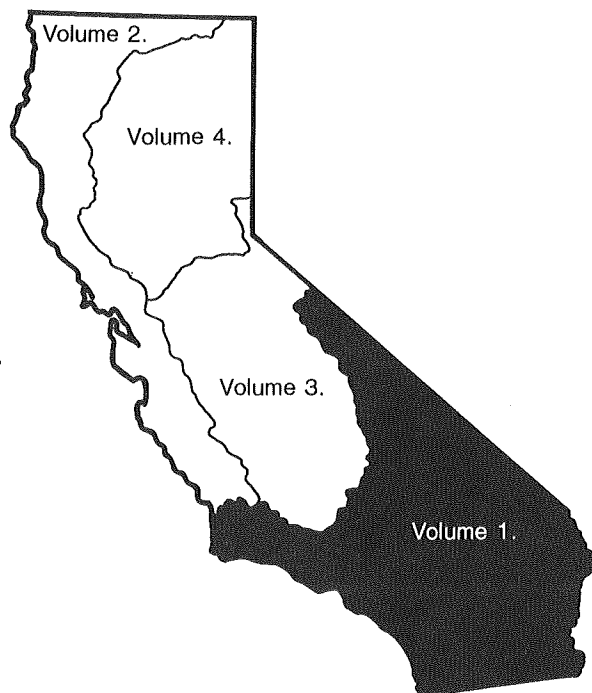




# Water Resources Data California Water Year 1981

Volume 1. Colorado River Basin, Southern Great Basin from Mexican Border to Mono Lake Basin, and Pacific Slope Basins from Tijuana River to Santa Maria River



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-81-1  
Prepared in cooperation with the California Department of  
Water Resources and with other agencies

# CALENDAR FOR WATER YEAR 1981

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1980

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## OCTOBER

S	M	T	W	T	F	S
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1981

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## JANUARY

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## JUNE

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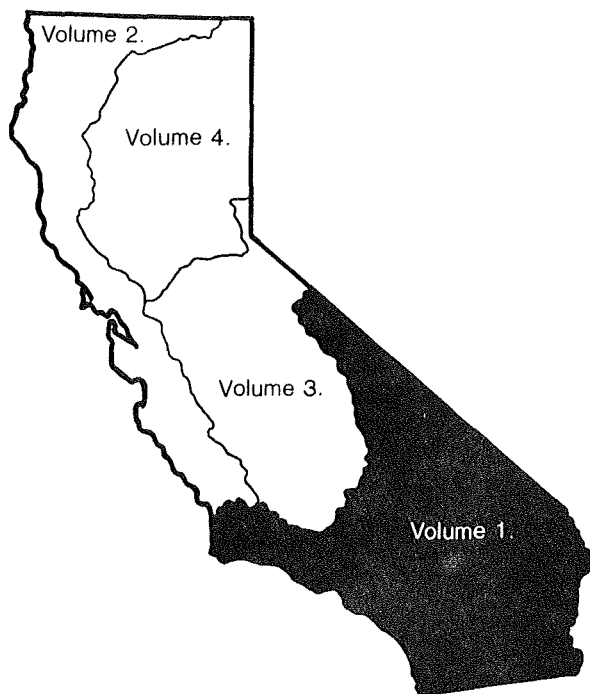
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27	28	29	30			



# Water Resources Data California Water Year 1981

Volume 1. Colorado River Basin, Southern Great Basin  
from Mexican Border to Mono Lake Basin,  
and Pacific Slope Basins from Tijuana River  
to Santa Maria River



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-81-1  
Prepared in cooperation with the California Department of  
Water Resources and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

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1982



## PREFACE

This report was prepared by personnel of the California District of the Water Resources Division, U.S. Geological Survey, under the supervision of Richard M. Bloyd and Timothy J. Durbin, successive District Chiefs, and J. D. Bredehoeft, Regional Hydrologist, Western Region. It was done in cooperation with the California Department of Water Resources and with other agencies.

This report is one of a series issued by State. General direction for the series is by Philip Cohen, Chief Hydrologist.

Data for California are in four volumes as follows:

- Volume 1. Colorado River Basin, Southern Great Basin from Mexican Border to Mono Lake Basin, and Pacific Slope Basins from Tijuana River to Santa Maria River
- Volume 2. Pacific Slope Basins from Arroyo Grande to Oregon State Line except Central Valley
- Volume 3. Southern Central Valley Basins and The Great Basin from Walker River to Truckee River
- Volume 4. Northern Central Valley Basins and The Great Basin from Honey Lake Basin to Oregon State Line

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<b>16. Abstract (Limit: 200 words)</b> Water-resources data for the 1981 water year for California consists of records of stage, discharge, and water quality of streams; stage and contents in lakes and reservoirs; and water levels and water quality in wells. Volume 1 contains discharge records for 169 gaging stations; stage and contents for 19 lakes and reservoirs; water quality for 42 streams and 21 wells; water levels for 169 observation wells. Also included are 10 crest-stage partial-record stations. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in California.			
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SURFACE-WATER AND WATER-QUALITY STATIONS,  
IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

IX

Letters after station name designate type of data:  
(d), discharge; (l), lake contents; (p), precipitation; (c), chemical;  
(b), biological; (t), water temperature; and (s), sediment

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# WATER RESOURCES DATA FOR CALIFORNIA, 1981

## Volume 1

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### INTRODUCTION

Water-resources data for the 1981 water year for California consist of records of stage, discharge, and water quality of streams; records of stage, contents, and water quality of lakes and reservoirs; and records of water levels and water quality of selected observation wells. These data, a contribution to the National Water Data System, were collected by the U.S. Geological Survey and cooperating local, State, and Federal agencies in California.

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 the Distribution Branch, Text Products Section, 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, either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published together 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 CA-81-1." For archiving and general distribution, the reports for water years 1971-74 are also identified as water-data reports. Water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, Va. 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (916) 484-4606.

## COOPERATION

The U.S. Geological Survey and organizations of the State of California have had cooperative agreements for the systematic collection of records since 1903. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Antelope Valley-East Kern Water Agency, Wallace G. Spinarski, General Manager.  
 California Department of Boating and Waterways, Marty Mercado, Director.  
 California Department of Water Resources, R. B. Robie, Director.  
 California Regional Water Quality Control Board, Lahontan Region,  
 Roy C. Hampson, Executive Officer.  
 Carpinteria County Water District, Robert Lieberknecht, Manager.  
 Casitas Municipal Water District, Robert N. McKinney, General Manager-Chief Engineer.  
 Coachella Valley Water District, Lowell O. Weeks, General Manager-Chief Engineer.  
 Crestline-Lake Arrowhead Water Agency, Robert M. Massey, General Manager.  
 Desert Water Agency, Paul G. Payne, General Manager.  
 Goleta Water District, Lloyd C. Fowler, General Manager-Chief Engineer.  
 Imperial County Department of Public Works, David E. Pierson, Director.  
 Imperial Irrigation District, Donald A. Twogood, General Manager.  
 Indian Wells Valley Water District, James H. Stramler, General Manager.  
 Mojave Water Agency, Jon D. Edson, General Manager.  
 Montecito Water District, Charles Evans, General Manager.  
 Orange County Environmental Management Agency, Murray I. Storm, Director.  
 Orange County Water District, Neil M. Cline, Secretary-Manager.  
 Rancho California Water District, Stan Mills, General Manager.  
 Riverside County Flood Control and Water Conservation District, Ken Edwards, Chief Engineer.  
 San Bernardino County Flood Control District, C. J. DiPietro, Flood Control Engineer.  
 San Bernardino Valley Municipal Water District, G. Louis Fletcher, General Manager.  
 San Diego, City of, Water Utilities Department, R. W. King, Director.  
 San Diego County Department of Public Works, R. J. Massman, Director.  
 Santa Barbara, City of, Department of Public Works, R. W. Puddicombe, Director.  
 Santa Barbara County Flood Control and Water Conservation District, James M. Stubchaer, Flood Control Engineer.  
 Santa Barbara County Water Agency, James M. Stubchaer, Water Engineer Manager.  
 Santa Maria Valley Water Conservation District, Maurice F. Twitchell, Secretary.  
 United Water Conservation District, G. I. Wilde, General Manager-Chief Engineer.  
 Ventura County Public Works Agency, Arthur Goulet, Director.  
 Western Municipal Water District, Howard A. Hicks, General Manager.

Assistance in the form of funds or services was given by Environmental Protection Agency; U.S. International Boundary and Water Commission; Corps of Engineers, U.S. Army; U.S. Air Force; U.S. Navy; Bureau of Indian Affairs, Bureau of Reclamation, National Park Service, U.S. Department of the Interior.

The following organizations aided in collecting records: Big Bear Municipal Water District; cities of Long Beach, San Bernardino, and San Diego; Escondido Mutual Water Co.; Fontana Union Water Co.; Lake Hemet Municipal Water District; Metropolitan Water District of Southern California; Los Angeles Department of Water and Power; Los Angeles County Flood Control District; Santa Paula Water Works, Ltd; Sweetwater Authority of South Bay Irrigation District; Southern California Edison Co.; Temescal Water Co.; and White Water Mutual Water Co.

## SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Runoff during the 1981 water year in the area covered by this volume was generally near normal for the entire year and averaged 95 percent of the 1951-80 median. Total runoff at selected sites in California is shown in figure 1. Runoff in the Santa Ana River basin and coastal basins to the south was 100 percent of the median; in the Los Angeles River basin, 88 percent; and in the Santa Clara River basin, 99 percent. Figure 2 shows the variation in runoff during the 1981 water year and compares the 1981 monthly and annual flow with median flow for representative streams in southern California.

Precipitation was erratic this year, ranging in the desert area from 42 percent of normal at Death Valley to 101 percent at Blythe, but was below normal in much of the coastal area, ranging from 72 percent at Los Angeles to 86 percent at San Diego and 87 percent at Santa Barbara.

Precipitation in an early December storm was light, and runoff was minimal. The storm of January 27-30 brought the first significant precipitation to most coastal areas of southern California and produced heavy runoff in a few basins. Most of southern California, except the desert areas, received precipitation from four other storms: February 8-9, February 28-March 5, March 19-21, and April 18-19. The early March storm brought the snow level down to about 2,200 feet in the mountain areas, so that in these basins little runoff resulted. Most coastal basins, however, had substantial runoff and the peak of the year during this period. During the entire water year there was little local flooding, no known major mudslides, and no peaks of record on southern California streams.

Ground Water

The geography and geology of California are sufficiently complex that a summary of ground-water conditions in the State is difficult. Descriptions of conditions in specific basins and valleys apply only to those areas and cannot be transferred to other areas.

Ground-water levels fluctuate in response to a variety of stresses and changes in stress. Short- and long-term climatic conditions can lead to changes in natural recharge and discharge. Ground-water pumping can also cause changes in ground-water levels.

In the San Gabriel Valley of Los Angeles County the net decline of water level in the index well was more than 22 feet in 1981. In the observation well in the Coastal Plain of Los Angeles a net increase of 0.6 foot was observed. Water levels in three observation wells in the Coastal Plain of Orange County had net increases of 1.2 to 2.9 feet in 1981.

Water Quality

For the southern California surface-water sites of this publication the chemical quality shows little overall change from previous years. Water quality conditions vary greatly in this part of the State, but the waters are generally of poor quality, and some do not meet public health standards.

The specific characteristics of water quality at NASQAN stations are as follows: Specific conductance (micromhos) varied in range from 260 to 305 in the Owens River near Big Pine to 4,700 to 9,720 in the New River. Most other sites had a minimum specific conductance value in excess of 800. Dissolved-oxygen concentrations were frequently below saturation at the New River near Calexico (4.0-7.8 mg/L) and the Mojave River near Victorville (5.2-7.9 mg/L) and were frequently above saturation at the Los Angeles River at Long Beach (10.2-17.4 mg/L). Of the stations sampled, the New River had the highest fecal coliform and fecal streptococci counts per 100 mL, 34,000 to 940,000 and 3,400 to 90,000 respectively. These values are lower than the 1980 water year ranges of 34,000 to 15,000,000 and 4,000 to 1,900,000. Sulfate concentrations in excess of 250 mg/L (public health standard<sup>1</sup>) were detected at 5 of the 9 NASQAN sites, with the Alamo River near Calpatria having the highest mean of 1980 and a range of 830 to 1,100. Concentrations of arsenic, chloride, iron, lead, manganese, mercury, and selenium were found in excess of the public health standards in a small percentage of samples from several other surface-water sites.

