.3 ft (1,676.49 m), nonrecording below. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by an earthfill dam, completed Oct. 11, 1970. Capacity 88,990 acre-ft (110 hm<sup>3</sup>) between elevations 5,496.0 ft (1,675.18 m), sill of ungated outlet conduit, and 5,608.0 ft (1,709.32 m), crest of uncontrolled spillway. No dead storage. Reservoir is used for flood control.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,510 acre-ft (3.09 hm<sup>3</sup>) July 26, 1971, elevation, 5,517.00 ft (1,681.582 m); no storage most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 614 acre-ft (757,000 m<sup>3</sup>) Aug. 24, elevation, 5,511.00 ft (1,679.753 m); no storage most of time.

Capacity table (elevation, in feet, and contents, in acre-feet)  
(Based on survey by Corps of Engineers in 1972)

5500	0	5504	41
5501	2	5505	69
5502	9	5506	109
5503	21	5507	166

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										0	0	
2										0	0	
3										0	153	
4										0	0	
5										0	0	
6										0	0	
7										0	0	
8										0	0	
9										0	0	
10										0	0	
11										0	0	
12										0	0	
13										0	0	
14										0	0	
15										0	0	
16										0	0	
17										0	0	
18										0	0	
19										0	0	
20										0	0	
21										109	0	
22										92	0	
23										25	114	
24										130	0	
25										0	0	
26										0	0	
27										0	0	
28										0	0	
29										0	0	
30										0	0	
31		---			---		---		---	0	0	---
MAX	0	0	0	0	0	0	0	0	0	130	153	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
(†)	-	-	-	-	-	-	-	-	-	-	-	-
(‡)	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR 1975 MAX 80 MIN 0 † 0

WTR YR 1976 MAX 153 MIN 0 † 0

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

## 08317950 GALISTEO CREEK BELOW GALISTEO DAM, NM

LOCATION.--Lat 35°27'56", long 106°12'57", in SE4SE4 sec.5, T.14 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, on right bank, 0.6 mi (1.0 km) downstream from Galisteo Dam, 5.5 mi (8.8 km) northwest of Cerrillos, and at mile 11.2 (18.0 km).

DRAINAGE AREA.--597 mi<sup>2</sup> (1,546 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 5,450 ft (1,661 m), from topographic map.

REMARKS.--Water-discharge records poor. Flow regulated by Galisteo Reservoir 0.6 mi (1.0 km) upstream. Diversions for irrigation of about 50 acres (20 hm<sup>2</sup>) above station.

AVERAGE DISCHARGE.--6 years, 8.22 ft<sup>3</sup>/s (0.233 m<sup>3</sup>/s), 5,960 acre-ft/yr (7.35 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft<sup>3</sup>/s (56.6 m<sup>3</sup>/s) July 27, 1971, gage height, 7.00 ft (2.134 m); maximum gage height, 7.33 ft (2.234 m) July 20, 1971; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,530 ft<sup>3</sup>/s (43.3 m<sup>3</sup>/s) July 14, gage height, 7.02 ft (2.140 m); no flow many days.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.16	.70	.60	.90	.44	.04	.33		0	8.3	5.1
2	0	.23	2.0	.60	.90	.50	.02	0		0	3.8	1.0
3	0	.08	1.5	.60	.90	.23	0	0		0	256	.50
4	0	.07	1.0	.50	.90	.68	0	0		0	81	0
5	0	.08	.80	.60	.98	.45	0	.06		0	4.9	0
6	0	.13	.70	.60	1.5	.44	0	1.1		0	2.6	3.4
7	0	.39	.70	.60	1.1	.76	.06	1.3		0	42	8.2
8	0	.50	.65	.70	.88	1.7	.01	.70		0	21	3.0
9	0	.17	.65	.80	.98	.79	0	.42		0	5.0	1.0
10	0	.15	.70	.90	1.4	.56	.01	.04		0	2.0	0
11	0	.07	.55	1.0	.98	.70	0	0		0	1.1	0
12	0	.05	.75	1.1	.79	.44	.41	0		0	.06	0
13	0	.15	.85	1.2	.70	.90	.39	0		1.2	0	0
14	0	.27	.50	1.2	1.8	.45	0	0		496	0	0
15	0	.23	.35	1.2	.88	.31	1.1	0		29	0	5.5
16	0	.24	.70	1.4	.50	.16	1.1	0		5.0	0	1.6
17	0	.32	.85	1.6	.38	.24	.31	0		2.5	0	.88
18	0	.91	.90	1.5	.28	.21	.31	0		1.5	95	.30
19	0	4.5	1.2	1.3	.45	.16	.27	0		1.0	191	0
20	0	1.5	.90	1.2	.34	0	.34	0		45	21	0
21	0	.80	1.0	1.9	.37	.04	.03	0		22	3.0	0
22	0	.70	1.5	2.0	.42	.11	0	0		428	1.0	.08
23	0	.65	1.5	1.9	.51	.08	0	0		145	2.0	0
24	0	.50	1.1	1.8	.48	.05	0	0		171	620	0
25	0	.36	.75	1.6	.35	.04	0	0		187	15	.21
26	.01	1.8	.70	1.2	.41	.05	0	0		30	7.0	.30
27	.12	1.2	.70	1.6	.47	.06	0	0		4.9	1.8	.56
28	.08	.90	.70	1.5	.44	.06	0	0		4.7	.56	.56
29	.06	.50	.60	1.4	.34	.05	0	0		1.5	.02	.16
30	.15	.50	.60	1.2	---	.04	.33	0		.88	0	.02
31	.16	---	.60	1.0	---	.04	---	0		3.2	1.5	---
TOTAL	.58	18.11	26.70	36.30	21.33	10.74	4.73	3.95	0	1579.38	1386.64	32.37
MEAN	.019	.60	.86	1.17	.74	.35	.16	.13	0	50.9	44.7	1.08
MAX	.16	4.5	2.0	2.0	1.8	1.7	1.1	1.3	0	496	620	8.2
MIN	0	.05	.35	.50	.28	0	0	0	0	0	0	0
AC-FT	1.2	36	53	72	42	21	9.4	7.8	0	3130	2750	64

CAL YR 1975 TOTAL 1675.53 MEAN 4.59 MAX 264 MIN 0 AC-FT 3320  
WTR YR 1976 TOTAL 3120.83 MEAN 8.53 MAX 620 MIN 0 AC-FT 6190

## RIO GRANDE BASIN

08317950 GALISTEO CREEK BELOW GALISTEO DAM, NM --- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1971 to current year.

WATER TEMPERATURES: July 1971 to current year.

SUSPENDED SEDIMENT DISCHARGE: July 1971 to current year.

REMARKS.--Samples are collected when flow is observed on this ephemeral stream. The extremes for specific conductance and water temperatures were not reported because the number of missing days of record exceeded 20 percent of flow of year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 73,100 mg/L July 17, 1972; minimum daily, no flow on many days each year.

SEDIMENT LOADS: Maximum daily 203,000 tons (184,000 tonnes) Aug. 24, 1976; minimum daily, 0 tons (0 tonnes) on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily, 68,900 mg/L Aug. 24; minimum daily, no flow on many days.

SEDIMENT LOADS: Maximum daily, 203,000 tons (184,000 tonnes) Aug. 24; minimum daily, 0 tons (0 tonnes) on many days.

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE D SEDI- MENT (MG/L) (80154)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)
MAR								
09...	1700	.79	17.0	77	.16	--	--	--
JUL								
14...	1400	121	25.0	30300	9900	41	57	72
20...	1350	14	27.0	13900	525	67	84	97
22...	1335	88	24.0	21300	5060	50	60	78
AUG								
04...	1015	27	17.0	2250	164	59	75	91
19...	1605	692	19.0	13800	25800	43	53	77
20...	1130	15	23.0	4280	173	71	88	98
24...	1430	109	27.0	31600	9300	50	66	83
27...	1430	1.5	29.0	934	3.8	51	59	66
31...	1430	3.4	--	7850	72	68	88	99
SEP								
15...	0700	18	--	58500	2840	72	90	100
15...	1355	6.4	27.0	6380	110	72	87	98
15...	1455	5.8	--	5720	90	66	80	92
15...	1555	4.6	--	1560	19	70	83	94
16...	1340	1.2	27.0	591	1.9	80	90	95

DATE	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM (70332)	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM (70333)	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM (70334)
MAR							
09...	--	--	--	95	97	99	100
JUL							
14...	94	100	--	--	--	--	--
20...	--	--	--	99	100	--	--
22...	95	100	--	--	--	--	--
AUG							
04...	--	--	--	99	100	--	--
19...	95	99	100	--	--	--	--
20...	--	--	--	99	99	100	--
24...	99	100	--	--	--	--	--
27...	--	--	--	95	99	100	--
31...	100	--	--	--	--	--	--
SEP							
15...	--	--	--	--	--	--	--
15...	--	--	--	99	100	--	--
15...	--	--	--	97	99	100	--
15...	--	--	--	97	99	100	--
16...	--	--	--	99	99	99	100



## RIO GRANDE BASIN

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08317950 GALISTEO CREEK BELOW GALISTEO DAM, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	---				---	---	---
2					---	---				---	---	---
3					---	1770				---	---	---
4					---	---				---	983	---
5					1630	---				---	---	---
6					---	---				---	---	---
7					---	---				---	---	---
8					---	---				---	---	---
9					---	---				---	---	---
10					---	---				---	---	---
11					---	---				---	---	---
12					---	---				---	---	---
13					---	---				---	---	---
14					---	---				1490	---	---
15					---	---				1490	---	1350
16					---	---				---	---	1560
17					---	---				---	---	---
18					---	---				---	---	---
19					---	---				---	1330	---
20					---	---				948	1140	---
21					---	---				963	---	---
22					---	---				755	---	---
23					---	---				1200	---	---
24					---	---				---	815	---
25					---	---				---	---	---
26					---	---				---	915	---
27					---	---				---	1410	---
28					---	---				---	---	---
29					---	---				---	---	---
30					---	---				---	---	---
31					---	---				---	---	---
MONTH					---	---				---	---	---

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---				---	---	---
2						---				---	---	---
3						2.0				---	---	---
4						---				---	26.5	---
5						---				---	---	---
6						---				---	---	---
7						---				---	---	---
8						---				---	---	---
9						---				---	---	---
10						---				---	---	---
11						---				---	---	---
12						---				---	---	---
13						---				---	---	---
14						---				25.0	---	---
15						---				31.5	---	27.0
16						---				---	---	27.0
17						---				---	---	---
18						---				---	---	---
19						---				---	19.0	---
20						---				27.0	23.0	---
21						---				---	---	---
22						---				24.0	---	---
23						---				25.0	---	---
24						---				---	27.0	---
25						---				---	---	---
26						---				---	25.5	---
27						---				---	29.0	---
28						---				---	---	---
29						---				---	---	---
30						---				---	---	---
31						---				---	---	---
MONTH						---				---	---	---

08317950 GALISTEO CREEK BELOW GALISTEO DAM, NM -- Continued

## SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	0	110	.05	1000	12	255	.41	300	.73	190	.23
2	0	0	150	.09	1300	18	255	.41	300	.73	210	.28
3	0	0	90	.02	2000	37	255	.41	295	.72	76	.05
4	0	0	85	.02	900	8.7	220	.30	295	.72	150	.28
5	0	0	90	.02	320	.85	255	.41	310	.82	120	.15
6	0	0	100	.04	300	.69	255	.41	350	1.4	120	.14
7	0	0	200	.21	280	.54	255	.41	330	.98	285	.58
8	0	0	220	.30	255	.42	280	.53	290	.69	420	1.9
9	0	0	110	.05	255	.42	290	.63	310	.82	77	.16
10	0	0	110	.04	255	.42	300	.73	340	1.3	85	.13
11	0	0	85	.02	255	.42	320	.86	310	.82	280	.53
12	0	0	75	.01	220	.30	330	.98	290	.62	190	.23
13	0	0	110	.04	300	.69	335	1.1	280	.53	300	.73
14	0	0	160	.12	255	.42	335	1.1	430	2.1	185	.22
15	0	0	150	.09	320	.86	335	1.1	290	.69	120	.10
16	0	0	150	.10	340	1.3	340	1.3	220	.30	65	.03
17	0	0	170	.15	340	1.3	350	1.5	180	.18	90	.06
18	0	0	300	.74	330	.98	345	1.4	150	.11	80	.05
19	0	0	1100	13	350	1.4	335	1.2	200	.24	65	.03
20	0	0	350	1.5	350	1.4	335	1.1	170	.16	0	0
21	0	0	300	.74	520	2.8	450	2.3	180	.18	30	0
22	0	0	310	.80	350	1.4	500	2.7	190	.22	50	.01
23	0	0	300	.70	350	1.4	450	2.3	220	.30	45	.01
24	0	0	290	.62	330	.98	430	2.1	210	.27	30	0
25	0	0	180	.18	300	.74	370	1.6	175	.17	30	0
26	50	0	550	3.3	290	.64	340	1.1	185	.20	35	0
27	100	.03	350	1.4	310	.83	360	1.6	210	.27	40	.01
28	90	.02	550	3.3	350	1.5	350	1.4	195	.23	40	.01
29	80	.01	580	4.2	350	1.4	340	1.3	170	.16	35	0
30	110	.04	800	7.1	340	1.3	335	1.1	---	---	30	0
31	110	.05	---	---	330	1.1	330	.89	---	---	30	0
MONTH	---	.15	---	38.95	---	102.20	---	34.68	---	16.66	---	5.92
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	30	0	354	.38			0	0	12100	363	5380	93
2	25	0	0	0			0	0	4100	42	1150	3.1
3	0	0	0	0			0	0	28400	41000	345	.47
4	0	0	0	0			0	0	7580	6120	0	0
5	0	0	131	.35			0	0	652	8.6	0	0
6	0	0	777	2.3			0	0	400	2.8	1630	118
7	750	.34	778	2.8			0	0	11900	7750	5820	141
8	277	.05	625	1.7			0	0	8880	985	2550	21
9	0	0	573	.77			0	0	1170	16	500	1.4
10	272	.04	172	.08			0	0	692	3.7	0	0
11	0	0	0	0			0	0	455	1.4	0	0
12	1010	2.8	0	0			0	0	233	.09	0	0
13	700	.83	0	0			5560	57	0	0	0	0
14	0	0	0	0			51900	145000.0	0	0	0	0
15	1340	6.2	0	0			13900	2110	0	0	10600	406
16	380	1.1	0	0			1520	21	0	0	1750	17
17	363	.39	0	0			875	5.9	0	0	3460	8.2
18	461	.42	0	0			518	2.1	18200	21700	1090	.88
19	371	.34	0	0			350	.94	14400	6920	0	0
20	347	.37	0	0			26000	6620	4570	333	0	0
21	93	.03	0	0			12400	1190	1790	14	0	0
22	0	0	0	0			44900	77100	1100	3.0	870	.54
23	0	0	0	0			30500	18800	790	4.3	0	0
24	0	0	0	0			31800	25900	68900	203000.0	0	0
25	0	0	0	0			25500	18900	10000	405	1480	2.5
26	0	0	0	0			2900	235	13100	248	1140	1.2
27	0	0	0	0			1050	14	317	1.5	980	1.9
28	0	0	0	0			3110	92	164	.25	760	1.4
29	0	0	0	0			2950	12	28	.01	639	.40
30	371	.47	0	0			3500	8.3	0	0	218	.08
31	---	---	0	0			3160	218	3540	25	---	---
MONTH	---	13.38	---	8.38	---	0	---	296286.2	---	288946.7	---	818.07

TOTAL LOAD FOR YEAR: 586271.3 TONS.

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

LOCATION.--Lat 35°26'39", long 106°26'23", in SW¼NW¼ sec.17, T.14 N., R.5 E., Sandoval County, Hydrologic Unit 13020201, in San Felipe Grant, on right bank 200 ft (61 m) downstream from Tonque Arroyo, 1,700 ft (520 m) upstream from steel highway bridge, 0.8 mi (1.3 km) upstream from San Felipe Pueblo, 11 mi (18 km) northeast of Bernalillo, and at mile 1,572.7 (2,530.5 km).

DRAINAGE AREA.--16,100 mi<sup>2</sup> (41,670 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1926-30, WSP 1392: 1937(M), WSP 1512: 1931-32, 1933(M), 1934-36, 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 5,115.73 ft (1,559.275 m) above mean sea level. Prior to Sept. 27, 1957, at site 1,800 ft (550 m) downstream at datum 5.35 ft (1.63 m) lower, except period May 16, 1945 to Sept. 30, 1946 when it was 5.94 ft (1.81 m) lower than present datum.

REMARKS.--Water-discharge records good. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 17 mi (27 km) 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 (2,900 km<sup>2</sup>) above station, some of which is irrigated below by Cochiti eastside main canal and San Felipe eastside acequia, which bypass station.

AVERAGE DISCHARGE.--48 years (water years 1926-73), 1,374 ft<sup>3</sup>/s (38.91 m<sup>3</sup>/s), 995,500 acre-ft/yr (1.23 km<sup>3</sup>/yr) prior to completion of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,300 ft<sup>3</sup>/s (773 m<sup>3</sup>/s) June 26, 1937, gage height, 11.13 ft (3.392 m) site and datum then in use, from rating curve extended above 15,000 ft<sup>3</sup>/s (425 m<sup>3</sup>/s); minimum, 32 ft<sup>3</sup>/s (0.906 m<sup>3</sup>/s) July 7, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in 1874, 1884, and 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,130 ft<sup>3</sup>/s (88.6 m<sup>3</sup>/s) May 21, gage height, 5.15 ft (1.570 m); minimum daily, 161 ft<sup>3</sup>/s (4.56 m<sup>3</sup>/s) Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	495	852	1780	1720	172	733	944	2140	1780	1010	1040	875
2	501	853	1640	1690	166	727	832	2170	1820	1100	1570	866
3	501	855	1660	1640	161	754	897	2120	1570	1100	976	811
4	616	1020	1680	1640	414	828	837	2160	1310	1090	1040	812
5	699	1440	1690	1660	1690	866	725	2220	1200	1090	865	948
6	672	1770	1710	1670	1390	909	877	2290	1370	984	720	969
7	542	1710	1690	1720	795	823	1010	2500	1700	974	520	975
8	423	1670	1710	1660	738	693	1170	2650	1600	1090	450	951
9	434	1640	1710	1660	685	733	1340	2730	1530	1040	410	926
10	520	1600	1720	1660	643	849	1310	2710	1760	955	380	911
11	560	1600	1730	1660	669	813	1470	2560	1780	1020	686	937
12	566	1600	1770	1630	750	797	1480	2460	1610	1100	951	948
13	517	1510	1780	1620	782	918	1510	2510	1580	1040	871	868
14	476	1370	1780	1610	810	921	1380	2520	1430	1450	830	849
15	477	1330	1780	1580	929	908	1450	2540	1300	1090	1150	838
16	522	1500	1770	1460	779	792	1440	2520	1090	1100	1510	849
17	551	1600	1780	1050	771	862	1280	2500	1100	980	1360	883
18	553	1570	1780	1040	722	765	1040	2580	1040	898	1180	931
19	572	1540	1790	1030	761	715	1070	2850	1000	869	1290	900
20	579	1620	1760	855	765	709	944	3030	873	970	1570	798
21	579	1610	1780	722	761	702	896	3030	810	1050	1130	864
22	592	1610	1760	662	762	700	819	2790	804	1360	930	685
23	588	1610	1750	634	724	717	675	2470	990	1380	980	711
24	588	1570	1760	634	628	754	1050	2220	1130	1370	1480	617
25	590	1480	1760	641	651	828	1490	2280	1080	1370	1320	558
26	592	1410	1770	637	695	818	1440	2020	930	976	1360	559
27	559	1300	1780	641	752	828	1410	1570	1060	1020	1080	655
28	419	1520	1780	643	754	864	1490	1500	1130	1130	979	806
29	458	1540	1780	692	754	922	1720	1500	1000	1050	904	836
30	642	1660	1790	764	---	1030	1840	1540	922	961	797	728
31	728	---	1790	197	---	1080	---	1750	---	890	843	---
TOTAL	17111	43960	54210	37122	21073	25358	35836	72430	38299	33507	31172	24864
MEAN	552	1465	1749	1197	727	818	1195	2336	1277	1081	1006	829
MAX	728	1770	1790	1720	1690	1080	1840	3030	1820	1450	1570	975
MIN	419	852	1640	197	161	693	675	1500	804	869	380	558
AC-FT	33940	87190	107500	73630	41800	50300	71080	143700	75970	66460	61830	49320
(†)	4040	0	0	0	0	3290	3540	3730	3530	3690	3740	3620
CAL YR 1975 TOTAL	586010			1606	4560	374	AC-FT	1162000				
WTR YR 1976 TOTAL	434942			1188	3030	161	AC-FT	862700				

(†) MONTHLY DIVERSION, IN ACRE-FT, OF COCHITI EASTSIDE CANAL; RECORD OF THIS FLOW IS FURNISHED BY BUREAU OF RECLAMATION.

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	SPECIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA+MG) (MG/L) (00900)
OCT										
08...	0930	432	370	7.5	15.5	14.0	4	8.7	10	140
NOV										
06...	1330	1820	380	8.1	24.0	13.0	25	7.9	8	140
DEC										
03...	1145	1660	285	8.2	9.5	4.0	20	12.2	5	99
JAN										
07...	0915	1750	279	7.8	-3.0	1.0	40	12.3	2	110
FEB										
04...	1130	155	390	8.4	13.0	6.0	15	8.6	18	160
MAR										
09...	1010	707	369	8.0	13.0	6.0	4	11.1	14	150
APR										
06...	0945	855	365	7.8	9.5	7.5	11	11.3	5	130
MAY										
06...	1315	2270	310	7.4	14.5	13.0	30	9.3	5	110
JUN										
01...	0945	1750	296	8.0	20.5	16.5	12	8.6	16	100
JUL										
13...	0930	1120	355	7.5	23.0	21.5	9	8.5	3	120
AUG										
03...	0915	1060	420	7.6	22.0	19.0	2800	6.9	250	150
31...	1030	882	355	8.2	22.5	20.5	9	8.2	7	140

DATE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
OCT									
08...	25	45	7.1	22	.8	3.3	142	0	67
NOV									
06...	26	42	8.0	23	.9	2.9	136	0	64
DEC									
03...	14	30	5.8	16	.7	2.5	104	0	42
JAN									
07...	19	34	6.0	13	.5	2.6	111	0	51
FEB									
04...	26	49	8.2	24	.8	3.4	159	0	73
MAR									
09...	31	46	7.5	23	.8	3.2	140	0	62
APR									
06...	16	38	8.5	24	.9	3.3	139	0	62
MAY									
06...	19	34	6.7	16	.7	2.6	114	0	52
JUN									
01...	22	32	5.4	14	.6	2.4	98	0	42
JUL									
13...	24	38	6.8	21	.8	3.2	121	0	69
AUG									
03...	38	47	7.2	26	.9	3.9	133	0	93
31...	34	44	6.3	19	.7	3.1	124	0	72

RIO GRANDE BASIN

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08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CHLO- RIDE (CL) (00940)	DIS- SOLVED FLUO- RIDE (F) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS- SOLVED NITRATE (N) (MG/L) (00618)	DIS- SOLVED NITRITE (N) (MG/L) (00613)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)
OCT 08...	6.5	.3	18	241	239	.01	.01	.02	.02
NOV 06...	6.5	.3	16	244	230	--	--	.02	.02
DEC 03...	4.0	.3	19	183	172	--	--	.15	.14
JAN 07...	3.5	.3	18	168	184	--	--	.22	.22
FEB 04...	6.3	.4	22	286	266	--	--	.21	.20
MAR 09...	6.4	.4	21	240	239	--	--	.12	.11
APR 06...	8.8	.3	20	231	234	--	--	.10	.10
MAY 06...	4.7	.3	17	192	190	--	--	.15	.15
JUN 01...	4.3	.4	17	170	166	--	--	.00	.00
JUL 13...	6.5	.4	15	222	220	--	--	.07	.01
AUG 03...	6.5	.4	14	263	265	--	--	.41	.32
31...	5.7	.4	16	224	228	--	--	.03	.01

DATE	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOL- VED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDE D ORGANIC CARBON (C) (MG/L) (00689)
OCT 08...	.00	.31	.33	.04	.02	50	30	5.6	.4
NOV 06...	.02	.47	.51	--	.01	50	50	6.0	--
DEC 03...	.00	.22	.37	.06	.03	20	20	2.2	--
JAN 07...	.03	.24	.49	.06	.01	10	0	4.0	.8
FEB 04...	.00	.22	.43	.03	.00	40	0	4.0	.2
MAR 09...	.00	.76	.88	.02	.00	40	0	4.9	.7
APR 06...	.05	.22	.37	.04	.01	120	0	2.3	1.2
MAY 06...	.03	.39	.57	.16	.01	160	10	2.9	--
JUN 01...	.01	.43	.44	.02	.01	30	70	4.0	--
JUL 13...	.02	.22	.31	.07	.03	40	30	6.8	5.4
AUG 03...	.00	6.2	6.6	4.7	.04	60	40	10	20
31...	.01	.28	.32	.08	.00	40	10	6.6	--

## RIO GRANDE BASIN

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN *									
01...	0945	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT			
08...	0930	41	75
NOV			
06...	1330	24	120
DEC			
03...	1145	18	29
JAN			
07...	0915	110	100
FEB			
04...	1130	14	7
MAR			
09...	1010	1	4
APR			
06...	0945	22	60
MAY			
06...	1315	50	35
JUN			
01...	0945	5	20
JUL			
13...	0930	26	56
AUG			
03...	0915	3100	5900
31...	1030	37	50

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDI- MENT (MG/L) (80154)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM (70332)	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM (70333)	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT									
08...	0930	432	14.0	29	34	58	--	--	--
NOV									
06...	1330	1820	13.0	257	1260	50	--	--	--
13...	1000	1580	7.5	176	751	16	30	69	100
DEC									
03...	1145	1660	4.0	160	717	20	--	--	--
JAN									
07...	0915	1750	1.0	113	534	54	--	--	--
FEB									
04...	1130	155	6.0	19	8.0	97	--	--	--
MAR									
09...	1010	707	6.0	17	32	53	--	--	--
APR									
06...	0945	855	7.5	43	99	68	--	--	--
MAY									
06...	1315	2270	13.0	256	1570	42	--	--	--
JUN									
01...	0945	1750	16.5	89	421	21	--	--	--
JUL									
13...	0930	1120	21.5	48	145	40	--	--	--
AUG									
03...	0915	1060	19.0	3070	8790	93	--	--	--
31...	1030	882	20.5	317	755	32	--	--	--

LOCATION.--Lat 35°49'39", long 106°38'52", in NW¼ sec.5, T.18 N., R.3 E., Sandoval County, Hydrologic Unit 13020202, on left bank 0.4 mi (0.6 km) downstream from East Fork and boundary of Santa Fe National Forest, 5.3 mi (8.5 km) northeast of Jemez Springs, and at mile 43.0 (69.2 km).

PERIOD OF RECORD.--July 1949 to October 1950 (gaged separately above East Fork), May 1951 to September 1957 (irrigation seasons only),  
March 1958 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 6,702.7 ft (2,042.98 m) above mean sea level. Prior to May 1951, at sites 3,000 ft (900 m) upstream, at different datums and on separate channels.

AVERAGE DISCHARGE.--18 years (water years 1950, 1959-76), 27.9 ft<sup>3</sup>/s (0.790 m<sup>3</sup>/s), 20,210 acre-ft/yr (24.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 2,500 ft<sup>3</sup>/s (71.4 m<sup>3</sup>/s) Apr. 21, 1958, gage height, 7.35 ft (2.240 m), from rating curve extended above 1,100 ft<sup>3</sup>/s (31 m<sup>3</sup>/s) on basis of slope-area and contracted-opening measurements of peak flow; minimum, 0.91 ft<sup>3</sup>/s (0.026 m<sup>3</sup>/s) Jan. 24, 1969, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 132 ft<sup>3</sup>/s (3.74 m<sup>3</sup>/s) at 0030 hours May 8, gage height, 2.16 ft (0.658 m), no other peak above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s); minimum, 5.6 ft<sup>3</sup>/s (0.159 m<sup>3</sup>/s) Nov. 12.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	16	12	13	14	35	29	24	16	9.9	17	14
2	15	15	12	13	14	28	30	23	15	10	15	14
3	15	15	12	14	15	24	29	22	14	10	15	13
4	15	14	12	16	15	22	30	22	14	9.5	14	13
5	15	14	13	17	15	18	30	22	14	10	12	13
6	15	14	13	16	16	21	28	26	14	9.7	11	14
7	15	14	13	15	16	23	25	85	14	9.4	11	16
8	15	14	14	15	17	23	25	98	15	9.6	11	15
9	14	14	15	15	19	26	25	57	15	12	11	14
10	15	13	15	15	39	28	25	44	14	11	12	15
11	15	14	15	15	29	26	24	36	13	9.9	12	15
12	15	11	15	15	28	20	24	31	11	11	12	14
13	14	13	15	15	27	21	28	29	12	12	12	13
14	14	14	15	14	31	23	27	27	11	13	11	14
15	14	14	13	14	24	27	31	26	11	11	10	14
16	14	14	13	14	23	27	38	25	11	11	10	13
17	15	15	14	14	20	37	34	24	11	11	11	13
18	15	15	15	14	15	50	33	24	11	12	16	14
19	15	15	15	15	18	67	55	25	10	10	18	13
20	15	12	15	14	17	46	48	29	10	9.6	16	13
21	15	12	14	13	13	37	41	29	9.9	15	16	15
22	15	11	15	13	22	37	34	27	10	15	15	17
23	15	11	16	14	17	47	30	23	11	15	14	15
24	15	13	16	14	18	55	28	22	10	13	16	14
25	14	14	15	14	13	63	26	21	10	20	24	14
26	15	10	15	12	17	57	26	20	9.5	17	22	16
27	15	12	16	13	18	40	25	19	9.5	15	18	19
28	14	14	15	14	22	37	24	18	9.7	15	15	25
29	14	14	14	14	29	30	24	17	9.7	13	13	23
30	14	11	14	14	---	27	25	16	10	12	13	18
31	15	---	15	14	---	24	---	16	---	12	13	---
TOTAL	456	402	441	442	581	1046	901	927	355.3	373.6	436	453
MEAN	14.7	13.4	14.2	14.3	20.0	33.7	30.0	29.9	11.8	12.1	14.1	15.1
MAX	15	16	16	17	39	67	55	98	16	20	24	25
MIN	14	10	12	12	13	18	24	16	9.5	9.4	10	13
AC-FT	904	797	875	877	1150	2070	1790	1840	705	741	865	899
CAL YR 1975	TOTAL	17984.0	MEAN 49.3	MAX 1040	MIN 9.0	AC-FT 35670						
WTR YR 1976	TOTAL	6813.9	MEAN 18.6	MAX 98	MIN 9.4	AC-FT 13520						





08324000 JEMEZ RIVER NEAR JEMEZ, NM

LOCATION.--Lat 35°39'42", long 106°44'34", Sandoval County, Hydrologic Unit 13020202, in Cañon de San Diego Grant, on left bank 0.7 mi (1.1 km) downstream from Rio Guadalupe, 3.5 mi (5.6 km) north of Jemez, and at mile 29.5 (47.5 km).

DRAINAGE AREA.--470 mi<sup>2</sup> (1,220 km<sup>2</sup>).

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, Vol. 2: 1937-58.

GAGE.--Water-stage recorder. Concrete control since Dec. 6, 1965. Datum of gage is 5,622.3 ft (1,713.68 m) above mean sea level. June 22, 1936 to Mar. 11, 1937, at site 60 ft (20 m) upstream at datum 0.50 ft (0.152 m) higher. Mar. 12, 1937, to July 8, 1938, at present site at datum 0.7 ft (0.21 m) higher. July 9, 1938, to May 6, 1941, at site 60 ft (20 m) upstream at datum 0.70 ft (0.213 m) higher.

REMARKS.--Records good except those for winter months, and those for periods of no gage height record, June 1-29 and Aug. 3 to Sept. 8, which are poor. Diversions for irrigation of about 300 acres (1.2 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years (water years 1937-40, 1950, 1954-76), 68.0 ft<sup>3</sup>/s (1.926 m<sup>3</sup>/s), 49,270 acre-ft/yr (60.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft<sup>3</sup>/s (167 m<sup>3</sup>/s) Apr. 21, 1958, from rating curve extended above 2,200 ft<sup>3</sup>/s (62 m<sup>3</sup>/s) on basis of contracted-opening measurement; maximum gage height, 8.6 ft (2.62 m), May 6, 1941, present datum; minimum, 4.2 ft<sup>3</sup>/s (0.12 m<sup>3</sup>/s) Jan. 5, 1972, result of freezeup.

EXTREMES FOR OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1890 occurred between May 6 and 15, 1941, after gage was destroyed (discharge probably exceeded 6,000 ft<sup>3</sup>/s or 170 m<sup>3</sup>/s), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 910 ft<sup>3</sup>/s (25.8 m<sup>3</sup>/s) at unknown time on Aug. 20, gage height, 6.20 ft (1.890 m), no peak above base of 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s); minimum, 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s) Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	30	23	21	25	54	49	73	32	14	43	21
2	25	28	25	22	25	46	51	67	30	15	49	21
3	24	26	24	26	26	41	52	61	29	15	42	20
4	23	26	25	21	28	41	57	61	28	14	35	19
5	22	27	25	22	26	37	62	68	27	14	28	18
6	21	26	26	21	27	38	61	74	27	14	22	19
7	20	28	25	21	28	39	60	139	28	14	19	22
8	19	28	25	23	30	41	61	193	33	15	18	22
9	20	27	25	23	33	41	66	134	30	14	19	20
10	20	28	25	23	43	44	80	114	27	14	20	19
11	20	29	24	23	47	42	92	95	25	14	20	21
12	21	24	25	23	42	39	100	84	24	14	19	18
13	21	23	26	23	42	36	92	74	22	15	18	13
14	20	24	23	23	52	37	81	68	21	16	17	15
15	21	24	20	23	42	38	76	66	20	18	16	16
16	21	24	20	24	40	39	81	67	20	17	16	13
17	20	25	20	24	36	43	75	67	19	17	17	18
18	20	25	19	25	36	52	68	66	18	19	23	18
19	21	27	18	25	37	67	98	69	17	18	32	18
20	20	24	17	24	39	58	93	78	16	18	38	18
21	21	24	20	24	32	46	88	103	16	43	32	18
22	22	23	20	23	33	43	86	82	16	27	29	24
23	22	24	21	25	36	52	91	63	16	42	28	21
24	22	25	21	25	37	70	90	53	15	37	28	20
25	23	26	19	24	36	82	86	50	15	35	37	24
26	24	23	21	22	36	84	89	49	15	44	34	25
27	25	25	22	24	36	69	86	47	14	39	28	29
28	25	28	22	25	38	66	90	47	14	44	24	42
29	23	29	20	26	42	60	90	45	14	34	21	39
30	22	25	20	26	---	52	81	40	13	30	20	28
31	28	---	21	26	---	46	---	34	---	29	20	---
TOTAL	681	775	687	730	1030	1543	2332	2331	641	713	812	639
MEAN	22.0	25.8	22.2	23.5	35.5	49.8	77.7	75.2	21.4	23.0	26.2	21.3
MAX	28	30	26	26	52	84	100	193	33	44	49	42
MIN	19	23	17	21	25	36	49	34	13	14	16	13
AC=FT	1350	1540	1360	1450	2040	3060	4630	4620	1270	1410	1610	1270
CAL YR 1975 TOTAL	42322		MEAN 116	MAX 1710	MIN 17	AC=FT 83950						
WTR YR 1976 TOTAL	12914		MEAN 35.3	MAX 193	MIN 13	AC=FT 25610						

## 08328500 JEMEZ CANYON RESERVOIR NEAR BERNALILLO, NM

LOCATION.--Lat 35°23'40", long 106°32'50", in SW¼SW¼ sec.32, T.14 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, at corner of outlet works control tower of Jemez Canyon Dam on Jemez River, 2.8 mi (4.5 km) upstream from mouth, and 6 mi (10 km) north of Bernalillo.

DRAINAGE AREA.--1,034 mi<sup>2</sup> (2,678 km<sup>2</sup>).

PERIOD OF RECORD.--October 1953 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam, completed October 19, 1953. Capacity, 176,200 acre-ft (217 hm<sup>3</sup>), from capacity table adapted June 1, 1975, between elevations 5,125.0 ft (1,562.10 m) sill of outlet gates and 5,252.3 ft (1,600.90 m) operating deck of spillway. Maximum controlled capacity, 106,100 acre-ft (130 hm<sup>3</sup>) at elevation 5,232.0 ft or 1,594.71 m (floor of spillway which is located about 0.8 mi or 1.3 km south of dam). Capacity by original survey was 189,100 acre-ft (233 hm<sup>3</sup>). Original plan for reservoir operation was to desilt all flow above 30 ft<sup>3</sup>/s (0.85 m<sup>3</sup>/s) by storage for one day before releasing to Rio Grande, and for possible detention during flood stage on Rio Grande.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 71,220 acre-ft (87.8 hm<sup>3</sup>) June 8, 1958, elevation, 5,213.36 ft (1,589.032 m); no storage most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 700 acre-ft (863,100 m<sup>3</sup>) Aug. 25, elevation, 5,154.38 ft (1,571.055 m); no contents most of year.

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

5,137	1	5,150	179
5,138	2	5,155	811
5,140	6	5,160	1,980
5,142	13	5,165	3,700
5,146	30	5,170	6,180

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	179			0	
2							0	212			0	
3							0	230			0	
4							0	186			58	
5							0	145			0	
6							0	115			0	
7							0	129			0	
8							0	166			0	
9							0	331			0	
10							0	427			0	
11							0	423			0	
12							0	384			0	
13							0	320			0	
14							0	249			0	
15							0	179			0	
16							29	103			0	
17							57	25			0	
18							81	13			0	
19							91	0			0	
20							114	0			26	
21							135	0			0	
22							139	0			0	
23							141	0			0	
24							137	0			372	
25							132	0			700	
26							117	0			530	
27							104	0			0	
28							112	0			0	
29							129	0			0	
30							146	0			0	
31		---			---		---	0	---		0	---
MAX	0	0	0	0	0	0	146	427	0	0	700	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
(+)	-	-	-	-	-	-	5,149.52	-	-	-	-	-
(±)	0	0	0	0	0	0	+146	-146	0	0	0	0

CAL YR 1975 MAX 4560 MIN 0 (±) 0 (†) ELEVATION, IN FEET, AT END OF MONTH.  
WTR YR 1976 MAX 700 MIN 0 (±) 0 (†) CHANGE IN CONTENTS, IN ACRE-FEET.

## 08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM

LOCATION.--Lat 35°23'24", long 106°32'03", in NE¼ sec.5, T.13 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, on right bank 0.8 mi (1.3 km) downstream from Jemez Canyon Dam, 2.0 mi (3.2 km) upstream from mouth, and 6 mi (9.6 km) north of Bernalillo.

DRAINAGE AREA.--1,038 mi<sup>2</sup> (2,688 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 5,095.60 ft (1,553.139 m) above mean sea level, from Corps of Engineers bench mark. Prior to Apr. 24, 1951, at site 0.8 mi (1.3 km) upstream at datum 24.51 ft (7.471 m) higher. Apr. 24, 1951, to June 25, 1958, at site 37 ft (11 m) upstream at datum 4.40 ft (1.341 m) above present datum. Supplementary water-stage recorder at gages on Jemez Canyon Dam at datum 5,125.00 ft (1,562.100 m) above mean sea level (Corps of Engineers bench mark) used at times since January 1953.

REMARKS.--Water-discharge records poor. 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 (12 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--34 years (water years 1937, 1944-76), 53.8 ft<sup>3</sup>/s (1,524 m<sup>3</sup>/s), 38,980 acre-ft/yr (48.1 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft<sup>3</sup>/s (462 m<sup>3</sup>/s) Aug. 29, 1943, gage height, 5.62 ft (1.713 m), site and datum then in use, from rating curve extended above 3,000 ft<sup>3</sup>/s (85.0 m<sup>3</sup>/s); no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in 1900 was probably less than 16,000 ft<sup>3</sup>/s (453 m<sup>3</sup>/s), but highest observed outside period of record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 276 ft<sup>3</sup>/s (7.82 m<sup>3</sup>/s) Sept. 6, gage height, 6.93 ft (2.112 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	18	4.2	5.5	23	39	45	43	0	1.5	.01	
2	6.0	21	13	5.0	20	43	42	44	0	1.4	0	
3	7.9	19	18	4.0	19	38	42	58	0	19	0	
4	5.9	22	19	3.5	24	40	37	62	0	49	0	
5	4.1	17	18	3.5	24	39	38	60	0	11	0	
6	4.5	17	18	5.0	29	38	37	51	0	6.3	15	
7	2.5	16	22	5.0	33	39	36	48	0	4.6	1.9	
8	.48	19	18	8.0	27	41	38	51	0	2.5	.02	
9	.71	15	14	10	34	33	45	47	0	.92	.02	
10	3.2	14	18	15	36	38	47	58	0	.03	.04	
11	6.4	18	16	18	44	35	49	66	0	35	.04	
12	5.2	16	14	20	45	35	61	74	0	.19	.03	
13	1.2	18	14	21	46	34	58	74	0	.10	.02	
14	1.6	19	16	21	59	33	63	69	0	.12	0	
15	2.6	20	7.0	24	57	32	68	57	0	.15	.01	
16	5.0	17	10	25	51	29	64	54	0	.20	.02	
17	5.6	19	15	25	45	28	65	42	0	.24	0	
18	6.1	15	18	25	39	33	66	31	0	.35	.02	
19	6.1	22	20	27	38	39	63	22	0	65	0	
20	7.9	19	24	25	37	40	61	23	0	42	0	
21	7.5	19	39	17	20	35	62	28	0	10	0	
22	5.7	18	59	10	12	30	59	36	0	7.0	0	
23	6.1	17	47	8.0	8.0	35	57	28	0	4.9	0	
24	7.6	13	35	8.0	35	40	52	21	0	65	0	
25	8.6	15	25	8.0	40	44	52	10	2.0	54	.13	
26	9.7	11	19	5.0	41	54	49	5.0	5.6	150	9.0	
27	12	7.1	16	14	40	62	42	3.0	15	38	19	
28	10	23	6.0	18	40	60	42	1.0	21	5.0	8.0	
29	12	16	5.0	20	38	58	45	0	9.0	2.0	8.8	
30	16	5.9	5.0	23	---	52	46	0	2.1	.49	10	
31	18	---	4.0	22	---	50	---	0	---	.78	.14	---
TOTAL	198.09	506.0	576.2	448.5	1004.0	1246	1531	1166.0	0	55.48	576.13	72.06
MEAN	6.39	16.9	18.6	14.5	34.6	40.2	51.0	37.6	0	1.79	18.6	2.40
MAX	18	23	59	27	59	62	68	74	0	21	150	19
MIN	.48	5.9	4.0	3.5	8.0	28	36	0	0	0	.03	0
AC-FT	393	1000	1140	890	1990	2470	3040	2310	0	110	1140	143
CAL YR 1975 TOTAL	41272.63			MEAN 113	MAX 1600	MIN 0	AC-FT 81860					
WTR YR 1976 TOTAL	7379.46			MEAN 20.2	MAX 150	MIN 0	AC-FT 14640					

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM --- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)
OCT								
20...	1200	5.2	1570	8.3	--	--	190	0
28...	1100	9.3	1540	8.2	12.0	10.5	--	--
NOV								
10...	1100	12	1800	--	13.0	8.5	220	0
DEC								
18...	1200	18	1640	8.3	--	5.0	210	0
MAR								
29...	1145	58	908	7.7	--	10.5	160	0
APR								
12...	1145	63	840	7.8	--	17.0	130	0
MAY								
03...	1300	63	880	8.4	--	8.5	140	0
17...	1300	32	1050	7.6	--	15.5	--	--
AUG								
23...	1300	.81	2750	7.6	--	16.0	440	250
SEP								
27...	1045	19	4700	7.9	21.5	14.0	890	670

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
OCT									
20...	57	11	260	8.3	17	294	0	170	250
28...	--	--	--	--	--	--	--	--	--
NOV									
10...	69	12	300	8.8	16	332	--	220	270
DEC									
18...	65	11	250	7.6	15	324	0	180	230
MAR									
29...	50	7.3	130	4.5	11	220	0	110	110
APR									
12...	42	7.1	130	4.9	11	208	0	99	110
MAY									
03...	44	6.5	130	4.8	11	207	4	99	120
17...	--	--	--	--	--	--	--	--	--
AUG									
23...	140	21	420	8.8	20	228	0	580	400
SEP									
27...	300	33	770	11	25	265	0	1500	610

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT								
20...	1.4	31	938	944	.10	.02	1500	0
28...	--	--	--	--	--	--	--	--
NOV								
10...	1.5	36	--	1090	.10	--	--	--
DEC								
18...	1.4	35	--	947	.07	--	--	--
MAR								
29...	.9	25	--	554	.23	--	--	--
APR								
12...	1.0	27	--	531	.36	--	--	--
MAY								
03...	1.0	28	--	546	.21	--	--	--
17...	--	--	--	--	--	--	--	--
AUG								
23...	1.3	26	--	1720	.03	--	--	--
SEP								
27...	1.3	20	--	3390	.38	--	--	--

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT 20...	1200	38	1500	0
APR 12...	1145	22	--	--

## 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 (0.8 km) upstream from Edith Blvd., 1.1 mi (1.8 km) upstream from mouth, and 1.2 mi (1.9 km) northeast of Alameda.

PERIOD OF RECORD.--July 1968 to current year (no winter records).

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 5,015 ft (1,529 m), from Corps of Engineers plan and profile map.

REMARKS.--Records good. Floodway channel intercepts flow of numerous arroyos in northeast Albuquerque and discharges into the Rio Grande at a point 1.6 mi (2.6 km) north of Alameda.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft<sup>3</sup>/s (142 m<sup>3</sup>/s) July 26, 1971, gage height, 6.30 ft (1.920 m) from rating curve extended above 2,900 ft<sup>3</sup>/s (82 m<sup>3</sup>/s); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,500 ft<sup>3</sup>/s (70.8 m<sup>3</sup>/s) July 12, gage height, 4.00 ft (1.219 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0					---	0	0	6.3	0	0
2		0					---	0	0	14	0	0
3		0					---	0	0	20	0	0
4		0					---	43	0	11	0	0
5		0					---	65	0	9.0	0	0
6		0					---	21	0	12	0	0
7		0					---	12	0	4.5	0	0
8		0					---	45	0	7.4	0	0
9		0					---	25	0	12	0	18
10		0					---	7.2	0	2.7	0	11
11		0					---	0	0	0	0	0
12		0					---	0	0	102	49	0
13		0					---	0	0	6.3	9.0	0
14		0					---	0	0	59	0	0
15		0					---	0	0	20	0	0
16		0					---	0	0	7.2	0	0
17		0					---	0	0	7.2	48	19
18		69					---	0	0	7.2	77	9.0
19		7.2					0	6.6	0	8.1	38	0
20		0					0	11	0	12	0	0
21		0					0	0	12	72	0	0
22		0					0	0	6.3	15	0	8.8
23		0					0	0	0	10	87	7.2
24		0					0	0	0	10	19	0
25		---					0	0	0	12	0	0
26		---					0	0	0	41	0	19
27		---					0	0	0	42	0	9.0
28		---					0	0	0	9.0	0	6.3
29		---					0	0	41	0	0	0
30		---					0	0	9.0	0	0	0
31		---					---	0	---	94	0	---
TOTAL	0	---		---			---	235.8	68.3	632.9	327.0	107.3
MEAN	0	---		---			---	7.61	2.28	20.4	10.5	3.58
MAX	0	---		---			---	65	41	102	87	19
MIN	0	---		---			---	0	0	0	0	0
AC-FT	0	---		---			---	468	135	1260	649	213

## 08330000 RIO GRANDE AT ALBUQUERQUE, NM

LOCATION.--Lat 35°05'21", long 106°40'48", Bernalillo County, Hydrologic Unit 13020203, in Atrisco Grant, at downstream side of Old Town Bridge on U.S. Highway 66 at Albuquerque, and at mile 1,540.0 (2,477.9 km).

DRAINAGE AREA.--17,440 mi<sup>2</sup> (45,170 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1946(M).

GAGE.--Water-stage recorder. Datum of gages is 4,946.16 ft (1,507.590 m) above mean sea level. Prior to Sept. 18, 1947, at various sites at datum about 2.00 ft (0.610 m) higher; Sept. 18, 1947, to Apr. 12, 1959, at site 550 ft (170 m) to the left of present site; Apr. 13, 1959, to June 29, 1960, at site 150 ft (46 m) to right of present site. Supplemental water-stage recorders at sites 75 ft (23 m) and 150 ft (46 m) to right of present site used at various times since 1964.

REMARKS.--Water-discharge records good. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 50 mi (80 km) upstream. Possible regulation by operation of reservoirs on Rio Chama and by flood-and-silt-detention reservoirs on Galileo 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 above station for irrigation of about 718,000 acres (2,900 km<sup>2</sup>), several hundred of which are below station. National Weather Service gage height telemeter at station.

COOPERATION.--Records for Albuquerque Riverside drain and Arenal, Armijo, and Atrisco canals furnished by Middle Rio Grande Conservancy District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft<sup>3</sup>/s (708 m<sup>3</sup>/s) Apr. 24, 1942, from rating curve extended above 13,900 ft<sup>3</sup>/s (394 m<sup>3</sup>/s); maximum gage height, 7.82 ft (2.384 m) Aug. 10, 1967; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,340 ft<sup>3</sup>/s (94.6 m<sup>3</sup>/s) May 21, gage height, 6.63 ft (2.021 m); minimum daily discharge, 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) Aug. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	244	800	1670	1660	333	820	874	1950	1170	463	817	514
2	242	836	1650	1550	290	774	744	2170	1290	546	1170	555
3	245	862	1660	1500	288	804	653	2160	1250	629	1330	541
4	242	883	1660	1480	249	838	700	2220	884	635	848	464
5	312	1120	1660	1550	654	930	626	2490	648	549	666	499
6	362	1670	1660	1590	1190	967	537	2550	570	451	335	659
7	326	1680	1680	1520	1030	969	705	2710	924	411	258	782
8	247	1670	1730	1510	770	852	799	2850	1210	452	123	721
9	208	1670	1660	1550	742	760	1040	2940	950	554	45	669
10	205	1710	1710	1620	738	815	1080	2930	1050	517	15	648
11	229	1750	1760	1740	689	901	1080	2900	1310	442	15	599
12	259	1680	1810	1820	716	832	1190	2610	1190	521	40	647
13	267	1670	1900	1880	779	841	1270	2580	1070	770	251	610
14	279	1450	1730	1920	842	923	1290	2620	999	687	228	500
15	235	1350	1710	1880	880	908	1430	2580	855	1550	180	478
16	237	1400	1720	1720	930	872	1480	2490	731	851	515	488
17	264	1650	1680	1360	833	667	1400	2450	579	773	913	523
18	279	1730	1680	1160	815	715	1070	2390	584	584	922	600
19	281	1730	1640	1180	821	601	984	2620	543	490	881	676
20	306	1660	1690	1110	840	620	911	3140	529	425	1740	626
21	315	1690	1740	902	835	670	730	3170	460	582	1240	532
22	326	1640	1750	779	853	724	629	2900	385	895	797	672
23	326	1650	1870	708	889	701	499	2600	345	1370	625	484
24	350	1710	1940	645	826	650	351	1910	510	1090	1230	478
25	362	1550	1880	637	749	615	817	1940	623	1360	1320	400
26	362	1440	1790	626	765	710	1110	1880	556	1070	1230	370
27	358	1280	1790	613	780	593	1110	1210	469	647	1460	340
28	334	1370	1810	635	830	582	1100	938	628	689	754	496
29	249	1650	1730	648	824	645	1360	794	645	745	657	606
30	265	1540	1690	707	---	698	1660	810	558	596	598	580
31	461	---	1780	660	---	811	---	978	---	494	519	---
TOTAL	8977	44491	53830	38860	21780	23808	29229	70480	23515	21838	21722	16757
MEAN	290	1483	1736	1254	751	768	974	2274	784	704	701	559
MAX	461	1750	1940	1920	1190	969	1660	3170	1310	1550	1740	782
MIN	205	800	1640	613	249	582	351	794	345	411	15	340
AC-FT	17810	88250	106800	77080	43200	47220	57980	139800	46640	43320	43090	33240
(†)	14430	1430	1180	982	857	6230	14200	16320	17480	19500	15240	14420
CAL YR 1975 TOTAL	568435	MEAN	1557	MAX	5800	MIN	160	AC-FT	1127000	(†)	111500	
WTR YR 1976 TOTAL	375287	MEAN	1025	MAX	3170	MIN	15	AC-FT	744400	(†)	122300	

(†) COMBINED FLOW, IN ACRE-FT, OF ALBUQUERQUE RIVERSIDE DRAIN, AND ARENAL, ARMILJO, AND ARTISCO CANALS. THIS FLOW WHICH BYPASSES RIVER GAGE, CAN BE ADDED TO RIVER RECORDS TO GET ENTIRE SURFACE FLOW IN VALLEY CROSS-SECTION.

08130000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

## WATER-QUALITY RECORDS

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

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to current year.

WATER TEMPERATURES: October 1969 to current year.

SUSPENDED SEDIMENT DISCHARGES: May 1969 to September 1969 (partial-record station), October 1969 to current year.

REMARKS.--Additional sediment total discharge determination were made bi-weekly when needed.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,840 micromhos Oct. 12, 1974; minimum daily 133 micromhos July 21, 1971.

WATER TEMPERATURES: Maximum, 34.0°C July 12, 1970; minimum, 0.0°C Nov. 1, 1970, Jan. 3-5, 1971, Dec. 29, 1975.

SEDIMENT CONCENTRATIONS: Maximum daily, 45,500 mg/L July 21, 1971; minimum daily, no flow on many days in 1971 and 1972.

SEDIMENT LOADS: Maximum daily, 275,000 tons (249,000 tonnes) July 27, 1971; minimum daily, 0 tons (0 tonnes) on many days in 1971 and 1972.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,110 micromhos Aug. 27; minimum daily, 267 micromhos May 26.

WATER TEMPERATURES: Maximum, 30.0°C July 12, 29, Aug. 5, 6, 29; minimum, 0.0°C Dec. 29, Jan. 2.

SEDIMENT CONCENTRATIONS: Maximum daily, 20,200 mg/L Aug. 20; minimum daily, 42 mg/L Feb. 4.

SEDIMENT LOADS: Maximum daily, 108,000 tons (100,000 tonnes) Aug. 20; minimum daily, 7.0 tons (6.4 tonnes) Aug. 11.

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDIM- ENT (MG/L) (80154)	SUS- PENDED SEDIM- ENT (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)
OCT										
14...	1440	340	22.0	129	118	--	--	--	--	--
NOV										
10...	1320	1820	8.0	554	2720	16	20	31	--	--
21...	1000	1580	6.5	733	3130	14	15	21	41	55
DEC										
08...	1420	1760	9.0	1100	5230	--	--	--	29	41
22...	1450	1740	7.0	1810	8500	--	--	--	18	35
JAN										
05...	1340	1610	5.5	766	3330	--	--	--	35	58
16...	1345	1840	17.0	1910	9490	--	--	--	10	21
FEB										
09...	1440	740	5.0	391	781	--	--	--	24	41
23...	1505	918	9.0	1250	3100	10	11	12	15	21
MAR										
08...	1350	876	9.0	363	859	--	--	--	23	39
22...	1450	807	14.0	456	994	44	53	59	64	69
APR										
05...	1600	744	18.0	158	317	44	46	56	--	--
26...	1420	1050	21.0	1110	3150	7	8	10	18	26
MAY										
10...	1400	3000	18.0	7430	60200	4	4	5	12	17
24...	1530	1800	21.0	570	2770	11	14	17	28	42
JUN										
07...	1300	1090	19.5	247	727	--	--	--	--	--
21...	1600	497	27.0	148	199	59	64	79	--	--
JUL										
06...	1100	481	22.0	71	92	30	36	36	--	--
26...	0930	904	21.0	8340	20400	50	69	92	97	98
AUG										
20...	0800	1740	19.0	18300	86000	56	70	90	98	98
23...	1313	638	24.5	443	763	39	47	66	78	83
SEP										
07...	1430	718	20.0	1760	3410	27	33	63	89	91
20...	1330	669	22.0	371	670	28	33	49	78	86



08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	SUS. SED. FALL DIAM. % FINER THAN (70344)	SUS. SED. FALL DIAM. % FINER THAN (70345)	SUS. SED. FALL DIAM. % FINER THAN (70346)	SUS. SED. FALL DIAM. % FINER THAN (70347)	SUS. SED. SIEVE DIAM. % FINER THAN (70331)	SUS. SED. SIEVE DIAM. % FINER THAN (70332)	SUS. SED. SIEVE DIAM. % FINER THAN (70333)	SUS. SED. SIEVE DIAM. % FINER THAN (70334)	SUS. SED. SIEVE DIAM. % FINER THAN (70335)
OCT									
14...	--	--	--	--	63	86	100	--	--
NOV									
10...	--	--	--	--	62	79	97	100	--
21...	97	100	--	--	--	--	--	--	--
DEC									
08...	90	100	--	--	--	--	--	--	--
22...	91	100	--	--	--	--	--	--	--
JAN									
05...	98	100	--	--	--	--	--	--	--
16...	91	100	--	--	--	--	--	--	--
FEB									
09...	97	100	--	--	--	--	--	--	--
23...	63	100	--	--	--	--	--	--	--
MAR									
08...	94	100	--	--	--	--	--	--	--
22...	100	--	--	--	--	--	--	--	--
APR									
05...	--	--	--	--	67	75	94	100	--
26...	70	99	100	--	--	--	--	--	--
MAY									
10...	80	96	99	100	--	--	--	--	--
24...	81	100	--	--	--	--	--	--	--
JUN									
07...	--	--	--	--	44	54	86	100	--
21...	--	--	--	--	77	82	96	--	100
JUL									
06...	--	--	--	--	55	64	87	99	100
26...	100	--	--	--	--	--	--	--	--
AUG									
20...	100	--	--	--	--	--	--	--	--
23...	98	100	--	--	--	--	--	--	--
SEP									
07...	99	100	--	--	--	--	--	--	--
20...	100	--	--	--	--	--	--	--	--

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE SEDIM- ENT CHARGE (MG/L) (80154)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
OCT									
14...	1440	340	129	118	0	0	28	91	--
NOV									
10...	1320	1820	554	2720	1	2	38	94	--
21...	1000	1580	733	3130	2	8	53	95	--
DEC									
08...	1420	1760	1100	5230	0	0	20	78	--
22...	1450	1740	1810	8500	1	1	29	88	--
JAN									
05...	1340	1610	766	3330	0	2	48	88	--
16...	1345	1840	1910	9490	0	2	71	99	100
FEB									
09...	1440	740	391	781	1	2	41	91	--
23...	1505	918	1250	3100	1	1	36	--	--
MAR									
08...	1350	876	363	859	1	1	28	82	--
22...	1450	807	456	994	1	2	57	--	--
APR									
05...	1600	744	158	317	1	1	52	95	--
26...	1420	1050	1110	3150	1	3	58	96	--
MAY									
10...	1400	3000	7430	60200	0	1	26	70	--
24...	1530	1800	570	2770	0	1	29	86	98
JUN									
07...	1300	1090	247	727	1	2	41	91	--
21...	1600	497	148	199	0	2	36	78	--
JUL									
06...	1100	481	71	92	0	1	30	86	100
26...	0930	904	8340	20400	8	9	44	85	--
AUG									
23...	1313	638	443	763	3	4	45	85	--
SEP									
07...	1430	718	1760	3410	4	6	36	88	--
20...	1330	669	371	670	4	6	44	83	--

## RIO GRANDE BASIN

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

## PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	BED MAT. FALL DIAM. % FINER THAN (80163)	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 14...	--	--	98	100	--	--	--	--
NOV 10...	--	--	99	100	--	--	--	--
21...	--	--	99	100	--	--	--	--
DEC 08...	--	--	90	94	96	98	100	--
22...	--	--	96	99	99	100	--	--
JAN 05...	--	--	98	100	--	--	--	--
16...	--	--	--	--	--	--	--	--
FEB 09...	--	--	98	100	--	--	--	--
23...	--	83	94	97	98	99	100	--
MAR 08...	--	--	92	94	96	98	99	100
22...	--	95	100	--	--	--	--	--
APR 05...	--	--	99	100	--	--	--	--
26...	--	--	98	99	99	100	--	--
MAY 10...	--	--	77	83	88	94	100	--
24...	100	--	--	--	--	--	--	--
JUN 07...	--	--	98	99	100	--	--	--
21...	--	--	89	94	97	99	100	--
JUL 06...	--	--	--	--	--	--	--	--
26...	--	--	96	99	100	--	--	--
AUG 23...	--	--	92	97	99	100	--	--
SEP 07...	--	--	95	98	99	100	--	--
20...	--	--	91	95	98	99	100	--

## TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000611)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDIM- ENT (MG/L) (80154)	SUS- PENDED SEDIM- ENT DIS- CHARGE (T/DAY) (80155)	TOTAL SEDIM- ENT DIS- CHARGE (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	MEAN DEPTH (FT) (00064)	STREAM VELOC- ITY (FPS) (00055)
OCT 14...	1440	340	22.0	129	118	207	145	1.3	1.8
NOV 10...	1320	1820	8.0	554	2720	4810	278	2.0	3.2
DEC 08...	1420	1760	9.0	1100	5230	9540	283	2.1	3.0
22...	1450	1740	7.0	1810	8500	15300	270	1.9	3.5
JAN 05...	1340	1610	5.5	766	3330	6020	273	2.1	2.9
16...	1345	1840	17.0	1910	9490	18100	280	1.8	3.7
FEB 09...	1440	740	5.0	391	781	1620	265	1.4	2.1
23...	1505	918	9.0	1250	3100	4010	275	1.4	2.4
MAR 08...	1350	876	9.0	363	859	1860	283	1.4	2.2
22...	1450	807	14.0	456	994	1760	320	1.3	2.0
APR 05...	1600	744	18.0	158	317	622	330	1.2	1.8
26...	1420	1050	21.0	1110	3150	4190	274	1.7	2.3
MAY 10...	1400	3000	18.0	7430	60200	74100	285	2.9	3.7
24...	1530	1800	21.0	570	2770	4260	280	2.5	2.6
JUN 07...	1300	1090	19.5	247	727	1170	293	1.8	2.1
21...	1600	497	27.0	148	199	340	195	1.4	1.9
JUL 06...	1100	481	22.0	71	92	173	260	1.2	1.6
26...	0930	904	21.0	8340	20400	21200	233	1.9	2.1
AUG 23...	1313	638	24.5	443	763	1100	248	1.4	1.9
SEP 07...	1430	718	20.0	1760	3410	3660	254	1.4	2.0
20...	1330	669	22.0	371	670	747	255	2.2	1.2

## 08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	415	446	316	330	420	420	417	333	280	344	387	361
2	394	441	313	331	444	429	419	328	280	355	386	362
3	410	443	356	332	426	434	432	328	294	362	364	376
4	416	441	337	325	428	422	429	338	293	---	507	383
5	418	422	342	317	417	410	433	338	303	---	931	371
6	392	409	338	321	386	420	449	329	302	363	429	364
7	410	406	334	325	396	415	434	325	294	355	416	425
8	408	407	335	325	439	415	407	324	285	366	427	370
9	433	396	332	327	438	435	386	318	296	362	431	369
10	446	392	341	328	436	429	396	317	288	---	424	370
11	432	399	341	331	458	426	391	326	289	---	423	366
12	430	380	342	334	466	433	370	327	293	359	962	365
13	440	383	341	334	431	432	376	303	302	352	398	367
14	444	410	336	340	428	421	365	304	298	368	393	370
15	441	389	339	338	502	415	366	301	299	717	390	366
16	444	368	323	338	458	416	399	299	306	426	375	363
17	442	351	322	356	440	435	408	297	316	---	358	362
18	439	338	425	385	425	425	395	290	309	---	355	358
19	438	348	327	373	441	441	396	283	312	375	355	357
20	437	337	332	362	428	468	393	283	315	373	869	364
21	440	355	325	403	443	486	394	283	331	400	478	365
22	443	347	334	408	403	467	394	287	325	347	391	353
23	444	334	370	425	426	457	396	288	318	508	374	367
24	445	348	346	398	433	454	412	275	333	482	885	369
25	446	348	348	420	430	454	393	270	323	476	663	381
26	443	339	349	405	438	448	341	267	320	411	809	388
27	448	336	357	397	416	453	342	273	327	375	1110	380
28	454	338	356	417	418	449	334	276	331	372	559	501
29	461	362	335	452	424	437	332	283	336	388	424	381
30	462	327	332	447	---	443	336	282	341	391	384	374
31	466	---	332	415	---	425	---	292	---	377	400	---
MONTH	435	378	337	366	432	436	391	302	308	400	518	375
YEAR	MAX	1110	MIN	267	MEAN	390						

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	14.0	2.0	3.0	3.0	10.0	16.0	10.0	12.0	29.0	27.0	29.0
2	14.0	14.0	6.0	0.0	7.0	11.0	17.0	21.0	14.0	28.0	28.0	27.0
3	16.0	14.0	3.0	1.0	6.0	9.0	12.0	21.0	23.0	22.0	26.0	28.0
4	19.0	15.0	3.0	2.0	5.0	8.0	12.0	19.0	26.0	---	29.0	23.0
5	14.0	13.0	3.0	5.5	7.0	8.0	14.0	17.0	14.0	---	30.0	27.0
6	14.0	14.0	3.0	3.0	5.0	5.0	14.0	16.0	23.0	22.0	30.0	20.0
7	13.0	15.0	3.0	3.0	3.0	4.0	13.0	16.0	23.0	25.0	29.0	26.0
8	12.0	13.0	2.0	4.0	3.0	9.0	16.0	12.0	22.0	21.0	28.0	25.0
9	12.0	12.0	2.0	3.0	5.0	14.0	16.0	12.0	24.0	23.0	26.0	22.0
10	19.0	11.0	3.0	5.0	6.0	12.0	10.0	20.0	25.0	---	26.0	21.0
11	19.0	10.0	2.0	6.0	6.0	13.0	10.0	21.0	25.0	---	21.0	21.0
12	12.0	9.0	2.0	4.0	6.0	10.0	16.0	22.0	25.0	30.0	25.0	24.0
13	17.0	9.0	3.0	3.0	5.0	5.0	16.0	19.0	16.0	23.5	29.0	25.0
14	15.0	10.0	3.0	4.0	3.0	6.0	15.0	21.0	15.0	23.0	27.0	24.0
15	13.0	11.0	1.0	4.0	3.0	11.0	13.0	13.0	26.0	22.0	20.0	23.0
16	13.0	11.0	6.0	5.0	9.0	14.0	10.0	12.0	26.0	21.0	29.0	23.0
17	14.0	12.0	8.0	4.0	6.0	15.0	8.0	20.0	27.0	---	28.0	22.0
18	11.0	10.0	5.0	4.0	10.0	16.0	9.0	13.0	27.0	---	27.0	23.0
19	10.0	7.0	6.0	2.0	9.0	13.0	13.0	14.0	26.0	23.0	27.0	22.0
20	17.0	8.0	1.0	4.0	7.0	13.0	15.0	22.0	---	27.0	19.0	24.0
21	16.0	8.0	2.0	5.0	5.0	14.0	16.0	22.0	21.0	26.0	24.0	23.0
22	17.0	7.0	3.0	5.0	2.0	14.0	19.0	13.0	26.0	28.0	21.0	18.0
23	14.0	6.0	2.0	6.0	9.0	14.0	20.0	14.0	20.0	27.0	27.0	24.0
24	13.0	8.0	3.0	3.0	9.0	16.0	13.0	23.0	24.5	24.0	27.0	23.0
25	12.0	6.0	2.0	3.0	8.0	15.0	12.0	22.0	26.5	22.0	28.0	17.0
26	7.0	5.0	1.0	3.0	11.0	13.0	19.0	23.0	22.0	29.0	28.0	17.0
27	14.0	6.0	2.0	5.0	11.0	10.0	20.0	22.0	21.0	29.0	29.0	16.0
28	13.0	6.0	1.0	6.0	4.0	9.0	20.0	23.0	28.0	29.0	19.0	24.0
29	13.0	7.0	0.0	7.0	4.0	9.0	21.0	12.0	27.0	30.0	30.0	16.0
30	14.0	5.0	4.0	7.0	---	11.0	19.0	11.0	28.0	29.0	29.0	16.0
31	13.0	---	1.0	3.0	---	15.0	---	14.0	---	21.0	27.0	---
MONTH	14.0	10.0	3.0	4.0	6.0	11.0	15.0	17.5	23.0	25.5	26.5	22.5
YEAR	MAX	30.0	MIN	0.0	MEAN	14.5						

## RIO GRANDE BASIN

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)	
OCTOBER																								
1	66	43	898	1940	2470	11100	2870	12900	62	56	230	509												
2	64	42	620	1400	2310	10300	1150	4810	60	47	203	424												
3	64	42	529	1230	1860	8340	1140	4620	63	49	568	1230												
4	63	41	1450	3460	1900	8520	1800	7190	42	28	403	912												
5	136	129	1500	4540	1780	7980	1420	5940	813	2290	395	992												
6	169	165	1450	6540	1580	7080	2290	9830	1140	3660	562	1470												
7	97	85	1190	5490	1730	7850	4020	16500	973	2710	376	984												
8	77	51	1120	5050	1540	7190	2240	9130	365	759	349	803												
9	74	42	1420	6400	1390	6230	2560	10700	340	681	367	753												
10	56	31	1110	5120	540	2490	3170	13900	305	608	294	647												
11	80	49	1130	5340	3090	14700	2490	11700	168	313	351	854												
12	146	102	1070	4850	2770	13500	1800	8850	223	431	729	1640												
13	80	58	958	4320	2530	13000	2070	10500	247	520	470	1070												
14	100	75	690	2700	1550	7240	2370	12300	266	605	261	650												
15	50	32	588	2140	758	3500	1540	7820	347	824	220	539												
16	58	37	658	2490	3150	14600	1380	6410	496	1250	202	476												
17	71	51	952	4240	2270	10300	1130	4150	496	1120	250	450												
18	135	102	783	3660	1760	7980	820	2570	278	612	217	419												
19	93	71	1050	4900	1800	7970	678	2160	249	552	147	239												
20	88	73	380	1700	2620	12000	668	2000	235	533	188	315												
21	98	83	501	2290	1470	6910	567	1380	353	796	349	631												
22	99	87	429	1900	2120	10000	528	1110	423	974	420	821												
23	110	97	940	4190	4260	21500	530	1010	511	1230	313	592												
24	170	161	1230	5680	2930	15300	445																	

## 08330600 TIJERAS ARROYO NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'04", long 106°39'18", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 17, T.9 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 875 ft (267 m) downstream from highway bridge on Broadway Boulevard SE, 1,760 ft (536 m) upstream from South Diversion Channel, 0.5 mi (0.8 km) downstream from highway bridge on Interstate Highway 25, and 3 mi (5 km) south of Albuquerque.

DRAINAGE AREA.--133 mi<sup>2</sup> (344 km<sup>2</sup>).

PERIOD OF RECORD.--October 1951 to September 1968, July 1972 to July 1974 (annual maximum only), August 1974 to current year.

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 4,960 ft (1,512 m), from Corps of Engineers plan and profile map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,530 ft<sup>3</sup>/s (71.6 m<sup>3</sup>/s) June 24, 1967, (gage height not determined); no flow most of time.

EXTREMES FOR CURRENT PERIOD.--Water year 1974: Maximum discharge, 370 ft<sup>3</sup>/s (10.5 m<sup>3</sup>/s) July 9, gage height, 1.60 ft (0.487 m); no flow most of time.

Water year 1975: Maximum discharge, 860 ft<sup>3</sup>/s (24.4 m<sup>3</sup>/s) Aug. 12, gage height, 3.00 ft (0.914 m); no flow most of time.

Water year 1976: Maximum discharge, 1,440 ft<sup>3</sup>/s (40.8 m<sup>3</sup>/s) Aug. 19, gage height, 4.37 ft (1.332 m); no flow most of time.

## DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST 1974 TO SEPTEMBER 1976

August 29, 1974.....	32	September 10, 1975.....	1.5	July 31, 1976.....	63
September 20, 1974.....	9.7	September 12, 1975.....	15	August 1, 1976.....	376
October 10, 1974.....	.31	May 19, 1976.....	40	August 2, 1976.....	8.0
October 11, 1974.....	1.3	May 20, 1976.....	127	August 3, 1976.....	8.0
July 20, 1975.....	8.6	May 21, 1976.....	3.0	August 4, 1976.....	8.8
August 12, 1975.....	24	July 14, 1976.....	51	August 5, 1976.....	7.0
August 13, 1975.....	15	July 15, 1976.....	239	August 19, 1976.....	159
September 4, 1975.....	9.1	July 16, 1976.....	2.0	August 20, 1976.....	240
September 9, 1975.....	4.4				

Month	cfs-days	Maximum	Minimum	Mean	Runoff in Acre-feet
September 1974.....	9.7	9.7	0	.32	19
October 1974.....	1.61	1.3	0	.052	3.2
July 1975.....	8.6	8.6	0	.28	17
August.....	39	24	0	1.26	77
September.....	30	15	0	1.00	60
WTR 1975.....	79.21	24	0	.22	157
CAL 1975.....	77.6	24	0	.21	154
May 1976.....	170.0	127	0	5.48	337
July.....	355.0	239	0	11.5	704
August.....	806.8	376	0	26.0	1600
WTR 1976.....	1331.8	376	0	3.64	2640
CAL 1976.....	1331.8	376	0	3.64	2640

NOTE.--During period Aug. 15, 1974 to Sept. 30, 1976 flow occurred only on the days listed above.

## 08330800 TIJERAS ARROYO BELOW SOUTH DIVERSION CHANNEL INLET NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'09", long 106°39'41", in SW¼SE¼ sec. 18, T.9 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank 260 ft (79 m) upstream from highway bridge on State Highway 47, 500 ft (152 m) downstream from South Diversion Channel inlet, 1.0 ml (1.6 km) downstream from highway bridge on Interstate Highway 27 and 2.5 ml (4.0 km) south of Albuquerque.

PERIOD OF RECORD.--July 1974 to current year.

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 4,932 ft (1,503 m), from Corps of Engineers plan and profile map.

REMARKS.--Records poor. South Diversion Channel intercepts flow of numerous arroyos in northeast and southeast Albuquerque and discharges into Tijeras Arroyo at a point 0.8 ml (1.3 km) upstream from the Rio Grande.

EXTREMES FOR CURRENT PERIOD.--July to September 1974: Maximum discharge during period, 310 ft<sup>3</sup>/s (8.78 m<sup>3</sup>/s) Sept. 20, gage height, 1.40 ft (0.427 m); no flow most of time.

Water year 1975: Maximum discharge, 860 ft<sup>3</sup>/s (24.4 m<sup>3</sup>/s) Aug. 12, gage height, 3.00 ft (0.914 m); no flow most of time.

Water year 1976: Maximum discharge, 1,450 ft<sup>3</sup>/s (41.1 m<sup>3</sup>/s) Aug. 19, gage height, (not determined); no flow most of time.

## DISCHARGE, IN CUBIC FEET PER SECOND, JULY 1974 TO SEPTEMBER 1976

July 5, 1974.....	20	October 10, 1974.....	.50	May 20, 1976.....	130
July 9, 1974.....	40	October 11, 1974.....	2.0	May 21, 1976.....	5.0
July 17, 1974.....	3.0	October 27, 1974.....	.50	June 29, 1976.....	8.0
July 18, 1974.....	5.0	July 13, 1975.....	3.0	July 14, 1976.....	52
July 19, 1974.....	2.0	July 20, 1975.....	10	July 15, 1976.....	240
July 28, 1974.....	10	August 12, 1975.....	30	July 16, 1976.....	2.0
July 29, 1974.....	50	August 13, 1975.....	18	July 31, 1976.....	65
July 30, 1974.....	10	September 4, 1975.....	10	August 1, 1976.....	380
July 31, 1974.....	5.0	September 9, 1975.....	5.0	August 2, 1976.....	8.0
August 1, 1974.....	2.0	September 10, 1975.....	8.0	August 3, 1976.....	7.5
August 29, 1974.....	35	September 12, 1975.....	16	August 4, 1976.....	8.5
September 20, 1974.....	10	May 6, 1976.....	2.0	August 5, 1976.....	9.0
October 6, 1974.....	3.0	May 9, 1976.....	3.0	August 19, 1976.....	160
October 7, 1974.....	1.0	May 19, 1976.....	40	August 20, 1976.....	243

Month	cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
July 1974.....	145.0	50	0	4.68	288
August.....	37.0	35	0	1.19	73
September.....	10	10	0	.33	20
October.....	7.0	3.0	0	.23	14
July 1975.....	13.0	10	0	.42	26
August.....	48	38	0	1.55	95
September.....	39.0	16	0	1.30	77
WTR 1975.....	107.0	38	0	.29	212
CAL 1975.....	100.0	38	0	.27	198
May 1976.....	180.0	130	0	5.81	357
June.....	8.0	8.0	0	.27	16
July.....	359.0	240	0	11.6	712
August.....	816.0	380	0	26.3	1620
WTR 1976.....	1363.0	380	0	3.72	2700
CAL 1976.....	1363.0	380	0	3.72	2700

NOTE.--During period July 1, 1974 to Sept. 30, 1976 flow occurred only on the days listed above.

08331000 RIO GRANDE AT ISLETA, NM  
(Surveillance station)

LOCATION.--Lat 34°54'21", long 106°41'04", in NE¼NE¼SW¼ sec.24, T. 08' N., R. 02' E., Valencia County, Hydrologic Unit 13020203, 50 feet (15 m) upstream from diversion dam, 50 feet (15 m) downstream from bridge on State Highway 147, at Isleta.

DRAINAGE AREA.--18,100 mi<sup>2</sup> (46,900 km<sup>2</sup>) (estimated).

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Samples are collected on the Peralta main canal or the Belen Highline canal when the river is completely diverted. Water-discharge measurements were made at the time water-quality samples were collected.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (000061)	SPECIFIC CONDUCTANCE (MICROMHOS) (000095)	PH (UNITS) (000400)	AIR TEMPERATURE (DEG C) (000020)	TEMPERATURE (DEG C) (000010)	TURBIDITY (JTU) (000070)	DISSOLVED OXYGEN (MG/L) (000300)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (000340)	HARDNESS (CA, MG) (MG/L) (000900)
OCT 24...	1551	432	580	7.8	14.0	13.0	20	8.0	12	160
NOV 25...	1551	1600	375	8.1	6.0	7.0	70	10.1	15	130
DEC 15...	1530	1800	355	7.9	5.0	4.5	220	11.0	18	130
JAN 22...	1650	723	350	8.0	7.5	7.0	45	10.3	8	140
FEB 20...	1212	820	430	8.1	7.5	8.0	40	9.5	17	150
MAR 16...	1530	911	435	8.0	15.0	13.0	38	9.0	22	140
APR 16...	0830	1510	390	7.8	13.5	8.0	80	9.3	17	120
MAY 13...	1000	2660	350	7.7	19.5	14.0	100	--	20	110
JUN 08...	0645	1240	350	8.1	28.0	17.5	40	6.7	17	120
JUL 07...	1030	433	460	--	25.0	21.5	20	7.0	20	140
AUG 16...	1350	680	520	7.4	36.0	23.0	200	6.0	68	170
SEP 13...	1340	600	432	7.0	36.5	21.5	170	5.6	32	140

DATE	NON-CARBONATE HARDNESS (MG/L) (000902)	DISSOLVED CALCIUM (CA) (MG/L) (000915)	DISSOLVED MAGNESIUM (MG) (MG/L) (000925)	DISSOLVED SODIUM (NA) (MG/L) (000930)	SODIUM ADSORPTION RATIO (000931)	DISSOLVED PHOSPHATE (K) (MG/L) (000935)	BICARBONATE (HCO3) (MG/L) (000440)	CARBONATE (CO3) (MG/L) (000445)	DISSOLVED SULFATE (SO4) (MG/L) (000945)
OCT 24...	32	50	8.8	35	1.2	5.3	158	0	84
NOV 25...	23	40	6.4	29	1.1	3.4	126	0	69
DEC 15...	22	40	7.1	23	.9	3.5	131	0	59
JAN 22...	19	42	7.7	27	1.0	3.8	143	0	65
FEB 20...	17	45	7.9	32	1.2	4.0	156	0	71
MAR 16...	15	44	7.7	32	1.2	4.3	154	0	73
APR 16...	8	38	7.1	27	1.1	3.7	141	0	58
MAY 13...	19	35	6.4	23	.9	3.0	115	0	54
JUN 08...	24	37	6.4	22	.9	3.2	115	0	55
JUL 07...	25	43	7.8	33	1.2	5.3	140	--	75
AUG 16...	41	56	7.8	38	1.3	6.2	160	0	86
SEP 13...	34	46	7.1	27	1.0	4.2	134	0	86

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)
OCT 24...	18	.4	22	312	304	.16	.15	1.5	1.5
NOV 25...	11	.3	16	236	238	.46	.11	.01	.84
DEC 15...	11	.3	21	228	231	.27	.21	.52	.78
JAN 22...	12	.4	21	256	252	.28	.28	.50	1.0
FEB 20...	17	.5	22	272	279	.32	.32	.74	.99
MAR 16...	16	.4	23	292	279	.47	.40	.20	1.1
APR 16...	13	.4	21	242	240	.40	.33	.13	.97
MAY 13...	10	.4	20	226	210	.25	.23	.09	.40
JUN 08...	8.8	.4	21	206	213	.40	.37	.23	.48
JUL 07...	17	.6	25	290	281	.69	.62	1.2	.50
AUG 16...	20	.6	25	312	334	3.0	2.7	1.2	.60
SEP 13...	12	.4	21	282	274	.86	.76	.08	1.3

DATE	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS- SOLVED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDE D ORGANIC CARBON (C) (MG/L) (00689)
OCT 24...	3.2	.74	.59	100	10	--	--	5.3	.1
NOV 25...	1.3	.22	.15	110	0	20	--	3.6	2.3
DEC 15...	1.6	.54	.28	70	30	--	--	6.0	3.6
JAN 22...	1.8	.48	.31	70	10	--	--	3.4	3.0
FEB 20...	2.0	.54	.41	80	0	40	--	6.0	1.9
MAR 16...	1.8	.48	.35	70	10	--	--	2.6	1.3
APR 16...	1.5	.39	.17	80	0	--	--	3.3	>2.5
MAY 13...	.74	.27	.13	30	130	10	--	5.6	--
JUN 08...	1.1	.49	.37	50	0	--	--	7.8	--
JUL 07...	2.4	1.0	.93	50	40	--	--	3.2	1.2
AUG 16...	4.8	1.6	1.1	110	0	40	10	6.0	--
SEP 13...	2.3	.78	.35	70	10	--	--	20	--



RIO GRANDE BASIN

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08331000 RIO GRANDE AT ISLETA, NM --Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

		TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVFD BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL CORALT (CO) (UG/L) (01037)	DIS- SOLVED CORALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	
NOV 25...	1551	5	3	110	<10	0	10	0	<50	1	10	2	
FEB 20...	1212	5	3	80	<10	0	0	0	<50	1	<10	2	
MAY 13...	1000	5	3	30	0	0	20	0	0	0	6	0	
AUG 16...	1350	11	4	110	<10	3	10	0	<50	0	10	4	
DATE	TIME	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV 25...	5400	0	<100	1	200	20	.0	.0	0	0	20	10	
FEB 20...	2000	0	<100	0	100	40	.0	.0	0	0	20	0	
MAY 13...	3900	130	13	4	120	10	.4	.2	0	0	10	0	
AUG 16...	7600	0	<100	17	350	40	.0	.0	0	0	40	0	

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELORIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN * 08...	0645	ND	ND	ND	ND	ND	ND	ND	ND

\*Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT 24...	1551	1100	460
NOV 25...	1551	850	400
DEC 15...	1530	1800	850
JAN 22...	1650	260	280
FEB 20...	1212	70	210
MAR 16...	1530	45	160
APR 16...	0830	140	520
MAY 13...	1000	18	290
JUN 08...	0645	170	270
JUL 07...	1030	110	260
AUG 16...	1350	4000	100000
SEP 13...	1340	2000	75

## RIO GRANDE BASIN

08331000 RIO GRANDE AT ISLETA, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDI- MENT (MG/L) (80154)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
24...	1551	432	13.0	50	58	94
NOV						
25...	1551	1600	7.0	1030	4450	28
DEC						
15...	1530	1800	4.5	2010	9770	19
JAN						
22...	1650	723	7.0	553	1080	19
FEB						
20...	1212	820	8.0	414	917	26
MAR						
16...	1530	911	13.0	230	566	42
APR						
16...	0830	1510	8.0	10100	41200	3
MAY						
13...	1000	2660	14.0	5320	38200	5
JUN						
08...	0645	1240	17.5	162	542	73
JUL						
07...	1030	433	21.5	58	68	86
AUG						
16...	1350	680	23.0	559	1030	93
SEP						
13...	1340	600	21.5	2220	3600	43

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LOCATION.—Lat 34°24'52", long 106°48'11", Socorro County, Hydrologic Unit 13020203, in Sevilleta or Belen Grant, 0.2 mi (0.3 km) south of U.S. Highway 60, 1.8 mi (2.9 km) east of Bernardo, about 3 mi (5 km) upstream from floodway, and 4 mi (6 km) 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 with concrete control. Datum of gage is 4,720.00 ft (1,438.656 m) above mean sea level. Prior to October 1964, 0.2 mi (0.3 km) 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 was for conveyance channel to carry flows up to about 2,000 ft<sup>3</sup>/s (57 m<sup>3</sup>/s). For combined monthly flow in acre-ft of this channel, floodway, Bernardo interior drain and Lower San Juan Riverside drain, see tabulation below daily table for station 08332010. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,220 ft<sup>3</sup>/s (62.9 m<sup>3</sup>/s) Apr. 22, 1958; no flow many days most years.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	3.8	4.9	6.0	5.1	4.6	4.5	5.9	4.6	0	2.8	7.8
2	8.9	3.9	5.1	5.8	5.1	5.0	5.5	11	5.2	0	1.9	4.0
3	3.6	4.2	5.3	5.4	5.1	4.9	6.6	8.7	3.9	0	4.5	4.0
4	3.8	4.6	5.1	5.6	5.1	4.9	5.3	8.7	4.5	.54	6.7	2.5
5	2.9	5.0	6.3	5.6	4.8	4.6	4.9	9.5	5.5	0	6.2	1.3
6	2.7	4.9	6.2	5.6	4.9	4.6	4.6	8.3	4.1	0	5.6	1.3
7	2.8	4.7	6.7	5.5	5.6	5.1	4.7	8.1	4.0	0	5.6	1.1
8	3.1	5.1	6.4	5.5	5.6	5.1	4.7	8.2	3.5	0	3.6	2.5
9	3.8	5.1	6.8	5.6	5.2	5.1	6.0	8.0	3.3	0	2.5	3.6
10	3.4	5.1	6.9	5.6	5.4	5.1	6.9	7.4	2.9	0	1.6	4.0
11	2.9	5.1	6.7	5.7	4.7	4.9	5.5	7.0	3.9	0	.90	3.2
12	2.8	5.2	6.7	6.3	5.0	4.8	5.1	6.6	2.8	0	.52	2.5
13	2.7	5.5	6.9	6.6	5.3	4.9	5.6	5.6	3.0	0	.32	2.5
14	3.0	5.6	6.9	6.2	5.8	4.8	5.8	6.2	3.2	0	.15	1.9
15	3.1	5.6	6.2	6.2	5.3	4.6	6.5	6.2	4.1	0	.03	2.8
16	3.2	5.6	6.4	6.2	5.6	4.7	6.2	5.6	2.8	0	0	2.5
17	3.1	5.6	6.4	6.2	5.8	5.1	6.2	6.2	3.5	0	0	2.2
18	3.3	5.8	6.2	6.2	5.6	4.9	5.7	6.7	2.5	0	0	2.2
19	3.2	5.9	6.3	5.7	5.4	4.8	5.9	6.2	1.9	0	0	2.5
20	5.6	5.6	6.5	5.6	5.4	4.9	5.5	5.8	2.2	0	.33	2.2
21	4.3	5.6	6.7	5.6	5.1	5.1	5.3	5.8	3.4	0	.38	1.9
22	4.2	5.6	6.7	5.6	5.1	5.1	5.0	6.7	3.6	0	.52	2.5
23	4.6	5.8	6.8	5.6	5.1	4.9	5.8	7.2	1.4	0	.52	3.6
24	4.2	5.1	7.3	5.6	5.0	4.8	5.8	12	.85	0	.75	2.8
25	3.8	5.2	7.1	5.3	4.6	4.9	4.7	8.2	.89	.50	1.6	2.8
26	3.8	5.1	6.5	5.1	4.6	4.9	4.2	11	1.3	1.0	2.5	2.8
27	3.6	5.3	6.7	5.2	4.6	4.8	4.2	6.2	.18	1.0	2.8	2.8
28	3.6	5.2	6.6	5.1	4.6	4.8	4.8	7.3	0	1.3	1.6	2.8
29	3.5	5.4	6.5	5.1	4.6	4.9	4.7	5.5	0	1.3	1.3	2.5
30	3.7	4.6	6.2	5.2	---	4.1	5.0	4.5	0	1.1	1.1	2.5
31	3.8	---	6.2	5.1	---	4.3	---	4.1	---	1.3	6.7	---
TOTAL	119.9	154.8	198.2	175.6	149.1	150.0	161.2	224.4	83.02	8.04	63.02	83.6
MEAN	3.87	5.16	6.39	5.66	5.14	4.84	5.37	7.24	2.77	.26	2.03	2.79
MAX	8.9	5.9	7.3	6.6	5.8	5.1	6.9	12	5.5	1.3	6.7	7.8
MIN	2.7	3.8	4.9	5.1	4.6	4.1	4.2	4.1	0	0	0	1.1
AC-FT	238	307	393	348	296	298	320	445	165	16	125	166
CAL YR 1975	TOTAL	5251.90	MEAN	14.4	MAX	42	MIN	.26	AC-FT	10420		
WTR YR 1976	TOTAL	1570.88	MEAN	4.29	MAX	12	MIN	0	AC-FT			

## 08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM

LOCATION.--Lat 34°25'01", long 106°48'00", Socorro County, Hydrologic Unit 13020203, in Belen or Sevilleta Grant, on downstream side of bridge on U.S. Highway 60, 5 mi (8 km) downstream from heading of conveyance channel, 2 mi (3 km) east of Bernardo, and at mile 1,487.2 (2,392.9 km).

DRAINAGE AREA.--19,230 mi<sup>2</sup> (49,810 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1936 to January 1939, October 1941 to current year. Monthly discharge only October 1942 to June 1943 published in WSP 1312, and October 1960 to September 1964, published in WSP 1923 (daily records available in district files). Published as "Rio Grande near Bernardo" prior to October 1964. Prior to October 1952, flow of Bernardo interior drain was included only when it carried river overflow, the entire flow has been included from October 1952 to September 1964. Flow in the conveyance channel, formerly San Francisco Riverside drain, has been included in record prior to October 1964.

GAGE.--Water-stage recorder. Datum of gage is 4,722.55 ft (1,439.433 m) above mean sea level.

REMARKS.--Water-discharge records poor. Since November 1973 flow completely regulated by Cochiti Dam (station 08317300) 100 mi (161 km) 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 (3,000 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--19 years (water years 1937-38, 1942-58), 1,125 ft<sup>3</sup>/s (31.86 m<sup>3</sup>/s), 815,100 acre-ft/yr (1,000 hm<sup>3</sup>/yr). Includes flow of floodway, conveyance channel, and Bernardo interior drain.  
15 years (water years 1959-73) 898 ft<sup>3</sup>/s (25.43 m<sup>3</sup>/s), 605,600 acre-ft/yr (747 hm<sup>3</sup>/yr), includes flow of floodway, conveyance channel, Bernardo interior drain, and lower San Juan Riverside drain. Prior to completion of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD (1936-39 and SINCE 1941).--Maximum discharge, 21,000 ft<sup>3</sup>/s (595 m<sup>3</sup>/s) Apr. 25, 1942, gage height, 6.90 ft (2.103 m); no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,340 ft<sup>3</sup>/s (94.6 m<sup>3</sup>/s) May 9, gage height, 5.26 ft (1.603 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	282	1420	1710	730	628	433	1120	576	0	71	143
2	125	597	1710	1660	433	618	433	1560	742	0	388	86
3	118	754	1660	1710	327	639	400	1620	842	0	445	66
4	91	842	1610	1690	320	660	257	1800	948	0	1290	60
5	86	1080	1610	1710	334	587	241	2060	730	4.5	691	48
6	91	1480	1610	1710	689	597	214	2300	378	1.3	621	74
7	115	1690	1710	1710	962	608	225	2510	276	2.0	252	66
8	118	1720	1710	1760	660	706	219	2930	203	0	128	112
9	125	1720	1710	1810	566	618	190	3060	587	0	56	241
10	125	1710	1710	1730	587	538	235	2830	492	0	26	282
11	103	1900	1710	1800	576	458	370	3030	307	0	2.4	314
12	76	1810	1840	1820	538	538	474	2770	557	0	.05	214
13	88	1710	1820	1940	529	566	608	2200	682	9.4	0	241
14	106	1610	1870	1730	718	433	706	2130	511	16	0	276
15	151	1410	1920	1620	790	529	868	2010	483	43	0	238
16	132	1310	1670	1690	829	628	962	2010	270	453	0	185
17	151	1410	1750	1730	894	649	962	1800	158	492	0	154
18	125	1610	1730	1110	660	529	934	1560	29	301	0	369
19	100	1810	1840	976	682	483	868	1480	7.2	180	11	194
20	121	1710	1640	816	742	502	597	1990	5.6	78	140	246
21	147	1710	1750	803	742	320	618	2400	7.8	18	805	408
22	158	1610	1800	842	682	314	385	2130	3.8	2.0	961	194
23	151	1610	2060	670	706	252	263	1800	0	68	502	240
24	115	1710	2080	557	639	252	208	1670	0	422	742	307
25	97	1610	1800	502	639	235	167	1240	0	449	696	263
26	136	1510	1870	529	557	214	140	1310	0	576	1440	235
27	167	1410	1870	492	597	230	272	1000	0	579	990	194
28	180	1220	1870	557	597	235	408	868	0	143	1300	241
29	167	1420	1750	628	670	252	385	766	0	140	547	252
30	167	1420	1820	597	---	295	529	618	0	112	246	458
31	151	---	1780	597	---	400	---	587	---	91	230	---
TOTAL	3908	43395	54700	39206	18395	14513	13571	57239	8795.4	4180.2	12580.45	6401
MEAN	126	1447	1765	1265	634	468	452	1846	293	135	406	213
MAX	180	1900	2080	1940	962	706	962	3060	948	579	1440	458
MIN	76	282	1420	492	320	214	140	587	0	0	0	48
AC-FT	7750	86070	108500	77770	36490	28790	26920	113500	17450	8290	24950	12700
(+)	17490	91370	114000	83160	41300	38400	38270	126940	29280	23820	38840	27170
CAL YR 1975 TOTAL	502934.00			MEAN 1378	MAX 5510	MIN 26	AC-FT 997600 (+)	MEAN 1543	AC-FT 1117000			
WTR YR 1976 TOTAL	276884.05			MEAN 757	MAX 3060	MIN .00	AC-FT 549200 (+)	MEAN 923	AC-FT 670000			

(+) COMBINED FLOW, IN ACRE-FT AND MEAN, IN FT<sup>3</sup>/S, 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 TEMPERATURES: October 1964 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1964 to current year.

REMARKS.--Additional sediment total discharge determinations were made bi-weekly when needed. Records prior to 1965 water year were published as 08332000 Rio Grande near Bernardo, N. Mex., a composite of 08331990 Rio Grande Conveyance Channel near Bernardo, 08332010 Rio Grande Floodway near Bernardo, and 08332050 Bernardo Interior Drain at Bernardo. No flow June 23 to July 4, July 8-12, Aug. 13-18.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (1964 to 1976): Maximum daily, 1,410 micromhos July 23, 1976; minimum daily, 271 micromhos June 17, 1973.

WATER TEMPERATURES (1964 to 1976): Maximum, 34.5°C Aug. 9, 1975; minimum, 0.0°C Feb. 23, 1971 and Feb. 3, 1972.

SEDIMENT CONCENTRATIONS (1964 to 1976): Maximum daily, not determined; minimum daily, no flow on many days each year.

SEDIMENT LOADS (1964 to 1976): Maximum daily, 356,000 tons (323,000 tonnes) Aug. 11, 1967; minimum daily, 0 tons (0 tonnes) on many days each year.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,410 micromhos July 23; minimum daily, 350 micromhos May 21, 22.

WATER TEMPERATURES: Maximum, 30.0°C June 20, July 31; minimum, 1.5°C Jan. 3, 4.

SEDIMENT CONCENTRATIONS: Maximum daily, 13,500 mg/L Sept. 18; minimum daily, no flow on many days.

SEDIMENT LOADS: Maximum daily, 42,800 tons (38,800 tonnes) Aug. 26; minimum daily, 0 tons (0 tonnes) on many days.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	AIR TEMPERATURE (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA.MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)
OCT									
16...	1000	130	782	7.7	--	10.0	240	37	73
30...	0940	152	787	8.2	--	10.5	240	36	75
NOV									
12...	1215	2280	501	7.7	--	8.0	170	39	54
26...	0930	2370	462	8.1	--	1.5	150	27	49
JAN									
07...	1120	1980	370	9.4	--	2.0	130	22	40
19...	1000	996	472	7.6	--	6.0	150	22	48
FEB									
09...	0930	580	521	7.9	--	10.0	160	22	51
23...	1200	720	500	7.9	--	7.0	170	23	52
MAR									
01...	1030	625	500	8.4	--	11.0	160	22	51
15...	0930	539	530	7.7	--	9.5	170	25	54
29...	1015	253	642	7.7	--	8.0	190	26	61
APR									
22...	1100	368	550	8.9	27.0	17.5	160	24	50
MAY									
26...	0915	1350	385	9.4	--	17.0	120	24	38
JUN									
09...	1015	590	440	8.9	--	22.0	150	19	45
JUL									
20...	1445	78	546	8.9	--	31.0	190	38	60
27...	1145	582	477	7.3	--	25.0	170	46	56
SEP									
01...	1045	163	633	7.6	--	20.0	200	43	67
15...	1145	338	700	7.4	--	19.5	320	150	100

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)
OCT									
16...	13	72	2.0	8.1	242	0	160	35	.6
30...	13	73	2.0	8.1	250	0	170	35	.6
NOV									
12...	9.5	40	1.3	4.2	165	0	89	17	.4
26...	7.7	33	1.2	3.6	155	0	74	14	.5
JAN									
07...	6.8	26	1.0	3.2	68	30	72	11	.3
19...	7.6	34	1.2	3.9	157	0	81	17	.4
FEB									
09...	8.3	39	1.3	4.3	170	0	86	21	.5
23...	8.6	40	1.4	4.2	174	0	95	19	.5
MAR									
01...	8.9	41	1.4	4.4	161	6	92	20	.5
15...	8.8	44	1.5	4.5	178	0	97	21	.5
29...	10	57	1.8	5.0	204	0	120	27	.5
APR									
22...	9.6	49	1.7	4.9	159	6	100	25	.5
MAY									
26...	6.4	28	1.1	3.2	45	36	67	13	.3
JUN									
09...	7.9	35	1.3	4.0	127	13	84	15	.4
JUL									
20...	8.8	44	1.4	5.2	180	0	110	20	.5
27...	8.2	32	1.1	4.7	155	0	93	13	.5
SEP									
01...	8.7	55	1.7	5.8	195	0	130	25	.5
15...	16	40	1.0	5.0	197	0	220	17	.4

DATE	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT								
16...	26	--	509	.53	.41	--	--	--
30...	26	513	526	.31	.32	.27	170	0
NOV								
12...	23	--	321	.65	.32	--	--	--
26...	22	--	282	.44	.65	--	--	--
JAN								
07...	11	--	234	.01	--	.08	60	0
19...	22	--	295	.69	--	.28	80	10
FEB								
09...	25	--	325	1.1	--	.42	110	0
23...	21	--	331	.74	--	.39	100	10
MAR								
01...	17	--	324	.56	--	.36	0	10
15...	21	--	344	.83	--	.41	110	0
29...	24	--	410	.76	--	.37	0	10
APR								
22...	19	--	343	.03	--	.14	120	90
MAY								
26...	12	--	227	.02	--	.08	70	0
JUN								
09...	19	--	287	.00	.38	.30	80	70
JUL								
20...	21	--	360	.07	--	.33	110	10
27...	20	--	309	1.0	--	.27	90	10
SEP								
01...	25	--	419	1.1	--	.42	130	0
15...	21	--	518	.29	--	.07	160	20

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE D SEDI- MENT (MG/L) (80154)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)
OCT								
16...	1000	130	10.0	80	28	--	--	--
30...	0940	152	10.5	100	41	--	--	--
NOV								
12...	1215	2280	8.0	986	6070	24	31	46
26...	0930	2370	1.5	1800	11500	9	12	17
DEC								
17...	1230	1710	6.0	1670	7710	--	--	--
JAN								
07...	1120	1980	2.0	856	4580	--	--	--
19...	1000	996	6.0	485	1300	--	--	--
FEB								
09...	0930	580	10.0	688	1080	--	--	--
23...	1200	720	7.0	624	1210	--	--	--
MAR								
01...	1030	625	11.0	913	1540	--	--	--
15...	0930	539	9.5	484	704	21	24	30
29...	1015	253	8.0	211	144	--	--	--
APR								
22...	1100	368	17.5	483	480	--	--	--
MAY								
12...	1100	2820	18.0	1360	10400	14	17	21
26...	0915	1350	17.0	1120	4080	10	12	14
JUN								
09...	1015	590	22.0	614	978	20	24	32
JUL								
27...	1145	582	25.0	4960	7790	58	72	91
AUG								
21...	1000	441	22.5	3400	4050	42	54	72
SEP								
01...	1045	163	20.0	817	360	64	78	91
15...	1145	338	19.5	15400	14100	49	68	97

DATE	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70331)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70332)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70333)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70334)
OCT								
16...	--	--	--	--	76	80	91	100
30...	--	--	--	--	50	63	87	100
NOV								
12...	76	98	100	--	--	--	--	--
26...	31	64	94	100	--	--	--	--
DEC								
17...	37	77	98	100	--	--	--	--
JAN								
07...	57	93	100	--	--	--	--	--
19...	69	99	100	--	--	--	--	--
FEB								
09...	33	77	100	--	--	--	--	--
23...	45	76	100	--	--	--	--	--
MAR								
01...	17	46	99	100	--	--	--	--
15...	41	59	99	100	--	--	--	--
29...	64	78	100	--	--	--	--	--
APR								
22...	32	51	100	--	--	--	--	--
MAY								
12...	49	80	100	--	--	--	--	--
26...	34	78	100	--	--	--	--	--
JUN								
09...	50	71	100	--	--	--	--	--
JUL								
27...	94	96	100	--	--	--	--	--
AUG								
21...	75	78	97	100	--	--	--	--
SEP								
01...	--	--	--	--	93	95	98	100
15...	--	--	--	--	99	100	--	--

## 08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

## PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS OIS- CHARGE (CFS) (00061)	SUS- PENDE D SEDI- MENT (MG/L) (80154)	SUS- PENDE D SEDI- MENT (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN (80158)	BED MAT. FALL DIAM. % FINER THAN (80159)	BED MAT. FALL DIAM. % FINER THAN (80160)	BED MAT. FALL DIAM. % FINER THAN (80161)	BED MAT. FALL DIAM. % FINER THAN (80162)	BED MAT. FALL DIAM. % FINER THAN (80168)	BED MAT. FALL DIAM. % FINER THAN (80169)
OCT											
16...	1000	130	80	28	0	2	42	96	100	--	--
30...	0940	152	100	41	0	0	36	97	100	--	--
NOV											
12...	1215	2280	986	6070	2	16	86	100	--	--	--
26...	0930	2370	1800	11500	7	42	92	100	--	--	--
JAN											
07...	1120	1980	856	4580	1	13	90	100	--	--	--
19...	1000	996	485	1300	3	45	97	100	--	--	--
FEB											
09...	0930	580	688	1080	0	4	73	99	100	--	--
23...	1200	720	624	1210	1	15	97	100	--	--	--
MAR											
01...	1030	625	913	1540	0	4	83	99	100	--	--
15...	0930	539	484	704	0	2	43	93	--	99	100
29...	1015	253	211	144	0	1	53	100	--	--	--
APR											
22...	1100	368	483	480	0	2	58	99	100	--	--
MAY											
12...	1100	2820	1360	10400	25	82	99	100	--	--	--
26...	0915	1350	1120	4080	1	14	94	100	--	--	--
JUN											
09...	1015	590	614	978	1	2	79	99	100	--	--
JUL											
27...	1145	582	4960	7790	1	7	59	98	100	--	--
SEP											
01...	1045	163	817	360	1	10	85	100	--	--	--
15...	1145	338	15400	14100	1	2	67	98	100	--	--

## TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS OIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE D SEDI- MENT (MG/L) (80154)	SUS- PENDE D SEDI- MENT (T/DAY) (80155)	TOTAL SEDI- MENT DIS- CHARGE (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	MEAN DEPTH (FT) (00064)	STREAM VELOC- ITY (FPS) (00055)
OCT									
16...	1000	130	10.0	80	28	56	90	.91	1.6
30...	0940	152	10.5	100	41	83	86	1.1	1.7
NOV									
12...	1215	2280	8.0	986	6070	8020	413	1.9	2.8
26...	0930	2370	1.5	1800	11500	11700	359	2.0	3.3
JAN									
07...	1120	1980	2.0	856	4580	7510	480	1.4	3.0
19...	1000	996	6.0	485	1300	2570	240	1.4	2.9
FEB									
09...	0930	580	10.0	688	1080	1840	105	2.0	2.7
23...	1200	720	7.0	624	1210	1640	120	1.9	3.1
MAR									
01...	1030	625	11.0	913	1540	2850	360	.98	1.8
15...	0930	539	9.5	484	704	1100	310	1.1	1.6
29...	1015	253	8.0	211	144	270	85	1.5	2.0
APR									
22...	1100	368	17.5	483	480	813	150	1.4	1.8
MAY									
12...	1100	2820	18.0	1360	10400	14600	540	2.0	2.6
26...	0915	1350	17.0	1120	4080	6880	375	1.2	2.9
JUN									
09...	1015	590	22.0	614	978	1630	200	1.5	2.0
JUL									
27...	1145	582	25.0	4960	7790	8130	170	1.7	2.1
SEP									
01...	1045	163	20.0	817	360	364	82	1.4	1.4
15...	1145	338	19.5	15400	14100	14500	150	1.3	1.8



## 08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. ° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	627	752	467	409	553	515	616	415	437	---	572	677
2	796	658	435	405	593	521	604	398	421	---	508	721
3	769	608	439	409	624	522	596	382	423	---	478	771
4	765	591	456	413	633	526	664	427	421	---	514	757
5	800	586	447	413	643	530	713	418	405	---	561	770
6	790	574	445	423	554	517	696	407	445	---	592	718
7	768	525	434	416	483	513	712	416	620	---	807	853
8	775	517	441	416	496	502	701	407	471	---	779	721
9	774	512	442	414	538	505	739	410	436	---	812	623
10	769	501	434	415	537	520	683	403	425	---	778	614
11	827	502	445	415	549	538	636	398	476	---	851	620
12	894	500	447	415	566	528	617	405	432	---	832	604
13	806	490	440	419	571	515	574	396	421	---	---	612
14	768	524	435	423	552	540	548	374	434	535	---	594
15	756	528	432	454	534	528	535	379	456	520	---	934
16	790	514	431	426	525	512	512	375	506	600	---	676
17	778	502	422	423	562	522	497	374	522	740	---	667
18	838	472	423	477	544	534	525	373	663	591	---	990
19	818	459	423	482	541	567	521	380	651	548	---	644
20	782	459	425	480	541	572	575	369	586	567	548	602
21	785	455	423	479	548	587	567	350	581	552	517	597
22	751	463	420	500	533	609	638	350	546	1400	648	642
23	796	460	424	508	602	653	708	365	588	1410	558	635
24	798	451	448	519	529	638	708	355	---	512	571	588
25	878	458	440	549	510	650	783	389	---	688	584	616
26	796	466	425	545	530	649	820	382	---	554	696	625
27	787	465	432	552	524	695	524	377	---	490	696	691
28	773	475	425	550	535	673	472	395	---	511	774	651
29	792	464	418	546	518	660	449	440	---	515	964	666
30	785	468	412	560	---	623	460	433	---	523	717	627
31	832	---	415	563	---	604	---	450	---	548	662	---
MONTH	789	513	434	465	551	568	613	393	---	---	---	684
YEAR	MAX	1410	MIN	350	MEAN	565						

WATER TEMPERATURE (DEG. ° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	12.0	7.0	4.0	8.0	13.0	19.0	22.0	26.0	---	29.5	27.0
2	22.0	16.0	8.0	4.0	12.0	15.0	20.0	20.5	25.5	---	28.5	28.5
3	23.5	17.0	8.0	1.5	11.5	14.0	17.0	19.5	25.0	---	24.0	28.5
4	22.5	15.0	9.0	1.5	8.5	9.5	17.5	19.5	23.0	---	25.0	28.0
5	21.0	16.5	9.0	3.0	10.0	13.0	19.0	19.5	25.0	---	24.0	25.0
6	21.5	16.0	9.0	5.0	11.5	11.5	17.0	17.0	22.5	---	22.0	21.0
7	21.0	15.0	9.0	5.0	11.0	11.0	21.0	17.0	25.0	---	25.0	28.0
8	21.0	14.5	9.0	4.5	12.0	15.0	20.0	15.0	27.0	---	29.5	28.0
9	21.0	14.0	8.0	5.5	13.0	15.5	21.0	17.0	27.5	---	24.5	18.0
10	20.5	12.5	10.0	3.5	11.5	12.0	21.5	21.5	24.0	---	25.0	22.0
11	16.5	12.0	8.0	4.0	12.5	10.5	16.5	22.5	26.0	---	27.5	24.5
12	20.0	11.0	8.0	6.0	13.5	12.0	20.5	22.5	25.0	---	29.0	22.5
13	---	11.0	8.0	6.0	14.0	7.0	16.5	22.0	26.5	---	---	26.0
14	---	12.0	5.0	6.5	14.0	9.0	13.5	23.0	17.5	29.0	---	23.5
15	---	12.0	4.0	6.5	13.0	15.0	12.5	18.0	25.5	24.5	---	25.0
16	---	10.5	5.0	8.0	12.0	15.0	9.5	21.5	26.0	23.5	---	25.0
17	---	12.0	6.0	6.5	10.0	17.0	10.0	24.5	17.0	24.0	---	26.0
18	20.0	11.0	5.5	8.0	12.5	13.5	16.0	23.5	29.0	26.5	---	19.5
19	19.5	8.0	7.0	7.5	13.0	16.0	13.0	24.5	20.0	24.0	---	22.0
20	20.5	9.0	4.5	7.0	9.0	8.0	19.5	23.5	30.0	24.0	27.5	26.0
21	17.5	8.5	4.5	7.5	6.5	14.0	21.5	24.0	28.5	23.0	22.5	25.0
22	20.0	6.5	7.5	8.5	8.5	10.5	21.5	19.5	26.5	22.5	25.0	23.0
23	17.0	7.5	6.0	9.5	10.5	12.5	22.0	24.0	20.5	22.5	27.5	25.0
24	14.5	9.0	5.0	9.5	12.0	16.5	16.5	24.5	---	23.0	29.5	24.0
25	12.0	8.5	7.0	7.5	13.5	16.0	20.5	22.5	---	24.0	29.5	20.0
26	17.0	6.0	6.0	7.0	14.0	16.5	22.5	23.5	---	22.5	26.0	20.0
27	17.5	7.5	6.0	7.5	13.0	13.5	20.5	25.0	---	24.0	27.0	24.0
28	18.5	8.0	4.0	8.0	11.5	9.5	21.5	24.5	---	23.0	20.5	22.0
29	19.0	7.0	4.5	7.5	16.0	10.0	20.0	24.0	---	23.5	25.0	23.5
30	17.0	5.0	3.5	12.0	---	16.0	22.5	24.5	---	23.0	27.5	22.0
31	16.0	---	4.5	9.0	---	16.5	---	25.5	---	30.0	27.0	---
MONTH	19.0	11.0	6.5	6.5	11.5	13.0	18.5	22.0	---	---	---	24.0
YEAR	MAX	30.0	MIN	1.5	MEAN	16.5						

## RIO GRANDE BASIN

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)		MEAN CONCENTRATION (MG/L)		LOADS (T/DAY)	
OCTOBER NOVEMBER DECEMBER JANUARY FEBRUARY MARCH																								
1	242	82	315	240	1110	4260	2890	14200	620	1220	898	1520												
2	187	63	860	1390	1340	6190	1480	7830	325	380	808	1350												
3	112	36	3470	7060	1530	6860	1470	6790	248	219	547	944												
4	84	21	1510	3430	1540	6690	1280	5840	138	119	444	791												
5	71	16	1250	3650	1780	7740	5020	26600	290	262	518	821												
6	59	14	1380	5510	1540	6690	3080	16100	2260	6490	373	601												
7	55	17	2280	10400	1510	6970	1880	10200	1830	4750	385	632												
8	80	25	1320	6130	1190	5490	3470	20600	1300	2320	704	1340												
9	67	23	1510	7010	1270	5860	3040	15500	565	863	728	1210												
10	60	20	1390	6420	1300	6000	3190	14900	810	1280	757	1100												
11	64	18	1520	7800	1290	5960	2350	11400	836	1300	430	532												
12	51	10	1510	7380	1120	5560	2960	14500	700	1020	578	840												
13	63	15	1640	7570	1380	6780	1870	9800	843	1200	524	801												
14	77	22	1840	8000	1580	7980	910	4250	575	1110	301	352												
15	87	35	1210	4610	1470	7620	1870	8180	757	1610	455	650												
16	81	29	905	3200	1480	6670	1830	8350	849	1900	412	699												
17	106	43	1080	4110	1580	7470	2030	9480	898	2170	310	543												
18	258	87	1050	4560	1830	8550	1100	3300	882	1570	211	301												
19	100	27	2090	10200	1530	7600	792	2090	980	1800	243	317												
20	63	21	1540	7110	1500	6640	1750	3860	788	1580	270	366												
21	58	23	988	4560	1390	6570	2190	4750	638	1280	190	164												
22	63	27	900	3910	1550	7530	1480	3360	896	1650	492	417												
23	60	24	1170	5090	1450	8060	913	1650	731	1390	226	154												
24	55	17	1440	6650	1340	7530	777	1170	802	1380	167	114												
25	83	22	1310	5690	1560	7580	715	969	569	982	578	367												
26	73	27	1570	6400	2140	10800	485	693	730	1100	333	192												
27	64	29	1100	4190	1970	9950	551	732	2020	3260	325	202												
28	72	35	1530	5040	1160	5860	452	680	859	1380	800	508												
29	74	33	1780	8820	1840	8690	503	853	851	1540	299	203												
30	93	42	1280	4910	1670	8210	658	1060	---	---	299	238												
31	78	32	---	---	1980	9520	402	648	---	---	392	423												
MONTH	---	935.00	---	169040.0	---	223880.0	---	230335.0	---	47125.00	---	18692.00												
APRIL MAY JUNE JULY AUGUST SEPTEMBER																								
1	293	343	968	2930	620	964	0	0	3350	642	777	300												
2	632	739																						

LOCATION.--Lat 34°24'56", long 106°49'15", Socorro County, Hydrologic Unit 13020203, on downstream side of bridge on U.S. Highway 60, and 1.0 mi (1.6 km) 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. Datum of gage is 4,713.99 ft (1,436.824 m) above mean sea level. June 4, 1936 to May 17, 1937, nonrecording gage 150 ft (46 m) downstream at datum 2.77 ft (0.844 m) higher.

REMARKS.—Records good. 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 187 ft<sup>3</sup>/s (5.30 m<sup>3</sup>/s) Aug. 7, 1970; no flow at times. Prior to 1952, drain was subject to overflow from floodway.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	31	28	26	26	27	54	141	43	78	115	57
2	41	27	28	26	25	27	55	144	44	76	119	54
3	45	27	28	26	25	28	58	141	43	99	117	54
4	42	26	27	26	25	27	54	71	47	99	58	55
5	48	27	27	26	25	28	60	63	71	115	57	53
6	38	27	27	26	25	42	51	52	94	97	46	57
7	37	27	27	26	26	45	52	49	92	108	46	60
8	32	28	27	26	26	45	55	47	100	89	51	56
9	35	28	27	27	26	43	49	46	77	95	45	55
10	34	28	27	26	25	42	51	47	81	104	41	66
11	37	28	27	26	25	42	48	52	82	93	53	72
12	35	28	27	27	26	49	48	51	90	100	52	71
13	42	27	27	26	26	50	48	53	85	87	57	68
14	40	28	27	27	26	44	49	50	73	92	72	65
15	38	28	27	27	26	39	63	50	68	116	74	67
16	38	28	28	26	27	38	60	52	67	124	62	66
17	37	28	28	27	27	40	63	43	63	113	66	69
18	36	29	28	27	27	42	58	37	78	131	69	67
19	35	29	27	26	26	51	51	39	88	117	84	62
20	31	29	27	25	26	53	39	43	93	99	77	61
21	35	28	28	26	27	57	49	51	102	113	75	65
22	46	29	27	26	27	55	38	39	86	97	79	62
23	49	29	28	25	27	51	43	37	83	110	73	73
24	44	29	28	25	27	41	48	44	81	117	77	75
25	42	29	27	25	27	42	48	38	82	133	73	66
26	38	29	27	25	27	45	60	43	79	131	67	59
27	37	28	27	25	27	51	131	49	78	109	68	59
28	36	28	27	25	27	55	154	58	85	120	68	99
29	44	28	27	25	27	54	142	51	80	121	61	93
30	42	28	27	25	---	55	126	52	71	113	60	59
31	44	---	26	25	---	51	---	49	---	126	55	---
TOTAL	1208	843	845	802	759	1359	1905	1782	2306	3322	2117	1945
MEAN	39.0	28.1	27.3	25.9	26.2	43.8	63.5	57.5	76.9	107	68.3	64.8
MAX	49	31	28	27	27	57	154	144	102	133	119	99
MIN	30	26	26	25	25	27	38	37	43	76	41	53
AC-FT	2400	1670	1680	1590	1510	2700	3780	3530	4570	6590	4200	3860
CAL YR 1975	TOTAL	13541	MEAN 37.1	MAX 88	MIN 15	AC-FT	26860					
WTR YR 1976	TOTAL	19193	MEAN 52.4	MAX 154	MIN 25	AC-FT	38070					

## 08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM

LOCATION.--Lat 35°38'08", long 107°09'56", in SW¼ sec.21, T.16 N., R.3 W., Sandoval County, Hydrologic Unit 13020204, on right bank 1.6 mi (2.6 km) upstream from Arroyo Chico, 5.5 mi (8.8 km) northeast of village of Guadalupe, and at mile 106.8 (171.8 km).

DRAINAGE AREA.--420 mi<sup>2</sup> (1,090 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water stage recorder. Datum of gage is 5,950 ft (1,813.6 m) above mean sea level. Prior to July 14, 1966 at datum 1.01 ft (0.308 m) higher.

REMARKS.--Records poor. Diversions for irrigation of about 3,700 acres (15 km<sup>2</sup>) above station in past years, but present diversion negligible. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--25 years, 13.3 ft<sup>3</sup>/s (0.377 m<sup>3</sup>/s), 9,640 acre-ft/yr (11.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,940 ft<sup>3</sup>/s (197 m<sup>3</sup>/s) July 29, 1967, gage height, 13.53 ft (4.124 m), from rating curve extended above 1,300 ft<sup>3</sup>/s (37 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 7.75 ft (2.362 m) and 10.60 ft (3.231 m); no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1943, probably exceeded 5,000 ft<sup>3</sup>/s (140 m<sup>3</sup>/s) based on records for stations above and below.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 864 ft<sup>3</sup>/s (24.5 m<sup>3</sup>/s) at 0700 hours July 23, gage height, 5.50 ft (1.676 m), no peak above base of 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.05	.34	.05	0		0	0		0	0	0
2	0	.05	.19	.05	0		0	0		0	0	0
3	0	.05	.10	.05	0		0	0		0	0	0
4	0	.05	.12	.05	0		0	0		0	0	0
5	0	.05	.15	.05	0		0	0		0	1.2	0
6	0	.02	.08	.10	0		0	4.4		0	.34	.27
7	0	.02	.10	.10	0		0	.27		0	.10	15
8	0	.02	.08	.20	0		0	0		0	.05	.60
9	0	.02	.07	.20	.83		0	0		0	0	0
10	0	.02	.07	.30	3.6		0	0		0	5.9	0
11	0	.01	.06	.40	2.7		0	0		0	1.0	0
12	0	.01	.05	.54	1.1		0	0		0	.50	0
13	0	.01	.05	.54	.82		0	0		.72	0	0
14	0	.01	.03	.40	4.3		0	0		8.8	0	0
15	0	.01	.03	.54	9.6		.54	0		20	0	0
16	0	.01	.07	.82	4.8		1.2	0		.75	0	0
17	0	.01	.10	.40	2.2		.72	0		18	0	0
18	0	.01	.12	.23	1.2		.47	0		2.0	1.3	0
19	0	.01	.10	.15	0		.34	.05		0	43	0
20	0	.01	.10	.19	0		0	.52		0	7.3	0
21	0	.01	.06	.23	0		0	0		0	2.7	0
22	0	.01	.05	.08	0		0	0		48	35	0
23	0	.01	.05	.28	0		0	0		400	13	0
24	0	.01	.05	.72	0		0	0		150	13	0
25	0	.02	.05	.40	0		0	0		60	8.2	2.9
26	.01	.02	.05	.15	0		0	0		20	5.6	9.5
27	.02	.01	.05	.12	0		0	0		7.0	1.6	.28
28	.05	.02	.05	.23	0		0	0		2.5	0	11
29	.05	.06	.05	.54	0		0	0		0	0	7.8
30	.05	.23	.05	.82	---		0	0		0	0	2.4
31	.05	---	.05	.05	---		---	0		0	0	---
TOTAL	.23	.85	2.57	8.98	31.15	0	3.27	5.24	0	737.77	139.79	49.75
MEAN	.007	.028	.083	.29	1.07	0	.11	.17	0	23.8	4.51	1.66
MAX	.05	.23	.34	.82	9.6	0	1.2	4.4	0	400	43	15
MIN	0	.01	.03	.05	0	0	0	0	0	0	0	0
AC-FT	.5	1.7	5.1	18	62	0	6.5	10	0	1460	277	99

CAL YR 1975 TOTAL 4890.05 MEAN 13.4 MAX 338 MIN 0 AC-FT 9700  
WTR YR 1976 TOTAL 979.60 MEAN 2.68 MAX 400 MIN 0 AC-FT 1940

## 08340500 ARROYO CHICO NEAR GUADALUPE, NM

LOCATION.--Lat 35°35'33", long 107°11'19", in NE¼ sec.30, T.16 N., R.3 W., Sandoval County, Hydrologic Unit 13020205, on left bank 0.2 mi (0.3 km) upstream from mouth, 4.1 mi (6.6 km) northwest of Guadalupe, and 5.5 mi (8.8 km) southwest of Cabezón.

DRAINAGE AREA.--1,390 mi<sup>2</sup> (3,600 km<sup>2</sup>), approximately.

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

REVISED RECORDS.--WSP 1282: 1944-50.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,921 ft (1,804.7 m) above mean sea level. Prior to June 21, 1968 at site 500 ft (150 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records poor. Diversions for irrigation of about 100 acres (40 hm<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 22.2 ft<sup>3</sup>/s (0.629 m<sup>3</sup>/s), 16,080 acre-ft/yr (19.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft<sup>3</sup>/s (430 m<sup>3</sup>/s) Sept. 12, 1972, gage height, 17.5 ft (5.33 m) from floodmarks, from rating curve extended above 2,900 ft<sup>3</sup>/s (82 m<sup>3</sup>/s) on basis of slope-measurements at gage heights 11.6 ft (3.536 m) and 14.8 ft (4.511 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,070 ft<sup>3</sup>/s (58.6 m<sup>3</sup>/s) at 1830 hours Aug. 19, gage height, 6.54 ft (1.993 m), no peak above base of 2,500 ft<sup>3</sup>/s (71 m<sup>3</sup>/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.06	.10	.75		0	0		0	0	0
2		0	.06	.30	.70		0			0	2.0	0
3		0	.03	.45	.65		0	0		0	3.5	0
4		0	.01	.41	.61		0	0		0	6.0	0
5		0	.02	.37	1.1		0	0		0	9.2	0
6		0	.01	.27	1.4		0	.24		0	1.0	4.5
7		0	.01	0	.65		0	.21		0	.37	6.6
8		0	.01	0	.61		0	.15		0	.24	.80
9		0	.02	0	.89		0	.05		0	.27	.40
10		0	.03	0	.89		0	0		0	.19	.10
11		0	.03	0	.61		0	0		0	.45	0
12		0	.04	0	.57		.12	0		0	.20	0
13		.04	.05	0	.61		.11	0		0	.10	0
14		.02	.06	0	4.7		0	0		0	.10	0
15		0	.05	0	3.8		.08	0		0	.05	52
16		0	.05	.21	1.6		.15	0		0	.01	66
17		0	.05	.33	1.1		.11	0		0	.03	65
18		.01	.06	.41	.57		.03	0		0	178	71
19		.02	.06	.41	.37		.06	0		0	749	2.0
20		.01	.05	.49	.21		0	.02		0	288	.57
21		.01	.05	.49	.19		0	.62		0	33	.37
22		.01	.05	.49	.19		0	.37		185	66	.30
23		.02	.05	.49	.24		0	.30		580	100	.24
24		.01	.05	.45	0		0	.15		250	111	18
25		.01	.05	.45	0		0	.05		100	81	81
26		.01	.05	.61	0		0	0		35	7.7	33
27		.01	.05	.57	0		0	0		20	1.1	1.0
28		.02	.05	.57	0		0	0		8.0	.57	.01
29		.01	.05	.57	0		0	0		3.0	.30	0
30		.07	.05	.70	---		0	0		0	.05	0
31		---	.05	.70	---		---	0		0	0	---
TOTAL	0	.28	1.31	9.84	23.01	0	.66	2.16	0	1181.0	1639.43	402.89
MEAN	0	.009	.042	.32	.79	0	.022	.070	0	38.1	52.9	13.4
MAX	0	.07	.06	.70	4.7	0	.15	.62	0	580	749	81
MIN	0	0	.01	0	0	0	0	0	0	0	0	0
AC-FT	0	.6	2.6	20	46	0	1.3	4.3	0	2340	3250	799
CAL YR 1975	TOTAL	5102.32	MEAN 14.0	MAX 805	MIN 0	AC-FT 10120						
WTR YR 1976	TOTAL	3260.58	MEAN 8.91	MAX 749	MIN 0	AC-FT 6470						

## RIO GRANDE BASIN

## 08341400 BLUEWATER LAKE NEAR BLUEWATER, NM

LOCATION.--Lat 35°17'31", long 108°06'40", in SE¼ sec.9, T.12 N., R.12 W., Valencia County, Hydrologic Unit 13020207, at left end of Bluewater Dam on Bluewater Creek, and 9.5 mi (15.2 km) west of Bluewater.

DRAINAGE AREA.--201 mi<sup>2</sup> (521 km<sup>2</sup>).

PERIOD OF RECORD.--June 1927 to December 1950 (monthend contents only, published in WSP 1732), April 1958 to current year (monthend contents only).

GAGE.--Water-stage recorder. Datum of gage is 7,345.57 ft (2,238.930 m) above mean sea level. July 1958 to January 1961, nonrecording gage at nearby site, same datum. Gage heights have been converted to sea-level elevations.

REMARKS.--Reservoir is formed by concrete arch dam. Storage began in 1927. Capacity, 38,500 acre-ft (47.5 hm<sup>3</sup>) at elevation 7,402.6 ft (2,256.31 m) crest of uncontrolled siphon spillway which is vented to avoid drawdown below crest, and 44,200 acre-ft (54.5 hm<sup>3</sup>) at elevation 7,405.6 ft (2,257.23 m) crest of ungated spillway over dam. Dead storage, 3.4 acre-ft (4,190 m<sup>3</sup>) at elevation 7,345.4 ft (2,238.88 m) sill of lower outlet tube. Lake not usually drawn below conservation pool level elevation, 7,365.36 ft (2,244.962 m), 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 (58.1 hm<sup>3</sup>) Apr. 30, 1941. Contents may have been greater on Apr. 28, 1941 when peak discharge of 800 ft<sup>3</sup>/s (22.7 m<sup>3</sup>/s) occurred at station 8 mi (13 km) downstream; no storage at times prior to 1947.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 17,580 acre-ft (21.7 hm<sup>3</sup>) Oct. 1, elevation, 7,387.5 ft (2,251.71 m); minimum, 3,430 acre-ft (4.23 hm<sup>3</sup>) Sept. 30, elevation, 7,365.6 ft (2,245.03 m).

## MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30 . . . . .	7387.5	17580	
Oct. 31 . . . . .	7386.9	16950	-630
Nov. 30 . . . . .	7386.5	16540	-410
Dec. 31 . . . . .	7386.3	16340	-200
CAL YR 1975 . . . . .			+2750
Jan. 31 . . . . .	7386.1	16140	-200
Feb. 28 . . . . .	7386.1	16140	0
Mar. 31 . . . . .	7385.8	15850	-290
Apr. 30 . . . . .	7385.1	15180	-670
May 31 . . . . .	7382.1	12580	-2600
June 30 . . . . .	7377.1	8840	-3740
July 31 . . . . .	7371.4	5600	-3240
Aug. 31 . . . . .	7367.6	4090	-1510
Sept. 30 . . . . .	7365.6	3430	-660
WTR YR 1976 . . . . .			-14150

## 08343000 RIO SAN JOSE AT GRANTS, NM

LOCATION.--Lat 35°09'16", long 107°52'11", in SW¼ sec. 26, T.11 N., R.10 W., Valencia County, Hydrologic Unit 13020207, on right bank at bridge on old State Highway 53 at Grants, 0.2 mi (0.3 km) south of U.S. Highway 66, and at mile 67.8 (109.1 km).

DRAINAGE AREA.--1,020 mi<sup>2</sup> (2,640 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--October 1912 to February 1914, June 1914, October 1914 to February 1915, May 1915 to June 1921, September 1921 to June 1923, October 1923 to May 1926, September to December 1926, May 1949 to September 1966, June 1968 to current year. Monthly discharge only for some periods published in WSP 1312. Prior to October 1967, published as "Bluewater Creek at Grants".

REVISED RECORDS.--WSP 1512: 1913-14. WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,468.34 ft (1,971.550 m) above mean sea level (levels by Corps of Engineers). See WSP 1732 or 1923 for history of changes prior to Jan. 1, 1926.

REMARKS.--Records fair. Flow partly regulated by Bluewater Lake (station 08341400) 24 mi (39 km) upstream. Diversions and ground-water withdrawals for irrigation of about 4,500 acres (18 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--35 years (water years 1913, 1915-20, 1922, 1924-25, 1950-66, 1968-76), 3.44 ft<sup>3</sup>/s (0.097 m<sup>3</sup>/s), 2,490 acre-ft/yr (3.07 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (1950-66 and SINCE 1968).--Maximum discharge recorded, 1,760 ft<sup>3</sup>/s (49.8 m<sup>3</sup>/s) Aug. 28, 1952, gage height, 5.35 ft (1.631 m), from rating curve extended above 300 ft<sup>3</sup>/s (8.50 m<sup>3</sup>/s) on basis of velocity-area studies; no flow for long periods.

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9.8 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) at 1330 hours Sept. 13, gage height, 1.78 ft (0.543 m), no peak above base of 200 ft<sup>3</sup>/s (5.7 m<sup>3</sup>/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												0
2												0
3												0
4												0
5												0
6												0
7												0
8												0
9												0
10												0
11												0
12												6.5
13												7.6
14												5.0
15												0
16												0
17												0
18												0
19												0
20												0
21												0
22												0
23												0
24												0
25												0
26												0
27												0
28												0
29												0
30												0
31		---			---		---		---			---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	14.60
MEAN	0	0	0	0	0	0	0	0	0	0	0	.49
MAX	0	0	0	0	0	0	0	0	0	0	0	7.6
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	29
CAL YR 1975	TOTAL 12.74	MEAN .035	MAX 6.1	MIN 0	AC-FT 25							
WTR YR 1976	TOTAL 14.60	MEAN .040	MAX 7.6	MIN 0	AC-FT 29							

## RIO GRANDE BASIN

08343100 GRANTS CANYON AT GRANTS, NM

LOCATION.--Lat 35°09'39", long 107°50'15", in NE¼NE¼ sec.25, T.11 N., R.10 W., Valencia County, Hydrologic Unit 13020207, at Roosevelt Avenue, in the town of Grants, 0.2 mi (0.3 km) east of intersection of Roosevelt and First Avenue, and 1.1 mi (1.8 km) upstream from confluence with Rio San Jose (formerly Bluewater Creek).

DRAINAGE AREA.--13.0 mi<sup>2</sup> (33.7 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and culvert control. Altitude of gage is 6,450 ft (1,966.0 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--15 years, 0.178 ft<sup>3</sup>/s (0.005 m<sup>3</sup>/s), 129 acre-ft/yr (159,100 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft<sup>3</sup>/s (43.9 m<sup>3</sup>/s) Aug. 26, 1963, gage height, 5.10 ft (1.554 m), from rating curve extended above 220 ft<sup>3</sup>/s (6.23 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 3.17 ft (0.966 m), 5.10 ft (1.554 m), and 5.38 ft (1.640 m); maximum gage height, 5.38 ft (1.640 m) Sept. 8, 1967; no flow for most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 105 ft<sup>3</sup>/s (2.97 m<sup>3</sup>/s) at 2300 hours Aug. 21, gage height, 1.27 ft (0.387 m), no peak above base of 175 ft<sup>3</sup>/s (5.0 m<sup>3</sup>/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	
2											0	
3											0	
4											0	
5											0	
6											0	
7											0	
8											0	
9											0	
10											0	
11											0	
12											0	
13											0	
14											0	
15											0	
16											0	
17											0	
18											0	
19											.01	
20											.38	
21											1.6	
22											0	
23											0	
24											0	
25											0	
26											0	
27											0	
28											0	
29											0	
30											0	
31		---			---		---		---		0	---
TOTAL	0	0	0	0	0	0	0	0	0	0	1.99	0
MEAN	0	0	0	0	0	0	0	0	0	0	.064	0
MAX	0	0	0	0	0	0	0	0	0	0	1.6	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	3.9	0
CAL YR 1975	TOTAL 27.30	MEAN .075	MAX	10	MIN 0	AC-FT 54						
WTR YR 1976	TOTAL 1.99	MEAN .0050	MAX	1.6	MIN 0	AC-FT 3.9						





## 08349800 RIO PAGUATE BELOW JACKPILE MINE NEAR LAGUNA, NM

LOCATION.--Lat 35°07'09", long 107°19'58", in SW¼SE¼ sec. 2, T.10 N., R.5 W., Valencia County, Hydrologic Unit 13020207, in Paguate Purchase Grant, near right bank on downstream end of bridge piling of the Atchison, Topeka and Santa Fe Railway Co. bridge, 1.4 mi (2.3 km) downstream from Rio Moquino, 4.2 mi (6.8 km) upstream from Paguate Reservoir, 5.0 mi (8.0 km) south-east of Paguate and 26 mi (42 km) east of Grants.

DRAINAGE AREA.--107 mi<sup>2</sup> (277 km<sup>2</sup>).

PERIOD OF RECORD.--March to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 5,820 ft (1,774 m), from topographic map.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period March to September 1976, 2,300 ft<sup>3</sup>/s (65.1 m<sup>3</sup>/s) Aug. 24, gage height, 8.60 ft (2.621 m), from slope-area measurement of peak flow; minimum, 0.22 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) July 14.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD MARCH 1976 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	1.4	.97	.90	.31	.60	1.0
2						---	1.5	.95	.87	.29	.50	.87
3						---	1.5	1.0	.87	.29	.50	.87
4						---	1.5	1.1	.82	.29	.46	.72
5						---	1.6	.92	.77	.29	.43	.72
6						---	1.5	.97	.79	.28	.40	.65
7						---	1.5	1.0	.74	.25	.40	.65
8						---	1.5	1.0	.65	.25	.43	.51
9						---	1.5	1.0	.51	.27	.43	.84
10						---	1.5	1.1	.49	.27	.43	.56
11						---	1.2	1.1	.51	.25	.38	.49
12						---	1.2	1.1	.46	.25	.46	.40
13						---	1.2	1.1	.41	.31	.38	.40
14						---	1.2	1.1	.41	.58	.35	.43
15						---	1.2	1.1	.37	.34	.35	.34
16						---	1.1	1.1	.37	.30	.35	1.1
17						---	1.2	1.1	.37	.25	.90	1.6
18						---	1.1	1.1	.35	.25	.40	1.3
19						---	1.1	1.1	.33	.25	8.1	1.1
20						---	1.1	1.1	.35	.85	1.1	1.2
21						---	1.0	1.1	.33	.40	2.7	1.2
22						---	1.0	1.1	.34	.40	1.0	1.1
23						---	1.0	1.1	.35	.40	.50	1.1
24						---	1.0	1.1	.30	.65	91	.95
25						---	1.0	1.1	.31	.40	5.8	.82
26						.97	.95	1.1	.29	.40	2.9	.69
27						1.1	.92	1.1	.28	.67	2.6	.58
28						1.1	.92	1.0	.29	.50	1.9	.58
29						1.2	.92	1.0	.30	.50	1.5	.48
30						1.3	.97	1.0	.33	.50	1.2	.40
31						1.4	---	.92	---	.50	1.1	---
TOTAL				---	---	---	36.28	32.63	14.46	11.74	129.55	23.65
MEAN				---	---	---	1.21	1.05	.48	.38	4.18	.79
MAX				---	---	---	1.6	1.1	.90	.85	.91	1.6
MIN				---	---	---	.92	.92	.28	.25	.35	.34
AC-FT				---	---	---	72	65	29	23	257	47

## 08350500 RIO SAN JOSE NEAR LAGUNA, NM

LOCATION.--Lat 35°01'25", long 107°19'32", in SW¼NW¼ sec.12, T.9 N., R.5 W., Valencia County, Hydrologic Unit 13020207, on right bank, at diversion dam of Mesita ditch, 3 mi (5 km) downstream from Rio Pagueate, 3.5 mi (5.6 km) east of Laguna, and at mile 24.8 (39.3 km).

DRAINAGE AREA.--3,040 mi<sup>2</sup> (7,870 km<sup>2</sup>), approximately, of which about 1,130 mi<sup>2</sup> (2,930 km<sup>2</sup>) does not contribute directly to surface runoff.

PERIOD OF RECORD.--March 1937 to September 1941, August 1973 to March 1976 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,640 ft (1,719 m), from topographic map.

REMARKS.--Records poor. Flow regulated to some extent since 1927 by Bluewater Lake (station 08341400) 67 mi (108 km) upstream.

AVERAGE DISCHARGE.--6 years (water years 1938-41, 1974-75), 12.2 ft<sup>3</sup>/s (0.346 m<sup>3</sup>/s), 8,840 acre-ft/yr (10.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft<sup>3</sup>/s (96.3 m<sup>3</sup>/s) Aug. 1, 1973, gage height, 5.50 ft (1.676 m), datum then in use on basis of computation of peak flow over dam; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1975 to March 1976, 23 ft<sup>3</sup>/s (0.65 m<sup>3</sup>/s) Nov. 30, gage height, 4.27 ft (1.301 m); minimum daily, 1.9 ft<sup>3</sup>/s (0.054 m<sup>3</sup>/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD OCTOBER 1975 TO MARCH 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	7.2	6.3	5.1	11	8.4						
2	4.8	7.2	6.5	4.5	10	8.7						
3	4.5	7.2	6.2	4.3	10	8.4						
4	4.6	7.3	6.1	4.8	8.9	8.6						
5	4.6	7.3	6.1	5.0	9.7	8.6						
6	4.7	7.2	6.0	5.2	9.8	8.7						
7	5.0	7.3	6.0	5.4	9.5	8.9						
8	5.4	7.3	6.0	3.6	9.2	8.1						
9	5.6	7.3	6.0	2.6	9.3	6.5						
10	5.6	7.3	6.1	2.0	9.2	6.5						
11	5.4	7.3	5.8	1.9	9.0	6.0						
12	5.8	7.3	5.8	2.3	8.9	5.8						
13	5.9	7.3	5.8	3.1	9.0	5.8						
14	5.9	7.3	5.3	3.3	9.3	6.2						
15	6.0	7.3	5.0	3.6	9.0	6.6						
16	6.6	7.4	4.8	4.1	8.6	5.8						
17	6.6	7.3	4.9	4.2	8.7	6.0						
18	6.6	7.2	4.9	4.6	8.4	6.2						
19	6.6	7.3	4.9	5.1	8.3	5.8						
20	6.7	7.2	4.9	5.3	8.1	6.0						
21	6.8	6.9	5.2	5.2	7.9	6.2						
22	6.8	6.9	5.8	5.0	8.0	6.4						
23	6.7	7.3	5.8	5.2	8.0	---						
24	6.8	6.9	5.8	5.4	8.3	---						
25	6.7	7.1	5.7	6.0	8.3	---						
26	6.8	6.3	5.7	5.5	8.4	---						
27	6.7	6.6	5.8	5.3	8.6	---						
28	6.8	6.3	5.7	5.0	8.4	---						
29	6.8	7.1	5.4	6.0	8.6	---						
30	6.8	9.0	5.3	7.0	---	---						
31	6.8	---	5.2	9.0	---	---						
TOTAL	186.6	215.9	174.8	144.6	258.4	---						
MEAN	6.02	7.20	5.64	4.66	8.91	---						
MAX	6.8	9.0	6.5	9.0	11	---						
MIN	4.5	6.3	4.8	1.9	7.9	---						
AC-FT	370	428	347	287	513	---						

CAL YR 1975 TOTAL 3112.37 MEAN 8.53 MAX 246 MIN 0 AC-FT 6170

## RIO GRANDE BASIN

08351500 RIO SAN JOSE AT CORREO. NM

LOCATION (REVISED).--Lat 34°58'03", long 107°10'10", in NE¼ sec.32, T.9 N., R.3 W., Valencia County, Hydrologic Unit 13020207, on left bank 0.3 mi (0.5 km) downstream from State Highway 6, 1.2 mi (1.9 km) northeast of Correo, and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--3,660 mi<sup>2</sup> (9,480 km<sup>2</sup>), approximately, of which about 1,130 mi<sup>2</sup> (2,930 km<sup>2</sup>) does not contribute directly to surface runoff.

PERIOD OF RECORD.--April 1943 to current year. Prior to October 1955, published as "San Jose River at Correo".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,474.88 ft (1,668.743 m) above mean sea level, unadjusted. Oct. 1, 1958 to Sept. 30, 1975, water-stage recorder at site 1 md (1.6 km) upstream at datum 17.55 ft (5.349 m) higher.

REMARKS.--Records poor. Flow regulated to some extent since 1927 by Bluewater Lake (station 08341400) 79 mi (127 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 11.8 ft<sup>3</sup>/s (0.334 m<sup>3</sup>/s), 8,550 acre-ft/yr (10.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,150 ft<sup>3</sup>/s (202 m<sup>3</sup>/s) Aug. 11, 1955; maximum gage height, 20.7 ft (6.31 m), Aug. 22, 1958, backwater from dam (present datum); no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood which probably occurred Aug. 21, 1935, reached a stage of 15.4 ft (4.69 m), from floodmarks, former site and datum (discharge, about 11,000 ft<sup>3</sup>/s or 312 m<sup>3</sup>/s), but was probably exceeded by the flood of Sept. 23, 1929 (discharge not determined), based on study of records for Rio Puerco at Rio Puerco.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 880 ft<sup>3</sup>/s (24.9 m<sup>3</sup>/s) at 0030 hours Aug. 25, gage height, 6.60 ft (2.012 m), no other peak above base of 300 ft<sup>3</sup>/s (23 m<sup>3</sup>/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

[illegible]

LOCATION.--Lat 34°47'38", long 106°59'20", in NW¼ sec.31, T.7 N., R.1 W., Valencia County, Hydrologic Unit 13020204, in San Clemente Grant, on downstream end of pier nearest left abutment of the Atchison, Topeka and Santa Fe Railway Co. bridge, 7 mi (11 km) downstream from Rio San Jose, and at mile 36.2 (58.2 km).

PERIOD OF RECORD.--June 1909 to December 1912 (records fragmentary, gage heights only), March 1934 to current year. Records for January 1913 to December 1914 published in WSP 358, 388, and 408 have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,008.59 ft (1,526.618 m) above mean sea level.

REMARKS.--Records fair except those for winter period, which are poor. Diversions for irrigation of about 11,500 acres (47 km<sup>2</sup>) above station (includes 3,700 acres or 15.0 km<sup>2</sup> irrigated partly or entirely from wells). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years (water years 1935-76), 57.0 ft<sup>3</sup>/s (1.614 m<sup>3</sup>/s), 41,300 acre-ft/yr (50.9 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft<sup>3</sup>/s (793 m<sup>3</sup>/s) Aug. 21, 1935, gage height, 7.24 ft (2.207 m), by computation of peak flow over dam; no flow many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--The damaging flood of Sept. 23, 1929, is the greatest since about 1880; it reached a stage of 18 ft (5.5 m) conditions prior to destruction of railroad bridge. Discharge, 37,700 ft<sup>3</sup>/s (1,070 m<sup>3</sup>/s), by weir formula, from reports of State Engineer. The flood of Aug. 12, 1929, reached a stage of about 16 ft or 4.9 m (discharge, 31,300 ft<sup>3</sup>/s or 886 m<sup>3</sup>/s, by weir formula, from reports of State Engineer). A flood on Oct. 4, 1913, reached a stage of 9.5 ft or 2.90 m (discharge not determined) prior to construction of the concrete control.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,560 ft<sup>3</sup>/s (101 m<sup>3</sup>/s) at 2345 hours Aug. 19, gage height, 3.19 ft (0.972 m), no other peak above base of 2,500 ft<sup>3</sup>/s (71 m<sup>3</sup>/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

[illegible]



08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

## WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1956 to current year.

WATER TEMPERATURES: October 1964 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1947 to current year.

REMARKS.--Chemical analyses are run on composite samples collected during the day of period indicated. Samples are collected when flow is observed on this ephemeral stream.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 11,400 micromhos June 10, 1968; minimum daily, 238 micromhos July 30, 1969.

WATER TEMPERATURES: Maximum, 30.5°C Aug. 3, 1970, July 26, 1975; minimum, 0.0°C Dec. 30, 1971.

SEDIMENT CONCENTRATIONS: Maximum daily, 267,000 mg/L July 26, 1957; minimum daily, no flow on many days of each year.

SEDIMENT LOADS: Maximum daily, 2,240,000 tons (2,030,000 tonnes) Aug. 7, 1957; minimum daily, 0 tons (0 tonnes) on many days of each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,390 micromhos July 25; minimum daily, 492 micromhos Sept. 16-18.

WATER TEMPERATURES: Maximum, 29.0°C July 28; minimum, 14.5°C May 7.

SEDIMENT CONCENTRATIONS: Maximum daily, 203,000 mg/L July 25; minimum daily, no flow on many days.

SEDIMENT LOADS: Maximum daily, 423,000 tons (384,000 tonnes) Aug. 21; minimum daily, 0 tons (0 tonnes) on many days.

## CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS) (000600)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (000950)	PH (UNITS) (004000)	HARD- NESS (CA,MG) (009000)	NON- CAR- BONATE HARD- NESS (MG/L) (009020)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (009150)	DIS- SOLVED MAG- NESIUM (MG) (MG/L) (009250)	DIS- SOLVED SODIUM (NA) (MG/L) (009300)	SODIUM AD- SORP- TION RATIO (009310)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (009350)	BICAR- BONATE (HCO3) (MG/L) (004400)	CAR- BONATE (CO3) (MG/L) (004450)
MAY												
07...	5.9	1500	8.2	420	320	130	24	190	4.0	8.7	130	0
08-09	1.5	841	8.4	210	110	64	11	100	3.0	6.6	122	0
JUL												
25-28	97	2960	7.2	1200	880	340	76	320	4.1	9.9	347	0
AUG												
02-20	62	2640	7.5	1100	800	300	74	280	3.8	8.6	313	0
21-28	234	1850	7.8	550	360	160	36	220	4.1	7.7	233	0
31...	.50	1800	7.6	470	370	140	29	220	4.4	10	124	0
SEP												
16-18	7.0	492	7.5	160	20	51	6.7	41	1.4	5.6	165	0
19-20	5.0	1970	7.4	560	400	160	40	240	4.4	11	197	0
21-22	1.2	1660	7.3	450	300	130	31	200	4.1	9.8	187	0
30...	1.0	2480	7.0	700	460	200	48	310	5.1	9.0	288	0
WTD. AVG.	--	2230	7.6	806	565	227	53	250	4.0	8.2	272	0
TIME WTD.												
AVG.	81	2160	7.6	805	568	225	53	239	3.8	8.5	262	0
TOT. LOAD (TONS)	--	--	--	--	--	2130	499	2350	--	78	2560	0
DATE	DIS- SOLVED SULFATE (SO4) (MG/L) (009450)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (009400)	DIS- SOLVED FLUO- RINE (F) (MG/L) (009500)	DIS- SOLVED SILICA (SiO2) (MG/L) (009550)	DIS- SOLVED RESI- DUE AT (180 C) (MG/L) (703000)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (703010)	DIS- SOLVED SOLIDS (TONS) PER AC-FT (703030)	DIS- SOLVED SOLIDS (TONS) PER DAY (703020)	DIS- SOLVED NITRATE PLUS NITRATE (N) (MG/L) (006310)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (006710)	DIS- SOLVED BORON (B) (UG/L) (010200)	DIS- SOLVED IRON (FE) (UG/L) (010460)
MAY												
07...	600	92	.7	10	1090	1120	1.52	17.8	.74	.02	260	210
08-09	240	47	.8	10	--	547	.74	2.22	1.7	--	--	--
JUL												
25-28	1500	57	.6	16	--	2490	3.39	652	.22	--	--	--
AUG												
02-20	1400	45	.5	15	--	2280	3.10	382	.10	--	--	--
21-28	780	53	.7	12	--	1380	1.88	872	.13	--	--	--
31...	720	76	1.2	7.8	--	1270	1.73	1.71	1.8	--	--	--
SEP												
16-18	86	23	.5	13	--	311	.42	5.88	.68	--	--	--
19-20	750	130	.7	13	--	1440	1.96	19.4	.67	--	--	--
21-22	580	110	.8	12	--	1170	1.59	3.79	.93	--	--	--
30...	990	120	.5	15	--	1840	2.50	4.97	.47	--	--	--
WTD. AVG.	1060	51	.6	13	--	1800	2.45	--	.14	--	--	--
TIME WTD.												
AVG.	1040	57	.6	14	--	1760	2.40	--	.36	--	--	--
TOT. LOAD (TONS)	10000	479	5.8	127	--	16900	--	--	1.3	--	--	--

## RIO GRANDE BASIN

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDEO SFDI- MENT (MG/L) (80154)	SUS- PENDEO SFDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINE THAN (70337)	SUS. SED. FALL DIAM. % FINE THAN (70338)
MAY							
07...	1325	11	14.5	32300	959	76	92
08...	1430	.10	16.5	24400	6.6	84	96
JUL							
25...	1200	149	22.0	169000	68000	48	55
AUG							
02...	1900	363	25.0	205000	201000	45	53
20...	1030	1960	22.0	295000	1560000	35	43
26...	1630	400	25.0	85000	91800	48	54
SEP							
18...	1100	10	19.5	35600	961	62	79
30...	1730	1.0	23.0	57400	156	85	98

DATE	SUS. SED. FALL DIAM. % FINE THAN (70340)	SUS. SED. FALL DIAM. % FINE THAN (70342)	SUS. SED. FALL DIAM. % FINE THAN (70343)	SUS. SED. FALL DIAM. % FINE THAN (70344)	SUS. SED. FALL DIAM. % FINE THAN (70331)	SUS. SED. FALL DIAM. % FINE THAN (70332)
MAY						
07...	100	--	--	--	--	--
08...	98	--	--	--	99	100
JUL						
25...	77	95	99	100	--	--
AUG						
02...	72	90	98	100	--	--
20...	56	85	94	100	--	--
26...	75	98	100	--	--	--
SEP						
18...	98	100	--	--	--	--
30...	100	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---		---	---	
2								---		---	2710	
3								---		---	2730	
4								---		---	2540	
5								---		---	---	
6								---		---	2910	
7								---		---	2550	
8								---		---	---	
9								965		---	---	
10								---		---	---	
11								---		---	---	
12								---		---	---	
13								---		---	---	
14								---		---	---	
15								---		---	---	
16								---		---	---	
17								---		---	---	
18								---		---	---	
19								---		---	---	
20								---		---	2380	
21								---		---	1930	
22								---		---	1780	
23								---		---	1960	
24								---		---	1730	
25								---		3390	2010	
26								---		3120	1850	
27								---		2400	1810	
28								---		2920	1750	
29								---		---	---	
30								---		---	---	
31								1520		---	---	
MONTH								---		---	---	



08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

WATER TEMPERATURE (DEG. ° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---		---	---	---
2								---		---	26.5	---
3								---		---	24.5	---
4								---		---	24.5	---
5								---		---	---	---
6								---		---	21.5	---
7								14.5		---	24.0	---
8								16.5		---	---	---
9								19.5		---	---	---
10								---		---	---	---
11								---		---	---	---
12								---		---	---	---
13								---		---	---	---
14								---		---	---	---
15								---		---	---	---
16								---		---	---	17.0
17								---		---	---	---
18								---		---	---	19.5
19								---		---	---	21.0
20								---		---	22.0	26.0
21								---		---	21.5	24.5
22								---		---	25.5	21.5
23								---		---	25.0	---
24								---		---	28.0	---
25								---		22.0	28.0	---
26								---		27.0	25.0	---
27								---		24.0	27.0	---
28								---		29.0	21.5	---
29								---		---	---	---
30								---		---	---	23.0
31								---		---	---	---
MONTH								---		---	---	---

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
MONTH	---	0	---	0	---	0	---	0	---	0	---	0

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN		MEAN		MEAN		MEAN		MEAN		MEAN		MEAN	
	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER			
1			0	0			0	0	42000	1470		0	0	
2			0	0			0	0	135000	68400		0	0	
3			0	0			0	0	170000	71800		0	0	
4			0	0			0	0	147000	31800		0	0	
5			0	0			0	0	163000	26400		0	0	
6			0	0			0	0	137000	7400		0	0	
7			22300	562			0	0	115000	3110		0	0	
8			24300	6.6			0	0	0	0		0	0	
9			16500	233			0	0	0	0		0	0	
10			0	0			0	0	0	0		0	0	
11			0	0			0	0	0	0		0	0	
12			0	0			0	0	0	0		0	0	
13			0	0			0	0	0	0		0	0	
14			0	0			0	0	0	0		0	0	
15			0	0			0	0	0	0		715	165	
16			0	0			0	0	0	0		4650	50	
17			0	0			0	0	0	0		1510	4.1	
18			0	0			0	0	0	0		31400	1360	
19			0	0			0	0	0	0		39400	851	
20			0	0			0	0	85300	291000		17100	92	
21			0	0			0	0	152000	423000		4500	6.1	
22			0	0			0	0	91000	61400		17700	96	
23			0	0			0	0	67000	18100		11200	6.0	
24			0	0			85200	132000	61000	9880		7140	890	
25			0	0			203000	217000	125000	149000		7500	20	
26			0	0			122000	15500	145000	157000		0	0	
27			0	0			94200	5650	59000	16100		0	0	
28			0	0			73300	2770	50800	6860		0	0	
29			0	0			104000	6590	47000	2540		0	0	
30			0	0			63500	2910	41000	553		9700	26	
31			0	0			48000	1810	31000	42		---	---	
MONTH	---	0	---	801.6	---	0	---	384230.0	---	1345855	---	---	3566.2	
TOTAL LOAD FOR YEAR: 1734453 TONS.														

LOCATION.--Lat 34°17'50", long 106°53'59", in NW¼ sec.24, T.1 N., R.1 W., Socorro County, Hydrologic Unit 13020209, at former bridge site 0.3 mi (0.5 km) upstream from bridge on Interstate Highway 25, 3.1 mi (5.0 km) upstream from mouth, 2.9 mi (4.7 km) north of San Acacia, and 15 mi (24 km) north of Socorro.

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WSP 1512: 1948-49, 1955. WSP 1632: 1953.

REMARKS.--Water-discharge records poor. Diversions for irrigation of about 100 acres (40 hm<sup>2</sup>) above station.

AVERAGE DISCHARGE.--29 years, 15.9 ft<sup>3</sup>/s (0.450 m<sup>3</sup>/s), 11,520 acre-ft/yr (14.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,200 ft<sup>3</sup>/s (1,030 m<sup>3</sup>/s) July 31, 1965, gage height, 5.54 ft (1.689 m), from flood-marks, present site and datum, from rating curve extended above 900 ft<sup>3</sup>/s (26 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Another flood occurred Aug. 12, 1929 (discharge, 27,400 ft<sup>3</sup>/s or 776 m<sup>3</sup>/s, by slope-area method), from reports of State Engineer.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,430 ft<sup>3</sup>/s (68.8 m<sup>3</sup>/s) at 1100 hours June 8, gage height, 2.88 ft (0.878 m), no other peak above base of 3,000 ft<sup>3</sup>/s (85.0 m<sup>3</sup>/s); no flow most of time.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									0	0	0	0
2									0	0	0	0
3									0	0	45	0
4									0	0	20	0
5									0	0	2.0	0
6									0	0	0	0
7									0	0	0	0
8									70	0	0	0
9									10	0	0	0
10									1.0	0	0	0
11									0	0	0	0
12									0	0	0	0
13									0	0	0	0
14									0	0	0	0
15									0	0	0	50
16									0	0	0	30
17									0	0	0	3.0
18									0	0	0	0
19									0	0	0	0
20									0	5.0	0	0
21									0	1.0	0	0
22									0	0	0	40
23									0	0	0	40
24									0	0	0	10
25									0	0	0	1.0
26									0	0	0	0
27									0	0	0	0
28									0	14	0	0
29									0	1.0	0	0
30									0	0	0	0
31		---			---		---		---	0	0	---
TOTAL	0	0	0	0	0	0	0	0	81.0	21.0	67.0	174.0
MEAN	0	0	0	0	0	0	0	0	2.70	.68	2.16	5.80
MAX	0	0	0	0	0	0	0	0	70	14	45	50
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	161	42	133	345
CAL YR 1975	TOTAL	5789.35	MEAN	15.9	MAX	2190	MIN	0	AC-FT	11480		
WTR YR 1976	TOTAL	343.00	MEAN	.94	MAX	70	MIN	0	AC-FT	680		

08354000 RIO SALADO NEAR SAN ACACIA, NM -- Continued

## WATER-QUALITY RECORDS

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

REMARKS.--Samples are collected when flow is observed on this ephemeral stream.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
JUN 08...	1000	320	1520	8.5	20.0	430	250	130	26	180	3.8	8.0
JUN 08...	1130	152	1540	7.5	21.0	430	250	130	26	180	3.8	7.5
JUL 20...	1630	20	1340	7.9	26.0	320	150	100	18	150	3.6	6.1
AUG 04...	1520	19	1230	7.0	32.0	470	190	140	28	110	2.2	5.6
SEP 22...	1930	89	819	7.2	18.5	260	110	81	15	78	2.1	4.4

DATE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
JUN 08...	218	0	520	75	.7	14	1060	.55	.03	160	40
JUN 08...	220	0	540	79	.8	14	1090	.59	.01	160	40
JUL 20...	217	0	410	76	.8	12	883	.71	.01	270	10
AUG 04...	338	0	290	78	2.2	25	856	2.3	.04	150	20
SEP 22...	183	0	220	55	.5	11	556	.09	.00	190	20

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDIM- ENT (MG/L) (80154)	SUS- PENDED SEDIM- ENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)
JUN 08...	1000	320	20.0	110000	95000	48	63	81	96	98	100
JUL 20...	1630	20	26.0	70800	3820	70	84	99	100	--	--
JUL 28...	1515	28	31.0	116000	8770	--	--	--	--	--	--
AUG 04...	1520	19	32.0	87400	4480	67	83	98	99	99	100
SEP 16...	1515	48	20.0	101000	13100	--	--	--	--	--	--
SEP 22...	1930	89	18.5	69500	16700	40	51	75	92	98	100

## 08354500 SOCORRO MAIN CANAL NORTH AT SAN ACACIA, NM

LOCATION.--Lat 34°15'17", long 106°53'43", in SE¼NW¼ sec.1, T.1 S., R.1 W., Socorro County, Hydrologic Unit 13020203, on right bank at San Acacia, and 0.5 mi (0.8 km) 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 (1,420.417 m) above mean sea level. Prior to Mar. 8, 1958, at site 300 ft (90 m) upstream (in old channel) at datum 0.42 ft (0.128 m) lower.

REMARKS.--Records poor. 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 (32 km²). Alamillo Acequia and 3 other smaller ditches divert water from canal above station for irrigation of about 400 acres (2 km²). Discharge records collected at the canal heading from October 1964 to September 1965 indicate that 7,770 acre-ft (9.58 hm³) or 9% of the initial canal flow was diverted before reaching the regular gaging station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD: Maximum daily discharge, 251 ft³/s (7.11 m³/s) July 30, 1965 and April 24, 1975; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	55	0	62	2.8	56	233	235	225	141	226	181
2	48	27	55	26	0	93	231	227	239	127	232	163
3	49	31	42	42	0	130	234	241	241	174	171	160
4	66	61	9.7	65	0	132	229	242	251	191	198	175
5	65	77	2.4	48	0	133	221	241	246	185	164	155
6	70	95	0	60	0	132	199	227	225	193	173	189
7	67	106	0	60	0	135	215	186	225	193	99	179
8	61	107	11	95	0	133	207	177	234	185	133	173
9	59	86	9.2	117	0	132	204	158	236	167	223	194
10	61	0	9.2	106	0	136	207	178	248	175	204	210
11	74	60	2.0	70	0	145	215	199	243	185	147	202
12	81	47	28	124	0	156	214	220	253	191	127	178
13	41	0	88	168	0	173	218	230	244	196	123	171
14	0	0	43	141	0	169	231	233	248	178	128	212
15	0	0	31	99	0	171	227	199	250	159	141	94
16	0	0	59	66	0	171	219	218	263	204	150	113
17	0	0	87	66	0	171	210	224	261	216	140	134
18	8.2	0	89	26	0	169	206	221	236	157	130	152
19	0	0	117	24	0	171	210	210	189	233	161	142
20	41	0	63	104	0	187	221	228	173	215	218	155
21	96	0	100	48	0	185	237	234	178	180	194	211
22	112	0	35	67	0	182	244	229	172	190	151	207
23	104	0	152	10	0	181	233	230	154	185	182	183
24	102	45	207	5.0	12	198	247	242	146	162	214	195
25	105	83	201	0	49	217	226	219	134	110	201	120
26	106	0	209	0	26	206	210	238	128	165	197	147
27	106	0	190	13	42	202	173	244	125	202	160	128
28	98	0	166	8.8	58	232	233	241	112	184	181	160
29	103	0	155	5.7	61	241	238	230	124	231	153	154
30	115	0	136	21	---	241	245	235	138	234	181	162
31	130	---	152	11	---	233	---	224	---	235	165	---
TOTAL	1985.2	880	2448.5	1758.5	250.8	5213	6637	6860	6141	5743	5267	4999
MEAN	64.0	29.3	79.0	56.7	8.65	168	221	221	205	185	170	167
MAX	130	107	209	168	61	241	247	244	263	235	232	212
MIN	0	0	0	0	0	56	173	158	112	110	99	94
AC-FT	3940	1750	4860	3490	497	10340	13160	13610	12180	11390	10450	9920
CAL YR 1975	TOTAL	38167.80	MEAN 105	MAX 251	MIN 0	AC-FT 75710						
WTR YR 1976	TOTAL	48183.00	MEAN 132	MAX 263	MIN 0	AC-FT 95570						

## RIO GRANDE BASIN

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM  
(Surveillance network)

LOCATION.--lat 34°14'54", long 106°54'04", in SW $\frac{1}{4}$  sec.1, T.1 S., R.1 W., Socorro County, Hydrologic Unit 13020203, in right bank 75 ft (23 m) upstream from railway crossing, 0.5 mi (0.8 km) south of San Acacia, and 1.2 mi (1.9 km) 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 current year. Daily records 1958-64 are available in files at district office.

GAGE.--Water-stage recorder. Datum of gage is 4,652.5 ft (1,418.08 m) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Water-discharge records fair. Conveyance channel, constructed in 1958, is 1 of 3 channels (stations 08354500, 08354900) carrying flow in valley cross section. Original design and plan was for conveyance channel to carry all flows up to about 2,000 ft<sup>3</sup>/s (57 m<sup>3</sup>/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.

EXTREMES FOR PERIOD OF RECORD: Maximum daily discharge, 1,950 ft<sup>3</sup>/s (55.2 m<sup>3</sup>/s) May 12, 13, 1966; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	21	1620	1640	7.0	2.5	11	598	553	5.4	160	144
2	4.4	2.4	1760	1620	7.2	12	12	742	602	5.3	250	50
3	4.3	11	1740	1630	5.6	28	13	1370	700	5.4	719	30
4	3.7	313	1700	1640	4.9	22	14	1620	712	5.8	1050	25
5	3.9	759	1680	1610	4.5	10	14	1710	632	5.4	705	20
6	4.3	865	1650	1630	4.6	9.8	15	1740	474	5.4	614	18
7	4.0	1380	1660	1620	5.0	11	18	1710	341	6.2	480	17
8	4.5	1600	1670	1610	4.6	12	20	1730	325	5.3	213	15
9	4.2	1660	1690	1640	4.3	13	21	1730	401	4.9	35	68
10	3.8	1760	1700	1630	4.1	12	24	1650	427	5.2	12	137
11	3.4	1860	1670	1620	4.1	12	26	1550	220	5.3	12	220
12	3.1	1890	1640	1630	4.1	12	29	1580	181	5.3	12	268
13	3.1	1850	1640	1640	4.1	12	24	1580	210	4.5	12	214
14	2.8	1800	1620	1630	4.5	13	90	1600	264	3.6	12	241
15	2.9	1570	1630	1610	4.5	13	588	1580	273	2.9	12	500
16	3.6	1410	1670	1600	4.5	13	962	1590	171	2.0	11	380
17	3.3	1410	1690	1590	4.5	13	1120	1580	57	276	6.5	340
18	3.1	1660	1710	1210	4.4	12	1070	1520	20	271	2.7	363
19	2.6	1740	1750	1070	4.4	12	955	1340	10	68	.43	304
20	2.9	1700	1390	1080	2.8	12	517	1520	10	140	286	233
21	3.5	1650	1490	1070	1.8	12	466	1650	10	52	1110	270
22	3.7	1640	580	904	.86	12	338	1590	9.6	15	1030	356
23	3.7	1650	1420	288	22	12	167	1610	9.2	23	661	189
24	3.1	1660	1740	14	60	12	81	1660	8.3	144	308	246
25	3.2	1700	1720	12	81	11	55	1260	7.6	905	398	432
26	3.2	1510	1710	10	53	9.8	50	1230	7.3	729	1220	351
27	2.9	1440	1720	7.8	28	9.9	77	1260	7.1	801	883	258
28	2.7	1160	1740	7.0	2.5	11	329	1070	6.6	401	823	199
29	2.7	1220	1740	7.1	2.5	11	346	755	5.8	246	591	204
30	1.6	1590	1730	6.9	---	11	395	704	5.7	213	244	203
31	60	---	1680	6.5	---	11	---	628	---	191	175	---
TOTAL	162.3	40481.4	50550	33283.3	345.36	379.0	7847	43457	6660.2	4552.9	12047.63	6295
MEAN	5.24	1349	1631	1074	11.9	12.2	262	1402	222	147	389	210
MAX	60	1890	1760	1640	81	28	1120	1740	712	905	1220	500
MIN	1.6	2.4	580	6.5	.86	2.5	11	598	5.7	2.0	.43	15
AC-FT	322	80290	100300	66020	685	752	15560	86200	13210	9030	23900	12490
CAL YR 1975 TOTAL	226071.21				MEAN 619	MAX 1890	MIN .02	AC-FT 448400				
WTR YR 1976 TOTAL	206061.09				MEAN 563	MAX 1890	MIN .43	AC-FT 408700				

## 08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

## WATER-QUALITY RECORDS

LOCATION.--Samples collected about 100 ft (30 m) downstream from discharge station.

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

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to current year.

WATER TEMPERATURES: May 1959 to current year.

SUSPENDED SEDIMENT DISCHARGE: January 1959 to current year.

REMARKS.--When there is insufficient flow to sample 08354800 Rio Grande Conveyance Channel at San Acacia NM or 08354900 Rio Grande Floodway at San Acacia NM, samples are taken from 08354500 Socorro Main Canal North at San Acacia, NM.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 3,840 micromhos Oct. 8, 1964; minimum daily, 136 micromhos June 19, 1967.

WATER TEMPERATURES: Maximum, 36.0°C July 13, 1970; minimum, 0.0°C on several days during 1967-1969, 1971-1975.

SEDIMENT CONCENTRATIONS: Maximum daily, 141,000 mg/L Aug. 10, 1959; minimum daily, no flow on many days during most years.

SEDIMENT LOADS: Maximum daily, 528,000 tons (479,000 tonnes) Aug. 28, 1972; minimum daily, 0 tons (0 tonnes) on many days during most years.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,140 micromhos June 8; minimum daily, 193 micromhos Feb. 7.

WATER TEMPERATURES: Maximum, 34.0°C July 10; minimum, 3.0°C Jan. 2.

SEDIMENT CONCENTRATIONS: Maximum daily, 105,000 mg/L Aug. 21; minimum daily, 22 mg/L Oct. 23, 25.