The only pesticide samples for the 1981 water year were taken at the Santa Ana River below Prado Dam. Results showed that total diazinon and 2,4-D concentrations increased from the 1980 water year, whereas none of the other pesticide determinations indicated a change in concentration.

<sup>1</sup>U.S. Environmental Protection Agency, 1976, Quality criteria for water, 256 p.

# WATER RESOURCES DATA FOR CALIFORNIA, 1981

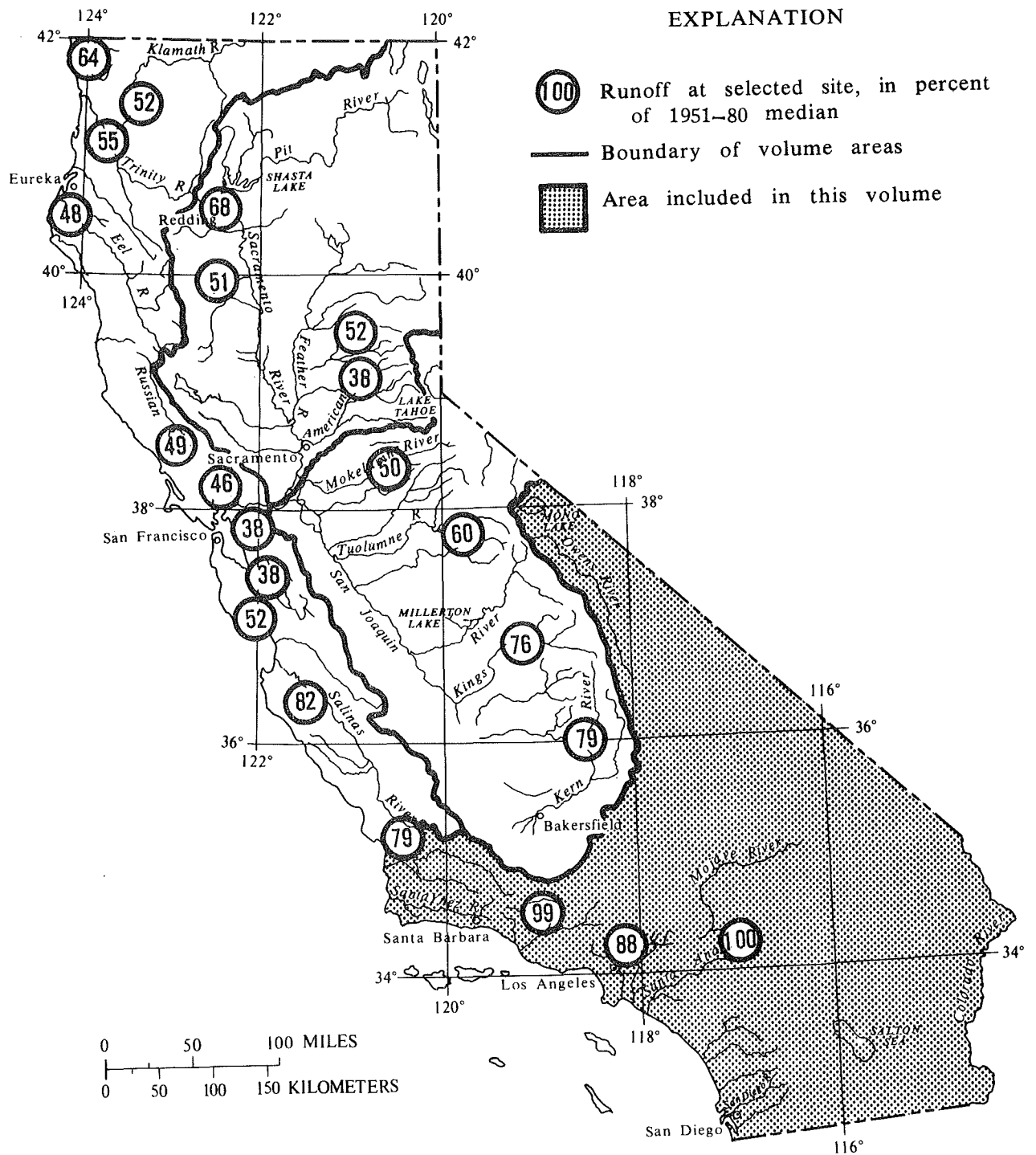


FIGURE 1.--Runoff for the current water year.



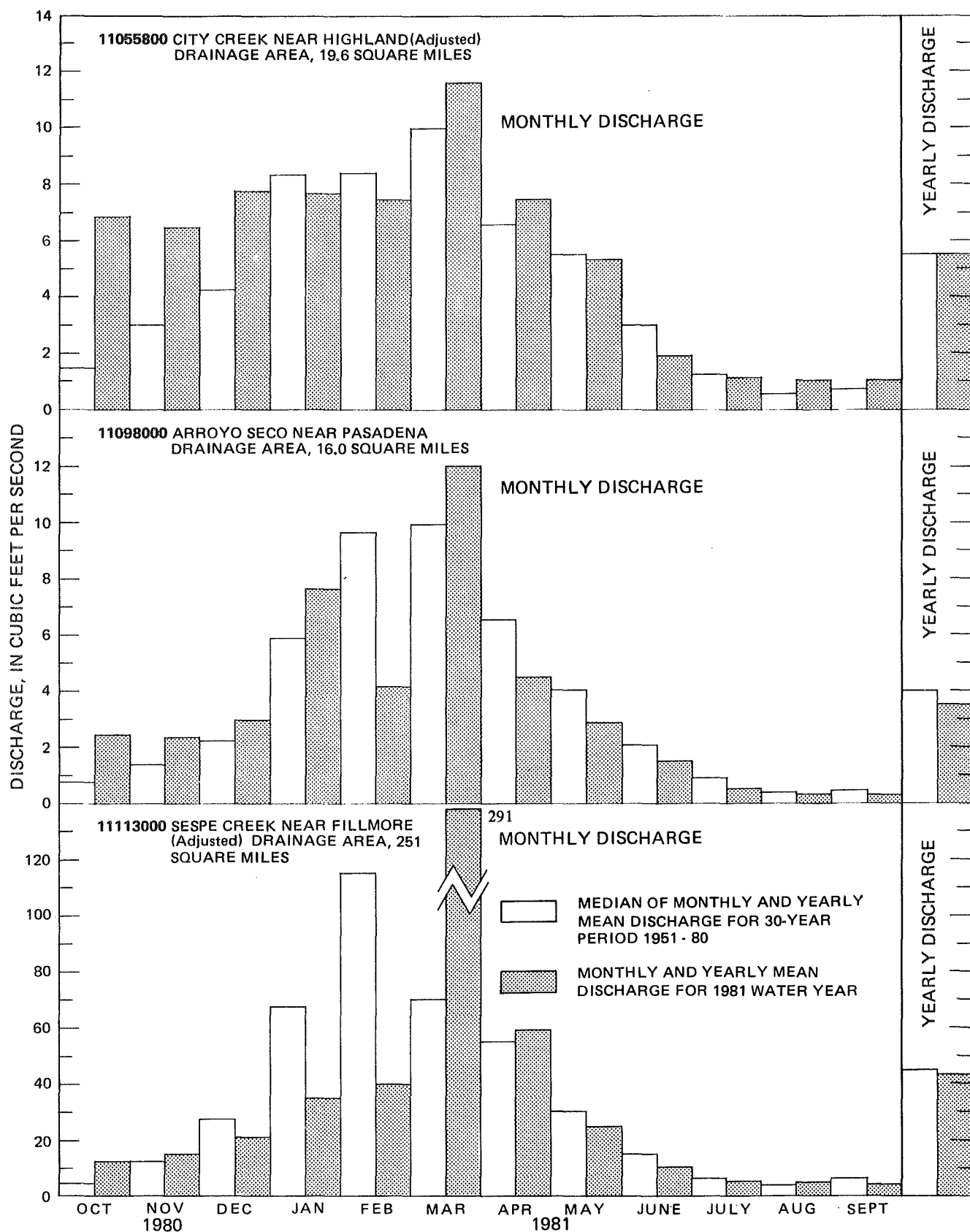


FIGURE 2. — Comparison of discharge at representative gaging stations during 1981 water year with median discharge for the period 1951 - 80.

## DEFINITION OF TERMS

Terms related to streamflow, water-quality, ground-water, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to international System 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.

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

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 a 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, 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. For the membrane filter method these bacteria are defined as the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C  $\pm$  0.5°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. For the membrane filter method 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 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. For the membrane filter method they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C  $\pm$  0.5°C on KF Streptococcus agar (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.

Benthic organisms (invertebrates) are the group of animals living in or on the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish.

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 ( $\text{g/m}^3$ ), and periphyton and benthic organisms in grams per square meter ( $\text{g/m}^2$ ).

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.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Cells/volume refers to the number of cells of any organism that are 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 in milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons or 2,445 cubic meters. It represents a runoff of approximately 0.0372 inch from 1 square mile or 0.3468 millimeter from 1 square kilometer.

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 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, total fluids 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.

Dissolved is that material in a representative water sample which passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

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

$$\bar{d} = \frac{s}{i} \frac{n_i}{n} \log_2 \frac{n_i}{n},$$

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 samples are the same, to some positive number, when some or all the organisms in the sample are different.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given therein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the Earth that is occupied by a drainage system, which consists of a surface stream or 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 that is required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ( $\text{CaCO}_3$ ).

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

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation

$$I = I_0 e^{-\lambda L},$$

where  $I_0$  is the source light intensity,  $I$  is the light intensity at length  $L$  (in meters) from the source,  $\lambda$  is the light-attenuation coefficient, and  $e$  is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_0}.$$

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that are usually arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This development 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-pupa-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 (UG/G,  $\mu\text{g/g}$ ) 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 (UG/L,  $\mu\text{g/L}$ ) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (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.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Nekton are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

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 unit area of the habitat, usually square meter ( $m^2$ ), acre, or hectare. 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 milliliter (mL) or liter (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 site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in chemically dispersed distilled water.

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.....	0.004-0.062	Sedimentation
Sand.....	0.062-2.0	Sedimentation or sieve
Gravel.....	2.0-64.0	Sieve

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

Percent composition or percent of total 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, weight, or volume.

Periphyton are microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, the periphyton also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control 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 are suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton compose the plant part of the plankton. They are usually microscopic and their movement is subject to 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 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 or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton compose 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 carbon assimilated by plants (carbon method) or the amount of oxygen released (oxygen method).

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

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

Sediment is solid material that is derived mostly from disintegrated rocks and is transformed 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.

Bedload is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bedload is considered to consist of particles in transit within 0.25 ft (0.076 m) of the streambed.

Bedload discharge (tons per day) is the quantity of sediment, as measured by dry weight, that moves past a section as bedload in a given time.

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

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 or 0.09 m above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons per 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 milligrams per liter times 0.0027.

Suspended-sediment load (tons per day) is the quantity of suspended sediment passing a section in a specified period.

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

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. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

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

Specific conductance is a measure of the ability of water to conduct an electrical current and 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 concentration in water. Commonly, 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 or from well to well, and it may even vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and the 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." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket



samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic-organism collection and plexiglass strips for periphyton collection.

Surface area of a lake is the area, in square miles or acres, outlined on the latest Geological Survey topographic map as the boundary of the lake and measured by a planimeter. In localities not covered by topographic maps, the areas are computed from the best maps available. Areas shown are for the lake stage at the time the map was made.

Surficial bed material is the part (upper 0.1 to 0.2 ft or 0.03 to 0.06 m) of the bed material that is sampled by using U.S. Series Bed-Material Samplers.

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

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

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.....limbata

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the presence of a thermograph or a digital mechanism that records water temperature in a digital format on punched paper tape.

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

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

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

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Turbidity of a sample is the reduction of transparency due to the presence of particulate matter. In this report it is expressed in Nephelometric turbidity units (NTU) or Jackson turbidity units (JTU), obtained from the Nephelometric method for turbidity determination which measures the intensity of light scattered by suspended particles at 90 degrees from the path of an incident light source (see also p. 24).

WDR is used as an abbreviation for "Water-Data Reports" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

WSP is used as an abbreviation for "Water-Supply Paper" in reference 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 mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first-rank, second-rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indentation in a list of

stations in the front of the report. Each indentation represents one rank. This downstream order and system of indentation shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each surface-water station, water-quality station, and partial-record station has been assigned a station number. These are in the same downstream order as used in this report. In assigning station numbers, no distinction is made between partial-record and continuous-record stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left between the 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 11105850, which appears just to the left of the station name, includes the 2-digit number "11" plus the 6-digit downstream order number "105850". 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 for California are in Part 9 (Colorado River basin), Part 10 (The Great Basin), and Part 11 (Pacific slope basins in California). All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

#### NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

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

The well- and miscellaneous-site number 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 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 3.

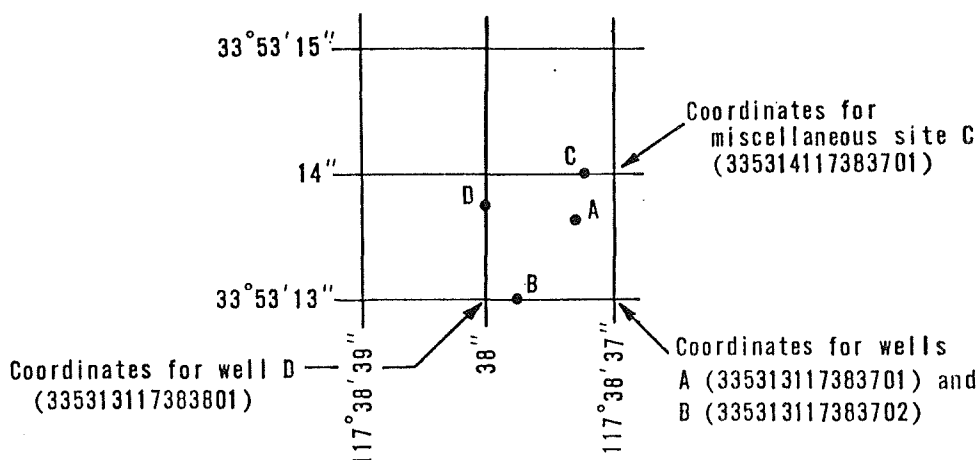


FIGURE 3.--System for numbering wells and miscellaneous sites (latitude and longitude).

### Local well numbers

Wells and springs in California are assigned numbers according to their location on the rectangular system for the subdivision of public land. For example, in the number 005S/010E-22G01 M, the part of the number preceding the slash indicates the township (T.5 S.) and the number between the slash and hyphen indicates the range (R.10 E.); the digits following the hyphen indicate the section (sec.22); the letter following the section number indicates the 40-acre subdivision of the section. Within each 40-acre tract, the wells are numbered serially, as indicated by the final digit. The final letter, separated from the rest of the number by a space, indicates the base line and meridian. Base-line and meridian designations are as follows: H, Humboldt; M, Mount Diablo; S, San Bernardino. See figure 4.

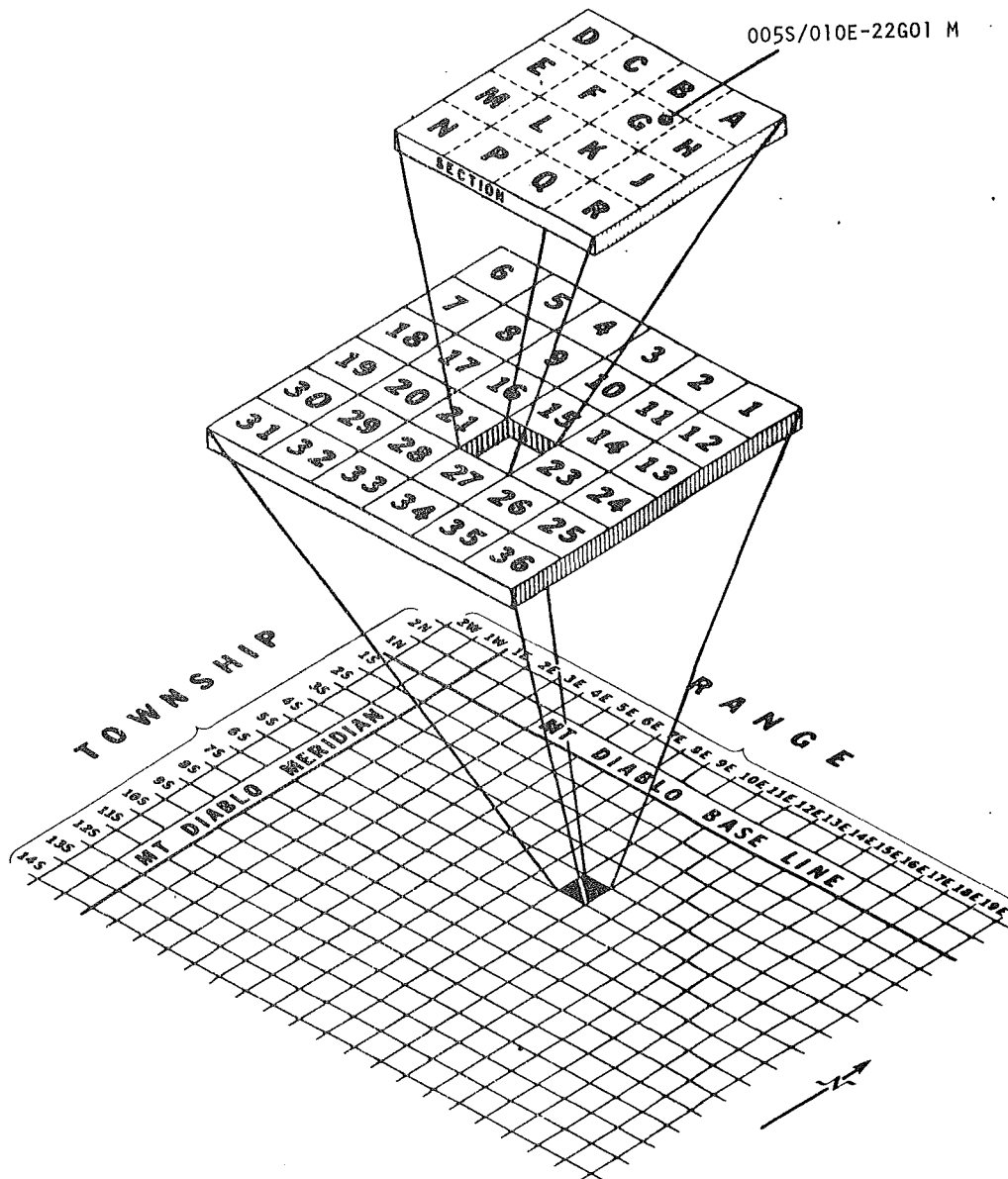


FIGURE 4.--California well-numbering system.

## SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

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 basin. Stations in this network are listed below:

Volume 2:

11475560 Elder Creek near Branscomb, CA

Volume 3:

11264500 Merced River at Happy Isles Bridge, near Yosemite, CA

National stream-quality accounting network is an accounting 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 in the network design. Areal configuration of the network is based on the river-basin accounting units 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 water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality. Stations in this network are listed below:

Volume 1:

09424190 Colorado River Aqueduct near San Jacinto, CA  
10254670 Alamo River at Drop No. 3, near Calipatria, CA  
10254970 New River at International Boundary, at Calexico, CA  
10261500 Mojave River at lower narrows, near Victorville, CA  
10277400 Owens River below Tinemaha Reservoir, near Big Pine, CA  
11042000 San Luis Rey River at Oceanside, CA  
11074000 Santa Ana River below Prado Dam, CA  
11103000 Los Angeles River at Long Beach, CA  
11108500 Santa Clara River at Los Angeles-Ventura County line, CA

Volume 2:

11152300 Salinas River near Chualar, CA  
11159000 Pajaro River at Chittenden, CA  
11458000 Napa River near Napa, CA  
11467000 Russian River near Guerneville, CA  
11477000 Eel River at Scotia, CA  
11530500 Klamath River near Klamath, CA  
11532500 Smith River near Crescent City, CA

Volume 3:

11187000 Kern River at Kernville, CA  
11218500 Kings River below North Fork, near Trimmer, CA  
11250000 Friant-Kern Canal at Friant, CA  
11303500 San Joaquin River near Vernalis, CA  
11325500 Mokelumne River at Woodbridge, CA

Volume 4:

10356500 Susan River at Susanville, CA  
11370500 Sacramento River at Keswick, CA  
11447650 Sacramento River at Freeport, CA

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 whose waters are used for irrigation or in streams in areas where contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal inter-agency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radiosotopes. The streams that are sampled represent major drainage basins in the conterminous 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 and canals, and stage and contents of lakes and 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 direct readings on a nonrecording gage or from a water-stage recorder that gives 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 methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water-Supply Paper 888, and in the U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For a stream-gaging station, 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), velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges 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 stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some 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 the 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 tabulations 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 are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

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 published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATIONS" 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 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, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are affected by the revision, that 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 daily minimum was revised; and "(P)" that only the 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 referred to National Geodetic Vertical Datum of 1929, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 9.

Information pertaining to the accuracy of the discharge records, and to conditions that affect the natural flow at 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 also 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 daily 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.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives 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 also may be expressed in acre-feet (line headed "AC-FT"). 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 discharges 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, of indefinite stage-discharge 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 monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage 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 it is not published for reservoirs for which only monthly data are given.



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 discharge 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 interpretation 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 ft<sup>3</sup>/s; to tenths between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures above 1,000 ft<sup>3</sup>/s. 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 and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation by storage, increase or decrease due to artificial causes, or to other factors. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

#### Other data available

Information of a more detailed nature than that published for most of the gaging stations, such as observations of water temperatures, discharge measurements, gage-height records, and rating tables, is on file in the District Office. 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.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the District Office.

#### Records of discharge collected by agencies other than the Geological Survey

Records of discharge not published by the Geological Survey have been collected at numerous sites by many other Federal, State, County, City, and local agencies and by private organizations. A listing of stream-gaging stations and the agencies operating them is published in California Department of Water Resources Bulletin 230-78, "Index to Sources of Hydrologic Data." The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of such sites. Information on records at specific sites can be obtained upon request.

## EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

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

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); instrumentation; general remarks; extremes for the period of daily record; and extremes for the current year.

The descriptive heading for ground-water records includes general location. Casing diameter (diam), depth, and perforated interval are also included when known.

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 the 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 time of 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.

Ground-water quality normally does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site.

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 a small diel 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 continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day and month. Water temperatures taken at the time of discharge measurements are on file in the district office. They will be used, with all other temperature data, for reports such as the open-file reports by subregion, "Water Temperature of California Streams, 1970."

### 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 at 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 days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge 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 suspended-sediment discharge, estimates of bedload and total-sediment discharge are included for some stations. Also included are particle-size distribution analyses of suspended sediment, surface bed material, and bedload material (sediment in transit within 0.25 ft (0.076 m) of the bed).

Computations of monthly bedload discharges are based on the relation between instantaneous water discharge and corresponding bedload discharge for the station. Values of bedload discharge used in defining this relation are based on samples obtained by use of the Helley-Smith bedload sampler or by modified-Einstein or Meyer-Peter Muller computation procedures. Application of the bedload-transport relation at a station was made on a daily basis or subdivided-day basis.

The Helley-Smith sampler is designed to collect a time-weighted sample of the sediment moving within 0.25 ft (0.076 m) of the streambed. Sediment moving in this portion of the flow cannot be sampled with standard suspended-sediment samplers. It is assumed that samples obtained by this sampler represent the bedload discharge when used in coarse-material bedded streams (median diameter coarser than about 4 mm) and that these data can be used in conjunction with theoretical computations to define the bedload-transport relation for a station.

Calibration of the Helley-Smith sampler has not been completed, and a trap efficiency of 1.0 has been assumed applicable to this device. Error sources in the theoretical methods, based on analysis of bed-material characteristics, channel geometry, and associated hydraulic factors, are also undefined. In consequence, figures of bedload discharge must be used with caution. They are estimates, at best, and are subject to revision.

### Turbidity

At some stations samples for the determination of turbidity were collected at the same frequency as samples collected for determination of suspended sediment. Turbidity, measured in Nephelometric turbidity units (NTU), is shown in relation to the concentration of sediment in the simultaneously collected sample.

### EXPLANATION OF GROUND-WATER LEVEL RECORDS

Only ground-water-level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers.

Each well is identified by means of (1) a 15-digit site number that is based on the grid system of latitude and longitude as shown in figure 3, and (2) a local number that is provided for continuity with older reports and for other use as dictated by local needs (fig. 4).

Measurements are made in many types of wells under various conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well insure that measurements at a well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet with reference to either National Geodetic Vertical Datum of 1929 (NGVD) or land-surface datum (lsd). National Geodetic Vertical Datum 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 referred to National Geodetic Vertical Datum is given in the well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month.

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

In this report basin names and numbers, for example Arroyo Seco Valley (7-37), are from "California's Ground Water," California Department of Water Resources Bulletin No. 118, 1975, 135 p.