SEDIMENT LOADS: Maximum daily, 314,000 tons (285,000 tonnes) Aug. 21; minimum daily, .18 ton (.16 tonne) Oct. 19, 28, 30.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (000061)	SPECIFIC CONDUCTANCE (MICROMHOS) (000095)	PH (UNITS) (00400)	AIR TEMPERATURE (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)
NOV 25...	0955	1700	495	8.1	7.0	4.0	230	10.8
DEC 16...	1130	1650	463	8.1	1.5	1.0	200	11.9
JAN 22...	1221	855	488	8.0	9.0	3.0	230	11.2
APR 15...	1010	592	524	7.5	15.5	10.0	70	10.0
MAY 11...	0850	1410	400	8.0	24.0	15.0	200	--
JUN 08...	1000	488	2570	8.1	28.5	17.0	40000	7.4
JUL 07...	1530	5.4	820	8.1	31.0	27.5	45	8.2
AUG 17...	0730	141	876	8.3	21.5	16.5	180	7.8
SEP 14...	0735	176	643	7.9	20.5	15.0	320	9.0

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L) (00671)
NOV 25...	.48	.18	.02	1.1	1.6	.23	.09
DEC 16...	.47	.31	.01	1.9	2.4	.92	.20
JAN 22...	.53	.49	.14	1.4	2.0	.98	.30
APR 15...	.59	.58	.03	1.1	1.7	.63	.28
MAY 11...	.46	.40	.01	1.1	1.6	.48	.19
JUN 08...	1.5	1.5	.13	33	34	36	.00
JUL 07...	.20	.20	.02	.59	.81	.30	.21
AUG 17...	.43	.36	.03	.68	1.1	.48	.15
SEP 14...	.60	.60	.00	1.5	2.1	.86	.31

## RIO GRANDE BASIN

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDO IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN 08...	1000	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
NOV 25...	0955	8400	2900
DEC 16...	1130	1700	850
JAN 22...	1221	67	900
APR 15...	1010	180	980
MAY 11...	0850	280	250
JUN 08...	1000	63000	35000
JUL 07...	1530	5	60
AUG 17...	0730	670	0
SEP 14...	0735	470	320

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE D SEDI- MENT (MG/L) (80154)	SUS- PENDE D SEDI- MENT CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)
NOV 06...	1720	892	16.0	4530	10900	9	11
10...	0645	1760	9.0	3700	17600	14	17
25...	0955	1700	4.0	4230	19400	7	8
25...	1000	1720	4.0	4510	20900	7	8
DEC 16...	1130	1650	1.0	4070	18100	7	8
JAN 22...	1221	855	3.0	11900	27500	11	12
APR 15...	1200	825	10.0	2490	5550	--	--
17...	1840	1140	11.0	2490	7660	11	13
MAY 03...	1715	1620	19.0	2590	11300	14	15
11...	0915	1500	15.0	7320	29600	--	--
23...	1845	1690	24.0	2690	12300	9	10
JUN 08...	1730	254	17.5	2280	1560	16	18
JUL 07...	1530	5.4	27.5	279	4.1	--	--
17...	2025	304	27.0	6940	5700	58	74
25...	1045	1160	22.0	86000	269000	54	68
AUG 03...	1725	592	26.0	36600	58500	55	65
20...	1725	515	26.5	122000	170000	51	59
27...	1755	722	25.0	23200	45200	61	74
SEP 11...	1545	284	25.0	2040	1560	40	47
14...	0800	176	15.0	5020	2390	--	--
25...	0720	555	18.0	14800	22200	50	59



## 08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM --- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70331)
NOV						
06...	15	45	76	93	100	--
10...	25	62	91	98	100	--
25...	12	29	67	96	100	--
25...	12	31	69	96	100	--
DEC						
16...	10	28	68	93	100	--
JAN						
22...	14	59	71	93	100	--
APR						
15...	--	--	--	--	--	22
17...	17	32	48	73	100	--
MAY						
03...	20	48	84	99	100	--
11...	--	--	--	--	--	25
23...	12	28	50	83	100	--
JUN						
08...	24	54	79	100	--	--
JUL						
07...	--	--	--	--	--	56
17...	83	90	98	100	--	--
25...	87	95	98	100	--	--
AUG						
03...	83	90	96	100	--	--
20...	79	90	93	100	--	--
27...	89	97	99	100	--	--
SEP						
11...	65	93	96	100	--	--
14...	--	--	--	--	--	16
25...	64	80	91	99	100	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	860	543	453	204	697	694	451	483	860	666	641
2	1130	851	500	457	208	689	693	425	482	879	668	691
3	1110	750	508	442	217	588	684	425	450	861	1020	744
4	1080	750	529	462	227	622	762	435	438	873	671	726
5	1070	724	516	447	229	626	765	420	448	854	601	729
6	1070	704	517	469	229	---	798	422	485	855	727	737
7	1070	619	483	468	193	611	754	423	509	789	784	971
8	1080	592	505	453	196	596	768	410	2140	842	727	744
9	1050	588	512	445	208	593	778	405	554	843	712	669
10	1060	583	477	468	211	601	785	410	506	860	754	617
11	1050	580	498	444	216	640	744	456	518	884	783	576
12	1080	577	468	453	214	632	692	413	492	859	718	593
13	1080	572	481	462	215	639	690	423	493	856	744	596
14	1060	581	466	456	220	638	588	397	502	856	709	635
15	1050	575	486	484	213	638	544	401	517	886	737	642
16	1210	574	456	460	228	610	535	390	526	780	724	805
17	1230	565	486	478	228	605	522	389	622	718	725	643
18	1230	533	460	543	226	618	539	393	677	745	747	655
19	1240	517	486	533	225	660	555	394	759	605	850	644
20	1230	516	457	543	234	660	603	382	750	748	1750	679
21	1230	513	478	563	226	689	604	359	773	688	1680	605
22	1220	520	479	598	199	689	624	361	773	753	881	649
23	1190	520	483	789	308	700	679	375	793	748	765	668
24	1190	546	475	898	316	704	794	376	821	627	836	621
25	1190	540	769	620	311	722	798	399	853	1400	740	713
26	1180	548	792	619	1170	767	858	402	864	845	964	669
27	1190	548	505	643	1000	714	850	394	853	650	843	670
28	1190	556	452	667	980	742	556	424	851	586	765	677
29	1200	554	486	671	979	744	545	483	844	736	900	661
30	1210	519	447	205	---	719	515	505	857	643	860	658
31	999	---	464	206	---	712	---	482	---	594	650	---
MONTH	1140	599	505	513	339	662	677	414	688	798	829	678
YEAR	MAX	2140	MIN	193	MEAN	655						

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued  
 WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	15.0	6.0	5.0	13.0	13.0	18.0	21.0	27.0	25.0	28.0	22.0
2	20.0	15.0	9.0	3.0	12.0	13.0	20.0	20.0	25.0	27.0	25.5	---
3	21.0	15.0	9.0	4.0	15.0	12.0	20.0	19.0	25.0	28.0	26.0	22.0
4	20.0	16.0	9.0	4.5	10.0	10.0	19.0	19.5	25.0	29.0	27.0	25.0
5	21.0	16.0	10.5	4.5	10.0	11.0	18.0	19.0	25.0	29.0	27.0	24.0
6	20.0	16.0	11.0	6.0	12.0	12.0	17.0	17.0	22.0	28.0	25.0	23.0
7	20.0	16.0	10.0	5.0	13.5	12.0	18.0	15.0	25.0	28.5	26.0	26.0
8	20.5	16.0	10.0	5.0	12.0	15.0	18.0	16.0	22.0	29.0	25.0	23.0
9	19.0	15.0	10.0	5.0	13.0	15.0	18.0	21.0	27.0	31.0	24.0	17.0
10	20.0	13.0	9.5	7.0	12.0	12.0	19.5	24.0	26.5	34.0	24.0	20.0
11	20.0	13.0	9.0	7.5	13.0	13.0	20.0	23.0	26.0	24.0	26.0	25.0
12	19.0	11.0	8.0	7.0	15.0	12.0	20.0	19.0	26.0	26.0	23.0	24.0
13	19.0	11.0	8.0	8.0	15.0	14.0	17.0	21.0	27.0	25.0	28.0	25.0
14	18.0	11.0	8.0	7.0	15.0	15.0	14.0	25.0	24.0	23.0	26.0	23.0
15	17.0	10.0	5.0	8.0	13.0	13.0	13.0	25.0	25.0	30.0	25.0	23.0
16	17.0	13.0	5.0	8.5	12.0	15.0	10.0	22.0	24.5	28.0	25.5	24.0
17	18.0	12.0	5.0	9.0	5.0	17.0	11.0	24.0	28.0	27.0	24.0	23.0
18	18.0	11.0	5.0	9.0	10.0	18.0	12.0	24.0	28.0	26.0	25.0	17.0
19	18.0	10.0	6.0	7.0	13.0	15.0	14.0	25.0	29.0	24.0	24.0	23.0
20	18.0	11.0	5.0	8.0	8.0	14.0	19.0	22.0	29.0	28.0	26.5	23.0
21	16.0	9.0	4.0	8.0	9.5	14.0	21.0	23.0	25.0	26.0	21.0	22.0
22	17.0	8.0	7.0	9.0	10.0	16.0	20.0	22.0	26.0	28.0	22.0	22.0
23	15.0	7.0	5.5	9.0	10.0	14.0	21.0	24.0	27.0	26.0	23.0	23.0
24	16.0	9.0	7.0	10.0	10.5	17.0	20.0	25.0	25.0	24.0	25.0	21.0
25	15.0	8.5	7.0	7.0	12.0	17.0	19.0	23.0	26.0	23.0	25.0	18.0
26	15.0	6.0	7.5	6.5	15.0	16.0	22.0	25.0	25.0	25.0	22.0	21.0
27	13.5	8.0	7.0	8.0	12.0	12.0	20.0	25.0	25.0	28.0	25.0	20.0
28	17.0	7.0	5.0	10.0	13.0	12.0	22.0	25.0	26.0	27.0	24.0	21.0
29	16.0	6.0	5.0	12.0	13.0	10.0	20.0	25.0	26.0	27.0	25.0	23.0
30	15.5	5.0	5.0	12.0	---	14.0	22.0	23.0	25.0	27.0	26.0	23.0
31	15.0	---	6.5	12.0	---	17.0	---	27.0	---	24.0	25.0	---
MONTH	18.0	11.5	7.0	7.5	12.0	14.0	18.0	22.0	25.5	27.0	25.0	22.5
YEAR	MAX	34.0	MIN	3.0	MEAN	17.5						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	42	.47	1640	93	4130	18100	4210	18600	457	8.6	705	4.8
2	40	.48	2260	15	4090	19400	3870	16900	498	9.7	790	26
3	45	.52	2340	69	4600	21600	5350	23500	469	7.1	475	36
4	49	.49	2410	2240	4990	22900	5260	23300	230	3.0	661	39
5	50	.53	3870	8290	4190	19000	5820	25300	293	3.6	378	10
6	43	.50	4680	10900	1280	5700	4260	18700	274	3.4	178	4.7
7	43	.46	3990	14900	550	2470	4960	21700	1110	15	177	5.3
8	73	.89	3140	13600	580	2620	5090	22100	690	8.6	179	5.8
9	106	1.2	3180	14300	3460	15800	4000	17700	349	4.1	229	8.0
10	108	1.1	3900	18500	3880	17800	3510	15400	188	2.1	1250	40
11	63	.58	4150	20800	3910	17600	3560	15600	189	2.1	640	21
12	48	.40	5590	28500	4500	19900	4000	17600	469	5.2	310	10
13	50	.42	5600	28000	5300	23500	3810	16900	159	1.8	263	8.5
14	49	.37	5450	26500	4590	20100	3720	16400	132	1.6	172	6.0
15	50	.39	5540	23500	4160	18300	4240	18400	92	1.1	262	9.2
16	39	.38	4870	18500	3480	15700	3960	17100	420	5.1	650	23
17	34	.30	4900	18700	3360	15300	3880	16700	241	2.9	696	24
18	28	.23	4630	20800	3990	18400	5850	19100	185	2.2	385	12
19	25	.18	4180	19600	4400	20800	8100	23400	240	2.9	294	9.5
20	150	1.2	4200	19300	4420	16600	5880	17100	399	3.0	245	7.9
21	127	1.2	3750	16700	3490	14000	9870	28500	382	1.9	364	11
22	42	.42	3450	15300	3050	4780	10200	24900	604	1.4	545	18
23	22	.22	3700	16500	3400	13000	1190	925	1670	108	256	8.3
24	24	.20	3050	13700	2800	13200	972	37	1490	241	189	6.1
25	22	.19	4410	20200	990	4600	835	27	757	163	212	6.3
26	26	.22	6000	24500	480	2220	583	16	476	69	171	4.5
27	26	.20	6130	23800	3620	16800	297	6.3	108	12	160	4.3
28	25	.18	5150	16100	4240	19900	558	11	416	2.8	225	6.7
29	55	.40	4830	15900	3850	18100	997	19	385	2.6	275	8.2
30	41	.18	4400	18900	3360	15700	1650	31	---	---	338	10
31	1270	280	---	---	3880	17600	780	14	---	---	265	7.9
MONTH	---	294.50	---	488707.0	---	471490.0	---	435986.3	---	694.80	---	402.00

SUSPENDED--SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM  
(Surveillance network)

LOCATION.--Lat 34°15'23", long 106°53'18", Socorro County, Hydrologic Unit 13020203, in Sevilleta Grant, on right bank 0.2 mi (0.3 km) below San Acacia diversion dam, 0.3 mi (0.5 km) east of San Acacia, 2 mi (3 km) downstream from Rio Salado, and at mile 1,472.6 (2,369.4 km).

DRAINAGE AREA.--26,770 mi<sup>2</sup> (69,330 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1936 to September 1958 (prior to construction of conveyance channel), October 1958 to September 1964 (flow in conveyance channel included), October 1964 to current year. Prior to October 1964 published as "08355000 Rio Grande at San Acacia" and records are not equivalent.

REVISED RECORDS.--WSP 1242: 1951. WSP 1732: 1958(M). WRD 1969: 1967.

GAGE.--Water-stage recorder. Datum of gage is 4,654.50 ft (1,418.692 m) above mean sea level. Aug. 19, 1965 to Aug. 15, 1967 at same site at datum 1.89 ft (0.576 m) higher. Prior to Mar. 19, 1953, at several sites 0.1 mi (0.2 km) upstream at different datums. Mar. 19, 1953 to Aug. 19, 1965, at site 0.4 mi (0.6 km) downstream at datum 3.60 ft (1.097 m) higher. Floodway is bypassed by Socorro main canal north and since Oct. 1958, by conveyance channel.

REMARKS.--Water-discharge records poor. Floodway is 1 of 3 channels (stations 08354500, 08354800) carrying flow in valley cross section. For combined monthly flow in acre-ft of floodway, conveyance channel, and Socorro main canal north see tabulation below. Normal plan is for floodway to carry flow when combined capacities of conveyance channel (about 2,000 ft<sup>3</sup>/s or 57 m<sup>3</sup>/s) and Socorro main canal north (about 200 ft<sup>3</sup>/s or 6 m<sup>3</sup>/s) is exceeded, during periods of silt sluicing, and when river silt load is excessive. Diversions above station for irrigation of about 760,000 acres (3,100 km<sup>2</sup>); this includes Socorro main canal north which bypasses station and irrigates about 8,000 acres (32 km<sup>2</sup>).

AVERAGE DISCHARGE.--22 years (water years 1937-58), 1,192 ft<sup>3</sup>/s (33.76 m<sup>3</sup>/s), 863,000 acre-ft/yr (1,060 hm<sup>3</sup>/yr), prior to construction of conveyance channel; does not include Socorro main canal north.

18 years (water years 1959-76), 926 ft<sup>3</sup>/s (26.22 m<sup>3</sup>/s), 670,900 acre-ft/yr (827 hm<sup>3</sup>/yr), combined flow of floodway, conveyance channel and Socorro main canal north.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft<sup>3</sup>/s (776 m<sup>3</sup>/s) Aug. 5, 1936, gage height, 10.75 ft (3.277 m), site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,980 ft<sup>3</sup>/s (198 m<sup>3</sup>/s) July 24, gage height, 9.06 ft (2.761 m); no flow at times.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	325	22	29	884	701	694	1240	69	13	117	9.7
2	188	683	237	53	554	601	681	2640	204	13	416	9.8
3	166	895	67	76	410	602	834	330	218	12	82	16
4	161	494	20	63	433	860	272	26	225	8.3	107	17
5	184	72	94	24	502	742	141	285	136	7.1	106	19
6	220	12	104	26	1080	644	63	1020	108	9.6	101	23
7	245	172	288	29	1660	604	95	754	92	8.3	6.7	20
8	311	82	109	48	1080	681	47	873	236	7.4	32	26
9	325	76	61	46	740	459	24	1720	130	6.7	46	27
10	276	106	89	55	878	276	19	1760	101	7.9	8.2	53
11	194	120	174	56	796	157	114	932	74	9.7	6.2	69
12	168	86	218	75	831	297	330	685	271	9.7	5.8	18
13	203	43	294	87	765	444	250	411	597	6.4	5.8	19
14	273	30	269	101	826	192	409	367	205	3.9	5.3	56
15	283	16	260	97	753	363	118	157	56	.90	5.3	2.3
16	317	3.8	91	84	783	497	21	86	71	8.3	5.3	20
17	233	2.3	38	63	1190	557	84	153	57	143	4.8	23
18	258	50	24	34	1020	412	26	18	39	8.9	4.4	96
19	175	108	5.6	18	1090	215	28	29	26	77	4.4	20
20	118	85	453	8.8	720	408	52	191	16	114	77	55
21	161	94	231	2.9	806	199	83	930	20	.30	141	117
22	177	172	1880	.60	840	207	65	703	16	2.5	1.6	51
23	175	120	58	676	800	175	44	304	28	5.9	.23	19
24	129	80	60	775	776	157	69	112	11	512	82	114
25	73	24	29	645	749	126	43	64	9.0	777	262	2.8
26	113	14	18	712	642	93	34	125	11	12	778	1.1
27	189	9.5	17	706	665	86	18	73	9.7	14	6.0	19
28	196	5.9	28	706	685	94	122	34	10	8.1	20	27
29	162	3.8	28	666	747	104	19	21	11	16	6.0	63
30	207	5.3	11	633	---	179	21	22	12	21	28	76
31	114	---	23	666	---	430	---	23	---	120	9.1	---
TOTAL	6144	3989.6	5304.6	7261.30	23705	11562	4820	15388	3060.7	1963.90	2480.13	1088.7
MEAN	198	133	171	234	817	373	161	496	102	63.4	80.0	36.3
MAX	325	895	1880	775	1660	860	834	2640	597	777	778	117
MIN	73	2.3	5.6	.60	410	86	18	18	9.0	.30	.23	1.1
AC-FT	12190	7910	10520	14400	47020	22930	9560	30520	6070	3900	4920	2160
(†)	16450	89950	115700	83910	48200	34020	38280	130330	31460	24320	39270	24570

CAL YR 1975 TOTAL 306518.12 MEAN 840 MAX 5650 MIN .82 AC-FT 608000 (†) MEAN 1564 AC-FT 1132000  
WTR YR 1976 TOTAL 86767.93 MEAN 237 MAX 2640 MIN .23 AC-FT 172100 (†) MEAN 932 AC-FT 676400

(†) COMBINED FLOW, IN ACRE-FT AND MEAN IN FT<sup>3</sup>/S, OF FLOODWAY, CONVEYANCE CHANNEL, AND SOCORRO MAIN CANAL NORTH.

RIO GRANDE BASIN

237

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 TEMPERATURES: October 1947 to August 1956, January 1959 to current year.

SUSPENDED SEDIMENT DISCHARGE: July 1946 to June 1956, January 1959 to current year.

REMARKS.--Additional sediment total discharge determinations were made bi-weekly when needed. When there is insufficient flow to sample 08354800 Rio Grande Conveyance Channel at San Acacia NM or 08354900 Rio Grande Floodway at San Acacia NM, samples are taken from 08354500 Socorro Main Canal North at San Acacia, NM.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (1937, 1939-56, 1964-76): Maximum daily, 3,700 micromhos July 14, 1940; minimum daily, 236 micromhos May 17, 1942.

WATER TEMPERATURES: Maximum, 34.5°C July 13, 1971; minimum (1947-56, 1959-62, 1964-76), 0.0°C on many days during winter months of most years.

SEDIMENT CONCENTRATIONS: Maximum daily, 223,000 mg/L Aug. 11 1946; minimum daily, no flow on many days of most years.

SEDIMENT LOADS: Maximum daily, 1,760,000 tons (1,600,000 tonnes) Aug. 12, 1955, minimum daily, 0 tons (0 tonnes) on many days of most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,940 micromhos July 25; minimum daily, 371 micromhos May 22.

WATER TEMPERATURES: Maximum, 32.0°C July 15; minimum, 3.0°C Jan. 2.

SEDIMENT CONCENTRATIONS: Maximum daily, 76,900 mg/L July 25; minimum daily, 82 mg/L Apr. 8, 10.

SEDIMENT LOADS: Maximum daily, 181,000 tons (164,000 tonnes) July 25; minimum daily, .32 ton (.29 tonne) Jan. 22.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)
OCT								
22...	0900	153	826	8.6	--	9.5	--	--
24...	1010	173	850	8.3	12.0	8.0	40	9.5
FEB								
17...	1600	1230	810	8.3	13.0	10.0	90	9.8
MAR								
19...	1001	94	605	8.3	18.5	10.0	62	9.3

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)
OCT							
22...	--	--	--	--	--	--	--
24...	.31	.31	.08	.82	1.2	.45	.26
FEB							
17...	.60	.60	.04	.73	1.4	.58	.26
MAR							
19...	.65	.65	.03	.57	1.2	.52	.36

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)
MAR		
19...	1001	2.7

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT 24...	1010	380	780
FEB 17...	1600	160	1400
MAR 19...	1001	80	280

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDIM- ENT (MG/L) (80154)	SUS- PENDED SEDIM- ENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)
OCT									
07...	0920	178	13.5	990	284	--	--	--	15
22...	0900	153	9.5	655	271	--	--	--	25
NOV									
03...	1415	886	14.5	2530	6290	14	18	26	66
DEC									
26...	1710	15	7.5	368	15	55	65	83	--
JAN									
13...	1630	87	8.0	825	194	--	--	--	72
27...	1150	680	4.5	1660	3050	6	7	8	28
FEB									
09...	1315	689	12.5	941	1750	11	13	16	44
17...	1600	1230	10.0	2250	7470	8	9	11	28
23...	1345	740	9.0	960	1920	--	--	--	38
MAR									
02...	1100	665	10.5	1400	2510	--	--	--	22
16...	1230	541	11.0	540	789	20	22	28	37
19...	1001	94	10.0	168	43	--	--	--	--
30...	1115	210	9.0	258	146	--	--	--	44
APR									
26...	1115	34	14.0	118	11	--	--	--	--
MAY									
10...	1215	938	18.0	1800	4560	16	18	25	52
24...	1530	176	25.0	734	349	25	28	35	53
JUL									
25...	1030	39	22.0	76000	8000	62	74	95	100
AUG									
20...	1710	4820	26.5	93300	1210000	51	64	87	99
24...	1500	173	27.0	20200	9440	62	73	93	99
SEP									
15...	1730	1.9	23.0	687	3.5	70	83	98	100
DATE		SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM (70332)	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM (70333)	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT									
07...		60	100	--	--	--	--	--	--
22...		56	96	100	--	--	--	--	--
NOV									
03...		92	97	98	100	--	--	--	--
DEC									
26...		--	--	--	--	97	98	99	100
JAN									
13...		96	100	--	--	--	--	--	--
27...		78	99	100	--	--	--	--	--
FEB									
09...		87	100	--	--	--	--	--	--
17...		71	99	100	--	--	--	--	--
23...		71	100	--	--	--	--	--	--
MAR									
02...		59	98	100	--	--	--	--	--
16...		45	99	100	--	--	--	--	--
19...		--	--	--	--	90	94	95	100
30...		52	86	100	--	--	--	--	--
APR									
26...		--	--	--	--	98	99	100	--
MAY									
10...		81	100	--	--	--	--	--	--
24...		72	100	--	--	--	--	--	--
JUL									
25...		--	--	--	--	--	--	--	--
AUG									
20...		100	--	--	--	--	--	--	--
24...		100	--	--	--	--	--	--	--

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDEO SEDI- MENT CHARGE (MG/L) (80154)	SUS- PENDEO SEDI- MENT CHARGE (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)
OCT							
07...	0920	178	590	284	1	3	70
22...	0900	153	655	271	1	4	80
NOV							
03...	1415	886	2630	6290	1	5	61
JAN							
27...	1150	680	1660	3050	1	9	67
FEB							
09...	1315	689	941	1750	1	14	89
23...	1345	740	960	1920	1	10	84
MAR							
02...	1100	665	1400	2510	1	8	85
16...	1230	541	540	789	1	1	49
30...	1115	210	258	146	0	2	33
APR							
26...	1115	34	118	11	1	3	45
MAY							
10...	1215	938	1800	4560	2	15	87
24...	1530	176	734	349	1	10	83

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	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)
OCT						
07...	100	--	--	--	--	--
22...	100	--	--	--	--	--
NOV						
03...	99	100	--	--	--	--
JAN						
27...	99	100	--	--	--	--
FEB						
09...	100	--	--	--	--	--
23...	99	100	--	--	--	--
MAR						
02...	100	--	--	--	--	--
16...	--	--	96	99	99	100
30...	95	100	--	--	--	--
APR						
26...	92	--	--	97	99	100
MAY						
10...	100	--	--	--	--	--
24...	98	100	--	--	--	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDEO SEDI- MENT CHARGE (MG/L) (80154)	SUS- PENDEO SEDI- MENT CHARGE (T/DAY) (80155)	TOTAL SEDI- MENT CHARGE (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	MEAN DEPTH (FT) (00064)	STREAM VELOC- ITY (FPS) (00055)
OCT									
07...	0920	178	13.5	590	284	977	72	.86	2.9
22...	0900	153	9.5	655	271	583	85	.92	2.0
NOV									
03...	1415	886	14.5	2630	6290	9630	170	1.2	4.4
JAN									
27...	1150	680	4.5	1660	3050	6540	165	1.1	3.9
FEB									
09...	1315	689	12.5	941	1750	2890	100	1.7	4.1
23...	1345	740	9.0	960	1920	3060	160	1.3	3.6
MAR									
02...	1100	665	10.5	1400	2510	5560	150	1.2	3.7
16...	1230	541	11.0	540	789	1460	144	1.6	2.3
30...	1115	210	9.0	258	146	237	98	1.2	1.8
APR									
26...	1115	34	14.0	118	11	11	26	1.5	.89
MAY									
10...	1215	938	18.0	1800	4560	5900	150	1.6	3.9
24...	1530	176	25.0	734	349	486	80	1.1	2.1

## RIO GRANDE BASIN

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	752	1020	514	421	756	553	642	467	461	701	632	646
2	635	758	474	420	782	551	630	429	458	760	651	641
3	705	760	510	420	937	555	620	447	463	674	982	688
4	684	662	522	424	981	550	705	454	451	678	663	670
5	695	668	515	422	970	622	712	447	464	659	600	684
6	696	648	501	425	840	548	758	443	489	669	721	688
7	657	582	500	425	624	545	709	418	516	709	691	706
8	688	555	500	426	587	521	722	416	760	724	695	669
9	684	547	505	422	672	518	730	410	542	735	707	669
10	661	543	482	427	713	537	740	419	508	649	723	617
11	683	539	473	422	718	562	689	423	532	648	766	589
12	712	545	454	421	718	556	621	415	497	633	692	596
13	---	562	449	421	717	538	621	416	502	658	717	605
14	---	574	453	429	828	578	575	410	511	655	692	607
15	---	562	448	436	706	558	551	415	530	846	706	616
16	1040	558	437	435	692	532	548	411	526	770	695	764
17	975	551	436	439	602	539	542	406	591	689	720	663
18	978	512	435	456	843	545	550	418	616	606	716	654
19	948	535	442	495	983	593	550	409	665	598	940	655
20	821	533	439	506	733	595	605	391	712	765	1570	666
21	857	508	436	540	721	634	604	377	671	683	881	611
22	852	503	428	569	806	636	626	371	681	687	834	639
23	864	497	432	646	601	648	677	392	728	712	753	657
24	909	507	451	579	609	648	763	391	701	545	816	587
25	919	524	453	792	591	686	827	418	785	1940	745	629
26	916	556	453	990	583	724	830	420	799	851	910	655
27	874	545	446	744	586	784	819	436	747	665	852	669
28	905	560	430	863	579	690	573	439	751	582	756	823
29	944	552	434	972	567	687	558	497	736	729	880	652
30	960	515	433	848	---	672	529	486	705	640	845	715
31	970	---	430	765	---	648	---	496	---	569	673	---
MONTH	821	583	462	548	726	598	654	425	603	724	781	658
YEAR	MAX	1940	MIN	371	MEAN	630						

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	15.0	6.0	5.0	13.0	13.0	18.0	21.0	27.0	25.0	28.0	22.0
2	20.0	15.0	9.0	3.0	12.0	13.0	20.0	20.0	25.0	27.0	25.5	25.5
3	21.0	15.0	9.0	4.0	11.5	12.0	20.0	19.0	25.0	28.0	26.0	25.0
4	20.0	16.0	9.0	4.5	10.0	10.0	19.0	19.5	25.0	29.0	27.0	25.0
5	21.0	16.0	10.5	4.5	10.0	11.0	18.0	19.0	25.0	29.0	27.0	24.0
6	20.0	16.0	11.0	6.0	12.0	12.0	17.0	17.0	22.0	28.0	25.0	23.0
7	20.0	16.0	10.0	5.0	13.5	12.0	18.0	15.0	25.0	28.0	26.0	26.0
8	20.5	16.0	10.0	5.0	13.0	15.0	18.0	16.0	22.0	29.0	25.0	23.0
9	19.0	15.0	10.0	5.0	13.0	15.0	18.0	21.0	27.0	31.0	24.0	17.0
10	20.0	13.0	9.5	7.0	12.0	12.0	19.5	24.0	26.5	24.0	24.0	20.0
11	20.0	13.0	9.0	7.5	13.0	13.0	20.0	23.0	26.0	24.0	26.0	25.0
12	19.0	11.0	8.0	7.0	15.0	12.0	20.0	19.0	26.0	26.0	23.0	24.0
13	---	11.0	8.0	8.0	15.0	14.0	16.0	21.0	25.0	25.0	28.0	25.0
14	---	11.0	8.0	7.0	15.0	15.0	14.0	25.0	24.0	23.0	26.0	23.0
15	---	10.0	5.0	8.0	13.0	13.0	13.0	25.0	25.0	32.0	25.0	23.0
16	17.0	13.0	5.0	8.5	12.0	15.0	10.0	22.0	24.5	28.0	25.5	24.0
17	18.0	12.0	5.0	9.0	10.0	17.0	11.0	24.0	28.0	27.0	24.0	23.0
18	18.0	11.0	5.0	9.0	10.0	15.0	15.0	24.0	28.0	26.0	25.0	17.0
19	18.0	10.0	6.0	7.0	13.0	15.0	14.0	25.0	29.0	24.0	24.0	22.0
20	18.0	11.0	5.0	8.0	8.0	13.0	19.0	22.0	29.0	28.0	26.5	23.0
21	16.0	4.0	4.0	8.0	9.5	14.0	21.0	23.0	25.0	26.0	21.0	22.0
22	17.0	8.0	7.0	9.0	10.0	16.0	20.0	22.0	26.0	---	22.0	22.0
23	15.0	7.0	5.5	9.0	10.0	14.0	21.0	24.0	27.0	26.0	23.0	23.0
24	16.0	9.0	7.0	10.0	10.0	17.0	20.0	25.0	25.0	24.0	25.0	21.0
25	15.0	8.5	7.0	7.0	12.0	17.0	19.0	23.0	26.0	23.0	25.0	18.0
26	15.0	6.0	7.5	6.5	15.0	16.0	22.0	25.0	25.0	25.0	22.0	21.0
27	15.5	8.0	7.0	8.0	13.0	12.0	20.0	25.0	25.0	28.0	25.0	20.0
28	15.0	7.0	5.0	10.0	13.0	12.0	22.0	25.0	26.0	27.0	24.0	21.0
29	16.0	6.0	5.0	12.0	13.0	10.0	22.0	25.0	26.0	27.0	25.0	23.0
30	15.5	5.0	5.0	12.0	---	14.0	22.0	23.0	25.0	27.0	26.0	23.0
31	15.0	---	6.5	12.0	---	17.0	---	27.0	---	24.0	25.0	---
MONTH	18.0	11.0	7.0	7.5	12.0	13.5	18.0	22.0	25.5	26.5	25.0	22.5
YEAR	MAX	32.0	MIN	3.0	MEAN	17.5						



08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	1180	579	1370	1890	442	26	1660	130	1600	3820	701	1330
2	1230	651	3130	6780	815	522	1540	220	1180	1770	940	1460
3	1160	520	4490	11000	512	137	815	167	718	795	453	736
4	640	278	1720	3320	355	19	698	119	759	887	659	1530
5	628	312	730	142	520	132	599	39	720	976	380	761
6	545	324	600	19	4250	1240	173	12	1700	11000	280	487
7	687	482	1330	781	4550	3540	560	44	2780	12500	292	476
8	810	680	1130	250	4790	1410	637	83	1720	5020	442	813
9	571	501	1000	205	940	155	470	58	1200	2400	463	574
10	387	288	878	251	620	149	577	86	1550	3670	413	308
11	307	161	442	305	585	275	537	81	1440	3090	349	148
12	373	169	810	188	593	349	468	95	1380	3100	290	233
13	1770	1400	760	88	615	488	670	157	1530	3160	455	545
14	2210	1630	680	55	580	421	510	139	1550	3460	232	120
15	2080	1590	695	30	615	432	789	207	1460	2970	211	207
16	2620	2240	525	5.4	720	177	652	148	1390	2940	295	396
17	1240	780	535	3.3	702	72	590	100	1550	4980	194	292
18	1380	1290	661	90	765	50	452	41	1100	3030	228	254
19	605	286	672	193	600	9.1	388	19	867	2550	219	127
20	570	182	621	198	1280	3430	340	8.1	1420	2760	224	247
21	680	296	557	141	2180	1360	240	1.9	1330	2890	132	71
22	622	297	560	260	3530	17900	195	32	509	1150	109	61
23	516	244	505	164	860	135	1680	4140	823	1780	114	54
24	372	130	610	132	740	120	2630	5500	1260	2640	157	67
25	495	98	555	36	450	35	1600	2790	1290	2610	158	54
26	683	208	432	16	410	20	1480	2850	872	1510	150	38
27	468	239	380	9.7	468	21	1850	3530	901	1620	106	25
28	320	169	379	6.0	960	73	1580	3010	895	1660	129	33
29	355	155	430	4.4	680	51	948	1700	833	1680	124	35
30	425	238	382	5.5	470	14	1140	1950	---	---	173	84
31	344	106	---	---	386	24	1180	2120	---	---	149	173
MONTH	---	16523.00	---	26568.30	---	32786.10	---	29545.32	---	92418.00	---	11739.00
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	193	362	496	1770	708	132	126	4.4	3170	773	895	23
2	130	239	665	4830	1400	771	119	4.2	9800	11000	675	18
3	135	304	419	462	441	260	337	11	10600	2350	477	21
4	119	87	410	29	172	104	471	11	10600	3060	441	20
5	118	45	494	364	166	61	278	5.3	8060	2310	461	24
6	94	16	1020	2810	197	57	188	4.9	4800	1310	367	23
7	97	25	1450	2950	174	43	158	3.5	1550	28	329	18
8	82	10	1750	4120	24800	22000	130	2.6	1800	156	358	25
9	86	5.6	1970	9150	1450	509	133	2.4	1850	230	903	66
10	82	4.2	1940	5550	990	270	149	3.2	795	18	1200	172
11	92	28	1570	3950	342	68	156	4.1	551	9.2	1250	233
12	132	118	1460	2700	260	190	167	4.4	395	6.2	1020	50
13	119	80	1240	1380	250	403	301	5.2	283	4.4	890	46
14	201	212	940	931	222	123	337	3.5	314	4.5	2320	785
15	254	72	622	264	161	24	372	9.0	314	4.5	1220	7.6
16	332	19	550	128	158	30	510	11	248	3.5	1860	421
17	361	82	553	228	133	20	2910	943	251	3.3	2190	305
18	323	23	353	17	151	16	2350	56	231	2.7	3570	1580
19	284	21	345	27	255	18	2330	567	2480	29	1610	87
20	196	28	725	472	257	11	13000	7860	35000	7280	1360	266
21	174	39	1310	3290	156	8.4	880	7.1	14600	8850	2510	793
22	940	165	1200	2280	148	6.4	650	4.4	5100	22	5400	532
23	187	22	672	668	218	12	577	9.2	7490	4.7	1940	100
24	106	20	510	154	149	4.4	29500	40800	12800	4190	1550	507
25	98	11	349	60	111	2.7	76900	181000.0	16800	17100	1350	10
26	104	9.5	303	97	104	3.1	22600	732	13700	47300	1270	3.8
27	89	4.3	395	78	112	2.9	6510	343	11800	191	1010	52
28	149	52	390	36	130	3.5	3920	171	13700	740	542	40
29	177	9.1	197	11	123	3.7	5150	222	1090	18	640	109
30	166	9.4	2410	143	123	4.0	5100	289	994	75	990	203
31	---	---	710	44	---	---	6090	2010	948	23	---	---
MONTH	---	2122.10	---	48993.00	---	25161.10	---	235088.9	---	107096.0	---	6540.40

TOTAL LOAD FOR YEAR: 634581.2 TONS.

## RIO GRANDE BASIN

08355300 ARROYO DE LA MATANZA AT SOCORRO, NM

LOCATION.--Lat 34°01'51", long 106°54'04", Socorro County, Hydrologic Unit 13020203, in Town of Socorro Grant, on left abutment of former highway bridge, and 1.9 mi (3.1 km) south of Socorro.

DRAINAGE AREA.--46.0 mi<sup>2</sup> (119 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 4,760 ft (1,451 m), from topographic map.

REMARKS.--Record poor.

AVERAGE DISCHARGE.--7 years, 0.491 ft<sup>3</sup>/s (.014 m<sup>3</sup>/s), 356 acre-ft/yr (438,900 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,580 ft<sup>3</sup>/s (44.7 m<sup>3</sup>/s) July 28, 1970, gage height, 6.20 ft (1.890 m), from rating curve extended above 60 ft<sup>3</sup>/s (1.70 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 175 ft<sup>3</sup>/s (4.96 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
July 19	1845	210	5.95	4.18	1.274	Sept. 24	2200	222	6.29	4.18	1.274
July 23	0230	*460	13.0	4.57	1.393						

No flow for most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										0	2.2	0
2										0	.09	0
3										0	0	0
4										0	0	0
5										0	0	0
6										0	0	1.5
7										0	0	.10
8										0	0	0
9										0	0	1.1
10										0	.27	0
11										0	.18	0
12										0	0	0
13										.20	0	0
14										.18	0	4.7
15										0	0	5.3
16										0	0	0
17										0	0	0
18										0	0	0
19										8.7	0	0
20										.31	0	0
21										0	0	0
22										0	0	0
23										28	0	0
24										15	0	8.8
25										.38	0	6.3
26										0	0	9.3
27										0	0	1.0
28										0	0	0
29										0	0	0
30										0	0	0
31		---			---		---		---	0	0	---
TOTAL	0	0	0	0	0	0	0	0	0	52.77	2.74	38.10
MEAN	0	0	0	0	0	0	0	0	0	1.70	.088	1.27
MAX	0	0	0	0	0	0	0	0	0	28	2.2	9.3
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	105	5.4	76
CAL YR 1975	TOTAL 73.09	MEAN .20	MAX 17	MIN 0	AC-FT 145							
WTR YR 1976	TOTAL 93.61	MEAN .26	MAX 28	MIN 0	AC-FT 186							

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM  
(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 33°41'07", long 106°59'40", Socorro County, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 34, on right bank 0.4 mi (0.6 km) northwest of Atchison, Topeka and Santa Fe Railway Co. bridge over floodway channel, 1.0 mi (1.6 km) southwest of former site of San Marcial, 3.5 mi (5.6 km) downstream from railroad bridge near Tiffany siding, and 51 mi (82 km) downstream from heading at San Acacia.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to September 1959, October 1969 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 (1,357.579 m) above mean sea level (levels by Bureau of Reclamation). Prior to Apr. 29, 1958, at datum 4.19 ft (1.277 m) higher.

REMARKS.--Water-discharge records fair. Original design and plan was for conveyance channel to carry all flows up to about 2,000 ft<sup>3</sup>/s (57 m<sup>3</sup>/s). Conveyance channel is 1 of 2 channels (station 08358400) carrying flow in valley cross section. For combined monthly flow in acre-ft of this channel and floodway see tabulation below daily table for station 08358400.

EXTREMES FOR PERIOD OF RECORD (SINCE 1954).--Maximum daily discharge, 2,200 ft<sup>3</sup>/s (62.3 m<sup>3</sup>/s) May 14, 1966; no flow at times.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	256	1730	0		0						
2	180	205	1800	0		0						
3	175	142	1920	0		0						
4	176	236	1760	0		0						
5	175	628	1770	5.0		0						
6	170	888	1750	9.3		0						
7	173	1250	1710	9.3		0						
8	171	1700	1710	15		0						
9	162	1650	1760	14		0						
10	147	1700	1720	16		1.8						
11	144	1710	1690	14		7.2						
12	147	1760	1640	15		5.8						
13	165	1830	1680	14		0						
14	164	1800	1650	14		0						
15	150	1730	1680	14		0						
16	152	1490	1730	10		0						
17	158	1470	1760	10		0						
18	154	1690	1490	11		0						
19	152	1840	856	7.4		0						
20	147	1850	892	6.8		0						
21	140	1760	784	4.4		0						
22	153	1730	461	4.6		0						
23	173	1720	0	1.8		0						
24	164	1730	0	1.0		0						
25	156	1750	0	.15		0						
26	158	1730	0	0		0						
27	158	1560	0	0		0						
28	157	1390	0	0		0						
29	153	1210	0	0		0						
30	162	1590	0	0	---	0						
31	170	---	0	0	---	0	---		---			---
TOTAL	4990	41995	33943	196.75	0	14.8	0	0	0	0	0	0
MEAN	161	1400	1095	6.35	0	.48	0	0	0	0	0	0
MAX	184	1850	1920	16	0	7.2	0	0	0	0	0	0
MIN	140	142	0	0	0	0	0	0	0	0	0	0
AC-FT	9900	83300	67330	390	0	29	0	0	0	0	0	0
CAL YR 1975 TOTAL	200940.00		MEAN 551	MAX 1920	MIN 0	AC-FT 398600						
WTR YR 1976 TOTAL	81139.55		MEAN 222	MAX 1920	MIN 0	AC-FT 160900						

## RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1954 to current year.

WATER TEMPERATURES: March 1954 to current year.

SUSPENDED SEDIMENT DISCHARGE: March 1954 to current year.

REMARKS.--Additional sediment total discharge determinations were made bi-weekly when needed. No flow Dec. 23 to Jan. 4, Jan. 26 to Mar. 9, Mar. 13 to Sept. 30.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,860 micromhos Oct. 25, 1956; minimum daily, 353 micromhos Jan. 8, 1963.

WATER TEMPERATURES: Maximum, 35.0°C on several days during 1955, 1963, and 1971; minimum, 0.0°C on many days during December and January of most years.

SEDIMENT CONCENTRATIONS: Maximum daily, 144,000 mg/L Sept. 19, 1971; minimum daily, no flow on many days during most years.

SEDIMENT LOADS: Maximum daily, 638,000 tons (579,000 tonnes) Aug. 28 1972; minimum daily, 0 tons (0 tonnes) on many days during most years.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum daily, 2,140 micromhos Jan. 13; minimum daily, 519 micromhos Dec. 17.

WATER TEMPERATURES: Maximum, 23.0°C Oct. 4; minimum, 0.0°C Dec. 15, Jan. 13, 16.

SEDIMENT CONCENTRATIONS: Maximum daily, 4,770 mg/L Nov. 15; minimum daily, no flow on many days.

SEDIMENT LOADS: Maximum daily, 22,300 tons (20,200 tonnes) Nov. 15; minimum daily, 0 tons (0 tonnes) on many days.

## 'CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

## 08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRITE PLUS NITRATE (N) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (00631)	TOTAL AMMONIA NITRO- GEN (N) (00610)	TOTAL ORGANIC NITRO- GEN (N) (00605)	TOTAL NITRO- GEN (N) (00600)	TOTAL PHOS- PHORUS (P) (00665)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (00671)	DIS- SOLVED BORON (B) (01020)	DIS- SOLVED IRON (FE) (01046)	DIS- SOLVED MAN- GANESE (MN) (01056)	DIS- SOL- VED ORGANIC CARBON (C) (00681)	SUS- PENDE D ORGANIC CARBON (C) (00689)
OCT												
06...	.04	--	.03	.31	.38	.14	--	--	--	--	--	--
13...	.05	--	.01	.41	.47	.19	--	--	--	--	--	--
21...	.06	.05	.04	.34	.44	.12	.07	150	10	--	3.4	.1
22...	.05	--	.02	.52	.59	.12	--	--	--	--	--	--
27...	.09	--	.05	.53	.67	.17	--	--	--	--	--	--
NOV												
05...	.51	--	.16	2.5	3.2	.33	--	--	--	--	--	--
10...	.41	--	.23	3.0	3.6	1.2	--	--	--	--	--	--
19...	.36	--	.01	2.3	2.7	.54	--	--	--	--	--	--
24...	.42	--	.04	2.1	2.5	.59	--	--	--	--	--	--
24...	.48	.28	.18	1.6	2.3	.26	.24	130	0	0	3.7	.3
DEC												
01...	.51	--	.01	2.0	2.5	.37	--	--	--	--	--	--
08...	.35	--	.09	1.1	1.6	.71	--	--	--	--	--	--
15...	.40	--	.01	1.8	2.2	.88	--	--	--	--	--	--
16...	.45	.33	.05	1.6	2.1	.99	.22	100	40	--	5.3	9.2
22...	.49	--	.02	.72	1.2	.61	--	--	--	--	--	--
JAN												
13...	.76	--	.02	.87	1.7	.10	--	--	--	--	--	--
19...	.31	--	.00	1.2	1.5	.07	--	--	--	--	--	--
25...	.04	--	.04	.64	.72	.05	--	--	--	--	--	--

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
NOV 24...	1400	21	3	130	<10	0	20	0
DEC 16...	1515	--	--	100	--	--	--	--

DATE	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)
NOV 24...	50	0	30	2	21000	0	<100	0	820
DEC 16...	--	--	--	--	--	40	--	--	--

DATE	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL MOLYB- DENUM (MO) (UG/L) (01062)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV 24...	0	.1	.0	5	1	0	80	0
DEC 16...	--	--	--	7	--	--	--	--

## RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

BOTTOM MATERIAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL NITRITE PLUS NITRATE IN BOT. MAT. (MG/KG) (00633)	TOTAL PHOS- PHORUS IN BOT- TOM MA- TERIAL (MG/KG) (00668)	TOTAL ARSENIC IN BOTTOM MA- TERIAL (UG/G) (01003)	TOTAL CADMIUM IN BOTTOM MA- TERIAL (UG/G) (01028)	TOTAL CHRO- MIUM IN BOTTOM MA- TERIAL (UG/G) (01029)	TOTAL COBALT IN BOTTOM MA- TERIAL (UG/G) (01038)	TOTAL COPPER IN BOTTOM MA- TERIAL (UG/G) (01043)
------	------	--	--	--	--	---	---	---

NOV 24...	1400	.0	130	3	1	10	10	2
-----------	------	----	-----	---	---	----	----	---

DATE	TIME	TOTAL IRON IN BOTTOM MA- TERIAL (UG/G) (01170)	TOTAL LEAD IN BOTTOM MA- TERIAL (UG/G) (01052)	TOTAL MANGA- NESE IN BOTTOM MA- TERIAL (UG/G) (01053)	TOTAL MERCURY IN BOTTOM MA- TERIAL (UG/G) (71921)	TOTAL SELE- NIUM IN BOTTOM MA- TERIAL (UG/G) (01148)	TOTAL ZINC IN BOTTOM MA- TERIAL (UG/G) (01093)	ORGANIC CARBON IN BOT- TOM MA- TERIAL (C) (00687)
------	------	---	---	--	--	---	---	---

NOV 24...	26	5	130	.0	0	7	3.2
-----------	----	---	-----	----	---	---	-----

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL NON- FILT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDE GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDE GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED GROSS BETA AS SR90 (PC/L) (80050)	SUS- PENDE GROSS BETA AS SR90 (PC/L) (80060)	DIS- SOLVED URANIUM RA-226 (DIRECT FLUORO- METRIC) (PC/L) (80010)
------	------	---	---	--	--	---	---	--	---

NOV 24...	1400	860	6.7	75	5.8	29	4.7	23	.07	2.5
-----------	------	-----	-----	----	-----	----	-----	----	-----	-----

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FFCAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT 21...	1234	240	90
NOV 24...	1400	6700	1100
DEC 16...	1515	3300	650

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 21, 1975  
1234 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	COUNT
CHRYSOPHYTA				0
..BACILLARIOPHYCEAE	DIATOMS			0
...CENTRALES	CENTRIC			0
...COSCINODISCEAE				0
....CYCLOTELLA		24	5	1
L ....MELOSIRA				0
..PENNALFS	PENNATE			0
...ACHNANTHACEAE				0
...COCCONEIS		24	5	1
...FRAGILARIACEAE				0
L ....SYNEDRA				0
...GOMPHONEMATACEAE				0
...GOMPHONEMA		48	10	2
...NAVICULACEAE	NAVICULOID			0
L ....GYROSIGMA				0
D ....NAVICULA		120	24	5
...NITZSCHIAEAE				0
D ....NITZSCHIA		240	48	10
...SURIRELLACEAE				0
....SURIRELLA		48	10	2

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 ORDER 0.276  
 FAMILY 2.067  
 GENERA 2.067

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NOV. 24, 1975  
1400 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

ORGANISM NAME	5,000 CELLS/ML COMMON NAME	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		95	2
....COCCONEIS		190	4
....CYMBELLACEAE			
....EPITHEMIA		95	2
....DIATOMACEAE			
....DIATOMA		95	2
....FRAGILARIACEAE			
....FRAGILARIA		380	8
....SYNEDRA		95	2
....NAVICULACEAE	NAVICULOID		
....NAVICULA		280	6
....PINNULARIA		95	2
....NITZSCHACEAE			
D ....NITZSCHIA		850	17
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIACEAE			
D ....OSCILLATORIA		2,800	57

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
PHYL/DIV 0.987  
CLASS 0.947  
ORDER 0.947  
FAMILY 1.942  
GENERA 2.134

DEC. 16, 1975  
1515 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

ORGANISM NAME	2,300 CELLS/ML COMMON NAME	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....MELOSIRA		290	12
..PENNALES	PENNATE		
...CYMBELLACEAE			
....EPITHEMIA		290	12
....RHOPALODIA		290	12
....DIATOMACEAE			
D ....DIATOMA		860	37
....NAVICULACEAE	NAVICULOID		
....GYROSIGMA		290	12
....NITZSCHACEAE			
....NITZSCHIA		290	12

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
ORDER 0.544  
FAMILY 2.156  
GENERA 2.406

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## PERIPHYTON

DATE	LENGTH OF EXPOSURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/50 M	PERI- PHYTON BIOMASS ASH G/50 M	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL A MG/50 M	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL B MG/50 M	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS)	Sampling method
	(00022)	(00573)	(00572)	(32228)	(32226)	(70950)	
OCT 21...	29	22.0	18.0	17.0	1.10	220	Polyethylene strip
DEC 16...	22	.200	.200	.100	.000	999	"

## RIO GRANDE BASIN

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PEN- DED SEDI- MENT (MG/L) (80154)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)
OCT								
06...	1115	170	16.5	250	115	--	--	--
20...	1315	143	16.5	158	61	--	--	--
NOV								
03...	1015	188	12.0	245	124	--	--	--
17...	0940	1430	8.0	4660	18000	8	10	14
		SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70331)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70332)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70333)
OCT								
06...	47	71	97	100	--	--	--	--
20...	--	--	--	--	46	73	98	100
NOV								
03...	37	61	98	100	--	--	--	--
17...	39	86	100	--	--	--	--	--

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PEN- DED SEDI- MENT (MG/L) (80154)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)
OCT										
06...	1115	170	250	115	1	8	82	99	100	--
20...	1315	143	158	61	2	33	95	100	--	--
NOV										
03...	1015	188	245	124	0	2	46	95	98	100
17...	0940	1430	4660	18000	20	73	99	100	--	--
DEC										
02...	1100	1710	--	--	31	91	100	--	--	--
15...	0900	1710	--	--	44	97	100	--	--	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PEN- DED SEDI- MENT (MG/L) (80154)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	TOTAL SEDI- MENT DIS- CHARGE (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	MEAN DEPTH (FT) (00064)	STREAM VELOC- ITY (FPS) (00055)
OCT									
06...	1115	170	16.5	250	115	250	66	1.3	2.0
20...	1315	143	16.5	158	61	195	68	1.1	1.9
NOV									
03...	1015	188	12.0	245	124	215	68	1.5	1.8
17...	0940	1430	8.0	4660	18000	20500	68	3.5	6.1



## 08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	724	966	576	---								
2	730	993	538	---								
3	741	985	526	---								
4	749	1020	558	---								
5	770	814	559	---								
6	746	749	539	---								
7	752	712	554	---								
8	748	622	545	---								
9	741	613	531	---								
10	771	616	528	---								
11	752	609	531	---								
12	766	607	538	2060								
13	757	597	532	2140								
14	777	592	541	1870								
15	778	616	538	1800								
16	902	623	524	1960								
17	923	564	519	2000								
18	931	566	525	1890								
19	938	557	530	1880								
20	942	545	530	1850								
21	962	562	527	1960								
22	955	562	610	1830								
23	954	566	---	1790								
24	959	559	---	1760								
25	961	563	---	1760								
26	999	563	---	---								
27	983	579	---	---								
28	1000	579	---	---								
29	990	606	---	---								
30	971	572	---	---								
31	986	---	---	---								
MONTH	860	656	---	---								

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	15.5	2.5	---								
2	20.0	17.0	5.0	---								
3	19.5	17.0	8.0	---								
4	23.0	15.5	8.0	---								
5	19.0	14.0	5.0	---								
6	17.0	15.0	7.0	---								
7	19.0	13.0	5.0	---								
8	17.0	13.0	7.0	---								
9	18.0	13.0	6.5	---								
10	17.0	10.0	6.5	---								
11	18.5	9.0	8.5	---								
12	18.5	9.5	7.0	4.0								
13	17.0	8.5	5.0	0.0								
14	17.0	9.5	5.5	5.0								
15	13.0	8.5	0.0	7.0								
16	17.5	8.5	2.0	0.0								
17	18.0	10.0	6.0	4.0								
18	13.0	10.0	3.5	5.5								
19	18.5	9.5	16.0	2.0								
20	18.0	10.0	4.5	9.0								
21	17.0	6.0	0.5	4.5								
22	14.0	10.0	0.5	3.5								
23	14.5	7.0	---	10.5								
24	16.0	5.5	---	8.5								
25	---	7.0	---	10.0								
26	16.0	5.0	---	---								
27	18.0	5.0	---	---								
28	18.0	5.0	---	---								
29	17.0	5.0	---	---								
30	16.5	3.5	---	---								
31	17.0	---	---	---								
MONTH	17.5	10.0	---	---								

## 08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976												
DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	175	87	682	516	3490	16300	0	0			0	0
2	220	107	660	365	2100	10200	0	0			0	0
3	250	118	355	136	2700	14000	0	0			0	0
4	237	113	1030	656	2460	11700	0	0			0	0
5	202	95	1940	3290	2350	11200	36	.93			0	0
6	228	105	1760	4220	1270	6000	61	1.5			0	0
7	153	71	2400	8100	1980	9140	58	1.5			0	0
8	138	64	2800	12900	2610	12100	67	2.7			0	0
9	153	67	2550	11400	2240	10600	56	2.1			0	0
10	165	65	3050	14000	1870	8680	62	2.7			120	2.1
11	175	68	3000	13900	2410	11000	57	2.2			285	5.5
12	213	85	2730	13000	2120	9390	64	2.6			151	2.9
13	175	73	2520	12500	2150	9750	64	2.4			0	0
14	135	60	2690	13100	2250	10000	73	2.8			0	0
15	140	57	4770	22300	2290	10400	76	2.9			0	0
16	188	77	2600	10500	3200	14900	52	1.4			0	0
17	197	84	2470	9800	2860	13600	62	1.7			0	0
18	100	42	2530	11500	1500	6820	52	1.5			0	0
19	70	29	2460	12200	4220	9730	62	1.2			0	0
20	118	47	2710	13500	3970	9560	56	1.0			0	0
21	170	64	2430	11500	2970	6290	53	.63			0	0
22	660	273	2170	10100	2760	5810	51	.63			0	0
23	252	118	1430	6640	0	0	42	.20			0	0
24	135	60	3450	16100	0	0	47	.13			0	0
25	128	54	2500	11800	0	0	48	.02			0	0
26	143	61	2500	11700	0	0	0	0			0	0
27	285	122	2110	8890	0	0	0	0			0	0
28	307	130	2210	8290	0	0	0	0			0	0
29	300	124	2090	6830	0	0	0	0			0	0
30	235	103	3050	13100	0	0	0	0			0	0
31	189	87	---	---	0	0	0	0			0	0
MONTH	---	2715.00	---	292833.0	---	227170.0	---	32.74	---	0	---	10.50
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
MONTH	---	0	---	0	---	0	---	0	---	0	---	0
TOTAL LOAD FOR YEAR: 522761.2 TONS.												

TOTAL LOAD FOR YEAR: 522761.2 TONS.

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM  
(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 33°40'50", long 106°59'30", Socorro County, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 33, on pier of the Atchison, Topeka, and Santa Fe Railway Co. bridge, 1.1 mi (1.8 km) downstream from former site of San Marcial, 18.5 mi (29.8 km) southwest of San Antonio, and at mile 1,425.2 (2,293.1 km).

DRAINAGE AREA.--27,700 mi<sup>2</sup> (71,740 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year. Records collected at this site January 1895 to September 1964 represented total flow of the river and were published as Rio Grande at San Marcial (station 08358500). Records of daily discharge for floodway only April 1950 to September 1964 are available in files of district office.

GAGE.--Water-stage recorder. Datum of gage is 4,455.19 ft (1,357.942 m) above mean sea level.

REMARKS.--Water-discharge records fair. Floodway is 1 of 2 channels (station 08358300) carrying flow in valley cross section. Prior to 1950 all flow was in floodway channel. Normal plan is for floodway to carry flow when capacity of conveyance channel (about 2,000 ft<sup>3</sup>/s or 57 m<sup>3</sup>/s) is exceeded. Combined monthly discharge in acre-ft is given at end of each year table. Diversion for irrigation of about 775,000 acres (3,100 km<sup>2</sup>) above station (includes about 13,800 acre-ft or 17.0 hm<sup>3</sup> diverted from conveyance channel, as based on weekly measurements, data furnished by Bureau of Reclamation).

AVERAGE DISCHARGE.--12 years (water years 1965-76), 273 ft<sup>3</sup>/s (6.967 m<sup>3</sup>/s), 197,800 acre-ft/yr (220 hm<sup>3</sup>/yr).

Total flow of river.--81 years (water years 1895-75), 1,245 ft<sup>3</sup>/s (34.26 m<sup>3</sup>/s), 902,000 acre-ft/yr (1,110 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, since January 1895 about 50,000 ft<sup>3</sup>/s (1,420 m<sup>3</sup>/s) Oct. 11, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,920 ft<sup>3</sup>/s (82.7 m<sup>3</sup>/s) May 10, gage height, 11.45 ft (3.490 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	0	0	1920	555	645	372	570	780	113	473	244
2	15	0	0	1920	605	650	361	755	675	93	365	220
3	0	126	0	1900	452	540	342	1160	735	111	649	136
4	0	364	0	1850	380	555	349	1680	775	136	799	119
5	0	188	0	1800	361	610	380	1750	770	184	990	131
6	0	28	0	1740	361	640	353	1840	650	153	615	148
7	0	2.6	0	1750	947	645	334	1890	595	136	660	145
8	0	0	0	1780	1120	645	323	2160	523	115	469	138
9	0	0	0	1750	740	800	323	2610	519	122	210	122
10	0	0	0	1700	710	720	311	2730	670	102	182	153
11	0	0	0	1700	760	635	304	2280	545	102	184	198
12	0	0	0	1680	735	523	319	2160	439	89	153	311
13	0	0	0	1680	735	570	323	2000	427	124	117	327
14	0	0	0	1660	780	580	311	1820	439	131	93	280
15	0	0	0	1680	830	469	510	1800	477	145	84	439
16	0	0	0	1690	918	494	912	1730	435	145	100	357
17	0	0	0	1660	978	550	1130	1670	361	140	104	342
18	0	0	203	1580	1060	560	1220	1700	319	304	102	308
19	0	0	1020	1300	900	473	1070	1560	269	319	70	372
20	0	0	1040	1260	785	361	785	1580	247	216	64	346
21	0	0	897	1300	740	346	590	1810	216	180	732	260
22	0	0	1260	1220	800	349	590	1940	182	170	1180	403
23	0	0	2170	908	785	338	460	2140	158	180	827	350
24	0	0	1840	395	750	327	399	1940	128	300	485	450
25	0	0	1820	506	760	338	384	1700	113	1000	349	500
26	0	0	1930	560	730	334	361	1360	120	1100	805	540
27	0	0	1970	575	645	327	327	1400	130	900	1250	473
28	0	0	1990	575	660	342	323	1360	140	785	740	370
29	0	0	2000	585	640	365	473	1060	143	410	710	327
30	0	0	1890	545	---	365	456	912	122	414	361	311
31	0	---	1940	575	---	372	---	820	---	406	293	---
TOTAL	58	708.6	21970	41744	21222	15468	14695	51887	12102	8825	14215	8820
MEAN	1.87	23.6	709	1347	732	499	490	1674	403	285	459	294
MAX	43	364	2170	1920	1120	800	1220	2730	780	1100	1250	540
MIN	0	0	0	395	361	327	304	570	113	89	64	119
AC-FT	115	1410	43580	82800	42090	30680	29150	102900	24000	17500	28200	17490
(†)	10020	84710	110900	83190	42090	30710	29150	102900	24000	17500	28200	17490

CAL YR 1975 TOTAL 301134.00 MEAN 825 MAX 4860 MIN 0 AC-FT 597300 (†) MEAN 1376 AC-FT 995900  
WTR YR 1976 TOTAL 211714.60 MEAN 578 MAX 2730 MIN 0 AC-FT 419900 (†) MEAN 800 AC-FT 580900

(†) COMBINED FLOW, IN ACRE-FT AND MEAN, IN FT<sup>3</sup>/S, OF FLOODWAY AND CONVEYANCE CHANNEL.

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1905-07, 1946 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1905 to April 1907, July 1946 to current year.

WATER TEMPERATURES: January 1949 to current year.

SUSPENDED SEDIMENT DISCHARGE: July 1946 to current year.

REMARKS.--Records of chemical analyses and sediment discharge for years prior to 1946 have been published in Water Bulletins of International Boundary and Water Commission. No flow Oct. 3 to Nov. 2, Nov. 8 to Dec. 17. Additional sediment total load determinations were made bi-weekly when needed.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,730 micromhos Apr. 8, 1953; minimum daily, 293 micromhos June 20, 1967.

WATER TEMPERATURES: Maximum, 36.0°C Aug. 11, 1951; minimum, 0.0°C on many days of most years.

SEDIMENT CONCENTRATIONS: Maximum daily, 126,000 mg/L Aug. 8, 1959; minimum daily, no flow on many days each year.

SEDIMENT LOADS: Maximum daily, 966,000 tons (876,000 tonnes) Oct. 22, 1957; minimum daily, 0 tons (0 tonnes) many days each year.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,570 micromhos July 26; minimum daily, 434 micromhos May 21.

WATER TEMPERATURES: Maximum, 30.0°C July 11, 14, 15; minimum, 0.0°C on Jan. 3, 5, 7.

SEDIMENT CONCENTRATIONS: Maximum daily, 68,000 mg/L Aug. 22; minimum daily, no flow on many days.

SEDIMENT LOADS: Maximum daily, 217,000 tons (197,000 tonnes) Aug. 22; minimum daily, 0 tons (0 tonnes) on many days.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (000061)	SPECIFIC CONDUCTANCE (MICROMHOS) (000095)	PH (UNITS) (000400)	AIR TEMPERATURE (DEG C) (000020)	TEMPERATURE (DEG C) (000101)	TURBIDITY (JTU) (000070)	DISSOLVED OXYGEN (MG/L) (003000)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (003400)	HARDNESS (CA, MG) (MG/L) (009000)
DEC										
29...	0900	2000	519	--	--	2.5	300	--	--	--
JAN										
05...	0940	1800	498	--	--	.0	60	--	--	--
21...	1515	1310	580	8.1	13.5	4.5	180	11.4	25	180
FEB										
01...	0840	555	813	--	--	7.0	180	--	--	--
08...	1150	102	731	--	--	10.0	500	--	--	--
15...	1230	830	853	--	--	12.5	130	--	--	--
18...	1111	1070	483	8.2	12.5	9.0	300	9.5	29	250
22...	1130	800	832	--	--	5.5	100	--	--	--
29...	1030	640	993	--	--	13.0	130	--	--	--
MAR										
07...	0940	645	824	--	--	9.5	22	--	--	--
14...	0955	580	850	--	--	12.5	82	--	--	--
17...	1331	551	775	8.2	20.0	15.0	70	9.0	30	230
21...	0920	346	858	--	--	10.0	49	--	--	--
28...	1250	342	891	--	--	13.0	52	--	--	--
APR										
04...	0915	349	861	--	--	15.0	48	--	--	--
11...	1145	304	940	--	--	18.0	26	--	--	--
14...	1345	340	850	8.1	18.0	12.0	45	9.6	19	250
19...	1305	1070	611	--	--	15.0	33	--	--	--
26...	1125	361	890	--	--	17.5	42	--	--	--
MAY										
02...	0800	755	584	--	--	14.5	96	--	--	--
11...	0910	2280	484	--	--	19.0	220	--	--	--
11...	1100	2300	520	7.8	25.5	19.0	230	--	19	150
18...	0910	1700	466	--	--	17.5	120	--	--	--
27...	0910	1400	488	--	--	20.0	120	--	--	--
31...	1120	820	621	--	--	21.5	2	--	--	--
JUN										
07...	0910	605	621	--	--	19.0	60	--	--	--
07...	0930	610	607	8.4	--	21.0	--	--	--	190
08...	1330	523	730	8.6	32.0	22.0	80	8.8	15	210
14...	0910	427	692	--	--	19.0	110	--	--	--
22...	1004	182	853	--	--	21.0	8	--	--	--
29...	0935	140	986	--	--	25.0	70	--	--	--
JUL										
07...	0725	122	937	--	--	20.0	65	--	--	--
08...	0945	125	950	7.8	26.0	20.0	40	9.0	20	270
13...	0900	124	904	--	--	24.0	35	--	--	--
20...	0925	216	856	--	--	24.0	800	--	--	--
25...	1130	1000	871	--	--	24.5	100	--	--	--
AUG										
04...	1010	770	1060	--	--	24.0	12000	--	--	--
10...	0925	182	947	--	--	22.0	550	--	--	--
17...	1030	106	1090	8.5	29.0	21.5	130	8.0	47	320
18...	0910	108	1010	--	--	19.0	65	--	--	--
25...	0845	349	877	--	--	19.5	3900	--	--	--
29...	1230	755	784	--	--	23.0	4400	--	--	--
SEP										
06...	1350	148	906	--	--	20.0	190	--	--	--
12...	1115	311	779	--	--	24.5	600	--	--	--
14...	1015	286	820	8.3	27.0	18.0	300	8.8	37	220
17...	1425	342	876	--	--	23.0	4800	--	--	--
25...	1250	500	708	--	--	22.8	850	--	--	--

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

## 08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)
DEC									
29...	--	--	--	--	--	.42	--	.13	1.3
JAN									
05...	--	--	--	--	--	.33	--	.18	1.5
21...	35	.4	22	382	379	.49	.46	.09	1.1
FEB									
01...	--	--	--	--	--	.30	--	.08	.89
08...	--	--	--	--	--	.37	--	.01	2.0
15...	--	--	--	--	--	.22	--	.07	.80
18...	54	.5	22	518	509	.44	.25	.08	1.0
22...	--	--	--	--	--	.22	--	.04	.64
29...	--	--	--	--	--	.21	--	.03	.66
MAR									
07...	--	--	--	--	--	.25	--	.04	.73
14...	--	--	--	--	--	.32	--	.00	.97
17...	53	.5	24	529	493	.21	.20	.02	.44
21...	--	--	--	--	--	.15	--	.02	.35
28...	--	--	--	--	--	.14	--	.04	.65
APR									
04...	--	--	--	--	--	.09	--	.02	.57
11...	--	--	--	--	--	.10	--	.04	.29
14...	59	.5	22	569	540	.01	.01	.02	.64
19...	--	--	--	--	--	.53	--	.04	1.2
26...	--	--	--	--	--	.13	--	.02	.46
MAY									
02...	--	--	--	--	--	.47	--	.01	.75
11...	--	--	--	--	--	.55	--	.03	1.6
11...	22	.5	22	318	297	.50	.44	.02	.98
18...	--	--	--	--	--	.47	--	.00	.59
27...	--	--	--	--	--	.35	--	.02	.65
31...	--	--	--	--	--	.00	--	.03	.16
JUN									
07...	--	--	--	--	--	.17	--	.01	.61
07...	34	.4	21	--	394	--	.00	--	--
08...	39	.7	24	460	433	.14	.14	.01	.54
14...	--	--	--	--	--	.10	--	.00	.60
22...	--	--	--	--	--	.04	--	.00	.19
29...	--	--	--	--	--	.01	--	.02	.39
JUL									
07...	--	--	--	--	--	.03	--	.04	.54
08...	64	.6	24	616	598	.01	.01	.01	.48
13...	--	--	--	--	--	.00	--	.02	.56
20...	--	--	--	--	--	.48	--	.03	1.8
25...	--	--	--	--	--	.37	--	.04	2.8
AUG									
04...	--	--	--	--	--	.76	--	.01	21
10...	--	--	--	--	--	.28	--	.01	1.2
17...	79	.6	25	657	661	.16	.15	.00	.53
18...	--	--	--	--	--	.10	--	.00	.57
25...	--	--	--	--	--	.73	--	.02	4.9
29...	--	--	--	--	--	.85	--	.00	7.3
SEP									
06...	--	--	--	--	--	.15	--	.00	.79
12...	--	--	--	--	--	.66	--	.01	2.0
14...	42	.5	25	503	501	.62	.58	.13	1.3
17...	--	--	--	--	--	.73	--	.11	7.2
25...	--	--	--	--	--	.68	--	.08	.69

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRO- GEN (N) (006600)	TOTAL PHOS- PHORUS (P) (006655)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (006711)	DIS- SOLVED BORON (B) (01020)	DIS- SOLVED IRON (FE) (01046)	DIS- SOLVED MAN- GANESE (MN) (01056)	TOTAL ORGANIC CARBON (C) (00680)	DIS- SOL- VED ORGANIC CARBON (C) (00681)	SUS- PENDE- D ORGANIC CARBON (C) (00689)
DEC									
29...	1.8	.73	--	--	--	--	--	--	--
JAN									
05...	2.0	.83	--	--	--	--	--	--	--
21...	1.7	.83	.28	110	--	--	--	7.2	4.6
FEB									
01...	1.3	.44	--	--	--	--	--	--	--
08...	2.4	1.0	--	--	--	--	--	--	--
15...	1.1	.01	--	--	--	--	--	--	--
18...	1.5	1.2	.11	120	0	0	--	8.0	7.6
22...	.90	.55	--	--	--	--	--	--	--
29...	.90	.44	--	--	--	--	--	--	--
MAR									
07...	1.0	.35	--	--	--	--	--	--	--
14...	1.3	.25	--	--	--	--	--	--	--
17...	.67	.34	.12	130	20	--	--	2.1	1.7
21...	.52	.23	--	--	--	--	--	--	--
28...	.83	.26	--	--	--	--	--	--	--
APR									
04...	.68	.30	--	--	--	--	--	--	--
11...	.43	.27	--	--	--	--	--	--	--
14...	.67	.21	.09	140	0	--	--	3.6	.7
19...	1.7	.57	--	--	--	--	--	--	--
26...	.61	.20	--	--	--	--	--	--	--
MAY									
02...	1.2	.55	--	--	--	--	--	--	--
11...	2.2	.63	--	--	--	--	--	--	--
11...	1.5	.69	.21	20	10	0	11	4.2	--
18...	1.1	.74	--	--	--	--	--	--	--
27...	1.0	.51	--	--	--	--	--	--	--
31...	.19	.07	--	--	--	--	--	--	--
JUN									
07...	.79	.34	--	--	--	--	--	--	--
07...	--	.33	.19	110	30	--	--	--	--
08...	.69	.39	.18	130	100	--	--	8.0	2.1
14...	.70	.42	--	--	--	--	--	--	--
22...	.23	.13	--	--	--	--	--	--	--
29...	.42	.12	--	--	--	--	--	--	--
JUL									
07...	.61	.22	--	--	--	--	--	--	--
08...	.50	.17	.11	110	30	--	--	2.5	.9
13...	.58	.15	--	--	--	--	--	--	--
20...	2.3	1.2	--	--	--	--	--	--	--
25...	3.2	1.5	--	--	--	--	--	--	--
AUG									
04...	22	6.7	--	--	--	--	--	--	--
10...	1.5	.69	--	--	--	--	--	--	--
17...	.69	.31	.11	160	20	10	6.1	5.6	--
18...	.67	.20	--	--	--	--	--	--	--
25...	5.6	2.0	--	--	--	--	--	--	--
29...	8.2	2.7	--	--	--	--	--	--	--
SEP									
06...	.94	.47	--	--	--	--	--	--	--
12...	2.7	1.3	--	--	--	--	--	--	--
14...	2.0	1.0	.26	140	10	--	--	4.8	--
17...	8.0	5.1	--	--	--	--	--	--	--
25...	1.5	1.9	--	--	--	--	--	--	--

## RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
JAN 21...	1515	--	--	110	--	--	--	--
FEB 18...	1111	31	3	120	10	0	20	0
MAR 17...	1331	--	--	130	--	--	--	--
APR 14...	1345	--	--	140	--	--	--	--
MAY 11...	1100	12	4	20	0	0	30	0
JUN 08...	1330	--	--	130	--	--	--	--
JUL 08...	0945	--	--	110	--	--	--	--
AUG 17...	1030	5	3	160	<10	1	10	0
SEP 14...	1015	--	--	140	--	--	--	--

DATE	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)
JAN 21...	--	--	--	--	--	--	--	--	--
FEB 18...	<50	3	40	1	20000	0	<100	0	650
MAR 17...	--	--	--	--	--	20	--	--	--
APR 14...	--	--	--	--	--	0	--	--	--
MAY 11...	10	0	29	1	17000	10	34	0	660
JUN 08...	--	--	--	--	--	100	--	--	--
JUL 08...	--	--	--	--	--	30	--	--	--
AUG 17...	<50	1	10	1	6600	20	<100	2	290
SEP 14...	--	--	--	--	--	10	--	--	--

DATE	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71690)	TOTAL MOLYB- DENUM (MO) (UG/L) (01062)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
JAN 21...	--	--	--	5	--	--	--	--
FEB 18...	0	.0	.0	6	0	0	90	10
MAR 17...	--	--	--	8	--	--	--	--
APR 14...	--	--	--	8	--	--	--	--
MAY 11...	0	.5	.3	5	0	0	60	0
JUN 08...	--	--	--	0	--	--	--	--
JUL 08...	--	--	--	1	--	--	--	--
AUG 17...	10	.0	.0	7	0	0	30	0
SEP 14...	--	--	--	8	--	--	--	--



## RIO GRANDE BASIN

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08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL NON- FILT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDED GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED GROSS BETA AS AS SR90 /Y90 (PC/L) (80050)	SUS- PENDED GROSS BETA AS AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED URANIUM RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED FLUORO- METRIC (PC/L) (80010)
MAY 11...	1100	1100	<11	58	38	39	31	31	.06	2.1
SEP 14...	1015	1000	71	80	8.9	40	7.3	32	.12	2.7

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN*	08...	1330	ND	ND	ND	ND	ND	ND	ND

\*Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
JAN 21...	1515	630	380
FEB 18...	1111	440	2300
MAR 17...	1331	33	500
APR 14...	1345	21	140
MAY 11...	1100	480	420
JUN 08...	1330	123	240
JUL 08...	0945	33	150
AUG 17...	1030	2500	1000
SEP 14...	1015	2900	1500

## RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JAN. 21, 1976  
1515 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE		71	6
...COCCONEIS		140	12
...CYMBELLACEAE			
...EPITHEMIA		71	6
...DIATOMACEAE			
...DIATOMA		71	6
...FRAGILARIACEAE			
L ...SYNEDRA			0
...GOMPHONEMATACEAE			
...GOMPHONEMA		71	6
...NAVICULACEAE	NAVICULOID		
D ...NAVICULA		710	62
...SURIARELLACEAE			
L ...SURIARELLA			0
TOTALS		1,100	98
			1.799=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 1.627  
 GENERA 1.799

FEB. 18, 1976  
1111 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

4,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISACEAE		290	7
...CYCLOTELLA			
..PENNALES	PENNATE		
...FRAGILARIACEAE		290	7
...SYNEDRA			
...GOMPHONEMATACEAE		290	7
...GOMPHONEMA			
...NAVICULACEAE	NAVICULOID		
L ...CALONEIS			0
D ...NAVICULA		1,200	29
...NITZSCHACEAE			
O ...NITZSCHIA		2,000	50
TOTALS		4,000	100
			1.832=DI
EUGLENOPHYTA	EUGLENIDS		
..EUGLENOPHYCEAE			
..EUGLENALES			
...EUGLENACEAE			
L ...LEPOCINCLIS			0

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 ORDER 0.371  
 FAMILY 1.832  
 GENERA 1.832

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MAR. 17, 1976  
1331 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

2,500 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
...CYCLOTELLA		110	4
..PENNATES	PENNATE		
...CYMBELLACEAE			
....CYMBELLA		110	4
....EPITHEMIA		110	4
...FRAGILARIACEAE			
...FRAGILARIA		220	9
...GOMPHONEMACEAE			
....GOMPHONEMA		110	4
...NAVICULACEAE	NAVICULOID		
D ....NAVICULA		860	35
D ....NITZSCHACEAE			
....NITZSCHIA		860	35
...SURIPELLACEAE			
....SURIPELLA		110	4
TOTALS		2,500	99

2.350=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
ORDER 0.258  
FAMILY 2.263  
GENERA 2.350

APR. 14, 1976  
1345 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

9,100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA			
.CHLOROPHYCEAE	GREEN ALGAE		
..CHLOROCOCCALES			
...OOCYSTACEAE			
...KIRCHNERIELLA		150	2
..VOLVOCALES			
...CHLAMYDOMONADACEAE			
....CHLAMYDOMONAS		300	3
TOTALS		460	5
CHRYSTOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...RIDDULPHACEAE			
....RIDDULPHIA		150	2
...COSCINODISCACEAE			
D ....CYCLOTELLA		5,800	63
..PENNATES	PENNATE		
...DIATOMACEAE			
D ....DIATOMA		1,400	15
...NAVICULACEAE	NAVICULOID		
....CALONEIS		150	2
....NAVICULA		910	10
...NITZSCHACEAE			
....NITZSCHIA		150	2
...SURIPELLACEAE			
....SURIPELLA		150	2
TOTALS		8,700	96

1.562=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
PHYL/DIV 0.286  
CLASS 0.286  
ORDER 1.187  
FAMILY 1.747  
GENERA 1.816

## RIO GRANDE BASIN

08354800 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued.  
 QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAY 11, 1976  
 1100 HOURS

IDENTIFICATION OF PHYTOPLANKTON  
 4,600 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..HYDRODICTYACEAE				
L ....PEQIASTRUM			0	
..SCENEDESMACEAE				
....ACTINASTRUM				
	TOTALS	440	10	0.090=DI
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCONODISCACEAE				
L ....MELOSIRA			0	
..PENNALES	PENNATE			
..ACHNANTHACEAE				
L ....COCCONEIS			0	
..CYMBELLACEAE				
....CYMBELLA		110	2	
....EPITHEMIA		220	5	
..DIATOMACEAE				
....DIATOMA		550	12	
..FRAGILARIACEAE				
L ....FRAGILARIA			0	
....SYNEDRA		330	7	
..GOMPHONEMACEAE				
....GOMPHONEMA		110	2	
..NAVICULACEAE	NAVICULOID			
L ....CALONEIS			0	
L ....GYROSIGMA			0	
D ....NAVICULA		780	17	
..NITZSCHACEAE				
D ....NITZSCHIA		1,900	41	
..SURIRELLACEAE				
....SURIRELLA				
	TOTALS	4,100	88	2.304=DI

NOTE: 0 - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 L - LESS THAN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER + 200-X MICROSCOPE  
 DIVERSITY INDICES: BASED ON ACTUAL COUNTS:

PHYL/DIV 0.461  
 CLASS 0.461  
 ORDER 0.461  
 FAMILY 2.473  
 GENERA 2.540

JUNE 8, 1976  
 1330 HOURS

IDENTIFICATION OF PHYTOPLANKTON  
 20,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
..OOCYSTACEAE				
....ANKISTRODESUS		880	4	
....CHODATELLA		350	2	
..SCENEDESMACEAE				
....ACTINASTRUM				
..SCENFOSMUS		1,400	7	
..VOLVOCALES		2,500	12	
..CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS				
	TOTALS	710	3	2.047=DI
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
..COSCONODISCACEAE				
D ....CYCLOTFLLA				
..PENNALES	PENNATE	3,900	19	
..FRAGILARIACEAE				
....ASTERIONELLA		530	3	
..NAVICULACEAE	NAVICULOID			
....NAVICULA		350	2	
..NITZSCHACEAE				
....NITZSCHIA		2,800	14	
..SURIRELLACEAE				
....SURIRELLA				
	TOTALS	7,800	39	1.622=DI

08354800 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JUNE 8, 1976  
1330 HOURSIDENTIFICATION OF PHYTOPLANKTON  
(Continued)

CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
D ....ANACYSTIS		5,300	26	
....COCCOCHLORIS		<u>1,100</u>	<u>5</u>	
	TOTALS	6,300	31	0.650=DI
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
..CRYPTOMONIDAE				
...CRYPTOMONADACEAE				
....CRYPTOMONAS		<u>180</u>	<u>1</u>	
	TOTALS	180	1	0.000=DI
PYRRHOPHYTA	FIRE ALGAE			
..DINOPHYCEAE	DINOFLAGELLATES			
..PERIDINIALES				
...GLENODINIACEAE				
....GLENODINIUM		<u>180</u>	<u>1</u>	
	TOTALS	180	1	0.000=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:PHYL/DIV 1.691  
CLASS 1.691  
ORDER 2.226  
FAMILY 2.665  
GENERA 3.102JULY 8, 1976  
0945 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

4,300 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...COELASTRACEAE				
....COELASTRUM		260	6	
...MICRACINIACEAE				
....MICRACINIUM		280	7	
...OOCYSTACEAE				
....ANKISTHODESMUS		120	3	
....OOCYSTIS		70	2	
L ....TETRAEDRON			0	
...SCENEDESMACEAE				
....ACTINASTRUM		140	3	
D ....SCENEDESMUS		990	23	
..TETRASPORALES				
...PALMELLACEAE				
....GLOEOCYSTIS		70	2	
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS		<u>88</u>	<u>2</u>	
	TOTALS	2,000	48	2.383=DI
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINOIDISCEAE				
D ....CYCLOTELLA		720	17	
....MELOSIIRA		180	4	
..PENNALES	PENNALE			
...FRAGILARIACEAE				
....FRAGILARIA		260	6	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		53	1	
...NITZSCHACEAE				
D ....NITZSCHIA		<u>880</u>	<u>20</u>	
	TOTALS	2,100	48	1.866=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
....ANACYSTIS		<u>110</u>	<u>2</u>	
	TOTALS	110	2	0.000=DI

## RIO GRANDE BASIN

08354800 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JULY 8, 1976  
0945 HOURSIDENTIFICATION OF PHYTOPLANKTON  
(Continued)

EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
....EUGLENACEAE				
.....EUGLENA				
.....TRACHELOMONAS				
		35	1	
		35	1	
		70	2	1.000=DI
TOTALS				

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER + 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 1.245  
 CLASS 1.245  
 ORDER 1.946  
 FAMILY 2.926  
 GENERA 3.296

AUG. 17, 1976  
1030 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,600 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...PENNIALES	PENNATE			
....ACHNANTHACEAE				
.....ACHNANTHES				
.....NITZSCHIA				
D ....NITZSCHIA		110	7	
		1,500	93	
		1,600	100	0.371=DI
TOTALS				
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
....NOSTOCACEAE				
L ....ANABAENA			0	

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER + 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 0.371  
 GENERA 0.371

SEP. 14, 1976  
1015 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

76,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...PENNIALES	PENNATE			
....CYMBELLACEAE				
.....CYMBELLA		890	1	
.....FRAGILARIA				
.....FRAGILARIA		1,800	2	
.....NITZSCHIA				
.....NITZSCHIA		3,600	5	
		6,200	8	1.379=DI
TOTALS				
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
....NOSTOCACEAE				
D ....APHANIZOMENON		70,000	92	
		70,000	92	0.000=DI
TOTALS				

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER + 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 0.407  
 CLASS 0.407  
 ORDER 0.407  
 FAMILY 0.519  
 GENERA 0.519

08354800 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## PERIPHYTON

DATE	LENGTH OF EXPOSE- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL WEIGHT G/SQ M (00022)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL A MG/SQ M (32228)	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL B MG/SQ M (32226)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	Sampling method
APR 14...	28	7.69	5.69	6.33	.620	320	Polyethylene strip

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DFG C) (00010)	SUS- PENDEO SEDI- MENT (MG/L) (R0154)	SUS- PENDEO SEDI- MENT DIS- CHARGE (T/DAY) (R0155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)
JAN								
05...	1015	1820	2.0	1860	9140	--	--	--
20...	1250	1230	6.5	695	2310	--	--	--
21...	1515	1310	4.5	2130	7530	--	--	--
FEB								
10...	0945	680	12.0	1840	3380	--	--	--
18...	1111	1070	9.0	3950	11400	--	--	--
24...	0915	720	10.0	1020	1980	--	--	--
MAR								
03...	1000	547	12.0	1550	2290	--	--	--
17...	0930	541	12.0	1010	1480	16	20	28
31...	1030	367	12.0	556	551	--	--	--
APR								
14...	1545	343	12.0	1170	1080	12	14	19
27...	1000	307	15.5	368	305	--	--	--
MAY								
11...	1330	2300	20.0	6550	40700	5	6	8
25...	1000	1870	20.0	728	3680	29	33	46
JUN								
07...	0930	610	21.0	39700	65400	51	66	88
08...	1500	550	--	1910	2840	--	--	--
22...	1130	190	23.0	367	188	49	55	66
JUL								
07...	0900	124	22.5	287	96	35	37	49
08...	0945	125	20.0	171	58	--	--	--
20...	0945	196	24.0	1800	953	62	84	95
29...	0930	370	24.0	5740	5730	59	74	87
AUG								
17...	1100	106	21.5	911	261	--	--	--
17...	1130	106	23.0	1170	335	15	18	24
21...	1600	1040	27.0	67500	190000	59	71	90
30...	1030	302	21.0	4940	4030	55	72	85
SEP								
13...	0915	331	18.0	2350	2100	28	35	46
14...	1100	286	18.0	1360	1050	--	--	--
27...	0930	500	18.0	2630	3550	31	43	56

## RIO GRANDE BASIN

08354800 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	SUS. SED. FALL DIAM. % FINER THAN (70342)	SUS. SED. FALL DIAM. % FINER THAN (70343)	SUS. SED. FALL DIAM. % FINER THAN (70344)	SUS. SED. FALL DIAM. % FINER THAN (70345)	SUS. SED. SIEVE DIAM. % FINER THAN (70331)	SUS. SED. SIEVE DIAM. % FINER THAN (70332)	SUS. SED. SIEVE DIAM. % FINER THAN (70333)	SUS. SED. SIEVE DIAM. % FINER THAN (70334)
JAN								
05...	--	--	--	--	60	--	--	--
20...	--	--	--	--	88	--	--	--
21...	--	--	--	--	36	--	--	--
FEB								
10...	--	--	--	--	45	--	--	--
18...	59	85	100	--	--	--	--	--
24...	42	75	100	--	--	--	--	--
MAR								
03...	61	79	100	--	--	--	--	--
17...	50	84	100	--	--	--	--	--
31...	48	83	100	--	--	--	--	--
APR								
14...	35	61	99	100	--	--	--	--
27...	47	87	100	--	--	--	--	--
MAY								
11...	21	42	83	100	--	--	--	--
25...	82	99	100	--	--	--	--	--
JUN								
07...	94	95	98	100	--	--	--	--
08...	--	--	--	--	18	--	--	--
22...	--	--	--	--	80	88	98	100
JUL								
07...	65	81	99	100	--	--	--	--
08...	--	--	--	--	69	--	--	--
20...	--	--	--	--	98	99	100	--
29...	96	99	100	--	--	--	--	--
AUG								
17...	--	--	--	--	32	--	--	--
17...	30	33	94	100	--	--	--	--
21...	99	100	--	--	--	--	--	--
30...	98	100	--	--	--	--	--	--
SEP								
13...	73	86	100	--	--	--	--	--
14...	--	--	--	--	81	--	--	--
27...	92	98	100	--	--	--	--	--

## PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE DIAM. MENT (MG/L) (80154)	SUS- PENDE SEDIMENT CHARGE (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)
DEC							
29...	0930	2000	--	--	28	86	100
JAN							
05...	1015	1820	1860	9140	1	8	75
20...	1250	1230	695	2310	15	71	99
FEB							
10...	0945	680	1840	3380	4	29	94
24...	0915	720	1020	1980	1	9	76
MAR							
03...	1000	547	1550	2290	0	4	86
17...	0930	541	1010	1480	2	33	98
31...	1030	367	556	551	1	10	71
APR							
27...	1000	307	368	305	1	8	81
MAY							
12...	0910	2180	--	--	19	72	98
25...	1000	1870	728	3680	51	99	100
JUN							
07...	0930	610	39700	65400	1	17	80
22...	1130	190	367	188	1	3	59
JUL							
07...	0900	124	287	96	1	5	73
20...	0945	196	1800	953	1	12	80
29...	0930	370	5740	5730	2	14	89
AUG							
17...	1130	106	1170	335	4	13	94
30...	1030	302	4940	4030	15	50	95
SEP							
13...	0915	331	2350	2100	1	16	98
27...	0930	500	2630	3550	2	19	83



08354800 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

## PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	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)
DEC						
29...	--	--	--	--	--	--
JAN						
05...	99	100	--	--	--	--
20...	100	--	--	--	--	--
FEB						
10...	100	--	--	--	--	--
24...	99	100	--	--	--	--
MAR						
03...	100	--	--	--	--	--
17...	100	--	--	--	--	--
31...	99	100	--	--	--	--
APR						
27...	100	--	--	--	--	--
MAY						
12...	100	--	--	--	--	--
25...	--	--	--	--	--	--
JUN						
07...	99	100	--	--	--	--
22...	91	--	92	97	99	100
JUL						
07...	97	--	98	100	--	--
20...	99	100	--	--	--	--
29...	100	--	--	--	--	--
AUG						
17...	100	--	--	--	--	--
30...	100	--	--	--	--	--
SEP						
13...	100	--	--	--	--	--
27...	100	--	--	--	--	--

## TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDIM- ENT (MG/L) (80154)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY) (80155)	TOTAL SEDIM- ENT DIS- CHARGE (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	MEAN DEPTH (FT) (00064)	STREAM VELOC- ITY (FPS) (00055)
JAN									
05...	1015	1820	2.0	1860	9140	13700	120	3.0	5.0
20...	1250	1230	6.5	695	2310	3410	106	2.8	4.2
FEB									
10...	0945	680	12.0	1840	3380	5360	100	1.8	3.9
24...	0915	720	10.0	1020	1980	2920	104	1.8	3.9
MAR									
03...	1000	547	12.0	1550	2290	3730	105	1.7	3.0
17...	0930	541	12.0	1010	1480	2120	99	1.7	3.3
31...	1030	367	12.0	556	551	965	96	1.4	2.8
APR									
27...	1000	307	15.5	368	305	581	90	1.5	2.3
MAY									
25...	1000	1870	20.0	728	3680	4270	130	3.0	4.8
JUN									
07...	0930	610	21.0	39700	65400	67500	103	1.8	3.4
22...	1130	190	23.0	367	188	319	98	1.1	1.7
JUL									
07...	0900	124	22.5	287	96	192	91	.81	1.7
20...	0945	196	24.0	1800	953	1030	100	1.2	1.7
29...	0930	370	24.0	5740	5730	6370	96	1.3	3.1
AUG									
17...	1130	106	23.0	1170	335	499	48	1.3	1.7
30...	1030	302	21.0	4940	4030	4450	80	1.4	2.7
SEP									
13...	0915	331	18.0	2350	2100	2230	94	1.7	2.1
27...	0930	500	18.0	2630	3550	4000	100	1.8	2.8

## 08354800 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM --Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	---	484	861	944	882	691	570	950	752	837
2		---	---	477	855	953	884	550	569	936	1060	847
3		---	---	493	890	841	912	501	570	942	1080	859
4		---	---	494	876	814	896	502	542	929	1090	851
5		752	---	500	894	822	900	504	562	930	890	874
6		740	---	501	863	817	900	512	561	955	865	890
7		---	---	499	817	734	906	497	609	928	868	905
8		---	---	503	760	701	904	486	665	910	858	920
9		---	---	494	837	792	969	478	885	922	880	877
10		---	---	533	854	799	969	484	707	981	888	828
11		---	---	512	777	800	971	459	713	952	850	778
12		---	---	507	856	788	938	465	714	982	847	773
13		---	---	505	865	825	898	461	726	933	867	737
14		---	---	504	859	771	876	467	672	914	886	756
15		---	---	509	862	821	855	471	682	1010	897	860
16		---	---	535	860	869	620	470	685	995	917	679
17		---	---	528	701	855	607	461	767	1020	925	845
18		---	---	524	705	856	604	451	756	767	935	812
19		---	---	598	753	856	635	468	824	854	908	818
20		---	---	609	854	816	738	474	807	870	914	772
21		---	528	630	669	845	736	434	813	863	1360	785
22		---	569	630	853	845	772	443	850	896	1320	734
23		---	515	755	929	845	766	455	833	889	919	688
24		---	519	754	838	852	890	457	825	893	897	698
25		---	537	746	608	932	894	452	849	896	812	745
26		---	521	720	969	938	919	478	934	1570	867	792
27		---	505	721	938	927	966	478	954	952	1020	701
28		---	506	807	995	928	941	546	955	816	821	795
29		---	527	814	673	921	675	548	950	809	795	773
30		---	497	855	---	897	676	588	1030	760	958	750
31		---	512	835	---	866	---	593	---	761	836	---
MONTH		---	---	599	830	847	837	494	753	929	928	799

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	---	3.0	7.0	11.0	14.0	19.0	21.0	21.0	25.5	23.0
2		---	---	1.0	12.0	12.0	14.5	14.5	21.0	25.0	25.0	24.0
3		---	---	0.0	10.0	12.5	17.5	17.0	18.5	24.5	25.0	25.0
4		---	---	2.0	12.0	11.5	15.0	17.5	18.0	24.0	24.0	21.5
5		10.0	---	0.0	10.0	8.5	16.0	15.5	17.5	21.0	27.0	25.0
6		16.0	---	1.0	12.0	7.0	18.0	17.0	21.0	20.0	26.5	21.5
7		---	---	0.0	8.5	9.5	18.0	14.5	21.0	22.5	26.0	25.5
8		---	---	1.5	10.0	11.0	18.0	19.0	24.0	22.0	24.5	25.0
9		---	---	1.5	11.0	16.0	17.0	19.0	22.5	29.0	25.0	21.0
10		---	---	4.0	12.5	12.5	18.0	19.0	21.0	27.5	24.0	21.5
11		---	---	6.5	10.0	11.0	18.0	20.0	21.5	30.0	27.0	25.0
12		---	---	4.5	10.0	15.0	18.0	19.0	20.0	28.0	27.0	25.0
13		---	---	4.5	12.0	15.0	18.0	19.0	21.5	24.0	26.0	19.0
14		---	---	6.5	9.5	12.5	12.0	18.5	18.0	30.0	27.0	21.0
15		---	---	4.5	12.5	13.5	12.0	19.0	21.0	30.0	29.0	25.0
16		---	---	5.0	13.0	16.0	17.5	21.0	22.0	29.5	24.0	24.5
17		---	---	6.0	10.0	15.0	11.5	19.5	21.0	24.0	23.0	23.5
18		---	---	6.0	11.0	15.5	9.0	21.0	19.0	29.0	22.0	23.0
19		---	---	5.0	13.5	13.0	15.0	22.0	20.0	24.0	23.5	23.0
20		---	---	7.5	12.0	12.0	13.5	19.0	22.0	27.5	24.0	18.5
21		---	4.0	6.0	11.0	10.0	18.0	21.0	22.5	25.0	27.0	23.5
22		---	4.5	4.5	5.5	11.5	18.0	19.0	21.0	23.0	24.0	23.0
23		---	6.0	7.5	11.0	13.0	17.5	19.0	25.0	24.5	23.0	23.0
24		---	6.0	7.0	11.0	13.0	18.0	21.5	24.0	25.5	21.0	22.0
25		---	3.5	6.0	12.0	13.0	19.0	21.0	23.0	24.5	19.5	23.5
26		---	5.5	9.0	11.5	11.0	17.5	19.5	25.0	26.0	23.0	23.0
27		---	4.0	10.0	12.5	12.5	20.0	20.0	25.0	26.5	23.0	18.0
28		---	5.5	10.0	10.5	13.0	20.5	21.0	25.0	26.0	23.0	22.5
29		---	2.0	13.0	13.0	13.0	19.5	21.0	24.5	24.0	---	22.0
30		---	3.0	11.0	---	12.0	18.0	21.5	25.0	25.5	23.0	23.5
31		---	3.0	10.0	---	13.0	---	21.5	---	27.0	19.5	---
MONTH		---	---	5.5	11.0	12.5	16.5	19.0	21.5	25.5	24.5	23.0

08354800 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM --Continued

## SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5720	664	0	0	0	0	2400	12400	595	892	740	1290
2	3010	122	0	0	0	0	3510	18200	1850	3020	910	1600
3	0	0	3410	2330	0	0	1360	6980	740	903	1520	2220
4	0	0	4450	4370	0	0	840	4200	680	698	1060	1590
5	0	0	1900	1120	0	0	2010	9770	1220	1190	970	1600
6	0	0	478	43	0	0	1710	8030	960	936	940	1620
7	0	0	38	.92	0	0	1420	6710	7100	22800	1000	1740
8	0	0	0	0	0	0	825	3960	2920	8030	625	1090
9	0	0	0	0	0	0	1210	5720	1820	3640	550	1190
10	0	0	0	0	0	0	2400	11000	1950	3740	640	1240
11	0	0	0	0	0	0	1060	4870	1520	3120	740	1270
12	0	0	0	0	0	0	1310	5940	1720	3410	1090	1540
13	0	0	0	0	0	0	3050	13800	1050	2080	200	308
14	0	0	0	0	0	0	1570	7040	1960	4130	905	1420
15	0	0	0	0	0	0	590	2680	5100	11400	335	424
16	0	0	0	0	0	0	1130	5160	1500	3720	620	827
17	0	0	0	0	0	0	1200	5380	1570	4150	720	1070
18	0	0	0	0	688	1510	1050	4480	3100	8870	180	272
19	0	0	0	0	2280	6280	10600	37200	1620	3940	421	538
20	0	0	0	0	2270	6370	5300	18000	1090	2310	415	405
21	0	0	0	0	2060	4990	2180	7650	1960	3800	285	266
22	0	0	0	0	2390	9070	1740	5730	1990	4300	211	199
23	0	0	0	0	1650	9670	1710	4190	1660	3520	244	223
24	0	0	0	0	1950	9690	2460	2620	1040	2110	181	160
25	0	0	0	0	1680	8260	2610	3570	1830	4220	270	246
26	0	0	0	0	2630	13700	2040	3080	1920	3780	288	260
27	0	0	0	0	4410	23500	3270	5080	560	975	366	323
28	0	0	0	0	3400	18300	2030	3150	925	1650	241	223
29	0	0	0	0	4800	25900	3880	6130	1590	2750	213	210
30	0	0	0	0	3420	20000	690	1020	---	---	231	228
31	0	0	---	---	1930	10100	525	815	---	---	335	336
MONTH	---	786.00	---	7863.92	---	167340.0	---	234555.0	---	120884.0	---	25928.00
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	277	278	730	1120	310	653	84	27	3900	4980	1790	1180
2	246	240	600	1220	320	583	330	91	3300	3250	660	392
3	590	545	900	2820	555	1100	364	115	19900	42400	525	193
4	310	292	2270	10300	670	1400	277	107	30400	65600	867	279
5	220	226	1920	9070	1100	2290	690	360	19200	54800	767	271
6	203	193	1450	7200	1340	2350	1040	447	8300	13800	649	259
7	200	180	1300	6630	8000	12900	259	98	8300	14800	932	365
8	235	205	2190	12800	1750	2470	170	55	7450	9430	1080	402
9	243	212	2690	19000	8250	11600	145	50	1640	930	680	224
10	200	168	2680	19800	2320	4200	115	34	1310	644	3270	1350
11	210	172	2900	17900	1510	2220	130	39	580	288	4080	2180
12	260	224	1410	8220	1300	1540	148	40	475	196	3080	2590
13	915	798	730	3940	338	390	226	83	460	145	2550	2250
14	1090	915	1050	5160	328	389	299	110	380	95	1170	885
15	1610	2370	950	4620	419	540	335	131	310	70	13800	19500
16	2850	7020	850	3970	448	526	239	89	355	96	3610	3480
17	1060	3230	940	4240	247	241	270	92	766	215	6000	5540
18	1230	4050	1810	8310	233	201	2980	2330	430	118	1940	1610
19	580	1680	760	3200	196	142	1990	1690	321	61	1890	1900
20	578	1230	970	4140	90	60	1250	729	265	46	2860	2670
21	470	749	1380	6740	125	73	910	442	49600	116000.0	1560	1100
22	315	502	1520	7960	214	105	960	441	68000	217000.0	6170	6710
23	480	596	3040	17600	123	52	990	481	22500	50500	4250	4020
24	335	361	2600	13600	235	81	2950	2390	16600	21700	3290	4000
25	285	296	750	3440	135	41	3400	9180	15300	14400	4000	5400
26	515	502	740	2720	216	70	34000	101000.0	10000	21700	5390	7860
27	1140	1010	590	2230	212	74	24000	58300	44200	166000.0	2900	3700
28	1870	1630	320	1180	196	74	8000	17000	13400	26800	1800	1800
29	1150	1470	490	1400	164	68	5450	6030	10200	19600	1050	927
30	880	1080	460	1130	150	53	4000	4470	3920	3820	858	720
31	---	---	450	996	---	---	3800	4170	2150	1700	---	---
MONTH	---	32424.00	---	212656.0	---	46486.00	---	210623.0	---	871184.0	---	83757.00

TOTAL LOAD FOR YEAR: 2014487 TONS.

## RIO GRANDE BASIN

08358550 MILLIGAN GULCH NEAR SAN MARICAL, NM

LOCATION.--Lat 33°39'37", long 107°05'25", in SE¼NE¼ sec.36, T.7 S., R.3 W., Socorro County, Hydrologic Unit 13020211, on left upstream side of bridge on old Highway 85, and 7.2 mi (11.6 km) southwest of San Marcial.

DRAINAGE AREA.--413 mi<sup>2</sup> (1,070 km<sup>2</sup>).

PERIOD OF RECORD.--July 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,720 ft (1,439 m), from topographic map. Prior to July 1, 1971, gage located on downstream side of bridge.

REMARKS.--Records poor.

AVERAGE DISCHARGE--8 years, 0.553 ft<sup>3</sup>/s (0.016 m<sup>3</sup>/s), 491 acre-ft/yr (494,400 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft<sup>3</sup>/s Sept. 11, 1972, gage height, 9.22 ft (2.810 m), from rating curve extended above 3 ft<sup>3</sup>/s (.08 m<sup>3</sup>/s) basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow during the water year.

## 08360500 ELEPHANT BUTTE RESERVOIR AT ELEPHANT BUTTE, NM

LOCATION.--Lat 33°09'15", long 107°11'28", in NW¼ sec.30, T.13 S., R.3 W., Sierra County, Hydrologic Unit 13020211, at dam on Rio Grande, 1 mi (1.6 km) west of Elephant Butte, 4 mi (6 km) northeast of Truth or Consequences (Hot Springs), N. Mex., and at mile 1,383.2 (2,225.6 km).

DRAINAGE AREA.--29,445 mi<sup>2</sup> (76,260 km<sup>2</sup>), approximately including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--March 1915 to December 1939 (monthend contents only published in WSP 1312), January 1940 to September 1965 (monthend contents only), October 1965 to current year.

REVISED RECORDS.--WSP 1442: 1954(m). WSP 1632: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 43.4 ft (13.20 m) above mean sea level. 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, 2,109,000 acre-ft (2.60 km<sup>3</sup>) survey of 1974 at gage height 4,407.0 ft (1,343.25 m) crest of spillway. Capacity by original survey was 2,638,900 acre-ft (3.25 km<sup>3</sup>). 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. Figures given herein represent usable contents and are computed from mean daily gage heights. Water is used for power development and irrigation on Rio Grande Project of Bureau of Reclamation. Lake is major recreational area.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 2,302,800 acre-ft (2,840 hm<sup>3</sup>) June 16-18, 1942, gage height, 4,409.19 ft (1,343.921 m); minimum daily contents after initial filling, 9,900 acre-ft (12.2 hm<sup>3</sup>) Aug. 6, 1954, gage height, 4,258.03 ft (1,297.848 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 727,700 acre-ft (897 hm<sup>3</sup>) Mar. 7, gage height, 4,353.05 ft (1,326.810 m); minimum daily contents, 285,700 acre-ft (352 hm<sup>3</sup>) Sept. 14, gage height, 4318.02 ft (1,316.132 m).

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

4,270	26.02	4,290	89.90	4,310	216.1	4,330	409.4	4,350	679.0
4,275	37.81	4,295	115.0	4,315	258.5	4,335	469.6	4,355	760.2
4,280	51.76	4,300	144.2	4,320	304.2	4,340	534.3	4,360	848.6
4,285	68.82	4,305	177.7	4,325	354.1	4,345	604.0	4,365	944.1

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	462500	463600	530400	620300	689200	723500	641100	562800	531500	440100	359100	310800
2	462000	463600	533800	623300	690000	724000	638300	559400	528900	436700	357300	308500
3	462100	463800	537400	625800	691100	724500	635600	557100	526200	433500	355700	306600
4	462100	464300	540600	628700	691700	725100	632700	554800	523500	439200	354400	304600
5	462200	465200	543600	631900	692400	725600	629600	553400	520700	426700	353500	302100
6	462600	466800	546300	635000	693100	726600	627000	552200	518900	423900	352700	299900
7	462600	468300	548900	636800	694600	727700	623700	551800	516900	420800	351600	298100
8	462600	470700	551600	641300	696100	726900	620800	550900	514000	417600	350200	296000
9	462600	473400	553500	644400	698200	723600	617800	550700	511400	414700	348600	294000
10	462600	476000	555600	647900	699600	720500	614600	551300	507700	411500	346400	291800
11	462800	478400	557800	650900	701200	717300	611500	552300	504600	408900	344000	289700
12	462800	480800	561000	654000	702500	714100	608600	553100	501600	404400	341700	287900
13	462700	483300	563900	657200	703800	710500	605600	553100	497700	401000	339600	286200
14	462500	485700	566800	660100	704700	706500	602500	553100	494700	397600	337400	285700
15	462100	488400	569600	663100	705700	703100	599500	553000	491700	394200	335300	289200
16	461700	490900	572600	666500	707000	699500	596500	552300	489000	391000	333400	290000
17	461400	493500	575600	669600	708300	696000	594300	551600	486100	387700	331000	291300
18	460900	496100	578300	672500	709900	693000	593600	550500	483200	384300	328800	291800
19	461100	498800	580700	675000	711000	689700	592500	549200	479700	381100	326600	292400
20	461100	501900	583200	677300	712300	686100	591300	547900	477000	378100	324300	293000
21	461200	505000	586000	679400	712900	682300	589700	546700	474300	375500	322300	293200
22	461400	507700	588500	680100	713900	678500	587900	545800	470900	373400	320900	293800
23	462600	510500	591500	681900	715000	674200	585800	545100	467300	371800	320500	294600
24	463000	513500	594700	683100	716300	669900	583300	544900	464000	370000	319900	295200
25	462800	516100	597900	683700	717900	667000	580700	543700	460900	368100	318500	295800
26	462800	518300	601100	684200	718800	663300	578000	543400	457500	366700	317100	296700
27	463100	520800	604300	685000	720200	659000	575000	542400	454500	366100	316300	297800
28	463300	523500	607600	685600	721200	654400	572100	540600	450900	365400	315800	298600
29	463700	526000	610600	686700	722200	650800	568500	538600	447600	364500	315000	299200
30	463700	528500	613900	687300	---	647400	565500	537000	444000	362600	314000	299500
31	463700	---	617200	688700	---	644000	---	534000	---	361200	312200	---
MAX	463700	528500	617200	688700	722200	727700	641100	562800	531500	440100	359100	310800
MIN	460900	463600	530400	620300	689200	644000	565500	534000	444000	361200	312200	285700
(+)	4334.53	4339.57	4345.91	4350.62	4352.71	4347.71	4342.29	4339.98	4332.92	4325.67	4320.84	4319.50
(-)	+1600	+64800	+88700	+71500	+33500	-78200	-78500	-31500	-90000	-82800	-49000	-12700

CAL YR 1975 MAX 617200 MIN 365600 (+) +214700 (-) -162600 (+) GAGE HEIGHT, IN FEET, AT END OF MONTH.  
WTR YR 1976 MAX 727700 MIN 285700 (+) CHANGE IN CONTENTS, IN ACRE-FEET.

## RIO GRANDE BASIN

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM

LOCATION.--Lat 33°08'54", long 107°12'22", Sierra County, Hydrologic Unit 13030101, in Pedro Armendaris Grant, on left bank 1.0 mi (1.6 km) downstream from dam, 1.5 mi (2.4 km) upstream from Cuchillo Negro River, and at mile 1,382.2 (2,224.0 km).

DRAINAGE AREA.--29,450 mi<sup>2</sup> (76,280 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--January 1915 to current year. Monthly or annual discharge only for some periods, published in WSP 1732. Figures of daily discharge, published in WSP 458 for October to December 1916, are unreliable.

REVISED RECORDS.--WSP 1562: 1920. WSP 1632: Drainage area, WSP 1732: 1917, 1920. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,242.09 ft (1,292.989 m) above mean sea level. See WSP 1732 for history of changes prior to Apr. 24, 1942.

REMARKS.--Water-discharge records good except those for May to September, which are fair. Flow regulated by Elephant Butte Reservoir (station 08360500). Diversion for irrigation of about 800,000 acres (3200 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--61 years, 987 ft<sup>3</sup>/s (27.95 m<sup>3</sup>/s), 715,100 acre-ft/yr (882 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 8,220 ft<sup>3</sup>/s (233 m<sup>3</sup>/s) May 22, 1942; no flow at times prior to 1929.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,170 ft<sup>3</sup>/s (61.5 m<sup>3</sup>/s) June 4; minimum daily, 6.5 ft<sup>3</sup>/s (0.184 m<sup>3</sup>/s) Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	13	14	11	20	1730	2090	2150	1710	1200	1230
2	11	9.7	13	14	11	21	1720	2110	2170	1700	1210	1230
3	10	9.5	13	14	10	20	1720	2110	2160	1710	1210	1210
4	7.9	9.0	13	14	9.5	16	1710	2100	2170	1710	1210	1210
5	8.1	67	13	211	9.0	17	1730	2070	2150	1720	1210	1200
6	7.8	11	321	14	9.0	17	1740	2070	2150	1710	1190	1190
7	7.8	11	245	13	9.0	17	1710	2060	2110	1720	1190	1190
8	8.0	11	17	15	9.0	1710	1720	2050	2070	1730	1200	1180
9	7.8	11	707	17	9.3	2088	1690	2020	2070	1710	1230	1170
10	8.0	9.5	654	16	10	2110	1670	2040	2070	1710	1240	1160
11	7.8	8.1	104	14	8.3	2090	1680	2030	2080	1720	1240	1160
12	7.8	7.8	17	13	6.5	2100	1680	2000	2100	1700	1250	1160
13	8.2	58	16	13	9.1	2100	1690	1990	2100	1710	1250	1010
14	7.9	9.5	18	13	10	2110	1700	1990	2120	1720	1250	1070
15	8.0	10	315	12	9.5	2100	1690	1990	1820	1680	1270	657
16	8.2	9.7	13	12	53	2110	1680	2010	1830	1680	1280	26
17	200	10	12	13	13	2108	1670	2020	1820	1680	1240	15
18	9.0	9.7	12	12	12	2100	1660	2020	1810	1650	1220	12
19	9.0	9.5	12	10	14	2100	1650	2040	1820	1670	1220	11
20	8.6	9.8	12	68	133	2110	1670	2050	1820	1670	1210	10
21	8.6	9.4	12	9.2	20	2110	1690	2060	1800	1670	1230	10
22	8.6	9.5	169	9.9	19	2100	1730	2050	1800	1200	1220	10
23	8.6	9.5	12	10	19	2120	1690	2040	1800	1200	1220	10
24	8.0	98	10	10	18	2120	1680	2040	1780	1210	1210	12
25	7.4	737	10	10	16	2110	1560	2080	1790	1200	1210	13
26	7.4	34	10	10	85	2110	1820	2120	1790	1200	1230	14
27	7.0	15	11	10	22	2110	2030	2120	1780	1200	1230	15
28	7.0	15	10	11	19	2120	2040	2140	1770	1210	1230	15
29	7.6	15	12	11	19	2120	2050	2160	1770	1210	1220	12
30	18	14	16	10	---	2120	2070	2150	1770	1210	1230	10
31	11	---	15	10	---	2120	---	2150	---	1210	1240	---
TOTAL	462.1	1258.2	2827	633.1	602.2	50308	52270	63970	58440	47730	37990	17222
MEAN	14.9	41.9	91.2	20.4	20.8	1623	1742	2064	1948	1540	1225	574
MAX	200	737	707	211	133	2120	2070	2160	2170	1730	1280	1230
MIN	7.0	7.8	10	9.2	6.5	16	1560	1990	1770	1200	1190	10
AC-FT	917	2500	5610	1260	1190	99790	103700	126900	115900	94670	75350	34160
CAL YR 1975 TOTAL	329589.4		MEAN 903	MAX 2170	MIN 3.7	AC-FT 653700						
WTR YR 1976 TOTAL	333712.6		MEAN 912	MAX 2170	MIN 6.5	AC-FT 661900						

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)
OCT								
06...	1230	6.5	621	--	--	23.0	55	--
13...	1420	8.2	638	--	--	20.5	20	--
21...	1616	9.0	606	8.2	15.0	17.0	60	6.1
22...	1220	8.6	625	--	--	19.0	35	--
27...	1430	7.0	572	--	--	18.0	50	--
NOV								
05...	1115	416	624	--	--	16.5	20	--
10...	1020	10	620	--	--	14.0	55	--
19...	1115	9.5	630	--	--	8.5	16	--
24...	1110	9.0	653	--	--	11.0	20	--
24...	1850	9.0	585	9.1	3.5	13.0	30	14.2
DEC								
01...	1040	14	--	--	--	10.0	9	--
08...	1040	16	649	--	--	9.0	15	--
15...	1245	631	636	--	--	9.5	10	--
17...	0945	12	645	8.3	6.0	5.0	10	12.2
22...	1115	632	619	--	--	9.5	10	--
29...	1030	9.0	641	--	--	6.0	10	--
JAN								
05...	1110	663	628	--	--	2.5	7	--
13...	1130	14	659	--	--	90.0	3	--
19...	1055	12	643	--	--	6.0	7	--
21...	1934	6.2	595	8.8	3.5	9.0	7	16.7
26...	1005	10	674	--	--	6.0	5	--
FEB								
01...	0725	10	687	--	--	3.0	2	--
08...	1020	9.0	701	--	--	10.5	4	--
15...	1110	10	801	--	--	13.5	5	--
18...	1515	8.2	610	8.8	22.0	15.0	9	18.4
22...	0950	18	683	--	--	8.0	4	--
29...	0905	18	658	--	--	8.5	4	--
MAR								
07...	0830	17	638	--	--	7.5	4	--
14...	0830	2110	622	--	--	8.5	7	--
17...	1717	2170	598	8.8	22.0	12.0	5	12.2
21...	0740	2110	610	--	--	9.0	6	--
26...	1120	2110	611	--	--	10.0	7	--
APR								
04...	0800	1380	600	--	--	10.0	5	--
11...	0950	1350	602	--	--	11.0	8	--
14...	0940	2060	600	8.5	17.5	10.0	10	9.6
19...	1425	2020	608	--	--	12.0	8	--
26...	1245	2040	606	--	--	13.0	7	--
MAY								
02...	0903	2120	619	--	--	13.0	10	--
11...	1030	2030	621	--	--	14.0	7	--
12...	1400	1990	640	8.2	25.5	14.0	4	--

## RIO GRANDE BASIN

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)
MAY								
18...	1050	2020	620	--	--	17.0	5	--
27...	1030	2150	620	--	--	16.0	4	--
31...	1330	2170	621	--	--	19.0	85	--
JUN								
07...	1020	2150	627	--	32.0	17.5	4	6.3
08...	1630	2040	641	8.5	--	14.0	5	--
14...	1030	2130	630	--	--	19.0	7	--
22...	1200	1550	620	--	--	22.0	4	--
29...	1055	1530	625	--	--	20.0	4	--
JUL								
07...	0900	1420	628	--	--	20.0	3	--
08...	1212	1950	660	7.2	28.0	18.0	5	4.2
13...	1020	1770	613	--	--	20.0	3	--
20...	1100	1670	620	--	--	22.0	2	--
25...	1020	1200	602	--	--	22.0	2	--
AUG								
04...	1130	1210	617	--	--	23.5	1	--
10...	1115	1240	613	--	--	23.5	1	--
17...	1410	1250	695	7.6	37.5	21.5	10	3.6
18...	1025	1220	606	--	--	22.0	3	--
25...	1015	1210	611	--	--	23.0	1	--
29...	1005	1220	601	--	--	23.0	1	--
SEP								
06...	1120	1140	630	--	--	22.0	3	--
12...	0945	1160	641	--	--	22.0	5	--
15...	1045	27	540	7.9	25.5	17.0	600	5.4
17...	1250	14	680	--	--	24.0	40	--
25...	1140	12	616	--	--	22.5	20	--

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)
OCT							
06...	.08	--	.03	.60	.71	.11	--
13...	.04	--	.00	.67	.71	.09	--
21...	.20	.18	.06	.84	1.1	.18	.05
22...	.16	--	.13	1.2	1.5	.11	--
27...	.11	--	.02	1.5	1.6	.16	--
NOV							
05...	.19	--	.06	1.2	1.5	.07	--
10...	.09	--	.09	.58	.76	.11	--
19...	.08	--	.01	.51	.60	.06	--
24...	.11	--	.02	.51	.64	.06	--
24...	.13	.13	.00	.30	.43	.09	.04
DEC							
01...	.11	--	.05	.15	.31	.01	--
08...	.19	--	.04	.26	.49	.07	--
15...	.26	--	.02	.29	.57	.10	--
17...	.23	.22	.00	.41	.64	.08	.08
22...	.28	--	.01	.45	.74	.11	--
29...	.10	--	.00	.35	.45	.06	--
JAN							
05...	.30	--	.03	.39	.72	.10	--
13...	.10	--	.02	.69	.81	.04	--
19...	.02	--	.04	.52	.58	.06	--
21...	.11	.11	.02	.47	.60	.08	.05
26...	.01	--	.04	.43	.48	.05	--
FEB							
01...	.04	--	.02	.59	.65	.00	--
08...	.02	--	.00	.30	.32	.05	--
15...	.01	--	.03	.61	.65	.35	--
18...	.06	.05	.04	.35	.45	.07	.04
22...	.07	--	.11	.13	.31	.06	--
29...	.07	--	.01	.29	.37	.06	--
MAR							
07...	.01	--	.00	.49	.50	.05	--
14...	.01	--	.00	.95	.96	.05	--
17...	.01	.02	.00	.53	.54	.07	.03
21...	.00	--	.03	.45	.48	.07	--
26...	.00	--	.03	.66	.69	.08	--
APR							
04...	.00	--	.03	.55	.58	.04	--
11...	.12	--	.03	.40	.55	.07	--
14...	.01	.01	.04	.44	.49	.05	.00
19...	.00	--	.00	.31	.31	.04	--
26...	.00	--	.02	.14	.16	.03	--
MAY							
02...	.02	--	.01	.28	.31	.03	--
11...	.04	--	.02	.31	.37	.07	--
12...	.03	.03	.00	.29	.32	.05	.00



08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRITE PLUS NITRATE (N) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (00631)	TOTAL AMMONIA NITRO- GEN (N) (00610)	TOTAL ORGANIC NITRO- GEN (N) (00605)	TOTAL NITRO- GEN (N) (00600)	TOTAL PHOS- PHORUS (P) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (00671)
MAY							
18...	.01	--	.01	.27	.29	.03	--
27...	.01	--	.03	.26	.30	.06	--
31...	.38	--	.04	.85	1.3	.43	--
JUN							
07...	.01	--	.00	.30	.31	.05	--
08...	.05	--	.01	.38	.44	.08	--
14...	.06	--	.00	.31	.37	.08	--
22...	.08	--	.00	.31	.39	.07	--
29...	.08	--	.01	.39	.48	.07	--
JUL							
07...	.08	--	.02	.23	.33	.10	--
08...	.09	.09	.05	.24	.38	.11	.11
13...	.08	--	.07	.34	.49	.09	--
20...	.03	--	.10	.30	.43	.11	--
25...	.04	--	.14	.23	.41	.13	--
AUG							
04...	.09	--	.10	.39	.58	.14	--
10...	.08	--	.12	.10	.30	.12	--
17...	.06	.04	.16	.32	.54	.12	.10
18...	.04	--	.11	.37	.52	.13	--
25...	.02	--	.10	.06	.18	.08	--
29...	.08	--	.02	.28	.38	.06	--
SEP							
06...	.10	--	.00	.29	.39	.04	--
12...	.12	--	.00	.26	.38	.02	--
15...	.44	.36	.26	2.5	3.2	.68	.05
17...	.12	--	.10	.64	.86	.12	--
25...	.13	--	.03	.45	.61	.10	--

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN *									
08...	1630	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## 08362000 CABALLO RESERVOIR NEAR ARREY, NM

LOCATION.--Lat 32°53'47", long 107°17'30", in SE¼SW¼ sec.19, T.16 S., R.4 W., Sierra County, Hydrologic Unit 13030101, in control tower of Caballo Dam on Rio Grande, 0.5 mi (0.8 km) downstream from mouth of Apache Canyon, 0.9 mi (1.4 km) upstream from Bojarquez Bridge, 2 mi (3 km) upstream from Percha diversion dam, 3.5 mi (5.6 km) northeast of Arrey, 5.2 mi (8.4 km) south of Caballo, and at mile 1,356.6 (2,182.8 km).

DRAINAGE AREA.--30,700 mi<sup>2</sup> (79,510 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--February 1938 to September 1965 (monthend contents only), October 1965 to current year.

REVISED RECORDS.--WSP 978: 1942. WSP 1632: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 43.3 ft (13.20 m) above mean sea level.

REMARKS.--Reservoir is formed by earthfill dam, completed Sept. 19, 1938. Storage began Feb. 8, 1938. Capacity by 1958 survey, 344,000 acre-ft (424 hm<sup>3</sup>) between gage heights 4,104 ft (1,250.9 m) bottom of tunnel entrance of gates and 4,182 ft (1,274.7 m) gage height above which spillway gates operate automatically. No dead storage. Storage held for flood control, 100,000 acre-ft (123 hm<sup>3</sup>). Figures given herein represent usable contents and are computed from mean daily gage heights. Water released from Elephant Butte Reservoir for power development is stored in Caballo Reservoir and released for irrigation on Rio Grande project for Bureau of Reclamation.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 347,000 acre-ft (428 hm<sup>3</sup>) Mar. 4, 1942, gage height, 4,182.06 ft (1,274.692 m); minimum daily contents, 118 acre-ft (0.145 hm<sup>3</sup>), Oct. 14, 1938, gage height, 4,108.1 ft (1,252.15 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 91,030 acre-ft (112 hm<sup>3</sup>) July 27, gage height, 4,152.00 ft (1,265.530 m); minimum daily contents, 28,090 acre-ft (34.6 hm<sup>3</sup>) Mar. 8, gage height, 4,135.80 ft (1,260.592 m).

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

4,122	3.41	4,130	14.70	4,138	34.19	4,146	62.50	4,154	102.2
4,124	5.47	4,132	18.88	4,140	40.31	4,148	71.28	4,156	114.5
4,126	8.00	4,134	23.52	4,142	47.03	4,150	80.76	4,158	127.7
4,128	11.06	4,136	28.61	4,144	54.42	4,152	91.03	4,160	141.7

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68550	70840	74030	80180	60520	38810	47750	56830	72120	80180	89610	42180
2	68600	70880	74120	80380	59820	37530	48110	57140	72170	79800	89350	41560
3	68600	70970	74170	80380	59320	36220	48150	57620	72170	79460	88720	41160
4	68640	71060	74170	80380	58740	34850	48370	58370	72210	78980	87150	40940
5	68780	71100	74260	80380	58130	33420	48730	59610	72630	78780	85230	40900
6	68960	71240	74440	80620	57620	31620	49340	60810	73520	78350	83370	41430
7	69000	71330	74860	80570	57100	29670	50060	62210	74260	77480	80960	42410
8	69000	71380	75380	80520	56550	28090	50830	64100	75650	76900	78930	43590
9	69090	71380	75470	80570	55760	29260	51390	65860	77430	76410	76900	45210
10	69140	71420	76510	80960	55050	31140	51660	67750	79170	75890	74910	47390
11	69180	71420	77770	81010	54490	32820	51770	69540	81010	75650	72820	49840
12	69180	71470	78010	81060	53890	34520	51850	70430	82820	75560	70340	48550
13	69180	71520	78110	81160	53360	35900	51810	71060	84330	75610	68060	49840
14	69360	71700	78150	81160	52680	37000	51700	71420	85790	75700	66120	53850
15	69580	71750	78350	81210	51960	38310	51510	71560	87040	75840	64220	61260
16	69630	71800	78680	81110	51170	39690	51810	71700	87620	76420	62090	62210
17	69760	71800	78780	80760	50380	40610	52980	71750	88300	77670	60020	60930
18	69940	71840	78830	79800	49630	41300	54490	71750	88830	79020	58250	59480
19	70160	71930	78830	78980	48830	41690	56160	71800	88560	80380	56710	57930
20	70340	72030	78880	77660	48080	41950	57500	71800	88090	81920	55210	56160
21	70480	72120	78880	76710	47390	42050	57820	71890	87940	83780	54570	54080
22	70480	72170	78980	74820	46620	42310	58090	71980	87670	85130	54230	52150
23	70480	72210	79360	73000	45790	42540	58330	72070	86620	85790	54000	50170
24	70570	72210	79750	71520	44970	42610	58410	72400	85890	86780	53550	47860
25	70610	72450	79800	70210	44040	42800	58370	72680	85030	88410	51920	45720
26	70660	72680	79800	68690	43070	43000	58290	72450	83930	89930	50200	43530
27	70660	72910	79800	67260	42120	43400	58010	71980	83220	91030	48620	41620
28	70700	73140	79890	65860	41070	44110	57300	71610	82370	90920	46960	40710
29	70750	73420	79990	64310	40030	45040	56870	71610	81770	90560	45520	40640
30	70750	73700	80040	62720	---	46000	56790	71700	80810	89930	44210	40480
31	70790	---	80130	61920	---	46930	---	71840	---	89770	43030	---
MAX	70790	73700	80130	81210	60520	46930	58410	72680	88830	91030	89610	62210
MIN	68550	70840	74030	61920	40030	28090	47750	56830	72120	75560	43030	40480
(+)	4147.89	4148.52	4149.87	4145.86	4139.91	4141.97	4144.60	4148.12	4150.01	4151.76	4140.83	4140.15
(-)	+2240	+2910	+6430	-18210	-21890	+6900	+9860	+15050	+8970	+8960	-46740	-2550
CAL YR 1975	MAX	96120	MIN	35600	(+)	+41040	(+)	ELEVATION, IN FEET, AT END OF MONTH.				
WTR YR 1976	MAX	91030	MIN	28090	(-)	-28070	(-)	CHANGE IN CONTENTS, IN ACRE-FEET.				

## 08362500 RIO GRANDE BELOW CABALLO DAM, NM

LOCATION.--Lat 32°53'05", Long 107°17'31", in NE¼SW¼ sec.30, T.16 S., R.4 W., Sierra County, Hydrologic Unit 13030102, on left bank 2,000 ft (600 m) upstream from Interstate Highway 25, 4,200 ft (1,300 m) downstream from Caballo Dam, 1.2 mi (1.9 km) downstream from Apache Canyon, 1.3 mi (2.1 km) upstream from Percha diversion dam, 3 mi (5 km) northeast of Arrey, 5 mi (8 km) south of Caballo, and at mile 1,355.6 (2,181.2 km).

DRAINAGE AREA.--30,700 mi<sup>2</sup> (79,510 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--January 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,140.9 ft (1,262.15 m) above mean sea level. Prior to Oct. 7, 1938, at datum 7.0 ft (2.13 m) higher, Oct. 7-12, 1938, at datum 6.0 ft (1.83 m) higher, and Oct. 13, 1938, to Dec. 31, 1945, at datum 5.0 ft (1.52 m) higher than present datum.

REMARKS.--Records good. Flow regulated by Caballo Reservoir (station 08362000) capacity, 344,000 acre-ft (424 hm<sup>3</sup>), 1958 survey and Elephant Butte Reservoir (station 08360500) capacity, 2,109,000 acre-ft (2.60 km<sup>3</sup>), 1974 survey. Diversions for irrigation of about 800,000 acres (3,200 km<sup>2</sup>) above station. Figures of daily discharge do not include Bonita ditch which diverts from Caballo Dam and bypasses station for irrigation below. See monthly table below for record of ditch.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--38 years, 864 ft<sup>3</sup>/s (24.47 m<sup>3</sup>/s), 626,000 acre-ft/yr (772 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,650 ft<sup>3</sup>/s (217 m<sup>3</sup>/s) May 20, 1942; minimum daily, 0.1 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Oct. 31 to Nov. 14, 1954, Nov. 7 to Dec. 31, 1955, Feb. 15-29, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,350 ft<sup>3</sup>/s (66.6 m<sup>3</sup>/s) Aug. 12; minimum daily, 3.0 ft<sup>3</sup>/s (0.085 m<sup>3</sup>/s) many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	3.1	3.0	3.1	488	643	1590	1900	1930	1840	1160	1620
2	3.5	3.0	3.0	3.1	329	643	1630	1880	1970	1910	1300	1520
3	3.5	3.0	3.0	3.1	250	693	1610	1840	1950	1940	1690	1320
4	3.5	3.0	3.0	3.2	341	749	1520	1590	1860	1890	2000	1370
5	3.5	3.0	3.0	3.2	400	843	1450	1480	1720	1850	2000	1220
6	3.4	3.0	3.0	3.2	345	950	1400	1460	1630	2000	2170	977
7	3.4	3.0	3.0	3.2	300	918	1340	1150	1500	2060	2280	824
8	3.4	3.0	3.0	3.2	344	886	1340	1150	1230	1940	2080	710
9	3.4	3.0	3.0	3.2	401	1070	1450	1100	1100	1940	2170	251
10	3.4	3.0	3.0	3.2	402	1260	1560	1110	1100	1830	2140	9.3
11	3.4	3.0	3.0	3.2	401	1310	1620	1370	1170	1740	2250	5.5
12	3.4	3.0	3.0	3.2	403	1360	1650	1620	1240	1620	2350	218
13	3.3	3.0	3.0	3.2	411	1520	1650	1620	1240	1600	2180	522
14	3.3	3.0	3.0	3.2	443	1590	1760	1920	1230	1500	2100	560
15	3.3	3.0	3.0	3.2	452	1410	1730	2040	1200	1410	2200	755
16	3.3	3.0	3.0	150	448	1400	1360	1860	1230	1140	2240	726
17	3.3	3.0	3.0	425	450	1620	1090	1860	1320	865	2090	808
18	3.3	3.0	3.0	429	477	1740	1070	2040	1470	854	2000	831
19	3.3	3.0	3.0	525	477	1910	987	2020	1800	860	1950	941
20	3.2	3.0	3.0	619	445	2000	1340	1890	1810	857	1600	1030
21	3.2	3.0	3.0	827	429	1940	1590	1960	1620	595	1380	1020
22	3.2	3.0	3.0	979	429	1900	1600	1990	1740	635	1280	1010
23	3.2	3.0	3.0	839	421	1890	1610	1890	2220	830	1330	1080
24	3.2	3.0	3.0	737	469	1940	1690	1840	1930	663	1620	1110
25	3.2	3.0	3.0	706	450	2000	1750	2010	2020	266	1990	1090
26	3.2	3.0	3.0	706	528	1880	1760	2260	2110	589	1930	1090
27	3.1	3.0	3.0	712	565	1690	1920	2220	2040	923	1940	710
28	3.1	3.0	3.0	767	616	1700	2070	2100	2000	1260	1920	557
29	3.1	3.0	3.0	820	642	1690	2180	1960	1970	1200	1830	15
30	3.1	3.0	3.0	731	---	1660	2120	1870	1900	1120	1710	9.0
31	3.1	---	3.0	584	---	1590	---	1870	---	1030	1690	---
TOTAL	102.8	90.1	93.0	10603.7	12556	44385	47437	54870	49250	40757	58570	23908.8
MEAN	3.32	3.00	3.00	342	433	1432	1581	1770	1642	1315	1889	797
MAX	4.0	3.1	3.0	979	642	2000	2180	2260	2220	2060	2350	1620
MIN	3.1	3.0	3.0	3.1	250	643	987	1100	1100	266	1160	5.5
AC-FT	204	179	184	21030	24900	88040	94090	108800	97690	80840	116200	47420
(†)	0	0	0	0	57	87	84	88	126	160	127	136
CAL YR 1975 TOTAL	292754.8			MEAN 802	MAX 2220	MIN 1.2	AC-FT 580700					
WTR YR 1976 TOTAL	342623.4			MEAN 936	MAX 2350	MIN 3.0	AC-FT 679600					

(†) DIVERSION, IN ACRE-FEET, BY BONITA DITCH. BONITA DITCH DIVERTS DIRECTLY FROM CABALLO DAM AND THIS DIVERSION IS NOT INCLUDED IN THE RIVER RECORDS.

## RIO GRANDE BASIN

08363500 RIO GRANDE AT LEASBURG DAM, NEAR LAS CRUCES, NM

LOCATION.--Lat 32°28'36", long 106°55'03", in SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T.21 S., R.01 W., Dona Ana County, Hydrologic Unit 13030102, 1.2 mi (1.9 km) upstream from USBR gaging station which is 2.0 mi (3.2 km) downstream from Leasburg Dam, and 1.8 mi (2.9 km) southeast of Radium Springs.

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

COOPERATION.--Data furnished by the New Mexico Environmental Improvement Agency.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED OXYGEN (MG/L) (00300)
OCT					
06...	1410	1720	7.6	23.5	7.6
APR					
20...	1400	712	8.7	17.5	8.6
MAY					
04...	1430	696	8.7	17.0	8.6
JUN					
10...	1000	794	8.2	22.5	7.6
JUL					
14...	--	720	8.3	24.5	7.0
AUG					
19...	--	714	8.2	24.0	7.1
SEP					
07...	--	806	8.3	23.0	7.5

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)
OCT		
06...	1410	<10
APR		
20...	1400	30
MAY		
04...	1430	170
JUN		
10...	1000	55
JUL		
14...	--	26
AUG		
19...	--	110

08363840 RIO GRANDE AT VINTON BRIDGE NEAR ANTHONY, TX

LOCATION.--Lat 31°57'32", long 106°36'17", El Paso County, Hydrologic Unit 13030102, at bridge on Farm Road 273, 480 ft (146 m) west of U.S. Highway 80, and 2.8 miles (4.5 km) south of Anthony.

DRAINAGE AREA.--28,680 mi<sup>2</sup> (74,280 km<sup>2</sup>), approximately.

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

REMARKS.--Water-discharge measurements were made at the time water-quality samples were collected.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	AIR TEMPERATURE (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARDNESS (CA+MG) (MG/L) (00900)
OCT 22...	1221	109	1920	8.3	17.0	15.0	2	10.1	15	470
MAR 18...	1113	410	1010	8.4	23.5	13.5	86	10.5	42	260
APR 13...	1530	778	895	8.1	29.0	17.0	62	8.8	41	230
MAY 12...	0700	537	905	8.1	--	16.0	50	--	18	260
JUN 09...	0745	596	900	8.5	--	21.0	50	--	15	250
JUL 08...	1700	896	855	--	--	27.5	50	--	18	240
AUG 17...	1700	1000	870	8.4	25.0	25.0	100	7.2	42	260
SEP 14...	1315	199	2000	8.1	30.0	25.0	35	8.3	37	440

DATE	NON-CARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DISSOLVED SULFATE (SO4) (MG/L) (00945)
OCT 22...	210	140	28	260	5.2	15	314	0	450
MAR 18...	81	79	15	110	3.0	7.8	217	0	180
APR 13...	68	70	13	82	2.4	7.0	195	0	170
MAY 12...	95	78	15	89	2.4	6.6	197	0	200
JUN 09...	88	77	14	90	2.5	6.5	198	0	180
JUL 08...	73	73	14	88	2.5	7.0	204	--	180
AUG 17...	93	80	14	81	2.2	6.6	201	0	170
SEP 14...	180	130	28	250	5.2	16	317	0	420

DATE	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SiO2) (MG/L) (00955)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)
OCT 22...	220	.6	21	1310	1290	.32	.32	.09	.71
MAR 18...	100	.6	12	638	612	.07	.07	.00	2.0
APR 13...	57	.6	5.3	516	502	.12	.12	.02	.98
MAY 12...	69	.6	6.7	596	563	.16	.16	.01	.45
JUN 09...	63	.6	6.3	568	536	.11	.12	.01	.43
JUL 08...	63	.6	7.4	544	535	.14	.14	.03	1.5
AUG 17...	60	.6	8.0	516	521	.27	.27	.00	.63
SEP 14...	210	.7	22	1270	1240	.67	.47	.01	.92

## RIO GRANDE BASIN

08363840 RIO GRANDE AT VINTON BRIDGE NEAR ANTHONY, TX -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRO- GEN (N) (00600)	TOTAL PHOS- PHORUS (P) (00665)	DIS- SOLVED ORTHOG. PHOS- PHORUS (P) (00671)	DIS- SOLVED BORON (B) (01020)	DIS- SOLVED IRON (FE) (01046)	DIS- SOLVED MANG- NESE (MN) (01056)	TOTAL ORGANIC CARBON (C) (00680)	DIS- SOL- VED ORGANIC CARBON (C) (00681)	SUS- PENDED ORGANIC CARBON (C) (00689)
OCT 22...	1.1	.13	.07	300	40	30	--	4.5	.6
MAR 18...	2.1	.44	.06	130	20	10	11	4.0	3.4
APR 13...	1.1	.33	.04	130	0	--	--	4.0	1.3
MAY 12...	.62	.17	.06	30	0	10	5.6	5.6	--
JUN 09...	.55	.17	.05	130	60	--	--	6.9	--
JUL 08...	1.6	.19	.08	60	40	--	--	3.6	1.4
AUG 17...	.90	.55	.06	130	60	0	8.3	4.0	--
SEP 14...	1.6	.25	.07	280	20	--	--	3.2	2.6

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (01002)	DIS- SOLVED ARSENIC (AS) (01000)	DIS- SOLVED BORON (B) (01020)	TOTAL CAD- MIUM (CD) (01027)	DIS- SOLVED CAD- MIUM (CD) (01025)	TOTAL CHRO- MIUM (CR) (01034)	DIS- SOLVED CHRO- MIUM (CR) (01030)	TOTAL COBALT (CO) (01037)	DIS- SOLVED COBALT (CO) (01035)	TOTAL COPPER (CU) (01042)	DIS- SOLVED COPPER (CU) (01040)
OCT 22...	1221	3	3	300	10	0	42	0	<50	0	1	1
MAR 18...	1113	7	3	130	<10	1	10	0	<50	0	30	2
MAY 12...	0700	3	2	30	0	0	10	0	0	0	5	1
AUG 17...	1700	5	2	130	<10	1	20	0	<50	1	20	1

DATE	TOTAL IRON (FE) (01045)	DIS- SOLVED IRON (FE) (01046)	TOTAL LEAD (PB) (01051)	DIS- SOLVED LEAD (PB) (01049)	TOTAL MANG- NESE (MN) (01055)	DIS- SOLVED MANG- NESE (MN) (01056)	TOTAL MERCURY (HG) (71900)	DIS- SOLVED MERCURY (HG) (71890)	TOTAL SELE- NIUM (SE) (01147)	DIS- SOLVED SELE- NIUM (SE) (01145)	TOTAL ZINC (ZN) (01092)	DIS- SOLVED ZINC (ZN) (01090)
OCT 22...	610	40	100	0	90	30	.0	.0	0	0	10	10
MAR 18...	7300	20	100	1	600	10	.0	.0	0	0	40	0
MAY 12...	2500	0	3	0	180	10	.3	.2	0	0	20	0
AUG 17...	9400	60	<100	0	570	0	.0	.0	0	0	40	0

08363840 RIO GRANDE AT VINTON BRIDGE NEAR ANTHONY, TX -- Continued

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN	CHLOR-	DDD	DDE	DDT	DI-	HEPTA-	LINDANE
		IN BOTTOM MA- TERIAL (UG/KG) (39333)	DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	IN BOTTOM MA- TERIAL (UG/KG) (39363)	IN BOTTOM MA- TERIAL (UG/KG) (39368)	IN BOTTOM MA- TERIAL (UG/KG) (39373)	FLORIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN 09...	0745	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT 22...	1221	530	1500
MAR 18...	1113	100	1200
APR 13...	1530	210	420
AUG 17...	1700	233	413
SEP 14...	1315	2500	3000

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDIM- ENT (MG/L) (80154)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 22...	1221	109	15.0	85	25	32
MAR 18...	1113	410	13.5	529	586	61
APR 13...	1530	778	17.0	2450	5150	13
MAY 12...	0700	537	16.0	430	623	30
JUN 09...	0745	596	21.0	7520	12100	2
JUL 08...	1700	896	27.5	529	1280	37
AUG 17...	1700	1000	25.0	11600	31300	4
SEP 14...	1315	199	25.0	400	215	29

## 08364000 RIO GRANDE AT EL PASO, TX

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 (2.7 km) upstream from American Dam, 5.6 mi (9.0 km) upstream from Santa Fe Street-Juarez Avenue Bridge between El Paso and Cd. Juarez, Chihuahua, and at mile 1,249.9 (2,011.1 km).

DRAINAGE AREA.--32,207 mi<sup>2</sup> (83,415 km<sup>2</sup>), approximately, including 2,940 mi<sup>2</sup> (7,610 km<sup>2</sup>) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--January 1889 to current year. October 1960 to September 1965 in bulletins of International Boundary and Water Commission. Monthly discharges only for some periods published in WSP 1312 or 1732.

GAGE.--Water-stage recorder. Datum of gage is 3,722.30 ft (1,134.557 m) above mean sea level (U.S.C. & G.S. datum). See WSP 1312 or 1732 for history of changes prior to Aug. 4, 1938.

REMARKS.--Daily discharges were computed by adding discharges of American Canal at El Paso and Rio Grande below American Dam at El Paso. Reservoirs, diversions, and drainage returns modify the river flow at this station.

COOPERATION.--Records furnished by International Boundary and Water Commission, United States and Mexico.

AVERAGE DISCHARGE.--39 years (water years 1938-76), 516 ft<sup>3</sup>/s (14.61 m<sup>3</sup>/s), 373,800 acre-ft/yr (461 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft<sup>3</sup>/s (680 m<sup>3</sup>/s) June 12, 1905; no flow at times. Maximum discharge since construction of Elephant Butte Dam in 1915, 13,500 ft<sup>3</sup>/s (382 m<sup>3</sup>/s) Sept. 3, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,740 ft<sup>3</sup>/s (49.3 m<sup>3</sup>/s) Aug. 11, maximum gage height, 5.48 ft (1.670 m) May 4; minimum daily discharge, 122 ft<sup>3</sup>/s (3.72 m<sup>3</sup>/s) Jan. 8.

## DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	462	158	141	140	571	286	823	1,070	1,040	849	732	872
2	504	170	145	140	510	288	715	1,150	1,040	807	754	737
3	378	160	144	140	450	284	764	1,120	1,020	722	764	628
4	284	157	149	140	316	259	814	1,190	1,010	863	761	593
5	274	159	149	140	251	208	896	1,190	1,020	1,050	788	638
6	287	152	152	138	240	265	837	1,020	1,060	1,020	874	832
7	280	151	143	136	212	355	798	850	1,020	879	832	1,050
8	246	145	144	122	240	420	739	907	1,010	868	987	923
9	236	147	145	132	218	559	649	832	1,030	877	1,050	770
10	215	146	144	133	191	442	647	847	823	793	969	668
11	208	151	144	133	166	400	650	797	653	879	1,240	558
12	209	139	143	131	228	491	852	720	562	990	916	373
13	202	134	141	132	190	610	863	720	511	1,060	995	349
14	190	136	143	132	184	725	875	833	773	964	1,120	333
15	184	156	137	130	188	943	857	810	804	957	1,030	307
16	177	156	138	129	226	921	1,060	932	706	987	1,040	384
17	168	157	137	125	266	705	1,120	1,090	608	968	1,190	340
18	163	149	138	132	268	543	1,010	974	547	836	1,180	325
19	155	156	137	137	197	662	885	1,330	557	689	999	322
20	150	155	137	358	190	774	756	1,250	624	729	960	364
21	145	160	146	488	158	977	635	914	940	810	960	352
22	150	152	160	535	229	1,100	637	900	914	776	905	428
23	161	152	170	541	240	983	833	977	806	703	916	420
24	191	152	169	661	246	868	835	1,110	894	460	770	433
25	177	152	169	471	235	745	839	1,030	872	555	809	464
26	172	154	169	373	190	728	961	977	799	601	773	487
27	171	154	169	349	191	866	1,020	928	958	602	865	477
28	172	147	154	361	169	983	984	1,050	999	434	824	521
29	158	150	140	336	205	929	959	901	987	393	868	553
30	156	134	140	361	-----	979	902	902	932	634	999	405
31	154	-----	140	486	-----	928	-----	904	-----	749	1,070	-----
TOTAL	6779	4561	4577	7862	7145	20226	25215	30225	25519	24504	28940	15906
MEAN	219	152	148	254	246	652	840	975	851	790	934	530
MAX	504	170	170	661	571	1100	1120	1330	1060	1060	1240	1050
MIN	145	134	137	122	158	208	635	720	511	393	732	307
AC-FT	13446	9047	9078	15594	14172	40118	50013	59950	50616	48603	57402	31549
CAL YR 1975	TOTAL	181983.5	MEAN	499	MAX	2770	MIN	54.5	AC-FT	360959		
WTR YR 1876	TOTAL	201459	MEAN	550	MAX	1330	MIN	122	AC-FT	399588		



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LOCATION.--Lat 35°46'38", long 105°39'27", in E1/4 sec.22, T.18 N., R.12 E., San Miguel County, Hydrologic Unit 13060001, in Santa Fe National Forest, on left bank 450 ft (140 m) upstream from bridge on State Highway 63, 600 ft (180 m) upstream from mouth, and 2.6 mi (4.2 km) north of Terrero.

WATER-DISCHARGE RECORDS

REMARKS.--Water-discharge records good except those for winter period, which are poor. About 90 percent of the drainage is in the Pecos Wilderness Area and not subject to development, watershed management, or the building of highways; there is limited cattle grazing by permit.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 726 ft<sup>3</sup>/s (20.6 m<sup>3</sup>/s) May 21, 1973, gage height, 3.68 ft (1.122 m); minimum determined, 0.90 ft<sup>3</sup>/s (0.025 m<sup>3</sup>/s) Jan. 12-14, 1964, but may have been less during periods of ice effect.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 146 ft<sup>3</sup>/s (4.13 m<sup>3</sup>/s) at 0030 hours May 22, gage height, 2.34 ft (0.713 m), no other peak above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s); minimum, 2.3 ft<sup>3</sup>/s (0.065 m<sup>3</sup>/s) Mar. 16, result of freezeup, but may have been less during periods of ice effect.

[illegible]

08377900 RIO MORA NEAR TERRERO, NM -- Continued

## WATER-QUALITY RECORDS

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

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPF- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED OXYGEN (MG/L) (00300)	HARD- NESS (CA+MG) (MG/L) (00900)
NOV 05...	1330	6.4	115	6.7	16.0	3.0	9.3	55
JAN 07...	1430	4.8	100	7.4	-6.0	.0	10.8	56
MAR 12...	1045	6.4	125	8.7	.0	.0	9.2	61
MAY 07...	1100	45	90	8.3	6.5	4.5	10.2	39
JUL 14...	1030	23	90	7.4	10.5	10.5	8.6	39
SEP 01...	0900	25	95	7.7	14.5	10.0	9.1	42

DATE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
NOV 05...	11	18	2.5	2.8	.2	.5	54	0	10
JAN 07...	6	19	2.0	1.8	.1	.6	61	0	9.0
MAR 12...	7	20	2.7	1.7	.1	.5	66	0	12
MAY 07...	3	13	1.6	1.2	.1	.5	44	0	6.1
JUL 14...	2	13	1.6	1.0	.1	.5	45	0	6.7
SEP 01...	5	14	1.6	.7	.0	.4	44	0	6.9

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- UENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	CYANIDE (CN) (MG/L) (00720)
NOV 05...	3.2	.2	5.4	78	69	.00	--	--
JAN 07...	1.1	.6	5.8	69	70	.10	.00	--
MAR 12...	.4	.3	6.0	74	76	.09	.00	--
MAY 07...	.9	.2	5.2	57	50	.00	.02	--
JUL 14...	.6	.2	5.5	54	51	.03	.02	--
SEP 01...	.6	.1	5.2	47	51	.01	.02	.00

08377900 RIO MORA NEAR TERRERO, NM -- Continued

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL COPPER (CU) (UG/L) (01042)	TOTAL IRON (FE) (UG/L) (01045)
------	------	---	--	--	---	--	--

SEP	01...	0900	0	0	10	0	<10	30
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DATE	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL SILVER (AG) (UG/L) (01077)	TOTAL ZINC (ZN) (UG/L) (01092)
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SEP	01...	<100	0	.0	2	<10	0
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## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDED GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L) (80050)	SUS- PENDED GROSS BETA AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED URANIUM (U) (UG/L) (80020)
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SEP	01...	0900	<.8	<.4	1.1	<.4	.9	<.4	.02	.07
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## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	PCB IN BOTTOM MA- TERIAL (UG/KG) (39516)	TOTAL ALDRIN (UG/L) (39330)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	TOTAL CHLOR- DANE (UG/L) (39350)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	TOTAL DDD (UG/L) (39360)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	TOTAL DDE (UG/L) (39365)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	TOTAL DDT (UG/L) (39370)
------	------	--	--------------------------------------	---	--	---	-----------------------------------	--	-----------------------------------	--	-----------------------------------

SEP	01...	0900	.0	0	.00	.0	.0	.00	.1	.00	.8	.00
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DATE	TIME	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	TOTAL DI- ELDRIN (UG/L) (39570)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/L) (39380)	TOTAL DDE (UG/L) (39383)	DDE IN BOTTOM MA- TERIAL (UG/L) (39390)	TOTAL DDT (UG/L) (39393)	DDT IN BOTTOM MA- TERIAL (UG/L) (39398)	TOTAL HEPTA- CHLOR (UG/L) (39410)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/L) (39413)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L) (39420)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/L) (39423)	TOTAL LINDANE (UG/L) (39340)
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SEP	01...	.6	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0	.00
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DATE	TIME	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)	TOTAL MALA- THION (UG/L) (39530)	TOTAL METHYL PARA- THION (UG/L) (39600)	TOTAL METHYL TRI- THION (UG/L) (39790)	TOTAL PARA- THION (UG/L) (39540)	TOTAL TOX- APHENE (UG/L) (39400)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG) (39403)	TOTAL TRI- THION (UG/L) (39786)	TOTAL 2,4-D (UG/L) (39730)	TOTAL 2,4,5-T (UG/L) (39740)	TOTAL SILVEX (UG/L) (39760)
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SEP	01...	.0	.00	.00	.00	.00	0	0	.00	.00	.00	.00
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## RIO GRANDE BASIN

08377900 RIO MORA NEAR TERRERO, NM -- Continued

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	IMME- DIATE COLI- FORM (COL. PER 100 ML) (31501)	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
NOV 05...	1330	3	1	8
JAN 07...	1430	4	0	0
MAR 12...	1045	0	0	3
MAY 07...	1100	1	0	8
SEP 01...	0900	4	0	0

## INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L) (80154)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY) (80155)
OCT 09...	0905	15	4.0	6	.24
NOV 05...	1330	6.4	3.0	2	.03
07...	1014	6.9	.5	3	.06
DEC 08...	1615	6.1	.5	2	.03
JAN 07...	1430	4.8	.0	0	.00
FEB 02...	1425	5.1	1.5	0	.00
25...	1135	5.9	.5	1	.02
MAR 12...	1045	6.4	.0	1	.02
26...	1050	13	.0	4	.14
APR 21...	1220	12	8.0	5	.16
MAY 07...	1100	42	4.5	3	.34
JUN 17...	1130	41	12.0	5	.55
JUL 14...	1030	23	10.5	11	.68
16...	1040	13	12.0	2	.07
AUG 12...	1015	17	--	2	.09
SEP 01...	0900	25	10.0	4	.27
10...	1015	20	10.0	4	.22

LOCATION.--Lat 35°42'30", long 105°40'55", in NE¼ sec.17, T.17 N., R.12 E., San Miguel County, Hydrologic Unit 13060001, in Santa Fe National Forest, on left bank at downstream side of bridge on private road, 300 ft (91 m) upstream from Indian Creek, 2.4 mi (3.9 km) downstream from Holy Ghost Creek, 9.0 mi (14.5 km) north of Pecos, and at mile 896.6 (1,422.6 km).

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 Irwins Ranch" 1926-29, and as "at Irwins Ranch near Pecos" 1930-39.

GAGE.--Water-stage recorder. Datum of gage is 7,502.94 ft (2,286.896 m) above mean sea level.

AVERAGE DISCHARGE.--57 years, 96.8 ft<sup>3</sup>/s (2.741 m<sup>3</sup>/s), 70,130 acre-ft/yr (86.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 4,500 ft<sup>3</sup>/s (130 m<sup>3</sup>/s) Sept. 21 or 22, 1929, gage height, 6.2 ft (1.89 m), from floodmark, from rating curve extended above 1,600 ft<sup>3</sup>/s (45 m<sup>3</sup>/s); minimum, 2.0 ft<sup>3</sup>/s (0.057 m<sup>3</sup>/s) Mar. 19, 1971, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1904, was greatest since 1886, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 334 ft<sup>3</sup>/s (9.46 m<sup>3</sup>/s) at 0130 hours June 9, gage height, 3.09 ft (0.942 m), no other peak above base of 310 ft<sup>3</sup>/s (8.8 m<sup>3</sup>/s); minimum, 14 ft<sup>3</sup>/s (0.40 m<sup>3</sup>/s) Feb. 22, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	41	27	29	29	29	35	88	232	70	76	72
2	63	39	30	28	28	27	36	92	228	72	106	70
3	62	42	32	28	30	27	44	96	235	67	92	62
4	59	39	34	29	32	24	43	101	238	65	77	57
5	56	38	36	29	34	25	43	120	238	67	68	55
6	55	38	35	30	32	27	41	128	238	65	63	65
7	53	37	34	29	30	27	42	134	270	60	60	67
8	52	36	33	29	27	27	49	128	252	57	59	60
9	50	34	33	30	29	26	53	113	284	57	57	65
10	49	29	33	32	34	27	70	118	256	52	57	62
11	48	34	32	30	29	26	81	120	245	50	82	57
12	47	25	31	31	30	26	77	148	221	52	59	52
13	45	38	30	32	29	27	74	150	208	67	52	49
14	44	43	28	32	30	27	77	168	192	85	50	48
15	44	35	28	31	29	27	67	202	177	65	47	47
16	44	34	27	32	29	25	59	235	162	59	44	47
17	47	33	28	30	26	27	50	259	148	65	44	47
18	45	32	29	31	32	28	53	281	139	52	50	48
19	44	30	30	32	34	32	50	259	131	47	179	43
20	43	25	30	28	32	28	47	235	120	49	136	47
21	43	28	30	29	26	29	55	284	118	57	113	48
22	43	27	29	30	28	31	65	299	110	92	106	48
23	42	26	30	30	31	34	67	270	106	85	92	42
24	35	27	30	29	32	35	77	270	99	120	106	41
25	35	28	29	28	31	41	83	274	92	134	110	41
26	43	25	30	26	32	47	92	252	83	116	92	43
27	42	28	31	27	32	41	101	228	79	110	79	52
28	39	35	30	28	30	42	101	238	76	106	81	59
29	38	30	29	28	29	35	106	249	74	85	76	53
30	37	25	30	29	---	31	96	252	70	76	70	47
31	41	---	30	28	---	35	---	235	---	70	72	---
TOTAL	1453	981	948	914	876	940	1934	6026	5121	2274	2455	1594
MEAN	46.9	32.7	30.6	29.5	30.2	30.3	64.5	194	171	73.4	79.2	53.1
MAX	65	43	36	32	34	47	106	299	284	134	179	72
MIN	35	25	27	26	26	24	35	88	70	47	44	41
AC-FT	2880	1950	1880	1810	1740	1860	3840	11950	10160	4510	4870	3160
CAL YR 1975	TOTAL	37588	MEAN 103	MAX 460	MIN 17	AC-FT 74560						
WTR YR 1976	TOTAL	25516	MEAN 69.7	MAX 299	MIN 24	AC-FT 50610						



08379500 PECOS RIVER NEAR ANTON CHICO, NM --- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year..

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA+MG) (MG/L) (00900)
OCT										
20...	1300	41	310	8.0	28.0	18.5	3	--	4	150
NOV										
10...	1315	31	335	8.3	18.5	12.5	3	9.0	6	170
DEC										
10...	0950	30	330	8.3	15.0	5.0	10	10.7	2	160
JAN										
15...	1040	28	330	8.0	14.0	4.0	10	10.4	4	170
FEB										
11...	1010	33	330	8.2	8.5	6.5	6	10.6	11	160
MAR										
26...	0900	6.2	360	8.0	8.0	4.5	10	12.4	10	180
APR										
23...	1030	22	320	7.9	21.5	15.0	10	9.8	4	150
MAY										
14...	1100	87	240	7.9	8.0	18.5	35	12.4	16	110
JUN										
11...	1000	212	180	--	21.5	18.0	75	9.8	10	83
JUL										
16...	1000	77	205	8.5	27.0	20.0	370	8.6	140	88
AUG										
27...	1000	55	260	7.9	25.5	20.0	210	7.3	39	140

DATE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
OCT									
20...	15	51	6.4	4.8	.2	1.0	169	0	21
NOV									
10...	14	57	7.3	6.3	.2	1.1	193	0	21
DEC									
10...	5	52	6.2	5.5	.2	1.0	183	0	17
JAN									
15...	10	55	6.9	5.7	.2	1.0	190	0	25
FEB									
11...	8	52	6.9	6.7	.2	.9	183	0	26
MAR									
26...	13	59	7.9	6.5	.2	1.3	204	0	27
APR									
23...	3	49	7.3	5.3	.2	1.0	182	0	22
MAY									
14...	10	37	4.2	3.8	.2	.8	122	0	15
JUN									
11...	0	28	3.2	2.5	.1	.7	105	0	10
JUL									
16...	0	29	3.7	3.8	.2	2.0	127	0	12
AUG									
27...	14	46	5.4	4.4	.2	1.4	150	0	21

08379500 PECOS RIVER NEAR ANTON CHICO, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)
OCT 20...	2.2	.2	7.5	183	178	.02	.02	.01	.29
NOV 10...	2.4	.3	7.3	201	198	.02	.02	.00	.22
DEC 10...	2.2	.2	6.6	195	181	.04	.03	.00	.00
JAN 15...	2.2	.3	6.9	204	197	.17	.17	.01	.37
FEB 11...	2.6	.3	5.0	196	191	.02	.02	.02	.12
MAR 26...	5.6	.2	6.8	214	215	.03	.03	.01	.20
APR 23...	2.1	.3	6.2	195	183	.08	.08	.00	.22
MAY 14...	1.8	.3	7.5	146	131	.04	.04	.01	.32
JUN 11...	1.1	.2	6.5	108	104	.06	.06	.03	.33
JUL 16...	1.7	.2	7.8	120	124	.42	.23	.03	4.3
AUG 27...	2.6	.2	8.0	156	164	.19	.19	.01	1.3

DATE	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS- SOLVED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDEED ORGANIC CARBON (C) (MG/L) (00689)
OCT 20...	.32	.01	.00	20	10	--	--	3.3	.3
NOV 10...	.24	.01	.01	20	10	10	--	2.9	.1
DEC 10...	.04	.01	.00	40	10	--	--	5.7	.6
JAN 15...	.55	.04	.00	9	0	--	--	3.2	.3
FEB 11...	.16	.00	.00	10	0	0	1.6	1.3	.4
MAR 26...	.24	.01	.00	30	10	--	--	3.7	.8
APR 23...	.30	.03	.00	20	30	--	--	3.0	1.0
MAY 14...	.37	.05	.01	10	0	0	--	2.6	--
JUN 11...	.42	.09	.00	10	40	--	--	2.2	1.2
JUL 16...	4.7	1.2	.03	70	60	--	--	3.3	4.4
AUG 27...	1.5	.25	.00	20	30	0	8.6	8.3	--

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)
NOV 10...	1315	1	1	20	<10	0	<10	0	<50	0	<10	2
FEB 11...	1010	2	2	10	<10	0	0	0	<50	0	<10	0
MAY 14...	1100	1	0	10	0	0	10	0	0	0	4	0
AUG 27...	1000	5	1	20	<10	0	10	0	<50	0	30	1



08379500 PECOS RIVER NEAR ANTON CHICO, NM -- Continued

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL IRON (FE) (01045)	DIS- SOLVED IRON (FE) (01046)	TOTAL LEAD (PB) (01051)	DIS- SOLVED LEAD (PB) (01049)	TOTAL MAN- GANESE (MN) (01055)	DIS- SOLVED MAN- GANESE (MN) (01056)	TOTAL MERCURY (HG) (71900)	DIS- SOLVED MERCURY (HG) (71890)	TOTAL SELE- NIUM (SE) (01147)	DIS- SOLVED SELE- NIUM (SE) (01145)	TOTAL ZINC (ZN) (01092)	DIS- SOLVED ZINC (ZN) (01090)
NOV 10...	300	10	0	0	40	10	.0	.0	0	0	0	0
FEB 11...	100	0	<100	1	40	0	.1	.1	0	0	0	0
MAY 14...	1800	0	8	6	60	0	.3	.2	0	0	20	0
AUG 27...	11000	30	<100	0	390	0	.0	.0	0	0	70	0

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN *									
11...	1000	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT 20...	1300	9	100
NOV 10...	1315	12	220
DEC 10...	0950	50	69
JAN 15...	1040	2	40
FEB 11...	1010	0	23
MAR 26...	0900	70	94
APR 23...	1030	120	380
MAY 14...	1100	67	280
JUN 11...	1000	340	900
JUL 16...	1000	600	400
AUG 27...	1000	740	770

## RIO GRANDE BASIN

08379500 PECOS RIVER NEAR ANTON CHICO, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS OIS- CHARGE (CES) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
20...	1300	41	18.5	18	2.0	74
NOV						
10...	1315	31	12.5	17	1.4	58
DEC						
10...	0950	30	5.0	47	3.8	60
JAN						
15...	1040	28	4.0	23	1.7	78
FEB						
11...	1010	33	6.5	11	.98	76
MAR						
26...	0900	6.2	4.5	71	1.2	54
APR						
23...	1030	22	15.0	84	5.0	73
MAY						
14...	1100	87	18.5	119	28	82
JUN						
11...	1000	212	18.0	458	262	61
JUL						
16...	1000	77	20.0	3240	674	98
AUG						
27...	1000	55	20.0	419	62	97

## 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 (3.9 km) west of Montezuma, 6.9 mi (11.1 km) northwest of Las Vegas, and at mile 62.4 (100.4 km).

DRAINAGE AREA.--84 mi<sup>2</sup> (220 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--March to September 1915, June 1916 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1964, published as Gallinas River near Montezuma.

REVISED RECORDS.--WSP 898: Drainage area. WSP 1562: 1951(P), 1952(M), 1955(P), 1957. WSP 1632: 1931-32, 1933(M), 1934, 1935(M), 1938, 1939-40(M), 1941-42, 1945, 1949-50(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,875 ft (2,096 m), from topographic map. Prior to Sept. 21, 1934, at different datum.

REMARKS.--Records good except those for December, January, and August, which are poor. Diversions for irrigation of about 80 acres (32 hm<sup>2</sup>), 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--60 years, 19.5 ft<sup>3</sup>/s (0.552 m<sup>3</sup>/s), 14,130 acre-ft/yr (17.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,120 ft<sup>3</sup>/s (202 m<sup>3</sup>/s) Aug. 2, 1966, gage height, 9.7 ft (2.96 m), from floodmarks, from rating curve extended above 500 ft<sup>3</sup>/s (14 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 5.25 ft (1.600 m), 8.25 ft (2.515 m), and 9.7 ft (2.96 m); minimum, 0.20 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s), Oct. 6-9, 1922, Sept. 21, Oct. 9-14, 1956, Dec. 13, 1964.

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 322 ft<sup>3</sup>/s (9.12 m<sup>3</sup>/s) at 1630 hours June 7, gage height, 2.98 ft (0.908 m), no other peak above base of 200 ft<sup>3</sup>/s (5.7 m<sup>3</sup>/s); minimum, 1.5 ft<sup>3</sup>/s (0.042 m<sup>3</sup>/s) Feb. 1, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	5.3	5.2	4.3	3.6	4.2	4.6	10	9.2	2.4	8.6	15
2	8.3	6.2	5.5	4.2	3.7	4.3	4.6	12	9.2	3.0	20	12
3	8.5	6.1	5.7	4.0	3.8	4.1	4.8	11	8.1	2.8	15	10
4	7.6	5.7	5.9	4.2	3.7	4.2	4.9	11	7.6	3.4	10	8.3
5	7.1	5.5	5.6	4.2	4.0	3.5	5.2	12	7.8	2.9	9.0	7.2
6	6.8	5.3	5.5	4.3	3.9	3.9	5.1	15	7.9	4.8	8.0	8.0
7	6.6	5.1	5.4	4.1	3.8	4.4	5.0	20	28	3.8	8.0	11
8	6.3	4.9	5.5	3.9	3.8	4.1	5.1	20	10	2.7	7.0	7.9
9	6.3	4.8	5.3	3.7	4.0	3.9	5.5	17	9.6	2.6	6.5	7.5
10	6.5	4.6	5.5	4.0	4.9	4.0	5.5	18	8.3	2.4	6.5	7.7
11	6.3	4.7	5.5	3.9	4.8	4.1	5.5	18	7.2	2.3	7.0	7.0
12	5.6	4.3	5.3	3.9	4.4	3.8	6.3	21	5.8	2.2	6.0	5.9
13	5.5	4.6	5.3	4.0	4.3	4.0	6.4	21	5.3	2.6	5.0	5.1
14	5.7	4.5	5.1	4.0	5.0	4.1	6.2	19	5.1	3.1	4.2	5.1
15	5.9	4.7	5.0	4.2	4.5	4.4	6.4	18	4.7	2.8	3.6	5.0
16	6.0	4.6	5.0	4.2	4.1	3.9	6.3	18	4.8	2.8	3.4	15
17	6.0	4.6	4.5	4.0	3.9	4.2	6.1	18	4.4	2.5	3.8	5.3
18	5.8	5.0	4.7	3.8	3.8	4.3	6.0	17	4.0	2.3	4.4	5.6
19	5.8	6.1	5.0	3.8	4.2	4.6	6.2	19	3.7	1.9	20	6.0
20	5.6	5.2	5.0	3.3	4.3	4.1	5.9	20	3.7	2.5	17	5.9
21	5.4	4.8	5.0	3.4	3.5	3.5	5.9	19	3.2	4.8	17	6.4
22	5.3	5.6	4.8	3.4	3.7	3.8	6.0	18	3.0	6.8	19	7.8
23	5.0	5.5	4.7	3.6	3.8	4.1	6.6	16	2.9	5.6	16	6.4
24	5.1	5.5	4.5	3.4	4.1	4.2	6.8	15	3.0	22	17	5.4
25	4.8	5.5	4.5	3.4	3.7	4.1	6.7	16	2.9	36	15	5.1
26	5.1	5.0	4.5	3.2	3.8	4.5	6.8	17	2.7	20	18	4.8
27	5.2	5.5	4.8	3.2	3.8	4.6	7.1	15	2.6	17	51	5.6
28	5.1	6.1	4.5	3.6	4.0	4.6	7.5	12	2.6	15	56	7.9
29	4.8	5.8	4.3	3.6	4.1	4.4	8.1	11	2.7	11	27	7.0
30	4.7	4.9	4.5	3.6	---	4.8	9.7	9.6	2.5	8.6	20	6.2
31	4.9	---	4.5	3.5	---	4.3	---	9.7	---	8.0	19	---
TOTAL	185.6	156.0	156.1	117.9	117.0	129.0	182.8	493.3	182.5	210.6	448.0	223.1
MEAN	5.99	5.20	5.04	3.80	4.03	4.16	6.09	15.9	6.08	6.79	14.5	7.44
MAX	8.5	6.2	5.9	4.3	5.0	4.8	9.7	21	28	36	56	15
MIN	4.7	4.3	4.3	3.2	3.5	3.5	4.6	9.6	2.5	1.9	3.4	4.8
AC-FT	368	309	310	234	232	256	363	978	362	418	889	443

CAL YR 1975 TOTAL 6421.5 MEAN 17.6 MAX 84 MIN 4.0 AC-FT 12740  
WTR YR 1976 TOTAL 2601.9 MEAN 7.11 MAX 56 MIN 1.9 AC-FT 5160

## 08382500 GALLINAS RIVER NEAR COLONIAS, NM

LOCATION.--35°10'55", long 104°53'59", Guadalupe County, Hydrologic Unit 13060001, in Anton Chico and Preston Beck Grants, on right bank 2.3 mi (3.7 km) south of San Miguel-Guadalupe County line, 2.4 mi (3.9 km) upstream from mouth, 5.8 mi (9.3 km) northwest of Colonias, and 9.0 mi (14.5 km) east of Dilia. Mouth at Pecos River mile 789.2 (1,269.8 km, corrected).

DRAINAGE AREA.--610 mi<sup>2</sup> (1,580 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,944 ft (1,507 m) from topographic map.

REMARKS.--Records fair. Diversions for irrigation of about 7,000 acres (28 km<sup>2</sup>) 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--25 years, 17.2 ft<sup>3</sup>/s (0.487 m<sup>3</sup>/s), 12,460 acre-ft/yr (15.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,360 ft<sup>3</sup>/s (265 m<sup>3</sup>/s) June 16, 1963, gage height, 16.65 ft (5.075 m), from rating curve extended above 1,900 ft<sup>3</sup>/s (53.8 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 8.64 ft (2.633 m), 12.74 ft (3.883 m), 16.65 ft (5.075 m), and 27.2 ft (8.291 m); no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about June 1, 1937, reached a stage of about 27.2 ft (8.29 m); discharge determined as 26,700 ft<sup>3</sup>/s (756 m<sup>3</sup>/s) by slope-area measurement made in 1951. A flood of about the same magnitude occurred Sept. 29-30, 1904.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft<sup>3</sup>/s (48 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
July 4	0300	*3,600	102	10.45	3.185
Aug. 3	2300	3,280	92.9	10.00	3.048

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	0	.80	.40	1.3	.89	0	0	0	0	1.0	.07
2	.04	0	2.1	.30	1.2	.82	0	0	0	0	.60	.55
3	0	0	3.1	.15	1.1	.89	0	0	0	0	520	.02
4	0	0	3.1	.30	1.1	1.0	0	0	0	749	243	0
5	0	0	2.3	.40	.96	1.1	0	.85	.10	21	27	0
6	0	0	1.8	.40	.75	1.2	.19	0	.10	5.0	11	81
7	0	0	1.7	.55	1.1	1.2	.04	0	4.7	1.2	5.3	32
8	0	0	1.7	.40	1.4	1.4	0	0	15	.19	2.2	3.6
9	0	.02	1.7	.50	1.2	1.5	.19	0	16	0	.64	.26
10	0	0	1.6	.70	.89	1.4	.01	0	73	0	.13	.01
11	0	0	1.5	.90	.89	1.3	0	0	9.6	0	.18	0
12	0	0	1.5	1.0	1.0	1.1	0	0	4.0	0	1.9	0
13	0	0	1.4	1.0	1.1	1.1	0	0	1.7	0	.06	0
14	0	.46	1.5	1.1	2.1	1.1	0	0	.33	1.3	0	0
15	0	.56	1.5	1.2	2.0	1.1	0	0	0	0	0	0
16	0	.40	1.2	1.2	2.0	1.0	0	0	0	175	0	23
17	0	.36	.60	1.1	1.9	.89	0	0	0	11	0	50
18	0	.36	.70	1.2	2.1	.68	0	0	0	3.7	0	20
19	0	.33	.60	1.2	1.9	.64	0	0	0	1.2	0	8.0
20	0	.33	.75	1.1	1.5	.32	0	0	0	23	29	4.8
21	0	.25	1.1	1.0	1.9	.36	0	0	0	87	22	6.9
22	0	.45	1.0	.82	1.6	.44	0	0	0	20	37	2.9
23	0	1.0	1.4	.56	1.2	.68	0	0	0	6.6	11	.68
24	0	1.8	1.5	.52	1.1	.22	0	0	0	157	8.3	.18
25	0	2.0	1.3	.40	.96	.22	0	1.2	0	94	86	0
26	0	1.3	1.1	.40	1.0	.01	0	.03	0	62	7.2	0
27	0	.75	.96	.60	1.2	0	0	0	0	27	1.5	0
28	0	1.7	.70	.80	1.1	0	0	0	0	27	.44	4.3
29	0	.90	.70	.89	.96	0	0	0	0	12	.24	2.4
30	0	.45	.80	1.0	---	0	0	0	0	5.5	.01	.40
31	0	---	.50	1.2	---	0	---	0	---	2.4	0	---
TOTAL	.36	13.42	42.21	23.29	38.51	22.56	.43	2.08	84.53	1492.09	1015.70	241.07
MEAN	.012	.45	1.36	.75	1.33	.73	.014	.067	2.82	48.1	32.8	8.04
MAX	.32	2.0	3.1	1.2	2.1	1.5	.19	1.2	33	749	520	81
MIN	0	0	.50	.15	.75	0	0	0	0	0	0	0
AC-FT	.7	27	84	46	76	45	.9	4.1	168	2960	2010	478
CAL YR 1975 TOTAL	2403.83			MEAN 6.59	MAX 273	MIN 0	AC-FT 4770					
WTR YR 1976 TOTAL	2976.25			MEAN 8.13	MAX 749	MIN 0	AC-FT 5900					

## 08382600 PECOS RIVER ABOVE CAÑON 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 (0.6 km) upstream from Cañon del Uta, 2.9 mi (4.7 km) southeast of Colonias, and at mile 775.8 (1,248.3 km).

DRAINAGE AREA.--2,330 mi<sup>2</sup> (6,030 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--January to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 4,800 ft (1,463 m), from U.S. Corps of Engineers plans.

REMARKS.--Records poor. Diversions and ground-water withdrawals for irrigation for about 11,800 acres (48 km<sup>2</sup>), 1959 determination, above station; this includes the off channel Storrie Lake project on the Gallinas River above Las Vegas. Several observations of water temperature were made during the period.

EXTREMES FOR CURRENT PERIOD.--January to September 1976: Maximum discharge, 4,840 ft<sup>3</sup>/s (137 m<sup>3</sup>/s) at 0100 hours Aug. 3, gage height, 9.47 ft (2.886 m), on basis of runoff comparison with station 08382650 downstream, no other peak above base of 3,000 ft<sup>3</sup>/s (85 m<sup>3</sup>/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD JANUARY 1976 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	40	0	8.1	.15
2								0	22	0	9.3	0
3								0	21	0	1070	0
4								0	26	569	637	0
5								0	49	19	47	0
6								2.6	147	1.0	14	500
7								20	437	0	6.3	150
8								29	397	0	4.7	35
9								36	306	0	3.3	10
10								29	151	0	2.3	4.0
11								7.7	147	0	1.5	1.5
12								0	116	0	1.1	.84
13								0	86	0	.71	.18
14								0	61	32	.36	0
15								0	38	19	.12	0
16								0	14	120	0	220
17								0	1.0	31	0	50
18								28	0	2.0	0	70
19								48	0	.07	0	10
20								54	0	3.4	91	300
21								74	0	330	102	40
22								77	0	35	57	9.5
23								88	0	9.7	50	16
24								81	0	516	17	8.2
25								75	0	201	102	3.9
26								81	0	143	44	2.6
27								99	0	153	12	20
28								66	0	113	4.2	5.4
29								42	0	95	4.5	2.4
30								34	0	61	2.0	1.4
31					---	---	---	30	---	32	.78	---
TOTAL				0	0	0	0	1001.3	2059.0	2485.17	2292.27	1461.07
MFAN				0	0	0	0	32.3	68.6	80.2	73.9	48.7
MAX				0	0	0	0	99	437	569	1070	500
MIN				0	0	0	0	0	0	0	0	0
AC-FT				0	0	0	0	1990	4080	4930	4550	2900

## RIO GRANDE BASIN

## 08382650 PECOS RIVER ABOVE LOS ESTEROS RESERVOIR, NM

LOCATION.--Lat 35°03'35", Long 104°45'41", in NE¼SE¼SE¼ sec.25, T.10 N., R.20 E., Guadalupe County, Hydrologic Unit 13060001, at south boundary Preston Beck Grant, on left bank, 1.6 mi (2.6 km) upstream from River Ranch, 5.8 miles (9.3 km) southeast of Colonias, 9.1 miles (14.6 km) northwest of Santa Rosa, and at mile 770.8 (1,240.2 km).

DRAINAGE AREA.--2,340 mi<sup>2</sup> (6,060 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--February to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 4,757.5 ft (1,450.1 m), from surveys by U.S. Corps of Engineers.

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation of about 11,800 acres (48 km<sup>2</sup>), 1959 determination. This includes the off channel Storrie Lake project on the Gallinas River above Las Vegas. Several observations of water temperature were made during the year.

EXTREMES FOR CURRENT PERIOD.--February to September 1976: Peak discharge above base of 3,000 ft<sup>3</sup>/s (85 m<sup>3</sup>/s) and maximum (\*); from rating extended above 650 ft<sup>3</sup>/s (18.4 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Aug. 3	0200	*4,950	140	10.47	3.191
Sept. 6	2000	3,630	103	9.25	2.819

Minimum discharge, 8.7 ft<sup>3</sup>/s (0.25 m<sup>3</sup>/s) Apr. 26, May 2.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD FEBRUARY 1976 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	11	11	10	44	10	17	13
2					---	10	11	10	26	10	44	13
3					---	11	11	10	23	10	1600	12
4					---	10	11	11	24	570	1010	12
5					---	11	11	14	35	35	116	12
6					---	11	11	11	195	16	40	524
7					---	11	11	11	425	13	20	217
8					---	10	11	26	494	13	17	97
9					---	11	11	40	364	13	16	23
10					---	12	11	35	168	13	16	13
11					---	12	10	17	151	13	15	12
12					---	12	10	12	115	13	16	12
13					---	12	10	11	79	13	14	11
14					---	12	10	10	55	30	14	11
15					---	12	12	10	30	30	14	11
16					---	12	11	10	20	110	14	187
17					---	12	11	10	14	60	14	71
18					---	11	10	20	13	18	13	88
19					---	11	10	46	13	14	14	21
20					---	11	10	82	12	13	79	310
21					---	12	10	88	12	330	117	67
22					---	11	9.6	77	12	81	53	21
23					---	11	10	106	12	63	40	22
24					---	11	10	101	11	449	17	17
25					---	11	10	84	11	235	67	15
26					---	11	9.6	101	11	179	45	14
27					---	11	10	117	11	165	16	50
28					11	11	10	91	11	120	13	14
29					12	11	10	57	10	110	13	12
30					---	11	12	45	10	42	13	10
31					---	11	---	42	---	22	12	---
TOTAL					---	347	315.2	1315	2411	2813	3509	1912
MEAN					---	11.2	10.5	42.4	80.4	90.7	113	63.7
MAX					---	12	12	117	494	570	1600	524
MIN					---	10	9.6	10	10	10	12	10
AC-FT					---	688	625	2610	4780	5580	6960	3790

## 08382700 PECOS RIVER NEAR COLONIAS, NM

LOCATION.--Lat 35°03'26", long 104°45'20", in SW¼SE¼SW¼ sec 30, T.10 N., R.21 E., Guadalupe County, Hydrologic Unit 13060001, at edge of left bank, on south boundary of Preston Beck Grant, 1.2 mi (1.9 km) upstream from River Ranch, 6.5 mi (10.5 km) southeast of Colonias, and 8.8 mi (14.2 km) northwest of Santa Rosa, and at mile 770.4 (1,239.6 km, corrected).

DRAINAGE AREA.--2,340 mi<sup>2</sup> (6,060 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--July 1970 to December 1976 (discontinued); operated as a low-flow station only.

GAGE.--Water-stage recorder. Altitude of gage is 4,758 ft (1,450 m) from topographic map.

REMARKS.--Records poor. Diversions and ground-water withdrawals above station for irrigation of about 11,800 acres (48 km<sup>2</sup>), 1959 determination. This includes the off channel Storrie Lake Project on the Gallinas River above Las Vegas. Base flow is from springs in a 4 mi (6 km) reach upstream from gage. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined; minimum 5.6 ft<sup>3</sup>/s (0.16 m<sup>3</sup>/s) July 3, 16, 17, 1971.

EXTREMES FOR CURRENT PERIOD.--Water year 1976: Maximum discharge not determined; minimum 9.5 ft<sup>3</sup>/s (0.27 m<sup>3</sup>/s) Apr. 26, May 2, July 2.

October to December 1976: Maximum discharge not determined; minimum 8.8 ft<sup>3</sup>/s (0.25 m<sup>3</sup>/s) Dec. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	16	15	15	13	13	12	11	49	10	16	12
2	15	16	15	15	13	13	12	10	33	10	65	12
3	15	16	15	14	13	13	12	10	28	10	1730	12
4	15	16	15	14	13	13	12	11	33	---	988	12
5	15	16	14	15	14	13	12	14	45	---	102	12
6	15	16	14	15	14	13	12	12	192	---	45	554
7	15	16	14	15	14	13	12	12	---	13	21	253
8	15	16	14	15	14	13	12	19	---	13	17	89
9	15	16	14	15	14	13	12	26	---	13	16	27
10	15	16	14	15	14	13	12	25	151	13	16	18
11	15	16	15	15	13	13	12	16	132	13	14	16
12	15	16	15	15	13	13	11	13	83	13	14	16
13	15	16	15	15	14	13	11	13	60	13	13	16
14	15	16	14	14	15	13	11	12	40	---	13	15
15	15	16	14	14	13	13	12	12	30	---	12	16
16	15	16	14	14	13	13	12	12	21	---	13	190
17	16	16	14	14	13	13	11	12	15	---	12	72
18	16	16	14	14	13	13	11	17	13	18	12	87
19	16	16	14	14	13	13	10	33	13	14	12	28
20	15	16	14	13	13	13	11	62	11	13	70	311
21	16	16	14	13	13	13	10	70	11	---	106	82
22	16	16	14	13	13	12	10	62	11	65	50	24
23	16	16	14	13	13	13	11	88	10	59	40	26
24	15	16	15	13	13	13	11	86	11	504	18	20
25	16	16	15	13	13	13	11	76	11	250	61	16
26	16	16	15	14	13	13	11	89	11	186	44	16
27	16	16	15	14	13	13	10	106	11	161	20	52
28	17	16	15	14	13	13	11	80	11	120	13	16
29	17	16	15	13	13	13	11	54	10	110	13	14
30	17	14	15	13	---	13	12	44	10	43	12	13
31	17	---	15	13	---	12	---	41	---	22	12	---
TOTAL	483	478	449	436	386	401	340	1148	---	---	3590	2047
MEAN	15.6	15.9	14.5	14.1	13.3	12.9	11.3	37.0	---	---	116	68.2
MAX	17	16	15	15	15	13	12	106	---	---	1730	554
MIN	15	14	14	13	13	12	10	10	---	---	12	12
AC-FT	958	948	891	865	766	795	674	2280	---	---	7120	4060

## 08382730 LOS ESTEROS CREEK ABOVE LOS ESTEROS RESERVOIR, 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 (6.0 km) upstream from mouth, 4.9 mi (7.9 km) north-northeast of Los Esteros Reservoir damsite, and 10.4 mi (16.7 km) north-northeast of Santa Rosa. Mouth at Pecos River mile 763.0 (1,227.7 km).

DRAINAGE AREA.--65.6 mi<sup>2</sup> (169.9 km<sup>2</sup>).

PERIOD OF RECORD.--July 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,767 ft (1,453 m), from topographic map.

REMARKS.--Records fair. No known diversions or groundwater withdrawals for irrigation above station. Several observations of water temperature were made during the period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,900 ft<sup>3</sup>/s (110 m<sup>3</sup>/s) July 24, 1976, gage height 9.3 ft (2.83 m) from rating curve extended above 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s) on basis of area-velocity studies, and slope-area measurements at gage heights 6.5 ft (1.98 m) and 9.3 ft (2.83 m); no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood of unknown date reached a discharge of about 6,800 ft<sup>3</sup>/s (190 m<sup>3</sup>/s), gage height 11.6 ft (3.54 m), from floodmarks, from rating curve extended as explained above.

EXTREMES FOR PERIOD.--July 1973 to September 1976: Peak discharge above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) and annual maximum discharge (\*):

Date	Time	Discharge		Gage height	
		(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)
July 29, 1973	2030	* 235	6.66	3.76	1.146
July 30, 1973	2330	175	4.96	3.49	1.064
Aug. 5, 1974	-	* 350	9.91	-	-
Aug. 27, 1974	-	150	4.25	-	-
Aug. 27, 1975	unknown	* 302	8.55	4.02	1.225
June 7, 1976	0330	194	5.49	3.58	1.091
July 15, 1976	2330	1,040	29.5	5.83	1.777
July 24, 1976	0900	*3,900	110	9.3	2.84
Aug. 3, 1976	0130	1,460	41.3	6.50	1.981
Aug. 4, 1976	0300	296	8.38	4.00	1.219
Sept. 7, 1976	0600	185	5.24	3.54	1.079

No flow most of time, July 1973 to September 1976.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD JULY 1973 TO SEPTEMBER 1973  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---	1.2	
2										---	.15	
3										---	.04	
4										---	0	
5										---	0	
6										---	0	
7										---	0	
8										---	0	
9										---	0	
10										---	0	
11										---	0	
12										---	0	
13										---	0	
14										---	0	
15										---	0	
16										---	0	
17										---	0	
18										---	0	
19										---	0	
20										---	0	
21										---	0	
22										---	0	
23										---	0	
24										---	0	
25										---	0	
26										.02	0	
27										0	0	
28										0	0	
29										25	0	
30										23	0	
31										43	0	---
TOTAL										---	1.39	0
MEAN										---	.045	0
MAX										---	1.2	0
MIN										---	0	0
AC-FT										---	2.8	0



## RIO GRANDE BASIN

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08382730 LOS ESTEROS CREEK ABOVE LOS ESTEROS RESERVOIR, NM -- CONTINUED

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										0	2.4	.01
2										0	1.7	0
3										0	.66	0
4										0	.01	0
5										0	72	0
6										0	1.0	0
7										0	6.6	0
8										0	2.0	0
9										.16	.30	0
10										.10	.02	0
11										0	0	0
12										0	0	0
13										0	0	0
14										0	0	0
15										0	0	0
16										0	0	1.7
17										0	0	.68
18										0	0	.78
19										0	0	.08
20										0	0	0
21										0	0	0
22										0	0	0
23										0	0	0
24										0	.04	0
25										0	.30	0
26										0	.02	0
27										0	9.0	0
28										0	17	0
29						---				0	.63	0
30						---				0	.09	0
31		---				---		---	---	.02	.02	---
TOTAL	0	0	0	0	0	0	0	0	0	.28	113.79	3.25
MFAN	0	0	0	0	0	0	0	0	0	.009	3.67	.11
MAX	0	0	0	0	0	0	0	0	0	.16	72	1.7
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	.6	226	6.4
CAL YR 1973	TOTAL	---	MEAN	---	MAX	---	MIN	-	AC-FT	---		
WTR YR 1974	TOTAL	117.32	MEAN	.32	MAX	72	MIN	0	AC-FT	233		

08382730 LOS ESTEROS CREEK ABOVE LOS ESTEROS RESERVOIR, NM -- CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.02								0	0	0
2	0	.01								0	0	0
3	0	.01								0	0	0
4	0	.04								0	0	0
5	0	.03								10	0	0
6	0	0								1.0	0	0
7	0	0								.02	0	0
8	0	0								0	0	0
9	0	0								0	0	0
10	8.6	0								0	0	0
11	8.9	0								0	0	0
12	21	0								0	0	0
13	5.0	0								0	0	3.4
14	.54	0								0	0	.26
15	.90	0								0	0	.05
16	.18	0								0	15	.01
17	.05	0								0	1.5	0
18	.03	0								0	.02	0
19	.03	0								0	0	0
20	.01	0								0	0	.17
21	.01	0								0	0	2.8
22	.01	0								0	0	.91
23	.01	0								0	0	.11
24	.01	0								0	0	.02
25	0	0								0	0	0
26	0	0								0	0	0
27	0	0								0	20	0
28	0	0								0	6.5	0
29	0	0								0	.15	0
30	.08	0								0	0	0
31	.05	---								0	0	---
TOTAL	45.41	.11	0	0	0	0	0	0	0	11.02	43.17	7.73
MEAN	1.46	.004	0	0	0	0	0	0	0	.36	1.39	.26
MAX	21	.04	0	0	0	0	0	0	0	10	20	3.4
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	90	.2	0	0	0	0	0	0	0	22	86	15

CAL YR 1974 TOTAL 162.84 MEAN .45 MAX 72 MIN 0 AC-FT 323  
WTR YR 1975 TOTAL 107.44 MEAN .29 MAX 21 MIN 0 AC-FT 213

NOTE.--No gage height record July 5 to Aug. 28.

08382730 LOS ESTEROS CREEK ABOVE LOS ESTEROS RESERVOIR, NM --CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	0	0	0	0
2								0	0	0	13	0
3								0	0	0	215	0
4								0	0	4.0	57	0
5								11	0	0	3.2	0
6								2.0	7.9	0	.43	0
7								.15	59	0	.17	40
8								.01	1.0	0	.06	1.9
9								0	.17	0	.05	.20
10								0	.33	0	.04	.07
11								0	.18	0	.03	.04
12								0	0	0	.02	.02
13								0	0	0	.01	0
14								0	0	36	0	0
15								0	0	51	0	0
16								0	0	94	0	0
17								0	0	.83	0	0
18								0	0	.06	0	0
19								0	0	0	0	0
20								0	0	0	0	0
21								0	0	19	0	0
22								0	0	.59	0	4.0
23								0	0	34	0	.22
24								0	0	753	0	.06
25								.20	0	48	0	.02
26								.51	0	2.0	0	.02
27								.01	0	.24	0	.04
28								0	0	1.1	0	.01
29								0	0	1.4	0	.01
30								0	0	.12	0	.02
31		---			---		---	0	---	.02	0	---
TOTAL	0	0	0	0	0	0	0	13.88	68.58	1045.36	289.01	46.63
MEAN	0	0	0	0	0	0	0	.45	2.29	33.7	9.32	1.55
MAX	0	0	0	0	0	0	0	11	59	753	215	40
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	28	136	2070	573	92
CAL YR 1975	TOTAL	61.92	MEAN	.17	MAX	20	MIN	0	AC-FT	123		
WTR YR 1976	TOTAL	1463.46	MEAN	4.00	MAX	753	MIN	0	AC-FT	2900		

## 08382800 PECOS RIVER ABOVE LOS ESTEROS DAMSITE, NEAR SANTA ROSA, NM

LOCATION.--Lat 35°02'26", long 104°40'52", Guadalupe County, Hydrologic Unit 13060001, in Jose Perea Grant, on left bank, 1.3 mi (2.1 km) downstream from Catfish Falls, 1.6 mi (2.6 km) southwest from mouth of Esteros Creek, 7.2 mi (11.6 km) north of Santa Rosa, and at mile 758.4 (1,220.3 km, corrected).

DRAINAGE AREA.--2,430 mi<sup>2</sup> (6,290 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--October 1965 to current year (operated as a low-flow station only).

GAGE.--Water-stage recorder. Altitude of gage is 4,630 ft (1,410 m), from topographic map.

REMARKS.--Records poor. Diversions for irrigation of about 12,000 acres (49 km<sup>2</sup>), 1959 determination, above station. Several observations of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum not determined; minimum, 6.1 ft<sup>3</sup>/s (0.17 m<sup>3</sup>/s) June 30.

EXTREMES FOR PERIOD OF RECORD.--Maximum not determined; minimum daily discharge, 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) Jan. 5, 6, 1971.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	16	13	13	15	12	10	16	50	7.2	16	10
2	16	16	14	12	14	12	10	13	44	7.5	67	10
3	16	16	14	10	13	12	9.4	13	31	7.9	---	11
4	16	16	13	12	14	13	9.8	11	37	---	---	11
5	16	17	13	14	14	12	9.8	42	39	108	244	12
6	16	17	14	18	12	13	9.8	19	144	20	94	---
7	16	17	14	14	13	12	9.8	12	---	16	42	---
8	16	16	13	14	13	13	9.8	15	---	14	29	188
9	16	17	13	17	14	12	9.8	34	---	13	24	49
10	16	17	12	16	13	11	10	33	171	12	22	25
11	15	17	11	16	13	11	9.8	24	157	12	20	18
12	15	17	11	15	13	11	10	14	108	12	18	14
13	15	17	11	15	13	11	10	14	79	12	16	13
14	15	17	12	15	16	11	10	12	59	200	15	11
15	14	16	12	15	13	11	13	12	41	63	15	11
16	15	15	12	14	12	11	13	12	29	---	14	166
17	15	15	11	15	13	11	12	13	21	74	13	55
18	16	15	9.0	14	13	11	11	14	18	20	12	106
19	16	16	11	13	13	11	11	36	15	14	12	26
20	16	16	15	15	12	11	11	64	13	12	50	231
21	17	16	17	15	13	11	11	74	12	---	118	123
22	16	16	15	14	14	12	11	74	12	117	54	28
23	16	16	15	14	13	12	10	81	11	50	39	77
24	16	15	15	14	13	12	11	102	11	---	20	24
25	17	15	15	14	13	11	10	81	10	385	38	14
26	17	14	15	13	13	11	9.8	94	9.4	176	46	14
27	17	15	15	12	13	11	9.8	102	9.0	116	21	51
28	17	15	16	14	12	11	10	92	8.6	94	12	31
29	17	14	16	15	12	11	33	67	7.5	88	11	17
30	17	10	15	14	---	12	23	52	7.2	32	11	14
31	16	---	15	14	---	11	---	50	---	20	10	---
TOTAL	496	472	417.0	440	382	357	347.6	1292	---	---	---	---
MEAN	16.0	15.7	13.5	14.2	13.2	11.5	11.6	41.7	---	---	---	---
MAX	17	17	17	18	16	13	33	102	---	---	---	---
MIN	14	10	9.0	10	12	11	9.4	11	---	---	---	---
AC-FT	984	936	827	873	758	708	689	2560	---	---	---	---

LOCATION.--Lat 34°56'36", long 104°41'55", in NW¼ sec.3, T.8 N., R.21 E., Guadalupe County, Hydrologic Unit 13060001, on left bank, 0.4 mi (0.6 km) downstream from bridge on U.S. Highway I-40, 0.6 mi (1.0 km) upstream from bridge on U.S. Highway I-40 Business in Santa Rosa, 1.9 mi (3.1 km) upstream from El Rito Creek, and at mile 748.4 (1,204.2, corrected). Water-quality sampling site on left bank 0.7 mi (1.1 km) downstream.

DRAINAGE AREA.--2,650 mi<sup>2</sup> (6,860 km<sup>2</sup>), approximately (contributing area).

PERIOD OF RECORD.--May 1903 to December 1905 (gase heights only), January to December 1906, February 1910 to July 1911, September 1912 to December 1924, March to May 1927, July 1927, January 1928 to current year. Monthly discharge only for some periods, published in WSP 1312. Figures of daily discharge for Apr. 5-20, May 4-7, 11, Aug. 13, 16-18, 24, Sept. 7-9, 11, 13, 19, 21, 23, 25, 27, Oct. 1-31, Nov. 3, 4, 9, 11, 20, 22, 1910, and Feb. 1 to Mar. 31, June 1 to July 31, 1911, published in WSP 358 are unreliable and should not be used.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,537.56 ft (1,383.048 m) above mean sea level. For history of changes prior to Sept. 13, 1967, see WSP 2123.

AVERAGE DISCHARGE.--60 years (1921-24, 1928-76), 137 ft<sup>3</sup>/s (3,880 m<sup>3</sup>/s), 99,260 acre-ft/yr (122 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft<sup>3</sup>/s (1,560 m<sup>3</sup>/s) June 2, 1937, gage height, 25.7 ft (7.83 m), site and datum then in use, from rating curve extended above 32,000 ft<sup>3</sup>/s (906 m<sup>3</sup>/s); minimum 0.28 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Jan. 7, 1971.

The flood of June 2, 1937, is the greatest since about 1886. Flood of Sept. 30, 1904, reached a stage of 24.7 ft (7.53 m), site and datum then in use, discharge, 45,000 ft<sup>3</sup>/s (1,290 m<sup>3</sup>/s), by Kutter's formula. Flood of June 9, 1903, reached a stage of 21.1 ft (6.43 m), same site and datum as in 1904, discharge, 34,000 ft<sup>3</sup>/s (963 m<sup>3</sup>/s), by comparison with 1904 flood.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,000 ft<sup>3</sup>/s (110 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge		Gage height	
		(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)
July 24	1400	*8,030	227	7.05	2.149
Aug. 3	0830	5,740	163	5.75	1.753
Aug. 4	0530	4,210	119	4.79	1.460

Minimum discharge 7.3 ft<sup>3</sup>/s (.21 m<sup>3</sup>/s) April 29.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SFP
1	20	20	11	13	19	15	13	33	44	13	24	16
2	20	20	12	12	19	15	13	20	46	14	221	16
3	19	20	18	14	17	15	13	13	29	14	2010	16
4	19	20	17	16	17	15	14	13	29	957	1230	14
5	19	22	17	19	15	16	16	45	35	159	212	14
6	19	20	17	22	16	15	14	48	104	44	75	148
7	19	17	17	15	17	16	14	27	406	19	39	599
8	19	19	17	16	17	15	13	17	293	14	24	163
9	19	19	19	23	16	17	13	37	674	12	22	66
10	19	19	17	22	16	16	13	44	202	12	20	33
11	20	19	17	19	16	15	13	37	177	10	19	22
12	19	20	16	19	17	15	12	24	130	11	17	19
13	17	20	18	19	17	15	12	17	104	10	16	16
14	17	20	18	19	24	15	12	16	82	173	14	16
15	17	20	16	19	22	15	14	13	64	79	14	16
16	17	20	15	19	19	15	16	11	46	408	14	117
17	20	22	15	19	17	15	14	12	31	117	14	97
18	19	21	15	19	16	15	14	12	22	39	14	109
19	19	22	14	19	17	15	14	25	19	16	19	58
20	20	20	11	17	17	15	14	64	17	12	24	195
21	20	19	16	17	14	15	13	85	17	308	112	170
22	19	19	16	17	16	15	13	88	16	144	78	58
23	19	20	14	19	17	14	12	85	16	46	51	33
24	17	20	14	17	16	14	12	112	14	2910	39	33
25	17	20	12	17	16	14	11	94	14	506	24	24
26	19	17	14	17	16	14	9.0	94	12	216	64	19
27	20	17	13	16	16	14	9.0	97	12	112	37	19
28	20	19	12	20	16	14	10	97	12	129	22	57
29	22	22	11	19	15	14	16	64	13	97	19	24
30	20	19	10	19	---	14	59	51	12	61	17	19
31	20	---	12	17	---	14	---	48	---	37	17	---
TOTAL	590	592	461	555	493	461	435.0	1443	2692	6699	4522	2206
MEAN	19.0	19.7	14.9	17.9	17.0	14.9	14.5	46.5	89.7	216	146	73.5
MAX	22	22	19	23	24	17	59	112	674	2910	2010	599
MIN	17	17	10	12	14	14	9.0	11	12	10	14	14
AC-FT	1170	1170	914	1100	978	914	863	2860	5340	13290	8970	4380
CAL YR 1975	TOTAL	25751.0	MEAN	70.6	MAX	1110	MIN	10	AC-FT	51080		
WTR YR 1976	TOTAL	21149.0	MEAN	57.8	MAX	2910	MIN	9.0	AC-FT	41950		

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

## WATER-QUALITY RECORDS

LOCATION.--Samples collected 0.6 mi (1.0 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1905-07, 1959 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to current year.

WATER TEMPERATURES: October 1958 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1958 to current year.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,500 micromhos Jan. 18, 1974; minimum daily, 173 micromhos May 22, 1973.

WATER TEMPERATURES: Maximum (1958-63, 1964-74), 38.0°C May 11, 1970; minimum, 0.0°C on several days during winter months of most years.

SEDIMENT CONCENTRATIONS: Maximum daily, 31,400 mg/L Aug. 18, 1961; minimum daily, 3 mg/L Apr. 30, 1972.

SEDIMENT LOADS: Maximum daily, 344,000 tons (312,000 tonnes) July 30, 1971; minimum daily, .09 ton (.08 tonne) Apr. 30, 1972.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,030 micromhos Dec. 1; minimum daily, 180 micromhos July 24.

WATER TEMPERATURES: Maximum, 30.0°C June 20; minimum, 1.0°C Dec. 18.

SEDIMENT CONCENTRATIONS: Maximum daily, 17,700 mg/L July 4; minimum daily, 6 mg/L Feb. 5, April 14.

SEDIMENT LOADS: Maximum daily, 117,000 tons (106,000 tonnes) July 24; minimum daily, .19 ton (.17 tonne) Apr. 14.

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

		INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDEO SEDI- MENT (MG/L) (80154)	SUS- PENDEO SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	
DATE	TIME								
APR									
30...	0740	66	11.5	6450	1150	58	73	96	
MAY									
06...	0750	54	12.0	579	84	73	81	94	
11...	1030	41	20.0	483	53	67	80	95	
21...	0730	88	16.0	2250	535	55	69	87	
JUN									
08...	1030	299	19.5	9930	8020	39	52	75	
JUL									
05...	0750	197	18.0	12900	6860	51	66	92	
14...	1025	472	20.0	10000	12700	36	45	67	
AUG									
03...	0750	5690	15.5	11800	181000	45	52	81	
22...	1010	85	22.0	5200	1190	64	82	99	
SEP									
18...	0855	168	17.0	4820	2190	34	56	83	
19...	1010	61	19.0	4860	800	70	86	98	
DATE		SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70331)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70332)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70333)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70334)
APR									
30...	--	--	--	--	--	99	99	100	--
MAY									
06...	--	--	--	--	--	97	99	100	--
11...	--	--	--	--	--	98	98	99	100
21...	--	--	--	--	--	97	98	99	100
JUN									
08...	88	92	98	100	--	--	--	--	--
JUL									
05...	--	--	--	--	--	99	100	--	--
14...	93	98	100	--	--	--	--	--	--
AUG									
03...	97	99	100	--	--	--	--	--	--
22...	--	--	--	--	--	99	99	100	--
SEP									
18...	--	--	--	--	--	97	99	100	--
19...	--	--	--	--	--	99	100	--	--

## 08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1490	1610	2030	1810	1790	1830	1800	1060	913	1810	1130	1570
2	1480	1640	1640	1830	1790	1880	1890	1600	840	1780	1230	1580
3	1490	1600	1660	1920	1820	1800	1870	1740	1040	1760	250	1580
4	1540	1650	1690	1770	1770	1810	1860	1660	1210	1610	230	1560
5	1510	1570	1700	1690	1740	1850	1830	1430	1090	550	290	1590
6	1520	1600	1720	---	1800	1770	1910	820	947	746	530	1530
7	1520	1580	1700	1910	1740	1760	1890	1350	441	1180	830	330
8	1570	1590	1680	1840	1770	1770	1880	1580	443	1430	1120	410
9	1510	1590	1690	1640	1780	1780	1920	1110	338	1560	1220	590
10	1510	1660	1700	1650	1780	1820	1900	980	433	1630	1270	980
11	1590	1590	1660	1870	1710	1820	1920	1080	456	1660	1300	1400
12	1620	1660	1650	1750	1760	1820	1950	1330	498	1640	1370	1400
13	1570	1660	1660	1760	1760	1860	1920	1540	588	1700	1400	1450
14	1590	1650	1650	1820	1620	1870	1940	1640	654	750	1470	1470
15	1560	1600	1790	1730	1760	1820	1900	1730	766	500	1520	1470
16	1590	1660	1730	1720	1790	1880	1750	1830	966	340	1500	1010
17	1490	1640	1650	1720	1810	1820	1860	1850	1180	610	1510	370
18	1520	1660	1910	1730	1830	1860	1920	1830	1420	850	1560	680
19	1540	1560	1660	1710	1740	1870	1910	1860	1520	1210	1520	690
20	1550	1640	1410	1780	1770	1890	1940	1050	1590	1410	1510	1070
21	1560	1650	1400	1740	1820	1890	1730	718	1590	1350	600	340
22	1530	1750	1570	1740	1890	1770	1890	640	1660	370	370	610
23	1600	1640	1650	1720	1780	1830	1860	690	1720	580	830	1060
24	1650	1670	1620	1840	1800	1810	1870	601	1720	180	950	1240
25	1610	1680	1680	1840	1790	1800	1850	583	1720	280	1180	1230
26	1620	1920	1720	1800	1810	1900	1860	628	1740	390	660	1440
27	1610	1770	1660	1780	1800	1880	1900	585	1780	450	900	1430
28	1660	1710	1660	1630	1830	1860	1910	543	1760	480	1200	1120
29	1580	1660	1690	1700	1810	1830	1820	626	1760	560	1410	1160
30	1630	1880	---	1740	---	1800	695	784	1850	630	1470	1390
31	1600	---	1720	1800	---	1820	---	892	---	920	1480	---
MONTH	1560	1660	1680	1770	1780	1830	1840	1170	1150	997	1100	1130
YEAR	MAX	2030	MIN	180	MEAN	1470						

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.5	8.0	5.0	4.0	12.0	8.0	7.0	7.0	15.0	17.5	27.5	15.5
2	10.0	15.0	6.5	3.0	11.0	18.0	5.0	20.0	17.0	18.0	20.0	15.0
3	10.0	7.0	5.5	5.5	10.0	8.0	14.0	17.0	15.5	20.0	15.5	15.5
4	12.0	7.0	11.0	6.0	14.0	4.0	16.0	13.0	16.5	18.0	18.0	21.0
5	13.0	7.0	10.0	6.0	4.5	3.5	12.0	13.0	28.0	18.0	20.0	21.0
6	10.0	17.0	5.0	---	4.0	6.5	9.0	12.0	20.5	18.0	19.0	19.5
7	11.0	7.5	7.0	1.5	14.0	7.0	10.0	11.0	17.0	19.0	20.0	23.0
8	18.0	9.0	5.0	3.0	14.0	7.0	10.5	12.0	18.0	13.0	24.0	17.5
9	9.5	10.0	8.0	11.0	9.0	10.5	11.0	23.0	13.5	18.0	18.5	16.5
10	10.0	10.0	4.5	5.0	10.0	17.0	16.0	12.0	18.5	20.0	18.5	16.0
11	22.5	6.0	10.0	8.0	8.0	14.5	22.0	15.0	17.5	20.0	19.0	22.0
12	23.0	7.5	11.0	4.0	14.0	13.0	13.0	15.0	17.0	24.0	18.5	25.0
13	15.5	6.0	5.0	5.0	14.0	10.5	14.0	10.5	18.0	19.0	18.0	15.0
14	21.0	12.0	4.5	8.0	12.0	16.0	11.5	12.0	15.5	19.0	18.5	19.5
15	8.5	9.0	3.0	3.5	13.0	7.0	10.0	13.0	13.5	19.0	22.0	22.0
16	8.5	13.5	3.5	9.0	11.0	17.0	7.5	14.0	15.0	26.0	17.5	23.5
17	13.0	9.0	1.5	4.0	11.5	7.0	9.0	13.0	15.5	21.0	18.5	17.0
18	9.5	10.0	1.0	11.0	14.0	7.0	22.0	14.0	14.5	29.5	19.0	17.0
19	22.0	8.0	8.0	5.0	9.0	7.5	10.5	13.5	15.5	20.0	19.0	19.0
20	9.0	6.0	3.0	7.0	5.0	5.0	10.0	15.0	30.0	20.0	18.5	17.0
21	21.0	9.0	5.0	8.0	5.5	10.0	10.5	16.0	18.0	19.0	20.0	15.0
22	21.5	5.0	10.0	10.0	11.0	4.0	23.0	20.0	18.0	19.0	22.0	16.5
23	17.0	4.0	4.0	11.0	15.0	6.0	18.0	24.0	28.0	19.0	18.0	14.5
24	9.5	6.0	8.0	10.0	15.5	12.0	14.0	16.0	22.5	18.0	18.0	16.0
25	8.0	6.5	8.0	8.0	12.0	13.0	16.0	17.0	15.0	19.0	17.0	17.0
26	11.0	4.0	9.0	4.0	10.0	4.5	26.0	13.5	17.0	20.5	19.0	19.0
27	8.0	6.0	4.0	7.0	11.0	15.0	20.0	15.0	22.0	21.0	18.5	15.0
28	18.0	10.0	5.0	11.0	10.0	15.0	10.5	16.5	15.0	22.0	22.0	11.0
29	7.5	5.0	5.0	12.0	14.0	6.5	14.0	15.0	18.0	20.0	17.0	10.0
30	15.5	4.0	---	12.0	---	7.5	11.5	17.0	17.0	21.0	16.0	12.0
31	8.0	---	6.0	15.0	---	5.5	---	14.0	---	26.0	18.0	---
MONTH	13.5	8.0	6.0	7.5	11.0	9.5	13.5	15.0	18.0	20.0	19.0	17.5
YEAR	MAX	30.0	MIN	1.0	MEAN	13.0						

## RIO GRANDE BASIN

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued  
SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	69	3.7	39	2.1	34	1.0	20	.91	90	4.6	13	.53
2	72	3.9	36	1.9	74	2.4	23	.91	690	35	20	.81
3	45	2.3	33	1.8	40	1.9	28	1.1	699	32	26	1.1
4	35	1.8	44	2.4	30	1.4	29	1.3	12	.55	15	.61
5	40	2.1	47	2.8	39	1.8	36	1.8	6	.24	17	.73
6	47	2.4	63	3.4	29	1.3	36	2.1	25	1.1	19	.77
7	56	2.9	61	2.3	42	1.9	52	2.1	680	31	18	.78
8	60	3.1	47	2.4	28	1.3	33	1.4	677	31	15	.61
9	62	3.2	42	2.2	27	1.4	35	2.2	15	.65	16	.73
10	62	3.2	106	5.4	27	1.2	23	1.4	15	.65	15	.65
11	57	3.1	32	1.6	18	.83	20	1.0	18	.78	20	.81
12	75	3.8	37	2.0	15	.65	26	1.3	850	39	13	.53
13	55	2.5	34	1.8	14	.68	24	1.2	349	16	14	.57
14	44	2.0	47	2.5	19	.92	13	.67	1970	128	10	.41
15	50	2.3	39	2.1	13	.56	20	1.0	668	40	13	.53
16	49	2.3	40	2.2	17	.69	22	1.1	26	1.3	12	.49
17	44	2.4	36	2.1	172	7.0	26	1.3	29	1.3	8	.32
18	40	2.1	47	2.7	26	1.1	48	2.5	20	.86	19	.77
19	34	1.7	33	2.0	44	1.7	58	3.0	22	1.0	16	.65
20	34	1.8	27	1.5	59	1.8	35	1.6	20	.92	11	.45
21	32	1.7	28	1.4	61	2.6	53	2.4	18	.68	14	.57
22	43	2.2	29	1.5	30	1.3	56	2.3	26	1.1	16	.65
23	39	2.0	39	2.1	12	.45	54	2.8	22	1.0	16	.60
24	34	1.6	39	2.1	15	.57	31	1.4	16	.69	11	.42
25	30	1.4	47	2.5	21	.68	44	2.0	29	1.3	13	.49
26	38	2.0	62	2.8	34	1.3	119	5.5	13	.56	20	.76
27	36	1.9	74	3.4	27	.95	108	4.7	20	.86	10	.38
28	28	1.5	50	2.6	19	.62	43	2.3	14	.60	11	.42
29	41	2.4	37	2.2	16	.48	30	1.5	13	.53	8	.30
30	36	1.9	46	2.4	21	.57	14	.72	---	---	11	.42
31	37	2.0	---	---	22	.71	13	.60	---	---	13	.49
MONTH	---	73.20	---	70.70	---	41.76	---	56.11	---	373.27	---	18.35
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	9	.32	630	56	210	25	54	1.9	415	27	138	6.0
2	9	.32	380	21	252	31	51	1.9	3090	7450	120	5.2
3	15	.53	163	5.7	142	11	54	2.0	11100	87800	129	5.6
4	7	.26	129	4.5	130	10	17700	76900	12900	62300	113	4.3
5	10	.43	757	110	148	14	11000	5060	5000	3080	186	7.0
6	11	.42	473	61	1820	859	1990	236	2400	486	2250	13800
7	7	.26	175	13	8930	10300	419	21	840	88	13300	32400
8	10	.35	189	8.7	8290	6490	267	10	267	17	4100	1780
9	11	.39	411	41	14100	38600	220	7.1	228	14	3250	579
10	7	.25	835	99	5490	2990	165	5.3	233	13	750	67
11	8	.28	437	44	3420	1630	166	4.5	211	11	276	16
12	8	.26	179	12	1410	495	151	4.5	161	7.4	386	20
13	11	.36	134	6.2	800	225	147	4.0	149	6.4	220	9.5
14	6	.19	108	4.7	481	106	4910	3440	130	4.9	199	8.6
15	37	1.4	104	3.7	318	55	3070	681	119	4.5	180	7.8
16	18	.78	158	4.7	230	29	8600	12800	110	4.2	3750	2660
17	22	.83	114	3.7	218	18	9580	3210	117	4.4	6400	1810
18	29	1.1	77	2.5	114	6.8	1900	200	107	4.0	6300	2020
19	15	.57	315	25	132	6.8	460	20	109	5.6	4470	700
20	10	.38	1090	188	232	11	317	10	589	128	5940	6060
21	34	1.2	1990	457	158	7.3	14400	19900	8970	2710	7890	3870
22	44	1.5	1280	304	253	11	11600	4660	9230	1100	1810	283
23	44	1.4	790	181	141	6.1	6790	843	2160	297	369	33
24	42	1.4	1150	348	103	3.9	11200	117000.0	820	86	296	26
25	52	1.5	845	214	110	4.2	5730	8750	258	17	315	20
26	44	1.1	677	172	104	3.4	4160	2430	3540	612	220	11
27	41	1.0	691	181	74	2.4	4420	1340	740	74	267	14
28	43	1.2	751	197	78	2.5	4480	1560	272	16	308	51
29	479	.93	429	74	67	2.4	3500	917	194	10	268	17
30	4590	960	267	37	66	2.1	1930	318	177	8.1	185	9.5
31	---	---	221	29	---	---	625	62	168	7.7	---	---
MONTH	---	1072.98	---	2908.40	---	61957.90	---	260399.2	---	166393.2	---	66300.50

TOTAL LOAD FOR YEAR: 559665.6 TONS.



08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM  
(Surveillance network station)

LOCATION.--Lat 34°43'48", long 104°31'28", in NE 1/4 Sec. 20, T. 6 N., R. 23 E., Guadalupe County, Hydrologic Unit 13060001, on left bank 9 mi (14.5 km) southeast of Puerto de Luna, 17.5 mi (28.2 km) upstream from Summer Dam, and at mile 719.5 (1,157.7 km, corrected).

DRAINAGE AREA.--3,970 mi<sup>2</sup> (10,280 km<sup>2</sup>), approximately (contributing area).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to current year.

REVISED RECORDS.--WSP 1512: 1939.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,311.34 ft (1,314.096 m) above mean sea level. Prior to Apr. 15, 1954, at datum 1 ft (0.30 m) higher.

REMARKS.--Water-discharge records good. Diversions for irrigation of about 12,500 acres (51 km<sup>2</sup>), 1959 determination, above station. Discharge represents inflow to Lake Summer.

AVERAGE DISCHARGE.--38 years, 211 ft<sup>3</sup>/s (5.976 m<sup>3</sup>/s), 152,000 acre-ft/yr (189 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,600 ft<sup>3</sup>/s (1,380 m<sup>3</sup>/s) Sept. 1, 1942, gage height, 17.00 ft (5.182 m), from rating curve extended above 7,400 ft<sup>3</sup>/s (210 m<sup>3</sup>/s) on basis of flow at Santa Rosa; minimum, 11 ft<sup>3</sup>/s (0.31 m<sup>3</sup>/s) Jan. 31, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1886 occurred June 2, 1937, when peak at Santa Rosa was 55,200 ft<sup>3</sup>/s (1,560 m<sup>3</sup>/s). Flood of July 24, 1895, was reported as "highest in 10 years." Other major floods occurred on June 9, 1903, Sept. 30, 1904, and May 1, 1914.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,500 ft<sup>3</sup>/s (160 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	Gage height (ft)	(m)
July 24	1900	*6,370	180	5.76	1.756
Aug. 3	1300	5,560	157	5.40	1.646

Minimum discharge, 54 ft<sup>3</sup>/s (1.53 m<sup>3</sup>/s) June 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	88	96	101	94	90	79	112	93	60	149	75
2	84	88	99	104	94	91	76	96	89	64	211	73
3	82	88	104	98	93	91	75	85	90	64	2480	73
4	81	90	99	96	92	92	75	84	79	692	1710	72
5	83	90	99	100	95	90	78	143	80	368	448	75
6	84	90	96	98	95	92	78	166	86	226	226	73
7	84	92	94	96	95	95	75	113	452	92	152	624
8	82	92	97	94	96	96	76	95	373	82	116	240
9	76	88	96	94	95	91	75	92	966	72	97	187
10	80	86	99	105	95	92	79	106	340	68	89	116
11	82	90	96	106	96	92	72	104	234	65	85	94
12	82	90	96	104	97	91	71	93	220	65	89	76
13	78	92	96	100	100	91	76	82	178	66	81	72
14	74	94	92	99	109	87	76	77	143	440	77	71
15	78	94	92	94	108	89	83	74	117	309	74	88
16	82	92	94	95	98	88	87	69	101	692	70	168
17	86	90	90	96	95	82	77	68	87	276	69	204
18	88	92	90	96	94	79	72	67	75	159	68	116
19	84	101	98	94	94	76	71	69	69	104	71	165
20	86	96	94	96	95	79	77	84	67	325	74	200
21	84	94	94	95	93	73	71	121	68	922	92	310
22	84	92	99	96	95	75	69	135	66	309	167	165
23	84	94	96	94	95	77	66	134	64	162	122	113
24	86	92	94	94	93	74	66	135	60	3080	105	92
25	82	92	97	92	91	72	66	157	60	1140	98	96
26	86	96	94	94	91	67	67	135	60	465	92	86
27	86	96	94	96	91	69	68	140	59	373	127	82
28	88	99	94	94	93	74	68	145	60	330	98	106
29	90	104	94	96	93	77	70	139	59	249	84	104
30	90	104	94	95	---	81	106	112	60	232	74	88
31	90	---	94	93	---	78	---	98	---	172	76	---
TOTAL	2590	2786	2956	3005	2765	2591	2245	3330	4555	11723	7571	4104
MEAN	83.5	92.9	95.4	96.9	95.3	83.6	74.8	107	152	378	244	137
MAX	90	104	104	106	109	96	106	166	966	3080	2480	624
MIN	74	86	90	92	91	67	66	67	59	60	68	71
AC-FT	5140	5530	5860	5960	5480	5140	4450	6610	9030	23250	15020	8140
CAL YR 1975 TOTAL	49372		MEAN 135	MAX 1030	MIN 64	AC-FT 97930						
WTR YR 1976 TOTAL	50221		MEAN 137	MAX 3080	MIN 59	AC-FT 99610						

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM --- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1939-41, 1943, 1947-59, 1968 to current year.

REMARKS.--Prior to 1968 Water Year published as 8-3834, Pecos River at Puerto de Luna, N. Mex., which was located at bridge in the village of Puerto de Luna, 9 mi (14.5 km) northwest of the discharge station.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPERATURE (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARDNESS (CA+MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)
OCT												
21...	1100	84	2610	--	--	--	--	--	--	--	--	--
22...	1130	78	2700	7.8	22.5	17.5	15	--	0	1500	1400	570
NOV												
11...	1000	90	2770	8.1	18.0	8.0	15	9.7	5	1500	1400	510
17...	1525	94	2660	--	--	--	--	--	--	--	--	--
DEC												
08...	1240	92	2700	8.2	16.0	9.5	25	12.0	4	1500	1400	510
JAN												
14...	1500	99	2780	8.4	10.0	8.0	25	11.6	4	1600	1500	530
FEB												
10...	1530	94	2800	8.0	15.5	13.5	25	8.1	4	1600	1400	520
MAR												
11...	0955	92	2770	--	--	9.5	--	--	--	--	--	--
23...	1600	76	2850	7.7	20.5	18.5	19	9.3	10	1600	1500	550
APR												
07...	1530	76	2840	--	--	21.0	--	--	--	--	--	--
20...	1530	80	2900	7.8	23.5	22.0	10	8.4	5	1700	1600	560
MAY												
11...	1330	101	2390	7.6	29.0	24.5	110	8.6	20	1400	1300	460
JUN												
08...	1330	465	1000	7.5	28.0	22.0	3500	6.8	38	510	380	170
JUL												
13...	1430	67	2600	8.1	29.0	29.0	65	--	2	1600	1500	540
AUG												
24...	1500	108	2140	8.2	31.5	29.5	650	6.5	71	1200	1100	410
SEP												
27...	1345	82	2600	8.0	10.5	17.0	140	9.5	22	1500	1400	490

DATE	DISSOLVED MAGNESIUM (MG) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DISSOLVED SULFATE (SO4) (MG/L) (00945)	DISSOLVED CHLORIDE (CL) (MG/L) (00940)	DISSOLVED FLUORIDE (F) (MG/L) (00950)	DISSOLVED SILICA (SI02) (MG/L) (00955)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (70300)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)
OCT												
21...	--	--	--	--	--	--	--	--	--	--	--	--
22...	12	87	1.0	2.4	137	0	1300	120	.6	13	2480	2170
NOV												
11...	60	92	1.0	2.2	158	0	1400	130	.6	12	2510	2290
17...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
08...	64	89	1.0	2.4	139	0	1400	120	.6	13	2510	2270
JAN												
14...	64	89	1.0	2.3	145	0	1400	120	.7	13	2530	2290
FEB												
10...	61	87	1.0	2.5	134	0	1400	120	.6	10	2500	2270
MAR												
11...	--	--	--	--	--	--	--	--	--	--	--	--
23...	63	85	.9	2.6	126	0	1400	120	.6	13	2630	2300
APR												
07...	--	--	--	--	--	--	--	--	--	--	--	--
20...	67	100	1.1	2.7	127	0	1500	180	.6	12	2680	2490
MAY												
11...	60	77	.9	2.7	126	0	1200	110	.6	14	2230	1990
JUN												
08...	21	25	.5	1.9	157	0	400	32	.5	9.5	804	739
JUL												
13...	66	88	1.0	3.0	133	0	1500	120	.6	14	2540	2400
AUG												
24...	46	67	.8	3.1	144	0	1100	99	.5	12	1890	1810
SEP												
27...	60	84	1.0	3.1	142	0	1400	120	.6	15	2390	2240

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOL- VED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PEN- DED ORGANIC CARBON (C) (MG/L) (00689)
OCT											
21...	--	--	--	--	--	--	--	--	--	--	--
22...	.01	.01	.00	.14	.15	.02	.01	100	10	14	.3
NOV											
11...	.02	.02	.00	.13	.15	.02	.02	100	20	2.7	.2
17...	--	--	--	--	--	--	--	--	--	--	--
DEC											
08...	.09	.02	.01	.19	.29	.01	.00	780	0	5.2	.7
JAN											
14...	.19	.14	.01	.20	.40	.04	.01	100	0	.6	.7
FEB											
10...	.08	.07	.02	.15	.25	.03	.00	90	0	.9	.7
MAR											
11...	--	--	--	--	--	--	--	--	--	--	--
23...	.02	.06	.01	.13	.16	.02	.01	90	0	1.9	.9
APR											
07...	--	--	--	--	--	--	--	--	--	--	--
20...	.02	.00	.00	.05	.07	.03	.00	110	30	1.0	--
MAY											
11...	.07	.07	.08	.44	.59	.10	.03	20	20	2.3	--
JUN											
08...	.36	.29	.04	5.7	6.1	2.0	.01	50	60	3.4	1.3
JUL											
13...	.02	.02	.00	.34	.36	.11	.03	100	30	2.6	1.2
AUG											
24...	.27	.25	.01	2.3	2.6	.54	.04	940	30	2.3	2.1
SEP											
27...	.15	.15	.03	.56	.74	.24	.01	90	10	2.5	--

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	ODE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN*									
08...	1330	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## RIO GRANDE BASIN

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCI (COL- ONIES PER 100 ML) (31679)
OCT			
22...	1130	13	47
NOV			
11...	1000	5	45
DEC			
08...	1240	3	12
JAN			
14...	1500	13	30
FEB			
10...	1530	12	6
MAR			
23...	1600	4	6
APR			
20...	1530	7	25
MAY			
11...	1330	160	260
JUN			
08...	1330	12000	10000
JUL			
13...	1430	71	28
AUG			
24...	1500	4300	1900
SEP			
27...	1345	600	900

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	TEMPER- ATURE (DEG C) (000010)	SUS- PENDED SEDI- MENT (MG/L) (80154)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
22...	1130	78	17.5	64	13	51
NOV						
11...	1000	90	8.0	86	21	51
DEC						
08...	1240	92	9.5	262	65	35
JAN						
14...	1500	99	8.0	515	138	37
FEB						
10...	1530	94	13.5	204	52	33
MAR						
23...	1600	76	18.5	343	70	--
APR						
20...	1530	80	22.0	237	51	--
MAY						
11...	1330	101	24.5	427	116	71
JUN						
08...	1330	465	22.0	7880	9890	89
JUL						
13...	1430	67	29.0	152	27	88
AUG						
24...	1500	108	29.5	1400	408	85
SEP						
27...	1345	82	17.0	429	95	83

RIO GRANDE BASIN

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08384000 LAKE SUMNER NEAR FORT SUMNER, NM

LOCATION.--Lat 34°36'30", long 104°23'04", in SE¼SW¼ sec.34, T.5 N., R.24 E., DeBaca County, Hydrologic Unit 13060001, near center of dam on Pecos River, 5.0 mi (8.0 km) northeast of Guadalupe, 12.2 mi (19.6 km) northwest of Fort Sumner, and at mile 702.0 (1,129.5 km, corrected).

DRAINAGE AREA.--4,390 mi<sup>2</sup> (11,370 km<sup>2</sup>), approximately (contributing area).

PERIOD OF RECORD.--December 1938 to September 1965 (monthend contents only), October 1965 to current year. Monthend elevations September 1937 to November 1938 published in reports of Pecos River Commission. Prior to October 1974, published as "Alamogordo Reservoir".

REVISED RECORDS.--WSP 1732: 1939-54. WSP 1923: 1939-53(M) (m).

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (Bureau of Reclamation datum). April 1, 1946, to Sept. 30, 1957, water-stage recorder above elevation 4,234.25 ft (1,290.599 m), nonrecording gage below.

REMARKS.--Reservoir is formed by earthfill dam, completed and storage began in August 1937. Capacity, 110,700 acre-ft (136 hm<sup>3</sup>) at elevation 4,275.0 ft (1,303.020 m), top of spillway gates. No dead storage. No storage allocated for flood control. Reservoir is used to store water for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 138,300 acre-ft (171 hm<sup>3</sup>) 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 (1,303.020 m); maximum elevation 4,276.10 ft (1,303.355 m) June 3, Sept. 8, 1958; no storage July 28 to Aug. 2, 1951, elevation 4,200.70 ft (1,280.373 m).

COOPERATION.--Elevation record and capacity table (dated November 1965) furnished by Bureau of Reclamation.

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21820	20650	26580	32370	35500	38800	4230	4720	7770	11880	22710	3820
2	21820	20790	26750	32560	35500	38800	4290	4910	7770	11780	20510	3820
3	21670	20930	26920	32750	35500	38800	4350	4980	7770	11680	18450	3820
4	21670	21370	27090	32940	35700	38800	4480	4980	7770	11580	21370	3820
5	21520	21370	27260	32940	35900	38800	4600	5250	7770	14650	22710	3760
6	21520	21520	27440	33140	36100	38800	4660	5510	7770	15340	21520	3760
7	21370	21670	27610	33330	36300	39680	4720	5800	8020	15690	19520	3820
8	21370	21960	27790	33520	36500	39680	4790	5940	9050	15690	17410	5660
9	21370	22110	27960	33910	36500	39680	4850	6010	9860	15690	14990	6220
10	21230	22410	28140	34110	36700	39680	4850	6150	12180	15690	12480	6680
11	21230	22410	28320	34300	36910	39460	4910	6220	13220	15690	10220	6750
12	21080	22710	28670	34300	37120	38170	4980	6300	13430	14990	7370	6830
13	20930	22870	28840	34490	37330	36100	4980	6380	13760	14990	4540	6830
14	20930	23020	29020	34690	37540	33720	4980	6380	13870	15220	3820	6750
15	20930	23180	29200	34690	37750	31610	4980	6380	13980	16170	3820	6750
16	20930	23330	29380	35090	37960	29200	4980	6300	14090	17030	3760	6830
17	20930	23640	29570	35290	38170	26920	4980	6220	13980	18180	3710	7060
18	20790	23790	29750	35500	38380	24760	5050	6150	13980	18850	3600	7450
19	20790	24110	29930	35500	38380	22410	5050	6150	13870	19120	3540	7690
20	20790	24270	30120	35700	38380	19810	5050	6080	13760	19120	3540	8440
21	20790	24600	30300	35700	38590	17920	5050	6080	13650	20370	3490	8960
22	20650	24920	30480	35700	38800	15110	5050	6150	13650	21960	3440	9580
23	20650	24920	30660	35700	38800	12800	4980	6380	13540	22410	3650	9760
24	20650	25080	30850	35700	39020	10130	4980	6530	13430	22710	3710	9860
25	20650	25240	31040	35700	39240	7140	4850	6680	13220	29020	3760	9950
26	20650	25570	31230	35700	39460	3820	4720	6980	12900	30120	3820	9950
27	20510	25740	31420	35500	39680	3820	4660	7140	12590	30660	3710	9950
28	20510	25910	31610	35500	39900	3760	4600	7300	12280	31230	3820	10130
29	20510	26080	31800	35500	39900	3760	4600	7450	12180	29380	3820	10410
30	20510	26240	31990	35500	---	3880	4600	7610	11980	27260	3820	10700
31	20510	---	32180	35500	---	4110	---	7770	---	25080	3760	---
MEAN	21009	23413	29351	34607	37638	25159	4795	6221	11769	19330	9044	7193
MAX	21820	26240	32180	35700	39900	39680	5050	7770	14090	31230	22710	10700
MIN	20510	20650	26580	32370	35500	3760	4230	4720	7770	11580	3440	3760
(Δ)	-1310	+5730	+5940	+3320	+4400	-35790	+490	+3170	+4210	+13100	-21320	+6940
CAL YR 1975		MAX 63340	MIN 4000	CHANGE IN CONTENTS		-4120						
WTR YR 1976		MAX 39900	MIN 3440	CHANGE IN CONTENTS		-11120						

Δ Change in contents, in acre-feet.

083840 LAKE SUMNER NEAR FORT SUMNER, NM -- CONTINUED

ELEVATION: IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4243.60	4242.80	4246.60	4249.80	4251.40	4253.00	4226.00	4226.80	4231.00	4235.50	4244.20	4225.30
2	4243.60	4242.90	4246.70	4249.90	4251.40	4253.00	4226.10	4227.10	4231.00	4235.40	4242.70	4225.30
3	4243.50	4243.00	4246.80	4250.00	4251.40	4253.00	4226.20	4227.20	4231.00	4235.30	4241.20	4225.30
4	4243.50	4243.30	4246.90	4250.10	4251.50	4253.00	4226.40	4227.20	4231.00	4235.20	4243.30	4225.30
5	4243.40	4243.30	4247.00	4250.10	4251.60	4253.00	4226.60	4227.60	4231.00	4238.10	4244.20	4225.20
6	4243.40	4243.40	4247.10	4250.20	4251.70	4253.00	4226.70	4228.00	4231.00	4238.70	4243.40	4225.20
7	4243.30	4243.50	4247.20	4250.30	4251.80	4253.40	4226.80	4228.40	4231.30	4239.00	4242.00	4225.30
8	4243.30	4243.70	4247.30	4250.40	4251.90	4253.40	4226.90	4228.60	4232.50	4239.00	4240.40	4228.20
9	4243.30	4243.80	4247.40	4250.60	4251.90	4253.40	4227.00	4228.70	4233.40	4239.00	4238.40	4229.00
10	4243.20	4244.00	4247.50	4250.70	4252.00	4253.40	4227.00	4228.90	4235.80	4239.00	4236.10	4229.60
11	4243.20	4244.00	4247.60	4250.80	4252.10	4253.30	4227.10	4229.00	4236.80	4239.00	4233.80	4229.70
12	4243.10	4244.20	4247.80	4250.90	4252.20	4252.70	4227.20	4229.10	4237.00	4238.40	4230.50	4229.80
13	4243.00	4244.30	4247.90	4250.90	4252.30	4251.70	4227.20	4229.20	4237.30	4238.40	4226.50	4229.80
14	4243.00	4244.40	4248.00	4251.00	4252.40	4250.50	4227.20	4229.20	4237.40	4238.60	4225.30	4229.70
15	4243.00	4244.50	4248.10	4251.00	4252.50	4249.40	4227.20	4229.20	4237.50	4239.40	4225.30	4229.70
16	4243.00	4244.60	4248.20	4251.20	4252.60	4248.10	4227.20	4229.10	4237.60	4240.10	4225.20	4229.80
17	4243.00	4244.80	4248.30	4251.30	4252.70	4246.80	4227.20	4229.00	4237.50	4241.00	4225.10	4230.10
18	4242.90	4244.90	4248.40	4251.40	4252.80	4245.50	4227.30	4228.90	4237.50	4241.50	4224.90	4230.60
19	4242.90	4245.10	4248.50	4251.40	4252.80	4244.00	4227.30	4228.90	4237.40	4241.70	4224.80	4230.90
20	4242.90	4245.20	4248.60	4251.50	4252.80	4242.20	4227.30	4228.80	4237.30	4241.70	4224.80	4231.80
21	4242.90	4245.40	4248.70	4251.50	4252.90	4240.80	4227.30	4228.80	4237.20	4242.60	4224.70	4232.40
22	4242.80	4245.60	4248.80	4251.50	4253.00	4238.50	4227.30	4228.90	4237.20	4243.70	4224.60	4233.10
23	4242.80	4245.60	4248.90	4251.50	4253.00	4236.40	4227.20	4229.20	4237.10	4244.00	4225.00	4233.30
24	4242.80	4245.70	4249.00	4251.50	4253.10	4233.70	4227.20	4229.40	4237.00	4244.20	4225.10	4233.40
25	4242.80	4245.80	4249.10	4251.50	4253.20	4230.20	4227.00	4229.60	4236.80	4248.00	4225.20	4233.50
26	4242.80	4246.00	4249.20	4251.50	4253.30	4225.30	4226.80	4230.00	4236.50	4248.60	4225.30	4233.50
27	4242.70	4246.10	4249.30	4251.40	4253.40	4225.30	4226.70	4230.20	4236.20	4248.90	4225.10	4233.50
28	4242.70	4246.20	4249.40	4251.40	4253.50	4225.20	4226.60	4230.40	4235.90	4249.20	4225.30	4233.70
29	4242.70	4246.30	4249.50	4251.40	4253.50	4225.20	4226.60	4230.60	4235.80	4248.20	4225.30	4234.00
30	4242.70	4246.40	4249.60	4251.40	---	4225.40	4226.60	4230.80	4235.60	4247.00	4225.30	4234.30
31	4242.70	---	4249.70	4251.40	---	4225.40	---	4231.00	---	4245.70	4225.20	---
MEAN	4243.05	4244.63	4248.14	4250.95	4252.44	4243.47	4226.91	4228.96	4235.25	4241.42	4230.91	4230.01
MAX	4243.60	4246.40	4249.70	4251.50	4253.50	4253.40	4227.30	4231.00	4237.60	4249.20	4244.20	4234.30
MIN	4242.70	4242.80	4246.60	4249.80	4251.40	4225.20	4226.00	4226.80	4231.00	4235.20	4224.60	4225.20
WIR YR 1976	MEAN	4239.67	MAX	4253.50	MIN	4224.60						

## RIO GRANDE BASIN

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08384500 PECOS RIVER BELOW SUMNER DAM, NM

LOCATION.--Lat 34°36'15", long 104°23'14", in lot 1, sec.2, T.4 N., R.24 E., DeBaca County, Hydrologic Unit 13060003, on left bank 1,200 ft (366 m) downstream from Sumner Dam, 2.9 mi (4.7 km) upstream from Salado Creek, 4.6 mi (7.4 km) northeast of Guadalupe, 12.2 mi (19.6 km) northwest of Fort Sumner, and at mile 701.7 (1,129.0 km, corrected).

## WATER-DISCHARGE RECORDS

DRAINAGE AREA.--4,390 mi<sup>2</sup> (11,370 km<sup>2</sup>), approximately (contributing area).

PERIOD OF RECORD.--October 1912 to April 1926, August 1926 to current year. Monthly discharge only for some periods, published in WSP 1312. October 1944 to September 1974, published as "below Alamogordo Dam." Prior to October 1944, published as "near Guadalupe."

REVISED RECORDS.--WSP 1512: 1932. WSP 1632: 1942. WSP 1712: 1944.

GAGE.--Water-stage recorder and Parshall flume, with concrete control above top of flume. Datum of gage is 4,142.67 ft (1,262.686 m) above mean sea level (Bureau of Reclamation datum). Prior to Sept. 10, 1936, at site 1.5 mi (2.4 km) upstream at different datum. Sept. 14, 1936, to Mar. 8, 1941, and June 11, to Sept. 21, 1941, at site 0.2 mi (0.3 km) downstream at different datums.

REMARKS.--Water-discharge records good. Diversion for irrigation of about 12,500 acres (51 km<sup>2</sup>), 1959 determination, above station. Flow regulated by Lake Sumner (station 08384000).

AVERAGE DISCHARGE.--23 years (1912-25, 1926-36), 236 ft<sup>3</sup>/s (6.684 m<sup>3</sup>/s), 171,000 acre-ft/yr (211 hm<sup>3</sup>/yr), prior to completion of Sumner Dam; 40 years (1936-76), 208 ft<sup>3</sup>/s (5.891 m<sup>3</sup>/s) 150,700 acre-ft/yr (186 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,800 ft<sup>3</sup>/s (1,210 m<sup>3</sup>/s) Sept. 1, 1942, by computation of flow over spillway and through outlet gates of Sumner Dam by Bureau of Reclamation; maximum gage height, 13.58 ft (4.139 m) Sept. 22, 1941, no flow at times.

Flood of June 2, 1937, probably exceeded 55,000 ft<sup>3</sup>/s (1,560 m<sup>3</sup>/s) at site 1.5 mi (2.4 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,190 ft<sup>3</sup>/s (33.7 m<sup>3</sup>/s) Mar. 13, gage height, 3.31 ft (1.009 m); no flow Dec. 1-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	1.0	0	.45	89	34	65	71	85	97	1020	78
2	97	1.0	0	.45	90	102	61	72	85	97	1020	78
3	98	.64	0	.45	90	97	60	72	85	97	1020	78
4	98	.64	0	.45	2.0	97	62	73	85	97	983	77
5	98	.84	.03	.58	.51	99	64	73	85	75	949	78
6	98	.84	.03	.63	.51	99	64	73	85	64	996	78
7	98	.84	.03	.64	.51	99	64	73	89	62	1010	79
8	98	.84	.03	.64	.51	97	65	71	92	62	1000	80
9	97	.84	.03	.64	.67	98	61	71	95	64	1020	81
10	98	1.0	.03	.85	.52	99	60	78	95	62	1010	80
11	98	1.0	.03	1.1	.51	359	67	82	95	63	974	80
12	98	.64	.03	1.1	.51	1170	77	82	94	61	958	80
13	88	.64	.28	1.1	.51	1190	80	83	94	62	556	84
14	86	.64	.28	1.1	.61	1170	81	83	94	63	91	86
15	86	.45	.28	1.1	.65	1170	79	83	94	63	92	86
16	88	.45	.45	1.1	.63	1170	79	83	94	64	100	86
17	88	.45	.45	.90	.72	1170	78	83	94	62	104	86
18	88	.45	.45	.91	.67	1170	79	83	95	61	101	87
19	90	.45	.45	34	.53	1170	79	82	95	76	98	86
20	90	.64	.28	91	.51	1160	78	82	95	83	100	86
21	90	.64	.28	93	.51	1150	79	82	95	83	99	86
22	90	.45	.28	93	.51	1150	79	83	95	81	100	85
23	88	.28	.28	93	.52	1140	90	82	95	80	99	83
24	88	.13	.28	93	.52	1130	90	86	95	80	101	84
25	88	.13	.28	95	.51	1110	91	87	96	80	100	84
26	88	.03	.28	92	.52	430	77	85	95	82	101	85
27	80	.03	.28	90	.52	90	73	86	95	81	101	56
28	77	.13	.45	89	.56	91	72	86	95	700	100	.38
29	77	.03	.45	90	.64	64	71	86	95	1030	98	.38
30	76	.03	.45	90	---	24	70	86	95	1030	85	16
31	70	---	.45	89	---	62	---	86	---	1030	79	---
TOTAL	2790	16.17	6.92	1146.19	284.89	18261	2195	2488	2776	5792	14265	2213.76
MEAN	90.0	.54	.22	37.0	9.82	589	73.2	80.3	92.5	187	460	73.8
MAX	98	1.0	.45	95	90	1190	91	87	96	1030	1020	87
MIN	70	.03	0	.45	.51	24	60	71	85	61	79	.38
AC-FT	5530	32	14	2270	565	36220	4350	4930	5510	11490	28290	4390
CAL YR 1975 TOTAL	49164.91			MEAN 135	MAX 1140	MIN 0	AC-FT 97520					
WTR YR 1976 TOTAL	52234.93			MEAN 143	MAX 1190	MIN 0	AC-FT 103600					

## RIO GRANDE BASIN

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937-66, 1972 to current year.

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE- D SEDI- MENT (MG/L) (80154)	SUS- PENDE- D MENT CHARGE (T/DAY) (80155)	SUS. SFD. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT							
01...	0930	99	1840	17.5	74	20	--
09...	1730	99	2060	17.0	121	32	--
13...	0900	82	2050	16.5	115	25	--
22...	1000	91	2150	16.0	136	33	--
23...	0920	88	2110	15.0	144	34	--
27...	0900	75	2100	14.0	97	20	--
NOV							
11...	0900	.84	1000	8.5	142	.32	--
FFR							
11...	1800	.51	2530	8.0	190	.26	--
MAR							
12...	1000	1160	2470	8.0	392	1230	--
18...	0900	1160	2500	9.0	155	485	--
22...	0830	1130	2530	9.5	232	708	--
23...	1445	1130	2540	10.0	220	671	--
26...	0750	1070	2550	10.0	235	679	--
26...	1700	88	2600	9.5	230	55	--
APR							
08...	0800	59	2670	14.5	168	27	--
09...	0800	59	2680	14.0	141	22	--
12...	1640	76	2710	15.0	155	32	--
22...	1600	90	2710	12.0	400	97	--
23...	0930	90	2770	14.0	118	29	--
26...	1820	70	2800	15.0	152	29	--
MAY							
07...	1000	74	2650	16.0	95	19	--
10...	1035	82	2620	16.5	110	24	--
11...	1630	82	2580	16.0	39	8.6	92
18...	0940	84	2650	18.0	127	29	--
27...	0700	86	2380	19.0	122	28	--
JUN							
08...	1630	92	2270	21.0	87	22	--
10...	0600	95	2210	20.5	953	244	--
11...	1800	95	2150	21.0	164	42	--
14...	0705	94	2220	19.0	95	24	--
14...	1245	94	1770	21.0	122	31	--
19...	0710	95	1720	19.0	77	20	--
21...	1205	96	1720	21.0	87	23	--
JUL							
03...	0725	97	1930	22.0	79	21	--
05...	1000	63	1980	22.5	76	13	--
13...	1240	63	1840	24.0	94	16	--
15...	0840	63	1800	23.0	92	16	--
19...	1130	84	1830	23.5	66	15	--
23...	1700	78	1790	23.0	109	23	--
28...	0650	80	1630	23.0	51	11	--
28...	0915	1010	1570	23.5	208	567	--
AUG							
03...	1530	1010	1310	25.0	90	245	--
04...	0920	970	1320	24.0	88	230	--
04...	1700	970	1160	23.0	80	210	--
05...	1305	950	1150	23.0	65	167	--
10...	1420	990	1180	24.0	90	241	--
12...	1633	950	1270	24.5	90	231	--
13...	1115	950	1280	24.0	114	292	--
16...	1940	108	1820	25.0	172	50	--
17...	0900	101	1790	23.0	156	43	--
19...	1500	98	1810	23.0	150	40	--
23...	1545	98	2170	22.5	145	38	--
24...	0910	96	2110	23.0	167	43	--
24...	1315	104	2170	24.0	170	48	--
26...	1900	99	2040	23.5	178	48	--
30...	1530	78	2080	23.0	138	29	--
SEP							
07...	1800	78	2390	21.5	148	31	--
14...	0900	86	1850	20.5	160	37	--
16...	1730	86	1880	20.5	118	27	--
20...	1530	86	1970	21.5	141	33	--
21...	1830	86	1880	20.5	92	21	--
27...	1300	99	1790	20.5	70	19	--
27...	1610	3.2	1920	18.5	103	.89	--



## 08385000 FORT SUMNER MAIN CANAL NEAR FORT SUMNER, NM

LOCATION.--34°30'30", long 104°16'40", in SW¼SW¼ sec.1, T.3 N., R.25 E., DeBaca County, Hydrologic Unit 13060003, on right bank of concrete canal, 200 ft (60 m) downstream from diversion dam on Pecos River, 3.0 mi (4.8 km) northwest of Fort Sumner, and at Pecos River mile 684.8 (1,101.8 km, corrected).

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. Datum of gage is 4,034.7 ft (1,229.78 m) above mean sea level (Bureau of Reclamation bench mark). Prior to March 1954 at site 2.4 mi (3.9 km) downstream at different datum. April 1954 to March 1965 at site 1.1 mi (1.8 km) downstream at datum 1.7 ft (0.52 m) lower.

REMARKS.--Records good. Canal diverts water from Pecos River for irrigation of about 6,600 acres (27 km²), 1961 determination, by the Fort Sumner Irrigation District. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--25 years (1939-42, 1954-76), 48.9 ft³/s (1.385 m³/s), 35,430 acre-ft/yr (43.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 174 ft³/s (4.93 m³/s) July 22, 1941; no flow many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	28		0	85	0	64	75	78	89	90	76
2	91	0		0	85	38	66	70	79	89	92	73
3	91	0		0	86	88	60	72	83	89	93	74
4	92	0		0	45	87	72	72	76	89	33	75
5	93	0		0	0	92	68	80	83	92	0	76
6	93	0		0	0	94	71	70	85	69	59	89
7	94	0		0	0	94	68	73	93	62	91	81
8	94	0		0	0	96	65	69	92	61	91	81
9	94	0		0	0	92	67	70	93	60	90	92
10	95	0		0	0	93	58	71	90	60	92	85
11	95	0		0	0	96	57	78	91	60	92	80
12	96	0		0	0	95	70	77	91	62	92	79
13	93	0		0	0	96	78	80	91	61	89	81
14	83	0		0	0	94	80	82	86	75	83	90
15	83	0		0	0	86	85	81	89	73	88	83
16	85	0		0	0	87	78	79	88	85	91	83
17	85	0		0	0	90	72	80	86	66	96	83
18	85	0		0	0	87	73	80	86	60	96	86
19	86	0		0	0	88	76	82	88	61	96	94
20	89	0		34	0	88	75	85	88	78	97	96
21	89	0		82	0	87	76	84	88	87	97	89
22	90	0		88	0	30	71	82	89	75	97	88
23	89	0		90	0	0	86	81	88	76	97	83
24	83	0		90	0	64	94	80	85	80	97	83
25	83	0		90	0	91	92	92	86	72	98	83
26	85	0		94	0	90	90	86	84	72	97	82
27	84	0		88	0	96	68	69	84	72	97	90
28	72	0		86	0	92	70	82	85	75	96	20
29	76	0		85	0	91	71	78	86	84	96	0
30	74	0		85	---	44	78	78	87	86	91	0
31	72	---		84	---	44	---	82	---	90	77	---
TOTAL	2707	28	0	996	301	2410	2199	2420	2598	2310	2691	2275
MEAN	87.3	.93	0	32.1	10.4	77.7	73.3	78.1	86.6	74.5	86.8	75.8
MAX	96	28	0	94	86	96	94	92	93	92	98	96
MIN	72	0	0	0	0	0	57	69	76	60	0	0
AC-FT	5370	56	0	1980	597	4780	4360	4800	5150	4580	5340	4510
CAL YR 1975	TOTAL	19333.00	MEAN	53.0	MAX	117	MIN	0	AC-FT	38350		
WTR YR 1976	TOTAL	20935.00	MEAN	57.2	MAX	98	MIN	0	AC-FT	41520		

## 08386000 PECOS RIVER NEAR ACME, NM

LOCATION.--Lat 33°32'10", long 104°22'34", in SW¼NW¼ sec.14, T.9 S., R.25 E., Chaves County, Hydrologic Unit 13060007, on right bank 3.0 mi (4.8 km) downstream from U.S. Highway 70, 3.7 mi (6.0 km) downstream from Salt Creek, 4.7 mi (7.6 km) southwest of Acme, 14 mi (22.5 km) northeast of Roswell, and at mile 585.3 (941.7 km, corrected).

DRAINAGE AREA.--11,380 mi<sup>2</sup> (29,470 km<sup>2</sup>), approximately (contributing area).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to June 1923, July 1937 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 3,507 ft (1,069 m), from topographic map. Prior to Nov. 1, 1938, at site on highway bridge 3 mi (4.8 km) upstream from U.S. Highway 70, 3.7 mi (6.0 km) downstream from Salt Creek, 4.7 mi (7.6 km) southwest of Acme, 14 mi (22.5 km) northeast of Roswell, and at mile 585.3 (941.7 km, corrected).

REMARKS.--Water-discharge records fair except those below 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s), which are poor. Flow regulated by Lake Sumner (station 08384000). Diversions for irrigation of about 20,000 acres (81 km<sup>2</sup>), 1959 determination, above station.

AVERAGE DISCHARGE.--39 years (1937-76), 191 ft<sup>3</sup>/s (5.409 m<sup>3</sup>/s), 138,400 acre-ft/yr (171 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,000 ft<sup>3</sup>/s (1,270 m<sup>3</sup>/s) Sept. 23, 1941, gage height, 13.71 ft (4.179 m), from rating curve extended above 26,000 ft<sup>3</sup>/s (736 m<sup>3</sup>/s); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 28, 1937, reached a discharge of 53,000 ft<sup>3</sup>/s (1,500 m<sup>3</sup>/s), gage height, 14.82 ft (4.517 m), from floodmarks, site and datum then in use, by slope-area method, but may have been exceeded by the flood of Oct. 1, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,150 ft<sup>3</sup>/s (60.9 m<sup>3</sup>/s) July 14, gage height 6.30 ft (1.920 m); no flow June 16 to July 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	13	7.0	7.0	12	4.7	85	34	5.8	0	807	37
2	21	13	7.4	5.5	12	4.4	77	35	7.5	0	851	15
3	17	12	6.7	3.0	11	3.5	63	26	2.1	0	1010	12
4	19	15	6.7	3.0	12	2.7	50	18	.81	2.2	1020	7.0
5	13	18	7.4	3.5	17	1.9	53	307	.23	206	939	4.7
6	7.8	14	7.4	5.0	17	1.9	46	150	.67	205	873	7.0
7	7.4	14	7.4	4.0	21	2.4	41	96	170	172	840	4.4
8	7.4	12	6.7	4.0	26	2.7	39	51	97	138	862	4.4
9	5.5	10	6.4	4.5	22	3.5	35	37	69	58	851	186
10	5.5	9.3	6.7	5.5	18	4.0	34	30	50	23	829	93
11	4.9	8.1	7.4	9.0	17	5.1	30	23	27	16	939	36
12	7.8	7.0	7.8	8.5	19	5.8	25	20	14	13	884	22
13	9.7	7.8	7.4	9.0	19	8.8	63	15	5.8	23	818	17
14	7.4	7.8	7.0	8.0	16	7.30	49	12	1.2	465	774	12
15	4.9	8.1	6.5	5.0	13	862	26	10	.48	382	553	9.0
16	4.0	7.4	6.0	7.0	12	906	24	8.2	0	209	215	7.3
17	5.2	7.8	6.0	6.6	10	917	23	7.3	0	107	143	6.2
18	4.9	8.1	6.5	6.2	8.6	895	21	7.0	0	69	105	3.7
19	3.5	9.7	7.0	6.2	8.2	818	20	6.2	0	37	105	14
20	3.1	20	7.5	5.0	6.2	895	19	9.5	0	27	69	381
21	4.0	17	8.0	4.0	5.5	906	19	10	0	34	46	139
22	7.0	15	8.5	5.0	5.1	895	18	9.5	0	29	40	97
23	8.1	14	8.9	5.5	5.1	939	18	6.6	0	24	27	61
24	8.9	11	11	5.5	5.5	939	17	4.7	0	371	25	50
25	10	9.7	10	4.7	5.1	884	14	4.0	0	163	22	44
26	10	7.4	11	3.5	5.1	785	13	2.9	0	190	20	36
27	11	7.0	9.3	6.5	5.5	752	11	2.1	0	116	18	39
28	11	8.1	8.5	6.0	5.5	340	15	2.1	0	43	16	41
29	16	7.4	8.5	7.0	5.1	186	18	11	0	29	14	48
30	16	5.8	7.4	8.2	---	153	24	14	0	214	14	50
31	15	---	7.0	10	---	113	---	9.5	---	730	11	---
TOTAL	293.0	328.5	237.0	181.4	344.5	13045.6	990	978.6	447.59	4095.2	13740	1483.7
MEAN	9.45	11.0	7.65	5.85	11.9	421	33.0	31.6	14.9	132	443	49.5
MAX	21	20	11	10	26	939	85	307	170	730	1020	381
MIN	3.1	5.8	6.0	3.0	5.1	1.9	11	2.1	0	0	11	3.7
AC-FT	581	652	470	360	683	25880	1960	1940	888	8120	27250	2940
CAL YR 1975	TOTAL	31555.65	MEAN	86.5	MAX	1320	MIN	0	AC-FT	62590		
WTR YR 1976	TOTAL	36165.09	MEAN	98.8	MAX	1020	MIN	0	AC-FT	71730		

08386000 PECOS RIVER NEAR ACME, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA, MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED POLYTAN- SIUM (K) (MG/L) (00935)
OCT 09...	1020	5.4	3600	8.0	10.0	1600	1500	470	98	270	3.0	5.2
NOV 13...	1125	8.1	3940	8.0	10.5	1700	1600	500	110	330	3.5	5.0
JAN 27...	1130	6.3	4510	7.9	2.5	1800	1700	490	130	460	4.8	4.8
FEB 13...	1105	20	3660	7.5	16.5	1600	1500	440	110	310	3.4	4.7
MAR 08...	1055	2.8	6390	8.1	12.5	2200	2100	610	170	730	6.7	7.1
15...	1040	810	2840	7.5	8.5	1600	1400	490	82	120	1.3	3.9
APR 01...	1140	89	2500	7.5	20.0	1600	1500	520	80	140	1.5	3.6
MAY 21...	1045	9.1	5000	7.4	21.0	2200	2100	620	150	480	4.5	6.6
JUN 03...	1045	2.5	4550	7.5	20.0	2100	2000	610	130	390	3.7	6.6
JUL 09...	1210	55	1110	7.4	26.0	440	360	140	23	69	1.4	3.6
AUG 25...	1025	22	2750	7.5	24.0	1300	1200	380	78	180	2.2	5.3
SEP 17...	1115	6.7	3400	7.4	18.0	1500	1500	460	94	250	2.8	5.6

DATE	TIME	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SiO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHOPHOSPHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)
OCT 09...	101	0	1500	360	.6	12	2960	2770	.16	.00	280	0	
NOV 13...	117	0	1600	440	.6	11	--	3060	.28	--	--	--	--
JAN 27...	126	0	1700	660	.6	8.8	--	3520	.19	--	--	--	--
FEB 13...	101	0	1500	410	.6	8.1	--	2830	.25	--	--	--	--
MAR 08...	117	0	2200	1100	.7	5.9	--	4880	.00	--	--	--	--
15...	145	0	1400	170	.6	14	--	2350	.38	--	--	--	--
APR 01...	108	0	1600	190	.6	12	2700	2600	.14	.01	150	40	
MAY 21...	100	0	2100	650	.7	12	--	4070	.00	--	--	--	--
JUN 03...	90	0	2000	510	.7	13	--	3700	.01	--	--	--	--
JUL 09...	100	0	400	56	.7	11	--	758	1.3	--	--	--	--
AUG 25...	86	0	1300	220	.5	14	--	2220	.15	--	--	--	--
SEP 17...	82	0	1400	380	.6	13	--	2640	.12	--	--	--	--

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLORDANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI-ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTACHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN 18...	1255	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## 08386900 F. HERRERA DITCH-S. AT HOLLYWOOD, NM

LOCATION.--Lat 33°19'35", long 105°36'50", in NE 1/4 sec. 30, T.11 S., R.14 E., Lincoln County, Hydrologic Unit 13060008, on left bank, at upstream end of flume over Grapevine Canyon, 1.0 mi (1.6 km) below point of diversion, 0.7 mi (1.1 km) east of Hollywood and junction of U.S. Highway 70 and State Highway 37, point of diversion at Rio Ruidoso mile 24.5 (39.4 km).

PERIOD OF RECORD.--May 1960 to current year. (Monthly acre-ft only prior to January 1973, published as a supplement to station 08387000).

GAGE.--Water stage recorder and concrete control. Altitude of gage is 6,432 ft (1,960.5 m), from Topographic Division. Prior to Mar. 20, 1962, at site 315 ft (96 m) downstream at datum 12.79 ft (3.898 m) lower.

REMARKS.--Records poor. Water is diverted from Rio Ruidoso 1.0 mi (1.6 km) upstream for irrigation below station 08387000. Some observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--16 years, 0.55 ft<sup>3</sup>/s (0.016 m<sup>3</sup>/s), 398 acre-ft/yr (491,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6.6 ft<sup>3</sup>/s (0.19 m<sup>3</sup>/s) June 15, 1961; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1.1 ft<sup>3</sup>/s (0.031 m<sup>3</sup>/s) Apr. 26; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0					0	.62	.83	.30	.53	.30	.24
2	0					0	.56	.83	.24	.47	.26	.26
3	0					0	.76	.86	.42	.30	.28	.22
4	0					0	.72	.86	.53	.28	.27	.14
5	0					0	.69	.83	.50	.28	.12	.13
6	0					0	.66	.86	.59	.28	.12	.19
7	0					0	.72	.42	.40	.37	.12	.06
8	0					0	.72	.20	.16	.47	.12	.04
9	0					0	.76	.24	.22	.45	.10	.32
10	0					0	.80	.53	.16	.42	.07	.22
11	0					0	.83	.50	.13	.47	.08	.19
12	0					0	.80	.62	.10	.42	.03	.05
13	0					0	.49	.83	.07	.42	.04	.01
14	0					0	.72	.83	.05	.45	.04	.09
15	0					0	.86	.76	.04	.40	.03	.12
16	.01					.13	.72	.76	.25	.42	.03	.06
17	.04					.40	.69	.72	.35	.30	.10	0
18	.04					.45	.59	.69	.20	.24	.14	0
19	.03					.47	.72	.62	.19	.33	.13	.03
20	.02					.45	.76	.53	.14	.29	.16	0
21	0					.40	.97	.50	.13	.41	.16	.02
22	.01					.35	1.0	.47	.22	.12	.16	.02
23	0					.42	.97	.45	.53	.12	.14	0
24	0					.56	.97	.37	.72	.14	.13	.09
25	0					.59	1.0	.47	.76	.12	.14	0
26	0					.59	1.1	.66	.69	.10	.16	.04
27	0					.56	1.0	.66	.66	.14	.16	.05
28	0					.53	1.0	.59	.66	.28	.10	.05
29	0					.62	1.0	.53	.62	.30	.10	.02
30	0					.59	.90	.40	.62	.26	.11	0
31	0	---			---	.62	---	.32	---	.26	.20	---
TOTAL	.15	0	0	0	0	7.73	24.10	18.74	10.65	9.84	4.10	2.66
MEAN	.005	0	0	0	0	.25	.80	.60	.36	.32	.13	.089
MAX	.04	0	0	0	0	.62	1.1	.86	.76	.53	.30	.32
MIN	0	0	0	0	0	0	.49	.20	.04	.10	.03	0
AC-FT	.3	0	0	0	0	15	48	37	21	20	8.1	5.3

CAL YR 1975 TOTAL 60.98 MEAN .17 MAX 1.2 MIN 0 AC-FT 121  
WTR YR 1976 TOTAL 77.97 MEAN .21 MAX 1.1 MIN 0 AC-FT 155

## 08387000 RIO RUIDOSO AT HOLLYWOOD, NM

LOCATION.--Lat 33°19'43", long 105°36'34", in SW¼SE¼NE¼ sec.30, T.11 S., R.14 E., Lincoln County, Hydrologic Unit 13060008, on right upstream bridge abutment on road leading to Ruidoso Downs race track, 0.2 mi (0.3 km) north of U.S. Highway 70, 1.1 mi (1.8 km) east of the Hollywood Post Office, 1.2 mi (1.9 km) downstream from the Ruidoso sewage disposal plant, 1.8 mi (2.9 km) downstream from Gavilan Canyon, 2.8 mi (4.5 km) downstream from Carrizo Creek, and at mile 23.4 (37.7 km).

DRAINAGE AREA.--120 mi<sup>2</sup> (310 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--March 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,365.42 ft (1,940.180 m) above mean sea level. Prior to Oct. 14, 1961, at datum 0.30 ft (0.091 m) higher. Oct. 14, 1961, to Mar. 8, 1962, at datum 0.60 ft (0.183 m) higher. Mar. 9, 1962, to June 18, 1965, at datum 1.0 ft (0.305 m) higher.

REMARKS.--Records good. Figures of discharge do not include F. Herrera ditch-S. (station 08386900), which diverts from right bank 1.5 mi (2.4 km) upstream and bypasses station for irrigation of 75 acres (30.4 hm<sup>2</sup>), 1959 determination. Village of Ruidoso diverts from right bank 7.0 mi (11.3 km) upstream for municipal use and returns a portion of this river as effluent from sewage disposal plant 1.2 mi (1.9 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years, 13.2 ft<sup>3</sup>/s (0.374 m<sup>3</sup>/s), 9,560 acre-ft/yr (11.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,340 ft<sup>3</sup>/s (37.9 m<sup>3</sup>/s) June 17, 1965, gage height, 9.05 ft (2.758 m), from rating curve extended above 110 ft<sup>3</sup>/s (3.12 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum, 0.30 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Jan. 1, 1962, May 8-9, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29, 1941, is probably the highest since at least 1904 (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge 88 ft<sup>3</sup>/s (2.49 m<sup>3</sup>/s) at 0845 hours May 13, gage height, 1.98 ft (0.604 m) no peak above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s); minimum 4.4 ft<sup>3</sup>/s (0.12 m<sup>3</sup>/s).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	8.0	7.5	7.5	7.5	8.1	6.4	22	20	7.3	11	12
2	13	8.3	7.5	6.6	8.0	7.9	6.3	21	17	8.4	14	10
3	13	7.9	7.2	6.0	8.2	7.8	7.2	19	17	7.2	15	9.9
4	13	7.5	7.5	6.5	9.4	8.0	8.0	20	21	7.4	23	9.9
5	12	7.5	7.2	6.6	9.8	7.9	7.5	33	20	8.1	19	9.5
6	11	7.5	7.5	6.9	10	8.2	7.6	45	25	8.0	17	11
7	9.2	7.5	7.2	7.0	9.2	7.7	8.4	52	31	6.9	16	10
8	9.5	7.5	7.2	6.9	9.3	7.7	8.9	47	24	6.7	15	9.4
9	9.2	7.5	7.2	7.3	9.2	7.4	9.1	40	22	6.6	13	24
10	8.0	7.5	7.2	7.6	22	7.5	9.5	39	21	6.8	13	58
11	7.8	7.5	7.2	7.2	21	7.6	11	69	19	7.4	14	54
12	7.7	7.5	7.2	7.3	22	7.1	12	79	18	7.7	12	39
13	7.3	7.2	7.2	7.1	22	7.1	12	82	17	7.8	12	30
14	7.4	7.9	6.9	7.2	22	7.1	12	65	16	8.7	11	23
15	6.5	7.9	6.3	7.2	20	7.0	14	54	15	7.3	11	24
16	5.9	7.5	6.6	7.3	18	6.4	13	49	14	9.3	11	20
17	5.8	7.5	6.9	7.4	16	6.4	12	47	11	7.2	15	14
18	5.8	7.9	6.6	7.2	14	6.3	11	43	12	6.4	17	14
19	6.0	10	7.2	7.3	13	6.7	11	40	12	6.7	12	13
20	5.9	7.9	6.9	6.8	13	8.4	10	39	9.8	9.5	11	12
21	6.0	8.6	7.9	7.3	11	7.6	14	38	9.5	16	11	17
22	6.2	7.9	8.6	7.9	8.0	7.9	17	34	8.9	9.8	11	16
23	6.0	7.5	7.5	7.6	10	7.9	16	33	8.4	10	11	16
24	7.7	7.5	7.5	7.6	12	8.1	18	30	7.8	10	11	17
25	8.2	7.9	6.3	7.5	10	9.4	20	28	7.6	15	11	16
26	8.3	6.6	7.2	7.2	8.3	9.2	23	26	7.5	13	10	19
27	8.0	7.5	7.5	7.2	8.2	7.2	24	25	7.0	11	11	21
28	8.1	7.9	6.8	7.4	8.1	6.8	25	23	6.9	12	9.8	26
29	7.9	9.0	7.2	7.5	8.1	6.7	25	23	6.7	11	9.9	21
30	7.9	6.9	6.6	7.7	---	6.6	23	23	7.8	11	9.5	20
31	7.9	---	7.9	7.7	---	6.3	---	22	---	11	12	---
TOTAL	260.2	232.8	223.2	223.5	367.3	232.0	401.9	1210	439.9	281.2	399.2	595.7
MEAN	8.39	7.76	7.20	7.21	12.7	7.48	13.4	39.0	14.7	9.07	12.9	19.9
MAX	14	10	8.6	7.9	22	9.4	25	82	31	16	23	58
MIN	5.8	6.6	6.3	6.0	7.5	6.3	6.3	19	6.7	6.4	9.5	9.4
AC-FT	516	462	443	443	729	460	797	2400	873	558	792	1180

CAL YR 1975 TOTAL 7200.7 MEAN 19.7 MAX 181 MIN 5.6 AC-FT 14280  
WTR YR 1976 TOTAL 4866.9 MEAN 13.3 MAX 82 MIN 5.8 AC-FT 9650

## RIO GRANDE BASIN

08387600 EAGLE CREEK BELOW SOUTH FORK, NEAR ALTO, NM

LOCATION.--Lat 33°23'33", long 105°43'16", in SE 1/4 sec.31, T.10 S., R.13 E., Lincoln County, Hydrologic Unit 13060008, Lincoln Natl. Forest at right bank, 100 ft (30 m) downstream from culvert under State Road No. 532, 0.1 mi (0.2 km) downstream from South Fork, and 2.4 mi (3.9 km) west of Alto. Mouth at Rio Ruidoso mile 11.3 (18.2 km).

DRAINAGE AREA.--3.14 mi<sup>2</sup> (21.08 km<sup>2</sup>).

PERIOD OF RECORD,--August 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,600 ft (2,316 m), from topographic map.

REMARKS.--Records good. No diversions for irrigation above 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.

AVERAGE DISCHARGE.--7 years, 2.78 ft<sup>3</sup>/s (0.079 m<sup>3</sup>/s), 2,010 acre-ft/yr (2.48 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 107 ft<sup>3</sup>/s (3.03 m<sup>3</sup>/s) Oct. 20, 1972, gage height, 3.49 ft (1.064 m), from rating curve extended above 21 ft<sup>3</sup>/s (0.59 m<sup>3</sup>/s); minimum, 0.05 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) June 30, July 3, 4, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 17 ft<sup>3</sup>/s (0.48 m<sup>3</sup>/s) at 1315 hours Aug. 18, gage height 2.79 ft (0.850 m), no peak above base of 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s); minimum 0.07 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) June 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	.74	.97	.70	.50	1.1	1.1	3.7	1.5	.41	5.3	1.7
2	1.6	.76	.97	.50	.51	1.1	1.1	3.4	1.9	.52	7.9	1.5
3	1.5	.74	.97	.30	.48	1.1	.97	3.1	2.8	.48	9.3	1.4
4	1.3	.73	.92	.40	.51	1.1	.99	3.7	3.2	.51	11	1.5
5	1.3	.73	.88	.60	.73	1.1	1.1	5.8	2.5	.58	8.8	1.4
6	1.3	.69	.88	.64	.92	1.2	1.2	5.5	2.4	.56	6.2	1.3
7	1.1	.64	.88	.56	.92	1.2	1.4	8.8	2.7	.49	4.3	1.2
8	1.0	.64	.83	.60	.86	1.2	1.6	8.0	2.3	.44	3.4	2.0
9	1.0	.64	.78	.70	1.0	1.1	1.7	7.0	2.1	.38	2.9	5.0
10	.98	.69	.78	.80	6.5	1.1	1.7	8.3	1.9	.37	2.6	10
11	.95	.64	.78	.60	4.1	1.1	1.9	10	1.7	.34	2.5	9.3
12	.92	.64	.73	.70	4.4	.96	2.1	11	1.6	.45	3.5	6.6
13	.90	.64	.69	.80	4.1	.87	2.3	10	1.1	.49	3.2	4.2
14	.88	.64	.64	.60	4.3	.85	2.5	8.2	.98	1.3	2.3	3.4
15	.90	.64	.65	.70	3.7	.86	2.9	6.7	.90	.91	1.8	3.0
16	.90	.60	.60	.70	3.2	.78	2.7	5.8	.82	1.6	1.6	2.9
17	.91	.60	.64	.75	2.9	.85	2.5	5.2	.74	1.0	2.3	2.5
18	.96	.64	.55	.80	2.6	.84	2.5	4.7	.69	.88	4.4	4.5
19	.93	.78	.64	.80	2.3	.82	2.4	4.2	.68	.71	2.9	3.3
20	.88	.73	.60	.50	2.1	.84	2.1	4.1	.61	.66	2.2	2.5
21	.88	.69	.73	.40	1.7	.74	2.2	3.6	.53	.87	1.8	2.1
22	.93	.69	1.0	.50	1.4	.84	2.9	3.2	.50	.78	2.0	1.8
23	.86	.69	.92	.60	1.5	.91	4.1	3.0	.51	.84	2.2	1.7
24	.89	.69	.88	.70	1.6	.93	4.4	2.7	.47	.96	2.1	1.7
25	.92	.67	.55	.55	1.4	.90	4.5	2.5	.44	1.6	2.0	1.7
26	.89	.60	.70	.40	1.3	.92	4.8	2.3	.43	2.1	1.8	2.3
27	.84	.60	.73	.55	1.2	1.0	4.8	2.2	.37	2.2	1.7	2.0
28	.81	.69	.73	.60	1.2	1.0	4.5	1.9	.38	2.0	1.4	2.0
29	.79	.88	.70	.60	1.2	1.2	4.2	1.8	.35	1.8	1.2	1.9
30	.78	.83	.70	.59	---	1.2	3.9	1.7	.40	2.5	1.0	1.8
31	.74	---	.70	.56	---	1.2	---	1.6	---	2.8	1.6	---
TOTAL	31.14	20.58	23.72	18.80	59.13	30.91	77.06	153.7	37.50	31.53	107.2	88.2
MEAN	1.00	.69	.77	.61	2.04	1.00	2.57	4.96	1.25	1.02	3.46	2.94
MAX	1.6	.88	1.0	.80	6.5	1.2	4.8	11	3.2	2.8	11	10
MIN	.74	.60	.55	.30	.48	.74	.97	1.6	.35	.34	1.0	1.2
AC-FT	62	41	47	37	117	61	153	305	74	63	213	175
CAL YR 1975	TOTAL	1436.71	MEAN	3.94	MAX	66	MIN	.55	AC-FT	2850		
WTR YR 1976	TOTAL	679.47	MEAN	1.86	MAX	11	MIN	.30	AC-FT	1350		

## 08387800 EAGLE CREEK NEAR ALTO, NM

LOCATION.--Lat 33°23'29", long 105°36'39", in SW¼SE¼SE¼ sec.31, T.10 S., R.14 E., Lincoln County, Hydrologic Unit 13060008, on left bank 200 ft (60 m) north of Lincoln National Forest boundary, 500 ft (152 m) northeast of windmill, and 4.0 mi (6.4 km) east of Alto. Mouth at Rio Ruidoso mile 11.3 (18.2 km).

DRAINAGE AREA.--15.7 mi<sup>2</sup> (40.7 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,838 ft (2,084 m), from topographic map.

REMARKS.--Records good. Discharge at this station is affected by Alto Reservoir and municipal water supply diversions for Ruidoso and Capitan. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 1.54 ft<sup>3</sup>/s (0.044 m<sup>3</sup>/s), 1,120 acre-ft/yr (1.38 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72 ft<sup>3</sup>/s (2.04 m<sup>3</sup>/s) Sept. 16, 1976, gage height, 2.03 ft (0.619 m); from rating extended above 22 ft<sup>3</sup>/s (0.62 m<sup>3</sup>/s); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 72 ft<sup>3</sup>/s (2.04 m<sup>3</sup>/s) Sept. 16, gage height, 2.03 ft (0.619 m), from rating extended above 22 ft<sup>3</sup>/s (0.62 m<sup>3</sup>/s); no flow most of time.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	.16	0	0	0
2								0	.16	0	0	0
3								0	.16	0	0	0
4								0	.18	0	.32	0
5								0	.14	0	0	0
6								0	.14	0	0	0
7								2.4	.64	0	0	0
8								1.1	.13	0	0	0
9								.18	.11	0	0	0
10								.14	.10	0	0	.54
11								3.5	.09	0	0	.69
12								5.2	.08	0	.01	.11
13								6.3	.06	0	0	0
14								4.4	.05	0	0	.16
15								2.8	.04	0	0	.16
16								2.3	.03	0	0	3.1
17								1.6	.03	0	0	.94
18								.56	.02	0	0	.72
19								.28	.02	0	0	2.1
20								.26	0	0	0	.91
21								.46	0	.02	0	.37
22								.22	0	0	0	0
23								.20	0	0	0	0
24								.18	0	0	0	0
25								.18	0	0	0	0
26								.18	0	0	0	0
27								.18	0	.05	0	0
28								.18	0	0	0	0
29								.18	0	0	0	0
30								.18	0	0	0	0
31		---			---		---	.18	---	0	0	---
TOTAL	0	0	0	0	0	0	0	33.34	2.34	.07	.33	9.80
MEAN	0	0	0	0	0	0	0	1.08	.078	.002	.011	.33
MAX	0	0	0	0	0	0	0	6.3	.64	.05	.32	3.1
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	66	4.6	.1	.7	19
CAL YR 1975 TOTAL	1016.06							29				
WTR YR 1976 TOTAL	45.88							6.3				
MEAN	2.78							MIN 0				
MAX	.13							MIN 0				
AC-FT								AC-FT	2020			
									91			

## RIO GRANDE BASIN

08390500 RIO HONDO AT DIAMOND A RANCH, NEAR ROSWELL, NM

LOCATION.--Lat 33°20'57", long 104°51'05", in NE1/4 sec.20, T.11 S., R.21 E., Chaves County, Hydrologic Unit 13060008, on right bank 15 ft (5 m) downstream from county road bridge at Diamond A Ranch, 1.3 mi (2.1 km) south of U.S. Highway 70-380, 13 mi (21 km) upstream from Two Rivers Reservoir, 21 mi (34 km) upstream from mouth of Rocky Arroyo, 13 mi (29 km) west of Roswell, and at mile 44.7 (71.9 km).

DRAINAGE AREA.--947 mi<sup>2</sup> (2,450 km<sup>2</sup>), contributing area.

PERIOD OF RECORD.--May 1908 to August 1909, May 1939 to current year. Monthly discharge only for 1908-9, published in Technical Report No. 7, State of New Mexico, Streamflow and Reservoir Content 1888-1954.

REVISED RECORDS.--WSP 1392: Drainage area. WSP 1512: 1939-40(P), 1941, 1942-43(P), 1946(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,190 ft (1,277 m), from topographic map. Prior to Nov. 11, 1965, at site on opposite bank at same datum. Supplemental water-stage recorder on opposite bank Nov. 11, 1965, to December 1972, at same datum.

REMARKS.--Records good. Diversions and ground-water withdrawals above station for irrigation above and below station of about 6,500 acres (26 km<sup>2</sup>), 1959 determination. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years (1939-76) 22.0 ft<sup>3</sup>/s (0.623 m<sup>3</sup>/s), 15,940 acre-ft/yr (19.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,800 ft<sup>3</sup>/s (1,550 m<sup>3</sup>/s) June 18, 1965, gage height, 26.40 ft (8.047 m), from rating curve extended above 3,000 cfs (85.0 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; maximum gage height, 28.78 ft (8.772 m), Sept. 22, 1941; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.—A flood on June 1, 1937, reached a discharge of 24,900 ft<sup>3</sup>/s (705 m<sup>3</sup>/s) at Riverside about 13 mi (21 km) upstream.—Other major floods occurred Oct. 31, 1901, Sept. 29, 30, 1904, and July 25, 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 236 ft<sup>3</sup>/s (6.68 m<sup>3</sup>/s) at 0600 hours July 21, gage height, 6.82 ft (2.079 m), no peak above base of 1,000 ft<sup>3</sup>/s (28 m<sup>3</sup>/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	0	0	.08	0	0	14	
2					0	0	.22	0	0	0	12	
3					.18	0	0	0	0	0	16	
4					0	0	0	0	0	0	8.3	
5					0	0	.22	0	0	0	21	
6					0	0	0	0	0	0	5.1	
7					0	1.0	0	0	0	0	1.1	
8					0	.10	0	0	18	0	.02	
9					0	0	0	8.0	11	0	0	
10					0	0	0	16	7.5	0	0	
11					0	0	0	15	3.9	0	0	
12					0	0	0	32	.58	0	0	
13					0	0	0	42	.21	0	0	
14					0	0	0	53	0	0	0	
15					0	0	0	39	0	0	0	
16					0	0	0	29	0	0	0	
17					0	0	0	23	.42	0	0	
18					0	0	0	12	.25	0	0	
19					0	0	0	4.8	0	0	0	
20					0	0	0	0	0	0	0	
21					0	0	0	0	0	54	0	
22					0	0	0	0	0	9.1	0	
23					0	0	0	0	0	1.2	0	
24					0	0	0	0	0	0	0	
25					.10	0	0	0	0	17	0	
26					0	0	0	0	0	5.1	0	
27					0	0	0	0	0	.10	0	
28					0	0	0	0	0	0	0	
29					0	0	0	0	0	0	0	
30					---	0	.08	0	0	50	0	
31		---			---	0	---	0	---	19	0	---
TOTAL	0	0	0	0	.28	1.10	.52	273.88	41.86	155.50	77.52	0
MEAN	0	0	0	0	.010	.036	.017	8.83	1.40	5.02	2.50	0
MAX	0	0	0	0	.18	1.0	.22	53	18	54	21	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	.6	2.2	1.0	543	83	308	154	0
CAL YR 1975	TOTAL	2498.18	MEAN	6.84	MAX	134	MIN	0	AC-FT	4960		
WTR YR 1976	TOTAL	550.66	MEAN	1.50	MAX	54	MIN	0	AC-FT	1090		



## 08390600 TWO RIVERS RESERVOIR NEAR ROSWELL, NM

LOCATION.--08390610 Rio Hondo Reservoir: Lat 33°17'55", long 104°43'20", in SW¼SE¼NE¼ sec.4, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, near center of Diamond A Dam on Rio Hondo, 13 mi (20.9 km) southwest of Roswell at mile 33.4 (53.7 km); 08390620 Rocky Arroyo Reservoir: Lat 33°16'20", long 104°43'20", in NW¼SE¼NE¼ sec.16, T.12 S., R.22 E., at left end of Rocky Dam on Rocky Arroyo, and 14 mi (22.5 km) southwest of Roswell.

DRAINAGE AREA.--1,027 mi<sup>2</sup> (2,660 km<sup>2</sup>); Rio Hondo, 963 mi<sup>2</sup> (2,494 km<sup>2</sup>); Rocky Arroyo, 64 mi<sup>2</sup> (166 km<sup>2</sup>).

PERIOD OF RECORD.--July 1963 to current year. Prior to October 1965 (monthend contents only).

GAGE.--Water-stage recorders. Datum of gages is mean sea level.

REMARKS.--Two Rivers Reservoir, completed July 16, 1963, is formed by earthfill dams on Rio Hondo, which forms Rio Hondo Reservoir; and Rocky Arroyo which forms Rocky Arroyo Reservoir. Above elevation 3,980.0 ft (1,213.10 m) the pools of the two reservoirs combine to form Two Rivers Reservoir with a total capacity of 166,200 acre-ft (205 hm<sup>3</sup>) at elevation 4,032.0 ft (1,228.95 m) crest of ungated spillway. Capacity of Rio Hondo Reservoir, 181 acre-ft (223,000 m<sup>3</sup>) between elevations 3,957.0 ft (1,206.09 m), sill of outlet gate, and 3,980.0 ft (1,213.10 m). Capacity of Rocky Arroyo Reservoir, 13,410 acre-ft (16.5 hm<sup>3</sup>) between elevations 3,945.0 ft (1,202.44 m), sill of outlet gate, and 3,980.0 ft (1,213.10 m). 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 furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents at 0800 hours of Rio Hondo Reservoir, 1,260 acre-ft (1.55 hm<sup>3</sup>) July 29, 1965, elevation, 3,985.7 ft (1,214.84 m); Rocky Arroyo Reservoir at 0800 hours, 6,090 acre-ft (7.51 hm<sup>3</sup>) June 18, 1965, elevation, 3,970.7 ft (1,210.27 m); no contents both reservoirs most to time.

EXTREMES FOR CURRENT YEAR.--No contents all year.

NOTE: No contents at 2400 hours either reservoir, each day, all year.

## 08390800 RIO MONDO BELOW DIAMOND A DAM, NEAR ROSWELL, NM

LOCATION.--Lat 33°18'05", long 104°43'12", in NE¼SE¼NE¼ sec.4, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, on left bank, 500 ft (152 m) downstream from outlet conduit of Diamond A dam (Two Rivers Reservoir), 13 mi (20.9 km) southwest of Roswell, and at mile 33.3 (53.6 km). Mouth at Pecos River mile 566.0 (910.7 km).

DRAINAGE AREA.--963 mi<sup>2</sup> (2,490 km<sup>2</sup>), contributing area.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,949.68 ft (1,203.862 m) above mean sea level (Corps of Engineers bench mark).

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation of about 6,500 acres (26 km<sup>2</sup>), 1959 determination, above station. This record represents the outflow from Two Rivers Reservoir through Diamond A Dam. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 8.39 ft<sup>3</sup>/s (0.238 m<sup>3</sup>/s), 6,080 acre-ft/yr (7.50 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 659 ft<sup>3</sup>/s (18.7 m<sup>3</sup>/s) July 29, 1965, gage height, 4.91 ft (1.497 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) May 14, gage height, 2.58 ft (0.786 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0		0	.79	
2								0		0	2.0	
3								0		0	0	
4								0		0	.68	
5								0		0	2.2	
6								0		0	.48	
7								0		0	0	
8								0		0	0	
9								0		0	0	
10								0		0	0	
11								0		0	0	
12								0		0	0	
13								0		0	0	
14								16		0	0	
15								11		0	0	
16								4.8		0	0	
17								.96		0	0	
18								0		0	0	
19								0		0	0	
20								0		0	0	
21								0		17	0	
22								0		4.1	0	
23								0		.01	0	
24								0		0	0	
25								0		1.2	0	
26								0		.29	0	
27								0		0	0	
28								0		0	0	
29								0		0	0	
30								0		15	0	
31		---			---		---	0	---	12	0	---
TOTAL	0	0	0	0	0	0	0	32.76	0	49.60	6.15	0
MEAN	0	0	0	0	0	0	0	1.06	0	1.60	.20	0
MAX	0	0	0	0	0	0	0	16	0	17	2.2	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	65	0	98	12	0
CAL YR 1975	TOTAL	1069.19	MEAN 2.93	MAX 100	MIN 0	AC-FT 2120						
WTR YR 1976	TOTAL	88.51	MEAN .24	MAX 17	MIN 0	AC-FT 176						

## 08393200 ROCKY ARROYO ABOVE TWO RIVERS RESERVOIR, NEAR ROSWELL, NM

LOCATION.--Lat 33°17'07", long 104°47'47", in NE¼SW¼ sec.11, T.12 S., R.21½ E., Chaves County, Hydrologic Unit 13060008, on left bank, 2.1 mi (3.4 km) upstream from mouth of Buchanan Draw, 5.2 mi (8.4 km) upstream from Rocky Dam (Two Rivers Reservoir), and 17 mi (27.4 km) southwest of Roswell.

DRAINAGE AREA.--31 mi<sup>2</sup> (80 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--May 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,059.17 ft (1,237.235 m) above mean sea level (Corps of Engineers datum). Prior to Dec. 7, 1968, at site on opposite bank at datum 3.72 ft (1.134 m) lower.

REMARKS.--Records good. No diversions above station. Flow past station represents inflow to Two Rivers Reservoir.

AVERAGE DISCHARGE.--13 years, 0.99 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s), 717 acre-ft/yr (884,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft<sup>3</sup>/s (340 m<sup>3</sup>/s) July 5, 1968, gage height, 11.53 ft (3.514 m), from floodmarks, present datum, from rating curve extended above 350 ft<sup>3</sup>/s (9.91 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 5.92 ft (1.804 m), 7.14 ft (2.176 m), and 11.53 ft (3.514 m), present datum; no flow most of time.

EXTREMES FOR CURRENT YEAR.--No flow all year.

## NO FLOW DURING YEAR

CAL YR 1975	TOTAL 0	MEAN 0	MAX 0	MIN 0	AC-FT 0
WTR YR 1976	TOTAL 0	MEAN 0	MAX 0	MIN 0	AC-FT 0

## RIO GRANDE BASIN

## 08393300 ROCKY ARROYO BELOW ROCKY DAM, NEAR ROSWELL, NM

LOCATION.--Lat 33°16'11", long 104°43'13", in SE¼SE¼NE¼ sec.16, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, on left bank, 300 ft (90 m) downstream from outlet structure in Rocky Dam (Two Rivers Reservoir) and 13.5 mi (21.7 km) southwest of Roswell.

DRAINAGE AREA.--64 mi<sup>2</sup> (166 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--May 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,935.66 ft (1,199.589 m) above mean sea level (Corps of Engineers bench mark). Prior to Jan. 12, 1972, at site 1.4 mi (2.3 km) downstream at datum 28.76 ft (8.766 m) lower.

REMARKS.--Records good. No diversions above station. This record represents the outflow from Two Rivers Reservoir through Rocky Dam. Outlet conduits in Rocky Dam have fixed openings.

AVERAGE DISCHARGE.--13 years, 1.73 ft<sup>3</sup>/s (0.049 m<sup>3</sup>/s), 1,250 acre-ft/yr (1.54 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 548 ft<sup>3</sup>/s (15.5 m<sup>3</sup>/s) Aug. 21, 1966, gage height, 4.57 ft (1.393 m), site and datum then in use, from rating curve extended above 260 ft<sup>3</sup>/s (7.36 m<sup>3</sup>/s); no flow most of time.

EXTREMES FOR CURRENT YEAR.--No daily flow during year.

## NO FLOW DURING YEAR

CAL YR 1975	TOTAL 3.51	MEAN 0.01	MAX 3.5	MIN 0	AC-FT 7.0
WTR YR 1976	TOTAL 0	0	0	0	0

08393600 NORTH SPRING RIVER AT ROSWELL, NM

LOCATION.--Lat 33°23'47", long 104°32'53", in NW¼SW¼SE¼ sec.31, T.10 S., R.24 E., Chaves County, Hydrologic Unit 13060008, on left bank, in Roswell Municipal Golf Course, 2,400 ft (730 m) upstream from Montana Avenue, and 2 blocks north of West Second Street, Roswell.

DRAINAGE AREA.--19.5 mi<sup>2</sup> (31.4 km<sup>2</sup>).

PERIOD OF RECORD.--May 1958 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,575 ft (1,090 m), from topographic map.

REMARKS.--Records poor. No diversions above station.

AVERAGE DISCHARGE.--18 years, 0.044 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s), 32 acre-ft/yr (39,500 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 387 ft<sup>3</sup>/s (11.0 m<sup>3</sup>/s) June 13, 1964, gage height, 4.65 ft (1.417 m), from rating curve extended above 80 ft<sup>3</sup>/s (2.27 m<sup>3</sup>/s) on basis of slope-area measurement; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.2 ft<sup>3</sup>/s (0.23 m<sup>3</sup>/s) at 0300 hours April 29, gage height 2.65 ft (0.808 m), no peak above base of 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	0				
2							0	0				
3							0	0				
4							0	.08				
5							0	.07				
6							0	0				
7							0	0				
8							0	0				
9							0	0				
10							0	0				
11							0	0				
12							0	0				
13							0	0				
14							0	0				
15							0	0				
16							0	0				
17							0	0				
18							0	0				
19							0	0				
20							0	0				
21							0	0				
22							0	0				
23							0	0				
24							0	0				
25							0	0				
26							0	0				
27							0	0				
28							0	0				
29							.31	0				
30							0	0				
31		---			---		---	0	---			---
TOTAL	0	0	0	0	0	0	.31	.15	0	0	0	0
MEAN	0	0	0	0	0	0	.010	.005	0	0	0	0
MAX	0	0	0	0	0	0	.31	.08	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	.6	.3	0	0	0	0
CAL YR 1975	TOTAL 0.70	MEAN .0020	MAX .60	MIN 0	AC-FT 1.4							
WTR YR 1976	TOTAL 0.46	MEAN .0010	MAX .31	MIN 0	AC-FT .9							

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LOCATION.--Lat 33°10'08", long 104°18'24", in SE<sub>4</sub>SW<sub>4</sub>SE<sub>4</sub> sec.23, T.13 S., R.26 E., Chaves County, Hydrologic Unit 13060007, on left bank 3.4 mi (5.5 km) upstream from Rio Felix, 4.9 mi (7.9 km) north of Hagerman, and at mile 544.6 (876.3 km, corrected).

PERIOD OF RECORD.--February 1968 to current year (operated as a low-flow station only).

REMARKS.--Records good. Flow partly regulated by Lake Sumner (station 08384000). Diversions and ground-water withdrawals for irrigation of about 80,000 acres (320 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined; no flow at times in 1971, 1974, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge not determined; no flow June 29, July 1, 2.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	34	33	38	36	24	126	36	16	0	603	20
2	30	34	32	36	36	23	100	42	14	0	777	20
3	28	28	32	36	40	21	86	35	9.0	3.4	879	30
4	31	28	33	34	38	20	71	25	5.8	4.7	945	22
5	29	28	32	34	35	19	60	23	5.0	47	825	18
6	28	32	32	33	33	19	58	250	10	111	825	17
7	22	36	33	33	41	19	57	110	12	152	777	17
8	19	35	34	31	40	19	48	60	96	185	747	19
9	18	34	34	30	46	19	46	45	67	98	783	19
10	19	29	35	31	52	18	44	35	53	54	753	166
11	17	29	35	28	45	19	43	30	48	30	753	119
12	16	30	35	29	43	18	42	25	36	19	807	71
13	16	29	34	33	42	18	38	22	23	15	771	41
14	17	28	34	32	41	257	31	18	15	19	777	30
15	19	28	34	31	39	723	74	15	11	564	717	26
16	19	29	34	27	35	819	44	14	7.0	188	334	22
17	17	29	34	26	31	861	33	14	3.4	168	203	18
18	15	29	34	30	27	873	32	13	7.3	83	158	15
19	15	29	33	27	25	873	31	13	2.0	53	135	23
20	15	29	33	27	30	879	31	13	3.4	36	124	141
21	15	30	33	25	24	939	30	14	6.0	44	96	287
22	15	43	34	28	25	915	27	16	6.3	30	67	170
23	15	41	35	30	22	915	26	18	5.2	35	56	126
24	16	40	36	40	22	1000	24	15	3.4	124	48	84
25	17	38	39	35	21	964	28	13	3.4	196	39	76
26	19	36	40	34	22	843	22	11	2.9	130	32	68
27	24	35	41	34	23	855	21	11	2.9	174	27	54
28	27	34	42	34	24	576	20	10	1.8	92	24	52
29	28	34	41	36	24	254	20	9.0	0	52	22	57
30	28	34	39	36	---	178	27	7.7	23	30	19	54
31	33	---	39	36	---	156	---	12	---	301	20	---
TOTAL	654	972	1089	994	962	13136	1340	974.7	471.03	3038.1	13143	1882
MEAN	21.1	32.4	35.1	32.1	33.2	424	44.7	31.4	15.7	98.0	424	62.7
MAX	33	43	42	40	52	1000	126	250	96	564	945	287
MIN	15	28	32	25	21	18	20	7.7	0	0	19	15
AC-FT	1300	1930	2160	1970	1910	26060	2660	1930	934	6030	26070	3730
CAL YR 1975	TOTAL	38245.90	MEAN	105	MAX	2150	MIN	3.0	AC-FT	75860		
WTR YR 1976	TOTAL	38655.83	MEAN	106	MAX	1000	MIN	0	AC-FT	76670		

## 08394500 RIO FELIX AT OLD HIGHWAY BRIDGE, NEAR HAGERMAN, NM

LOCATION.--Lat 33°07'30", long 104°20'40", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec.4, T.14 S., R.26 E., Chaves County, Hydrologic Unit 13060009, near left bank on downstream side of abandoned bridge pier, 0.6 mi (1.0 km) upstream from alternate U.S. Highway 285, 1.3 mi (2.1 km) northwest of Hagerman, and 2.7 mi (4.3 km) upstream from mouth. Mouth at Pecos River mile 541.4 (871.1 km, corrected).

DRAINAGE AREA.--932 mi<sup>2</sup> (2,410 km<sup>2</sup>), contributing area.

PERIOD OF RECORD.--April 1939 to current year. March 1932 to April 1939 at site 1 mi (1.6 km) downstream; records for periods of low flow not equivalent, owing to inflow between sites.

REVISED RECORDS.--WSP 928: 1940(M). WSP 1562: 1939-40, 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 3,403.40 ft (1,037.356 m) above mean sea level.

REMARKS.--Records fair. Diversions for irrigation of about 350 acres (1.4 km<sup>2</sup>), 1959 determination, above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,000 ft<sup>3</sup>/s (2,100 m<sup>3</sup>/s) Oct. 7, 1954, gage height, 27.5 ft (8.38 m), from floodmarks, from rating curve extended above 12,000 ft<sup>3</sup>/s (340 m<sup>3</sup>/s) on basis of slope-area measurement at point 5.5 mi (8.8 km) upstream from gage (adjusted for channel storage); no flow for many periods.  
Flood in 1954 is the highest since 1894 (information from local residents).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 1, 1904, is probably second highest since 1894; another major flood occurred in April 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 0.32 ft<sup>3</sup>/s (0.009 m<sup>3</sup>/s) May 6, gage height, 3.77 ft (1.149 m) no peaks above base of 500 ft<sup>3</sup>/s (14 m<sup>3</sup>/s); no flow most of time.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0				
2								0				
3								0				
4								0				
5								0				
6								.02				
7								0				
8								0				
9								0				
10								0				
11								0				
12								0				
13								0				
14								0				
15								0				
16								0				
17								0				
18								0				
19								0				
20								0				
21								0				
22								0				
23								0				
24								0				
25								0				
26								0				
27								0				
28								0				
29								0				
30								0				
31		---			---		---	0	---			---
TOTAL	0	0	0	0	0	0	0	.02	0	0	0	0
MFAN	0	0	0	0	0	0	0	.0006	0	0	0	0
MAX	0	0	0	0	0	0	0	.02	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	.04	0	0	0	0
CAL YR 1975	TOTAL	185.45	MEAN .51	MAX	25	MIN 0	AC-FT	368				
WTR YR 1976	TOTAL	0.02	MFAN .000	MAX	.02	MIN 0	AC-FT	0				

LOCATION.—Lat 32°59'18", long 104°19'20", in SW¼ sec.27, T.15 S., R.26 E., Chaves County, Hydrologic Unit 1306007, on left bank 400 ft (120 m) upstream from county bridge, 2.5 mi (4.0 km) east of Lake Arthur, 7 mi (11.3 km) upstream from Cottonwood Creek, 11 mi (17.7 km) northeast of Artesia, and at mile 522.0 (839.9 km, corrected).

PERIOD OF RECORD.--August 1938 to current year.

GAGE.--Water-stage recorder and rock control. Datum of gage is 3,327.07 ft (1,014.091 m) above mean sea level.

REMARKS.--Records good. Flow partly regulated by Lake Sumner (station 08384000). Diversions and ground-water withdrawals for irrigation of about 124,000 acres (500 km<sup>2</sup>), 1959 determination, above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,600 ft<sup>3</sup>/s (1,410 m<sup>3</sup>/s) Sept. 24, 1941, gage height, 21.90 ft (6.675 m), from rating curve extended above 16,100 ft<sup>3</sup>/s (456 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 21.77 ft (6.635 m); no flow at times in 1947, 1953-4, 1962, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1937, reached a stage of 21.77 ft (6.635 m), discharge, 51,500 ft<sup>3</sup>/s (1,460 m<sup>3</sup>/s), on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 962 ft<sup>3</sup>/s (27.2 m<sup>3</sup>/s) Aug. 4, gage height 4.69 ft (1.430 m); minimum 1.3 ft<sup>3</sup>/s (0.037 m<sup>3</sup>/s) June 21.

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	37	38	34	36	28	104	30	2.7	2.0	604	10
2	19	38	38	34	39	26	76	39	4.7	2.0	785	7.9
3	17	39	37	36	40	21	73	39	4.2	2.0	839	13
4	17	36	38	39	43	18	73	33	2.7	2.0	943	25
5	22	34	38	39	42	16	55	42	3.1	3.5	898	16
6	23	35	37	35	39	15	36	161	3.4	31	796	16
7	22	38	36	30	39	16	47	120	3.6	62	780	12
8	16	40	37	33	44	16	49	92	18	32	790	12
9	9.7	40	38	36	45	9.6	45	75	27	63	760	50
10	8.1	40	37	35	50	7.2	50	56	20	18	730	105
11	16	36	36	37	52	7.8	47	45	15	3.5	720	126
12	18	35	35	36	48	9.1	42	34	14	4.0	733	84
13	12	37	34	36	48	9.9	35	21	9.7	4.5	695	55
14	9.9	36	32	36	47	9.5	35	18	5.3	4.8	684	36
15	9.6	37	36	37	46	656	31	16	3.8	346	680	29
16	14	36	32	38	44	749	56	14	3.2	237	477	23
17	17	37	31	32	41	830	30	15	2.6	186	178	22
18	20	37	32	32	34	833	25	13	2.8	113	118	16
19	20	38	30	38	32	817	26	8.3	2.7	83	90	25
20	20	37	34	33	33	803	22	8.2	2.5	49	83	32
21	19	37	34	32	34	807	16	16	2.4	33	79	225
22	20	38	36	32	29	798	17	16	2.5	38	55	148
23	20	47	36	29	30	808	21	16	2.3	22	40	135
24	21	47	36	32	27	844	19	16	2.4	15	25	98
25	21	42	37	42	27	849	14	10	2.3	183	20	81
26	22	40	40	42	25	788	21	8.9	2.3	113	13	71
27	25	37	39	40	23	751	17	6.7	2.2	99	14	57
28	28	39	39	38	25	668	17	6.3	2.4	112	13	48
29	30	37	45	37	26	257	17	5.4	2.3	59	12	49
30	32	37	39	39	---	166	21	3.0	2.2	37	11	38
31	33	---	34	38	---	124	---	2.8	---	87	10	---
TOTAL	608.3	1144	1121	1107	1088	11757.1	1137	986.6	174.3	2046.3	12675	1664.9
MEAN	19.6	38.1	36.2	35.7	37.5	379	37.9	31.8	5.81	66.0	409	55.5
MAX	33	47	45	42	52	849	104	161	27	346	943	225
MIN	8.1	34	30	29	23	7.2	14	2.8	2.2	2.0	10	7.9
AC-FT	1210	2270	2220	2200	2160	23320	2260	1960	346	4060	25140	3300
CAL YR 1975 TOTAL	36903.7		MEAN 101		MAX 1220		MIN 2.7		AC-FT 73200			
WTR YR 1976 TOTAL	35509.5		MEAN 97.0		MAX 943		MIN 2.0		AC-FT 70430		</	

## RIO GRANDE BASIN

08396500 PECOS RIVER NEAR ARTESIA, NM  
(Surveillance network station)

LOCATION.--Lat 32°50'25", long 104°19'23", in NW 1/4 sec. 18, T.17 S., R.27 E., Eddy County, Hydrologic Unit 13060007, near left bank on downstream end of bridge pier on State Highway 83, 4.3 mi (6.9 km) east of Artesia, 7.0 mi (11.3 km) upstream from Rio Pecos, 17 mi (27.4 km) upstream from McMillan Dam, and at mile 503.9 (810.8 km).

DRAINAGE AREA.--15,300 mi<sup>2</sup> (39,630 km<sup>2</sup>), approximately (contributing area).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1905 to June 1909, August 1909 to current year. Monthly discharge only for some periods, published in WSP 1312 and 1712. Records for Aug. 22-31, 1934, and October 1936 to April 1937, published in WSP 763 and 828, respectively are not reliable and should not be used. Prior to February 1936, published as "near Dayton."

REVISED RECORDS.--WSP 1312 and 1512: 1913, 1915, 1917-18(M), 1920, 1923, 1931-36. WSP 1712: 1906(M), 1908-11(M), 1919, 1921-23(M), 1929, 1931-32(M), 1935-36(M), 1937, 1939(M), 1941(M). See also PERIOD OF RECORD.

Gage.--Water-stage recorder. Datum of gage is 3,291.92 ft (1,003.376 m), above mean sea level (revised). Prior to Aug. 27, 1914, nonrecording gage and Aug. 27, 1914, to Feb. 20, 1936, water-stage recorder at site 6.5 mi (10.5 km) downstream at different datum. Feb. 21, 1936, to Apr. 4, 1941, water-stage recorder at site 600 ft (183 m) downstream at different datum.

REMARKS.--Water-discharge records fair. Flow partly regulated by Lake Sumner (station 08384000) since August 1937. Diversions and ground-water withdrawals for irrigation of about 154,000 acres (620 km<sup>2</sup>), 1959 determination, above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge probably occurred May 30, 1937, when a discharge of 51,500 ft<sup>3</sup>/s (1,460 m<sup>3</sup>/s) was measured by slope-area method at a point 15 mi (24.1 km) upstream, gage height, 14.7 ft (4.48 m), site and datum then in use; no flow at times in 1934, 1946-47, 1953-54, 1957, 1964-65.

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 Pecos and Fourmile Draw, was estimated at 82,000 ft<sup>3</sup>/s (2,320 m<sup>3</sup>/s). The second highest flood occurred July 25, 1905, discharge below Rio Pecos, 50,300 ft<sup>3</sup>/s (1,420 m<sup>3</sup>/s), based on gain in storage and spill from Lake McMillan. The floods in August 1893 and October 1904 damaged McMillan Dam and washed out Avalon Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 931 ft<sup>3</sup>/s (26.4 m<sup>3</sup>/s) Aug. 5, gage height 6.54 ft (1.993 m); minimum, 1.2 ft<sup>3</sup>/s (0.034 m<sup>3</sup>/s) July 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	34	37	32	41	26	106	23	5.9	2.3	397	11
2	27	39	41	37	40	27	91	29	5.5	2.2	693	11
3	20	41	42	39	42	28	73	39	6.2	2.2	801	9.4
4	17	42	39	39	44	25	80	36	7.1	1.8	863	14
5	16	38	39	44	47	21	74	38	5.2	1.6	897	21
6	21	37	40	45	48	19	57	88	4.7	1.4	820	14
7	22	36	38	42	45	18	48	154	4.7	26	789	15
8	22	39	37	36	44	17	63	87	5.2	61	746	11
9	19	39	37	37	48	18	58	70	23	31	731	21
10	12	39	37	40	50	16	60	51	25	29	734	62
11	11	38	37	40	51	13	62	43	21	7.8	707	156
12	18	32	36	40	54	10	58	42	14	6.2	717	114
13	16	34	37	39	52	10	48	32	12	4.9	727	78
14	16	35	37	38	51	10	43	17	9.9	6.5	691	49
15	11	34	33	39	49	325	41	18	6.5	60	679	29
16	9.9	35	39	39	48	674	52	17	4.7	404	569	25
17	15	35	39	41	44	729	59	15	4.0	196	230	21
18	18	37	37	38	40	760	37	15	3.3	128	120	19
19	21	38	38	34	37	760	32	13	2.8	69	75	14
20	20	38	30	37	34	770	32	10	2.8	45	70	37
21	21	38	25	38	31	779	27	9.9	2.8	20	77	187
22	21	39	26	34	32	782	21	16	2.6	13	72	177
23	19	41	26	37	32	787	22	16	2.4	22	54	139
24	19	52	38	32	29	789	25	16	2.2	13	38	117
25	21	50	43	34	30	801	28	16	2.2	111	26	102
26	21	45	43	43	29	775	16	11	2.3	142	21	73
27	22	42	45	45	29	729	21	10	2.4	95	15	70
28	23	40	45	44	27	729	17	8.5	2.4	115	12	56
29	27	33	36	43	26	383	17	7.8	2.3	60	14	48
30	30	24	47	41	---	181	19	8.1	2.3	33	11	47
31	33	---	42	41	---	120	---	6.5	---	17	11	---
TOTAL	619.9	1144	1166	1208	1174	11131	1387	962.8	197.4	1726.9	12407	1747.4
MEAN	20.0	38.1	37.6	39.0	40.5	359	46.2	31.1	6.58	55.7	400	58.2
MAX	33	52	47	45	54	801	106	154	25	404	897	187
MIN	9.9	24	25	32	26	10	16	6.5	2.2	1.4	11	9.4
AC-FT	1230	2270	2310	2400	2330	22080	2750	1910	392	3430	24610	3470
CAL YR 1975	TOTAL	37799.0	MEAN	104	MAX	1260	MIN	3.8	AC-FT	74970		
WTR YR 1976	TOTAL	34871.4	MEAN	95.3	MAX	897	MIN	1.4	AC-FT	69170		



08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1937 to current year.

WATER TEMPERATURES: April 1949 to current year.

HARDNESS: July 1937 to current year.

DISSOLVED SOLIDS: July 1937 to current year.

SUSPENDED SEDIMENT DISCHARGE: January 1949 to current year.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 28,600 micromhos June 24, 1971; minimum daily, 464 micromhos Sept. 23, 1974.

WATER TEMPERATURES: Maximum, 36.0°C July 27, 1966, July 25, 1969; minimum, 0.0°C on many days during winter months of most years.

HARDNESS: Maximum, 4,740 mg/L May 3, 1967; minimum, 235 mg/L May 31, 1963.

DISSOLVED SOLIDS: Maximum, 18,000 mg/L June 6, 1972; minimum, 461 mg/L May 31, 1963.

SEDIMENT CONCENTRATIONS: Maximum daily, 21,300 mg/L Aug. 1, 1962; minimum daily, no flow on many days during July 1953, July and August 1954, July 1957, July to October 1964.

SEDIMENT LOADS: Maximum daily, 183,000 tons (166,000 tonnes) Sept. 26, 1955; minimum daily, 0 tons (0 tonnes) on many days during July 1953, July and August 1954, July 1957, July to October 1964.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 27,500 micromhos July 7; minimum daily, 1,460 micromhos Aug. 12, 13, 14.

WATER TEMPERATURES: Maximum, 32.5°C June 28; minimum, 1.5°C Jan. 5.

HARDNESS: Maximum, 4,200 mg/L June 1-9; minimum, 730 mg/L Sept. 22-25.

DISSOLVED SOLIDS: Maximum, 15,400 mg/L June 1-9; minimum, 1,300 mg/L Aug. 1-19.

SEDIMENT CONCENTRATIONS: Maximum daily, 15,900 mg/L Sept. 24; minimum daily, 3 mg/L Mar. 7.

SEDIMENT LOADS: Maximum daily, 10,900 tons (9,890 tonnes) Aug. 2; minimum daily, .15 ton (.14 tonne) Mar. 7.

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)
OCT												
01-02	29	7400	7.6	1900	1800	500	170	980	9.7	12	150	0
03-11	18	9820	7.7	2400	2200	590	220	1400	13	17	165	0
12-20	16	13300	7.6	2900	2800	690	290	2200	18	26	173	0
21-31	23	11800	7.5	2800	2600	640	290	1800	15	20	187	0
NOV												
01-30	38	9260	7.4	2500	2400	630	230	1300	11	12	180	0
DEC												
01-31	38	9640	7.3	2600	2500	620	260	1400	12	14	196	0
JAN												
01-31	39	10000	7.7	2500	2400	590	250	1300	11	13	171	0
FEB												
01-12	46	9970	7.5	2600	2400	600	260	1400	12	13	158	0
13-19	46	8840	7.6	2300	2200	590	200	1200	11	12	151	0
20-29	30	10700	7.6	2700	2600	630	270	1500	13	15	161	0
MAR												
01-15	39	14000	7.6	3100	3000	710	330	2300	18	20	172	0
16-31	659	3120	7.6	1700	1500	530	82	160	1.7	4.4	139	0
APR												
01-04	88	4050	7.5	1800	1700	550	100	320	3.3	5.6	137	0
05-07	60	5070	7.4	1900	1800	560	120	520	5.2	7.2	111	0
08-14	56	6570	7.3	2200	2100	600	160	770	7.2	9.6	110	0
15-23	36	8220	7.4	2400	2300	630	200	1100	9.8	12	137	0
24-30	20	12100	7.5	2900	2800	720	270	1900	15	19	156	0
MAY												
01-02	26	12300	7.6	2800	2700	690	260	2000	16	22	162	0
03-06	50	9480	7.4	2600	2500	640	240	1400	12	14	134	0
07-13	68	5090	7.6	1600	1500	450	110	600	6.6	8.0	134	0
14-15	18	8460	7.5	2100	2000	520	190	1300	12	15	148	0
16-18	16	11500	7.5	2500	2400	610	240	1900	17	21	161	0
19-31	11	15000	7.6	3200	3100	770	320	2400	18	27	169	0
JUN												
01-09	7.5	22100	7.5	4200	4100	940	460	4000	27	44	205	0
10-20	9.6	10800	7.5	2700	2600	670	240	1600	14	20	124	0
21-30	24	15900	7.6	3500	3400	850	340	2700	20	34	160	0
JUL												
01-08	12	18000	8.1	3500	3400	810	350	3000	22	30	101	0
09-15	21	5460	8.1	1600	1500	440	120	640	7.0	12	88	0
16-22	125	2900	8.2	1100	950	320	62	270	3.6	6.3	124	0
23-25	49	5670	8.1	1300	1300	360	99	740	8.9	10	68	0
26-31	77	2910	8.1	970	900	290	59	270	3.8	6.5	81	0
AUG												
01-19	631	1730	--	800	720	260	37	83	1.3	4.7	94	--
20-22	73	2690	--	1000	920	310	54	230	3.2	6.2	89	--
23-25	39	3600	--	1200	1100	360	74	360	4.5	7.9	96	--
26-29	16	5290	7.7	1500	1400	430	100	650	7.3	10	110	0
30-31	11	7300	7.6	1800	1700	500	140	1000	10	14	108	0
SEP												
01-11	31	7990	7.7	1900	1800	480	160	1100	11	13	126	0
12-15	68	3570	7.6	1100	1100	340	70	340	4.4	6.2	92	0
16-19	20	7250	7.6	1900	1800	510	150	900	9.0	12	100	0
20-21	112	7780	7.7	1900	1800	500	160	920	9.2	11	148	0

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)
SEP												
22-25	134	2570	7.4	730	630	220	44	240	3.9	4.9	126	0
26-30	59	4930	7.6	1300	1200	350	100	620	7.5	7.9	109	0
WTD. AVG.	--	4430	7.6	1550	1420	441	106	480	4.5	7.4	126	0
TIME WTD.												
AVG.	96	9160	7.6	2320	2210	580	212	1320	11	15	149	0
TOT. LOAD (TONS)	--	--	--	--	--	41800	10000	45400	--	703	12000	0
DATE	DIS- SOLVED SULFATE (SO4) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS) PER AC-FT) (70303)	DIS- SOLVED SOLIDS (TONS) PER DAY) (70302)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (R) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT												
01-02	1600	1600	.7	13	--	4950	6.73	388	.58	--	--	--
03-11	2100	2200	.7	16	--	6630	9.02	322	.76	--	--	--
12-20	2300	3600	.7	16	--	9210	12.5	398	.87	--	--	--
21-31	2200	2900	.8	16	--	7970	10.8	495	1.6	--	--	--
NOV												
01-30	1900	2200	.8	10	--	6380	8.68	655	1.3	--	--	--
DEC												
01-31	2200	2400	.8	7.8	--	7010	9.53	719	1.3	--	--	--
JAN												
01-31	1900	2400	.8	3.6	--	6540	8.89	689	.58	--	--	--
FEB												
01-12	1900	2400	.8	8.2	--	6660	9.06	827	.51	--	--	--
13-19	1900	2000	.8	9.3	--	5990	8.15	744	.54	--	--	--
20-29	2100	2600	.8	11	--	7210	9.81	584	.55	--	--	--
MAR												
01-15	2500	3900	.8	7.9	--	9850	13.4	1040	.18	--	--	--
16-31	1500	230	.7	12	--	2590	3.52	4610	1.6	--	--	--
APR												
01-04	1600	510	.6	15	--	3170	4.31	753	.87	--	--	--
05-07	1800	810	.5	14	--	3890	5.29	630	.57	--	--	--
08-14	1900	1200	.6	15	--	4710	6.41	712	.36	--	--	--
15-23	2200	1800	.6	15	--	6030	8.20	586	.37	--	--	--
24-30	2600	3300	.6	14	--	8900	12.1	481	.47	--	--	--
MAY												
01-02	2400	3400	.8	17	--	8870	12.1	635	.12	--	--	--
03-06	2300	2300	.8	14	--	6980	9.49	942	.27	--	--	--
07-13	1400	940	.7	13	--	3590	4.88	659	.71	--	--	--
14-15	1800	1900	.7	13	--	5810	7.90	282	.65	--	--	--
16-18	2300	3100	.8	15	--	8270	11.2	357	.43	--	--	--
19-31	2600	4200	.8	15	--	10400	14.1	320	.29	--	--	--
JUN												
01-09	3300	6500	.9	20	--	15400	20.9	312	.12	--	--	--
10-20	2400	2700	.9	13	--	7710	10.5	200	.87	--	--	--
21-30	3000	4400	.9	16	--	11400	15.5	739	.83	--	--	--
JUL												
01-08	3100	4800	.9	7.4	--	12200	16.6	395	.81	--	--	--
09-15	1500	1000	.1	8.1	--	3770	5.13	214	.32	--	--	--
16-22	1000	370	.7	9.7	--	2100	2.86	709	.26	--	--	--
23-25	1200	1300	.8	--	--	--	--	--	.04	--	--	--
26-31	950	400	.8	5.9	--	2020	2.75	420	.24	--	--	--
AUG												
01-19	760	98	.6	7.8	--	1300	1.77	2210	.53	--	--	--
20-22	910	370	.6	8.5	--	1930	2.62	380	.26	--	--	--
23-25	1100	580	.6	9.3	--	2540	3.45	267	.02	--	--	--
26-29	1300	1100	.5	12	--	3660	4.98	158	.28	--	--	--
30-31	1400	1700	.6	13	--	4820	6.56	143	.22	--	--	--
SEP												
01-11	1500	1800	.6	12	--	5130	6.98	429	.89	--	--	--
12-15	1000	550	.5	9.1	--	2370	3.22	435	1.1	--	--	--
16-19	1700	1400	.6	9.3	--	4730	6.43	255	.61	--	--	--
20-21	1700	1700	.7	12	--	5080	6.91	1540	1.7	--	--	--
22-25	670	380	.6	11	--	1640	2.23	593	1.8	--	--	--
26-30	1100	970	.7	9.6	--	3220	4.38	513	1.1	--	--	--
WTD. AVG.	1340	781	.7	9.9	--	3230	4.40	--	.93	--	--	--
TIME WTD.												
AVG.	1930	2220	.7	11	--	6390	8.69	--	.76	--	--	--
TOT. LOAD (TONS)	127000	74000	64	935	--	305000	--	--	88	--	--	--

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued  
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA+MG) (MG/L) (00900)
OCT 30...	1600	31	12200	7.9	23.5	17.0	8	12.8	69	2900
NOV 19...	1700	37	9500	7.6	7.0	12.0	8	14.0	56	2500
DEC 17...	1500	38	10000	8.0	1.5	5.5	4	--	60	2600
JAN 08...	1700	34	9540	8.0	9.5	7.0	5	10.5	56	2500
FEB 04...	1645	44	10000	8.0	10.0	10.0	10	11.1	84	2500
MAR 10...	1600	16	13800	7.5	24.5	14.0	2	12.2	46	3000
APR 12...	1700	54	6850	7.9	21.0	22.5	17	8.5	120	2200
MAY 19...	1200	12	13900	7.9	23.5	23.0	40	9.2	160	3100
JUN 18...	1100	3.5	11600	8.0	23.0	25.5	65	8.5	79	2700
JUL 22...	1200	10	3500	8.0	30.5	31.0	60	8.6	36	1100
SEP 01...	1410	.90	7500	8.0	32.0	25.0	20	7.4	150	1400

DATE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
OCT 30...	2700	690	280	1700	14	15	172	0	2300
NOV 19...	2400	640	230	1400	12	12	200	0	2000
DEC 17...	2500	620	260	1500	13	14	181	0	2100
JAN 08...	2400	630	230	1300	11	11	202	0	2000
FEB 04...	2400	620	230	1600	14	13	159	0	2100
MAR 10...	2800	710	290	2200	18	23	161	0	2500
APR 12...	2200	600	180	840	7.7	10	105	0	2000
MAY 19...	3000	740	300	2300	18	20	154	0	2600
JUN 18...	2600	700	240	2000	17	23	131	0	2400
JUL 22...	1100	340	71	510	6.6	8.7	100	0	1000
SEP 01...	1300	520	15	1500	18	16	135	0	1900

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)
OCT 30...	3000	.8	13	8330	8090	.63	.63	.14	1.9
NOV 19...	2400	.6	3.1	6770	6790	.82	.33	.21	1.7
DEC 17...	2500	.7	6.8	7250	7100	.93	.93	.00	4.2
JAN 08...	2400	.8	6.7	6910	6680	1.1	1.0	.18	.92
FEB 04...	2700	.9	5.6	7540	7350	.02	.02	.04	.88
MAR 10...	3600	.9	2.5	9970	9410	.06	.06	.08	.92
APR 12...	1400	.9	12	5300	5100	.00	.00	.01	1.1
MAY 19...	4000	1.0	11	10300	10100	.39	.10	.09	.91
JUN 18...	2700	1.0	14	8750	8140	.05	.10	.13	.65
JUL 22...	790	.7	10	2790	2780	.28	.28	.13	.41
SEP 01...	2000	.7	14	5830	6030	.01	.00	.00	.64

## RIO GRANDE BASIN

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS- SOL- VED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDED ORGANIC CARBON (C) (MG/L) (00689)
OCT 30...	2.6	.11	.02	720	70	--	--	3.9	1.2
NOV 19...	2.7	.08	.01	600	70	30	--	7.9	1.2
DEC 17...	5.1	1.1	.76	600	30	--	--	7.7	4.9
JAN 08...	2.2	.00	.00	550	20	--	--	5.2	1.3
FEB 04...	.94	.03	.00	550	20	--	--	6.5	1.3
MAR 10...	1.1	.07	.03	810	20	30	--	5.0	.8
APR 12...	1.1	.07	.01	510	10	--	--	3.0	3.8
MAY 19...	1.4	.09	.02	680	80	120	7.4	3.4	--
JUN 18...	.83	.08	.00	700	10	--	--	11	1.8
JUL 22...	.82	.08	.02	300	40	--	--	4.7	2.0
SEP 01...	.65	.09	.01	570	60	--	--	5.4	2.5

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)
NOV 19...	1700	3	3	600	<10	0	30	30	400	0	20	1
MAR 10...	1600	1	1	810	20	0	10	20	100	2	30	1
MAY 19...	1200	3	1	680	0	0	20	5	0	0	5	0

DATE	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV 19...	310	70	100	0	50	30	.0	.0	3	3	40	10
MAR 10...	220	20	150	0	100	30	.0	.0	1	1	30	10
MAY 19...	1200	80	0	0	240	120	.3	.3	2	0	50	0

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN 18...	1100	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

RIO GRANDE BASIN  
08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued  
MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

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DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOC (COL- ONIES PER 100 ML) (31679)
------	------	--	--

NOV	19...	1700	100	40
DEC	17...	1500	2	4
JAN	08...	1700	3	4
FEB	04...	1645	8	10
MAR	10...	1600	0	0
APR	12...	1700	120	25
MAY	19...	1200	61	78
JUN	18...	1100	5	20
JUL	22...	1200	1400	600
SEP	01...	1410	350	120

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DFG C) (00010)	SUS- PENDED SEDIM- ENT (MG/L) (80154)	SUS- PENDED SEDIM- ENT (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN (70337)	SUS. SED. FALL DIAM. % FINER THAN (70338)	SUS. SED. FALL DIAM. % FINER THAN (70340)	
FEB	04...	1645	44	10.0	22	2.6	--	--	
MAR	10...	1600	16	14.0	10	.43	--	--	
	16...	1400	662	10.0	5600	10000	57	67	
	24...	1130	782	10.5	3160	6670	50	62	
	27...	1710	731	13.0	1760	3470	45	58	
APR	01...	1430	104	18.0	365	102	--	--	
	12...	1700	54	22.5	55	8.0	--	--	
MAY	19...	1200	12	23.0	77	2.5	--	--	
JUN	18...	1100	3.5	25.5	206	1.9	79	85	
JUL	16...	1025	458	25.0	8810	10900	56	74	
	22...	1200	10	31.0	134	3.6	81	84	
	26...	1645	129	28.0	8490	2960	65	82	
AUG	04...	1530	887	25.5	2930	7020	51	64	
	05...	0805	926	25.5	3550	8880	51	65	
	13...	1615	734	26.5	1850	3670	42	54	
SEP	12...	1025	117	23.5	1940	613	63	82	
	22...	1115	170	22.0	6370	2920	59	76	
DATE		SUS. SED. FALL DIAM. % FINER THAN (70342)	SUS. SED. FALL DIAM. % FINER THAN (70343)	SUS. SED. FALL DIAM. % FINER THAN (70344)	SUS. SED. FALL DIAM. % FINER THAN (70331)	SUS. SED. FALL DIAM. % FINER THAN (70332)	SUS. SED. FALL DIAM. % FINER THAN (70333)	SUS. SED. FALL DIAM. % FINER THAN (70334)	SUS. SED. FALL DIAM. % FINER THAN (70335)
FEB	04...	--	--	--	63	--	--	--	--
MAR	10...	--	--	--	70	--	--	--	--
	16...	95	99	100	--	--	--	--	--
	24...	--	--	--	98	100	--	--	--
	27...	--	--	--	95	99	100	--	--
APR	01...	--	--	--	94	--	--	--	--
	12...	--	--	--	66	--	--	--	--
MAY	19...	--	--	--	97	--	--	--	--
JUN	18...	--	--	--	98	99	99	100	--
JUL	16...	100	--	--	--	--	--	--	--
	22...	--	--	--	98	99	99	99	100
	26...	100	--	--	--	--	--	--	--
AUG	04...	--	--	--	99	100	--	--	--
	05...	--	--	--	98	100	--	--	--
	13...	--	--	--	97	100	--	--	--
SEP	22...	100	--	--	--	--	--	--	--

## 08396500 PEGOS RIVER NEAR ARTESIA, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7130	9760	9230	9050	10500	11600	3680	12400	17600	19400	2270	8110
2	7700	9320	9470	9590	10300	12000	3880	12200	18400	20500	2140	8920
3	8430	---	9560	9600	10500	12000	4250	9570	18500	20400	1950	9470
4	8630	9160	9640	9610	10300	11900	4590	9420	18100	19800	1820	9910
5	9640	8840	9820	9540	10100	11800	4820	9160	19800	20900	1620	11800
6	10700	9050	9820	9420	9970	11900	5170	9730	19400	22300	1550	11000
7	11100	9490	9820	9500	9730	12600	5310	6350	20500	27500	1570	8840
8	9730	9420	9820	9540	9700	13100	6380	4130	22200	12400	1680	8770
9	9730	9440	9820	9760	9650	13100	6140	3600	25400	5640	1540	8990
10	9730	9230	9910	10100	9670	13500	6220	4390	12400	4320	1530	6950
11	10400	8820	9820	10100	9720	13600	6470	4610	11300	4650	1500	7010
12	11900	8880	9730	10100	9460	13600	6880	5740	10100	5900	1460	3290
13	14200	9190	9730	10300	8960	13600	6890	6960	8440	6750	1460	3270
14	12700	9400	9820	10100	8740	13800	7250	8220	9080	6420	1460	4660
15	12400	9350	9820	10300	8550	15700	7850	8700	9730	7290	1500	4660
16	12900	9540	10100	10700	8590	4070	7940	10200	10800	3290	1700	6100
17	12800	9640	10000	10600	8720	3390	7400	11600	11300	2580	1910	6900
18	15000	9640	9730	10300	9020	3170	7700	12700	12100	2240	2020	7750
19	14500	9740	10000	10000	9320	3090	8490	13700	12800	2300	2120	8700
20	12600	9840	10000	10400	9620	3060	8800	14600	12900	2470	2430	4540
21	11900	9760	9910	10200	9840	2990	9070	13900	13500	3210	2670	8230
22	11900	9790	10000	9930	10300	2980	9140	14600	14200	3630	2970	2780
23	11800	9640	9820	10200	10600	3010	9840	18200	14700	5290	3250	2410
24	12300	9590	9820	10500	10400	2960	11800	15600	15300	5840	3630	2520
25	12400	8820	9820	10500	10800	3010	12400	14200	15300	5940	3930	2520
26	12400	8650	9820	10900	11100	2970	11500	14300	16300	3170	4660	3660
27	12200	8440	9820	10100	11000	3000	11600	14500	16300	2550	5000	4820
28	11800	8520	9820	9820	11500	2950	12900	14300	17100	2880	5680	4710
29	11800	8900	9470	10100	11400	3050	13000	14700	17600	2380	5810	5980
30	11800	9140	9390	10200	---	3310	11600	15600	18500	3360	7300	6200
31	10400	---	9080	10300	---	3410	---	16900	---	4170	7290	---
MONTH	11400	9280	9760	10000	9930	7880	7960	11100	15300	8370	2820	6430
YEAR	MAX	27500	MIN	1460	MEAN	9180						

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	15.0	7.0	5.0	5.0	13.5	18.0	23.5	31.0	25.5	25.0	21.5
2	20.0	12.0	8.0	3.5	9.5	13.5	14.0	16.5	30.0	25.5	25.5	23.0
3	20.5	17.0	10.0	5.0	10.5	13.0	19.5	20.0	27.5	30.0	25.0	21.5
4	19.5	11.0	7.5	2.0	10.0	12.0	16.0	23.5	25.0	23.5	25.0	25.5
5	17.5	11.0	12.0	1.5	13.0	8.0	22.5	18.0	28.5	27.5	25.5	24.0
6	20.0	18.5	8.0	4.0	9.5	10.0	21.0	19.5	25.5	24.0	28.0	24.5
7	20.0	15.0	7.0	6.5	7.5	10.5	18.0	18.0	24.0	25.0	25.5	22.0
8	19.0	12.5	5.5	2.0	8.0	10.0	21.5	16.0	24.0	25.0	25.5	25.0
9	20.5	12.0	6.5	2.0	12.5	15.5	21.0	15.5	26.5	25.0	24.5	20.0
10	20.0	14.5	6.0	5.0	13.5	17.0	20.0	26.5	28.0	31.0	26.0	21.5
11	25.0	14.5	9.5	6.0	16.0	12.5	21.0	21.0	28.0	24.0	27.0	23.0
12	23.0	11.5	7.0	4.0	13.0	14.0	23.0	22.5	28.0	26.5	26.5	23.5
13	21.0	11.5	5.0	9.0	16.0	11.0	20.5	25.0	26.5	25.0	26.5	24.0
14	21.0	9.0	8.0	5.0	15.0	14.0	20.0	26.0	25.0	24.0	25.0	25.5
15	15.5	8.0	6.5	5.5	15.0	14.5	17.0	21.5	20.0	28.0	25.0	23.0
16	22.0	13.0	9.0	9.5	10.0	10.0	18.0	18.0	21.5	25.0	26.0	28.0
17	20.0	9.0	5.0	8.0	15.0	12.5	12.0	22.0	30.0	25.0	25.5	23.0
18	20.0	13.0	2.0	7.0	13.0	12.5	18.5	22.5	30.5	26.0	28.0	22.0
19	15.5	12.0	4.0	6.5	11.0	13.5	18.0	23.0	28.0	26.0	26.0	24.0
20	22.5	7.0	3.5	5.0	13.5	12.5	20.5	24.0	23.5	24.5	28.5	21.0
21	20.5	6.0	5.0	7.5	8.0	11.0	20.0	24.5	26.5	28.5	24.0	23.0
22	17.0	5.0	5.0	9.0	11.5	11.0	20.0	25.5	28.0	22.5	23.0	22.0
23	18.5	10.0	7.0	7.0	5.0	13.0	22.0	24.0	31.5	30.5	22.0	23.0
24	17.0	4.0	5.5	9.5	8.0	15.0	23.5	28.0	30.0	24.0	26.0	24.0
25	16.5	9.0	5.0	8.0	11.0	16.0	20.0	21.5	27.0	24.0	28.5	20.0
26	16.5	6.0	4.0	8.5	12.0	14.0	24.5	19.0	25.0	28.0	26.0	21.0
27	14.0	7.5	7.0	7.0	11.5	13.0	21.0	24.0	27.0	26.5	26.0	22.0
28	17.5	8.0	5.5	6.0	16.5	13.0	20.0	27.5	32.5	25.5	22.0	19.0
29	15.5	9.0	5.0	7.5	12.0	13.5	20.0	27.0	29.0	26.0	25.0	22.0
30	17.0	5.5	7.5	9.5	---	12.5	17.5	22.5	30.0	25.0	27.5	23.0
31	17.0	---	5.0	11.0	---	12.0	---	21.0	---	28.0	23.0	---
MONTH	19.0	10.5	6.5	6.0	11.5	12.5	19.5	22.0	27.5	26.0	25.5	23.0
YEAR	MAX	32.5	MIN	1.5	MEAN	17.5						

## 08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

## SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	185	15	45	4.1	19	1.9	11	.95	6	.66	30	2.1
2	194	14	31	3.5	16	1.8	13	1.3	6	.65	8	.58
3	205	11	44	4.9	20	2.3	15	1.6	6	.68	10	.76
4	237	11	34	3.9	15	1.6	9	.95	14	1.7	5	.34
5	216	9.3	40	4.1	17	1.8	16	1.9	7	.89	5	.28
6	204	12	34	3.4	14	1.5	17	2.1	7	.91	5	.26
7	240	14	34	3.3	21	2.2	7	.79	4	.49	3	.15
8	197	12	27	2.8	22	2.2	12	1.2	5	.59	9	.41
9	206	11	28	2.9	17	1.7	8	.80	6	.78	8	.39
10	218	7.1	34	3.6	25	2.5	43	4.6	8	1.1	10	.43
11	259	7.7	34	3.5	21	2.1	11	1.2	9	1.2	123	4.3
12	260	13	31	2.7	23	2.2	24	2.6	9	1.3	119	3.2
13	378	16	27	2.5	20	2.0	10	1.1	20	2.8	77	2.1
14	325	14	21	2.0	16	1.6	8	.82	7	.96	74	2.0
15	216	6.4	94	8.6	13	1.2	7	.74	6	.79	1550	2410
16	285	7.6	36	3.4	12	1.3	8	.84	7	.91	4950	9010
17	290	12	30	2.8	12	1.3	6	.66	10	1.2	3720	7320
18	337	16	47	4.7	16	1.6	7	.72	7	.76	3150	6460
19	292	17	37	3.8	16	1.6	24	2.2	4	.40	2980	6110
20	509	27	21	2.2	19	1.5	9	.90	11	1.0	2610	5430
21	380	22	19	2.0	14	.95	8	.82	7	.59	2290	4820
22	388	22	17	1.8	10	.70	7	.64	6	.52	3330	7030
23	336	17	20	2.2	10	.70	7	.70	4	.35	2180	4630
24	387	20	27	3.8	14	1.4	7	.60	4	.31	2330	4960
25	407	23	23	3.1	17	2.0	9	.83	5	.41	1860	4020
26	393	22	18	2.2	11	1.3	7	.81	6	.47	1830	3830
27	308	18	23	2.6	10	1.2	6	.73	14	1.1	1740	3420
28	321	20	20	2.2	12	1.5	7	.83	7	.51	1420	2790
29	255	19	29	2.6	9	.87	7	.81	7	.49	1310	1370
30	56	4.5	18	1.2	13	1.7	6	.66	---	---	970	474
31	31	2.8	---	---	11	1.2	7	.77	---	---	650	211
MONTH	---	443.40	---	101.40	---	47.42	---	36.17	---	24.52	---	74312.30
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	427	122	171	11	361	5.8	323	2.0	4780	6710	307	9.1
2	274	67	144	11	383	5.7	256	1.5	5840	10900	299	8.9
3	169	33	114	12	349	5.8	468	2.8	3990	8630	222	5.6
4	147	32	124	12	326	6.2	288	1.4	3180	7410	288	11
5	156	31	99	10	311	4.4	287	1.2	3950	9570	284	16
6	114	18	336	150	295	3.7	332	1.3	4540	10100	258	9.8
7	78	10	923	385	311	3.9	304	22	2970	6330	153	6.2
8	111	19	1060	249	412	5.8	140	25	3960	7980	142	4.2
9	97	15	905	171	382	24	94	9.3	2410	4760	174	11
10	108	17	348	48	195	13	98	8.0	2210	4380	297	50
11	129	22	210	24	136	7.7	63	1.3	2010	3840	653	285
12	110	17	189	21	102	3.9	87	1.5	1950	3780	1630	502
13	113	15	144	12	117	3.8	93	1.2	1920	3770	800	168
14	112	13	136	6.2	129	3.4	82	1.4	1870	3490	294	39
15	126	14	137	6.7	127	2.2	1190	1330	1760	3230	155	12
16	125	18	143	6.6	141	1.8	8880	9980	1570	2420	152	10
17	101	16	152	6.2	163	1.8	7380	3970	912	566	228	13
18	109	11	281	11	182	1.6	5140	1830	829	269	157	8.1
19	123	11	263	9.2	179	1.4	2130	397	542	110	180	6.8
20	130	11	276	7.5	235	1.8	870	106	271	51	328	33
21	121	8.8	221	5.9	273	2.1	236	13	176	37	1640	1350
22	153	8.7	318	14	263	1.8	167	5.9	142	28	6400	2980
23	187	11	327	14	237	1.5	216	13	82	12	11900	4470
24	245	17	287	12	191	1.1	167	5.9	88	9.0	15900	5020
25	192	15	242	10	245	1.5	4440	2890	86	6.0	6120	1690
26	176	7.6	247	7.3	301	1.9	9100	3490	92	5.2	1200	237
27	137	7.8	352	9.5	305	2.0	4950	1370	103	4.2	655	124
28	148	6.8	301	6.9	283	1.8	2240	704	104	3.4	544	82
29	176	8.1	302	6.4	276	1.7	1000	162	101	3.8	422	55
30	129	6.6	535	12	388	2.4	313	28	131	3.9	256	32
31	---	---	344	6.0	---	---	176	8.1	268	8.0	---	---
MONTH	---	609.40	---	1273.40	---	125.50	---	26382.80	---	98416.50	---	17248.70

TOTAL LOAD FOR YEAR: 219023.5 TONS.

## 08398500 RIO PEÑASCO AT DAYTON, NM

LOCATION.--Lat 32°44'36", long 104°24'49", in NE¼SE¼SE¼ sec.18, T.18 S., R.26 E., Eddy County, Hydrologic Unit 13060010, on left bank 1.2 mi (1.9 km) upstream from U.S. Highway 285, 1.9 mi (3.1 km) northwest of old Dayton railway station, 5.6 mi (9.0 km) upstream from mouth, and 7.0 mi (11.3 km) south of Artesia. Mouth at Pecos River mile 496.4 (798.7 km).

DRAINAGE AREA.--1,060 mi<sup>2</sup> (2,745 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--April 1951 to current year. Prior to October 1953, published as "near Dayton."

REVISED RECORDS.--WSP 1242: 1951(M). WSP 1512: 1956. WSP 1923: 1955.

GAGE.--Water-stage recorder and rock control. Datum of gage is 3,385.19 ft (1,031.806 m) above mean sea level. Prior to May 9, 1968, at site 2.4 mi (3.9 km) downstream, at datum 44.30 ft (13.503 m) lower. May 9, 1968, to June 12, 1975, at present site at datum 1.98 ft (0.604 m) higher.

REMARKS.--Records good. Diversions and ground-water withdrawals for irrigation of about 3,000 acres (12 km<sup>2</sup>), 1959 determination, above station.

AVERAGE DISCHARGE.--25 years, 6.07 ft<sup>3</sup>/s (0.172 m<sup>3</sup>/s), 4,400 acre-ft/yr (5.43 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,800 ft<sup>3</sup>/s (844 m<sup>3</sup>/s) Aug. 23, 1966, gage height, 16.4 ft (5.00 m), from floodmarks, present site and datum, from rating curve extended above 6,000 ft<sup>3</sup>/s (170 m<sup>3</sup>/s), on basis of slope-area measurements at gage heights 6.82 ft (2.079 m) and 7.90 ft (2.408 m) at previous site and datum; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about Sept. 22, 1941, reached a stage of about 9 ft (2.7 m) previous site and datum (from old logs), and peak discharge for station "near Dunken", at river mile 66.8 (107 km), was 70,000 ft<sup>3</sup>/s (1,980 m<sup>3</sup>/s), as determined for that station in 1956, from floodmarks and rating curve extended above 36,300 ft<sup>3</sup>/s (1,030 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--No flow all year.

## NO FLOW DURING YEAR

CAL YR 1975 0	TOTAL 0	MEAN 0	MAX 0	MIN 0	AC-FT 0
WTR YR 1976 0	TOTAL 0	MEAN 0	MAX 0	MIN 0	AC-FT 0



LOCATION.--Lat. 32°41'22", long 104°17'53", in NW 1/4 sec. 5, T.19 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on left bank 3.0 mi (4.8 km) upstream from high-water line of Lake McMillan, 6.0 mi (9.7 km) northeast of Lakewood, 7.0 mi (11.3 km) northeast of gates in McMillan Dam, 12 mi (19.3 km) southeast of Artesia, and at mile 492.1 (791.8 km).

GAGE.—Water-stage recorder. Datum of gage is 3,268.53 ft (996.248 m) above mean sea level (Bureau of Reclamation bench mark). Prior to Mar. 23, 1955, at site 3.0 mi (4.8 km) downstream at datum 7.83 ft (2.387 m) lower. Mar. 23, 1955, to Sept. 30, 1963, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair. Flow partly regulated by Lake Sumner (station 08384000). Diversions and ground-water withdrawals for irrigation of about 170,000 acres (690 km<sup>2</sup>), 1959 determination, above station. Above about 1,500 ft<sup>3</sup>/s (42 m<sup>3</sup>/s) flow will begin bypassing station and, depending on the magnitude and duration of flow, may reach Lake McMillan (station 08400500). Several observations of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 867 ft<sup>3</sup>/s (24.6 m<sup>3</sup>/s) Aug. 5; no flow at times in June, July.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	26	26	28	35	24	110	15	1.6	0	298	11
2	22	29	33	26	35	24	92	21	1.2	0	662	7.0
3	16	33	35	30	35	26	70	33	.80	0	763	5.0
4	13	34	35	31	37	24	70	36	.60	0	854	3.8
5	11	33	34	34	39	20	73	33	1.2	0	867	19
6	14	30	33	37	41	16	57	39	.20	0	758	17
7	18	30	34	36	40	15	44	136	.04	0	727	11
8	20	30	34	30	39	14	52	88	0	26	709	14
9	17	30	33	27	40	15	57	66	0	16	712	12
10	12	35	35	30	43	15	51	52	22	26	702	47
11	7.0	35	35	33	45	13	57	38	15	8.3	672	103
12	8.0	32	34	34	50	9.0	54	37	10	2.4	679	100
13	12	32	33	34	50	7.7	47	32	6.5	51	719	77
14	10	33	32	33	49	9.5	37	19	4.7	12	689	55
15	8.5	34	30	33	48	180	37	10	3.2	5.0	684	35
16	6.0	34	30	33	47	553	30	14	1.0	306	621	25
17	5.0	34	32	35	44	664	62	12	.12	148	262	20
18	11	34	29	35	40	737	38	9.5	0	130	159	15
19	13	33	30	30	36	745	28	10	0	71	97	11
20	15	33	28	30	33	735	27	8.5	0	48	68	22
21	15	33	18	33	29	750	24	6.5	0	24	70	60
22	14	33	16	31	29	750	17	6.5	0	13	73	190
23	15	33	16	31	31	750	14	12	0	18	57	150
24	13	40	20	30	30	768	16	12	0	14	41	130
25	14	44	33	28	28	800	17	11	0	24	25	110
26	14	38	34	33	28	774	12	10	0	132	21	85
27	16	36	35	38	26	722	9.5	5.0	0	99	18	70
28	16	34	37	39	26	727	16	4.7	0	85	12	60
29	20	35	33	39	24	424	10	3.5	0	71	11	50
30	22	16	26	36	---	198	13	2.6	0	39	13	45
31	26	---	38	35	---	143	---	2.6	---	13	8.5	---
TOTAL	449.5	986	951	1012	1077	10652.2	1241.5	785.4	68.16	1381.7	12051.5	1559.8
MEAN	14.5	32.9	30.7	32.6	37.1	344	41.4	25.3	2.27	44.6	389	52.0
MAX	26	44	38	39	50	800	110	136	22	306	867	190
MIN	5.0	16	16	26	24	7.7	9.5	2.6	0	0	8.5	3.8
AC-FT	892	1960	1890	2010	2140	21130	2460	1560	135	2740	23900	3090
CAL YR 1975	TOTAL	35245.79	MEAN	96.6	MAX	1350	MIN	0	AC-FT	69910		
WTR YR 1976	TOTAL	32215.76	MEAN	88.0	MAX	867	MIN	0	AC-FT	63900		

08400000 FOURMILE DRAW NEAR LAKEWOOD, NM

LOCATION.--Lat 32°40'20", long 104°22'07", in SW¼NW¼SE¼ sec.10, T.19 S., R.26 E., Eddy County, Hydrologic Unit 13060011, in left side of channel 360 ft (110 m) downstream from ford on Lakewood-Dayton road, 1.9 mi (3.1 km) downstream from U.S. Highway 285, 2.8 mi (4.5 km) north of Lakewood, 3.8 mi (6.1 km) upstream from mouth, and 11.5 mi (18.5 km) south of Artesia. Mouth at Pecos River mile 490.6 (789.4 km).

DRAINAGE AREA.--265 mi<sup>2</sup> (686 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WRD 1968: 1967.

GAGE.--Water-stage recorder. Datum of gage is 3,299.14 ft (1,005.578 m) above mean sea level. Oct. 1, 1951, to June 19, 1962, at site 1.8 mi (2.9 km) upstream at datum 30.61 ft (9.330 m) higher. June 19, 1962, to Oct. 12, 1966, at site 410 ft (125 m) upstream at datum 6.08 ft (1.853 m) higher.

REMARKS.--Records good. No surface diversions above station.

AVERAGE DISCHARGE.--25 years, 4.11 ft<sup>3</sup>/s (0.116 m<sup>3</sup>/s) 2,980 acre-ft/yr (3.67 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,300 ft<sup>3</sup>/s (830 m<sup>3</sup>/s) Aug. 23, 1966, gage height, 19.9 ft (6.07 m), from floodmarks present datum, from rating curve extended above 5,000 ft<sup>3</sup>/s (17.0 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow most of time.

The flood of Aug. 23, 1966, (information from local resident) is believed to be the greatest since at least 1920.

EXTREMES FOR CURRENT YEAR.--No flow all year.

## NO FLOW DURING YEAR

CAL YR 1975 0	TOTAL 0	MEAN 0	MAX 0	MIN 0	AC-FT 0
WTR YR 1976 0	TOTAL 0	MEAN 0	MAX 0	MIN 0	AC-FT 0

## 08400500 LAKE MCMILLAN NEAR LAKEWOOD, NM

LOCATION.--Lat 32°35'42", long 104°20'49", in NE¼NE¼ sec.11, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, near outlet gates of McMillan Dam on Pecos River, 3.4 mi (5.5 km) southeast of Lakewood, and at mile 484.3 (779.2 km).

DRAINAGE AREA.--16,990 mi<sup>2</sup> (44,000 km<sup>2</sup>), approximately (contributing area).

PERIOD OF RECORD.--January 1939 to September 1965 (monthend contents only), October 1965 to current year. Monthend gage heights January 1918 to December 1938 in files of Pecos River Commission.

GAGE.--Non-recording gage. Datum of gage is 3,241.6 ft (988.04 m) above mean sea level (Bureau of Reclamation datum).

REMARKS.--Lake is formed by McMillan Dam, an earthfill structure, completed and storage began in 1893. The structure was damaged by floods of October 1893 and Oct. 2, 1904. Capacity, (based on Aug. 1964 survey) 27,300 acre-ft (33.7 hm<sup>3</sup>) between gage heights 0.0 ft (sill of outlet gate) and 24.9 ft (7.59 m), crest of spillway 2. Flashboards in spillway No. 2 may be used to increase this capacity. Maximum capacity without spill, 33,620 acre-ft (41.5 hm<sup>3</sup>) at gage height 26.1 ft (7.96 m) crest of spillway 1. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents. Gage heights may be affected by variable drawdown due to flow through gates. Water is used for irrigation by Carlsbad Irrigation District.

COOPERATION.--Gage-height record and capacity table furnished by Carlsbad Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 68,500 acre-ft (84.5 hm<sup>3</sup>) Sept. 26, 1941, gage height, 29.95 ft (9.129 m); no storage for periods in 1944-54, 1957, 1964, 1965, 1974, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 21,840 acre-ft (26.9 hm<sup>3</sup>) Mar. 30, gage height, 23.75 ft (7.239 m); no storage several days.

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7840	2570	3220	4220	5080	5740	20320	9900	5410	0	0	231
2	7480	2660	3220	4220	5080	5740	20320	9900	5080	0	0	231
3	7240	2660	3220	4220	5080	5630	20320	9760	4640	0	45	231
4	6880	2750	3110	4220	5190	5630	20320	9630	4220	0	156	210
5	6540	2750	3110	4220	5190	5630	20320	9630	4020	0	129	189
6	6200	2750	3110	4220	5300	5520	20320	9630	3710	0	257	156
7	5850	2750	3110	4330	5300	5520	20320	9630	3510	0	854	156
8	5300	2750	3410	4330	5300	5630	20320	9630	3310	0	1590	143
9	4970	2840	3410	4330	5410	5520	19480	9760	2930	0	2230	143
10	4540	2840	3410	4440	5410	5520	18680	9760	1590	0	2840	231
11	4120	2840	3410	4440	5410	5520	17880	9900	156	0	3610	231
12	3810	2840	3510	4440	5520	5520	17310	9900	0	0	3810	257
13	3410	2840	3510	4440	5520	5410	16740	9760	0	0	4020	283
14	3220	2840	3510	4540	5520	5410	16200	9760	0	0	4220	415
15	3020	2840	3510	4540	5520	5300	15660	9630	0	0	4440	497
16	2930	2930	3610	4540	5630	5300	14960	9630	0	0	4970	543
17	2930	2930	3610	4540	5630	5740	14110	9500	0	0	5410	543
18	2840	2930	3610	4540	5630	6770	13780	9370	0	0	5410	543
19	2840	2930	3710	4440	5630	7840	13620	9240	0	0	5080	543
20	2840	3020	3710	4640	5630	9240	13300	8720	0	0	4860	543
21	2840	3020	3810	4640	5630	10320	12980	8200	0	0	4440	543
22	2840	3020	3810	4970	5630	11460	12660	7720	0	1.0	4020	543
23	2750	3020	3810	4970	5630	12820	12210	7360	0	5.0	3610	639
24	2750	3120	3910	4970	5740	14110	11760	7120	0	0	3220	74
25	2750	3120	3910	4970	5740	15660	11310	6770	0	0	2840	0
26	2660	3120	3910	4970	5740	17310	10880	6540	0	0	2400	0
27	2570	3120	4020	4860	5740	18680	10600	6200	0	0	1980	0
28	2570	3120	4020	4860	5740	19900	10320	5850	0	0	1590	0
29	2570	3220	4120	4970	5740	21400	10040	5740	0	0	1160	0
30	2570	3220	4120	4970	---	21840	9900	5520	0	0	797	0
31	2570	---	4120	5080	---	20110	---	5410	---	0	344	---
MFAN	4007	2912	3625	4592	5493	9733	15564	8550	1285	.19	2591	270
MAX	7840	3220	4120	5080	5740	21840	20320	9900	5410	5.0	5410	639
MIN	2570	2570	3220	4220	5080	5300	9900	5410	0	0	0	0
(+)	-5510	+650	+900	+960	+660	+14370	-10210	-4490	-5410	0	+344	-344
CAL YR 1975	MAX	32790	MIN	2570	CHANGE IN CONTENTS -28940							
WTR YR 1976	MAX	21840	MIN	0	CHANGE IN CONTENTS -8080							

+ Change in contents, in acre-feet.

08400500 LAKE MCMILLAN NEAR LAKEWOOD, NM -- CONTINUED

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.55	17.10	17.45	17.95	18.35	18.65	23.40	20.35	18.50	.00	.00	15.20
2	19.40	17.15	17.45	17.95	18.35	18.65	23.40	20.35	18.35	.00	.00	15.20
3	19.30	17.15	17.45	17.95	18.35	18.60	23.40	20.30	18.15	.00	14.30	15.20
4	19.15	17.20	17.50	17.95	18.40	18.60	23.40	20.25	17.95	.00	15.00	15.15
5	19.00	17.20	17.50	17.95	18.40	18.60	23.40	20.25	17.85	.00	14.85	15.10
6	18.85	17.20	17.50	17.95	18.45	18.55	23.40	20.25	17.70	.00	15.25	15.00
7	18.70	17.20	17.50	18.00	18.45	18.55	23.40	20.25	17.60	.00	15.95	15.00
8	18.45	17.20	17.55	18.00	18.45	18.60	23.40	20.25	17.50	.00	16.50	14.95
9	18.30	17.25	17.55	18.00	18.50	18.55	23.20	20.30	17.30	.00	16.90	14.95
10	18.10	17.25	17.55	18.05	18.50	18.55	23.00	20.30	16.50	.00	17.25	15.20
11	17.90	17.25	17.55	18.05	18.50	18.55	22.80	20.35	15.00	.00	17.65	15.20
12	17.75	17.25	17.60	18.05	18.55	18.55	22.65	20.35	.00	.00	17.75	15.25
13	17.55	17.25	17.60	18.05	18.55	18.50	22.50	20.30	.00	.00	17.85	15.30
14	17.45	17.25	17.60	18.10	18.55	18.50	22.35	20.30	.00	.00	17.95	15.50
15	17.35	17.25	17.60	18.10	18.55	18.45	22.20	20.25	.00	.00	18.05	15.60
16	17.30	17.30	17.65	18.10	18.60	18.45	22.00	20.25	.00	.00	18.30	15.65
17	17.30	17.30	17.65	18.10	18.60	18.65	21.75	20.20	.00	.00	18.50	15.65
18	17.25	17.30	17.65	18.15	18.60	19.10	21.65	20.15	.00	.00	18.50	15.65
19	17.25	17.30	17.70	18.15	18.60	19.55	21.60	20.10	.00	.00	18.35	15.65
20	17.25	17.35	17.70	18.15	18.60	20.10	21.50	19.90	.00	.00	18.25	15.65
21	17.25	17.35	17.75	18.15	18.60	20.50	21.40	19.70	.00	.00	18.05	15.65
22	17.25	17.35	17.75	18.20	18.60	20.90	21.30	19.50	.00	10.80	17.85	15.65
23	17.20	17.35	17.75	18.20	18.60	21.35	21.15	19.35	.00	13.20	17.65	15.75
24	17.20	17.40	17.80	18.20	18.65	21.75	21.00	19.25	.00	.00	17.45	14.55
25	17.20	17.40	17.80	18.20	18.65	22.20	20.85	19.10	.00	.00	17.25	.00
26	17.15	17.40	17.80	18.20	18.65	22.65	20.70	19.00	.00	.00	17.00	.00
27	17.10	17.40	17.85	18.25	18.65	23.00	20.60	18.85	.00	.00	16.75	.00
28	17.10	17.40	17.85	18.25	18.65	23.30	20.50	18.70	.00	.00	16.50	.00
29	17.10	17.45	17.90	18.30	18.65	23.65	20.40	18.65	.00	.00	16.20	.00
30	17.10	17.45	17.90	18.30	---	23.75	20.35	18.55	.00	.00	15.90	.00
31	17.10	---	17.90	18.35	---	23.35	---	18.50	---	.00	15.40	---
MEAN	17.80	17.29	17.66	18.11	18.54	20.02	22.09	19.81	6.41	.77	15.91	12.26
MAX	19.55	17.45	17.90	18.35	18.65	23.75	23.40	20.35	18.50	13.20	18.50	15.75
MIN	17.10	17.10	17.45	17.95	18.35	18.45	20.35	18.50	0	0	0	0
CAL YR 1975	MEAN 22.04		MAX 25.95	MIN 17.10								
WTR YR 1976	MEAN 15.55		MAX 23.75	MIN .00								

## 08401000 PECOS RIVER BELOW MCMILLAN DAM, NM

LOCATION.--Lat 32°35'40", long 104°20'59", in NW¼NE¼ sec.11, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on left bank 700 ft (210 m) downstream from gates in McMillan Dam, 3.4 mi (5.5 km) southeast of Lakewood, and at mile 484.1 (778.9 km).

DRAINAGE AREA.--16,990 mi<sup>2</sup> (44,000 km<sup>2</sup>), approximately (contributing area).

PERIOD OF RECORD.--January 1906 to March 1908, January 1909 to December 1911, August 1939 to December 1940, December 1946 to current year (January 1906, and January 1910 to December 1911, gage heights and discharge measurements only). Published as "near Lakewood" 1906-11, and as "below McMillan Dam, near Lakewood" 1939-40.

REVISED RECORDS.--WSP 1512: 1909.

GAGE.--Water-stage recorder and rock control. Datum of gage is 3,238.21 ft (987.006 m) above mean sea level. See WSP 1732 for history of changes prior to Mar. 12, 1957. Supplemental water-stage recorders on McMillan Dam spillways, No. 1 and 2, Apr. 6, 1960, to Sept. 30, 1970.