## PUBLICATIONS OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-five 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 3 (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 Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Va. 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

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

- 1-D1. Water temperature-influential factors, field measurement, and data presentation, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. Guidelines for collection and field analysis of ground-water samples for selected unstable constituents, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. Application of surface geophysics to ground-water investigations, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-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.
- 3-A1. General field and office procedures for indirect discharge measurements, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. Measurement of peak discharge by the slope-area method, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. Measurement of peak discharge at culverts by indirect methods, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3, 1968. 60 pages.
- 3-A4. Measurement of peak discharge at width contractions by indirect methods, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. Measurement of peak discharge at dams by indirect methods, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5, 1967. 29 pages.
- 3-A6. General procedure for gaging streams, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968. 13 pages.
- 3-A7. Stage measurements at gaging stations, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. Discharge measurements at gaging stations, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A11. Measurement of discharge by moving-boat method, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-B1. Aquifer-test design, observation, and data analyses, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. Introduction to ground-water hydraulics, a programed text for self-instruction, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. Type curves for selected problems of flow to wells in confined aquifers, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-C1. Fluvial sediment concepts, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. Field methods for measurement of fluvial sediment, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2, 1970. 59 pages.
- 3-C3. Computation of fluvial-sediment discharge, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. Some statistical tools in hydrology, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

- 4-A2. Frequency curves, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. Low-flow investigations, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. Storage analyses for water supply, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. Regional analyses of streamflow characteristics, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. Computation of rate and volume of stream depletion by wells, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. Methods for determination of inorganic substances in water and fluvial sediments, edited by M. W. Skougstad, M. J. Fishman, L. C. Friedman, D. E. Erdmann, and S. S. Duncan: USGS--TWRI Book 5, Chapter A1. 1979, 626 p.
- 5-A2. Determination of minor elements in water by emission spectroscopy, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. Methods for analysis of organic substances in water, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. Methods for collection and analysis of aquatic biological and microbiological samples, edited by P. E. Greenson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
- 5-A5. Methods for determination of radioactive substances in water and fluvial sediments, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-C1. Laboratory theory and methods for sediment analyses, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 7-C1. Finite-difference model for aquifer simulation in two dimensions with results of numerical experiments, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. Computer model of two-dimensional solute transport and dispersion in ground water, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 8-A1. Methods of measuring water levels in deep wells, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-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.

09424190 COLORADO RIVER AQUEDUCT NEAR SAN JACINTO, CA  
(National stream-quality accounting network station)

LOCATION.--Lat 33°49'18", long 116°58'01", in NE¼ sec.15, T.4 S., R.1 W., San Bernardino County, at west portal of San Jacinto Tunnel, 1.7 mi (2.7 km) southeast of Gilman Hot Springs, and 2.5 mi (4.0 km) north of San Jacinto.

PERIOD OF RECORD.--Water years 1975 to September 1981 (discontinued).

CHEMICAL ANALYSES: Water years 1975 to September 1981 (discontinued).

BIOLOGICAL DATA: Water years 1975 to September 1981 (discontinued).

SEDIMENT RECORDS: Water years 1975-79 (partial-record station).

COOPERATION.--Discharge values were furnished by Metropolitan Water District from the aqueduct records.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
OCT										
29...	1000	1500	1143	9.2	19.0	.30	K4	48	310	180
NOV										
26...	1000	1100	1120	8.3	13.5	.50	K2	45	320	190
DEC										
22...	1130	909	1140	8.2	13.0	.50	K1	41	320	190
JAN										
16...	1130	922	1120	8.4	13.0	.30	K1	26	330	200
FEB										
25...	1115	690	1110	8.2	14.0	1.1	K0	K7	340	210
MAR										
25...	1100	664	1100	8.5	17.5	.80	K0	21	320	--
APR										
20...	1100	1330	1100	8.3	19.5	.80	K1	--	340	220
MAY										
26...	1100	1540	1100	8.3	23.0	.50	K0	39	330	210
JUN										
17...	1200	1760	1100	--	25.0	12	K0	26	320	190
JUL										
27...	1045	1530	1125	8.2	27.0	.50	K1	80	310	190
AUG										
17...	1100	1140	1060	8.2	24.0	.40	K0	119	330	200
SEP										
16...	1100	1510	1050	8.5	27.0	.90	K2	K200	320	200

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT										
29...	78	29	110	43	2.7	5.7	130	--	300	100
NOV										
26...	76	31	120	45	2.9	5.2	--	130	--	100
DEC										
22...	77	30	110	43	2.7	4.6	--	130	290	99
JAN										
16...	84	29	110	42	2.6	4.7	--	130	300	94
FEB										
25...	85	31	110	41	2.6	4.5	--	130	310	95
MAR										
25...	82	28	100	40	2.4	4.5	--	130	280	91
APR										
20...	85	30	110	41	2.6	4.9	--	120	320	90
MAY										
26...	84	30	100	39	2.4	4.9	--	120	290	89
JUN										
17...	82	29	100	40	2.4	4.6	--	130	290	99
JUL										
27...	78	29	100	40	2.5	4.6	--	120	290	92
AUG										
17...	79	31	110	42	2.9	4.9	--	130	300	93
SEP										
16...	77	30	110	43	2.9	4.7	--	120	280	97

K Results based on colony count outside the acceptable range (non-ideal colony count).

## 09424190 COLORADO RIVER AQUEDUCT NEAR SAN JACINTO, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
OCT 29...	.4	8.2	726	714	1.1	.93	.030	.020	.42	.36
NOV 26...	.3	8.0	749	--	.15	.12	.120	.110	.28	.21
DEC 22...	.3	7.9	731	698	.17	.19	--	.050	--	.38
JAN 16...	.3	7.8	731	709	.22	.20	--	.050	--	.52
FEB 25...	.3	8.4	734	723	.21	.22	--	.030	--	.32
MAR 25...	.4	6.5	719	671	.17	.16	.080	.050	.64	.39
APR 20...	.4	7.1	--	720	.17	.17	--	.080	--	.77
MAY 26...	.3	8.3	714	679	.26	.19	.080	.070	.40	.24
JUN 17...	.3	8.5	730	693	.22	.22	--	.140	--	.55
JUL 27...	.3	8.8	717	676	.12	.14	.090	.050	.61	.40
AUG 17...	.3	8.8	719	705	<.10	<.10	--	.090	--	.50
SEP 16...	.3	--	708	--	.47	--	.040	--	.51	--

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 29...	.45	.38	1.6	1.3	.020	.010	--	--	5.8	.3
NOV 26...	.40	.32	.55	.44	.040	.030	--	6.4	--	--
DEC 22...	.41	.43	--	.62	.030	.040	--	7.5	--	--
JAN 16...	.59	.57	--	.77	--	.060	--	--	5.5	.6
FEB 25...	.66	.35	.87	.57	.070	.020	--	8.1	--	--
MAR 25...	.72	.44	.89	.60	.010	.020	--	4.4	--	--
APR 20...	.78	.85	--	1.0	.020	.020	--	--	4.3	.1
MAY 26...	.48	.31	.74	.50	.020	.020	--	11	--	--
JUN 17...	--	.69	--	.91	.040	.030	.060	2.5	--	--
JUL 27...	.70	.45	.82	.59	.020	<.010	--	--	2.4	.0
AUG 17...	.52	.59	--	.73	.030	.020	--	3.2	--	--
SEP 16...	.55	--	1.0	--	.010	--	--	4.3	--	--

&lt; Actual value is known to be less than the value shown.



## 09424190 COLORADO RIVER AQUEDUCT NEAR SAN JACINTO, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC		ARSENIC		BARIUM,		BARIUM,		CADMIUM		CHRO-		CHRO-		COBALT,		COBALT,	
		TOTAL		DIS-		TOTAL		DIS-		DIS-		TOTAL		DIS-		TOTAL		DIS-	
		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L	
		AS AS)		AS AS)		AS BA)		AS BA)		AS CD)		AS CR)		AS CR)		AS CO)		AS CO)	
OCT 29...	1000	3		3		100		100		<4		10		0		0		<3	
JAN 16...	1130	3		3		100		100		<1		0		0		0		<3	
APR 20...	1100	3		4		200		100		<1		10		10		0		<3	
JUL 27...	1045	5		4		100		100		<1		10		0		--		2	

DATE	COPPER,		COPPER,		IRON,		IRON,		LEAD,		LEAD,		MANGA-		MANGA-		MERCURY	
	TOTAL		DIS-		TOTAL		DIS-		TOTAL		DIS-		TOTAL		DIS-		TOTAL	
	RECOV-		SOLVED		RECOV-		SOLVED		RECOV-		SOLVED		RECOV-		SOLVED		RECOV-	
	(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L	
	AS CU)		AS CU)		AS FE)		AS FE)		AS PB)		AS PB)		AS MN)		AS MN)		AS HG)	
OCT 29...	--		--		70		20		0		0		10		<1		.1	
JAN 16...	4		1		50		<10		9		0		10		<1		.1	
APR 20...	5		2		50		<10		--		3		10		1		.1	
JUL 27...	0		1		40		<10		--		2		10		1		.4	

DATE	MERCURY		NICKEL,		NICKEL,		SELE-		SELE-		SILVER,		SILVER,		ZINC,		ZINC,	
	DIS-		TOTAL		DIS-		NIUM,		DIS-		TOTAL		DIS-		TOTAL		DIS-	
	SOLVED		RECOV-		SOLVED		TOTAL		SOLVED		RECOV-		SOLVED		RECOV-		SOLVED	
	(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L	
	AS HG)		AS NI)		AS NI)		AS SE)		AS SE)		AS AG)		AS AG)		AS ZN)		AS ZN)	
OCT 29...	.0		2		0		3		3		1		0		10		8	
JAN 16...	.0		0		0		3		3		--		1		10		4	
APR 20...	.0		1		1		3		2		0		0		10		8	
JUL 27...	.2		1		1		3		3		0		0		40		20	

&lt; Actual value is known to be less than the value shown.

09424190 COLORADO RIVER AQUEDUCT NEAR SAN JACINTO, CA--Continued

## PHYTOPLANKTON

DATE TIME	NOV 26,80 1000		MAR 25,81 1100		MAY 26,81 1100		JUN 17,81 1200	
TOTAL CELLS/ML	660		270		1100		1900	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...CHLOROCOCCACEAE								
...TETRAEDRON	--	-	--	-	--	-	--	-
...DICTYOSPHAERIAEAE								
...DICTYOSPHAERIUM	--	-	39	14	--	-	--	-
...MICRACTINIACEAE								
...GOLENKINIA	--	-	--	-	--	-	--	-
...MICRACTINIUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
...ANKISTRODESMUS	--	-	13	5	--	-	--	-
...FRANCEIA	--	-	--	-	--	-	--	-
...KIRCHNERIELLA	--	-	--	-	--	-	--	-
...SELENASTRUM	26	4	--	-	--	-	--	-
...SCENEDESMACEAE								
...COELASTRUM	--	-	--	-	--	-	1700#	91
...CRUCIGENIA	--	-	--	-	--	-	--	-
...SCENEDESMUS	--	-	--	-	340#	31	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
...CHLAMYDOMONAS	39	6	--	-	42	4	--	-
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
...CYCLOTELLA	390#	59	140#	52	--	-	--	-
...MELOSIRA	26	4	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
...ACHNANTHES	26	4	26	10	360#	33	13	1
...CYMBELLACEAE								
...CYMBELLA	64	10	13	5	70	6	13	1
...FRAGILARIACEAE								
...FRAGILARIA	--	-	--	-	14	1	39	2
...SYNEDRA	77	12	--	-	14	1	26	1
...GOMPHONEMATAEAE								
...GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
...NAVICULA	13	2	--	-	42	4	13	1
...NITZSCHIAEAE								
...NITZSCHIA	--	-	39	14	--	-	64	3
..CHRYSTOPHYCEAE								
...OCHROMONADALES								
...OCHROMONADACEAE								
...OCHROMONAS	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
...CHROOMONAS	--	-	--	-	130	12	--	-
...CRYPTOMONADACEAE								
...CRYPTOMONAS	--	-	--	-	14	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
...AGMENELLUM	--	-	--	-	--	-	--	-
...ANACYSTIS	--	-	--	-	70	6	--	-
..NOSTOCALES								
...HAMMATOIDEACEAE								
...RAPHIDIOPSIS	--	-	--	-	--	-	--	-
...NOSTOCACEAE								
...ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIALES								
...OSCILLATORIAEAE								
...OSCILLATORIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-

See footnotes at end of table.

09424190 COLORADO RIVER AQUEDUCT NEAR SAN JACINTO, CA--Continued

## PHYTOPLANKTON

DATE TIME	JUL 27,81 1045		AUG 17,81 1100		SEP 16,81 1100	
TOTAL CELLS/ML	5000		5100		4000	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...CHLOROCOCCACEAE						
....TETRAEDRON	210	4	52	1	--	-
...DICTYOSPHAERIACEAE						
....DICTYOSPHAERIUM	--	-	--	-	--	-
...MIRACTINIACEAE						
....GOLENKINIA	35	1	--	-	--	-
....MIRACTINIUM	70	1	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	240	5	--	-	--	-
....FRANCEIA	70	1	--	-	--	-
....KIRCHNERIELLA	35	1	52	1	--	-
....SELENASTRUM	--	-	--	-	--	-
...SCENEDESMACEAE						
....COELASTRUM	280	6	--	-	--	-
....CRUCIGENIA	140	3	--	-	--	-
....SCENEDESMUS	630	13	52	1	500	12
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	380	8	--	-	--	-
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	140	3	240	5	270	7
....MELOSIRA	--	-	--	-	--	-
...PENNALES						
....ACHNANTHACEAE						
....ACHNANTHES	35	1	--	-	--	-
...CYMBELLACEAE						
....CYMBELLA	210	4	240	5	410	10
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	1100#	22	550	11	660#	16
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	52	1	--	-
...NAVICULACEAE						
....NAVICULA	280	6	210	4	680#	17
...NITZSCHACEAE						
....NITZSCHIA	35	1	52	1	--	-
..CHRYSTOPHYCEAE						
...OCHROMONADALES						
...OCHROMONADACEAE						
....OCHROMONAS	100	2	310	6	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	100	2	26	1	--	-
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	26	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	--	-	840#	16	--	-
....ANACYSTIS	870#	18	890#	17	--	-
...NOSTOCALES						
....HAMMATOIDEACEAE						
....RAPHIIDIOPSIS	--	-	290	6	--	-
...NOSTOCACEAE						
....ANABAENA	--	-	--	-	550	14
...OSCILLATORIALES						
...OSCILLATORIA	--	-	1300#	24	960#	24
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	26	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

\* - OBSERVED ORGANISM; MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## PANAMINT VALLEY

10250800 DARWIN CREEK NEAR DARWIN, CA

LOCATION.--Lat 36°19'14", long 117°31'23", in NW¼SE¼SW¼ sec.34, T.18 S., R.41 E., Inyo County, Hydrologic Unit 18090204, on left bank 510 ft (155 m) downstream from Darwin Falls, 1.6 mi (2.6 km) upstream from unnamed tributary, and 5.2 mi (8.4 km) northeast of Darwin.

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

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,640 ft (805 m), from topographic map. Prior to Aug. 6, 1970, at site 190 ft (58 m) downstream at same datum.

REMARKS.--Records fair, except for period of no gage-height record, Nov. 19 to Dec. 29, which is poor. No regulation above station. Town of Darwin pumps water above station for municipal supply.

AVERAGE DISCHARGE.--19 years, 0.40 ft<sup>3</sup>/s (0.011 m<sup>3</sup>/s), 290 acre-ft/yr (358,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft<sup>3</sup>/s (125 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 8.40 ft (2.560 m), at site then in use, from floodmarks, on basis of slope-conveyance study of maximum flow; minimum daily, 0.05 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Aug. 30 to Sept. 4, 1969, Sept. 10-12, 15, 17, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 20.42 ft (6.224 m), present site, from floodmarks, date and discharge unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 195 ft<sup>3</sup>/s (5.52 m<sup>3</sup>/s) Sept. 7 (time unknown), gage height, 7.69 ft (2.344 m), no other peak above base of 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s); minimum daily, 0.07 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Oct. 2, 6, 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.17	.23	.40	.40	.66	.32	.25	.16	.14	.25	.16
2	.07	.19	.23	.40	.40	.40	.44	.19	.16	.16	.28	.16
3	.08	.19	.24	.40	.40	.35	.40	.16	.16	.16	.28	.16
4	.08	.19	.24	.40	.40	.35	.35	.16	.14	.16	.32	.16
5	.08	.17	.24	.40	.43	.35	.32	.16	.14	.16	.28	.16
6	.07	.19	.24	.40	.43	.40	.28	.19	.12	.16	.25	.16
7	.08	.19	.25	.40	.43	.40	.28	.19	.12	.16	.22	9.2
8	.08	.19	.25	.43	.47	.40	.28	.16	.12	.16	.22	.13
9	.07	.19	.25	.40	.47	.40	.28	.16	.12	.17	.22	.13
10	.07	.19	.25	.40	.47	.35	.32	.14	.10	.17	.22	.13
11	.08	.19	.25	.40	.47	.35	.35	.14	.10	.19	.25	.13
12	.08	.21	.25	.40	.47	.35	.40	.14	.12	.16	.22	.15
13	.08	.21	.25	.40	.47	.35	.35	.12	.12	.19	.25	.15
14	.10	.21	.25	.40	.47	.35	.35	.14	.14	.19	.25	.13
15	.13	.21	.25	.40	.47	.35	.35	.14	.14	.19	.25	.13
16	.13	.21	.25	.40	.47	.35	.40	.14	.12	.19	.22	.15
17	.15	.21	.25	.40	.43	.35	.40	.14	.12	.19	.19	.18
18	.17	.21	.25	.36	.43	.35	.50	.14	.14	.16	.22	.15
19	.17	.21	.25	.36	.43	.35	.62	.14	.14	.16	.22	.15
20	.17	.21	.25	.36	.43	.35	.56	.19	.16	.16	.19	.15
21	.17	.21	.26	.36	.40	.35	.50	.19	.16	.16	.19	.15
22	.18	.22	.26	.33	.40	.35	.50	.19	.16	.16	.19	.11
23	.18	.22	.26	.33	.40	.35	.40	.16	.16	.16	.19	.11
24	.17	.22	.28	.33	.40	.35	.40	.19	.16	.16	.19	.13
25	.17	.22	.29	.33	.40	.35	.40	.19	.16	.16	.19	.13
26	.19	.22	.30	.33	.40	.35	.44	.22	.16	.19	.19	.13
27	.19	.22	.31	.33	.40	.35	.44	.25	.14	.19	.19	.13
28	.19	.23	.32	.33	.43	.35	.35	.22	.14	.16	.19	.13
29	.17	.23	.32	.36	---	.32	.32	.16	.14	.22	.16	.13
30	.17	.23	.33	.40	---	.32	.28	.16	.14	.25	.16	.13
31	.17	---	.36	.40	---	.32	---	.16	---	.25	.16	---
TOTAL	3.97	6.16	8.21	11.74	12.07	11.32	11.58	5.33	4.16	5.44	6.80	13.30
MEAN	.13	.21	.26	.38	.43	.37	.39	.17	.14	.18	.22	.44
MAX	.19	.23	.36	.43	.47	.66	.62	.25	.16	.25	.32	9.2
MIN	.07	.17	.23	.33	.40	.32	.28	.12	.10	.14	.16	.11
AC-FT	7.9	12	16	23	24	22	23	11	8.3	11	13	26

CAL YR 1980 TOTAL 61.97 MEAN .17 MAX .36 MIN .05 AC-FT 123  
WTR YR 1981 TOTAL 100.08 MEAN .27 MAX 9.2 MIN .07 AC-FT 199

## 10251100 SALT CREEK NEAR STOVEPIPE WELLS, CA

LOCATION.--Lat 36°35'58", long 117°00'46", in NE¼ sec.6, T.16 S., R.46 E., Inyo County, Hydrologic Unit 18090203, Death Valley National Monument, on left bank 3.0 mi (4.8 km) southeast of intersection of State Highway 190 and Stovepipe Wells Road, and 7.4 mi (11.9 km) east of Stovepipe Wells Hotel.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1974 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is -180 ft (-55 m), from topographic map.

AVERAGE DISCHARGE.--7 years (water years 1975-81), 0.321 ft<sup>3</sup>/s (0.009 m<sup>3</sup>/s), 233 acre-ft/yr (287,000 m<sup>3</sup>/s).

REMARKS.--Records good. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 363 ft<sup>3</sup>/s (10.3 m<sup>3</sup>/s) Feb. 9, 1976, gage height, 4.81 ft (1.466 m) based on slope-conveyance study of peak flow; minimum daily, 0.05 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) July 14, 19, Aug. 4-6, 8, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge, 4.7 ft<sup>3</sup>/s (0.13 m<sup>3</sup>/s) Mar. 2, gage height, 2.69 ft (0.820 m); minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) on many days in July and August.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.15	.18	.24	.36	.61	.42	.23	.15	.07	.06	.07
2	.10	.15	.19	.25	.37	1.4	.44	.21	.14	.07	.06	.07
3	.11	.15	.19	.25	.38	.61	.45	.21	.14	.08	.07	.08
4	.11	.15	.19	.26	.38	.61	.41	.22	.13	.07	.06	.07
5	.11	.15	.19	.26	.39	.60	.42	.22	.11	.06	.07	.07
6	.11	.15	.19	.26	.39	.57	.44	.22	.10	.06	.07	.07
7	.11	.15	.19	.27	.39	.51	.42	.23	.09	.06	.07	.08
8	.11	.15	.19	.28	.41	.50	.40	.23	.09	.06	.06	.08
9	.12	.15	.19	.28	.46	.49	.40	.22	.09	.06	.06	.08
10	.12	.16	.19	.28	.41	.47	.40	.23	.08	.06	.06	.08
11	.11	.16	.19	.29	.42	.45	.37	.22	.08	.06	.06	.08
12	.11	.16	.20	.30	.42	.46	.37	.21	.08	.06	.07	.08
13	.12	.16	.19	.31	.42	.45	.37	.18	.09	.07	.08	.08
14	.13	.16	.20	.31	.43	.44	.37	.21	.09	.07	.07	.07
15	.13	.16	.20	.31	.43	.46	.37	.25	.09	.07	.11	.08
16	.13	.16	.20	.32	.43	.47	.35	.21	.10	.07	.07	.08
17	.13	.17	.20	.32	.43	.44	.35	.21	.09	.06	.08	.09
18	.13	.17	.20	.32	.42	.44	.35	.21	.09	.06	.07	.09
19	.13	.17	.20	.33	.43	.46	.38	.21	.09	.07	.07	.08
20	.13	.17	.20	.33	.43	.45	.38	.23	.09	.07	.07	.08
21	.13	.17	.20	.33	.43	.42	.37	.21	.09	.07	.07	.09
22	.13	.17	.20	.34	.42	.44	.35	.21	.08	.06	.07	.09
23	.13	.17	.20	.34	.43	.46	.33	.20	.08	.06	.07	.09
24	.13	.17	.20	.33	.41	.45	.31	.19	.07	.06	.06	.09
25	.14	.17	.20	.34	.41	.43	.29	.19	.07	.06	.06	.09
26	.13	.18	.20	.35	.46	.46	.26	.20	.07	.07	.06	.09
27	.13	.18	.22	.35	.44	.47	.28	.23	.07	.07	.07	.09
28	.13	.18	.22	.43	.45	.44	.26	.21	.07	.07	.06	.09
29	.14	.19	.22	.43	---	.44	.26	.19	.07	.06	.06	.09
30	.14	.18	.23	.37	---	.40	.26	.17	.07	.06	.06	.09
31	.14	---	.23	.36	---	.41	---	.16	---	.06	.07	---
TOTAL	3.83	4.91	6.19	9.74	11.58	15.63	10.83	6.52	2.75	2.01	2.10	2.46
MEAN	.12	.16	.20	.31	.41	.50	.36	.21	.092	.065	.068	.082
MAX	.14	.19	.23	.43	.46	1.4	.45	.25	.15	.08	.11	.09
MIN	.10	.15	.18	.24	.36	.40	.26	.16	.07	.06	.06	.07
AC-FT	7.5	9.7	12	19	23	31	21	13	5.5	4.0	4.2	4.9
CAL YR 1980	TOTAL	114.12	MEAN .31	MAX 4.5	MIN .10	AC-FT 226						
WTP YR 1981	TOTAL	78.55	MEAN .22	MAX 1.4	MIN .06	AC-FT 156						

## 10251300 AMARGOSA RIVER AT TECOPA, CA

LOCATION.--Lat 35°50'53", long 116°13'43", in NW¼NW¼SE¼ sec.9, T.20 N., R.7 E., Inyo County, Hydrologic Unit 18090202, on right bank 20 ft (6 m) upstream from county road, and 0.2 mi (0.3 km) west of Tecopa.