REMARKS.--Records good. Flow regulated by Lake Sumner and Lake McMillan (stations 08384000, 08400500). Diversions and ground-water withdrawals for irrigation of about 171,000 acres (690 km<sup>2</sup>), 1959 determination, above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft<sup>3</sup>/s (467 m<sup>3</sup>/s) Aug. 23, 1966, includes flow of spillways; no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1904, may have reached 60,000 ft<sup>3</sup>/s (1,700 m<sup>3</sup>/s). The flood of Aug. 3, 1893, damaged McMillan Dam, then under construction, and destroyed Avalon Dam; this flood was described as "highest in 50 years" at Carlsbad (corrected).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge 703 ft<sup>3</sup>/s (19.9 m<sup>3</sup>/s) Aug. 5., gage height 4.64 ft (1.414 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	.37			0	0	.61	4.0	62	0	15	3.0
2	128	.37			0	0	.52	3.4	138	0	194	3.0
3	130	.31			0	0	.52	3.2	162	0	511	3.0
4	130	.31			0	0	.52	3.2	141	0	614	3.0
5	181	.27			0	0	.82	3.2	83	0	703	2.9
6	170	.27			0	0	.61	3.2	83	0	555	2.9
7	181	.44			0	0	.61	3.2	83	0	404	2.9
8	190	.61			0	0	182	3.2	106	0	260	2.9
9	190	.52			0	0	348	3.2	349	0	263	2.9
10	185	.31			0	0	317	2.9	563	0	268	2.9
11	154	.27			.60	0	247	2.9	264	0	388	2.9
12	141	.31			.15	0	215	2.9	1.2	0	484	2.9
13	114	.27			.15	0	213	3.2	2.0	0	488	1.7
14	72	.18			.15	0	213	2.9	.01	0	488	.22
15	30	.18			.12	0	257	2.9	0	0	374	.22
16	1.7	.18			.12	0	285	2.9	0	.01	279	.27
17	1.4	.22			.07	0	190	2.9	0	0	279	.27
18	1.4	.12			.05	0	106	2.6	0	0	279	.22
19	1.2	.09			0	0	106	141	0	0	222	.22
20	1.2	.12			0	0	106	208	0	0	196	.61
21	1.1	.09			0	0	106	205	0	1.1	196	.27
22	.82	.05			0	0	175	170	0	3.7	194	.18
23	.61	.04			0	0	210	116	0	4.0	194	226
24	.37	.03			0	0	145	116	0	3.4	192	188
25	.37	.04			0	0	116	116	0	1.2	192	131
26	.31	.02			0	0	114	116	0	.22	190	78
27	.31	0			0	0	114	82	0	.07	188	65
28	.27	0			0	0	114	67	0	.02	185	36
29	.31	0			0	329	92	52	0	0	183	35
30	.37	0			---	480	36	5.7	0	1.4	181	25
31	.37	---			---	156	---	6.5	---	3.2	95	---
TOTAL	2135.11	5.94	0	0	1.41	965	4011.21	1457.1	2037.21	18.32	9254	823.38
MFAN	68.9	.20	0	0	.049	31.1	134	47.0	67.9	.59	299	27.4
MAX	190	.61	0	0	.60	480	348	208	563	4.0	703	226
MIN	.27	0	0	0	0	0	.52	2.6	0	0	15	.18
AC-FT	4230	12	0	0	2.8	1910	7960	2890	4040	36	18360	1630
CAL YR 1975	TOTAL	23698.48	MEAN	64.9	MAX	329	MIN	0	AC-FT	47010		
WTR YR 1976	TOTAL	20708.68	MEAN	56.6	MAX	703	MIN	0	AC-FT	41080		



LOCATION.--Lat 32°35'19", long 104°25'17", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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 (0.6 km) south of Seven Rivers, 2.6 mi (4.2 km) upstream from mouth, and 4.0 mi (6.4 km) southwest of Lakewood. Mouth at Pecos River mile 480.9 (773.8 km).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,276 ft (999 m), from topographic map. Prior to July 8, 1965, at site 400 ft (120 m) upstream at datum 0.57 ft (0.174 m) higher.

REMARKS.--Records poor. No surface diversions above station, ground-water withdrawals for 240 acres (97.1 ha<sup>2</sup>), above station.

AVERAGE DISCHARGE.--13 years, 5.46 ft<sup>3</sup>/s (0.155 m<sup>3</sup>/s), 3,960 acre-ft/yr (4.88 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,500 ft<sup>3</sup>/s (722 m<sup>3</sup>/s) May 30, 1965, gage height, 20.0 ft (6.10 m), from flood-marks, present site and datum, from rating curve extended above 5,700 ft<sup>3</sup>/s (161 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 18.15 ft (5.532 m) and 20.0 ft (6.10 m); no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1941, about 30,000 ft<sup>3</sup>/s (850 m<sup>3</sup>/s) gage height, 22.8 ft (6.95 m), from old debris on left bank former site and datum, from rating curve extended above 5,700 ft<sup>3</sup>/s (161 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 21.8 ft (6.64 m). Probable date of flood, Oct. 7, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 242 ft<sup>3</sup>/s (6.85 m<sup>3</sup>/s) Sept. 24 gage height, 6.16 ft (1.878 m) no peak above base of 450 ft<sup>3</sup>/s (13 m<sup>3</sup>/s); no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FER	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												0
2												0
3												0
4												0
5												0
6												1.2
7												.30
8												0
9												0
10												0
11												0
12												0
13												0
14												0
15												0
16												0
17												0
18												0
19												1.4
20												2.4
21												0
22												0
23												0
24												26
25												12
26												.03
27												0
28												0
29												0
30												0
31												---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	43.33
MEAN	0	0	0	0	0	0	0	0	0	0	0	1.44
MAX	0	0	0	0	0	0	0	0	0	0	0	26
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	0	86
CAL YR 1975	TOTAL 44.87	MEAN .013	MAX 2.4	MIN 0	AC-FT 9.7							
WTR YR 1976	TOTAL 43.33	MEAN .12	MAX 26	MIN 0	AC-FT 86							





## 08401900 ROCKY ARROYO AT HIGHWAY BRIDGE, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'23", long 104°22'28", in SEkSEk 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 (3.4 km) upstream from mouth and 10 mi (16.1 km) northwest of Carlsbad. Mouth at Pecos River mile 475.2 (764.6 km).

DRAINAGE AREA.--285 mi (738 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,248 ft (990 m), from topographic map.

REMARKS.--Records good. Diversions for irrigation of 220 acres (89.0 hm<sup>2</sup>), above station.

AVERAGE DISCHARGE.--13 years, 9.82 ft<sup>3</sup>/s (0.278 m<sup>3</sup>/s) 7,110 acre-ft/yr (8.77 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,600 ft<sup>3</sup>/s (895 m<sup>3</sup>/s) Aug. 23, 1966, gage height, 15.35 ft, (4.679 m), from rating curve extended above 8,500 ft<sup>3</sup>/s (156 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Since about 1941 the maximum discharge probably occurred Oct. 7, 1954, discharge 63,600 ft<sup>3</sup>/s (1,800 m<sup>3</sup>/s), gage height, 19.2 ft (5.85 m), from highwater marks on downstream end of bridge pier, by slope-area measurement at site 5 mi (8.0 km) upstream.

EXTREMES FOR CURRENT YEAR.--No flow all year.

## NO FLOW DURING YEAR

CAL YR 1975	TOTAL	0.07	MEAN	0.0002	MAX	0.07	MIN	0	AC-FT	0.1
WTR YR 1976	TOTAL	0	MEAN	0	MAX	0	MIN	0	AC-FT	0

## 08402000 PECOS RIVER AT DAMSITE 3, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'40", long 104°19'58", in lot 14, 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 (1.6 km) upstream from flow line of Lake Avalon, 1.3 mi (2.1 km) downstream from Rocky Arroyo, 8.0 mi (12.9 km) northwest of Carlsbad, and at mile 473.8 (762.3 km).

DRAINAGE AREA.--17,980 mi<sup>2</sup> (46,570 km<sup>2</sup>), approximately (contributing area).

PERIOD OF RECORD.--August 1939 to December 1940, August 1944 to current year.

REVISED RECORDS.--WSP 1512: 1946-47(M), 1948(p), 1949, 1950(P). WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,171.31 ft (966.615 m) above mean sea level (Bureau of Reclamation datum). Prior to Aug. 10, 1944, at site 1,000 ft (305 m) downstream, at datum 1.00 ft (0.035 m) higher. Aug. 10, 1944, to Dec. 31, 1966, at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Flow regulated by Lake Sumner and Lake McMillan (stations 08384000, 08400500). Diversions and ground-water withdrawals for irrigation of about 173,000 acres (700 km<sup>2</sup>), 1959 determination, above station. Discharge represents inflow to Lake Avalon. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,000 ft<sup>3</sup>/s (1,950 m<sup>3</sup>/s) Aug. 23, 1966, gage height, 21.32 ft (6.194 m), present datum, from floodmark, from rating curve extended above 25,000 ft<sup>3</sup>/s (708 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 19.53 ft (5.953 m) present datum; minimum, 4.3 ft<sup>3</sup>/s (0.12 m<sup>3</sup>/s) Aug. 5, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 40,000 ft<sup>3</sup>/s (1,130 m<sup>3</sup>/s) occurred in August 1893, Oct. 2, 1904, July 25, 1905, Apr. 17, 1915, Aug. 7, 1916, and May 30, 1937, based primarily on records for station "at Carlsbad." Peak of May 22, 1941, was estimated at 60,000 ft<sup>3</sup>/s (1,700 m<sup>3</sup>/s). Floods of 1893 and 1904 originated above McMillan Dam and contributed to the two failures of Avalon Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 715 ft<sup>3</sup>/s (20.2 m<sup>3</sup>/s) Aug. 4 gage height, 3.28 ft (1.000 m); minimum, 7.8 ft<sup>3</sup>/s (0.22 m<sup>3</sup>/s) July 14, 18-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	26	26	25	24	22	35	49	54	13	8.3	38
2	152	25	27	25	24	21	32	39	130	12	85	31
3	154	25	27	25	23	19	32	39	177	13	460	30
4	154	24	27	25	24	18	33	39	180	13	547	28
5	177	24	26	24	24	18	33	39	117	11	636	27
6	205	24	25	23	24	18	34	38	106	11	560	26
7	188	24	26	24	24	18	36	39	106	11	417	26
8	205	24	26	24	24	18	87	39	113	10	228	30
9	205	25	26	24	24	17	357	39	245	9.4	231	33
10	205	25	25	23	23	16	322	38	509	8.8	237	26
11	191	25	25	24	24	15	285	38	389	17	302	24
12	169	26	25	23	25	15	237	38	36	14	464	23
13	164	26	24	23	25	16	234	39	31	8.8	472	23
14	102	26	25	24	24	16	234	38	29	8.3	476	23
15	98	26	24	24	23	16	255	38	28	8.8	464	22
16	39	26	24	24	24	16	345	39	25	8.8	272	22
17	36	26	24	24	24	17	250	39	24	8.8	272	22
18	34	26	24	24	24	17	145	39	23	7.8	275	22
19	34	26	24	24	24	15	138	96	23	7.8	247	22
20	33	26	25	24	23	17	138	216	21	7.8	205	23
21	33	25	25	24	23	18	138	219	20	7.8	205	22
22	30	25	25	24	23	18	175	205	18	7.8	202	21
23	28	25	27	24	23	18	230	142	15	8.3	202	116
24	28	25	27	24	22	18	195	137	15	8.3	199	266
25	28	24	26	24	22	18	145	135	15	8.8	199	172
26	28	24	25	25	23	19	145	135	14	11	199	123
27	27	24	25	24	23	18	145	123	13	10	196	87
28	27	25	25	24	23	19	143	96	13	9.4	196	76
29	27	25	25	24	23	178	130	90	13	29	193	62
30	27	25	24	24	---	444	98	50	13	14	191	58
31	27	---	23	24	---	278	---	39	---	9.4	169	---
TOTAL	3011	752	782	745	683	1391	4806	2389	2515	333.9	9009.3	1524
MEAN	97.1	25.1	25.2	24.0	23.6	44.9	160	77.1	83.8	10.8	291	50.8
MAX	205	26	27	25	25	444	357	219	509	29	636	266
MIN	27	24	23	23	22	15	32	38	13	7.8	8.3	21
AC-FT	5970	1490	1550	1480	1350	2760	9530	4740	4990	662	17870	3020
CAL YR 1975	TOTAL	40321.0	MEAN	110	MAX	361	MIN	23	AC-FT	79980		
WTR YR 1976	TOTAL	27941.2	MEAN	74.3	MAX	636	MIN	7.8	AC-FT	55420		

## 08403500 CARLSBAD MAIN CANAL AT HEAD, NEAR CARLSBAD, NM

LOCATION.--Lat 32°29'25", long 104°15'08", in NW¼SW¼SW¼ sec.12, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 220 ft (67 m) downstream from headgates in Avalon Dam, and 3.3 mi (5.3 km), north of Carlsbad. Pecos River mile 467.2 (751.7 km).

PERIOD OF RECORD.--July 1939 to current year (monthly discharge only July 1939 to September 1965). January 1941 to March 1951 published in WSP 1732.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,156.50 ft (962.101 m) above mean sea level (Bureau of Reclamation datum). Prior to March 1951 at site 20 ft (6.1 m) upstream at datum 0.9 ft (0.274 m) higher.

REMARKS.--Records good. Carlsbad main canal diverts water from Lake Avalon for irrigation of about 25,000 acres (100 km²) in the Carlsbad Irrigation District. About 1,600 acres (6.5 km²) are irrigated, on the left bank, most of it above gaging station 08405200. The remaining acreage (most of which is downstream from station 08405200) is on the right bank.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180					0	135	40	107		0	108
2	173					0	168	26	140		0	123
3	196					0	216	23	135		98	82
4	147					0	193	44	119		216	81
5	119					0	220	31	100		230	94
6	159					0	236	29	96		236	94
7	202					0	243	7.7	134		243	94
8	207					0	245	0	131		220	72
9	202					0	304	0	137		306	35
10	200					0	282	0	135		306	0
11	164					0	264	0	135		306	0
12	156					0	253	0	145		332	0
13	176					0	245	0	145		383	0
14	213					0	286	0	165		347	0
15	89					0	284	0	160		286	0
16	.20					0	222	52	90		260	0
17	0					0	150	108	40		274	0
18	0					0	99	156	25		256	0
19	0					0	137	180	0		202	51
20	0					0	168	151	0		178	80
21	0					0	200	135	0		142	52
22	0					0	180	124	0		123	33
23	0					0	146	78	0		162	27
24	0					0	161	98	0		152	10
25	0					0	123	123	0		144	.20
26	0					0	149	116	0		161	.20
27	0					0	154	100	0		187	.20
28	0					0	123	96	0		157	0
29	0					0	90	64	0		98	0
30	0					0	75	52	0		118	0
31	0	---			---	74	---	80	---		126	---
TOTAL	2583.20	0	0	0	0	74	5751	1913.7	2139	0	6249	1036.60
MFAN	83.3	0	0	0	0	2.39	192	61.7	71.3	0	202	34.6
MAX	213	0	0	0	0	74	304	180	165	0	383	123
MIN	0	0	0	0	0	0	75	0	0	0	0	0
AC-FT	5120	0	0	0	0	147	11410	3800	4240	0	12390	2060
CAL YR 1975	TOTAL	32227.60	MEAN	88.3	MAX	339	MIN	0	AC-FT	63920		
WTR YR 1976	TOTAL	19746.50	MEAN	54.0	MAX	383	MIN	0	AC-FT	39170		

## 08403800 LAKE AVALON NEAR CARLSBAD, NM

LOCATION.--Lat 32°29'27", long 104°15'05", in NW¼SW¼ sec.12, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on headwall at outlet gate of dam on Pecos River, 3.3 mi (5.3 km) north of Carlsbad, and at mile 467.2 (751.7 km).

DRAINAGE AREA.--18,070 mi<sup>2</sup> (46,800 km<sup>2</sup>), approximately (contributing area).

PERIOD OF RECORD.--January 1939 to September 1965 (monthend contents only). 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. Datum of gage is 3,157.0 ft (962.25 m) above mean sea level (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 (corrected). The dam was destroyed by 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, (corrected). Capacity (based on Aug. 1964 survey), 4,970 acre-ft (6.1 hm<sup>3</sup>) between gage heights 0.0 (sill of outlet gates) and 20.4 ft (6.22 m), crest of spillway 2. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents. Water is used by Carlsbad Irrigation District.

COOPERATION.--Capacity table based on data furnished by Carlsbad Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 11,000 acre-ft (13.6 hm<sup>3</sup>) May 22, 1941, gage height, 25.0 ft (7.62 m); no storage at times when natural flow was passing through reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,940 acre-ft (4.86 hm<sup>3</sup>) Apr. 1, gage height, 19.25 ft (5.87 m); minimum, 686 acre-ft (846,000 m<sup>3</sup>) July 26-30).

CONTENTS, IN ACRE-Feet, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	1580	2050	2510	2780	2810	3940	1280	1010	764	712	3850
2	955	1580	2080	2550	2780	2810	3650	1280	872	738	738	3650
3	900	1580	2080	2550	2780	2780	3290	1250	845	738	1070	3490
4	818	1610	2080	2550	2810	2740	2890	1220	900	738	1640	3250
5	791	1640	2120	2590	2810	2740	2510	1190	982	738	2330	3090
6	1010	1670	2120	2590	2810	2740	2120	1190	955	738	3050	2850
7	1010	1700	2160	2620	2810	2740	1670	1160	900	738	3450	2700
8	955	1740	2160	2620	2810	2740	1190	1220	814	738	3570	2550
9	955	1740	2190	2660	2810	2740	982	1280	738	712	3490	2440
10	955	1740	2190	2660	2810	2740	1010	1350	1130	712	3290	2550
11	982	1740	2220	2660	2810	2740	1130	1380	1910	712	3170	2550
12	1010	1740	2220	2700	2810	2700	1100	1440	2120	764	3130	2550
13	1010	1770	2220	2700	2810	2700	1070	1480	1840	764	3250	2590
14	900	1770	2260	2700	2810	2700	1010	1510	1510	764	3330	2590
15	686	1770	2260	2700	2850	2700	900	1580	1190	764	3570	2590
16	791	1770	2260	2700	2850	2660	872	1640	900	764	3610	2590
17	845	1840	2260	2700	2850	2660	1070	1440	791	764	3610	2590
18	928	1840	2300	2700	2850	2620	1250	1190	738	764	3530	2590
19	955	1840	2300	2700	2850	2620	1320	900	712	738	3530	2590
20	1010	1880	2300	2700	2890	2620	1280	791	712	738	3530	2480
21	1070	1880	2300	2700	2890	2620	1130	955	738	738	3490	2330
22	1130	1910	2330	2700	2890	2590	982	1070	738	738	3570	2220
23	1160	1910	2360	2700	2890	2550	1040	1190	764	712	3650	2160
24	1190	1940	2360	2700	2890	2550	1190	1280	791	712	3650	2440
25	1250	1940	2400	2700	2890	2550	1250	1320	791	712	3690	2850
26	1280	1980	2400	2700	2890	2510	1190	1280	791	686	3730	3090
27	1350	1980	2440	2740	2890	2510	1130	1320	791	686	3730	3250
28	1440	1980	2440	2740	2850	2480	1130	1280	791	686	3690	3370
29	1480	2020	2480	2780	2850	2480	1130	1280	764	686	3770	3410
30	1510	2020	2480	2780	---	3010	1190	1250	764	686	3810	3490
31	1540	---	2510	2780	---	3890	---	1160	---	712	3940	---
MAX	1540	2020	2510	2780	2890	3890	3940	1640	2120	764	3940	3850
MIN	686	1580	2050	2510	2780	2480	872	791	712	686	712	2160
(#)	+410	+480	+490	+270	+70	+1040	-2700	-30	-396	-52	+3230	-450

CAL YR 1975 MAX 5070 MIN 494 CHANGE IN CONTENTS -2560  
WTR YR 1976 MAX 3940 MIN 686 CHANGE IN CONTENTS +2360

# Change in contents, in acre-feet.

## 08403800 LAKE AVALON NEAR CARLSBAD, NM -- CONTINUED

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.25	16.10	16.80	17.45	17.80	17.85	19.25	15.65	15.20	14.75	14.65	19.15
2	15.10	16.10	16.85	17.50	17.80	17.85	18.90	15.65	14.95	14.70	14.70	18.90
3	15.00	16.10	16.85	17.50	17.80	17.80	18.45	15.60	14.90	14.70	15.30	18.70
4	14.85	16.15	16.85	17.50	17.85	17.75	17.95	15.55	15.00	14.70	16.20	18.40
5	14.80	16.20	16.90	17.55	17.85	17.75	17.45	15.50	15.15	14.70	17.20	18.20
6	15.20	16.25	16.90	17.55	17.85	17.75	16.90	15.50	15.10	14.70	18.15	17.90
7	15.20	16.30	16.95	17.60	17.85	17.75	16.25	15.45	15.00	14.70	18.65	17.70
8	15.10	16.35	16.95	17.60	17.85	17.75	15.50	15.55	14.85	14.70	18.80	17.50
9	15.10	16.35	17.00	17.65	17.85	17.75	15.15	15.65	14.70	14.65	18.70	17.35
10	15.10	16.35	17.00	17.65	17.85	17.75	15.20	15.75	15.40	14.65	18.45	17.50
11	15.15	16.35	17.05	17.65	17.85	17.75	15.40	15.80	16.60	14.65	18.30	17.50
12	15.20	16.35	17.05	17.70	17.85	17.70	15.35	15.90	16.90	14.75	18.25	17.50
13	15.20	16.40	17.05	17.70	17.85	17.70	15.30	15.95	16.50	14.75	18.40	17.55
14	15.00	16.40	17.10	17.70	17.85	17.70	15.20	16.00	16.00	14.75	18.50	17.55
15	14.60	16.40	17.10	17.70	17.90	17.70	15.00	16.10	15.50	14.75	18.80	17.55
16	14.80	16.40	17.10	17.70	17.90	17.65	14.95	16.20	15.00	14.75	18.85	17.55
17	14.90	16.50	17.10	17.70	17.90	17.65	15.30	15.90	14.80	14.75	18.85	17.55
18	15.05	16.50	17.15	17.70	17.90	17.60	15.60	15.50	14.70	14.75	18.75	17.55
19	15.10	16.50	17.15	17.70	17.95	17.60	15.70	15.00	14.65	14.70	18.75	17.55
20	15.20	16.55	17.15	17.70	17.95	17.60	15.65	14.80	14.65	14.70	18.75	17.40
21	15.30	16.55	17.15	17.70	17.95	17.60	15.40	15.10	14.70	14.70	18.70	17.20
22	15.40	16.60	17.20	17.70	17.95	17.55	15.15	15.30	14.70	14.70	18.80	17.05
23	15.45	16.60	17.25	17.70	17.95	17.50	15.25	15.50	14.75	14.65	18.90	16.95
24	15.50	16.65	17.25	17.70	17.95	17.50	15.50	15.65	14.80	14.65	18.90	17.35
25	15.60	16.65	17.30	17.70	17.95	17.50	15.60	15.70	14.80	14.65	18.95	17.90
26	15.65	16.70	17.30	17.70	17.95	17.45	15.50	15.65	14.80	14.60	19.00	18.20
27	15.75	16.70	17.35	17.75	17.95	17.45	15.40	15.70	14.80	14.60	19.00	18.40
28	15.90	16.70	17.35	17.75	17.90	17.40	15.40	15.65	14.80	14.60	18.95	18.55
29	15.95	16.75	17.40	17.80	17.90	17.40	15.40	15.65	14.75	14.60	19.05	18.60
30	16.00	16.75	17.40	17.80	---	18.10	15.50	15.60	14.75	14.60	19.10	18.70
31	16.05	---	17.45	17.80	---	19.20	---	15.45	---	14.65	19.25	---
MEAN	15.27	16.44	17.11	17.66	17.89	17.71	15.95	15.61	15.11	14.69	18.25	17.85
MAX	16.05	16.75	17.45	17.80	17.95	19.20	19.25	16.20	16.90	14.75	19.25	19.15
MIN	14.60	16.10	16.80	17.45	17.80	17.40	14.95	14.80	14.65	14.60	14.65	16.95
CAL YR 1975	MEAN 16.88											
WTR YR 1976	MEAN 16.62											
			MAX 20.50	MIN 14.20								
			MAX 19.25	MIN 14.60								

## RIO GRANDE BASIN

## 08404000 PECOS RIVER BELOW AVALON DAM, NM

LOCATION.--Lat 32°28'55", long 104°15'47", in SW¼SW¼NE¼ sec.14, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 4,800 ft (1,460 m) below Avalon Dam, 4.5 mi (7.2 km) northwest of Carlsbad, and at mile 466.3 (750.3 km).

DRAINAGE AREA.--18,080 mi<sup>2</sup> (46,830 km<sup>2</sup>), approximately (contributing area).

PERIOD OF RECORD.--January 1906 to March 1907, (published as "at Avalon"), June 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,130 ft (954 m), from topographic map. January 1906 to March 1907 nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Records good. Flow regulated by Lake Sumner, Lake McMillan, and Lake Avalon (stations 08384000, 09400500, 08403800). Diversions and ground-water withdrawals above station for irrigation of about 198,000 acres (800 km<sup>2</sup>), 1959 determination. Station bypassed by Carlsbad main canal (station 08403500).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,500 ft<sup>3</sup>/s (1,570 m<sup>3</sup>/s) Aug. 23, 1966, gage height, 26.4 ft (8.05 m), from floodmarks, from rating curve extended above 33,000 ft<sup>3</sup>/s (935 m<sup>3</sup>/s) on basis of computation of peak flow over Tansill Dam 5.8 mi (1.3 km) downstream; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1904, caused in part, by failure of Avalon Dam, probably exceeded 90,000 ft<sup>3</sup>/s (2,550 m<sup>3</sup>/s) and is probably the greatest flood since 1842. A major flood occurred Aug. 3, 1893, and was described as "greatest in 50 years"; it damaged McMillan Dam, then under construction, and washed out the original Avalon Dam. Another major flood occurred Aug. 7, 1916, discharge 70,000 ft<sup>3</sup>/s (1,980 m<sup>3</sup>/s) at site 6.5 mi (10.5 km) downstream, corrected).

EXTREMES FOR CURRENT YEAR.--No flow all year.

## NO FLOW DURING YEAR

CAL YR 1975	TOTAL 2,668.67	MEAN 7.31	MAX 100	MIN 0	AC-FT 5,290
WTR YR 1976	TOTAL 0	MEAN 0	MAX 0	MIN 0	AC-FT 0

## RIO GRANDE BASIN

## 08405150 DARK CANYON AT CARLSBAD, NM

LOCATION.--Lat 32°24'24", long 104°13'34", in NE¼NW¼SE¼ sec.7, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on downstream side of U.S. Highway 62-285 (Canal Street) bridge in Carlsbad, and 0.6 mi (1.0 km) upstream from mouth. Mouth at Pecos River mile 459.2 (738.9 km).

DRAINAGE AREA.--451 mi<sup>2</sup> (1,168 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,088.21 ft (941.286 m) above mean sea level.

REMARKS.--Records good. A Soil Conservation Service flood control project on Hackberry Draw, an upstream tributary, has some effect on flood peaks and flow duration. Ground-water withdrawals above station for irrigation of approximately 2,100 acres (8.5 km<sup>2</sup>), 1973 determination, and for municipal supply for Carlsbad.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft<sup>3</sup>/s (402 m<sup>3</sup>/s) Oct. 23, 1974, gage height, 10.80 ft (3.290 m); no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 23, 1966, reached a discharge of 66,000 ft<sup>3</sup>/s (1,870 m<sup>3</sup>/s) as determined by slope-area measurement at site 1.2 mi (1.9 km) 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.

EXTREMES FOR CURRENT YEAR.--No flow all year.

## NO FLOW DURING YEAR

CAL YR 1975	TOTAL 0	MEAN 0	MAX 0	MIN 0	AC-FT 0
WTR YR 1976	TOTAL 0	MEAN 0	MAX 0	MIN 0	AC-FT 0

## 08405000 PECOS RIVER AT CARLSBAD, NM

LOCATION.--Lat 32°24'42", long 104°13'17", in SE¼NE¼ sec. 7, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, immediately downstream from Lower Tansil Dam, which is approximately 0.2 mi (0.3 km) upstream from Dark Canyon, and 0.5 mi (0.8 km) downstream from the Greene Street Bridge on U.S. Highway 62-180 in Carlsbad.

DRAINAGE AREA.--18,100 mi<sup>2</sup> (46,900 km<sup>2</sup>), approximately (contributing area).

PERIOD OF RECORD.--Water years 1905-07, 1937-46, 1951 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1905 to April 1907; May 1937 to September 1946, July 1951 to current year.

WATER TEMPERATURES: July 1951 to current year.

HARDNESS: May 1905 to April 1907, May 1937 to September 1946, July 1951 to current year.

DISSOLVED SOLIDS: May 1905 to April 1907, May 1937 to September 1946, July 1951 to current year.

REMARKS.--Prior to impoundment above Lower Tansil Dam in January 1970 samples were collected at gage on Greene Street Bridge. Additional samples were collected at 08405200 Pecos River below Dark Canyon for comparison with those collected at this station. Mean daily discharges are estimated from discharge station below Dark Canyon.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 6,800 micromhos Aug. 3, 1974; minimum daily, 401 micromhos Sept. 23, 1974.

WATER TEMPERATURES: Maximum, 38.0°C May 28, 1969; minimum, 0.0°C Dec. 18, 1965.

HARDNESS: Maximum, 2,400 mg/L July 1-31, 1974; minimum, 216 mg/L Oct. 21, 1969.

DISSOLVED SOLIDS: Maximum, 4,680 mg/L July 1-31, 1974; minimum, 335 mg/L Oct. 21, 1969.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 4,840 micromhos Aug. 31; minimum daily, 2,770 micromhos May 2.

WATER TEMPERATURES: Maximum, 29.0°C June 28, July 5; minimum, 8.0°C Jan. 5, 8, 9.

HARDNESS: Maximum, 1,700 mg/L Sept. 1-8; minimum, 1,100 mg/L May 1-31.

DISSOLVED SOLIDS: Maximum, 3,330 mg/L Sept. 1-8; minimum, 2,150 mg/L May 1-31.

## CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NESIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)
OCT												
01-31	18	3760	7.5	1500	1300	390	120	360	4.1	5.4	171	0
NOV												
01-30	18	3650	7.7	1400	1200	360	110	340	4.0	5.1	177	0
DEC												
01-31	20	3320	7.8	1300	1100	340	99	290	3.6	4.6	186	0
JAN												
01-31	18	3230	7.8	1200	1100	300	110	280	3.5	4.7	150	0
FEB												
01-29	16	3280	7.5	1200	1000	310	100	280	3.5	5.0	181	0
MAR												
01-31	12	3290	7.9	1200	1100	310	110	290	3.6	4.8	159	0
APR												
01-30	9.6	3260	7.7	1200	1100	300	110	280	3.5	4.9	154	0
MAY												
01-31	11	3120	7.5	1100	990	280	100	270	3.5	5.1	153	0
JUN												
01-30	3.1	3580	7.8	1300	1200	340	120	340	4.0	5.1	141	0
JUL												
01-31	1.3	3770	7.6	1400	1300	330	130	350	4.1	6.5	123	0
AUG												
01-31	.18	4240	7.7	1500	1400	370	140	400	4.5	8.2	131	0
SEP												
01-08	5.8	4530	7.7	1700	1600	400	170	440	4.6	7.6	123	0
09-10	62	3970	7.7	1500	1400	350	140	370	4.2	7.0	121	0
11-30	10	4040	7.8	1500	1300	370	130	360	4.1	6.3	151	0
WTD. AVG.	--	3460	7.7	1300	1150	333	111	310	3.7	5.1	165	0
TIME WTD.												
AVG.	12	3560	7.7	1320	1180	334	116	322	3.8	5.5	156	0
TOT. LOAD (TONS)	--	--	--	--	--	3820	1270	3560	--	59	1890	0

## RIO GRANDE BASIN

08405000 PECOS RIVER AT CARLSBAD, NM -- Continued

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS- SOLVED SOLIDS (TONS PER DAY) (70302)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT 01-31	1200	580	.7	19	2890	2770	3.77	135	1.4	.01	240	0
NOV 01-30	1100	540	.7	18	--	2570	3.50	125	1.5	--	--	--
DEC 01-31	1000	480	.8	16	--	2330	3.17	126	1.4	--	--	--
JAN 01-31	1000	470	.6	12	--	2260	3.07	113	.98	--	--	--
FEB 01-29	940	460	.7	16	--	2210	3.01	95.5	1.3	--	--	--
MAR 01-31	1000	490	.7	12	--	2300	3.13	74.5	.83	--	--	--
APR 01-30	1000	480	.6	15	2470	2270	3.09	58.8	.90	.03	190	60
MAY 01-31	950	450	.6	14	--	2150	2.92	63.9	.77	--	--	--
JUN 01-30	1100	550	.8	14	--	2540	3.45	21.3	.71	--	--	--
JUL 01-31	1100	570	.7	15	--	2560	3.48	8.99	.46	--	--	--
AUG 01-31	1400	650	.8	16	--	3050	4.15	1.48	.43	--	--	--
SEP 01-08	1500	730	.8	17	--	3330	4.53	52.1	.67	--	--	--
09-10	1400	550	.7	16	--	2900	3.94	485	.78	--	--	--
11-30	1300	620	.8	21	--	2890	3.93	78.0	.99	--	--	--
WTD. AVG.	1060	510	.7	16	--	2440	3.32	--	1.1	--	--	--
TIME WTD. AVG.	1100	531	.7	16	--	2500	3.40	--	.96	--	--	--
TOT. LOAD (TONS)	12200	5850	8.0	181	--	28000	--	--	13	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
NOV 04...	1200	17	3810	--	11.0	--	--	--	--	--	--	--
JUN 02...	1540	4.4	3520	7.4	21.0	1300	1200	320	120	330	4.0	5.5

DATE	RICAR- BONATE (HC03) (MG/L) (00440)	CAR- BONATE (C03) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
NOV 04...	--	--	--	--	--	--	--	--	--	--	--
JUN 02...	135	0	1100	530	.7	12	2750	.68	.01	220	0



## 08405000 PECOS RIVER AT CARLSBAD, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3730	3760	3500	3230	3260	3300	3250	2780	3420	3910	4070	4670
2	3710	3770	3410	3220	3270	3270	3270	2770	3440	3940	4090	4500
3	3690	3770	3360	3190	3280	3290	3320	2910	3450	3800	3960	4510
4	3710	3730	3380	3260	3280	3260	3320	2930	3450	3990	3960	4350
5	3720	3710	3360	3220	3270	3290	3320	2860	3460	4000	4010	4570
6	3710	3740	3350	3250	3280	3290	3320	2900	3470	3990	4060	4520
7	3730	3730	3380	3250	3270	3290	3320	2950	3470	3800	4070	4580
8	3730	3660	3380	3240	3250	3300	3320	3000	3500	3690	4120	4600
9	3730	3660	3330	3230	3250	3270	3330	3020	3500	3890	4170	4010
10	3730	3650	3310	3270	3260	3270	3230	3080	3490	3890	4240	3880
11	3730	3650	3330	3230	3250	3290	3250	3150	3520	3920	4250	4100
12	3730	3660	3330	3240	3250	3290	3230	3170	3540	3780	4290	4150
13	3750	3670	3320	3250	3260	3290	3230	3190	3540	3740	4320	4060
14	3790	3670	3310	3240	3260	3320	3220	3020	3540	3760	4360	4180
15	3800	3670	3330	3230	3260	3310	3220	3210	3540	3780	4380	4170
16	3800	3600	3320	3230	3270	3290	3220	3240	3540	3640	4480	4230
17	3810	3600	3320	3230	3270	3320	3230	3300	3540	3420	4520	4170
18	3810	3560	3320	3140	3280	3290	3230	3300	3580	3450	4540	4230
19	3840	3560	3330	3260	3280	3260	3200	3300	3610	3480	4510	4180
20	3850	3580	3340	3240	3290	3260	3220	3300	3630	3530	4550	4100
21	3840	3580	3340	3200	3300	3320	3220	3320	3670	3570	4590	4150
22	3840	3590	3330	3270	3300	3310	3210	3340	3670	3560	4680	4100
23	3850	3590	3280	3240	3310	3310	3170	3340	3660	3690	4700	4100
24	3840	3590	3210	3220	3310	3310	3200	3340	3670	3690	4700	4070
25	3850	3520	3240	3210	3310	3310	3230	3360	3680	3740	4720	4020
26	3850	3520	3260	3200	3290	3350	3320	3210	3690	3770	4750	3820
27	3840	3520	3260	3190	3310	3310	3260	3390	3750	3830	4790	3720
28	3850	3490	3290	3220	3290	3310	3320	3460	3780	3890	4740	3760
29	3790	3480	3270	3210	3280	3320	3320	3490	3800	3990	4790	3730
30	3780	3480	3270	3210	---	3260	3320	3560	3870	3930	4790	3850
31	3780	---	3280	3240	---	3290	---	3520	---	---	4840	---
MONTH	3780	3630	3320	3230	3280	3300	3260	3180	3580	3770	4420	4170
YEAR	MAX	4840	MIN	2770	MFAN	3580						

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.5	17.0	9.0	10.0	12.5	14.5	16.5	19.0	23.0	24.5	25.5	23.0
2	21.0	18.0	10.0	9.0	12.0	13.5	15.0	19.5	23.0	28.0	24.5	23.0
3	21.5	15.5	13.0	8.5	12.0	14.5	16.5	22.0	23.0	24.0	25.0	23.0
4	20.5	17.0	12.0	8.5	13.0	13.0	18.0	22.0	23.0	25.5	25.0	24.0
5	21.0	18.0	13.5	8.0	12.0	12.5	17.0	18.0	22.5	29.0	24.0	25.0
6	22.0	18.0	12.0	8.5	10.5	13.0	19.0	19.0	22.5	27.0	25.0	23.5
7	22.0	17.0	12.5	8.5	10.5	13.0	18.0	18.5	23.5	25.0	28.0	24.0
8	21.5	18.0	12.0	8.0	12.0	14.0	19.0	18.0	25.0	26.0	25.0	24.0
9	23.0	18.0	12.0	8.0	13.5	14.0	19.5	20.0	25.0	25.0	25.0	24.0
10	22.0	17.0	13.0	9.0	14.5	14.0	20.0	21.5	28.0	25.5	24.0	23.0
11	22.5	17.0	12.5	9.5	15.0	14.0	23.0	26.0	25.5	25.0	28.0	22.0
12	23.0	15.0	13.5	10.0	15.0	15.0	21.5	23.0	23.0	25.0	24.5	24.0
13	23.0	14.0	13.5	10.5	16.0	12.5	21.5	23.0	24.0	25.0	25.0	22.5
14	22.5	14.0	13.0	10.0	17.0	15.0	21.0	24.0	25.5	25.0	25.0	25.0
15	18.5	14.0	12.5	10.5	17.5	15.0	18.5	24.5	24.0	25.0	25.5	25.0
16	20.0	14.5	12.0	10.5	15.0	15.0	16.5	25.0	23.0	26.0	25.0	25.0
17	20.0	14.0	10.5	10.0	14.0	13.0	15.0	23.0	28.0	27.0	24.5	24.5
18	18.5	14.5	9.0	11.5	13.0	15.0	16.5	23.0	24.0	26.0	25.0	24.5
19	18.5	14.5	8.5	10.0	14.0	15.0	16.0	25.0	25.0	26.0	25.0	24.5
20	18.5	13.0	10.0	10.0	13.5	14.0	18.0	23.5	25.0	27.5	25.0	24.5
21	20.0	12.5	9.0	9.0	13.0	15.5	18.5	26.0	24.0	25.0	24.5	23.5
22	20.0	12.0	10.5	10.0	12.5	14.0	19.5	26.0	24.5	24.0	24.0	23.0
23	18.5	12.0	10.0	10.0	13.5	16.5	20.5	27.0	27.0	25.0	24.0	23.0
24	18.0	11.0	10.0	11.0	11.0	17.5	23.0	24.0	24.0	24.5	24.0	23.0
25	17.5	11.0	9.5	11.0	12.5	18.0	23.0	23.0	24.0	27.5	23.0	23.0
26	17.5	9.5	10.0	10.0	13.0	15.0	21.0	24.0	25.0	25.0	23.0	24.0
27	17.0	10.0	11.0	9.5	13.0	14.5	22.0	24.0	25.0	27.5	23.0	23.0
28	16.0	9.0	9.5	9.5	14.0	16.0	22.0	24.0	29.0	28.0	23.5	20.5
29	18.0	10.0	9.0	12.0	14.0	13.5	20.0	23.0	27.0	26.0	22.5	20.0
30	18.0	10.0	9.0	11.5	---	13.0	20.0	21.5	25.0	28.0	23.0	19.0
31	18.0	---	9.5	12.0	---	14.0	---	20.0	---	24.5	23.0	---
MONTH	20.0	14.0	11.0	10.0	13.5	14.5	19.0	22.5	24.5	26.0	24.5	23.5
YEAR	MAX	29.0	MIN	8.0	MEAN	18.5						



08405200 PECOS RIVER BELOW DARK CANYON, AT CARLSBAD, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Samples collected at this station for comparison with those collected at 08405000 Pecos River at Carlsbad, N. Mex.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	
OCT													
01...	1315	27	3770	--	21.5	--	--	--	--	--	--	--	
NOV													
04...	1200	17	3810	--	11.0	--	--	--	--	--	--	--	
JAN													
08...	1020	18	3320	7.7	5.5	1200	1100	320	100	290	3.6	4.5	
FEB													
03...	1500	15	3260	--	13.0	--	--	--	--	--	--	--	
MAR													
20...	1415	8.2	3330	--	1.6	--	--	--	--	--	--	--	
APR													
02...	1400	16	3300	--	14.5	--	--	--	--	--	--	--	
MAY													
18...	1100	10	3290	--	21.0	--	--	--	--	--	--	--	
JUN													
02...	1500	4.5	3420	7.6	21.0	1300	1200	330	120	330	4.0	4.9	
DATE		RICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED (SUM OF CONSTITU- ENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT													
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
08...	179	0	1000	490	.7	14	2570	2320	1.4	1.8	180	10	
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
02...	141	0	1200	530	.6	12	2740	2600	.40	.01	210	30	

08405260 PECOS RIVER BELOW SIX MILE DAM, NM  
(Surveillance network station)

LOCATION.--Lat 32°22'56", long 104°08'20", in SE 1/4 sec. 24, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, 0.4 mi (0.6 km) below Six Mile Dam, 6.0 mi (9.7 km) southeast of Carlsbad, and at mile 453.8 (730.2 km).

DRAINAGE AREA.--18,560 mi<sup>2</sup> (48,070 km<sup>2</sup>), approximately (contributing area).

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

REMARKS.--Water-discharge measurements were made at the time water-quality samples were collected.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPERATURE (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L) (00900)
OCT 29...	1430	16	2700	9.0	23.0	13.5	9	13.0	80	1500
NOV 20...	1030	16	3900	7.7	10.0	11.5	7	9.2	42	1400
DEC 18...	0900	23	4120	8.1	2.0	7.0	9	--	43	1300
JAN 08...	0900	23	3500	8.2	-1.0	4.0	6	12.3	46	1400
FEB 05...	0930	23	3500	8.0	9.5	9.5	9	10.1	35	1300
MAR 11...	0930	26	3600	8.2	20.0	12.5	11	14.0	50	1300
APR 13...	0900	14	3670	8.5	23.5	18.0	5	8.0	31	1300
MAY 20...	0930	11	3570	8.2	26.5	22.0	5	10.2	41	1300
JUN 17...	0845	13	4350	7.8	34.0	23.0	33	23.0	62	1600
JUL 21...	0930	2.0	3500	7.8	21.5	23.5	1	.7	55	1200
SEP 02...	0900	.80	7200	7.5	24.0	22.5	8	2.0	160	2500

DATE	NON-CARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DISSOLVED SULFATE (SO4) (MG/L) (00945)
OCT 29...	1300	380	130	400	4.5	6.2	231	0	1200
NOV 20...	1200	360	120	370	4.3	5.2	228	0	1100
DEC 18...	1200	340	120	340	4.0	5.8	228	0	1000
JAN 08...	1200	350	120	330	3.9	5.9	229	0	1100
FEB 05...	1100	340	110	320	3.9	5.7	219	0	1100
MAR 11...	1100	330	110	330	4.0	6.2	209	0	1000
APR 13...	1200	320	130	350	4.2	7.7	212	0	1100
MAY 20...	1200	320	130	340	4.1	6.0	201	0	1100
JUN 17...	1400	360	160	470	5.2	5.8	218	0	1200
JUL 21...	1100	270	130	380	4.8	8.5	188	0	940
SEP 02...	2300	520	290	810	7.1	9.0	260	0	2000

## 08405260 PECOS RIVER BELOW SIX MILE DAM, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)
OCT 29...	660	.7	11	3050	2910	.60	.60	1.9	3.0
NOV 20...	610	.5	7.3	2890	2690	1.3	.90	.96	3.7
DEC 18...	550	.5	22	2720	2490	.30	.30	.01	1.5
JAN 08...	550	.7	11	2610	2590	3.9	1.2	2.1	1.8
FEB 05...	540	.7	10	2670	2540	1.2	1.1	1.2	2.6
MAR 11...	520	.7	.1	2650	2410	.89	.86	.71	2.4
APR 13...	560	.7	.8	2700	2580	.67	.65	1.3	2.7
MAY 20...	570	.7	.9	2790	2570	.73	.73	.72	2.1
JUN 17...	820	.7	22	3380	3150	.72	.72	.17	4.7
JUL 21...	650	.6	12	2470	2490	.01	.01	2.2	1.6
SEP 02...	1400	.7	11	5720	5170	.06	.03	8.0	.00

DATE	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS- SOLVED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDED ORGANIC CARBON (C) (MG/L) (00689)
OCT 29...	5.5	1.0	.39	310	10	--	--	9.7	6.9
NOV 20...	6.0	1.0	.38	280	20	20	--	4.0	1.6
DEC 18...	1.8	.01	.01	270	20	--	--	8.1	2.0
JAN 08...	7.8	1.2	1.1	250	10	--	--	7.0	2.1
FEB 05...	5.0	1.3	.91	260	10	--	--	6.5	9.9
MAR 11...	4.0	1.2	.37	270	10	10	8.5	6.1	4.4
APR 13...	4.7	1.2	.52	390	0	--	--	7.5	3.6
MAY 20...	3.5	1.2	.70	260	0	10	7.6	4.2	--
JUN 17...	5.6	1.1	.20	370	60	--	--	9.4	--
JUL 21...	3.8	.71	.41	270	70	--	--	12	3.8
SEP 02...	4.9	.98	.02	430	40	--	--	11	7.0

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)
NOV 20...	1030	1	1	280	<10	0	15	15	130	0	10	1
MAR 11...	0930	1	1	270	<10	0	10	0	50	0	10	2
MAY 20...	0930	3	2	260	0	0	20	5	0	0	2	0

DATE	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV 20...	190	20	<100	0	50	20	.0	.0	1	1	20	20
MAR 11...	310	10	<100	1	60	10	.1	.0	1	1	20	0
MAY 20...	340	0	0	0	60	10	.3	.3	1	0	20	0

## RIO GRANDE BASIN

08405260 PECOS RIVER BELOW SIX MILE DAM, NM -- Continued

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- (UG/KG) (39351)	DDD IN BOTTOM MA- (UG/KG) (39363)	DDE IN BOTTOM MA- (UG/KG) (39368)	DDT IN BOTTOM MA- (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- (UG/KG) (39413)	LINDANE IN BOTTOM MA- (UG/KG) (39343)
JUN # 17...	0845	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
NOV 20...	1030	5	5
DEC 18...	0900	3	6
JAN 08...	0900	7	8
FEB 05...	0930	5	4
MAR 11...	0930	5	3
APR 13...	0900	3000	65
MAY 20...	0930	180	320
JUN 17...	0845	10	0
JUL 21...	0930	8000	15000
SEP 02...	0900	120	240

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 29...	1430	16	13.5	36	16	64
NOV 20...	1030	16	11.5	28	1.2	88
JAN 08...	0900	23	4.0	6	.37	94
FEB 05...	0930	23	9.5	12	.75	99
MAR 11...	0930	26	12.5	17	1.2	96
APR 13...	0900	14	18.0	11	.42	99
MAY 20...	0930	11	22.0	19	.56	99
JUN 17...	0845	13	23.0	59	2.1	100
JUL 21...	0930	2.0	23.5	25	.14	76
SEP 02...	0900	.80	22.5	7	.02	92

## 08405500 BLACK RIVER ABOVE MALAGA, NM

LOCATION.--Lat 32°13'44", long 104°09'02", in SW¼NW¼SW¼ sec.12, T.24 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on right bank 0.6 mi (1.0 km) upstream from Black River diversion dam, 4.6 mi (7.4 km) west of Malaga, and 7.1 mi (11.4 km) upstream from mouth. Mouth at Pecos River mile 436.3 (702.0 km).

DRAINAGE AREA.--343 mi<sup>2</sup> (888 km<sup>2</sup>).

PERIOD OF RECORD.--March to December 1940, December 1946 to current year.

REVISED RECORDS.--WSP 1632: 1948, 1949-50(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,070 ft (936 m), from topographic map. March to December 1940 water-stage recorder and Cippoletti weir at site 0.3 mi (0.5 km) downstream at different datum.

AVERAGE DISCHARGE.--29 years (1947-76), 13.6 ft<sup>3</sup>/s (0.385 m<sup>3</sup>/s), 9,850 acre-ft/yr (12.1 hm<sup>3</sup>/yr).

REMARKS.--Records good. Diversions and ground-water withdrawals for irrigation of about 1,000 acres (4.0 km<sup>2</sup>), 1959 determination, above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,600 ft<sup>3</sup>/s (2,110 m<sup>3</sup>/s) Aug. 23, 1966, gage height, 21.7 ft (6.61 m), from floodmarks, from rating curve extended above 6,000 ft<sup>3</sup>/s (170 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 12.60 and 21.7 ft (3.840 and 6.61 m); minimum, 0.73 ft<sup>3</sup>/s (0.021 m<sup>3</sup>/s) June 25, 1969.

The flood of Aug. 23, 1966, exceeded the previous maximum stage which occurred in 1908 by about 1.0 ft (0.30 m), information from local resident. Flood of Sept. 20 or 21, 1941, reached a stage of 19.0 ft (5.79 m), determined in 1947 from well-defined floodmarks, discharge, 33,000 ft<sup>3</sup>/s (935 m<sup>3</sup>/s), from rating curve extended above 1,400 ft<sup>3</sup>/s (39.6 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 8.41 and 12.60 ft (2.563 and 3.840 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 534 ft<sup>3</sup>/s (15.1 m<sup>3</sup>/s) at 0900 hours Sept. 9, gage height, 3.05 ft (0.930 m) no other peak above base of 450 ft<sup>3</sup>/s (13 m<sup>3</sup>/s); minimum, 1.7 ft<sup>3</sup>/s (0.048 m<sup>3</sup>/s) Oct. 14-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	8.0	10	6.2	12	2.4	4.5	17	4.0	4.8	7.2	7.2
2	4.3	8.3	11	6.2	12	2.4	6.9	13	5.4	4.8	6.6	5.9
3	4.3	8.7	11	6.2	12	2.4	7.6	8.7	5.6	5.4	9.9	5.6
4	4.3	8.7	11	6.2	12	2.4	8.0	8.7	5.8	5.1	6.0	5.6
5	4.3	8.7	11	6.2	12	2.2	8.3	8.7	6.2	4.8	5.5	5.9
6	4.3	8.7	11	6.2	12	2.4	8.7	8.7	6.2	4.8	5.1	5.6
7	4.3	8.7	11	6.2	12	2.4	8.3	8.3	6.2	4.5	4.8	5.9
8	4.3	8.7	11	6.2	12	2.6	8.0	8.3	6.2	4.5	4.5	5.6
9	4.0	8.7	11	6.2	12	2.8	8.3	8.3	6.2	4.5	4.5	139
10	3.8	9.1	11	6.2	12	2.8	8.3	8.3	6.2	4.8	4.5	56
11	3.1	9.1	11	6.2	12	2.6	8.3	7.6	5.9	4.8	4.3	18
12	2.4	9.1	11	6.2	12	2.4	8.3	7.6	5.9	17	4.3	9.5
13	2.0	9.1	11	6.2	9.1	2.4	8.7	7.2	5.6	8.0	4.0	7.6
14	1.8	9.1	11	6.6	7.6	2.6	8.3	7.2	5.4	6.6	4.0	7.2
15	1.7	9.1	11	11	6.9	2.8	8.3	6.9	5.4	6.2	3.8	6.9
16	1.7	9.5	11	12	6.2	2.6	8.0	6.6	5.4	7.2	3.8	6.6
17	1.8	9.5	12	12	5.6	2.6	8.0	6.2	5.4	6.2	3.8	6.2
18	1.8	9.9	12	12	4.0	2.6	8.3	6.6	5.4	5.9	5.6	6.2
19	1.8	9.9	12	13	3.5	2.4	8.3	6.6	5.1	5.4	20	6.9
20	1.8	9.9	12	13	3.1	2.2	8.3	6.6	5.1	5.4	7.2	18
21	2.0	9.9	12	13	2.6	2.2	8.0	6.6	5.4	5.1	5.4	6.9
22	2.0	9.9	12	13	2.6	2.2	7.6	6.2	5.1	5.1	5.1	6.6
23	2.0	9.9	13	12	2.6	2.4	7.6	5.9	4.8	5.1	5.1	6.6
24	1.8	9.9	13	12	2.6	2.6	7.6	5.6	4.8	5.1	5.1	6.6
25	1.7	9.9	13	12	2.6	2.6	7.6	5.6	4.5	4.8	4.8	6.6
26	1.8	9.9	12	13	2.6	2.2	8.0	5.4	4.5	4.8	4.8	5.1
27	3.1	9.9	11	13	2.6	2.0	8.3	5.6	5.1	4.8	4.8	4.3
28	3.1	9.9	8.0	13	2.6	2.0	8.3	5.6	4.8	6.6	4.8	3.5
29	2.8	11	6.9	13	2.6	2.0	9.1	5.6	4.8	5.9	5.1	3.5
30	2.6	10	6.6	13	---	2.2	12	5.6	4.8	5.9	5.4	3.5
31	5.1	---	6.2	13	---	2.4	---	4.3	---	6.9	6.9	---
TOTAL	90.1	280.7	336.7	300.2	213.4	74.8	243.8	229.1	161.2	180.8	176.7	388.6
MFAN	2.91	9.36	10.9	9.68	7.36	2.41	8.13	7.39	5.37	5.83	5.70	13.0
MAX	5.1	11	13	13	12	2.8	12	17	6.2	17	20	139
MIN	1.7	8.0	6.2	6.2	2.6	2.0	4.5	4.3	4.0	4.5	3.8	3.5
AC-FT	179	557	668	595	423	148	484	454	320	359	350	771

CAL YR 1975 TOTAL 3456.9 MEAN 9.47 MAX 30 MIN 1.7 AC-FT 6860  
WTR YR 1976 TOTAL 2676.1 MEAN 7.31 MAX 139 MIN 1.7 AC-FT 5310





08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

## WATER-QUALITY RECORDS

LOCATION.--Samples collected 2.5 mi (4.0 km) upstream from discharge station.

PERIOD OF RECORD.--1937 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1937 to current year.

WATER TEMPERATURES: February 1959 to current year.

HARDNESS: July 1937 to current year.

DISSOLVED SOLIDS: July 1937 to current year.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 28,100 micromhos June 7, 1966; minimum daily, 450 micromhos Sept. 21, 1941.

WATER TEMPERATURES: Maximum, 34.0°C June 25, 1964; minimum, 3.0°C Jan. 13, 1963.

HARDNESS: Maximum, 3,110 mg/L June 7, 1966; minimum, 235 mg/L Oct. 21, 1969.

DISSOLVED SOLIDS: Maximum, 18,700 mg/L June 7, 1966; minimum, 344 mg/L Oct. 21, 1969.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 10,500 micromhos Aug. 11; minimum daily, 3,230 micromhos Sept. 10.

WATER TEMPERATURES: Maximum, 31.0°C Aug. 4, 6, 14; minimum, 5.5°C Jan. 8.

HARDNESS: Maximum, 2,500 mg/L July 1-31; minimum, 1,200 mg/L Sept. 9-11.

DISSOLVED SOLIDS: Maximum, 7,300 mg/L July 1-31; minimum, 2,770 mg/L Sept. 20-21.

## CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)
OCT												
01-31	32	7580	7.5	2260	2100	540	210	970	9.0	23	176	0
NOV												
01-04	46	6840	7.4	2200	2000	550	190	830	7.8	20	177	0
05-30	51	6120	7.5	2000	1900	520	170	730	7.1	17	171	0
DEC												
01-31	52	5690	7.4	1800	1700	470	160	660	6.7	16	148	0
JAN												
01-31	40	5870	7.4	1800	1700	460	170	710	7.2	17	150	0
FEB												
01-19	41	5560	8.1	1700	1600	420	150	630	6.7	16	105	0
20-29	24	7090	8.1	2000	1900	470	200	960	9.3	25	127	0
MAR												
01-31	19	7860	8.0	2100	1900	500	200	1100	11	27	151	0
APR												
01-30	15	8230	7.5	2300	2100	570	210	1200	11	32	181	0
MAY												
01-04	26	7330	7.5	2100	1900	520	190	1000	9.5	26	165	0
05-07	30	6520	7.5	1900	1800	480	170	830	8.3	19	149	0
08-22	21	7870	7.4	2200	2100	530	210	1100	10	25	167	0
23-31	12	8760	7.6	2200	2100	550	210	1300	12	28	187	0
JUN												
01-30	9.4	9280	7.7	2400	2300	600	230	1300	11	44	173	0
JUL												
01-31	9.3	9720	7.5	2500	2300	600	240	1500	13	46	174	0
AUG												
01-13	7.3	10200	8.2	2400	2300	570	230	1500	13	45	118	0
14-28	8.0	8980	8.1	2300	2200	580	210	1200	11	38	129	0
29-31	10	8040	8.5	2200	2000	550	190	1000	9.4	31	131	0
SEP												
01-08	9.6	8200	8.0	2200	2100	540	210	1000	9.3	35	180	0
09-11	61	4750	7.9	1200	1100	380	55	560	7.1	19	133	0
12-19	11	7340	7.9	1900	1800	480	170	990	9.9	31	145	0
20-21	42	4000	7.8	1300	1200	350	96	450	5.5	14	118	0
22-30	12	8170	7.9	2000	1900	510	180	1100	11	35	153	0
WTD. AVG.	--	6770	7.6	1980	1870	500	181	867	8.4	22	155	0
TIME WTD.												
AVG.	26	7610	7.7	2110	1980	524	196	1030	9.6	28	157	0
TOT. LOAD (TONS)	--	--	--	--	--	12700	4570	22000	--	565	3920	0

## 08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SULFATE (SO <sub>4</sub> ) (MG/L) (009945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (009940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (009950)	DIS- SOLVED SILICA (SiO <sub>2</sub> ) (MG/L) (009955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS PER DAY) (MG/L) (70303)	DIS- SOLVED SOLIDS (TONS PER DAY) (MG/L) (70302)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (006711)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT												
01-31	1700	1600	.8	17	5670	5160	7.02	446	1.6	.01	500	10
NOV												
01-04	1900	1400	1.0	17	--	5000	6.80	621	1.9	--	--	--
05-30	1700	1200	.8	12	--	4440	6.04	611	1.8	--	--	--
DEC												
01-31	1600	1100	.9	8.2	--	4090	5.56	574	1.3	--	--	--
JAN												
01-31	1600	1100	.8	9.7	--	4150	5.64	448	2.0	--	--	--
FEB												
01-19	1300	1100	.8	1.9	--	3670	4.99	406	.56	--	--	--
20-29	1800	1500	.8	2.4	--	5030	6.84	326	1.0	--	--	--
MAR												
01-31	1800	1800	1.0	5.3	--	5510	7.49	283	1.3	--	--	--
APR												
01-30	2100	1900	.8	16	6180	6130	8.34	248	1.9	.04	520	90
MAY												
01-04	1900	1600	1.0	17	--	5340	7.26	375	1.8	--	--	--
05-07	1600	1400	.9	15	--	4590	6.24	372	1.4	--	--	--
08-22	2000	1800	1.1	15	--	5770	7.85	327	1.5	--	--	--
23-31	2000	2000	1.0	19	--	6210	8.45	201	1.8	--	--	--
JUN												
01-30	2000	2300	1.0	19	--	6590	8.96	167	1.8	--	--	--
JUL												
01-31	2400	2400	1.0	19	--	7300	9.93	183	1.7	--	--	--
AUG												
01-13	1900	2600	.8	10	--	6920	9.41	136	.69	--	--	--
14-28	2000	2000	.9	13	--	6110	8.31	132	.86	--	--	--
29-31	1800	1600	.6	13	--	5250	7.14	142	.83	--	--	--
SEP												
01-08	1700	1800	2.1	20	--	5400	7.34	140	1.5	--	--	--
09-11	1000	830	.7	16	--	2930	3.98	483	1.0	--	--	--
12-19	1500	1700	.8	18	--	4970	6.76	148	1.4	--	--	--
20-21	1000	780	.6	11	--	2770	3.77	314	1.4	--	--	--
22-30	1700	1900	.9	17	--	5530	7.52	179	1.7	--	--	--
WTD. AVG.	1700	1420	.9	11	--	4790	6.51	--	1.5	--	--	--
TIME WTD.												
AVG.	1820	1690	.9	13	--	5390	7.33	--	1.5	--	--	--
TOT. LOAD (TONS)	43000	36100	22	286	--	121000	--	--	38	--	--	--
SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7460	7100	5930	6010	5360	7460	7840	7240	8860	9910	10100	8350
2	7360	6920	5810	6120	5330	7440	7900	6940	9650	9910	10200	7850
3	7310	6750	5740	6120	5420	7460	7960	7100	8780	9910	10000	7520
4	7550	6620	5810	6080	5650	7570	8030	8170	9150	10200	9620	7850
5	7620	6070	5740	6080	5470	7620	7970	6400	9230	10200	10100	8280
6	7630	6350	5710	6120	5390	7690	8080	6420	9150	9820	10200	8410
7	7740	6320	5650	6050	5420	7670	8360	6740	9080	10100	10000	8620
8	7790	6320	5680	6190	5360	7700	8320	7540	8850	10100	10100	8980
9	7730	6280	5680	6120	5450	7720	8390	7770	9080	10200	10400	6910
10	7700	6320	5710	6150	5560	7800	8510	7830	9480	10300	10400	3230
11	7740	6240	5710	6120	5360	7840	8380	7920	9230	10400	10500	4890
12	7670	6280	5650	6190	5530	8040	8220	8030	9150	10300	10400	5670
13	7690	6240	5570	6150	5500	8000	8150	7990	9000	10100	10400	6350
14	7730	6210	5570	6270	5680	7820	8390	7820	9230	9410	9360	6970
15	7950	6210	5600	6080	5620	7690	8410	7800	9230	9180	9360	7310
16	7850	6210	5650	5980	5680	7720	8510	7770	9320	9110	9270	7970
17	7480	6140	5630	5780	5840	7820	8430	7820	9080	9490	9270	8280
18	7400	6100	5650	5650	5940	7910	8260	7680	9560	9030	9270	8330
19	7390	6030	5620	5620	6120	8040	8100	7800	9560	9410	9190	8550
20	7450	6100	5570	5650	6580	8070	8220	8060	8580	9410	8950	3900
21	7710	5980	5570	5650	6800	8110	8150	8230	8930	9490	8430	4450
22	7710	6100	5570	5680	6930	8200	7940	8200	9650	9490	8570	6500
23	7730	6070	5780	5590	6980	8090	7870	8540	9560	9330	8870	7160
24	7570	6080	5600	5650	7120	8050	7960	8580	9480	9110	8870	7680
25	7730	5970	5650	5590	7070	7960	8130	8700	8780	9330	8710	8220
26	7490	5970	5650	5710	7170	8180	8390	8660	9400	9410	8570	8680
27	7490	5970	5630	5560	7480	8220	8900	9010	9650	9660	9110	8900
28	7480	5870	5600	5560	7430	8200	8800	8540	9820	9740	9030	8970
29	7250	5970	5740	5530	7380	8120	8150	8900	9910	9660	8360	8970
30	7300	5930	6030	5510	---	8030	8190	9010	9910	9660	7790	8970
31	7150	---	6000	5540	---	8070	---	9060	---	9820	8030	---
MONTH	7580	6220	5690	5870	6090	7880	8230	7940	9280	9720	9400	7420
YEAR	MAX	10500	MIN	3230	MEAN	7620						

## RIO GRANDE BASIN

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08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

WATER TEMPERATURE (DEG. ° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	16.5	8.0	8.5	9.0	16.5	14.0	19.0	22.0	29.0	27.0	27.0
2	21.0	16.0	9.0	9.0	8.5	14.0	14.5	18.0	28.0	27.0	29.0	24.0
3	16.5	16.0	9.0	7.0	10.0	14.0	15.0	18.5	26.0	25.0	29.0	23.0
4	16.5	14.5	12.0	6.0	12.0	12.0	16.5	23.0	22.0	28.0	31.0	28.5
5	17.0	18.5	9.0	6.0	14.0	11.0	18.5	21.0	26.0	30.0	30.0	25.0
6	18.0	15.0	9.0	7.0	10.5	12.5	16.5	17.5	23.0	25.0	31.0	24.0
7	22.0	15.0	10.0	8.5	9.0	12.0	16.5	17.0	25.0	30.5	26.0	24.5
8	23.0	16.5	8.5	5.5	10.0	12.0	16.0	17.0	22.0	27.0	30.0	29.0
9	24.0	15.0	10.0	6.0	14.0	12.0	17.5	17.0	23.0	29.0	26.5	22.0
10	19.0	14.0	10.0	7.0	16.0	13.0	23.0	25.5	26.0	28.5	26.5	23.0
11	22.0	16.0	9.5	8.0	14.0	15.0	21.0	26.0	25.0	24.0	29.5	23.0
12	19.5	13.5	9.0	9.0	13.5	13.5	22.5	25.0	27.0	25.0	25.5	23.0
13	19.0	11.0	10.5	8.0	14.5	14.0	24.0	25.0	29.0	23.0	29.0	24.0
14	19.5	13.0	11.0	7.0	15.0	12.0	21.0	26.0	27.5	27.5	31.0	27.0
15	16.5	14.0	9.0	7.0	13.5	13.5	19.0	25.0	22.5	25.5	25.5	27.0
16	15.5	12.0	8.0	8.5	16.0	13.0	20.0	21.0	27.5	27.0	28.5	28.0
17	16.0	14.0	8.0	8.0	13.0	12.5	15.5	25.0	28.0	27.0	28.5	26.0
18	16.0	15.0	8.5	8.5	11.5	13.5	20.0	25.0	28.0	24.5	28.0	28.0
19	16.0	13.5	8.0	9.0	12.0	17.0	18.5	20.0	22.0	30.0	26.0	24.5
20	17.0	12.0	7.0	7.5	13.0	15.0	19.0	25.0	24.0	27.5	28.0	22.0
21	19.5	9.0	8.0	7.0	10.5	13.5	23.0	22.5	24.0	27.0	28.0	22.0
22	21.0	12.0	9.0	7.5	10.0	12.0	22.0	22.5	30.0	25.5	28.0	25.5
23	18.0	8.5	9.5	10.5	9.0	17.0	20.0	21.0	29.0	30.0	24.0	23.5
24	19.0	8.5	8.5	12.0	10.0	15.5	23.5	27.0	29.5	26.0	23.0	26.0
25	16.0	8.0	7.0	10.0	10.5	15.0	22.0	22.0	28.0	27.5	22.0	27.0
26	15.0	8.0	10.0	9.0	10.5	15.5	24.0	19.0	28.0	27.0	28.5	23.5
27	15.0	7.0	8.5	8.5	12.0	14.0	23.0	20.0	24.5	28.5	24.0	23.0
28	15.0	9.0	9.0	7.0	13.0	14.5	24.5	27.0	30.0	26.5	24.5	20.0
29	15.0	11.0	8.5	8.0	14.0	14.0	21.0	25.5	30.0	30.5	23.5	21.5
30	14.5	8.5	6.5	9.0	---	14.0	18.0	19.0	28.0	27.0	28.0	19.0
31	16.0	---	7.0	9.0	---	11.5	---	20.0	---	30.0	27.5	---
MONTH	18.0	12.5	9.0	8.0	12.0	13.5	19.5	22.0	26.0	27.5	27.5	24.5
YEAR	MAX	31.0	MIN	5.5	MEAN	18.5						

## 08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM

LOCATION.--Lat 32°11'19", long 103°58'43", in SW¼SW¼NW¼ sec.27, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, on right bank 550 ft (168 m) upstream from Pierce Canyon Crossing, and 6.0 mi (9.7 km) southeast of Malaga, and at mile 425.7 (685.0 km).

DRAINAGE AREA.--19,260 mi<sup>2</sup> (49,880 km<sup>2</sup>), approximately (contributing area).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to September 1941, August 1951 to current year.

REVISED RECORDS.--WSP 898: 1938(M), WSP 1712: 1959.

GAGE.--Water-stage recorder. Datum of gage is 2,889.18 ft (880.622 m) above mean sea level. July 1938 to September 1941 at datum 1.19 ft (0.363 m) higher.

REMARKS.--Water-discharge records good. Flow regulated by storage in Lake Sumner, Lake McMillan, and Lake Avalon (stations 08384000, 08400500, 08403800), and by several small diversion dams that divert for power or irrigation. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (820 km<sup>2</sup>), 1959 determination.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 31.6 ft (9.63 m) from floodmarks, Aug.23, 1966, (discharge not determined); minimum discharge, 0.54 ft<sup>3</sup>/s (0.015 m<sup>3</sup>/s) May 30, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge not determined; minimum, 5.3 ft<sup>3</sup>/s (0.15 m<sup>3</sup>/s) July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	43	54	41	51	24	19	31	11	8.5	9.3	12
2	32	47	57	41	50	24	18	25	12	8.9	9.1	12
3	31	49	56	41	49	24	17	26	12	9.6	8.3	12
4	29	49	54	41	49	23	17	30	11	10	8.4	11
5	29	48	58	41	51	21	18	36	11	9.6	8.4	10
6	30	48	60	41	51	23	18	33	11	11	8.5	10
7	32	48	60	40	49	25	17	32	12	11	8.0	10
8	31	48	58	40	48	24	16	31	11	12	8.1	9.7
9	30	49	60	40	48	22	16	28	11	11	8.2	31
10	32	49	60	39	48	22	17	26	11	11	8.3	107
11	33	49	61	39	48	22	16	24	12	15	8.6	50
12	30	49	62	40	48	21	17	22	11	17	9.5	23
13	29	49	60	41	48	22	17	23	10	14	10	17
14	31	50	60	41	48	23	15	27	11	14	10	15
15	31	50	58	42	47	23	14	27	9.7	15	9.7	14
16	35	52	60	44	42	20	14	26	9.2	15	11	13
17	39	54	58	47	42	21	15	21	9.4	18	11	13
18	43	54	58	48	35	22	13	17	10	16	9.8	12
19	36	56	57	49	33	22	15	15	11	13	9.9	13
20	32	54	57	48	30	21	12	14	11	11	9.8	82
21	31	53	52	48	26	20	13	15	11	10	12	40
22	32	53	50	48	26	21	16	14	10	9.6	11	18
23	33	55	50	48	27	21	17	13	9.4	9.2	10	14
24	33	56	53	49	26	22	14	12	9.2	8.4	9.5	12
25	33	57	52	49	25	21	12	13	8.6	8.3	9.1	13
26	35	56	53	50	25	20	13	12	8.9	8.2	9.0	12
27	39	56	51	50	26	19	13	12	8.9	7.8	10	11
28	41	56	49	50	27	22	14	13	8.9	8.0	11	10
29	43	57	46	51	26	20	17	13	8.3	9.1	10	10
30	43	57	43	52	---	20	21	11	8.2	10	11	10
31	43	---	42	52	---	21	---	10	---	10	12	---
TOTAL	1054	1551	1717	1391	1141	676	471	652	308.7	349.2	298.5	626.7
MFAN	34.0	51.7	55.4	44.9	39.3	21.8	15.7	21.0	10.3	11.3	9.63	20.9
MAX	43	57	62	52	51	25	21	36	12	18	12	107
MIN	29	43	42	39	25	19	12	10	8.2	7.8	8.0	9.7
AC-FT	2090	3080	3410	2760	2260	1340	934	1290	612	693	592	1240

CAL YR 1975 TOTAL 20890.0 MEAN 57.2 MAX 209 MIN 22 AC-FT 41440  
WTR YR 1976 TOTAL 10236.1 MEAN 28.0 MAX 107 MIN 7.8 AC-FT 20300

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM --- Continued

## WATER-QUALITY RECORDS

LOCATION.--Samples collected 0.2 mi (0.3 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1938-41, 1952 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1938 to September 1941, October 1951 to current year.

WATER TEMPERATURES: October 1952 to current year.

HARDNESS: March 1938 to September 1941, October 1951 to current year.

DISSOLVED SOLIDS: March 1938 to September 1941, October 1951 to current year.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 66,000 micromhos Aug. 1, 2, 1966; minimum daily, 433 micromhos Sept. 21, 1941.

WATER TEMPERATURES: Maximum 35.0°C July 6, 1968; minimum, 2.0°C Jan. 13, 1963, Jan. 6, 1971, Jan. 5, 1972, and Jan. 10, 1973.

HARDNESS: Maximum, 4,850 mg/L Aug. 16, 1969; minimum, 202 mg/L Sept. 21, 1941.

DISSOLVED SOLIDS: Maximum, 40,900 mg/L Aug. 1-7, 1966; minimum, 280 mg/L Sept. 21, 1941.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 53,100 micromhos June 29; minimum daily, 9,600 micromhos Jan. 24.

WATER TEMPERATURES: Maximum, 32.0°C June 28, 29, July 31, Aug. 8; minimum, 4.0°C Jan. 5.

HARDNESS: Maximum, 4,200 mg/L June 29-30; minimum, 1,800 mg/L Sept. 20-23.

DISSOLVED SOLIDS: Maximum, 38,800 mg/L June 29-30; minimum, 7,070 mg/L Feb. 1-17.

## CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)
OCT												
01-31	34	14600	7.3	2300	2200	520	250	2600	23	97	171	0
NOV												
01-30	52	11800	7.3	2100	2000	530	200	2000	19	83	176	0
DEC												
01-31	55	10800	7.4	2000	1800	470	190	1800	18	59	136	0
JAN												
01-31	45	11100	7.1	2100	2000	490	210	1800	17	76	128	0
FEB												
01-17	48	11000	7.2	1900	1800	450	190	1800	18	71	95	0
18-22	30	20200	7.6	2200	2100	460	260	3800	35	170	102	0
23-29	26	13700	7.5	2100	2000	480	220	2300	22	93	106	0
MAR												
01-31	22	18400	7.9	2500	2300	520	280	3500	31	140	136	0
APR												
01-15	17	21600	7.4	2700	2600	580	310	4100	34	170	170	0
16-30	15	26700	7.5	2900	2800	600	350	5400	43	220	188	0
MAY												
01-04	28	23600	7.4	2600	2400	530	300	5000	43	210	167	0
05-16	28	15300	7.4	2400	2300	510	280	2800	25	110	160	0
17-23	16	20400	7.5	2900	2700	600	330	3900	32	160	177	0
24-31	12	25900	7.6	2900	2800	600	350	5100	41	220	175	0
JUN												
01-25	11	30900	7.7	3300	3200	670	400	6800	51	240	168	0
26-28	8.9	39600	7.6	3800	3600	710	480	9000	64	390	181	0
29-30	8.2	52400	7.5	4200	4000	700	590	13000	88	570	182	0
JUL												
01-12	11	37500	7.5	3700	3600	670	490	8300	59	380	143	0
13-23	13	26600	7.5	3100	3000	630	370	5300	41	230	138	0
24-31	8.7	36800	7.5	3500	3400	650	460	8000	59	360	159	0
AUG												
01-06	8.7	31500	8.2	3000	2900	570	390	6100	48	260	101	0
07-20	9.4	38300	8.4	3300	3200	650	410	7800	59	340	89	0
21-29	10	29200	8.2	3300	3200	690	390	5700	43	240	109	0
30-31	12	35900	8.0	3300	3200	660	390	7200	55	320	118	0
SEP												
01-08	11	27400	7.8	3000	2900	650	330	5400	43	230	162	0
09-10	69	18200	7.8	2300	2200	520	250	3400	31	150	153	0
11-13	30	11800	7.9	1900	1800	470	180	2000	20	82	154	0
14-19	13	23200	7.9	2000	1900	430	220	4800	47	210	150	0
20-23	38	17700	7.8	1800	1700	420	190	3400	35	150	149	0
24-30	11	19000	7.7	2000	1900	440	230	3600	35	150	136	0
WTD. AVG.	--	15800	7.4	2300	2170	517	245	2930	26	118	145	0
TIME WTD.												
AVG.	28	20500	7.5	2570	2450	551	291	4020	33	165	147	0
TOT. LOAD												
(TONS)	--	--	--	--	--	14300	6800	81100	--	3260	4030	0

08407000 PECOS RIVER AT PIERCE CANTON CROSSING, NEAR MALAGA, NM -- Continued

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS- SOLVED SOLIDS (TONS PER DAY) (70302)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT												
01-31	1900	4200	.8	16	10200	9680	13.2	889	1.5	.01	920	10
NOV												
01-30	2100	3200	.9	12	--	8220	11.2	1150	1.6	--	--	--
DEC												
01-31	1700	2900	.8	5.8	--	7200	9.79	1070	.84	--	--	--
JAN												
01-31	1600	3000	.7	7.5	--	7250	9.86	881	1.2	--	--	--
FEB												
01-17	1600	2900	.7	3.4	--	7070	9.62	916	.81	--	--	--
18-22	2100	6100	.7	2.8	--	12900	17.5	1040	1.0	--	--	--
23-29	1600	3900	.8	4.1	--	8650	11.8	607	.84	--	--	--
MAR												
01-31	2300	5700	.9	4.1	--	12500	17.0	743	.41	--	--	--
APR												
01-15	2500	6800	.8	9.6	14900	14600	19.9	670	1.6	.08	1200	100
16-30	2800	8800	.8	14	18500	18300	24.9	741	1.1	.09	1500	30
MAY												
01-04	2300	7800	.8	14	--	16200	22.0	1220	1.7	--	--	--
05-16	2300	4500	.9	13	--	10600	14.4	801	1.0	--	--	--
17-23	2400	6500	.9	14	--	14000	19.0	605	.82	--	--	--
24-31	2600	8100	.9	15	--	17100	23.3	554	.69	--	--	--
JUN												
01-25	3000	11000	.9	16	--	22200	30.2	659	1.2	--	--	--
26-28	3100	14000	1.3	21	--	27800	37.8	668	1.5	--	--	--
29-30	3800	20000	.7	21	--	38800	52.8	859	2.3	--	--	--
JUL												
01-12	3100	13000	1.3	17	--	26000	35.4	772	1.1	--	--	--
13-23	2700	8100	1.3	12	--	17400	23.7	611	.75	--	--	--
24-31	3000	13000	1.2	19	--	25600	34.8	601	1.0	--	--	--
AUG												
01-06	2700	10000	.9	7.9	--	20100	27.3	472	.02	--	--	--
07-20	3100	13000	.9	7.7	--	25400	34.5	645	.02	--	--	--
21-29	2800	9600	1.0	12	--	19500	26.5	527	.02	--	--	--
30-31	3000	12000	.9	12	--	23600	32.1	765	.02	--	--	--
SEP												
01-08	2700	9000	1.0	20	--	18400	25.0	546	.71	--	--	--
09-10	2000	5800	1.5	17	--	12200	16.6	2270	.98	--	--	--
11-13	1600	3300	.8	16	--	7730	10.5	626	1.2	--	--	--
14-19	1900	7600	.8	14	--	15300	20.8	537	.67	--	--	--
20-23	1700	5400	2.4	15	--	11400	15.5	1170	.76	--	--	--
24-30	1800	5400	--	14	--	11700	15.9	347	.78	--	--	--
WTD. AVG.	2020	4740	.9	9.8	--	10700	14.5	--	1.1	--	--	--
TIME WTD.												
AVG.	2280	6500	.9	11	--	13900	18.9	--	.98	--	--	--
TOT. LOAD												
(TONS)	56000	131000	24	272	--	295000	--	--	30	--	--	--

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14000	11200	11700	11300	11800	15400	16400	27800	28200	36200	38000	24400
2	18000	13400	11300	11000	10900	15800	18400	23300	38200	51900	27300	23400
3	13600	12500	11300	12600	10900	16500	18300	20400	32000	31800	27600	29800
4	13200	12400	11400	10500	10400	17200	20900	22200	29500	28800	32800	36000
5	13400	12900	11400	10700	10600	27500	24900	15000	27700	43700	31900	26200
6	21400	11500	11000	11200	11700	18800	23500	14600	28000	32300	31000	23500
7	13600	12300	10800	12000	---	16400	19700	15100	28200	40300	36100	30800
8	12500	11400	10700	13100	---	13200	22200	15800	32300	39300	47000	24900
9	14500	11400	10400	11300	9800	15400	26900	12600	29300	38800	43300	21500
10	15100	11300	10300	11000	10100	15800	23300	13900	31800	30500	40700	16900
11	14400	10700	10400	11300	10800	15600	21800	14200	26900	39300	44000	12200
12	13500	10800	10300	10200	11400	23300	20200	15500	24800	39400	30100	10500
13	14800	11100	12600	11600	10600	19900	21000	16000	24900	30500	42700	12600
14	14200	10900	10300	11100	12000	15000	21800	17700	31600	29700	30600	24800
15	14700	10800	10200	11000	11300	15600	24300	17200	28500	28600	38500	20700
16	16800	11200	10400	11300	11600	19500	32800	16700	32100	22700	40400	29500
17	16100	12900	10100	11500	11600	18000	31500	19600	33200	17300	36200	19800
18	14600	17300	10300	11200	25400	16500	26600	18300	33000	22900	34800	23300
19	12800	11700	10500	10600	16900	14300	21000	18800	33000	30200	38800	20900
20	13000	11500	10600	11300	13600	20300	24000	21000	36100	24700	36100	22000
21	13400	11300	10600	10600	24200	20700	26200	21600	35600	27600	33700	13100
22	13700	10900	10600	10800	20800	17100	24600	21900	30700	23800	33800	12900
23	14800	10900	11300	11000	14400	17900	22500	22200	29100	27400	24600	14400
24	14700	11700	10400	9600	13700	19400	22500	24100	29400	43700	25200	19400
25	16200	11600	10900	11600	13000	16500	38700	24200	36200	39600	26200	16300
26	12500	12600	11100	10600	14200	19500	30000	25200	38400	34400	35300	18800
27	13400	11000	11200	10100	14100	26300	26300	24400	42300	31300	28100	18700
28	14200	11000	10400	10700	13000	24700	22000	29400	38100	30500	26900	19700
29	13700	10500	10400	11000	13700	19700	26600	25700	53100	29500	28500	22400
30	13500	13500	10800	10600	---	22000	24600	26500	51600	37200	38300	18800
31	18800	---	11900	11600	---	18500	---	27800	---	48200	33800	---
MONTH	14600	11800	10800	11100	13400	18500	24100	20300	33100	33300	34300	20900
YEAR	MAX	53100	MIN	9600	MEAN	20600						

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	16.0	6.5	7.5	7.5	16.0	13.0	17.0	26.0	28.0	30.0	24.0
2	22.0	15.5	7.5	8.0	8.0	13.5	14.0	19.0	29.0	30.0	29.5	24.0
3	16.0	15.5	8.0	6.0	9.0	13.5	15.0	19.0	25.5	24.0	29.0	30.0
4	16.0	14.5	11.5	4.5	12.0	13.0	17.0	22.0	23.0	27.5	31.0	31.0
5	17.0	19.0	8.5	4.0	14.0	9.0	19.0	21.0	28.0	31.5	28.5	25.5
6	23.0	15.0	9.0	5.5	10.0	9.5	17.0	18.0	24.0	25.0	29.0	24.0
7	18.0	14.0	9.0	7.5	7.5	11.5	17.5	18.0	25.0	29.5	26.0	25.0
8	24.0	16.5	8.0	4.5	9.5	11.0	17.0	16.0	30.0	29.0	32.0	25.0
9	25.0	15.0	9.5	4.5	14.0	12.0	20.0	16.0	27.0	31.0	29.0	22.0
10	20.0	13.5	9.5	6.0	17.0	12.0	18.0	20.5	29.0	25.0	28.0	21.0
11	22.0	16.0	8.5	6.0	14.0	14.0	20.5	22.0	28.0	26.0	31.0	23.5
12	24.5	12.0	8.5	9.5	14.0	13.0	20.0	24.0	24.0	26.0	24.5	24.0
13	19.0	11.0	12.5	7.0	15.0	12.5	22.0	20.5	25.0	24.0	30.5	24.5
14	20.0	10.0	9.5	7.0	15.5	9.5	23.5	20.5	26.5	27.0	31.5	29.0
15	16.0	13.5	8.0	6.0	13.0	12.0	19.0	24.5	26.0	26.0	27.5	28.0
16	14.5	10.0	6.0	7.5	12.5	13.0	18.0	22.0	25.0	27.0	31.0	30.0
17	16.5	13.0	6.5	7.0	11.5	11.0	14.0	24.0	26.0	26.0	29.0	27.0
18	15.5	16.0	8.5	7.5	9.5	12.5	12.0	22.0	24.0	26.5	28.5	26.0
19	17.5	15.0	4.5	9.0	11.0	15.0	14.0	21.5	24.0	31.0	29.0	25.0
20	15.5	12.0	6.0	6.0	12.0	15.5	16.0	25.5	25.0	28.0	29.0	25.0
21	18.0	8.5	6.0	5.0	7.5	13.0	17.0	23.0	24.0	28.0	30.0	23.5
22	22.0	11.0	7.0	6.0	9.0	11.0	19.0	24.0	28.0	26.0	28.5	23.0
23	18.5	6.0	9.0	9.0	7.5	15.0	20.5	22.5	26.0	30.0	23.5	24.0
24	18.5	7.0	6.5	11.5	9.0	16.0	22.0	24.0	26.5	29.0	23.5	28.5
25	15.0	7.0	5.5	8.5	10.0	16.0	23.5	24.0	27.0	29.0	22.0	28.0
26	13.5	7.0	6.5	8.0	10.0	16.5	20.0	22.0	26.0	27.0	29.0	25.0
27	15.0	6.0	7.0	6.5	10.0	14.0	24.0	23.0	26.0	29.0	24.5	23.5
28	15.0	8.0	8.0	6.0	13.0	13.5	25.0	25.5	32.0	27.0	25.0	21.5
29	15.0	11.0	6.0	7.0	14.0	13.5	20.0	26.5	32.0	31.0	24.5	23.0
30	14.5	7.0	4.5	8.0	---	12.0	18.0	22.0	30.0	29.5	30.0	19.5
31	16.5	---	6.0	8.0	---	10.0	---	27.0	---	32.0	30.0	---
MONTH	18.0	12.0	7.5	7.0	11.5	13.0	18.5	22.0	26.5	28.0	28.0	25.0
YEAR	MAX	32.0	MIN	4.0	MEAN	18.0						





08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

## WATER-QUALITY RECORDS

LOCATION.--Samples collected 2 mi (3.2 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1937 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1937 to current year.

WATER TEMPERATURES: October 1952 to current year.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 51,400 micromhos June 20, 1972; minimum daily, 268 micromhos Sept. 19, 1946.

WATER TEMPERATURES: Maximum, 36.0°C July 31, 1966, July 13, 1970; minimum, 1.0°C Jan. 10, 11, 1962, Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 44,600 micromhos Aug. 26; minimum daily, 7,080 micromhos Sept. 9.

WATER TEMPERATURES: Maximum, 32.0°C Aug. 5; minimum, 5.0°C Dec. 18, 20.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (000061)	SPECIFIC CONDUCTANCE (MICROMHOS) (000095)	PH (UNITS) (00400)	AIR TEMPERATURE (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARDNESS (CA+MG) (MG/L) (00900)
OCT 29...	1120	27	14500	7.5	20.0	16.5	1	8.8	150	2500
NOV 20...	1630	60	12500	7.6	5.0	10.0	0	10.0	110	2200
DEC 18...	1445	60	8900	8.0	6.5	5.0	6	--	64	1400
JAN 08...	1200	41	11200	8.0	7.0	7.0	8	11.3	84	2000
FEB 05...	1600	50	10500	8.0	22.5	13.5	8	10.3	100	1900
MAR 11...	1215	20	21700	8.0	24.5	15.0	1	9.8	91	2600
APR 13...	1500	19	23500	7.6	32.0	18.0	2	10.0	280	2900
MAY 20...	1500	15	18000	8.0	36.0	25.0	8	11.4	340	2700
JUN 17...	1730	8.6	31500	8.0	42.0	30.0	4	11.0	190	3600
JUL 21...	1715	9.0	30100	8.0	29.0	29.0	1	11.2	450	2900
SEP 03...	1315	11	28000	7.9	35.5	25.0	8	11.2	540	3000

DATE	NON-CARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG/L) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DISSOLVED SULFATE (SO4) (MG/L) (00945)
OCT 29...	2300	570	250	2500	22	98	137	0	2100
NOV 20...	2000	530	210	2000	19	73	173	0	1900
DEC 18...	1300	240	190	1600	19	62	67	0	1600
JAN 08...	1900	490	200	1900	18	75	120	0	1800
FEB 05...	1800	450	180	1800	18	63	87	0	1700
MAR 11...	2500	570	290	4200	36	180	139	0	2200
APR 13...	2700	600	330	4500	37	210	165	0	2600
MAY 20...	2600	590	290	3600	30	130	69	0	2300
JUN 17...	3500	710	450	8000	58	330	124	0	3500
JUL 21...	2800	570	360	6500	52	280	113	0	2500
SEP 03...	2900	610	350	5600	45	250	106	0	2200

## RIO GRANDE BASIN

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued  
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)
OCT 29...	4300	.8	10	10400	9900	.53	.53	.05	1.2
NOV 20...	3100	.5	4.1	7850	7910	1.0	.51	.06	2.4
DEC 18...	2600	.6	.1	6890	6330	.11	.11	.00	1.9
JAN 08...	3100	.8	.3	8210	7630	.57	.52	.04	1.8
FEB 05...	2900	.7	.1	7310	7140	.04	.04	.01	2.3
MAR 11...	6900	.8	3.2	15500	14400	.29	.29	.52	1.8
APR 13...	7600	.8	6.5	16300	15900	.18	.17	.36	1.5
MAY 20...	6100	1.0	4.7	13100	13100	.01	.01	.16	.94
JUN 17...	13000	1.3	7.7	25400	26100	.15	.01	.06	.73
JUL 21...	9900	.7	4.1	20000	20200	.04	.04	.10	.53
SEP 03...	9000	.9	11	19400	18100	.02	.00	.01	.97

DATE	TOTAL NITRO- GEN (N) (MG/L) (00660)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS- SOLVED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDE D ORGANIC CARBON (C) (MG/L) (00689)
OCT 29...	1.7	.02	.02	840	30	--	--	5.9	.4
NOV 20...	3.5	.03	.00	680	10	20	--	13	--
DEC 18...	2.0	.02	.01	580	10	--	--	6.6	5.0
JAN 08...	2.4	.02	.00	600	10	--	--	6.2	2.6
FEB 05...	2.3	.04	.01	590	10	--	--	6.4	5.6
MAR 11...	2.6	.12	.03	1300	30	130	7.9	5.3	2.4
APR 13...	2.1	.06	.06	4000	20	--	--	13	1.7
MAY 20...	1.1	.05	.01	730	70	10	7.2	6.0	--
JUN 17...	.94	.06	.01	1400	100	--	--	10	--
JUL 21...	.67	.04	.04	1600	60	--	--	9.1	2.3
SFP 03...	1.0	.07	.02	1600	30	--	--	8.4	3.9

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)
NOV 20...	1630	1	1	680	10	0	30	30	450	0	30	0
MAR 11...	1215	1	1	1300	30	0	10	20	100	2	30	1
MAY 20...	1500	3	1	730	0	0	20	0	0	0	2	2

DATE	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV 20...	80	10	200	0	30	20	.0	.0	2	2	10	10
MAR 11...	370	30	350	1	210	130	.0	.0	2	2	30	10
MAY 20...	370	70	0	0	120	10	.1	.1	2	1	20	10

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	TOTAL ALDRIN (UG/L) (39330)	TOTAL CHLOR- DANE (UG/L) (39350)	TOTAL DDD (UG/L) (39360)	TOTAL DDE (UG/L) (39365)	TOTAL DDT (UG/L) (39370)	TOTAL DI- AZINON (UG/L) (39570)	TOTAL DI- ELDRIN (UG/L) (39380)	TOTAL ENDRIN (UG/L) (39390)	TOTAL ETHION (UG/L) (39398)	TOTAL HEPTA- CHLOR (UG/L) (39410)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L) (39420)
FER *												
05...	1600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL *												
21...	1715	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by the Environmental Protection Agency.

DATE	TOTAL LINDANE (UG/L) (39340)	TOTAL MALA- THION (UG/L) (39530)	TOTAL METH- OXY- CHLOR (UG/L) (39480)	TOTAL METHYL PARA- THION (UG/L) (39600)	TOTAL METHYL TRI- THION (UG/L) (39790)	TOTAL PARA- THION (UG/L) (39540)	TOTAL TOX- APHENE (UG/L) (39400)	TOTAL TRI- THION (UG/L) (39786)	TOTAL 2,4-D (UG/L) (39730)	TOTAL 2,4,5-T (UG/L) (39740)	TOTAL SILVEX (UG/L) (39760)
FER											
05...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
JUL											
21...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCOCI (COL- ONIES PER 100 ML) (31679)
OCT			
29...	1120	--	17
NOV			
20...	1630	11	9
DEC			
18...	1445	2	3
JAN			
08...	1200	6	6
FEB			
05...	1600	3	3
MAR			
11...	1215	1	0
APR			
13...	1500	1800	14
MAY			
20...	1500	60	74
JUN			
17...	1730	0	140
JUL			
21...	1715	150	200
SEP			
03...	1315	10	120

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 29, 1975  
1120 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

27,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		1,800	7	
....OOCYSTIS		420	2	
...SCENEDESMACEAE				
....SCENEDESMUS		1,400	5	
TOTALS		3,700	14	1,390=DI
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
D ....CYCLOTELLA		4,900	18	
..PENNALES	PENNATE			
...NITZSCHIA				
D ....NITZSCHIA		11,000	42	
TOTALS		16,000	60	0,883=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
...CHROOCOCCACEAE				
....AGMENELLUM		3,400	12	
....ANACYSTIS		2,200	8	
...OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIACEAE				
....LYNGBYA		1,800	7	
TOTALS		7,400	27	1,537=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.344  
CLASS 1.344  
ORDER 2.088  
FAMILY 2.216  
GENERA 2.473

DEC. 18, 1975  
1445 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

41,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		1,000	2	
L ....DICTYOSPHAERIUM			0	
L ....KIRCHNERIELLA			0	
...SCENEDESMACEAE				
....SCENEDESMUS		920	2	
TOTALS		2,100	4	1,252=DI
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
D ....CYCLOTELLA		39,000	94	
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
L ....NAVICULA			0	
...NITZSCHIA				
....NITZSCHIA		340	1	
TOTALS		39,000	95	0,101=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
L - LESS THAN 1% MAY NOT HAVE BEEN ACTUALLY COUNTED  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.286  
CLASS 0.286  
ORDER 0.373  
FAMILY 0.431  
GENERA 0.444

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JAN. 8, 1976  
1200 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

42,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...OOCYSTACEAE			
....ANKISTRODES MUS		1,400	3
....KIRCHNERIELLA		690	2
L ....OOCYSTIS			0
...SCENEDESMACEAE			
....SCENEDESMUS			
	TOTALS	1,000 3,100	2 7
			1.530=DI
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
...CENTRALES	CENTRIC		
...COSCONODISCACEAE			
D ....CYCLOTELLA		35,000	83
...PENNALES	PENNATE		
...ACHNANTHACEAE			
L ....ACHNANTHES			0
...CYMBELLACEAE			
L ....AMPHORA			0
...NAVICULACEAE	NAVICULOID		
L ....GYROSIGMA			0
...NITZSCHACEAE			
L ....NITZSCHIA			0
	TOTALS	35,000	83
			0.025=DI
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
....ANACYSTIS			
	TOTALS	3,900 3,900	9 9
			0.000=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%

L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED

ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE

DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.817

CLASS 0.817

ORDER 0.838

FAMILY 0.905

GENERA 0.950

## RIO GRANDE BASIN

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

FEB. 5, 1976  
1600 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

		47,000 CELLS/ML			
ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT		
CHLOROPHYTA	GREEN ALGAE				
..CHLOROPHYCEAE					
..CHLOROCOCCALES					
..OOCYSTACEAE					
L ....ANKISTRODESMUS			0		
L ....OOCYSTIS			0		
..SCENEDESMACEAE					
L ....SCENEDESMUS			0		
..VOLVOCALES					
..CHLAMYDOMONADACEAE					
L ....CHLAMYDOMONAS			0		
CHRYSTOPHYTA					
..BACILLARIOPHYCEAE	DIATOMS				
..CENTRALES	CENTRIC				
..COSCINODISCACEAE					
D ....CYCLOTELLA		47.000	100		
..PENNALES	PENNATE				
..CYMBELLACEAE					
L ....CYMBELLA			0		
..NAVICULACEAE	NAVICULOID				
L ....GYROSIGMA			0		
L ....NAVICULA			0		
..NITZSCHIAEAE					
L ....NITZSCHIA			0		
TOTALS		47.000	100	0.040=DI	
CYANOPHYTA	BLUE-GREEN ALGAE				
..MYXOPHYCEAE					
..OSCILLATORIALES	FILAMENTOUS				
..OSCILLATORIAEAE					
L ....OSCILLATORIA			0		
EUGLENOPHYTA	EUGLENOIDS				
..EUGLENOPHYCEAE					
..EUGLENALES					
..EUGLENACEAE					
L ....EUGLENA			0		

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 ORDER 0.040  
 FAMILY 0.040  
 GENERA 0.040

MAR. 11, 1976  
1215 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

25,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT		
CHLOROPHYTA	GREEN ALGAE				
..CHLOROPHYCEAE					
..CHLOROCOCCALES					
..OOCYSTACEAE					
L ....ANKISTRODESMUS			0		
..KIRCHNERIELLA		320	1		
..SCENEDESMACEAE					
..SCENEDESMUS					
TOTALS		420 840	2 3	1.406=DI	
CHRYSTOPHYTA					
..BACILLARIOPHYCEAE	DIATOMS				
..CENTRALES	CENTRIC				
..CHAETOCERACEAE					
..CHAETOCEROS		840	3		
..COSCINODISCACEAE					
D ....CYCLOTELLA		19.000	77		
..PENNALES	PENNATE				
..NAVICULACEAE	NAVICULOID				
L ....GYROSIGMA			0		
..NITZSCHIAEAE					
..NITZSCHIA					
TOTALS		840 21.000	3 83	0.525=DI	

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAR. 11, 1976  
1215 HOURS  
(Continued)

.CHRYSTOPHYCEAE	YELLOW-BROWN ALGAE			
..CHRYSONOMADAE				
...OCHROMONADACEAE				
....UROGLENOPSIS				
	TOTALS	<u>2,700</u> 2,700	<u>11</u> 11	0.000=D1

CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
....OSCILLATORIA				
	TOTALS	<u>320</u> 320	<u>1</u> 1	0.000=D1

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.309  
CLASS 0.799  
ORDER 1.022  
FAMILY 1.276  
GENERA 1.290

APR. 13, 1976  
1500 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

6,300 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
....OOCYSTACEAE				
....ANKISTRODESMUS		320	5	
....KIRCHNERIELLA		630	10	
....OOCYSTIS		420	7	
...SCENEDESMACEAE				
....SCENEDESMUS				
	TOTALS	<u>210</u> 1,600	<u>3</u> 25	1.889=D1
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
...CENTRALES	CENTRIC			
....COSCINODISCAEAE				
D ....CYCLOTELLA		4,400	70	
...PENNALES	PENNATE			
....NITZSCHIAEAE				
....NITZSCHIA				
	TOTALS	<u>210</u> 4,600	<u>3</u> 73	0.267=D1
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...CHROOCOCCALES	COCCOID			
....CHROOCOCCACEAE				
L ....ANACYSTIS			0	
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
....EUGLENACEAE				
.....EUGLENA				
	TOTALS	<u>110</u> 110	<u>2</u> 2	0.000=D1

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.927  
CLASS 0.927  
ORDER 1.122  
FAMILY 1.264  
GENERA 1.545

## RIO GRANDE BASIN

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAY 20, 1976  
1500 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

ORGANISM NAME	55 CELLS/ML COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		4	7	
D ....OOCYSTIS		15	27	
...SCENEDESMACEAE				
...SCENEDESMUS		7	13	
...ZYGNEMATALES				
...DESMIDIACEAE	PLACODERM DESMIDS			
....COSMARIUM		4	7	
TOTALS		29	54	1.750=DI
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....CYCLOTELLA		7	13	
..PENNALES	PENNATE			
...NITZSCHACEAE				
D ....NITZSCHIA		18	33	
TOTALS		26	46	0.863=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.997  
CLASS 0.997  
ORDER 1.689  
FAMILY 2.092  
GENERA 2.333

JUNE 17, 1976  
1730 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

ORGANISM NAME	1,800 CELLS/ML COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS		39	2	
D ....OOCYSTIS		310	17	
TOTALS		350	19	0.503=DI
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
D ....CYCLOTELLA		770	43	
..PENNALES	PENNATE			
...CYMBELLACEAE				
....CYMBELLA		120	7	
...NAVICULACEAE	NAVICULOID			
D ....NAVICULA		390	22	
TOTALS		1,300	72	1.274=DI
EUGLENOPHYTA	EUGLENOIDS			
..CRYPTOPHYCEAE	CRYPTOMONADS			
...CRYPTOMONIDALES				
...CRYPTOCHRYSIDACEAE				
....CHROOMONAS		39	2	
...CRYPTOMONODACEAE				
....CRYPTOMONAS		39	2	
TOTALS		77	4	1.000=DI
PYRRHOPHYTA	FIRE ALGAE			
..DINOPHYCEAE	DINOFLAGELLATES			
...PERIDINIALES				
...GLENODINIACEAE				
....GLENODINIUM		77	4	
TOTALS		77	4	0.000=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.198  
CLASS 1.198  
ORDER 1.892  
FAMILY 2.155  
GENERA 2.254



08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JULY 21, 1976  
1715 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNATAES	PENNATE			
...FRAGILARIACEAE				
D ....SYNEDRA		36	35	
...NAVICULACEAE	NAVICULOID			
D ....GYROSIGMA		31	30	
D ....NAVICULA		27	26	
...NITZSCHACEAE				
....NITZSCHIA				
	TOTALS	<u>4</u> 98	<u>4</u> 95	1.770=DI
PYRRHOPHYTA	FIRE ALGAE			
..DINOPHYCEAE	DINOFLLAGELLATES			
...PERIDINIALES				
...PERIDINACEAE				
....PERIDINIUM				
	TOTALS	<u>4</u> 4	<u>4</u> 4	0.000=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
PHYL/DIV 0.258  
CLASS 0.258  
ORDER 0.258  
FAMILY 1.389  
GENERA 1.951

SEP. 3, 1976  
1315 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

2,300 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OOCYSTACEAE				
....OOCYSTIS				
	TOTALS	<u>95</u> 95	<u>4</u> 4	0.000=DI
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
....MELOSIRA				
	TOTALS	<u>240</u> 240	<u>11</u> 11	0.000=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
...OSCILLATORIALES	FILAMENTOUS			
...NOSTOCACEAE				
D ....APHANIZOMENON				
	TOTALS	<u>1,900</u> 1,900	<u>84</u> 84	0.000=DI
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
...EUGLENALES				
...EUGLENACEAE				
....TRACHELOMONAS				
	TOTALS	<u>24</u> 24	<u>1</u> 1	0.000=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
PHYL/DIV 0.812  
CLASS 0.812  
ORDER 0.812  
FAMILY 0.812  
GENERA 0.812

## 08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## PERIPHYTON

DATE	LENGTH OF EXPO- SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M. (00073)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M. (00572)	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL A MG/SQ M. (32228)	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL B MG/SQ M. (32226)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	Sampling method
NOV 20...	22	4.40	2.90	1.80	.100	800	Polyethylene strip
SEP 03...	44	72.4	64.8	37.4	2.24	200	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDIM- ENT (MG/L) (80154)	SUS- PENDED SEDIM- ENT CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 18...	1445	60	5.0	18	2.9	95
JAN 08...	1200	41	7.0	21	2.3	69
FEB 05...	1600	50	13.5	26	3.5	85
MAR 11...	1215	20	15.0	27	1.5	92
APR 13...	1500	19	18.0	19	.97	92
MAY 20...	1500	15	25.0	14	.57	97
JUN 17...	1730	8.6	30.0	19	.44	98
JUL 21...	1715	9.0	29.0	8	.19	98
SEP 03...	1315	11	25.0	8	.24	99

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. ° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15000	13700	11300	11000	10600	16400	20800	25100	22900	34900	23600	38600
2	14100	13500	11500	11100	10700	17200	20800	17200	24200	35800	23600	37500
3	13900	14100	14200	11100	10500	17200	22200	21400	23400	36300	24300	36600
4	14000	13000	11900	11000	11300	18200	24400	23500	24000	38800	24400	36000
5	14500	13000	11100	11100	11000	15500	25200	16600	26300	38700	25100	33900
6	14900	12900	10900	11000	10600	15300	24000	17600	26500	39100	26400	30300
7	14800	12100	11000	12100	10500	15900	24000	10700	26900	38700	28200	26800
8	15400	11900	10700	12100	11400	15900	22600	18600	27300	38500	28300	27700
9	15900	12100	10700	12100	12400	17200	22600	14700	28800	38000	32200	7080
10	15600	11400	10700	12100	11300	17300	23300	16500	28800	37600	32200	13200
11	15000	11400	10400	12200	10700	18700	22900	16500	30100	37900	33000	11800
12	15300	11300	10400	12500	10400	18700	22300	15900	30100	40100	34200	19400
13	16100	11200	10100	12500	10400	22900	24000	16400	30400	38600	34600	17600
14	14900	12000	10000	11600	10500	20600	23800	16400	30600	25500	35900	16700
15	14700	11000	9910	11600	11600	19900	24200	16400	31700	17900	36900	16100
16	15400	11100	10500	11900	11600	20600	24300	16200	33800	17700	37900	15600
17	15700	11900	10500	11800	11600	20200	24400	16200	34900	19900	38800	14700
18	17200	10900	10000	11800	12100	20200	25500	16900	35700	19900	38800	14300
19	17100	11000	10000	11800	11300	22500	26800	18000	37000	23000	38300	11100
20	16000	11100	9810	11800	11400	20100	26800	17800	36200	23100	38300	11200
21	15900	11000	10400	11600	11500	20100	25500	17900	36400	27900	38700	20200
22	15900	15100	10000	11700	11700	19200	25500	18600	36200	27800	39300	7970
23	15600	11400	10100	11400	14800	20800	24900	19000	35400	28800	40800	11700
24	15500	12000	10000	10700	17100	22300	26400	19200	34600	29100	44200	16200
25	14300	11000	10100	10700	17100	20600	26400	20100	33900	29700	44400	18200
26	15000	11000	10600	11100	17800	20600	26600	19900	33300	29900	44600	17500
27	14600	11200	10600	10700	18900	21600	27900	20300	33000	29900	42300	16700
28	14200	12100	10700	10900	18900	21600	29800	21600	32900	29300	42300	15900
29	15500	11900	10800	12300	17900	23200	30200	21600	32600	27900	42300	15500
30	15200	12200	10600	11200	---	23300	29300	23200	31200	28200	41900	15600
31	13800	---	10700	10800	---	22800	---	23800	---	23700	39600	---
MONTH	15200	12000	10700	11500	12700	19600	24900	18500	31000	30700	35300	19700
YEAR	MAX	44600	MIN	7080	MEAN	20200						

## 08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	17.0	8.5	6.5	9.0	15.0	17.0	20.0	27.0	29.0	30.0	27.0
2	21.0	17.0	8.3	6.5	9.5	16.0	16.5	19.5	27.0	28.0	30.0	25.0
3	20.0	17.0	8.5	5.5	9.5	16.0	17.5	20.5	27.5	29.5	30.0	27.5
4	19.0	17.0	9.0	5.5	10.0	14.5	17.5	22.0	27.0	29.0	30.5	27.0
5	21.0	16.5	9.0	6.5	11.5	12.5	14.0	18.0	26.0	29.0	32.0	25.0
6	20.0	16.5	9.0	6.5	10.0	12.5	19.0	19.5	26.0	29.0	30.0	25.0
7	20.5	16.5	9.0	6.5	10.0	12.0	19.5	18.0	25.0	29.5	29.0	27.5
8	19.0	16.0	9.0	6.0	10.5	12.5	20.0	17.5	25.0	29.5	30.0	28.0
9	20.0	16.0	9.0	6.0	12.0	14.0	19.5	18.0	27.0	29.5	28.0	19.0
10	22.0	16.0	10.0	6.5	13.5	14.5	19.5	22.0	27.0	29.0	28.0	20.0
11	22.0	16.0	9.5	6.5	14.0	15.0	20.5	24.5	27.0	28.0	28.5	22.0
12	22.0	14.0	9.5	7.5	14.0	15.0	21.0	24.0	27.0	26.5	28.0	25.5
13	22.0	13.0	9.5	8.0	16.0	15.0	21.5	25.0	27.0	29.0	29.0	29.0
14	21.0	12.0	9.5	9.0	17.5	15.5	21.5	25.5	27.5	27.0	28.0	25.5
15	19.0	11.5	9.9	9.0	17.5	15.0	20.5	24.5	25.0	28.5	29.0	27.0
16	19.5	12.0	9.0	9.5	16.0	15.0	17.0	24.5	25.5	28.5	29.0	27.5
17	19.5	12.0	9.0	9.5	15.0	15.5	17.0	23.0	27.0	29.0	28.0	26.0
18	19.0	12.5	6.0	9.0	15.0	16.5	16.5	23.5	27.0	29.0	28.0	27.5
19	19.0	12.0	6.0	7.5	14.5	17.0	18.5	24.0	27.0	28.5	28.0	27.0
20	19.0	12.5	5.0	8.0	13.0	17.0	19.0	25.5	28.0	28.5	28.0	24.0
21	18.5	12.5	5.5	8.5	12.0	16.5	21.0	26.0	28.0	28.0	27.5	25.0
22	18.5	9.0	6.5	8.5	12.0	17.0	20.5	26.0	28.5	27.0	26.0	25.0
23	19.0	8.0	6.0	9.0	11.0	17.0	21.5	25.5	28.0	29.0	27.0	25.5
24	18.5	7.0	6.5	10.0	12.5	19.0	21.5	26.0	28.0	29.0	28.0	25.0
25	16.0	6.5	6.5	10.0	12.5	17.5	21.5	24.0	28.0	29.0	27.0	26.0
26	16.5	6.5	7.0	8.5	12.0	16.5	21.5	24.0	27.0	30.0	27.0	25.5
27	17.0	6.5	7.0	9.0	14.0	16.5	22.5	25.0	27.0	29.5	27.0	24.5
28	16.5	8.0	6.5	8.0	15.0	16.5	24.0	25.0	29.0	29.5	26.5	21.5
29	17.0	8.0	6.5	9.0	15.0	16.0	20.5	25.0	29.0	30.0	27.5	22.0
30	17.0	8.5	7.0	8.5	---	14.0	21.5	25.0	29.0	28.5	27.5	22.0
31	17.5	---	7.0	9.0	---	16.0	---	25.5	---	30.0	27.0	---
MONTH	19.5	12.5	8.0	8.0	13.0	15.5	20.0	23.0	27.0	29.0	28.5	25.0
YEAR	MAX	32.0	MIN	5.0	MEAN	19.0						



## 08410000 RED BLUFF RESERVOIR NEAR ORLA, TX

LOCATION.--Lat 31°54'06", long 103°54'42", Reeves County, Hydrologic Unit 1307001, at right end of Red Bluff Dam on Pecos River, 3 mi (4.8 km) upstream from Salt Creek (Screw Bean Arroyo), and 4.5 mi (7.2 km) north of Orla.

DRAINAGE AREA.--20,720 mi<sup>2</sup> (53,660 km<sup>2</sup>), approximately (contributing area).

PERIOD OF RECORD.--February 1937 to current year. Monthly contents only for some periods, published in WSP 1312.

GAGE.--Nonrecording gage read at irregular intervals. Datum of gage is 0.43 ft (0.131 m), below mean sea level.

REMARKS.--The reservoir is formed by a rock-faced earthfill dam 9,200 ft (2,800 m) 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 spillway is a cut through natural ground located to the right of right end of dam and is 790 ft (241 m) wide. The controlled spillway is equipped with 12 tainter gates that are 25 ft wide by 15 ft high (8 by 5 m). Inflow is partly regulated by storage in Lake Summer, Lake McMillan, and Lake Avalon (total combined capacity, 154,400 acre-ft or 190 hm<sup>3</sup>), and by several small diversion dams that divert water for power or irrigation. The capacity curve is based on Geological Survey topographic map, survey of 1925. 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 spillway.....	2,845.0	340,000
Top of gates (top of conservation pool).....	2,842.0	310,000
Crest of spillway.....	2,827.0	166,500
Lowest gated outlet (invert).....	2,764.0	3,000

COOPERATION.--Gage-height records and capacity curve furnished by Red Bluff Water Power and Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 352,000 acre-ft (434 hm<sup>3</sup>) Sept. 27-28, 1941, gage height, 2,846.2 ft (867.52 m), gage at service spillway affected by variable drawdown due to flow through tainter gates; minimum observed, 11,080 acre-ft (13.7 hm<sup>3</sup>) May 13, 1948, gage height, 2,781.4 ft (847.77 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 116,800 acre-ft (144 hm<sup>3</sup>) Oct. 1, 2, gage-height 2,819.3 ft (859.32 m); minimum observed, 59,300 acre-ft (73.1 hm<sup>3</sup>) Sept. 8, gage height 2,806.8 ft (855.51 m).

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

2,805.0	56,500	2,816.0	99,000
2,811.0	75,500	2,820.0	121,000

CONTENTS, IN ACRE-Feet, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116800	112200	113400	115600	107800	109000	107800	101000	90500	84500	77300	63500
2	116800	112800	113400	115600	107800	109000	107800	100500	90500	83600	77300	62800
3	116200	112800	113400	115600	107800	109000	107800	100000	90000	83600	76850	62450
4	116200	112800	113400	115600	107800	109000	107800	99500	90000	82700	76850	61750
5	115600	112800	113400	115600	107800	109000	107800	99000	90000	82250	77300	61400
6	115600	112800	113400	115600	108400	109000	107800	98500	89500	81800	77300	60700
7	115600	112800	113400	115600	108400	109000	107800	98000	89500	80900	77300	60000
8	115600	112800	113400	115600	108400	109000	107800	98000	89500	80450	76850	59300
9	115000	112800	113400	115600	108400	109000	107800	97500	89000	80000	76850	63500
10	115000	112800	113400	115600	108400	109000	107800	96500	89000	79100	76400	64300
11	115000	112800	113400	115600	109000	109000	107800	96000	89000	78200	75950	64700
12	114400	112800	113400	115600	109000	108400	107300	95500	89000	79550	75950	65100
13	114400	112800	113900	116200	109000	108400	107300	95000	88550	79550	75950	65100
14	114400	112800	113900	116200	109000	109000	107800	95000	88550	79100	75100	65100
15	113900	112800	113900	116200	109000	109000	107800	94500	88100	79100	74700	65500
16	113900	113400	113900	116200	109000	109000	107300	94500	88100	79100	73900	65500
17	113900	113400	113900	115600	109000	108400	107300	94500	87650	79100	73100	65500
18	113400	113400	113900	115000	109000	108400	107300	94500	87650	78650	72700	65500
19	113400	113400	113900	114400	109000	108400	107300	94000	87200	78650	71900	65500
20	113400	113400	113900	113900	109500	108400	107300	94000	87200	78650	71500	66300
21	112800	113400	114400	113900	109500	108400	107300	94000	86750	78200	70700	66300
22	113400	113400	114400	112800	109000	108400	106800	94000	86300	78200	70300	66700
23	112800	113400	114400	112200	109000	108400	106200	94000	86300	78200	69500	66700
24	112800	113400	114400	111700	109000	108400	105600	93500	86300	77750	69100	66700
25	112800	113400	115000	111200	109000	108400	105100	93500	85850	77750	68300	66700
26	112200	113400	115000	110600	109000	107800	104600	93000	85400	77750	67500	66700
27	112200	113400	115000	110000	109000	107800	103000	92500	85400	77300	66700	66700
28	112200	113400	115000	109500	109000	107800	103000	91500	85400	77300	66300	66700
29	112200	113400	115600	109000	109000	107800	102000	91500	84950	77300	65500	66700
30	112200	113400	115600	108400	---	107800	101500	91000	84950	77750	64700	66700
31	112200	---	115600	107800	---	107800	---	90500	---	77300	63900	---
MAX	116800	113400	115600	116200	109500	109000	107800	101000	90500	84500	77300	66700
MIN	112200	112200	113400	107800	107800	107800	101500	90500	84950	77300	63900	59300
(†)	2818.5	2818.7	2819.1	2817.7	2817.9	2817.7	2816.5	2814.3	2813.1	2811.4	2808.1	2808.8
(‡)	-4600	+1200	+2200	-7800	+1200	-1200	-6300	-11000	-5550	-7650	-13400	+2800
CAL YR 1975	MAX	177900	MIN	112200	†	-50200	†	Gage height, in feet, at end of month.				
WTR YR 1976	MAX	116800	MIN	59300	†	-50100	†	Change in contents, in acre-feet.				



08412500 PECOS RIVER NEAR ORLA, TX -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1937 to current year.

WATER TEMPERATURES: March 1953 to current year.

REMARKS.--Station is operated by the Texas District.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 29,100 micromhos Sept. 2, 1969, July 22, 1972; minimum daily, 1,610 micromhos June 2, 1948.

WATER TEMPERATURES (1953-61, 1968-76): Maximum, 28.5°C Aug. 11, 1974; minimum, 0.5°C Jan. 6, 1971, Jan. 11, 1973.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 23,600 micromhos Mar. 27; minimum daily, 2,100 micromhos Sept. 9.

WATER TEMPERATURES: Maximum, 25.5°C Aug. 6, 7; minimum 3.0°C Jan. 8, 9.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHANGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)
OCT 23...	1040	77	10200	7.4	16.5	1700	1600	430	160	1700
NOV 17...	0730	11	21000	7.8	9.5	3300	3100	810	300	4000
DEC 04...	1050	11	20900	7.8	8.0	3400	3200	840	310	3900
JAN 25...	0715	325	8410	7.7	7.0	1600	1500	410	140	1400
FEB 12...	0930	14	20600	7.6	15.0	3200	3100	800	300	3900
MAR 25...	1015	12	21800	7.5	21.0	3500	3400	830	350	4100
APR 28...	0840	280	4940	7.8	16.5	1700	1500	420	150	1500
MAY 06...	1045	288	8980	7.4	17.0	1700	1500	480	160	1500
JUN 10...	1100	52	10000	7.6	22.0	1800	1700	470	160	1700
JUL 22...	1030	58	11200	7.5	22.0	1800	1700	440	180	1900
AUG 31...	1030	287	10300	7.6	23.0	1800	1700	460	160	1700
SEP 25...	0815	18	14800	7.9	21.0	2800	2700	730	240	2500

DATE	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF TUEENTS) (MG/L) (70301)
OCT 23...	18	42	140	0	1400	2600	.9	11	6410
NOV 17...	30	40	158	0	2800	6500	--	6.5	14500
DEC 04...	29	39	168	0	2900	6300	--	8.9	14400
JAN 25...	15	42	143	0	1300	2200	--	10	5570
FEB 12...	30	38	158	0	2800	6500	--	4.8	14400
MAR 25...	30	42	138	0	2900	6700	--	3.5	15000
APR 28...	16	46	145	0	1400	2300	--	9.0	5900
MAY 06...	16	45	145	0	1500	2400	--	9.0	6090
JUN 10...	17	50	156	0	1700	2800	--	9.9	6970
JUL 22...	19	50	136	0	1600	3000	--	8.4	7250
AUG 31...	17	40	126	0	1500	2700	--	12	6630
SEP 25...	21	41	164	0	2200	4100	--	11	9900

## RIO GRANDE BASIN

08412500 PECOS RIVER NEAR ORLA, TX -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8760	19600	21100	21700	9770	21700	22400	9530	10000	10000	10200	10500
2	8400	20200	21300	21500	16800	21800	22100	9350	10000	10000	10200	10500
3	8540	20600	20900	21400	18400	21800	22600	9060	10000	9810	9900	10500
4	8470	21700	20900	21100	19100	22000	22900	9020	14100	9620	10000	10600
5	8540	22200	20900	21100	19400	22000	22700	9020	13600	9810	10100	10600
6	8540	21400	21100	21300	19800	21700	22700	8980	10200	9710	10500	10600
7	8540	21000	21100	21600	19800	21500	22800	9020	10000	9810	10700	10500
8	8580	21100	21100	21600	19800	21400	23000	9620	10000	9710	10600	10500
9	8580	21100	21000	21700	20000	21400	23000	9180	10000	9710	10700	2100
10	8650	20900	21500	21100	20400	21600	23000	9530	10100	9810	10800	5740
11	8580	20800	21600	20900	20400	22200	22700	9530	10000	9710	10800	10300
12	8770	20900	21600	21300	20600	22400	22400	9580	10000	9710	10700	12700
13	8770	20900	21500	21300	20400	22100	22300	9440	10300	10300	10600	14100
14	8690	21200	21400	21100	20400	22800	22700	12000	10100	10500	10000	13800
15	8580	21100	21300	21300	20800	22600	22800	12200	10000	12000	9950	12300
16	8510	21000	21400	10000	20800	22400	23100	12500	10000	14600	9950	12500
17	8580	21000	21400	8360	20800	22300	22300	11800	10000	13700	9950	14700
18	8770	21200	21100	8290	20800	22600	22700	11900	9900	13200	10000	15900
19	8840	21200	21400	8360	20600	22200	22600	11800	10000	11400	10000	15900
20	8880	21600	21300	8160	20800	22200	22600	11700	10000	12300	10100	12100
21	8960	21600	21300	8180	21100	22200	12000	11800	9900	11900	10200	16200
22	8840	21300	21300	8360	21200	22300	8880	11900	10100	11200	10100	11900
23	10200	21200	21300	8360	21300	22300	8770	11700	10000	10500	10100	13600
24	10400	21600	21300	8360	21300	21600	8850	11300	10100	10400	10200	13500
25	9540	21400	21400	8360	21200	21600	8860	10700	10000	11300	10200	15000
26	10000	21600	21800	8360	21300	22000	8870	9230	10000	11000	10200	15300
27	12300	21400	22000	8380	21400	23600	8870	9140	10000	10600	10300	16700
28	13200	21700	21400	8400	21700	23300	8880	9140	10000	10600	10300	12900
29	13000	21200	20900	8410	21600	23000	8880	10200	10200	12900	10300	19900
30	17000	21400	21100	8430	---	22400	8620	10300	10200	6130	10300	20300
31	18600	---	21300	8500	---	22000	---	10200	---	9900	10300	---
MONTH	9830	21200	21300	14700	20100	22200	18200	10300	10300	10900	10300	12700
YEAR	MAX	23600	MIN	2100	MEAN	15100						

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	17.0	6.5	7.0	5.0	14.0	13.5	16.5	19.5	---	24.5	23.0
2	18.0	16.0	7.0	---	6.5	13.5	14.5	17.0	21.0	---	24.5	23.5
3	16.5	15.5	8.0	5.5	7.0	14.5	15.0	16.5	21.0	---	24.5	24.5
4	17.0	15.0	8.5	4.0	9.5	16.0	18.0	17.0	20.0	---	25.0	23.5
5	17.0	15.0	8.5	3.5	11.0	10.0	16.5	16.0	21.0	---	25.0	23.5
6	17.0	14.5	9.5	5.0	10.0	10.0	19.0	16.0	21.0	---	25.5	23.5
7	17.0	15.0	7.0	4.5	8.5	11.0	19.5	16.5	21.0	---	25.5	23.5
8	17.0	13.5	6.0	3.0	8.5	10.0	18.0	16.0	23.5	---	24.0	23.0
9	17.0	14.5	7.0	3.0	10.0	12.0	19.0	17.0	21.0	24.5	23.5	20.0
10	18.5	13.5	7.0	4.0	12.0	13.5	19.5	17.0	24.5	23.5	24.0	19.5
11	17.0	12.0	8.5	5.0	14.5	14.5	21.0	18.0	22.0	23.5	24.5	19.5
12	18.0	12.0	8.5	4.5	15.0	13.0	20.0	17.0	21.5	24.0	24.0	22.0
13	18.5	9.5	10.0	6.0	15.5	12.0	20.5	18.0	22.0	23.5	23.5	23.5
14	18.5	9.0	10.0	5.5	15.0	10.5	21.0	18.5	22.0	23.5	24.0	22.0
15	17.0	9.5	9.0	6.0	13.5	10.0	20.0	19.0	20.5	24.0	24.0	23.5
16	17.0	9.5	7.0	7.0	12.0	10.5	14.5	20.0	20.0	24.5	23.5	23.5
17	16.0	9.5	6.5	5.5	12.0	11.5	16.0	19.5	23.5	24.5	24.0	24.5
18	15.0	10.5	6.0	6.0	10.0	13.5	14.5	19.0	21.0	25.0	24.0	23.5
19	16.0	12.0	6.0	6.0	12.0	14.5	15.0	19.0	22.0	24.0	24.0	24.5
20	16.0	10.0	5.0	6.0	11.0	15.0	16.0	19.5	23.5	25.0	24.5	21.0
21	17.0	8.5	6.0	4.5	9.5	14.5	24.0	21.0	23.0	24.5	24.0	20.0
22	17.0	6.0	6.5	5.5	---	13.5	17.0	20.0	23.0	23.5	23.5	21.0
23	17.0	5.0	9.5	7.0	10.0	15.0	16.0	20.0	23.5	22.0	23.0	25.0
24	17.0	6.0	7.0	8.0	8.5	12.0	15.0	20.0	21.0	23.0	23.0	23.5
25	16.0	6.5	5.5	7.0	10.0	17.0	16.0	20.0	20.0	23.5	22.0	21.0
26	13.5	5.5	6.0	6.5	10.0	16.5	15.5	18.5	19.5	24.5	22.0	23.0
27	15.0	5.0	6.0	4.0	10.5	15.0	16.0	19.5	21.0	24.5	22.0	22.0
28	14.5	7.0	8.5	5.0	12.0	14.5	16.5	18.5	21.0	24.5	23.0	21.0
29	15.0	9.0	6.0	5.0	13.5	15.0	16.5	19.5	21.5	24.5	23.5	20.0
30	15.0	8.5	5.0	6.0	---	14.5	15.5	19.5	---	23.5	23.5	18.5
31	15.0	---	6.0	7.0	---	13.0	---	18.5	---	23.5	22.0	---
MONTH	16.5	10.5	7.0	5.5	11.0	13.0	17.5	18.5	21.5	---	24.0	22.5
YEAR	MAX	25.5	MIN	3.0	MEAN	16.0						



## 385

LOCATION.--Lat 32°52'28", long 107°59'05", in SW 1/4 sec.33, T.16 S., R.11 W., Grant County, Hydrologic Unit 13030202, on left bank 0.7 mi (1.1 km) downstream from Bear Canyon, 1.5 mi (2.4 km) northwest of Mimbres, and at mile 74.8 (120.4 km).

PERIOD OF RECORD.--June 1921 to September 1930 (fragmentary), October 1930 to September 1976 (destroyed by flood of September 1976).  
Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1282: Drainage area. WSP 1512: 1931, 1933(M), 1935(M), 1938, 1939-40(M), 1941, 1942-43(M), 1944, 1945(M), 1946, 1947(M).

REMARKS.--Records good except those for period of no gage-height record July 8 to September 30, which are poor. Some regulation by Bear Canyon Reservoir 1.3 mi (2.1 km) upstream capacity, 700 acre-ft (863,000 m<sup>3</sup>). Diversions for irrigation of about 300 acres (1.2 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge determined, 3,370 ft<sup>3</sup>/s (95.4 m<sup>3</sup>/s) Oct. 20, 1972, gage height, 7.49 ft (2.283 m), from rating curve extended above 600 ft<sup>3</sup>/s (17.0 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 6.20 ft (1.890 m) and 7.49 ft (2.283 m); minimum, 0.7 ft<sup>3</sup>/s (0.020 m<sup>3</sup>/s) Aug. 10, 1951.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 2,900 ft<sup>3</sup>/s (82.1 m<sup>3</sup>/s) at unknown time on Sept. 15, gage height, 7.20 ft (2.195 m) from floodmarks, no other peak above base of 290 ft<sup>3</sup>/s (8.2 m<sup>3</sup>/s); minimum daily, 3.2 ft<sup>3</sup>/s (0.091 m<sup>3</sup>/s) Aug. 12, 13.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	12	10	8.5	8.8	6.5	11	5.0	13	7.4	5.4	5.8
2	20	11	10	8.3	9.1	6.7	11	6.2	13	8.3	6.0	5.8
3	19	13	9.9	8.1	9.1	7.1	11	6.2	12	7.3	8.0	6.0
4	19	13	9.9	8.1	8.9	7.2	11	7.4	10	7.3	6.0	6.5
5	18	12	9.3	7.8	9.1	7.6	12	8.0	7.7	7.2	5.0	8.0
6	17	12	9.0	7.8	9.1	7.8	11	7.6	6.7	8.2	4.0	7.0
7	17	10	8.9	7.8	8.8	7.8	11	6.8	7.2	8.4	4.0	6.5
8	19	10	9.1	7.2	9.1	8.0	10	8.3	6.9	8.4	3.7	5.5
9	21	9.7	9.1	6.4	9.0	7.3	9.9	8.4	5.9	8.0	3.4	9.0
10	20	9.8	9.3	6.6	12	6.7	9.7	9.0	5.4	8.0	3.2	6.5
11	21	9.5	9.4	6.5	14	6.4	9.7	8.7	5.7	8.0	3.2	6.0
12	21	9.1	9.4	6.6	13	7.1	9.7	7.4	6.3	9.0	3.3	6.0
13	20	9.1	9.4	6.4	13	7.9	9.6	7.6	6.1	9.7	3.3	6.0
14	19	8.8	9.2	6.4	12	8.4	9.6	8.4	5.5	10	3.3	30
15	17	8.3	9.1	6.4	11	8.1	11	8.1	4.7	9.8	3.3	500
16	16	8.6	9.0	6.6	11	7.7	11	7.7	4.9	8.0	3.3	100
17	15	9.4	8.8	6.8	10	7.2	10	8.0	5.0	7.4	6.0	30
18	15	9.2	8.9	6.8	9.7	7.5	9.9	7.3	4.6	7.0	8.0	10
19	15	9.7	8.8	6.8	8.8	7.7	8.3	7.0	5.2	6.2	6.3	8.0
20	15	10	9.0	7.0	8.9	8.8	7.6	7.8	4.7	6.0	6.3	8.0
21	17	10	9.2	7.0	8.5	8.2	8.0	11	5.0	6.0	6.3	8.0
22	16	10	9.1	7.0	8.5	7.5	8.4	14	5.3	6.0	10	8.0
23	15	10	9.3	7.4	8.2	7.5	8.2	14	5.3	6.8	8.0	8.0
24	15	9.9	9.3	7.2	8.4	8.2	6.9	13	6.1	7.8	7.0	8.0
25	14	9.7	9.1	7.5	8.2	8.8	7.4	14	6.4	8.0	6.2	9.0
26	14	9.7	9.1	7.5	8.4	9.4	7.4	14	6.3	6.0	6.2	7.5
27	14	9.8	9.1	7.6	8.0	10	7.0	15	5.4	5.5	7.4	7.0
28	14	10	8.8	8.4	6.8	11	7.7	15	6.0	5.8	6.4	6.5
29	13	10	8.8	8.3	6.4	11	7.1	13	5.8	6.0	6.4	6.0
30	13	10	8.8	8.1	---	11	5.7	13	6.4	6.0	6.2	6.0
31	12	---	8.8	8.6	---	12	---	13	---	5.7	6.2	---
TOTAL	521	303.3	284.9	227.5	275.8	254.1	277.8	299.9	198.5	229.2	171.3	844.6
MEAN	16.8	10.1	9.19	7.34	9.51	8.20	9.26	9.67	6.62	7.39	5.53	28.2
MAX	21	13	10	8.6	14	12	12	15	13	10	10	500
MIN	12	8.3	8.8	6.4	6.4	6.4	5.7	5.0	4.6	5.5	3.2	5.5
AC-FT	1030	602	565	451	547	504	551	595	394	455	340	1680
CAL YR 1975	TOTAL	10113.1	MEAN	27.7	MAX	520	MIN	4.0	AC-FT	20060		
WTR YR 1976	TOTAL	3887.9	MEAN	10.6	MAX	500	MIN	3.2	AC-FT	7710		

## TULAROSA VALLEY

08481500 RIO TULAROSA NEAR BENT, NM  
(National stream-quality accounting network station)

LOCATION.--Lat 33°08'41", long 105°53'50", in SE¼ sec. 32, T.13 S., R.11 E., Otero County, Hydrologic Unit 13050003, on right bank 50 ft (15 m) downstream from old U.S. Highway 70 bridge, 2.6 mi (4.2 km) west of Bent, and 8.5 mi (13.7 km) northeast of Tularosa, and at mile 19.4 (31.2 km).

DRAINAGE AREA.--120 mi<sup>2</sup> (310 km<sup>2</sup>), approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1947 to current year.

REVISED RECORDS.--WSP 1312: 1949(M).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,450 ft (1,660 m), from topographic map.

REMARKS.--Water-discharge records poor. Diversion for irrigation of about 1,000 acres (4.0 km<sup>2</sup>) 1959 determination, above station.

AVERAGE DISCHARGE.--28 years, 9.55 ft<sup>3</sup>/s (0.270 m<sup>3</sup>/s), 6,920 acre-ft/yr (8.53 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 4,280 ft<sup>3</sup>/s (121 m<sup>3</sup>/s) June 18, 1965, gage height, 5.02 ft (1.530 m), from rating curve extended above 160 ft<sup>3</sup>/s (4.53 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow May 14, 1955, result of unusual regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood probably occurred Sept. 3, 1938, when a peak of 9,640 ft<sup>3</sup>/s (273 m<sup>3</sup>/s) was computed for station approximately 6 mi (10 km) downstream near Tularosa. Another flood may have occurred July 2, 1914.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 125 ft<sup>3</sup>/s (3.54 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
July 15	1415	*449	12.7	3.11	0.948
July 23	1400	277	7.84	2.95	0.899
July 24	1330	345	9.77	3.02	0.920

Minimum discharge, 0.69 ft<sup>3</sup>/s (0.020 m<sup>3</sup>/s) June 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	12	12	9.9	12	12	12	7.7	5.6	12	12
2	11	12	12	12	11	9.2	11	6.2	9.5	6.2	12	12
3	10	11	12	12	11	6.2	11	5.5	10	5.3	12	12
4	9.9	11	11	12	11	8.9	8.3	9.0	10	5.1	12	12
5	9.9	11	11	12	11	12	9.2	14	9.7	7.5	12	9.0
6	9.5	11	11	12	12	12	11	13	9.6	9.4	12	12
7	9.9	11	11	11	12	12	12	16	12	8.6	12	12
8	9.5	11	11	11	12	12	13	13	10	7.6	10	15
9	9.9	11	11	11	12	10	17	14	8.3	9.5	10	14
10	9.9	9.9	12	11	15	9.9	18	13	6.9	9.2	7.0	15
11	10	9.9	12	12	16	12	18	13	7.4	9.5	10	14
12	9.9	9.9	11	12	18	12	16	12	8.2	10	10	14
13	9.2	9.9	11	11	17	12	18	12	4.6	11	8.6	14
14	9.5	10	11	12	17	9.2	18	12	3.8	12	8.6	15
15	11	11	11	12	16	6.4	18	12	4.2	20	8.6	15
16	12	11	11	12	16	6.7	16	6.3	10	8.1	9.2	13
17	13	11	11	12	16	6.7	15	6.6	9.8	7.3	9.9	13
18	12	11	11	13	15	7.5	11	8.3	9.8	8.3	9.9	11
19	11	13	11	13	13	7.7	12	11	9.8	9.2	9.2	11
20	12	12	11	13	12	7.7	12	9.9	7.7	9.6	9.9	11
21	12	12	12	13	13	6.0	13	10	5.9	12	9.5	11
22	12	12	12	12	11	7.2	13	9.5	4.9	10	7.5	11
23	12	12	11	12	7.7	6.0	13	9.5	5.8	59	8.0	11
24	12	11	11	12	7.5	11	12	8.8	6.8	16	7.4	12
25	12	12	11	12	7.7	9.9	12	7.9	7.1	14	9.9	11
26	12	12	11	9.5	12	11	11	8.5	8.0	11	11	11
27	11	12	11	8.9	9.9	11	9.5	8.2	6.0	11	11	11
28	12	12	11	10	7.7	9.2	9.2	7.7	5.8	13	11	10
29	12	12	11	12	7.7	12	9.9	9.8	5.4	12	9.9	11
30	12	12	11	11	---	12	10	6.4	6.7	12	11	11
31	12	---	11	11	---	12	---	7.2	---	12	12	---
TOTAL	341.1	337.6	348	361.4	357.1	299.4	389.1	312.3	231.4	361.0	313.1	366.0
MEAN	11.0	11.3	11.2	11.7	12.3	9.66	13.0	10.1	7.71	11.6	10.1	12.2
MAX	13	13	12	13	18	12	18	16	12	59	12	15
MIN	9.2	9.9	11	8.9	7.5	6.0	8.3	5.5	3.8	5.1	7.0	9.0
AC-FT	677	670	690	717	708	594	772	619	459	716	621	726

CAL YR 1975 TOTAL 3985.9 MEAN 10.9 MAX 40 MIN 3.7 AC-FT 7910  
WTR YR 1976 TOTAL 4017.5 MEAN 11.0 MAX 59 MIN 3.8 AC-FT 7970

## TULAROSA VALLEY BASIN

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08481500 RIO TULAROSA NEAR BENT, NM -- Continued

## WATER-QUALITY RECORDS

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

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA.MG) (MG/L) (00900)
OCT										
30...	1245	11	1340	7.8	22.0	14.0	3	8.0	4	680
NOV										
19...	1130	12	1400	7.9	8.5	8.0	14	11.5	12	720
DEC										
17...	1000	11	1400	8.0	11.0	3.0	20	--	4	740
JAN										
09...	1200	11	1500	8.0	13.0	10.0	15	11.1	5	830
FEB										
04...	1030	11	1600	8.0	12.0	7.0	9	9.6	8	830
MAR										
10...	1000	9.5	1550	7.9	16.5	7.0	18	9.8	14	890
APR										
14...	0900	17	1500	8.0	19.5	12.5	17	8.5	6	830
MAY										
21...	1300	11	1550	8.0	24.0	19.0	15	7.8	7	820
JUN										
18...	1630	9.9	1500	8.0	30.5	22.5	10	7.0	16	710
JUL										
23...	1545	23	2570	8.0	23.5	16.0	7500	7.8	3500	1500
AUG										
31...	1802	12	1500	7.8	16.5	16.5	380	7.8	93	810

DATE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
OCT									
30...	490	180	56	43	.7	1.4	234	0	490
NOV									
19...	490	200	53	46	.7	4.2	279	0	460
DEC									
17...	530	200	58	43	.7	1.4	254	0	490
JAN									
09...	600	230	61	46	.7	1.5	271	0	610
FEB									
04...	620	220	69	47	.7	1.4	259	0	580
MAR									
10...	680	250	65	53	.8	1.5	261	0	650
APR									
14...	640	230	63	46	.7	1.5	237	0	580
MAY									
21...	630	220	65	45	.7	1.2	228	0	600
JUN									
18...	560	190	58	45	.7	1.5	189	0	550
JUL									
23...	1400	560	33	25	.3	4.7	165	0	1400
AUG									
31...	630	230	57	44	.7	2.3	213	0	610

## TULAROSA VALLEY BASIN

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	TOTAL NITRITE NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)
OCT 30...	61	.4	13	1020	962	.30	.30	.01	.76
NOV 19...	62	.3	7.1	1050	971	.40	.21	.00	.51
DEC 17...	56	.4	13	1090	990	.57	.56	.00	.14
JAN 09...	64	.5	13	1160	1160	.90	.82	.03	.28
FEB 04...	70	.5	12	1210	1130	1.3	1.3	.00	.51
MAR 10...	76	.5	13	1360	1240	.76	.73	.04	.36
APR 14...	69	.5	12	1200	1120	.61	.59	.01	.36
MAY 21...	75	.5	13	1220	1130	.47	.46	.03	.13
JUN 18...	80	.5	15	1150	1030	.31	.36	.01	.22
JUL 23...	34	.5	6.6	2240	2150	2.2	1.8	.03	7.4
AUG 31...	59	.5	12	1200	1120	.50	.50	.00	1.9

DATE	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHOPHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS- SOLVED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDE D ORGANIC CARBON (C) (MG/L) (00689)
OCT 30...	1.1	.02	.02	50	0	--	--	10	.4
NOV 19...	.91	.03	.01	50	20	20	--	16	1.0
DEC 17...	.71	.01	.01	50	20	--	--	5.6	--
JAN 09...	1.2	.01	.00	60	10	--	--	4.4	1.0
FEB 04...	1.8	.01	.00	60	10	--	--	3.0	--
MAR 10...	1.2	.06	.01	60	0	40	4.4	4.1	.8
APR 14...	.98	.02	.01	180	30	--	--	2.5	1.6
MAY 21...	.63	.02	.01	60	40	30	2.4	1.8	--
JUN 18...	.54	.03	.00	70	0	--	--	9.4	.8
JUL 23...	9.6	5.9	.01	50	40	--	--	8.5	10
AUG 31...	2.4	.95	.01	50	20	--	--	4.4	5.0

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)
NOV 19...	1130	1	0	50	<10	0	10	10	100	1	10	1
MAR 10...	1000	1	1	60	<10	0	10	0	<50	2	10	1
MAY 21...	1300	1	0	60	0	0	30	0	0	0	0	0

DATE	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV 19...	840	20	<100	0	70	20	.0	.0	1	1	10	0
MAR 10...	680	0	100	1	90	40	.0	.0	2	1	20	0
MAY 21...	690	40	0	0	60	30	.3	.3	0	0	20	0

## TULAROSA VALLEY BASIN

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08481500 RIO TULAROSA NEAR BENT, NM -- Continued  
 MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCHI (COL- ONIES PER 100 ML) (31679)
NOV			
19...	1130	24	200
DEC			
17...	1000	8	55
JAN			
09...	1200	30	100
FEB			
04...	1030	2	3
MAR			
10...	1000	0	0
APR			
14...	0900	2600	120
MAY			
21...	1300	15	18
JUN			
18...	1630	74	250
JUL			
23...	1545	1800	1700
AUG			
31...	1802	900	950

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 30, 1975  
 1245 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,400 CELLS/ML				
ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSTOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...ACHNANTHACEAE				
D ....ACHNANTHES		610	45	
....COCCONEIS		56	4	
...GOMPHONEMACEAE				
....GOMPHONEMA		170	12	
...NAVICULACEAE	NAVICULOID			
D ....NAVICULA		310	22	
...NITZSCHACEAE				
....NITZSCHIA		170	12	
...SURIPELLACEAE				
....SURIPELLA		56	4	
TOTALS		1,400	99	2.121=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 1.919  
 GENERA 2.121

DEC. 17, 1975  
 1000 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

130 CELLS/ML				
ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSTOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
D ....NAVICULA		37	29	
...NITZSCHACEAE				
D ....NITZSCHIA		91	71	
TOTALS		130	100	0.863=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
.MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIA				
L ....OSCILLATORIA			0	

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 0.863  
 GENERA 0.863

## TULAROSA VALLEY BASIN

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JAN. 9, 1976

1200 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

210 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
...CHLOROCOCCALES			
...SCENEDESMACEAE			
....SCENEDESMUS			
	TOTALS	25	12
		25	12
			0.000=DI
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNIALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		25	12
...GOMPHONEMATACEAE			
....GOMPHONEMA		25	12
...NAVICULACEAE	NAVICULOID		
L ...GYROSIGMA			0
D ...NAVICULA		110	53
...NITZSCHIAEAE			
....NITZSCHIA			
	TOTALS	25	12
		190	89
			1.605=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.523  
 CLASS 0.523  
 ORDER 0.523  
 FAMILY 1.939  
 GENERA 1.939

FEB. 4, 1976  
 1030 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

210 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..ZYGNEMATALES			
...DESMIDIACEAE	PLACODERM DESMIOS		
L ....CLOSTERIUM			0
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNIALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		19	9
...CYMBELLACEAE			
L ....CYMBELLA			0
...DIATOMACEAE			
L ....DIATOMA			0
...FRAGILARIACEAE			
...SYNEORA		19	9
...NAVICULACEAE	NAVICULOID		
L ....AMPHIPRORA			0
L ...GYROSIGMA			0
D ...NAVICULA		150	73
...NITZSCHIAEAE			
....NITZSCHIA		19	9
...SURIARELLACEAE			
L ....SURIARELLA			0
	TOTALS	210	100
			1.278=DI
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
L ....ANACYSTIS			0

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

FAMILY 1.278  
 GENERA 1.278

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAR. 10, 1976  
1000 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

350 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE			
...ACHNANTHES		21	6
...NAVICULACEAE	NAVICULOID		
D ...NAVICULA		250	71
...NITZSCHACEAE			
...NITZSCHIA		42	12
...SURIRELLACEAE			
...SURIRELLA		42	12
TOTALS		350	101
			1.322=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
FAMILY 1.322  
GENERA 1.322

APR. 14, 1976  
0900 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

600 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA			
..CHLOROPHYCEAE	GREEN ALGAE		
..CHLOROCOCCALES			
...OOCYSTACEAE			
...ANKISTRODESMUS			
TOTALS		24	4
		24	4
			0.000=DI
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE			
...ACHNANTHES		37	6
...CYMBELLACEAE			
...CYMBELLA		24	4
...FRAGILARIACEAE			
...SYNEDRA		12	2
...NAVICULACEAE	NAVICULOID		
...GYROSTIGMA		12	2
D ...NAVICULA		240	41
...NITZSCHACEAE			
D ...NITZSCHIA		170	29
...SURIRELLACEAE			
...SURIRELLA		73	12
TOTALS		570	96
			2.108=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
PHYL/DIV 0.246  
CLASS 0.246  
ORDER 0.246  
FAMILY 2.149  
GENERA 2.268

## TULAROSA VALLEY BASIN

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAY 21, 1976  
1300 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

600 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE		11	2
....ACHNANTHES			
...FRAGILARIACEAE		11	2
....SYNEDRA			
...NAVICULACEAE	NAVICULOID		
....GYROSIGMA		11	2
D ....NAVICULA		280	47
...NITZSCHACEAE			
D ....NITZSCHIA		270	45
...SURIRELLACEAE			
....SURIRELLA		11	2
TOTALS		600	100

1.448=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
FAMILY 1.336  
GENERA 1.448

JUNE 18, 1976  
1630 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,800 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE		460	26
D ....ACHNANTHES			
...CYMBELLACEAE		26	1
....CYMBELLA			
...NAVICULACEAE	NAVICULOID		
D ....NAVICULA		880	49
...NITZSCHACEAE			
D ....NITZSCHIA		440	24
TOTALS		1,800	100

1.593=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
FAMILY 1.593  
GENERA 1.593

JULY 23, 1976  
1545 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

3,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CYANOPHYTA	BLUE-GREEN ALGAE		
.MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORACEAE			
D ....OSCILLATORIA		3,000	100
TOTALS		3,000	100

0.000=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE



08481500 RIO TULAROSA NEAR BENT, NM -- Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

AUG. 31, 1976  
1802 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

3.100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINOIDISCEAE			
....CYCLOTELLA		380	12
..PENNALES	PENNATE		
...FRAGILARIACEAE			
D ....ASTERIONELLA		770	25
...GOMPHONEMACEAE			
....GOMPHONEMA		190	6
...NAVICULACEAE	NAVICULOID		
D ....NAVICULA			
	TOTALS	<u>1,700</u> 3,100	<u>56</u> 99
			1.592=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
ORDER 0.544  
FAMILY 1.592  
GENERA 1.592

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PEN- DED SEDI- MENT (MG/L) (80154)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
30...	1245	11	14.0	52	1.5	86
NOV						
19...	1130	12	8.0	63	2.0	68
DEC						
17...	1000	11	3.0	34	1.0	33
JAN						
09...	1200	11	10.0	55	1.6	64
FEB						
04...	1030	11	7.0	26	.77	83
MAR						
10...	1000	9.5	7.0	39	1.0	58
APR						
14...	0900	17	12.5	100	4.6	57
MAY						
21...	1300	11	19.0	23	.68	82
JUN						
18...	1630	9.9	22.5	43	1.1	95
JUL						
23...	1545	23	16.0	35200	2190	96
AUG						
31...	1802	12	16.5	1700	55	88

## COLORADO RIVER BASIN

## SAN JUAN RIVER BASIN

09346400 SAN JUAN RIVER NEAR CARRACAS, CO

LOCATION.--Lat 37°00'49", long 107°18'42", in SE¼SW¼ sec.17, T.32 N., R.4 W., Archuleta County, Hydrologic Unit 14080101, on right bank just upstream from flow line of Navajo Reservoir, 3 mi (5 km) northwest of Carracas, 7.2 mi (11.6 km) upstream from Piedra River, and at mile 332.8 (535.5 km).

DRAINAGE AREA.--1,230 mi<sup>2</sup> (3,190 km<sup>2</sup>), approximately.

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

GAGE.--Water-stage recorder. Altitude of gage is 6,090 ft (1,856 m), from river-profile map.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 11,000 acres (45 km<sup>2</sup>) above station. Highwater diversions above station into Rio Grande Basin through Azotea tunnel (08284160) began in March 1971. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 632 ft<sup>3</sup>/s (17.90 m<sup>3</sup>/s), 457,900 acre-ft/yr (565 hm<sup>3</sup>/yr) prior to completion of Azotea tunnel.  
6 years (water years 1971-76), 550 ft<sup>3</sup>/s (15.58 m<sup>3</sup>/s), 398,500 acre-ft/yr (491 hm<sup>3</sup>/yr) since completion of Azotea tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,730 ft<sup>3</sup>/s (276 m<sup>3</sup>/s) Sept. 6, 1970, gage height, 8.34 ft (2.542 m), from rating curve extended above 6,000 ft<sup>3</sup>/s (170 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum, about 5 ft<sup>3</sup>/s (0.1 m<sup>3</sup>/s) Dec. 10, 1961, result of freezeup.

Other major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911; June 29, 1927.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,880 ft<sup>3</sup>/s (81.6 m<sup>3</sup>/s) at 0600 hours June 6, gage height, 5.01 ft (1.527 m), no other peak above base of 2,500 ft<sup>3</sup>/s (71 m<sup>3</sup>/s); minimum daily, 72 ft<sup>3</sup>/s (2.04 m<sup>3</sup>/s) Nov. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	167	80	105	115	314	337	965	1830	797	281	138
2	135	166	92	110	110	300	426	1090	1980	715	252	119
3	129	153	108	108	120	266	538	1220	1970	640	256	113
4	130	147	105	112	118	249	663	1260	2100	564	380	101
5	128	144	96	120	110	200	649	1250	2320	533	231	85
6	119	139	105	100	100	193	579	1400	2520	494	191	117
7	116	137	120	115	110	237	484	1570	2140	463	163	199
8	118	131	110	110	125	259	543	1400	2080	443	159	175
9	123	128	112	115	130	284	594	1210	2120	425	182	156
10	125	123	118	120	160	328	695	1140	2090	392	250	286
11	128	113	122	115	178	393	781	1150	1940	350	228	324
12	128	111	110	110	168	260	868	1200	1660	349	232	250
13	125	88	120	115	168	228	798	1200	1550	416	198	206
14	125	120	122	105	168	223	654	1330	1440	336	176	180
15	125	116	113	110	160	249	566	1630	1330	286	158	178
16	122	117	96	114	135	283	556	2080	1240	267	150	176
17	112	115	94	114	135	379	520	2320	1170	260	135	190
18	113	114	95	114	118	521	494	2340	1020	251	170	172
19	115	108	104	115	140	648	586	2310	1020	239	184	168
20	112	133	105	120	160	544	607	2110	1050	222	220	153
21	112	113	115	110	208	437	633	2120	1110	204	267	144
22	107	108	115	115	147	457	628	1990	1130	207	245	196
23	109	115	115	120	147	579	598	1730	1140	185	211	238
24	134	100	96	110	158	610	654	1660	976	171	203	366
25	125	112	90	100	174	693	718	1710	853	167	238	775
26	121	110	88	105	176	686	754	1540	764	230	210	650
27	134	112	80	110	196	639	792	1630	716	308	177	479
28	139	120	85	112	224	560	831	1870	685	254	172	404
29	140	112	95	110	260	464	976	2010	607	195	172	369
30	137	72	100	110	---	358	923	2120	638	183	150	339
31	139	---	90	120	---	322	---	1840	---	197	138	---
TOTAL	3862	3644	3196	3469	4418	12163	19445	50395	43189	10743	6379	7446
MEAN	125	121	103	112	152	392	648	1626	1440	347	206	248
MAX	140	167	122	120	260	693	976	2340	2520	797	380	775
MIN	107	72	80	100	100	193	337	965	607	167	135	85
AC-FT	7660	7230	6340	6880	8760	24130	38570	99960	85670	21310	12650	14770
CAL YR 1975 TOTAL	297535		MEAN 815	MAX 4600	MIN 72	AC-FT 590200						
WTR YR 1976 TOTAL	168349		MEAN 460	MAX 2520	MIN 72	AC-FT 333900						

LOCATION.--Lat 37°05'18", long 107°23'50", in NE¼SW¼ sec.21, T.33 N., R.5 W., Archuleta County, Hydrologic Unit 14080102, on left bank 3 mi (5 km) downstream from Ignacio Creek, 5.2 mi (8.4 km) northeast of Arboles Post Office, and 8 mi (13 km) upstream from mouth.

PERIOD OF RECORD.--August 1962 to current year. Gage operated 1895-1899, 1910-1927 at a site 7.5 mi (12.1 km) downstream at altitude 6,000 ft (1,830 m). Low flow records probably not equivalent.

GAGE.--Water-stage recorder. Datum of gage is 6,147.52 ft (1,873.764 m) above mean sea level, from Colorado State Highway Department bench mark.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 2,800 acres (11 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,370 ft<sup>3</sup>/s (237 m<sup>3</sup>/s) Sept. 6, 1970, gage height, 6.38 ft (1.945 m) recorded, 7.55 ft (2.301 m) from floodmarks, from rating curve extended above 3,300 ft<sup>3</sup>/s (93 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; minimum, 11 ft<sup>3</sup>/s (0.31 m<sup>3</sup>/s) Dec. 9, 1963, Oct. 1, 1966.  
Other major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,790 ft<sup>3</sup>/s (50.7 m<sup>3</sup>/s) at 0530 hours May 18, gage height, 3.75 ft (1.143 m), no other peak above base of 1,500 ft<sup>3</sup>/s (42 m<sup>3</sup>/s); minimum daily, 40 ft<sup>3</sup>/s (1.13 m<sup>3</sup>/s) Nov. 30.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	82	44	56	62	98	420	782	1250	423	124	112
2	69	78	50	60	60	98	546	870	1360	388	149	105
3	67	75	60	56	62	100	619	983	1270	349	136	97
4	65	71	57	60	60	100	677	1000	1410	308	167	94
5	64	70	54	62	60	88	616	972	1560	278	138	86
6	62	70	56	54	70	84	507	1090	1560	256	118	88
7	59	69	60	59	75	96	434	1200	1430	232	108	121
8	59	69	57	59	78	104	471	1180	1390	236	104	119
9	62	67	56	60	85	112	528	1020	1400	217	115	107
10	61	65	57	62	90	124	641	933	1440	205	191	132
11	62	64	58	60	90	148	754	934	1310	193	153	152
12	60	64	54	58	83	133	892	971	1110	175	158	134
13	58	56	62	59	83	106	800	936	998	166	140	122
14	57	59	60	57	101	120	626	972	940	160	126	113
15	58	60	57	57	98	130	534	1230	826	154	115	107
16	59	62	50	57	85	139	506	1450	774	142	106	114
17	60	62	48	58	81	172	445	1510	746	139	101	126
18	60	62	49	59	68	232	405	1640	643	139	106	126
19	60	65	51	60	66	345	434	1610	635	126	133	115
20	61	65	52	55	73	380	554	1590	672	116	283	104
21	62	62	56	56	68	325	492	1500	723	114	268	101
22	62	57	64	57	63	350	482	1400	718	114	226	113
23	66	47	54	61	64	492	489	1190	722	116	190	119
24	75	53	49	57	68	546	512	1140	588	108	190	108
25	61	56	45	53	65	726	590	1130	508	116	175	159
26	59	45	52	54	65	675	626	967	459	139	165	492
27	63	54	47	54	70	577	624	1030	418	151	147	452
28	65	64	48	58	76	430	691	1230	397	131	132	357
29	65	56	44	58	86	340	821	1280	370	115	125	288
30	65	40	49	58	---	276	747	1430	389	108	122	253
31	68	---	47	59	---	288	---	1230	---	111	120	---
TOTAL	1943	1869	1647	1793	2155	7934	17483	36400	28016	5725	4631	4716
MEAN	62.7	62.3	53.1	57.8	74.3	256	583	1174	934	185	149	157
MAX	75	82	64	62	101	726	892	1640	1560	423	283	492
MIN	57	40	44	53	60	84	405	782	370	108	101	86
AC-FT	3850	3710	3270	3560	4270	15740	34680	72200	55570	11360	9190	9350
CAL YR 1975	TOTAL	220810	MEAN	605	MAX	3570	MIN	40	AC-FT	438000		
WTR YR 1976	TOTAL	114312	MEAN	312	MAX	1640	MIN	40	AC-FT	226700		



09355000 SPRING CREEK AT LA BOCA, CO

LOCATION.--Lat 37°00'40", long 107°35'47", in SE¼SW¼ sec.15, T.32 N., R.7 W., La Plata County, Hydrologic Unit 14080101, on right bank in an excavated channel, 0.2 mi (0.3 km) upstream from mouth, and 0.2 mi (0.3 km) east of La Boca.

DRAINAGE AREA.--58 mi<sup>2</sup> (150 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733.

GAGE.--Water-stage recorder. Altitude of gage is 6,160 ft (1,878 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Part of flow is return waste from irrigation. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 30.1 ft<sup>3</sup>/s (0.852 m<sup>3</sup>/s), 21,810 acre-ft/yr (26.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980 ft<sup>3</sup>/s (56.1 m<sup>3</sup>/s) Sept. 6, 1970, gage height, 4.62 ft (1.408 m), from rating curve extended above 160 ft<sup>3</sup>/s (4.53 m<sup>3</sup>/s) on basis of field estimate of peak flow; maximum gage height, 5.98 ft (1.823 m) Mar. 9, 1960 (backwater from ice); minimum discharge, 0.6 ft<sup>3</sup>/s (0.017 m<sup>3</sup>/s) Nov. 27, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft<sup>3</sup>/s (5.1 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
July 27	0215	*652 18.5	2.70 0.823
Sept 25	2200	362 10.3	2.00 0.610

Minimum daily, 2.5 ft<sup>3</sup>/s (0.071 m<sup>3</sup>/s) Jan. 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	27	4.0	3.6	2.8	6.3	5.1	26	60	85	104	67
2	41	15	4.2	3.5	2.9	7.1	5.3	32	61	84	98	67
3	46	10	4.4	4.4	2.9	6.7	5.6	30	60	78	94	63
4	47	8.8	4.4	4.2	3.0	5.1	5.8	30	56	76	95	63
5	45	7.2	4.2	4.2	3.3	4.3	6.4	26	59	80	90	62
6	44	6.5	4.4	4.2	4.0	4.7	6.5	42	62	77	82	87
7	45	6.3	4.3	4.1	4.8	4.5	6.4	57	66	76	81	82
8	47	6.3	4.1	3.8	5.2	3.8	6.7	59	61	74	90	78
9	50	6.2	4.3	3.4	5.6	3.5	6.6	72	61	68	100	79
10	52	6.4	4.2	3.1	4.7	3.5	6.8	62	55	67	95	97
11	52	6.1	4.5	3.2	4.8	3.3	6.8	53	54	69	93	99
12	48	5.8	5.2	3.0	4.9	3.5	14	61	58	63	87	88
13	48	5.7	4.7	3.0	5.2	3.9	58	54	62	64	79	83
14	46	5.9	3.9	3.0	5.4	3.5	47	50	66	69	71	78
15	46	6.0	3.8	3.1	4.9	3.1	14	47	71	66	73	81
16	40	6.7	3.8	3.2	4.9	3.1	15	50	73	62	72	87
17	38	6.3	3.8	3.4	5.2	3.1	22	51	72	69	74	87
18	36	5.0	4.0	3.5	4.5	3.1	13	50	79	75	89	96
19	37	4.5	4.3	3.3	4.6	3.2	11	55	72	75	100	80
20	38	4.4	4.1	3.2	4.3	3.2	8.6	69	65	75	100	74
21	38	4.4	4.1	3.2	4.2	3.1	7.5	85	73	73	98	73
22	41	4.3	4.3	2.8	4.7	3.9	16	81	83	74	100	82
23	58	4.4	4.2	2.7	4.7	3.5	18	79	86	78	98	77
24	37	4.3	4.0	2.6	5.1	3.9	12	70	79	87	89	87
25	29	4.2	4.0	2.5	4.7	3.7	12	58	74	120	88	168
26	31	4.1	4.0	2.5	5.1	3.9	11	61	73	102	85	111
27	32	4.6	3.7	2.5	5.5	4.4	7.7	57	77	222	76	99
28	31	4.3	3.5	2.6	5.9	4.6	18	54	74	99	67	74
29	29	4.5	3.9	2.8	5.5	4.3	27	55	78	96	67	59
30	31	3.8	3.9	2.9	---	5.1	27	55	79	93	68	57
31	32	---	3.5	2.8	---	5.1	---	58	---	95	65	---
TOTAL	1276	199.0	127.7	100.3	133.3	128.0	426.8	1689	2049	2591	2668	2485
MEAN	41.2	6.63	4.12	3.24	4.60	4.13	14.2	54.5	68.3	83.6	86.1	82.8
MAX	58	27	5.2	4.4	5.9	7.1	58	85	86	222	104	168
MIN	29	3.8	3.5	2.5	2.8	3.1	5.1	26	54	62	65	57
AC-FT	2530	395	253	199	264	254	847	3350	4060	5140	5290	4930
CAL YR 1975 TOTAL	13451.4		MEAN 36.9	MAX 219	MIN 2.1	AC-FT 26680						
WTR YR 1976 TOTAL	13873.1		MEAN 37.9	MAX 222	MIN 2.5	AC-FT 27520						

## SAN JUAN RIVER BASIN

## 09355100 NAVAJO RESERVOIR NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'28", long 107°36'31", in SW¼SE¼ sec.18, T.30 N., R.7 W., San Juan County, Hydrologic Unit 14080101, in gate shaft of outlet works structure near right abutment of Navajo Dam on San Juan River, 5.5 mi (8.8 km) east of Archuleta, 33 mi (53 km) east of Farmington, and at mile 298.6 (480.4 km).

DRAINAGE AREA.--3,230 mi<sup>2</sup> (8,370 km<sup>2</sup>), approximately.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

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 (2.11 km<sup>3</sup>) between elevation 5,720 ft (1,743 m) upstream toe of dam and 6,085 ft (1,855 m) crest of spillway. Usable capacity 1,696,000 acre-ft (2.09 km<sup>3</sup>) above elevation 5,774.9 ft (1,760.19 m) minimum operating level. Dead storage below elevation 5,774.9 ft (1,760.19 m) is 12,600 acre-ft (15.5 km<sup>3</sup>). Figures given herein are usable contents. Reservoir is used for irrigation storage, river regulation, desilting, flood control, and recreation.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,731,000 acre-ft (2.13 km<sup>3</sup>) July 2-4, 1973, elevation, 6,087.25 ft (1,855.394 m); minimum daily contents after June 1964 (initial filling period), 234,300 acre-ft (289 km<sup>3</sup>) Mar. 10, 11, 1965, elevation, 5,906.36 ft (1,800.259 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,390,000 acre-ft (1.71 km<sup>3</sup>) Oct. 1, elevation, 6,063.64 ft (1,848.197 m); minimum daily contents, 1,083,000 acre-ft (1.34 km<sup>3</sup>) Mar. 18-23; minimum elevation, 6,037.53 ft (1,840.239 m) Mar. 23.

## 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

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1390000	1325000	1256000	1179000	1122000	1099000	1091000	1122000	1213000	1284000	1290000	1282000
2	1387000	1323000	1253000	1177000	1120000	1098000	1092000	1123000	1217000	1286000	1289000	1281000
3	1385000	1321000	1251000	1174000	1118000	1097000	1093000	1124000	1221000	1287000	1290000	1280000
4	1383000	1318000	1248000	1171000	1117000	1096000	1095000	1126000	1225000	1288000	1290000	1279000
5	1380000	1316000	1246000	1169000	1116000	1095000	1097000	1127000	1231000	1288000	1291000	1278000
6	1378000	1313000	1244000	1166000	1116000	1094000	1098000	1129000	1238000	1289000	1291000	1278000
7	1376000	1311000	1241000	1164000	1115000	1092000	1099000	1133000	1243000	1289000	1291000	1277000
8	1374000	1310000	1239000	1161000	1114000	1092000	1100000	1136000	1247000	1290000	1290000	1276000
9	1372000	1310000	1236000	1158000	1113000	1091000	1102000	1138000	1252000	1290000	1290000	1275000
10	1369000	1310000	1234000	1156000	1113000	1090000	1103000	1140000	1257000	1290000	1291000	1275000
11	1367000	1308000	1232000	1153000	1112000	1089000	1106000	1141000	1261000	1290000	1291000	1275000
12	1364000	1305000	1230000	1150000	1112000	1088000	1109000	1143000	1264000	1290000	1291000	1274000
13	1362000	1303000	1227000	1149000	1112000	1088000	1111000	1145000	1268000	1290000	1291000	1274000
14	1360000	1300000	1224000	1148000	1112000	1086000	1113000	1146000	1270000	1291000	1290000	1273000
15	1358000	1298000	1222000	1146000	1113000	1085000	1114000	1149000	1271000	1291000	1290000	1272000
16	1355000	1295000	1220000	1145000	1113000	1084000	1115000	1153000	1272000	1291000	1290000	1272000
17	1353000	1292000	1217000	1144000	1113000	1084000	1116000	1158000	1273000	1291000	1290000	1272000
18	1350000	1289000	1214000	1142000	1112000	1083000	1117000	1163000	1274000	1290000	1290000	1272000
19	1348000	1287000	1212000	1141000	1110000	1083000	1118000	1168000	1274000	1291000	1290000	1272000
20	1346000	1285000	1209000	1139000	1110000	1083000	1119000	1173000	1274000	1290000	1290000	1272000
21	1344000	1282000	1206000	1138000	1109000	1083000	1121000	1178000	1276000	1290000	1290000	1272000
22	1342000	1279000	1205000	1136000	1108000	1083000	1122000	1183000	1277000	1290000	1290000	1271000
23	1339000	1276000	1202000	1135000	1107000	1083000	1122000	1186000	1278000	1289000	1289000	1271000
24	1337000	1274000	1200000	1133000	1106000	1084000	1122000	1189000	1279000	1288000	1289000	1271000
25	1335000	1273000	1197000	1132000	1104000	1085000	1121000	1190000	1279000	1287000	1288000	1272000
26	1333000	1270000	1195000	1130000	1103000	1088000	1121000	1194000	1279000	1287000	1287000	1276000
27	1330000	1267000	1192000	1128000	1102000	1088000	1120000	1196000	1279000	1288000	1287000	1279000
28	1329000	1264000	1190000	1127000	1101000	1089000	1121000	1199000	1280000	1289000	1286000	1281000
29	1329000	1262000	1187000	1126000	1100000	1090000	1121000	1202000	1281000	1289000	1285000	1282000
30	1329000	1259000	1185000	1125000	---	1090000	1121000	1207000	1282000	1289000	1284000	1283000
31	1327000	---	1182000	1123000	---	1090000	---	1210000	---	1289000	1283000	---
MAX	1390000	1325000	1256000	1179000	1122000	1099000	1122000	1210000	1282000	1291000	1291000	1283000
MIN	1327000	1259000	1182000	1108000	1100000	1083000	1091000	1122000	1213000	1284000	1283000	1271000
(+)	6058.72	6053.14	6046.56	6041.27	6039.10	6038.23	6041.11	6049.03	6055.10	6055.63	6055.14	6055.16
(#)	-65.0	-68.0	-77.0	-59.0	-23.0	-10.0	+31.0	+89.0	+72.0	+7.0	-6.0	0

CAL YR 1975 MAX 1528000 MIN 935000 (+) +211.6 (+) ELEVATION, IN FEET, AT END OF MONTH  
WTR YR 1976 MAX 1390000 MIN 1083000 (#) -109.0 (#) CHANGE IN CONTENTS, IN THOUSANDS OF ACRE-FEET.

## SAN JUAN RIVER BASIN

399

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'05", long 107°41'51", in N½ sec.20, T.30 N., R.8 W., San Juan County, Hydrologic Unit 14080101, on left bank 0.5 mi (0.8 km) upstream from Gobernador Canyon, 0.8 mi (1.3 km) northeast of Archuleta, 7.2 mi (11.6 km) downstream from Navajo Dam, and at mile 291.4 (468.9 km).

DRAINAGE AREA.--3,260 mi<sup>2</sup> (8,440 km<sup>2</sup>), approximately.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--The annual runoff for the 1958 water year as published in table 2, WSP 1733, is 455,000 acre-ft (561 hm<sup>3</sup>). The correct value is 1,455,000 acre-ft (1,790 hm<sup>3</sup>).

GAGE.--Water-stage recorder. Altitude of gage is 5,655 ft (1,723.6 m), from river-profile survey. Prior to Dec. 29, 1959, at site 5.0 mi (8.0 km) upstream at altitude 55 ft (17 m) higher. Dec. 29, 1959 to Dec. 15, 1964, at site 0.4 mi (0.6 km) upstream at altitude 5 ft (1.5 m) higher.

REMARKS.--Water-discharge records good. Flow completely regulated by Navajo Reservoir (station 09355100) 7 mi (11 km) upstream except for minor inflow from 30 mi<sup>2</sup> (80 km<sup>2</sup>) intervening drainage area. Highwater diversions through Azotea tunnel (station 08284160) into Rio Grande Basin began in March 1971. Diversions for irrigation of about 47,000 acres (190 km<sup>2</sup>) above 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,900 ft<sup>3</sup>/s (535 m<sup>3</sup>/s) July 27, 1957, gage height, 11.00 ft (3.353 m), site and datum then in use; minimum determined, 8 ft<sup>3</sup>/s (0.23 m<sup>3</sup>/s) Feb. 28, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft<sup>3</sup>/s (68.3 m<sup>3</sup>/s) May 20, gage height, 4.94 ft (1.506 m); minimum daily, 406 ft<sup>3</sup>/s (11.5 m<sup>3</sup>/s) Aug. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1540	1560	1570	1560	1040	1060	420	1400	1460	444	486	872
2	1500	1580	1570	1560	1040	1020	410	1400	1460	432	492	852
3	1530	1580	1570	1560	1040	1020	450	1410	1480	432	486	839
4	1530	1580	1570	1560	1040	1020	474	1410	1500	441	462	846
5	1540	1580	1570	1560	1030	1020	468	1410	1500	455	462	846
6	1540	1580	1570	1570	1030	1020	468	1410	1500	455	462	846
7	1550	1280	1570	1570	1030	1020	468	1400	1490	461	468	845
8	1560	480	1570	1570	1030	1020	468	1400	1450	467	474	838
9	1560	480	1570	1570	1030	1020	474	1400	1460	467	468	850
10	1560	480	1520	1570	1030	1020	474	1410	1470	467	449	866
11	1560	991	1570	1570	1020	1020	474	1410	1470	467	449	872
12	1570	1550	1570	1570	1020	1020	474	1400	1470	467	437	881
13	1560	1560	1580	1320	895	1020	480	1400	1470	467	426	890
14	1560	1560	1580	1040	552	1020	480	1410	1470	502	417	901
15	1550	1560	1570	1040	546	1020	480	1410	1470	492	406	902
16	1550	1560	1570	1040	540	1020	480	1410	1480	491	406	674
17	1550	1560	1550	1040	618	1020	480	1410	1480	491	414	437
18	1560	1570	1570	1040	820	1020	480	1410	1480	491	430	442
19	1560	1560	1560	1040	860	1020	480	1410	1490	486	515	451
20	1560	1560	1570	1040	876	1020	480	1500	1480	427	842	455
21	1560	1560	1570	1040	876	1020	486	1460	1470	426	850	448
22	1570	1560	1570	1040	876	1020	528	1450	1480	515	855	452
23	1570	1560	1570	1040	884	940	1000	1450	1480	1010	856	449
24	1580	1560	1570	1040	980	892	1370	1460	1480	1170	846	449
25	1570	1560	1570	1040	1070	713	1370	1460	1480	1190	846	469
26	1570	1560	1570	1040	1070	608	1370	1450	1480	899	851	461
27	1570	1560	1560	1040	1070	642	1370	1460	1390	543	860	463
28	1330	1560	1560	1040	1070	642	1390	1470	683	437	856	461
29	462	1570	1560	993	1080	546	1400	1470	449	440	857	461
30	480	1570	1560	1040	---	456	1400	1460	449	456	861	461
31	960	---	1560	1040	---	444	---	1460	---	486	872	---
TOTAL	45212	42831	48560	38783	27063	28363	21046	44270	41371	16874	18861	19979
MEAN	1458	1428	1566	1251	933	915	702	1428	1379	544	608	666
MAX	1580	1580	1580	1570	1080	1060	1400	1500	1500	1190	872	902
MIN	462	480	1520	993	540	444	410	1400	449	426	406	437
AC-FT	89680	84960	96320	76930	53680	56260	41740	87810	82060	33470	37410	39630
(†)	0	0	0	83	0	2010	2560	3400	7010	8330	4520	5550
CAL YR 1975 TOTAL	550037			MEAN 1507	MAX 2620	MIN 462	AC-FT 1091000					
WTR YR 1976 TOTAL	393213			MEAN 1074	MAX 1580	MIN 406	AC-FT 779900	(†) 33470				

† Discharge in acre-feet, through Navajo Project tunnel.