DRAINAGE AREA.--3,090 mi<sup>2</sup> (8,000 km<sup>2</sup>), approximately, much of which is non-contributing.

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

GAGE.--Water-stage recorder and culvert control. Altitude of gage is 1,310 ft (399 m), from topographic map.

REMARKS.--Records fair. No regulation. City of Tecopa pumps water for municipal use upstream.

AVERAGE DISCHARGE.--20 years, 3.25 ft<sup>3</sup>/s (0.092 m<sup>3</sup>/s), 2,350 acre-ft/yr (2.90 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft<sup>3</sup>/s (142 m<sup>3</sup>/s) estimated, Feb. 26, 1969, gage height, 18.34 ft (5.590 m), from floodmark; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 75 ft<sup>3</sup>/s (2.12 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 13.9 ft (4.24 m):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Aug. 12	0630	211	5.98	6.11	1.862
Sept. 6	2100	*1,170	33.1	13.53	4.124

Minimum daily discharge, no flow many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.1	1.0	2.5	1.3	.42	.05	.05		0	0
2		0	1.2	1.0	2.0	2.4	.36	.03	.03		0	0
3		0	1.4	1.0	1.4	1.9	.36	.03	.02		0	0
4		0	1.5	1.1	1.2	1.5	.44	.04	.02		0	0
5		0	1.3	1.1	1.2	3.5	.41	.04	0		0	0
6		0	1.0	1.1	1.2	9.8	.42	.04	0		0	90
7		0	.90	1.1	1.2	6.6	.37	.05	0		0	14
8		0	.74	1.1	1.2	3.0	.35	.04	0		0	.03
9		0	.70	1.1	7.0	2.4	.35	.04	0		0	.02
10		.01	.67	1.1	4.4	1.9	.27	.04	0		0	.02
11		.01	.65	1.1	3.5	1.7	.19	.04	0		0	.01
12		.01	.65	1.1	2.5	1.3	.18	.04	0		60	.01
13		.02	.66	1.1	2.0	.87	.21	.04	0		8.3	.01
14		.02	.68	1.2	1.8	.79	.23	.03	0		.91	.01
15		.06	.70	1.2	1.4	.90	.23	.03	0		.08	0
16		.07	.71	1.2	1.2	.92	.21	.04	0		.04	0
17		.03	.73	1.2	1.2	.92	.20	.04	0		.03	0
18		.08	.74	1.2	1.1	.75	.19	.04	0		.01	0
19		.13	.76	1.2	1.1	.83	.26	.05	0		0	0
20		.21	.78	1.2	1.1	3.2	.37	.07	0		0	0
21		.26	.80	1.2	1.1	4.8	.35	.07	0		0	0
22		.38	.81	1.2	.62	5.1	.32	.07	0		0	0
23		.40	.83	1.2	.75	2.9	.17	.07	0		0	0
24		1.8	.84	1.2	.79	1.0	.12	.06	0		0	0
25		.24	.86	1.2	.68	.84	.08	.04	0		0	0
26		.29	.89	1.2	.68	.49	.08	.04	0		0	0
27		.56	.90	1.2	.85	.66	.11	.20	0		0	0
28		.76	.93	1.2	.93	.72	.10	.25	0		0	0
29		.90	.95	3.7	---	.66	.06	.16	0		0	0
30		1.1	.96	20	---	.53	.05	.11	0		0	0
31		---	.98	3.8	---	.41	---	.07	---		0	---
TOTAL	0	7.34	27.32	59.5	46.60	64.59	7.46	1.96	.12	0	69.37	104.11
MEAN	0	.24	.88	1.92	1.66	2.08	.25	.063	.004	0	2.24	3.47
MAX	0	1.8	1.5	20	7.0	9.8	.44	.25	.05	0	60	90
MIN	0	0	.65	1.0	.62	.41	.05	.03	0	0	0	0
AC-FT	0	15	54	118	92	128	15	3.9	.2	0	138	207
CAL YR 1980	TOTAL	1785.69	MEAN 4.88	MAX 180	MIN 0	AC-FT 3540						
WTR YR 1981	TOTAL	388.37	MEAN 1.06	MAX 90	MIN 0	AC-FT 770						

## BRISTOL LAKE BASIN

35

10252550 CARUTHERS CREEK NEAR IVANPAH, CA

LOCATION.--Lat 35°14'33", long 115°17'58", in NW¼NW¼NE¼ sec.6, T.13 N., R.16 E., San Bernardino County, Hydrologic Unit 15030102, on left bank 6.6 mi (10.6 km) south of Ivanpah.

DRAINAGE AREA.--1.13 mi<sup>2</sup> (2.93 km<sup>2</sup>).

PERIOD OF RECORD.--October 1963 to September 30, 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,640 ft (1,719 m), from topographic map.

REMARKS.--Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--18 years, 0.107 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s), 78 acre-ft/yr (96,200 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 583 ft<sup>3</sup>/s (16.5 m<sup>3</sup>/s) Oct. 1, 1976, gage height, 4.95 ft (1.509 m), on basis of slope-conveyance study of 518 ft<sup>3</sup>/s (14.7 m<sup>3</sup>/s); no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.1 ft<sup>3</sup>/s (0.088 m<sup>3</sup>/s) Mar. 7, gage height, 1.24 ft (0.378 m) from rating curve extended above 1.0 ft<sup>3</sup>/s (0.03 m<sup>3</sup>/s) on basis of slope-conveyance study at gage height 3.34 ft (1.018 m), no peak above base of 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s); minimum daily, no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	.55						
2					0	.30						
3					0	.15						
4					0	.07						
5					0	.23						
6					0	.74						
7					0	1.3						
8					0	1.3						
9					.02	.62						
10					.01	.35						
11					0	.16						
12					0	.10						
13					0	.07						
14					0	.06						
15					0	.06						
16					0	.05						
17					0	.05						
18					0	.04						
19					0	.03						
20					0	.02						
21					0	.01						
22					0	0						
23					0	0						
24					0	0						
25					0	0						
26					0	0						
27					0	0						
28					0	0						
29					---	0						
30					---	0						
31		---			---	0	---		---			---
TOTAL	0	0	0	0	.03	6.26	0	0	0	0	0	0
MEAN	0	0	0	0	.001	.20	0	0	0	0	0	0
MAX	0	0	0	0	.02	1.3	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	.06	12	0	0	0	0	0	0
CAL YR 1980	TOTAL	81.78	MEAN	.22	MAX	21	MIN	0	AC-FT	162		
WTR YR 1981	TOTAL	6.29	MEAN	.017	MAX	1.3	MIN	0	AC-FT	12		

## SALTON SEA BASIN

10254005 SALTON SEA NEAR WESTMORLAND, CA

LOCATION.--Lat 33°11'37", long 115°49'54", in NE¼SE¼SW¼ sec.21, T.11 S., R.11 E., Imperial County, Hydrologic Unit 18100200, on western shore at Sandy Beach, and 15.5 mi (24.9 km) northwest of Westmorland.

DRAINAGE AREA.--8,360 mi<sup>2</sup> (21,650 km<sup>2</sup>), approximately.

PERIOD OF RECORD.--November 1904 to current year. Records prior to 1932 are published in WSP 735.

GAGE.--Water-stage recorder. Datum of gage is 250.00 ft (76.200 m) below National Geodetic Vertical Datum of 1929; gage readings have been converted to elevations below NGVD. See WSP 1734 for history of changes prior to Mar. 2, 1956.

REMARKS.--Bottom of sea is 277.7 ft (84.64 m) below NGVD. See WSP 300, 735, and 918 for condensed history of Salton Sea.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 195.9 ft (59.71 m) below NGVD, in February and March 1907; minimum since 1906, 251.6 ft (76.69 m) below NGVD in November 1924.

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 227.1 ft (69.25 m) below NGVD, many days; minimum, 228.2 ft (69.71 m) below NGVD many days.

MEAN DAILY MONTHEND ELEVATIONS, IN FEET, BELOW NGVD, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Date	Elevation (feet)
Sept. 30.....	228.0	Apr. 30.....	227.1
Oct. 31.....	228.2	May 31.....	227.2
Nov. 30.....	228.2	June 30.....	227.3
Dec. 31.....	228.0	July 31.....	227.5
Jan. 31.....	227.8	Aug. 31.....	227.7
Feb. 29.....	227.6	Sept. 30.....	228.0
Mar. 31.....	227.3		

## INFLOW TO SALTON SEA

Salton Sea, located near the northeast corner of Imperial County, is a closed basin consisting of approximately 8,360 mi<sup>2</sup> (21,650 km<sup>2</sup>).

The following table shows monthly and annual inflow to the Salton Sea from the Imperial and Coachella Valleys, in acre-feet, for the water year October 1980 to September 1981 and the annual inflow for the calendar year January to December 1979. Inflow from Imperial Valley is the sum of flows in Alamo River (station 10254730), New River (station 10255550), San Felipe Creek (station 10255885), and 36 drains. Drain inflow furnished by Imperial Irrigation District. Inflow from Coachella Valley is the sum of flows in Whitewater River (station 10259540), Salt Creek (station 10254050), Wasteway No. 1 (station 10259920), and 23 drains. Drain inflow furnished by Coachella Valley County Water District. Ungaged drains and natural runoff are not included as inflow to the Salton Sea.

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Inflow from												
Imperial Valley 104300	86750	80640	75820	85950	112800	131700	108700	85040	96320	102300	94880	
Coachella Valley 17980	15640	18980	19470	19330	23000	24910	24600	21400	21130	22670	21650	
Total cal yr 1980	1,400,000 ac-ft											
Total wtr yr 1981	1,409,000 ac-ft											

The following table lists the monthly and annual flows, in acre-feet, of the Alamo and New Rivers at the United States - Mexico International Boundary. Data was furnished by Imperial Irrigation District.

## FLOW FROM MEXICO AT INTERNATIONAL BOUNDARY

	119	121	136	172	191	244	214	182	169	199	178	191
Alamo River	14130	12670	13620	14120	11260	13610	15280	15880	13310	14670	16060	13240
New River												
Cal yr 1980:	Alamo River	1,660 ac-ft		Wtr yr 1981:		2,120 ac-ft						
Cal yr 1980:	New River	156,300 ac-ft		Wtr yr 1981:		167,800 ac-ft						



10254050 SALT CREEK NEAR MECCA, CA

LOCATION.--Lat 33°26'49", long 115°50'33", in NE¼SE¼SW¼ sec.28, T.8 S., R.11 E., Riverside County, Hydrologic Unit 18100200, on pier of Southern Pacific Railroad bridge, 0.3 mi (0.5 km) upstream from mouth, and 16 mi (26 km) southeast of Mecca.

DRAINAGE AREA.--269 mi<sup>2</sup> (697 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is -230 ft (-70.1 m), from topographic map.

REMARKS.--Records poor. No regulation or diversion above station. Flow sustained by irrigation seepage.