## SAN JUAN RIVER BASIN

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA+MG) (MG/L) (00900)
OCT										
16...	1300	1550	278	8.2	13.0	9.5	2	11.8	10	100
NOV										
14...	0945	1560	255	7.6	5.0	8.5	5	10.5	9	96
DEC										
02...	0835	1570	235	7.8	--	6.5	--	--	--	90
12...	0945	1570	230	7.9	3.5	6.5	15	10.8	6	84
JAN										
29...	1130	950	280	8.0	13.5	5.5	8	11.0	2	90
FEB										
25...	1331	1050	240	8.5	10.5	6.5	8	13.0	13	91
MAR										
23...	1305	892	260	7.2	23.5	7.5	8	12.0	10	100
APR										
26...	0950	630	285	8.0	14.5	6.0	6	12.2	9	100
MAY										
18...	1245	1410	290	8.4	29.5	6.0	5	13.5	6	95
JUN										
15...	1100	1430	275	8.7	25.0	5.0	5	13.0	17	95
JUL										
27...	1130	486	330	7.3	31.0	8.0	6	10.6	8	100
AUG										
24...	1145	812	300	7.8	26.5	7.0	6	11.2	7	100
SEP										
20...	1350	456	300	7.6	27.5	8.0	3	12.9	10	99

DATE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
OCT									
16...	20	30	6.5	14	.6	2.0	99	0	56
NOV									
14...	22	29	5.8	12	.5	1.9	91	0	47
DEC									
02...	16	27	5.4	11	.5	1.9	90	0	44
12...	13	25	5.2	11	.5	1.9	86	0	27
JAN									
29...	13	27	5.4	12	.6	1.9	93	0	40
FEB									
25...	16	28	5.2	13	.6	2.0	80	6	47
MAR									
23...	26	32	5.6	13	.6	1.9	94	0	43
APR									
26...	22	30	6.2	14	.6	1.9	96	0	57
MAY									
18...	21	29	5.6	14	.6	1.8	87	2	45
JUN									
15...	20	29	5.5	14	.6	2.0	92	0	45
JUL									
27...	27	32	5.9	14	.6	2.0	94	0	58
AUG									
24...	23	31	5.9	14	.6	1.9	96	0	48
SEP									
20...	30	30	5.9	14	.6	1.8	84	0	60



## SAN JUAN RIVER BASIN

401

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)
OCT 16...	2.5	.2	9.6	170	170	.08	.08	.05	.09
NOV 14...	1.8	.2	9.8	153	153	.14	.14	.00	.22
DEC 02...	2.7	.2	9.7	--	147	--	.11	--	--
12...	2.0	.2	11	161	127	.18	.18	.00	.33
JAN 29...	2.4	.2	9.3	148	144	.09	.09	.03	.37
FEB 25...	2.5	.2	9.2	140	153	.39	.07	.01	.19
MAR 23...	2.7	.1	8.9	158	154	.04	.04	.03	.21
APR 26...	3.1	.2	8.8	164	169	.02	.02	.01	.12
MAY 18...	2.4	.2	9.9	148	153	.01	.01	.00	.17
JUN 15...	2.3	.2	10	164	154	.02	.02	.02	.16
JUL 27...	2.8	.2	9.8	169	171	.08	.08	.00	.33
AUG 24...	3.1	.2	9.8	155	162	.10	.09	.00	.32
SEP 20...	2.3	.2	1.3	160	157	.11	.07	.00	.40

DATE	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS- SOL- VED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDEO ORGANIC CARBON (C) (MG/L) (00689)
OCT 16...	.22	.03	.00	20	0	--	--	5.6	.3
NOV 14...	.36	.04	.01	30	0	10	--	4.3	.1
DEC 02...	--	--	.01	10	0	--	--	--	--
12...	.51	.02	.00	0	0	--	--	5.9	.5
JAN 29...	.49	.00	.00	20	10	--	--	4.1	.9
FEB 25...	.59	.01	.01	20	0	10	3.0	3.0	.5
MAR 23...	.28	.02	.00	30	0	--	--	4.3	.4
APR 26...	.15	.00	.00	30	40	--	--	4.5	1.0
MAY 18...	.18	.01	.00	10	10	--	--	7.0	--
JUN 15...	.20	.02	.00	30	50	--	--	8.0	--
JUL 27...	.41	.02	.01	20	40	--	--	--	--
AUG 24...	.42	.03	.00	20	10	--	--	3.7	1.1
SEP 20...	.51	.01	.00	30	40	--	--	4.3	--

## SAN JUAN RIVER BASIN

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
NOV									
14...	0945	1	1	--	30	0	0	10	0
DEC									
02...	0835	2	--	40	10	--	--	--	--
FEB									
25...	1331	2	2	--	20	<10	0	0	0

DATE	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL LITHIUM (LI) (UG/L) (01132)
NOV									
14...	<50	0	10	2	430	0	0	0	--
DEC									
02...	--	--	--	--	--	0	<100	--	10
FEB									
25...	<50	0	10	3	200	0	<100	0	--

DATE	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV								
14...	30	10	.0	.0	1	1	0	
DEC								
02...	--	--	.0	--	0	--	--	
FEB								
25...	30	10	.0	.0	1	1	20	

## SAN JUAN RIVER BASIN

403

09357300 SAN JUAN RIVER ABOVE ANIMAS RIVER, AT FARMINGTON, NM

LOCATION.--Lat 36°43'10", long 108°12'45", in NE¼SE¼NE¼ sec.20, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080101, 100 ft (30 m) upstream from mouth of Animas River, at south edge of Farmington, and at mile 99 (159 km).

DRAINAGE AREA.--5,800 mi<sup>2</sup> (15,000 km<sup>2</sup>), approximately.

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

REMARKS.--Discharges are estimated from the streamflow records of the San Juan River at Farmington and Animas River at Farmington stations.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	AIR TEMPERATURE (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	DIS-SOLVED OXYGEN (MG/L) (00300)	HARDNESS (CA+MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)
OCT 16...	0830	1570	380	7.9	.5	6.0	10.6	130	40
NOV 13...	1700	1590	340	8.0	9.0	7.5	10.4	120	32
DEC 10...	1430	1590	320	8.1	14.0	7.0	10.5	110	33
JAN 28...	1145	987	370	8.0	5.0	5.0	10.9	130	41
FEB 25...	1630	1080	350	8.0	11.0	8.0	10.4	120	40
MAR 23...	1610	892	360	8.4	22.0	11.0	11.6	120	33
APR 20...	1510	500	580	8.4	20.5	15.5	11.2	180	73
MAY 18...	1430	1360	368	8.3	305	14.5	9.3	120	36
JUN 18...	1645	1780	380	9.0	30.5	14.0	10.2	120	35
JUL 27...	1330	486	1800	7.3	32.5	20.0	5.5	350	120
AUG 24...	1345	780	418	8.3	36.5	19.5	7.7	150	55
SEP 20...	1545	478	595	8.0	25.0	17.0	9.2	180	73

DATE	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNE-SIUM (MG) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED PHOSPHORUS (P) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)
OCT 16...	39	7.3	24	.9	2.0	107	0	85	3.3
NOV 13...	37	6.9	22	.9	2.0	108	0	79	3.4
DEC 10...	36	5.8	22	.9	1.8	98	0	72	2.4
JAN 28...	40	6.1	26	1.0	2.0	102	0	93	3.4
FEB 25...	39	6.5	25	1.0	2.0	103	0	92	2.8
MAR 23...	37	6.2	26	1.0	2.0	89	7	85	2.8
APR 20...	55	9.4	56	1.8	2.5	118	4	190	5.8
MAY 18...	37	6.7	24	1.0	2.0	102	0	88	3.4
JUN 18...	37	6.8	22	.9	2.0	104	0	85	3.2
JUL 27...	120	12	270	6.3	6.3	275	0	700	11
AUG 24...	48	6.6	34	1.2	2.3	112	0	120	3.8
SEP 20...	56	9.5	53	1.7	2.4	129	0	160	4.9

## SAN JUAN RIVER BASIN

09357300 SAN JUAN RIVER ABOVE ANIMAS RIVER, AT FARMINGTON, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT 16...	.2	9.4	--	223	.10	--	30	--
NOV 13...	.2	10	--	214	.13	.00	30	0
DEC 10...	.2	11	--	200	.09	.00	20	50
JAN 28...	.2	9.3	--	231	.16	.00	7	10
FEB 25...	.2	9.5	--	228	.11	.00	30	10
MAR 23...	.2	8.6	229	219	.03	.00	30	0
APR 20...	.2	8.4	--	390	.10	.00	50	40
MAY 18...	.3	8.7	--	221	.17	.00	30	40
JUN 18...	.2	8.6	--	216	.04	.02	30	60
JUL 27...	.8	10	--	1270	1.7	.03	130	210
AUG 24...	.3	9.8	--	281	.18	.01	40	40
SEP 20...	.3	9.9	--	361	.26	.02	50	10

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
NOV 13...	1700	2	--	30	0	<100	10	--	1
DEC 10...	1430	2	40	20	50	<100	10	.0	1

## 09363500 ANIMAS RIVER NEAR CEDAR HILL, NM

LOCATION.--Lat 37°02'17", long 107°52'25", in sec.7, T.32 N., R.9 W., La Plata County, Colorado, Hydrologic Unit 14080104, on right bank 0.8 mi (1.3 km) downstream from Florida River, 2.5 mi (4.0 km) upstream from Colorado-New Mexico State line, and 8.5 mi (13.7 km) north of Cedar Hill.

DRAINAGE AREA.--1,090 mi<sup>2</sup> (2,820 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for October and November 1933, published in WSP 1313.

REVISED RECORDS.--WSP 1563: 1940 and 1946 (monthly figures only).

GAGE.--Water-stage recorder. Altitude of gage is 5,960 ft (1,817 m), from topographic map. Prior to Sept. 14, 1937, at datum between 1.52 ft (0.46 m) and 1.36 ft (0.41 m) higher. Sept. 15, 1937, to Sept. 30, 1946, at datum 1.36 ft (0.41 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 20,000 acres (81 km<sup>2</sup>) above station. During water years 1944-49, Twin Rocks Canal diverted above station for irrigation below. Slight regulation by Lemon Dam about 30 mi (48 km) upstream on Florida River since November 1963 (capacity, 40,100 acre-ft or 49.4 km<sup>3</sup>). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 892 ft<sup>3</sup>/s (25.26 m<sup>3</sup>/s), 646,300 acre-ft/yr (797 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,100 ft<sup>3</sup>/s (371 m<sup>3</sup>/s) June 19, 1949, gage height, 11.45 ft (3.490 m); minimum, 63 ft<sup>3</sup>/s (1.78 m<sup>3</sup>/s) Jan. 21, 1935.

A major flood occurred in October 1911 at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,970 ft<sup>3</sup>/s (112 m<sup>3</sup>/s) at 1045 hours June 5, gage height, 7.17 ft (2.185 m), no peak above base of 4,000 ft<sup>3</sup>/s (110 m<sup>3</sup>/s); minimum daily, 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s) at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	386	282	200	220	220	282	335	941	2580	1260	532	356
2	381	263	210	200	210	294	367	1010	2920	1350	524	337
3	381	257	225	200	227	292	446	1220	2880	1270	525	329
4	370	255	230	200	220	266	516	1350	3220	1200	546	317
5	357	248	225	210	230	252	542	1360	3510	1120	552	299
6	350	251	227	210	245	248	513	1510	3510	1050	498	299
7	345	249	227	200	250	259	468	1650	3000	969	452	328
8	345	250	227	200	253	272	457	1480	2920	930	431	375
9	345	247	227	210	360	281	510	1410	3160	898	467	353
10	345	245	227	230	386	289	642	1340	3300	869	515	357
11	345	240	220	250	313	299	776	1380	3050	813	493	414
12	340	235	223	220	272	300	932	1540	2470	792	482	444
13	340	223	223	210	275	287	949	1550	2260	873	465	456
14	335	231	225	200	346	276	776	1640	2200	826	427	416
15	326	241	220	200	349	273	683	2300	1880	759	397	395
16	312	241	215	202	286	269	647	2700	1870	662	370	385
17	304	232	212	204	283	267	624	2950	1840	608	348	376
18	299	228	210	202	263	283	573	3280	1570	591	320	379
19	290	237	210	200	249	318	540	3080	1490	589	414	374
20	278	235	210	200	248	359	526	2990	1680	624	407	355
21	278	227	220	205	240	347	530	2860	2030	603	620	337
22	274	220	220	202	223	329	576	2760	2060	565	540	357
23	282	216	230	205	207	337	645	2420	2030	531	500	372
24	304	220	220	210	226	364	692	2350	1900	517	497	371
25	308	223	210	210	236	385	776	2350	1650	535	470	609
26	308	220	210	210	237	417	819	2110	1540	654	450	804
27	312	220	210	220	246	408	847	2290	1500	797	446	920
28	304	230	205	235	261	402	863	2830	1500	670	430	746
29	304	235	200	220	374	371	973	2840	1420	578	397	634
30	294	210	208	210	---	339	991	2780	1240	565	388	579
31	290	---	230	220	---	319	---	2440	---	552	373	---
TOTAL	10032	7111	6756	6515	7735	9684	19534	64711	68180	24620	14276	13073
MEAN	324	237	218	210	267	312	651	2087	2273	794	461	436
MAX	386	282	230	250	386	417	991	3280	3510	1350	620	920
MIN	274	210	200	200	207	248	335	941	1240	517	320	299
AC-FT	19900	14100	13400	12920	15340	19210	38750	128400	135200	48830	28320	25930
CAL YR 1975 TOTAL	457629			1254	MAX 7370	MIN 180	AC-FT 907700					
WTR YR 1976 TOTAL	252227			689	MAX 3510	MIN 200	AC-FT 500300					

## SAN JUAN RIVER BASIN

## 09364500 ANIMAS RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'17", long 108°12'05", in SW¼SW¼ sec.15, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080104, in Boyd City Park, on right bank 900 ft (274 m) upstream from bridge on former State Highway 17, 0.4 mi (0.6 km) downstream from bridge on State Highway 17, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--1,360 mi<sup>2</sup> (3,520 km<sup>2</sup>), approximately.

## WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Altitude of gage is 5,280 ft (1,609 m), from topographic map. Prior to Nov. 1, 1905, non-recording gage at old bridge 0.1 mi (0.2 km) upstream at different datum. Sept. 17, 1912, to Oct. 4, 1938, water-stage recorder at site 0.8 mi (1.3 km) downstream at lower datums (datum lowered 2.0 ft or 0.61 m Aug. 15, 1927, and raised 0.2 ft or 0.06 m Dec. 16, 1929). Oct. 5, 1938 to Nov. 1, 1973 at site 900 ft (274 m) downstream at datum 1.74 ft (0.53 m) lower.

REMARKS.--Water-discharge records good except those for winter period, which are poor. Diversions for irrigation of about 30,000 acres (120 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--65 years, 919 ft<sup>3</sup>/s (26.03 m<sup>3</sup>/s), 665,800 acre-ft/yr (821 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 25,000 ft<sup>3</sup>/s (710 m<sup>3</sup>/s) June 29, 1927, gage height, 8.5 ft (2.59 m), site and datum then in use, from rating curve extended above 10,000 ft<sup>3</sup>/s (283 m<sup>3</sup>/s); minimum, 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) Aug. 11, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, when a stage of about 16.5 ft (5.0 m) was reached (datum in use Oct. 1938 to Nov. 1973). Flood of Sept. 6, 1909, reached a stage of 11.1 ft (3.38 m), 1904-5 site and datum (discharge, about 19,000 ft<sup>3</sup>/s or 540 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft<sup>3</sup>/s (110 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
June 6	1700	4,080 116	7.12 2.170
July 27	0115	*4,260 121	7.20 2.195

Minimum discharge, 91 ft<sup>3</sup>/s (2.58 m<sup>3</sup>/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	289	220	249	247	264	263	778	2360	953	535	152
2	237	272	214	193	243	291	290	802	2730	1050	483	122
3	250	272	230	183	230	284	333	1000	2820	985	440	110
4	244	282	240	200	246	260	445	1210	3090	924	416	113
5	240	275	238	198	249	236	525	1260	3490	865	430	99
6	237	258	238	190	269	235	506	1300	3650	805	340	111
7	195	244	240	190	272	219	439	1610	3200	738	310	118
8	207	258	235	190	286	227	363	1370	2890	685	270	144
9	210	240	230	190	332	247	381	1310	3070	624	274	179
10	219	228	230	190	497	247	528	1150	3330	590	284	173
11	231	231	230	188	424	300	697	1190	3210	545	309	218
12	231	220	230	188	338	283	845	1290	2630	570	314	292
13	225	223	240	190	315	261	955	1390	2240	598	336	357
14	234	225	230	210	360	235	751	1420	2200	684	261	316
15	234	230	220	241	414	224	628	1940	2000	572	249	249
16	237	228	219	230	362	219	563	2860	1810	462	175	230
17	213	225	218	228	322	231	537	3120	1870	425	153	241
18	213	222	210	230	297	243	490	3190	1610	391	135	374
19	216	220	220	224	283	267	424	3010	1380	390	287	270
20	210	230	220	225	276	321	362	2820	1470	391	276	260
21	210	220	225	227	280	331	323	2720	1800	402	334	211
22	231	215	225	218	261	307	331	2570	1940	362	378	234
23	282	210	240	222	242	301	410	2310	1890	323	363	275
24	310	212	230	235	228	333	467	2050	1790	311	305	268
25	318	215	220	218	241	342	518	2100	1550	402	308	565
26	310	215	220	209	232	386	650	1980	1360	591	283	891
27	326	215	220	204	228	379	663	1960	1260	1340	236	1110
28	338	235	218	234	233	370	664	2490	1210	851	201	883
29	314	221	220	230	236	356	711	2780	1170	679	161	727
30	310	219	217	220	---	320	862	2720	1050	601	153	629
31	300	---	255	240	---	287	---	2500	---	552	162	---
TOTAL	7772	7049	7042	6584	8443	8806	15924	60200	66070	19661	9161	9921
MEAN	251	235	227	212	291	284	531	1942	2202	634	296	331
MAX	338	289	255	249	497	386	955	3190	3650	1340	535	1110
MIN	195	210	210	183	228	219	263	778	1050	311	135	99
AC-FT	15420	13980	13970	13060	16750	17470	31590	119400	131000	39000	18170	19680
CAL YR 1975 TOTAL	439480			1204	7300	192	871700					
WTR YR 1976 TOTAL	226633			619	3650	99	449500					

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

## WATER-QUALITY RECORDS

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

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1941 to current year.

WATER TEMPERATURES: December 1950 to current year.

SUSPENDED SEDIMENT DISCHARGE: December 1950 to current year.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,980 micromhos Aug. 19, 1964; minimum daily, 146 micromhos July 11, 1975.

WATER TEMPERATURES: Maximum, 32.0°C Aug. 26, 1966; minimum, 0.0°C on many days during winter months (each year).

SEDIMENT CONCENTRATIONS: Maximum daily, 36,800 mg/L July 23, 1954; minimum daily, 1 mg/L on several days during September 1956, September 1958, and September 1974.

SEDIMENT LOADS: Maximum daily, 337,000 tons (306,000 tonnes) July 23, 1954; minimum daily, less than .50 ton (.45 tonne) on many days during 1955-57, 1959, 1960, 1963, 1972, and 1974.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 913 micromhos Jan. 7; minimum daily, 154 micromhos Mar. 1.

WATER TEMPERATURES: Maximum, 26.0°C July 9, 12, Aug. 12; minimum, 0.0°C Jan. 1, 4, 8.

SEDIMENT CONCENTRATIONS: Maximum daily, 7,320 mg/L July 27; minimum daily, 13 mg/L Dec. 9.

SEDIMENT LOADS: Maximum daily, 38,800 tons (35,200 tonnes) May 19; minimum daily, 8.1 tons (7.3 tonnes) Dec. 9.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	AIR TEMPERATURE (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (JTU) (00070)	DISSOLVED OXYGEN (MG/L) (00300)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARDNESS (CA+MG) (MG/L) (00900)
OCT										
16...	1015	260	785	8.2	9.0	7.5	2	10.8	5	320
NOV										
12...	1615	220	850	8.3	9.0	6.5	0	10.7	6	370
DEC										
02...	1220	214	878	7.9	--	3.0	--	--	--	370
10...	1230	230	740	8.5	9.5	3.5	4	13.0	2	320
JAN										
28...	1200	213	800	8.1	6.0	2.5	9	11.7	1	370
FEB										
25...	1745	231	745	8.5	8.5	8.0	25	10.0	2	310
MAR										
23...	1645	286	740	8.3	21.0	10.0	38	10.2	7	300
APR										
20...	1630	306	560	8.6	23.0	15.0	10	9.8	9	240
MAY										
18...	1545	3610	260	7.8	24.5	11.5	45	8.5	26	100
JUN										
15...	1800	1900	325	8.4	27.0	13.0	15	8.8	13	110
JUL										
27...	1800	910	895	8.2	32.0	24.0	1800	6.6	110	340
AUG										
24...	1530	350	700	8.5	34.0	24.0	45	10.5	15	290
SEP										
20...	1700	237	795	8.3	30.0	19.0	30	9.1	11	300

DATE	NON-CARBONATE HARDNESS (MG/L) (00902)	DISSOLVED CALCIUM (CA) (MG/L) (00915)	DISSOLVED MAGNESIUM (MG) (00925)	DISSOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DISSOLVED PHOSPHATE (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DISSOLVED SULFATE (SO4) (MG/L) (00945)
OCT									
16...	140	100	16	41	1.0	3.3	217	0	190
NOV									
12...	200	120	17	46	1.0	3.8	209	0	220
DEC									
02...	180	120	17	46	1.0	3.8	230	0	220
10...	160	100	16	41	1.0	3.2	184	0	200
JAN									
28...	180	120	16	43	1.0	3.7	226	0	230
FEB									
25...	130	100	15	39	1.0	3.5	220	0	190
MAR									
23...	140	94	15	29	.7	3.2	192	0	160
APR									
20...	130	77	12	23	.6	2.5	138	0	150
MAY									
18...	34	34	4.4	5.8	.2	1.3	84	0	44
JUN									
15...	46	37	5.0	10	.4	1.4	82	0	59
JUL									
27...	200	120	9.8	73	1.7	4.9	168	0	300
AUG									
24...	140	94	13	34	.9	3.3	175	0	180
SEP									
20...	160	98	14	38	1.0	3.8	179	0	190

## SAN JUAN RIVER BASIN

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUORIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)
OCT 16...	22	.7	6.5	502	487	.01	.01	.06	.10
NOV 12...	28	.5	6.9	532	545	.01	.01	.00	.04
DEC 02...	27	.4	8.4	--	557	--	.24	--	--
10...	23	.5	6.7	516	482	.19	.12	.01	.45
JAN 28...	26	.5	8.8	559	562	.49	.47	.15	.36
FEB 25...	24	.4	7.7	499	490	.43	.43	.04	.18
MAR 23...	19	.3	7.4	449	423	.21	.19	.03	.30
APR 20...	15	.4	5.8	352	354	.02	.02	.01	.04
MAY 18...	3.8	.3	5.5	132	142	.17	.17	.01	.76
JUN 15...	5.9	.3	5.5	172	165	.14	.14	.00	.16
JUL 27...	19	.5	8.3	640	620	.37	.37	.05	4.7
AUG 24...	23	.4	7.4	421	442	.11	.08	.00	.72
SEP 20...	25	.5	7.8	474	466	.11	.07	.00	.41

DATE	TOTAL NITROGEN (N) (MG/L) (00600)	TOTAL PHOSPHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHOPHOSPHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS- SOLVED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDED ORGANIC CARBON (C) (MG/L) (00689)
OCT 16...	.17	.02	.00	90	0	--	--	3.2	.3
NOV 12...	.05	.00	.00	90	0	80	--	1.2	.2
DEC 02...	--	--	.00	80	10	--	--	--	--
10...	.65	.00	.00	40	0	--	--	6.2	.7
JAN 28...	1.0	.03	.03	80	0	--	--	4.5	.7
FEB 25...	.65	.06	.02	70	0	100	2.3	1.0	1.2
MAR 23...	.54	.10	.00	60	0	--	--	1.9	.7
APR 20...	.07	.01	.00	50	30	--	--	2.0	.5
MAY 18...	.94	.37	.00	1000	110	--	--	3.3	--
JUN 15...	.30	.03	.01	20	130	--	--	2.4	1.7
JUL 27...	5.1	.87	.01	80	100	--	--	--	2.9
AUG 24...	.83	.10	.00	70	10	--	--	8.9	1.5
SEP 20...	.52	.06	.00	80	10	--	--	2.8	1.7



## SAN JUAN RIVER BASIN

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09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
NOV									
12...	1615	2	0	--	90	0	0	<10	0
DEC									
02...	1220	1	--	100	80	--	--	--	--
FEB									
25...	1745	2	2	--	70	<10	0	0	0

DATE	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL LITHIUM (LI) (UG/L) (01132)
NOV									
12...	<50	0	10	2	160	0	<100	0	--
DEC									
02...	--	--	--	--	--	10	<100	--	50
FEB									
25...	<50	2	10	3	1300	0	<100	1	--

DATE	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV								
12...	110	80	.0	.0	1	1	10	4
DEC								
02...	--	--	.0	--	1	--	--	--
FEB								
25...	210	100	.0	.0	2	2	90	10

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE- D SEDI- MENT (MG/L) (80154)	SUS- PENDE- D SEDI- MENT CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)
FEB									
01...	1215	210	2.0	840	476	55	67	84	--
25...	1745	231	8.0	96	60	--	--	--	--
MAR									
11...	1430	301	11.0	437	355	--	--	--	--
23...	1745	293	10.0	107	85	--	--	--	--
APR									
27...	1515	664	16.0	3720	6670	9	10	15	34
MAY									
18...	1900	3570	12.0	1710	16500	9	13	20	49
JUN									
18...	1300	1520	16.5	1340	5500	33	42	62	--
JUL									
14...	1430	725	22.0	282	552	29	40	58	--
AUG									
24...	1600	310	24.0	187	157	--	--	--	--
SEP									
20...	1800	255	19.0	136	94	--	--	--	--

## SAN JUAN RIVER BASIN

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70331)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70332)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70333)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70334)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70335)
FEB 01...	--	--	--	--	93	94	96	100	--
25...	--	--	--	--	78	83	87	99	100
MAR 11...	--	--	--	--	99	--	--	--	--
23...	--	--	--	--	93	96	98	100	--
APR 27...	45	70	97	100	--	--	--	--	--
MAY 18...	66	83	98	100	--	--	--	--	--
JUN 18...	--	--	--	--	88	92	96	99	100
JUL 14...	--	--	--	--	91	97	99	100	--
AUG 24...	--	--	--	--	79	--	--	--	--
SEP 20...	--	--	--	--	81	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	665	750	785	826	759	154	494	614	475	666	767	602
2	664	769	778	817	768	807	491	591	474	695	735	578
3	653	677	816	812	829	750	497	277	473	547	746	618
4	663	751	730	835	783	810	493	286	474	599	757	585
5	640	702	745	852	678	782	465	237	386	567	741	596
6	652	759	752	850	782	781	456	239	384	690	761	582
7	670	769	723	913	733	834	457	252	381	718	752	618
8	670	788	763	759	826	821	447	251	383	702	713	573
9	717	828	793	906	765	854	440	233	366	699	738	591
10	703	783	846	875	833	761	441	231	363	697	761	585
11	683	819	817	860	690	823	440	236	431	617	761	595
12	710	787	767	824	770	792	434	234	418	688	759	587
13	687	780	790	860	784	721	379	208	529	576	584	608
14	696	773	809	799	747	701	375	207	530	606	572	583
15	678	780	832	722	771	798	380	218	509	606	562	598
16	685	823	840	827	804	703	373	210	535	618	558	575
17	695	780	837	816	784	704	342	229	537	592	569	706
18	706	776	811	815	737	651	337	229	696	597	553	711
19	730	782	820	867	795	781	343	210	699	629	580	708
20	720	760	826	823	800	747	338	213	609	637	562	703
21	727	785	820	806	773	517	347	229	708	628	581	683
22	738	812	829	840	790	636	341	229	601	612	571	720
23	725	797	867	838	795	650	344	228	569	614	560	730
24	718	783	858	804	800	624	336	229	597	618	552	686
25	728	838	836	778	782	621	322	293	540	620	622	718
26	748	772	826	811	793	549	319	292	571	740	591	747
27	886	777	802	832	799	---	263	292	548	888	579	693
28	678	774	829	846	804	487	256	295	545	779	572	711
29	710	793	912	856	---	502	315	265	616	784	582	709
30	742	797	853	792	---	568	318	546	619	751	583	700
31	782	---	840	768	---	656	---	---	---	756	592	---
MONTH	705	779	811	827	778	686	386	277	519	662	642	647
YFAR	MAX	913	MIN	154	MEAN	644						

## SAN JUAN RIVER BASIN

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09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER TEMPERATURE (DEG. ° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	13.0	3.0	0.0	2.0	7.0	13.0	14.5	16.0	20.0	23.0	17.0
2	18.0	11.5	2.0	1.0	3.0	6.5	13.0	13.5	15.5	22.5	22.0	17.0
3	17.5	12.0	6.0	1.0	3.5	7.0	13.0	14.0	15.5	23.0	23.0	17.0
4	17.0	12.0	4.5	0.0	4.5	7.5	14.0	14.0	13.0	21.5	22.0	17.0
5	14.0	12.0	4.0	1.5	4.5	8.0	13.0	15.0	14.0	22.0	22.5	17.0
6	14.5	11.5	4.5	1.0	5.0	7.0	12.0	15.5	15.0	23.0	23.5	18.0
7	15.5	12.0	5.0	0.5	5.5	9.0	12.5	16.0	15.0	24.0	21.0	19.0
8	16.5	12.0	4.5	0.0	5.5	11.0	12.5	15.0	16.5	25.0	21.0	16.5
9	16.5	10.0	2.0	1.0	7.5	8.0	13.5	15.5	17.0	26.0	21.5	17.5
10	14.0	9.0	3.0	1.0	6.0	9.5	14.0	16.0	16.0	25.0	21.0	17.0
11	13.5	8.0	2.0	1.5	7.5	11.0	14.5	16.0	15.0	25.0	25.0	17.0
12	12.0	6.5	3.5	1.0	8.0	10.0	14.5	16.0	15.5	26.0	26.0	17.0
13	13.0	7.0	3.0	1.0	6.5	9.0	12.0	16.0	14.5	22.5	23.5	17.5
14	14.0	7.0	3.0	2.0	6.0	10.0	13.0	16.0	15.0	22.0	23.5	18.0
15	17.0	6.5	2.0	1.5	5.0	11.0	15.0	15.0	15.0	23.0	23.0	15.0
16	12.0	15.5	2.5	2.0	5.5	11.0	13.0	16.0	15.0	23.0	21.5	15.5
17	12.5	5.0	2.0	1.5	6.5	12.0	12.5	15.0	16.0	24.0	22.0	16.0
18	14.5	5.5	3.0	2.0	6.0	14.0	12.0	15.5	16.5	25.0	20.5	17.0
19	10.5	6.0	4.0	4.0	7.0	12.0	12.0	16.0	16.0	24.0	21.5	15.0
20	13.5	4.5	3.0	4.0	7.5	13.0	15.0	16.0	18.0	23.5	21.0	15.5
21	15.0	5.0	2.5	3.0	8.0	7.0	13.0	15.0	20.5	23.0	21.5	16.0
22	13.0	6.0	2.5	2.0	8.5	9.0	13.0	14.0	20.0	23.5	22.0	16.5
23	11.5	6.0	2.0	4.5	8.0	9.0	13.5	16.0	20.5	20.0	22.5	17.0
24	10.0	6.5	2.5	2.5	8.0	12.0	12.5	17.0	20.0	20.0	21.5	17.0
25	9.5	5.5	3.0	1.0	8.0	13.0	13.0	16.5	21.0	19.5	20.5	16.5
26	8.5	4.5	3.0	2.0	7.5	14.0	15.0	16.0	21.5	19.0	19.5	17.0
27	10.0	4.0	3.0	4.0	7.5	14.5	16.0	16.0	22.0	23.0	19.0	16.0
28	11.0	3.0	1.5	4.0	6.0	14.0	16.0	16.0	22.0	19.0	20.0	16.0
29	14.5	3.0	2.5	3.0	---	14.0	15.5	16.0	23.5	19.0	18.5	17.0
30	10.0	3.5	0.5	4.0	---	13.5	15.0	16.0	22.0	19.0	18.0	17.0
31	10.0	---	1.0	3.0	---	13.5	---	---	---	19.0	19.0	---
MONTH	13.5	8.0	3.0	2.0	6.0	10.5	13.5	15.5	17.5	22.5	21.5	17.0
YEAR	MAX	26.0	MIN	0.0	MEAN	12.5						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18	12	16	12	14	8.3	157	106	878	586	143	102
2	23	15	14	10	32	18	179	93	658	432	99	78
3	25	17	14	10	32	20	151	75	228	142	137	105
4	210	139	20	15	19	12	132	71	147	98	208	146
5	30	19	19	14	17	11	122	65	195	131	122	78
6	15	9.5	22	15	19	12	129	66	130	94	145	92
7	16	8.3	25	16	18	12	153	78	112	82	249	147
8	17	9.3	28	19	20	13	93	48	144	111	295	181
9	16	8.9	20	13	13	8.1	131	67	143	128	938	626
10	19	11	15	9.2	14	8.7	155	80	92	123	470	313
11	18	11	28	18	20	12	129	65	161	184	451	365
12	14	8.7	26	15	21	13	151	77	130	119	255	195
13	19	12	125	75	22	14	102	52	60	51	214	151
14	22	14	17	10	27	17	107	61	148	144	292	185
15	21	13	16	9.9	33	20	84	55	248	277	260	157
16	28	18	17	10	27	16	149	93	103	101	312	184
17	18	10	32	19	31	18	163	100	56	49	223	139
18	17	9.8	25	15	20	11	101	63	63	51	96	63
19	16	9.3	26	15	27	16	96	58	61	47	323	233
20	21	12	50	31	23	14	116	70	88	66	376	326
21	41	23	42	25	30	18	105	64	130	98	371	332
22	26	16	181	105	17	10	114	67	112	79	151	125
23	45	34	39	22	15	9.7	69	41	62	41	96	78
24	59	49	47	27	19	12	67	43	53	33	325	292
25	49	42	45	26	18	11	55	32	73	48	142	131
26	52	44	51	30	31	18	69	39	80	50	75	78
27	31	27	44	26	21	12	95	52	86	53	88	90
28	25	23	35	22	27	16	160	101	99	62	447	447
29	19	16	39	23	42	25	176	109	106	68	747	718
30	15	12	405	239	33	19	391	232	---	---	177	153
31	21	17	---	---	22	15	335	217	---	---	130	101
MONTH	---	669.8	---	896.1	---	439.8	---	2440.0	---	3548.0	---	6411.0

## SAN JUAN RIVER BASIN

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (T/DAY)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (T/DAY)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (T/DAY)		MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (T/DAY)									
	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)	CONCENTRATION (MG/L)	LOADS (T/DAY)								
	APRIL				MAY				JUNE				JULY				AUGUST				SEPTEMBER			
1	98	70	209	439	27	172	67	172	232	335	266	109												
2	66	52	204	442	24	177	90	255	188	245	339	112												
3	86	77	3150	8500	27	206	195	519	130	154	272	81												
4	37	105	2010	6570	28	234	523	1300	123	138	397	121												
5	154	218	2820	9590	31	292	243	568	126	146	234	63												
6	143	195	1920	6740	27	266	69	150	125	115	181	54												
7	169	200	3910	17000	32	276	72	143	133	111	115	37												
8	148	145	1370	5070	23	179	158	292	137	190	167	65												
9	176	181	2270	8030	28	232	81	136	133	98	118	57												
10	77	110	950	2950	22	198	63	180	117	90	147	69												
11	75	141	1390	4180	30	222	183	269	145	121	141	83												
12	68	155	615	2140	16	114	118	182	117	99	223	176												
13	329	848	1950	7320	113	683	165	266	228	207	163	157												
14	195	395	545	2090	64	380	290	536	177	125	240	205												
15	157	266	760	3980	75	405	234	361	193	130	158	106												
16	367	558	210	1620	84	411	281	351	166	78	227	141												
17	190	275	2190	18400	390	1970	286	328	292	121	113	74												
18	380	503	2160	18900	1370	5960	352	372	177	65	581	899												
19	130	149	4780	38800	710	2650	261	275	271	191	78	57												
20	269	263	1750	13300	462	1830	354	374	197	147	65	46												
21	710	619	1790	13100	492	2390	331	359	228	206	100	57												
22	251	224	435	6490	526	2760	324	317	247	252	107	68												
23	510	565	1560	9730	511	2610	237	207	261	256	128	95												
24	305	385	259	1430	502	2430	275	231	178	147	80	58												
25	790	1100	335	1900	411	1720	743	793	275	229	1580	3460												
26	679	1190	142	759	313	1150	713	2120	223	170	1560	3720												
27	2380	4260	165	873	187	636	7320	27600	328	209	1430	4390												
28	1100	1970	246	1650	161	526	800	1840	245	133	285	679												
29	647	1240	454	3410	385	1220	96	176	300	130	89	175												
30	883	2060	135	991	293	831	126	204	210	87	87	148												
31	---	---	40	270	---	---	115	171	331	145	---	---												
MONTH	---	18519.0	---	216664.0	---	33130.0	---	40967.0	---	4780.0	---	15562.0												
TOTAL LOAD FOR YEAR: 344026.7 TONS.																								

## 09365000 SAN JUAN RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'22", long 108°13'30", in SE¼ sec.17, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on left bank 360 ft (110 m) downstream from highway bridge, 4,000 ft (1,200 m) downstream from Animas River, 1 mi (2 km) west of Farmington, and at mile 251.4 (404.5 km).

DRAINAGE AREA.--7,240 mi<sup>2</sup> (18,750 km<sup>2</sup>), approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to December 1904, January 1905 to September 1906 (gage heights and discharge measurements only), September 1912 to current year. Monthly discharge only for some periods, published in WSP 1313. Discharge records for January to December 1905, published in WSP 175, are unreliable and should not be used.

REVISED RECORDS.--WSP 1119: Drainage area. WSP 1243: 1938. WSP 1313: 1905, 1914. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 5,230.37 ft (1,594.217 m) above mean sea level. See WSP 1313 or 1733 for history of changes prior to Nov. 19, 1933.

REMARKS.--Water-discharge records good. Since June 1962 flow is partly controlled by operation of Navajo Reservoir 50 mi (80 km) upstream (station 09355100). Diversions above station for irrigation of about 86,000 acres (350 km<sup>2</sup>), 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 below this station. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--64 years (water years 1913-76), 2,393 ft<sup>3</sup>/s (67.77 m<sup>3</sup>/s), 1,734,000 acre-ft/yr (2.14 km<sup>3</sup>/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 68,000 ft<sup>3</sup>/s (1,930 m<sup>3</sup>/s) June 29, 1927, gage height, 10.2 ft (3.109 m), site and datum then in use, from rating curve extended above 37,000 ft<sup>3</sup>/s (1,050 m<sup>3</sup>/s); minimum, 14 ft<sup>3</sup>/s (0.40 m<sup>3</sup>/s) Aug. 22, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911. Flood of Sept. 6, 1909, reached a stage of about 12.3 ft (3.8 m), site and datum in use May to September 1906.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,500 ft<sup>3</sup>/s (156 m<sup>3</sup>/s) at 2030 hours July 31, gage height, 4.46 ft (1.359 m), no other peak above base of 5,000 ft<sup>3</sup>/s (140 m<sup>3</sup>/s); minimum, 196 ft<sup>3</sup>/s (5.55 m<sup>3</sup>/s) Aug. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1660	1780	1830	1850	1330	1290	623	1880	3160	1170	1490	675
2	1650	1780	1920	1780	1330	1270	655	1890	3490	1270	992	701
3	1610	1820	1930	1750	1330	1270	719	2040	3600	1200	865	693
4	1660	1840	1950	1800	1370	1260	849	2260	3840	1130	1010	689
5	1650	1840	1950	1840	1370	1250	917	2360	4230	1060	754	672
6	1640	1850	1950	1880	1400	1240	911	2450	4400	975	661	692
7	1610	1840	1940	1870	1400	1230	848	2910	4110	913	573	685
8	1610	940	1930	1810	1410	1240	768	2690	3870	852	551	709
9	1640	661	1940	1830	1460	1330	764	2640	4020	776	521	747
10	1660	648	1910	1870	1630	1380	876	2500	4240	752	506	824
11	1710	679	1890	1890	1560	1440	964	2500	4140	724	498	864
12	1640	1740	1930	1900	1480	1410	1100	2600	3700	805	483	920
13	1670	1770	1940	1850	1430	1370	1210	2720	3360	817	459	965
14	1680	1760	1930	1280	1200	1370	991	2730	3330	911	376	944
15	1740	1790	1880	1270	1100	1240	864	3120	3160	852	327	922
16	1730	1820	1850	1290	1030	1190	835	3750	2990	750	250	894
17	1730	1820	1850	1300	987	1210	842	4020	3020	704	223	526
18	1730	1830	1860	1300	1140	1200	778	4230	2810	696	314	650
19	1730	1840	1870	1300	1250	1220	716	4170	2590	703	430	583
20	1730	1810	1860	1300	1260	1270	634	3980	2670	656	652	566
21	1710	1830	1900	1290	1260	1340	586	3990	2970	582	686	554
22	1730	1830	1890	1270	1240	1440	562	3740	3130	527	821	627
23	1790	1830	1890	1260	1220	1420	747	3480	3100	714	824	618
24	1810	1820	1900	1290	1120	1350	1580	3220	3000	1250	785	597
25	1790	1820	1860	1270	1230	1220	1640	3180	2780	1500	778	1040
26	1810	1810	1870	1270	1270	927	1760	3050	2590	1710	788	1570
27	1830	1860	1850	1260	1380	924	1770	2980	2500	2480	714	1820
28	1830	1860	1840	1300	1380	946	1780	3400	2060	1490	706	1530
29	1000	1870	1800	1320	1320	968	1820	3610	1380	1110	729	1420
30	683	1780	1810	1280	---	772	1950	3530	1230	911	694	1260
31	685	---	1850	1330	---	662	---	3330	---	1620	676	---
TOTAL	50148	50168	58570	47100	37887	37649	31059	94950	95470	31610	20136	25957
MEAN	1618	1672	1889	1519	1306	1214	1035	3063	3182	1020	650	865
MAX	1830	1870	1950	1900	1630	1440	1950	4230	4400	2480	1490	1820
MIN	683	648	1800	1260	987	662	562	1880	1230	527	223	526
AC-FT	99470	99510	116200	93420	75150	74680	61610	188300	189400	62700	39940	51490
CAL YR 1975 TOTAL	955554			2618	MAX 9270	MIN 648	AC-FT 1895000					
WTR YR 1976 TOTAL	580704			1587	MAX 4400	MIN 223	AC-FT 1152000					

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1962 to current year.  
 WATER TEMPERATURES: June 1962 to current year.  
 HARDNESS: May 1962 to current year.  
 DISSOLVED SOLIDS: 1962 to current year.

REMARKS.--Daily chemical samples are collected by transversing the stream cross section.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 2,290 micromhos Aug. 8, 1970; minimum daily, 154 micromhos May 13, 1962.  
 WATER TEMPERATURES: Maximum, 33.0°C July 6, 1967; minimum, 0.0°C on several days during December and January of most years.  
 HARDNESS: Maximum, 820 mg/L Aug. 6, 1968; minimum, 65 mg/L May 11-15, 1962.  
 DISSOLVED SOLIDS: Maximum, 1,720 mg/L Aug. 8, 1970; minimum, 103 mg/L May 11-15, 1962.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,000 micromhos July 27; minimum daily, 255 micromhos May 12.  
 WATER TEMPERATURES: Maximum, 26.0°C July 12; minimum, 0.0°C Jan. 1.  
 HARDNESS: Maximum, 320 mg/L July 27; minimum, 110 mg/L May 18.  
 DISSOLVED SOLIDS: Maximum, 819 mg/L July 27; minimum, 165 mg/L May 18.

## CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS) (000600)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)
OCT												
01-28	1680	410	7.9	150	48	46	8.5	27	1.0	2.5	124	0
29-31	684	488	7.8	160	57	50	9.7	41	1.4	2.7	131	0
NOV												
01-07	1820	420	7.9	150	53	47	7.9	28	1.0	2.4	118	0
08-11	732	398	8.0	140	48	44	7.4	26	1.0	2.5	113	0
12-30	1820	401	7.9	150	52	46	8.1	25	.9	2.4	117	0
DEC												
01-31	1890	394	--	140	45	44	8.4	25	.9	2.3	121	--
JAN												
01-31	1520	413	7.6	150	47	46	8.5	27	1.0	2.6	125	0
FEB												
01-29	1310	471	7.5	180	72	55	10	32	1.0	2.8	130	0
MAR												
01-31	1210	511	7.8	160	58	50	9.3	36	1.2	2.3	128	0
APR												
01-30	1040	354	8.0	140	50	44	6.9	18	.7	1.9	108	0
MAY												
01-31	3060	307	8.0	120	40	39	5.6	15	.6	1.7	98	0
JUN												
01-15	3780	460	7.6	170	83	56	8.5	29	1.0	2.2	112	0
16-30	2590	580	7.9	220	100	71	9.6	39	1.2	3.0	140	0
JUL												
01-31	1020	488	7.7	170	68	54	7.8	34	1.1	2.5	121	0
AUG												
01-10	792	493	7.7	170	64	55	8.4	39	1.3	2.3	132	0
11-31	582	523	7.8	180	75	57	8.8	44	1.4	2.3	126	0
SEP												
01-30	865	547	7.9	180	69	57	8.8	46	1.5	2.5	133	0
WTD. AVG.	--	429	7.8	156	59	49	8.1	28	1.0	2.3	119	0
TIME WTD.												
AVG.	1580	445	7.8	159	59	50	8.3	30	1.0	2.4	122	0
TOT. LOAD (TONS)	--	--	--	--	--	77300	12700	43800	--	3630	186000	0

## SAN JUAN RIVER BASIN

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09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS- SOLVED SOLIDS (TONS PER DAY) (70302)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT											
01-28	100	6.1	.2	10	262	.36	1190	.19	.02	40	0
29-31	130	8.4	.3	11	319	.43	589	.26	.01	40	10
NOV											
01-07	98	6.0	.3	11	260	.35	1280	.26	.02	70	20
08-11	96	6.3	.3	10	249	.34	492	.22	--	--	--
12-30	87	6.3	.4	10	244	.33	1200	.26	--	--	--
DEC											
01-31	91	6.5	.2	7.5	245	.33	1250	.09	.00	4	80
JAN											
01-31	92	8.0	.3	11	259	.35	1060	.47	--	--	--
FEB											
01-29	130	9.1	.3	11	316	.43	1120	.45	--	--	--
MAR											
01-31	130	8.6	.3	8.8	310	.42	1010	.38	.05	40	30
APR											
01-30	80	6.3	.2	7.8	220	.30	618	.23	.02	30	80
MAY											
01-31	70	5.5	.3	6.8	194	.26	1600	.37	.02	30	60
JUN											
01-15	130	10	.3	6.8	299	.41	3050	.17	.01	50	20
16-30	180	14	.3	6.3	392	.53	2740	.03	.00	60	20
JUL											
01-31	130	6.8	.3	9.1	305	.41	840	.20	--	--	--
AUG											
01-10	130	5.9	.3	10	317	.43	678	.20	.00	40	0
11-31	170	5.8	.3	9.8	361	.49	567	.14	.01	40	0
SEP											
01-30	160	8.0	.3	11	360	.49	841	.28	--	--	--
WTD. AVG.	110	7.6	.3	8.6	274	.37	--	.26	--	--	--
TIME WTD.											
AVG.	116	7.4	.3	9.1	285	.39	--	.27	--	--	--
TOT. LOAD (TONS)	172000	11900	442	13500	429000	--	--	408	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA, MG) (MG/L) (00900)
OCT										
16...	0930	1700	410	7.9	7.5	6.5	--	10.3	--	150
NOV										
13...	1730	1730	345	8.0	8.5	7.5	--	10.5	--	120
DEC										
02...	1220	1920	395	7.9	--	5.5	--	--	--	130
10...	1500	1860	355	8.1	15.0	7.5	--	10.5	--	130
JAN										
28...	1100	1200	440	8.0	5.0	5.0	--	11.0	--	170
FEB										
25...	1700	1180	358	8.1	11.0	7.0	25	10.3	2	120
MAR										
23...	1530	1370	350	8.3	20.5	9.5	--	10.5	--	120
APR										
20...	1545	680	575	8.6	19.0	15.0	--	10.2	--	190
MAY										
18...	1505	4500	283	7.9	28.0	12.0	--	8.8	--	110
JUN										
15...	1745	3070	322	8.6	27.0	13.0	--	9.5	--	120
JUL										
27...	1700	1900	1000	8.1	30.5	22.5	--	6.4	--	320
AUG										
24...	1430	770	465	8.1	34.0	20.0	--	7.7	--	160
SEP										
20...	1630	560	600	7.9	26.5	17.5	--	9.3	--	180

## SAN JUAN RIVER BASIN

09365000 SAN JUAN RIVER AT FARMINGTON, NH -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	NON-CAR-BONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED PHOSPHATE (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)
OCT 16...	49	45	8.3	24	.9	2.2	119	0	94
NOV 13...	34	37	6.6	22	.9	2.0	104	0	75
DEC 02...	34	40	7.8	24	.9	2.1	119	0	85
10...	41	41	6.6	23	.9	2.2	108	0	81
JAN 28...	59	52	8.6	30	1.0	2.4	130	0	120
FEB 25...	33	37	6.4	27	1.1	2.2	105	0	94
MAR 23...	36	38	6.5	26	1.0	2.0	105	0	89
APR 20...	76	58	10	50	1.6	2.5	126	4	180
MAY 18...	33	34	5.7	12	.5	1.4	92	0	56
JUN 15...	38	37	6.4	18	.7	1.8	98	0	77
JUL 27...	160	110	10	140	3.4	5.3	193	0	430
AUG 24...	61	51	7.1	34	1.2	2.7	116	0	120
SEP 20...	74	58	9.0	46	1.5	2.3	132	0	170

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITROGEN (N) (MG/L) (00610)	TOTAL ORGANIC NITROGEN (N) (MG/L) (00605)
OCT 16...	5.7	.3	9.2	--	248	--	.11	--	--
NOV 13...	3.2	.2	10	--	208	--	.10	--	--
DEC 02...	5.7	.2	9.5	--	234	--	.14	--	--
10...	3.8	.2	10	--	222	--	.11	--	--
JAN 28...	9.1	.3	9.4	--	297	--	.23	--	--
FEB 25...	2.7	.2	9.1	222	231	.14	.14	.01	.20
MAR 23...	3.0	.2	8.6	--	225	--	.06	--	--
APR 20...	7.0	.3	8.0	--	382	--	.09	--	--
MAY 18...	3.6	.3	5.9	--	165	--	.14	--	--
JUN 15...	4.1	.2	7.3	--	201	--	.08	--	--
JUL 27...	16	.6	8.7	--	819	--	.76	--	--
AUG 24...	5.0	.3	9.8	--	289	--	.34	--	--
SEP 20...	5.3	.3	9.8	--	367	--	.18	--	--



## SAN JUAN RIVER BASIN

417

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRO- GEN (N) (MG/L) (006600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS- SOLVED ORGANIC CARBON (C) (MG/L) (00681)	SUS- PENDE D ORGANIC CARBON (C) (MG/L) (00689)
OCT 16...	--	--	--	30	--	--	--	--	--
NOV 13...	--	--	.00	30	10	--	--	--	--
DEC 02...	--	--	.01	20	0	--	--	--	--
10...	--	--	.00	30	20	--	--	--	--
JAN 28...	--	--	--	30	--	--	--	--	--
FEB 25...	.35	.03	.00	30	0	10	3.8	3.5	1.1
MAR 23...	--	--	--	20	--	--	--	--	--
APR 20...	--	--	--	50	--	--	--	--	--
MAY 18...	--	--	--	--	--	--	--	--	--
JUN 15...	--	--	--	30	--	--	--	--	--
JUL 27...	--	--	--	80	--	--	--	--	--
AUG 24...	--	--	--	40	--	--	--	--	--
SEP 20...	--	--	--	50	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
NOV 13...	1730	1	--	--	30	--	--	--	--
DEC 02...	1220	2	--	60	20	--	--	--	--
10...	1500	2	--	50	30	--	--	--	--
FEB 25...	1700	2	2	--	30	<10	0	0	0

DATE	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL LITHIUM (LI) (UG/L) (01132)
NOV 13...	--	--	--	--	--	10	<100	--	10
DEC 02...	--	--	--	--	--	0	<100	--	10
10...	--	--	--	--	--	20	<100	--	10
FEB 25...	<50	0	10	1	2000	0	<100	1	--

DATE	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV 13...	--	--	--	--	1	--	--	--
DEC 02...	--	--	.0	--	1	--	--	--
10...	--	--	.0	--	1	--	--	--
FEB 25...	100	10	.0	.0	5	1	40	0

## 09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	395	372	421	407	464	---	380	301	632	541	451	525
2	398	355	420	394	456	425	379	272	404	517	461	525
3	403	394	406	391	452	432	390	306	449	487	555	524
4	417	608	414	391	456	418	390	298	429	471	536	525
5	403	405	407	412	457	448	378	260	523	432	556	531
6	418	370	416	406	609	430	372	322	422	596	553	556
7	399	376	415	464	610	428	387	268	442	439	443	558
8	391	404	385	406	483	436	378	260	520	441	457	559
9	408	408	409	394	509	415	347	298	336	388	446	557
10	414	388	397	400	496	512	357	305	410	633	443	552
11	409	383	393	390	493	536	362	267	456	645	564	556
12	413	399	390	420	495	504	357	255	522	439	559	554
13	412	412	396	405	507	472	350	258	419	440	519	555
14	413	382	387	469	490	500	350	334	459	442	521	554
15	400	374	388	463	492	568	313	267	528	441	519	560
16	400	382	403	460	496	568	309	273	623	422	515	554
17	407	375	381	414	491	411	379	302	584	422	524	561
18	414	381	379	397	521	407	364	302	637	444	536	534
19	400	415	398	473	520	568	391	742	623	445	523	556
20	405	418	387	459	434	477	369	276	669	437	529	544
21	397	404	389	435	435	586	373	271	414	439	492	548
22	407	403	395	413	417	587	356	256	440	436	525	544
23	415	385	373	453	512	594	356	300	485	434	521	548
24	414	382	390	416	420	595	340	261	607	429	514	545
25	414	424	390	451	417	598	368	305	574	435	511	545
26	417	390	384	397	490	594	356	282	538	453	515	545
27	422	420	383	473	519	589	343	314	647	452	492	545
28	419	408	389	498	519	587	345	310	657	454	513	545
29	596	407	378	408	---	596	300	302	634	455	541	548
30	401	382	366	484	---	542	333	---	---	453	504	545
31	400	---	389	389	---	596	---	---	---	451	513	---
MONTH	414	400	394	427	488	514	359	302	520	465	511	547
YEAR	MAX	742	MIN	255	MEAN	445						

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	12.0	2.0	0.0	2.5	7.0	12.5	14.0	15.5	20.0	22.5	17.0
2	14.0	11.5	2.0	0.5	2.5	6.0	12.5	13.0	16.0	22.0	22.0	17.0
3	13.5	11.0	4.5	1.0	3.0	6.5	13.0	13.5	15.0	23.0	23.0	17.0
4	12.0	11.5	4.5	1.0	4.0	7.0	13.5	13.5	13.0	21.0	21.5	16.5
5	11.0	11.0	3.0	1.5	4.5	7.0	12.5	14.5	14.0	22.0	22.0	17.0
6	11.0	11.0	4.0	1.5	4.5	6.5	12.0	15.0	15.0	23.0	23.0	18.0
7	12.5	11.0	4.5	1.0	5.0	8.0	12.0	15.5	15.0	24.0	21.0	19.0
8	12.0	10.0	9.0	0.5	5.0	11.0	12.5	15.0	16.0	24.5	21.0	16.0
9	12.0	10.0	2.5	1.0	7.0	12.0	13.5	15.0	17.0	25.5	20.5	17.5
10	11.5	8.5	3.5	1.0	6.5	9.5	13.5	15.5	16.0	25.0	20.5	17.0
11	11.5	7.0	2.5	1.5	7.0	11.0	14.0	16.0	15.0	25.0	21.0	17.0
12	10.0	6.5	4.0	1.0	8.0	10.0	14.5	15.5	15.0	26.0	21.0	17.0
13	10.5	6.0	3.5	1.5	6.0	9.5	12.0	16.0	14.0	22.0	23.5	17.0
14	10.5	6.5	3.5	1.5	6.0	10.0	12.5	15.5	15.0	22.0	23.5	17.5
15	10.0	6.0	2.5	2.0	5.0	11.0	15.0	15.0	14.5	23.0	22.5	18.0
16	10.0	5.0	2.0	2.0	5.0	10.5	13.0	15.5	15.0	23.0	21.5	15.0
17	11.0	5.5	3.5	1.5	6.0	11.0	12.5	14.5	16.0	24.0	21.5	15.5
18	11.5	5.0	2.0	2.5	6.0	14.0	12.0	15.0	16.5	24.5	20.0	16.0
19	9.0	6.0	4.0	4.0	6.5	12.0	12.0	15.5	16.0	23.5	21.0	17.5
20	9.0	6.0	3.0	4.5	7.0	12.5	12.5	16.0	18.0	23.0	21.0	15.5
21	10.5	5.0	3.0	3.5	8.0	7.0	13.0	15.0	20.5	20.0	22.0	15.0
22	9.0	5.5	3.5	2.0	8.0	8.5	12.5	14.0	20.0	20.0	22.0	15.5
23	9.5	5.0	3.5	4.5	8.5	10.0	13.0	16.0	20.0	20.0	22.0	16.0
24	9.0	5.0	4.0	2.5	6.0	12.0	12.5	16.5	21.5	20.0	21.0	16.5
25	8.5	4.0	3.5	1.0	8.0	12.5	12.0	16.5	21.5	19.0	20.0	17.0
26	8.0	4.5	3.0	2.0	7.0	12.5	14.0	16.0	21.0	18.5	19.0	16.0
27	9.0	4.0	2.0	4.0	7.5	14.0	16.0	16.0	22.0	18.0	19.0	15.5
28	10.0	2.5	1.5	3.0	6.0	14.0	16.0	15.5	22.0	19.0	20.0	16.0
29	10.5	3.0	2.5	3.5	7.0	13.0	14.0	15.0	23.0	19.0	18.5	16.5
30	9.0	3.0	0.5	2.5	---	13.0	14.5	16.0	---	18.0	18.5	16.5
31	9.0	---	1.0	3.5	---	13.0	---	16.0	---	18.5	19.0	---
MONTH	10.5	7.0	3.0	2.0	6.0	10.5	13.0	15.0	17.0	22.0	21.0	16.5
YEAR	MAX	26.0	MIN	0.0	MEAN	12.0						

LOCATION.--Lat 36°59'51", long 108°11'17", in NW¼sec.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 (0.3 km) downstream from Ponds Arroyo, and 4.8 mi (7.7 km) north of La Plata, NM.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 482 ft<sup>3</sup>/s (13.7 m<sup>3</sup>/s) Sept. 25, gage height, 3.27 ft (0.997 m); minimum daily, 1.5 ft<sup>3</sup>/s (0.042 m<sup>3</sup>/s) Sept. 24.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	2.8	4.0	4.5	10	7.9	12	48	62	9.0	13	2.2
2	5.5	2.8	4.5	4.0	11	7.2	19	64	66	10	8.6	2.0
3	5.5	2.8	5.0	4.5	12	6.5	23	71	64	9.0	5.8	1.6
4	5.5	4.0	6.0	5.5	11	5.5	26	61	70	7.2	4.6	1.6
5	5.5	3.8	7.0	5.5	12	5.2	26	47	71	6.5	3.8	1.6
6	5.2	3.5	8.0	6.5	14	4.9	17	65	76	5.2	3.2	2.2
7	5.2	4.0	9.0	6.0	14	5.2	19	76	74	5.5	3.0	2.6
8	5.5	4.3	9.5	6.0	14	5.5	23	41	62	5.2	3.0	2.4
9	5.8	4.0	9.5	6.5	21	5.2	23	29	56	4.0	2.6	2.4
10	5.5	4.0	9.3	7.0	18	5.8	29	19	58	3.2	2.4	3.0
11	5.8	4.3	9.0	6.5	15	9.0	45	33	46	3.0	2.8	3.2
12	6.2	4.0	9.3	6.5	14	9.0	52	38	45	2.6	2.6	3.0
13	6.2	3.5	10	6.0	16	7.6	52	34	43	2.0	2.4	2.6
14	6.5	3.2	10	6.0	19	7.2	43	35	39	12	2.2	2.4
15	6.8	3.2	8.0	6.5	19	6.5	33	46	35	13	2.2	2.4
16	6.5	3.5	6.0	7.0	17	6.5	31	79	29	8.0	2.0	2.2
17	4.9	3.2	5.0	7.5	16	9.0	30	82	23	7.0	2.0	1.6
18	3.8	3.2	5.0	7.5	13	15	23	67	20	6.0	2.2	2.0
19	3.8	3.8	5.5	7.5	13	35	18	34	17	4.9	4.5	2.2
20	4.3	4.0	5.5	7.0	14	25	16	67	14	4.3	2.8	2.2
21	5.2	3.5	5.0	6.0	10	16	13	100	19	3.5	2.4	1.8
22	2.6	3.0	5.5	5.0	10	13	7.6	98	26	3.0	2.4	1.8
23	2.8	3.0	5.5	5.5	11	15	4.9	74	28	2.8	2.2	2.0
24	3.2	3.0	5.0	6.0	11	15	4.9	85	22	3.8	2.4	1.5
25	3.5	3.2	5.0	5.5	9.0	14	13	69	16	14	2.4	4.4
26	2.6	3.0	5.0	5.0	7.9	12	25	64	10	3.0	2.2	8.6
27	2.2	3.0	5.0	5.5	6.2	11	26	62	8.6	4.6	1.8	4.8
28	2.4	3.5	4.5	6.0	5.8	10	26	58	7.9	2.8	1.8	3.0
29	2.6	3.5	4.5	7.0	5.8	7.3	32	48	8.2	2.2	2.0	2.6
30	2.8	3.5	4.5	8.0	---	4.0	36	76	9.0	2.0	2.0	2.2
31	3.0	---	4.5	9.0	---	4.3	---	62	---	1.8	2.2	---
TOTAL	142.1	104.1	199.1	192.5	369.7	310.3	748.4	1832	1124.7	171.1	99.5	117.7
MEAN	4.58	3.47	6.42	6.21	12.7	10.0	24.9	59.1	37.5	5.52	3.21	3.92
MAX	6.8	4.3	10	9.0	21	35	52	100	76	14	13	44
MIN	2.2	2.8	4.0	4.0	5.8	4.0	4.9	19	7.9	1.8	1.8	1.5
AC=FT	282	206	395	382	733	615	1480	3630	2230	339	197	233
CAL YR 1975 TOTAL	22478.6			MEAN 61.6	MAX 458	MIN 2.2	AC=FT 44590					
WTR YR 1976 TOTAL	5411.2			MEAN 16.8	MAX 100	MIN 1.5	AC=FT 10730					

## SAN JUAN RIVER BASIN

09367500 LA PLATA RIVER NEAR FARMINGTON, NM

LOCATION.--Lat 36°44'23", long 108°14'51", in SW¼ sec.7, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on right bank 1,300 ft (400 m) upstream from bridge on U.S. Highway 550, 1,800 ft (550 m) upstream from mouth, and 2.5 mi (4.0 km) northwest of Farmington.

DRAINAGE AREA.--583 mi<sup>2</sup> (1,510 km<sup>2</sup>).

PERIOD OF RECORD.--March 1938 to current year.

REVISED RECORDS.--WSP 1243: 1944-45. WSP 1313: 1943-44(M), 1946-50(M). WSP 1733: 1951(M).

GAGE.--Water-stage recorder. Altitude of gage is 5,215 ft (1,589.5 m), from river-profile map.

REMARKS.--Records poor. Diversions for irrigation of about 24,000 acres (97 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years, 24.5 ft<sup>3</sup>/s (0.694 m<sup>3</sup>/s), (17,750 acre-ft/yr (21.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 6.03 ft (1.838 m) Sept. 10, 1939, (discharge not determined); no flow for long periods in some years.

Major floods occurred Sept. 5 or 6, 1909, and Oct. 5 or 6, 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,440 ft<sup>3</sup>/s (97.4 m<sup>3</sup>/s) July 26, gage height, 5.53 ft (1.686 m), from rating curve extended above 450 ft<sup>3</sup>/s (12.7 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 5.93 ft (1.807 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.4	6.8	11	13	1.5	.62	1.3	1.1	.04	8.0	0
2	1.1	1.4	7.0	10	13	1.4	.50	1.4	.68	.04	6.0	0
3	.90	1.4	7.0	10	14	1.4	.62	1.2	.68	.02	5.6	0
4	.80	1.5	7.2	12	14	1.6	.68	1.0	1.1	.02	5.6	0
5	.74	1.5	7.2	12	14	1.5	.68	.90	1.3	.02	2.4	0
6	.74	1.5	7.5	12	15	1.6	.62	1.0	.62	.02	2.0	0
7	.68	1.5	7.2	14	16	1.5	.90	1.4	.68	0	1.8	0
8	.62	1.6	7.2	11	16	1.2	.90	1.2	1.0	0	1.8	0
9	.56	1.8	7.2	12	18	1.1	.90	1.2	.56	0	1.8	0
10	.56	1.8	7.2	13	21	1.0	.90	1.2	.26	0	1.6	0
11	.56	2.0	7.4	14	18	1.1	.90	1.1	.18	0	1.4	0
12	.56	1.5	7.4	12	17	1.2	1.2	1.0	.16	.43	1.5	0
13	.56	1.2	7.8	12	11	1.2	1.5	.80	.14	0	1.3	0
14	1.1	1.1	7.0	13	10	1.1	3.6	1.0	.08	0	1.2	0
15	1.8	1.5	6.0	12	14	.80	1.2	1.1	.10	0	1.0	0
16	3.6	1.6	5.0	12	15	.90	1.2	.80	.32	0	1.0	0
17	2.4	1.6	5.0	13	11	.80	2.0	1.2	.10	0	.90	0
18	1.8	2.0	5.2	13	9.0	.74	1.2	1.0	.08	0	.90	0
19	5.2	2.0	5.0	12	9.6	.74	1.2	.90	.12	0	118	0
20	2.4	1.5	5.2	13	6.0	4.3	1.3	.80	.06	0	38	0
21	1.6	1.3	5.5	12	4.0	1.3	1.0	4.0	.08	0	5.0	0
22	1.1	1.3	5.5	12	3.0	.90	.90	11	.06	0	3.0	0
23	1.2	2.5	5.2	14	5.0	.68	.90	8.4	.06	0	2.0	0
24	1.8	3.5	5.2	14	6.0	.68	.90	5.2	.14	0	1.0	0
25	1.2	5.0	5.0	13	4.0	.62	1.0	11	.20	77	.70	196
26	.90	4.0	5.2	12	4.8	.68	1.1	4.4	.12	415	.50	37
27	.90	6.0	5.2	11	2.8	.74	1.6	1.5	.04	217	.20	68
28	.90	8.0	5.4	12	2.0	.62	2.0	2.0	.02	60	.10	7.0
29	1.0	7.5	5.0	13	1.4	.80	1.8	2.8	.02	30	.10	1.8
30	1.2	6.5	5.2	12	---	.68	1.2	1.4	.02	20	.05	1.4
31	1.3	---	5.4	14	---	.74	---	4.8	---	10	.02	---
TOTAL	40.78	77.0	190.3	382	307.6	35.12	35.02	78.00	10.08	829.59	214.47	311.2
MEAN	1.32	2.57	6.14	12.3	10.6	1.13	1.17	2.52	.34	26.8	6.92	10.4
MAX	5.2	8.0	7.8	14	21	4.3	3.6	11	1.3	415	118	196
MIN	.56	1.1	5.0	10	1.4	.62	.50	.80	.02	0	.02	0
AC=FT	81	153	377	758	610	70	69	155	20	1650	425	617
CAL YR 1975 TOTAL	15638.84			MEAN 42.8	MAX 488	MIN .38	AC=FT 31020					
WTR YR 1976 TOTAL	2511.16			MEAN 6.86	MAX 415	MIN 0	AC=FT 4980					

## 09367555 SHUMWAY ARROYO NEAR FRUITLAND, NM

LOCATION.--Lat 36°48'23", long 108°23'42", in NE¼NE¼ sec. 22, T.30 N., R.15 W., San Juan County, Hydrologic Unit 14080102, on right bank 1.7 mi (2.7 km) downstream from Narrows Wash, 2.0 mi (3.2 km) northeast of San Juan Power Plant, 4.6 mi (7.4 km) north of Fruitland, and at mile 8.5 (13.7 km).

DRAINAGE AREA.--62.8 mi<sup>2</sup> (163 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,240 ft (1,597 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR CURRENT PERIOD.--Water year 1975: Maximum discharge, 47 ft<sup>3</sup>/s (1.33 m<sup>3</sup>/s) at 2200 hours Sept. 11, gage height, 2.58 ft (0.786 m), no other peak above base of 30 ft<sup>3</sup>/s (0.85 m<sup>3</sup>/s); no flow most of time.

Water year 1976: Peak discharges above base of 30 ft<sup>3</sup>/s (0.85 m<sup>3</sup>/s) and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Sept 11	2200	47 1.33	2.58 0.786	July 31	1900	630 17.8	6.10 1.859
July 26	2130	a*2,070 58.6	9.98 3.042	Sept 25	0900	150 4.25	3.68 1.122

No flow most of time

a from slope-area measurement of peak flow.

## DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY 1975 TO SEPTEMBER 1976

June 8, 1975.....	1.2	July 2, 1976.....	0.11	August 1, 1976.....	4.0
June 9, 1975.....	.52	July 24, 1976.....	.20	August 2, 1976.....	.19
July 17, 1975.....	1.2	July 25, 1976.....	1.4	August 19, 1976.....	2.0
August 11, 1975.....	2.3	July 26, 1976.....	99	August 20, 1976.....	.25
August 13, 1975.....	.74	July 27, 1976.....	14	September 25, 1976.....	13
September 11, 1975.....	3.7	July 31, 1976.....	31	September 26, 1976.....	.25
September 12, 1975.....	2.5				

Month	cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
June 1975.....	1.72	1.2	0	.057	3.4
July .....	1.2	1.2	0	.039	2.4
August .....	3.04	2.3	0	.098	6.0
September .....	6.2	3.7	0	.21	12
July 1976.....	155.71	99	0	5.02	309
August .....	6.44	4.0	0	.21	13
September .....	13.25	13	0	.44	26
CAL YR 1975.....	12.16	3.7	0	.033	24
WTR YR 1975.....	175.40	99	0	.48	348

NOTE: Flow occurred only on days listed above.

09367555 SHUMWAY ARROYO NEAR FRUITLAND, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--July to September 1976.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA.MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED MAG- NE- SIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	
JUL 26...	2130	159	750	7.0	--	--	--	--	--	--	--	--	
AUG 19...	1200	.10	700	7.6	19.5	120	57	38	5.9	93	3.7	8.3	
SEP 25...	0915	2.4	950	7.1	--	--	--	--	--	--	--	--	
28...	1645	1.1	875	7.1	20.5	--	--	--	--	--	--	--	
DATE	TIME	RICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (CL) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
JUL 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	76	0	230	14	.7	13	449	1.9	.11	140	20	36	36
SEP 25...	--	--	--	--	--	--	--	--	--	--	--	--	263
28...	--	--	--	--	--	--	--	--	--	--	--	--	3.5

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

		TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL COBALT (CO) (UG/L) (01037)	TOTAL COPPER (CU) (UG/L) (01042)	
DATE	TIME									
JUL 26...	2130	150	--	--	--	--	--	--	--	
AUG 19...	1200	--	--	--	140	--	--	--	--	
SEP 25...	0915	--	4300	600	--	70	240	--	990	
28...	1645	--	0	80	--	<10	0	<50	<10	
		TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL STRON- TIUM (SR) (UG/L) (01082)
DATE	TIME									
JUL 26...	--	--	--	--	--	--	--	2.1	0	--
AUG 19...	--	20	--	--	--	10	--	--	--	--
SEP 25...	420000	--	1200	500	--	48000	--	--	--	7400
28...	4400	--	<100	10	--	50	--	--	--	310

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE- SEDIM- ENT (MG/L) (80154)	SUS- PENDE- SEDIM- ENT (MG/L) (80155)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70331)
JUL 26...	2000	1480	--	97800	391000	88	90	100	--
26...	2030	1140	--	45100	139000	--	--	--	98
26...	2100	370	--	179000	179000	--	--	--	66
26...	2130	159	--	552000	237000	--	--	--	55
AUG 19...	1200	.10	19.5	298	.08	--	--	--	99

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM

LOCATION.--Lat 36°46'24", long 108°26'26", in SE¼NW¼ sec.32, T.30 N., R.15. W, San Juan County, Hydrologic Unit 14080105, on right bank 0.6 mi (1.0 km) downstream from Westwater Arroyo, 0.7 mi (1.1 km) upstream from highway to San Juan Power Plant, 14 mi (22 km) west of Farmington, and at mile 4.5 (7.2 km).

DRAINAGE AREA.--73.8 mi<sup>2</sup> (191 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,140 ft (1,567 m), from topographic map.

REMARKS.--Water-discharge records fair except those for July, which are poor. Base flow is mostly waste from power plant.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft<sup>3</sup>/s (32.9 m<sup>3</sup>/s) July 26, 1976, gage height, 6.00 ft (1.829 m), from rating curve extended above 3.0 ft<sup>3</sup>/s (0.085 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft<sup>3</sup>/s (0.85 m<sup>3</sup>/s) and maximum(\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
July 26	2245	*1,160 32.9	6.00 1.829	Aug 31	2000	817 23.1	4.99 1.521
Aug 19	2030	465 13.2	3.75 1.143				

No flow Feb. 3, 9, July 29, 30.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.05	.08	.44	.58	1.2	.88	.41	.55	.81	1.2	1.4
2	.04	.39	.06	.30	.16	.67	.81	.50	.55	.61	1.2	1.6
3	.09	.65	.06	.10	0	.74	.81	.45	.61	.61	1.0	1.4
4	.13	.27	.04	.20	0	.94	.88	.55	.50	.55	.74	1.3
5	.27	.39	.05	.55	0	.88	.61	.50	.81	.74	.81	1.3
6	.35	.35	.06	.74	0	1.2	.81	.50	.55	.55	.96	1.2
7	1.2	.43	.06	.47	0	.74	.74	.50	.61	.88	.96	1.1
8	.43	.18	.04	.47	0	.58	.74	.41	.81	.55	.81	1.1
9	.35	.39	.04	.67	0	.55	.67	.50	.61	.61	.96	.96
10	.13	.59	.05	.67	.12	.50	.50	.61	.50	.50	.81	.96
11	.13	.31	.05	.74	.81	.50	.50	.41	.45	.61	.67	.74
12	.39	.25	.06	.96	.55	.50	.41	.55	.55	3.7	.61	.88
13	.39	.20	.10	.88	.55	.50	.41	.61	.55	.74	.61	.88
14	.21	.20	.06	.80	.61	.50	.37	.88	.45	.88	.55	.96
15	.27	.20	.06	1.4	.61	.50	.45	.74	.45	.88	.61	1.4
16	.27	.30	.06	2.3	.55	.50	.50	.50	.50	.88	.88	1.4
17	.24	.35	.06	3.1	.55	.67	.55	.41	.50	.88	.61	1.4
18	.24	.30	.06	4.4	.61	.67	.67	.61	.96	.88	.81	1.4
19	.27	.35	.06	5.8	.55	.61	.29	.50	.96	.81	29	1.4
20	.27	.30	.10	1.9	.61	.50	.41	.50	.96	1.2	2.2	1.0
21	.43	.25	.08	4.8	.61	.50	.29	.61	1.2	1.9	2.4	.96
22	.27	.20	.08	1.9	.67	.61	.37	.61	.96	2.0	1.9	.61
23	.59	.18	.08	.86	.61	.67	.37	.61	.96	2.2	1.9	1.2
24	.47	.16	.04	.86	.74	.67	.41	.88	.67	3.6	3.0	1.1
25	.47	.14	.04	.70	.81	.67	.33	.96	.67	1.4	4.1	4.1
26	.39	.12	.10	.50	1.4	.67	.67	.67	.33	60	2.5	1.2
27	.39	.10	.12	.40	1.2	.67	.41	.50	.41	20	1.4	1.1
28	.39	.15	.14	.50	1.6	.74	.22	.88	.45	4.0	1.2	1.1
29	.39	.10	.16	.60	1.6	.81	.37	.74	.50	0	1.9	1.4
30	.39	.08	.18	.62	---	.88	.41	.50	.61	0	1.9	1.4
31	.09	---	.20	.58	---	.81	---	.29	---	32	1.7	---
TOTAL	10.01	7.93	2.43	39.21	16.10	21.15	15.86	17.89	19.19	144.97	69.90	37.95
MEAN	.32	.26	.078	1.26	.56	.68	.53	.58	.64	4.68	2.25	1.27
MAX	1.2	.65	.20	5.8	1.6	1.2	.88	.96	1.2	60	.29	4.1
MIN	.04	.05	.04	.10	0	.50	.22	.29	.33	0	.55	.61
AC-FT	20	16	4.8	78	32	42	31	35	38	288	139	75

CAL YR 1975 TOTAL 249.44 MEAN .68 MAX 50 MIN 0 AC-FT 495  
WTR YR 1976 TOTAL 402.59 MEAN 1.10 MAX 60 MIN 0 AC-FT 799

## SAN JUAN RIVER BASIN

09367561 SIUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

## WATER-QUALITY RECORDS

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

1975 DATA NOT PREVIOUSLY PUBLISHED

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (000095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
JUL					
13...	1230	.47	5720	6.7	31.0
20...	1455	.47	7540	6.1	32.5
AUG					
03...	1650	.13	8670	5.9	--
10...	1555	.13	8900	5.6	--
17...	1240	.04	7480	6.2	27.5
24...	1840	.13	7290	6.2	22.5
SEP					
07...	1915	.27	7130	6.0	30.5
14...	1600	.64	7340	6.2	25.0

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (000095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (000020)	TEMPER- ATURE (DEG C) (000010)	TUR- BID- ITY (JTU) (000070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)
OCT												
03...	1830	.09	9540	7.3	--	26.0	--	--	--	--	--	--
05...	1200	.13	8670	8.2	--	31.5	--	--	--	--	--	--
12...	1200	.47	8670	8.2	--	29.0	--	--	--	--	--	--
15...	1300	.27	8900	8.1	15.5	11.0	2	9.6	31	3600	3300	470
19...	1200	.04	8670	8.2	--	24.0	--	--	--	--	--	--
26...	1510	.13	13200	7.4	--	19.0	--	--	--	3100	2900	510
NOV												
02...	2255	1.3	5200	7.7	--	21.0	--	--	--	--	--	--
09...	1700	.32	9450	8.0	--	19.0	--	--	--	--	--	--
13...	0930	.20	10200	8.0	4.0	.0	20	12.0	54	3300	3100	480
16...	1600	.47	8630	7.7	--	12.5	--	--	--	--	--	--
23...	1200	.13	6990	8.0	--	16.5	--	--	--	--	--	--
30...	1120	3.0	11100	7.8	--	4.0	--	--	--	--	--	--
DEC												
07...	1440	1.3	10700	8.2	--	.0	--	--	--	--	--	--
11...	1615	.05	11500	8.6	--	5.0	20	10.6	44	2800	2500	450
14...	1550	.65	9060	8.0	--	12.0	--	--	--	--	--	--
21...	0930	.27	9140	8.0	--	12.5	--	--	--	--	--	--
28...	1610	.13	9140	7.9	--	.0	--	--	--	--	--	--
JAN												
11...	1620	5.9	15500	7.8	--	4.5	--	--	--	--	--	--
26...	1520	1.3	5380	7.8	--	3.5	--	--	--	--	--	--
29...	1800	.50	11600	8.2	8.0	2.5	30	12.1	48	2300	1900	350
FEB												
01...	1615	.61	7360	8.1	--	4.5	--	--	--	--	--	--
08...	1555	.50	7170	8.5	--	13.5	--	--	--	--	--	--
15...	1630	1.2	14200	7.8	--	6.5	--	--	--	--	--	--
26...	1313	.60	8100	8.4	17.5	9.5	15	12.0	25	2400	2300	370
29...	1650	1.2	16300	72.0	--	8.0	--	--	--	--	--	--
MAR												
24...	1315	.76	5500	8.2	23.0	16.5	20	9.5	28	1800	1600	260



09367561 SHUMWAY ARROYO NEAR WATERFLOW; NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

		INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (000095)	PH  (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (000020)	TEMPER- ATURE (DEG C) (000010)	TUR- BID- ITY (JTU) (000070)	DIS- SOLVED OXYGEN (MG/L) (000300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (000340)	HARD- NESS (CA+MG) (MG/L) (000900)		
DATE	TIME											
MAR												
29...	1545	.29	5050	6.4	--	22.0	--	--	--	--		
APR												
04...	1640	.81	5020	6.4	--	25.0	--	--	--	--		
11...	1455	.50	4360	4.2	--	32.0	--	--	--	--		
18...	1620	1.2	4360	4.1	--	28.5	--	--	--	--		
20...	1300	.54	10200	6.6	21.0	21.0	51	7.8	43	1500		
25...	1450	.29	7060	8.2	--	30.0	--	--	--	--		
MAY												
02...	1445	.50	7050	8.2	--	31.5	--	--	--	--		
09...	1700	.50	7110	8.3	--	32.5	--	--	--	--		
16...	1810	.14	8120	8.8	--	35.5	--	--	--	--		
19...	1330	.40	5200	9.0	28.5	28.5	35	6.8	53	1100		
JUN												
08...	1630	.81	15000	8.0	--	29.5	--	--	--	2200		
15...	1400	.60	5400	9.2	25.0	23.0	9	--	40	1200		
JUL												
28...	1300	2.9	3800	8.4	34.0	30.5	200	6.6	68	1000		
AUG												
19...	1315	1.2	3800	7.2	--	30.0	--	--	--	1000		
20...	0930	1.4	6240	6.8	--	20.0	--	--	--	900		
20...	1400	10	7000	7.1	--	29.5	--	--	--	--		
25...	1300	4.3	3500	8.6	29.0	26.0	250	7.0	67	620		
SEP												
22...	1305	1.8	5200	8.4	25.0	24.0	30	8.4	24	1400		
23...	0830	.96	3100	7.3	--	--	--	--	--	--		
25...	0830	3.2	3080	7.3	--	--	--	--	--	--		
26...	1400	1.2	1790	7.2	--	--	--	--	--	--		
27...	1400	1.1	3610	7.5	--	--	--	--	--	--		
DATE	DIS- SOLVED MAG- NE- SIUM (MG) (000925)	DIS- SOLVED SODIUM (NA) (MG/L) (000930)	SODIUM AD- SORP- TION RATIO (000931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (000935)	BICAR- BONATE (HCO3) (MG/L) (000440)	CAR- BONATE (CO3) (MG/L) (000445)	DIS- SOLVED SULFATE (SO4) (MG/L) (000945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (000940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (000950)	DIS- SOLVED SILICA (SI02) (MG/L) (000955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L) (70301)
OCT												
03...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	--
15...	580	1500	11	15	292	0	5700	410	.6	7.9	9980	8940
19...	--	--	--	--	--	--	--	--	--	--	--	--
26...	450	2400	19	19	225	0	6200	1100	1.0	7.8	--	10900
NOV												
02...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
13...	510	1800	14	22	220	0	6000	620	1.0	11	9920	9650
16...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
07...	--	--	--	--	--	--	--	--	--	--	--	--
11...	410	2200	18	18	332	6	5800	910	.8	6.2	10600	10000
14...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
11...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
29...	340	2400	22	10	405	0	5500	1200	.7	6.3	10200	10100
FEB												
01...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
26...	370	1300	11	13	132	0	4400	410	.6	5.3	7830	7030
29...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
24...	270	960	10	10	137	5	2900	350	.7	3.5	5530	4900

## SAN JUAN RIVER BASIN

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible][illegible]

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

[illegible]

## SAN JUAN RIVER BASIN

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
NOV									
13...	0930	4	2	--	800	20	0	40	25
DEC									
11...	1615	3	--	700	310	--	--	--	--
FEB									
26...	1313	1	--	640	550	--	--	--	--
APR									
20...	1300	4	--	1100	630	--	--	--	--
MAY									
19...	1330	23	15	20	20	0	0	30	18
JUN									
08...	1630	--	--	--	1300	--	--	--	--
15...	1400	13	--	700	700	--	--	--	--
JUL									
28...	1300	10	--	710	690	--	--	--	--
AUG									
19...	1315	30	--	--	980	--	--	--	--
25...	1300	8	--	460	440	--	--	--	--
SEP									
22...	1305	7	7	--	690	10	3	10	10

DATE	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL LITHIUM (LI) (UG/L) (01132)
NOV									
13...	430	2	40	20	7500	30	200	0	--
DEC									
11...	--	--	--	--	--	0	100	--	220
FEB									
26...	--	--	--	--	--	20	100	--	170
APR									
20...	--	--	--	--	--	3400	100	--	170
MAY									
19...	0	0	23	10	3000	30	7	0	150
JUN									
08...	--	--	--	--	--	30	--	--	260
15...	--	--	--	--	--	310	0	--	120
JUL									
28...	--	--	--	--	--	70	100	--	130
AUG									
19...	--	--	--	--	--	10	--	--	--
25...	--	--	--	--	--	20	100	--	100
SEP									
22...	<50	0	10	3	3900	10	<100	2	170

DATE	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV								
13...	560	160	.0	.0	29	32	80	50
DEC								
11...	--	--	.0	--	24	--	--	--
FEB								
26...	--	--	.0	--	22	--	--	--
APR								
20...	--	--	.1	--	16	--	--	--
MAY								
19...	90	10	.0	.0	12	12	40	0
JUN								
08...	--	--	--	--	--	--	--	--
15...	--	--	.0	--	10	--	--	--
JUL								
28...	--	--	.0	--	6	--	--	--
AUG								
19...	--	--	.5	--	7	--	--	--
25...	--	--	.0	--	6	--	--	--
SEP								
22...	170	100	.1	.1	6	4	80	20

## SAN JUAN RIVER BASIN

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09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCHI (COL- ONIES PER 100 ML) (31679)
OCT			
15...	1300	14	210
NOV			
13...	0930	10	250
DEC			
11...	1615	240	420
JAN			
29...	1800	3	5
FEB			
26...	1313	0	170
MAR			
24...	1315	0	90
APR			
20...	1300	0	140
MAY			
19...	1330	10	300
JUN			
15...	1400	23	600
JUL			
28...	1300	230	1600
AUG			
25...	1300	300	4700
SEP			
22...	1305	180	610

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 15, 1975  
1300 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,500 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSDOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		200	14
..PENNALES	PENNATE		
...FRAGILARIACEAE			
....FRAGILARIA		200	14
...NAVICULACEAE	NAVICULOID		
D ....NAVICULA		410	28
...NITZSCHACEAE			
D ....NITZSCHIA		660	45
TOTALS		1,500	101
			1.820=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 ORDER 0.579  
 FAMILY 1.820  
 GENERA 1.820

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NOV. 13, 1975  
0930 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1.100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...CYMBELLACEAE			
L ....CYMBELLA			0
...FRAGILARIACEAE			
L ....FRAGILARIA			0
...NAVICULACEAE	NAVICULOID		
L ....AMPHIPLEURA			0
D ....NAVICULA		870	76
...NITZSCHACEAE			
D ....NITZSCHIA		270	24
...SURIPELLACEAE			
L ....SURIPELLA			0
	TOTALS	1,100	100
			0.787=DI
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORACEAE			
L ....OSCILLATORIA			0

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 0.787  
 GENERA 0.787

DEC. 11, 1975  
1615 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

5.400 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...CYMBELLACEAE			
L ....AMPHORA			0
...FRAGILARIACEAE			
L ....ASTERIONELLA			0
...FRAGILARIA		230	4
...NAVICULACEAE	NAVICULOID		
...AMPHIPHORA		110	2
L ....GYROSTOMA			0
D ....NAVICULA		4,300	81
...NITZSCHACEAE			
...NITZSCHIA		690	13
...SURIPELLACEAE			
L ....SURIPELLA			0
	TOTALS	5,400	100
			0.939=DI
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORACEAE			
L ....OSCILLATORIA			0

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 0.796  
 GENERA 0.939

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

FER. 26. 1976

1313 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

4,300 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..VOLVOCALES			
...CHLAMYDOMONADACEAE			
....CHLAMYDOMONAS			
	TOTALS	56	1
		56	0.090=DI
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNIALES	PENNATE		
...DIATOMACEAE			
D ...DIATOMA		1,400	31
...FRAGILARIACEAE			
L ...SYNEDRA			0
...NAVICULACEAE	NAVICULOID		
...AMPHIPRORA		230	5
D ...NAVICULA		1,200	27
...NITZSCHACEAE			
...NITZSCHIA		230	5
...SURIPELLACEAE			
D ...SURIPELLA			
	TOTALS	1,300	30
		4,300	98
			2.007=DI
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLARIACEAE			
L ...OSCILLATORIA			0

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 15% MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 0.100  
 CLASS 0.100  
 ORDER 0.100  
 FAMILY 1.875  
 GENERA 2.081

APR. 20. 1976

1300 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

12,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..CHLOROCOCCALES			
...OOCYSTACEAE			
...TROCHISIA		73	1
..VOLVOCALES			
...CHLAMYDOMONADACEAE			
D ...CHLAMYDOMONAS		7,700	66
...LOBOMONAS		1,400	12
	TOTALS	9,200	79
			0.677=DI
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNIALES	PENNATE		
...ACHNANTHACEAE			
L ...ACHNANTHES			0
...DIATOMACEAE			
...DIATOMA		360	3
...NAVICULACEAE	NAVICULOID		
L ...AMPHIPRORA			0
...GYROSIGMA		73	1
...NAVICULA		440	4
...NITZSCHACEAE			
...NITZSCHIA		110	1
...SURIPELLACEAE			
...SURIPELLA			
	TOTALS	330	3
		1,400	12
			2.313=DI
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLARIACEAE			
...LYNGBYA		290	3
	TOTALS	290	3
			0.000=DI

## SAN JUAN RIVER BASIN

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

APR. 20, 1976

1300 HOURS

IDENTIFICATION OF PHYTOPLANKTON  
(Continued)

EUGLENOPHYTA  
 ..EUGLENOPHYCEAE  
 ..EUGLENALES  
 ...EUGLENACEAE  
 ....EUGLENA

## EUGLENOIDS

TOTALS	<u>760</u> 760	<u>7</u> 7	0.000=DI
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NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.026  
 CLASS 1.026  
 ORDER 1.079  
 FAMILY 1.312  
 GENERA 1.836

MAY 19, 1976  
 1330 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

63,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
...NAVICULA		3,200	5	
...NITZSCHACEAE				
D ...NITZSCHIA				
TOTALS		<u>58,000</u> 61,000	<u>92</u> 97	0.295=DI
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....EUGLENA				
TOTALS		<u>1,600</u> 1,600	<u>3</u> 3	0.000=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 0.170  
 CLASS 0.170  
 ORDER 0.170  
 FAMILY 0.457  
 GENERA 0.457



09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JUNE 15, 1976  
1400 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

18,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
...CHLOROCOCCALES				
...OCYSTACEAE				
....ANKISTRODESMUS		150	1	
....KIRCHNERIELLA		300	2	
	TOTALS	450	3	0.918=DI
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...ACHNANTHES		150	1	
...CYMBELLACEAE				
...CYMBELLA		600	3	
...NAVICULACEAE	NAVICULOID			
D ....NAVICULA		6,300	34	
...NITZSCHIA				
D ....NITZSCHIA		3,800	20	
	TOTALS	11,000	58	1.301=DI
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
D ....EUGLENA		7,100	39	
	TOTALS	7,100	39	0.000=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
PHYL/DIV 1.111  
CLASS 1.111  
ORDER 1.111  
FAMILY 1.878  
GENERA 1.901

JULY 28, 1976  
1300 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

3,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...NAVICULACEAE	NAVICULOID			
D ....NAVICULA		500	17	
...NITZSCHIA				
D ....NITZSCHIA		670	22	
	TOTALS	1,200	39	0.985=DI
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
D ....EUGLENA		1,800	61	
	TOTALS	1,800	61	0.000=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
PHYL/DIV 0.964  
CLASS 0.964  
ORDER 0.964  
FAMILY 1.347  
GENERA 1.347

## SAN JUAN RIVER BASIN

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

AUG. 25, 1976  
1300 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

16,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
....NAVICULACEAE	NAVICULOID	5,200	33	
D ....NAVICULA				
....NITZSCHACEAE				
D ....NITZSCHIA				
	TOTALS	<u>4,700</u> 9,900	<u>30</u> 63	0.998=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
....OSCILLATORIA				
D ....OSCILLATORIA				
	TOTALS	<u>5,500</u> 5,500	<u>35</u> 35	0.000=DI
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
....EUGLENA				
	TOTALS	<u>290</u> 290	<u>2</u> 2	0.000=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
PHYL/DIV 1.057  
CLASS 1.057  
ORDER 1.057  
FAMILY 1.685  
GENERA 1.685

SEP. 22, 1976  
1305 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

26,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHLOROPHYTA	GREEN ALGAE			
..CHLOROPHYCEAE				
..VOLVOCALES				
....CHLAMYDOMONADACEAE				
D ....CHLAMYDOMONAS				
	TOTALS	<u>16,000</u> 16,000	<u>64</u> 64	0.000=DI
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
....FRAGILARIACEAE				
....SYNEDRA		190	1	
....NAVICULACEAE	NAVICULOID			
L ....AMPHIPRORA			0	
....NAVICULA		2,500	10	
....NITZSCHACEAE				
D ....NITZSCHIA				
	TOTALS	<u>6,600</u> 9,300	<u>26</u> 37	0.969=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
....OSCILLATORIA				
L ....SPIRULINA			0	

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
L - LESS THAN 15% MAY NOT HAVE BEEN ACTUALLY COUNTED  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
PHYL/DIV 0.945  
CLASS 0.945  
ORDER 0.945  
FAMILY 1.297  
GENERA 1.297

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDEO SEDI- MENT (MG/L) (80154)	SUS- PENDEO SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN (70342)	SUS. SED. FALL DIAM. % FINER THAN (70343)	SUS. SED. FALL DIAM. % FINER THAN (70344)	SUS. SED. FALL DIAM. % FINER THAN (70331)
OCT									
15...	1300	.27	11.0	478	.3	--	--	--	--
NOV									
13...	0930	.20	.0	1650	.8	--	--	--	2
DEC									
05...	1530	.37	--	490	.4	--	--	--	41
11...	1615	.05	5.0	69	.0	--	--	--	31
JAN									
29...	1800	.50	2.5	187	.25	--	--	--	38
FEB									
26...	1313	.60	9.5	47	.08	--	--	--	69
MAR									
24...	1315	.76	16.5	65	.13	--	--	--	34
MAY									
19...	1330	.40	28.5	893	.96	--	--	--	14
JUN									
08...	1630	.81	29.5	182000	398	88	98	100	--
15...	1400	.60	23.0	1150	1.9	--	--	--	5
JUL									
26...	1430	1.9	--	34500	177	--	--	--	88
26...	1530	1.9	--	33600	172	--	--	--	90
26...	1700	1.8	--	5360	26	--	--	--	99
26...	1730	1.8	--	32700	159	--	--	--	92
26...	1830	2.0	--	32700	177	--	--	--	91
26...	1930	16	--	33200	1430	--	--	--	92
26...	2130	820	--	56000	124000	--	--	--	100
AUG									
19...	1315	.96	30.0	3560	9.2	--	--	--	63
19...	1320	.96	30.0	4450	12	--	--	--	70
20...	0930	1.3	20.0	4440	16	--	--	--	18
20...	0931	1.3	20.0	3270	11	--	--	--	27
SEP									
22...	1345	1.4	24.0	329	1.2	--	--	--	60
23...	0830	.96	--	12800	33	--	--	--	77
25...	0830	3.2	--	13800	119	--	--	--	75
26...	1200	1.2	--	71600	232	--	--	--	76
26...	1400	1.2	--	70700	229	--	--	--	77
27...	1100	1.1	--	6310	19	--	--	--	99
27...	1400	1.1	--	6430	19	--	--	--	98

## SAN JUAN RIVER BASIN

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM

LOCATION.--Lat 36°01'14"N, long 107°55'04"W, in NW¼NE¼ sec. 29, T.21 N., R.10 W., San Juan County, Hydrologic Unit 14080106, on down stream side of center bridge pier, 800 ft (240 m) downstream from Fajada Wash, and 0.5 mi (0.8 km) southwest of Chaco Canyon National Monument Visitors Center.

DRAINAGE AREA.--578 mi<sup>2</sup> (1,497 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 1976.

GAGE.--Water-stage recorder.--Altitude of gage is 6,140 ft (1,871 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 890 ft<sup>3</sup>/s (25.2 m<sup>3</sup>/s) July 23, 1976, gage height, 5.32 ft (1.622 m), from rating curve extended above 4.0 ft/s (0.113 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights, 3.44 ft (1.049 m) and 3.68 ft (1.122 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s) and maximum(\*).

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)			(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)
July 23	0430	*890	25.2	5.32	1.622	Sept 15	unknown	383	10.8	3.44	1.049
July 24	0200	375	10.6	3.48	1.061	Sept 22	0300	430	12.2	3.68	1.122
Aug 1	0330	422	12.0	3.65	1.113						

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD APRIL 1976 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---			0	110	0
2							---			0	14	0
3							---			0	.90	0
4							---			0	14	0
5							---			0	.20	0
6							---			0	.24	0
7							---			0	0	0
8							0			3.4	0	0
9							0			4.5	0	0
10							0			0	0	0
11							0			0	0	0
12							0			0	0	0
13							0			0	0	0
14							0			0	0	0
15							0			0	0	150
16							0			0	0	0
17							0			0	0	0
18							0			0	0	0
19							0			0	1.2	0
20							0			0	.37	0
21							0			0	.37	.30
22							0			28	.30	186
23							0			173	0	4.5
24							0			88	0	.44
25							0			1.2	0	0
26							0			2.5	0	0
27							0			.51	0	0
28							0			.18	0	0
29							0			0	0	0
30							0			0	0	0
31							---		---	0	0	---
TOTAL							---	0	0	301.29	141.58	341.24
MEAN							---	0	0	9.72	4.57	11.4
MAX							---	0	0	173	110	186
MIN							---	0	0	0	0	0
AC-FT							---	0	0	598	281	677

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--August to September 1976.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
AUG												
06...	1100	.24	445	7.9	21.0	40	0	14	1.1	87	6.0	2.5
17...	1230	.00	499	7.4	22.5	42	0	15	1.1	95	6.4	3.4
19...	--	--	590	7.6	15.5	130	0	43	4.6	65	2.5	14
SEP												
15...	1430	1.3	550	7.5	19.0	--	--	--	--	--	--	--
15...	1440	2.0	610	7.7	19.0	150	0	49	6.6	61	2.2	8.7
15...	1525	3.2	435	7.5	19.5	--	--	--	--	--	--	--
15...	1535	3.2	617	7.7	20.0	160	0	51	6.7	62	2.2	8.7
15...	1800	1.3	560	7.5	19.0	--	--	--	--	--	--	--
29...	1030	.01	575	7.0	--	160	0	55	6.6	58	2.0	4.9

DATE	TIME	RICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA CONSTIT- (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (MG/L) (01020)	DIS- SOLVED IRON (FE) (MG/L) (01046)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
AUG													
06...	199	0	46	4.2	.7	13	276	2.1	.10	120	40	--	--
17...	226	0	49	4.7	.9	12	297	.94	.13	80	20	--	--
19...	224	0	79	18	.6	12	349	.35	.08	100	50	5.5	--
SEP													
15...	--	--	--	--	--	--	--	--	--	--	--	--	84
15...	217	0	92	21	.8	8.5	356	.31	.01	90	30	103	--
15...	--	--	--	--	--	--	--	--	--	--	--	--	109
15...	221	0	95	21	.9	9.9	366	.33	.01	110	20	111	--
15...	--	--	--	--	--	--	--	--	--	--	--	--	135
29...	290	0	53	6.7	.4	15	343	.12	.02	80	40	12	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	TOTAL MERCURY (MG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
AUG									
17...	1230	16	--	80	20	--	--	.2	3
19...	--	3	--	100	50	--	--	.1	1
SEP									
15...	1430	--	190	--	--	--	--	--	1
15...	1440	30	180	90	30	380	10	2.0	2
15...	1525	--	180	--	--	--	--	--	1
15...	1535	35	200	110	20	340	10	1.7	1
15...	1800	--	200	--	--	--	--	--	1

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (000061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDI- MENT (MG/L) (80154)	SUS- PENDED SEDI- MENT CHARGE (T/DAY) (80155)	SUS- SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
AUG						
06...	1100	.24	21.0	8720	5.7	100
17...	1230	.00	22.5	1540	.00	100
19...	0845	2.0	15.5	48000	259	99
19...	0945	1.3	16.0	37900	133	100
19...	2030	1.3	16.0	62400	219	100
19...	2300	1.3	16.0	22100	78	100
SEP						
15...	1430	1.3	19.0	22800	80	100
15...	1440	2.0	19.0	23300	126	100
15...	1450	3.2	19.0	24700	213	97
15...	1500	3.2	19.0	22900	198	98
15...	1515	3.2	19.5	22000	190	100
15...	1525	3.2	19.5	21600	187	100
15...	1535	3.2	20.0	21600	187	100
15...	1545	3.2	19.0	21400	185	100
15...	1600	2.0	20.0	21400	116	100
15...	1700	2.0	21.0	20200	109	100
15...	1800	1.3	19.0	19800	69	100

## SAN JUAN RIVER BASIN

09367710 DE-NA-ZIN WASH NEAR BISTI TRADING POST, NM

LOCATION.--Lat 36°13'51", long 108°11'57", in NE¼NW¼ Sec. 14, T.23 N., R.13 W., San Juan County, Hydrologic Unit 14080106, on right bank 400 ft (122 m) upstream from county road, 0.8 mi (1.3 km) downstream from Alamo Wash, 4.5 mi (7.2 km) southeast of Bisti Trading Post, and at mile 7.3 (11.7 km).

DRAINAGE AREA.--194 mi<sup>2</sup> (477 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1975 to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 5,840 ft (1,780 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 945 ft<sup>3</sup>/s (26.8 m<sup>3</sup>/s) Aug. 19, 1976, gage height, 5.55 ft (1.692 m) from rating curve extended above 2.0 ft<sup>3</sup>/s (0.057 m<sup>3</sup>/s) on basis of slope-area measurement at gage height, 4.30 ft (1.311 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base at 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s) and maximum (\*).

Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft <sup>3</sup> /s)	Discharge (m <sup>3</sup> /s)	Gage height (ft)	Gage height (m)
Feb 14	2100	194	5.49	2.70	0.823	July 13	2100	124	3.51	2.30	0.701
Feb 19	1300	134	3.79	2.36	0.719	Aug 1	1500	558	15.8	4.30	1.311
May 6	2400	316	8.95	3.30	1.006	Aug 19	2015	*945	26.8	5.55	1.692

No flow most of time.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0			0		0	98	0
2					0			0		0	19	0
3					0			0		0	2.1	0
4					0			0		0	0	0
5					0			0		0	0	0
6					0			8.0		0	0	0
7					0			46		0	0	0
8					0			1.7		0	0	0
9					0			0		0	0	0
10					0			0		0	0	0
11					0			0		0	0	0
12					0			0		0	0	0
13					0			0		8.8	0	0
14					11			0		.72	0	0
15					17			0		5.8	0	1.1
16					8.1			0		1.6	0	12
17					4.2			0		0	0	0
18					2.1			0		0	0	0
19					11			0		0	88	0
20					0			0		0	70	0
21					0			0		0	.32	0
22					0			0		0	0	6.2
23					0			0		0	0	0
24					0			0		0	0	0
25					0			0		5.4	0	2.0
26					0			0		15	0	1.4
27					0			0		7.6	0	24
28					0			0		5.5	0	3.4
29					0			0		3.4	0	.22
30					---			0		4.3	0	0
31					---		---	0	---	21	0	---
TOTAL	---	---	---	0	53.4	0	0	55.7	0	78.92	277.42	50.32
MEAN	---	---	---	0	1.84	0	0	1.80	0	2.55	8.95	1.68
MAX	---	---	---	0	17	0	0	46	0	21	98	24
MIN	---	---	---	0	0	0	0	0	0	0	0	0
AC=FY	---	---	---	0	106	0	0	110	0	157	550	100

09367710 DE-NA-ZIN WASH NEAR BISTI TRADING POST, NM -- Continued

## WATER-QUALITY RECORDS

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

1975 DATA NOT PREVIOUSLY PUBLISHED

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	SPECIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA.MG) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
MAR 13...	1215	E.30	480	8.0	5.5	12	0	3.3	.8	95	12	1.4
JUL 10...	0945	E7.0	690	8.1	26.5	36	0	12	1.4	140	10	5.2
AUG 13...	1230	1.0	580	8.5	29.5	23	0	8.0	.7	110	10	2.3

DATE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
MAR 13...	124	0	100	3.1	.9	1.7	273	.80	.07	30	1400
JUL 10...	304	0	120	8.6	1.0	14	470	3.7	.12	240	1300
AUG 13...	171	0	110	12	1.6	7.9	339	.30	.09	80	630

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
MAR 13...	1215	28	30	1400	.4	5
AUG 13...	1230	55	80	630	.8	4

09367710 DE-NA-ZIN WASH NEAR BISTI TRADING POST, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
JUL												
13...	2040	124	600	7.0	--	--	--	.03	.37	20	10	--
19...	1500	.01	890	6.5	--	--	--	--	--	--	--	14
31...	2330	124	1100	7.3	--	--	--	--	--	--	--	--
AUG												
19...	2000	792	1500	7.6	--	--	--	--	--	--	--	142
SEP												
22...	1225	4.2	900	7.6	--	--	--	--	--	--	--	72
27...	1300	13	1300	7.4	18.5	--	--	--	--	--	--	155
27...	1750	12	750	8.2	18.5	244	0	--	--	--	--	--

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CHRO- MIUM (CH) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	TOTAL COPPER (CU) (UG/L) (01042)
JUL								
13...	2040	--	--	--	--	0	--	--
19...	1500	--	--	280	40	--	250	340
31...	2330	0	--	--	--	--	--	--
AUG								
19...	2000	0	--	120	70	--	--	--
SEP								
22...	1225	--	300	150	30	--	400	760
27...	1300	--	100	120	50	--	900	1600

DATE	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)
JUL							
13...	20	6	20	10	--	--	640
19...	--	--	--	--	--	--	--
31...	--	--	--	--	5.9	0	--
AUG							
19...	--	--	--	--	4.6	0	--
SEP							
22...	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--



## SAN JUAN RIVER BASIN

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09367710 DE-NA-ZIN WASH NEAR BISTI TRADING POST, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PEN- DED SEDI- MENT (MG/L) (80154)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)
JUL								
13...	2040	124	--	37700	12600	--	--	--
13...	2100	108	--	89700	26200	--	--	--
19...	1500	.01	--	19000	.51	--	--	--
31...	2230	70	--	197000	37200	--	--	--
AUG								
12...	1500	.01	25.0	1410	.04	--	--	--
13...	1230	1.0	29.5	10600	29	--	--	--
19...	1940	70	--	142000	26800	--	--	--
19...	1945	70	--	91300	17300	--	--	--
19...	2000	792	--	152000	325000	--	--	--
19...	2005	432	--	162000	189000	--	--	--
19...	2015	760	--	159000	326000	--	--	--
19...	2030	800	--	135000	292000	50	61	72
19...	2035	925	--	168000	420000	--	--	--
19...	2045	910	--	111000	273000	--	--	--
19...	2100	760	--	106000	218000	--	--	--
19...	2115	58	--	99200	15500	--	--	--
19...	2130	60	--	84800	13700	--	--	--
19...	2145	640	--	88900	154000	--	--	--
19...	2200	655	--	90200	160000	--	--	--
19...	2215	571	--	86300	133000	--	--	--
19...	2230	550	--	87600	130000	--	--	--
SEP								
27...	1300	13	18.5	32500	1140	--	--	--

DATE	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70331)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70332)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70333)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70334)
------	--	--	--	--	--	--	--

JUL							
13...	--	--	--	79	--	--	--
13...	--	--	--	92	--	--	--
19...	--	--	--	100	--	--	--
31...	--	--	--	98	--	--	--
AUG							
12...	--	--	--	100	--	--	--
13...	--	--	--	99	99	99	100
19...	--	--	--	86	--	--	--
19...	--	--	--	89	--	--	--
19...	--	--	--	89	--	--	--
19...	--	--	--	92	--	--	--
19...	--	--	--	81	--	--	--
19...	88	97	100	--	--	--	--
19...	--	--	--	89	--	--	--
19...	--	--	--	92	--	--	--
19...	--	--	--	92	--	--	--
19...	--	--	--	88	--	--	--
19...	--	--	--	89	--	--	--
19...	--	--	--	89	--	--	--
19...	--	--	--	87	--	--	--
19...	--	--	--	89	--	--	--
19...	91	97	100	--	--	--	--
SEP							
27...	--	--	--	98	--	--	--

## SAN JUAN RIVER BASIN

09367930 HUNTER WASH AT BISTI TRADING POST, NM

LOCATION.--Lat 36°16'37", long 108°15'12", in NW¼ sec.32, T.24 N., R.13 W., San Juan County, Hydrologic Unit 14080106, on right bank 150 ft (46 m) upstream from road crossing at Bisti Trading Post, and 35 mi (56 km) south of Farmington.

DRAINAGE AREA.--45.6 mi<sup>2</sup> (118 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,770 ft (1,759 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,570 ft<sup>3</sup>/s (44.5 m<sup>3</sup>/s) Sept. 19, 1976, gage height, 6.22 ft (1.896 m), from rating curve extended above 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s) and maximum (\*).

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
June 21	2230	20	0.57	2.02	0.616	Aug 19	1900	*1,570	44.5	6.22	1.896
July 13	2100	30	0.85	2.10	0.640	Sept 25	1200	85	2.4	2.40	0.732
Aug 1	1530	874	24.8	4.66	1.420	Sept 26	1900	538	15.2	3.82	1.164

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0			0	0	0	43	0
2				0	0			0	0	0	0	0
3				0	0			0	0	0	0	0
4				0	0			0	0	0	0	0
5				0	0			0	0	0	0	0
6				0	0			.86	0	0	0	0
7				0	0			3.0	0	0	0	0
8				0	0			.88	0	0	0	0
9				0	0			.34	0	0	0	0
10				0	0			.06	0	0	0	0
11				0	0			0	0	0	0	0
12				0	0			0	0	0	0	0
13				0	0			0	0	2.5	0	0
14				0	.47			0	0	0	0	0
15				0	0			0	0	0	0	0
16				0	0			0	0	0	0	0
17				0	0			0	0	0	0	0
18				0	0			0	0	0	0	0
19				0	0			0	0	2.7	110	0
20				0	0			0	0	0	26	0
21				0	0			0	1.2	0	0	0
22				0	0			0	1.5	0	0	0
23				0	0			0	1.0	0	0	0
24				0	0			0	0	0	0	0
25				0	0			0	0	0	0	10
26				0	0			0	0	1.4	0	45
27				0	0			0	0	.34	0	6.2
28				0	0			0	0	0	0	0
29				.16	0			0	0	0	0	0
30				.14	---			0	0	0	0	0
31		---		.05	---		---	0	---	0	0	---
TOTAL	0	0	0	.35	.47	0	0	5.14	3.7	6.94	179	61.2
MEAN	0	0	0	.011	.016	0	0	.17	.12	.22	5.77	2.04
MAX	0	0	0	.16	.47	0	0	3.0	1.5	2.7	110	45
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	.7	.9	0	0	10	7.3	14	355	121
WTR YR 1976	TOTAL 256.80		MEAN .70	MAX	110	MIN 0	AC-FT 509					

## SAN JUAN RIVER BASIN

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09367930 HUNTER WASH AT BISTI TRADING POST, NM -- Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH  (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	
JAN										
29...	1500	.05	480	7.6	--	--	--	--	--	
29...	1730	490	490	7.6	--	--	120	0	38	
MAY										
07...	--	--	1320	7.2	--	310	86	0	30	
07...	0830	3.0	1425	7.7	--	--	--	--	--	
JUN										
22-23	--	--	501	--	--	550	300	300	100	
JUL										
13...	1000	2.1	480	7.1	20.0	--	27	0	9.6	
19...	0930	5.2	630	8.2	30.0	--	--	--	--	
19...	1200	5.2	640	8.2	30.0	--	--	--	--	
19-20	--	--	673	8.0	--	--	22	0	8.1	
26...	0830	4.2	1260	7.2	40.0	--	100	0	35	
AUG										
01...	1500	3.1	1250	8.4	--	--	--	--	--	
02...	0930	5.4	1350	7.3	--	--	--	--	--	
02...	1530	4.5	1700	7.3	--	--	120	23	42	
19...	1810	3.1	1900	6.9	--	--	--	--	--	
19...	1815	6.9	2500	6.9	--	--	--	--	--	
SEP										
26...	1855	538	486	7.8	--	--	44	0	16	
27...	1000	5.8	950	7.9	--	--	--	--	--	
27...	1230	3.8	1000	7.9	35.0	--	--	--	--	
27...	1630	1.1	1000	7.9	25.0	--	--	--	--	
27...	1830	.52	1040	7.9	23.0	--	39	0	14	
28...	0800	.18	982	7.6	20.0	--	--	--	--	
28...	1700	.18	1000	7.6	26.0	--	--	--	--	
29-30	--	--	1060	7.8	--	--	42	0	15	
DATE		DIS- SOLVED MAG- NE- SIUM (MG) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)
JAN										
29...	--	--	--	--	--	--	--	--	--	--
29...	6.2	110	4.4	5.5	191	0	52	--	--	.3
MAY										
07...	2.7	270	13	4.1	266	0	460	13	1.0	--
07...	--	--	--	--	--	--	--	--	--	--
JUN										
22-23	12	180	4.5	13	0	--	95	10	.7	--
JUL										
13...	.7	110	9.2	5.7	159	0	110	11	.7	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
19-20	.5	150	14	5.8	335	--	91	12	1.0	--
26...	3.5	240	10	4.9	313	--	350	18	1.0	--
AUG										
01...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	3.5	330	13	9.1	118	0	710	13	.8	--
19...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
SEP										
26...	.9	91	6.0	4.6	193	--	77	6.3	.7	--
27...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--
27...	1.0	200	14	3.9	165	0	310	8.7	2.2	--
28...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
29-30	1.0	200	14	5.6	153	0	310	14	1.1	--

## SAN JUAN RIVER BASIN

09367930 HUNTER WASH AT BISTI TRADING POST, NM --- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
JAN								
29...	--	--	--	--	--	--	--	27
29...	12	--	1.4	10	220	16000	--	--
MAY								
07...	23	937	.50	.04	120	30	--	4.0
07...	--	--	--	--	--	--	--	95
JUN								
22-23	60	513	6.9	.13	40	11000	--	8.1
JUL								
13...	21	357	2.2	.05	250	110	--	--
19...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	34
19-20	22	473	3.9	.04	220	50	--	--
26...	21	828	.06	.02	120	20	--	--
AUG								
01...	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	110
02...	27	1210	4.2	.04	200	130	--	--
19...	--	--	--	--	--	--	--	--
19...	--	--	--	--	100	40	930	452
SEP								
26...	12	309	1.1	.03	70	80	--	--
27...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	70
27...	--	--	--	--	--	--	--	--
27...	19	654	3.0	.07	200	50	--	--
28...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
29-30	16	680	9.4	.06	80	70	--	--

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L) (01105)	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)
JAN								
29...	1500	--	37	--	--	140	--	--
29...	1730	--	--	--	--	--	220	10
MAY								
07...	--	--	1	--	--	170	120	--
07...	0830	--	--	1300	--	160	--	20
JUN								
22-23	--	240000	0	--	--	160	40	10
JUL								
19...	0930	--	1	--	--	--	--	--
19...	1200	--	--	1500	--	170	--	10
19-20	--	--	--	--	--	--	220	--
26...	0830	--	--	--	--	--	120	--
AUG								
01...	1500	--	1	--	--	--	--	--
02...	0930	--	--	2300	--	260	--	20
02...	1530	--	--	--	--	--	200	--
19...	1810	--	1	--	--	--	--	--
19...	1815	--	--	1200	300	260	100	--
SEP								
26...	1855	--	--	--	--	--	70	--
27...	1000	--	1	--	--	--	--	--
27...	1230	--	--	2800	--	190	--	10
27...	1630	390000	--	--	--	--	--	--
27...	1830	--	--	--	--	--	200	--
28...	1700	--	5	--	--	--	--	--
29-30	--	--	--	--	--	--	80	--

## SAN JUAN RIVER BASIN

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09367930 HUNTER WASH AT BISTI TRADING POST, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL CHROMIUM (CR) (UG/L) (01034)	TOTAL COBALT (CO) (UG/L) (01037)	TOTAL COPPER (CU) (UG/L) (01042)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	TOTAL MAN- GANESE (MN) (UG/L) (01055)
JAN									
29...	--	--	--	92000	--	--	80	--	1800
29...	50	--	170	--	16000	--	--	--	--
MAY									
07...	--	--	--	22000	30	<100	40	--	--
07...	190	500	1400	500000	--	500	480	--	15000
JUN									
22-23	120	250	360	270000	11000	500	150	--	3000
JUL									
19...	--	--	--	--	--	--	--	--	--
19...	100	100	290	220000	--	400	150	--	2500
19-20	--	--	--	--	50	--	--	20	--
26...	--	--	--	--	20	--	--	40	--
AUG									
01...	--	--	--	--	--	--	--	--	--
02...	110	300	680	320000	--	600	240	--	6800
02...	--	--	--	--	130	--	--	40	--
19...	--	--	--	--	--	--	--	--	--
19...	--	--	--	580000	40	--	800	60	58000
SEP									
26...	--	--	--	--	80	--	--	30	--
27...	--	--	--	--	--	--	--	--	--
27...	190	400	1300	520000	--	400	460	--	13000
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	50	--	--	20	--
28...	--	--	--	--	--	--	--	--	--
29-30	--	--	--	--	70	--	--	20	--

DATE	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL MOLYB- DENUM (MO) (UG/L) (01062)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL STRON- TIUM (SR) (UG/L) (01082)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	TOTAL ZINC (ZN) (UG/L) (01092)
JAN								
29...	--	.4	--	3	--	--	--	--
29...	--	--	--	--	--	--	--	--
MAY								
07...	--	.2	--	1	--	--	--	--
07...	--	--	--	--	8600	--	--	--
JUN								
22-23	--	1.4	--	2	--	--	--	1200
JUL								
19...	--	1.2	--	4	--	--	--	--
19...	--	--	--	--	2300	--	--	--
19-20	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--
AUG								
01...	--	2.7	--	0	--	--	--	--
02...	--	--	--	--	3900	--	--	--
02...	--	--	--	--	--	--	--	--
19...	--	5.0	--	0	--	--	--	--
19...	930	--	--	--	16000	1400	--	--
SEP								
26...	--	--	--	--	--	--	--	--
27...	--	1.5	--	0	--	--	--	--
27...	--	--	--	--	5900	--	--	--
27...	--	--	0	--	--	--	2.8	--
27...	--	--	--	--	--	--	--	--
28...	--	1.1	--	3	--	--	--	--
29-30	--	--	--	--	--	--	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL NON- FILT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDE GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDE GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L) (80050)	SUS- PENDE GROSS BETA AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED RA-226 (RADON METHOD) (UG/L) (09511)	DIS- SOLVED URANIUM (U) (UG/L) (80020)
SEP										
28...	0800	12000	81	470	26	300	21	250	.20	4.0

## SAN JUAN RIVER BASIN

09367930 HUNTER WASH AT BISTI TRADING POST, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDIM- ENT (MG/L) (80154)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
JAN						
29...	1500	.05	--	23500	3.2	37
29...	1730	3.0	--	16000	130	55
FEB						
02...	1010	3.0	6.0	10100	82	99
MAY						
07...	0830	3.0	--	73100	592	100
07...	1230	3.0	--	68200	552	100
07...	1235	1.7	--	71600	329	100
07...	1630	1.2	--	64100	208	100
JUN						
22...	0930	20	30.0	15900	859	100
22...	1200	30	30.0	16000	1300	100
22...	1730	30	30.0	15700	1270	100
23...	0845	5.2	25.0	16000	225	100
JUL						
13...	1000	2.1	20.0	9580	54	98
19...	0930	5.2	30.0	16700	234	100
19...	1200	5.2	30.0	19400	272	93
19...	1630	5.2	30.0	17400	244	100
20...	1030	4.2	35.0	16900	192	100
26...	0830	4.2	40.0	78200	887	100
26...	1200	3.0	40.0	81700	662	100
26...	1530	2.5	40.0	75000	506	100
AUG						
01...	0300	75	--	81800	16600	84
01...	1000	610	--	145000	239000	85
02...	0930	5.4	--	31500	459	100
02...	1345	4.6	--	26200	325	100
02...	1530	4.5	--	25700	312	100
19...	1810	3.1	--	246000	2060	57
19...	1815	6.9	--	197000	3670	77
SEP						
26...	1855	538	--	47400	68900	76
26...	1900	538	--	39700	57700	86
27...	1000	5.8	--	27100	424	97
27...	1230	3.8	35.0	50900	522	96
27...	1630	1.1	25.0	49300	146	97
27...	1830	.52	23.0	48400	68	99
28...	0800	.18	20.0	28800	14	98
28...	1045	.18	17.0	43300	21	65
28...	1330	.18	10.0	27900	14	99
28...	1500	.18	13.0	41000	20	100
28...	1700	.18	26.0	27700	13	100
29...	0830	.18	16.0	28100	14	100
29...	1130	.18	23.0	47500	23	99
30...	1130	.20	20.0	8360	4.5	99
30...	1430	.15	24.0	8150	3.3	100
30...	1900	.10	18.0	8190	2.2	100

## 09367950 CHACO RIVER NEAR WATERFLOW, NM

LOCATION.--Lat 36°43'28", long 108°35'27", in SW¼SW¼ sec. 13, T.29 N., R.17 W., San Juan County, Hydrologic Unit 14080106, on downstream end of right bridge pier, 4.2 mi (6.8 km) upstream from Dead Mans Wash, 5.3 mi (8.5 km) downstream from the Hogback, 6.6 mi (10.6 km) southwest of Waterflow, 7.2 mi (11.6 km) southeast of Shiprock and at mile 4.5 (7.2 km).

DRAINAGE AREA.--4,350 mi<sup>2</sup> (11,300 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1959-69 (annual maximum only), November 1975 to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 4,980 ft (1,518 m), from topographic map. Prior to 1975 at site 1.8 mi (2.9 km) upstream.

REMARKS.--Water-discharge records good, except those above 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s), which are fair. Base flow is mostly waste water from Four Corners Power Plant.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft<sup>3</sup>/s (207 m<sup>3</sup>/s), Sept. 20, 1969, gage height, 7.88 ft (2.402 m) site and datum then in use; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 290 ft<sup>3</sup>/s (8.2 m<sup>3</sup>/s) and maximum (\*).

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
July 11	2330	454 12.9	3.74 1.140	Aug 2	0830	702 19.9	4.35 1.326
July 27	0730	298 8.44	3.15 0.960	Aug 20	1730	a*2,070 58.6	6.59 2.009
Aug 1	0830	295 8.35	3.23 0.985				

Minimum discharge, 5.6 ft<sup>3</sup>/s (0.16 m<sup>3</sup>/s) Aug. 27-29.

a From rating curve extended above 70 ft<sup>3</sup>/s (2.0 m<sup>3</sup>/s) on basis of slope-area measurement of peak discharge.

DISCHARGE\* IN CUBIC FEET PER SECOND\* PERIOD NOVEMBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		14	14	10	8.6	16	10	8.6	11	8.6	116	9.9
2		13	13	6.0	9.0	12	11	9.0	12	8.1	219	9.9
3		12	12	10	8.6	11	12	12	12	7.6	82	9.9
4		12	12	8.0	8.6	9.9	13	13	13	7.6	44	9.9
5		12	13	8.0	8.6	9.9	17	13	12	7.6	19	9.4
6		12	12	10	8.6	12	17	16	12	7.6	12	9.9
7		13	12	7.8	9.0	13	14	15	20	9.0	15	9.9
8		13	13	6.0	9.9	13	11	16	24	7.6	8.1	9.9
9		14	13	7.8	11	13	9.4	16	16	6.9	6.9	10
10		12	13	8.0	17	10	7.2	16	11	6.5	12	10
11		13	15	8.5	18	11	6.2	16	11	24	14	11
12		14	15	9.0	16	10	7.6	16	12	82	13	11
13		14	17	8.1	14	10	11	13	13	36	11	10
14		9.9	17	9.0	13	10	10	8.6	13	22	11	9.0
15		12	17	9.0	13	16	11	8.6	13	18	11	8.1
16		13	17	9.0	13	21	12	10	13	17	9.9	9.4
17		13	17	9.0	11	17	11	9.4	13	15	9.0	9.9
18		13	16	9.0	9.9	17	11	9.4	10	13	8.6	13
19		15	16	8.6	9.9	15	13	9.4	7.6	13	95	13
20		15	16	9.0	9.9	19	11	12	7.6	11	544	13
21		15	16	9.9	16	17	9.4	13	7.6	12	255	14
22		15	15	9.9	12	15	8.6	12	7.6	15	63	18
23		13	16	12	17	12	8.6	12	6.9	13	26	28
24		14	14	12	17	17	9.9	12	7.6	10	14	63
25		13	13	12	14	16	13	11	8.1	11	8.6	115
26		14	15	12	14	16	10	13	7.6	29	6.2	167
27		13	14	16	12	16	12	12	7.6	100	5.6	80
28		15	13	16	11	12	12	9.9	7.6	25	5.6	58
29		13	13	17	14	11	10	9.4	7.2	15	5.6	42
30		13	9.9	13	---	10	9.4	9.9	8.6	12	8.1	31
31		---	8.6	9.0	---	10	---	10	---	11	8.6	---
TOTAL	---	396.9	437.5	308.6	353.6	417.8	328.3	371.2	332.6	581.1	1666.8	822.1
MEAN	---	13.2	14.1	9.95	12.2	13.5	10.9	12.0	11.1	18.7	53.8	27.4
MAX	---	15	17	17	18	21	17	16	24	100	544	167
MIN	---	9.9	8.6	6.0	8.6	9.9	6.2	8.6	6.9	6.5	5.6	8.1
AC-FT	---	787	868	612	701	829	651	736	660	1150	3310	1630

## SAN JUAN RIVER BASIN

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1975 to September 1976.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	SPECIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)
NOV											
13...	1500	10	3020	8.4	20.0	9.0	--	10.0	1000	930	310
DEC											
11...	1300	16	2920	8.2	12.0	6.5	--	10.6	970	870	260
JAN											
27...	1410	8.0	2230	7.6	--	5.5	--	--	700	600	190
FEB											
26...	1610	12	2800	8.3	16.0	14.0	--	8.6	1000	930	300
MAR											
24...	1130	11	3000	8.2	18.0	10.5	--	11.0	1100	1000	320
APR											
21...	0800	9.9	2200	8.1	13.0	6.0	--	9.6	760	660	210
MAY											
19...	0820	9.5	2400	8.6	19.0	10.0	--	9.5	700	600	190
JUN											
08...	1500	28	1950	7.5	--	25.0	7200	--	--	--	--
16...	1145	14	2790	8.3	30.0	17.0	--	8.5	1100	1000	320
JUL											
28...	1030	9.5	1500	7.8	33.5	20.0	--	7.5	330	210	110
AUG											
05...	1715	16	2150	7.8	--	27.0	--	--	--	--	--
20...	1200	100	1800	6.8	--	23.0	--	--	--	--	--
25...	0730	10	2100	8.4	20.0	14.0	--	7.8	510	390	150
27...	1015	6.0	2700	7.5	--	20.5	--	--	--	--	--
SEP											
22...	0800	27	2750	7.9	10.5	13.0	--	8.8	750	630	200

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)
NOV										
13...	63	280	3.8	9.9	98	12	1300	150	7.2	7.9
DEC										
11...	77	290	4.1	9.4	123	0	1200	130	5.1	6.3
JAN										
27...	55	250	4.1	8.6	121	0	950	130	3.0	.7
FEB										
26...	66	260	3.5	10	117	0	1200	150	8.2	13
MAR										
24...	82	310	4.0	11	133	0	1400	160	6.7	8.6
APR										
21...	58	240	3.8	8.3	122	0	1000	140	4.3	2.9
MAY										
19...	54	250	4.1	8.0	122	0	870	130	3.0	2.4
JUN										
08...	--	--	--	--	--	--	--	--	--	--
16...	66	270	3.6	9.5	76	0	1200	170	9.6	22
JUL										
28...	14	220	5.3	8.3	147	0	590	63	1.8	11
AUG										
05...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
25...	32	260	5.0	8.8	140	0	800	92	2.5	8.1
27...	--	--	--	--	--	--	--	--	--	--
SEP										
22...	62	320	5.1	8.9	156	0	1000	110	2.5	7.3



## SAN JUAN RIVER BASIN

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09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
NOV 13...	2210	--	3.6	--	--	.00	9300	0	--	--
DEC 11...	2060	4.1	4.1	6.6	.82	.00	3500	0	0	11
JAN 27...	1660	--	3.0	--	--	.00	3400	60	--	--
FEB 26...	2090	--	4.1	--	--	.01	7100	20	--	--
MAR 24...	2390	--	5.0	--	--	.00	6800	0	--	--
APR 21...	1740	--	3.4	--	--	.00	3900	10	--	--
MAY 19...	1580	--	2.9	--	--	.01	2900	40	--	--
JUN 08...	--	--	--	--	--	--	--	--	--	--
16...	2120	--	3.7	--	--	.02	1100	90	--	--
JUL 28...	1110	--	3.2	--	--	.05	1500	70	--	--
AUG 05...	--	--	--	--	--	--	--	--	--	70
20...	--	--	--	--	--	--	--	--	--	338
25...	1440	--	3.4	--	--	.01	1900	60	--	--
27...	--	--	--	--	--	--	--	--	--	4.9
SEP 22...	1820	--	7.1	--	--	.09	1900	20	--	--

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L) (01105)	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL BARIUM (BA) (UG/L) (01007)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
NOV 13...	1500	--	13	--	--	--	--	9300	--	--	--	--
DEC 11...	1300	--	18	3	--	0	--	3500	<10	0	21	0
JAN 27...	1410	--	36	--	--	--	3700	3400	--	--	--	--
FEB 26...	1610	--	20	--	--	--	7100	7100	--	--	--	--
MAR 24...	1130	--	0	--	--	--	9900	6800	--	--	--	--
APR 21...	0800	--	12	--	--	--	3900	3900	--	--	--	--
MAY 19...	0820	--	19	--	--	--	3600	2900	--	--	--	--
JUN 08...	1500	250000	7	--	2000	--	--	--	10	--	180	--
16...	1145	--	24	--	--	--	1100	1100	--	--	--	--
JUL 28...	1030	--	200	--	--	--	1500	1500	--	--	--	--
AUG 05...	1715	--	--	--	1100	--	8700	--	10	--	100	--
20...	1200	--	350	--	1500	--	660	--	30	--	340	--
25...	0730	--	50	--	--	--	1900	1900	--	--	--	--
27...	1015	--	--	--	300	--	2800	--	<10	--	10	--
SEP 22...	0800	--	250	--	--	--	19	1900	--	--	--	--

## SAN JUAN RIVER BASIN

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL COBALT (CO) (01037)	DIS- SOLVED COBALT (CO) (01035)	TOTAL COPPER (CU) (01042)	DIS- SOLVED COPPER (CU) (01040)	TOTAL IRON (FE) (01045)	DIS- SOLVED IRON (FE) (01046)	TOTAL LEAD (PB) (01051)	DIS- SOLVED LEAD (PB) (01049)	TOTAL LITHIUM (LI) (01132)	DIS- SOLVED LITHIUM (LI) (01130)	TOTAL MAN- GANESE (MN) (01055)
NOV 13...	--	--	--	--	--	0	<100	--	180	--	--
DEC 11...	100	0	50	3	25000	0	<100	0	150	110	550
JAN 27...	--	--	--	--	--	60	300	--	240	--	--
FEB 26...	--	--	--	--	--	20	200	--	150	--	--
MAR 24...	--	--	--	--	--	0	300	--	240	--	--
APR 21...	--	--	--	--	--	10	<100	--	110	--	--
MAY 19...	--	--	--	--	--	40	<100	--	130	--	--
JUN 08...	--	--	470	--	270000	--	400	--	360	--	6600
JUL 16...	--	--	--	--	--	90	100	--	180	--	--
JUL 28...	--	--	--	--	--	70	620	--	350	--	--
AUG 05...	--	--	--	--	200000	--	200	--	300	--	5600
20...	1600	--	2300	--	790000	--	1000	--	830	--	30000
25...	--	--	--	--	--	60	400	--	240	--	--
27...	--	--	--	--	10000	--	<100	--	110	--	170
SEP 22...	--	--	--	--	--	20	800	--	540	--	--

DATE	DIS- SOLVED MAN- GANESE (MN) (01056)	TOTAL MERCURY (HG) (71900)	DIS- SOLVED MERCURY (HG) (71890)	TOTAL MOLYB- DENIUM (MO) (01062)	TOTAL SELE- NIUM (SE) (01147)	DIS- SOLVED SELE- NIUM (SE) (01145)	TOTAL SILVER (AG) (01077)	TOTAL STRON- TIUM (SR) (01082)	DIS- SOLVED VANA- DIUM (V) (01085)	TOTAL ZINC (ZN) (01092)	DIS- SOLVED ZINC (ZN) (01090)
NOV 13...	--	--	--	--	48	--	--	--	--	--	--
DEC 11...	0	.0	.0	--	21	16	--	--	--	130	10
JAN 27...	--	.4	--	--	10	--	--	--	--	--	--
FEB 26...	--	.1	--	--	43	--	--	--	--	--	--
MAR 24...	--	.2	--	--	29	--	--	--	--	--	--
APR 21...	--	.0	--	--	20	--	--	--	--	--	--
MAY 19...	--	.0	--	--	7	--	--	--	--	--	--
JUN 08...	--	.7	--	--	4	--	10	--	--	1100	--
JUL 16...	--	.0	--	--	22	--	--	--	--	--	--
JUL 28...	--	1.2	--	--	6	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	3500	--	--	--
20...	--	2.8	--	0	0	--	--	14000	.4	--	--
25...	--	.4	--	--	6	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	2000	--	--	--
SEP 22...	--	--	--	--	4	--	--	--	--	--	--

## SAN JUAN RIVER BASIN

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09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DIS-  
SOLVED  
URANIUM  
(U)  
(UG/L)  
(80020)

DATE                      TIME

AUG  
20...                      1200                      17

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PEN- DED SEDI- MENT (MG/L) (80154)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM (70332)	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM (70333)	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM (70334)
NOV									
13...	1500	10	9.0	1340	36	99	--	--	--
DEC									
11...	1300	16	6.5	1650	71	97	--	--	--
FEB									
26...	1610	12	14.0	2080	67	96	--	--	--
MAR									
24...	1130	11	10.5	7530	224	96	--	--	--
APR									
21...	0845	16	6.0	1680	73	80	--	--	--
MAY									
17...	0900	17	--	1930	89	90	--	--	--
20...	1000	22	--	1460	87	99	--	--	--
20...	1100	12	--	599	19	--	--	--	--
21...	1045	21	--	1390	79	99	--	--	--
21...	1120	13	--	1530	54	--	--	--	--
JUN									
08...	1500	28	25.0	19100	1440	95	--	--	--
16...	1145	14	17.0	2220	84	85	--	--	--
JUL									
23...	1100	17	--	2490	114	98	--	--	--
27...	0615	125	--	4530	1530	73	--	--	--
28...	1130	21	20.0	28300	1600	98	--	--	--
AUG									
05...	1700	16	27.0	15900	687	97	--	--	--
05...	1715	16	27.0	15400	665	100	--	--	--
05...	1716	17	27.0	21800	1000	99	99	99	100
19...	1710	196	23.5	25000	13200	100	--	--	--
20...	1200	100	23.0	108000	29200	99	--	--	--
25...	0800	8.6	14.0	14200	330	99	--	--	--
27...	1015	6.0	20.5	592	9.6	100	--	--	--
SEP									
22...	1830	19	12.0	36900	1890	100	--	--	--

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM  
(National stream-quality accounting network,  
surveillance network, and radiochemical network station)

LOCATION.--Lat 36°47'32", long 108°43'54", in NW¼ sec.27, T.30 N., R.18 W., San Juan County, Hydrologic Unit 14080105, on left bank 3 mi (5 km) west of Shiprock, 6 mi (10 km) downstream from Chaco River, and at mile 215.0 (345.9 km).

DRAINAGE AREA.--12,900 mi<sup>2</sup> (33,400 km<sup>2</sup>), approximately.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1243: 1931, 1934-38, 1951. WSP 1313: 1911, 1933.

GAGE.--Water-stage recorder. Datum of gage is 4,848.68 ft (1,477.878 m) above mean sea level, from 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 (5 km) upstream at different datum. Oct. 26, 1933, to Sept. 30, 1936, water-stage recorder at present site at datum 3.31 ft (1.01 m) higher and Oct. 1, 1936, to Sept. 30, 1952, at datum 1.77 ft (0.54 m) higher. Supplementary water-stage recorders at nearby sites, same datum, used at times.

REMARKS.--Water-Discharge records good. Since 1962 flow partly regulated by Navajo Reservoir (see station 09355100). Diversions for irrigation of about 118,000 acres (480 km<sup>2</sup>) above station. Ungaged canals bypass station on both right and left bank, though some of bypass flow is returned to river below gage.

AVERAGE DISCHARGE.--50 years (water years 1927-76), 2,203 ft<sup>3</sup>/s (62.39 m<sup>3</sup>/s), 1,596,000 acre-ft/yr (1.97 km<sup>3</sup>/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD (SINCE 1927).--Maximum discharge, about 80,000 ft<sup>3</sup>/s (2,270 m<sup>3</sup>/s) Aug. 11, 1929, gage height, 5.7 ft (1.73 m), site datum then in use; minimum daily, 8 ft<sup>3</sup>/s (0.23 m<sup>3</sup>/s) Aug. 25, 26, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, and reached a stage of 22 ft (6.7 m), site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,720 ft<sup>3</sup>/s (134 m<sup>3</sup>/s) at 0100 hours May 31, gage height, 5.26 ft (1.603 m), no peak above base of 6,000 ft<sup>3</sup>/s (170 m<sup>3</sup>/s); minimum, 250 ft<sup>3</sup>/s (7.08 m<sup>3</sup>/s) Aug. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1550	1370	1780	1830	1380	1410	626	1760	3390	895	2280	518
2	1690	2100	1930	1700	1380	1330	598	1720	3570	942	1830	491
3	1670	2050	1940	1700	1390	1290	650	1810	3570	986	1010	465
4	1820	1980	2010	1720	1450	1230	743	2000	3790	951	1020	453
5	1810	1950	2010	1730	1480	1220	800	2100	4020	966	775	473
6	1810	1920	1970	1810	1520	1190	765	2190	3990	872	630	449
7	1740	1930	1920	1850	1520	1230	741	3060	3710	779	535	490
8	1680	1480	1890	1830	1520	1240	676	2970	3210	713	500	532
9	1640	723	1920	1870	1520	1310	556	2880	3360	565	462	585
10	1700	687	1930	1910	1590	1320	596	2510	3640	513	383	652
11	1790	673	1900	1890	1560	1310	760	2440	3610	490	405	772
12	1710	1250	1940	1910	1530	1340	837	2560	3380	682	358	845
13	1730	1850	1940	1950	1470	1360	935	2760	3010	556	336	894
14	1730	1810	1940	1470	1410	1400	890	2690	2930	636	292	963
15	1760	1890	1860	1210	1200	1410	759	2880	2830	641	256	884
16	1840	1940	1780	1200	1130	1410	677	3460	2540	575	256	885
17	1830	1980	1760	1250	1040	1420	713	3800	2690	509	253	697
18	1820	1990	1790	1260	1040	1350	660	3890	2550	486	253	561
19	1820	2030	1840	1320	1190	1280	601	4130	2270	463	360	579
20	1780	1940	1850	1310	1240	1240	500	3810	2200	468	1060	492
21	1760	1840	1940	1300	1270	1270	403	3870	2560	401	1530	470
22	1730	1860	1920	1330	1290	1270	363	3440	3200	385	1020	472
23	1820	1850	1930	1330	1380	1210	401	3290	3240	308	812	548
24	2010	1880	1930	1350	1350	1130	933	3230	3130	744	751	604
25	1980	1900	1820	1290	1400	1100	1370	3330	2850	1210	651	1070
26	1950	1810	1820	1260	1450	1030	1540	3340	2460	1560	669	2210
27	1960	1900	1820	1250	1470	879	1670	3240	2300	3260	621	2080
28	1980	1940	1760	1320	1430	853	1650	3600	2090	1840	600	1980
29	1550	1950	1730	1410	1370	852	1670	4020	1400	1170	548	1380
30	721	1870	1700	1340	---	799	1770	4410	1010	953	592	1240
31	702	---	1710	1390	---	675	---	4020	---	769	544	---
TOTAL	53083	52343	57980	47290	39970	37358	25853	95210	88500	26288	21592	24734
MEAN	1712	1745	1870	1525	1378	1205	862	3071	2950	848	697	824
MAX	2010	2100	2010	1950	1590	1420	1770	4410	4020	3260	2280	2210
MIN	702	673	1700	1200	1040	675	363	1720	1010	308	253	449
AC-FT	105300	103800	115000	93800	79280	74100	51280	188800	175500	52140	42830	49060
CAL YR 1975 TOTAL	957006			2622	MAX 11300	MIN 673	AC-FT 1898000					
WTR YR 1976 TOTAL	570201			1558	MAX 4410	MIN 253	AC-FT 1131000					

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

## WATER-QUALITY RECORDS

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

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1941 to September 1945, July 1957 to current year.

WATER TEMPERATURES: December 1950 to current year.

HARDNESS: February 1941 to September 1945, July 1957 to current year.

DISSOLVED SOLIDS: February 1941 to September 1945, July 1957 to current year.

SUSPENDED SEDIMENT DISCHARGE: December 1950 to current year.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (1957-76): Maximum daily, 4,360 micromhos July 31, 1959; minimum daily, 188 micromhos June 6, 1958.

WATER TEMPERATURES: Maximum, 34.0°C July 20, 1968; minimum, 0.0°C on many days during winter months of most years.

HARDNESS (1941-45, 1957-76): Maximum, 1,100 mg/L July 30, 31, 1959; minimum, 70 mg/L June 21-28, 30, 1944.

DISSOLVED SOLIDS (1941-45, 1957-76): Maximum, 2,980 mg/L July 30, 31, 1959; minimum, 115 mg/L June 21-28, 30, 1944.

SEDIMENT CONCENTRATIONS: Maximum daily, 114,000 mg/L Aug. 11, 1967; minimum daily, 2 mg/L May 4, 1963.

SEDIMENT LOADS: Maximum daily, 2,000,000 tons (1,810,000 tonnes) Aug. 11, 1967; minimum daily, 1 ton (.91 tonne) on several days during July and September 1959, September 1962, May and July 1963.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,390 micromhos July 28; minimum daily, 309 micromhos May 21.

WATER TEMPERATURES: Maximum, 21.0°C on several days during July and August; minimum, 0.0°C Jan. 1-3.

HARDNESS: Maximum, 400 mg/L Aug. 7-16; minimum, 110 mg/L Dec. 1-31.

DISSOLVED SOLIDS: Maximum, 993 mg/L July 28; minimum, 180 mg/L May 19.

SEDIMENT CONCENTRATIONS: Maximum daily, 28,700 mg/L Aug. 1; minimum daily, 29 mg/L July 3.

SEDIMENT LOADS: Maximum daily, 187,000 tons (170,000 tonnes) Aug. 1; minimum daily, 20 tons (18 tonnes) Aug. 18.

## CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- CHARGE (CFS) (00060)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)
OCT												
01-28	1780	519	8.2	190	84	59	11	36	1.1	2.5	132	0
29-31	712	493	8.0	180	75	56	9.9	34	1.1	2.5	129	0
NOV												
01-07	1900	497	7.8	180	74	52	11	35	1.2	2.2	123	0
08-10	963	827	8.0	290	150	89	17	70	1.8	3.0	170	0
11-16	1570	510	8.0	180	66	54	10	37	1.2	2.1	134	0
17-30	1910	518	8.2	180	83	55	11	35	1.1	2.4	122	0
DEC												
01-31	1870	462	--	110	22	24	12	33	1.4	2.4	106	--
JAN												
01-12	1810	386	9.0	120	63	31	9.8	30	1.2	2.1	52	7
13-31	1340	483	8.9	140	90	36	12	41	1.5	2.4	48	6
FEB												
01-12	1490	553	--	170	110	48	13	47	1.6	2.5	82	--
13-15	1360	676	--	190	130	51	16	63	2.0	2.9	74	--
16-20	1130	606	--	170	120	43	15	58	1.9	2.7	64	--
21-29	1380	492	--	140	90	38	12	43	1.6	2.4	66	--
MAR												
01-25	1290	473	9.0	150	78	41	11	38	1.4	2.2	85	0
26-31	848	612	8.5	220	100	67	13	43	1.3	2.4	143	2
APR												
01-18	721	686	8.1	250	130	75	15	49	1.4	2.6	146	0
19-30	1070	474	7.8	190	88	58	10	29	.9	2.1	120	0
MAY												
01-18	3070	434	8.2	160	62	49	9.0	26	.9	2.0	119	0
19-31	1210	358	8.0	130	50	41	7.2	19	.7	1.6	100	0
JUN												
01-28	2640	372	7.8	140	64	44	7.5	20	.7	1.9	93	0
29-30	3670	486	7.7	170	79	53	9.9	30	1.0	2.2	115	0
JUL												
01-10	818	703	7.9	240	120	72	14	49	1.4	2.7	138	0
11-31	862	920	7.6	300	140	100	13	82	2.1	4.8	200	0
AUG												
01-02	2060	980	8.0	210	34	72	8.3	140	4.2	6.8	220	0
03-06	859	859	7.8	270	140	89	12	73	1.9	4.5	164	0
07-16	378	1300	8.5	400	320	100	36	130	2.8	4.7	93	2
20-31	783	684	8.1	220	98	69	12	57	1.7	3.6	151	0
SEP												
01-09	495	743	7.5	250	130	75	16	55	1.5	2.9	147	0
10-19	773	732	8.1	250	130	75	15	58	1.6	3.0	148	0
20-24	517	883	8.0	320	170	95	19	65	1.6	3.3	178	0
25-30	1660	908	8.2	290	160	86	19	76	1.9	3.2	159	0
WTD. AVG.	--	520	8.2	172	80	51	11	38	1.3	2.5	111	1
TIME WTD.												
AVG.	1480	581	8.2	191	95	56	12	45	1.4	2.7	117	1
TOT. LOAD (TONS)	--	--	--	--	--	73400	16100	55700	--	3550	161000	871

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued  
 CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED (SUM OF TUENTS) (MG/L) (70301)	DIS- SOLVED SOLIDS (TONS PER AC-FT) (70303)	DIS- SOLVED SOLIDS (TONS PER DAY) (70302)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT												
01-28	140	10	.3	9.8	--	335	.46	1610	.31	.02	100	0
29-31	130	9.3	.3	9.7	--	317	.43	609	.29	.02	80	0
NOV												
01-07	130	9.3	.3	9.5	--	311	.42	1600	.30	.00	70	10
08-10	260	20	.4	8.9	--	555	.75	1440	.52	.03	240	0
11-16	130	9.3	.2	9.5	--	319	.43	1350	.22	.01	70	10
17-30	140	10	.3	9.4	--	331	.45	1710	1.8	.01	100	0
DEC												
01-31	130	9.4	.3	5.8	--	270	.37	1360	.11	.00	40	30
JAN												
01-12	120	9.1	.3	4.2	--	239	.33	1170	.02	.00	40	10
13-31	160	13	.3	2.3	--	297	.40	1070	.06	.00	70	10
FEB												
01-12	190	15	.3	3.7	--	360	.49	1450	.01	.04	140	20
13-15	250	18	.3	.3	--	438	.60	1610	.00	.01	90	20
16-20	230	17	.3	.2	--	398	.54	1210	.00	.01	80	20
21-29	170	13	.3	1.6	--	313	.43	1170	.00	.03	110	30
MAR												
01-25	140	11	.3	3.6	--	289	.39	1010	.00	.03	80	20
26-31	180	13	.3	7.3	--	400	.54	916	.26	.05	90	20
APR												
01-18	210	17	.5	7.6	--	451	.61	878	.54	.05	120	40
19-30	130	9.4	.4	8.4	--	308	.42	890	.32	.02	100	30
MAY												
01-18	110	8.7	.3	7.0	--	271	.37	2250	.11	.01	80	30
19-31	88	6.3	.3	6.6	--	220	.30	719	.17	.00	70	30
JUN												
01-28	89	7.5	.3	7.3	--	224	.30	1600	.22	--	--	--
29-30	130	10	.3	7.2	--	301	.41	2980	.30	--	--	--
JUL												
01-10	200	18	.4	5.2	--	430	.58	950	.20	--	--	--
11-31	290	19	.5	10	--	621	.84	1450	.61	--	--	--
AUG												
01-02	320	21	.7	11	--	690	.94	3840	.23	.03	150	10
03-06	270	17	.5	6.2	--	554	.75	1280	.12	.02	190	0
07-16	540	44	.5	1.6	--	908	1.23	927	.49	.00	820	0
20-31	200	17	.4	6.6	--	441	.60	932	.17	.00	120	10
SEP												
01-09	230	17	.4	9.2	--	481	.65	643	.69	.04	250	0
10-19	230	15	.4	9.3	--	482	.66	1010	.74	.06	140	20
20-24	290	25	.5	8.8	--	599	.81	836	.92	.04	230	0
25-30	300	23	.4	8.6	--	601	.82	2690	1.3	.04	230	10
WTD. AVG.	151	11	.3	6.7	--	329	.45	--	.30	.02	97	18
TIME WTD.												
AVG.	176	13	.4	6.6	--	372	.51	--	.33	.02	124	17
TOT. LOAD (TONS)	219000	16600	474	9720	--	477000	--	--	436	18	113	20

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	DIS- SOLVED OXYGEN (MG/L) (00300)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA+MG) (MG/L) (00900)
OCT										
15...	0930	1760	530	8.2	9.5	7.5	35	10.6	11	190
NOV										
12...	1045	1250	880	8.1	5.0	3.0	65	11.8	12	310
DEC										
11...	1000	1900	500	8.1	6.5	5.0	30	10.6	9	190
JAN										
29...	1600	1380	650	8.2	10.0	7.0	25	10.7	1	220
FEB										
26...	0910	1440	550	8.2	7.0	3.0	40	12.2	13	190
MAR										
24...	0800	1150	495	7.4	22.5	6.0	34	11.2	12	190
APR										
21...	0930	397	795	8.4	21.5	10.5	14	10.7	27	280
MAY										
19...	1030	3980	315	7.8	25.5	12.0	100	9.0	9	120
JUN										
16...	0830	2670	425	8.0	22.0	11.0	17	9.0	14	140
JUL										
28...	0730	2200	1390	8.1	25.5	18.0	13000	6.6	200	350
AUG										
25...	0950	658	810	8.3	27.5	17.5	500	7.8	43	260
SEP										
22...	0940	439	1100	7.9	21.0	13.0	230	9.1	44	370

## SAN JUAN RIVER BASIN

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09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued  
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	NON-CAR-BONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNE- SIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)
OCT 15...	76	56	12	37	1.2	2.4	138	0	140
NOV 12...	160	91	19	67	1.7	3.0	180	0	260
DEC 11...	81	58	11	33	1.0	2.9	133	0	130
JAN 29...	110	65	14	43	1.3	2.7	140	0	170
FEB 26...	82	60	10	38	1.2	2.6	133	0	150
MAR 24...	83	58	11	35	1.1	2.5	131	0	130
APR 21...	150	83	18	68	1.8	3.0	163	0	260
MAY 19...	46	37	6.0	15	.6	1.6	87	0	65
JUN 16...	61	44	7.4	22	.8	1.8	97	0	91
JUL 28...	190	120	13	180	4.2	6.1	193	0	550
AUG 25...	130	80	14	57	1.5	3.7	160	0	210
SEP 22...	220	110	22	81	1.8	3.8	172	0	330
DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SiO2) (MG/L) (00955)	DIS-SOLVED (RESI-DUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO-GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO-GEN (N) (MG/L) (00605)
OCT 15...	9.3	.3	9.5	345	336	.28	.26	.04	.53
NOV 12...	21	.4	9.0	579	563	.89	.89	.03	.94
DEC 11...	9.7	.3	9.8	352	322	.33	.33	.01	.30
JAN 29...	15	.4	9.2	400	391	.48	.47	.09	.58
FEB 26...	12	.4	8.8	355	349	.40	.40	.01	.39
MAR 24...	12	.2	8.0	348	323	.34	.28	.04	.47
APR 21...	20	.5	6.3	558	541	.46	.41	.03	.36
MAY 19...	4.4	.3	6.7	232	180	.22	.21	.00	.59
JUN 16...	6.9	.3	7.7	242	230	.19	.19	.00	.21
JUL 28...	21	.6	.8	965	993	1.4	1.4	.00	5.4
AUG 25...	18	.4	10	472	476	1.0	.91	.01	1.5
SEP 22...	29	.6	9.4	692	675	1.0	.98	.02	.86
DATE	TOTAL NITRO-GEN (N) (MG/L) (00600)	TOTAL PHOS-PHORUS (P) (MG/L) (00665)	DIS-SOLVED ORTHO-PHOS-PHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MAN-GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	DIS-SOLVED ORGANIC CARBON (C) (MG/L) (00681)	SUS-PENDED ORGANIC CARBON (C) (MG/L) (00689)
OCT 15...	.85	.13	.02	80	0	--	--	12	.6
NOV 12...	1.9	.18	.04	130	0	20	--	8.9	.3
DEC 11...	.64	.09	.03	30	0	--	--	5.9	.9
JAN 29...	1.2	.08	.02	160	10	--	--	5.7	.6
FEB 26...	.80	.11	.02	120	0	10	--	3.1	2.0
MAR 24...	.85	.10	.02	70	0	--	--	5.6	--
APR 21...	.85	.09	.04	160	80	--	--	3.1	.7
MAY 19...	.81	.29	.00	20	10	10	9.4	3.3	--
JUN 16...	.40	.07	.01	80	60	--	--	3.0	.5
JUL 28...	6.8	1.2	.01	120	40	--	--	9.9	--
AUG 25...	2.5	1.1	.02	110	20	--	--	8.3	.3
SEP 22...	1.9	.33	.04	260	10	20	--	6.1	3.5

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)
NOV 12...	1045	2	1	130	10	0	25	10	<50	0	20	5
FEB 26...	0910	3	1	120	<10	0	0	0	<50	0	10	1
MAY 19...	1030	7	0	20	4	0	<10	0	7	0	69	2
SEP 22...	0940	4	3	260	<10	0	20	0	<50	0	20	2

	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NOV 12...	16000	0	<100	0	270	20	.0	.0	6	6	10	10
FEB 26...	3400	0	<100	1	150	10	.0	.0	4	4	60	0
MAY 19...	17000	10	180	0	1000	10	.0	.0	0	0	490	0
SEP 22...	14000	10	<100	0	320	20	.0	.0	3	3	60	0

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL NON- FILT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDE GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDE GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED GROSS BETA AS AS SR90 /Y90 (PC/L) (80050)	SUS- PENDE GROSS BETA AS AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)
NOV 12...	1045	440	14	35	6.9	19	5.5	15	.07	2.7
MAY 19...	1030	580	<6.6	43	23	22	19	19	.08	1.5

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

(If concentrations were non-detectable results are shown as ND)

DATE	TIME	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	DOD IN BOTTOM MA- TERIAL (UG/KG) (39363)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)
JUN * 16...	0830	ND	ND	ND	ND	ND	ND	ND	ND

\* Sample collected by USGS and analyzed by New Mexico Scientific Laboratory System.



## SAN JUAN RIVER BASIN

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09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT			
15...	0930	2800	190
NOV			
12...	1045	1600	450
DEC			
11...	1000	770	170
JAN			
29...	1600	34	5
FEB			
26...	0910	780	300
MAR			
24...	0800	520	140
APR			
21...	0930	220	270
MAY			
19...	1030	460	800
JUN			
16...	0830	48	230
JUL			
28...	0730	9700	14000
AUG			
25...	0950	1300	2000
SEP			
22...	0940	430	430

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

OCT. 15, 1975  
0930 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

720 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..ZYGNEMATALES			
..DESMIDIACEAE	PLACODERM DESMIDS		
L ....COSMARIUM			0
CHRYSOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
..ACHNANTHACEAE			
D ....COCCONEIS		150	21
L ....RHOICOSPHENIA			0
..CYMBELLACEAE			
..CYMBELLA		26	4
..DIATOMACEAE			
D ....DIATOMA		130	18
..EUNOTIACEAE			
L ....EUNOTIA			0
..FRAGILARIACEAE			
L ....FRAGILARIA			0
..GOMPHONEMACEAE			
..GOMPHONEMA		26	4
..NAVICULACEAE	NAVICULOID		
D ....NAVICULA		210	29
..NITZSCHACEAE			
L ....NITZSCHIA			0
..NITZSCHIA		77	11
..SURIRELLACEAE			
..SURIRELLA			
TOTALS		100 720	14 101
			2.526=DI
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
..OSCILLATORIAACEAE			
L ....LYNGBYA			0

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 2.526  
 GENERA 2.526

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

NOV. 12, 1975

1045 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

		4,000 CELLS/ML		
ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..PENNIALES	PENNATE			
...ACHNANTHACEAE				
....COCCONEIS		420	11	
....RHOICOSPHEA		310	8	
....CYMBELLACEAE				
....CYMBELLA		100	3	
....DIATOMACEAE				
....DIATOMA		210	5	
....NAVICULACEAE	NAVICULOID			
L ....GYROSIGMA			0	
D ....NAVICULA		840	21	
....NITZSCHIA				
D ....NITZSCHIA		1,700	42	
....SURIPELLACEAE				
....SURIPELLA		210	5	
TOTALS		3,800	95	2.260=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
.MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
....OSCILLATORIA		210	5	
TOTALS		210	5	0.000=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 0.297  
 CLASS 0.297  
 ORDER 0.297  
 FAMILY 2.257  
 GENERA 2.439

DEC. 11, 1975

1000 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

		1,400 CELLS/ML		
ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINOIDACEAE				
L ....MELOSIIRA			0	
..PENNIALES	PENNATE			
...ACHNANTHACEAE				
....ACHNANTHES		38	3	
....COCCONEIS		190	13	
....RHOICOSPHEA		76	5	
....CYMBELLACEAE				
....CYMBELLA		190	13	
L ....EPITHEMIA			0	
....DIATOMACEAE				
....DIATOMA		110	8	
....FRAGILARIACEAE				
L ....FRAGILARIA			0	
....GOMPHONEMACEAE				
....GOMPHONEMA		38	3	
....NAVICULACEAE	NAVICULOID			
D ....NAVICULA		340	24	
L ....PINNULARIA			0	
....NITZSCHIA				
D ....NITZSCHIA		380	26	
....SURIPELLACEAE				
....SURIPELLA		76	5	
TOTALS		1,400	100	2.782=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
.MYXOPHYCEAE				
..CHROOCOCCALES	COCCOID			
....CHROOCOCCACEAE				
L ....AGMENELLUM			0	

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 2.508  
 GENERA 2.782

## SAN JUAN RIVER BASIN

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09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JAN. 29, 1976  
1600 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
L ....CYCLOTELLA			0
..PENNIALES	PENNATE		
...ACHNANTHACEAE			
...ACHNANTHES		38	3
L ....COCCONEIS		38	0
...RHOICOSPHEA			3
...CYMBELLACEAE			
...CYMBELLA		150	13
L ....EPITHEMIA			0
...DIATOMACEAE			
...DIATOMA		75	7
...FRAGILARIACEAE			
L ....SYNEDRA			0
...GOMPHONEMACEAE			
...GOMPHONEMA		38	3
...NAVICULACEAE	NAVICULOID		
D ....NAVICULA		410	37
...NITZSCHACEAE			
D ....NITZSCHIA		340	30
...SURIRELLACEAE			
L ....CYMATOPLEURA			0
...SURIRELLA			3
TOTALS		1,100	99

2.354=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 2.287  
 GENERA 2.354

FEB. 26, 1976  
0910 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,500 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
L ....MELOSIRA			0
..PENNIALES	PENNATE		
...ACHNANTHACEAE			
...COCCONEIS		89	6
...RHOICOSPHEA		44	3
...CYMBELLACEAE			
...CYMBELLA		44	3
...EPITHEMIA		44	3
...RHOPALODIA		44	3
...DIATOMACEAE			
D ....DIATOMA		270	18
L ....OPEPHORA			0
...FRAGILARIACEAE			
...FRAGILARIA		89	6
...NAVICULACEAE	NAVICULOID		
L ....CALONEIS			0
L ....GYROSIGMA			0
D ....NAVICULA		580	39
...NITZSCHACEAE			
D ....NITZSCHIA		270	18
...SURIRELLACEAE			
L ....CYMATOPLEURA			0
TOTALS		1,500	99

2.525=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 2.298  
 GENERA 2.525

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAR. 24, 1976  
0800 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

2,200 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALLES	PENNATE			
...CYMBELLACEAE				
....CYMBELLA		260	12	
....DIATOMACEAE				
....DIATOMA		260	12	
....GOMPHONEMACEAE				
....GOMPHONEMA		130	6	
....NAVICULACEAE	NAVICULOID			
D ....NAVICULA		1,300	59	
....NITZSCHACEAE				
....NITZSCHIA		260	12	
TOTALS		2,200	101	1.780=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
FAMILY 1.780  
GENERA 1.780

APR. 21, 1976  
0930 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,200 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER_CENT	
CHRYSTOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISACEAE				
....CYCLOTELLA		36	3	
L ....MELOSIRA			0	
..PENNALLES	PENNATE			
...ACHNANTHACEAE				
....COCCONEIS		36	3	
L ....RHOICOSPHENIA			0	
...CYMBELLACEAE				
....CYMBELLA		72	6	
....DIATOMACEAE				
L ....DIATOMA			0	
...FRAGILARIACEAE				
L ....ASTERIONELLA			0	
L ....FRAGILARIA			0	
...GOMPHONEMACEAE				
....GOMPHONEMA		36	3	
....NAVICULACEAE	NAVICULOID			
L ....GYROSIGMA			0	
D ....NAVICULA		580	7	
....NITZSCHACEAE				
D ....NITZSCHIA		290	24	
....SURIRELLACEAE				
D ....SURIRELLA		180	15	
TOTALS		1,200	101	2.099=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
..MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORACEAE				
L ....OSCILLATORIA			0	
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
L ....EUGLENA			0	

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
ORDER 0.191  
FAMILY 2.099

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MAY 19, 1976  
1030 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

6,100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSDOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..CENTRALES	CENTRIC			
...COSCINODISCACEAE				
...CYCLOTELLA		81	1	
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...ACHNANTHES		400	7	
...RHOICOSPHENIA		81	1	
...CYMBELLACEAE				
D ...CYMBELLA		1,500	25	
...DIATOMACEAE				
...DIATOMA		160	3	
...FRAGILARIACEAE				
...HANNAEA		81	1	
...GOMPHONEMACEAE				
...GOMPHONEMA		240	4	
...NAVICULACEAE	NAVICULOID			
D ...NAVICULA		1,800	29	
...NITZSCHIA				
D ...NITZSCHIA		1,100	19	
...SURIRELLACEAE				
...SURIRELLA		490	8	
	TOTALS	6,000	98	2.615=DI
EUGLENOPHYTA	EUGLENOIDS			
..EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
...EUGLENA		81	1	
	TOTALS	81	1	0.000=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
PHYL/DIV 0.102  
CLASS 0.102  
ORDER 0.204  
FAMILY 2.630  
GENERA 2.682

JUNE 16, 1976  
0830 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

1,100 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSDOPHYTA				
..BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...ACHNANTHACEAE				
...RHOICOSPHENIA		27	2	
...CYMBELLACEAE				
...CYMBELLA		53	5	
...EPITHEMIA		27	2	
...DIATOMACEAE				
D ...DIATOMA		320	28	
...EUNOTIACEAE				
...EUNOTIA		27	2	
...FRAGILARIACEAE				
...FRAGILARIA		80	7	
...HANNAEA		27	2	
...GOMPHONEMACEAE				
...GOMPHONEMA		53	5	
...NAVICULACEAE	NAVICULOID			
D ...NAVICULA		270	23	
...NITZSCHIA				
D ...NITZSCHIA		190	16	
...SURIRELLACEAE				
...SURIRELLA		80	7	
	TOTALS	1,100	99	2.882=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
FAMILY 2.743  
GENERA 2.882

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

JULY 28, 1976

0730 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

21,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...CYMBELLACEAE				
D ....CYMBELLA		3,800	18	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		1,900	9	
TOTALS		5,700	27	0.918=DI
CYANOPHYTA	BLUE-GREEN ALGAE			
.MYXOPHYCEAE				
..OSCILLATORIALES	FILAMENTOUS			
...OSCILLATORIA		15,000	73	
TOTALS		15,000	73	0.000=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 0.845  
 CLASS 0.845  
 ORDER 0.845  
 FAMILY 1.096  
 GENERA 1.096

AUG. 25, 1976  
 0950 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

590 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT	
CHRYSOPHYTA				
.BACILLARIOPHYCEAE	DIATOMS			
..PENNALES	PENNATE			
...DIATOMACEAE				
D ....DIATOMA		91	15	
...NAVICULACEAE	NAVICULOID			
....NAVICULA		46	8	
...NITZSCHACEAE				
D ....NITZSCHIA		430	73	
...SURIRELLACEAE				
....SURIRELLA		23	4	
TOTALS		590	100	1.212=DI

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 FAMILY 1.212  
 GENERA 1.212

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SEP. 22, 1976

0940 HOURS

## IDENTIFICATION OF PHYTOPLANKTON

10,000 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
..CHLOROPHYCEAE			
..ZYGNEMATALES			
...DESMIDIACEAE	PLACODERM DESMIDS		
....EUASTRUM		85	1
	TOTALS	85	1
			0.000=DI
CHRYSTOPHYTA			
..BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCAEAE			
L ....MELOSIRA			0
..PENNALES	PENNATE		
...DIATOMACEAE			
....DIATOMA		85	1
...FRAGILARIACEAE			
....SYNEDRA		210	2
...NAVICULACEAE	NAVICULOID		
....NAVICULA		510	5
...NITZSCHIAEAE			
....NITZSCHIA		130	1
...SURIRELLACEAE			
L ....SURIRELLA			0
	TOTALS	1,000	9
			2.027=DI
CYANOPHYTA	BLUE-GREEN ALGAE		
..MYXOPHYCEAE			
...OSCILLATORIALES	FILAMENTOUS		
...NOSTOCACEAE			
D ....APHANIZOMENON		5,800	56
...OSCILLATORIAEAE			
D ....OSCILLATORIA		3,400	33
	TOTALS	9,200	89
			0.951=DI

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%  
 L - LESS THEN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED  
 ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE  
 DIVERSITY INDICES, BASED ON ACTUAL COUNTS:  
 PHYL/DIV 0.534  
 CLASS 0.534  
 ORDER 0.559  
 FAMILY 1.584  
 GENERA 1.584

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## PERIPHYTON

DATE	LENGTH OF EXPOSED SURE (DAYS)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00022)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL A MG/SQ M (32228)	UNCOR- RECTED PERI- PHYTON CHLORO- PHYLL B MG/SQ M (32226)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	Sampling method
OCT 15...	29	10.0	7.90	18.0	.000	120	Polyethylene strip
NOV 12...	28	40.0	37.0	46.0	.000	78	"
MAR 24...	27	92.0	86.0	9.80	.000	610	"
JUL 28...	42	1.38	1.00	.000	.000	0	"

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE D SEDI- MENT (MG/L) (80154)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .002 MM (70337)	SUS. SED. FALL DIAM. % FINER THAN .004 MM (70338)	SUS. SED. FALL DIAM. % FINER THAN .016 MM (70340)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)
OCT									
15...	0930	1760	7.5	661	3140	8	12	13	38
NOV									
12...	1045	1250	3.0	1100	3710	--	--	--	34
DEC									
11...	1000	1900	5.0	682	3500	--	--	--	18
JAN									
29...	1600	1380	7.0	96	358	--	--	--	--
FEB									
26...	0910	1440	3.0	788	3060	--	--	--	--
MAR									
24...	0800	1150	6.0	285	885	--	--	--	42
APR									
21...	0845	403	10.5	126	137	--	--	--	--
MAY									
19...	1230	4050	12.0	2820	30800	7	8	11	34
JUL									
28...	0900	2090	18.0	38000	214000	45	54	76	82
31...	1800	722	21.0	24600	48000	68	80	94	--
AUG									
22...	1800	916	20.0	25000	61800	54	61	79	96
25...	1030	647	17.5	1250	2180	--	--	--	--
SEP									
17...	1800	525	20.0	5280	7480	59	75	93	--
22...	1030	440	13.0	2100	2490	18	21	27	31
27...	1800	1800	18.0	12400	60300	27	30	68	--

DATE	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70331)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70332)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70333)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70334)
OCT								
15...	84	100	--	--	--	--	--	--
NOV								
12...	77	100	--	--	--	--	--	--
DEC								
11...	34	70	96	100	--	--	--	--
JAN								
29...	--	--	--	--	95	96	96	100
FEB								
26...	--	--	--	--	20	--	--	--
MAR								
24...	52	90	100	--	--	--	--	--
APR								
21...	--	--	--	--	38	--	--	--
MAY								
19...	55	86	100	--	--	--	--	--
JUL								
28...	82	83	96	100	--	--	--	--
31...	--	--	--	--	99	100	--	--
AUG								
22...	100	--	--	--	--	--	--	--
25...	--	--	--	--	97	--	--	--
SEP								
17...	--	--	--	--	99	100	--	--
22...	32	41	94	100	--	--	--	--
27...	--	--	--	--	99	100	--	--



## SAN JUAN RIVER BASIN

465

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEH	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	513	488	491	412	549	441	740	473	335	620	983	737
2	534	492	502	398	612	449	759	445	332	605	978	744
3	528	500	457	396	665	437	754	426	334	606	856	739
4	515	500	459	384	661	439	662	453	334	635	898	736
5	506	506	434	378	635	460	658	430	334	634	824	746
6	515	510	428	370	635	455	661	442	334	634	838	746
7	515	509	504	374	572	451	683	420	334	693	1270	743
8	515	837	423	366	478	457	693	449	334	693	1300	750
9	525	839	440	384	491	478	692	437	337	693	1340	747
10	523	836	497	386	487	486	631	449	383	715	1310	715
11	522	567	474	390	476	478	631	448	381	763	1250	718
12	523	567	482	388	485	446	631	450	381	763	1360	720
13	---	490	492	460	699	473	696	453	382	808	1300	663
14	517	490	497	486	676	473	696	415	381	807	1300	655
15	518	490	479	470	651	482	699	414	381	824	1330	658
16	517	492	457	468	627	488	696	418	381	747	1260	770
17	513	488	456	450	601	500	698	413	382	862	---	766
18	514	512	443	476	593	471	701	416	332	858	---	765
19	523	514	474	480	597	500	467	329	405	858	---	934
20	524	520	480	508	611	474	464	329	406	1010	758	949
21	523	504	468	498	507	501	464	309	396	1010	726	969
22	513	505	462	480	535	470	466	314	398	1010	777	966
23	523	516	444	486	506	521	470	372	394	1010	665	772
24	523	516	448	456	501	520	458	371	393	985	700	767
25	520	517	437	490	517	512	500	387	393	649	605	767
26	523	528	487	464	459	621	501	385	393	660	607	763
27	527	523	413	470	495	625	504	377	430	1080	566	1060
28	527	530	476	472	449	623	460	378	426	1070	610	1130
29	485	541	491	510	470	602	457	378	485	662	675	916
30	489	541	442	532	---	600	451	365	486	978	721	761
31	508	---	379	530	---	601	---	354	---	958	736	---
MONTH	517	546	462	446	560	501	601	403	380	803	948	796
YEAR	MAX	1360	MIN	309	MEAN	577						

WATER TEMPERATURE (DEG.° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	16.0	4.0	0.0	4.0	5.0	8.0	13.0	19.0	20.0	21.0	20.0
2	15.0	16.0	4.0	0.0	4.0	5.0	10.0	13.0	19.0	20.0	21.0	20.0
3	15.0	15.0	4.0	0.0	4.0	4.0	10.0	13.0	19.0	20.0	21.0	20.0
4	17.0	15.0	4.0	2.0	4.0	4.0	8.0	13.0	19.0	20.0	21.0	20.0
5	18.0	16.0	4.0	2.0	4.0	4.0	8.0	14.0	19.0	20.0	21.0	20.0
6	17.0	16.0	4.0	2.0	4.0	4.0	8.0	14.0	19.0	20.0	21.0	20.0
7	17.0	16.0	4.0	2.0	4.0	4.0	8.0	14.0	19.0	20.0	21.0	20.0
8	16.0	15.0	4.0	3.0	4.0	4.0	10.0	14.0	19.0	20.0	21.0	20.0
9	17.0	14.0	4.0	3.0	4.0	4.0	10.0	14.0	19.0	20.0	21.0	20.0
10	17.0	14.0	4.0	3.0	4.0	4.0	10.0	15.0	19.0	20.0	21.0	20.0
11	17.0	14.0	4.0	4.0	4.0	4.0	10.0	15.0	19.0	20.0	21.0	20.0
12	18.0	14.0	4.0	4.0	4.0	4.0	10.0	15.0	19.0	20.0	21.0	20.0
13	18.0	13.0	4.0	3.0	4.0	4.0	10.0	15.0	19.0	20.0	21.0	20.0
14	17.0	13.0	4.0	3.0	5.0	4.0	9.0	16.0	19.0	20.0	21.0	20.0
15	18.0	13.0	4.0	3.0	5.0	4.0	9.0	16.0	19.0	20.0	21.0	20.0
16	16.0	12.0	4.0	3.0	5.0	5.0	8.0	16.0	19.0	20.0	21.0	20.0
17	16.0	12.0	4.0	3.0	4.0	5.0	8.0	16.0	19.0	21.0	21.0	20.0
18	16.0	11.0	3.0	3.0	4.0	5.0	8.0	16.0	19.0	21.0	21.0	20.0
19	17.0	11.0	3.0	4.0	4.0	5.0	9.0	17.0	19.0	21.0	21.0	20.0
20	17.0	10.0	3.0	4.0	4.0	5.0	9.0	17.0	19.0	21.0	21.0	20.0
21	17.0	10.0	3.0	4.0	4.0	5.0	9.0	17.0	19.0	21.0	20.0	20.0
22	16.0	9.0	3.0	4.0	4.0	5.0	10.0	17.0	19.0	21.0	20.0	20.0
23	15.0	9.0	3.0	4.0	4.0	5.0	10.0	18.0	19.0	21.0	20.0	19.0
24	16.0	8.0	3.0	4.0	4.0	5.0	10.0	18.0	19.0	21.0	20.0	19.0
25	15.0	8.0	3.0	3.0	5.0	5.0	12.0	18.0	19.0	21.0	20.0	19.0
26	15.0	6.0	3.0	3.0	5.0	5.0	12.0	18.0	19.0	21.0	20.0	18.0
27	15.0	6.0	3.0	3.0	5.0	5.0	12.0	18.0	19.0	21.0	20.0	18.0
28	15.0	5.0	3.0	4.0	5.0	5.0	12.0	18.0	19.0	21.0	20.0	18.0
29	15.0	4.0	3.0	4.0	5.0	4.0	12.0	18.0	19.0	21.0	20.0	18.0
30	15.0	4.0	3.0	4.0	---	4.0	12.0	18.0	19.0	21.0	20.0	18.0
31	16.0	---	2.0	4.0	---	4.0	---	18.0	---	21.0	20.0	---
MONTH	16.5	11.5	3.5	3.0	4.5	4.5	9.5	16.0	19.0	20.5	20.5	19.5
YEAR	MAX	21.0	MIN	0.0	MEAN	12.5						

## SAN JUAN RIVER BASIN

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued  
 SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1170	4900	536	1980	1200	5770	175	865	203	756	175	666
2	1620	7390	609	2890	2170	11300	198	909	302	1130	161	578
3	2100	9470	2070	11500	234	1230	250	1150	387	1450	121	421
4	875	4300	5670	30300	139	754	236	1070	474	1860	125	415
5	508	2480	3900	20500	971	5270	221	1030	455	1820	118	389
6	1060	5180	2310	12000	1550	8240	212	1040	422	1730	116	373
7	1660	7800	1070	5580	1330	6690	136	679	369	1510	110	365
8	1150	5220	1010	4640	253	1290	109	539	424	1740	88	295
9	455	2010	639	1250	174	902	125	631	502	2060	176	623
10	985	4520	372	690	241	1260	143	737	268	1150	194	691
11	441	2130	305	954	370	1900	140	714	296	1250	163	577
12	508	2350	490	2020	189	990	135	717	329	1360	102	369
13	345	1600	1380	6890	317	1660	153	806	427	1690	86	316
14	965	4510	1540	7530	245	1280	154	611	459	1750	78	295
15	1100	5230	618	3150	115	578	268	876	422	1370	140	533
16	811	4030	452	2370	852	4090	253	820	270	824	182	693
17	912	4510	295	1580	1500	7130	201	678	207	581	127	487
18	1310	6440	1290	6930	922	4460	161	548	197	553	101	368
19	531	2610	1080	10300	291	1450	150	535	182	585	90	311
20	1860	8940	678	3550	171	854	64	226	171	573	151	506
21	2350	11200	401	1990	172	901	90	316	196	672	176	604
22	930	4340	295	1480	198	1030	149	535	219	763	162	555
23	703	3450	1520	7590	170	886	67	241	187	697	138	451
24	914	4960	2520	12800	179	933	156	569	233	849	197	601
25	450	2410	1060	5440	198	973	233	812	351	1330	96	285
26	433	2280	4900	23900	132	649	326	1110	642	2510	129	359
27	865	4580	6250	32100	302	1480	220	742	233	925	143	339
28	1460	7810	200	1050	449	2130	223	795	221	853	124	286
29	1230	5150	205	1080	244	1140	131	499	218	806	116	267
30	698	1360	314	1590	163	748	159	575	---	---	110	237
31	454	861	---	---	173	799	231	867	---	---	94	171
MONTH	---	144221.0	---	224624.0	---	78967.0	---	22242.0	---	35147.0	---	13426.0
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	221	374	132	627	120	1100	37	89	28700	187000	417	583
2	225	463	164	762	217	2090	36	92	23900	121000	324	430
3	152	267	157	767	212	2040	29	77	10400	28400	284	357
4	178	357	157	848	193	1970	44	113	10000	27500	295	361
5	219	473	162	919	163	1770	58	151	8100	16900	232	296
6	186	384	142	840	160	1720	49	115	7760	13200	169	205
7	100	200	160	1320	159	1590	38	80	4070	5880	435	576
8	74	135	161	1450	161	1400	37	71	48	65	445	639
9	64	96	140	1090	156	1420	35	53	44	55	401	633
10	205	330	90	610	96	943	58	80	51	53	448	789
11	365	749	91	600	69	673	82	108	47	51	536	1120
12	303	685	88	608	74	675	2000	4020	48	46	442	1010
13	104	263	151	1130	71	577	669	1000	40	36	513	1240
14	93	223	146	1060	69	546	557	956	37	29	589	1530
15	91	186	146	1140	73	558	312	540	37	26	446	1060
16	92	168	290	2710	85	583	309	480	35	24	5310	12700
17	98	189	292	3000	82	596	178	245	31	21	5260	9900
18	79	141	460	4830	79	544	157	206	30	20	4030	6060
19	112	182	2870	32000	89	545	158	198	3710	5300	988	1540
20	238	321	840	8640	73	434	104	131	15400	75600	758	1010
21	230	250	740	7730	73	505	89	96	26900	114000	501	636
22	151	148	510	4740	81	700	95	99	27000	74400	750	956
23	141	153	224	1990	61	534	93	77	14400	31600	465	688
24	176	464	174	1520	59	499	6730	13500	4240	8600	816	1330
25	341	1260	212	1910	63	485	5500	18000	859	1510	7070	34400
26	248	1030	209	1880	49	325	5580	23500	685	1240	22800	136000
27	324	1460	337	2950	43	267	10400	97000	605	1010	18100	107000
28	244	1090	238	2310	48	271	18600	92400	208	337	19300	114000
29	243	1100	150	1630	63	238	7080	22400	63	93	21900	81600
30	207	989	148	1760	64	175	8000	20600	417	667	7200	24100
31	---	---	125	1360	---	---	25700	53400	444	652	---	---
MONTH	---	14030.0	---	94731.0	---	25773.0	---	349877.0	---	715315.0	---	542749.0

TOTAL LOAD FOR YEAR: 2261102 TONS.