AVERAGE DISCHARGE.--20 years, 7.11 ft<sup>3</sup>/s (0.201 m<sup>3</sup>/s), 5,150 acre-ft/yr (6.35 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,900 ft<sup>3</sup>/s (280 m<sup>3</sup>/s) Sept. 24, 1976, gage height, 14.3 ft (4.36 m), from rating curve extended above 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s) on basis of contracted-opening measurement of maximum flow; minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Nov. 1, 4, 5, 9, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 521 ft<sup>3</sup>/s (14.8 m<sup>3</sup>/s) Mar. 5, gage height, 10.35 ft (3.155 m); minimum daily, 3.5 ft<sup>3</sup>/s (0.099 m<sup>3</sup>/s) July 24, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	12	12	11	9.0	30	13	7.0	6.6	5.9	4.9	4.3
2	5.5	13	12	11	9.5	65	10	7.8	6.6	5.2	4.9	4.6
3	5.2	13	12	11	9.5	100	9.5	8.6	8.2	5.5	4.9	4.6
4	5.9	13	12	11	10	21	9.0	11	7.0	5.5	4.9	4.9
5	7.0	13	11	11	9.5	123	9.0	12	6.2	5.5	4.9	5.2
6	6.6	13	11	11	9.5	43	9.0	7.8	6.2	5.9	4.9	5.2
7	6.2	13	11	11	10	18	9.0	7.4	7.8	5.2	4.9	4.9
8	5.9	13	11	11	10	18	8.6	7.4	8.6	5.2	4.9	53
9	6.2	13	11	11	12	62	8.6	19	9.0	4.9	4.9	13
10	7.0	21	11	11	12	25	8.6	18	9.5	4.9	4.6	5.5
11	8.2	243	11	11	9.5	12	8.6	8.6	10	5.9	4.6	4.9
12	8.6	35	11	12	9.5	11	8.2	8.6	11	5.9	4.3	4.6
13	8.2	54	11	89	9.0	10	8.2	7.8	5.9	5.9	5.2	4.9
14	7.4	17	11	27	9.0	9.5	8.2	7.4	4.3	6.2	6.2	4.9
15	8.2	11	11	11	9.0	9.5	8.2	11	4.9	7.0	7.4	5.2
16	8.2	11	11	10	8.6	10	7.8	12	5.5	7.4	6.2	5.5
17	9.0	11	11	10	8.2	10	7.8	7.0	4.3	6.2	4.3	5.9
18	9.5	11	11	10	8.6	9.5	8.2	7.0	3.8	5.2	4.3	5.5
19	9.0	11	11	9.5	8.2	9.5	7.8	8.6	3.8	4.9	4.3	5.9
20	8.2	11	11	9.5	8.2	10	7.8	7.8	3.8	4.9	4.3	5.9
21	8.6	11	11	9.5	60	10	8.6	8.6	3.8	4.6	4.3	5.5
22	9.5	11	11	9.5	141	9.5	8.2	8.2	4.0	4.3	4.0	5.9
23	10	11	11	9.5	56	9.5	7.8	7.0	4.6	3.8	3.8	6.2
24	10	11	11	9.0	16	9.5	7.8	7.0	6.6	3.5	4.3	5.9
25	9.5	11	11	9.0	14	9.0	7.8	7.0	7.0	3.8	4.3	5.9
26	11	11	11	8.6	14	9.0	7.8	7.0	7.8	4.0	4.0	5.9
27	10	11	11	8.6	14	9.0	7.8	7.8	7.8	3.5	4.0	5.9
28	10	11	11	8.6	14	9.0	10	8.2	7.8	3.8	4.0	5.9
29	9.0	12	11	9.0	---	15	9.0	7.8	6.2	4.0	4.0	6.2
30	10	12	11	9.5	---	61	7.0	7.0	5.5	4.6	4.0	6.2
31	11	---	11	9.0	---	25	---	6.6	---	4.9	4.0	---
TOTAL	253.8	664	345	408.8	517.8	781.5	256.9	274.0	194.1	158.0	144.5	217.9
MEAN	8.19	22.1	11.1	13.2	18.5	25.2	8.56	8.84	6.47	5.10	4.66	7.26
MAX	11	243	12	89	141	123	13	19	11	7.4	7.4	53
MIN	5.2	11	11	8.6	8.2	9.0	7.0	6.6	3.8	3.5	3.8	4.3
AC-FT	503	1320	684	811	1030	1550	510	543	385	313	287	432
CAL YR 1980	TOTAL	4677.7	MEAN	12.8	MAX	363	MIN	2.0	AC-FT	9280		
WTR YR 1981	TOTAL	4216.3	MEAN	11.6	MAX	243	MIN	3.5	AC-FT	8360		

## SALTON SEA BASIN

10254585 ALAMO RIVER NORTH OF INTERNATIONAL BOUNDARY, NEAR CALEXICO, CA

## WATER-QUALITY RECORDS

LOCATION.--Lat 32°40'30", long 115°22'08", in SW¼NE¼ sec.18, T.17 S., R.16 E., Imperial County, Hydrologic Unit 18100200, at gaging station 7 mi (11 km) east of Calexico.

PERIOD OF RECORD.--October 1979 to September 1981.

COOPERATION.--Chemical-quality records were furnished by California Department of Water Resources.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SPECIFIC COND MICROMHO	PH FIELD (UNITS)	TEMP WATER (DEG C)	OXYGEN DISS (MG/L)	COD LOWLEVEL (MG/L)	BOD 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM CA,DISS (MG/L)	MAGNESIUM MG,DISS (MG/L)	SODIUM NA,DISS (MG/L)
80/12/11	10 25	4430	8.1	15.5	10.6			930			
81/03/10	13 25			25.5		57	5.4				
81/03/17	16 45	4120	8.1	25.5	7.6			890			
81/06/12	15 10	5150	8.2	28.5	6.2			1000			
81/09/24	09 45	5700	8.0	25.5	6.6			1000	210	130	940

DATE	TIME	PTSSSIUM K,DISS (MG/L)	ALKA- LINITY (MG/L)	SULFATE SO4-DISS (MG/L)	CHLORIDE CL DISS (MG/L)	FLUORIDE F,DISS (MG/L)	ROE DISS 180 C (MG/L)	RESIDUE TOT NFLT (MG/L)	NITRATE N,DISS (MG/L)	NITRITE N,DISS (MG/L)
80/12/11	10 25			980	920		3310		0.68	0.07
81/03/10	13 25							100	0.63	0.11
81/03/17	16 45			840	880		2980			
81/06/12	15 10			1000	1100		3670		1.6	0.03
81/09/24	09 45	16	250	1100	1200	1.2	3840			

DATE	TIME	PHOS-TOT AS P (MG/L)	PHOS-DIS ORTHO P (MG/L)	ORGANIC CARBON T (MG/L)	BORON B,DISS (UG/L)
80/12/11	10 25	0.08	0.02		
81/03/10	13 25	0.12	0.01	10	
81/03/17	16 45				
81/06/12	15 10	0.19	0.02		
81/09/24	09 45				2100

DATE	TIME	ARSENIC AS,DISS (UG/L)	BARIUM BA,DISS (UG/L)	CADMIUM CD,DISS (UG/L)	CHROMIUM CR,DISS (UG/L)	COPPER CU,DISS (UG/L)	IRON FE,DISS (UG/L)	LEAD PB,DISS (UG/L)	MANGNESE MN,DISS (UG/L)	MERCURY HG,TOTAL (UG/L)	SELENIUM SE,DISS (UG/L)
80/12/11	10 25	0	0	0	0	10	10	0	290	0.0	10
81/06/12	15 10	0	100	0	0	0	20	0	210	0.0	0

10254670 ALAMO RIVER AT DROP NO. 3, NEAR CALIPATRIA, CA  
(National stream-quality accounting network station)

LOCATION.--Lat 33°06'13", long 115°32'38", on line between secs.19 and 20, T.12 S., R.14 E., Imperial County, Hydrologic Unit 18100200, on right bank 2.2 mi (3.5 km) southeast of Calipatria.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year. Records prior to October 1979 in files of the Imperial Irrigation District.

GAGE.--Water-stage recorder and broad-crested weir. Altitude of gage is -185 ft (-56.4 m), from topographic map.

REMARKS.--Records excellent. Flow is mainly return flow from irrigated areas. Flow affected at times by North End Dam 0.25 mi (0.40 km) upstream, by changing dam elevation to regulate size of water-fowl preserve above gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,160 ft<sup>3</sup>/s (61.2 m<sup>3</sup>/s) Aug. 15, 1981, gage height 3.50 ft (1.067 m); minimum daily, 305 ft<sup>3</sup>/s (8.64 m<sup>3</sup>/s) Feb. 24, 27, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,160 ft<sup>3</sup>/s (61.2 m<sup>3</sup>/s) Aug. 15, gage height, 3.50 ft (1.067 m); minimum daily, 351 ft<sup>3</sup>/s (9.94 m<sup>3</sup>/s) Jan. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	808	760	601	491	529	957	1110	986	662	695	750	736
2	820	766	642	446	507	1140	1090	937	643	708	734	692
3	830	718	592	438	551	801	1070	898	629	708	735	671
4	864	721	639	491	587	612	1090	867	651	712	736	707
5	861	738	591	500	621	624	1060	904	633	676	712	724
6	827	729	558	500	635	590	1010	871	628	634	748	725
7	867	719	547	518	687	521	1000	908	646	646	742	694
8	896	723	555	499	676	521	1020	937	602	646	779	679
9	871	705	577	546	762	484	1020	903	580	645	805	671
10	862	695	599	603	742	517	1080	859	583	653	752	656
11	829	693	626	541	616	571	1100	795	586	669	731	670
12	815	649	627	1000	623	645	1130	789	616	686	747	689
13	771	655	620	1140	641	706	1070	793	632	706	735	709
14	709	650	604	501	610	771	1070	795	667	695	741	689
15	714	658	558	430	614	829	1060	797	646	718	1610	726
16	726	630	555	413	596	970	1030	783	632	735	954	728
17	729	591	583	402	605	973	1030	780	618	752	707	778
18	751	647	650	380	631	962	1060	744	652	748	608	812
19	789	646	615	374	638	983	1010	724	637	774	603	817
20	762	665	570	363	669	1010	960	766	657	712	588	805
21	753	707	547	377	699	989	986	796	657	732	597	740
22	829	697	535	375	687	952	1020	858	643	688	640	726
23	828	674	531	372	710	939	1040	820	667	704	659	722
24	772	621	515	351	755	892	1010	808	674	720	676	752
25	741	609	462	378	791	930	1070	777	665	725	696	766
26	740	599	411	381	840	985	1130	738	708	728	743	742
27	686	587	432	434	840	988	956	766	749	747	773	735
28	652	549	494	428	864	1050	975	869	766	740	734	690
29	657	566	502	477	---	1030	1030	837	749	783	734	691
30	683	604	536	498	---	987	1010	726	743	784	737	670
31	715	---	489	522	---	1010	---	709	---	807	721	---
TOTAL	24157	19971	17363	15169	18726	25939	31297	25540	19621	22066	23227	21612
MEAN	779	666	560	489	669	837	1043	824	654	711	749	720
MAX	896	766	650	1140	864	1140	1130	986	766	807	1610	817
MIN	652	549	411	351	507	484	956	709	580	634	588	656
AC-FT	47920	39610	34440	30090	37140	51450	62080	50660	38920	43750	46070	42870
CAL YR 1980	TOTAL	263519	MEAN	720	MAX	1280	MIN	305	AC-FT	522700		
WTR YR 1981	TOTAL	264678	MEAN	725	MAX	1610	MIN	351	AC-FT	525000		

## SALTON SEA BASIN

10254670 ALAMO RIVER AT DROP NO. 3, NEAR CALIPATRIA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-70, 1975 to current year.

CHEMICAL ANALYSES: Water years 1969-70, 1975-77, 1979 to current year.

BIOLOGICAL DATA: Water years 1979 to September 1981 (discontinued).

SPECIFIC CONDUCTANCE: Water years 1969-70, 1975-77, 1979 to current year.

WATER TEMPERATURES: Water years 1969-70, 1975-77, 1979 to current year.

SEDIMENT RECORDS: Water years 1979 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March to September 1981.

WATER TEMPERATURES: March to September 1981.

INSTRUMENTATION.--Water-quality monitor recording specific conductance and water temperature since March 1981.

REMARKS.--Data for the 1975 and 1976 water years are published with 1977 water year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 5,350 micromhos Aug. 29, Sept. 3; minimum recorded, 3,400 micromhos July 21.

WATER TEMPERATURES: Maximum recorded, 32.0°C on several days during August; minimum recorded, 15.5°C April 3.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
NOV 18...	1400	664	4080	8.1	14.0	110	10.5	7100	4300	980	760
JAN 14...	1200	483	5160	7.9	17.0	--	9.8	K49000	K47000	1300	1000
MAR 11...	1200	534	4600	7.9	20.0	190	9.0	1900	11000	1100	890
MAY 20...	1100	745	4030	7.9	20.0	95	9.0	2500	2700	980	--
JUL 15...	1100	693	3940	7.9	30.5	24	9.1	3500	2300	830	640
SEP 09...	1000	657	4530	8.0	30.0	85	6.8	19000	2200	1100	850

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 18...	210	110	560	55	7.8	11	220	910	680	.7
JAN 14...	230	170	740	56	9.0	14	240	--	1000	.7
MAR 11...	230	130	630	55	8.2	12	210	1100	830	.6
MAY 20...	210	110	530	54	7.4	13	--	980	720	.5
JUL 15...	150	110	520	57	7.9	12	190	830	620	.5
SEP 09...	210	130	--	--	--	13	210	1100	810	.6

K Results based on colony count outside the acceptable range (non-ideal colony count).