## 09379500 SAN JUAN RIVER NEAR BLUFF, UT

Location.--Lat 37°08'49", long 109°51'51", in SE 1/4 sec. 7, T. 42 S., R. 19 E., San Juan County, Hydrologic Unit 14080205, on left bank 1,600 ft (490 m) downstream from Gypsum Creek, 1,800 ft (550 m) upstream from highway bridge, 20 mi (32 km) southwest of Bluff, and at mile 113.5 (182.6 km).

DRAINAGE AREA.--23,000 mi<sup>2</sup> (60,000 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--October 1914 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1940. WSP 1313: 1917, 1929. WSP 1343: 1945.

GAGE.--Water-stage recorder. Datum of gage is 4,048 ft (1,234 m) from levels of Topographic Division, USGS. Prior to Mar. 16, 1927, chain gages at sites about 1,700 ft (520 m) downstream at different datums.

REMARKS.--Records fair. Diversions for irrigation of approximately 200,000 acres (810 km<sup>2</sup>) above station. No diversion between station and mouth of river. Flow partly regulated by Navajo Reservoir since June 28, 1962 (see station 09355100). Water quality records for the current year are published in Water Resources Data for Utah.

AVERAGE DISCHARGE.--62 years, 2,570 ft<sup>3</sup>/s (72.78 m<sup>3</sup>/s), 1,862,000 acre-ft/yr (2.30 km<sup>3</sup>/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD (1914-17 and SINCE 1927).--Maximum discharge, 70,000 ft<sup>3</sup>/s (1,980 m<sup>3</sup>/s) Sept. 10, 1927, gage height, 32.0 ft (9.75 m) from rating curve extended above 31,000 ft<sup>3</sup>/s (787 m<sup>3</sup>/s) and slope-area measurement at gage height 26.62 ft (8.114 m); no flow July 3-13, 1934, Aug. 24-27, 29, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 6, 1911, which is greatest known at Shiprock, NM, probably exceeded that of Sept. 10, 1927 at this station but stage was not accurately determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,940 ft<sup>3</sup>/s (197 m<sup>3</sup>/s) Sept. 26, gage height, 8.86 ft (2.701 m), no peak above base of 8,000 ft<sup>3</sup>/s (227 m<sup>3</sup>/s); minimum daily, 270 ft<sup>3</sup>/s (7.65 m<sup>3</sup>/s) Aug. 16, 17.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1640	1110	1830	1830	1400	1450	850	1670	4000	1200	972	604
2	1610	2000	1810	1880	1400	1400	741	1720	3900	1060	1570	594
3	1720	1900	1880	1790	1400	1400	686	1670	3700	1000	1960	559
4	1720	1900	1870	1670	1400	1350	659	1660	3650	1000	1840	538
5	1760	1900	1900	1740	1400	1300	696	1860	3650	1000	1060	578
6	1720	1900	1890	1860	1500	1300	778	2010	3800	1000	900	545
7	1710	1800	1920	1880	1600	1300	871	2250	4110	900	800	530
8	1680	1500	1880	1860	1600	1300	873	2630	3930	800	600	510
9	1640	1000	1910	1830	1600	1350	819	2680	3640	730	500	542
10	1650	960	1900	1890	1600	1350	718	2670	3650	680	440	607
11	1650	900	1880	1910	1600	1350	607	2420	3860	520	440	711
12	1680	1000	1840	1860	1600	1350	704	2500	3810	600	440	796
13	1690	1500	1910	1880	1500	1350	811	2600	3350	660	400	862
14	1680	1800	1900	1890	1400	1400	940	2600	2890	620	350	884
15	1700	1900	1800	1640	1300	1450	900	2700	2850	660	300	930
16	1750	1900	1800	1340	1200	1450	800	3000	2780	640	270	896
17	1790	1900	1700	1330	1100	1450	740	3500	2500	600	270	830
18	1770	1970	1800	1350	1150	1450	780	3740	2460	560	280	843
19	1780	1950	1800	1350	1200	1400	840	4000	2400	520	400	632
20	1780	2000	1900	1340	1250	1350	897	3990	2140	500	1300	626
21	1810	1950	2000	1340	1300	1350	760	3830	2040	500	1400	583
22	1770	1890	1960	1350	1350	1350	670	3780	2380	420	1200	526
23	1760	1880	1980	1390	1400	1300	601	3270	2900	370	900	540
24	1800	1860	2000	1420	1400	1200	595	3200	2850	370	874	546
25	1920	1840	1980	1380	1450	1160	601	3200	2800	500	793	1360
26	1880	1880	1920	1380	1500	1100	1240	3200	2600	889	725	4680
27	1870	1820	1900	1240	1500	1000	1470	3200	2400	1570	656	4770
28	1900	1860	1900	1190	1500	900	1620	3300	2300	2260	663	2890
29	1910	1950	1840	1280	1450	900	1620	3500	1990	1960	632	2120
30	1860	1910	1830	1310	---	940	1610	3800	1540	1160	616	1430
31	1210	---	1830	1380	---	936	---	3900	---	1000	578	---
TOTAL	53810	51630	58260	48780	41050	39636	26497	90050	90870	26249	24129	33062
MEAN	1736	1721	1879	1574	1416	1279	883	2905	3029	847	778	1102
MAX	1920	2000	2000	1910	1600	1450	1620	4000	4110	2260	1960	4770
MIN	1210	900	1700	1190	1100	900	595	1660	1540	370	270	510
AC-FT	106700	102400	115600	96760	81420	78620	52560	178600	180200	52060	47860	65580
CAL YR 1975 TOTAL	1029967			2822	MAX 9460	MIN 800	AC-FT 2043000					
WTR YR 1976 TOTAL	584023			MEAN 1596	MAX 4770	MIN 270	AC-FT 1158000					

09386900 RIO NUTRIA NEAR RAMAH, NM

LOCATION.--Lat 35°16'57", long 108°33'10", in NW¼SW¼ sec. 8, T.12 N., R.16 W., McKinley County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on left bank at mouth of Nutria Canyon, 0.9 mi (1.4 km) upstream from Nutria Diversion Dam, 1.3 mi (2.1 km) northeast of Upper Nutria, and 10.4 mi (16.7 km) northwest of Ramah.

DRAINAGE AREA.--71.4 mi<sup>2</sup> (185 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,860 ft (2,091 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--7 years, 3.99 ft<sup>3</sup>/s (0.113 m<sup>3</sup>/s), 2,890 acre-ft/yr (3.56 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 782 ft<sup>3</sup>/s (22.1 m<sup>3</sup>/s) Apr. 14, 1973, gage height, 4.58 ft (1.396 m), from rating curve extended above 470 ft<sup>3</sup>/s (13.3 m<sup>3</sup>/s); no flow Oct. 1-20, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft<sup>3</sup>/s (0.85 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Aug 19	1930	*80 2.27	3.67 1.119
Sept 14	1745	53 1.50	3.52 1.073

Minimum discharge, 0.01 ft<sup>3</sup>/s (0.0003 m<sup>3</sup>/s) at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.09	.09	.10	.09	.17	.17	.10	.02	.08	.09	.10
2	.08	.09	.09	.10	.09	.18	.16	.10	.02	.09	.09	.10
3	.08	.09	.09	.10	.11	.15	.14	.10	.02	.12	.10	.08
4	.08	.09	.09	.10	.10	.14	.15	.10	.03	.12	.09	.08
5	.08	.09	.09	.09	.10	.12	.16	.11	.04	.07	.09	.07
6	.08	.09	.09	.09	.12	.11	.16	.12	.04	.07	.09	.06
7	.08	.09	.09	.09	.12	.12	.15	.13	.03	.07	.11	.06
8	.08	.09	.09	.10	.12	.12	.12	.10	.03	.07	.10	.05
9	.08	.09	.09	.09	.21	.12	.11	.10	.04	.07	.17	.05
10	.08	.09	.09	.08	.38	.11	.10	.11	.04	.07	.10	.04
11	.08	.09	.09	.07	.38	.13	.10	.10	.04	.07	.09	.04
12	.08	.09	.09	.07	.22	.15	.10	.09	.04	.08	.12	.04
13	.08	.09	.10	.05	.21	.13	.10	.10	.04	.08	.12	.04
14	.08	.09	.10	.05	.26	.13	.10	.10	.04	.08	.09	2.5
15	.08	.09	.10	.06	.25	.15	.10	.10	.04	.07	.09	.58
16	.08	.09	.10	.05	.18	.14	.11	.09	.04	.07	.09	.10
17	.08	.09	.10	.02	.18	.14	.12	.08	.05	.07	.09	.07
18	.08	.09	.10	.01	.15	.15	.12	.08	.05	.08	.09	.06
19	.08	.09	.10	.01	.13	.15	.11	.08	.05	.08	5.6	.05
20	.08	.09	.10	.01	.12	.15	.10	.07	.05	.08	2.5	.05
21	.08	.09	.10	.02	.10	.14	.10	.08	.05	.08	.44	.05
22	.08	.09	.10	.01	.09	.14	.10	.08	.06	.09	.61	.05
23	.08	.09	.10	.02	.09	.14	.10	.07	.06	.09	.91	.06
24	.08	.09	.10	.03	.10	.13	.10	.07	.06	.09	1.7	.06
25	.08	.09	.10	.03	.09	.14	.10	.07	.06	.09	.35	.07
26	.09	.09	.11	.04	.10	.13	.10	.07	.07	.09	.19	.12
27	.09	.09	.11	.05	.12	.12	.10	.07	.06	.09	.15	.27
28	.09	.09	.11	.05	.14	.11	.10	.06	.06	.09	.12	.12
29	.09	.09	.11	.06	.14	.15	.10	.06	.07	.09	.18	.12
30	.09	.09	.11	.07	---	.15	.10	.06	.08	.09	.19	.08
31	.09	---	.11	.08	---	.17	---	.04	---	.09	.11	---
TOTAL	2.54	2.70	3.04	1.80	4.49	4.28	3.48	2.69	1.38	2.57	14.86	5.22
MEAN	.082	.090	.098	.058	.15	.14	.12	.087	.046	.083	.48	.17
MAX	.09	.09	.11	.10	.38	.18	.17	.13	.08	.12	5.6	2.5
MIN	.08	.09	.09	.01	.09	.11	.10	.04	.02	.09	.09	.04
AC-FT	5.0	5.4	6.0	3.6	8.9	8.5	6.9	5.3	2.7	5.1	29	10
CAL YR 1975 TOTAL	1769.67			MEAN 4.85	MAX 91	MIN .06	AC-FT 3510					
WTR YR 1976 TOTAL	49.05			MEAN .13	MAX 5.6	MIN .01	AC-FT 97					

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LOCATION.---Lat 35°06'03", long 108°45'03", in NE¼ sec.17, T.10 N., R.18 W., McKinley County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on left bank downstream from highway bridge on State Highway 36, 0.8 mi (1.3 km) upstream from flow line of Black Rock Reservoir, 2.3 mi (3.7 km) northeast of Black Rock, and 5.9 mi (9.5 km) northeast of Zuni Pueblo.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 5,200 ft<sup>3</sup>/s (147 m<sup>3</sup>/s) Aug. 4, 1974, gage height, 6.61 ft (2.015 m), from rating curve extended above 670 ft<sup>3</sup>/s (19.0 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 4.05 ft (1.234 m), 3.94 ft (1.201 m), 5.16 ft (1.573 m), and 6.61 ft (2.015 m); no flow for many days.

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
July 15	1800	102	2.89	3.58	1.091	Aug 23	2030	1,420	40.2	5.10	1.554
Aug 20	0015	*3,310	93.7	5.98	1.823						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.50	0	.80	.90	.83	1.7	.21		0	3.2	.10
2	.19	.50	0	.80	.80	.83	1.9	.28		0	1.7	0
3	0	.43	0	.80	.65	1.1	3.2	.25		0	.76	0
4	0	.51	0	.75	.76	1.3	3.0	.15		0	2.3	0
5	0	.55	0	.75	.99	1.2	2.1	.13		0	9.1	0
6	0	.51	0	.76	.65	1.9	3.8	.17		0	6.6	0
7	0	.51	0	.70	1.2	3.7	3.3	.45		0	3.0	0
8	0	.60	0	.76	1.3	3.7	2.8	.35		0	4.8	0
9	0	.72	0	.76	.65	4.6	2.4	.27		0	5.3	0
10	0	.43	0	.76	.65	2.3	1.5	.10		0	3.5	0
11	.10	.51	0	.76	1.2	2.0	1.5	.03		.76	2.4	0
12	.20	.39	.50	.65	1.5	2.7	4.1	0		1.2	.65	0
13	.50	.15	.70	.65	1.7	4.4	2.8	0		13	0	0
14	.50	.32	.80	.70	2.0	2.2	4.5	0		19	0	0
15	.50	.47	.90	.70	2.4	1.7	2.3	0		16	0	0
16	.80	.55	1.0	.70	2.4	3.0	2.5	0		7.3	0	0
17	.90	.55	1.0	.70	2.2	1.3	3.2	0		23	0	0
18	1.0	.47	1.0	.80	3.0	1.1	2.1	0		2.3	0	0
19	1.5	.60	1.0	.80	2.9	1.7	2.6	0		.41	27	0
20	2.0	.39	1.0	.80	2.3	2.0	3.1	0		.41	279	0
21	2.2	.27	.90	.80	3.2	4.4	2.6	0		.32	31	0
22	2.0	.31	.90	.80	3.0	3.0	1.2	0		.08	70	0
23	2.4	.27	.90	.90	1.3	3.5	.60	0		32	132	0
24	1.8	.35	.90	.90	2.7	7.3	.52	0		18	54	0
25	1.5	.39	.90	.90	1.2	6.0	.51	0		40	8.6	0
26	1.0	.39	.80	1.0	1.3	5.1	.41	0		17	1.1	1.4
27	.80	.60	.80	1.0	1.5	4.0	.22	0		36	.27	.01
28	.70	.66	.80	1.0	1.0	3.0	.06	0		37	.14	0
29	.60	.43	.80	1.0	.83	2.0	.19	0		28	.05	0
30	.50	0	.80	1.0	---	2.0	.22	0		11	.03	0
31	.50	---	.80	1.0	---	1.9	---	0	---	4.8	.06	---
TOTAL	22.46	13.33	17.20	25.20	46.18	85.76	60.93	2.39	0	307.58	646.56	1.51
MEAN	.72	.44	.55	.81	1.59	2.77	2.03	.077	0	9.92	20.9	.050
MAX	2.4	.72	1.0	1.0	3.2	7.3	4.5	.45	0	40	279	1.4
MIN	0	0	0	.65	.65	.83	.06	0	0	0	0	0
AC-FT	45	26	34	50	92	170	121	4.7	0	610	1280	3.0

CAL YR 1975	TOTAL	1702.10	MEAN 4.66	MAX 55	MIN 0	AC-FT	3380
WTR YR 1976	TOTAL	1229.10	MEAN 3.36	MAX 279	MIN 0	AC-FT	2440

## LITTLE COLORADO RIVER BASIN

09395500 PUERCO RIVER AT GALLUP, NM

LOCATION.--Lat 35°31'48", long 108°44'21", in SW 1/4 sec. 15, T.15 N., R.18 W., McKinley County, Hydrologic Unit 15020006, 0.5 mi (0.8 km) upstream from crest-stage gage at Gallup which is north of the Santa Fe RR freight depot, 1,500 ft upstream from Second Street Bridge at Gallup, N. Mex.

DRAINAGE AREA.--558 mi<sup>2</sup> (1,445 km<sup>2</sup>).

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1975 to current year.

WATER TEMPERATURES: August 1975 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,370 micromhos June 12, 1976; minimum daily, 562 micromhos Jan. 27, 1976.

WATER TEMPERATURES: Maximum, 25.5°C May 31, 1976; minimum, 0.0 on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,370 micromhos June 12; minimum daily, 562 micromhos Jan. 27.

WATER TEMPERATURES: Maximum, 25.5°C May 31; minimum, 0.0 on many days during winter months.

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976												
	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	
OCT 01-31	919	8.3	--	150	0	45	8.5	150	5.4	4.3	300	
NOV 01-06	903	8.2	--	150	0	44	8.7	150	5.4	4.0	297	
DEC 05-29	678	7.8	--	100	0	31	6.1	110	4.7	3.2	228	
30-31	1010	7.9	--	130	0	37	9.2	180	6.9	3.0	339	
JAN 01-03	978	8.4	--	96	0	22	9.9	180	8.0	2.8	283	
04-31	587	8.9	--	52	0	12	5.3	100	6.0	2.0	141	
FEB 01-12	849	8.3	--	120	0	35	8.5	140	5.5	3.8	261	
13-29	773	8.6	--	100	0	28	7.3	130	5.7	3.3	205	
MAR 01-13	1030	7.8	--	130	0	39	7.7	180	6.9	4.3	279	
14-31	850	7.9	--	120	0	34	7.5	150	6.1	3.9	266	
APR 01-30	886	8.0	--	120	0	34	7.3	160	6.5	4.2	291	
MAY 01-31	904	8.3	--	110	0	34	6.4	170	7.0	4.0	300	
JUN 01-30	1030	8.0	--	95	0	28	6.2	200	8.9	4.5	353	
JUL 01-31	981	7.8	--	140	0	42	8.2	170	6.3	5.5	304	
AUG 01-31	832	7.5	--	190	3	61	10	110	3.4	6.6	232	
SEP 01-30	795	7.7	--	130	0	41	6.7	130	5.0	4.8	271	
DATE	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
OCT 01-31	0	210	20	.8	11	--	600	.53	--	--	--	--
NOV 01-06	0	200	17	.6	11	--	584	.44	.05	90	0	--
DEC 05-29	0	140	14	.5	10	--	432	.91	.02	110	90	--
30-31	0	220	22	.5	15	--	658	.85	.07	140	10	--
JAN 01-03	10	210	22	.5	7.9	--	606	.29	.00	130	10	--
04-31	15	120	12	.4	2.5	--	339	.02	.00	80	20	--
FEB 01-12	0	180	20	.7	10	--	530	.67	.02	130	10	--
13-29	10	170	19	.7	7.0	--	477	.14	.00	100	10	--
MAR 01-13	0	210	51	.7	13	--	649	1.2	.04	120	10	--
14-31	0	180	20	.7	13	--	545	1.1	.05	110	10	--
APR 01-30	0	180	26	.9	13	602	576	1.5	.10	150	80	--
MAY 01-31	0	190	28	.8	11	--	599	1.3	.19	130	20	--
JUN 01-30	0	210	32	.8	14	--	675	.99	.27	170	0	--
JUL 01-31	0	240	25	.8	12	--	659	1.2	.08	140	10	--
AUG 01-31	0	210	20	.7	10	--	547	1.0	.03	150	10	--
SEP 01-30	0	170	21	.7	10	--	529	2.4	.11	120	10	--

## LITTLE COLORADO RIVER BASIN

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09395500 PUERCO RIVER AT GALLUP, NM -- Continued

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA,MG) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)
OCT 16...	1530	1040	8.4	16.5	170	0	51	9.2	180	6.1	4.5	307
MAY 12...	1200	900	--	21.5	--	--	--	--	--	--	--	--

DATE	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF TUENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHO-PHOSPHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (MG/L) (01020)	DIS-SOLVED IRON (FE) (MG/L) (01046)	DIS-SOLVED MANGANESE (MN) (MG/L) (01056)
OCT 16...	0	260	28	.6	11	698	.48	.11	120	40	5
MAY 12...	--	--	--	--	--	--	--	--	--	--	--

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELENIUM (SE) (UG/L) (01147)	DIS-SOLVED SELENIUM (SE) (UG/L) (01145)	DIS-SOLVED VANADIUM (V) (UG/L) (01085)
OCT 01-31	--	--	--	--	--	--	--	--	--	--	26	--
OCT 16...	1530	--	--	120	40	--	--	5	--	14	--	5.7
NOV 01-06	--	2	340	90	0	<100	40	--	.0	27	--	--
DEC 05-29	--	42	230	110	90	150	100	--	.2	27	--	--
DEC 30-31	--	4	180	140	10	<100	70	--	.0	30	--	--
JAN 01-03	--	4	200	130	10	<100	70	--	.0	29	--	--
JAN 04-31	--	2	140	80	20	<100	40	--	.1	23	--	--
FEB 01-12	--	2	160	130	10	<100	40	--	.0	25	--	--
FEB 13-29	--	2	150	100	10	<100	40	--	.0	24	--	--
MAR 01-13	--	2	180	120	10	<100	60	--	.0	27	--	--
MAR 14-31	--	2	160	110	10	<100	50	--	.0	28	--	--
APR 01-30	--	48	420	150	80	200	170	--	.1	28	--	--
MAY 01-31	--	100	210	130	20	200	170	--	.2	17	--	--
JUN 01-30	--	140	270	170	0	250	240	--	.3	32	--	--
SEP 01-30	--	100	250	120	10	400	200	--	--	43	--	--

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL NON-FILTERABLE RESIDUE (MG/L) (00530)	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUSPENDED GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUSPENDED GROSS BETA AS CS-137 (PC/L) (03516)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L) (80050)	SUSPENDED GROSS BETA AS SR90 /Y90 (PC/L) (80060)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS-SOLVED URANIUM (DIRECT FLUOROMETRIC) (PC/L) (80010)
OCT 16...	1530	2300	1200	970	140	540	110	430	.52	610
APR 01-30	--	6400	2800	1700	390	1000	310	800	.84	930
MAY 12...	1200	2300	1700	950	200	410	160	330	.39	1500
JUN 01-30	--	739	3500	1100	160	520	130	460	.77	880

## LITTLE COLORADO RIVER BASIN

09395500 PUERCO RIVER AT GALLUP, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. ° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	880	904	---	1000	857	934	923	1040	1260	951	878	754
2	938	908	---	956	848	1120	911	1020	928	973	879	756
3	948	909	---	979	852	1020	794	1050	884	965	908	766
4	864	909	---	576	848	1120	893	1050	913	978	866	768
5	931	911	679	577	844	995	897	779	921	970	847	762
6	943	910	683	577	844	1010	875	758	906	973	885	772
7	948	---	682	570	854	1110	895	774	911	1280	849	930
8	968	---	683	567	831	995	886	776	916	1300	773	896
9	936	---	685	571	855	1120	937	764	886	1310	773	950
10	951	---	682	575	854	791	779	778	914	1300	771	909
11	947	---	677	573	850	1120	937	776	1350	1320	777	905
12	863	---	682	577	854	997	794	749	1370	897	739	953
13	863	---	680	570	784	1020	882	885	918	829	1000	840
14	945	---	682	619	792	783	789	876	1260	850	1000	809
15	945	---	685	627	773	775	782	889	1260	916	992	839
16	948	---	685	589	823	774	880	876	922	873	989	829
17	945	---	683	624	776	882	880	882	1150	911	967	829
18	942	---	696	627	824	890	932	885	1150	939	639	819
19	942	---	687	627	805	883	780	880	1150	941	659	805
20	907	---	686	621	784	886	935	887	1150	915	660	810
21	909	---	685	569	762	882	882	965	992	900	660	813
22	907	---	682	608	736	880	787	947	992	882	761	816
23	908	---	689	599	742	889	935	1010	997	930	767	803
24	876	---	682	569	758	829	935	963	952	1020	746	833
25	910	---	698	569	754	885	796	965	997	860	773	812
26	908	---	689	563	780	864	1050	940	1010	903	719	817
27	905	---	692	562	756	782	940	973	1040	905	763	748
28	908	---	696	584	760	822	940	947	1050	903	949	748
29	901	---	675	593	740	903	1050	994	1050	866	898	747
30	908	---	1010	586	---	919	877	973	1060	939	949	711
31	910	---	1020	576	---	764	---	960	---	913	941	---
MONTH	919	---	709	625	805	924	886	904	1040	981	832	818
YEAR	MAX	1370	MIN	562	MEAN	861						

WATER TEMPERATURE (DEG. ° C), (ONCE-DAILY MEASUREMENT), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	9.0	---	0.0	7.5	5.5	9.5	10.0	18.5	19.5	22.0	15.0
2	12.5	9.5	---	0.0	6.5	5.0	7.0	9.5	18.5	20.0	20.0	14.0
3	12.5	9.0	---	0.0	8.0	5.0	8.5	10.5	20.5	18.0	23.0	13.0
4	12.0	8.5	---	0.0	5.5	6.0	9.5	10.5	18.0	18.0	21.0	15.5
5	14.0	6.5	0.0	0.0	7.0	4.5	10.5	9.5	18.0	19.0	22.5	16.0
6	13.5	4.0	0.0	0.0	6.5	5.0	10.0	11.5	21.0	19.5	23.0	18.0
7	10.5	---	0.0	0.0	6.0	5.0	10.5	9.0	19.5	19.5	19.0	16.0
8	19.0	---	0.0	0.0	5.0	5.5	10.0	11.0	20.0	20.0	17.0	13.0
9	14.0	---	0.0	0.0	7.5	5.0	10.5	8.5	19.0	21.5	17.5	14.0
10	12.5	---	0.0	0.0	6.5	7.0	11.5	10.5	19.0	22.0	18.0	14.0
11	13.0	---	0.0	0.0	6.5	6.5	7.5	9.5	20.0	21.0	22.0	13.0
12	12.5	---	0.0	0.0	7.0	6.5	9.0	10.5	21.5	21.5	21.5	12.0
13	13.0	---	0.0	0.0	6.0	6.0	10.5	8.5	19.5	22.5	17.5	12.5
14	15.5	---	0.0	0.0	4.5	5.5	10.5	11.0	19.0	20.5	15.0	11.0
15	13.0	---	0.0	0.0	5.5	4.0	10.0	11.5	18.5	21.0	19.5	10.0
16	12.5	---	0.0	0.0	6.0	5.0	10.0	9.5	18.0	23.5	16.0	9.0
17	17.5	---	0.0	0.0	6.5	7.5	11.0	12.0	23.0	22.5	18.0	10.0
18	12.0	---	0.0	0.0	7.5	7.0	10.0	11.0	23.5	22.5	22.0	7.0
19	13.5	---	0.0	0.0	8.5	6.5	10.5	9.0	22.5	20.0	23.0	8.0
20	13.0	---	0.0	0.0	8.0	5.0	12.0	10.0	21.0	21.0	22.5	10.0
21	10.5	---	0.0	0.0	7.5	5.0	9.5	10.0	22.5	22.5	15.5	11.0
22	10.5	---	0.0	0.0	9.0	6.5	10.0	23.0	23.5	19.0	16.0	9.0
23	13.5	---	0.0	0.0	10.5	5.5	11.5	12.0	24.5	22.0	18.5	8.0
24	10.0	---	0.0	0.0	7.0	6.0	8.5	10.5	20.5	23.0	19.0	7.0
25	9.5	---	0.0	0.0	9.5	5.0	8.5	11.5	23.0	24.0	21.0	7.5
26	9.0	---	0.0	0.0	10.5	4.5	11.5	11.0	23.5	25.0	21.0	6.0
27	7.0	---	0.0	0.0	11.0	5.0	9.0	11.5	22.5	20.0	20.0	7.5
28	7.5	---	0.0	0.0	8.0	4.0	11.0	9.5	23.5	18.0	18.0	9.0
29	7.5	---	0.0	0.0	6.0	3.5	10.0	9.5	23.5	22.0	18.5	6.0
30	9.5	---	0.0	0.0	---	4.5	12.0	15.0	23.5	21.5	19.0	5.0
31	10.0	---	0.0	0.0	---	6.5	---	25.5	---	24.0	16.0	---
MONTH	12.0	---	0.0	0.0	7.5	5.5	10.0	11.5	21.0	21.0	19.5	11.0
YEAR	MAX	25.5	MIN	0.0	MEAN	11.0						



LOCATION.--Lat 33°03'40", long 108°32'12", in NE¼ sec.30, T.14 S., R.16 W., Grant County, Hydrologic Unit 15040001, on left bank at Hooker damsite, 1.6 mi (2.6 km) upstream from Mogollon Creek, 7 mi (11 km) northeast of Gila, and at mile 572.5 (921.2 km).

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

GAGE.—Water-stage recorder. Datum of gage is 4,655.8 ft (1,419.09 m) above mean sea level, from river-profile survey. Prior to Dec. 31, 1928, at site 5 mi (8 km) upstream at different datum. Dec. 31, 1928, to Jan. 7, 1942, at site 200 ft (61 m) upstream at same datum.

AVERAGE DISCHARGE,--49 years (water year 1928-76), 134 ft<sup>3</sup>/s (3,795 m<sup>3</sup>/s) 97,080 acre-ft/yr (120 hm<sup>3</sup>/yr).

Other major floods occurred in November 1905, December 1906, and January 1916.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,460 ft<sup>3</sup>/s (69.7 m<sup>3</sup>/s) at 2100 hours Feb. 10, gage height, 4.80 ft (1.463 m), no other peak above base of 600 ft<sup>3</sup>/s (17 m<sup>3</sup>/s); minimum, 28 ft<sup>3</sup>/s (0.79 m<sup>3</sup>/s) July 8.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	85	120	80	69	151	136	157	74	40	114	42
2	128	85	108	77	69	151	133	154	70	44	111	44
3	128	85	104	75	69	154	130	151	67	40	144	42
4	116	85	100	72	70	160	133	151	64	37	167	38
5	112	85	97	74	86	157	138	154	60	36	116	40
6	104	85	100	76	122	151	144	154	60	34	88	49
7	104	85	97	76	157	144	151	151	64	31	70	51
8	104	85	99	76	160	138	151	144	62	30	60	45
9	100	82	94	74	160	136	147	138	60	30	55	45
10	100	82	94	74	1350	130	147	130	57	34	54	51
11	97	82	94	74	1780	130	147	124	54	34	69	54
12	97	79	94	72	1320	127	151	122	49	40	69	49
13	97	79	94	72	1100	124	151	119	48	42	60	44
14	94	76	94	72	1050	122	154	122	48	52	58	95
15	94	76	94	70	940	119	157	124	45	54	52	185
16	94	76	91	70	752	116	164	119	45	55	47	104
17	94	76	88	70	608	116	167	122	44	47	42	78
18	91	79	85	70	502	116	151	124	41	40	40	70
19	91	82	85	70	412	119	141	130	41	38	42	62
20	91	82	82	70	360	124	133	130	38	52	45	52
21	120	79	88	70	305	130	130	124	38	54	47	49
22	156	79	95	70	260	130	130	122	37	88	41	48
23	136	76	100	70	228	127	136	114	37	72	42	45
24	116	76	112	70	200	127	147	109	34	58	44	48
25	108	73	112	70	189	127	151	104	34	67	58	49
26	100	73	100	70	170	127	160	99	34	78	51	52
27	97	73	91	70	164	133	167	94	34	88	52	52
28	94	76	88	70	157	136	174	88	32	111	51	49
29	91	140	85	69	157	147	170	82	32	99	51	47
30	88	152	82	69	---	157	167	78	35	141	44	45
31	88	---	76	69	---	144	---	74	---	133	40	---
TOTAL	3266	2528	2943	2231	12966	4170	4458	3808	1438	1799	2024	1724
MEAN	105	84.3	94.9	72.0	447	135	149	123	47.9	58.0	65.3	57.5
MAX	156	152	120	80	1780	160	174	157	74	141	167	185
MIN	88	73	76	69	69	116	130	74	32	30	40	38
AC-FT	6480	5010	5840	4430	25720	8270	8840	7550	2850	3570	4010	3420
CAL YR 1975	TOTAL	83964	MEAN 230	MAX	2850	MIN 40	AC-FT	166500				
WTR YR 1976	TOTAL	43355	MEAN 118	MAX	1780	MIN 30	AC-FT	85990				

## GILA RIVER BASIN

09430600 MOGOLLON CREEK NEAR CLIFF, NM

(Hydrologic bench-mark station)

LOCATION (REVISED).--Lat 33°10'01", long 108°38'58", in SE 1/4 sec. 13, T.13 S., R.18 W., Grant County, Hydrologic Unit 15040001, on right bank 0.3 mi (0.5 km) downstream from Rain Creek, 0.8 mi (1.3 km) downstream from Gila Wilderness Boundary, 12 mi (19 km) upstream from mouth, and 14 mi (23 km) north of Cliff.

DRAINAGE AREA.--69 mi<sup>2</sup> (179 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,440 ft (1,658 m), from topographic map.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--9 years, 26.0 ft<sup>3</sup>/s (0.736 m<sup>3</sup>/s), 18,840 acre-ft/yr (23.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft<sup>3</sup>/s (306 m<sup>3</sup>/s) Aug. 12, 1967, gage height, 13.7 ft (4.18 m), from floodmarks, from rating curve extended above 220 ft<sup>3</sup>/s (6.23 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 665 ft<sup>3</sup>/s (18.8 m<sup>3</sup>/s) at 1415 hours Feb. 10, gage height, 4.78 ft (1.457 m), no other peak above base of 100 ft<sup>3</sup>/s (2.8 m<sup>3</sup>/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	1.7	3.4	5.0	2.7	19	15	23	2.7	0	6.2	.57
2	6.8	1.8	4.1	7.0	2.8	19	16	21	2.2	0	4.4	.72
3	6.1	1.7	5.3	4.0	3.0	17	18	20	1.9	0	3.5	.81
4	5.7	1.7	4.6	3.7	4.1	15	22	20	1.5	0	2.9	.53
5	5.2	1.5	3.9	2.9	11	14	26	19	1.4	0	2.4	.46
6	4.9	1.7	3.4	2.3	42	14	25	18	1.2	0	1.7	.71
7	4.5	1.6	3.1	2.6	28	13	23	16	1.1	0	1.4	.64
8	4.4	1.5	2.7	3.8	27	12	21	15	1.0	0	1.2	.49
9	4.1	1.5	2.9	2.3	44	11	24	14	.76	0	1.1	.65
10	4.0	1.6	2.9	2.3	468	11	25	13	.70	0	1.1	1.2
11	3.8	1.6	2.8	3.0	223	11	26	14	.58	0	1.0	1.2
12	3.4	1.6	2.9	3.5	133	11	27	15	.47	0	.78	1.0
13	3.4	1.5	2.9	3.3	116	10	25	15	.41	2.8	1.1	.87
14	3.2	1.5	2.9	2.3	129	9.7	22	13	.29	3.4	.71	2.3
15	3.2	1.5	2.4	2.5	97	9.7	20	12	.16	1.6	.44	12
16	3.1	1.4	2.4	2.6	71	10	20	12	.05	1.3	.16	5.9
17	3.1	1.4	2.4	2.9	52	11	18	12	.01	1.1	.07	3.5
18	2.6	1.4	2.6	3.1	40	13	17	11	0	.85	.01	4.3
19	2.6	1.6	2.5	3.5	34	17	18	10	0	.72	.02	3.2
20	2.4	1.6	2.2	3.5	31	18	18	9.4	0	.73	.36	2.4
21	4.4	1.6	4.0	3.3	27	16	22	9.4	0	.83	.51	2.2
22	3.4	1.5	4.0	3.3	23	16	31	7.7	0	1.7	.27	2.1
23	3.2	1.6	4.5	3.6	20	16	36	7.1	0	2.0	.24	1.9
24	2.8	1.7	5.0	4.2	19	17	37	6.1	0	1.6	.16	2.2
25	2.7	1.7	5.5	4.0	18	17	39	5.3	0	15	.25	5.7
26	2.4	1.7	5.6	3.3	17	19	37	4.8	0	9.1	.32	4.1
27	2.3	1.7	4.8	3.4	17	18	33	4.6	0	5.4	.65	3.3
28	2.1	1.9	4.4	2.9	17	17	28	3.9	0	8.7	1.3	2.6
29	2.1	5.0	3.4	2.8	18	18	26	3.4	0	13	.92	2.2
30	1.7	5.3	6.9	2.7	---	15	25	3.2	0	14	.49	1.8
31	1.9	---	4.4	2.6	---	15	---	3.1	---	9.7	.35	---
TOTAL	112.8	55.1	114.8	102.2	1734.6	449.4	740	361.0	16.43	93.53	36.01	71.55
MEAN	3.64	1.84	3.70	3.30	59.8	14.5	24.7	11.6	.55	3.02	1.16	2.39
MAX	7.3	5.3	6.9	7.0	468	19	39	23	2.7	15	6.2	12
MIN	1.7	1.4	2.2	2.3	2.7	9.7	15	3.1	0	0	.01	.46
AC-FT	224	109	228	203	3440	891	1470	716	33	186	71	142

CAL YR 1975 TOTAL 10264.78 MEAN 28.1 MAX 956 MIN 0 AC-FT 20360  
WTR YR 1976 TOTAL 3887.42 MEAN 10.6 MAX 468 MIN 0 AC-FT 7710

## GILA RIVER BASIN

475

09430600 MOCOLLON CREEK NEAR CLIFF, NM -- Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED OXYGEN (MG/L) (00300)	HARD- NESS (CA+MG) (MG/L) (00900)
OCT								
23...	1111	3.2	134	7.9	13.0	10.0	9.1	48
DEC								
17...	1519	2.2	123	7.7	7.0	1.0	11.2	46
FEB								
19...	1221	32	93	7.8	9.0	5.0	11.0	33
APR								
13...	0800	25	80	6.8	14.0	8.0	12.2	26
JUN								
09...	1400	.77	130	8.3	31.5	23.0	7.4	40
AUG								
18...	0930	.02	137	8.0	24.0	15.5	6.4	55

DATE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
OCT									
23...	4	14	3.2	6.8	.4	.9	54	0	20
DEC									
17...	2	13	3.2	6.1	.4	.7	53	0	14
FEB									
19...	9	9.2	2.5	4.8	.4	.9	29	0	18
APR									
13...	7	7.2	2.0	4.7	.4	.7	24	0	13
JUN									
09...	6	12	2.4	6.3	.4	1.1	41	0	15
AUG									
18...	5	17	3.0	7.4	.4	1.2	61	0	16

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	CYANIDE (CN) (MG/L) (00720)
OCT								
23...	1.4	.3	19	96	92	.01	.02	.00
DEC								
17...	1.5	.4	19	82	84	.03	.00	--
FEB								
19...	.9	.3	18	68	69	.07	.02	--
APR								
13...	2.3	.3	17	68	59	.01	.02	.02
JUN								
09...	1.3	.7	22	68	81	.01	.01	--
AUG								
18...	1.9	.4	21	99	98	.03	.00	--

## GILA RIVER BASIN

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

## TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL COPPER (CU) (UG/L) (01042)	TOTAL IRON (FE) (UG/L) (01045)
OCT 23...	1111	0	100	0	0	0	120
APR 13...	0800	1	200	<10	0	10	250

DATE	TIME	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL SILVER (AG) (UG/L) (01077)	TOTAL ZINC (ZN) (UG/L) (01092)
OCT 23...		100	0	.1	0	0	8
APR 13...		<100	0	.0	0	<10	10

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL NON- FILT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS (UG/L) (80030)	SUS- PENDEED GROSS ALPHA AS (UG/L) (80040)	DIS- SOLVED GROSS BETA AS (PC/L) (03515)	SUS- PENDEED GROSS BETA AS (PC/L) (03516)	DIS- SOLVED GROSS BETA AS SR90 (PC/L) (80050)	SUS- PENDEED GROSS BETA AS SR90 (PC/L) (80060)	DIS- SOLVED RA-226 (PC/L) (09511)	DIS- SOLVED URANIUM (U) (UG/L) (80020)
OCT 23...	1111	<1	<.8	<.4	1.4	<.4	1.1	<.4	.03	.20

## PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL PCB (UG/L) (39516)	PCB IN BOTTOM MA- TERIAL (UG/KG) (39519)	TOTAL ALDRIN (UG/L) (39330)	ALDRIN IN BOTTOM MA- TERIAL (UG/KG) (39333)	TOTAL CHLOR- DANE (UG/L) (39350)	CHLOR- DANE IN BOTTOM MA- TERIAL (UG/KG) (39351)	TOTAL DDD (UG/L) (39360)	DDD IN BOTTOM MA- TERIAL (UG/KG) (39363)	TOTAL DDE (UG/L) (39365)	DDE IN BOTTOM MA- TERIAL (UG/KG) (39368)	TOTAL DDT (UG/L) (39370)
OCT 23...	1111	.0	0	.00	.0	.0	0	.00	.0	.00	.0	.00

DATE	TIME	DDT IN BOTTOM MA- TERIAL (UG/KG) (39373)	TOTAL AZINON (UG/L) (39570)	TOTAL DI- ELDRIN (UG/L) (39380)	DI- ELDRIN IN BOTTOM MA- TERIAL (UG/KG) (39383)	TOTAL ENDRIN (UG/L) (39390)	ENDRIN IN BOTTOM MA- TERIAL (UG/KG) (39393)	TOTAL ETHION (UG/L) (39398)	TOTAL HEPTA- CHLOR (UG/L) (39410)	HEPTA- CHLOR IN BOTTOM MA- TERIAL (UG/KG) (39413)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L) (39420)	HEPTA- CHLOR EPOXIDE IN BOT- TOM MA- TERIAL (UG/KG) (39423)	TOTAL LINDANE (UG/L) (39340)
OCT 23...		.0	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0	.00

DATE	TIME	LINDANE IN BOTTOM MA- TERIAL (UG/KG) (39343)	TOTAL METHYL THION (UG/L) (39530)	TOTAL METHYL PARA- THION (UG/L) (39600)	TOTAL METHYL TRI- THION (UG/L) (39790)	TOTAL PARA- THION (UG/L) (39540)	TOTAL TOX- APHENE (UG/L) (39400)	TOX- APHENE IN BOTTOM MA- TERIAL (UG/KG) (39403)	TOTAL TRI- THION (UG/L) (39786)	TOTAL 2,4-D (UG/L) (39730)	TOTAL 2,4,5-T (UG/L) (39740)	TOTAL SILVEX (UG/L) (39760)
OCT 23...		.0	.00	.00	.00	.00	0	0	.00	.00	.00	.00

## GILA RIVER BASIN

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09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

## MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	IMME- DIATE COLI- FORM (COL. PER 100 ML) (31501)	FECAL COLI- FORM (COL. PER 100 ML) (31616)	STREP- TOCOCCI (COL- ONIES PER 100 ML) (31679)
OCT 23...	1111	10	4	20
DEC 17...	1519	2	0	6
FEB 19...	1221	12	0	35
APR 13...	0800	41	0	18
JUN 09...	1400	28	0	12
AUG 18...	0930	200	200	200

## INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY) (80155)
OCT 10...	1200	4.2	14.0	2	.02
23...	1111	3.2	10.0	2	.02
NOV 05...	1450	1.5	10.5	3	.01
DEC 04...	1345	4.9	3.0	0	.00
17...	1519	2.2	1.0	1	.01
JAN 04...	1350	3.7	.0	1	.01
19...	1525	3.5	3.0	0	.00
31...	1110	2.6	5.0	0	.00
FEB 16...	1405	69	5.5	2	.37
19...	1221	32	5.0	1	.09
26...	1430	17	7.0	3	.14
MAR 31...	1310	13	9.0	5	.18
APR 13...	0900	26	8.0	3	.21
30...	1305	25	14.0	5	.34
MAY 12...	1405	15	17.0	6	.24
31...	1415	3.4	19.0	5	.05
JUN 09...	1500	.76	23.0	15	.03
SEP 07...	1435	.64	24.0	0	.00

09431100 MANGAS CREEK BELOW MANGAS SPRINGS, NM

LOCATION.--Lat 32°50'57", long 108°31'13", in SE¼SW¼ sec.5, T.17 S., R.16 W., Grant County, Hydrologic Unit 15040002, 0.1 mi (0.2 km) upstream from Blacksmith Canyon and 15 mi (24 km) southeast of Gila.

DRAINAGE AREA.--177 mi<sup>2</sup> (456 km<sup>2</sup>).

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

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO- MHQS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA+MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED PO-TASSIUM (K) (MG/L) (00935)
NOV 10...	1520	3.1	585	8.0	17.0	230	22	70	14	30	.9	2.7
JAN 04...	1700	3.4	570	8.1	9.5	240	60	72	14	28	.8	2.9
MAR 31...	1630	3.0	573	8.0	19.0	240	32	71	14	27	.8	2.7
MAY 10...	1645	2.7	564	8.0	24.0	240	43	74	14	28	.8	2.1
SEP 13...	1340	2.5	559	8.0	27.0	230	38	69	13	28	.8	2.5

DATE	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SI02) (MG/L) (00955)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L) (70300)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS-SOLVED NITRATE PLUS NITRITE (N) (MG/L) (00631)	DIS-SOLVED ORTHO-PHOS- PHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)
NOV 10...	256	0	59	12	.5	30	364	368	5.4	.03	40	0
JAN 04...	220	0	67	11	.4	28	--	362	6.9	--	--	--
MAR 31...	248	0	68	12	.5	27	378	375	6.7	.07	90	80
MAY 10...	243	0	65	12	.5	31	--	376	6.6	--	--	--
SEP 13...	229	0	61	12	.5	30	--	359	6.9	--	--	--

09431500 GILA RIVER NEAR REDROCK, NM  
(Radiochemical network station)

LOCATION.--Lat 32°43'37", long 108°40'30", in W<sub>2</sub> sec.23, T.18 S., R.18 W., Grant County, Hydrologic Unit 15040002, on left bank 0.2 mi (0.3 km) downstream from Copper Canyon, 0.2 mi (0.3 km) upstream from lower end of box canyon, 4.7 mi (7.6 km) northeast of Redrock, 14 mi (23 km) downstream from Mangas Creek, and at mile 539.2 (867.6 km).

DRAINAGE AREA.--2,829 mi<sup>2</sup> (7,327 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1904 to February 1905 (gage heights only). May 1905 to December 1906, January to December 1907 and July to October 1908 (gage heights only). November 1908 to December 1910, January 1911 to January 1912 and May to June 1912 (gage heights only). August 1912 to September 1955, October 1962 to current year. Monthly or annual discharge only for 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.

GAGE.--Water-stage recorder. Altitude of gage is 4,090 ft (1,247 m), from plane table survey. Prior to Dec. 31, 1907, nonrecording gage at site 13.5 mi (21.7 km) upstream at different datum. May 14, 1908, to July 16, 1909, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Water-discharge records fair. Diversions for irrigation of about 5,000 acres (20 km<sup>2</sup>) above station. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--60 years (water years 1906, 1909-10, 1913-55, 1963-76), 197 ft<sup>3</sup>/s (5.579 m<sup>3</sup>/s), 142,700 acre-ft/yr (176 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft<sup>3</sup>/s (1,130 m<sup>3</sup>/s) Sept. 29, 1941, gage height, 31 ft (9.4 m), from floodmarks, computed on basis of known peak flow for station below Blue Creek; minimum, 2.2 ft<sup>3</sup>/s (0.062 m<sup>3</sup>/s) Aug. 5, 1947.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft<sup>3</sup>/s (85 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Feb 11	0415	3,810 108	12.03 3.667
Sept 15	0230	*6,180 175	13.91 4.240

Minimum discharge, 8.9 ft<sup>3</sup>/s (0.25 m<sup>3</sup>/s) July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	106	129	87	80	185	146	171	67	36	150	116
2	169	103	122	89	80	180	128	158	66	39	111	73
3	162	106	117	91	80	175	128	158	65	35	124	62
4	155	106	117	90	86	169	120	156	63	24	172	57
5	155	109	115	87	97	168	127	172	68	19	163	64
6	149	108	99	88	102	161	130	185	60	15	118	76
7	153	108	97	89	148	159	138	179	52	13	86	62
8	147	104	99	92	174	160	134	168	46	12	75	55
9	146	100	96	91	163	154	133	168	43	12	64	45
10	131	99	106	93	627	151	120	150	42	12	60	42
11	125	100	108	90	2730	144	112	130	38	9.6	78	39
12	112	101	99	88	1440	139	119	124	35	16	73	37
13	115	100	98	87	1130	137	135	118	34	74	60	36
14	111	103	102	92	1040	133	140	115	32	99	45	39
15	108	101	102	94	1010	130	146	105	28	52	38	1380
16	106	100	107	92	889	126	182	103	26	36	31	400
17	111	104	101	86	773	120	191	103	26	33	30	284
18	106	100	88	80	661	112	182	108	35	24	29	180
19	105	98	88	80	563	111	167	108	41	35	28	110
20	107	95	92	80	493	111	151	122	27	36	27	80
21	113	95	101	83	432	111	149	105	54	89	26	70
22	143	99	111	82	381	112	142	101	39	41	24	62
23	162	99	112	85	330	114	126	92	38	78	25	58
24	144	103	102	83	299	112	153	87	33	49	70	127
25	128	99	106	87	270	114	146	85	35	68	40	58
26	108	93	111	85	240	114	175	94	37	157	37	74
27	106	92	110	83	220	113	191	82	36	108	34	66
28	105	94	106	82	200	112	190	80	33	139	89	66
29	110	115	108	83	195	118	188	77	34	175	70	55
30	108	137	111	88	---	148	184	71	39	498	45	46
31	109	---	103	89	---	158	---	68	---	270	41	---
TOTAL	3980	3077	3263	2696	14933	4251	4473	3743	1272	2303.6	2063	3919
MEAN	128	103	105	87.0	515	137	149	121	42.4	74.3	66.5	131
MAX	171	137	129	94	2730	185	191	185	68	498	172	1380
MIN	105	92	88	80	80	111	112	68	26	9.6	24	36
AC-FT	7890	6100	6470	5350	29620	8430	8870	7420	2520	4570	4090	7770

CAL YR 1975 TOTAL 103330.0 MEAN 283 MAX 4670 MIN 23 AC-FT 205000  
WTR YR 1976 TOTAL 49973.6 MEAN 137 MAX 2730 MIN 9.6 AC-FT 99120

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

## CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCTY- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
OCT												
11...	1055	131	384	8.5	15.0	130	0	39	7.8	31	1.2	2.4
NOV												
02...	1020	106	394	8.3	12.0	130	0	40	7.7	31	1.2	2.4
DEC												
16...	1015	106	401	8.4	2.0	140	0	41	8.0	32	1.2	2.1
JAN												
03...	1620	88	326	8.7	4.0	100	0	28	8.0	32	1.4	1.8
14...	1345	89	360	8.6	6.0	--	--	--	--	--	--	--
30...	1430	87	349	8.5	8.5	110	0	29	8.1	32	1.4	2.0
FEB												
14...	1015	1010	181	7.5	7.0	71	3	21	4.5	13	.7	1.5
MAR												
03...	1340	183	306	7.8	13.0	98	0	29	6.3	25	1.1	2.0
APR												
02...	1420	130	346	8.1	18.0	110	0	34	7.2	28	1.1	2.1
14...	1550	147	330	8.2	14.0	110	0	32	6.5	28	1.2	1.9
MAY												
14...	1230	119	346	8.2	18.0	110	0	33	7.3	30	1.2	1.9
JUN												
03...	1135	65	360	8.3	20.0	130	0	38	8.0	34	1.3	2.3
18...	1015	34	370	7.6	18.0	130	0	39	7.9	34	1.3	2.8
JUL												
03...	1115	35	413	7.9	22.0	140	0	40	8.6	36	1.3	3.0
18...	0955	25	435	8.2	24.0	--	--	--	--	--	--	--
AUG												
01...	1430	144	342	8.4	24.0	100	0	31	6.5	29	1.2	2.7
07...	0935	84	370	8.2	20.0	--	--	--	--	--	--	--
25...	1340	40	425	8.2	26.0	--	--	--	--	--	--	--
SEP												
09...	1625	43	415	8.2	20.0	140	0	40	9.1	35	1.3	2.6

DATE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT												
11...	146	10	39	12	1.9	34	253	249	.05	.03	50	100
NOV												
02...	176	0	41	12	2.0	34	--	258	.20	--	--	--
DEC												
16...	177	0	48	11	2.1	33	--	265	.22	--	--	--
JAN												
03...	126	9	46	12	2.1	23	--	224	.03	.02	70	110
14...	--	--	--	--	--	--	--	--	--	--	--	--
30...	147	0	38	13	2.2	22	--	219	.03	.01	100	60
FEB												
14...	83	0	25	4.9	1.0	26	--	139	.16	.05	80	120
MAR												
03...	134	0	32	9.8	1.9	30	--	204	.27	.06	90	60
APR												
02...	156	0	36	11	2.0	30	--	229	.30	.05	100	70
14...	145	0	33	11	2.0	33	222	220	.16	.07	40	40
MAY												
14...	157	0	34	11	2.0	32	--	229	.00	.05	40	40
JUN												
03...	169	0	36	12	2.1	30	--	246	.00	.07	40	30
18...	185	0	34	12	2.3	32	--	255	.00	.05	50	10
JUL												
03...	193	0	35	13	2.3	34	--	267	.00	.02	60	10
18...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
01...	126	9	26	12	2.0	30	--	211	.09	.03	50	10
07...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
09...	188	0	37	12	2.1	31	--	262	.08	.05	100	40



## GILA RIVER BASIN

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09431500 GILA RIVER NEAR REDROCK, NM -- Continued

## RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL NON- FILT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDED GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED GROSS BETA AS AS SR90 /Y90 (PC/L) (80050)	SUS- PENDED GROSS BETA AS AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)
JAN 14...	1345	13	8.6	<.4	2.9	.5	2.4	.5	.04	1.7
APR 02...	1420	13	4.8	<.4	3.2	.7	2.7	.6	.03	1.1

## INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDI- MENT (MG/L) (80154)	SUS- PENDED SEDI- MENT CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 11...	1055	131	15.0	26	9.2	83
NOV 02...	1020	106	12.0	15	4.3	92
29...	0950	120	6.0	27	8.7	99
DEC 16...	1015	106	2.0	23	6.6	60
JAN 03...	1620	88	4.0	8	1.9	--
14...	1345	89	6.0	381	92	--
30...	1430	87	8.5	8	1.9	--
FEB 14...	1015	1010	7.0	544	1480	60
MAR 03...	1340	183	13.0	104	51	--
17...	1410	125	--	20	6.8	--
APR 02...	1420	130	18.0	24	8.4	--
14...	1550	147	14.0	25	9.9	76
MAY 05...	1215	172	14.0	7	3.2	96
14...	1230	119	18.0	4	1.3	93
JUN 03...	1135	65	20.0	7	1.2	85
13...	1015	34	18.0	5	.46	87
JUL 03...	1115	35	22.0	6	.57	86
18...	0935	24	24.0	212	14	89
AUG 01...	1430	144	24.0	949	369	68
07...	0935	84	20.0	164	37	85
25...	1340	40	26.0	82	8.9	--
SEP 09...	1625	43	20.0	112	13	--
21...	1125	70	19.0	47	8.9	--

## GILA RIVER BASIN

09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM

LOCATION.--Lat 32°38'53", long 108°50'43", in SE¼SW¼ sec.18, T.19 S., R.19 W., Grant County, Hydrologic Unit 15040002, on left bank at head of canyon, 1.4 mi (2.3 km) downstream from Blue Creek, 10 mi (16 km) east of Virden, 16 mi (26 km) upstream from New Mexico-Arizona State line, and at mile 523.6 (842.5 km).

DRAINAGE AREA.--3,203 mi<sup>2</sup> (8,296 km<sup>2</sup>), excluding Animas River Basin.

PERIOD OF RECORD.--May to November 1914, March to September 1915, July 1927 to current year. July 1927 to May 1931 monthly discharge only, published in WSP 1313, computed as sum of flow at Virden Bridge, 9 mi (14 km) downstream, and in Sunset Canal. Published as Gila River near Duncan, AZ, 1914-15 and as Gila River at Fuller's Ranch, near Duncan, AZ, 1931-38.

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

GAGE.--Water-stage recorder. Altitude of gage is 3,875 ft (1,181 m), from river-profile map. May 11, 1914, to Sept. 30, 1915, at site 6 mi (9 km) downstream, 1,000 ft (300 m) upstream from Intake of Sunset Canal. June 1 to July 7, 1931, nonrecording gage at present site and datum.

REMARKS.--Records good. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres (25 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--49 years (water years 1927-76), 177 ft<sup>3</sup>/s (5.013 m<sup>3</sup>/s), 128,200 acre-ft/yr (158 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,700 ft<sup>3</sup>/s (1,180 m<sup>3</sup>/s) Sept. 29, 1941, gage height, 25.78 ft (7.858 m); minimum, 1 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) July 14, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,900 ft<sup>3</sup>/s (54 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Feb 11	0730	3,440 97.4	10.64 3.243
Sept 15	0500	*3,700 105	10.90 3.322

Minimum discharge, 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s) July 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	116	132	103	95	192	161	179	62	24	141	44
2	183	116	129	96	91	192	143	165	60	24	114	39
3	174	116	125	97	88	192	139	163	61	24	125	30
4	170	111	125	96	95	183	138	157	59	22	129	27
5	166	110	125	94	99	183	136	165	61	19	134	26
6	161	110	114	94	103	181	139	166	51	17	102	32
7	161	106	108	94	113	168	143	163	48	15	76	25
8	152	106	111	94	147	166	150	152	41	14	60	23
9	150	103	108	96	148	165	150	145	39	13	52	26
10	148	99	110	95	203	161	159	139	38	13	46	28
11	145	97	116	96	2620	152	150	123	34	12	47	28
12	134	103	110	95	1640	147	148	118	32	12	41	26
13	127	102	106	95	1240	145	161	111	30	80	36	24
14	130	105	105	94	1120	138	170	110	29	83	32	24
15	123	111	105	99	1030	134	174	102	28	57	27	874
16	118	106	108	97	860	132	192	99	27	48	25	292
17	118	108	108	97	744	132	203	95	24	45	24	170
18	120	111	96	87	634	132	203	96	24	41	24	105
19	108	102	92	85	554	125	190	96	20	43	22	79
20	111	100	94	83	494	121	181	103	19	56	22	66
21	160	100	96	86	429	121	170	102	18	89	20	57
22	136	103	106	88	389	125	172	94	23	65	19	51
23	152	106	113	95	355	136	157	90	25	84	18	47
24	150	108	108	95	322	138	163	85	24	65	55	47
25	148	108	110	96	298	132	166	82	23	137	29	89
26	129	100	113	94	279	127	177	85	22	106	28	64
27	121	95	116	95	248	125	199	80	22	94	26	54
28	118	91	114	92	227	121	192	73	20	99	32	55
29	121	105	113	94	203	132	188	71	20	103	52	49
30	118	120	116	95	---	159	181	65	20	247	34	41
31	118	---	116	105	---	159	---	62	---	324	29	---
TOTAL	4360	3174	3448	2922	14868	4616	4995	3536	1004	2075	1621	2542
MEAN	141	106	111	94.3	513	149	167	114	33.5	66.9	52.3	84.7
MAX	190	120	132	105	2620	192	203	179	62	324	141	874
MIN	108	91	92	83	88	121	136	62	18	12	18	23
AC-FT	8650	6300	6840	5800	29490	9160	9910	7010	1990	4120	3220	5040
CAL YR 1975 TOTAL	112191.4			MEAN 307	MAX 6180	MIN 8.2	AC-FT 222500					
WTR YR 1976 TOTAL	49161.0			MEAN 134	MAX 2620	MIN 12	AC-FT 97510					

LOCATION.--Lat 33°44'12", long 108°46'14", in NE 1/4 sec.35, T.6 S., R.19 W., Catron County, Hydrologic Unit 15040004, on left bank 1,300 ft (400 m) downstream from Rainbow Bridge Canyon, 1.7 mi (2.7 km) northwest of Reserve, and at mile 563.1 (906.0 km).

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

REMARKS.--Records good. Possible minor regulation by Luna Lake, 27 mi (43 km) upstream. Diversions for irrigation of about 500 acres (2.0 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft<sup>3</sup>/s (337 m<sup>3</sup>/s) Oct. 20, 1972, gage height, 7.47 ft (2.277 m) in gage well, 8.05 ft (2.454 m), from outside floodmarks, site and datum then in use, from rating curve extended above 9,000 ft<sup>3</sup>/s (255 m<sup>3</sup>/s) on basis of velocity-area study; minimum, 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) Mar. 16, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,200 ft<sup>3</sup>/s (34.0 m<sup>3</sup>/s) at 0015 hours July 24, gage height, 7.20 ft (2.195 m), no other peak above base of 450 ft<sup>3</sup>/s (13 m<sup>3</sup>/s); minimum, 2.4 ft<sup>3</sup>/s (0.068 m<sup>3</sup>/s) July 6.

[illegible]



## 09443000 SAN FRANCISCO RIVER NEAR ALMA, NM

LOCATION.--Lat 33°22'05", long 108°54'35", in SW¼SE¼ sec.4, T.11 S., R.20 W., Catron County, Hydrologic Unit 15040004, on right bank 1.2 mi (1.9 km) downstream from Alma, 4 mi (6 km) northwest of Glenwood, 6 mi (10 km) upstream from Whitewater Creek, and at mile 523.5 (842.3 km).

DRAINAGE AREA.--1,546 mi<sup>2</sup> (4,004 km<sup>2</sup>).

PERIOD OF RECORD.--September 1904 to January 1914, fragmentary (see WSP 1313), January 1964 to current year. Prior to October 1911, published as "at Alma".

GAGE.--Water-stage recorder. Datum of gage is 4,841 ft (1,475.5 m) above mean sea level. Prior to Aug. 11, 1912, nonrecording gages at various sites, within 500 ft (150 m) of each other, 0.8 mi (1.3 km) upstream, at different datums. Aug. 11, 1912, to Feb. 2, 1914, nonrecording gage at approximately present site and datum. Jan. 10, 1964 to Nov. 1, 1972, at datum 3.00 ft (0.91 m) higher.

REMARKS.--Records good. Diversions for irrigation of about 1,500 acres (6.1 km<sup>2</sup>) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years (water years 1965-76), 69.0 ft<sup>3</sup>/s (1.954 m<sup>3</sup>/s), 49,990 acre-ft/yr (61.6 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,600 ft<sup>3</sup>/s (867 m<sup>3</sup>/s) Oct. 20, 1972, gage height, 18.16 ft (5.535 m), present datum, from floodmarks in well, from rating curve extended above 3,500 ft<sup>3</sup>/s (99.1 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916, when discharges of 60,000 ft<sup>3</sup>/s (1,700 m<sup>3</sup>/s) or greater were computed at Clifton, AZ.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft<sup>3</sup>/s (28 m<sup>3</sup>/s) and maximum (\*):

DATE	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Feb 10	1400	2,370 67.1	5.40 1.646
Sept 14	1815	*10,600 300	9.17 2.795

Minimum discharge, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	8.0	16	14	12	30	28	6.0	2.4	1.5	47	2.4
2	11	8.0	15	8.0	12	30	28	6.8	1.9	1.5	28	3.6
3	10	8.0	16	6.5	12	30	28	6.0	1.9	1.5	18	1.7
4	9.5	9.5	16	5.0	12	30	26	4.4	1.9	1.5	11	.78
5	9.5	14	15	10	15	30	26	4.6	2.0	1.7	6.4	.36
6	8.8	12	14	12	23	30	24	5.3	2.4	2.9	4.6	.36
7	6.5	8.8	12	14	34	30	24	5.7	2.4	1.3	3.9	1.7
8	5.0	4.6	12	14	27	28	22	6.8	2.9	1.2	2.6	.86
9	4.2	8.8	12	15	24	28	20	7.6	2.6	.94	1.3	.56
10	3.0	8.8	14	16	1150	26	16	7.2	3.4	1.1	1.2	.36
11	1.8	8.8	14	16	415	26	13	5.3	2.9	1.1	2.4	.24
12	1.8	8.8	14	15	228	26	12	2.4	2.6	11	1.0	.16
13	3.0	8.8	14	15	188	26	12	2.6	2.2	4.4	1.0	.11
14	1.0	8.8	15	15	256	26	11	2.9	1.7	2.9	.86	508
15	1.0	9.5	14	12	232	26	12	2.9	1.7	2.4	.86	19
16	2.2	9.5	10	12	174	24	16	2.9	1.7	2.2	.70	6.8
17	3.0	9.5	12	12	129	24	17	2.9	1.6	2.2	.70	5.3
18	3.4	9.5	12	12	102	24	16	2.6	1.5	2.2	.70	3.9
19	4.2	14	12	12	85	16	16	2.9	1.5	5.1	.62	2.9
20	4.6	14	14	12	76	9.2	16	2.9	1.5	8.7	.56	2.0
21	9.5	14	16	12	62	9.2	17	2.9	1.6	9.2	.56	1.9
22	19	12	17	11	54	11	15	2.6	1.6	7.6	.45	1.7
23	18	12	22	12	47	16	13	2.6	1.5	1.6	.45	1.6
24	15	12	24	14	39	18	11	2.6	1.3	84	.78	3.2
25	12	12	21	14	36	19	11	2.6	1.3	50	.78	6.8
26	12	13	18	12	33	20	9.2	2.6	1.2	12	.62	14
27	14	13	17	12	32	22	7.9	2.4	1.3	9.2	.40	8.7
28	9.5	15	16	12	30	22	7.2	2.4	1.5	9.2	.50	6.4
29	8.8	27	16	12	30	26	7.2	2.4	1.5	30	15	5.3
30	8.0	24	14	12	---	30	7.2	2.4	1.5	33	7.6	3.6
31	8.0	---	14	12	---	30	---	2.6	---	28	3.2	---
TOTAL	239.3	345.7	468	382.5	3569	742.4	488.7	118.8	57.0	331.14	163.66	614.29
MEAN	7.72	11.5	15.1	12.3	123	23.9	16.3	3.83	1.90	10.7	5.28	20.5
MAX	19	27	24	16	1150	30	28	7.6	3.4	84	47	508
MIN	1.0	4.6	10	5.0	12	9.2	7.2	2.4	1.2	.94	.40	.11
AC-FT	475	686	928	759	7080	1470	969	236	113	657	325	1220

CAL YR 1975	TOTAL	25399.00	MEAN	69.6	MAX	4270	MIN	.65	AC-FT	50380
WTR YR 1976	TOTAL	7520.49	MEAN	20.5	MAX	1150	MIN	.11	AC-FT	14920

## 09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM

LOCATION.--Lat 33°14'48", long 108°52'47", in NE¼ sec.23, T.12 S., R.20 W., Catron County, Hydrologic Unit 15040004, on left bank 0.2 mi (0.3 km) upstream from hot springs, 5 mi (8 km) south of Glenwood, 6 mi (10 km) downstream from Whitewater Creek, and at mile 511.5 (823.0 km).

DRAINAGE AREA.--1,653 mi<sup>2</sup> (4,281 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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.

GAGE.--Water-stage recorder. Datum of gage is 4,552.06 ft (1,387.468 m) above mean sea level; prior to Feb. 15, 1934, at site 4.5 mi (7.2 km) upstream at datum 98.82 ft (30.120 m) higher.

REMARKS.--Water-discharge records good. Diversions for irrigation of about 2,000 acres (8.1 km<sup>2</sup>) above station. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--49 years, 70.5 ft<sup>3</sup>/s (1.997 m<sup>3</sup>/s), 51,080 acre-ft/yr (63.0 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,100 ft<sup>3</sup>/s (966 m<sup>3</sup>/s) Oct. 20, 1972, gage height, 16.61 ft (5.063 m), from rating curve extended above 22,000 ft<sup>3</sup>/s (623 m<sup>3</sup>/s); minimum, 1.5 ft<sup>3</sup>/s (0.042 m<sup>3</sup>/s) Aug. 6, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916 when discharges of 60,000 ft<sup>3</sup>/s (1,700 m<sup>3</sup>/s) or greater were computed for station at Clifton, AZ. On Nov. 26, 1905, a peak of 25,000 ft<sup>3</sup>/s (708 m<sup>3</sup>/s) was measured (by float-area method) at station at Alma (about 12 mi or 19 km upstream, drainage area, 1,560 mi<sup>2</sup> or 4,040 km<sup>2</sup>); a similar measurement of 21,000 ft<sup>3</sup>/s (595 m<sup>3</sup>/s) was made at the Alma station for peak of Dec. 3, 1906.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft<sup>3</sup>/s (23 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Feb 10	1645	2,000 56.6	6.21 1.893
Sept 14	2045	*5,240 148	8.74 2.664

Minimum discharge, 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) Aug. 18, 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	31	32	27	27	59	49	29	29	25	64	21
2	33	30	29	25	27	56	45	30	31	22	50	21
3	31	30	30	22	27	60	42	32	32	24	43	20
4	29	27	29	21	28	61	43	34	33	20	34	19
5	30	27	30	21	29	61	42	38	33	20	30	19
6	29	27	29	22	34	58	41	41	29	21	25	20
7	28	28	29	24	39	56	39	39	27	20	21	24
8	27	27	29	24	40	54	39	43	29	19	19	22
9	26	26	29	25	39	53	37	46	28	20	18	20
10	25	25	29	25	940	51	35	44	25	18	18	21
11	24	26	29	25	685	50	33	40	26	18	19	21
12	23	25	29	26	294	50	33	37	26	25	17	21
13	21	24	30	25	202	49	33	35	25	31	16	20
14	23	25	30	26	281	49	33	34	32	25	16	360
15	23	25	29	26	277	43	33	35	31	24	17	103
16	22	23	28	26	211	41	35	34	26	24	18	32
17	23	25	27	26	167	42	38	37	25	23	17	28
18	22	25	28	26	135	44	38	38	25	20	15	24
19	25	27	29	26	117	41	37	55	26	20	16	21
20	25	27	29	26	106	30	35	49	26	25	16	20
21	28	29	32	26	97	28	32	45	28	27	16	20
22	33	26	33	27	88	30	33	44	28	29	17	19
23	36	25	35	27	79	31	34	41	27	31	18	21
24	36	26	38	27	75	37	31	38	24	108	18	18
25	35	27	38	27	70	38	29	37	24	132	18	23
26	35	26	35	27	67	41	30	36	26	67	17	23
27	34	26	33	27	63	45	28	32	25	49	18	43
28	32	27	32	27	61	46	28	30	23	41	18	28
29	31	33	30	27	59	47	28	30	23	52	26	25
30	31	34	29	27	---	50	28	33	23	52	31	23
31	31	---	29	27	---	49	---	33	---	47	21	---
TOTAL	886	809	947	790	4364	1450	1061	1169	815	1079	707	1100
MEAN	28.6	27.0	30.5	25.5	150	46.8	35.4	37.7	27.2	34.8	22.8	36.7
MAX	36	34	38	27	940	61	49	55	33	132	64	360
MIN	21	23	27	21	27	28	28	29	23	18	15	18
AC-FT	1760	1600	1880	1570	8660	2880	2100	2320	1620	2140	1400	2180
CAL YR 1975	TOTAL	34645	MEAN 94.9	MAX 4020	MIN 19	AC-FT 68720						
WTR YR 1976	TOTAL	15177	MEAN 41.5	MAX 940	MIN 15	AC-FT 30100						

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA/MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
OCT 10...	1355	24	430	8.1	22.0	140	0	40	9.2	35	1.3	3.2
NOV 27...	0750	24	376	7.9	5.0	150	0	41	11	23	.8	2.0
DEC 27...	1245	33	368	--	12.0	150	0	40	11	22	.8	2.5
JAN 04...	1025	21	347	8.1	5.5	150	0	40	11	22	.8	2.3
FEB 23...	1510	78	309	7.9	13.0	130	0	37	9.7	22	.8	2.3
MAR 27...	1110	46	324	7.9	14.0	130	0	37	9.2	20	.8	2.3
APR 28...	1340	28	333	8.1	22.0	130	0	38	9.7	21	.8	2.3
MAY 28...	1155	32	290	8.0	21.0	110	0	32	8.1	17	.7	2.0
JUN 16...	1820	25	302	8.5	25.0	120	0	33	8.8	19	.8	2.5
JUL 05...	0830	20	365	8.5	17.0	--	--	--	--	--	--	--
24...	1325	29	415	8.2	26.0	--	--	--	--	--	--	--
30...	1220	45	352	7.9	23.0	140	0	40	8.9	21	.8	2.3
AUG 07...	1445	22	311	8.3	26.0	120	0	31	10	21	.8	2.4
20...	1110	17	470	8.1	21.0	--	--	--	--	--	--	--
SEP 06...	0855	20	338	7.7	17.0	120	0	32	10	22	.9	2.2
23...	1540	24	342	8.4	24.0	--	--	--	--	--	--	--

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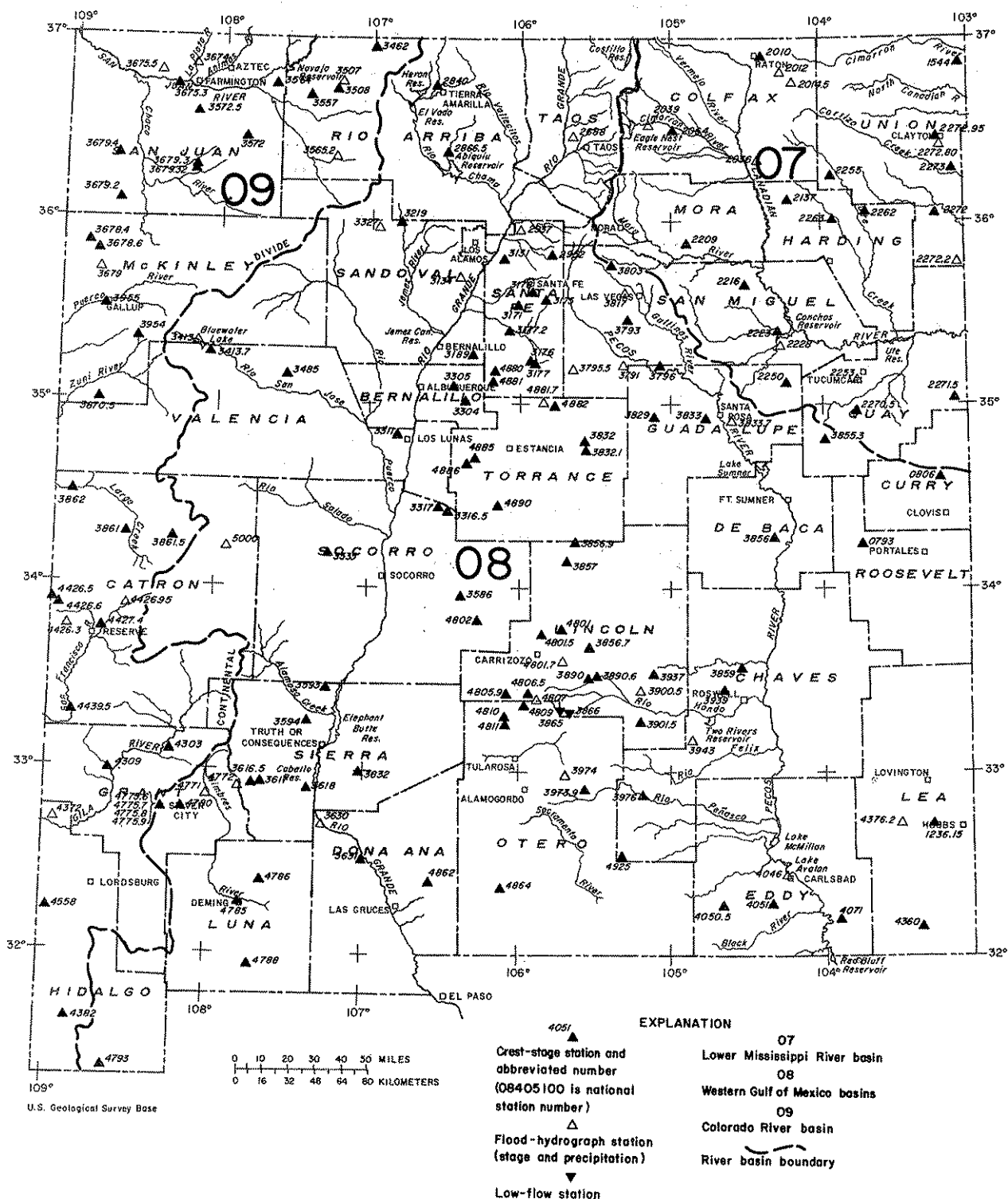
## GILA RIVER BASIN

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDED SEDI- MENT (MG/L) (80154)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
10...	1355	24	22.0	8	.52	83
NOV						
27...	0750	24	5.0	7	.45	82
DEC						
27...	1245	33	12.0	14	1.2	66
JAN						
04...	1025	21	5.5	6	.34	--
16...	1300	26	13.5	6	.42	--
28...	1440	27	14.5	7	.51	--
FEB						
11...	1440	570	7.0	2820	4340	--
23...	1510	78	13.0	80	1.7	--
MAR						
27...	1110	46	14.0	47	5.8	--
APR						
12...	1710	35	17.0	10	.94	88
28...	1340	28	22.0	12	.91	87
MAY						
12...	1120	35	18.0	18	1.7	73
28...	1155	32	21.0	76	6.6	51
JUN						
16...	1820	25	25.0	20	1.4	65
JUL						
05...	0830	20	17.0	15	.81	47
24...	1315	47	26.0	222	28	91
30...	1220	45	23.0	2770	337	99
AUG						
07...	1445	22	26.0	54	3.2	100
20...	1110	17	21.0	24	1.1	--
SEP						
06...	0855	20	17.0	47	2.5	--
23...	1540	24	24.0	23	1.5	98





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 low-flow or floodflow analyses, depending on the type of data collected. 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 discharge measurements at low-flow partial-record stations, and the second 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 a third table.

#### Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1976

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
Rio Grande basin						
08386500	Rio Ruidoso near Ruidoso, N. Mex.	Lat 33°20'11", long 105°43'31", in NW¼SW¼SW¼ sec.19, T.11 S., R.13 E., Lincoln County at Mescalero Apache Indian Reservation boundary, 3.0 miles (4.8 km) west of Ruidoso.	17.2	1953-76	12-15-75	2.4
					3-10-76	1.8
					6-15-76	8.2
08386600	Carrizo Creek at Ruidoso, N. Mex.	Lat 33°19'27", long 105°30'13", in SW¼NW¼SW¼ sec.26, T.11 S., R.13 E., Lincoln County, at mouth, at Ruidoso.	24.2	1908-09 1953-76	12-15-76	3.6
					3-10-76	3.6
					6-15-76	3.1
*08405250	Pecos River below Six Mile Dam, near Carlsbad, N. Mex.	Lat 32°22'56", long 104°08'20", in SE¼NW¼NE¼ sec.24, T.22 S., R.27 E., Eddy County, 0.4 mile (0.6 km) below Six Mile Dam, 6.0 miles (9.7 km) southeast of Carlsbad.	18,560	1918-22, 1954, 1961, 1964, 1966, 1970, 1975,† 1976	10-29-75	a15
					11-20-75	23
					12-18-75	23
					1-08-76	23
					2-05-76	23
					3-11-76	26
					4-13-76	14
					5-20-76	11
					6-17-76	13
					7-21-76	2.0
					9-02-76	.8

\* Also a water-quality sampling site.

† Prior to 1976 published with measurements at miscellaneous sites or seepage investigations.

a Estimated.

## Crest-stage partial-record stations

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. An S under the station number indicates that a complete hydrograph of flow events and precipitation data are recorded. 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 No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Arkansas River Basin							
07154400	Carrizozo Creek near Kenton, Okla.	Lat 36°52'55", long 103°01'05", Union County, under bridge on New Mexico State Highway 18, 4 miles southwest of Kenton.	111	1953-	09-27-76	6.55	2,580
07201000	Raton Creek at Raton, N. Mex.	Lat 36°34', long 104°26', Colfax County, 60 ft above bridge on State Highway 72 at Raton.	14.4	1953-	04-30-76	.75	51
07201200 S	Chicorica Creek tributary near Raton, N. Mex.	Lat 36°49'41", long 104°19'58", Colfax County, upstream from culvert on U.S. Highway 64-87, 7.7 miles southeast of Raton.	5.18	1971-	07-19-76	9.24	493
07201450 S	Green Mountain Arroyo near Raton, N. Mex.	Lat 36°47'00", long 104°15'42", Colfax County, about 1,500 feet upstream from bridge on U.S. Highway 64-87 12.8 miles southeast of Raton.	18.2	1971-	08-30-76	6.22	(+)
07203600 S	Rio del Plano tributary near Taylor Springs, N. Mex.	Lat 36°26'59", long 104°22'34", Colfax County, 1.7 miles south of Sauble Ranch, 11.0 miles northeast of Taylor Springs.	6.71	1971-	05-29-71 06-29-72 10-12-72 07-29-74 08-09-75 07-26-76	9.08 7.72 8.16 7.75 8.27 6.23	392 161 224 165 241 28
07203900 S	Graney Creek near Eagle Nest, N. Mex.	Lat 36°34'37", long 105°18'38", Colfax County, 3.0 miles northwest of Eagle Nest.	1.83	1971-76g	07-12-76	2.24	(+)
07206400	Clear Creek near Ute Park, N. Mex.	Lat 36°31'35", long 105°10'30", Colfax County, Maxwell Grant, 0.25 mile upstream from mouth, and 4 miles southwest of Ute Park.	7.44	1962-67* 1968-	04- -76	1.44	c5
07213700	Canadian River tributary near Mills, N. Mex.	Lat 36°10'00", long 104°15'47", Harding County, on downstream end of left bridge abutment on State Highway 39, 6 miles north of Mills.	a4.2	1954-	- -76	(b)	0
07220900	Dog Creek near Shoemaker, N. Mex.	Lat 36°49'32", long 104°53'28", Mora County, 0.5 mile above Valmore-Shoemaker road, and 1.8 miles northwest of Shoemaker.	18.4	1954-	07-21-76	8.06	710
07221600	Lagartija Creek tributary near Sanchez, N. Mex.	Lat 35°38', long 104°25' San Miguel County, at bridge on State Highway 65, 0.9 mile northeast of Sanchez.	a1	1961-	08-13-76	4.66	(+)

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Arkansas River Basin - Continued							
07222300	Trementina Creek at Trementina, N. Mex.	Lat 35°28', long 104°25', San Miguel County, at bridge on State Highway 65, at Trementina.	a65	1959-	07-14-76	4.10	560
07222800 S	Garita Creek tributary near Variadero, N. Mex.	Lat 35°20'10", long 104°21'50", San Miguel County, 1.2 miles upstream from mouth, 6.3 miles southeast of Variadero.	a12	1971-	07-14-76	16.65	(+)
07225000	Pajarito Creek at Newkirk, N. Mex.	Lat 35°04'20", long 104°14'50" Guadalupe County, downstream side of bridge on U.S. Highway 66, 1 mile east of Newkirk.	55.0	1954-	07-24-76	2.11	340
07225300 S	Bluewater Creek near Tucumcari, N. Mex.	Lat 35°08'31", long 103°47'32", Quay County, in Tucumcari Metropolitan Park, 1,600 feet north of the park's southern boundary, and 4.8 miles southwest of Tucumcari.	15.2	1971-	08-14-76	7.03	(+)
07225500	Ute Creek near Gladstone, N. Mex.	Lat 36°18', long 103°56', Union County, on bridge on State Highway 58, 3 miles east of Gladstone.	256	1953-	- -76	(b)	(+)
07226200	Bueyeros Creek at Bueyeros, N. Mex.	Lat 35°58'10", long 103°41'05", in E <sub>1</sub> sec. 7, T.20 N., R.31 E., Harding County, on right upstream wingwall of culvert on State Road 102 at Bueyeros.	a34	1957-	- -76	3.03	(+)
07226300	Carrizo Creek near Roy, N. Mex.	Lat 36°02'58", long 103°57'48", Harding County, 800 ft below State Highway 120, and 15 miles northeast of Roy.	a68	1954-	- -76	(b)	<50
07227050	Plaza Larga Creek tributary near Ragland, N. Mex.	Lat 34°50', long 103°45', Quay County, at culvert on State Highway 18, 1.2 miles northwest of Ragland.	.36	1952-	08-03-76	5.85	96
07227150	Arroyo del Puerto near Endee, N. Mex.	Lat 35°03', long 103°05', Quay County, at bridge on State Highway 93, 5.4 miles south of Endee.	a25	1961-	- -76	8.29	(+)
07227200	Tramperos Creek near Stead, N. Mex.	Lat 36°04'15", long 103°12'10", in NW <sub>4</sub> sec. 10, T.21 N., R.35 E., Union County, at bridge on State Highway 18, 2.1 miles south of Stead and 26 miles south Clayton.	a556	1966-73* 1974-	09-27-76	8.00	1,500
07227220 S	Fullingim Draw, near Nara Visa, N. Mex.	Lat 35°45'50", long 103°07'30", Union County upstream from culvert on State Highway 18, 11.3 miles north of Nara Visa.	15.1	1971-	05-24-76	7.12	(+)
07227280 S	Sand Draw tributary No. 2 near Clayton, N. Mex.	Lat 36°23'33", long 103°22'51", Union County, 0.85 mile north of U.S. Highway 56 and 11.5 miles southwest of Clayton.	1.81	1968-	07-04-76	11.07	(+)

## Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Arkansas River Basin - Continued							
07227295	Sand Draw tributary near Clayton, N. Mex.	Lat 36°23'20", long 103°19'05", Union County, above culvert on State Highway 58, 8 miles southwest of Clayton.	1.25	1952-	- -76	(b)	<5
07227300	Sand Draw near Clayton, N. Mex.	Lat 36°20'30", long 103°11'30", Union County, on downstream side of bridge on State Highway 18, 7.5 miles south of Clayton.	a42	1953-	09-27-76	2.25	(+)
Brazos River basin							
08079300	Blackwater Draw tributary near Floyd, N. Mex.	Lat 34°13', long 103°45', Roosevelt County, 0.5 mile below section road and 10 miles west of Floyd.	a10	1963-	08-05-76	2.44	(+)
08080600	Running Water Draw near Clovis, N. Mex.	Lat 34°31'55", long 103°12'05", Curry County, 0.25 mile upstream from Highway 18 and 8 miles north of Clovis.	109	1953-56 1957-64*	- -76	(b)	<100
08123615	Monument Draw near Monument, N. Mex.	Lat 32°41'48", long 103°16'10", SW 1/4 sec. 32, T.18 S., R.37 E., Lea County upstream from culvert on U.S. Highway 62-180, 8 miles west of Hobbs, and 5 miles north of Monument.	17.2	1975-	- -76	-	0
Rio Grande basin							
08268800 S	Rio Grande tributary near Arroyo Hondo, N. Mex.	Lat 36°28'29", long 105°43'05", Taos County, upstream from culvert on State Road 111, 0.8 mile east of Rio Grande Gorge Bridge and 4.6 miles southwest of Arroyo Hondo.	1.16	1968-76g	- -76	-	0
08284000	Rito de Tierra Amarilla at Tierra Amarilla, N. Mex.	Lat 36°41'55", long 106°33'25", Rio Arriba County, 400 ft below culvert on U.S. Highway 84, at Tierra Amarilla.	49.7	1957-	- -76	(b)	<150
08286650	Canjilon Creek above Abiquiu Reservoir, N. Mex.	Lat 36°18'55", long 106°29'05", Rio Arriba County, in Piedra Lumbre Grant, 300 ft upstream from bridge on U.S. Highway 84, 0.2 mile northwest of entrance to Ghost Ranch and about 12 miles northwest of Abiquiu.	144	1965-	09-28-76	3.98	(+)
08293700 S	Arroyo Seco tributary near Pojoaque, N. Mex.	Lat 35°56'33", long 106°01'12", Santa Fe County, upstream from culvert on U.S. Highway 64-84-285, 3.5 miles north of Pojoaque.	.72	1971-	07-21-76	5.78	44
08295200	Rio en Medio near Santa Fe, N. Mex.	Lat 35°47'30", long 105°47'38", Santa Fe County, in Santa Fe National Forest, on right bank 300 feet east of Santa Fe Ski Basin parking area, and 10.8 miles northeast of Santa Fe.		1963-73* 1973-	07-27-76	1.16	6

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Rio Grande basin - Continued							
08313100	Cañada Ancha tributary near Santa Fe, N. Mex.	Lat 35°44'05", long 106°07'00", Santa Fe County, in Caja del Rio Grant, 9 miles northwest of Santa Fe.	1.23	1940-48 1952-76g	- -76	-	0
08313400 S	Bland Canyon near Cochiti Pueblo, N. Mex.	Lat 35°42'11", long 106°24'56", Sandoval County, 200 ft south of Forest Service Road, 0.3 mile inside Santa Fe National Forest, 7.5 miles north of Cochiti.	7.57	1962-	- -76	(b)	<1
08317100	Arroyo Yupa tributary near Cerrillos, N. Mex.	Lat 35°31'58", long 106°08'45", Santa Fe County, 300 ft above culvert on U.S. Highway 85, 1.4 miles southwest of Turquoise Trading Post, and 6.5 miles north of Cerrillos.	.47	1957-76g	- -76	(b)	<15
08317500	Galisteo Creek at Canoncito, N. Mex.	Lat 35°33'02", long 105°49'20", Santa Fe County, above railroad bridge, 0.2 mile above Apache Canyon at Canoncito.	11.3	1955-56 1959-	06-06-76	3.51	1,060
08317600	San Cristobal Arroyo near Galisteo, N. Mex.	Lat 35°22'55", long 105°51'05", Santa Fe County, at bridge on U.S. Highway 285, 5.5 miles east of Galisteo.	116	1955-	06-06-76	6.70	1,780
08317700	Tarhole Canyon near Galisteo N. Mex.	Lat 35°21'55", long 105°50'40", Santa Fe County, at culvert on U.S. Highway 285, 6 miles southeast of Galisteo.	2.15	1952-	08-05-76	15.88	440
08317720	Cañada de la Cueva near Galisteo N. Mex.	Lat 35°26'13", long 106°00'45", Santa Fe County, 6.4 miles east of Cerrillos and 4.8 miles northwest of Galisteo.	1.79	1970-	08-04-76	3.91	328
08317800	Cañada de las Minas tributary near Santa Fe, N. Mex.	Lat 35°36'27", long 105°54'42", Santa Fe County, at culvert on U.S. Highway 84, 85 and 285, 1.3 miles northeast of Seton Village, and 5.7 miles south of Santa Fe.	.56	1952-	08-19-76	1.98	30
08318900	San Pedro Creek near Golden, N. Mex.	Lat 36°13'45", long 106°18'00", Sandoval County, 1 mile below bridge on State Highway 10 and 5.5 miles southwest of Golden.	45.2	1953-	09-14-76	.01	90
08321900	Rio de las Vacas near Senorita, N. Mex.	Lat 35°59'35", long 106°47'45", Sandoval County, at bridge on side road, 0.1 mile south of State Highway 126 and 6.5 miles east of Senorita.	26.8	1957-	04- -76	2.46	78
08330400	Juan Toro Canyon near Miera, N. Mex.	Lat 35°00'57", long 106°20'14", Bernalillo County, 150 ft east of State Highway 10, 1 mile southeast of Cedro, and 4.5 miles northwest of Miera.	1.57	1959-	- -76	.98	(+)
08330500	Tijeras Arroyo at Albuquerque, N. Mex.	Lat 35°03'40", long 106°28'40", Bernalillo County, 300 ft south of U.S. Highway 66 and 0.4 mile southeast of city limits of Albuquerque.	75.3	1943-48* 1958-	07-21-76	2.56	890

## Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Rio Grande basin - Continued							
08331100	Belen Highline Canal tributary near Los Lunas, N. Mex.	Lat 34°49'20", long 106°49'10", Valencia County, above culvert on State Highway 6, 5.0 miles west of Los Lunas.	.16	1952-53 1955-	- -76	(b)	<10
08331650	Cañada Montoso near Scholle, N. Mex.	Lat 34°24', long 106°29', Socorro County, 130 ft upstream from dip on abandoned highway, 500 ft upstream from bridge on U.S. Highway 60, 3.6 miles southwest of Scholle.	a35	1961-	09-14-76	2.52	290
08331700	Abo Arroyo tributary near Scholle, N. Mex.	Lat 34°24'10", long 106°30'35", Socorro County, at culvert on U.S. Highway 60, 2.5 miles south-east of junction of U.S. Highway 60, and State Highway 6, southwest of of Scholle.	.23	1954-	09-14-76	14.32	64
08332700 S	San Pablo Creek near Cuba, N. Mex.	Lat 35°56'55", long 106°56'44", Sandoval County, upstream from bridge on old section of State Highway 44 and 5.6 miles south of Cuba.	12.8	1970-	07-31-76	4.97	(+)
08341300	Bluewater Creek above Bluewater Dam, near Bluewater N. Mex.	Lat 35°15'35", long 108°07'05", Valencia County, 2.3 miles south of Bluewater Dam, and 8 miles west of Bluewater.	a75	1953-	04-17-73 04- -74 09-04-75 08-19-76	4.73 .83 3.40 4.28	560h 18h 270h 440
08341370 S	Pine Canyon near Thoreau, N. Mex.	Lat 35°18'34", long 108°10'14", McKinley County, about 1 mile southwest of the north end of Bluewater Lake and about 7 miles southeast of Thoreau.	6.09	1969-	- -76	(b)	(+)
08348500	Encinal Creek near Casa Blanca, N. Mex.	Lat 35°08'35", long 107°27'55", Valencia County, 1.8 miles north of village of Encinal and 6.8 miles north of Casa Blanca.	6.19	1937-39 <sup>1</sup> / <sub>2</sub> 1959-	- -76	(b)	(+)
08353500	La Jencia Creek near Magdalena, N. Mex.	Lat 34°09'45", long 107°12'35", Socorro County, 3.5 miles northeast of Magdalena.	195	1957-	07-24-76	1.75	580
08358600	Chupadera Wash tributary at Bingham, N. Mex.	Lat 33°54', long 106°20', Socorro County, 75 ft upstream from culvert on U.S. Highway 380, 0.1 mile west of Bingham.	1.29	1961	- -76	(b)	<100
08359300	San Jose Arroyo near Monticello, N. Mex.	Lat 33°28'05", long 107°14'30", Sierra County, at head of box canyon just below major tributary, 800 ft below culvert on U.S. Highway 85, 13 miles Northeast of Monticello.	26.9	1959-	- -76	(b)	(+)
08359400	Lumber Canyon tributary near Monticello, N. Mex.	Lat 33°24', long 107°16', Sierra County, at culvert on U.S. Highway 85, 0.2 mile north of road to Red Rock Ranger station, and 10.5 miles east of Monticello.	.90	1952-76g	- -76	(e)	-
08361650	Percha Creek near Kingston, N. Mex.	Lat 32°55'05", long 107°38'55", Sierra County, at bridge on State Highway 180, 3.3 miles east of Kingston.	21.5	1953-	07-25-76	3.54	390

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual Maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Rio Grande basin - Continued							
08361700	Percha Creek near Hillsboro, N. Mex.	Lat 32°54'55", long 107°36'05", Sierra County, 150 ft south of State Highway 180, and 2 miles west of Hillsboro.	35.4	1957-	07-25-76	3.27	570
08361800	Percha Creek at Caballo Dam near Arrey, N. Mex.	Lat 32°54', long 107°19', Sierra County, at bridge on U.S. Highway 85, 0.5 mile above mouth and Caballo Reservoir, and 3.5 miles north of Arrey.	119	1953-76g	07-25-76	1.78	190
08363000 S	Rio Grande tributary near Salem, N. Mex.	Lat 32°43'01", long 107°12'03", Doña Ana County, upstream from culvert on Interstate Highway 25, 1.0 miles northeast of Salem.	.18	1971-76g	07-01-76	7.01	(+)
08363100	Rio Grande tributary near Radium Springs, N. Mex.	Lat 32°30'05", long 106°57'05", Doña Ana County, above culvert on U.S. Highway 85, 120 ft above mouth, and 1.4 miles west of Radium Springs.	.40	1955-	- -76	(e)	-
08363200	Aleman Draw at Aleman, N. Mex.	Lat 33°00'00", long 107°00'20", Sierra County, on Santa Fe Railroad bridge, 140 ft above dip on Engle-Rincon road, and 0.26 mile west of Aleman.	25.5	1959	09-14-76	2.31	150
08379100 S	Pecos River tributary near Sena, N. Mex.	Lat 35°18'37", long 105°23'37", San Miguel County, upstream from culvert on State Highway 3, 0.8 mile north of Sena.	1.24	1971-	07-13-76	6.77	(+)
08379300	Tecolote Creek at Tecolote, N. Mex.	Lat 35°27'20", long 105°16'55", San Miguel County, on bridge on U.S. Highway 85 at Tecolote.	122	1954-	08-19-76	8.23	2,500
08379550 S	Cañon Blanco near Leyba, N. Mex.	Lat 35°13'14", long 105°40'12", San Miguel County, 0.2 mile south of White Lakes-Leyba road and 5.0 miles west of Leyba.	11.2	1971-	07-20-76	6.90	1,440
08379600	Pecos River tributary near Dilia, N. Mex.	Lat 35°12'50", long 105°04'50", Guadalupe County, above culvert on U.S. Highway 84, and 1.7 miles northwest of Dilia.	.16	1952-	07-24-76	1.77	40
08380300	Sandoval Canyon at Gallinas, N. Mex.	Lat 35°41'19", long 105°21'17", San Miguel County, about 500 ft upstream from culvert on State Highway 65, at north edge of Gallinas.	7.6	1957 1961-	07-24-76	.87	10
08381700 S	Cañon Piedra Lumbre near Las Vegas, N. Mex.	Lat 35°34'14", long 105°17'50", San Miguel County, upstream from bridge on State Road 283, 4.3 miles west-southwest of Las Vegas.	8.06	1971-	08-19-76	2.45	7
08382900	Pecos River tributary near Pintada, N. Mex.	Lat 34°58'06", long 105°05'38", Guadalupe County, in Anton Chico Grant, 1,500 ft south of U.S. Highway 66, 6.8 miles north of Pintada.	.16	1961-	07-24-76	1.82	280



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Rio Grande basin - Continued							
08383200	Pintada Arroyo tributary near Clines Corners, N. Mex.	Lat 34°50'40", long 105°35'05", Torrance County, above culvert on U.S. Highway 285, 12.2 miles south of Clines Corners.	29.2	1952-	06-05-76	2.58	175
08383210	Pintada Arroyo tributary near Encino, N. Mex.	Lat 34°48'40", long 105°34'00", Torrance County, above culvert on U.S. Highway 285, 0.1 mile south of ranch road, and 12.5 miles northwest of Encino.	a1	1959-	- -76	(b)	<10
08383300	Pintada Arroyo near Santa Rosa, N. Mex.	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.	896	1959-	07-24-76	6.29	(+)
08383370 S	Pecos River tributary near Puerto de Luna, N. Mex.	Lat 34°52'35", long 104°38'16", Guadalupe County, 25 ft upstream from culvert on State Highway 91, 3.1 miles north of Puerto de Luna.	.37	1961-	09-27-76	6.89	88
08385530	Alamosa Creek tributary near Jordan, N. Mex.	Lat 34°48', long 103°58', Quay County, 500 ft upstream from dip on State Highway 156, 6.9 miles west of Jordan.	9.71	1962-	08-03-76	2.23	82
08385600	Yeso Creek near Fort Sumner, N. Mex.	Lat 34°16', long 104°17', De Baca County, at abandoned bridge 1 mile downstream from State Highway 20, and 14.5 miles south of Fort Sumner.	242	1937 1952-	07-14-76	4.56	2,900
08385670	Aragon Creek tributary near Encinosa, N. Mex.	Lat 33°41', long 105°34', Lincoln County, 0.3 mile upstream from wooden bridge on dirt road, 1.2 miles north of State Highway 48, 4.3 miles west of Encinosa.	6.07	1961-	09-15-76	4.23	740
08385690	Bonita Canyon tributary near Corona, N. Mex.	Lat 34°14', long 105°37', Lincoln County, above culvert on U.S. Highway 54, and 1.8 miles southwest of Corona.	a.6	1959-	09-19-76	2.47	57
08385700	Cloud Canyon near Gallinas, N. Mex.	Lat 34°08', long 105°40', Lincoln County, above culvert on U.S. Highway 54, and 2.0 miles southwest of Gallinas.	a10	1957-	- -76	(b)	<25
08385900	Salt Creek tributary near Roswell, N. Mex.	Lat 33°33', long 104°31', Chavez County, at culvert on U.S. Highway 285, 4.7 miles north of junction of U.S. Highway 70 and 285, and 10 miles north of Roswell.	.04	1952-	- -76	(b)	(+)
08389000	Rio Bonito near Fort Stanton, N. Mex.	Lat 33°31'05", long 105°29'10", Lincoln County, at bridge on U.S. Highway 380, 2.5 miles northeast of Fort Stanton.	a85	1955-	09-09-76	5.29	1,100
08389060	Rio Bonito tributary near Fort Stanton, N. Mex.	Lat 33°31'15", long 105°28'05", Lincoln County, at culvert on U.S. Highway 380, 150 ft above mouth, and 3.5 miles northeast of Fort Stanton.	.72	1955-	- -76	-	0

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Rio Grande basin - Continued							
08390050 S	Rio Hondo tributary at Tinnie, N. Mex.	Lat 33°22'15", long 105°13'01", Lincoln County, upstream from culvert on U.S. Highway 70-380, 0.5 mile east of junction of U.S. Highway 70-380 and State Highway 368, and at Tinnie.	.23	1971-	07-24-76	4.96	(+)
08390150	Gallo Canyon near Picacho, N. Mex.	Lat 33°18', long 105°10', Lincoln County, 500 ft east of road, 5 miles south of Picacho.	1.32	1962-	- -62 06-02-63 09-26-64h 09-09-65 08-22-66 08-10-67 08-02-68 08-31-69 - -70 07-31-71 08-27-72 09-10-73 09-16-74 07-21-75 - -76	- 2.54 2.87h 7.38 6.01 6.90 3.34 4.45 - 4.94 4.00 9.19 5.72 3.34 -	0 <70 <70h 1,060 500 860 <70 135 0 218 79 2,400 410 <70 0
08393700	Pancho Canyon near Arabela, N. Mex.	Lat 33°17', long 105°12', Lincoln County, 200 ft downstream from dip on State Highway 368, 5.6 miles south of Arabela.	16.7	1962-	- -76	-	0
08393900	Eight Mile Draw near Roswell, N. Mex.	Lat 33°25', long 104°39', Chavez County, 6.5 miles west of Roswell.	397	1941 1952-	- -76	(b)	<10
08394300 S	Twin Butte Canyon tributary near Roswell, N. Mex.	Lat 33°10'34", long 104°51'30", Chavez County, about 0.1 mile upstream from mouth and about 22 miles southwest of Roswell.	5.01	1968-	09-09-76	1.54	(+)
08397390	Curtis Canyon near Mayhill, N. Mex.	Lat 32°51'52", long 105°31'05", Otero County, 0.26 mile above SCS dam, 0.4 mile west of State Highway 130, and 2.5 miles southwest of Mayhill.	10.3	1959-	- -76	-	0
08397400 S	Hyatt Canyon near Cloudcroft, N. Mex.	Lat 32°56'06", long 105°37'37", Otero County, 0.5 mile south of State Highway 83, and 7 miles east of Cloudcroft.	3.08	1953-	- -76	(b)	(+)
08397600	Rio Pecos near Dunken, N. Mex.	Lat 33°52'55", long 105°10'40", Chavez County, on bridge on State Highway 24, 5 miles north of Dunken.	583	1952-56 1956-62* 1963-	07-16-76	6.50	210
08404600 S	Pecos River tributary at Carlsbad, N. Mex.	Lat 32°26'50", long 104°15'48", Eddy County, upstream from culvert on U.S. Highway 285, at entrance to Botanical-Zoological Gardens, 2.9 miles northwest of county court house in Carlsbad.	.47	1971-	- -76	-	.0
08405050	Last Chance Canyon tributary near Carlsbad Caverns, N. Mex.	Lat 32°17'30", long 104°36'20", Eddy County, above culvert on State Highway 137, 0.1 mile north of road to Sitting Bull Falls, and 12.5 miles northwest of Carlsbad Caverns.	.2	1959-	07-13-76	3.13	145
08405100	Mosley Canyon near White City, N. Mex.	Lat 32°15', long 104°20', Eddy County, 600 ft below dip on Dark Canyon road, and 5.5 miles north of White City.	14.6	1959-	07-13-76	4.58	(+)

## Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Rio Grande basin - Continued							
08407100	Pierce Canyon near Malaga, N. Mex.	Lat 32°11'24", long 103°57'41", Sec. 26, T. 24 S., R. 29 E., Eddy County, about 1 mile east of the Pierce Canyon crossing on the Pecos River, 8 miles east of Malaga.	8.55	1975-	09-10-76	4.18	(+)
08436000	Antelope Draw near Jal, N. Mex.	Lat 32°09', long 103°22', Lea County, 0.4 mile south of State Highway 128, and 10.7 miles west of Jal.	a20	1963-	- -76	-	0
08437620 S	Monument Draw tributary near Monument, N. Mex.	Lat 32°39'44", long 103°27'16", Lea County, upstream from culvert on U.S. Highway 62-180, about 12 miles northwest of Monument and 19.5 miles west of Hobbs.	6.23	1968-	- -76	-	0
Mimbres River basin							
08477100 S	Willow Springs Canyon at Mimbres, N. Mex.	Lat 32°51'20", long 107°58'35", Grant County, about 600 ft downstream from State Road 61, 0.2 mile north of post office in Mimbres.	3.84	1970-	09-17-67	2.17	(+)
08477200 S	Iron Creek near Kingston, N. Mex.	Lat 32°54'50", long 107°46'35", Grant County, 50 ft east of State Highway 180, 1.6 road miles west of Emory Pass, and 4.5 miles west of Kingston.	.74	1955-76g	- -76	(b)	(+)
08477560	Little Walnut Creek near Silver City, N. Mex.	Lat 32°48'20", long 108°17'35", Grant County, 85 ft above dip on Bear Mountain Road, and 2 miles north of Silver City.	5.10	1959-	05-19-76	1.97	430
08477570	Silva Creek tributary at Silver City, N. Mex.	Lat 32°47'42", long 108°16'47", Grant County, 350 ft above dip on Little Walnut Road, and 0.7 mile north of boundary of Silver City.	2.12	1958-76g	- -76	(e)	-
08477580	Silva Creek at Silver City, N. Mex.	Lat 32°46'41", long 108°16'41", Grant County, 190 ft above Twelfth Street bridge at Silver City.	10.0	1958-	05-19-76	1.91	<200
08477590	Pinos Altos Creek at Silver City, N. Mex.	Lat 32°46'52", long 108°16'04", Grant County, 2 blocks below U.S. Highway 260 at Silver City.	4.63	1958-	- -76	(b)	(+)
08478000	Cameron Creek at Central, N. Mex.	Lat 32°47', long 108°10', Grant County, 0.5 mile above culvert on U.S. Highway 260, at north edge of Central.	18.8	1954-	05-19-76	1.94	250
08478500	Mimbres River at Deming, N. Mex.	Lat 32°17'00", long 107°45'35", Luna County, at bridge on U.S. Highway 260, at north end of Deming.	1,370	1954-	09-09-76	1.29	320

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Mimbres River basin - Continued							
08478600	Mimbres basin tributary near Florida, N. Mex.	Lat 32°21'25", long 107°37'35", Luna County, above culvert on State Highway 26, and 5 miles southwest of Florida.	.55	1959-	09-06-76	3.03	237
08478800	Seventysix Draw tributary near Waterloo, N. Mex.	Lat 31°56'34", long 107°44'38", Luna County, upstream from culvert on State Road 11, 3.9 miles southeast of Waterloo, and 7.9 miles north of Columbus.	.2	1967-	- -76	(b)	<30
Playas Valley							
08479300	Deer Creek tributary near Antelope Wells, N. Mex.	Lat 31°23'00", long 108°42'15", Hidalgo County, 0.1 mile below dip on State Highway 79, 2.5 miles east of San Luis Pass, and 12 miles west of Antelope Wells.	4.3	1959-	09-09-76	1.74	245
Tularosa Valley							
08480100	White Oaks Canyon at White Oaks, N. Mex.	Lat 33°46', long 105°44', Lincoln County, 40 ft upstream from culvert on State Highway 349, 1 mile northeast of White Oaks.	1.14	1961-	- -76	(b)	(+)
08480150	White Oaks Canyon near Carrizozo, N. Mex.	Lat 33°44', long 105°50', Lincoln County, 100 ft upstream from culvert on U.S. Highway 54, 6 miles north of Carrizozo.	31	1959 1961-	07-05-76	1.71	680c
08480170 S	Nogal Creek tributary near Nogal, N. Mex.	Lat 33°34'54", long 105°41'10", Lincoln County, upstream from culvert on U.S. Highway 380, about 2.0 road miles west of Indian Divide, 7 miles northwest of Capitan and 2 miles north of Nogal.	1.94	1968-	08-27-76	4.23	(+)
08480200	Taylor Canyon tributary near Bingham, N. Mex.	Lat 33°48', long 106°12', Socorro County, 200 ft north of U.S. Highway 380, 12 miles southeast of Bingham.	2.66	1961-	- -76	1.43	(+)
08480590	Tularosa Valley tributary near Oscura, N. Mex.	Lat 33°24'41", long 106°04'09", Lincoln County, 50 ft below culvert on U.S. Highway 54, and 5.2 miles south of Oscura.	3.22	1958-	- -76	(b)	(+)
08480650	Minnie Hall Draw near Three Rivers, N. Mex.	Lat 33°25', long 106°05', Lincoln County, 8 miles northeast of Three Rivers.	9.70	1956-	- -76	(b)	<300
08480700 S	Indian Creek near Three Rivers, N. Mex.	Lat 33°22'10", long 105°53'25", Otero County, 150 ft above diversion dam, and 12 miles east of Three Rivers.	6.8	1956-58* 1959-	08-04-76	2.48	12

Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Tularosa Valley - Continued							
08480900	Indian Creek at mouth near Three Rivers, N. Mex.	Lat 33°22'45", long 105°57'25", Otero County, 75 ft above diversion dam, 0.35 mile above mouth, and 5.5 miles east of three Rivers.	10.9	1956-58* 1959-	- -76	(b)	<100
08481000	Three Rivers at Three Rivers, N. Mex.	Lat 33°18'10", long 106°04'20", Otero County, 150 ft below Southern Pacific Railroad bridge, 400 ft above bridge on U.S. Highway 54, and 1.3 miles south of Three Rivers.	96.0	1956-	09-15-76	2.47	960
08481100	Tularosa Valley tributary near Three Rivers, N. Mex.	Lat 33°18', long 106°05', Otero County, at culvert on U.S. Highway 54, 1.6 miles south of Three Rivers.	13.8	1952-76g	09-15-76	.60	860
08486200	Black Prince Canyon tributary near Organ, N. Mex.	Lat 32°27', long 106°32', Dona Ana County, above culvert on U.S. Highway 70, 2.3 miles east of San Augustin Pass, and 4.0 miles east of Organ.	.73	1959-	- -76	-	0
08486400	Tularosa Valley tributary near Orogrande, N. Mex.	Lat 32°24'55", long 106°04'20", Otero County, at bridge on U.S. Highway 54, and 2.7 miles northeast of Orogrande.	2.53	1959-	- -76	-	0
Estancia Valley							
08488000	Estancia Valley tributary at Cedar Grove, N. Mex.	Lat 35°32', long 106°11', Santa Fe County, 50 ft upstream from culvert on State Highway 344, 0.1 mile south of Cedar Grove.	1.21	1955 1961-	08-19-76	7.57	(+)
08488100	Juan Tomas Canyon near Edgewood, N. Mex.	Lat 35°10', long 106°14', Santa Fe County, 140 ft upstream from culvert on U.S. Highway 66, 2.5 miles northwest of Edgewood.	a20	1962-	07-15-76	2.42	(+)
08488170 S	Chavez Draw tributary near Clines Corners, N. Mex.	Lat 35°01'06", long 105°49'06", Torrance County, one mile north of Interstate 40, 13 miles east of Moriarty and 9 miles west of Clines Corners.	2.73	1968-	07-11-75 09-28-76	6.0E 6.19	27c 36c
08488200	Osita Draw near Clines Corners, N. Mex.	Lat 35°00', long 105°46', Torrance County, 100 ft upstream from culvert on U.S. Highway 66, 7.5 miles west of Clines Corners.	a10	1961-	06-05-76	3.87	620
08488500	Cañon de Torreon at Torreon, N. Mex.	Lat 34°43'20", long 106°17'50", Torrance County, at culvert on State Highway 10, in Torreon.	18.2	1954-	- -76	(b)	<25
08488600	Arroyo del Cuervo near Torreon, N. Mex.	Lat 34°41'35", long 106°18'27", Torrance County, in Town of Torreon Grant, about 0.3 mile above culvert on State Road 10 and 2 miles south of Torreon.	11.8	1969-	- -76	(e)	-

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Estancia Valley - Continued							
08489000	Cañada del Leon near Mountainair, N. Mex.	Lat 34°25', long 106°29', 0.25 mile above culvert on State Highway 10, and 8.4 miles southeast of Mountainair.	3.9	1953-	09-14-76	4.20	60
Crow Flats							
08492500	Fleming Draw near Piñon, N. Mex.	Lat 32°31', long 105°21', Otero County, 0.2 mile above dip in ranch road, and 7.5 miles south of Piñon.	16.6	1959-	- -76	4.15	630
San Augustin Plains basin							
08500000 S	Swingle Canyon near Datil, N. Mex.	Lat 34°11'17", long 107°53'55", Catron County, about 0.3 mile upstream from U.S. Highway 60, and 4.3 miles northwest of Datil.	6.35	1970-	- -76	(b)	(+)
San Juan River basin							
09346200	Rio Amargo at Dulce, N. Mex.	Lat 36°56'00", long 107°00'00", Rio Arriba County, under bridge on State Highway 17, at Dulce.	168	1956-	08-30-76	5.45	830
09350700 S	Ruben Canyon near Gobernador, N. Mex.	Lat 36°44'26", long 107°14'33", Rio Arriba County, in Carson National Forest, upstream from culvert on State Highway 17, and 6.5 miles east of Gobernador.	5.06	1970-	04- -76	3.33	(+)
09350800	Vaqueros Canyon near Gobernador, N. Mex.	Lat 36°43'23", long 107°16'47", Rio Arriba County, 100 ft east of State Highway 17, and 4.2 miles east of Gobernador.	60.5	1956-	04- -76	3.18	165
09355700	Gobernador Canyon near Gobernador, N. Mex.	Lat 36°41'05", long 107°25'10", San Juan County, 0.2 mile south of State Highway 17, and 4 miles southwest of Gobernador.	19.8	1956-	- -76	(b)	<400
09356400	Manzanares Canyon near Turley, N. Mex.	Lat 36°44'15", long 107°42'15", San Juan County, 600 ft above culvert on State Highway 17, and 4.2 miles east of Turley.	3.20	1956-	07-31-76	2.77	550
09356520 S	Burro Canyon near Lindrith, N. Mex.	Lat 36°16'21", long 107°14'46", Rio Arriba County, upstream from culvert on State Highway 537, 11.5 miles west of Lindrith.	9.11	1970-	- -76	(b)	<1

Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
San Juan River basin - Continued							
09357200	Gallegos Canyon tributary near Nageezi, N. Mex.	Lat 36°28', long 107°55', San Juan County, at culvert on State Highway 44, 1.1 miles northwest of Huerfano Trading Post, and 12.5 miles northwest of Nageezi.	.20	1952-	08-20-76	7.63	555
09357250	West Draw near Farmington, N. Mex.	Lat 36°35'24", long 108°11'03", San Juan County, 15 ft upstream of culvert on State Highway 371, 11 miles south of Farmington.	.32	1975-	07-26-76	4.61	(+)
09367400 S	La Plata River tributary near Farmington, N. Mex.	Lat 36°47'10", long 108°13'31", San Juan County, about 700 ft upstream from culvert on State Highway 17 and 4.1 miles northwest of Farmington.	1.03	1970-	07-27-76	1.85	(+)
09367530	Locke Arroyo near Kirtland, N. Mex.	Lat 36°43'51", long 108°17'46", San Juan County, on upstream side of abandoned culvert, 200 ft above U.S. Highway 550, 0.4 mile above mouth, and 3.3 miles east of Kirtland.	2.96	1951-	09-25-76	.66	<70
09367550 S	Stevens Arroyo near Kirtland, N. Mex.	Lat 36°46'00", long 108°22'10", San Juan County, upstream from gravel road to Young's Lake, 0.6 mile north of El Paso Natural Gas, San Juan Plant, and 2.3 miles north of Kirtland.	4.59	1970-	08-19-76	11.89	(+)
09367840	Yazzie Wash near Mexican Springs, N. Mex.	Lat 35°50'40", long 108°53'00", McKinley County, 5.0 miles northwest of Mexican Springs, and 23 miles north of Gallup.	a2.1	1953-54	09-24-76	2.72	180
09367860	Chusca Wash near Mexican Springs, N. Mex.	Lat 35°48'40", long 108°50'50", McKinley County, 1.8 miles northwest of Mexican Springs, and 20 miles north of Gallup.	a8.7	1953-76g	09-24-76	3.56	1,170
09367900 S	Black Springs Wash near Mexican Springs, N. Mex.	Lat 35°45'40", long 108°49'00", McKinley County, 2.5 miles south of Mexican Springs and 17 miles north of Gallup.	7.05	1954-	08-03-76	.38	272
09357920	Coyote Wash tributary near Naschitti, N. Mex.	Lat 36°05'55", long 108°41'48", San Juan County, on bridge on U.S. Highway 666, 2.4 miles north of Naschitti, and 39 miles north of Gallup.	12.0	1967-	- -76	(e)	-
09367930	Hunter Wash at Bisti Trading Post, N. Mex.	Lat 36°16'36", long 108°15'15", San Juan County, on right bank, upstream of road crossing at Bisti Trading Post, N. Mex.	45.7	1975-76g	08-19-76	6.22	1,570
09367932	Hunter Wash tributary near Bisti Trading Post, N. Mex.	Lat 36°15'33", long 108°15'06", San Juan County, on left bank upstream of culverts, 1.2 mile south of Bisti Trading Post.	8.47	1975-	08-19-76	6.83	(+)
09367940	Pena Blanca Arroyo near Newcomb, N. Mex.	Lat 36°21'39", long 108°43'09", San Juan County, on bridge on U.S. Highway 666, 5.2 miles north of Newcomb.	h46.8	1967-	04- -76	5.00	(+)

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual Maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Little Colorado River basin							
09386100	Largo Creek near Quemado, N. Mex.	Lat 34°19'25", long 108°31'40", Catron County, on downstream side of bridge on ranch road 2.5 miles southwest of Quemado.	151	1954-	07-31-76	1.76	200
09386150	Mangas Creek tributary near Pietown, N. Mex.	Lat 34°18', long 108°10', Catron County, above culvert on U.S. Highway 60, 1.3 miles west of Pietown Post Office.	a.08	1952-	- -76	(b)	(+)
09386200	Carrizo Creek near Salt Lake N. Mex.	Lat 34°31', long 109°01', Catron County, on left downstream wingwall of bridge, 1.3 miles east of New Mexico-Arizona State line and 15 miles west of Salt Lake.	2560	1957-	07-31-76	.46	(+)
09387050	Galestena Canyon tributary near Black Rock, N. Mex.	Lat 34°58'45", long 108°40'00", McKinley County, 100 ft below bridge on State Highway 32 and 10.5 miles southeast of Black Rock.	a19	1957-	07-14-76	2.42	100
09395400	Milk Ranch Canyon near Fort Wingate, N. Mex.	Lat 35°25'55", long 108°33'30", McKinley County, 0.5 mile below culvert on secondary road between Fort Wingate and McGaffey, and 3 miles south of Fort Wingate.	14.0	1949-1953-	08-20-76	.42	98
09395500	Puerco River at Gallup, N. Mex.	Lat 35°31'49", long 108°44'23", McKinley County, on right bank north of the Santa Fe RR freight depot, 1,500 ft above Second Street Bridge at Gallup.	558	1940-46* 1956-	- -76	(e)	-
Gila River Basin							
09430300	Copperas Canyon near Pinos Altos, N. Mex.	Lat 33°05', long 108°13', Grant County, on east side of Cooperas Canyon road and 15 miles north of Pinos Altos.	3.95	1963-	08-22-76	1.33	(+)
09430900	Duck Creek at Cliff, N. Mex.	Lat 32°58', long 108°36', Grant County, at Cliff below bridge on State Highway 211, and 0.6 mile above mouth.	228	1957-	08-22-76	8.63	4,950
09437200 S	Mexican Canyon at Virden, N. Mex.	Lat 32°41'03", long 108°59'00", Hidalgo County, upstream from dip in State Road 82, and about 0.8 mile east of Virden.	3.40	1968-	06-06-76	11.24	(+)
09438200	Animas Creek near Cloverdale, N. Mex.	Lat 31°34'15", long 108°52'30", Hidalgo County, near head of small box canyon 0.1 mile west of State Highway 338, and 11 miles north of Cloverdale.	157	1959-	09-07-76	4.32	490
09442630 S	Mail Hollow near Luna, N. Mex.	Lat 33°47'38", long 108°56'59", Catron County, upstream from culvert on U.S. Highway 180, 2.3 miles south of Luna.	4.20	1970-	07-14-76	2.10	15



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Annual maximum discharge at crest-stage partial-record stations - Continued

Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Annual Maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Gila River Basin - Continued							
09442650	Romero Creek near New Mexico- Arizona State line near Luna, N. Mex.	Lat 33°57', long 108°59', Catron County, at culvert on Luna-Underwood Lake road, about 1 mile east of New Mexico-Arizona State line, and 8 miles northwest of Luna.	10.8	1958-76g	- -76	-	0
09442660	Trout Creek at Luna, N. Mex.	Lat 33°51', long 108°58', Catron County, 500 ft downstream from bridge on Luna-Red Hill road and 2.6 miles north of Luna.	31.9	1954-	04- -76	1.57	88
09442695 S	Negro Canyon at Aragon, N. Mex.	Lat 33°53', long 108°33', Catron County, above culvert on State Highway 12, at west edge of Aragon.	9.62	1958-	- -76	(b)	<10
09442740	Tularosa River near Reserve, N. Mex.	Lat 33°44'00", long 108°42'10", Catron County, 150 ft west of Eagle Peak Lookout road and 3.3 miles northeast of Reserve.	426	1956-	- -76	(b)	<150
09443950	Red Colt Canyon at Pleasanton, N. Mex.	Lat 33°15'30", long, 108°52'15", Catron County, above culvert on U.S. Highway 260, and 1 mile south of Pleasanton.	3.00	1959-	07-12-76	10.25	(+)
09455800	Steins Creek at Steins, N. Mex.	Lat 32°14', long 109°00', Hidalgo County, at culvert on State Highway 14, 0.9 mile west of Steins.	1.26	1959-	07-11-76	4.07	245

&lt; Less than.

S Flood-hydrograph site.

+ Discharge not yet determined.

\* Operated as continuous-record gaging station.

a Approximately.

b Peak did not reach bottom of 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.

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (\*); measurements of peak flow by a dagger (†).

## Discharge measurements made at miscellaneous sites during water year 1976

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements						
					Date	Discharge (ft <sup>3</sup> /s)					
Arkansas River basin											
Chicorica Creek a07202000	Canadian River	Lat 36°46'13", long 104°23'45", in S½ sec.4, T.29 N., R.24 E., Colfax County, at highway bridge near east boundary of Maxwell Grant, 300 ft downstream from Una de Gato Creek, 4.4 miles northeast of Hebron, and 9.0 miles south of Raton, NM.	381	1945-52† 1966-75	10-21-75	0.53					
					11-12-75	.02					
					12-16-75	1.9					
					1-15-76	1.5					
					2- 9-76	3.4					
					3- 9-76	2.3					
					4- 6-76	.23					
					5- 4-76	.51					
					6- 2-76	1.1					
					6-29-76	b.03					
					7-27-76	8.3					
					8-24-76	.72					
					9-20-76	0					
Canadian River 07224500	Arkansas River	Lat 35°24'12", long 104°11'18", San Miguel County, in Pablo Montoya Grant, 300 ft below Conchas Dam, and 24 miles north of Newkirk, NM.	7,417	1938-38† 1942-72† 1973-75	10-17-75	3.0					
					12-10-75	3.1					
					1- 6-76	4.2					
					1-27-76	3.1					
					2-17-76	3.3					
					3-12-76	3.5					
					4- 7-76	3.2					
					4-28-76	3.1					
					5-20-76	3.4					
					6-22-76	3.5					
					7-15-76	3.5					
					9- 8-76	4.7					
					Canadian River a07227140	Arkansas River	Lat 35°23'35", long 103°02'30", in SW¼ sec.32, T.14 N., R.37 E., Quay County at New Mexico-Texas Stateline, 14.7 miles north of Glenrio, NM.	-	1969-75	10-21-75	5.2
11-12-75	5.5										
12- 9-75	8.5										
1-14-76	7.2										
2- 9-76	12										
3-24-76	5.1										
4-21-76	4.9										
5-12-76	3.0										
6- 9-76	94										
9-29-76	112										
Rio Grande basin											
Red River a08266800	Rio Grande	Lat 36°40'53", long 105°39'24", in NW¼NW¼ sec.10, T.28 N., R.12 E., Taos County, 0.3 mile downstream from State Fish Hatchery, near Questa, NM.	185	1963, 1965-66 1969-75						10- 1-75	45
										11- 3-75	42
					11-18-75	42					
					12- 9-75	31					
					1- 5-76	46					
					1-22-76	44					
					2-19-76	54					
					3-17-76	31					
					4-14-76	49					
					5-13-76	105					
					6- 9-76	188					
					7- 7-76	68					
					8- 5-76	65					
Alamosa Creek 08360000	Rio Grande	Lat 33°34'09", long 107°35'33, in SE¼ sec.31, T.8 S., R.7 W., Socorro County, just downstream from Wildhorse Creek, and 15 miles northwest of Monticello, NM.	403	1931-42† 1958-71† 1972-75	11-18-75	*7.2					
					2-25-76	*6.7					
					5-21-76	*5.7					
					8-12-76	*6.3					
Unnamed tributary	Mims Lake	Lat 33°09'28", long 107°12'55", Sierra County, 0.2 miles above mouth, 0.1 mile upstream of state road 52, 0.6 miles north of Highway 51, 0.9 miles east of city limits of Truth or Consequences, and 1.4 miles west of Elephant Butte Dam, NM.	0.80	-	9-14-76	†1810					

## Measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1976

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured	Measurements	
				previously (water years)	Date	Discharge (ft <sup>3</sup> /s)
Rio Grande basin--Continued						
North Fork Cedar Creek	Rio Ruidoso	Lat 33°22'10", long 105°41'52", in SW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.8, T.11 S., R.13 E., Lincoln County, 2.7 miles northwest of Post Office, Ruidoso, NM.	-	-	6-24-76	0
South Fork Cedar Creek	Rio Ruidoso	Lat 33°22'09", long 105°41'53", in NW <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.8, T.11 S., R.13 E., Lincoln County, at mouth, 2.7 miles northwest of Post Office, Ruidoso, NM	-	-	6-24-76	*.05
South Fork Eagle Creek	Eagle Creek	Lat 33°23'32", long 105°43'26", in NE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.31, T.10 S., R.13 E., Lincoln County, at mouth, 2.6 miles west of Alto, NM.	-	-	6-17-76	*.12
Eagle Creek	Rio Ruidoso	Lat 33°23'49", long 105°40'44", in NW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.33, T.10 S., R.13 E., Lincoln County, at bridge on State Highway 37, at Alto, NM.	-	1909	6-24-76	0
Little Creek Spring	Eagle Creek	Lat 33°25'16", long 105°43'49", T.10 S., R.12 E., Lincoln County, in Lincoln National Forest, 0.1 mile west of Villa Madonna, NM.	-	-	6-24-76	*.01
Little Creek	Eagle Creek	Lat 33°25'11", long 105°42'24", in SE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.20, T.10 S., R.13 E., Lincoln County, 1.0 mile east of Villa Madonna, NM.	-	-	6-24-76	*.001
Magado Creek	Salado Creek	Lat 33°30'16", long 105°38'05", in NW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.25, T.9 S., R.13 E., Lincoln County, at bridge on State Highway 48, 4.1 miles southwest of Capitan, NM.	-	-	6-17-76	*.06
Unnamed Arroyo	Magado Creek	Lat 33°30'58", long 105°37'39", in NW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.24, T.9 S., R.13 E., Lincoln County at bridge on State Highway 48, 3.3 miles southwest of Capitan, NM.	-	-	6-17-76	*.01
Lea Lake Drain	Pecos River	Lat 33°18'56", long 104°19'56", in SW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.34, T.11 S., R.26 E., Chaves County, just below road crossing at Bottomless Lake State Park visitor center southeast of Roswell, NM.	-	-	12-17-75 2-18-76 5-19-76 7-14-76	*4.8 *4.6 *3.3 *2.1
Pumphouse Canyon Springs	James Canyon	Lat 33°57'02", long 105°42'14", in NW <sup>1</sup> / <sub>4</sub> sec.3, T.16 S., R.12 E., Otero County, upstream from pumphouse, 1.7 miles east of Cloudcroft, NM.	-	-	6-16-76	*.06
Silver Springs Canyon	Elk Canyon	Lat 33°00'17", long 105°39'18", in SE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.15, T.15 S., R.13 E., Otero County, at Mescalero Apache Reservation Boundary, 6.2 miles northwest of Cloudcroft, NM.	-	1958 1960-66	6-16-76	*.87
Sixteen Springs Canyon	Elk Canyon	Lat 32°58'45", long 105°34'45", in SW <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.28, T.15 S., R.14 E., Lincoln County, 9.6 miles northeast of Cloudcroft, NM	-	-	6-16-76	0
Sixteen Springs Canyon	Elk Canyon	Lat 32°59'40", long 105°33'25", in NW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.22, T.15 S., R.14 E., Lincoln County, 11.1 miles northeast of Cloudcroft, NM.	-	-	6-16-76	0
Bell Canyon	Sixteen Springs Canyon	Lat 32°58'30", long 105°33'15", in NE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.34, T.15 S., R.14 E., Lincoln County, 11.1 miles northeast of Cloudcroft, NM.	-	-	6-16-76	0
Bell Canyon	Sixteen Spring Canyon	Lat 32°58'55", long 105°32'35", in NE <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.26, T.15 S., R.14 E., Lincoln County, 11.8 miles northeast of Cloudcroft, NM.	-	-	6-16-76	0

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## Measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1976

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
Rio Grande basin--Continued						
Bell Canyon	Sixteen Spring Canyon	Lat 32°59'15", long 105°31'50", in SE¼NE¼NW¼ sec.25, T.15 S., R.14 E., Lincoln County, 12.6 miles northeast of Cloudcroft, NM.	-	-	6-16-76	0
Dark Canyon Spring	Dark Canyon	Lat 32°11'18", long 104°37'02", in SW¼SE¼NE¼ sec.29, T.24 S., R.23 E., Eddy County, at head of X-Bar Ranch Diversion, 14.5 miles west of White City, NM.	-	-	6-10-76	*.29
Last Chance Spring	Last Chance Canyon	Lat 32°14'36", long 104°44'27", in SE¼NE¼SW¼ sec.6, T.24 S., R.22 E., Eddy County, in Guadalupe Division, Lincoln National Forest, 21.5 miles west of White City, NM.	-	-	6-10-76	0
Sitting Bull Arroyo	Last Chance Canyon	Lat 32°14'43", long 104°41'40", in NE¼NW¼SW¼ sec.3, T.24 S., R.22 E., Eddy County, 18.8 miles northwest of White City, NM.	-	1928	6-10-76	*b.18
Robb Spring	Juniper Canyon	Lat 32°14'42", long 104°22'30", in NE¼NE¼SE¼ sec.3, T.24 S., R.25 E., Eddy County, 5.1 miles north of White City, NM.	-	-	6-10-76	0
Rattlesnake Springs 08405300	Black River	Lat 32°06'34", long 104°28'17", in SE¼SW¼ sec.23, T.25 S., R.24 E., Eddy County, 5.0 miles southwest of Carlsbad Caverns, 7.0 miles southwest of White City, and 25 miles (40 km) southwest of Carlsbad, NM.	-	1952-60, 1961-62† 1975	6- 9-76	*.01
Black River	Pecos River	Lat 32°10'40", long 104°15'58", in SE¼NW¼ sec.35, T.24 S., R.26 E., Eddy County, above mouth of Blue Springs, 6.5 miles east of White City, NM.	-	1906,1919 1953-1955	6- 9-76	*.92
Blue Springs 08405450	Black River	Lat 32°11'07", long 104°16'50", in SW¼NE¼SW¼ sec.27, T.24 S., R.26 E., Eddy County, above all diversions, 5.5 miles east of White City, NM.	-	1907 1919-1920 1923 1935 1952-70 1974-1975	10-16-75 11-18-75 12-24-75 2-25-76 3-20-76 4-26-76 6-09-76 7-23-76 8-16-76 9-07-76	*10 *10 *11 *11 *12 *11 *10 *9.0 *9.6 *9.8
Castle Springs	Black River	Lat 32°11'59", long 104°15'13", in SW¼SW¼SW¼ sec.24, T.24 S., R.26 E., above mouth at Black River Village, Eddy County, 7.2 miles east of White City, NM.	-	1975	12-24-75 4-26-76 6- 9-76 9-17-76	*.70 *.56 *.42 *.27
Black River	Pecos River	Lat 32°13'51", long 104°08'20", in NE¼NW¼SE¼ sec.12, T.24 S., R.27 E., Eddy County, 30 ft below diversion dam, 4.0 miles northwest of Malaga, NM.	-	-	3-29-76	*.02
Black River	Pecos River	Lat 32°13'38", long 104°07'03", in NW¼SW¼SW¼ sec.8, T.24 S., R.28 E., Eddy County, at Lookout Crossing, 2.8 miles northwest of Malaga, NM.	-	1954	3-29-76	*.55
Black River	Pecos River	Lat 32°14'08", long 104°05'56", in NW¼SW¼NW¼ sec.9, T.24 S., R.28 E., Eddy County, at Higby Hole Crossing, 1.8 miles northwest of Malaga, NM.	-	-	3-29-76	*1.0

## Measurements at miscellaneous sites

## Discharge measurements made at miscellaneous sites during water year 1976

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
Rio Grande basin--Continued						
Pecos River	Rio Grande	Lat 32°13'05", long 104°00'08", in SE¼SW¼NE¼ sec.17, T.24 S., R.29 E., Eddy County, at Fishing Rock Crossing, 4.1 miles southeast of Malaga, NM.	-	1922 1953-54 1962-75	10-16-75	*45
					11-14-75	*48
					12- 5-75	*55
					1- 2-76	*39
					2- 9-76	*50
					3- 4-76	*19
					4- 5-76	*16
					5-10-76	*23
					6- 2-76	*10
					7-23-76	*8.2
Pecos River	Rio Grande	Lat 32°10'38", long 103°59'53", in NE¼SE¼NE¼ sec.32, T.24 S., R.29 E., in Eddy County, at First Ford 3.0 miles below Pierce Canyon Crossing and 5.6 miles southeast of Malaga, NM.	-	1959 1962-64 1966-75	10-16-75	*29
					11-14-75	*52
					12- 5-75	*60
					1- 2-76	*41
					2- 9-76	*51
					3- 4-76	*26
					4- 5-76	*19
					6- 2-76	*12
					7-23-76	*10
					8- 6-76	*9.5
Ben Slaughter Spring	Hay Hollow	Lat 32°02'53", long 104°20'17", in NW¼NW¼NW¼ sec.18, T.26 E., Eddy County, 9 miles southeast of White City, NM.	-	-	6- 9-76	0
Jumping Spring	Hay Hollow	Lat 32°02'09", long 104°18'30", in SW¼SE¼SE¼ sec.17, T.26 S., R.26 E., Eddy County, at road crossing 10.2 miles southeast of White City, NM.	-	-	6-9-76	*.04
Cottonwood Spring	Hackbeery Draw	Lat 32°05'18", long 104°18'54", in NE¼SW¼NW¼ sec.32, T.25 S., R.26 E., Eddy County, at road crossing, 7 miles southeast of White City, NM.	-	-	6- 9-76	*.02
Three Rivers	Tularosa Valley	Lat 33°24'09", long 105°52'57", in NE¼NE¼NE¼ sec.34, T.10 S., R. 10 E., Lincoln County, at west boundary of Lincoln National Forest, NM.	-	1957	6-17-76	*.91
Gila River basin						
Mangas Creek a09431100	Gila River	Lat 32°50'48", long 108°30'57", in NW¼NE¼ sec.8, T.17 S., R.16 W., Grant County, 0.4 mile northwest of Mangas Springs, NM.	-	1972-75	10-10-75	*3.1
					1- 4-76	*3.0
					5-10-76	*2.7
					7- 8-76	*b1.5
					9-13-76	*2.6

\* Base flow.

† Peak discharge.

‡ Operated as a continuous record station.

a Also a water-quality continuing record station.

b Estimated.

A seepage or low-flow investigation along a watercourse involves discharge measurements or observations of no flow at selected sites in a given reach of channel, plus measurements of inflow and diversions, field commentary relative to observations, and water temperatures, and any other relative data. Measuring sites are described to the extent that they may be used in subsequent investigations. Sometimes temporary recording installations are used to supplement records at regular gaging stations in the study of flow trends.

Field work proceeds from the most upstream measuring site. Hydrographers may alternate measurements, or the main reach may be divided and hydrographers assigned to each subreach, with overlapping measurements to be made at joining points. (These would be listed together, the discharge above the line representing the last measurement of the hydrographer working the upper reach).

Indicated gains or losses may sometimes appear incompatible because of diurnal or other flow variations, or because of small inaccuracies in open-channel measurements. Trends in a given reach may vary with the seasons, or because of regulation. Successive investigations can serve to delineate a sustained trend, or a progressive change in trend.

## RIO GRANDE BASIN

## Rio Grande seepage investigation

REACH.--On Rio Grande from station "below Cochiti Dam" (08317400) to station at "San Felipe" (08319000) a distance of 14.9 river miles (240 km).

PREVIOUS INVESTIGATIONS.--None.

DATE.--Feb. 2, 3, 1976. All tributary inflow measurements were made on Feb. 2, and all measurements on Rio Grande were made on Feb. 3.

WEATHER.--There was no recorded precipitation in the area since Dec. 21, 1975. Temperatures were seasonal and winds were light during investigation.

REMARKS.--Gate openings at Cochiti Dam remained unchanged from 1600 hours on Jan. 30 until 1400 hours on Feb. 3, but elevation on lake increased about 0.7 ft per day. Increase in outflow was probably about 1.0 ft<sup>3</sup>/s per day. Two independent discharge measurements, by different hydrographers were made at each site except for leakage below Cochiti Dam and Sili main canal at mouth. The listed discharges are the average of the available measurements. Individual measurements were rated either good (within 5%) or fair (within 8%). This accuracy should be taken into account in evaluating gains and/or losses.

Stream	Location	Time	Water Temp °C	Discharge, in ft <sup>3</sup> /s		
				Main Stream	Tributary	Indicated gain
Rio Grande	Lat 34°37'04", long 106°19'26", at regular gage (sta 08317400).	1005	3.5	110	-	-
Leakage from Cochiti Dam	Lat 35°37'07", long 106°19'30", below highway culvert.	0935	14.0	-	2.17	-
Rio Grande	Lat 35°36'54", long 106°19'48", 400 ft below relocated channel.	1105	4.0	118	-	+5.8
Rio Grande	Lat 35°35'59", long 106°20'29", 400 ft below mouth of Santa Fe River.	1200	5.5	110	-	-8.0
Pena Blanca riverside drain	Lat 35°32'27", long 106°21'30", 0.4 mile about mouth.	1110	10.0	-	12.1	-
Rio Grande	Lat 35°31'30", long 106°22'30", 1,000 ft below Santo Domingo bridge.	1320	7.0	136	-	+13.9
Santo Domingo westside drain	Lat 35°28'58", long 106°24'10", 100 ft above mouth.	1445	9.5	-	1.27	-
Santo Domingo eastside riverside drain	Lat 35°27'36", long 106°25'00", 500 ft above mouth.	1315	11.0	-	10.5	-
Sili main canal	Lat 35°26'50", long 106°26'15", at mouth, 0.5 mile above San Felipe bridge.	1540	8.0	-	.05	-
Rio Grande	Lat 35°26'39", long 106°26'23", at regular gage (sta 08319000).	1440	8.0	163	-	+15.2

Rio Penasco Seepage Investigation  
Mayhill to Hope Community Diversion Dam near Hope, N. Mex.

REACH.--From above the mouth of James Canyon at Mayhill to the Hope Community Diversion Dam, 7.8 mi (12.6 km) west of Hope, a distance of about 53.3 river mi (85.8 km). The study reach begins in the heavily forested Sacramento Mountains at an elevation of about 6,600 ft (2,012 m) above mean sea level and ends in the edge of the grass covered plains west of the Pecos River at an elevation of about 4,400 ft (1,341 m) above mean sea level. The stream has a mean gradient of 40 ft (12 m) per mile through the reach. Substantial inflow from Posey Springs enters the Rio Penasco at river mile 91.3 (147 km). Additional spring inflow is known to occur between river mile 77.5 (125 km) and 74.0 (119 km) and at river mile 68.1 (110 km).

Between river mile 91.3 (147 km) and 68.2 (110 km) the stream flows through an area where the bottom land is nearly all in irrigation for crops ranging from vegetables, small grains, and pasture to orchards. There are numerous diversions from the river in this reach and an occasional irrigation well.

Between river mile 68.2 (110 km) and 40.1 (64.5 km) there are no diversions at the present time. The stream runs through canyon areas, or is sharply incised into the valley fill. The streambed is composed of rock and cobblestones throughout this portion of the reach.

Both historically and presently, large losses are known to occur in the areas of geologic faulting between river mile 68.2 (110 km) and 40.1 (64.5 km).

U. S. Geological Survey topographic maps were used for land locations.

PREVIOUS INVESTIGATIONS.--Through at least portions of the reach covered by this investigation, investigations have been made between December 1926 and April 1927, unpublished, February 1960, November 1960, and March 1962.

DATE.--October 7, 1975 (Mountain Daylight Savings Time, 0000 - 2400 hours, time increments).

WEATHER.--From September 22 to date of this investigation there had been little if any precipitation in the area, little wind with slightly below normal temperatures. Between October 6 and 8 the weather conditions were ideal for this investigation with cloudless skies, and only moderate winds during the afternoon and early evening of October 7.

SUMMARY.--Sites of discharge measurements made on the main stream, diversions and inflow were selected to, in general, coincide with measurement sites of previous investigations. All known tributary inflow, diversions and returns in the reach were measured.

Heavy precipitation in September and October of 1974 combined with above normal general precipitation during July to early September of 1975 caused a considerable increase in base flow throughout the reach. The increase in base flow was such that there had been continuous flow at Y-O Crossing, river mile 47.5 (76.4 km), during the 12 months preceding this investigation. In normal years the reach below river mile 63.4 (102 km) is dry most of the year. All of the tributaries except the Agua Chiquita, and Runayn Springs were dry at the time of this investigation. Diversions were considerably below normal with most ditches being dry and only small amounts being diverted in the remainder. The only surface returns from diversions were at river mile 84.8 (136 km) and 72.0 (116 km).

The return flow at river mile 84.8 (136 km) was estimated to be 0.2 - 0.3 cfs more on October 6 than on October 7.

Although no measurement or estimate of flow was made on the Agua Chiquita October 6, the flow appeared to be less than at the time it was measured on October 7. Flow marks on the channel banks between Mayhill and the mouth of the Agua Chiquita indicated that discharge in this reach of the Rio Penasco had been very stable for several days preceding this investigation.

Temporary recorders were installed on September 29 at river mile 65.1 (105 km), State Highway 24 bridge; river mile 53.8 (86.6 km), 0.7 mile (1.1 km) below Scharbauer Ranch headquarters, and at river mile 47.5 (76.4 km), Y-O Crossing. The recorders were removed on October 8. Due to a variety of equipment failures, the quality of the record obtained at the temporary recorder sites was poor.

Additional discharge measurements made at the three temporary recorder sites are listed as a supplement to the tabulated results of this investigation.

Discharge graphs at two of the three temporary recorders, for the period September 29 to October 8, "at N. Mex. State Hwy. 24 bridge" and "Y-O Crossing" are shown on page 514. Record for the third site "below Scharbauer ranch headquarters" was not usable.

Results of this investigation should be good to fair.

Penasco River Mile	Stream	Location	Time	Water temp. °C	Discharge, in cubic feet per second		
					Main stream	Tributary or Diversion	Indicated gain or loss
91.3	Rio Penasco	Lat 32°53'10", long 105°28'46", NW¼SW¼SE¼ sec.26, T.16 S., R.14 E., above Posey Springs 0.25 mile above Mayhill, Otero County, N. Mex.	0905	9.0	18.9	-	-
91.3	do.	Lat 32°53'11", long 105°28'46", SE¼NW¼SE¼ sec.26, T.16 S., R.14 E., below Posey Springs 0.25 mi above Mayhill, Otero County, N. Mex.	0825	10.5	26.4	-	+ 7.50
88.6	do. (right channel)	Lat 32°54'38", long 105°27'17", NW¼NW¼ sec.19 T.16 S., R.15 E., above falls, 2.0 miles east of Mayhill, Otero County, N. Mex.	1010	10.5	9.85	-	-
88.6	Diversion ditch (from left channel) *	Lat 32°54'40", long 105°27'17", NW¼NW¼ sec.19 T.16 S., R.15 E., above falls, 2.0 mi north-east of Mayhill, Otero County, N. Mex.	1035	12.0	-	-.90	-
88.6	Rio Penasco (left channel)	Lat 32°54'40", long 105°27'17", NW¼NW¼ sec.19, T.16 S., R.15 E., above falls, 2.0 mi north-east of Mayhill, Otero County, N. Mex.	1100	12.0	15.7	-	+ .05
85.8	Diversion *	Lat 32°55'21", long 105°24'44", NW¼SW¼NE¼ sec.16, T.16 S., R.15 E., at head, 4.5 miles northeast of Mayhill, Otero County, N. Mex.	1140	11.0	-	-.91	-
85.7	Rio Penasco	Lat 32°55'22", long 105°24'44", NW¼SW¼NE¼ sec.16, T.16 S., R.15 E., below diversion dam, 4.5 miles northeast of Mayhill, Otero County, N. Mex.	1210	12.5	24.1	-	-.54
84.8	Joy Canyon	Lat 32°55'29", long 105°23'50", SE¼NE¼NW¼ sec.15, T.16 S., R.15 E., 5.3 mi northeast of Mayhill, Otero County, N. Mex. (Return from diversion at Rio Penasco mile 85.8)	1235	-	-	+.04	-
81.6	Rio Penasco	Lat 32°54'49", long 105°21'08", SE¼SE¼SE¼ sec.13, T.16 S., R.15 E., at east boundary of Lincoln National Forest, Otero-Chaves County line, N. Mex.	1300	13.0	25.2	-	+1.06

Rio Penasco Seepage Investigation  
Mayhill to Hope Community Diversion Dam near Hope, N. Mex.--Continued

Penasco River Mile	Stream	Location	Time	Water temp. °C	Discharge, in cubic feet per second		
					Main stream	Tributary or Diversion	Indicated gain or loss
80.6	Rio Penasco	Lat 32°54'47", long 105°20'17", NW¼NW¼ sec.20, T.16 S., R.16 E. above mouth of Agua Chiquita, 2.1 miles southwest of Elk, Chaves County, N. Mex.	1340 0830	13.9 9.5	24.8 25.6	- -	- .40 -
80.6	Agua Chiquita	Lat 32°54'46", long 105°20'17", NW¼NW¼ sec.20, T.16 S., R.16 E., at mouth, 2.1 miles southwest of Elk, Chaves County, N. Mex.	1420	19.0	-	+ 3.39	-
80.6	Diversion *	Lat 32°54'48", long 105°20'15", NE¼NW¼ sec.20, T.16 S., R.16 E., at mouth Agua Chiquita, 2.1 miles southwest of Elk, Chaves County, N. Mex.	1405	15.5	-	- .14	-
77.5	do. *	Lat 32°57'05", long 105°19'01", NW¼NE¼SW¼ sec.4, T.16 S., R.16 E., Cleaves upper ditch, at mouth of Elk Canyon, 1.1 miles northeast of Elk, Chaves County, N. Mex.	0920	9.5	29.8	-	-
77.5	do. *	Lat 32°57'05", long 105°19'00", NW¼NE¼SW¼ sec.4, T.16 S., R.16 E., below return to Rio Penasco, at mouth of Elk Canyon, 1.1 miles northeast of Elk, Chaves County, N. Mex.	0945	10.0	-	- .03	-
77.5	Rio Penasco	Lat 32°57'06", long 105°19'01", NW¼NE¼SW¼ sec.4, T.16 S., R.16 E., above ditch return, at mouth Elk Canyon, 1.1 miles northeast of Elk, Chaves County, N. Mex.	1020	10.0	.28	-	+ 1.23
76.0	do.	Lat 32°56'40", long 105°17'45", SW¼SW¼SE¼ sec.3, T.16 S., R.16 E., 200 yds above mouth Mathew Canyon, 2.3 miles east of Elk, Chaves County, N. Mex.	1150	11.0	37.8	-	+ 7.7
74.0	do.	Lat 32°56'02", long 105°16'10", NW¼SE¼ sec.12, T.16 S., R.16 E., below lower Penasco Springs 3.7 miles east of Elk, Chaves County, N. Mex.	1300	9.0	55.6	-	+ 17.8
72.8	Diversion †	Lat 32°55'42", long 105°15'10", SW¼SW¼ sec.7, T.16 S., R.17 E., at head upstream from Penasco Falls, 4.6 mi southeast of Elk, Chaves County, N. Mex.	0900	-	-	0	-
72.8	Rio Penasco	Lat 32°55'42", long 105°15'10", SW¼SW¼ sec.7, T.16 S., R.17 E., above diversions upstream from Penasco Falls, 4.7 miles southeast of Elk, Chaves County, N. Mex.	1400 0925	14.0 11.0	54.0 54.1	- -	- 1.6 -
72.7	Runyan Diversion *	Lat 32°55'42", long 105°15'07", SW¼SW¼ sec.7, T.16 S., R.17 E., above Powell-Runyan diversion above Penasco Falls, 4.7 miles southeast of Elk, Chaves County, N. Mex.	0945	-	-	0	-
72.7	Powell-Runyan diversion †	Lat 32°55'41", long 105°15'07", SW¼SW¼ sec.7, T.16 S., R.17 E., at head above Penasco Falls, 4.7 mi southeast of Elk, Chaves County, N. Mex.	0900	11.0	-	- .87	-
72.0	Powell-Runyan diversion	Lat 32°55'16", long 105°15'15", SE¼SE¼NE¼ sec.13, T.16 S., R.16 E., 0.25 miles west of Powell Ranch house at return to Rio Penasco 5.1 miles southeast of Elk, Chaves County, N. Mex.	1030	13.0	-	+ .40	-
72.5	Springs	Lat 32°55'40", long 105°14'50", NE¼NE¼NW¼ sec.18, T.16 S., R.17 E., in left channel below Penasco Falls, 5.1 miles southeast of Elk, Chaves County, N. Mex.	1505	-	-	+ .25	-
69.8	Rio Penasco	Lat 32°53'53", long 105°14'30", NE¼NE¼ sec.30, T.16 S., R.17 E., above crossing, 4.0 miles northwest of State Hwy. 24 bridge, Chaves County, N. Mex.	1140	13.0	51.8	-	- 2.0
68.2	do.	Lat 32°53'35", long 105°13'10", SW¼SW¼NW¼ sec.28, T.16 S., R.17 E., above Runyan Springs, 2.6 miles northwest of State Hwy. 24 bridge, Chaves County, N. Mex.	1240	15.5	49.8	-	- 2.0
68.1	Runyan Springs†	Lat 32°53'40", long 105°13'05", NE¼SW¼NW¼ sec.28, T.16 S., R.17 E., at entrance to Rio Penasco, 2.5 miles northwest of State Hwy. 24 bridge, Chaves County, N. Mex.	1310	15.0	-	+ 1.69	-



Rio Penasco Seepage Investigation  
Mayhill to Hope Community Diversion Dam near Hope, N. Mex.--Continued

Penasco River Mile	Stream	Location	Time	Water temp. °C	Discharge, in cubic feet per second		
					Main stream	Tributary or Diversion	Indicated gain or loss
66.8	Rio Penasco (sta. 08397600)	Lat 32°53'33", long 105°11'54", SW¼SE¼NW¼ sec. 27, T.16 S., R.17 E., 1.5 miles above State Hwy. 24 bridge, Chaves County, N. Mex.	1405	17.0	48.4	-	- 3.1
65.1	do. (sta. 08397600)	Lat 32°52'54", long 105°10'38", SW¼NW¼NE¼ sec. 35, T.16 S., R.17 E., at State Hwy 24 bridge, Chaves County, N. Mex.	1500 0910	18.0 12.0	51.0 46.7	-	+ 2.6 -
63.4	do.	Lat 32°52'05", long 105°09'35", NW¼NE¼ sec. 1, T.17 S., R.17 E., at Penasco River Ranch headquarters crossing, 1.7 miles downstream from State Hwy. 24 bridge, Chaves County, N. Mex.	1015	13.0	44.8	-	- 1.9
61.4	do.	Lat 32°51'29", long 105°08'21", NE¼SW¼SE¼ sec. 6, T.17 S., R.18 E., at windmill, 0.3 mi below ford, 3.7 miles downstream from N. Mex. Hwy. 24 bridge, Chaves County, N. Mex.	1115	15.0	44.2	-	- .6
57.6	do.	Lat 32°50'41", long 105°05'28", SW¼NW¼SE¼ sec. 10, T.17 S., R.18 E., 3.1 miles upstream from Scharbauer Ranch Headquarters and 21.7 miles west of Hope, Chaves County, N. Mex.	1330	16.5	42.3	-	- 1.9
56.0	do.	Lat 32°50'08", long 105°04'05", SE¼NE¼ sec. 14, T.17 S., R.18 E., 1.5 miles upstream from Scharbauer Ranch headquarters and 20.1 miles west of Hope, Chaves County, N. Mex.	1435	19.0	41.5	-	- .8
53.8	do.	Lat 32°50'23", long 105°01'54", NE¼NE¼NE¼ sec. 18, T.17 S., R.19 E., 0.7 miles downstream from Scharbauer Ranch headquarters 17.9 miles west of Hope, Chaves County, N. Mex.	1535 1010	19.0 -	36.8 44.1	- -	- 4.7 -
47.5	do.	Lat 32°51'17", long 104°57'34", NW¼NW¼NW¼ sec. 12, T.17 S., R.19 E., at Y-O Crossing, 13.5 miles west of Hope, Chaves County, N. Mex.	1130	-	37.0	-	- 7.1
44.4	do.	Lat 32°49'22", long 104°56'00", SE¼NW¼NE¼ sec. 19, T.17 S., R.20 E., below mouth Bluewater Creek, 11.8 miles west of Hope, Chaves County, N. Mex.	1320	-	32.1	-	- 4.9
42.6	do.	Lat 32°49'28", long 104°54'20", NW¼NE¼NW¼ sec. 21, T.17 S., R.20 E., at Hope retard dam, 10.2 miles west of Hope, Chaves County, N. Mex.	1430	-	30.8	-	- 1.3
40.1	Hope Community Ditch †	Lat 32°49'35", long 104°52'00", SW¼SW¼SE¼ sec. 14, T.17 S., R.20 E., at head, 7.8 miles west of Hope, Chaves County, N. Mex.	1535	-	-	29.9	- .9
40.1	Teel Ditch *	Lat 32°49'34", long 104°52'00", SW¼SW¼SE¼ sec. 14, T.17 S., R.20 E., at head, at Hope Diversion Dam, 7.8 miles west of Hope, Chaves County, N. Mex.	1600	-	-	0	-
40.0	Rio Penasco	Lat 32°49'35", long 104°51'58", SE¼SW¼SE¼ sec. 14, T.17 S., R.20 E., below Hope Diversion Dam, 7.8 miles west of Hope, Chaves County, N. Mex.	1600	-	0	-	-

\* Right bank.

† Left bank.

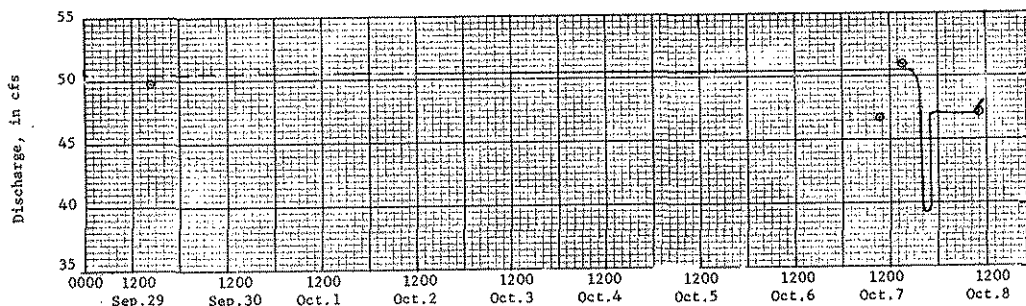
## RIO GRANDE BASIN

Rio Penasco Seepage Investigation  
Mayhill to Hope Community Diversion Dam near Hope, N. Mex.--Continued

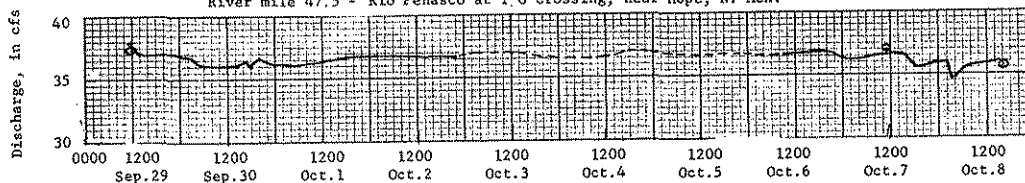
(Supplemental measurements made between September 29 and October 8, 1975)

Penasco River Mile	Stream	Location	Date	Discharge in cfs per second
65.1	Rio Penasco (sta.08387600)	Lat 32°52'54", long 105°10'38", SW <del>1/4</del> NE <del>1/4</del> sec.35, T.16 S., R.17 E., at State Hwy. 24 bridge, Chaves County, N. Mex.	09-29-75 10-08-75	49.9 47.0
53.8	do.	Lat 32°50'23", long 105°01'54", NE <del>1/4</del> NE <del>1/4</del> sec.18, T.17 S., R.19 E., 0.7 miles downstream from Scharbauer Ranch headquarters, 17.9 miles west of Hope, Chaves County, N. Mex.	09-29-75 10-08-75	38.4 39.9
47.5	do.	Lat 32°51'17", long 104°57'34", NW <del>1/4</del> NW <del>1/4</del> sec.12, T.17 S., R.19 E., at Y-O Crossing, 13.5 miles west of Hope, Chaves County, N. Mex.	09-29-75 10-08-75	37.4 35.6

River mile 65.1 Rio Penasco at State Highway 24 bridge, near Dunken, N. Mex.



River mile 47.5 - Rio Penasco at Y-O Crossing, near Hope, N. Mex.



Water-quality partial-record stations are particular sites where chemical-quality, biological and or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

08405450 BLUE SPRINGS ABOVE DIVERSIONS, NM (LAT 32 11 05 LONG 104 17 05 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
OCT 16...	1545	10	1530	--	20.0	--	--	--	--	--	--	--
FEB 25...	1230	11	1630	--	19.0	--	--	--	--	--	--	--
MAR 20...	1220	12	1500	--	19.5	--	--	--	--	--	--	--
APR 26...	1210	11	1600	--	20.0	--	--	--	--	--	--	--
JUN 09...	1125	9.8	1460	7.5	21.0	870	710	280	41	12	.2	1.3
JUL 23...	1255	9.0	1430	7.4	21.5	--	--	--	--	--	--	--

DATE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (00631)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
OCT 16...	--	--	--	16	--	--	--	--	--	--	--
FEB 25...	--	--	--	22	--	--	--	--	--	--	--
MAR 20...	--	--	--	16	--	--	--	--	--	--	--
APR 26...	--	--	--	18	--	--	--	--	--	--	--
JUN 09...	188	0	660	12	.4	15	1120	1.3	.00	60	20
JUL 23...	--	--	--	12	--	--	--	--	--	--	--

1975 DATA NOT PREVIOUSLY PUBLISHED

09367700 ALAMO WASH NEAR TANNER LAKE, NM (LAT 36 14 07 LONG 108 10 52 00)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
SEP 08...	--	500	1062	--
08...	1410	5.0	930	20.0
12...	1330	3.0	541	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
AUG 19...	1800	80	1200	7.2	--
19...	1810	1500	1500	7.2	456

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

09367700 ALAMO WASH NEAR TANNER LAKE, NM (LAT 36 14 07 LONG 108 10 52 00)--Continued

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL STRON- TIUM (SR) (UG/L) (01082)
AUG 19...	1800	1200	--	--	--	--	--	--	--	3.2	0	--
19...	1810	--	1700	140	240	710000	1000	750	53000	--	--	14000
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
AUG 19...	1800	80				191000		41300	75			
19...	1810	1500				205000		830000	77			

09367932 HUNTER WASH TRIBUTARY AT ROAD CROSSING 5 MILES SOUTH OF BISTI, NM (LAT 36 15 33 LONG 108 15 06 00)

		INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	
DATE	TIME												
JUL													
13...	1700	30	580	6.9	--	--	--	--	--	--	--	--	
19...	1100	9.0	770	7.0	--	--	--	--	--	--	--	--	
19...	1550	1.0	750	7.9	30.0	--	--	--	--	--	--	--	
26...	0300	2.1	1190	7.8	--	--	--	--	--	--	--	--	
AUG													
01...	1500	250	728	7.3	--	140	0	49	4.0	120	4.4	6.3	
19...	1800	250	1000	7.4	--	--	--	--	--	--	--	--	
SEP													
25...	1200	105	750	7.6	--	--	--	--	--	--	--	--	
26...	1900	410	750	7.6	--	--	--	--	--	--	--	--	
		BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
DATE	TIME												
JUL													
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	70
26...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
01...	356	0	110	3.3	.4	14	483	.08	.01	80	30	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--	--
		TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL COBALT (CO) (UG/L) (01037)	TOTAL COPPER (CU) (UG/L) (01042)				
DATE	TIME												
JUL													
13...	1700	170	--	--	--	--	--	--	--				
19...	1100	1	--	--	--	--	--	--	--				
19...	1550	--	1800	180	--	10	120	200	380				
26...	0300	0	--	--	--	--	--	--	--				
AUG													
01...	1500	--	--	--	80	--	--	--	--				
19...	1800	1	--	--	--	--	--	--	--				
SEP													
25...	1200	380	--	--	--	--	--	--	--				
26...	1900	6	--	--	--	--	--	--	--				

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

09367932 HUNTER WASH TRIBUTARY AT ROAD CROSSING 5 MILES SOUTH OF BISTI, NM (LAT 36 15 33 LONG 108 15 06 00)  
Continued

DATE	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL STRON- TIUM (SR) (UG/L) (01082)
JUL									
13...	--	--	--	--	--	--	2.7	0	--
19...	--	--	--	--	--	--	.8	0	--
19...	290000	--	500	220	--	5400	--	--	2700
26...	--	--	--	--	--	--	2.2	0	--
AUG									
01...	--	30	--	--	20	--	--	--	--
19...	--	--	--	--	--	--	2.5	1	--
SEP									
25...	--	--	--	--	--	--	2.1	1	--
26...	--	--	--	--	--	--	2.0	1	--

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDIM- ENT (MG/L) (80154)	SUS- PENDE SEDIM- ENT (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70331)
JUL										
13...	1700	30	--	52100	4220	--	--	--	--	89
13...	1755	20	--	89900	4850	--	--	--	--	78
19...	1550	1.0	30.0	26300	71	--	--	--	--	100
AUG										
01...	1450	20	--	271000	14600	85	95	99	100	--
01...	1500	250	--	62200	42000	--	--	--	--	84
19...	1800	250	--	69400	46800	--	--	--	--	91
SEP										
25...	1200	105	--	53100	15100	--	--	--	--	80
26...	1900	410	--	52600	58200	--	--	--	--	79

PECOS RIVER AT FIRST FORD, NM (LAT 32 10 42 LONG 103 59 50 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
OCT					
16...	1105	29	17200	16.0	5100
26...	1210	--	13500	16.0	3700
NOV					
06...	1100	--	11700	11.0	3050
14...	1400	52	10600	9.5	2750
21...	1250	--	10900	9.5	2800
26...	1040	--	11500	6.5	2620
DEC					
05...	1430	60	11000	9.5	3380
15...	1545	--	9810	8.5	2480
JAN					
02...	1310	41	10600	7.0	2850
12...	1030	--	11500	6.0	3100
FEB					
03...	1030	--	10600	8.5	2820
09...	1140	51	10000	10.5	2580
25...	1115	--	14200	11.5	4100
MAR					
04...	1030	26	17000	11.5	5100
14...	1115	--	18700	12.0	5700
20...	1045	--	18300	15.0	5550
29...	1040	--	21600	14.5	6750
APR					
05...	1505	19	23300	21.5	7420
12...	1030	--	21400	20.0	6700
19...	1540	--	32500	20.0	11000
MAY					
17...	0945	--	17700	20.0	5300
24...	1105	--	22400	25.5	7280
JUN					
02...	1030	12	30900	22.0	10600

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PECOS RIVER AT FIRST FORD, NM (LAT 32 10 42 LONG 103 59 50 10)--Continued

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
JUN						
08...	1050	--	29800	--	24.0	10200
15...	1030	--	31400	--	21.0	10900
22...	1055	--	35500	7.4	21.5	11600
29...	1110	--	39900	7.4	27.0	13400
JUL						
06...	1425	--	40200	7.5	32.0	13200
23...	1050	10	29400	7.4	25.0	9700
AUG						
06...	1155	9.5	36300	7.4	17.5	12400
23...	1025	--	30600	7.4	23.5	10000
30...	1100	--	29500	7.5	25.5	9600
SEP						
07...	1110	9.6	28700	8.0	22.5	9600

PECOS RIVER AT FIRST BAR NEAR MALAGA, NM (LAT 32 11 55 LONG 103 59 53 10)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
JUL					
16...	1115	18700	8.2	26.0	5600
16...	1120	16000	8.4	26.0	4550
30...	1245	17700	7.5	22.5	5100
AUG					
16...	1230	37300	7.4	26.5	13200
SEP					
07...	1100	27500	7.8	20.5	9150
21...	1040	12700	7.3	22.5	3620

ANDERSON (NE DEPRESSION) LAKE NEAR MALAGA, NM (LAT 32 11 55 LONG 104 00 35 10)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DENSITY (GM/ML AT 20 C) (71820)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
NOV						
14...	1050	226000	--	14.5	1.186	185000
FEB						
09...	1035	226000	--	14.0	--	181000
MAR						
29...	1010	221000	--	14.0	--	186000
JUN						
29...	1045	192000	7.9	31.0	--	184000
JUL						
16...	1020	194000	7.9	27.5	--	178000
17...	1030	193000	7.9	--	--	171000
AUG						
06...	1120	194000	7.9	20.0	--	180000
06...	1125	191000	7.9	20.0	--	181000
16...	1145	190000	7.8	--	--	181000
16...	1150	187000	7.8	--	--	181000
SEP						
07...	1030	227000	7.7	26.5	--	183000
21...	1030	224000	7.7	27.5	--	165000

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## PECOS RIVER AT LIVINGSTON CROSSING NEAR MALAGA, NM (LAT 32 12 34 LONG 103 59 57 10)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
JUL					
16...	1140	15300	8.7	26.0	4000
16...	1145	15300	8.7	26.0	4000
30...	1330	15700	7.5	22.5	4420
AUG					
16...	1340	17500	7.3	26.5	4380
SEP					
07...	1150	14300	7.5	22.5	3950
21...	1105	9220	7.4	22.5	2450

## PECOS RIVER AT DOGTOWN DRAIN, NM (LAT 32 12 58 LONG 103 58 57 10)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
JUL					
16...	1300	12300	8.6	27.0	3250
30...	1305	11100	7.5	22.5	2780
AUG					
16...	1320	11700	7.3	26.5	2980
SEP					
07...	1100	9650	7.7	22.5	2300
21...	1125	8040	7.3	22.5	1920

## PECOS RIVER AT FISHING ROCK CROSSING, NM (LAT 32 13 05 LONG 104 00 08 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
OCT					
16...	1215	45	8100	17.5	1810
26...	1240	--	8110	17.0	1820
NOV					
06...	1140	--	7100	9.5	1460
14...	1200	51	6600	10.0	1320
21...	1420	--	6310	12.0	1260
26...	1110	--	6310	7.5	1290
DEC					
05...	1200	55	6200	9.5	1250
15...	1440	--	8350	9.0	1240
JAN					
02...	1515	39	6390	7.5	1360
12...	1115	--	6280	6.5	1380
FEB					
03...	1230	--	5740	9.5	1150
09...	1245	50	5710	10.5	1160
18...	1115	--	6190	11.5	1280
25...	1130	--	7270	10.5	1660
MAR					
04...	1110	19	7940	12.5	1820
14...	1230	--	8320	14.0	1960
20...	1110	--	8390	15.0	1980
29...	1110	--	0	14.5	2080
APR					
05...	1320	16	8680	17.5	1990
12...	1100	--	8900	20.0	2100
19...	1600	--	9160	18.0	2150
26...	1035	--	8990	20.5	2100
MAY					
03...	1205	--	8330	20.0	1950
10...	1120	23	7010	18.5	1520

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PECOS RIVER AT FISHING ROCK CROSSING, NM (LAT 32 13 05 LONG 104 00 08 10)--Continued

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
MAY						
17...	1010	--	8450	--	21.5	1940
24...	1140	--	9080	--	25.5	2240
JUN						
02...	1000	10	9550	--	22.0	2080
08...	1035	--	9650	--	24.0	2390
15...	1130	--	10300	--	21.0	2760
22...	1130	--	10400	7.4	21.5	2520
29...	1230	--	10500	7.3	--	2550
JUL						
06...	1500	--	10900	7.0	30.0	2710
13...	1150	--	10800	7.4	--	2710
23...	1145	8.2	10500	7.4	26.0	2550
AUG						
23...	1045	--	10600	7.3	25.0	2550
30...	1150	--	9820	7.4	25.0	2320
SEP						
07...	1210	9.2	8820	7.6	22.5	2120

KIN KLIZHIN WASH NR CHACO NATIONAL MONUMENT, NM (LAT 36 04 39 LONG 108 04 10 10)  
(LOCAL IDENTIFIER-21N.12W.01.3412)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	
JUL 08...	2130	30	400	6.9	--	--	--	--	--	--	--	--	
21...	1540	.01	500	7.2	27.0	43	0	15	1.4	91	6.0	4.6	
AUG 19...	2000	20	460	7.3	--	--	--	--	--	--	--	--	
DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (CL) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
JUL 08...	--	--	--	--	--	--	--	--	--	--	--	--	23
21...	201	0	67	5.7	.9	9.7	306	2.6	.01	110	90	--	--
AUG 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL IRON (FE) (UG/L) (01045)					
JUL 08...	2130	--	500	110	--	10	30	63000					
21...	1540	--	--	--	110	--	--	--					
AUG 19...	2000	250	--	--	--	--	--	--					
DATE	TIME	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL STRON- TIUM (SR) (UG/L) (01082)				
JUL 08...	--	--	100	60	--	570	--	--	530				
21...	90	--	--	--	10	--	--	--	--				
AUG 19...	--	--	--	--	--	2.7	2	--	--				



## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

KIN KLIZHIN WASH NR CHACO NATIONAL MONUMENT, NM (LAT 36 04 39 LONG 108 04 10 10)  
(LOCAL IDENTIFIER-21N.12W.01.3412)--Continued

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS- PENDE SEDI- MENT (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUL 08...	2130	30	3010	244	100
AUG 19...	2000	20	28800	1560	98

CHACO RIVER BELOW ESCAVADO WASH NR CHACO NAT MONUMENT, NM (LAT 36 04 53 LONG 108 01 20 10)  
(LOCAL IDENTIFIER-21N.11W.05.4220)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	TOTAL CHROMIUM (CR) (UG/L) (01034)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MANGANESE (MN) (UG/L) (01055)	TOTAL STRONTIUM (SR) (UG/L) (01082)
AUG 01...	0500	500	600	7.5	194							
AUG 01...	0500	8200	210	200	400000	370	20000	6800				

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS- PENDE SEDI- MENT (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
AUG 01...	0500	500	59400	80200	93

COYOTE WASH NR NASCHITTI, NM (LAT 36 08 09 LONG 108 32 34 10)  
(LOCAL IDENTIFIER-NR067.0225X0788)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NESIUM (MG) (MG/L) (00925)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE IRON (MG/L) (00440)
SEP 22...	0400	725	7.1	150	0	54	4.6	120	4.2	8.4	341
DATE		CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SUM OF CONSTI- TUENTS (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
SEP 22...		0	120	18	.7	7.7	503	.16	.00	150	550
DATE					DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)				
SEP 22...	0400				150	550	20				

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHACO RIVER BELOW DE-NA-ZIN WASH NEAR BISTI, NM (LAT 36 11 37 LONG 108 20 21 10)

		INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)		SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)				
DATE		TIME								
AUG 04...		0800	300	1300	7.3	326				
DATE		TIME	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL STRON- TIUM (SR) (UG/L) (01082)
AUG 04...		0800	6000	210	280	550000	1300	610	32000	12000
				INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE- D SEDI- MENT (MG/L) (80154)	SUS- PENDE- D SEDI- MENT (MG/L) (80155)	SUS- PENDE- D SEDI- MENT (MG/L) (80155)	SUS- PENDE- D SEDI- MENT (MG/L) (80155)	SUS- PENDE- D SEDI- MENT (MG/L) (80155)	SUS- PENDE- D SEDI- MENT (MG/L) (80155)
DATE		TIME						% FINER THAN .062 MM (70331)		
AUG 04...		0800	300	111000	89900	80				

1975 DATA NOT PREVIOUSLY PUBLISHED

COAL CREEK ABOVE TANNER LAKE NEAR BISTI, NM (LAT 36 14 04 LONG 108 07 47 10)  
(LOCAL IDENTIFIER-23N.12W.17.222)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
AUG 21...	1700	.10	755	8.1	24.0	74	0	26	2.3	140	7.1	5.4
DATE		BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
AUG 21...	248	0	160		8.6	1.2	8.3	486	2.7	.01	140	150
DATE	TIME				TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)			
AUG 21...	1700				160	140	150	4.9	4			

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

COAL CREEK ABOVE TANNER LAKE NEAR BISTI, NM (LAT 36 14 04 LONG 108 07 47 10)  
(LOCAL IDENTIFIER-23N.12W.17.222)--Continued

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TOTAL ORGANIC CARBON (C) (00680)		
AUG							
01...	0300	10	825	6.9	--		
01...	0310	50	560	7.2	253		
DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL IRON (FE) (UG/L) (01045)
AUG							
01...	0300	850	--	--	--	--	--
01...	0310	--	8300	280	20	190	420000
DATE	TIME	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL STRON- TIUM (SR) (UG/L) (01082)
AUG							
01...	--	--	--	--	2.7	0	--
01...	700	400	18000	--	--	--	4200
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE SED- MENT DIS- MENT CHARGE (MG/L) (80154)	SUS- PENDE SED- MENT CHARGE (T/DAY) (80155)	SUS- PENDE SED- MENT CHARGE (T/DAY) (80155)	SUS- PENDE SED- MENT CHARGE (T/DAY) (80155)	SUS- PENDE SED- MENT CHARGE (T/DAY) (80155)
AUG							
01...	0300	10	120000	3240	88		
01...	0310	50	45900	6200	94		

DE-NA-ZIN WASH 1.5 MILES NORTHEAST AND ABOVE TANNER LAKE, NM (LAT 36 14 45 LONG 108 07 15 10)  
(LOCAL IDENTIFIER-23N.12W.09.311)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TOTAL ORGANIC CARBON (C) (00680)		
AUG							
19...	1840	400	1150	7.2	--		
19...	1845	--	1200	7.3	386		
DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL IRON (FE) (UG/L) (01045)
AUG							
19...	1840	1300	--	--	--	--	--
19...	1845	--	2400	170	40	380	1100000
DATE	TIME	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL STRON- TIUM (SR) (UG/L) (01082)
AUG							
19...	--	--	--	--	5.5	0	--
19...	1500	1400	100000	--	--	--	18000

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DE-NA-ZIN WASH 1.5 MILES NORTHEAST AND ABOVE TANNER LAKE, NM (LAT 36 14 45 LONG 108 07 15 10)  
(LOCAL IDENTIFIER-23N.12W.09.311)--Continued

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE SEDIM- MENT DIS- CHARGE (MG/L) (80154)	SUS- PENDE SEDIM- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM (70346)
AUG 01...	0320	400	316000	341000	57	68	93	100	--
19...	1840	400	194000	210000	81	91	97	99	100

CHACO RIVER BELOW HUNTER WASH NEAR BURNHAM, NM (LAT 36 17 51 LONG 108 32 52 10)  
(LOCAL IDENTIFIER-NR049.0268X1397)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
AUG 01...	1550	1500	1000	6.9	340	64	120	10	130	3.1	8.1

DATE	BICAR- BONATE (MC03) (MG/L) (00440)	CAR- BONATE (C03) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
AUG 01...	338	0	330	9.7	.6	18	794	.11	.03	90	20

DATE	TIME	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)
AUG 01...	1550	90	20	30

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE SEDIM- MENT DIS- CHARGE (MG/L) (80154)	SUS- PENDE SEDIM- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .500 MM (70345)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70331)
AUG 01...	1540	50	33400	4510	--	--	--	--	99
01...	1550	1500	55100	223000	--	--	--	--	95
19...	2340	1500	75200	305000	--	--	--	--	85
19...	2350	600	178000	288000	--	--	--	--	92
19...	2400	300	195000	158000	--	--	--	--	86
27...	1500	1500	206000	834000	63	81	97	100	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHACO RIVER AT HIGHWAY BRIDGE NEAR BURNHAM, NM (LAT 36 21 57 LONG 108 33 57 10)  
(LOCAL IDENTIFIER-NR049.0367X0923)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (000061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (000095)	PH (UNITS) (00400)	HARDNESS (CA+MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED POTASSIUM (K) (MG/L) (00935)	BICARBONATE (HCO3) (MG/L) (00440)
AUG												
01...	2300	100	860	7.0	--	--	--	--	--	--	--	--
01...	2310	400	850	7.2	--	--	--	--	--	--	--	--
01...	2320	800	900	7.1	200	0	69	5.8	170	5.3	5.9	403
01...	2330	1500	900	7.2	--	--	--	--	--	--	--	--
20...	0400	200	2000	7.0	--	--	--	--	--	--	--	--
20...	0410	800	1600	7.1	--	--	--	--	--	--	--	--
20...	0420	1500	1400	7.2	220	0	77	6.2	360	11	7.5	476
20...	0430	2000	1500	7.1	--	--	--	--	--	--	--	--

DATE	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SI02) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF TUEENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHO. PHOSPHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
AUG											
01...	--	--	--	--	--	--	--	--	--	--	262
01...	--	--	--	--	--	--	--	--	--	--	--
01...	0	200	19	.8	19	689	.09	.14	80	30	--
01...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	28
20...	--	--	--	--	--	--	--	--	--	--	--
20...	0	570	9.7	.9	24	1290	.52	.07	220	50	--
20...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L) (01105)	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	DIS-SOLVED BORON (B) (UG/L) (01020)	TOTAL CADMIUM (CD) (UG/L) (01027)	TOTAL CHROMIUM (CR) (UG/L) (01034)	TOTAL COPPER (CU) (UG/L) (01042)	TOTAL IRON (FE) (UG/L) (01045)
AUG										
01...	2300	--	--	9300	250	--	20	250	--	420000
01...	2310	--	500	--	--	--	--	--	--	--
01...	2320	--	--	--	--	80	--	--	--	--
01...	2330	540000	--	--	--	--	--	--	--	--
20...	0400	--	--	900	180	--	40	220	1900	600000
20...	0410	--	2200	--	--	--	--	--	--	--
20...	0420	--	--	--	--	220	--	--	--	--
20...	0430	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	TOTAL MANGANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL MOLYBDENUM (MO) (UG/L) (01062)	TOTAL SELENIUM (SE) (UG/L) (01147)	TOTAL STRONTIUM (SR) (UG/L) (01082)	DIS-SOLVED VANADIUM (V) (UG/L) (01085)
AUG										
01...	--	800	520	--	23000	--	--	--	5900	--
01...	--	--	--	--	--	2.7	--	0	--	--
01...	30	--	--	30	--	--	--	--	--	--
01...	--	--	--	--	--	--	20	--	--	.4
20...	--	1300	800	--	42000	--	--	--	14000	--
20...	--	--	--	--	--	4.0	--	0	--	--
20...	50	--	--	40	--	--	--	--	--	--
20...	--	--	--	--	--	--	0	--	--	1.6

DATE	TIME	DIS-SOLVED URANIUM (U) (UG/L) (80020)
AUG		
01...	2330	25
20...	0430	19

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHACO RIVER AT HIGHWAY BRIDGE NEAR BURNHAM, NM (LAT 36 21 57 LONG 108 33 57 10)  
(LOCAL IDENTIFIER-NR049.0367X0923)--Continued

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE SEDI- MENT CHARGE (MG/L) (80154)	SUS- PENDE SEDI- MENT CHARGE (T/DAY) (80155)	SUS- SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS- SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS- SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS- SED. FALL DIAM. % FINER THAN .062 MM (70331)
AUG								
01...	2300	100	71400	19300	--	--	--	81
01...	2310	400	53600	57900	--	--	--	93
01...	2320	800	56600	123000	--	--	--	96
01...	2330	1500	86800	352000	81	95	100	--
20...	0400	200	189000	102000	--	--	--	78
20...	0410	800	179000	387000	--	--	--	79
20...	0420	1500	196000	794000	--	--	--	69
20...	0430	2000	145000	783000	91	97	100	--

SANOSTEE WASH NEAR SANOSTEE, NM (LAT 36 28 13 LONG 108 34 41 10)  
(LOCAL IDENTIFIER-NR049.0433X0206)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA,MG) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NESIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)
AUG												
01...	0600	5.0	1500	7.0	--	--	--	--	--	--	--	--
01...	0630	20	1400	7.1	--	--	--	--	--	--	--	--
01...	0700	100	1100	7.1	440	0	130	29	59	1.2	22	593
SEP												
24...	0400	--	700	7.2	--	--	--	--	--	--	--	--
24...	0900	20	1200	7.1	--	--	--	--	--	--	--	--
24...	0930	--	1200	7.1	440	270	140	22	40	.8	15	213

DATE	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTITU- ENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
------	--	---	--	---	---	--	--	---	---	---	--

AUG											
01...	--	--	--	--	--	--	--	--	--	--	2040
01...	--	--	--	--	--	--	--	--	--	--	--
01...	0	60	24	.4	15	635	.09	.17	230	2400	--
SEP											
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	0	360	15	.3	13	712	.12	.03	100	790	--

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L) (01105)	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)
------	------	---	---	--	--	---	---	--	---

AUG									
01...	0600	--	--	3600	560	--	70	160000	--
01...	0630	--	5	--	--	--	--	--	--
01...	0700	--	--	--	--	230	--	--	2400
SEP									
24...	0400	95000	--	--	--	--	--	--	--
24...	0900	--	200	--	--	--	--	--	--
24...	0930	--	--	--	--	100	--	--	790

DATE	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL MOLYB- DENUM (MO) (UG/L) (01062)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL STRON- TIUM (SR) (UG/L) (01082)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)
------	--	---	--	--	---	---	---	--	---

AUG									
01...	1300	150	--	40000	--	--	--	21000	--
01...	--	--	--	--	2.1	--	0	--	--
01...	--	--	30	--	--	--	--	--	--
SEP									
24...	--	--	--	--	--	1	--	--	.4
24...	--	--	--	--	.6	--	0	--	--
24...	--	--	10	--	--	--	--	--	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SANOSTEE WASH NEAR SANOSTEE, NM (LAT 36 28 13 LONG 108 34 41 10)  
(LOCAL IDENTIFIER-NR049.0433X0206)--Continued

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE- D SEDI- MENT (MG/L) (80154)	SUS- PENDE- D SEDI- MENT (MG/L) (80155)	SUS- PENDE- D SEDI- MENT (MG/L) (80155)	SUS- SED- SIEVE DIAM. % FINER THAN .062 MM (70331)
AUG						
01...	0600	5.0	163000	2200		77
01...	0630	20	126000	6800		84
01...	0700	100	61000	16500		95
SEP						
24...	0900	20	33500	1810		86

SHUMWAY ARROYO ABOVE DUNLAP FARM NEAR WATERFLOW, NM (LAT 36 46 31 LONG 108 26 10 10)  
(LOCAL IDENTIFIER-30N.15W.32.223)

## 1975 DATA NOT PREVIOUSLY PUBLISHED

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)
JUL					
13...	1225	.48	5690	6.6	31.0
20...	1450	.49	7410	5.7	32.0
AUG					
03...	1640	.15	8580	5.7	--
10...	1530	.15	8800	5.1	--
14...	1500	.06	5000	7.8	30.5
17...	1230	.15	7540	6.3	26.0
24...	1830	.15	7210	6.2	23.0

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)
OCT										
03...	1820	.11	9450	7.4	--	26.0	--	--	--	--
05...	1200	.15	8670	8.1	--	28.5	--	--	--	--
12...	1200	.50	8670	8.2	--	29.5	--	--	--	--
19...	1200	.06	8670	8.2	--	23.5	--	--	--	--
26...	1500	.15	13200	7.5	--	18.0	3200	3000	490	470
NOV										
02...	1100	1.5	5200	7.7	--	23.0	--	--	--	--
09...	1710	.32	9360	8.1	--	19.5	--	--	--	--
10...	1610	.50	8560	8.5	--	14.0	--	--	--	--
23...	1632	.15	9910	7.5	--	16.0	--	--	--	--
30...	1115	3.3	10700	8.2	--	4.5	--	--	--	--
DEC										
07...	1430	1.5	10700	8.2	--	2.0	--	--	--	--
11...	1530	.05	11000	8.6	--	7.0	2700	2500	440	400
14...	1540	.65	9140	8.0	--	8.0	--	--	--	--
21...	1000	.30	9140	8.0	--	7.5	--	--	--	--
28...	1625	.15	9140	8.0	--	2.5	--	--	--	--
JAN										
11...	1615	6.1	15500	8.1	--	.0	--	--	--	--
26...	1515	1.5	5380	7.7	--	3.0	--	--	--	--
FEB										
01...	1620	.62	7170	8.6	--	4.0	--	--	--	--
08...	1550	.53	7380	8.5	--	13.5	--	--	--	--
15...	1620	1.5	14300	8.4	--	6.5	--	--	--	--
26...	1410	.60	8550	8.4	17.5	12.5	2600	2500	370	410
29...	1638	1.5	16300	7.3	--	8.5	--	--	--	--
MAR										
24...	1500	.78	5400	8.3	23.0	17.5	1500	1400	230	230
29...	1540	.32	5050	6.5	--	22.5	--	--	--	--
APR										
04...	1635	.84	5070	6.5	--	25.0	--	--	--	--

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SHUMWAY ARROYO ABOVE DUNLAP FARM NEAR WATERFLOW, NM (LAT 36 46 31 LONG 108 26 10 10)  
(LOCAL IDENTIFIER-30N.15W.32.223)--Continued

[illegible][illegible]



## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SHUMWAY ARROYO ABOVE DUNLAP FARM NEAR WATERFLOW, NM (LAT 36 46 31 LONG 108 26 10 10)  
(LOCAL IDENTIFIER-30N.15W.32.223)--Continued

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED OXYGEN (MG/L) (00300)	HARD- NESS (CA+MG) (MG/L) (00900)
APR								
11...	1445	.52	4360	4.1	--	32.0	--	--
18...	1630	1.5	4350	4.2	--	28.5	--	--
21...	1300	--	9250	8.3	22.5	23.0	8.0	1700
25...	1445	.32	7130	8.3	--	29.0	--	--
MAY								
02...	1330	.52	7110	8.3	--	29.5	--	--
09...	1630	.52	7110	8.1	--	32.5	--	--
16...	1800	.16	8030	8.7	--	35.0	--	--
19...	1445	.42	6870	9.2	--	30.0	--	1600
JUN								
15...	1530	.60	4100	8.7	--	28.0	--	1100
JUL								
28...	1500	2.9	3000	8.0	34.0	31.0	--	550
AUG								
25...	1420	4.3	5000	8.3	32.0	24.5	--	830
SEP								
22...	1235	2.0	4450	8.3	21.5	23.5	--	1200

DATE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
APR									
11...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
21...	1500	350	200	1800	19	11	187	0	4000
25...	--	--	--	--	--	--	--	--	--
MAY									
02...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
19...	1500	370	170	1200	13	18	114	3	3400
JUN									
15...	950	240	110	730	9.8	12	127	0	2000
JUL									
28...	420	140	48	550	10	9.4	152	0	1200
AUG									
25...	710	220	68	760	11	13	145	0	1600
SEP									
22...	1100	330	89	610	7.7	15	81	0	2100

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) TUENTS) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
APR								
11...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
21...	850	1.5	6.2	7360	10	.02	1500	30
25...	--	--	--	--	--	--	--	--
MAY								
02...	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--
19...	480	.8	11	5740	6.1	.16	1700	140
JUN								
15...	280	.6	7.2	3470	6.1	.08	820	70
JUL								
28...	210	.8	7.2	2260	4.1	.07	410	110
AUG								
25...	390	.9	10	3140	2.3	.03	520	70
SEP								
22...	190	1.0	10	3400	3.0	.27	690	10

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SHUMWAY ARROYO ABOVE DUNLAP FARM NEAR WATERFLOW, NM (LAT 36 46 31 LONG 108 26 10 10)  
(LOCAL IDENTIFIER-30N.15W.32.223)--Continued

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON, (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
DEC									
11...	1530	3	770	770	0	100	220	.0	21
FEB									
26...	1410	2	640	540	20	<100	150	.0	24
MAR									
24...	1500	0	--	520	--	<100	90	.0	15
APR									
21...	1300	2	1500	1500	30	<100	150	.0	26
MAY									
19...	1445	25	1700	1700	140	100	220	.0	20
JUN									
15...	1530	26	960	820	70	100	160	.0	7
JUL									
28...	1500	16	420	410	110	100	100	.2	6
AUG									
25...	1420	10	1100	520	70	100	120	.0	6
SEP									
22...	1235	9	720	690	10	200	180	.1	7

POWERPLANT ARROYO BELOW SAN JUAN POWERPLANT RESERVOIR, NM (LAT 36 47 06 LONG 108 26 26 10)  
(LOCAL IDENTIFIER-30N.15W.29.322)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)
OCT										
03...	1817	--	6780	--	--	24.0	--	--	--	--
05...	1200	--	6750	--	--	30.0	--	--	--	--
12...	1200	--	6800	--	--	28.0	--	--	--	--
15...	1345	.20	10200	8.5	--	19.0	3900	3600	460	660
19...	1200	--	6800	--	--	26.0	--	--	--	--
26...	1620	--	6645	--	--	20.0	--	--	--	--
NOV										
02...	1130	--	6600	--	--	27.0	--	--	--	--
09...	1730	--	6600	--	--	19.0	--	--	--	--
13...	1130	.50	8800	8.3	--	9.0	3500	3300	430	600
16...	1630	--	6520	--	--	18.0	--	--	--	--
23...	1200	--	7460	--	--	18.5	--	--	--	--
30...	1100	--	6690	--	--	8.5	--	--	--	--
DEC										
07...	1400	--	6600	--	--	12.5	--	--	--	--
11...	1500	.10	9200	8.5	--	10.5	3400	3200	420	580
14...	1530	--	6500	--	--	10.5	--	--	--	--
21...	0910	--	6500	--	--	8.0	--	--	--	--
28...	1600	--	6500	--	--	4.5	--	--	--	--
FEB										
01...	1650	.05	6230	7.3	--	11.5	--	--	--	--
08...	1540	.10	6540	7.8	--	12.0	--	--	--	--
15...	1655	.10	6520	7.2	--	8.5	--	--	--	--
26...	1440	.20	8900	8.5	17.5	16.0	3500	3300	430	600
29...	1630	.10	6480	7.9	--	8.5	--	--	--	--
MAR										
24...	1545	.25	8600	8.8	21.5	17.5	3500	3300	430	600
29...	1530	.05	6520	7.2	--	21.5	--	--	--	--
APR										
04...	1610	.15	6480	7.7	--	24.5	--	--	--	--
11...	1430	.20	6520	7.4	--	31.0	--	--	--	--

POWERPLANT ARROYO BELOW SAN JUAN POWERPLANT RESERVOIR, NM (LAT 36 47 06 LONG 108 26 26 10)  
(LOCAL IDENTIFIER-30N.15W.29.322)--Continued

[illegible]

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

POWERPLANT ARROYO BELOW SAN JUAN POWERPLANT RESERVOIR, NM (LAT 36 47 06 LONG 108 26 26 10)  
(LOCAL IDENTIFIER-30N.15W.29.322)--Continued

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)
APR 18...	1615	.20	6520	7.2	--	29.5	--	--	--	--	--	--
25...	1430	.05	6500	7.5	--	31.5	--	--	--	--	--	--
MAY 02...	1300	.10	6510	7.4	--	28.5	--	--	--	--	--	--
09...	1615	.10	6520	7.7	--	32.0	--	--	--	--	--	--
16...	1815	.05	6390	7.4	--	32.5	--	--	--	--	--	--
SEP 22...	1220	.30	3500	8.0	26.0	26.0	1100	1100	320	80	490	6.3
DATE	TIME	BICAR- BONATE (HC03) (MG/L) (00440)	CAR- BONATE (C03) (MG/L) (00445)	DIS- SOLVED SULFATE (S04) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SUM OF CONSTI- TUENTS (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
APR 18...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 02...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
SEP 22...	15	62	0	1900	150	.9	11	3000	1.2	.17	640	20

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
NOV 13...	1130	0	--	440	10	200	200	--	33
DEC 11...	1500	0	50	380	0	<100	10	.0	27
FEB 26...	1440	0	560	430	10	100	170	.0	30
MAR 24...	1545	0	510	450	20	<100	170	.0	13
SEP 22...	1220	5	680	540	20	100	180	.1	6

WESTWATER ARROYO AT SAN JUAN POWERPLANT, NM (LAT 36 47 37 LONG 108 25 47 10)  
(LOCAL IDENTIFIER-30N.15W.21.333)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	AIR TEMPER- ATURE (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)
OCT 03...	1808	--	5970	--	--	28.0	--	--	--	--	--	--
05...	1200	--	4320	--	--	31.0	--	--	--	--	--	--
12...	1200	--	4320	--	--	31.0	--	--	--	--	--	--
15...	1415	.10	6700	6.7	--	19.0	2200	2100	480	240	--	--
19...	1200	--	4320	--	--	28.0	--	--	--	--	--	--
26...	1600	--	5890	--	--	24.0	--	--	--	--	--	--
NOV 02...	2320	--	2790	--	--	25.5	--	--	--	--	--	--
13...	1115	.01	11300	8.5	--	5.0	2200	2000	460	250	--	--
DEC 11...	1445	.10	17000	8.1	--	6.0	1900	1400	380	220	--	--
FEB 26...	1515	.30	15200	8.5	15.0	11.5	2100	1600	310	330	--	--
MAR 24...	1615	.10	23000	8.2	23.5	17.0	2700	2400	400	420	--	--
JUN 15...	1610	.50	24000	8.4	--	24.0	2800	2300	380	460	--	--
JUL 28...	1620	5.0	4500	8.2	31.0	24.0	370	220	86	38	--	--
AUG 25...	1225	4.0	2800	8.2	29.5	24.5	390	260	110	28	--	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

WESTWATER ARROYO AT SAN JUAN POWERPLANT, NM (LAT 36 47 37 LONG 108 25 47 10)  
(LOCAL IDENTIFIER-30N.15W.21.333)--Continued

DATE	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)
OCT									
03...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
15...	950	8.8	24	62	0	3700	330	1.5	20
19...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
NOV									
02...	--	--	--	--	--	--	--	--	--
13...	2400	22	6.5	226	0	5700	940	.7	1.7
DEC									
11...	3900	39	4.1	600	0	6500	2100	1.1	12
FEB									
26...	4800	45	3.8	703	0	8500	2700	1.3	9.5
MAR									
24...	6200	52	7.4	437	0	10000	3800	.9	2.3
JUN									
15...	7000	57	8.0	624	0	13000	3700	1.2	6.2
JUL									
28...	870	20	7.5	189	0	1500	390	.8	6.1
AUG									
25...	400	8.8	8.8	164	0	860	180	.9	9.0

DATE	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
OCT									
03...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
15...	5780	--	.45	--	--	--	830	--	--
19...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
NOV									
02...	--	--	--	--	--	--	--	--	--
13...	9930	--	13	--	--	.06	790	10	--
DEC									
11...	13500	7.9	7.9	10	.04	.03	1100	20	50
FEB									
26...	17100	--	11	--	--	.01	1100	60	--
MAR									
24...	21100	--	6.7	--	--	.01	1200	70	--
JUN									
15...	24900	--	13	--	--	.04	1500	100	--
JUL									
28...	3010	--	4.3	--	--	.05	300	150	--
AUG									
25...	1690	--	2.3	--	--	.01	280	40	--

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
NOV									
13...	1115	4	--	790	10	200	150	--	8
DEC									
11...	1445	2	1100	1100	20	100	180	.0	2
FEB									
26...	1515	5	1100	1100	60	100	210	.0	3
MAR									
24...	1615	0	1300	1200	70	200	260	.0	2
JUN									
15...	1610	2	1600	1500	100	200	350	.0	2
JUL									
28...	1620	7	340	300	150	<100	60	.1	4
AUG									
25...	1225	8	370	280	40	<100	70	.0	4

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

08486260 TULAROSA VALLEY TRIBUTARY AT WHITE SANDS, NM (LAT 32 22 05 LONG 106 28 44.00)

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)
JUL 16...	104	6.0	.54

09357000 SAN JUAN RIVER AT BLOOMFIELD, NM (LAT 36 42 00 LONG 107 59 10 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
DEC 02...	1000	292	7.6	6.0	100	23	31	5.8	18	.8	1.9

DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (MG/L) (01020)	DIS- SOLVED IRON (FE) (MG/L) (01046)
DEC 02...	96	0	63	2.4	.2	9.6	179	.04	.00	30	0	

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (R) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
DEC 02...	1000	1	70	30	0	<100	20	.0	1

JUMPING SPRING NEAR WHITE CITY, NM (LAT 32 02 09 LONG 104 18 30 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
JUN 09...	1400	.04	2580	7.1	23.0	1700	1600	620	37	29	.3	9.2

DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (MG/L) (01020)	DIS- SOLVED IRON (FE) (MG/L) (01046)
JUN 09...	160	0	1500	29	.6	28	2350	4.8	.02	410	10	

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

COTTONWOOD SPRING NEAR WHITE CITY, NM (LAT 32 05 18 LONG 104 18 54 10)  
(LOCAL IDENTIFIER-25S.26E.32.142)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (CA+MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)
JUN 09...	1430	.02	3030	7.5	33.0	2000	1900	630	97	84	.8	8.1

DATE	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHO-PHOS-PHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)
JUN 09...	76	0	2000	75	.9	4.5	2950	3.5	.00	1200	10

BLACK RIVER ABOVE MOUTH OF BLUE SPRING, NM (LAT 32 10 40 LONG 104 15 58 10)  
(LOCAL IDENTIFIER-24S.26E.35.12)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (CA+MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)
JUN 09...	1230	.92	2270	7.6	23.0	1600	1400	520	62	17	.2	2.5

DATE	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHO-PHOS-PHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)
JUN 09...	171	0	1300	16	.5	14	2020	.02	.00	230	10

DARK CANYON SPRING NEAR X-BAR RANCH, NM (LAT 32 11 18 LONG 104 37 02 10)  
(LOCAL IDENTIFIER-24S.23E.29.342)

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (CA+MG) (MG/L) (00900)	NON-CAR-BONATE HARD-NESS (MG/L) (00902)	DIS-SOLVED CAL-CIUM (CA) (MG/L) (00915)	DIS-SOLVED MAG-NE-SIUM (MG) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L) (00935)
JUN 10...	1430	.29	561	8.0	24.5	330	50	55	46	5.4	.1	.8

DATE	BICAR-BONATE (HCO3) (MG/L) (00440)	CAR-BONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLO-RIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUO-RIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED (SUM OF CONSTI-TUENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHO-PHOS-PHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)
JUN 10...	337	0	38	5.1	.3	10	327	.08	.00	30	0

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CASTLE SPRING ABOVE DIVERSION DAM AT MILE 15.4, NM (LAT 32 11 59 LONG 104 15 13 10)  
(LOCAL IDENTIFIER-24S.26E.24.441)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
JUN 09...	1050	.42	1870	7.6	21.0	1200	1000	380	59	17	.2	1.8

DATE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED (SUM OF TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHOPHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
JUN 09...	195	0	970	17	.5	17	1560	.43	.00	70	20

SITTING BULL SPRINGS BELOW FALLS, NM (LAT 32 14 43 LONG 104 41 40 10)  
(LOCAL IDENTIFIER-24S.22E.03.213)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
JUN 10...	1530	.18	565	8.1	14.0	300	58	54	41	8.6	.2	1.2

DATE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED (SUM OF TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHOPHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
JUN 10...	300	0	59	8.0	.3	15	336	.19	.00	40	0

SOUTH FORK CEDAR CREEK 3.0 MILES NORTHWEST OF RUIDOSO, NM (LAT 33 22 09 LONG 105 41 53 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
JUN 24...	1600	.05	852	7.8	19.0	31

SOUTH FORK EAGLE CREEK AT MOUTH 2.6 MILES WEST OF ALTO, NM (LAT 33 23 32 LONG 105 43 26 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
JUN 17...	1335	.12	475	7.8	25.0	26



## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

THREE RIVERS AT LINCOLN NATIONAL FOREST WEST BOUNDARY NEAR THREE RIVERS, NM (LAT 33 24 09 LONG 105 52 57 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
JUN 17...	1025	.91	356	7.6	15.5	14

LITTLE CREEK AT GRAVEL PIT ONE MILE EAST OF VILLA MADONNA, NM (LAT 33 25 11 LONG 105 42 24 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
JUN 24...	1500	.01	411	8.4	19.5	16

MAGADO CREEK FOUR MILES SOUTHWEST OF CAPITAN, NM (LAT 33 30 16 LONG 105 38 05 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
JUN 17...	1415	.06	2280	8.0	18.0	164

MAGADO CREEK TRIBUTARY THREE MILES SOUTHWEST OF CAPITAN, NM (LAT 33 30 58 LONG 105 37 39 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
JUN 17...	1350	.01	2030	8.3	27.5	136

RIO PAGUATE BELOW JACKPILE MINE NEAR PAGUATE, NM (LAT 35 07 09 LONG 107 19 57 10)  
(LOCAL IDENTIFIER-10N.05W.02.434)

DATE	TIME	TOTAL NON- FILT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDEO GROSS ALPHA AS U-NAT. (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDEO GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED GROSS BETA AS AS SR90 /Y90 (PC/L) (80050)	SUS- PENDEO GROSS BETA AS AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED URANIUM RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED FLUORO- METRIC (PC/L) (80010)
JUN 17...	1300	47	360	3.2	44	2.1	39	1.7	4.6	210

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PUERCO RIVER ABOVE MANUELITO, NM (LAT 35 25 47 LONG 108 58 42 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)				
OCT 16...	1620	E4.0	1290	16.5	270				
DATE	TIME	TOTAL NON- FLT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDE GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDE GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L) (80050)	SUS- PENDE GROSS BETA AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)
OCT 16...	1620	2800	1000	1000	120	510	94	400	.25 450

PUERCO RIVER NEAR SPRINGSTEAD, NM (LAT 35 36 46 LONG 108 33 09 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	
OCT 16...	1300	7.3	750	7.5	15.0	100	0	26	8.6	130	5.6	2.4	
DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (CL) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (F) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (SI02) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SUM OF CONSTI- TUENTS (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
OCT 16...	275	0	160	5.7	.4	13	484	.38	.04	100	30	5	
DATE	TIME	DATE	TIME	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)					
OCT 16...	1300	100	30	5	25	13							
DATE	TIME	TOTAL NON- FLT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDE GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDE GROSS BETA AS CS-137 (PC/L) (03516)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L) (80050)	SUS- PENDE GROSS BETA AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)				
OCT 16...	1300	1600	1500	1500	130	650	100	540	.88	620			

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## PUERCO RIVER TRIBUTARY BELOW MINES AT CHURCH ROCK, NM (LAT 35 39 23 LONG 108 29 47 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA*MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
OCT 16...	1120	--	699	8.5	19.0	86	0	18	10	130	6.1	1.5
MAY 12...	1600	7.6	640	--	21.0	--	--	--	--	--	--	--
DATE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)

		DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)				
	DATE	TIME								
	OCT 16...	1120	90	20	0	27 21				
DATE	TIME	TOTAL NON- FILT- RABLE RESIDUE	DIS- SOLVED GROSS ALPHA AS (UG/L) (80030)	SUS- PENDE GROSS ALPHA AS (UG/L) (80040)	DIS- SOLVED GROSS BETA AS (PC/L) (03515)	SUS- PENDE GROSS BETA AS (PC/L) (03516)	DIS- SOLVED GROSS BETA AS (PC/L) (80050)	SUS- PENDE GROSS BETA AS (PC/L) (80060)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)
		(MG/L) (00530)	(UG/L)	(UG/L)	(PC/L)	(PC/L)	(PC/L)	(PC/L)	(PC/L)	(PC/L)
OCT 16...	1120	410	2200	3400	280	1200	220	1000	30	960
MAY 12...	1600	390	2000	1600	370	510	290	410	30	980

POND IN CERROS COLORADO ARROYO 1.8 MILES NW OF SAN LUIS, NM (LAT 35 41 48 LONG 107 04 39 10)  
(LOCAL IDENTIFIER-17N.02W.19.222)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA/MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED POTASSIUM (K) (MG/L) (00935)	
MAR 29...	1330	340	9.2	9.0	66	21	18	5.1	39	2.1	6.8	
DATE	TIME	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHOPHOSPHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)
MAR 29...	55		0	110	1.3	.9	.5	210	.21	.00	90	10
DATE	TIME			TOTAL ARSENIC (AS) (UG/L) (01002)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	TOTAL MERCURY (MG) (UG/L) (71900)	TOTAL SELENIUM (SE) (UG/L) (01147)				
MAR 29...	1330			20	90	10	.2	1				

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

POND IN CERROS COLORADO ARROYO 2.2 MILES NW OF SAN LUIS, NM (LAT 35 42 07 LONG 107 04 57 10)  
(LOCAL IDENTIFIER-17N.02W.18.414)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
MAR 29...	1300	420	7.6	8.0	72	0	20	5.4	67	3.4	5.9

DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
MAR 29...	161	0	90	3.4	.5	.3	274	.45	.00	50	40	

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL MERCURY (MG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
MAR 29...	1300	33	50	40	.1	1

PAPERS WASH 0.4 MILE NE OF STARLAKE TRADING POST, NM (LAT 35 53 49 LONG 107 27 16 01)  
(LOCAL IDENTIFIER-19N.06W.10.2231)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)
JAN 13...	1330	1450	9.5	.5	320	170	97	20	220	5.3	16	183

DATE	TIME	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
JAN 13...	0	660	31	1.0	4.4	1140	.13	.00	310	130	91	

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L) (01105)	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (MG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
JAN 13...	1330	24000	4	320	310	130	100	40	.1	2

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHACO RIVER 8 MI SE OF VISITOR CENTER AT CHACO NATIONAL MONUMENT, NM (LAT 35 59 21 LONG 107 47 01 10)  
(LOCAL IDENTIFIER-20N.09W.03.332)

DATE	TIME	TOTAL NITRITE PLUS NITRATE IN BOT. IN BOT. MAT. (MG/KG) (00633)	TOTAL PHOS- PHORUS IN BOT- TOM MA- TERIAL (MG/KG) (00668)	TOTAL ARSENIC IN BOTTOM MA- TERIAL (UG/G) (01003)	TOTAL CADMIUM IN BOTTOM MA- TERIAL (UG/G) (01028)	TOTAL CHRO- MIUM IN BOTTOM MA- TERIAL (UG/G) (01029)	TOTAL COBALT IN BOTTOM MA- TERIAL (UG/G) (01038)	TOTAL COPPER IN BOTTOM MA- TERIAL (UG/G) (01043)
JAN 14...	1500	42	130	40	<1	2	5	2

DATE	TIME	TOTAL IRON IN BOTTOM MA- TERIAL (UG/G) (01170)	TOTAL LEAD IN BOTTOM MA- TERIAL (UG/G) (01052)	TOTAL MANGA- NESE IN BOTTOM MA- TERIAL (UG/G) (01053)	TOTAL MERCURY IN BOTTOM MA- TERIAL (UG/G) (71921)	TOTAL SELE- NIUM IN BOTTOM MA- TERIAL (UG/G) (01148)	TOTAL ZINC IN BOTTOM MA- TERIAL (UG/G) (01093)	ORGANIC CARBON IN BOT- TOM MA- TERIAL (C) (00687)
JAN 14...	1800	10	850	.0	1	70	.2	

POND IN AH-SHI-SLE-PAH WASH AT DIKE SIX MILES SW OF KIMBETO, NM (LAT 36 09 15 LONG 107 55 41 10)  
(LOCAL IDENTIFIER-22N.10W.08.3112)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	
JUN 09...	1000	540	7.3	14.5	9	0	2.7	.5	120	18	5.1	
DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (MG/L) (01046)
JUN 09...	216	0	64	8.9	.6	20	352	4.8	.80	380	30	
DATE	TIME	TOTAL BORON (B) (UG/L) (01022)	TOTAL SOLVED BORON (B) (UG/L) (01020)	TOTAL SOLVED IRON (FE) (UG/L) (01046)								
JUN 09...	1000	380	380	30								

AH-SHI-SLE-PAH WASH SIX MILES SW OF KIMBETO, NM (LAT 36 09 16 LONG 107 56 35 10)  
(LOCAL IDENTIFIER-22N.10W.07.143)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (00925)	DIS- SOLVED ORTH- PHOS- PHORUS (P) (MG/L) (00671)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (00935)
APR 02...	1130	.00	1650	7.4	15.0	110	0	41	2.9	380	15	8.7
DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (MG/L) (01046)
APR 02...	427	0	290	150	1.3	19	1110	.93	.07	390	190	

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

AH-SHI-SLE-PAM WASH SIX MILES SW OF KIMBETO, NM (LAT 36 09 16 LONG 107 56 35 10)  
(LOCAL IDENTIFIER-22N.10W.07.143)--Continued

								SUS- PENDE SEDIM- MENT CHARGE (T/DAY) (80155)		SUS- SED. SIEVE DIAM. % FINER THAN .062 MM (70331)	
		INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)								
DATE		TIME									
APR 02...		1130		.00		15.0		69500		.00 83	
POND IN COYOTE CREEK NINE MILES EAST OF SHEEP SPRINGS, NM (LAT 36 09 59 LONG 108 32 15 10) (LOCAL IDENTIFIER-NR067.0257X0577)											

TRIBUTARY OF DE-NA-ZIN WASH TWO MILES SW OF TANNER LAKE, NM (LAT 36 12 26 LONG 108 10 50 10)  
(LOCAL IDENTIFIER-23N.13W.24.334)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
MAY 21...	1530	.05	1110	7.5	20.5	130	0	47	3.4	230	8.7	9.1
DATE		BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTH- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
MAY 21...	256	0	410	9.9	.8	16	866	3.0	.07	140	50	
DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDIM- MENT (80154)	SUS- PENDE SEDIM- MENT (80155)	SUS- SED. SIEVE DIAM. % FINER THAN .062 MM (70331)						
MAY 21...	1530	.05	20.5	23100	3.1	100						

POND TWO MILES SW OF TANNER LAKE NEAR BISTI, NM (LAT 36 12 33 LONG 108 10 42 10)  
(LOCAL IDENTIFIER-23N.13W.24.340)

1975 DATA NOT PREVIOUSLY PUBLISHED

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
JUL 22...	1450	1040	10.2	23.0	67	0	25	1.2	190	10	7.9

DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
JUL 22...	8	42	380	5.9	.5	6.3	684	4.7	.00	90	100	

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
MAR 30...	1430	4000	7.5	14.0	150	450	150	150	18	790	16	19

DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
MAR 30...	365	0	1800	28	.8	.3	2990	1.0	.02	350	110	

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL MERCURY (MG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
MAR 30...	1430	6	350	10	0	30	110	.0	7

POND 1.4 MILES SOUTH OF TANNER LAKE NEAR BISTI, NM (LAT 36 12 36 LONG 108 08 41 10)  
(LOCAL IDENTIFIER-23N.12W.20.314)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
MAR 30...	1345	750	7.4	6.5	220	120	0	40	5.4	130	5.1	16

DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
MAR 30...	345	0	93	23	1.1	4.0	492	2.0	.02	140	40	

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

POND 1.4 MILES SOUTH OF TANNER LAKE NEAR BISTI, NM (LAT 36 12 36 LONG 108 08 41 10)  
(LOCAL IDENTIFIER-23N.12W.20.314)--Continued

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
MAR 30...	1345	4	140	<10	0	10	40	.0	1

1975 DATA NOT PREVIOUSLY PUBLISHED

SIDE WASH 1.0 MILE NORTHWEST OF TANNER LAKE NEAR BISTI, NM (LAT 36 14 21 LONG 108 09 58 10)  
(LOCAL IDENTIFIER-23N.12W.07.313)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NESIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
APR 09...	1130	.01	862	8.3	1.5	43	0	15	1.3	170	11	7.1

DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SUM OF CONSTI- TUENTS (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
APR 09...	296	0	170	15	.9	7.8	569	8.0	.00	40	100	

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

ESCAVADO WASH AT STATE HIGHWAY 44 BRIDGE, 7.5 MILES SW OF KIMBETO, NM (LAT 36 14 32 LONG 107 43 18 10)  
(LOCAL IDENTIFIER-23N.08W.07.2331)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)
OCT 29...	1530	2291

TRIBUTARY TO DE-NA-ZIN WASH 0.9 MILE NORTH OF TANNER LAKE, NM (LAT 36 14 39 LONG 108 08 42 10)  
(LOCAL IDENTIFIER-23N.12W.08.1341)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
SEP 27...	0130	30	600	7.4	102



## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRIBUTARY TO DE-NA-ZIN WASH 0.9 MILE NORTH OF TANNER LAKE, NM (LAT 36 14 39 LONG 108 08 42 10)  
(LOCAL IDENTIFIER-23N.12W.08.1341)--Continued

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
SEP 27...	0130	130	140	0

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS- PENDE SEDI- MENT (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
SEP 27...	0130	30	34700	2810	84

TRIBUTARY TO DE-NA-ZIN WASH 1.8 MILES NORTH OF TANNER LAKE, NM (LAT 36 15 28 LONG 108 08 46 10)  
(LOCAL IDENTIFIER-23N.12W.05.1334)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
SEP 27...	0300	25	750	7.0	165

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
SEP 27...	0300	280	190	0

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS- PENDE SEDI- MENT (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
AUG 20...	2015	25	144000	9720	90
SEP 27...	0300	25	66600	4500	83

CANADA DE LA CUEVA ABOVE JUNCTION WITH OJO CALIENTE, NM (LAT 36 21 50 LONG 106 02 50 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MANG- NESE (MN) (UG/L) (01056)	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)
MAY 17...	1100	2450	7.1	26.0	100	<20											
MAY 17...	1100	220	50	<5	<30	0	<20	<20	5	<7	<30	100					

## CANADA DE LA CUEVA ABOVE JUNCTION WITH OJO CALIENTE, NM (LAT 36 21 50 LONG 106 02 50 00)--Continued

RIO OJO CALIENTE ABOVE JUNCTION WITH CANADA CUEVA, NM (LAT 36 21 52 LONG 106 02 47 00)

SPRING NEAR LA MADERA, NM (LAT 36 21 56 LONG 106 02 56 00)

DATE	TIME	SPECIFIC CONDUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
MAY 17...	0930	1580	6.3	27.5	400	50	<20

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SPRING NEAR LA MADERA, NM (LAT 36 21 56 LONG 106 02 56 00)--Continued

		DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)		
MAY 17...	0930	50	50	<5	<20	400	1	<20		
DATE		DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)
MAY 17...	<20	<5	<10	<20	50	<20	510	<20	<10	
DATE		DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)	
MAY 17...	<20	<2	1100	<20	<5	<10	30	<20		
	DATE	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)								
MAY 17...	0930	60								

TUSAS RIVER ABOVE JUNCTION WITH RIO VALLECITOS, NM (LAT 36 22 58 LONG 106 02 12 00)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)			
MAY 17...	1330	270	7.1	17.0	30	60	20			
DATE	TIME	DIS-SOLVED ALUMINUM (AL) (UG/L) (01106)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYLLIUM (BE) (UG/L) (01010)	DIS-SOLVED BISMUTH (BI) (UG/L) (01015)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CADMIUM (CD) (UG/L) (01025)	DIS-SOLVED CHROMIUM (CR) (UG/L) (01030)		
MAY 17...	1330	50	80	<1	<4	30	0	<4		
DATE	TIME	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED GALLIUM (GA) (UG/L) (01120)	DIS-SOLVED GERMANIUM (GE) (UG/L) (01125)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	DIS-SOLVED MOLYBDENUM (MO) (UG/L) (01060)
MAY 17...	<4	2	<2	<4	60	<4	30	20	3	

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TUSAS RIVER ABOVE JUNCTION WITH RIO VALLECITOS, NM (LAT 36 22 58 LONG 106 02 12 00)--Continued

DATE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TI- TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
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MAY 17...	<4	0	190	<4	2	3.0	20	<4
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DATE	TIME	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)
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MAY 17...	1330	2.8
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RIO VALLECITOS ABOVE JUNCTION WITH TUSAS RIVER, NM (LAT 36 22 59 LONG 106 02 14 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
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MAY 17...	1300	95	7.5	14.0	30	130	10
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DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED LITHIUM (LI) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
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MAY 17...	1300	90	40	0	<2	30	0	<2
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DATE	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)
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MAY 17...	<2	2	<1	<2	130	<2	6	10	<1
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DATE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TI- TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
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MAY 17...	2	0	80	<2	2	1.0	0	<2
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DATE	TIME	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)
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MAY 17...	1300	.5
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## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TUSAS RIVER ABOVE JUNCTION WITH PETACA CREEK, NM (LAT 36 23 16 LONG 106 00 53 00)

		SPECIFIC CONDUCTANCE (MICROMHOS) (00095)											
		PH (UNITS) (00400)											
		TEMPERATURE (DEG C) (00010)											
		DIS-SOLVED IRON (FE) (UG/L) (01046)											
		DIS-SOLVED MANGANESE (MN) (UG/L) (01056)											
DATE		TIME											
MAY 17...		1745											
		220											
		7.1											
		21.0											
		80											
		20											
DATE		TIME											
		DIS-SOLVED ALUMINUM (AL) (UG/L) (01106)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYLLIUM (BE) (UG/L) (01010)	DIS-SOLVED BISMUTH (BI) (UG/L) (01015)	DIS-SOLVED CADMIUM (CD) (UG/L) (01025)	DIS-SOLVED CHROMIUM (CR) (UG/L) (01030)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED GALLIUM (GA) (UG/L) (01120)	DIS-SOLVED GERMANIUM (GE) (UG/L) (01125)	DIS-SOLVED IRON (FE) (UG/L) (01046)	
MAY 17...		1745	60	80	<1	<5	0	<4	<4	2	<1	<5	80
DATE		TIME											
		DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	DIS-SOLVED MOLYBDENUM (MO) (UG/L) (01060)	DIS-SOLVED NICKEL (NI) (UG/L) (01065)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED STRONTIUM (SR) (UG/L) (01080)	DIS-SOLVED TIN (SN) (UG/L) (01100)	DIS-SOLVED TANTALUM (TA) (UG/L) (01150)	DIS-SOLVED VANADIUM (V) (UG/L) (01085)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)	DIS-SOLVED ZIRCONIUM (ZR) (UG/L) (01160)
MAY 17...		5	10	20	2	<4	0	160	<4	4	4.0	0	<5

DIS-  
SOLVED  
URANIUM  
(DIRECT  
FLUORO-  
METRIC)  
(PC/L)  
(80010)

DATE TIME  
MAY 17... 1745 1.7

CANON DE LA PALOMA ABOVE JUNCTION WITH TUSAS RIVER, NM (LAT 36 23 18 LONG 106 00 56 00)

		SPECIFIC CONDUCTANCE (MICROMHOS) (00095)											
		PH (UNITS) (00400)											
		TEMPERATURE (DEG C) (00010)											
		DIS-SOLVED IRON (FE) (UG/L) (01046)											
		DIS-SOLVED MANGANESE (MN) (UG/L) (01056)											
DATE		TIME											
MAY 17...		1730											
		1680											
		8.7											
		22.5											
		170											
		<20											
DATE		TIME											
		DIS-SOLVED ALUMINUM (AL) (UG/L) (01106)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYLLIUM (BE) (UG/L) (01010)	DIS-SOLVED BISMUTH (BI) (UG/L) (01015)	DIS-SOLVED CADMIUM (CD) (UG/L) (01025)	DIS-SOLVED CHROMIUM (CR) (UG/L) (01030)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED GALLIUM (GA) (UG/L) (01120)	DIS-SOLVED GERMANIUM (GE) (UG/L) (01125)	DIS-SOLVED IRON (FE) (UG/L) (01046)	
MAY 17...		1730	270	50	<5	<30	0	<20	<20	5	<7	<30	170
DATE		TIME											
		DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	DIS-SOLVED MOLYBDENUM (MO) (UG/L) (01060)	DIS-SOLVED NICKEL (NI) (UG/L) (01065)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED STRONTIUM (SR) (UG/L) (01080)	DIS-SOLVED TIN (SN) (UG/L) (01100)	DIS-SOLVED TANTALUM (TI) (UG/L) (01150)	DIS-SOLVED VANADIUM (V) (UG/L) (01085)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)	DIS-SOLVED ZIRCONIUM (ZR) (UG/L) (01160)
MAY 17...		<20	1600	<20	40	<20	<2	500	<20	<20	<15	0	<30

DIS-  
SOLVED  
URANIUM  
(U)  
(UG/L)  
(80020)

DATE TIME  
MAY 17... 1730 1.9

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976 --

CANON DE LA PALOMA BELOW SALT LICK SPRING, NM (LAT 36 24 36 LONG 106 00 55 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
MAY 17...	1400	1380	8.2	22.0	250	70	<20

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
MAY 17...	1400	80	40	<4	<17	250	0	<17

DATE	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)
MAY 17...	<17	<4	<8	<20	70	<17	1200	<20	40

DATE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
MAY 17...	<17	<2	410	<17	<4	<8.0	0	<20

DATE	TIME	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)
MAY 17...	1400	2.9

TUSAS RIVER NEAR SERVILLET A PLAZA, NM (LAT 36 26 02 LONG 105 58 41 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
MAY 18...	0900	210	7.6	12.0	30	130	50

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
MAY 18...	0900	70	80	<1	<3	30	0	<3

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TUSAS RIVER NEAR SERVILLET A PLAZA, NM (LAT 36 26 02 LONG 105 58 41 00)---Continued

DATE	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)
MAY 18...	<3	2	<2	<3	130	<3	0	50	<2

DATE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TAN- TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
MAY 18...	4	0	140	<3	1	2.0	10	<3

DATE	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)
MAY 18...	0900 1.0

RIO VALLECITOS AT BRIDGE ABOVE ANCONES, NM (LAT 36 26 11 LONG 106 03 47 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
MAY 20...	0900	60	8.5	20	240	10

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
MAY 20...	0900	160	40	0	<1	20	0	<1

DATE	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)
MAY 20...	<1	2	<1	<1	240	2	0	10	<1

DATE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TAN- TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
MAY 20...	3	0	50	<1	8	1.0	0	<1

DATE	DIS- SOLVED URANIUM (U) (UG/L) (80020)
MAY 20...	0900 .04

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TUSAS RIVER SOUTH OF SOUTH PETACA, NM (LAT 36 28 48 LONG 106 00 02 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)		
MAY 18...	1030	165	6.9	13.5	20	80	50		
DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BT) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	
MAY 18...	1030	60	60	<1	<3	20	0	<3	
DATE	TIME	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)
MAY 18...	<3	2	<1	<3	80	3	0	50	2
DATE	TIME	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TAN- IUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
MAY 18...	<3	0	110	<3	1	2.0	0	<3	

DIS-  
SOLVED  
URANIUM  
(DIRECT  
FLUORO-  
METRIC)  
(PC/L)  
(80010)

DATE TIME  
MAY 18... 1030 .6

CANADA DEL BORACHO AT VALLECITOS, NM (LAT 36 29 42 LONG 106 06 45 00)

		SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)											TEMPERATURE (DEG C) (00010)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	
DATE	TIME															
MAY 20...	1030												180	11.5	100	50
DATE	TIME	DIS-SOLVED ALUMINUM (AL) (UG/L) (01106)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYLLIUM (BE) (UG/L) (01010)	DIS-SOLVED BISMUTH (BI) (UG/L) (01015)	DIS-SOLVED CADMIUM (CD) (UG/L) (01025)	DIS-SOLVED CHROMIUM (CR) (UG/L) (01030)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED GALLIUM (GA) (UG/L) (01120)	DIS-SOLVED GERMANIUM (GE) (UG/L) (01125)	DIS-SOLVED IRON (FE) (UG/L) (01046)				
MAY 20...	1030	50	90	<1	<3	0	<2	<2	2	<1	<4	100				



## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## CANADA DEL BORACHO AT VALLECITOS, NM (LAT 36 29 42 LONG 106 06 45 00)--Continued

DATE	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TI- TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
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MAY 20...	3	0	50	<1	<2	0	120	<3	3	<2.0	0	<4
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DATE	TIME	DIS- SOLVED URANIUM (U) (UG/L) (80020)
MAY 20...	1030	.20

## RIO VALLECITOS AT VALLECITOS, NM (LAT 36 29 43 LONG 106 06 44 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
MAY 20...	1030	52	9.0	200	10

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)
MAY 20...	1030	170	40	0	<2	0	2	<1	1	0	<2	200

DATE	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TI- TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
MAY 20...	2	0	10	0	1	0	40	<1	5	1.0	0	<2

DATE	TIME	DIS- SOLVED URANIUM (U) (UG/L) (80020)
MAY 20...	1030	.09

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES  
WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TUSAS RIVER AT SOUTH PETACA, NM (LAT 36 29 48 LONG 106 00 35 00)

		SPECIFIC CONDUCTANCE (MICROMHOS) (00095)												PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)
		DATE	TIME														
		MAY 18...	1200		150	6.9	15.5	130	40								
DATE	TIME	DIS-SOLVED ALUMINUM (AL) (UG/L) (01106)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYLLIUM (BE) (UG/L) (01010)	DIS-SOLVED BISMUTH (BI) (UG/L) (01015)	DIS-SOLVED CADMIUM (CD) (UG/L) (01025)	DIS-SOLVED CHROMIUM (CR) (UG/L) (01030)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED GALLIUM (GA) (UG/L) (01120)	DIS-SOLVED GERMANIUM (GE) (UG/L) (01125)	DIS-SOLVED IRON (FE) (UG/L) (01046)					
MAY 18...	1200	50	60	<1	<4	0	<3	<3	2	<1	<4	130					
DATE	TIME	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	DIS-SOLVED MOLYBDENUM (MO) (UG/L) (01060)	DIS-SOLVED NICKEL (NI) (UG/L) (01065)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED STRONTIUM (SR) (UG/L) (01080)	DIS-SOLVED TIN (SN) (UG/L) (01100)	DIS-SOLVED TANTALUM (TA) (UG/L) (01150)	DIS-SOLVED VANADIUM (V) (UG/L) (01085)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)	DIS-SOLVED ZIRCONIUM (ZR) (UG/L) (01160)				
MAY 18...	2	0	40	<1	<3	0	80	<3	3	2.0	0	<4					
		DIS-SOLVED URANIUM (U) (UG/L) (80020)															
		DATE												TIME			
		MAY 18...												1200	.40		

TUSAS RIVER ABOVE PETACA, NM (LAT 36 31 22 LONG 106 00 40 00)

TOSAS RIVER ABOVE TACRA, NM (EAT 30 51 22 LONG 100 60 40 00)										
DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)		
MAY 18...	1400	2630	120	6.9	16.5	20	160	20		
DATE	TIME	DIS-SOLVED ALUMINUM (AL) (UG/L) (01106)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYLLIUM (BE) (UG/L) (01010)	DIS-SOLVED BISMUTH (BI) (UG/L) (01015)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CADMIUM (CD) (UG/L) (01025)	DIS-SOLVED CHROMIUM (CR) (UG/L) (01030)		
MAY 18...	1400		120	60	<1	<2	20	0	<2	
DATE	TIME	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED GALLIUM (GA) (UG/L) (01120)	DIS-SOLVED GERMANIUM (GE) (UG/L) (01125)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	DIS-SOLVED MOLYBDENUM (MO) (UG/L) (01060)
MAY 18...		<2	2	<1	<2	160	<2	0	20	<1
DATE	TIME	DIS-SOLVED NICKEL (NI) (UG/L) (01065)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED STRONTIUM (SR) (UG/L) (01080)	DIS-SOLVED TIN (SN) (UG/L) (01100)	DIS-SOLVED TANTALUM (TA) (UG/L) (01150)	DIS-SOLVED VANADIUM (V) (UG/L) (01085)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)	DIS-SOLVED ZIRCONIUM (ZR) (UG/L) (01160)	
MAY 18...		3	0	80	<2	2	2.0	70	<2	

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TUSAS RIVER ABOVE PETACA, NM (LAT 36 31 22 LONG 106 00 40 00)--Continued

DATE	TIME	DIS- SOLVED URANIUM (U) (UG/L) (80020)
MAY 18...	1400	.20

CANADA DE LA JARITA, NM (LAT 36 31 27 LONG 106 01 39 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
MAY 18...	1330	130	7.1	17.0	10	80	10

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
MAY 18...	1330	90	50	0	<2	10	0	<2

DATE	DIS- SOLVED COPALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)
MAY 18...	<2	1	<1	<2	80	<2	0	10	1

DATE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TI- TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
MAY 18...	3	0	80	<2	3	1.0	0	<2

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

RIO VALLECITO BELOW CANON PLAZA, NM (LAT 36 32 14 LONG 106 08 52 00)

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS) (000095)	TEMPERATURE (DEG C) (00010)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)
MAY 20...	1600	55	13.0	20	150	10

DATE	TIME	DIS-SOLVED ALUMINUM (AL) (UG/L) (01106)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYLLIUM (BE) (UG/L) (01010)	DIS-SOLVED BISMUTH (BI) (UG/L) (01015)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED CADMIUM (CD) (UG/L) (01025)	DIS-SOLVED CHROMIUM (CR) (UG/L) (01030)
MAY 20...	1600	120	50	0	<1	20	0	<1

DATE	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED GALLIUM (GA) (UG/L) (01120)	DIS-SOLVED GERMANIUM (GE) (UG/L) (01125)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	DIS-SOLVED MOLYBDENUM (MO) (UG/L) (01060)
MAY 20...	<1	1	<1	<1	150	2	0	10	<1

DATE	DIS-SOLVED NICKEL (NI) (UG/L) (01065)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED STRONTIUM (SR) (UG/L) (01080)	DIS-SOLVED TIN (SN) (UG/L) (01100)	DIS-SOLVED TANTALUM (TI) (UG/L) (01150)	DIS-SOLVED VANADIUM (V) (UG/L) (01085)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)	DIS-SOLVED ZIRCONIUM (ZR) (UG/L) (01160)
MAY 20...	2	0	50	<1	3	1.0	10	<2

DATE	TIME	DIS-SOLVED URANIUM (U) (UG/L) (80020)
MAY 20...	1600	.06

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TUSAS RIVER AT LAS TABLAS, NM (LAT 36 32.18 LONG 106 01 39 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)		
MAY 18...	1000	105	7.1	15.0	30	150	10		
MAY 18...	1600	105	7.1	15.0	--	--	--		

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)		
MAY 18...	1000	110	70	<1	<2	30	0	<2		

DATE	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)		
MAY 18...	<2	2	<1	<2	150	3	0	10	<1		

DATE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TAN- IUM (TI) (UG/L) (01150)	DIS- SOLVED DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)		
MAY 18...	4	0	90	<2	2	2.0	0	<2		

DIS-  
SOLVED  
URANIUM  
(U)  
(UG/L)  
(80020)

MAY  
18... 1600 .20

RITITO CANYON ABOVE VALLECITOS RIVER, NM (LAT 36 32 44 LONG 106 10 07 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)		
MAY 20...	1430	240	11.0	20	20	5		

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)		
MAY 20...	1430	30	60	<1	<4	20	0	7		

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

RITITO CANYON ABOVE VALLECITOS RIVER, NM (LAT 36 32 44 LONG 106 10 07 00)--Continued

DATE	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)
MAY 20...	<4	1	<2	<6	20	4	0	5	<2

DATE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TAN- TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
MAY 20...	<4	0	160	<4	<4	5.0	0	<6

DIS-  
SOLVED  
URANIUM  
(DIRECT  
FLUORO-  
METRIC)  
(PC/L)  
(80010)

DATE

MAY  
20... 1430 1.6

RIO VALLECITOS ABOVE RITITO CANYON, NM (LAT 36 32 45 LONG 106 10 14 00)

DATE	TIME	DIS- SOLVED ALUM- INIUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)
MAY 20...	1500	240	40	0	<1	0	<1	<1	1	0	<1	250

DATE	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TAN- TANIUM (TI) (UG/L) (01100)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)	
MAY 20...	4	0	30	0	2	0	40	<1	8	1.0	20	<1

DIS-  
SOLVED  
URANIUM  
(U)  
(UG/L)  
(80020)

DATE

MAY  
20... 1500 .08

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHACO R AB FOUR CORNERS POWERPLANT NR FRUITLAND, NM (LAT 36 34 17 LONG 108 33 49 10)  
(LOCAL IDENTIFIER-NR032.0352X1230)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
AUG 19...	1710	100	1400	6.7	23.5	450	320	160	13	160	3.3	11
26...	1030	.20	1075	7.9	22.0	87	0	31	2.3	210	9.8	9.9

DATE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED (SUM OF TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO, PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
AUG 19...	162	0	650	9.8	.8	19	1120	2.6	.04	100	120
26...	293	0	270	23	1.7	18	732	4.7	.08	140	60

DATE	TIME	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)
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AUG 19...	1710	100	120	20
26...	1030	140	60	20

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY) (80155)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70342)	SUS. SED. FALL DIAM. % FINER THAN .125 MM (70343)	SUS. SED. FALL DIAM. % FINER THAN .250 MM (70344)	SUS. SED. FALL DIAM. % FINER THAN .062 MM (70331)
AUG 02...	0845	1000	--	74900	202000	--	--	--	100
05...	1520	5.0	31.0	70100	946	--	--	--	100
19...	0800	278	--	233000	175000	--	--	--	71
19...	1710	100	23.5	95	26	--	--	--	31
20...	1545	500	--	137000	185000	--	--	--	80
20...	1700	1000	--	228000	616000	--	--	--	65
20...	1715	3000	--	185000	1500000	72	91	100	--
26...	1030	.20	22.0	21700	12	--	--	--	100
SEP 26...	2230	760	--	82000	168000	--	--	--	84
28...	1150	100	16.5	59500	16100	--	--	--	100

LA JARA CANYON ABOVE RIO VALLECITOS, NM (LAT 36 35 27 LONG 106 10 05 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
MAY 20...	1315	170	9.0	80	20

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)
MAY 20...	1315	90	80	<1	<4	7	<3	1	<1	<4	80	3

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES  
WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

LA JARA CANYON ABOVE RIO VALLECITOS, NM (LAT 36 35 27 LONG 106 10 05 00)--Continued

DATE	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
MAY 20...	0	20	2	<3	0	110	<3	4	2.0	70	<4

DIS-  
SOLVED  
URANIUM  
(DIRECT  
FLUORO-  
METRIC)  
(PC/L)  
(80010)

DATE TIME

MAY  
20... 1315 .7

VALLECITOS RIVER ABOVE LA JARA CANYON, NM (LAT 36 35 30 LONG 106 11 01 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
MAY 20...	1230	50	7.0	20	200	7

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
MAY 20...	1230	140	40	0	<1	20	0	<1

DATE	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)
MAY 20...	<1	2	0	<1	200	1	0	7	1

DATE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
MAY 20...	2	0	40	<1	4	1.0	0	<1

DIS-  
SOLVED  
URANIUM  
(U)  
(UG/L)  
(80020)

DATE TIME

MAY  
20... 1230 .05



## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SPRING CREEK ABOVE CLEVELAND GULCH, NM (LAT 36 36 42 LONG 106 06 50 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
MAY 19...	1030	8	6.1	14.5	20	1000	8

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
MAY 19...	1030	1700	80	0	<2	20	0	<2

DATE	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)
MAY 19...	<2	2	<1	<2	1000	4	0	8	<1

DATE	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TAN- IUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)
MAY 19...	4	0	60	<2	40	2.0	10	2

DATE	TIME	DIS- SOLVED URANIUM (U) (UG/L) (80020)
MAY 19...	1030	.06

CLEVELAND GULCH, NM (LAT 36 36 50 LONG 106 06 26 00)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
MAY 19...	1100	280	6.9	12.5	20	20	4

DATE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)
MAY 19...	1100	30	90	<1	<4	20	0	<4

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CLEVELAND GULCH, NM (LAT 36 36 50 LONG 106 06 26 00)--Continued

DATE	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED GALLIUM (GA) (UG/L) (01120)	DIS-SOLVED GERMANIUM (GE) (UG/L) (01125)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	DIS-SOLVED MOLYBDENUM (MO) (UG/L) (01060)
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MAY 19...	<4	2	<1	<6	20	<4	0	4	<2
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DATE	DIS-SOLVED NICKEL (NI) (UG/L) (01065)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED STRONTIUM (SR) (UG/L) (01080)	DIS-SOLVED TIN (SN) (UG/L) (01100)	DIS-SOLVED TANTALUM (TI) (UG/L) (01150)	DIS-SOLVED VANADIUM (V) (UG/L) (01085)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)	DIS-SOLVED ZIRCONIUM (ZR) (UG/L) (01160)
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MAY 19...	<4	0	150	<4	<4	<3.0	0	<6
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DIS-SOLVED URANIUM (DIRECT FLUOROMETRIC) (PC/L) (80010)

DATE TIME

MAY 19... 1100 .7

POOL IN CHACO RIVER FOUR MILES SW OF FOUR CORNERS POWERPLANT, NM (LAT 36 38 29 LONG 108 31 41 10)  
(LOCAL IDENTIFIER-NR032.0158X0747)

DATE	TIME	SPE-CIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA, MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED POTASSIUM (K) (MG/L) (00935)
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APR 01...	1430	5000	7.2	20.5	1000	590	330	49	960	13	28
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DATE	TIME	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (00301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHOPHOSPHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (MG/L) (01020)	DIS-SOLVED IRON (FE) (MG/L) (01046)
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APR 01...	526	0	2500	120	.6	4.1	4260	2.4	.15	280	110
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TUSAS RIVER AT TUSAS, NM (LAT 36 38 40 LONG 106 03 31 00)

DATE	TIME	SPE-CIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)
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MAY 19...	1230	95	7.2	17.0	220	40
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DATE	TIME	DIS-SOLVED ALUMINUM (AL) (UG/L) (01106)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYLLIUM (BE) (UG/L) (01010)	DIS-SOLVED BISMUTH (BI) (UG/L) (01015)	DIS-SOLVED CADMIUM (CD) (UG/L) (01025)	DIS-SOLVED CHROMIUM (CR) (UG/L) (01030)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED GALLIUM (GA) (UG/L) (01120)	DIS-SOLVED GERMANIUM (GE) (UG/L) (01125)	DIS-SOLVED IRON (FE) (UG/L) (01046)
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MAY 19...	1230	200	60	0	<3	0	<2	<2	2	<1	<3	220
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## TUSAS RIVER AT TUSAS, NM (LAT 36 38 40 LONG 106 03 31 00)--Continued

TUSAS RIVER ABOVE CANADA BISCARA. NM (LAT 36 41 14 LONG 106 07 12 00)

SAN JUAN RIVER AT WEST HAMMOND BRIDGE, NM (LAT 36 41 22 LONG 108 05 43 10)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNIT5) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
DEC 02...	1030	305	7.9	5.0	120	38	36	6.1	20	.8	1.9

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SAN JUAN RIVER AT WEST HAMMOND BRIDGE, NM (LAT 36 41 22 LONG 108 05 43 10)--Continued

DATE	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)
DEC 02...	94	0	71	3.0	.1	9.7	196	.43	.00	7	10

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELENIUM (SE) (UG/L) (01147)
DEC 02...	1030	0	70	7	.10	<100	10	.0	1

LITTLE TUSAS AT JUNCTION WITH TUSAS, NM (LAT 36 43 11 LONG 106 09 23 00)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	DIS-SOLVED IRON (FE) (UG/L) (01046)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)
MAY 19...	1430	100	7.2	15.0	180	40

DATE	TIME	DIS-SOLVED ALUMINUM (AL) (UG/L) (01106)	DIS-SOLVED BARIUM (BA) (UG/L) (01005)	DIS-SOLVED BERYLLIUM (BE) (UG/L) (01010)	DIS-SOLVED BISMUTH (BI) (UG/L) (01015)	DIS-SOLVED CADMIUM (CD) (UG/L) (01025)	DIS-SOLVED CHROMIUM (CR) (UG/L) (01030)	DIS-SOLVED COBALT (CO) (UG/L) (01035)	DIS-SOLVED COPPER (CU) (UG/L) (01040)	DIS-SOLVED GALLIUM (GA) (UG/L) (01120)	DIS-SOLVED GERMANIUM (GE) (UG/L) (01125)	DIS-SOLVED IRON (FE) (UG/L) (01046)
MAY 19...	1430	120	50	0	<2	0	<2	<2	1	<1	<3	180

DATE	TIME	DIS-SOLVED LEAD (PB) (UG/L) (01049)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	DIS-SOLVED MANGANESE (MN) (UG/L) (01056)	DIS-SOLVED MOLYBDENUM (MO) (UG/L) (01060)	DIS-SOLVED NICKEL (NI) (UG/L) (01065)	DIS-SOLVED SILVER (AG) (UG/L) (01075)	DIS-SOLVED STRONTIUM (SR) (UG/L) (01080)	DIS-SOLVED TIN (SN) (UG/L) (01100)	DIS-SOLVED TANTALUM (TA) (UG/L) (01150)	DIS-SOLVED VANADIUM (V) (UG/L) (01085)	DIS-SOLVED ZINC (ZN) (UG/L) (01090)	DIS-SOLVED ZIRCONIUM (ZR) (UG/L) (01160)
MAY 19...	2	0	40	<1	2	0	80	<2	5	2.0	0	<3	

DATE	TIME	DIS-SOLVED URANIUM (U) (UG/L) (80020)
MAY 19...	1430	.20

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TUSAS RIVER AT JUNCTION WITH LITTLE TUSAS, NM (LAT 36 43 11 LONG 106 09 24 00)

SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)										PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
DATE	TIME													
MAY 19...	1500		55		7.5	14.0		20	240	120				
		DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED RISMUTH (BI) (UG/L) (01015)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED MIUM (CD) (UG/L) (01025)	DIS- SOLVED MIUM (CR) (UG/L) (01030)						
DATE	TIME													
MAY 19...	1500		200	30	0	<1	20	0	<1					
		DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)				
DATE	TIME													
MAY 19...	<1	1	<1	<1	240	3	0	120	<1					
		DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)					
DATE	TIME													
MAY 19...	2	0	30	<1	6	1.0	20	<1						
					DIS- SOLVED URANIUM (U) (UG/L) (00020)									
DATE	TIME													
MAY 19...	1500				.06									

SAN JUAN RIVER AT BLANCO BRIDGE, NM (LAT 36 43 27 LONG 107 48 48 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
DEC 02...	0925	1500	248	7.8	6.0	92	18	28	5.4	12	.5	1.9
DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
DEC 02...	90	0	38	2.3	.2	9.7	142	.10	.00	20	50	
DATE	TIME		TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)		
DEC 02...	0925		0	30	20	50	<100	10	.0	1		

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SAN JUAN RIVER AT FRUITLAND BRIDGE, NM (LAT 36 44 22 LONG 108 44 09 10)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	
DEC*	02...	1320	420	8.0	6.0	160	66	49	8.4	26	.9	2.1

DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
DEC	02...	111	0	100	8.1	.2	9.4	263	1.2	.02	8	10

\* Instantaneous discharge (CFS) (00061) 1900.

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	
DEC	02...	1320	0	410	8	10	100	180	.0	1

SAN JUAN RIVER IN HOGBACK DIVERSION BYPASS NR FRUITLAND, NM (LAT 36 44 47 LONG 108 32 14 10)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	
DEC*	02...	1350	440	8.0	4.2	160	61	50	8.9	27	.9	2.5

DATE	TIME	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
DEC	02...	122	0	100	7.5	.2	9.5	267	.17	.00	40	10

\* Instantaneous discharge (CFS) (00061) 1900.

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	
DEC	02...	1350	0	110	40	10	<100	20	.0	1

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN RIVER AT SHIPROCK BRIDGE, NM (LAT 36 46 50 LONG 108 41 34 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)
DEC 02...	1435	1960	500	8.0	5.0	190	86	56	11	33	1.1	2.3

DATE	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (MG/L) (01020)	DIS- SOLVED IRON (FE) (MG/L) (01046)
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DEC 02...	121	0	130	10	.3	9.6	313	.33	.01	70	0
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DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
DEC 02...	1435	0	100	70	0	<100	30	.0	1

## HUTCH CANYON ARROYO NEAR FRUITLAND, NM (LAT 36 48 01 LONG 108 21 45 10)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L) (80154)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY) (80155)	SUS- SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUL 26...	2230	50	14300	1930	100
AUG 19...	2200	30	38800	3140	100
19...	2230	40	139000	15000	66

HUTCH CANYON NEAR FRUITLAND, NM (LAT 36 48 02 LONG 108 23 48 10)  
(LOCAL IDENTIFIER-30N.15W.22.2442)

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)
AUG 17...	1340	5.8	340	7.1	--	--	--	--	--	--	--	--
19...	2000	34	610	6.8	--	--	--	--	--	--	--	--
19...	2030	150	740	6.6	160	0	53	6.1	69	2.4	15	220

DATE	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (MG/L) (01020)	DIS- SOLVED IRON (FE) (MG/L) (01046)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
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AUG 17...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	208
19...	0	130	7.5	.8	6.0	397	.31	.01	140	30	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

HUTCH CANYON NEAR FRUITLAND, NM (LAT 36 48 02 LONG 108 23 48 10)  
(LOCAL IDENTIFIER-30N.15W.22.2442)--Continued

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	TOTAL CHROMIUM (CR) (UG/L) (01034)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MANGANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELENIUM (SE) (UG/L) (01147)	TOTAL STRONTIUM (SR) (UG/L) (01082)
AUG 17...	1340	75	--	--	--	--	--	--	--	.0	2	--
19...	2000	--	7500	290	300	710000	900	540	17000	--	--	2400

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SUSPENDED SEDIMENT DISCHARGE (MG/L) (80154)	SUSPENDED SEDIMENT (T/DAY) (80155)
AUG 19...	2030	150	62800	25400

## SAN JUAN RIVER IN NAVAJO DAM SPILLWAY, NM (LAT 36 48 22 LONG 107 36 48 10)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	HARDNESS (CA+MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED POSSIBLY TAS-SIUM (K) (MG/L) (00935)
DEC 02...	0800	1500	226	7.8	88	23	27	4.9	10	.5	1.9

	RICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SI02) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTIT- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
DATE											
DEC 02...	79	0	34	2.2	.1	9.7	129	.10	.00	20	30

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELENIUM (SE) (UG/L) (01147)
DEC 02...	0800	0	90	20	30	<100	10	.0	1

## WESTWATER ARROYO ABOVE SAN JUAN MINE NR WATERFLOW, NM (LAT 36 48 43 LONG 108 25 50 10)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA+MG) (MG/L) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED POSSIBLY TAS-SIUM (K) (MG/L) (00935)
AUG 01...	1345	--	1300	7.4	--	--	--	--	--	--	--	--
01...	1400	--	1200	7.1	--	--	--	--	--	--	--	--
19...	1300	--	1380	7.2	22.5	150	18	44	9.5	220	7.8	6.5
26...	1515	.12	1300	7.7	30.0	150	8	46	9.0	220	7.8	7.1



## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

WESTWATER ARROYO ABOVE SAN JUAN MINE NR WATERFLOW, NM (LAT 36 48 43 LONG 108 25 50 10)--Continued

DATE	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SI02) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
AUG												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	318
19...	160	0	380	68	.8	8.4	828	2.7	.03	160	90	--
26...	175	0	390	61	1.0	5.4	830	.97	.02	190	40	10

DATE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	DIS-SOLVED BORON (B) (UG/L) (01020)	TOTAL CHROMIUM (CR) (UG/L) (01034)	TOTAL IRON (FE) (UG/L) (01045)	DIS-SOLVED IRON (FE) (UG/L) (01046)
AUG								
01...	1345	260	--	--	--	--	--	--
01...	1400	--	4200	440	--	400	640000	--
19...	1300	--	--	--	160	--	--	90
26...	1515	6	--	250	190	--	--	40

DATE	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS-SOLVED LITHIUM (LI) (UG/L) (01130)	TOTAL MANGANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELENIUM (SE) (UG/L) (01147)	TOTAL STRONTIUM (SR) (UG/L) (01082)
AUG							
01...	--	--	--	--	2.5	3	--
01...	900	590	--	18000	--	--	4800
19...	--	--	20	--	--	--	--
26...	<100	--	20	--	.5	3	--

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS- PENDE SEDI- MENT CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUL						
26...	2200	50	--	31700	4280	97
26...	2230	50	--	4690	633	83
26...	2300	200	--	44400	24000	87
AUG						
26...	1515	.12	30.0	291	.09	99

POND ON SAN JUAN MINE LEASE NEAR FRUITLAND, NM (LAT 36 49 28 LONG 108 24 44 10)  
(LOCAL IDENTIFIER-30N.15W.10.331)

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS- PENDE SEDI- MENT CHARGE (T/DAY) (80155)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)
AUG						
19...	1300	.00	22.5	129	.00	97

## ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SAN JUAN RIVER AB MANCOS INFLOW, NM (LAT 36 56 28 LONG 108 58 22 10)

DATE	TIME	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (CA, MG) (00900)	NON-CARBONATE HARDNESS (MG/L) (00902)	DIS-SOLVED CALCIUM (CA) (MG/L) (00915)	DIS-SOLVED MAGNESIUM (MG) (MG/L) (00925)	DIS-SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM ADSORPTION RATIO (00931)	DIS-SOLVED POTASSIUM (K) (MG/L) (00935)
DEC 02...	1600	520	7.9	4.0	180	76	54	12	34	1.1	2.3

DATE	BICARBONATE (HCO3) (MG/L) (00440)	CARBONATE (CO3) (MG/L) (00445)	DIS-SOLVED SULFATE (SO4) (MG/L) (00945)	DIS-SOLVED CHLORIDE (CL) (MG/L) (00940)	DIS-SOLVED FLUORIDE (F) (MG/L) (00950)	DIS-SOLVED SILICA (SIO2) (MG/L) (00955)	DIS-SOLVED SOLIDS (SUM OF TUENTS) (MG/L) (70301)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS-SOLVED ORTHOPHOSPHORUS (P) (MG/L) (00671)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)
DEC 02...	132	0	130	9.8	.3	9.4	319	.45	.02	60	0

\* Instantaneous discharge (CFS) (00061) 1900.

DATE	TIME	TOTAL BORON (B) (UG/L) (01022)	DIS-SOLVED BORON (B) (UG/L) (01020)	DIS-SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL SELENIUM (SE) (UG/L) (01147)
DEC 02...	1600	80	60	0	<100	20	1

BISTI-WEST DE-NA-ZIN WASH WATERSHED NEAR BISTI, NM (LAT 36 30 00 LONG 108 30 00 30)

## WATER QUALITY DATA: WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
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JUN AUG 10-06	19	9.0
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DATE	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL MERCURY (HG) (UG/L) (71900)
APR 26-30	--	<100	.0
JUN AUG 10-06	2	<100	.0

SHUMWAY ARROYO WATERSHED NEAR FRUITLAND, NM (LAT 36 40 00 LONG 108 20 00 30)

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)
JUN 10...	177	6.1	34	0	12	1.0	5.2	.4	5.2	61
JUN AUG 11-05	280	6.7	--	--	--	--	--	--	--	--

DATE	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED IRON (FE) (UG/L) (01046)
JAN JUN 27-10	--	25	5.3	--	--	--	--	--	--
JUN 10...	0	16	6.3	.1	2.2	79	.03	.38	60
JUN AUG 11-05	--	12	4.4	--	--	--	--	--	--

DATE	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL MERCURY (HG) (UG/L) (71900)
JAN JUN 27-10	--	100	.0
JUN AUG 11-05	1	<100	.0

## RADIOCHEMICAL ANALYSES OF ATMOSPHERIC PRECIPITATION

Data collected by Frederick D. Trauger, USGS Hydrologist (retired 1973):

DATA NOT PREVIOUSLY PUBLISHED

1206 FIELD DRIVE NE, ALBUQUERQUE, NM (LAT 35 05 35 LONG 106 32 40 00)

WATER QUALITY DATA, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DATE	TRITIUM IN WATER MOLE- CULES (TU) (07012)	TRITIUM WATER MOLE- CULES COUNT ERROR (TU) (07013)
JUL 01-31	570	57.0
AUG 01-31	560	56.0
SEP 01-30	190	19.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DATE	(TU) (07012)	(TU) (07013)
OCT 01-31	300	30.0
NOV 01-30	390	39.0
DEC 01-31	530	53.0
JAN 01-31	1830	180
FEB 01-28	1660	170
MAR 01-31	1950	200
APR 01-30	2920	290
MAY 01-31	3690	370
JUL 01-31	2300	230
AUG 01-31	2110	210
SEP 01-30	1170	120

WATER QUALITY DATA, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DATE	(TU) (07012)	(TU) (07013)
OCT 01-31	770	77.0
NOV 01-30	1600	160
JAN 01-31	1010	100
FEB 01-29	2560	260
MAR 01-31	3410	340
APR 01-30	4400	440
MAY 01-31	2900	290
JUL 01-31	1700	170
AUG 01-31	780	78.0
SEP 01-30	810	81.0

## DATA NOT PREVIOUSLY PUBLISHED

1206 FIELD DRIVE NE, ALBUQUERQUE, NM (LAT 35 05 35 LONG 106 32 40 00)--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DATE	TRITIUM IN WATER MOLE- CULES (TU) (07012)	TRITIUM WATER MOLE- CULES COUNT ERROR (TU) (07013)
NOV		
01-30	230	23.0
DEC		
01-31	420	42.0
JAN		
01-31	750	75.0
FEB		
01-28	1040	100
MAR		
01-31	750	75.0
APR		
01-30	1100	110
MAY		
01-31	590	59.0
JUN		
01-30	580	58.0
JUL		
01-31	450	45.0
AUG		
01-31	640	64.0
SEP		
01-30	200	20.0

## WATER QUALITY DATA, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DATE	(TU) (07012)	(TU) (07013)
OCT		
01-31	140	14.0
DEC		
01-31	220	22.0
JAN		
01-31	495	50.0
FEB		
01-28	510	51.0
APR		
01-30	680	68.0
MAY		
01-31	240	24.0
JUN		
01-30	250	25.0
JUL		
01-31	300	30.0
AUG		
01-31	300	30.0
SEP		
01-30	190	19.0

## WATER QUALITY DATA, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DATE	(TU) (07012)	(TU) (07013)
OCT		
01-31	165	16.0
NOV		
01-30	110	5.0
FEB		
01-28	330	19.0
APR		
01-30	155	13.0
MAY		
01-31	155	13.0
JUN		
01-30	155	13.0
JUL		
01-31	285	19.0
AUG		
01-31	285	19.0
SEP		
01-30	285	19.0

## RADIOCHEMICAL ANALYSES OF ATMOSPHERIC PRECIPITATION

DATA NOT PREVIOUSLY PUBLISHED

1206 FIELD DRIVE NE, ALBUQUERQUE, NM (LAT 35 05 35 LONG 106 32 40 00)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DATE	TRITIUM IN WATER MOLE- CULES (TU) (07012)	TRITIUM WATER MOLE- CULES COUNT ERROR (TU) (07013)
OCT		
01-31	110	7.0
NOV		
01-30	110	7.0
DEC		
01-31	110	7.0
JAN		
01-31	215	12.0
FEB		
01-29	215	12.0
MAR		
01-31	215	12.0
APR		
01-30	360	20.0
MAY		
01-31	360	20.0
JUN		
01-30	360	20.0
JUL		
01-31	150	9.0
AUG		
01-31	150	9.0
SEP		
01-30	150	9.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DATE	(TU) (07012)	(TU) (07013)
OCT		
01-31	100	4.0
NOV		
01-30	100	4.0
DEC		
01-31	100	4.0
JAN		
01-31	254	14.0
FEB		
01-28	254	14.0
MAR		
01-31	254	14.0
APR		
01-30	316	8.0
MAY		
01-31	316	8.0
JUN		
01-30	316	8.0
JUL		
01-31	146	13.0
AUG		
01-31	146	13.0
SEP		
01-30	146	13.0

DATA NOT PREVIOUSLY PUBLISHED

1206 FIELD DRIVE NE, ALBUQUERQUE, NM (LAT 35 05 35 LONG 106 32 40 00)--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DATE	TRITIUM IN WATER MOLE- CULES (TU) (07012)	TRITIUM WATER MOLE- CULES COUNT ERROR (TU) (07013)
OCT		
01-31	78.8	4.3
NOV		
01-30	78.8	4.3
DEC		
01-31	78.8	4.3
JAN		
01-31	259	6.0
FEB		
01-28	259	6.0
MAR		
01-31	259	6.0
APR		
01-30	404	22.0
MAY		
01-31	404	22.0
JUN		
01-30	404	22.0
JUL		
01-31	168	5.0
AUG		
01-31	168	5.0
SEP		
01-30	168	5.0

## WATER QUALITY DATA, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DATE	(TU) (07012)	(TU) (07013)
OCT		
01-31	103	5.0
NOV		
01-30	103	5.0
DEC		
01-31	103	5.0
JAN		
01-31	468	8.0
FEB		
01-28	468	8.0
MAR		
01-31	468	8.0
APR		
01-30	226	1.0
MAY		
01-31	226	1.0
JUN		
01-30	226	1.0
JUL		
01-31	213	4.0
AUG		
01-31	213	4.0
SEP		
01-30	213	4.0

## WATER QUALITY DATA, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DATE	(TU) (07012)	(TU) (07013)
OCT		
01-31	45.1	2.3
NOV		
01-30	45.1	2.3
DEC		
01-31	45.1	2.3
JAN		
01-31	124	4.0
FEB		
01-29	124	4.0
MAR		
01-31	124	4.0
JUL		
01-31	62.1	3.8
AUG		
01-31	62.1	3.8
SEP		
01-30	62.1	3.8

## RADIOCHEMICAL ANALYSES OF ATMOSPHERIC PRECIPITATION

DATA NOT PREVIOUSLY PUBLISHED

1206 FIELD DRIVE NE, ALBUQUERQUE, NM (LAT 35 05 35 LONG 106 32 40 00)--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TRITIUM IN WATER MOLE- CULES (TU) (07012)	TRITIUM WATER MOLE- CULES COUNT ERROR (TU) (07013)
OCT		
01-31	37.1	3.5
NOV		
01-30	37.1	3.5
DEC		
01-31	37.1	3.5
JAN		
01-31	84.6	3.9
FEB		
01-28	84.6	3.9
MAR		
01-31	84.6	3.9
APR		
01-30	98.6	4.9
MAY		
01-31	98.6	4.9
JUN		
01-30	98.6	4.9
JUL		
01-22	92.8	4.7
01-31	42.6	2.3
AUG		
01-31	42.6	2.3
SEP		
01-30	42.6	2.3

## WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	(TU) (07012)	(TU) (07013)
OCT		
01-31	51.5	7.5
NOV		
01-30	51.5	7.5
DEC		
01-31	51.5	7.5
JUL		
01-31	62.0	3.3
AUG		
01-31	62.0	3.3
SEP		
01-30	62.0	3.3

## WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	(TU) (07012)	(TU) (07013)
OCT		
01-31	37.2	2.4
NOV		
01-30	37.2	2.4
DEC		
01-31	37.2	2.4



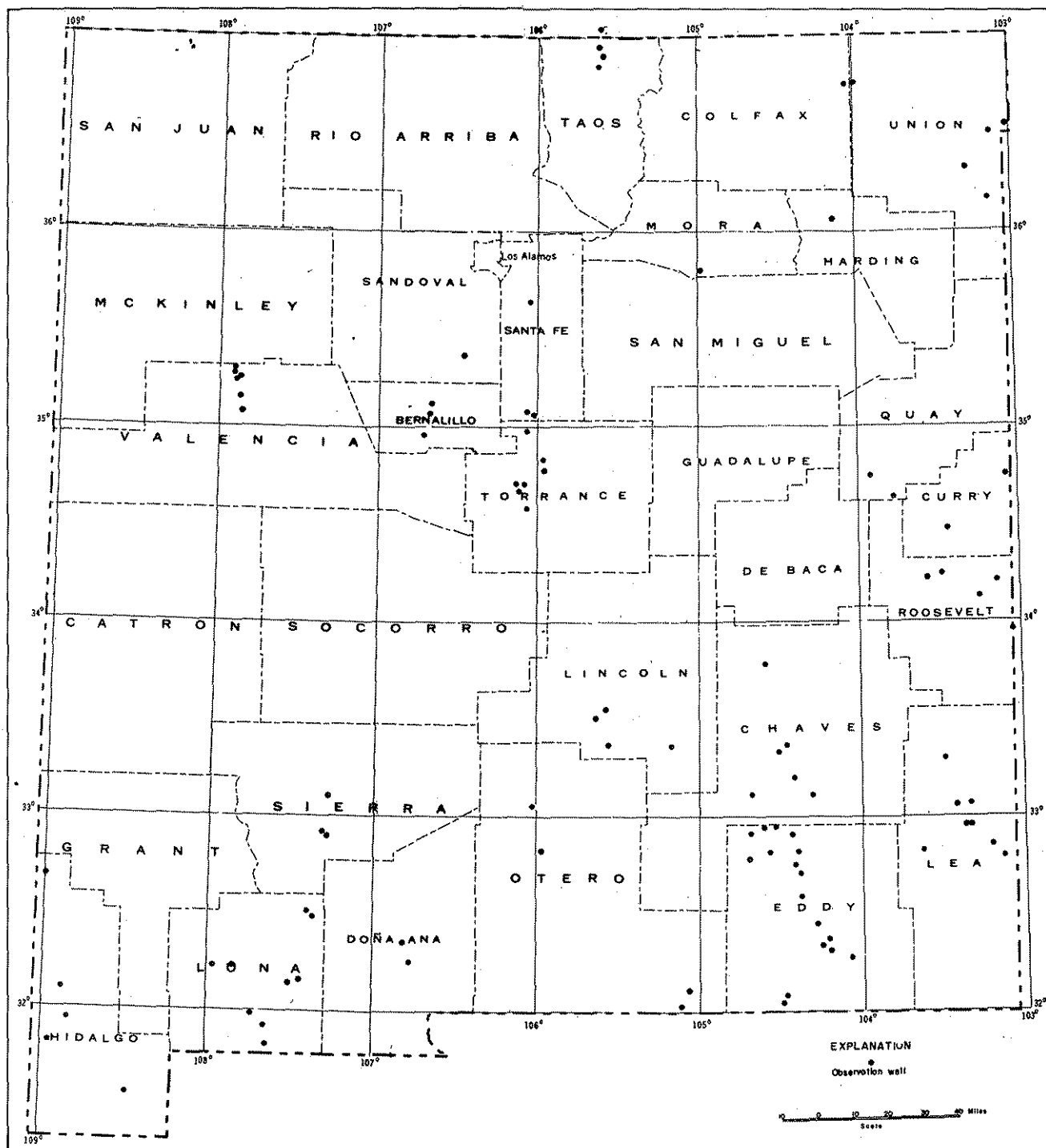


Figure 6.-- Map of New Mexico showing location of observation wells.

## GROUND-WATER LEVELS

## BERNALILLO COUNTY

## Albuquerque Area

345730106431001. Local number, 9N.2E.34.322.

LOCATION.--Lat 34°57'30", long 106°43'10", Hydrologic Unit 13020203.

Owner: Denison.

AQUIFER.--Santa Fe Group of middle (?) Miocene to Pleistocene (?) Age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth unknown, cased to 12 ft (3.7 m).

DATUM.--Altitude of land-surface datum is 4,910 ft (1,497 m). Measuring point: Top of casing, 1.38 ft (0.42 m) above land-surface datum.

PERIOD OF RECORD.--July 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.22 ft (3.42 m) below land-surface datum, Aug. 10, 1973; lowest, 16.30 ft (4.97 m) below land-surface datum, Jan. 12, 1967.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 17	13.10
Aug 12	12.04

350655106395001. Local number, 10N.2E.12.223.

LOCATION.--Lat 36°06'55", long 106°39'50", Hydrologic Unit 13020203.

Owner: City of Albuquerque.

AQUIFER.--Alluvium and Santa Fe Group.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 950 ft (290 m).

DATUM.--Altitude of land-surface datum is 4,962 ft (1,512 m). Measuring point: Top north side of casing, 6.00 ft (1.83 m) above land-surface datum.

PERIOD OF RECORD.--Apr. 1953, Jan. 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.10 ft (3.69 m) below land-surface datum, Apr. 16, 1953, lowest measured, 34.74 ft (10.59 m) below land-surface datum, Aug. 31, 1964.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 17	31.20
Aug 12	32.21

350415106403001. Local number, 10N.2E.24.413.

LOCATION.--Lat 35°04'15", long 106°40'30", Hydrologic Unit 13020203.

Owner: City of Albuquerque.

AQUIFER.--Alluvium and Santa Fe Group.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth and casing information not available.

DATUM.--Altitude of land-surface datum is 4,945 ft (1,507 m). Measuring point: Top east side of casing, 5.50 ft (1.68 m) above land-surface datum.

PERIOD OF RECORD.--Nov. 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.23 ft (5.25 m) below land-surface datum, Feb. 17, 1976; lowest measured, 27.05 ft (8.24 m) below land-surface datum, Aug. 12, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 17	17.23
Aug 12	27.05

## CHAVES COUNTY

## Roswell Basin

334645104344501. Local number, 7S.23E.23.244.

LOCATION.--Lat 33°46'45", long 104°34'45", Hydrologic Unit 13060005.

Owner: Jess Corn.

AQUIFER.--San Andres Limestone of Permian Age.

WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 14 in (0.36 m), depth 426 ft (130 m).

DATUM.--Altitude of land-surface datum is 3,810 ft (1,161 m). Measuring point: Lower outer edge of mouth of discharge pipe, 3.71 ft (1.13 m) above land-surface datum.

PERIOD OF RECORD.--May 1951-Mar. 1960, Jan. 1962-Jan. 1966, Jan. 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 239.83 ft (73.10 m) below land-surface datum, May 26, 1951; lowest, 285.65 ft (87.07 m) below land-surface datum, Aug. 23, 1972.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 to SEPTEMBER 1976

DATE	WATER LEVEL
Jan 13	284.34
Aug 17	well being pumped

## GROUND-WATER LEVELS

579

## CHAVES COUNTY

## Roswell Basin

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 irrigation water-table well, diameter 16 in (0.41 m), depth 160 ft (48.8 m), cased to 160 ft (48.8 m).

DATUM.--Altitude of land-surface datum is 3,535 ft (1,077 m). 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, 16.20 ft (4.94 m) below land-surface datum, Jan. 13, 1975; lowest measured, 20.36 ft (6.21 m) below land-surface datum, Aug. 22, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 15	18.17
Aug 23	16.98

332200104270001. Local number, 12S.25E.9.422.

LOCATION.--Lat 33°22'00", long 104°27'00", Hydrologic Unit 13060007.

Owner: Cumberland Townsite.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in (0.25 m), reported depth 90 ft (27.4 m), cased to 90 ft (27.4 m).

DATUM.--Altitude of land-surface datum is 3,564 ft (1,086 m). Measuring point: Top of 3/4 in (1.9 cm) collar, 0.62 ft (0.19 m) above land-surface datum.

PERIOD OF RECORD.--May 1937 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.64 ft (11.78 m) below land-surface datum, Oct. 16, 1941; lowest measured, 83.06 ft (25.32 m) below land-surface datum, Aug. 21, 1973.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 5	77.18
Aug 23	80.79

331205104245101. Local number, 12S.25E.23.344.

LOCATION.--Lat 33°12'05", long 104°24'51", Hydrologic Unit 13060007.

Owner: U.S. Geological Survey.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 9 to 7 in (0.23 to 0.18 m), depth 930 ft (283 m), 9 in (0.23 m) casing 0-304 ft (0-93 m), 7 in (0.18 m) casing 304-714 ft (93-218 m).

DATUM.--Altitude of land-surface datum is 3,539 ft (1,079 m). Measuring point: Top of recorder shelf, 2.90 ft (0.88 m) above land surface datum.

PERIOD OF RECORD.--Jan. 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.55 ft (7.48 m) below land-surface datum, Feb. 5, 1975; lowest, 174.04 ft (53.04 m) below land-surface datum, June 5, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
5	71.17	45.80	37.67	.....	42.67	82.95	105.65	93.51	133.88	.....	117.00	135.42
10	80.18	42.99	37.19	.....	44.88	85.75	116.95	55.42	122.29	.....	132.30	117.33
15	74.41	41.92	.....	34.46	44.63	88.33	126.17	103.54	120.54	132.55	.....	111.33
20	58.72	41.86	.....	35.21	57.58	102.88	122.22	120.16	128.24	126.23	.....	90.14
25	53.66	40.67	.....	35.00	68.15	110.66	112.13	118.05	142.63	106.16	.....	82.26
eam	47.83	38.06	.....	38.27	72.61	105.56	120.40	124.97	162.45	113.62	144.99	84.18

WIR YEAR 1975 MAX 34.09 Jan. 18, 1976 MIN 153.70 June 30, 1976

330700104402501. Local number, 14S.23E.8.144.

LOCATION.--Lat 33°07'00", long 104°40'25", Hydrologic Unit 13060009.

Owner: M. D. Kincaid.

AQUIFER.--San Andres Limestone of Permian Age.

WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 8 in (0.20 m), depth 460 ft (140 m), casing information not available.

DATUM.--Altitude of land-surface datum is 3,845 ft (1,173 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--Apr. 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 257.55 ft (78.50 m) below land-surface datum, Feb. 9, 1943; lowest measured, 327.34 ft (99.77 m) below land-surface datum, Aug. 28, 1967.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 15	315.45
Aug 30	321.98 (well pumped recently)

## GROUND-WATER LEVELS

## CHAVES COUNTY

## Roswell Basin

330640104174501. Local number, 14S.26E.12.433b.

LOCATION.--Lat 33°06'40", long 104°17'45", Hydrologic Unit 13060007.

Owner: C. B. Donaghy.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 13 in (0.33 m), depth 125 ft (38.1 m), cased 0-125 ft (0-38.1 m), perforated 50-115 ft (15.2-35.1 m).

DATUM.--Land-surface datum is 3,396.4 ft (1,035.2 m) above mean sea level. 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 (3.81 m) below land-surface datum, Jan. 22, 1942; lowest measured, 23.77 ft (7.25 m) below land-surface datum, Aug. 25, 1967.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 15	19.95
Aug 23	21.55

## COLFAX COUNTY

## Capulin Basin

364500104031501. Local number, 20N.27E.16.222.

LOCATION.--Lat 36°45'00", long 104°03'15", Hydrologic Unit 11040001.

Owner: John King.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 120 ft (37 m), cased to 120 ft (37 m).

DATUM.--Land-surface datum is 6,821.5 ft (2,079.2 m) above mean sea level. Measuring point: Top of casing, 1.50 ft (0.46 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1957-Feb. 1969, Feb. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.65 ft (1.42 m) below land-surface datum, Feb. 3 and Aug. 24, lowest measured, 9.37 ft (2.86 m) below land-surface datum, Aug. 13, 1975.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 28	7.93
Aug 24	8.36

## COSTILLA COUNTY (in Colorado)

## Sunshine Valley

375655105354001. Local number, 1N.74W.33.332.

LOCATION.--Lat 37°56'55", long 105°35'40", Hydrologic Unit 13020101.

Owner: Waller and Allen.

AQUIFER.--Santa Fe Group.

WELL CHARACTERISTICS.--Drilled unused water-table well diameter 15 in (0.38 m), depth 232 ft (70.7 m), casing information not available.

DATUM.--Altitude of land-surface datum is 7,495 ft (2,284 m). Measuring point: Edge of hole inside pumpcase, 2.00 ft (0.60 m) 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 (31.03 m) below land-surface datum, Aug. 26, 1968; lowest measured, 134.87 ft (41.11 m) below land-surface datum, Aug. 19, 1971.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 3	130.04
Aug 24	129.17

## CURRY COUNTY

## Clovis Area

342815103270001. Local number, 3N.34E.23.433.

LOCATION.--Lat 34°28'15", long 103°27'00", Hydrologic Unit 12050001.

Owner: Monte Matlock.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth 418 ft (127 m), cased to 418 ft (127 m), perforated 365-418 ft (111-127 m).

DATUM.--Altitude of land-surface datum is 4,432 ft (1,351 m). Measuring point: Top of casing level, with concrete base, 0.40 ft (0.12 m) above land-surface datum (since 1967).

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 340.62 ft (103.82 m) below land-surface datum, Mar. 16, 1957; lowest measured, 347.94 ft (106.05 m) below land-surface datum, Aug. 12, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 6	347.17
Aug 12	347.94

## GROUND-WATER LEVELS

581

## CURRY COUNTY

## Clovis Area

4344500103052001. Local number, 6N.37E.8.333.

LOCATION.--Lat 34°45'00", long 103°05'20", Hydrologic Unit 11120101.

Owner: Paul Harrison.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 400 ft (121 m), casing information not available.

DATUM.--Altitude of land-surface datum is 4,430 ft (1,340 m). Measuring point: Southeast anchor bolt hole, 0.10 ft (0.03 m) above concrete base and 0.70 ft (0.21 m) above land surface datum.

PERIOD OF RECORD.--Jan. 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 289.30 ft (88.13 m) below land-surface datum, Jan. 3, 1975; lowest measured, 292.92 ft (89.28 m) below land-surface datum, Aug. 12, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 6	290.62
Aug 12	292.92

## DONA ANA COUNTY

## Rincon and Mesilla Valleys

3222101064830001. Local number, 22S.1E.26.411.

LOCATION.--Lat 32°22'10", long 106°48'30", Hydrologic Unit 13030102.

Owner: H. Worthelm.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 107 ft (32.6 m), cased to 107 ft (32.6 m).

DATUM.--Altitude of land-surface datum is 3,920 ft (1,195 m). Measuring point: Top of east side of casing, 1.50 ft (0.46 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.32 ft (3.45 m) below land-surface datum, Aug. 25, 1969; lowest measured, 25.57 ft (7.79 m) below land-surface datum, Apr. 25, 1957.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 9	13.29
Aug 9	11.59

321620106461501. Local number, 23S.2E.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 irrigation water-table well, diameter 14 in (0.36 m), reported depth 70 ft (21.3 m), cased to 70 ft (21.3 m).

DATUM.--Altitude of land-surface datum is 3,880 ft (1,183 m). Measuring point: Top of 5/8 in (0.63 cm) hole in pumpbase, 1.08 ft (0.33 m) 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 (4.31 m) below land-surface datum, Feb. 10, 1948; lowest measured, 29.12 ft (8.88 m) below land-surface datum, Jan. 7, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 13.16 ft (4.01 m) below land-surface datum, Dec. 3, 1947; lowest, same as for period of record.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 12	21.48
Aug 9	21.46

## EDDY COUNTY

## Roswell Basin

325510104410001. Local number, 16S.23E.15.323.

LOCATION.--Lat 32°55'10", long 104°41'00", Hydrologic Unit 13060007.

Owner: D. W. Runyan.

AQUIFER.--San Andres Limestone of Permian Age.

WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 10 in (0.25 m), depth 1,485 ft (453 m), cased.

DATUM.--Altitude of land-surface datum is 3,900 ft (1,189 m). Measuring point: Top of casing, 0.70 ft (0.21 m) below land-surface datum.

PERIOD OF RECORD.--Jan. 1951-Jan. 1965, Feb. 1970-Aug. 1971, Jan. 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 225.16 ft (68.63 m) below land-surface datum, Jan. 12, 1951; lowest measured, 277.60 ft (84.61 m) below land-surface datum, Aug. 5, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 211.87 ft (64.58 m) below land-surface datum, Mar. 25, 1945; lowest, same as period of record.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 12	270.90
Aug 24	274.18

## GROUND-WATER LEVELS

## EDDY COUNTY

## Roswell Basin

325735104360701. Local number, 16S.24E.4.23123.

LOCATION.--Lat 32°57'35", long 104°36'07", Hydrologic Unit 13060007.

Owner: Ellis Hunlic.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter not available, depth 610 ft (186 m).

DATUM.--Altitude of land-surface datum is 3,623 ft (1,104 m). Measuring point: southwest side of pump, 1.50 ft (0.46 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 90.85 ft (29.69 m) below land-surface datum Jan. 16, 1970; lowest measured, 100.54 ft (30.64 m) below land-surface datum, Aug. 27, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Aug 24	well being pumped

325712104314501. Local number, 16S.35E.6.313.

LOCATION.--Lat 32°57'12", long 104°31'45", Hydrologic Unit 13060007.

Owner: Frank Childress.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 20 in (0.51 m), depth 39 ft (11.9 m), cased to 39 ft (11.9 m).

DATUM.--Altitude of land-surface datum is 3,600 ft (1,097 m). Measuring point: Top of 20 in (0.51 m) wood cribbing, 0.40 ft (0.12 m) above land-surface datum.

PERIOD OF RECORD.--Sept. 1937-Jan. 1966, Aug. 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.41 ft (7.44 m) below land-surface datum, July 17, 1961; lowest measured, 31.37 ft (9.50 m) below land-surface datum, Aug. 24, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 12	30.64
Aug 24	31.37

325445104253501. Local number, 16S.26E.19.211.

LOCATION.--Lat 32°54'45", long 104°25'35", Hydrologic Unit 13060007.

Owner: H. V. Parker.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 107 ft (32.6 m) cased to 107 ft (32.6 m).

DATUM.--Land-surface datum is 3,397.9 ft (1,035.7 m) above mean sea level. Measuring point: Hole in top of pump, west side, 0.30 ft (0.09 m) above top of casing (since 1975).

PERIOD OF RECORD.--Jan. 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.34 ft (2.85 m) below land-surface datum, Jan. 15, 1942; lowest measured, 109.00 ft (33.22 m) below land-surface datum, Aug. 31, 1972.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 20	100.19
Aug 24	well being pumped

324831104435701. Local number, 17S.23E.30.13244.

LOCATION.--Lat 32°48'31", long 104°43'57", Hydrologic Unit 13060007.

Owner: Village of Hope.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled public-supply artesian well, diameter 16 in (0.41 m), depth 600 ft (183 m), cased to 558 ft (170 m), perforated 498-558 ft (152-170 m).

DATUM.--Altitude of land-surface datum is 4,095 ft (1,248 m). Measuring point: Top of 2 in (0.05 m) pipe extension out of north side of concrete base, 2.00 ft (0.61 m) above land-surface datum.

PERIOD OF RECORD.--Dec. 1968, Jan. 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 546.15 ft (116.47 m) below land-surface datum, Dec. 31, 1968; lowest measured, 553.18 ft (168.61 m) below land-surface datum, Aug. 7, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 13	548.57
Aug 24	550.50 (well pumped recently)

## GROUND-WATER LEVELS

583

## EDDY COUNTY

## Roswell Basin

324930104234501. Local number, 17S.26E.21.112.

LOCATION.--Lat 32°49'30", long 104°23'45", Hydrologic Unit 13060007.

Owner: Western Land Co., Inc.

AQUIFER.--Artesia Group.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 242 ft (73.8 m), cased to 242 ft (73.8 m).  
DATUM.--Altitude of land-surface datum is 3,373 ft (1,028 m). Measuring point: 3/4 in (1.9 cm) plug on discharge pipe, 2.00 ft (0.61 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1938-Jan. 1945, Jan. 1947-Aug. 1958, Jan. 1960-Jan. 1963, Jan 1965 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.23 ft (13.18 m) below land-surface datum, Jan. 13, 1955; lowest measured, 106.28 ft (32.39 m) below land-surface datum, Aug. 16, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 12	86.62
Aug 24	well being pumped

324615104421001. Local number, 18S.23E.5.333.

LOCATION.--Lat 32°46'15", long 104°42'10", Hydrologic Unit 13060010.

Owner: Joe Clements.

AQUIFER.--San Andres Limestone of Permian Age.

WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 6 in (0.15 m), depth 500 ft (152 m), surface casing.

DATUM.--Land-surface datum is 4,007.6 ft (1,221.5 m) above mean sea level. Measuring point: Top of casing, 0.40 ft (0.12 m) above land-surface datum.

PERIOD OF RECORD.--July 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 385.50 ft (117.50 m) below land-surface datum, July 21, 1945; lowest measured, 478.73 ft (145.92 m) below land-surface datum, Jan. 14, 1969.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Aug 24	470.47

324624104244501. Local number, 18S.26E.6.442a.

LOCATION.--Lat 32°46'24", long 104°24'45", Hydrologic Unit 130600007.

Owner: Pecos Valley Artesian Conservancy District.

AQUIFER.--San Andres Limestone.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 9 in (0.23 m), depth 1,008 ft (307 m), cased to 726 ft (221 m).

DATUM.--Land-surface datum is 3402.10 ft (1036.96 m) above mean sea level. Measuring point: Top of recorder shelf, 3.40 ft (1.04 m) above land-surface datum.

REMARKS.--Depth to artesian aquifers 768 ft (234 m), 820 ft (250 m), 889 ft (271 m), and 999 ft (305 m).

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.79 ft (21.88 m) below land-surface datum, Jan. 26, 1962; lowest, 209.15 ft (63.75 m) below land-surface datum, July 31-Aug. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DAILY HIGHEST WATER LEVEL, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	140.96	118.32	106.02	98.42	96.18	114.83	138.50	149.21	170.91	176.84	161.57	176.67
10	138.11	116.99	104.32	99.21	96.03	118.32	150.13	135.29	169.22	186.53	172.54	167.07
15	132.68	115.92	103.37	99.82	99.16	120.59	155.43	139.05	161.18	175.01	181.19	164.13
20	128.82	112.35	103.62	100.30	104.53	131.48	150.73	141.56	158.81	166.21	186.20	158.38
25	127.52	109.73	101.28	98.80	109.44	138.36	153.10	150.60	171.65	154.23	182.04	151.80
com	121.86	107.62	99.74	96.50	112.42	131.94	158.87	161.60	177.58	160.08	178.57	145.40

WTR YEAR 1975 MAX 95.61 Feb. 9, 1976 MIN 187.14 July 9, 1976

324325104233001. Local number, 18S.26E.23.121a.

LOCATION.--Lat 32°43'25", long 104°23'30", Hydrologic Unit 13060011.

Owner: Town of Dayton.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 250 ft (76.2 m), cased to 182 ft (55.5 m), casing slotted 92-182 ft (28.0-55.5 m).

DATUM.--Altitude of land-surface datum is 3,403 ft (1,037 m). Measuring point: Top of casing, 0.06 ft (0.02 m) above land-surface datum.

PERIOD OF RECORD.--Aug. 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 59.79 ft (18.22 m) below land-surface datum, Feb. 5, 1952; lowest, 117.72 ft (35.88 m) below land-surface datum, Sept. 9, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	116.88	116.91	117.00	117.02	117.17	117.23	117.21	117.27	117.41	117.46	117.50	117.60
10	116.90	116.97	116.96	117.04	117.12	117.14	117.28	117.35	117.35	117.45	117.57	117.56
15	116.98	116.90	117.11	117.02	117.07	117.12	117.21	117.31	117.47	117.52	117.55	117.62
20	116.92	117.02	117.05	117.14	117.03	117.23	117.31	117.38	117.38	117.50	117.58	117.68
25	116.99	116.82	117.06	117.04	117.09	117.15	117.25	117.34	117.43	117.48	117.57	117.59
com	116.79	117.16	116.91	117.14	117.08	117.27	117.34	117.39	117.42	117.54	117.55	117.68

WTR YEAR 1975 MAX 116.81 Oct. 7, 1975 MIN 117.72 Sept. 9, 1976

## GROUND-WATER LEVELS

## EDDY COUNTY

## Roswell Basin

323540104232001. Local number, 20S.26E.8.12.111.

LOCATION.--Lat 32°35'40", long 104°23'20", Hydrologic Unit 13060011.

Owner: Moutry.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 13 in (0.33 m), depth 364 ft (111 m), casing information not available.

DATUM.--Altitude of land-surface datum is 2,386 ft (1,002 m). Measuring point: Top of basal flange of pump head, 0.20 ft (0.06 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.87 ft (7.89 m) below land-surface datum, Jan. 2, 1943; lowest measured, 87.48 ft (26.66 m) below land-surface datum, Aug. 5, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 20	72.67
Aug 17	86.62

## Carlsbad Area

322640104165801. Local number, 21S.27E.32.112.

LOCATION.--Lat 32°26'40", long 104°16'58", Hydrologic Unit 13060011.

Owner: L. E. Loman.

AQUIFER.--Capitan Limestone of Permian Age.

WELL CHARACTERISTICS.--Drilled domestic and irrigation artesian well, diameter 12 in (0.30 m), reported depth 305 ft (93 m).

DATUM.--Altitude of land-surface datum is 3,112 ft (949 m). Measuring point: Top of casing, 0.40 ft (0.12 m) above land-surface datum.

PERIOD OF RECORD.--Oct. 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.64 ft (1.41 m) below land-surface datum, Jan. 17, 1950; lowest measured, 17.35 ft (5.29 m) below land-surface datum, Aug. 9, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 14	12.48

322120104151501. Local number, 22S.26E.36.111a.

LOCATION.--Lat 32°21'20", long 104°15'15", Hydrologic Unit 13060011.

Owner: Carlsbad Airfield.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in (0.30 m), depth 260 ft (79.3 m), cased to 260 ft (79.3 m).

DATUM.--Altitude of land-surface datum is 3,225 ft (983 m). Measuring point: Top of recorder platform, 2.70 ft (0.83 m) above land-surface datum.

PERIOD OF RECORD.--July 1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 131.50 ft (40.08 m) below land-surface datum, Oct. 14, 1942; lowest, 207.75 ft (63.32 m) below land-surface datum, Aug. 25, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	185.40	183.80	178.33	174.56	174.40	175.40	180.55	186.94	188.22	194.11	194.27	202.00
10	185.45	182.80	178.58	174.08	174.29	175.92	181.40	186.97	188.84	194.37	194.00	203.96
15	185.10	181.63	177.14	172.67	173.00	177.11	182.96	186.61	189.00	194.00	194.96	204.21
20	185.20	180.86	176.64	173.00	172.63	177.84	184.16	186.70	190.93	194.40	195.64	204.40
25	185.12	179.93	175.91	174.15	174.40	178.77	185.08	187.19	192.02	194.06	196.00	201.40
oom	184.31	179.17	175.01	174.00	174.94	179.88	186.31	187.86	193.25	193.88	200.84	201.00

WTR YEAR 1975 MAX 172.57 Jan. 19 and Feb. 17, 1976 MIN 204.52 Sept. 18, 1976

322231104131001. Local number, 22S.27E.22.421.

LOCATION.--Lat 32°22'31", long 104°31'10", Hydrologic Unit 13060011.

Owner: Enea Grandi.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 150 ft (45.7 m), cased.

DATUM.--Altitude of land-surface datum is 3,100 ft (945 m). Measuring point: Top of casing, 1.20 ft (0.37 m) above land-surface datum.

PERIOD OF RECORD.--Sept. 1947-Aug. 1968, Jan. 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.43 ft (6.53 m) below land-surface datum, Sept. 15, 1950; lowest measured, 71.23 ft (21.71 m) below land-surface datum, Sept. 20, 1965.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Aug 23	75.60



## Carlsbad Area

321740104035501. Local number, 23S.27E.9.211.

LOCATION.--Lat 32°17'40", long 104°03'55", Hydrologic Unit 13060011.

Owner: J. A. Cox.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 200 ft (60.9 m).

DATUM.--Altitude of land-surface datum is 3,150 ft (960 m). Measuring point: Top of casing, under pump base, 1.25 ft (0.41 m) above land-surface datum.

PERIOD OF RECORD.--July 1949-Nov. 1955, Jan. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.70 ft (12.71 m) below land-surface datum, Sept. 15, 1950; lowest measured, 60.92 ft (18.57 m) below land-surface datum, Jan. 13, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, same as period of record; lowest measured, 68.22 ft (20.79 m) below land-surface datum, Jan. 28, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 13	60.92
Aug 23	58.00

321740104035501. Local number, 23S.28E.23.133.

LOCATION.--Lat 32°17'40", long 104°03'55", Hydrologic Unit 13060011.

Owner: A. R. Donaldson.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 148 ft (45.1 m), cased.

DATUM.--Altitude of land-surface datum is 3,020 ft (921 m). Measuring point: Bottom edge of north 1/2 in (1.27 cm) hole in west side of pump base, 0.80 ft (0.24 m) above land-surface datum.

PERIOD OF RECORD.--Sept. 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.25 ft (11.66 m) below land-surface datum, Sept. 14, 1950; lowest measured, 70.73 ft (21.56 m) below land-surface datum, Aug. 2, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 13	well being pumped
Aug 19	86.50

320602104285201. Local number, 25S.24E.27.421.

LOCATION.--Lat 32°06'02", long 104°28'52", Hydrologic Unit 13060011.

Owner: Walker Hood.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 101 ft (31 m), uncased.

DATUM.--Altitude of land-surface datum is 3,701 ft (1,128 m). Measuring point: Northwest corner of pumpbase, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--Apr. 1952-Aug. 1967, Jan. 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 55.22 ft (16.83 m) below land-surface datum, Sept. 21, 1966; lowest measured, 85.10 ft (25.93 m) below land-surface datum, Aug. 25, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 20	57.16
Aug 24	well being pumped

320257104295201. Local number, 26S.24E.9.441.

LOCATION.--Lat 32°02'57", long 104°29'52", Hydrologic Unit 13060011.

Owner: John Mayes.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 100 ft (30.5 m), cased to 85 ft (25.9 m).

DATUM.--Land-surface datum is 3,749.4 ft (1,142.8 m) above mean sea level. Measuring point: Top of air-line flange support, 1.40 ft (0.43 m) above land-surface datum.

PERIOD OF RECORD.--Apr. 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.29 ft (12.89 m) below land-surface datum, Nov. 8, 1955; lowest measured, 54.98 ft (16.76 m) below land-surface datum, Sept. 8, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 20	45.98
Aug 24	48.16

## GROUND-WATER LEVELS

## HARDING COUNTY

360340104085001. Local number, 21N.26E.3.4443.

LOCATION.--Lat 36°03'40", long 104°08'50", Hydrologic Unit 11080007.

Owner: Unknown.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in (0.13 m), depth 120 ft (36.3 m), cased to 120 ft (36.3 m).  
DATUM.--Altitude of land-surface datum is 5,870 ft (1,777 m). Measuring point: Top of 5 in (0.13 m) galvanized casing, 0.30 ft (0.09 m) above land-surface datum on east side.

PERIOD OF RECORD.--1976.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.92 ft (25.27 m) below land-surface datum, Jan. 28, 1976; lowest measured, 82.98 ft (25.13 m) below land-surface datum, Aug. 23, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 82.16 ft (24.88 m) below land-surface datum, June 10, 1969; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 28	82.92
Aug 23	82.98

## HIDALGO COUNTY

## Virden Valley

324053108594101. Local number, 19S.21W.3.414.

LOCATION.--Lat 32°40'53", long 108°59'41", Hydrologic Unit 15040002.

Owner: Jones, Clouse, Jensen.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 20 in (0.51 m), depth 72 ft (22.0 m).

DATUM.--Altitude of land-surface datum is 3,750 ft (1,143 m). Measuring point: Hole inside pumpshell, 0.90 ft (0.27 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.97 ft (3.02 m) below land-surface datum, Aug. 25, 1976; lowest measured, 14.54 ft (4.43 m) below land-surface datum, Sept. 12, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 3	11.19
Aug 25	9.97

## Animas Valley

320700108515001. Local number, 25S.20W.24.313.

LOCATION.--Lat 32°07'00", long 108°51'50", Hydrologic Unit 15040003.

Owner: Rudiger and Jundt.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 358 ft (109 m), cased to 320 ft (97.5 m).  
DATUM.--Land-surface datum is 4,221.43 ft (1,286.69 m) above mean sea level. Measuring point: Top of casing, 0.43 ft (0.13 m) above land-surface datum.

PERIOD OF RECORD.--Apr. 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.43 ft (12.93 m) below land-surface datum, Apr. 1, 1948; lowest measured, 106.45 ft (32.45 m) below land-surface datum, Aug. 12, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 21	93.67
Aug 3	104.77

315645108493501. Local number, 27S.19W.20.343.

LOCATION.--Lat 31°56'45", long 108°49'35", Hydrologic Unit 15040003.

Owner: Felix Gauthier.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 358 ft (109 m), cased to 358 ft (109 m).  
DATUM.--Altitude of land-surface datum is 4,420 ft (1,347 m). Measuring point: Top edge of 1 1/4 in (3.16 cm) pipe in concrete pump base, 1.25 ft (0.38 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.12 ft (40.27 m) below land-surface datum, Jan. 19, 1950; lowest measured, 182.08 ft (55.50 m) below land-surface datum, Aug. 3, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 131.90 ft (40.20 m) below land-surface datum, July 29, 1949; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 2	170.12
Aug 3	182.08

## GROUND-WATER LEVELS

587

## San Simon Creek Valley

315010108570001. Local number, 28S.21W.30.222.

LOCATION.--Lat 31°50'10", long 108°57'00", Hydrologic Unit 15040006.

Owner: C. L. Johnston.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 8 in (0.20 m), depth 471 ft (143 m), cased to 471 ft (143 m).

DATUM.--Altitude of land-surface datum is 4,440 ft (1,355 m). Measuring point: Hole in west side of casing, 0.70 ft (0.21 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 112.62 ft (34.33 m) below land-surface datum, Jan. 19, 1971; lowest measured, 120.14 ft (36.38 m) below land-surface datum, Aug. 25, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 110.88 ft (33.80 m) below land-surface datum, Jan. 15, 1969; lowest measured, same as period of record.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 3	118.60
Aug 25	120.14

## Playas Valley

313502108275001. Local number, 31S.16W.33.233.

LOCATION.--Lat 31°35'02", long 108°27'50", Hydrologic Unit 13030201.

Owner: U-Bar Ranch.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 16 in (0.41 m), depth 654 ft (199 m), 16 in (0.41 m) casing.

DATUM.--Altitude of land-surface datum is 4,400 ft (1,341 m). Measuring point: Bottom edge of shelf, 4.05 ft (1.23 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 44.66 ft (13.61 m) below land-surface datum, Apr. 18-20, and 30, 1973; lowest, 54.95 ft (16.74 m) below land-surface datum, Sept. 4, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level, same as period of record; lowest, 79.37 ft (24.19 m) below land-surface datum, Sept. 3-4, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	52.37	50.42	49.45	49.10	48.99	48.95	48.96	.....	.....	51.02	53.07	54.94
10	52.65	50.15	49.34	49.09	49.02	.....	49.73	.....	.....	50.65	.....	54.49
15	52.96	49.91	49.31	49.09	.....	.....	53.07	.....	.....	50.93	.....	53.92
20	52.06	49.72	49.27	49.08	.....	48.95	.....	.....	.....	51.68	.....	53.54
25	51.35	49.58	49.15	48.99	.....	48.95	.....	.....	52.14	52.43	54.08	53.06
eom	50.74	49.53	49.04	49.04	.....	48.95	.....	.....	51.98	52.99	54.76	51.15

WTR YEAR 1975 MAX 48.91 Mar. 3, 1976 MIN 54.95 Sept. 4, 1976

## LEA COUNTY

## Tatum-Lovington-Hobbs Area

331740103285001. Local number, 12S.34E.11.413.

LOCATION.--Lat 33°17'40", long 103°28'50", Hydrologic Unit 12080006.

Owner: A. D. Jones.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 15 in (0.38 m), depth 87 ft (26.5 m).

DATUM.--Altitude of land-surface datum is 4,150 ft (1,265 m). Measuring point: Top of concrete pump base, 0.80 ft (0.24 m) above land-surface datum.

PERIOD OF RECORD.--May 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.57 ft (9.01 m) below land-surface datum, May 24, 1949; lowest measured, 33.82 ft (10.31 m) below land-surface datum, Aug. 13, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 13	33.42
Aug 10	32.42

330325103245501. Local number, 14S.35E.33.433.

LOCATION.--Lat 33°03'25", long 103°24'55", Hydrologic Unit 12080003.

Owner: W. A. Anderson.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (0.15 m), depth 62 ft (18.9 m), not cased.

DATUM.--Land-surface datum is 4,013.61 ft (1,223.35 m) above mean sea level. Measuring point: Top of concrete collar on well, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--Nov. 1929 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.65 ft (12.09 m) below land-surface datum, May 21, July 25, 1951 and Jan. 9, May 24, 1952; lowest measured, 46.84 ft (14.28 m) below land-surface datum, Aug. 13, 1974.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 14	45.76
Aug 1	45.66

## GROUND-WATER LEVELS

## LEA COUNTY

## Tatum-Lovington-Hobbs Area

330400103193401. Local number, 14S.36E.32.121.

LOCATION.--Lat 33°04'00", long 103°19'34", Hydrologic Unit 12080003.

Owner: E. T. Howell.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth and casing information not available.

DATUM.--Altitude of land-surface datum is 3,990 ft (1,216 m). Measuring point: Top of concrete pump base, 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1949-Jan. 1950, Jan. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.38 ft (15.9 m) below land-surface datum, Jan. 19, 1949, lowest measured, 70.07 ft (21.36 m) below land-surface datum, Jan. 14, 1971.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 14	66.37
Aug 10	68.42

325703103213201. Local number, 16S.36E.4.322.

LOCATION.--Lat 32°57'03", long 103°21'32", Hydrologic Unit 12080003.

Owner: City of Lovington.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 13 in (0.33 m), depth 212 ft (64.6 m), perforated 80-208 ft (24.4-63.4 m).

DATUM.--Altitude of land-surface datum is 3,926 ft (1,197 m). Measuring point: Top of shelf, 4.00 ft (1.22 m) above land-surface datum.

PERIOD OF RECORD.--Aug. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.00 ft (19.81 m) below land-surface datum, Dec. 14, 16, and 24, 1973; lowest measured, 67.11 ft (20.46 m) below land-surface datum, Aug. 24, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	65.39	65.34	65.30	65.28	65.24	65.29	....	....	....	....	65.75	65.86
10	65.39	65.34	65.28	65.27	65.23	65.31	....	....	....	....	65.77	65.88
15	65.39	65.32	65.31	65.26	65.24	65.25	....	....	....	....	65.80	65.89
20	65.37	65.33	65.31	65.29	65.25	65.33	....	....	....	65.72	65.83	65.92
25	65.39	65.30	65.29	65.24	65.24	....	....	....	....	65.73	65.84	65.89
com	65.33	65.34	65.25	65.21	65.30	....	....	....	....	65.75	65.83	65.95

WTR YEAR 1975 MAX 65.19 Mar. 3, 1976 MIN 65.95 Sept. 30, 1976.

325658103200001. Local number, 16S.37E.11.111.

LOCATION.--Lat 32°56'58", long 103°20'00", Hydrologic Unit 12080003.

Owner: H. J. Taylor.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 118 ft (36.0 m).

DATUM.--Altitude of land-surface datum is 3,900 ft (1,189 m). Measuring point: Top of 1 in (2.54 cm) hole in southwest side of pump, 1.34 ft (0.41 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.93 ft (9.73 m) below land-surface datum, Jan. 23, 1949; lowest measured, 78.56 ft (23.95 m) below land-surface datum, Sept. 13, 1965.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 14	72.46
Aug 10	well being pumped

324947103371001. Local number, 17S.33E.13.341.

LOCATION.--Lat 32°49'47", long 103°37'10", Hydrologic Unit 12080003.

Owner: Potash Co. of America.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 252 ft (76.8 m), cased to 252 ft (76.8 m).

DATUM.--Altitude of land-surface datum is 4,124 ft (1,257 m). Measuring point: Top of casing, 1.10 ft (0.34 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 146.00 ft (44.50 m) below land-surface datum, Jan. 21, 1953; lowest measured, 167.77 ft (51.14 m) below land-surface datum, Sept. 30, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	166.50	166.40	166.71	.....	167.05	167.09	166.91	167.08	167.27	167.25	167.30	167.62
10	166.51	.....	166.60	.....	167.05	166.93	167.01	167.23	167.12	167.30	167.29	167.63
15	166.54	.....	166.64	166.93	166.95	166.94	166.96	167.15	167.32	167.34	167.38	167.64
20	166.50	.....	166.57	167.10	166.92	167.16	167.02	167.14	167.27	167.40	167.46	167.67
25	166.65	.....	166.48	167.23	167.20	167.03	166.97	167.21	167.29	167.46	167.53	167.65
com	166.43	.....	166.60	167.15	167.17	167.07	167.06	167.36	167.26	167.52	167.57	167.75

WTR YEAR 1975 MAX 166.33 Nov. 8, 1975 MIN 167.77 Sept. 30, 1976

## GROUND-WATER LEVELS

589

## LEA COUNTY

## Tatum-Lovington-Hobbs Area

325132103112501. Local number, 17S.38E.7.111a.

LOCATION.--Lat 32°51'32", long 103°11'25", Hydrologic Unit 12080003.

Owner: L. R. Seblings.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 125 ft (38.1 m), cased.

DATUM.--Altitude of land-surface datum is 3,740 ft (1,140 m). Measuring point: Edge of small pipe projecting from west side of pump, 0.96 ft (0.29 m) above concrete pump base, and 1.91 ft (0.58 m) above land-surface datum (since 1971).

PERIOD OF RECORD.--July 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.59 ft (10.85 m) below land-surface datum, Mar. 21, 1952; lowest measured, 69.60 ft (21.21 m) below land-surface datum, Aug. 3, 1971.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 14	63.49
Aug 10	well being pumped

324745103082001. Local number, 17S.38E.34.113.

LOCATION.--Lat 32°47'45", long 103°08'20", Hydrologic Unit 12080003.

Owner: W. E. Busby.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 125 ft (38.1 m), cased to 90 ft (27.4 m).

DATUM.--Altitude of land-surface datum is 3,660 ft (1,116 m). Measuring point: Top of 1/2 in (1.3 cm) hole in pump base, 0.54 ft (0.16 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.78 ft (7.55 m) below land-surface datum, Jan. 15, 1944; lowest measured, 50.43 ft (15.37 m) below land-surface datum, Aug. 10, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Aug 10	50.43

## LINCOLN COUNTY

## Hondo Valley

333015105382201. Local number, 9S.13E.25.113.

LOCATION.--Lat 33°30'15", long 105°38'22", Hydrologic Unit 13060008, 0.4 mi (0.6 km) southwest of intersection of Magado Creek and State Highway 48.

Owner: M W. Coll.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled irrigation and domestic water-table well, diameter 8 in (0.20 m), depth 90 ft (27.4 m), cased to 40 ft (12.1 m).

DATUM.--Altitude of land-surface datum is 6,750 ft (2,057 m). Measuring point: Top of casing, at land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.04 ft (5.05 m) below land-surface datum, Nov. 25, 1958; lowest measured, 44.36 ft (13.52 m) below land-surface datum, Aug. 13, 1971.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 28	28.48

333242105340701. Local number, 9S.14E.10.132.

LOCATION.--Lat 33°32'42", long 105°34'07", Hydrologic Unit 13060008, east end of Village on south side of Highway U.S. 380.

Owner: Village of Capitan.

AQUIFER.--Mancos Shale of Late Cretaceous Age.

WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 8 in (0.20 m), depth 324 ft (98.8 m), cased to 271 ft (82.6 m).

DATUM.--Altitude of land-surface datum is 6,340 ft (1,932 m). Measuring point: Top of breather hole on west side of pump base, 1.00 ft (0.30 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.39 ft (11.70 m) below land-surface datum, Aug. 14, 1973; lowest measured, 69.77 ft (21.27 m) below land-surface datum, Nov. 28, 1956.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 28	41.67
Sept 9	40.62

## GROUND-WATER LEVELS

## LINCOLN COUNTY

## Hondo Valley

332145105333001. Local number, 11S.14E.15.431.

LOCATION.--Lat 33°21'45", long 105°33'30", Hydrologic Unit 13060008, 0.1 mi (0.16 km) west of Valley View Motel.

Owner: E. H. Fuchs.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 90 ft (27.4 m), casing information not available.

DATUM.--Altitude of land-surface datum is 6,200 ft (1,890 m). Measuring point: Top of east edge of 8 in (0.20 m) casing, 1.00 ft (0.30 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.16 ft (17.42 m) below land-surface datum, Mar. 26, 1958; lowest measured, 63.75 ft (19.43 m) below land-surface datum, Aug. 10, 1970.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 29	58.63

332157105094101. Local number, 11S.18E.16.444.

LOCATION.--Lat 33°21'57", long 105°09'41", Hydrologic Unit 13060008, 0.4 mi (0.6 km) south of Picacho Bridge on east of Casey Canyon Road.

Owner: Lincoln County Limestone Co.

AQUIFER.--Yesso Formation of Permian Age.

WELL CHARACTERISTICS.--Drilled domestic and stock water-table well, diameter 12 in (0.30 m), depth 125 ft (38.1 m), cased to 110 ft (33.5 m).

DATUM.--Altitude of land-surface datum is 5,010 ft (1,526 m). Measuring point: Top of casing, 0.5 ft (0.15 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.92 ft (14.91 m) below land-surface datum, Jan. 29, 1976; lowest measured, 60.18 ft (18.34 m) below land-surface datum, Jan. 15, 1959.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 29	48.92

## LUNA COUNTY

## Mimbres Valley

323110107235001. Local number, 20S.5W.31.334.

LOCATION.--Lat 32°31'10", long 107°23'50", Hydrologic Unit 13030202.

Owner: Leonard Farms (formerly Jack Carter).

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 421 ft (128 m), perforated 221-421 ft (67-128 m).

DATUM.--Altitude of land-surface datum is 4,486.6 ft (1,367.5 m). Measuring point: 1/2 in (1.3 cm) pipe west side of pumpbase, 1.00 ft (0.30 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.69 ft (16.67 m) below land-surface datum, Jan. 19, 1959; lowest measured, 100.46 ft (30.62 m) below land-surface datum, Sept. 8, 1975.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Aug 4	well being pumped

322930107221001. Local number, 21S.5W.8.444.

LOCATION.--Lat 32°29'30", long 107°22'10", Hydrologic Unit 13030202.

Owner: Leonard Farms (formerly Jack Carter).

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 435 ft (133 m), cased to 435 ft (133 m).

DATUM.--Altitude of land-surface datum is 4,530 ft (1,381 m). Measuring point: Hole in NE side of pump shell, 1.60 ft (0.49 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 102.06 ft (31.11 m) below land-surface datum, Jan. 17, 1962; lowest measured, 153.10 ft (46.66 m) below land-surface datum, Aug. 4, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 3	146.41
Aug 4	153.10

## GROUND-WATER LEVELS

591

## 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.--Valley Fill.

WELL CHARACTERISTICS.--Dug and drilled unused water-table well, diameter 36 in (0.91 m), reported depth 132 ft (40.2 m), cased.

DATUM.--Altitude of land-surface datum is 4,330 ft (1,319 m). Measuring point: Top of recorder shelter shelf, 1.36 ft (0.42 m) above land-surface datum.

PERIOD OF RECORD.--Apr. 1939 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.61 ft (23.66 m) below land-surface datum, May 6-13, 1940; lowest, 113.30 ft (34.53 m) below land-surface datum, Aug. 12 and 20, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
		1975						1976				
5	110.05	109.57	109.14	108.80	108.56	109.31	110.51	111.90	112.55	112.90	113.20	113.04
10	109.97	109.52	109.01	108.70	108.61	109.34	110.88	112.09	112.54	112.92	113.28	112.90
15	109.94	109.35	109.20	108.82	108.39	109.48	111.07	112.12	112.68	113.02	113.23	112.70
20	109.84	109.45	109.08	108.01	108.64	109.66	111.46	112.28	112.71	113.05	113.30	112.65
25	109.88	109.07	108.93	108.51	108.19	109.99	111.60	112.34	112.81	113.10	113.26	112.31
com	109.47	109.44	108.49	108.59	108.88	110.47	111.84	112.47	112.86	113.11	113.36	112.10
WTR YEAR 1975	MAX	108.50	Feb. 3 and 4, 1976	MIN	113.30	Aug. 12 and 20, 1976						

321415107565501. Local number 24S.11W.14.122.

LOCATION.--Lat 32°14'15", long 107°56'55", Hydrologic Unit 13030202.

Owner: Charles Waldrop.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), reported depth 210 ft (64.0 m), cased to 198 ft (60.4 m).

DATUM.--Altitude of land-surface datum is 4,405 ft (1,343 m). Measuring point: Top of 1 in (2.54 cm) hole in pump base, 0.80 ft (0.24 m) above land-surface datum.

PERIOD OF RECORD.--July 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 107.66 ft (32.82 m) below land-surface datum, Jan. 23, 1952; lowest measured, 190.38 ft (58.03 m) below land-surface datum, May 11, 1956.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 6	176.20
Aug 4	well being pumped

321015107260501. Local number, 25S.6W.2.111.

LOCATION.--Lat 32°10'15", long 107°26'05", Hydrologic Unit 13030202.

Owner: C. W. Johnson, Jr.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 16 in (0.41 m), depth 235 ft (71.6 m), perforated 180-235 ft (54.9-71.6 m), gravel packed.

DATUM.--Altitude of land-surface datum is 4,220 ft (1,282 m). Measuring point: Top of casing, 1.30 ft (0.40 m) above land-surface datum.

PERIOD OF RECORD.--May 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.45 ft (0.14 m) below land-surface datum, Mar. 14, 1953; lowest measured, 81.96 ft (24.98 m) below land-surface datum, Aug. 2, 1974.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 7	46.40
Aug 4	80.42

320915104294501. Local number, 25S.6W.7.211.

LOCATION.--Lat 32°09'15", long 104°29'45", Hydrologic Unit 13030202.

Owner: H. C. Telles.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 230 ft (70.1 m), cased to 230 ft (70.1 m).

DATUM.--Land-surface datum is 4,084.22 ft (1,244.87 m) above mean sea level. Measuring point: MP hole in pump base, 1.20 ft (0.37 m) 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 (19.92 m) below land-surface datum, Mar. 14, 1953; lowest measured, 122.16 ft (37.23 m) below land-surface datum, Aug. 13, 1970.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 7	92.04
Aug 4	87.19

## GROUND-WATER LEVELS

## LUNA COUNTY

## Mimbres Valley

315525107374501. Local number, 27S.8W.35.122.

LOCATION.--Lat 31°55'25", long 107°37'45", Hydrologic Unit 13030202.

Owner: M. M. Gibson.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 12 in (0.30 m) to 8 in (0.20 m), depth 550 ft (168 m), cased to 550 ft (168 m), perforated 155-550 ft (47-168 m).

DATUM.--Altitude of land-surface datum is 4,070 ft (1,241 m). Measuring point: Top of casing, 0.20 ft (0.06 m) above land-surface datum.

PERIOD OF RECORD.--July 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.84 ft (6.35 m) below land-surface datum, Mar. 16, 1953; lowest measured, 112.58 ft (34.31 m) below land-surface datum, Aug. 3, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 9	86.20
Aug 3	112.58

315905107425001. Local number, 27S.9W.1.431.

LOCATION.--Lat 31°59'05", long 107°42'50", Hydrologic Unit 13030202.

Owner: I. G. Burns.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 62 ft (18.9 m), cased to 62 ft (18.9 m).

DATUM.--Altitude of land-surface datum is 4,135 ft (1,260 m). Measuring point: Top edge of rectangular hole in pump base, 0.65 ft (0.20 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.61 ft (9.33 m) below land-surface datum, Jan. 19, 1954; lowest measured, 44.35 ft (13.52 m) below land-surface datum, Aug. 12, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 3	36.44
Aug 4	well being pumped

314938107371401. Local number, 28S.8W.36.411.

LOCATION.--Lat 31°49'38", long 107°37'14", Hydrologic Unit 13030202.

Owner: M. R. Hemley.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 250 ft (76.2 m), cased to 250 ft (76.2 m).

DATUM.--Altitude of land-surface datum is 4,008 ft (1,222 m). Measuring point: Top of casing, 1.85 ft (0.56 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.57 ft (4.44 m) below land-surface datum, Aug. 3, 1976; lowest measured, 27.85 ft (8.49 m) below land-surface datum, Jan. 14, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 9	17.65
Aug 3	14.57

## MORA COUNTY

354840104590301. Local number, 18N.18E.1.333.

LOCATION.--Lat 35°48'40", long 104°59'03", Hydrologic Unit 11080004.

Owner: Sellman Bros.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in (0.36 m), depth 100 ft (30.5 m), cased.

DATUM.--Altitude of land-surface datum is 6,420 ft (1,944 m). Measuring point: Hole in southeast corner of pump base, 2.00 ft (0.64 m) above land-surface datum.

PERIOD OF RECORD.--1976.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.97 ft (1.82 m) below land-surface datum, Aug. 23, 1976; lowest measured, 5.97 ft (1.82 m) below land-surface datum, Aug. 23, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 4.40 ft (1.33 m) below land-surface datum Mar. 25, 1969; lowest measured, 6.28 ft (1.90 m) below land-surface datum, Feb. 12, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Aug 23	5.97



## OTERO COUNTY

## Tularosa-Alamogordo Area

330324106011201. Local number, 14S.10E.31.144.

LOCATION.--Lat 33°03'24", long 106°01'12", Hydrologic Unit 13050003.

Owner: Luther Watson.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 17 in (0.43 m), depth 230 ft (70.1 m), 16 in (0.41 m) to 14 in (0.36 m) casing 0-130 ft (0-39 m).

DATUM.--Altitude of land-surface datum is 4,450 ft (1,356 m). Measuring point: Top edge of 1 in (2.54 cm) hole in pump base, 0.70 ft (0.21 m) above land-surface datum.

PERIOD OF RECORD.--Apr. 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 73.75 ft (22.48 m) below land-surface datum, Apr. 8, 1952; lowest measured, 126.90 ft (38.43 m) below land-surface datum, Aug. 24, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 19	108.05
Aug 24	126.90

324853105582501. Local number, 17S.9E.24.343.

LOCATION.--Lat 32°48'53", long 105°58'25", Hydrologic Unit 13050003.

Owner: U.S. Air Force.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 10 in (0.25 m), depth 236 ft (71.9 m), cased to 236 ft (71.9 m).

DATUM.--Altitude of land-surface datum is 4,144 ft (1,263 m). Measuring point: Top of 1 1/2 in (3.8 cm) pipe with screw plug on south side of concrete base, 2.10 ft (0.64 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.42 ft (18.72 m) below land-surface datum, Apr. 6, 1960; lowest measured, 80.54 ft (24.55 m) below land-surface datum, Aug. 28, 1967.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 20	75.48
Aug 24	well being pumped

## Crow Flats Basin

## (Salt Basin)

320650105034801. Local number, 26S.18E.21.331.

LOCATION.--Lat 32°06'50", long 105°03'48", Hydrologic Unit 13050004.

Owner: Frank Gentry.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 544 ft (165 m).

DATUM.--Altitude of land-surface datum is 4,000 ft (1,216 m). Measuring point: Top of casing, 2.50 ft (0.75 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.08 ft (15.57 m) below land-surface datum, Jan. 8, 1973, lowest measured, 57.36 ft (17.48 m) below land-surface datum, Sept. 16, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 33.64 ft (10.65 m) below land-surface datum, Jan. 15, 1957; lowest measured, same as period of record.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 20	57.00

## QUAY COUNTY

## House Area

343810103463001. Local number, 5N.30E.18.331.

LOCATION.--Lat 34°38'10", long 103°46'30", Hydrologic Unit 13060004.

Owner: W. C. and H. J. Lee.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 75 ft (22.9 m), cased to 60 ft (18.3 m).

DATUM.--Altitude of land-surface datum is 4,640 ft (1,414 m). Measuring point: Top of concrete pump base, 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--May 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.76 ft (10.60 m) below land-surface datum, Mar. 28, 1946; lowest measured, 51.49 ft (15.69 m) below land-surface datum, Aug. 11, 1969.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 6	47.35
Aug 2	49.90

## GROUND-WATER LEVELS

## QUAY COUNTY

## House Area

344350103553001. Local number, 6N.28E.24.233.

LOCATION.—Lat 34°43'50", long 103°55'30", Hydrologic Unit 13060004.

Owner: G. B. Irwin.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.—Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 131 ft (39.9 m), cased to 131 ft (39.9 m).

DATUM.—Altitude of land-surface datum is 4,790 ft (1,460 m). Measuring point: Top of 2 in (5 cm) opening in concrete base, 1.21 ft (0.37 m) above land-surface datum.

PERIOD OF RECORD,--Mar. 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 77.97 ft (23.77 m) below land-surface datum, Mar. 27, 1944; lowest measured, 113.50 ft (34.60 m) below land-surface datum, Aug. 20, 1971.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 6	97.29
Aug 2	111.74

## ROOSEVELT COUNTY

## Portales Valley

341400103353701. Local number, 1S.32E.16.112.

LOCATION.--Lat 34°14'00", long 103°35'37", Hydrologic Unit 12050001.

Owner: Dorsey Nash.

OWNER: Dorsey Nash.  
AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 16 in (0.41 m), depth unknown, surface casing.

DATUM.—Altitude of land-surface datum is 4,010 ft (1,249 m). Measuring point: Edge of center hole in old car wheel, 0.30 ft (0.10 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 80.75 ft (24.61 m) below land-surface datum, Jan. 6, 1971; lowest measured, 84.38 ft (25.72 m) below land-surface datum, Aug. 11, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.—Highest water level measured, 66.78 ft (20.35 m) below land-surface datum, Jan. 17, 1961; lowest measured, same as period of record.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 6	83.90
Aug 11	84.38

341530103292001. Local number. 1S.33E.4.1121.

LOCATION.--Lat 34°15'30", long 103°29'20", Hydrologic Unit 12050001.

Owner: Unknown.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 12 in (0.30 m), depth unknown.

DATUM.—Altitude of land-surface datum is 4,109 ft (1,252 m). Measuring point: Top of casing level with 4 ft x 4 ft (1 m x 1 m) concrete base, 1.00 (0.30 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 79.07 ft (24.10 m) below land-surface datum, Jan. 8, 1973; lowest measured, 85.64 ft (26.10 m) below land-surface datum, Aug. 11, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 7	81.84
Aug 11	85.64

341317103083301. Local number, 1S.36E.14.31111.

LOCATION.--Lat 34°13'17", long 103°08'33", Hydrologic Unit 12050001.

Owner: City of Portales.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled unused observation water-table well, diameter 18 in (0.46 m), depth 208 ft (63.4 m).

DATUM.--Altitude of land-surface datum is 4,032 ft (1,229 m). Measuring point: Top of casing, 0.70 ft (0.21 m) below top of concrete base which is 0.80 ft (0.24 m) above land-surface datum.

PERIOD OF RECORD.--May 1972 to current year

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 54.74 ft (16.68 m) below land-surface datum, May 30, 1972; lowest, 68.63 ft (20.92 m) below land-surface datum, Aug. 28, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
		1975						1976				
5	.....	61.85	62.02	60.02	60.33	.....	.....	.....	.....	.....	.....	64.23
10	.....	60.44	61.36	60.36	60.33	.....	67.32	.....	.....	.....	.....	62.48
15	.....	60.27	60.50	60.18	.....	.....	67.13	.....	.....	.....	.....	62.52
20	60.25	60.49	60.29	60.21	.....	.....	.....	.....	.....	.....	.....	62.56
25	60.64	60.99	60.26	60.69	.....	.....	67.08	67.09	.....	.....	.....	65.84
com	60.17	60.48	60.12	60.36	.....	.....	.....	.....	.....	.....	62.88	63.96
WTR YEAR 1975	MAX	60.02	Dec. 31, 1975	MIN	68.63	Aug. 28, 1976						

## GROUND-WATER LEVELS

595

## ROOSEVELT COUNTY

## Portales Valley

340740103145501. Local number, 2S.35E.23.111.

LOCATION.--Lat 34°07'40", long 103°14'55", Hydrologic Unit 12050001.

Owner: P. O. Dozier.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well diameter, depth and casing information not available.

DATUM.--Altitude of land-surface datum is 3,963 ft (1,208 m). Measuring point: Top of concrete pump base, 1.50 ft (0.46 m) above land-surface datum.

PERIOD OF RECORD.--Jan 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.32 ft (6.50 m) below land-surface datum, Mar. 27, 1951; lowest measured, 49.26 ft (15.01 m) below land-surface datum, Aug. 11, 1969.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 6	39.66
Aug 11	42.75

## Causey-Lingo Area

335655103032001. Local number, 6S.38E.21.233.

LOCATION.--Lat 33°56'55", long 103°03'20", Hydrologic Unit 12050001.

Owner: C. C. Harvey.

AQUIFER.--Undifferentiated Cretaceous rocks.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 140 ft (42.7 m), cased to 140 ft (42.7 m), casing slotted 100-140 ft (30.5-42.7 m).

DATUM.--Altitude of land-surface datum is 3,927 ft (1,197 m). Measuring point: Top of 1 in (2.54 cm) hole in north side of pump, 2.10 ft (0.64 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 87.18 ft (26.57 m) below land-surface datum, Jan. 13, 1956; lowest measured, 115.21 ft (35.12 m) below land-surface datum, Aug. 11, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 7	95.53
Aug 11	115.21

## SANDOVAL COUNTY

352235106282401. Local number, 13N.4E.12.112.

LOCATION.--Lat 35°22'35", long 106°28'24", Hydrologic Unit 13020201.

Owner: John Bowers.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.31 m), depth 50 ft (15.2 m), cased.

DATUM.--Altitude of land-surface datum is 5,130 ft (1,553 m). Measuring point: Top of casing, 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--1976

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.38 ft (6.78 m) below land-surface datum, Aug. 25, 1976; lowest, 25.18 ft (7.62 m) below land-surface datum, Feb. 12, 1976.

## WATER YEAR, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 12	25.18
Aug 25	22.38

## SANTA FE COUNTY

## Estancia Valley

350525106025001. Local number, 10N.8E.13.133.

LOCATION.--Lat 35°05'25", long 106°02'50", Hydrologic Unit 13050001.

Owner: W. R. Irby.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter unknown, reported depth 513 ft (156 m), casing information not available.

DATUM.--Altitude of land-surface datum is 6,265 ft (1,910 m). Measuring point: Lower inside edge of hole in south side of casing, 0.45 ft (0.14 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.75 ft (26.44 m) below land-surface datum, Feb. 22, 1950; lowest measured, 133.83 ft (40.52 m) below land-surface datum, Aug. 30, 1976.

## WATER YEAR, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 26	119.09
Aug 30	133.83

## GROUND-WATER LEVELS

## SANTA FE COUNTY

## Estancia Valley

350340106005001. Local number, 10N.9E.29.130.

LOCATION.--Lat 35°03'40", long 106°00'50", Hydrologic Unit 13050001.

Owner: Glen Terry.

AQUIFER.--Glorieta Sandstone of Permian Age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in (0.36 m), reported depth 200 ft (61.0 m), cased to 140 ft (42.7 m).

DATUM.--Altitude of land-surface datum is 6,240 ft (1,902 m). Measuring point: Top edge of 3 in (7.5 cm) pipe on north side of pump, 1.30 ft (0.40 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.96 ft (17.67 m) below land-surface datum, Feb. 16, 1951; lowest measured, 92.50 ft (28.19 m) below land-surface datum, Aug. 17, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 55.13 ft (16.80 m) below land-surface datum, Feb. 18, 1949; lowest measured, same as period of record.

## WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 25	88.59
Sept 8	103.25 (well pumped recently)

## Santa Fe Area

353810106025501. Local number, 16N.8E.12.131.

LOCATION.--Lat 35°38'10", long 106°02'55", Hydrologic Unit 13020201.

Owner: Santa Fe Country Club.

AQUIFER.--Ancha Formation (?) and Tesuque Formation (?).

WELL CHARACTERISTICS.--Drilled unused well, diameter 5 in (0.13 m), depth 400 ft (122 m), cased.

DATUM.--Altitude of land-surface datum is 6,420 ft (1,957 m). Measuring point: Top of 3/8 in (0.95 cm) hole in cover plate, 0.20 ft (0.06 m) above land-surface datum.

PERIOD OF RECORD.--Aug. 1951, Jan. 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 249.62 ft (75.58 m) below land-surface datum, Sept. 1, 1976; lowest measured, 272.06 ft (82.92 m) below land-surface datum, Aug. 10, 1966.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Mar 2	249.81
Sept 1	249.62

## SIERRA COUNTY

## Hot Springs Area

330715107171901. Local number, 14S.4W.6.3221.

LOCATION.--Lat 33°07'15", long 107°17'19", Hydrologic Unit 13030101.

Owner: City of Truth or Consequences.

AQUIFER.--Santa Fe Group of Quaternary Age.

WELL CHARACTERISTICS.--Drilled unused municipal well, diameter 12 in (0.31 m), depth 442 ft (134 m) cased.

DATUM.--Altitude of land-surface datum is 4,265 ft (1,291 m). Measuring point: Top of casing extension, 1 ft (0.30 m) above former casing, and 1.60 ft (0.48 m) above land-surface datum.

PERIOD OF RECORD.--1976.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.18 ft (3.08 m) below land-surface datum, Feb. 10, 1976; lowest measured, 31.31 ft (9.48 m) below land-surface datum, Aug. 23, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 10	10.18
Aug 23	31.31

325550107184001. Local number, 15S.5W.24.312.

LOCATION.--Lat 32°55'50", long 107°18'40", Hydrologic Unit 13030101.

Owner: William M. Dawson.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 16 in (0.41 m), depth and casing information not available.

DATUM.--Altitude of land-surface datum is 4,279 ft (1,304 m). Measuring point: Top of casing, 1.20 ft (0.36 m) above land-surface datum.

PERIOD OF RECORD.--May 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.13 ft (7.66 m) below land-surface datum, Sept. 11, 1975; lowest, 36.82 ft (11.22 m) below land-surface datum, July 16-17, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	30.00	29.45	28.41	27.52	25.61	26.49	27.43	28.30	29.10	29.87	30.57	31.07
10	29.90	29.22	28.35	27.25	26.46	27.65	27.57	28.45	29.24	30.01	30.65	31.18
15	29.88	28.96	28.24	26.91	25.70	26.83	27.72	28.56	29.37	30.18	30.69	31.29
20	29.93	28.77	28.16	26.59	25.92	26.97	27.88	28.68	29.50	30.33	30.76	30.95
25	29.92	28.62	28.03	26.27	26.15	27.10	28.02	28.81	29.62	30.46	30.86	30.72
eom	29.70	28.47	27.82	25.92	26.29	27.30	28.16	28.96	29.73	30.50	30.97	30.45

WTR YEAR 1975 MAX 25.46 Feb. 10, 1976 MIN 31.29 Sept. 15, 1976

## GROUND-WATER LEVELS

597

## Rincon Valley

325350107175501. Local number, 16S.5W.25.211.

LOCATION.--Lat 32°53'35", long 107°17'55", Hydrologic Unit 13030102.

Owner: U.S. Government.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in (0.25 m), depth 32 ft (9.8 m), cased to 32 ft (9.8 m).

DATUM.--Altitude of land-surface datum is 4,050 ft (1,234 m). Measuring point: Top of casing, 3.00 ft (0.91 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.03 ft (3.97 m) below land-surface datum, Jan. 8, 1975; lowest measured, 27.78 ft (8.47 m) below land-surface datum, Jan. 6, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 11.30 ft (3.44 m) below land-surface datum, Apr. 17, 1947; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 15	21.82
Aug 10	23.84

## TAOS COUNTY

## Sunshine Valley

365036105355301. Local number, 30N.13E.18.1121.

LOCATION.--Lat 36°50'36", long 105°35'53", Hydrologic Unit 13020101.

Owner: Unknown.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 10 in (0.25 m), depth 500 ft (152 m).

DATUM.--Altitude of land-surface datum is 7,600 ft (2,316 m). Measuring point: Top of casing, 2.00 ft (0.60 m) above land-surface datum.

PERIOD OF RECORD.--Sept. 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.00 ft (21.34 m) below land-surface datum, Aug. 14, 1975; lowest measured, 77.04 ft (23.48 m) below land-surface datum, Feb. 8, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 4	76.40
Aug 24	76.46

365655105354001. Local number, 1S.73W.19.422.

LOCATION.--Lat 36°56'55", long 105°35'40", Hydrologic Unit 13020101.

Owner: Spring Bros.

AQUIFER.--Santa Fe Group.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth 446 ft (136 m), cased to 446 ft (136 m).

DATUM.--Altitude of land-surface datum is 7,657 ft (2,334 m). Measuring point: Top of casing, 1.18 ft (0.36 m) above land-surface datum.

PERIOD OF RECORD.--July 1955-Aug. 1965, Feb. 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 193.95 ft (59.11 m) below land-surface datum, June 5, 1957; lowest measured, 219.94 ft (67.04 m) below land-surface datum, Aug. 2, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 3	194.57
Aug 24	194.92

365410105354501. Local number, 2S.73W.5.222.

LOCATION.--Lat 36°54'10", long 105°35'45", Hydrologic Unit 13020101.

Owner: Unknown.

AQUIFER.--Santa Fe Group.

WELL CHARACTERISTICS.--Drilled domestic and stock water-table well, diameter 6 in (0.15 m), depth unknown.

DATUM.--Altitude of land-surface datum is 7,587 ft (2,313 m). Measuring point: 1 in (2.54 cm) hole in plate over casing, 10 ft (3.1 m) above top of casing, 1 ft (0.3 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 77.54 ft (26.63 m) below land-surface datum, Aug. 14, 1975; lowest measured, 81.33 ft (24.79 m) below land-surface datum, Feb. 21, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 4	79.46
Aug 24	79.56

## GROUND-WATER LEVELS

## TORRANCE COUNTY

## Estancia Valley

343458106042001. Local number, 4N.8E.11.433.

LOCATION.--Lat 34°34'58", long 106°04'20", Hydrologic Unit 13050001.

Owner: F. D. Breedlove.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), reported depth 180 ft (54.9 m), cased to 160 ft (48.8 m).

DATUM.--Altitude of land-surface datum is 6,148 ft (1,874 m). Measuring point: Top of casing at high point on northwest side of well, 0.70 ft (0.21 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.93 ft (25.28 m) below land-surface datum, May 2, 1951; lowest measured, 115.60 ft (35.23 m) below land-surface datum, Feb. 4, 1975.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 23	104.99
Aug 12	107.40

344016106064701. Local number, 5N.8E.8.424.

LOCATION.--Lat 34°40'16", long 106°06'47", Hydrologic Unit 13050001.

Owner: A. T. Austin.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 204 ft (62.2 m), cased to 98 ft (29.9 m).

DATUM.--Altitude of land-surface datum is 6,214 ft (1,894 m). Measuring point: Top of casing, 0.80 ft (0.24 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.03 ft (18.91 m) below land-surface datum, Mar. 23, 1948; lowest measured, 113.04 ft (34.46 m) below land-surface datum, Jan. 18, 1972.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 23	109.53
Aug 12	well being pumped

344234106074901. Local number, 6N.8E.32.212.

LOCATION.--Lat 34°42'34", long 106°07'49", Hydrologic Unit 13050001.

Owner: Revis Strong.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), reported depth 209 ft (63.7 m), cased to 84 ft (25.6 m).

DATUM.--Altitude of land-surface datum is 6,165 ft (1,879 m). Measuring point: Top of 1 1/2 in (3.8 cm) hole in pumpbase, 0.04 ft (0.01 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.22 ft (7.08 m) below land-surface datum, Feb. 18, 1947; lowest measured, 61.85 ft (18.85 m) below land-surface datum, Feb. 23, 1976.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 23	61.85
Aug 12	well being pumped

344622105575501. Local number, 6N.9E.11.211.

LOCATION.--Lat 34°46'22", long 105°57'55", Hydrologic Unit 13050001.

Owner: R. O. Brown.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), reported depth 148 ft (45.1 m), cased to 140 ft (42.7 m).

DATUM.--Altitude of land-surface datum is 6,086 ft (1,855 m). Measuring point: Top of casing, 0.75 ft (0.23 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.80 ft (1.77 m) below land-surface datum, Feb. 8, 1950; lowest measured, 19.65 ft (5.99 m) below land-surface datum, Aug. 6, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 5.07 ft (1.55 m) below land-surface datum, May 4, 1949; lowest measured, same as period of record.

## WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 24	9.75
Aug 12	16.91

## GROUND-WATER LEVELS

599

## TORRANCE COUNTY

## Estancia Valley

344937106092201. Local number, 7N.7E.13.4312.

LOCATION.--Lat 34°49'37", long 106°09'22", Hydrologic Unit 13050001.

Owner: Woodrow Clements.

AQUIFER.--Madera Formation.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 7 in (0.18 m), depth and casing information not available.

DATUM.--Altitude of land-surface datum is 6,500 ft (1,980 m). Measuring point: Top of casing at concrete slab level which is 0.2 ft (0.06 m) above land-surface datum.

REMARKS.--Old CO<sub>2</sub> well.

PERIOD OF RECORD.--Feb. 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 110.28 ft (33.61 m) below land-surface datum, Aug. 19, 1974; lowest measured, 110.35 ft (33.63 m) below land-surface datum, Feb. 8, 1975 and Feb. 24, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 24	110.35
Aug 12	110.34

345231106043601. Local number, 8N.8E.35.222.

LOCATION.--Lat 34°52'31", long 106°04'36", Hydrologic Unit 13050001.

Owner: A. C. Hibner.

AQUIFER.--Valley Fill(?).

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 228 ft (69.5 m), cased to 110 ft (33.5 m).

DATUM.--Altitude of land-surface datum is 6,240 ft (1,902 m). Measuring point: Top of casing, 0.75 ft (0.23 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.08 ft (15.57 m) below land-surface datum, Mar. 25, 1948; lowest measured, 102.20 ft (31.15 m) below land-surface datum, Aug. 12, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water-level measured, 50.12 ft (15.28 m) below land-surface datum, May 28, 1947; lowest measured, same for period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO OCTOBER 1976

DATE	WATER LEVEL
Feb 24	94.78
Aug 12	102.20

345900106034301. Local number, 9N.8E.24.334.

LOCATION.--Lat 34°59'00", long 106°30'43", Hydrologic Unit 13050001.

Owner: Valley Land and Irrigation Co.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth unknown.

DATUM.--Altitude of land-surface datum is 6,380 ft (1,944 m). Measuring point: Top of casing south side, 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.67 ft (19.71 m) below land-surface datum, Feb. 23, 1973; lowest measured, 91.37 ft (27.85 m) below land-surface datum, Aug. 12, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 25	83.02
Aug 12	91.37

## UNION COUNTY

## Clayton Area

360940103083501. Local number, 19N.36E.23.244.

LOCATION.--Lat 36°09'40", long 103°08'35", Hydrologic Unit 11090102.

Owner: Stevens.

AQUIFER.--Dakota and Purgatoire Sandstone.

WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 14 in (0.36 m), depth 206 ft (62.8 m).

DATUM.--Altitude of land-surface datum is 4,326 ft (1,318 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 145.22 ft (44.26 m) below land-surface datum, Mar. 17, 1971; lowest measured, 155.65 ft (47.77 m) below land-surface datum, Mar. 24, 1970.

WATER YEAR, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 28	145.73
Aug 23	145.75

## GROUND-WATER LEVELS

## UNION COUNTY

## Clayton Area

361910103170501. Local number, 24N.36E.17.244.

LOCATION.--Lat 36°19'10", long 103°17'05", Hydrologic Unit 11090103.

Owner: Glen Burrows.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 10 in (0.25 m), depth 231 ft (70.4 m).

DATUM.--Altitude of land-surface datum is 4,707 ft (1,434 m). Measuring point: Top of casing, 1.30 ft (0.40 m) above land-surface datum.

PERIOD OF RECORD.--May 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.99 ft (27.23 m) below land-surface datum, Jan 8, 1972; lowest measured, 85.75 ft (25.97 m) below land-surface datum, Aug. 24, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water-level measured, 81.38 ft (24.80 m) below land-surface datum, May 8, 1968; lowest, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 27	85.34
Aug 24	85.75

363005103081001. Local number, 26N.36E.7.142.

LOCATION.--Lat 36°30'05", long 103°08'10", Hydrologic Unit 11090103.

Owner: J. E. Armas.

AQUIFER.--Dakota, Purgatoire, and Morrison Sandstone.

WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 16 in (0.41 m), depth 770 ft (234 m).

DATUM.--Altitude of land-surface datum is 4,980 ft (1,517 m). Measuring point: Top of 16 in (0.41 m) casing level with concrete base, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--Mar. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 127.41 ft (38.83 m) below land-surface datum, Mar. 17, 1971; lowest measured, 168.07 ft (50.89 m) below land-surface datum, Jan. 27, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 27	168.07
Aug 24	232.10 (well pumped recently)

## Capulin Basin

364430103595501. Local number, 29N.28E.18.341.

LOCATION.--Lat 36°44'30", long 103°59'55", Hydrologic Unit 11040001, 300 ft (91 m) north of U.S. Highway 64-87 at Capulin.

Owner: City of Raton.

AQUIFER.--Cinders.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 78 ft (23.8 m).

DATUM.--Land-surface datum is 6,821.2 ft (2,079.1 m) above mean sea level. Measuring point: Edge of 2 in (5 cm) hole in west side of steel plate, at land-surface datum.

PERIOD OF RECORD.--July 1951, Feb. 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.01 ft (8.54 m) below land-surface datum, Feb. 8, 1974; lowest measured, 36.23 ft (10.97 m) below land-surface datum, Aug. 24, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 28	34.29
Aug 24	36.23

364330103015201. Local number, 29N.37E.30.110.

LOCATION.--Lat 36°43'30", long 103°01'52", Hydrologic Unit 11040001.

Owner: F. P. Seneca.

AQUIFER.--Dakota - Purgatoire Formation.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in (0.36 m), depth 332 ft (101 m).

DATUM.--Altitude of land-surface datum is 4,880 ft (1,478 m). Measuring point: Entry port in west side of pump base, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--1976.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 240.20 ft (73.21 m) below land-surface datum, Jan. 27, 1976; lowest measured, 240.20 ft (73.21 m) below land-surface datum, Jan. 27, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 224.55 ft (68.44 m), Mar. 6, 1971; lowest measured 246.80 ft (75.22 m), Feb. 6, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Jan 27	240.20



## GROUND-WATER LEVELS

601

## VALENCIA COUNTY

## Grants-Bluewater Area

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 irrigation water-table well, diameter 16 in (0.41 m), depth 216 ft (65.8 m).

DATUM.--Altitude of land-surface datum is 6,455 ft (1,967 m). Measuring point: Top of 1/2 in (1.3 cm) hole in pump base, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.86 ft (6.05 m) below land-surface datum, Feb. 20, 1953; lowest measured, 39.08 ft (11.91 m) below land-surface datum, Aug. 1, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 11	33.83
Aug 11	29.96

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 of Permian Age.

WELL CHARACTERISTICS.--Drilled industrial water-table well, diameter 16 to 12 in (0.41-0.30 m), depth 158 ft (48.2 m), perforated to 58 ft (17.7 m).

DATUM.--Altitude of land-surface datum is 6,840 ft (1,975 m). Measuring point: Top of 1 in (2.5 cm) hole in pump base, 1.35 ft (0.41 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.86 ft (6.05 m) below land-surface datum, Feb. 20, 1953; lowest measured, 39.08 ft (11.91 m) below land-surface datum, Aug. 1, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 11	30.96
Aug 11	31.01

351400107524201. Local number, 12N.10W.29.434.

LOCATION.--Lat 35°14'00", long 107°52'42", Hydrologic Unit 13020207.

Owner: A. R. Card.

AQUIFER.--San Andres Limestone of Permian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 in (0.46 m), reported depth 205 ft (62.5 m), cased 0-150 ft (0-45.7 m), perforated 93-130 ft (28.4-39.6 m).

DATUM.--Altitude of land-surface datum is 6,552 ft (1,997 m). Measuring point: Lower edge of hole in north side of casing, 2.20 ft (0.67 m) 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 (19.95 m) below land-surface datum, Oct. 14, 1944; lowest measured, 107.61 ft (32.80 m) below land-surface datum, Aug. 6, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 11	96.45

351730107535001. Local number, 12N.11W.9.221.

LOCATION.--Lat 35°17'30", long 107°53'50", Hydrologic Unit 13020207.

Owner: J. Church Co.

AQUIFER.--San Andres Limestone of Permian Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 18 in (0.46 m), depth 500 ft (152 m), cased to 500 ft (152 m).

DATUM.--Altitude of land-surface datum is 6,649 ft (2,027 m). Measuring point: Top of casing at low point, 2.22 ft (0.68 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 115.70 ft (35.27 m) below land-surface datum, Feb. 26, 1946; lowest, 193.21 ft (58.89 m) below land-surface datum, June 29, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
		1975						1976				
5	.....	.....	.....	.....	.....	142.02	141.30	141.38	139.30	136.73	.....	133.94
10	.....	.....	.....	.....	.....	141.80	141.32	141.39	138.56	136.25	.....	133.97
15	.....	.....	.....	.....	142.25	141.75	140.92	141.08	138.09	135.80	.....	133.84
20	.....	.....	.....	.....	142.08	141.59	141.25	140.85	137.52	.....	134.53	134.01
25	.....	.....	.....	.....	142.31	141.46	141.24	140.25	137.04	.....	134.22	134.11
eom	.....	.....	.....	.....	142.04	141.53	141.47	139.77	136.92	.....	134.02	134.40
WTR YEAR 1975	MAX	133.80	Sept. 12, 1976	MIN	142.48	Feb. 22, 1976						

## GROUND-WATER LEVELS

## VALENCIA COUNTY

## Grants-Bluewater Area

351650107535001. Local number, 12N.11W.9.424.

LOCATION.--Lat 35°16'50", long 107°53'50", Hydrologic Unit 13020207.

Owner: George Rowley.

AQUIFER.--San Andres Limestone and Yaso Formation of Permian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 16 in (0.41 m), reported depth 505 ft (154 m), 16 in (0.41 m) casing to 175 ft (53.3 m), 12 in (0.30 m) casing to 325 ft (99.1 m).

DATUM.--Altitude of land-surface datum is 6,642 ft (2,024 m). Measuring point: Top of casing, 3.05 ft (0.93 m) above land-surface datum.

PERIOD OF RECORD.--May 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 93.75 ft (28.58 m) below land-surface datum, May 10, 1946; lowest measured, 139.05 ft (42.38 m) below land-surface datum, Aug. 1, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 11	117.03
Aug 11	114.58

351610107514501. Local number, 12N.11W.14.213.

LOCATION.--Lat 35°16'10", long 107°51'35", Hydrologic Unit 13020207.

Owner: Duane Berryhill.

AQUIFER.--Alluvium of Quaternary Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (0.10 m), depth 130 ft (39.6 m), surface casing 5 ft (1.5 m).

DATUM.--Land-surface datum is 6,605.4 ft (2,013.3 m). Measuring point: Top of 4 in (0.10 m) down spout, 3.70 ft (1.3 m) above land-surface datum (since Feb. 10, 1966).

PERIOD OF RECORD.--June 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 85.83 ft (26.16 m) below land-surface datum, Aug. 3, 1967; lowest measured, 101.39 ft (30.90 m) below land-surface datum, June 10, 1954.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
Feb 11	86.48

Note: Measurement was discontinued in 1975-1976 for the following well:

Otero County, Crow Flats Basin - 320040105064501 - Local number 26S.18E.28.113.

EXPLANATION OF GEOLOGIC UNIT (AQUIFER) CODES (LISTED FROM YOUNGEST TO OLDEST AGE) U-UPPER, M-MIDDLE, L-LOWER: 110 AVMB-Cenezoic, Quaternary Alluvium, Bolson Deposits and other Surface Deposits; 110 BLSN-Cenezoic, Quaternary, Bolson Fill; 112 ANCH-Cenezoic, Quaternary, Pleistocene, Ancha Formation, Upper Part of Santa Fe Group; 112 SNTF-Cenezoic, Quaternary, Pleistocene, Santa Fe Group; 123 GLST-Cenezoic, Tertiary, Oligocene, Galisteo Formation; 211 CHCR-Mesozoic, U-M Cretaceous, Chacra Sandstone member of the Mesa Verde Formation; 211 CLFH-Mesozoic, U-M Cretaceous, Cliff House Sandstone (Includes La Ventana Tongues In NW Sandoval Co.); 211 FRLD-Mesozoic, U-M Cretaceous, Fruitland Formation; 211 GLLP-Mesozoic, U-M Cretaceous, Gallup Sandstone; 211 KRLO-Mesozoic, U-M Cretaceous, Kirtland Shale; 211 LWHIS-Mesozoic, M Cretaceous, Lewis Shale; 211 MENF-Mesozoic, U-M Cretaceous, Menefee Formation; 211 MYRD-Mesozoic, U-M Cretaceous, Mesa Verde Group; 211 OJAM-Mesozoic, M Cretaceous, Ojo Alamo Sandstone; 211 PCCF-Mesozoic, U-M Cretaceous, Pictured Cliffs Sandstone; 211 PNK-Mesozoic, U-M Cretaceous, Point Lookout Sandstone; 221 ENRD-Mesozoic, U Jurassic, Entrada Sandstone, Upper Sandy Member, of San Rafael Group; 221 WSRC-Mesozoic, U Jurassic, Westwater Canyon Sandstone Member of Morrison Formation; 231 DCKM-Mesozoic, U Triassic, Dockum Group; 310 GLRT-Paleozoic, Permian, Glorieta Sandstone Member of the San Andreas Formation of the Manzano Group; 310 MGNT-Paleozoic, Permian, Magenta Member of Rustler Formation; 312 CLBR-Paleozoic, Permian, Ochoan, Culebra Dolomite Member of Rustler Formation; 312 RSLR-Paleozoic, Permian, Ochoan, Rustler Formation; 313 DLRM-Paleozoic, Permian, Guadalupian, Delaware Mountain Group; 318 ABO U-Paleozoic, L Permian, Leonardian, Abo Sandstone, (Upper Tongue).

REMARKS.--Ground-water sites in this table are segregated by county which appear alphabetically. The sites are then listed in ascending local identifiers.

## DONA ANA COUNTY

LOCAL IDENT- IFIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (FT) (72019)	TOTAL DEPTH OF WELL (FT) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
18S.04W.16.112	3245001071154001	GW	76-03-26	1500	110AVMB	9.80	70	--	--
18S.04W.27.113	3243101071144201	GW	76-05-28	1400	--	--	--	--	--
19S.02W.35.122A	323710107005701	GW	76-03-26	1300	110AVMB	41.40	60	60	10
19S.04W.12.421A	324014107115701	GW	76-01-30	1200	110AVMB	12.31	21	21	17
		GW	76-06-11	1130	112SNTF	--	--	--	--
19S.04W.12.421B	324014107115702	GW	76-01-30	1201	110AVMB	12.51	67	67	63
		GW	76-06-11	1500	112SNTF	--	--	--	--
19S.04W.12.421C	324014107115703	GW	76-01-30	1202	112SNTF	13.02	125	125	121
		GW	76-06-11	1345	112SNTF	--	--	--	--
19S.04W.12.421D	324014107115704	GW	76-01-30	1203	110AVMB	12.52	46	46	42
		GW	76-06-11	1430	112SNTF	--	--	--	--
19S.04W.12.421E	324014107115705	GW	76-01-30	1204	110AVMB	12.52	30	30	27
		GW	76-06-11	1100	112SNTF	--	--	--	--
21S.05E.32.222 WSMR T-13	322635106264401	GW	75-12-03	0915	110BLSN	212.00	--	513	513
		GW	76-06-09	0940	110BLSN	210.66	--	--	--
22S.01E.16.111	322405106511001	GW	76-04-12	1500	110AVMB	--	160	--	--
22S.02E.21.131	322300106445701	GW	76-04-12	1215	112SNTF	470.00	1000	520	500
22S.03E.06.111 JORNADA N	322548106405701	GW	76-09-02	2300	112SNTF	330.00	1202	1170	1150
		GW	76-09-04	1200	112SNTF	--	1202	808	788
		GW	76-09-04	2100	112SNTF	--	1202	675	655
22S.05E.05.313 WSMR T-10	321510106274101	GW	75-12-03	0945	110BLSN	266.32	--	513	513
		GW	76-06-09	0935	110BLSN	266.90	--	--	--
22S.05E.07.342	322415106281801	GW	75-12-03	1030	110BLSN	360.79	--	444	444
		GW	76-06-09	0840	110BLSN	367.16	--	--	--
22S.05E.15.221	321401106245201	GW	75-12-02	1240	110BLSN	132.10	615	300	300
		GW	76-06-08	1515	110BLSN	131.42	--	--	--
22S.05E.16.111	322403106263901	GW	75-12-02	1201	110BLSN	225.90	400	328	328
		GW	76-06-08	1600	110BLSN	225.27	--	--	--
22S.05E.19.141 WSMR WELL	322301106282601	GW	76-07-08	1730	--	385.00	730	710	430
22S.05E.19.141 WSMR1WELL	322256106282601	GW	76-08-28	0658	112SNTF	--	735	725	459
22S.05E.19.323	322237106282201	GW	76-04-27	1745	110AVMB	375.00	730	730	710
22S.05E.19.323 WSMR 21	322238106282701	GW	76-07-06	2050	110BLSN	354.40	695	690	415
		GW	76-07-07	1310	110BLSN	354.40	695	690	415
		GW	76-07-07	1320	110BLSN	354.40	695	690	415
		GW	76-07-08	0530	110BLSN	448.50	695	690	415
22S.05E.20.111	322311106274101	GW	75-12-02	1202	110BLSN	275.03	--	--	--
		GW	76-06-08	1335	110BLSN	274.59	--	--	--
22S.05E.29.412 WSMR T-11	322155106270201	GW	75-12-02	1203	110BLSN	274.46	780	570	570
		GW	76-06-08	1340	110BLSN	274.12	--	--	--
22S.05E.33.244	322108106254701	GW	75-12-02	1204	110BLSN	187.86	--	400	400

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## DONA ANA COUNTY--Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	INSTAN- TANEOUS FLOW RATE (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)
18S.04W.16.112	76-03-26	--	1700	2200	7.5	17.5	670	320	210	34
18S.04W.27.113	76-05-28	--	--	1700	7.5	17.0	510	240	160	27
19S.02W.35.122A	76-03-26	--	1020	1850	7.5	17.0	540	290	170	29
19S.04W.12.421A	76-01-30	--	--	8000	7.2	19.0	2000	1600	560	140
	76-06-11	--	--	6590	7.4	20.0	2000	1700	560	150
19S.04W.12.421B	76-01-30	--	--	1300	7.4	18.5	440	210	140	21
	76-06-11	--	--	1380	8.0	17.5	440	210	140	23
19S.04W.12.421C	76-01-30	--	--	8000	6.9	18.0	1200	1200	410	51
	76-06-11	--	--	7410	6.9	--	1400	1300	460	54
19S.04W.12.421D	76-01-30	--	--	1640	7.4	18.5	580	310	190	26
	76-06-11	--	--	1650	8.0	19.0	560	290	180	26
19S.04W.12.421E	76-01-30	--	--	8000	7.2	18.5	2100	1800	600	140
	76-06-11	--	--	6130	7.5	19.0	2100	1800	610	140
21S.05E.32.222 WSMR T-13	75-12-03	--	--	517	8.0	25.0	170	50	49	12
	76-06-09	--	--	487	7.9	26.5	180	64	52	12
22S.01E.16.111	76-04-12	--	1420	1920	7.7	18.0	650	350	210	29
22S.02E.21.131	76-04-12	--	1.0	570	8.0	25.5	28	0	7.9	2.0
22S.03E.06.111 JORNADA N	76-09-02	--	16	520	8.1	29.0	79	0	18	8.2
	76-09-04	--	5.0	455	9.0	27.0	120	0	23	16
	76-09-04	--	--	540	8.2	26.5	130	0	27	16
22S.05E.05.313 WSMR T-10	75-12-03	--	--	328	8.2	25.0	100	4	30	7.0
	76-06-09	--	--	322	8.0	25.5	110	9	32	7.4
22S.05E.07.342	75-12-03	--	--	349	8.1	24.5	95	0	31	4.2
	76-06-09	--	--	314	7.9	25.5	98	0	32	4.4
22S.05E.15.221	75-12-02	--	--	2780	10.0	23.5	17	0	6.8	.0
	76-06-08	--	--	2500	9.7	24.5	18	0	6.8	.3
22S.05E.16.111	75-12-02	--	--	287	8.5	25.0	75	2	23	4.3
	76-06-08	--	--	257	8.2	25.0	84	13	27	4.0
22S.05E.19.141 WSMR WELL	76-07-08	135	--	420	7.5	28.0	51	0	17	2.0
22S.05E.19.141 WSMR WELL	76-08-28	1918	--	340	7.4	28.5	54	0	18	2.3
22S.05E.19.323	76-04-27	240	15	360	8.2	25.5	34	0	12	1.0
22S.05E.19.323 WSMR 21	76-07-06	90	735	280	7.0	25.0	90	0	25	6.6
	76-07-07	300	508	310	7.5	24.0	88	0	25	6.3
	76-07-07	--	700	310	7.5	26.0	89	0	25	6.5
	76-07-08	1920	1004	300	7.5	25.0	100	5	29	6.6
22S.05E.20.111	75-12-02	--	--	378	8.5	--	120	24	36	6.4
	76-06-08	--	--	383	8.1	25.5	120	27	35	6.7
22S.05E.29.412 WSMR T-11	75-12-02	--	--	292	8.3	25.0	88	2	26	5.5
	76-06-08	--	--	314	7.8	26.5	98	17	27	7.5
22S.05E.33.244	75-12-02	--	--	774	8.7	24.0	92	73	35	1.0

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## DONA ANA COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)
18S.04W.16.112	76-03-26	250	4.2	9.9	416	0	570	170	.6	22
18S.04W.27.113	76-05-28	170	3.3	--	327	0	440	130	--	--
19S.02W.35.122A	76-03-26	200	3.7	10	314	0	530	160	.6	22
19S.04W.12.421A	76-01-30	880	8.6	--	473	0	1900	1100	--	--
	76-06-11	920	8.9	--	399	0	2100	1100	--	--
19S.04W.12.421B	76-01-30	110	2.3	--	277	0	310	100	--	--
	76-06-11	120	2.5	--	282	0	330	98	--	--
19S.04W.12.421C	76-01-30	1400	17	--	72	0	3700	270	--	--
	76-06-11	1700	20	--	80	0	4300	320	--	--
19S.04W.12.421D	76-01-30	140	2.5	--	333	0	450	120	--	--
	76-06-11	140	2.6	--	322	0	450	110	--	--
19S.04W.12.421E	76-01-30	640	6.1	--	387	0	1800	980	--	--
	76-06-11	780	7.4	--	379	0	2000	1100	--	--
21S.05E.32.222 WSMR T-13	75-12-03	33	1.1	3.7	149	0	79	27	.8	35
	76-06-09	33	1.1	3.5	141	0	88	26	.8	37
22S.01E.16.111	76-04-12	170	2.9	21	358	0	460	150	.4	23
22S.02E.21.131	76-04-12	120	9.9	2.5	195	0	100	11	1.2	24
22S.03E.06.111 JORNADA N	76-09-02	94	4.6	3.4	216	0	99	5.3	.9	30
	76-09-04	57	2.2	4.8	193	7	55	15	.6	32
	76-09-04	73	2.8	5.3	213	0	91	19	.7	35
22S.05E.05.313 WSMR T-10	75-12-03	24	1.0	2.1	121	0	42	11	.3	33
	76-06-09	23	1.0	2.1	123	0	50	11	.3	36
22S.05E.07.342	75-12-03	32	1.4	1.9	130	0	45	11	.4	31
	76-06-09	33	1.5	1.9	127	0	50	11	.4	30
22S.05E.15.221	75-12-02	530	56	6.5	63	21	310	570	.6	8.4
	76-06-08	530	54	6.4	48	28	340	550	.6	9.1
22S.05E.16.111	75-12-02	23	1.2	2.3	89	0	38	12	.4	22
	76-06-08	23	1.1	2.2	86	0	47	13	.3	22
22S.05E.19.141 WSMR WELL	76-07-08	60	3.7	1.6	154	0	68	11	.8	27
22S.05E.19.141 WSMR1WELL	76-08-28	59	3.5	1.5	110	0	64	12	.7	26
22S.05E.19.323	76-04-27	60	4.5	1.5	94	0	75	8.4	.6	21
22S.05E.19.323 WSMR 21	76-07-06	28	1.3	--	116	0	34	7.3	--	--
	76-07-07	33	1.5	--	124	0	34	7.4	--	--
	76-07-07	32	1.5	--	123	0	49	7.8	--	--
	76-07-08	28	1.2	1.9	116	0	48	8.1	.4	45
22S.05E.20.111	75-12-02	27	1.1	2.1	112	0	53	17	.3	33
	76-06-08	33	1.3	2.0	107	0	61	22	.4	33
22S.05E.29.412 WSMR T-11	75-12-02	22	1.0	2.1	104	0	41	10	.3	27
	76-06-08	24	1.1	2.2	99	0	54	17	.3	26
22S.05E.33.244	75-12-02	110	5.0	5.6	22	0	110	140	.6	.9

## QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DONA ANA COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
18S.04W.16.112	76-03-26	1520	1470	.27	--	.01	290	190	140
18S.04W.27.113	76-05-28	--	--	--	--	--	--	--	--
19S.02W.35.122A	76-03-26	1240	1280	.65	--	.02	240	290	630
19S.04W.12.421A	76-01-30	--	--	--	--	--	--	--	--
	76-06-11	--	--	--	--	--	--	--	--
19S.04W.12.421B	76-01-30	--	--	--	--	--	--	--	--
	76-06-11	--	--	--	--	--	--	--	--
19S.04W.12.421C	76-01-30	--	--	--	--	--	--	--	--
	76-06-11	--	--	--	--	--	--	--	--
19S.04W.12.421D	76-01-30	--	--	--	--	--	--	--	--
	76-06-11	--	--	--	--	--	--	--	--
19S.04W.12.421E	76-01-30	--	--	--	--	--	--	--	--
	76-06-11	--	--	--	--	--	--	--	--
21S.05E.32.222 WSMR T-13	75-12-03	--	322	1.9	--	.03	30	20	0
	76-06-09	--	332	2.2	--	.04	40	40	0
22S.01E.16.111	76-04-12	1290	1250	.94	--	.01	260	930	1600
22S.02E.21.131	76-04-12	--	368	.26	--	.01	170	790	<7
22S.03E.06.111 JORNADA N	76-09-02	340	369	.68	--	.16	250	10	140
	76-09-04	--	307	.31	--	.05	--	40	220
	76-09-04	365	372	.01	--	.02	70	20	180
22S.05E.05.313 WSMR T-10	75-12-03	--	213	.85	--	.02	10	80	0
	76-06-09	--	228	1.2	--	.03	20	100	0
22S.05E.07.342	75-12-03	--	226	1.3	--	.02	40	0	0
	76-06-09	--	233	1.7	--	.04	30	40	0
22S.05E.15.221	75-12-02	--	1480	.02	--	.01	140	30	0
	76-06-08	--	1500	.00	--	.01	120	120	10
22S.05E.16.111	75-12-02	--	174	1.1	--	.01	20	70	10
	76-06-08	--	187	1.3	--	.03	30	60	0
22S.05E.19.141 WSMR WELL	76-07-08	346	301	.82	--	11	30	10	0
22S.05E.19.141 WSMR1WELL	76-08-28	--	249	.88	3.0	2.3	20	20	0
22S.05E.19.323	76-04-27	217	229	.60	--	.01	50	10	20
22S.05E.19.323 WSMR 21	76-07-06	--	--	--	--	--	--	--	--
	76-07-07	--	--	--	--	--	--	--	--
	76-07-07	--	--	--	--	--	--	--	--
	76-07-08	225	232	.91	--	1.1	20	140	20
22S.05E.20.111	75-12-02	--	241	2.4	--	.02	20	30	10
	76-06-08	--	258	2.8	--	.02	20	60	0
22S.05E.29.412 WSMR T-11	75-12-02	--	186	.15	--	.01	20	40	30
	76-06-08	--	208	.12	--	.03	30	90	30
22S.05E.33.244	75-12-02	--	414	.09	--	.00	30	0	10

## QUALITY OF GROUND WATER

607

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DONA ANA COUNTY--Continued

LOCAL IDENT- IFIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (FT) (72019)	TOTAL DEPTH OF WELL (FT) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
22S.05E.33.244	322108106254701	GW	76-06-08	1420	110BSLN	179.52	--	--	--
23S.01E.10.134	321921106500101	GW	76-01-16	0940	110AVMB	4.20	26	26	22
23S.01E.10.134	321921106500102	GW	76-01-16	0952	110AVMB	4.13	9.0	9.0	5.0
23S.01E.10.134	321921106500101	GW	76-06-03	1330	112SNTF	2.00	26	26	22
23S.01E.10.134	321921106500102	GW	76-06-03	1400	112SNTF	2.00	10	10	6.0
23S.01E.11.214A	321934106482601	GW	76-05-13	1320	112SNTF	71.00	622	585	465
23S.01E.13.411	321828106473703	GW	76-01-16	1433	112SNTF	24.00	345	345	340
23S.01E.13.411	321828106473702	GW	76-06-04	1000	112SNTF	--	345	--	--
23S.01E.13.411A	321828106473704	GW	76-01-16	1200	112SNTF	24.20	45	45	40
23S.01E.13.411A	321828106473701	GW	76-06-04	1030	110AVMB	--	45	--	--
23S.01E.13.411B	321826106473401	GW	76-04-01	2100	112SNTF	31.20	634	629	429
23S.01E.23.433	321713106483201	GW	76-04-19	1200	110AVMB	38.00	120	--	--
23S.01E.26.113B	321643106490401	GW	76-03-28	1620	110AVMB	9.50	46	46	41
23S.01E.34.423	321539106492205	GW	76-01-16	1018	112SNTF	5.25	133	133	129
23S.01E.34.423	321539106492201	GW	76-01-16	1020	110AVMB	4.66	9.0	9.0	5.0
		GW	76-06-04	1100	112SNTF	--	9.0	--	--
23S.01E.34.423	321539106492205	GW	76-06-04	1300	110AVMB	--	133	--	--
23S.01E.34.423B	321539106492202	GW	76-01-16	1033	110AVMB	4.63	18	18	14
		GW	76-06-04	1130	110AVMB	--	18	--	--
23S.01E.34.423C	321539106492203	GW	76-01-16	1043	110AVMB	4.56	36	36	32
23S.01E.34.423C	321539106492204	GW	76-01-16	1100	110AVMB	4.65	72	72	68
23S.01E.34.423C	321539106492203	GW	76-06-04	1200	112SNTF	--	35	--	--
23S.01E.34.423C	321539106492204	GW	76-06-04	1230	110AVMB	--	72	--	--
23S.02E.18.313	321818106470301	GW	76-01-16	1230	112SNTF	26.00	160	160	156
		GW	76-06-03	1600	112SNTF	--	160	--	--
23S.02E.18.313A	321818106470302	GW	76-01-16	1410	112SNTF	26.00	78	78	72
		GW	76-06-03	1500	112SNTF	--	78	--	--
23S.02E.18.313B	321818106470303	GW	76-01-16	1200	110AVMB	26.00	48	48	44
		GW	76-06-03	1530	112SNTF	--	48	--	--
23S.02E.18.313C	321818106470304	GW	76-01-16	1201	110AVMB	26.00	35	35	31
23S.02E.18.313D	321818106470305	GW	76-01-16	1202	110AVMB	26.00	28	28	24
23S.02E.21.223	321754106441601	GW	76-04-12	1100	112SNTF	249.00	526	--	--
23S.02E.29.331	321624106460201	GW	76-04-28	1315	110AVMB	--	470	--	--
23S.02E.29.331B	321629106460103	GW	76-07-17	1600	112SNTF	--	280	278	273
23S.02E.30.243A	321640106461201	GW	75-12-03	0230	112SNTF	--	804	670	650
		GW	75-12-03	1100	112SNTF	0.00	804	450	430
		GW	75-12-03	1500	112SNTF	0.00	804	330	310
		GW	75-12-03	1900	112SNTF	23.00	804	225	205
24S.02E.07.231A EBID PAJ	321410106462702	GW	76-08-07	1700	--	--	310	310	305
24S.02E.07.231B OBS WELL	321410106462703	GW	76-08-09	1800	--	--	80	80	75

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## DONA ANA COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	INSTAN- TANEOUS FLOW RATE (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)
22S.05E.33.244	76-06-08	--	--	725	8.5	24.0	84	71	32	1.1
23S.01E.10.134	76-01-16	8	2.5	1060	8.0	12.5	300	100	91	18
23S.01E.10.134	76-01-16	--	--	720	7.9	12.0	160	0	48	9.2
23S.01E.10.134	76-06-03	--	--	800	7.9	18.0	190	23	56	11
23S.01E.10.134	76-06-03	--	--	850	7.9	17.0	200	33	61	11
23S.01E.11.214A	76-05-13	120	1210	590	--	19.5	140	12	44	7.9
23S.01E.13.411	76-01-16	42	--	1050	7.9	19.0	460	270	150	21
23S.01E.13.411	76-06-04	--	--	1170	7.9	21.5	440	250	140	23
23S.01E.13.411A	76-01-16	--	--	1845	7.6	--	590	300	170	41
23S.01E.13.411A	76-06-04	--	--	2000	7.7	--	810	490	230	56
23S.01E.13.411A	76-04-01	60	1248	650	8.5	18.0	110	0	30	7.5
23S.01E.23.433	76-04-19	--	1800	2500	7.6	17.0	740	450	240	33
23S.01E.26.113B	76-03-28	--	10	1300	7.7	--	440	220	140	22
23S.01E.34.423	76-01-16	--	3.0	1080	7.9	18.0	340	150	110	16
23S.01E.34.423	76-01-16	7	.75	750	7.4	13.0	230	55	68	14
	76-06-04	--	--	770	7.4	18.5	190	0	56	12
23S.01E.34.423	76-06-04	--	--	1250	7.8	19.5	320	100	100	17
23S.01E.34.423B	76-01-16	--	2.0	680	7.6	17.0	180	24	55	11
	76-06-04	--	--	900	7.3	19.0	230	70	69	14
23S.01E.34.423C	76-01-16	--	1.5	750	7.6	17.5	190	23	56	12
23S.01E.34.423C	76-01-16	--	3.0	780	7.9	18.5	210	36	65	11
23S.01E.34.423C	76-06-04	--	--	--	--	--	230	68	68	14
23S.01E.34.423C	76-06-04	--	--	850	7.7	19.0	210	44	64	12
23S.02E.18.313	76-01-16	30	--	780	8.1	20.0	310	140	99	16
	76-06-03	--	--	900	8.0	19.5	310	140	97	16
23S.02E.18.313A	76-01-16	20	1.3	1280	7.9	20.0	400	110	130	18
	76-06-03	--	--	1350	7.9	21.0	400	120	130	19
23S.02E.18.313B	76-01-16	--	--	1640	7.7	21.0	610	340	200	26
	76-06-03	--	--	1600	7.8	21.0	520	280	170	24
23S.02E.18.313C	76-01-16	--	--	1800	7.6	21.0	540	270	170	27
23S.02E.18.313D	76-01-16	--	--	--	7.5	--	610	440	190	32
23S.02E.21.223	76-04-12	--	750	1750	--	25.5	450	150	130	29
23S.02E.29.331	76-04-28	180	1200	590	8.5	19.0	180	46	60	8.5
23S.02E.29.331B 274 FT D	76-07-17	180	12	620	7.6	19.0	200	58	64	9.1
23S.02E.30.243A	75-12-03	90	33	580	8.1	18.5	88	0	26	5.7
	75-12-03	60	38	659	7.7	18.5	200	62	65	9.5
	75-12-03	120	43	525	8.0	18.0	160	35	50	8.8
	75-12-03	150	38	600	8.0	17.5	200	39	64	9.4
24S.02E.07.231A EBID PAJ	76-08-07	--	--	410	9.1	23.0	130	0	41	6.3
24S.02E.07.231B OBS WELL	76-08-09	--	--	2000	7.9	21.0	660	350	210	33



## QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## DONA ANA COUNTY--Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)
22S.05E.33.244	76-06-08	100	4.7	4.7	16	0	100	130	.6	1.1
23S.01E.10.134	76-01-16	100	2.5	--	242	0	220	93	--	--
23S.01E.10.134	76-01-16	89	3.1	--	205	0	130	45	--	--
23S.01E.10.134	76-06-03	90	2.9	--	198	0	160	48	--	--
23S.01E.10.134	76-06-03	95	2.9	--	201	0	150	72	--	--
23S.01E.11.214A	76-05-13	60	2.2	7.5	159	--	53	63	.6	26
23S.01E.13.411	76-01-16	63	1.3	--	237	0	180	150	--	--
23S.01E.13.411	76-06-04	63	1.3	--	233	0	200	140	--	--
23S.01E.13.411A	76-01-16	190	3.4	--	362	0	530	180	--	--
23S.01E.13.411A	76-06-04	170	2.6	--	389	0	610	180	--	--
23S.01E.13.411B	76-04-01	90	3.8	9.6	187	0	73	57	1.0	24
23S.01E.23.433	76-04-19	250	4.0	10	348	0	660	240	.5	27
23S.01E.26.113B	76-03-28	140	2.9	8.1	270	0	310	130	.6	29
23S.01E.34.423	76-01-16	120	2.8	--	220	6	210	140	--	--
23S.01E.34.423	76-01-16	78	2.3	--	210	0	150	54	--	--
23S.01E.34.423	76-06-04	85	2.7	--	248	0	100	48	--	--
23S.01E.34.423	76-06-04	140	3.4	--	267	0	210	140	--	--
23S.01E.34.423B	76-01-16	80	2.6	--	194	0	140	47	--	--
23S.01E.34.423C	76-06-04	84	2.4	--	195	0	120	86	--	--
23S.01E.34.423C	76-01-16	90	2.8	--	203	0	150	53	--	--
23S.01E.34.423C	76-01-16	98	3.0	--	209	0	160	66	--	--
23S.01E.34.423C	76-06-04	100	2.9	--	195	--	170	80	--	--
23S.01E.34.423C	76-06-04	93	2.8	--	202	0	170	55	--	--
23S.02E.18.313	76-01-16	52	1.3	--	213	0	150	80	--	--
23S.02E.18.313	76-06-03	52	1.3	--	211	0	150	78	--	--
23S.02E.18.313A	76-01-16	130	2.8	--	351	0	290	91	--	--
23S.02E.18.313B	76-06-03	140	3.0	--	345	0	320	91	--	--
23S.02E.18.313B	76-01-16	150	2.7	--	331	0	530	100	--	--
23S.02E.18.313C	76-06-03	140	2.7	--	298	0	450	96	--	--
23S.02E.18.313C	76-01-16	140	2.6	--	325	0	430	94	--	--
23S.02E.18.313D	76-01-16	140	2.5	--	208	0	590	100	--	--
23S.02E.21.223	76-04-12	190	3.9	11	368	--	170	260	.5	38
23S.02E.29.331	76-04-28	38	1.2	3.4	169	0	61	41	.4	23
23S.02E.29.331B 274 FT D	76-07-17	63	2.0	4.0	170	0	84	74	.4	23
23S.02E.30.243A	75-12-03	91	4.2	8.5	186	0	71	50	1.0	23
	75-12-03	55	1.7	3.6	170	0	77	69	.4	24
	75-12-03	44	1.5	3.7	154	0	62	41	.5	22
	75-12-03	49	1.5	4.3	195	0	81	50	.4	22
24S.02E.07.231A EBID PAJ	76-08-07	48	1.8	3.6	148	4	50	36	.5	22
24S.02E.07.231B OBS WELL	76-08-09	220	3.7	9.2	382	0	530	150	.3	27

## QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## DONA ANA COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
22S.05E.33.244	76-06-08	--	378	.04	--	.00	30	30	20
23S.01E.10.134	76-01-16	--	--	--	--	--	--	--	--
23S.01E.10.134	76-01-16	--	--	--	--	--	--	--	--
23S.01E.10.134	76-06-03	--	--	--	--	--	--	--	--
23S.01E.10.134	76-06-03	--	--	--	--	--	--	--	--
23S.01E.11.214A	76-05-13	344	341	.01	--	.06	60	50	110
23S.01E.13.411	76-01-16	--	--	--	--	--	--	--	--
23S.01E.13.411	76-06-04	--	--	--	--	--	--	--	--
23S.01E.13.411A	76-01-16	--	--	--	--	--	--	--	--
23S.01E.13.411A	76-06-04	--	--	--	--	--	--	--	--
23S.01E.13.411B	76-04-01	376	385	.07	--	.06	140	30	30
23S.01E.23.433	76-04-19	1700	1630	.06	--	.01	250	480	1600
23S.01E.26.113B	76-03-28	912	919	.28	--	.04	180	2500	1500
23S.01E.34.423	76-01-16	--	--	--	--	--	--	--	--
23S.01E.34.423	76-01-16	--	--	--	--	--	--	--	--
	76-06-04	--	--	--	--	--	--	--	--
23S.01E.34.423	76-06-04	--	--	--	--	--	--	--	--
23S.01E.34.423B	76-01-16	--	--	--	--	--	--	--	--
	76-06-04	--	--	--	--	--	--	--	--
23S.01E.34.423C	76-01-16	--	--	--	--	--	--	--	--
23S.01E.34.423C	76-01-16	--	--	--	--	--	--	--	--
23S.01E.34.423C	76-06-04	--	--	--	--	--	--	--	--
23S.01E.34.423C	76-06-04	--	--	--	--	--	--	--	--
23S.02E.18.313	76-01-16	--	--	--	--	--	--	--	--
	76-06-03	--	--	--	--	--	--	--	--
23S.02E.18.313A	76-01-16	--	--	--	--	--	--	--	--
	76-06-03	--	--	--	--	--	--	--	--
23S.02E.18.313B	76-01-16	--	--	--	--	--	--	--	--
	76-06-03	--	--	--	--	--	--	--	--
23S.02E.18.313C	76-01-16	--	--	--	--	--	--	--	--
23S.02E.18.313D	76-01-16	--	--	--	--	--	--	--	--
23S.02E.21.223	76-04-12	1030	1010	.04	--	.04	170	40	<20
23S.02E.29.331	76-04-28	303	319	.07	--	.04	70	100	140
23S.02E.29.331B 274 FT D	76-07-17	--	416	.17	--	3.4	--	20	90
23S.02E.30.243A	75-12-03	366	369	.15	--	.02	120	0	40
	75-12-03	391	388	.09	--	.01	90	0	170
	75-12-03	324	309	.13	--	.01	60	0	170
	75-12-03	397	377	.11	--	.02	70	0	240
24S.02E.07.231A EBID PAJ	76-08-07	--	285	.08	--	.08	--	10	70
24S.02E.07.231B OBS WELL	76-08-09	--	1380	.10	--	1.8	--	90	1600

## QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## DONA ANA COUNTY--Continued

LOCAL IDENT- IFIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (FT) (72019)	TOTAL DEPTH OF WELL (FT) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
24S,02E,07,231C 125 FT 0	321413106462904	GW	76-08-20	1746	--	--	125	125	120
24S,02E,17,414A 300 FT 0	321307106452202	GW	76-09-17	1800	--	--	300	--	--
24S,02E,17,414B 600 FT 0	321307106452503	GW	76-08-20	1600	112SNTF	--	617	605	600
24S,02E,17,423B 615 FT 0	321304106451503	GW	76-09-17	1600	--	--	615	--	--
24S,02E,17,423C 306 FT 0	321304106451404	GW	76-09-10	--	--	--	--	--	--
24S,02E,17,423D 121 FT 0	321304106451405	GW	76-09-10	--	--	--	--	--	--
24S,02E,17,423E 35 FT 0B	321304106451406	GW	76-09-10	1210	--	--	--	--	--
25S,01E,18,222	320309106521601	GW	76-05-06	1700	110AVMB	397.00	430	430	400
25S,02E,36,222A	320546106410201	GW	76-03-25	1530	--	--	248	248	232
25S,03E,28,434	320550106381501	GW	75-12-13	1900	112SNTF	38.00	1307	1225	1205
		GW	75-12-14	0130	112SNTF	--	1307	745	725
		GW	75-12-14	1015	112SNTF	12.00	1307	245	225
26S,02E,12,421	320336106411101	GW	76-01-29	1200	110AVMB	8.66	18	18	15
		GW	76-06-07	1200	112SNTF	--	18	--	--
26S,02E,12,421A	320336106411102	GW	76-01-29	1201	110AVMB	8.58	24	24	21
		GW	76-06-07	1230	112SNTF	--	24	--	--
26S,02E,12,421B	320336106411103	GW	76-01-29	1202	110AVMB	8.40	35	35	33
		GW	76-06-07	1300	112SNTF	--	35	--	--
26S,02E,12,421C	320336106411104	GW	76-01-29	1203	112SNTF	8.35	86	86	83
		GW	76-06-07	1330	112SNTF	--	86	--	--
26S,02E,12,421D	320336106411105	GW	76-01-29	1204	112SNTF	8.15	155	155	152
		GW	76-06-07	1400	112SNTF	--	155	--	--
26S,03E,03,344	320405106373101	GW	76-01-29	1200	110AVMB	10.53	26	26	22
		GW	76-06-07	0900	112SNTF	--	26	--	--
26S,03E,03,344A	320405106373102	GW	76-01-29	1201	110AVMB	10.56	36	36	32
		GW	76-06-07	0930	112SNTF	--	36	--	--
		GW	76-06-07	1000	112SNTF	--	48	--	--
26S,03E,03,344B	320405106373103	GW	76-01-29	1202	110AVMB	10.50	48	48	44
		GW	76-06-07	1030	112SNTF	--	75	--	--
26S,03E,03,344C	320405106373104	GW	76-01-29	1203	112SNTF	11.13	75	75	71
		GW	76-06-07	1100	112SNTF	--	150	--	--
26S,03E,03,344D	320405106373105	GW	76-01-29	1204	112SNTF	12.31	150	150	146
26S,03E,15,322	320242106372701	GW	75-12-18	1215	112SNTF	35.00	1200	1190	1170
		GW	75-12-18	1545	112SNTF	21.00	1200	1070	1050
		GW	75-12-18	2030	112SNTF	29.00	1200	840	820
		GW	75-12-19	0120	112SNTF	12.00	1200	690	670
		GW	75-12-19	0735	112SNTF	10.00	1200	585	565
		GW	75-12-19	1155	112SNTF	10.00	1200	330	310
29S,04E,06,243	314852106340201	GW	76-03-12	1600	110AVMB	--	40	--	40

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## DONA ANA COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	INSTAN- TANEOUS FLOW RATE (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)
24S.02E.07.231C 125 FT 0	76-08-20	60	4.0	680	7.8	19.5	210	69	69	10
24S.02E.17.414A 300 FT 0	76-09-17	--	--	465	8.0	17.5	150	17	47	7.9
24S.02E.17.414B 600 FT 0	76-08-20	180	11	460	8.0	20.0	150	21	49	6.1
24S.02E.17.423B 615 FT 0	76-09-17	--	2.0	460	8.0	20.0	140	6	43	7.0
24S.02E.17.423C 306 FT 0	76-09-10	--	--	493	8.0	--	150	18	48	7.7
24S.02E.17.423D 121 FT 0	76-09-10	--	--	1050	8.1	--	370	170	120	18
24S.02E.17.423E 35 FT 0B	76-09-10	--	5.0	2700	8.0	27.5	1100	850	330	55
25S.01E.18.222	76-05-06	45	--	950	8.1	33.5	70	0	20	4.8
25S.02E.36.222A	76-03-25	--	--	590	7.9	19.5	100	0	27	8.3
25S.03E.28.434	75-12-13	480	33	2200	8.2	29.0	110	0	37	3.8
	75-12-14	120	60	930	8.3	27.5	88	0	27	5.0
	75-12-14	210	50	2200	7.8	24.0	510	49	150	34
26S.02E.12.421	76-01-29	--	--	1000	7.6	18.0	300	120	94	15
	76-06-07	--	--	1170	7.4	19.5	350	180	110	19
26S.02E.12.421A	76-01-29	--	--	1025	7.9	18.5	320	140	100	17
	76-06-07	--	--	1080	7.8	19.0	290	120	89	17
26S.02E.12.421B	76-01-29	--	--	940	8.0	18.5	270	100	86	14
	76-06-07	--	--	1070	7.8	19.5	270	100	84	15
26S.02E.12.421C	76-01-29	--	--	850	7.9	19.0	240	87	74	13
	76-06-07	--	--	900	7.8	20.0	240	91	73	14
26S.02E.12.421D	76-01-29	--	--	740	7.9	19.0	220	75	67	12
	76-06-07	--	--	760	7.8	20.5	190	61	59	11
26S.03E.03.344	76-01-29	--	--	6600	8.4	18.0	310	0	81	27
	76-06-07	--	--	5800	8.2	18.5	410	0	100	38
26S.03E.03.344A	76-01-29	--	--	4500	7.7	18.0	540	88	130	52
	76-06-07	--	--	4500	7.6	19.0	480	42	110	49
	76-06-07	--	--	4800	7.5	19.0	660	330	160	64
26S.03E.03.344B	76-01-29	--	--	4100	7.5	18.5	730	360	190	61
	76-06-07	--	--	3600	7.2	20.5	640	490	160	59
26S.03E.03.344C	76-01-29	--	--	2500	7.5	19.0	580	220	170	37
	76-06-07	--	--	2700	7.2	22.0	510	110	130	44
26S.03E.03.344D	76-01-29	--	--	2500	7.2	19.0	470	94	120	42
26S.03E.15.322	75-12-18	120	30	2000	8.1	26.0	110	0	38	3.6
	75-12-18	120	30	960	7.9	28.5	69	0	24	2.2
	75-12-18	180	35	1010	8.3	26.0	94	0	31	4.0
	75-12-19	180	60	1000	8.8	26.0	86	0	27	4.5
	75-12-19	180	50	1050	8.8	24.5	92	0	27	6.0
	75-12-19	90	35	2000	8.5	23.0	470	140	120	41
29S.04E.06.243	76-03-12	--	--	--	7.7	16.5	1900	1600	520	150

## QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## DONA ANA COUNTY--Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)
24S.02E.07.231C 125 FT O	76-08-20	66	2.0	4.2	176	0	110	70	.5	24
24S.02E.17.414A 300 FT O	76-09-17	43	1.5	3.3	162	0	54	37	.3	22
24S.02E.17.414R 600 FT O	76-08-20	46	1.6	3.4	154	0	58	39	.3	24
24S.02E.17.423R 615 FT O	76-09-17	48	1.8	3.4	159	0	54	38	.3	24
24S.02E.17.423C 306 FT O	76-09-10	40	1.4	2.9	163	0	58	37	.3	22
24S.02E.17.423D 121 FT O	76-09-10	75	1.7	5.0	246	0	200	94	.4	24
24S.02E.17.423E 35 FT OB	76-09-10	210	2.8	13	243	0	760	370	.6	17
25S.01E.18.222	76-05-06	170	8.9	4.1	161	0	150	98	1.4	34
25S.02E.36.222A	76-03-25	84	3.6	3.9	198	0	68	39	.8	29
25S.03E.28.434	75-12-13	490	21	9.8	213	0	380	460	2.9	34
	75-12-14	190	8.8	12	387	0	120	59	1.0	33
	75-12-14	320	6.1	43	568	0	200	400	1.2	40
26S.02E.12.421	76-01-29	110	2.8	--	221	0	E250	84	--	--
	76-06-07	130	3.0	--	209	0	310	90	--	--
26S.02E.12.421A	76-01-29	110	2.7	--	221	0	260	87	--	--
	76-06-07	110	2.8	--	210	0	230	77	--	--
26S.02E.12.421B	76-01-29	100	2.6	--	205	0	230	77	--	--
	76-06-07	110	2.9	--	207	0	230	77	--	--
26S.02E.12.421C	76-01-29	93	2.6	--	185	0	200	71	--	--
	76-06-07	98	2.8	--	182	0	210	71	--	--
26S.02E.12.421D	76-01-29	77	2.3	--	173	0	160	61	--	--
	76-06-07	76	2.4	--	161	0	150	58	--	--
26S.03E.03.344	76-01-29	1100	27	--	713	0	1100	860	--	--
	76-06-07	1100	24	--	740	0	1100	820	--	--
26S.03E.03.344A	76-01-29	810	15	--	550	0	830	780	--	--
	76-06-07	800	16	--	530	0	750	730	--	--
	76-06-07	620	10	--	408	0	660	770	--	--
26S.03E.03.344B	76-01-29	650	11	--	441	0	650	790	--	--
	76-06-07	360	6.2	--	190	0	320	640	--	--
26S.03E.03.344C	76-01-29	310	5.6	--	437	0	210	440	--	--
	76-06-07	300	5.8	--	487	0	200	420	--	--
26S.03E.03.344D	76-01-29	290	5.8	--	461	0	190	410	--	--
26S.03E.15.322	75-12-18	420	17	11	183	0	280	430	2.4	22
	75-12-18	200	10	7.7	257	0	180	82	.9	34
	75-12-18	220	9.9	9.3	327	0	200	84	.6	36
	75-12-19	210	9.9	9.6	345	0	170	75	.9	39
	75-12-19	200	9.1	10	188	9	210	130	.6	24
	75-12-19	260	5.2	52	403	0	240	360	.4	50
29S.04E.06.243	76-03-12	3600	36	38	443	0	3600	4000	.1	9.3

QUALITY OF GROUND WATER  
WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976  
DONA ANA COUNTY--Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MANG- NESE (MN) (UG/L) (01056)
24S.02E.07.231C 125 FT 0	76-08-20	--	442	.09	--	.28	--	180	140
24S.02E.17.414A 300 FT 0	76-09-17	--	295	.06	--	.01	--	40	60
24S.02E.17.414B 600 FT 0	76-08-20	--	302	.01	--	.04	--	290	40
24S.02E.17.423B 615 FT 0	76-09-17	--	297	.10	--	.30	--	10	10
24S.02E.17.423C 306 FT 0	76-09-10	--	296	.01	--	.02	--	0	40
24S.02E.17.423D 121 FT 0	76-09-10	--	659	.20	--	.04	--	10	300
24S.02E.17.423E 35 FT 0B	76-09-10	--	1880	.00	--	.03	--	10	690
25S.01E.18.222	76-05-06	554	563	.15	--	.02	150	40	<10
25S.02E.36.222A	76-03-25	347	358	.03	--	.02	90	80	10
25S.03E.28.434	75-12-13	1530	1520	.06	--	.01	630	10	40
	75-12-14	627	639	.03	--	.01	210	10	20
	75-12-14	1500	1470	.06	--	.02	310	0	150
26S.02E.12.421	76-01-29	--	--	--	--	--	--	--	--
	76-06-07	--	--	--	--	--	--	--	--
26S.02E.12.421A	76-01-29	--	--	--	--	--	--	--	--
	76-06-07	--	--	--	--	--	--	--	--
26S.02E.12.421B	76-01-29	--	--	--	--	--	--	--	--
	76-06-07	--	--	--	--	--	--	--	--
26S.02E.12.421C	76-01-29	--	--	--	--	--	--	--	--
	76-06-07	--	--	--	--	--	--	--	--
26S.02E.12.421D	76-01-29	--	--	--	--	--	--	--	--
	76-06-07	--	--	--	--	--	--	--	--
26S.03E.03.344	76-01-29	--	--	--	--	--	--	--	--
	76-06-07	--	--	--	--	--	--	--	--
26S.03E.03.344A	76-01-29	--	--	--	--	--	--	--	--
	76-06-07	--	--	--	--	--	--	--	--
26S.03E.03.344B	76-01-29	--	--	--	--	--	--	--	--
	76-06-07	--	--	--	--	--	--	--	--
26S.03E.03.344C	76-01-29	--	--	--	--	--	--	--	--
	76-06-07	--	--	--	--	--	--	--	--
26S.03E.03.344D	76-01-29	--	--	--	--	--	--	--	--
	76-06-07	--	--	--	--	--	--	--	--
26S.03E.15.322	75-12-18	1330	1300	.04	--	.00	400	0	10
	75-12-18	653	658	.02	--	.01	270	0	10
	75-12-18	731	747	.04	--	.01	270	20	10
	75-12-19	719	707	.02	--	.02	260	0	20
	75-12-19	689	710	.01	--	.01	0	10	10
	75-12-19	1330	1320	.10	--	.02	0	10	70
29S.04E.06.243	76-03-12	--	12100	2.1	--	--	2100	--	--

LOCAL IDENT- IFIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	DIS- SOLVED BERYL- LIUM (BE) (UG/L) (01010)	DIS- SOLVED BISMUTH (BI) (UG/L) (01015)
18S.04W.16.112	324500107154001	GW	76-03-26	1500	30	2	60	<5	<25
19S.02W.35.122A	323710107005701	GW	76-03-26	1300	--	2	0	--	--
22S.01E.16.111	322405106511001	GW	76-04-12	1500	70	3	100	<50	<25
22S.02E.21.131	322300106445701	GW	76-04-12	1215	110	--	4	<2	<7
22S.03E.06.111 JORNADA N	322548106405701	GW	76-09-02	2300	--	1	0	--	--
		GW	76-09-04	2100	--	1	0	--	--
22S.05E.19.141 WSMR WELL	322301106282601	GW	76-07-08	1730	--	5	0	--	--
22S.05E.19.323	322237106282201	GW	76-04-27	1745	--	1	0	--	--
22S.05E.19.323 WSMR 21	322238106282701	GW	76-07-08	0530	--	2	100	--	--
23S.01E.11.214A	321934106482601	GW	76-05-13	1320	--	1	0	--	--
23S.01E.13.411B	321826106473401	GW	76-04-01	2100	--	10	0	--	--
23S.01E.23.433	321713106483201	GW	76-04-19	1200	--	5	200	--	--
23S.01E.26.113B	321643106490401	GW	76-03-28	1620	--	5	0	--	--
23S.02E.21.223	321754106441601	GW	76-04-12	1100	70	1	100	<5	<30
23S.02E.29.331	321624106460201	GW	76-04-28	1315	--	3	0	--	--
23S.02E.30.243A	321640106461201	GW	75-12-03	0230	--	2	100	--	--
		GW	75-12-03	1100	--	4	200	--	--
		GW	75-12-03	1500	--	2	300	--	--
		GW	75-12-03	1900	--	2	100	--	--
25S.01E.18.222	320309106521601	GW	76-05-06	1700	30	14	50	<3	<15
25S.02E.36.222A	320546106410201	GW	76-03-25	1530	--	12	0	--	--
25S.03E.28.434	320550106381501	GW	75-12-13	1900	--	2	400	--	--
		GW	75-12-14	0130	--	6	400	--	--
		GW	75-12-14	1015	--	0	300	--	--
26S.03E.15.322	320242106372701	GW	75-12-18	1215	--	6	200	--	--
		GW	75-12-18	1545	--	13	100	--	--
		GW	75-12-18	2030	--	17	200	--	--
		GW	75-12-19	0120	--	21	200	--	--
		GW	75-12-19	0735	--	32	0	--	--
		GW	75-12-19	1155	--	4	0	--	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## DONA ANA COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L) (01032)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	DIS- SOLVED GALLIUM (GA) (UG/L) (01120)	DIS- SOLVED GER- MANIUM (GE) (UG/L) (01125)	DIS- SOLVED IRON (FE) (UG/L) (01046)
18S.04W.16.112	76-03-26	290	0	<20	0	<20	<5	<10	<30	190
19S.02W.35.122A	76-03-26	240	0	0	0	--	1	--	--	290
22S.01E.16.111	76-04-12	260	0	<25	0	<25	<5	<10	<40	930
22S.02E.21.131	76-04-12	170	0	<7	--	<7	10	<3	<10	790
22S.03E.06.111 JORNADA N	76-09-02	250	0	2	2	--	3	--	--	10
	76-09-04	70	0	0	0	--	4	--	--	20
22S.05E.19.141 WSMR WELL	76-07-08	30	0	0	0	--	2	--	--	10
22S.05E.19.323	76-04-27	50	0	0	0	--	1	--	--	10
22S.05E.19.323 WSMR 21	76-07-08	20	1	0	0	--	2	--	--	140
23S.01E.11.214A	76-05-13	60	0	0	0	--	2	--	--	50
23S.01E.13.411B	76-04-01	140	0	0	0	--	1	--	--	30
23S.01E.23.433	76-04-19	250	0	0	0	--	0	--	--	480
23S.01E.26.113B	76-03-28	180	0	0	0	--	17	--	--	2500
23S.02E.21.223	76-04-12	170	0	<20	0	<20	6	<10	<40	40
23S.02E.29.331	76-04-28	70	0	0	0	--	5	--	--	100
23S.02E.30.243A	75-12-03	120	1	0	0	--	2	--	--	0
	75-12-03	90	0	0	0	--	1	--	--	0
	75-12-03	60	0	0	0	--	1	--	--	0
	75-12-03	70	0	1	0	--	0	--	--	0
25S.01E.18.222	76-05-06	150	0	<10	0	<10	4	<5	<20	40
25S.02E.36.222A	76-03-25	90	0	0	0	--	1	--	--	80
25S.03E.28.434	75-12-13	630	0	0	0	--	2	--	--	10
	75-12-14	210	1	0	0	--	0	--	--	10
	75-12-14	310	0	0	0	--	0	--	--	0
26S.03E.15.322	75-12-18	400	0	0	0	--	2	--	--	0
	75-12-18	270	0	0	0	--	0	--	--	0
	75-12-18	270	0	0	0	--	0	--	--	20
	75-12-19	260	2	0	0	--	0	--	--	0
	75-12-19	0	0	0	0	--	0	--	--	10
	75-12-19	0	0	0	0	--	0	--	--	10
LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED LEAD (PB) (UG/L) (01049)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L) (01060)	DIS- SOLVED NICKEL (NI) (UG/L) (01065)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	DIS- SOLVED SILVER (AG) (UG/L) (01075)	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)
18S.04W.16.112	76-03-26	<20	180	140	.0	25	<20	0	<3	200
19S.02W.35.122A	76-03-26	0	--	630	.1	--	--	0	0	--
22S.01E.16.111	76-04-12	<25	160	1600	.0	20	<25	0	<3	1800
22S.02E.21.131	76-04-12	<7	10	<7	--	25	25	--	<1	300
22S.03E.06.111 JORNADA N	76-09-02	1	--	140	.0	--	--	3	0	--
	76-09-04	1	--	180	.0	--	--	1	0	--
22S.05E.19.141 WSMR WELL	76-07-08	1	--	0	.0	--	--	1	0	--
22S.05E.19.323	76-04-27	1	--	20	.0	--	--	1	0	--
22S.05E.19.323 WSMR 21	76-07-08	9	10	20	.0	--	--	1	0	--
23S.01E.11.214A	76-05-13	0	--	110	.1	--	--	0	0	--
23S.01E.13.411B	76-04-01	1	--	30	.0	--	--	0	0	--
23S.01E.23.433	76-04-19	0	--	1600	.0	--	--	0	0	--
23S.01E.26.113B	76-03-28	12	--	1500	.0	--	--	0	0	--
23S.02E.21.223	76-04-12	<20	190	<20	.0	<10	<20	3	<2	2500
23S.02E.29.331	76-04-28	20	--	140	.0	--	--	0	0	--
23S.02E.30.243A	75-12-03	1	--	40	.0	--	--	0	0	--
	75-12-03	0	--	170	.0	--	--	0	0	--
	75-12-03	1	--	170	.0	--	--	0	0	--
	75-12-03	0	--	240	.0	--	--	0	0	--
25S.01E.18.222	76-05-06	<10	90	<10	.0	10	<10	8	<1	470
25S.02E.36.222A	76-03-25	1	--	10	.0	--	--	0	0	--
25S.03E.28.434	75-12-13	2	--	40	1.7	--	--	0	0	--
	75-12-14	1	--	20	.0	--	--	1	0	--
	75-12-14	2	--	150	.4	--	--	1	0	--
26S.03E.15.322	75-12-18	2	--	10	.3	--	--	0	0	--
	75-12-18	1	--	10	.0	--	--	0	0	--
	75-12-18	0	--	10	.0	--	--	0	0	--
	75-12-19	2	--	20	.0	--	--	0	0	--
	75-12-19	2	--	10	.0	--	--	0	0	--
	75-12-19	2	--	70	.0	--	--	0	0	--

## QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## DONA ANA COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED TIN (SN) (UG/L) (01100)	DIS- SOLVED TI- TANIUM (TI) (UG/L) (01150)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L) (01160)			
18S.04W.16.112	76-03-26	<35	<10	<20	0	<40			
19S.02W.35.122A	76-03-26	--	--	--	0	--			
22S.01E.16.111	76-04-12	<35	<10	<25	180	<50			
22S.02E.21.131	76-04-12	<10	<4	14	220	<10			
22S.03E.06.111 JORNADA N	76-09-02	--	--	--	10	--			
	76-09-04	--	--	--	20	--			
22S.05E.19.141 WSMR WELL	76-07-08	--	--	--	80	--			
22S.05E.19.323	76-04-27	--	--	--	20	--			
22S.05E.19.323 WSMR 21	76-07-08	--	--	--	150	--			
23S.01E.11.214A	76-05-13	--	--	--	20	--			
23S.01E.13.411B	76-04-01	--	--	--	20	--			
23S.01E.23.433	76-04-19	--	--	--	0	--			
23S.01E.26.113B	76-03-28	--	--	--	230	--			
23S.02E.21.223	76-04-12	<20	<20	<10	80	<30			
23S.02E.29.331	76-04-28	--	--	--	70	--			
23S.02E.30.243A	75-12-03	--	--	--	130	--			
	75-12-03	--	--	--	190	--			
	75-12-03	--	--	--	100	--			
	75-12-03	--	--	--	120	--			
25S.01E.18.222	76-05-06	<10	<8	10	30	<20			
25S.02E.36.222A	76-03-25	--	--	--	20	--			
25S.03E.28.434	75-12-13	--	--	--	240	--			
	75-12-14	--	--	--	380	--			
	75-12-14	--	--	--	1400	--			
26S.03E.15.322	75-12-18	--	--	--	270	--			
	75-12-18	--	--	--	120	--			
	75-12-18	--	--	--	120	--			
	75-12-19	--	--	--	370	--			
	75-12-19	--	--	--	210	--			
	75-12-19	--	--	--	980	--			
LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL NON- FILT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDE GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDE GROSS BETA AS CS-137 (PC/L) (03516)
19S.02W.35.122A	323710107005701	GW	76-03-26	1300	1	<20	<4	20	.8
22S.01E.16.111	322405106511001	GW	76-04-12	1500	<1	28	<4	28	1.3
22S.02E.21.131	322300106445701	GW	76-04-12	1215	<1	30	<4	6.4	<4
23S.01E.11.214A	321934106482601	GW	76-05-13	1320	1	<5.0	<4	8.2	<4
23S.01E.23.433	321713106483201	GW	76-04-19	1200	2	<25	<4	17	<4
23S.01E.26.113B	321643106490401	GW	76-03-28	1620	73	<12	2.9	28	2.3
23S.02E.21.223	321754106441601	GW	76-04-12	1100	<1	52	<4	20	1.5
25S.01E.18.222	320309106521601	GW	76-05-06	1700	<1	<5.9	<4	5.1	<4
25S.02E.36.222A	320546106410201	GW	76-03-25	1530	<1	<2.9	<4	7.6	<4
LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L) (80050)	SUS- PENDE GROSS BETA AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)	DIS- SOLVED URANIUM (U) (UG/L) (80020)			
19S.02W.35.122A	76-03-26	17	.7	.11	4.6	--			
22S.01E.16.111	76-04-12	22	1.2	.11	9.0	--			
22S.02E.21.131	76-04-12	5.1	<4	.02	3.2	--			
23S.01E.11.214A	76-05-13	6.5	<4	.11	--	.30			
23S.01E.23.433	76-04-19	14	<4	.11	4.6	--			
23S.01E.26.113B	76-03-28	23	1.8	.08	.8	--			
23S.02E.21.223	76-04-12	16	1.3	.46	19	--			
25S.01E.18.222	76-05-06	4.1	<4	.05	3.5	--			
25S.02E.36.222A	76-03-25	6.0	<4	.12	--	.20			



QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DONA ANA COUNTY--Continued

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL PCB (UG/L) (39516)	TOTAL ALDRIN (UG/L) (39330)	TOTAL CHLOR- DANE (UG/L) (39350)	TOTAL DDD (UG/L) (39360)	TOTAL DDE (UG/L) (39365)
19S.02W.35.122A	323710107005701	GW	76-03-26	1300	.0	.00	.0	.00	.00
22S.01E.16.111	322405106511001	GW	76-04-12	1500	.0	.00	.0	.00	.00
23S.01E.26.113B	321643106490401	GW	76-03-28	1620	.5	.00	.0	.00	.00

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL DDT (UG/L) (39370)	TOTAL DI- AZINON (UG/L) (39570)	TOTAL DI- ELDRIN (UG/L) (39380)	TOTAL ENDRIN (UG/L) (39390)	TOTAL ETHION (UG/L) (39398)	TOTAL HEPTA- CHLOR (UG/L) (39410)	TOTAL HEPTA- CHLOR EPOXIDE (UG/L) (39420)	TOTAL LINDANE (UG/L) (39340)	TOTAL MALA- THION (UG/L) (39530)
19S.02W.35.122A	76-03-26	.00	.00	.00	.00	.00	.00	.00	.00	.00
22S.01E.16.111	76-04-12	.00	.00	.00	.00	.00	.00	.00	.00	.00
23S.01E.26.113B	76-03-28	.00	.01	.00	.00	.00	.00	.00	.00	.00

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL METHYL PARA- THION (UG/L) (39600)	TOTAL METHYL TRI- THION (UG/L) (39790)	TOTAL PARA- THION (UG/L) (39540)	TOTAL TOX- APHENE (UG/L) (39400)	TOTAL TRI- THION (UG/L) (39786)	TOTAL 2,4-D (UG/L) (39730)	TOTAL 2,4,5-T (UG/L) (39740)	TOTAL SILVEX (UG/L) (39760)
19S.02W.35.122A	76-03-26	.00	.00	.00	0	.00	.00	.00	.00
22S.01E.16.111	76-04-12	.00	.00	.00	0	.00	.00	.00	.00
23S.01E.26.113B	76-03-28	.00	.00	.00	0	.00	.00	.00	.00

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## EDDY COUNTY

LOCAL IDENT- IFIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (FT) (72019)	TOTAL DEPTH OF WELL (FT) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
22S.31E.29.2231 HYDRO TE	322204103474001	GW	76-06-01	1155	312RSLR	--	850	850	700
		GW	76-06-02	1345	312RSLR	440.00	850	700	675
		GW	76-06-02	1650	312RSLR	440.00	850	700	675
		GW	76-06-04	1730	312RSLR	--	850	600	560
22S.31E.29.244 HYDRO TES	322136103473001	GW	76-08-08	--	312CLBR	--	900	703	672
22S.31E.29.244 HYDRO TES	322136103473002	GW	76-08-10	1500	310MGNT	--	900	608	558
22S.31E.34.321	322046103460301	GW	75-12-18	1305	313OLRM	493.20	5850	4410	4400
23S.26E.21.341 LOVING,NM	321707104054801	GW	76-05-30	--	--	--	--	--	--
24S.29E.16.133 USGS NO 8	321305103595101	GW	75-11-14	1040	312CLBR	--	203	--	--
		GW	76-02-09	1045	312CLBR	--	203	--	--
		GW	76-07-16	1150	312CLBR	--	203	--	--
		GW	76-07-17	1230	312CLBR	--	203	--	--
24S.29E.20.122	321234104002601	GW	76-01-12	1430	--	--	--	--	--
24S.29E.20.134	320215104004201	GW	76-01-12	1135	312CLBR	--	--	--	--
		GW	76-06-29	0945	312CLBR	--	--	--	--
24S.29E.20.322	321209104002101	GW	76-01-12	1445	312CLBR	--	--	--	--
24S.29E.20.412	321210104001501	GW	76-01-12	1500	110AVMB	--	--	--	--
24S.29E.20.431	321157104001501	GW	76-01-12	1205	312RSLR	--	--	--	--
		GW	76-06-29	1000	312RSLR	--	--	--	--
24S.29E.29.141	321128104003301	GW	75-12-19	1350	312CLBR	--	--	--	--
		GW	76-06-29	1115	312CLBR	--	--	--	--
24S.29E.29.143	321122104003301	GW	75-12-19	1400	312CLBR	--	--	--	--
		GW	76-06-29	1130	312CLBR	--	--	--	--
24S.29E.29.213	321134104001701	GW	75-12-19	1145	312CLBR	--	--	--	--
		GW	76-06-29	1015	312CLBR	--	--	--	--
24S.29E.29.241	321128104000201	GW	75-12-19	1235	312RSLR	--	--	--	--
		GW	76-06-29	1035	312RSLR	--	--	--	--
24S.29E.29.413	321108104001801	GW	75-12-19	1315	110AVMB	--	--	--	--
		GW	76-06-29	1100	110AVMB	--	--	--	--
24S.29E.29.433	321057104001801	GW	75-12-19	1300	110AVMB	--	--	--	--
		GW	76-06-29	1050	110AVMB	--	--	--	--
24S.29E.30.222	321143104005601	GW	76-01-12	1340	110AVMB	--	--	--	--
		GW	76-06-29	1325	110AVMB	--	--	--	--
24S.29E.30.222A	321142104005601	GW	76-01-12	1350	110AVMB	--	--	--	--
		GW	76-06-29	--	110AVMB	--	--	--	--
24S.29E.30.242	321130104005601	GW	76-01-12	1320	110AVMB	--	--	--	--
		GW	76-06-29	1315	110AVMB	--	--	--	--
24S.29E.30.242A	321129104005601	GW	76-01-12	1310	110AVMB	--	--	--	--
		GW	76-06-29	1305	110AVMB	--	--	--	--

## QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## EDDY COUNTY--Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DENSITY (GM/ML AT 20 C) (71820)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)
22S.31E.29.2231 HYDRO TE	76-06-01	--	55000	7.6	25.0	--	4300	4100	1300	250
	76-06-02	--	45500	7.8	25.0	--	4100	4000	1100	320
	76-06-02	--	36500	7.6	25.0	--	3100	3000	780	280
	76-06-04	--	23500	7.4	23.0	--	3300	3300	890	270
22S.31E.29.244 HYDRO TES	76-08-08	--	74400	7.4	24.5	--	6700	6600	1500	720
22S.31E.29.244 HYDRO TES	76-08-10	15	20200	7.4	--	--	2800	1800	760	210
22S.31E.34.321	75-12-18	--	--	6.5	21.0	--	33000	33000	10000	2000
23S.28E.21.341 LOVING,NM	76-05-30	--	690	8.4	--	--	240	100	45	32
24S.29E.16.133 USGS NO 8	75-11-14	--	211000	--	18.0	1.154	--	--	--	--
	76-02-09	--	208000	--	19.5	--	--	--	--	--
	76-07-16	--	83400	7.4	--	--	--	--	--	--
	76-07-17	--	185000	7.4	--	--	--	--	--	--
24S.29E.20.122	76-01-12	--	127000	--	20.0	--	--	--	--	--
24S.29E.20.134	76-01-12	--	224000	--	21.0	--	--	--	--	--
	76-06-29	--	225000	7.2	21.0	--	--	--	--	--
24S.29E.20.322	76-01-12	--	219000	--	19.5	--	--	--	--	--
24S.29E.20.412	76-01-12	--	182000	--	19.5	--	--	--	--	--
24S.29E.20.431	76-01-12	--	182000	--	20.0	--	--	--	--	--
	76-06-29	--	177000	7.5	21.0	--	--	--	--	--
24S.29E.29.141	75-12-19	--	52200	--	20.0	--	--	--	--	--
	76-06-29	--	55800	7.7	21.0	--	--	--	--	--
24S.29E.29.143	75-12-19	--	48200	--	20.0	--	--	--	--	--
	76-06-29	--	54900	7.7	21.0	--	--	--	--	--
24S.29E.29.213	75-12-19	--	120000	--	19.5	--	--	--	--	--
	76-06-29	--	124000	7.3	21.0	--	--	--	--	--
24S.29E.29.241	75-12-19	--	115000	--	19.5	--	--	--	--	--
	76-06-29	--	108000	7.5	21.0	--	--	--	--	--
24S.29E.29.413	75-12-19	--	30800	--	18.0	--	--	--	--	--
	76-06-29	--	31900	7.6	18.0	--	--	--	--	--
24S.29E.29.433	75-12-19	--	--	--	18.0	--	--	--	--	--
	76-06-29	--	41100	7.7	18.0	--	--	--	--	--
24S.29E.30.222	76-01-12	--	47500	--	19.5	--	--	--	--	--
	76-06-29	--	45700	7.5	20.0	--	--	--	--	--
24S.29E.30.222A	76-01-12	--	48800	--	19.5	--	--	--	--	--
	76-06-29	--	46100	7.5	20.0	--	--	--	--	--
24S.29E.30.242	76-01-12	--	38200	--	19.5	--	--	--	--	--
	76-06-29	--	37500	7.6	20.0	--	--	--	--	--
24S.29E.30.242A	76-01-12	--	42100	--	19.5	--	--	--	--	--
	76-06-29	--	41900	7.3	20.0	--	--	--	--	--

### QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## EDDY COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	TOTAL SUL- FIDE (S) (MG/L) (00745)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)
22S.31E.29.2231 HYDRO TE	76-06-01	16000	106	130	207	0	.0	660	23000	3.7
	76-06-02	13000	89	150	127	0	.0	2900	19000	5.3
	76-06-02	9400	73	190	105	0	.0	7400	12000	5.1
	76-06-04	5700	43	70	92	0	.0	3900	8000	2.8
22S.31E.29.244 HYDRO TES	76-08-08	19000	101	450	88	0	.6	5200	33000	1.2
22S.31E.29.244 HYDRO TES	76-08-10	4300	36	100	1150	0	.5	2600	6100	1.6
22S.31E.34.321	75-12-18	56000	134	920	70	0	.0	800	110000	.1
23S.28E.21.341 LOVING,NM	76-05-30	34	.9	2.1	165	4	.6	94	57	.3
24S.29E.16.133 USGS NO 8	75-11-14	--	--	--	--	--	--	--	139000	--
	76-02-09	--	--	--	--	--	--	--	134000	--
	76-07-16	--	--	--	--	--	--	--	36400	--
	76-07-17	--	--	--	--	--	--	--	136000	--
24S.29E.20.122	76-01-12	--	--	--	--	--	--	--	66200	--
24S.29E.20.134	76-01-12	--	--	--	--	--	--	--	177000	--
	76-06-29	--	--	--	--	--	--	--	174000	--
24S.29E.20.322	76-01-12	--	--	--	--	--	--	--	160000	--
24S.29E.20.412	76-01-12	--	--	--	--	--	--	--	102000	--
24S.29E.20.431	76-01-12	--	--	--	--	--	--	--	104000	--
	76-06-29	--	--	--	--	--	--	--	96000	--
24S.29E.29.141	75-12-19	--	--	--	--	--	--	--	19600	--
	76-06-29	--	--	--	--	--	--	--	19800	--
24S.29E.29.143	75-12-19	--	--	--	--	--	--	--	17400	--
	76-06-29	--	--	--	--	--	--	--	19800	--
24S.29E.29.213	75-12-19	--	--	--	--	--	--	--	56200	--
	76-06-29	--	--	--	--	--	--	--	57200	--
24S.29E.29.241	75-12-19	--	--	--	--	--	--	--	53000	--
	76-06-29	--	--	--	--	--	--	--	47500	--
24S.29E.29.413	75-12-19	--	--	--	--	--	--	--	9800	--
	76-06-29	--	--	--	--	--	--	--	9900	--
24S.29E.29.433	75-12-19	--	--	--	--	--	--	--	13200	--
	76-06-29	--	--	--	--	--	--	--	12700	--
24S.29E.30.222	76-01-12	--	--	--	--	--	--	--	15800	--
	76-06-29	--	--	--	--	--	--	--	15300	--
24S.29E.30.222A	76-01-12	--	--	--	--	--	--	--	16000	--
	76-06-29	--	--	--	--	--	--	--	16100	--
24S.29E.30.242	76-01-12	--	--	--	--	--	--	--	13000	--
	76-06-29	--	--	--	--	--	--	--	12400	--
24S.29E.30.242A	76-01-12	--	--	--	--	--	--	--	14600	--
	76-06-29	--	--	--	--	--	--	--	14200	--

## QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## EDDY COUNTY--Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
22S.31E.29.2231 HYDRO TE	76-06-01	2.6	41500	--	--	2300	680	3600	13
	76-06-02	2.7	36500	--	--	2400	80	1600	13
	76-06-02	2.7	30100	--	--	2400	100	1800	6.5
	76-06-04	1.3	18900	--	--	2200	280	1200	14
22S.31E.29.244 HYDRO TES	76-08-08	5.7	59900	.14	.08	25000	--	740	28
22S.31E.29.244 HYDRO TES	76-08-10	5.0	14700	.02	.02	6300	40	1500	129
22S.31E.34.321	75-12-18	22	180000	.04	.25	60000	230	7800	17
23S.28E.21.341 LOVING,NM	76-05-30	9.8	361	.37	.01	100	60	--	--
24S.29E.16.133 USGS NO 8	75-11-14	--	--	--	--	--	--	--	--
	76-02-09	--	--	--	--	--	--	--	--
	76-07-16	--	--	--	--	--	--	--	--
	76-07-17	--	--	--	--	--	--	--	--
24S.29E.20.122	76-01-12	--	--	--	--	--	--	--	--
24S.29E.20.134	76-01-12	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--
24S.29E.20.322	76-01-12	--	--	--	--	--	--	--	--
24S.29E.20.412	76-01-12	--	--	--	--	--	--	--	--
24S.29E.20.431	76-01-12	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--
24S.29E.29.141	75-12-19	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--
24S.29E.29.143	75-12-19	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--
24S.29E.29.213	75-12-19	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--
24S.29E.29.241	75-12-19	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--
24S.29E.29.413	75-12-19	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--
24S.29E.29.433	75-12-19	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--
24S.29E.30.222	76-01-12	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--
24S.29E.30.222A	76-01-12	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--
24S.29E.30.242	76-01-12	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--
24S.29E.30.242A	76-01-12	--	--	--	--	--	--	--	--
	76-06-29	--	--	--	--	--	--	--	--

## QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## EDDY COUNTY--Continued

LOCAL IDENT- I- FIER	STATION	NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)
22S.31E.29.2231 HYDRO TE	322204	103474001	GW	76-06-01	1155	0	0	2300	0	0
			GW	76-06-02	1345	9	0	2400	0	0
			GW	76-06-02	1650	2	0	2400	0	0
			GW	76-06-04	1730	1	0	2200	0	0
22S.31E.29.244 HYDRO TES	322136	103473001	GW	76-08-08	--	0	0	25000	210	5
22S.31E.29.244 HYDRO TES	322136	103473002	GW	76-08-10	1500	14	0	6300	150	3
22S.31E.34.321	322046	103460301	GW	75-12-18	1305	--	--	60000	280	5
LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)
22S.31E.29.2231 HYDRO TE	76-06-01	80	0	0	0	27	0	6800	680	38
	76-06-02	100	0	26	0	58	0	43000	80	100
	76-06-02	50	0	9	0	15	1	15000	100	35
	76-06-04	40	0	6	0	14	0	11000	280	28
22S.31E.29.244 HYDRO TES	76-08-08	60	40	750	2	90	3	11000	--	500
22S.31E.29.244 HYDRO TES	76-08-10	1100	20	3000	2	450	6	530000	40	2800
22S.31E.34.321	75-12-18	10	0	4500	3	420	40	170000	230	2500
LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
22S.31E.29.2231 HYDRO TE	76-06-01	12	5000	3600	.1	.1	5	1	160	40
	76-06-02	0	3000	1600	.2	.2	8	7	300	40
	76-06-02	3	3000	1800	.0	.0	4	4	160	40
	76-06-04	3	2200	1200	.0	.0	1	0	140	60
22S.31E.29.244 HYDRO TES	76-08-08	12	780	740	.0	.0	1	1	710	550
22S.31E.29.244 HYDRO TES	76-08-10	0	100000	1500	.9	.0	1	0	4600	2200
22S.31E.34.321	75-12-18	3	8200	7800	12	12	0	0	1500	1100

## GRANT COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	TEMPER- ATURE (DEG C) (00010)
FAYWOOD HOT SPRINGS, #1,	323317	107594200	SP	76-02-05	1100	--	560	52.0
LOCAL IDENT- I- FIER	STATION	NUMBER	SITE	DATE OF SAMPLE	TIME	DIS- SOLVED RA-226 (RADON METHOD) (U) (PC/L) (09511)	DIS- SOLVED URANIUM (U) (UG/L) (80020)	
FAYWOOD HOT SPRINGS, #1,	323317	107594200	SP	76-02-05	1100	20	.04	

## LINCOLN COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
10S.12E.24 LITTLE CR SPR	332516	105434901	GW	76-06-24	1440	--	283	8.9	16.5	9.0
15S.13E.15.444 SILVER SP	330017	105391801	GW	76-06-16	1155	--	542	7.8	17.0	20
16S.12E.3 PUMPHOUSE CANY	335702	105421401	GW	76-06-16	1250	--	466	7.6	19.0	10

## QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## MCKINLEY COUNTY

LOCAL IDENT- IFIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	TOTAL DEPTH OF WELL (FT) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)
17N.13W.21.111	354145108135501	GW	76-09-17	1820	211GLLP	800	169	43	1320
17N.14W.01.343	354332108165501	GW	76-09-16	1500	211GLLP	1014	840	530	1290
17N.14W.02.3244	354345108175001	GW	76-09-16	1445	211GLLP	--	--	--	834
18N.14W.34.121	354514108190601	GW	76-09-16	1240	211GLLP	1292	1292	1132	1230
19N.05W.01.1212, LOPEZWEL	355444107191001	GW	76-01-14	1630	110AVMB	--	--	--	1180
19N.05W.01.3323 DUG WELL	355406107192301	GW	76-01-14	1600	110AVMB	--	--	--	960
19N.05W.04.214, 19R-302,	355435107220001	GW	76-01-13	1400	211PCCF	--	--	--	--
19N.05W.09.4111	355328107221001	SP	76-01-13	1150	--	--	--	--	2550
19N.05W.09.4112, BLACKWAT	355328107220801	GW	76-01-13	1500	211FRLD	--	--	--	2600
19N.05W.12.3234, CASTILLO	355320107191101	GW	76-01-14	1400	110AVMB	--	--	--	920
19N.05W.17.4434 SPRING	355215107225601	SP	76-01-14	1300	211PCCF	--	--	--	650
19N.05W.18.2211	355304107240101	SP	76-01-13	1215	--	--	--	--	720
19N.05W.18.2224 PAPERLKW	355259107235001	GW	76-01-14	1120	110AVMB	--	--	--	1080
19N.05W.23.3431 19K-333	355125107201701	GW	76-01-15	1200	211CHCR	--	--	--	--
19N.05W.25.414, TINIAN DUG	355046107184401	GW	76-01-29	1230	110AVMB	--	--	--	9900
19N.05W.25.42	355051107183201	GW	76-01-28	1720	110AVMB	--	--	--	3900
19N.06W.01.3242, CCR-23	355415107252801	GW	76-01-15	1130	211MENF	790	--	--	4000
19N.06W.10.2111, MISSION	355356107273501	GW	75-12-28	1400	211CLFH	--	--	--	3130
19N.06W.24.2212	355213107245801	GW	75-12-28	1500	211LWIS	--	--	--	2130
19N.06W.31.2242	355025107301601	GW	76-01-12	1300	--	--	--	--	1370
19N.06W.35.3422, ELKIN 6	354950107263401	GW	76-01-26	1600	211CHCR	--	--	--	2900
19N.07W.01.4112, RATONWEL	355425107314401	GW	76-01-05	1230	211PCCF	--	--	--	--
20N.05W.07.33C, OIL WELL	355822107244601	GW	76-01-29	1410	211MENF	--	--	--	--
20N.05W.22.4422, JOENCINO	355642107203801	SP	76-01-13	1300	211QJAM	--	--	--	280
20N.06W.11.4244	355833107255901	GW	76-01-29	1500	211KRLD	--	--	--	3590
20N.06W.29.4143, CCR-22	355558107293301	GW	75-12-28	1110	--	--	--	--	3590
20N.06W.34.1143S, U. PLANT	355534107275701	GW	75-12-27	1630	211MENF	--	--	--	2610
20N.07W.18.4112 DUG WELL	355752107370701	GW	76-01-05	1600	110AVMB	--	--	--	--
20N.07W.20.1441	355708107361401	GW	76-01-05	1530	110AVMB	--	--	--	1810
20N.07W.20.1444 CASTILLO	355703107361201	GW	76-01-05	1500	110AVMB	--	--	--	--
20N.07W.22.1221, PUEBLO A	355720107340501	GW	75-12-27	1445	110AVMB	--	--	--	1350
20N.07W.24.222 CCR24	355723107312201	GW	75-12-28	1030	211FRLD	--	--	--	5430
20N.08W.04.4231	355926107410201	GW	76-01-27	1340	110AVMB	--	--	--	980
20N.08W.04.4312 DUG WELL	355920107411001	GW	76-01-27	1315	110AVMB	--	--	--	1950
20N.08W.24.3341	355636107383501	SP	76-01-28	1100	211CHCR	--	--	--	1300
20N.08W.36.4242	355507107374601	GW	76-01-28	1340	211CHCR	--	--	--	2800

## QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## MCKINLEY COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BIO- ITY (JTU) (00070)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA, MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)
17N.13W.21.111	76-09-17	8.1	--	--	--	410	210	100	38	160
17N.14W.01.343	76-09-16	8.3	--	--	--	97	0	19	12	230
17N.14W.02.3244	76-09-16	8.1	--	--	--	59	0	14	5.9	160
18N.14W.34.121	76-09-16	8.0	--	--	--	--	--	--	7.6	240
19N.05W.01.1212, LOPEZWEL	76-01-14	8.3	4.0	--	--	50	0	16	2.5	270
19N.05W.01.3323 DUG WELL	76-01-14	8.0	7.0	--	--	130	0	45	3.5	190
19N.05W.04.2114, 19R-302,	76-01-13	8.4	--	--	--	11	0	2.7	1.0	600
19N.05W.09.4111	76-01-13	7.3	5.5	--	--	940	130	150	41	410
19N.05W.09.4112, BLACKWAT	76-01-13	7.4	6.0	--	--	540	130	150	40	410
19N.05W.12.3234, CASTILLO	76-01-14	8.2	7.0	--	--	79	0	27	2.9	180
19N.05W.17.4434 SPRING	76-01-14	7.7	--	--	--	210	41	62	14	49
19N.05W.18.2211	76-01-13	8.1	--	--	--	150	4	53	4.3	88
19N.05W.18.2224 PAPERLKW	76-01-14	8.3	--	--	--	350	3	120	13	110
19N.05W.23.3431 19K-333	76-01-15	8.9	--	--	--	260	0	9.1	58	790
19N.05W.25.414, TINIANDUG	76-01-29	8.5	--	--	--	880	380	170	110	2200
19N.05W.25.42	76-01-28	7.4	6.0	--	--	440	0	140	22	800
19N.06W.01.3242, CCR-23	76-01-15	8.6	12.5	5	24	13	0	3.1	1.3	1000
19N.06W.10.2111, MISSION	75-12-28	8.6	--	--	--	8	0	2.2	.7	770
19N.06W.24.2212	75-12-28	8.3	--	--	--	30	0	7.0	3.1	520
19N.06W.31.2242	76-01-12	7.3	--	--	--	400	120	93	41	160
19N.06W.35.3422, ELKIN 6	76-01-26	8.7	--	--	--	37	0	9.7	3.1	650
19N.07W.01.4112, RATONWEL	76-01-05	8.0	--	1	35	20	0	4.4	2.2	590
20N.05W.07.33C, OIL WELL	76-01-29	8.6	--	--	--	16	0	2.8	2.1	1000
20N.05W.22.44220, JOENCINO	76-01-13	7.3	--	--	--	31	0	11	.9	43
20N.06W.11.4244	76-01-29	8.6	2.0	--	--	35	0	6.4	4.6	740
20N.06W.29.4143, CCR-22	75-12-28	8.4	--	10	20	13	0	3.1	1.2	910
20N.06W.34.11435, U. PLANT	75-12-27	8.6	--	4	6	8	0	2.1	.7	670
20N.07W.18.4112 DUG WELL	76-01-05	7.7	--	--	--	200	0	67	8.4	89
20N.07W.20.1441	76-01-05	8.3	--	--	--	480	220	120	44	230
20N.07W.20.1444 CASTILLO	76-01-05	7.6	--	--	--	2700	2400	440	400	520
20N.07W.22.1221, PUEBLO A	75-12-27	7.6	--	1	24	330	0	93	23	190
20N.07W.24.222 CCR24	75-12-28	8.5	--	1	8	21	0	5.0	2.0	1300
20N.08W.04.4231	76-01-27	7.3	8.0	--	--	240	0	83	7.6	130
20N.08W.04.4312 DUG WELL	76-01-27	7.3	4.0	--	--	780	280	240	44	160
20N.08W.24.3341	76-01-28	7.3	4.0	--	--	700	330	140	85	26
20N.08W.36.4242	76-01-28	8.0	--	--	--	700	470	150	78	350



## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## MCKINLEY COUNTY--Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	TOTAL SUL- FIDE (S) (MG/L) (00745)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)
17N.13W.21.111	76-09-17	3.5	4.4	238	0	--	520	4.6	.3	21
17N.14W.01.343	76-09-16	10	2.4	236	0	--	400	7.3	.6	22
17N.14W.02.3244	76-09-16	9.0	2.3	219	0	--	210	6.1	.6	13
18N.14W.34.121	76-09-16	--	2.6	210	0	--	440	4.6	.5	13
19N.05W.01.1212,LOPEZWEL	76-01-14	17	2.3	586	0	.1	150	5.2	1.4	7.7
19N.05W.01.3323 DUG WELL	76-01-14	7.3	5.1	499	0	.1	100	4.7	.7	9.3
19N.05W.04.214,19R-302.	76-01-13	79	2.2	891	43	2.1	480	19	5.5	12
19N.05W.09.4111	76-01-13	7.7	8.5	503	0	.0	1000	12	.3	25
19N.05W.09.4112,BLACKWAT	76-01-13	7.7	8.3	501	0	.0	990	12	.2	22
19N.05W.12.3234,CASTILLO	76-01-14	8.8	2.8	443	0	.2	100	8.5	.8	8.0
19N.05W.17.4434 SPRING	76-01-14	1.5	1.2	209	0	.0	77	29	1.2	8.2
19N.05W.18.2211	76-01-13	3.1	5.7	178	0	.0	190	6.4	.5	42
19N.05W.18.2224 PAPERLKW	76-01-14	2.5	6.1	427	0	.2	180	19	.8	11
19N.05W.23.3431 19K-333	76-01-15	21	.2	543	38	.0	1300	44	2.0	2.7
19N.05W.25.414,TINIANDUG	76-01-29	32	9.3	608	0	--	5100	53	.9	8.0
19N.05W.25.42	76-01-28	17	2.9	867	0	.3	1300	35	.6	10
19N.06W.01.3242 ,CCR-23	76-01-15	120	3.4	1040	64	.2	1100	71	4.9	10
19N.06W.10.2111,MISSION	75-12-28	116	3.2	1250	67	.0	450	79	8.1	6.6
19N.06W.24.2212	75-12-28	41	6.4	1270	0	--	100	19	2.6	7.8
19N.06W.31.2242	76-01-12	3.5	3.5	344	0	.0	460	6.3	.1	15
19N.06W.35.3422,ELKIN 6	76-01-26	47	2.5	237	11	.2	1200	6.0	.4	3.4
19N.07W.01.4112,RATONWEL	76-01-05	57	2.3	529	0	.0	810	26	1.2	6.8
20N.05W.07.33C,OIL WELL	76-01-29	110	7.1	1240	404	.6	20	390	8.0	18
20N.05W.22.44220,JOENCINO	76-01-13	3.4	.7	65	0	.0	48	9.2	.4	18
20N.06W.11.4244	76-01-29	55	3.7	513	0	.0	3.0	910	1.0	4.2
20N.06W.29.4143,CCR-22	75-12-28	111	4.1	1150	149	.1	540	150	6.5	6.5
20N.06W.34.11435,U,PLANT	75-12-27	102	2.5	859	53	.0	490	89	3.0	8.4
20N.07W.18.4112 DUG WELL	76-01-05	2.7	4.2	342	0	.0	120	5.9	.4	9.0
20N.07W.20.1441	76-01-05	4.6	6.4	318	0	--	710	21	.4	10
20N.07W.20.1444 CASTILLO	76-01-05	4.3	7.2	388	0	.0	3200	64	.5	10
20N.07W.22.1221,PUEBLO A	75-12-27	4.6	6.3	537	0	.0	270	15	1.2	11
20N.07W.24.222 CCR24	75-12-28	124	5.3	1200	141	.0	720	650	3.4	6.5
20N.08W.04.4231	76-01-27	3.7	2.9	426	0	.3	170	6.4	.6	7.8
20N.08W.04.4312 DUG WELL	76-01-27	2.5	7.5	605	0	.9	650	7.5	.3	9.3
20N.08W.24.3341	76-01-28	.4	2.3	456	0	.2	350	14	.2	14
20N.08W.36.4242	76-01-28	5.8	4.5	280	0	.0	1200	11	.4	10

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## MCKINLEY COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF TUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)
17N.13W.21.111	76-09-17	--	967	--	.18	--	--	--	--	.02
17N.14W.01.343	76-09-16	--	811	--	.21	--	--	--	--	.02
17N.14W.02.3244	76-09-16	--	521	--	.22	--	--	--	--	.02
18N.14W.34.121	76-09-16	--	--	--	.42	--	--	--	--	.01
19N.05W.01.1212,LOPEZWEL	76-01-14	--	744	--	.08	--	--	--	--	.00
19N.05W.01.3323 DUG WELL	76-01-14	--	642	--	8.5	--	--	--	--	.01
19N.05W.04.214,19R-302,	76-01-13	--	1610	--	.02	--	--	--	--	.06
19N.05W.09.4111	76-01-13	--	1900	--	.63	--	--	--	--	.00
19N.05W.09.4112,BLACKWAT	76-01-13	--	1880	--	.63	--	--	--	--	.01
19N.05W.12.3234,CASTILLO	76-01-14	--	563	--	3.3	--	--	--	--	.00
19N.05W.17.4434 SPRING	76-01-14	--	383	--	8.6	--	--	--	--	.00
19N.05W.18.2211	76-01-13	--	499	--	4.5	--	--	--	--	.04
19N.05W.18.2224 PAPERLKW	76-01-14	--	703	--	7.3	--	--	--	--	.07
19N.05W.23.3431 19K-333	76-01-15	--	2510	--	.12	--	--	--	--	.01
19N.05W.25.414,TINIANDUG	76-01-29	--	7950	--	.27	--	--	--	--	.02
19N.05W.25.42	76-01-28	--	2740	--	.26	--	--	--	--	.00
19N.06W.01.3242 ,CCR-23	76-01-15	2760	2770	.01	.01	.32	.88	1.2	.01	.00
19N.06W.10.2111,MISSION	75-12-28	--	2000	--	.13	--	--	--	--	.02
19N.06W.24.2212	75-12-28	--	1320	--	4.1	--	--	--	--	1.5
19N.06W.31.2242	76-01-12	--	953	--	.86	--	--	--	--	.01
19N.06W.35.3422,ELKIN 6	76-01-26	--	2010	--	.62	--	--	--	--	.00
19N.07W.01.4112,RATONWEL	76-01-05	1680	1700	.11	.11	.20	.22	.53	.02	.02
20N.05W.07.33C,OIL WELL	76-01-29	--	2460	--	.01	--	--	--	--	.02
20N.05W.22.4422OJOENCINO	76-01-13	--	173	--	2.1	--	--	--	--	.12
20N.06W.11.4244	76-01-29	--	1930	--	.07	--	--	--	--	.01
20N.06W.29.4143,CCR-22	75-12-28	2350	2340	.26	.26	.13	.39	.78	.03	.01
20N.06W.34.11435,U.PLANT	75-12-27	1680	1750	.58	.54	.00	.25	.83	.03	.02
20N.07W.18.4112 DUG WELL	76-01-05	--	482	--	2.0	--	--	--	--	.03
20N.07W.20.1441	76-01-05	--	1300	--	.67	--	--	--	--	.00
20N.07W.20.1444 CASTILLO	76-01-05	--	4890	--	12	--	--	--	--	.03
20N.07W.22.1221,PUEBLO A	75-12-27	887	877	.57	.53	.00	.33	.90	.04	.03
20N.07W.24.222 CCR24	75-12-28	3550	3430	.31	.28	.18	.82	1.3	.00	.00
20N.08W.04.4231	76-01-27	--	619	--	.08	--	--	--	--	.00
20N.08W.04.4312 DUG WELL	76-01-27	--	1420	--	.07	--	--	--	--	.00
20N.08W.24.3341	76-01-28	--	857	--	.14	--	--	--	--	.00
20N.08W.36.4242	76-01-28	--	1940	--	.10	--	--	--	--	.00

## QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## MCKINLEY COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
17N.13W.21.111	76-09-17	120	10	--	--
17N.14W.01.343	76-09-16	120	80	--	--
17N.14W.02.3244	76-09-16	130	10	--	--
18N.14W.34.121	76-09-16	120	--	--	--
19N.05W.01.1212,LOPEZWEL	76-01-14	40	70	--	1.8
19N.05W.01.3323 DUG WELL	76-01-14	70	0	--	7.7
19N.05W.04.214,19R-302	76-01-13	400	30	--	9.9
19N.05W.09.4111	76-01-13	1500	0	--	6.0
19N.05W.09.4112,BLACKWAT	76-01-13	1500	10	--	15
19N.05W.12.3234,CASTILLO	76-01-14	30	0	--	1.5
19N.05W.17.4434 SPRING	76-01-14	20	0	--	2.1
19N.05W.18.2211	76-01-13	700	100	--	19
19N.05W.18.2224 PAPERLKW	76-01-14	110	0	--	2.4
19N.05W.23.3431 19K-333	76-01-15	240	0	--	2.0
19N.05W.25.414,TINIANDUG	76-01-29	150	20	--	--
19N.05W.25.42	76-01-28	80	140	--	5.0
19N.06W.01.3242,CCR-23	76-01-15	360	170	40	8.4
19N.06W.10.2111,MISSION	75-12-28	400	10	--	7.5
19N.06W.24.2212	75-12-28	290	0	--	--
19N.06W.31.2242	76-01-12	150	20	--	.8
19N.06W.35.3422,ELKIN 6	76-01-26	200	0	--	.8
19N.07W.01.4112,RATONWEL	76-01-05	340	10	0	1.0
20N.05W.07.33C,OIL WELL	76-01-29	920	30	--	151
20N.05W.22.4422,JOENCINO	76-01-13	10	0	--	--
20N.06W.11.4244	76-01-29	330	0	--	6.7
20N.06W.29.4143,CCR-22	75-12-28	450	0	10	44
20N.06W.34.1143S,U.PLANT	75-12-27	300	1100	50	3.1
20N.07W.18.4112 DUG WELL	76-01-05	50	0	--	--
20N.07W.20.1441	76-01-05	70	10	--	--
20N.07W.20.1444 CASTILLO	76-01-05	270	10	--	13
20N.07W.22.1221,PUEBLO A	75-12-27	190	20	50	5.4
20N.07W.24.222 CCR24	75-12-28	470	10	20	8.6
20N.08W.04.4231	76-01-27	50	10	--	3.7
20N.08W.04.4312 DUG WELL	76-01-27	70	30	--	6.4
20N.08W.24.3341	76-01-28	20	30	--	.5
20N.08W.36.4242	76-01-28	130	0	--	15

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL ALUM- INUM (AL) (UG/L) (01105)	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL BORON (B) (UG/L) (01022)
19N.05W.01.1212,LOPEZWEL	355444107191001	GW	76-01-14	1630	50	--	0	--	70
19N.05W.01.3323 DUG WELL	355406107192301	GW	76-01-14	1600	40	--	1	--	100
19N.05W.04.214,19R-302	355435107220001	GW	76-01-13	1400	60	--	0	--	400
19N.05W.09.4111	355328107221001	SP	76-01-13	1150	50	--	0	--	1600
19N.05W.09.4112,BLACKWAT	355328107220801	GW	76-01-13	1500	40	--	0	--	1600
19N.05W.12.3234,CASTILLO	355320107191101	GW	76-01-14	1400	50	--	0	--	60
19N.05W.17.4434 SPRING	355215107225601	SP	76-01-14	1300	60	--	0	--	50
19N.05W.18.2211	355304107240101	SP	76-01-13	1215	80	--	1	--	700
19N.05W.18.2224 PAPERLKW	355259107235001	GW	76-01-14	1120	60	--	0	--	150
19N.05W.23.3431 19K-333	355125107201701	GW	76-01-15	1200	0	--	6	--	280
19N.05W.25.42	355051107183201	GW	76-01-28	1720	40	--	0	--	110
19N.06W.01.3242,CCR-23	355415107252801	GW	76-01-15	1130	80	0	0	--	--
19N.06W.10.2111,MISSION	355356107273501	GW	75-12-28	1400	4700	--	0	--	450
19N.06W.24.2242	355025107301601	GW	76-01-12	1300	50	--	0	--	160
19N.06W.35.3422,ELKIN 6	354950107263401	GW	76-01-26	1600	0	--	3	--	210
19N.07W.01.4112,RATONWEL	355425107314401	GW	76-01-05	1230	40	10	0	0	--
20N.05W.07.33C,OIL WELL	355822107244601	GW	76-01-29	1410	90	--	0	--	1000
20N.05W.22.4422,JOENCINO	355642107203801	SP	76-01-13	1300	80	--	0	--	0
20N.06W.11.4244	355833107255901	GW	76-01-29	1500	60	--	0	--	330
20N.06W.29.4143,CCR-22	355558107293301	GW	75-12-28	1110	560	0	0	0	--
20N.06W.34.1143S,U.PLANT	355534107275701	GW	75-12-27	1630	40	0	1	1	--
20N.07W.18.4112 DUG WELL	355752107370701	GW	76-01-05	1600	40	--	0	--	60
20N.07W.20.1444 CASTILLO	355703107361201	GW	76-01-05	1500	3000	--	0	--	270
20N.07W.22.1221,PUEBLO A	355720107340501	GW	75-12-27	1445	20	0	1	1	--
20N.07W.24.222 CCR24	355732107312201	GW	75-12-28	1030	40	0	0	0	--
20N.08W.04.4231	355926107410201	GW	76-01-27	1340	40	--	0	--	90
20N.08W.04.4312 DUG WELL	355920107411001	GW	76-01-27	1315	960	--	1	--	110
20N.08W.24.3341	355636107383501	SP	76-01-28	1100	20	--	0	--	80
20N.08W.36.4242	355507107374601	GW	76-01-28	1340	20	--	0	--	190

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## MCKINLEY COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)
19N.05W.01.1212,LOPEZWEL	76-01-14	40	--	--	--	--	--	--	--	--
19N.05W.01.3323 DUG WELL	76-01-14	70	--	--	--	--	--	--	--	--
19N.05W.04.214,19R-302,	76-01-13	400	--	--	--	--	--	--	--	--
19N.05W.09.4111	76-01-13	1500	--	--	--	--	--	--	--	--
19N.05W.09.4112,BLACKWAT	76-01-13	1500	--	--	--	--	--	--	--	--
19N.05W.12.3234,CASTILLO	76-01-14	30	--	--	--	--	--	--	--	--
19N.05W.17.4434 SPRING	76-01-14	20	--	--	--	--	--	--	--	--
19N.05W.18.2211	76-01-13	700	--	--	--	--	--	--	--	--
19N.05W.18.2224 PAPERLKW	76-01-14	110	--	--	--	--	--	--	--	--
19N.05W.23.3431 19K-333	76-01-15	240	--	--	--	--	--	--	--	--
19N.05W.25.42	76-01-28	80	--	--	--	--	--	--	--	--
19N.06W.01.3242 ,CCR-23	76-01-15	360	<10	0	0	0	<50	1	60	1
19N.06W.10.2111,MISSION	75-12-28	400	--	--	--	--	--	--	--	--
19N.06W.31.2242	76-01-12	150	--	--	--	--	--	--	--	--
19N.06W.35.3422,ELKIN 6	76-01-26	200	--	--	--	--	--	--	--	--
19N.07W.01.4112,RATONWEL	76-01-05	340	0	0	0	0	<50	1	10	0
20N.05W.07.33C,OIL WELL	76-01-29	920	--	--	--	--	--	--	--	--
20N.05W.22.4422OJOENCINO	76-01-13	10	--	--	--	--	--	--	--	--
20N.06W.11.4244	76-01-29	330	--	--	--	--	--	--	--	--
20N.06W.29.4143,CCR-22	75-12-28	450	<10	0	0	0	<50	2	490	3
20N.06W.34.1143S.U.PLANT	75-12-27	300	<10	0	20	0	<50	0	60	8
20N.07W.18.4112 DUG WELL	76-01-05	50	--	--	--	--	--	--	--	--
20N.07W.20.1444 CASTILLO	76-01-05	270	--	--	--	--	--	--	--	--
20N.07W.22.1221,PUEBLO A	75-12-27	190	<10	0	0	0	<50	0	10	3
20N.07W.24.222 CCR24	75-12-28	470	<10	0	0	0	50	1	20	2
20N.08W.04.4231	76-01-27	50	--	--	--	--	--	--	--	--
20N.08W.04.4312 DUG WELL	76-01-27	70	--	--	--	--	--	--	--	--
20N.08W.24.3341	76-01-28	20	--	--	--	--	--	--	--	--
20N.08W.36.4242	76-01-28	130	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)
19N.05W.01.1212,LOPEZWEL	76-01-14	--	70	100	--	20	--	--	--	.0
19N.05W.01.3323 DUG WELL	76-01-14	--	0	<100	--	20	--	--	--	.0
19N.05W.04.214,19R-302,	76-01-13	--	30	<100	--	30	--	--	--	.0
19N.05W.09.4111	76-01-13	--	0	<100	--	550	--	--	--	.0
19N.05W.09.4112,BLACKWAT	76-01-13	--	10	<100	--	620	--	--	--	.0
19N.05W.12.3234,CASTILLO	76-01-14	--	0	<100	--	20	--	--	--	.0
19N.05W.17.4434 SPRING	76-01-14	--	0	<100	--	10	--	--	--	.0
19N.05W.18.2211	76-01-13	--	100	<100	--	180	--	--	--	.0
19N.05W.18.2224 PAPERLKW	76-01-14	--	0	<100	--	20	--	--	--	.0
19N.05W.23.3431 19K-333	76-01-15	--	0	<100	--	70	--	--	--	.0
19N.05W.25.42	76-01-28	--	140	<100	--	40	--	--	--	.0
19N.06W.01.3242 ,CCR-23	76-01-15	2000	170	<100	0	80	80	60	40	.0
19N.06W.10.2111,MISSION	75-12-28	--	10	<100	--	70	--	--	--	.0
19N.06W.31.2242	76-01-12	--	20	<100	--	30	--	--	--	.0
19N.06W.35.3422,ELKIN 6	76-01-26	--	0	<100	--	90	--	--	--	.1
19N.07W.01.4112,RATONWEL	76-01-05	90	10	<100	1	50	50	10	0	.0
20N.05W.07.33C,OIL WELL	76-01-29	--	30	<100	--	120	--	--	--	.0
20N.05W.22.4422OJOENCINO	76-01-13	--	0	<100	--	10	--	--	--	.0
20N.06W.11.4244	76-01-29	--	0	<100	--	30	--	--	--	.0
20N.06W.29.4143,CCR-22	75-12-28	3200	0	<100	0	80	80	20	10	.1
20N.06W.34.1143S.U.PLANT	75-12-27	5700	1100	<100	0	60	60	100	50	.0
20N.07W.18.4112 DUG WELL	76-01-05	--	0	<100	--	10	--	--	--	.0
20N.07W.20.1444 CASTILLO	76-01-05	--	10	100	--	180	--	--	--	.0
20N.07W.22.1221,PUEBLO A	75-12-27	0	20	100	0	20	20	60	50	.0
20N.07W.24.222 CCR24	75-12-28	340	10	<100	0	110	110	20	20	.1
20N.08W.04.4231	76-01-27	--	10	<100	--	20	--	--	--	.0
20N.08W.04.4312 DUG WELL	76-01-27	--	30	<100	--	40	--	--	--	.0
20N.08W.24.3341	76-01-28	--	30	<100	--	30	--	--	--	.0
20N.08W.36.4242	76-01-28	--	0	<100	--	80	--	--	--	.0

## QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## MCKINLEY COUNTY--Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	DIS- SOLVED VANAD- IUM (V) (UG/L) (01085)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
19N.05W.01.1212,LOPEZWEL	76-01-14	--	0	--	--	--	--
19N.05W.01.3323 DUG WELL	76-01-14	--	3	--	--	--	--
19N.05W.04.214,19R-302,	76-01-13	--	0	--	--	--	--
19N.05W.09.4111	76-01-13	--	1	--	--	--	--
19N.05W.09.4112,BLACKWAT	76-01-13	--	0	--	--	--	--
19N.05W.12.3234,CASTILLO	76-01-14	--	3	--	--	--	--
19N.05W.17.4434 SPRING	76-01-14	--	1	--	--	--	--
19N.05W.18.2211	76-01-13	--	1	--	--	--	--
19N.05W.18.2224 PAPERLKW	76-01-14	--	2	--	--	--	--
19N.05W.23.3431 19K-333	76-01-15	--	1	--	--	--	--
19N.05W.25.42	76-01-28	--	0	--	--	--	--
19N.06W.01.3242 ,CCR-23	76-01-15	.0	0	0	.5	140	20
19N.06W.10.2111,MISSION	75-12-28	--	0	--	--	--	--
19N.06W.31.2242	76-01-12	--	0	--	--	--	--
19N.06W.35.3422,ELKIN 6	76-01-26	--	0	--	--	--	--
19N.07W.01.4112,RATONWEL	76-01-05	.0	0	0	.1	10	10
20N.05W.07.33C,OIL WELL	76-01-29	--	0	--	--	--	--
20N.05W.22.44220JOENCINO	76-01-13	--	2	--	--	--	--
20N.06W.11.4244	76-01-29	--	0	--	--	--	--
20N.06W.29.4143,CCR-22	75-12-28	.1	0	0	1.1	1200	240
20N.06W.34.1143S,U,PLANT	75-12-27	.0	0	0	.5	10	0
20N.07W.18.4112 DUG WELL	76-01-05	--	1	--	--	--	--
20N.07W.20.1444 CASTILLO	76-01-05	--	3	--	--	--	--
20N.07W.22.1221,PUEBLO A	75-12-27	.0	4	3	1.0	10	10
20N.07W.24.222 CCR24	75-12-28	.1	0	0	9.7	380	330
20N.08W.04.4231	76-01-27	--	0	--	--	--	--
20N.08W.04.4312 DUG WELL	76-01-27	--	0	--	--	--	--
20N.08W.24.3341	76-01-28	--	0	--	--	--	--
20N.08W.36.4242	76-01-28	--	0	--	--	--	--

LOCAL IDENT- IFIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL NON- FILT- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDE GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDE GROSS BETA AS CS-137 (PC/L) (03516)
17N.13W.21.111	354145108135501	GW	76-09-17	1820	11	<14	15	3.4	4.9
17N.14W.01.343	354332108165501	GW	76-09-16	1500	0	<11	<.4	3.3	<.4
17N.14W.02.3244	354345108175001	GW	76-09-16	1445	0	7.1	.4	7.5	<.4
18N.14W.34.121	354514108190601	GW	76-09-16	1240	<1	<9.4	.6	3.5	<.4
19N.06W.01.3242 ,CCR-23	355415107252801	GW	76-01-15	1130	5	54	<.4	25	.8
19N.07W.01.4112,RATONWEL	355425107314401	GW	76-01-05	1230	<1	64	<.4	24	<.4
20N.06W.29.4143,CCR-22	355558107293301	GW	75-12-28	1110	38	<43	3.6	18	1.5
20N.06W.34.1143S,U,PLANT	355534107275701	GW	75-12-27	1630	4	<17	<.4	<7.2	<.4
20N.07W.22.1221,PUEBLO A	355720107340501	GW	75-12-27	1445	<1	41	<.4	16	1.1
20N.07W.24.222 CCR24	355723107312201	GW	75-12-28	1030	<1	<37	<.4	16	<.4

LOCAL IDENT- IFIER	DATE OF SAMPLE	DIS- SOLVED GROSS BETA AS SR90 (PC/L) (80050)	SUS- PENDE GROSS BETA AS SR90 (PC/L) (80060)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED URANIUM (DIRECT FLUORO- METRIC) (PC/L) (80010)	DIS- SOLVED URANIUM (U) (UG/L) (80020)
17N.13W.21.111	76-09-17	3.0	3.9	.21	--	.10
17N.14W.01.343	76-09-16	2.7	<.4	.22	--	.07
17N.14W.02.3244	76-09-16	6.0	<.4	.42	--	.20
18N.14W.34.121	76-09-16	2.8	<.4	.82	--	.06
19N.06W.01.3242 ,CCR-23	76-01-15	20	.7	.14	--	.30
19N.07W.01.4112,RATONWEL	76-01-05	20	<.4	.15	--	.20
20N.06W.29.4143,CCR-22	75-12-28	14	1.2	.25	--	.20
20N.06W.34.1143S,U,PLANT	75-12-27	<5.7	<.4	.05	--	.05
20N.07W.22.1221,PUEBLO A	75-12-27	13	1.1	.07	9.8	--
20N.07W.24.222 CCR24	75-12-28	13	<.4	.21	--	.09

## QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## QUAY COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA,MG) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)
13N.33E.16.121 WELL AT U	352137103264001		GW	76-08-25	1150	--	1070	7.4	440	170
LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
13N.33E.16.121 WELL AT U	76-08-25	61	69	49	1.0	4.1	321	0	190	74
LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)					
13N.33E.16.121 WELL AT U	76-08-25	.3	21	635	1.8					

## SANDOVAL COUNTY

LOCAL IDENT- I- FIER	STATION	NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (JTU) (00070)
17N.02W.07.422 WELL NR L	354306107044301		GW	76-03-29	1600	--	3500	8.7	--	--
19N.04W.13.111C,OIL WELL	355302107130501		GW	75-12-27	1045	221ENRD	11300	7.5	--	15
21N.06W.17.4113,HERRERA	360258107292901		GW	76-01-27	1600	110AVMB	--	--	--	--
21N.07W.19.4441	360153107363701		SP	76-01-27	0930	2110JAM	430	8.2	6.0	--
21N.07W.27.3332 SPRING	360100107341701		SP	76-01-28	0950	2110JAM	520	8.1	4.0	--
21N.07W.35.1231,WERITO-M	360045107325901		GW	76-01-27	1700	110AVMB	590	7.9	--	--
LOCAL IDENT- I- FIER	DATE OF SAMPLE	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)
17N.02W.07.422 WELL NR L	76-03-29	--	19	0	4.7	1.7	870	87	3.9	797
19N.04W.13.111C,OIL WELL	75-12-27	30	280	3	100	8.4	2600	67	22	343
21N.06W.17.4113,HERRERA	76-01-27	--	28	0	9.9	.8	260	21	2.3	553
21N.07W.19.4441	76-01-27	--	160	67	60	3.5	21	.7	1.7	119
21N.07W.27.3332 SPRING	76-01-28	--	200	73	77	2.4	24	.7	1.5	157
21N.07W.35.1231,WERITO-M	76-01-27	--	42	0	15	1.2	130	8.7	1.7	299
LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (CO3) (MG/L) (00445)	TOTAL SUL- FIDE (S) (MG/L) (00745)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)
17N.02W.07.422 WELL NR L	76-03-29	227	--	810	64	2.7	5.5	--	2390	--
19N.04W.13.111C,OIL WELL	75-12-27	0	.3	4600	700	4.6	36	8880	8240	.01
21N.06W.17.4113,HERRERA	76-01-27	--	--	110	7.6	1.4	7.8	--	677	--
21N.07W.19.4441	76-01-27	0	.4	100	5.1	.4	19	--	275	--
21N.07W.27.3332 SPRING	76-01-28	0	.2	120	6.8	.3	13	--	326	--
21N.07W.35.1231,WERITO-M	76-01-27	0	--	58	4.7	.6	8.3	--	372	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SANDOVAL COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL NITRO- GEN (N) (MG/L) (00600)	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	DIS- SOLVED ORTHO- PHOS- PHORUS (P) (MG/L) (00671)
17N.02W.07.422 WELL NR L	76-03-29	.47	--	--	--	--	.03
19N.04W.13.111C,OIL WELL	75-12-27	.00	.13	.02	.16	.03	.03
21N.06W.17.4113,HERRERA	76-01-27	1.0	--	--	--	--	.02
21N.07W.19.4441	76-01-27	1.2	--	--	--	--	.00
21N.07W.27.3332 SPRING	76-01-28	.76	--	--	--	--	.00
21N.07W.35.1231,WERITO-M	76-01-27	1.0	--	--	--	--	.04

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
17N.02W.07.422 WELL NR L	76-03-29	340	40	--	--
19N.04W.13.111C,OIL WELL	75-12-27	1900	800	90	2.0
21N.06W.17.4113,HERRERA	76-01-27	30	20	--	--
21N.07W.19.4441	76-01-27	10	0	--	4.2
21N.07W.27.3332 SPRING	76-01-28	9	0	--	1.8
21N.07W.35.1231,WERITO-M	76-01-27	40	110	--	--

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL ALUM- INUM (AL) (UG/L) (01105)	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL BORON (B) (UG/L) (01022)
19N.04W.13.111C,OIL WELL	355302107130501	GW	75-12-27	1045	60	10	3	3	--
21N.07W.19.4441	360153107363701	SP	76-01-27	0930	80	--	0	--	60
21N.07W.27.3332 SPRING	360100107341701	SP	76-01-28	0950	40	--	0	--	40

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)
19N.04W.13.111C,OIL WELL	75-12-27	1900	10	0	0	0	100	0	20	0
21N.07W.19.4441	76-01-27	10	--	--	--	--	--	--	--	--
21N.07W.27.3332 SPRING	76-01-28	9	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	TOTAL MANGANESE (MN) (UG/L) (01055)	DIS- SOLVED MANGANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)
19N.04W.13.111C,OIL WELL	75-12-27	2400	800	100	0	1300	1200	100	90	.0
21N.07W.19.4441	76-01-27	--	0	<100	--	0	--	--	--	.0
21N.07W.27.3332 SPRING	76-01-28	--	0	<100	--	0	--	--	--	.0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	DIS- SOLVED VANAD- IUM (V) (UG/L) (01085)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
19N.04W.13.111C,OIL WELL	75-12-27	.0	0	0	6.7	30	0
21N.07W.19.4441	76-01-27	--	3	--	--	--	--
21N.07W.27.3332 SPRING	76-01-28	--	7	--	--	--	--

## QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SANDOVAL COUNTY--Continued

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL	DIS-	SUS-	DIS-	SUS-
					NON-	SOLVED	PENDE	SOLVED	PENDE
					FILT-	GROSS	GROSS	GROSS	GROSS
					RABLE	ALPHA	ALPHA	BETA	BETA
FIER					RESIDUE	AS	AS	AS	AS
					(MG/L)	U-NAT.	U-NAT.	CS-137	CS-137
					(00530)	(UG/L)	(UG/L)	(PC/L)	(PC/L)
						(80030)	(80040)	(03515)	(03516)
19N.04W.13.111C+OIL WELL	355302107130501	GW	75-12-27	1045	3	260	<.4	94	<.4
LOCAL IDENT- I- FIER			DATE OF SAMPLE		DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L) (80050)	SUS- PENDE GROSS BETA AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED RA-226 {RADON METHOD) (PC/L) (09511)	DIS- SOLVED URANIUM (U) (UG/L) (80020)	

## SAN JUAN COUNTY

1975 DATA NOT PREVIOUSLY PUBLISHED

LOCAL IDENT- I- FIER	STATION	NUMBER	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (FT) (72019)	TOTAL DEPTH OF WELL (FT) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
23N.12W.07.2333 BISTI DH	361435108093001		GW	75-08-20	1330	211PCCF	162.04	350	350	118
23N.12W.08.2111 BISTI DH	361457108081901		GW	75-08-20	1400	211PCCF	216.90	394	394	200
23N.12W.18.233 BIA 19T-5	361341108092201		GW	75-04-01	1200	211PCCF	--	369	--	--
			GW	75-04-09	1500	211PCCF	--	369	--	--
23N.13W.09.130 BLM FOSHA	361445108140601		GW	75-03-13	1200	211GLLP	--	9803	--	--
			GW	75-04-09	1045	211GLLP	--	9803	3780	3660
LOCAL IDENT- I- FIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA,MG) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)
23N.12W.07.2333 BISTI DH	75-08-20	7540	8.2	18.0	62	0	15	6.0	1600	88
23N.12W.08.2111 BISTI DH	75-08-20	7820	9.2	17.0	27	0	4.8	3.6	1700	143
23N.12W.18.233 BIA 19T-5	75-04-01	2650	8.8	4.0	14	0	3.0	1.6	650	75
	75-04-09	2850	8.9	4.0	13	0	3.3	1.2	670	80
23N.13W.09.130 BLM FOSHA	75-03-13	9900	12.0	--	40	0	16	.1	2000	137
	75-04-09	8520	11.9	1.5	45	0	18	.1	1700	110
LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	HY- DROX- IDE (OH) (MG/L) (71830)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF TWEENTS) (MG/L) (70301)
23N.12W.07.2333 BISTI DH	75-08-20	10	543	0	--	1500	1200	2.7	3.3	4620
23N.12W.08.2111 BISTI DH	75-08-20	11	319	62	--	120	2300	1.2	6.6	4390
23N.12W.18.233 BIA 19T-5	75-04-01	2.3	598	43	--	680	61	1.2	6.7	1740
	75-04-09	3.2	614	58	--	740	58	1.3	6.8	1850
23N.13W.09.130 BLM FOSHA	75-03-13	12	0	262	300	1900	730	1.6	95	5320
	75-04-09	12	0	254	210	1800	650	1.4	130	4780
LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)				
23N.12W.07.2333 BISTI DH	75-08-20	2.8	.00	430	90	--				
23N.12W.08.2111 BISTI DH	75-08-20	4.2	.01	490	140	14				
23N.12W.18.233 BIA 19T-5	75-04-01	.04	.00	230	90	--				
	75-04-09	.59	.00	250	90	--				
23N.13W.09.130 BLM FOSHA	75-03-13	.26	.15	790	240	--				
	75-04-09	.24	.19	820	210	--				



## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN COUNTY--Continued

1975 DATA NOT PREVIOUSLY PUBLISHED

LOCAL IDENT- IFIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)
23N.12W.07.2333 BISTI DH	361435108093001	GW	75-08-20	1330	30	460	430	--	--
23N.12W.08.2111 BISTI DH	361457108081901	GW	75-08-20	1400	17	550	490	20	30
23N.12W.18.233 BIA 19T-5	361341108092201	GW	75-04-01	1200	1	--	230	--	--
23N.13W.09.130 BLM FOSHA	361445108140601	GW	75-03-13	1200	--	--	790	10	10
		GW	75-04-09	1045	60	--	820	--	--

LOCAL IDENT- IFIER	DATE OF SAMPLE	TOTAL COPPER (CU) (UG/L) (01042)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
23N.12W.07.2333 BISTI DH	75-08-20	--	--	90	--	190	--	.2	2
23N.12W.08.2111 BISTI DH	75-08-20	840	19000	140	400	--	450	.4	1
23N.12W.18.233 BIA 19T-5	75-04-01	--	--	90	--	--	--	.0	0
23N.13W.09.130 BLM FOSHA	75-03-13	110	--	240	--	80	--	--	--
	75-04-09	--	--	210	--	--	--	1.0	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

LOCAL IDENT- IFIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (FT) (72019)	TOTAL DEPTH OF WELL (FT) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
NR032.0156X0736 HOLE IN	363835108314101	GW	76-04-01	1415	110AVMB	3.00	5.0	--	--
NR032.0322X1579 13R-28B	363113108333001	GW	76-05-06	1115	110AVMB	--	--	--	--
NR032.0347X1202 13R-31 W	363431108334501	GW	76-05-06	0945	110AVMB	14.50	--	--	--
NR032.0364X1457 13R-29 W	363218108334501	GW	76-05-06	1055	110AVMB	7.50	--	--	--
NR032.0779X1005 ART. WEL	363615108382601	GW	76-05-19	1300	--	--	--	--	--
NR048.0985X1650 13-3 WEL	361542108252801	GW	76-05-10	1030	110AVMB	--	--	--	--
NR048.1230X1337 U-11 WEL	361822108281601	GW	76-05-08	1515	110AVMB	3.50	--	--	--
NR048.1257X0426 13R-38 W	362617108283301	GW	76-05-06	1410	110AVMB	8.00	--	--	--
NR048.1290X0874 13-2 WEL	362222108285501	GW	76-05-08	1135	110AVMB	--	--	--	--
NR049.0031X0186 13R-149	362821108302001	GW	76-05-06	1315	110AVMB	--	--	--	--
NR049.0105X0939 U-51 WEL	362148108310801	GW	76-05-07	1145	110AVMB	5.60	--	--	--
NR049.0338X1704 12K-4 WE	361508108333901	GW	76-05-07	1345	110AVMB	--	--	--	--
NR049.0504X0670 12K-14 W	362411108352701	GW	76-05-20	1110	110AVMB	--	--	--	--
NR049.0956X0344 12R-92 W	362700108401901	GW	76-05-13	1000	110AVMB	9.00	--	--	--
NR066.0005X0195 13R-55A	361317108150301	GW	76-05-10	1345	110AVMB	8.20	--	--	--
NR066.0134X0569 15R-19 W	361002108162601	GW	76-05-22	1430	110AVMB	--	--	--	--
NR066.0171X0568 15-5-11	361003108165101	GW	76-05-11	1200	110AVMB	--	--	--	--
NR066.0285X0391 15-9-11	361135108180501	GW	76-05-22	1345	110AVMB	4.00	--	--	--
NR066.0415X0331 U-20 WEL	361207108192701	GW	76-05-11	1305	110AVMB	--	--	--	--
NR066.0512X0403 WELL IN	361130108203001	GW	76-06-16	1200	--	--	--	--	--
NR066.0972X0498 14-9-2 W	361039108252901	GW	76-05-22	1230	110AVMB	--	--	--	--
NR066.1217X0543 WELL IN	361016108273501	GW	76-06-16	1500	110AVMB	--	--	--	--
NR067.1111X1243 U-22 WEL	360409108415501	GW	76-05-13	1530	110AVMB	--	--	--	--
UTE MTN INDIAN RE COTTON	365254108224601	GW	76-04-01	1010	211CLFH	--	--	--	--
21N.09W.16.230	360313107473401	GW	76-01-06	1140	221WSRC	--	--	--	--
21N.11W.08.1131 WELL PAD	360439108041001	GW	76-06-14	1530	110AVMB	--	--	--	--
21N.12W.01.3421 WELL 76	360444108040801	GW	76-06-14	1610	110AVMB	10.00	--	--	--
22N.10W.31.111 HOLE DUG	360608107565101	GW	76-07-22	1315	--	3.50	4.0	--	--
22N.10W.31.113 CHACO COM	360601107565101	GW	76-07-22	1210	--	5.00	15	--	--
22N.11W.32.3131 WELL IN	361057108022301	GW	76-05-17	1600	--	--	--	--	--
22N.11W.34.231 WELL+ESCA	360559107593501	GW	76-05-06	0830	110AVMB	--	--	--	--
22N.12W.28.2434 WELL IN	360645108065501	GW	76-05-18	1145	--	--	--	--	--
22N.12W.35.4444DUG WELL	360522108043401	GW	76-05-18	1100	--	8.00	--	--	--
22N.13W.24.4131 1R WELL	360729108102901	GW	76-09-27	1400	110AVMB	--	--	--	--
22N.13W.24.4133 2S WELL	360726108102801	GW	76-09-27	1430	110AVMB	--	--	--	--
22N.13W.24.4134 3D WELL	360725108102701	GW	76-09-27	1500	110AVMB	--	--	--	--
22N.13W.24.4314 4V WELL	360717108102301	GW	76-09-27	1530	110AVMB	--	--	--	--
22N.13W.26.142	360647108114201	GW	76-05-11	1000	110AVMB	--	--	--	--
23N.12W.05.221 WELL 2.7	361545108075101	GW	75-10-22	1500	211PNLK	--	4896	2564	2556
		GW	76-03-31	1245	211PNLK	--	4896	2564	2556

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN COUNTY--Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)
NR032.0156X0736 HOLE IN	76-04-01	3200	7.3	7.5	--	--	--	1100	800	370
NR032.0322X1579 13R-288	76-05-06	3200	7.7	14.5	--	--	--	470	250	150
NR032.0347X1202 13R-31 W	76-05-06	3800	7.9	17.0	--	--	--	450	74	140
NR032.0364X1457 13R-29 W	76-05-06	3400	--	15.0	--	--	--	--	--	--
NR032.0779X1005 ART. WEL	76-05-19	4180	8.0	17.5	--	1	--	140	0	35
NR048.0985X1650 13-3 WEL	76-05-10	2000	8.0	14.5	--	--	--	96	0	24
NR048.1230X1337 U-11 WEL	76-05-08	1450	8.0	11.0	--	--	--	100	0	35
NR048.1257X0426 13R-38 W	76-05-06	3200	7.8	12.5	--	--	--	360	230	120
NR048.1290X0874 13-2 WEL	76-05-08	3100	7.8	14.5	--	--	--	330	38	110
NR049.0031X0186 13R-149	76-05-06	800	--	13.5	--	--	--	--	--	--
NR049.0105X0939 U-51 WEL	76-05-07	1950	--	13.0	--	--	--	--	--	--
NR049.0338X1704 12K-4 WE	76-05-07	2000	7.6	12.5	--	--	--	260	0	85
NR049.0504X0670 12K-14 W	76-05-20	4000	7.6	16.5	--	--	--	850	570	260
NR049.0956X0344 12R-92 W	76-05-13	800	7.8	15.5	--	--	--	440	200	96
NR066.0005X0195 13R-55A	76-05-10	1450	8.1	13.5	--	--	--	140	0	49
NR066.0134X0569 15R-19 W	76-05-22	1500	7.7	14.0	--	--	--	140	0	45
NR066.0171X0568 15-5-11	76-05-11	1500	--	13.0	--	--	--	--	--	--
NR066.0285X0391 15-9-11	76-05-22	1550	7.7	14.5	--	--	--	170	0	58
NR066.0415X0331 U-20 WEL	76-05-11	2700	7.7	15.0	--	--	--	210	0	66
NR066.0512X0402 WELL IN	76-06-16	2420	7.8	14.0	--	1	--	160	0	52
NR066.0972X0498 14-9-2 W	76-05-22	950	7.7	13.0	--	--	--	80	0	26
NR066.1217X0543 WELL IN	76-06-16	1100	7.7	15.0	--	4	--	140	0	48
NR067.1111X1243 U-22 WEL	76-05-13	1150	8.1	12.5	--	--	--	160	0	58
UTE MTN INDIAN RE COTTON	76-04-01	1000	7.5	16.0	--	--	--	360	82	70
21N.09W.16.230	76-01-06	4000	8.0	48.0	--	2	1	820	770	320
21N.11W.08.1131 WELL PAD	76-06-14	1000	8.1	15.5	--	2	--	30	0	9.8
21N.12W.01.3421 WELL 76	76-06-14	840	7.9	18.5	--	5	--	50	0	17
22N.10W.31.111 HOLE DUG	76-07-22	950	7.9	--	--	--	--	41	0	15
22N.10W.31.113 CHACO COM	76-07-22	2200	7.9	--	--	1	--	260	0	82
22N.11W.32.3131 WELL IN	76-05-17	2800	8.4	19.5	--	2	--	11	0	2.9
22N.11W.34.231 WELL,ESCA	76-05-06	820	7.8	12.5	--	--	--	62	0	21
22N.12W.28.2434 WELL IN	76-05-18	1750	8.0	15.0	--	1	--	130	0	40
22N.12W.35.4444DUG WELL	76-05-18	1060	8.7	13.0	--	7	--	51	0	17
22N.13W.24.4131 1R WELL	76-09-27	870	7.9	19.0	--	--	--	91	0	31
22N.13W.24.4133 2S WELL	76-09-27	850	7.9	19.0	--	--	--	--	--	--
22N.13W.24.4134 30 WELL	76-09-27	950	8.0	16.0	--	--	--	--	--	--
22N.13W.24.4314 4V WELL	76-09-27	1000	8.1	16.0	--	--	--	44	0	14
22N.13W.26.142	76-05-11	1000	8.0	13.0	--	--	--	76	0	23
23N.12W.05.221 WELL 2.7	75-10-22	10800	8.1	22.5	--	--	--	35	0	9.2
	76-03-31	10800	7.7	23.0	--	--	--	35	0	9.5

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN COUNTY--Continued

LOCAL IDENT- 1- FIER	DATE OF SAMPLE	DIS- SOLVED MAG- NE- SIUM (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	TOTAL SUL- FIDE (S) (MG/L) (00745)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
NR032.0156X0736 HOLE IN	76-04-01	41	380	5.0	11	359	0	--	1500	17
NR032.0322X1579 13R-28B	76-05-06	22	560	11	4.3	263	0	--	1400	32
NR032.0347X1202 13R-31 W	76-05-06	25	750	15	6.1	461	0	--	1600	37
NR032.0364X1457 13R-29 W	76-05-06	--	--	--	--	--	--	--	--	--
NR032.0779X1005 ART. WEL	76-05-19	12	1200	45	8.0	169	0	--	2300	190
NR048.0985X1650 13-3 WEL	76-05-10	8.7	420	19	.6	408	0	--	620	27
NR048.1230X1337 U-11 WEL	76-05-08	4.1	280	12	2.9	384	0	--	360	17
NR048.1257X0426 13R-38 W	76-05-06	15	610	14	2.4	161	0	--	1500	22
NR048.1290X0874 13-2 WEL	76-05-08	13	570	14	4.2	354	0	--	1200	24
NR049.0031X0186 13R-149	76-05-06	--	--	--	--	--	--	--	--	--
NR049.0105X0939 U-51 WEL	76-05-07	--	--	--	--	--	--	--	--	--
NR049.0338X1704 12K-4 WE	76-05-07	11	360	9.8	4.4	346	0	--	720	24
NR049.0504X0670 12K-14 W	76-05-20	49	670	10	7.2	343	0	--	1900	45
NR049.0956X0344 12R-92 W	76-05-13	49	7.7	.2	.7	299	0	--	210	5.3
NR066.0005X0195 13R-55A	76-05-10	4.7	280	10	1.7	285	0	--	460	12
NR066.0134X0569 15R-19 W	76-05-22	7.3	310	11	2.0	446	0	--	450	11
NR066.0171X0568 15-5-11	76-05-11	--	--	--	--	--	--	--	--	--
NR066.0285X0391 15-9-11	76-05-22	6.8	290	9.6	4.0	499	0	--	380	14
NR066.0415X0331 U-20 WEL	76-05-11	10	540	16	4.7	659	0	--	800	34
NR066.0512X0402 WELL IN	76-06-16	8.2	500	17	4.6	623	0	--	710	30
NR066.0972X0498 14-9-2 W	76-05-22	3.6	200	9.7	2.6	341	0	--	200	5.8
NR066.1217X0543 WELL IN	76-06-16	4.7	200	7.4	3.7	384	0	--	260	9.2
NR067.1111X1243 U-22 WEL	76-05-13	4.2	210	7.2	.9	361	0	--	270	18
UTE MTN INDIAN RE COTTON	76-04-01	44	90	2.1	2.2	334	0	--	150	38
21N.09W.16.230	76-01-06	4.0	760	12	9.1	60	0	0	2200	19
21N.11W.08.1131 WELL PAD	76-06-14	1.3	230	18	1.7	415	0	--	190	8.8
21N.12W.01.3421 WELL 76	76-06-14	1.8	170	10	1.2	315	0	--	160	5.8
22N.10W.31.111 HOLE DUG	76-07-22	.9	200	14	3.6	368	0	--	160	6.0
22N.10W.31.113 CHACO COM	76-07-22	14	390	10	4.4	390	0	--	750	16
22N.11W.32.3131 WELL IN	76-05-17	.9	640	84	2.8	882	70	--	330	170
22N.11W.34.231 WELL.ESCA	76-05-06	2.2	180	10	1.2	318	9	--	130	6.0
22N.12W.28.2434 WELL IN	76-05-18	6.4	360	14	4.0	491	0	--	440	23
22N.12W.35.4444DUG WELL	76-05-18	2.0	240	15	2.8	357	18	--	220	11
22N.13W.24.4131 1R WELL	76-09-27	3.3	160	7.3	12	334	0	--	170	12
22N.13W.24.4133 2S WELL	76-09-27	--	--	--	--	--	--	--	--	--
22N.13W.24.4134 3D WELL	76-09-27	--	--	--	--	--	--	--	--	--
22N.13W.24.4314 4V WELL	76-09-27	2.2	220	14	4.0	400	0	--	180	9.2
22N.13W.26.142	76-05-11	4.4	210	11	2.4	332	0	--	220	17
23N.12W.05.221 WELL 2.7	75-10-22	2.8	2600	193	14	2360	0	--	27	2600
	76-03-31	2.7	2800	206	14	2360	0	1.8	26	3100

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED FLUO- RIDE (F) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL NITRO- GEN (N) (MG/L) (00600)
NR032.0156X0736 HOLE IN	76-04-01	.6	12	--	2510	--	1.0	--	--	--
NR032.0322X1579 13R-288	76-05-06	1.5	8.8	--	2310	--	.53	--	--	--
NR032.0347X1202 13R-31 W	76-05-06	.9	12	--	2800	--	.45	--	--	--
NR032.0364X1457 13R-29 W	76-05-06	--	--	--	--	--	--	--	--	--
NR032.0779X1005 ART. WEL	76-05-19	3.8	11	--	3850	--	1.2	--	--	--
NR048.0985X1650 13-3 WEL	76-05-10	.6	13	--	1320	--	.22	--	--	--
NR048.1230X1337 U-11 WEL	76-05-08	1.3	11	--	912	--	2.5	--	--	--
NR048.1257X0426 13R-38 W	76-05-06	1.9	12	--	2370	--	1.1	--	--	--
NR048.1290X0874 13-2 WEL	76-05-08	1.9	12	--	2110	--	.60	--	--	--
NR049.0031X0186 13R-149	76-05-06	--	--	--	--	--	--	--	--	--
NR049.0105X0939 U-51 WEL	76-05-07	--	--	--	--	--	--	--	--	--
NR049.0338X1704 12K-4 WE	76-05-07	.7	13	--	1390	--	.32	--	--	--
NR049.0504X0670 12K-14 W	76-05-20	.5	19	--	3120	--	.00	--	--	--
NR049.0956X0344 12R-92 W	76-05-13	.3	15	--	533	--	.24	--	--	--
NR066.0005X0195 13R-55A	76-05-10	1.5	11	--	980	--	4.3	--	--	--
NR066.0134X0569 15R-19 W	76-05-22	.9	15	--	1060	--	.14	--	--	--
NR066.0171X0568 15-5-11	76-05-11	--	--	--	--	--	--	--	--	--
NR066.0285X0391 15-9-11	76-05-22	.8	13	--	1010	--	.11	--	--	--
NR066.0415X0331 U-20 WEL	76-05-11	1.2	15	--	1800	--	.70	--	--	--
NR066.0512X0402 WELL IN	76-06-16	1.4	16	--	1630	--	.70	--	--	--
NR066.0972X0498 14-9-2 W	76-05-22	1.0	13	--	621	--	.21	--	--	--
NR066.1217X0543 WELL IN	76-06-16	.7	13	--	730	--	.23	--	--	--
NR067.1111X1243 U-22 WEL	76-05-13	.6	38	--	785	--	1.5	--	--	--
UTE MTN INDIAN RE COTTON	76-04-01	.4	19	--	579	--	.02	--	--	--
21N.09W.16.230	76-01-06	2.8	29	3620	3370	.01	.01	.39	.35	.75
21N.11W.08.1131 WELL PAD	76-06-14	1.0	11	--	661	--	.56	--	--	--
21N.12W.01.3421 WELL 76	76-06-14	1.0	12	--	525	--	.15	--	--	--
22N.10W.31.1111 HOLE DUG	76-07-22	.8	15	--	591	--	1.8	--	--	--
22N.10W.31.113 CHACO COM	76-07-22	.9	16	--	1470	--	.30	--	--	--
22N.11W.32.3131 WELL IN	76-05-17	4.2	9.2	--	1670	--	.60	--	--	--
22N.11W.34.231 WELL+ESCA	76-05-06	1.1	9.6	--	551	--	7.8	--	--	--
22N.12W.28.2434 WELL IN	76-05-18	.9	12	--	1130	--	.15	--	--	--
22N.12W.35.4444DUG WELL	76-05-18	1.3	11	--	707	--	1.6	--	--	--
22N.13W.24.4131 1R WELL	76-09-27	.8	13	--	567	--	.12	--	--	--
22N.13W.24.4133 2S WELL	76-09-27	--	--	--	--	--	--	--	--	--
22N.13W.24.4134 3D WELL	76-09-27	--	--	--	--	--	--	--	--	--
22N.13W.24.4314 4V WELL	76-09-27	1.1	15	--	644	--	.19	--	--	--
22N.13W.26.142	76-05-11	1.0	12	--	658	--	.93	--	--	--
23N.12W.05.221 WELL 2.7	75-10-22	4.9	18	--	6440	--	.15	--	--	--
	76-03-31	5.3	17	--	7140	--	.04	--	--	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL PHOS- PHORUS (P) (00665)	DIS- SOLVED ORTH0. PHOS- PHORUS (P) (00671)	DIS- SOLVED BORON (B) (01020)	DIS- SOLVED IRON (FE) (01046)	DIS- SOLVED MAN- GANESE (MN) (01056)	TOTAL ORGANIC CARBON (C) (00680)
NR032.0156X0736 HOLE IN	76-04-01	--	.02	70	60	--	--
NR032.0322X1579 13R-28B	76-05-06	--	.00	120	30	--	--
NR032.0347X1202 13R-31 W	76-05-06	--	.01	160	60	--	--
NR032.0364X1457 13R-29 W	76-05-06	--	--	--	--	--	--
NR032.0779X1005 ART. WEL	76-05-19	--	.00	290	10	--	--
NR048.0985X1650 13-3 WEL	76-05-10	--	.08	220	70	--	--
NR048.1230X1337 U-11 WEL	76-05-08	--	.01	70	30	--	--
NR048.1257X0426 13R-38 W	76-05-06	--	.01	110	20	--	--
NR048.1290X0874 13-2 WEL	76-05-08	--	.01	110	30	--	--
NR049.0031X0186 13R-149	76-05-06	--	--	--	--	--	--
NR049.0105X0939 U-51 WEL	76-05-07	--	--	--	--	--	--
NR049.0338X1704 12K-4 WE	76-05-07	--	.04	90	80	--	--
NR049.0504X0670 12K-14 W	76-05-20	--	.02	110	40	--	--
NR049.0956X0344 12R-92 W	76-05-13	--	.01	30	30	--	--
NR066.0005X0195 13R-55A	76-05-10	--	.00	90	40	--	--
NR066.0134X0569 15R-19 W	76-05-22	--	.00	90	30	--	--
NR066.0171X0568 15-5-11	76-05-11	--	--	--	--	--	--
NR066.0285X0391 15-9-11	76-05-22	--	.00	80	30	--	--
NR066.0415X0331 U-20 WEL	76-05-11	--	.01	100	40	--	--
NR066.0512X0402 WELL IN	76-06-16	--	.00	100	10	--	4.6
NR066.0972X0498 14-9-2 W	76-05-22	--	.00	80	30	--	--
NR066.1217X0543 WELL IN	76-06-16	--	.01	80	10	--	4.0
NR067.1111X1243 U-22 WEL	76-05-13	--	.08	70	30	--	--
UTE MTN INDIAN RE COTTON	76-04-01	--	.04	120	40	--	--
21N.09W.16.230	76-01-06	.00	.03	180	0	320	.7
21N.11W.08.1131 WELL PAD	76-06-14	--	.01	60	20	--	12
21N.12W.01.3421 WELL 76	76-06-14	--	.01	50	20	--	1.9
22N.10W.31.111 HOLE DUG	76-07-22	--	.11	100	20	--	--
22N.10W.31.113 CHACO COM	76-07-22	--	.04	70	20	--	--
22N.11W.32.3131 WELL IN	76-05-17	--	.01	500	20	--	--
22N.11W.34.231 WELL,ESCA	76-05-06	--	.00	50	30	--	--
22N.12W.28.2434 WELL IN	76-05-18	--	.02	80	10	--	--
22N.12W.35.4444DUG WELL	76-05-18	--	.07	80	110	--	--
22N.13W.24.4131 1R WELL	76-09-27	--	.01	90	10	--	--
22N.13W.24.4133 2S WELL	76-09-27	--	--	80	50	10	4.0
22N.13W.24.4134 3D WELL	76-09-27	--	--	--	--	--	13
22N.13W.24.4314 4V WELL	76-09-27	--	.02	80	10	--	--
22N.13W.26.142	76-05-11	--	.05	60	0	--	--
23N.12W.05.221 WELL 2.7	75-10-22	--	.04	1300	70	--	150
	76-03-31	--	.04	1200	90	--	500

LOCAL IDENT- I- FIER	STATION	NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE  (FT) (72019)	TOTAL DEPTH OF WELL (FT) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
23N.12W.05.221 WELL 2.7	361545108075101		GW	76-03-31	1300	211PNLK	--	4896	2564	2556
23N.12W.07.2333 BISTI DH	361435108093001		GW	75-10-21	1130	211PCCF	35.92	350	350	118
			GW	76-06-15	1640	211PCCF	94.45	350	350	118
23N.12W.08.2111 BISTI DH	361457108081901		GW	75-10-22	1400	211PCCF	80.49	394	394	200
			GW	76-03-31	1130	211PCCF	89.30	394	394	200
			GW	76-06-15	1430	211PCCF	87.80	394	394	200
23N.12W.17.2111 BISTI DH	361407108081901		GW	76-03-31	1030	211PCCF	47.00	274	274	86
			GW	76-06-15	1750	211PCCF	103.00	274	274	86
23N.12W.18.233 BIA 19T-5	361341108092201		GW	76-04-26	1300	211PCCF	--	369	369	288
			GW	76-06-06	1510	211PCCF	--	369	--	--
23N.13W.15.333	361318108131201		GW	76-05-10	1410	110AVMB	--	--	--	--
30N.15W.21.3132 GS-E1	364755108255101		GW	75-10-15	1510	211KRLO	10.00	26	--	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	COLOR (PLAT- INUM- COBALT UNITS) (00080)	TUR- BID- ITY (JTU) (00070)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (CA+MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)
23N.12W.05.221 WELL 2.7	76-03-31	9500	8.5	4.0	--	--	--	51	0	14
23N.12W.07.2333 BISTI DH	75-10-21	7120	9.6	16.0	--	--	--	23	0	4.1
	76-06-15	7200	8.4	17.0	--	2	--	38	0	8.6
23N.12W.08.2111 BISTI DH	75-10-22	7590	8.0	15.5	--	--	--	70	0	23
	76-03-31	7500	8.9	18.5	20	30	--	42	0	12
	76-06-15	7800	10.9	21.5	--	15	--	29	0	11
23N.12W.17.2111 BISTI DH	76-03-31	5200	9.2	18.0	200	44	--	36	0	11
	76-06-15	5700	8.7	16.5	--	3	--	49	0	15
23N.12W.18.233 BIA 19T-5	76-04-26	2850	8.6	--	--	--	--	14	0	3.5
	76-06-06	2570	8.4	21.5	--	--	--	12	0	3.0
23N.13W.15.333	76-05-10	4800	--	12.0	--	--	--	--	--	--
30N.15W.21.3132 GS-E1	75-10-15	31500	8.2	--	--	--	--	4000	3800	510
LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	TOTAL SUL- FIDE (S) (MG/L) (00745)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)
23N.12W.05.221 WELL 2.7	76-03-31	3.8	3000	184	17	1540	537	--	17	3000
23N.12W.07.2333 BISTI DH	75-10-21	3.2	1500	135	9.9	302	129	--	85	2000
	76-06-15	4.1	1500	105	9.4	531	0	--	65	2100
23N.12W.08.2111 BISTI DH	75-10-22	3.0	1600	83	9.7	124	0	--	190	2300
	76-03-31	3.0	1600	107	9.2	96	0	--	180	2300
	76-06-15	.4	1600	129	11	196	3	--	180	2300
23N.12W.17.2111 BISTI DH	76-03-31	2.0	1200	87	5.4	208	8	--	1600	590
	76-06-15	2.8	1200	75	6.0	226	0	--	1500	690
23N.12W.18.233 BIA 19T-5	76-04-26	1.2	790	93	3.2	632	62	--	890	73
	76-06-06	1.1	600	75	2.4	596	42	--	700	50
23N.13W.15.333	76-05-10	--	--	--	--	--	--	--	--	--
30N.15W.21.3132 GS-E1	75-10-15	670	8600	59	17	256	0	--	14000	5200
LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L) (70300)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	TOTAL NITRITE PLUS NITRATE (N) (MG/L) (00630)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	TOTAL AMMONIA NITRO- GEN (N) (MG/L) (00610)	TOTAL ORGANIC NITRO- GEN (N) (MG/L) (00605)	TOTAL NITRO- GEN (N) (MG/L) (00600)
23N.12W.05.221 WELL 2.7	76-03-31	5.4	18	--	7380	--	1.9	--	--	--
23N.12W.07.2333 BISTI DH	75-10-21	1.5	7.0	--	3890	--	.28	--	--	--
	76-06-15	1.4	8.6	--	3960	--	.07	--	--	--
23N.12W.08.2111 BISTI DH	75-10-22	1.9	3.9	--	4190	--	.18	--	--	--
	76-03-31	2.1	3.9	--	4160	--	.03	--	--	--
	76-06-15	1.8	5.2	--	4220	--	1.3	--	--	--
23N.12W.17.2111 BISTI DH	76-03-31	4.0	4.5	--	3530	--	.04	--	--	--
	76-06-15	3.5	4.3	--	3530	--	.04	--	--	--
23N.12W.18.233 BIA 19T-5	76-04-26	1.5	7.8	--	2150	--	.53	--	--	--
	76-06-06	1.3	8.9	--	1700	--	.08	--	--	--
23N.13W.15.333	76-05-10	--	--	--	--	--	--	--	--	--
30N.15W.21.3132 GS-E1	75-10-15	.4	7.4	--	30100	--	210	--	--	--
LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL PHOS- PHORUS (P) (MG/L) (00665)	ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)	SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL ORGANIC CARBON (C) (MG/L) (00680)			
23N.12W.05.221 WELL 2.7	76-03-31	--	.08	1200	80	--	4.0			
23N.12W.07.2333 BISTI DH	75-10-21	--	.00	460	80	--	--			
	76-06-15	--	.01	470	20	--	12			
23N.12W.08.2111 BISTI DH	75-10-22	--	.00	370	70	--	--			
	76-03-31	--	.00	370	80	--	29			
	76-06-15	--	.01	370	50	--	49			
23N.12W.17.2111 BISTI DH	76-03-31	--	.00	340	110	--	34			
	76-06-15	--	.02	370	30	--	22			
23N.12W.18.233 BIA 19T-5	76-04-26	--	.02	270	100	--	4.8			
	76-06-06	--	.00	270	40	--	--			
23N.13W.15.333	76-05-10	--	--	--	--	--	--			
30N.15W.21.3132 GS-E1	75-10-15	--	--	420	--	--	--			

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN COUNTY--Continued

LOCAL IDENT- I- FIFR	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL ALUM- INUM (AL) (UG/L) (01105)	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL BARIUM (BA) (UG/L) (01007)
NR032.0156X0736 HOLE IN	363835108314101	GW	76-04-01	1415	--	--	2	--	--
NR032.0322X1579 13R-28B	363113108333001	GW	76-05-06	1115	--	--	--	--	--
NR032.0347X1202 13R-31 W	363431108334501	GW	76-05-06	0945	--	--	--	--	--
NR032.0364X1457 13R-29 W	363218108334501	GW	76-05-06	1055	--	--	0	--	--
NR032.0779X1005 ART. WEL	363615108382601	GW	76-05-19	1300	--	--	0	--	--
NR048.0985X1650 13-3 WEL	361542108252801	GW	76-05-10	1030	--	--	--	--	--
NR048.1230X1337 U-11 WEL	361822108281601	GW	76-05-08	1515	--	--	--	--	--
NR048.1257X0426 13R-38 W	362617108283301	GW	76-05-06	1410	--	--	--	--	--
NR048.1290X0874 13-2 WEL	362222108285501	GW	76-05-08	1135	--	--	--	--	--
NR049.0031X0186 13R-149	362821108302001	GW	76-05-06	1315	--	--	0	--	--
NR049.0105X0939 U-51 WEL	362148108310801	GW	76-05-07	1145	--	--	--	--	--
NR049.0338X1704 12K-4 WE	361508108333901	GW	76-05-07	1345	--	--	--	--	--
NR049.0504X0670 12K-14 W	362411108352701	GW	76-05-20	1110	--	--	--	--	--
NR049.0956X0344 12R-92 W	362700108401901	GW	76-05-13	1000	--	--	--	--	--
NR066.0005X0195 13R-55A	361317108150301	GW	76-05-10	1345	--	--	--	--	--
NR066.0134X0569 15R-19 W	361002108162601	GW	76-05-22	1430	--	--	--	--	--
NR066.0171X0568 15-5-11	361003108165101	GW	76-05-11	1200	--	--	2	--	--
NR066.0285X0391 15-9-11	361135108180501	GW	76-05-22	1345	--	--	--	--	--
NR066.0415X0331 U-20 WEL	361207108192701	GW	76-05-11	1305	--	--	--	--	--
NR066.0512X0402 WELL IN	361130108203001	GW	76-06-16	1200	--	--	1	--	--
NR066.0972X0498 14-9-2 W	361039108252901	GW	76-05-22	1230	--	--	--	--	--
NR066.1217X0543 WELL IN	361016108273501	GW	76-06-16	1500	--	--	1	--	--
NR067.1111X1243 U-22 WEL	360409108415501	GW	76-05-13	1530	--	--	--	--	--
UTE MTN INDIAN RE COTTON	365254108224601	GW	76-04-01	1010	--	--	--	--	--
21N.09W.16.230	360313107473401	GW	76-01-06	1140	40	10	5	5	--
21N.11W.08.1131 WELL PAD	360439108041001	GW	76-06-14	1530	--	--	--	--	--
21N.12W.01.3421 WELL 76	360444108040801	GW	76-06-14	1610	--	--	--	--	--
22N.10W.31.111 HOLE DUG	360608107565101	GW	76-07-22	1315	--	--	--	--	--
22N.10W.31.113 CHACO COM	360601107565101	GW	76-07-22	1210	--	--	--	--	--
22N.11W.32.3131 WELL IN	361057108022301	GW	76-05-17	1600	--	--	0	--	--
22N.11W.34.231 WELL-ESCA	360559107593501	GW	76-05-06	0830	--	--	1	--	--
22N.12W.28.2434 WELL IN	360645108065501	GW	76-05-18	1145	--	--	2	--	--
22N.12W.35.4444DUG WELL	360522108043401	GW	76-05-18	1100	--	--	--	--	--
22N.13W.24.4131 1R WELL	360729108102901	GW	76-09-27	1400	--	--	--	--	--
22N.13W.24.4133 2S WELL	360726108102801	GW	76-09-27	1430	--	--	--	--	--
22N.13W.24.4134 3D WELL	360725108102701	GW	76-09-27	1500	--	--	--	--	1000
22N.13W.24.4314 4V WELL	360717108102301	GW	76-09-27	1530	--	--	--	--	--
22N.13W.26.142	360647108114201	GW	76-05-11	1000	--	--	--	--	--
23N.12W.05.221 WELL 2.7	361545108075101	GW	75-10-22	1500	--	--	0	--	--
		GW	76-03-31	1245	--	--	1	--	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)
NR032.0156X0736 HOLE IN	76-04-01	--	--	70	--	--	--	--	--	--
NR032.0322X1579 13R-28B	76-05-06	--	--	120	--	--	--	--	--	--
NR032.0347X1202 13R-31 W	76-05-06	--	--	160	--	--	--	--	--	--
NR032.0364X1457 13R-29 W	76-05-06	--	130	--	--	--	--	--	--	--
NR032.0779X1005 ART. WEL	76-05-19	--	350	290	--	--	--	--	--	--
NR048.0985X1650 13-3 WEL	76-05-10	--	--	220	--	--	--	--	--	--
NR048.1230X1337 U-11 WEL	76-05-08	--	--	70	--	--	--	--	--	--
NR048.1257X0426 13R-38 W	76-05-06	--	--	110	--	--	--	--	--	--
NR048.1290X0874 13-2 WEL	76-05-08	--	--	110	--	--	--	--	--	--
NR049.0031X0186 13R-149	76-05-06	--	190	--	--	--	--	--	--	--
NR049.0105X0939 U-51 WEL	76-05-07	--	160	--	--	--	--	--	--	--
NR049.0338X1704 12K-4 WE	76-05-07	--	--	90	--	--	--	--	--	--
NR049.0504X0670 12K-14 W	76-05-20	--	--	110	--	--	--	--	--	--
NR049.0956X0344 12R-92 W	76-05-13	--	--	30	--	--	--	--	--	--
NR066.0005X0195 13R-55A	76-05-10	--	--	90	--	--	--	--	--	--
NR066.0134X0569 15R-19 W	76-05-22	--	--	90	--	--	--	--	--	--
NR066.0171X0568 15-5-11	76-05-11	--	190	--	--	--	--	--	--	--
NR066.0285X0391 15-9-11	76-05-22	--	--	80	--	--	--	--	--	--
NR066.0415X0331 U-20 WEL	76-05-11	--	--	100	--	--	--	--	--	--
NR066.0512X0402 WELL IN	76-06-16	--	140	100	--	--	--	--	--	--
NR066.0972X0498 14-9-2 W	76-05-22	--	--	80	--	--	--	--	--	--
NR066.1217X0543 WELL IN	76-06-16	--	140	80	--	--	--	--	--	--
NR067.1111X1243 U-22 WEL	76-05-13	--	--	70	--	--	--	--	--	--
UTE MTN INDIAN RE COTTON	76-04-01	--	208	120	<10	--	0	--	--	--
21N.09W.16.230	76-01-06	--	--	180	10	0	0	0	<50	0
21N.11W.08.1131 WELL PAD	76-06-14	--	100	60	--	--	--	--	--	--
21N.12W.01.3421 WELL 76	76-06-14	--	80	50	--	--	--	--	--	--
22N.10W.31.111 HOLE DUG	76-07-22	--	--	100	--	--	--	--	--	--
22N.10W.31.113 CHACO COM	76-07-22	--	100	70	--	--	--	--	--	--
22N.11W.32.3131 WELL IN	76-05-17	--	540	500	--	--	--	--	--	--
22N.11W.34.231 WELL-ESCA	76-05-06	--	--	50	--	--	--	--	--	--
22N.12W.28.2434 WELL IN	76-05-18	--	130	80	--	--	--	--	--	--
22N.12W.35.4444DUG WELL	76-05-18	--	130	80	--	--	--	--	--	--
22N.13W.24.4131 1R WELL	76-09-27	--	--	90	--	--	--	--	--	--
22N.13W.24.4133 2S WELL	76-09-27	0	--	80	--	0	--	0	--	--
22N.13W.24.4134 3D WELL	76-09-27	--	90	--	<10	--	20	--	50	--
22N.13W.24.4314 4V WELL	76-09-27	--	--	80	--	--	--	--	--	--
22N.13W.26.142	76-05-11	--	--	60	--	--	--	--	--	--
23N.12W.05.221 WELL 2.7	75-10-22	--	--	1300	--	--	--	--	--	--
	76-03-31	--	--	1200	--	--	--	--	--	--



## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL COPPER (CU) (UG/L) (01042)	DIS- SOLVED COPPER (CU) (UG/L) (01040)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	DIS- SOLVED LEAD (PB) (UG/L) (01049)	TOTAL LITHIUM (LI) (UG/L) (01132)	DIS- SOLVED LITHIUM (LI) (UG/L) (01130)	TOTAL MAN- GANESE (MN) (UG/L) (01055)
NR032.0156X0736 HOLE IN	76-04-01	--	--	--	60	--	--	--	--	--
NR032.0322X1579 13R-28B	76-05-06	--	--	--	30	--	--	--	40	--
NR032.0347X1202 13R-31 W	76-05-06	--	--	--	60	--	--	--	50	--
NR032.0364X1457 13R-29 W	76-05-06	--	--	--	--	<100	--	60	--	--
NR032.0779X1005 ART. WEL	76-05-19	--	--	410	10	<100	--	300	--	--
NR048.0985X1650 13-3 WEL	76-05-10	--	--	--	70	--	--	--	40	--
NR048.1230X1337 U-11 WEL	76-05-08	--	--	--	30	--	--	--	30	--
NR048.1257X0426 13R-38 W	76-05-06	--	--	--	20	--	--	--	60	--
NR048.1290X0874 13-2 WEL	76-05-08	--	--	--	30	--	--	--	60	--
NR049.0031X0186 13R-149	76-05-06	--	--	--	--	<100	--	40	--	--
NR049.0105X0939 U-51 WEL	76-05-07	--	--	--	--	<100	--	50	--	--
NR049.0338X1704 12K-4 WE	76-05-07	--	--	--	80	--	--	--	30	--
NR049.0504X0670 12K-14 W	76-05-20	--	--	--	40	--	--	--	50	--
NR049.0956X0344 12R-92 W	76-05-13	--	--	--	30	--	--	--	10	--
NR066.0005X0195 13R-55A	76-05-10	--	--	--	40	--	--	--	30	--
NR066.0134X0569 15R-19 W	76-05-22	--	--	--	30	--	--	--	30	--
NR066.0171X0568 15-5-11	76-05-11	--	--	--	--	<100	--	30	--	--
NR066.0285X0391 15-9-11	76-05-22	--	--	--	30	--	--	--	30	--
NR066.0415X0331 U-20 WEL	76-05-11	--	--	--	40	--	--	--	40	--
NR066.0512X0402 WELL IN	76-06-16	--	--	460	10	<100	--	20	--	--
NR066.0972X0498 14-9-2 W	76-05-22	--	--	--	30	--	--	--	20	--
NR066.1217X0543 WELL IN	76-06-16	--	--	840	10	100	--	20	--	--
NR067.1111X1243 U-22 WEL	76-05-13	--	--	--	30	--	--	--	50	--
UTE MTN INDIAN RE COTTON	76-04-01	<10	--	400	40	--	--	40	--	20
21N.09W.16.230	76-01-06	10	0	340	0	<100	0	280	270	320
21N.11W.08.1131 WELL PAD	76-06-14	--	--	1700	20	<100	--	30	--	--
21N.12W.01.3421 WELL 76	76-06-14	--	--	440	20	--	--	10	--	--
22N.10W.31.111 HOLE DUG	76-07-22	--	--	--	20	--	--	--	--	--
22N.10W.31.113 CHACO COM	76-07-22	--	--	150	20	<100	--	20	--	--
22N.11W.32.3131 WELL IN	76-05-17	--	--	1300	20	<100	--	70	--	--
22N.11W.34.231 WELL ESCA	76-05-06	--	--	--	30	--	--	--	--	--
22N.12W.28.2434 WELL IN	76-05-18	--	--	1300	10	<100	--	30	--	--
22N.12W.35.4444 DUG WELL	76-05-18	--	--	22000	110	100	--	20	--	--
22N.13W.24.4131 1R WELL	76-09-27	--	--	--	10	--	--	--	20	--
22N.13W.24.4133 2S WELL	76-09-27	--	8	--	50	--	3	--	20	--
22N.13W.24.4134 3D WELL	76-09-27	110	--	48000	--	200	--	0	--	2800
22N.13W.24.4314 4V WELL	76-09-27	--	--	--	10	--	--	--	20	--
22N.13W.26.142	76-05-11	--	--	--	0	--	--	--	20	--
23N.12W.05.221 WELL 2.7	75-10-22	--	--	--	70	--	--	--	--	--
	76-03-31	--	--	--	90	--	--	--	--	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN COUNTY--Continued

LOCAL IDENT- IFIER	DATE OF SAMPLE	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)	TOTAL MERCURY (HG) (UG/L) (71900)	DIS- SOLVED MERCURY (HG) (UG/L) (71890)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)	TOTAL STRON- TIUM (SR) (UG/L) (01082)
NR032.0156X0736 HOLE IN	76-04-01	--	.1	--	3	--	--
NR032.0322X1579 13R-28B	76-05-06	--	--	--	--	--	--
NR032.0347X1202 13R-31 W	76-05-06	--	--	--	--	--	--
NR032.0364X1457 13R-29 W	76-05-06	--	.0	--	7	--	--
NR032.0779X1005 ART. WEL	76-05-19	--	.4	--	0	--	--
NR048.0985X1650 13-3 WEL	76-05-10	--	--	--	--	--	--
NR048.1230X1337 U-11 WEL	76-05-08	--	--	--	--	--	--
NR048.1257X0426 13R-38 W	76-05-06	--	--	--	--	--	--
NR048.1290X0874 13-2 WEL	76-05-08	--	--	--	--	--	--
NR049.0031X0186 13R-149	76-05-06	--	.0	--	14	--	--
NR049.0105X0939 U-51 WEL	76-05-07	--	.0	--	--	--	--
NR049.0338X1704 12K-4 WE	76-05-07	--	--	--	--	--	--
NR049.0504X0670 12K-14 W	76-05-20	--	--	--	--	--	--
NR049.0956X0344 12R-92 W	76-05-13	--	--	--	--	--	--
NR066.0005X0195 13R-55A	76-05-10	--	--	--	--	--	--
NR066.0134X0569 15R-19 W	76-05-22	--	--	--	--	--	--
NR066.0171X0568 15-5-11	76-05-11	--	.0	--	1	--	--
NR066.0285X0391 15-9-11	76-05-22	--	--	--	--	--	--
NR066.0415X0331 U-20 WEL	76-05-11	--	--	--	--	--	--
NR066.0512X0402 WELL IN	76-06-16	--	.2	--	0	--	--
NR066.0972X0498 14-9-2 W	76-05-22	--	--	--	--	--	--
NR066.1217X0543 WELL IN	76-06-16	--	.2	--	0	--	--
NR067.1111X1243 U-22 WEL	76-05-13	--	--	--	--	--	--
UTE MTN INDIAN RE COTTON	76-04-01	--	--	--	--	--	--
21N.09W.16.230	76-01-06	320	.1	.1	0	0	--
21N.11W.08.1131 WELL PAD	76-06-14	--	.0	--	9	--	--
21N.12W.01.3421 WELL 76	76-06-14	--	.1	--	1	--	--
22N.10W.31.111 HOLE DUG	76-07-22	--	.0	--	3	--	--
22N.10W.31.113 CHACO COM	76-07-22	--	.2	--	1	--	--
22N.11W.32.3131 WELL IN	76-05-17	--	.1	--	0	--	--
22N.11W.34.231 WELL-ESCA	76-05-06	--	.0	--	7	--	--
22N.12W.28.2434 WELL IN	76-05-18	--	.3	--	0	--	--
22N.12W.35.4444DUG WELL	76-05-18	--	.0	--	2	--	--
22N.13W.24.4131 1R WELL	76-09-27	--	--	--	--	--	--
22N.13W.24.4133 2S WELL	76-09-27	10	--	--	--	--	--
22N.13W.24.4134 3D WELL	76-09-27	--	--	--	--	--	710
22N.13W.24.4314 4V WELL	76-09-27	--	--	--	--	--	--
22N.13W.26.142	76-05-11	--	--	--	--	--	--
23N.12W.05.221 WELL 2.7	75-10-22	--	.5	--	--	--	--
	76-03-31	--	.0	--	--	--	--

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN JUAN COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED STRON- TIUM (SR) (UG/L) (01080)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	TOTAL ZINC (ZN) (UG/L) (01092)	DIS- SOLVED ZINC (ZN) (UG/L) (01090)
NR032.0156X0736 HOLE IN	76-04-01	--	--	--	--
NR032.0322X1579 13R-28B	76-05-06	--	--	--	--
NR032.0347X1202 13R-31 W	76-05-06	--	--	--	--
NR032.0364X1457 13R-29 W	76-05-06	--	--	--	--
NR032.0779X1005 ART. WEL	76-05-19	--	--	--	--
NR048.0985X1650 13-3 WEL	76-05-10	--	--	--	--
NR048.1230X1337 U-11 WEL	76-05-08	--	--	--	--
NR048.1257X0426 13R-38 W	76-05-06	--	--	--	--
NR048.1290X0874 13-2 WEL	76-05-08	--	--	--	--
NR049.0031X0186 13R-149	76-05-06	--	--	--	--
NR049.0105X0939 U-51 WEL	76-05-07	--	--	--	--
NR049.0338X1704 12K-4 WE	76-05-07	--	--	--	--
NR049.0504X0670 12K-14 W	76-05-20	--	--	--	--
NR049.0956X0344 12R-92 W	76-05-13	--	--	--	--
NR066.0005X0195 13R-55A	76-05-10	--	--	--	--
NR066.0134X0569 15R-19 W	76-05-22	--	--	--	--
NR066.0171X0568 15-5-11	76-05-11	--	--	--	--
NR066.0285X0391 15-9-11	76-05-22	--	--	--	--
NR066.0415X0331 U-20 WEL	76-05-11	--	--	--	--
NR066.0512X0402 WELL IN	76-06-16	--	--	--	--
NR066.0972X0498 14-9-2 W	76-05-22	--	--	--	--
NR066.1217X0543 WELL IN	76-06-16	--	--	--	--
NR067.1111X1243 U-22 WEL	76-05-13	--	--	--	--
UTE MTN INDIAN RE COTTON	76-04-01	--	--	--	--
21N.09W.16.230	76-01-06	--	.1	9	0
21N.11W.08.1131 WELL PAD	76-06-14	--	--	--	--
21N.12W.01.3421 WELL 76	76-06-14	--	--	--	--
22N.10W.31.111 HOLE DUG	76-07-22	--	--	--	--
22N.10W.31.113 CHACO COM	76-07-22	--	--	--	--
22N.11W.32.3131 WELL IN	76-05-17	--	--	--	--
22N.11W.34.231 WELL ESCA	76-05-06	--	--	--	--
22N.12W.28.2434 WELL IN	76-05-18	--	--	--	--
22N.12W.35.4444DUG WELL	76-05-18	--	--	--	--
22N.13W.24.4131 1R WELL	76-09-27	--	--	--	--
22N.13W.24.4133 2S WELL	76-09-27	520	--	--	--
22N.13W.24.4134 3D WELL	76-09-27	--	--	--	--
22N.13W.24.4314 4V WELL	76-09-27	--	--	--	--
22N.13W.26.142	76-05-11	--	--	--	--
23N.12W.05.221 WELL 2.7	75-10-22	--	--	--	--
	76-03-31	--	--	--	--

LOCAL IDENT- I- FIER	STATION	NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL ALUM- INUM (AL) (UG/L) (01105)	DIS- SOLVED ALUM- INUM (AL) (UG/L) (01106)	TOTAL ARSENIC (AS) (UG/L) (01002)	DIS- SOLVED ARSENIC (AS) (UG/L) (01000)	TOTAL BARIUM (BA) (UG/L) (01007)
23N.12W.07.2333 BISTI DH	361435108093001	GW	75-10-21	1130	--	--	--	14	--	--
		GW	76-06-15	1640	--	--	--	11	--	--
23N.12W.08.2111 BISTI DH	361457108081901	GW	75-10-22	1400	--	--	--	9	--	--
		GW	76-03-31	1130	--	--	--	5	--	--
		GW	76-06-15	1430	--	--	--	5	--	--
23N.12W.17.2111 BISTI DH	361407108081901	GW	76-03-31	1030	--	--	--	14	--	--
		GW	76-06-15	1750	--	--	--	8	--	--
23N.12W.18.233 BIA 19T-5	361341108092201	GW	76-04-26	1300	--	--	--	0	--	--
23N.13W.15.333	361318108131201	GW	76-05-10	1410	--	--	--	0	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED BARIUM (BA) (UG/L) (01005)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	DIS- SOLVED CAD- MIUM (CD) (UG/L) (01025)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)	DIS- SOLVED CHRO- MIUM (CR) (UG/L) (01030)	TOTAL COBALT (CO) (UG/L) (01037)	DIS- SOLVED COBALT (CO) (UG/L) (01035)
23N.12W.07.2333 BISTI DH	75-10-21	--	--	460	--	--	--	--	--	--
	76-06-15	--	520	470	--	--	--	--	--	--
23N.12W.08.2111 BISTI DH	75-10-22	--	--	370	--	--	--	--	--	--
	76-03-31	--	380	370	10	--	0	--	--	--
	76-06-15	--	450	370	--	--	--	--	--	--
23N.12W.17.2111 BISTI DH	76-03-31	--	--	340	--	--	--	--	--	--
	76-06-15	--	430	370	--	--	--	--	--	--
23N.12W.18.233 BIA 19T-5	76-04-26	--	--	270	<10	--	230	--	--	--
23N.13W.15.333	76-05-10	--	360	--	--	--	--	--	--	--

QUALITY OF GROUND WATER  
WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SAN JUAN COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL COPPER (CU) (01042)	DIS- SOLVED COPPER (CU) (01040)	TOTAL IRON (FE) (01045)	DIS- SOLVED IRON (FE) (01046)	TOTAL LEAD (PB) (01051)	DIS- SOLVED LEAD (PB) (01049)	TOTAL LITHIUM (LI) (01132)	DIS- SOLVED LITHIUM (LI) (01130)	TOTAL MAN- GANESE (MN) (01055)
23N.12W.07.2333 BISTI DH	75-10-21	--	--	--	80	--	--	--	--	--
	76-06-15	--	--	2700	20	100	--	170	--	--
23N.12W.08.2111 BISTI DH	75-10-22	--	--	--	70	--	--	--	--	--
	76-03-31	180	--	1200	80	200	--	220	--	50
	76-06-15	--	--	3400	50	200	--	220	--	--
23N.12W.17.2111 BISTI DH	76-03-31	--	--	--	110	--	--	--	--	--
	76-06-15	--	--	3000	30	200	--	130	--	--
23N.12W.18.233 BIA 19T-5	76-04-26	10	--	--	100	--	--	70	--	--
23N.13W.15.333	76-05-10	--	--	--	--	<100	--	40	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED MAN- GANESE (MN) (01056)	TOTAL MERCURY (HG) (71900)	DIS- SOLVED MERCURY (HG) (71890)	TOTAL SELE- NIUM (SE) (01147)	DIS- SOLVED SELE- NIUM (SE) (01145)	TOTAL STRON- TIUM (SR) (01082)
23N.12W.07.2333 BISTI DH	75-10-21	--	.0	--	0	--	--
	76-06-15	--	.2	--	0	--	--
23N.12W.08.2111 BISTI DH	75-10-22	--	.1	--	--	--	--
	76-03-31	--	.0	--	0	--	--
	76-06-15	--	1.0	--	0	--	--
23N.12W.17.2111 BISTI DH	76-03-31	--	.2	--	1	--	--
	76-06-15	--	.3	--	1	--	--
23N.12W.18.233 BIA 19T-5	76-04-26	--	.0	--	0	--	--
23N.13W.15.333	76-05-10	--	.0	--	0	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED STRON- TIUM (SR) (01080)	DIS- SOLVED VANA- DIUM (V) (01085)	TOTAL ZINC (ZN) (01092)	DIS- SOLVED ZINC (ZN) (01090)
23N.12W.07.2333 BISTI DH	75-10-21	--	--	--	--
	76-06-15	--	--	--	--
23N.12W.08.2111 BISTI DH	75-10-22	--	--	--	--
	76-03-31	--	--	--	--
	76-06-15	--	--	--	--
23N.12W.17.2111 BISTI DH	76-03-31	--	--	--	--
	76-06-15	--	--	--	--
23N.12W.18.233 BIA 19T-5	76-04-26	--	--	--	--

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL NON- FILTY- RABLE RESIDUE (MG/L) (00530)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L) (80030)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L) (80040)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L) (03515)	SUS- PENDED GROSS BETA AS CS-137 (PC/L) (03516)
21N.09W.16.230	360313107473401	GW	76-01-06	1140	<1	<84	<.4	88	<.4

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L) (80050)	SUS- PENDED GROSS BETA AS SR90 /Y90 (PC/L) (80060)	DIS- SOLVED RA-226 (RADON METHOD) (PC/L) (09511)	DIS- SOLVED URANIUM (U) (UG/L) (80020)
21N.09W.16.230	76-01-06	80	<.4	1.6	<.01

## SAN JUAN COUNTY--Continued

INSTANTANEOUS SUSPENDED SEDIMENT OF GROUND WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE	TIME	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)				
23N.12W.06.4411 *	361513108090701	GW	AUG 25...	1330	529000	33				
LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE	TIME	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)			
23N.12W.07.200 *	361446108090801	GW	AUG 23...	1415	19.5	1930	100			
LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE	TIME	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)			
23N.12W.07.2233 *	361447108090901	GW	AUG 23...	1605	19.5	8960	90			
LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE	TIME	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)			
23N.12W.08.2111 *	361457108081901	GW	OCT 22...	1400	15.5	129	100			
LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE	TIME	TEMPER- ATURE (DEG C) (00010)	SUS- PENDE SEDI- MENT (MG/L) (80154)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM (70331)	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM (70332)	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM (70333)	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM (70334)
23N.12W.17.2111 *	361407108081901	GW	OCT 22...	1200	12.0	11	84	86	88	100

\* Mixture of drill water, formation water, and drill cuttings.

## SAN MIGUEL COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	TOTAL DEPTH OF WELL (FT) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)
13N.26E.8.421 CONCHAS LA	352202104115101	GW	76-06-17	1145	--	1781	--	--	--
		GW	76-06-17	1235	--	1781	1040	971	--
		GW	76-06-17	1250	--	1781	--	--	--
17N.26E.24.121	354140104080001	GW	76-01-29	1645	310GLRT	1285	1285	1235	240

## WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## SAN MIGUEL COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	INSTAN- TANEOUS FLOW RATE (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)
13N.26E.8.421 CONCHAS LA	76-06-17	200	9890	6.4	25.0	2800	1800	980	85	1500
	76-06-17	200	10100	6.4	25.5	2500	1600	870	84	1500
	76-06-17	200	10200	6.4	26.5	2800	1800	980	85	1500
17N.26E.24.121	76-01-29	--	5790	7.4	--	1500	490	440	98	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SiO2) (MG/L) (00955)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)
13N.26E.8.421 CONCHAS LA	76-06-17	12	42	1160	0	2000	2300	1.5	12	7490
	76-06-17	13	46	1150	0	1900	2200	1.4	12	7180
	76-06-17	12	43	1160	0	2000	2300	1.6	12	7490
17N.26E.24.121	76-01-29	--	--	1230	0	1320	566	--	--	4430

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED IRON (FE) (UG/L) (01046)	DIS- SOLVED MAN- GANESE (MN) (UG/L) (01056)
13N.26E.8.421 CONCHAS LA	76-06-17	.00	.05	20	690
	76-06-17	.00	.09	10	700
	76-06-17	.00	.05	0	690
17N.26E.24.121	76-01-29	--	--	--	--

## SANTA FE COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (FT) (72019)	TOTAL DEPTH OF WELL (FT) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
CAJA DEL RIO GRANT TWELV	353946106104401	GW	76-06-09	1400	112SNTF	--	--	--	--
LA MAJADA GRANT EIGHT HU	353407106114901	GW	76-06-09	1500	112SNTF	--	--	--	--
SAN MARCOS PUEBLO GRANT	352805106035201	GW	76-06-07	1415	112ANCH	--	114	--	--
10N.11E.25.3333 PUB WELL	350322105435301	GW	76-07-13	1130	231DCKM	--	110	--	--
11N.07E.26.24213	350906106092501	GW	76-06-17	1630	110BLSN	179.00	300	272	262
12N.07E.34.22434	351332106102801	GW	76-06-17	1100	318ABO U	464.00	602	600	570
13N.08E.36.1221	351905106024501	GW	76-06-18	1500	211MVRD	31.00	--	--	--
13N.09E.29.1313A	351941106010301	GW	76-06-18	1415	1236LST	16.00	--	--	--
15N.08E.07.32334 WELL AT	353229106081001	GW	76-07-14	1100	110AVMB	--	272	110	80

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE MSL) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	INSTAN- TANEOUS FLOW RATE (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (CA,MG) (MG/L) (00900)	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)
CAJA DEL RIO GRANT TWELV	76-06-09	--	--	--	325	7.8	27.5	53	0	18
LA MAJADA GRANT EIGHT HU	76-06-09	--	--	--	550	7.5	22.5	130	0	39
SAN MARCOS PUEBLO GRANT	76-06-07	--	--	--	345	7.8	17.0	120	0	36
10N.11E.25.3333 PUB WELL	76-07-13	6865	--	18	740	7.6	14.5	270	49	80
11N.07E.26.24213	76-06-17	--	--	--	410	7.7	17.0	150	0	34
12N.07E.34.22434	76-06-17	--	--	20	540	7.6	--	240	2	60
13N.08E.36.1221	76-06-18	--	--	--	5500	7.6	14.5	3000	2700	430
13N.09E.29.1313A	76-06-18	--	--	--	525	7.8	15.0	160	0	33
15N.08E.07.32334 WELL AT	76-07-14	--	60	45	820	7.6	12.5	340	0	88

QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SANTA FE COUNTY--Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED MAG- NE- SIUM (MG) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)
CAJA DEL RIO GRANT#TWELV	76-06-09	2.0	50	3.0	4.5	176	0	15	4.4	.2
LA MAJADA GRANT#EIGHT HU	76-06-09	6.9	77	3.0	5.1	283	0	57	11	.3
SAN MARCOS PUEBLO GRANT	76-06-07	7.7	24	.9	3.3	156	0	26	9.1	.6
10N.11E.25.3333 PUB WELL	76-07-13	17	59	1.6	2.3	269	0	110	30	.6
11N.07E.26.24213	76-06-17	16	29	1.0	1.9	209	0	16	13	.4
12N.07E.34.22434	76-06-17	21	18	.5	1.3	286	0	33	9.3	.4
13N.08E.36.1221	76-06-18	460	390	3.1	.9	271	0	3200	35	1.1
13N.09E.29.1313A	76-06-18	18	52	1.8	.3	231	0	70	14	1.1
15N.08E.07.32334 WELL AT	76-07-14	30	60	1.4	7.1	501	0	55	25	1.5

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
CAJA DEL RIO GRANT#TWELV	76-06-09	21	212	2.2	.01	70	140
LA MAJADA GRANT#EIGHT HU	76-06-09	46	384	.31	.05	130	110
SAN MARCOS PUEBLO GRANT	76-06-07	25	217	1.9	.02	90	40
10N.11E.25.3333 PUB WELL	76-07-13	18	465	3.5	.03	170	40
11N.07E.26.24213	76-06-17	25	250	2.6	.04	50	70
12N.07E.34.22434	76-06-17	23	310	.67	.03	30	70
13N.08E.36.1221	76-06-18	16	4690	4.4	.04	300	240
13N.09E.29.1313A	76-06-18	25	328	.00	.04	160	190
15N.08E.07.32334 WELL AT	76-07-14	40	556	.07	.05	90	1600

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL IRON (FE) (UG/L) (01045)	DIS- SOLVED IRON (FE) (UG/L) (01046)
12N.07E.34.22434	351332106102801	GW	76-06-17	1100	30	440	70
15N.08E.07.32334 WELL AT	353229106081001	GW	76-07-14	1100	90	2100	1600

TAOS COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)
DOMESTIC WELL CERROS DE	363219105445901	GW	76-07-22	1000	--	320	7.6
STOCK WELL CERROS DE TAO	363257105445902	GW	76-07-22	1100	--	300	7.6

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	DIS- SOLVED SELE- NIUM (SE) (UG/L) (01145)
DOMESTIC WELL CERROS DE	363219105445901	GW	76-07-22	1000	3
STOCK WELL CERROS DE TAO	363257105445902	GW	76-07-22	1100	0

## QUALITY OF GROUND WATER

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

## TORRANCE COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (CA+MG) (MG/L) (00900)
SEVILLETA GRANT	342231106372401	GW	76-05-04	1500	110AVMB	10	466	7.9	140

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NON- CAR- BONATE HARD- NESS (MG/L) (00902)	DIS- SOLVED CAL- CIUM (CA) (MG/L) (00915)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L) (00925)	DIS- SOLVED SODIUM (NA) (MG/L) (00930)	SODIUM AD- SORP- TION RATIO (00931)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L) (00935)	BICAR- BONATE (HCO3) (MG/L) (00440)	CAR- BONATE (CO3) (MG/L) (00445)	DIS- SOLVED SULFATE (SO4) (MG/L) (00945)
SEVILLETA GRANT	76-05-04	11	30	16	45	1.7	2.7	158	0	59

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED CHLO- RIDE (CL) (MG/L) (00940)	DIS- SOLVED FLUO- RIDE (F) (MG/L) (00950)	DIS- SOLVED SILICA (SIO2) (MG/L) (00955)	DIS- SOLVED (SUM OF CONSTI- TUENTS) (MG/L) (70301)	DIS- SOLVED NITRITE PLUS NITRATE (N) (MG/L) (00631)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L) (00671)	DIS- SOLVED BORON (B) (UG/L) (01020)	DIS- SOLVED IRON (FE) (UG/L) (01046)
SEVILLETA GRANT	76-05-04	34	2.3	17	297	3.0	.00	130	70

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BORON (B) (UG/L) (01022)	DIS- SOLVED BORON (B) (UG/L) (01020)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL COPPER (CU) (UG/L) (01042)
SEVILLETA GRANT	342231106372401	GW	76-05-04	1500	2	140	130	10	10

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DIS- SOLVED IRON (FE) (UG/L) (01046)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MERCURY (HG) (UG/L) (71900)	TOTAL SELE- NIUM (SE) (UG/L) (01147)
SEVILLETA GRANT	76-05-04	70	100	40	.0	8

## VALENCIA COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	TOTAL DEPTH OF WELL (FT) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	
10N.07W.36.322	76-2 WEL	350302107314501	GW	76-07-13	2015	110AVMB	154	3700	7.8	15.5
10N.07W.36.424	76-1 WEL	350253107311201	GW	76-07-10	1145	110AVMB	157	1500	8.1	--
10N.08W.30.244	76-4 WEL	350400107425601	GW	76-07-16	1715	110AVMB	170	1450	8.1	15.0
			GW	76-07-17	0800	110AVMB	170	1500	8.1	14.5
			GW	76-07-17	2400	110AVMB	170	1500	8.1	14.5
10N.09W.25.244	76-3 WEL	350400107440001	GW	76-07-21	0730	110AVMB	165	1210	8.1	14.5

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL ORGANIC CARBON (C) (MG/L) (00680)
10N.07W.36.322	76-07-13	--
10N.07W.36.424	76-07-10	--
10N.08W.30.244	76-07-16	--
	76-07-17	1.9
	76-07-17	--
10N.09W.25.244	76-07-21	2.7



QUALITY OF GROUND WATER

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WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

VALENCIA COUNTY--Continued

LOCAL IDENT- I- FIER	STATION	NUMBER	SITE	DATE OF SAMPLE	TIME	TOTAL ARSENIC (AS) (UG/L) (01002)	TOTAL BARIUM (BA) (UG/L) (01007)	TOTAL BORON (B) (UG/L) (01022)	TOTAL CAD- MIUM (CD) (UG/L) (01027)	TOTAL CHRO- MIUM (CR) (UG/L) (01034)
10N.07W.36.322	76-2	WEL	350302107314501	GW	76-07-13	2015	6	--	--	--
10N.07W.36.424	76-1	WEL	350253107311201	GW	76-07-10	1145	3	--	--	--
10N.08W.30.244	76-4	WEL	350400107425601	GW	76-07-16	1715	12	--	--	--
				GW	76-07-17	0800	--	0	370	<10
10N.09W.25.244	76-3	WEL	350400107440001	GW	76-07-21	0730	4	0	290	<10

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL COBALT (CO) (UG/L) (01037)	TOTAL COPPER (CU) (UG/L) (01042)	TOTAL IRON (FE) (UG/L) (01045)	TOTAL LEAD (PB) (UG/L) (01051)	TOTAL LITHIUM (LI) (UG/L) (01132)	TOTAL MAN- GANESE (MN) (UG/L) (01055)	TOTAL MERCURY (HG) (UG/L) (71900)
10N.07W.36.322	76-2 WEL	76-07-13	--	--	--	--	--	.2
10N.07W.36.424	76-1 WEL	76-07-10	--	--	--	--	--	.3
10N.08W.30.244	76-4 WEL	76-07-16	--	--	--	--	--	.1
		76-07-17	<50	<10	3700	<100	230	570
10N.09W.25.244	76-3 WEL	76-07-21	<50	20	2800	<100	240	380

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TOTAL MOLYB- DENUM (MO) (UG/L) (01062)	TOTAL SELE- NIUM (SE) (UG/L) (01147)	TOTAL STRON- TIUM (SR) (UG/L) (01082)	DIS- SOLVED VANA- DIUM (V) (UG/L) (01085)	
10N.07W.36.322	76-2 WEL	76-07-13	7	1	--	1.1
10N.07W.36.424	76-1 WEL	76-07-10	3	3	--	1.1
10N.08W.30.244	76-4 WEL	76-07-16	4	9	--	7.4
		76-07-17	--	--	1400	--
10N.09W.25.244	76-3 WEL	76-07-21	4	3	1000	6.2



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# CALENDAR FOR WATER YEAR 1976

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## O C T O B E R

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## N O V E M B E R

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## D E C E M B E R

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1 9 7 6

## J A N U A R Y

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## F E B R U A R Y

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29						

## M A R C H

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## A P R I L

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

## M A Y

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## J U N E

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

## J U L Y

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## A U G U S T

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## S E P T E M B E R

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

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