10254670 ALAMO RIVER AT DROP NO. 3, NEAR CALIPATRIA, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
NOV 18...	12	2820	2670	--	--	9.4	9.3	.530	.410	--
JAN 14...	12	3570	--	--	--	10	9.8	1.80	1.70	2.3
MAR 11...	10	3170	3110	--	--	8.7	8.9	1.90	2.00	1.7
MAY 20...	11	2880	--	7.20	.380	7.7	7.6	.390	.420	1.9
JUL 15...	13	2560	2400	--	--	7.8	7.6	1.60	.910	--
SEP 09...	15	3100	--	--	--	5.0	2.6	.260	.290	1.6

DATE	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
NOV 18...	1.6	--	2.0	--	11	.570	.290	7.5	--	--
JAN 14...	1.3	4.10	3.0	14	13	.650	.220	--	18	3.2
MAR 11...	1.5	3.60	3.5	12	12	.600	.260	14	--	--
MAY 20...	2.1	2.30	2.5	10	10	.730	.260	24	--	--
JUL 15...	1.2	2.40	2.1	10	9.7	.530	.180	--	5.0	1.1
SEP 09...	1.1	1.90	1.4	6.9	4.0	.400	.020	--	5.5	2.0

## SALTON SEA BASIN

10254670 ALAMO RIVER AT DROP NO. 3, NEAR CALIPATRIA, CA--Continued

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT				DEC			
01...	0915	3880	26.5	21...	0930	4190	14.5
02...	0930	3860	26.0	22...	0830	4280	14.0
03...	1000	3850	26.0	23...	1140	4330	15.0
04...	1000	3820	26.0	24...	0605	4330	14.0
05...	1035	3860	27.5	25...	0950	4210	14.5
06...	1130	3990	27.0	26...	1050	4620	14.5
07...	1100	3920	25.5	27...	1140	4520	14.5
08...	0840	3850	25.0	28...	1200	4410	15.0
09...	0930	3920	26.0	29...	0635	4220	15.0
10...	0930	4000	27.0	30...	1150	3950	16.0
11...	1100	4160	28.0	31...	1100	3770	15.0
12...	1040	3970	27.5	JAN			
13...	1135	4060	26.0	01...	0830	4030	15.0
14...	1015	4210	23.5	02...	0910	4100	15.5
15...	1000	4420	19.5	03...	1000	4430	15.5
16...	0930	4460	18.0	04...	0830	4340	15.5
17...	1130	4320	19.0	05...	0830	4060	15.0
18...	1030	4150	19.0	06...	0945	3800	15.0
19...	1140	3890	19.5	07...	0950	4180	14.0
20...	1000	3960	19.5	08...	0940	3960	14.0
21...	1230	3890	20.5	09...	0950	4020	13.5
22...	1130	3910	21.0	10...	0930	3780	13.0
23...	1030	3900	21.0	11...	1110	3810	14.5
24...	1130	3970	21.0	12...	0735	4120	15.0
25...	0900	4280	20.0	13...	1035	3700	16.0
26...	0830	4170	19.5	14...	0925	4900	17.0
27...	0845	4220	19.0	14...	1200	5160	17.0
28...	1000	4210	18.5	15...	1030	5490	17.0
29...	0910	4250	17.0	16...	1035	6050	16.5
30...	1100	4100	17.5	17...	1115	5860	16.5
31...	1115	3900	18.5	18...	1100	5730	16.0
NOV				19...	0840	5460	16.0
01...	1100	3790	18.0	20...	1025	5370	16.0
02...	1130	3740	19.0	21...	0950	5570	15.5
03...	1030	3850	18.5	22...	1040	5080	15.5
04...	0950	4070	19.0	23...	0945	4930	16.0
05...	1245	3980	20.0	24...	0615	5130	15.0
06...	0830	4140	19.5	25...	0945	5250	15.0
07...	0900	4350	19.5	26...	0625	4650	13.5
08...	0900	4190	20.0	28...	0945	4340	14.0
09...	0900	4150	20.0	29...	0915	4390	14.0
10...	0840	4180	19.5	30...	0930	4240	14.0
11...	1150	4170	20.5	31...	1040	4010	13.0
12...	1015	4320	20.5	FEB			
13...	1000	4330	18.5	01...	1020	3970	12.0
14...	1200	4350	17.5	02...	1040	3990	12.5
15...	1230	4320	15.5	03...	0920	4100	12.5
16...	1020	4230	14.5	04...	0610	3950	12.5
17...	1030	4360	14.0	05...	1120	3790	13.0
18...	0930	4190	14.5	06...	1045	3820	13.0
18...	1100	--	14.0	07...	1055	3740	13.0
18...	1400	4080	14.0	08...	1140	3720	14.0
19...	1130	3740	13.5	09...	1035	3970	14.5
20...	0830	4030	13.5	10...	0625	4070	15.0
21...	0815	4140	14.0	11...	1300	4150	16.5
22...	0830	3830	14.0	12...	0820	4580	16.0
23...	0920	4010	15.0	13...	1000	4480	16.0
24...	0830	4050	15.0	14...	0900	4510	16.0
25...	1045	4200	14.5	15...	1000	4610	16.0
26...	1105	4050	13.5	16...	0815	4490	16.5
27...	0950	3990	13.0	17...	1000	4440	17.0
28...	1030	4270	13.5	18...	1010	4440	17.5
29...	1025	4240	14.0	19...	0905	4060	18.0
30...	0845	4320	14.0	21...	1050	4150	17.5
DEC				22...	1025	4040	15.5
01...	1100	4100	15.0	23...	1000	3830	15.5
02...	1000	4060	15.0	24...	0955	3870	15.0
03...	1005	4090	15.0	25...	1030	3790	16.5
04...	1020	4100	15.0	26...	1045	3780	15.5
05...	1200	4220	16.0	27...	0800	3710	15.0
06...	1120	4390	15.5	28...	1100	3630	15.5
07...	0910	4380	14.5	MAR			
08...	0840	4320	14.0	01...	0845	3560	16.0
14...	1015	4010	14.0	02...	0830	3720	14.5
15...	0950	4070	14.0	03...	1015	3810	17.0
16...	1220	4190	14.5	04...	1010	4430	17.0
17...	1055	4410	15.0	05...	1030	4620	17.0
18...	0840	4100	15.0	06...	1050	5140	16.0
19...	0820	4030	14.0	07...	0615	5010	15.5
20...	0825	4070	14.0	08...	1010	4830	17.0

10254670 ALAMO RIVER AT DROP NO. 3, NEAR CALIPATRIA, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

						SPECIFIC CONDUCTANCE (UMHOS)		TEMPERATURE (DEG C)	
				DATE		TIME			
				MAR					
				09...		1230		4790 18.5	
				10...		1125		4850 19.0	
				11...		1200		4600 20.0	
				12...		1025		4290 19.0	
				13...		1000		4210 18.0	
				15...		0830		3800 16.0	
				16...		0830		3620 17.0	
				17...		0945		3590 18.0	
				18...		0950		3810 19.0	
				19...		1015		3680 19.0	
				MAY					
				20...		1100		4030 20.0	
				JUL					
				15...		1100		3940 30.5	
				SEP					
				09...		1000		4530 30.0	

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)		ARSENIC DIS-SOLVED (UG/L AS AS)		BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)		BARIUM, DIS-SOLVED (UG/L AS BA)		CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)		CADMIUM DIS-SOLVED (UG/L AS CD)		CHROMIUM, TOTAL RECOV-ERABLE (UG/L AS CR)		CHROMIUM, DIS-SOLVED (UG/L AS CR)		COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	
JAN																			
14...	1200		8		6		100		100		3		3		20		10		4
JUL																			
15...	1100		--		7		200		100		1		1		40		10		3
SEP																			
09...	1000		8		7		200		200		--		2		20		10		3

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
JAN										
14...	0	14	3	5700	30	8	0	350	90	1.8
JUL										
15...	0	17	4	5700	40	5	0	330	10	.4
SEP										
09...	0	12	--	4900	60	6	1	220	10	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
JAN									
14...	.5	12	4	13	13	0	0	80	30
JUL									
15...	.4	8	6	--	10	0	0	50	20
SEP									
09...	.6	8	4	11	11	--	3	--	70

10254670 ALAMO RIVER AT DROP NO. 3, NEAR CALIPATRIA, CA--Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	NOV 18,80 1400		MAR 11,81 1200		MAY 20,81 1100		JUL 15,81 1100		SEP 9,81 1000	
TOTAL CELLS/ML	31000		9900		21000		47000		8800	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
...										
...PALMELLACEAE										
...SPHAEROCYSTIS	1300	4	--	-	--	-	--	-	--	-
...CHLOROCOCCALES										
...MICRACTINIACEAE										
...MICRACTINIUM	--	-	--	-	--	-	340	1	--	-
...OOCYSTACEAE										
...ANKISTRODESMUS	190	1	--	-	--	-	*	0	--	-
...DICTYOSPHAERIUM	330	1	--	-	--	-	--	-	--	-
...FRANCEIA	--	-	--	-	*	0	--	-	--	-
...TETRAEDRON	--	-	--	-	--	-	*	0	--	-
...SCENEDESMACEAE										
...CRUCIGENIA	440	1	--	-	--	-	--	-	--	-
...SCENEDESMUS	--	-	470	5	190	1	270	1	--	-
...VOLVOCALES										
...CHLAMYDOMONADACEAE										
...CHLAMYDOMONAS	250	1	--	-	--	-	*	0	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
..CENTRALES										
...CHAETOCERACEAE										
...CHAETOCEROS	*	0	410	4	--	-	--	-	--	-
...COSCINODISCACEAE										
...CYCLOTELLA	220	1	2300#	23	4800#	23	340	1	*	0
...STEPHANODISCUS	--	-	230	2	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
...ACHNANTHES	170	1	--	-	--	-	--	-	--	-
...COCCONEIS	*	0	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
...AMPHORA	*	0	58	1	--	-	*	0	--	-
...FRAGILARIACEAE										
...FRAGILARIA	220	1	--	-	--	-	--	-	--	-
...SYNEDRA	--	-	58	1	*	0	2100	5	--	-
...GOMPHONEMATAACEAE										
...GOMPHONEMA	--	-	--	-	*	0	--	-	--	-
...NAVICULACEAE										
...ENTOMONEIS	*	0	58	1	--	-	--	-	--	-
...NAVICULA	*	0	1600#	17	280	1	410	1	--	-
...NITZSCHIA										
...NITZSCHIA	250	1	990	10	780	4	890	2	--	-
...SURIRELLACEAE										
...SURIRELLA	--	-	58	1	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
...CRYPTOMONADACEAE										
...CRYPTOMONAS	--	-	120	1	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
...CHROOCOCCACEAE										
...AGMENELLUM	--	-	--	-	2500	12	--	-	--	-
...ANACYSTIS	--	-	1000	11	3500#	17	*	0	--	-
...HORMOGONALES										
...NOSTOCAEAE										
...ANABAENA	--	-	--	-	--	-	--	-	87	1
...APHANIZOMENON	--	-	--	-	--	-	--	-	430	5
...CYLINDROSPERMUM	--	-	--	-	--	-	--	-	5000#	57
...OSCILLATORIACEAE										
...OSCILLATORIA	410	1	2400#	25	8400#	41	6900	15	--	-
...RIVULARIACEAE										
...RAPHIDIOPSIS	27000#	87	--	-	--	-	35000#	75	3200#	36
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
...EUGLENACEAE										
...EUGLENA	--	-	--	-	*	0	*	0	--	-

See footnotes at end of table.







10254670 ALAMO RIVER AT DROP NO. 3, NEAR CALIPATRIA, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
NOV 18...	1100	14.0	664	308	552	--	--
JAN 14...	1200	17.0	483	360	469	--	--
MAR 11...	1200	20.0	534	351	506	55	69
MAY 20...	1100	20.0	745	386	776	46	61
JUL 15...	1100	30.5	693	560	1050	--	--
SEP 09...	1000	30.0	657	354	628	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
NOV 18...	--	--	--	90	--	--
JAN 14...	--	--	--	91	--	--
MAR 11...	79	90	96	98	100	--
MAY 20...	69	77	86	93	99	100
JUL 15...	--	--	--	92	--	--
SEP 09...	--	--	--	93	--	--

LOCATION.--Lat 33°12'03", long 115°36'07", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec.22, T.11 S., R.13 E., Imperial County, Hydrologic Unit 18100200, on left bank 0.6 mi (1.0 km) upstream from mouth, and 5.8 mi (9.3 km) southwest of Niland.

PERIOD OF RECORD.--January 1943 to current year. Monthly discharge only for January 1943 to September 1960, published in WSP 1734.

REMARKS.--Records good. Discharge mainly represents seepage and return flow from irrigated areas.

COOPERATION.--Records furnished by Imperial Irrigation District and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,500 ft<sup>3</sup>/s (127 m<sup>3</sup>/s) Aug. 17, 1977, estimated by Imperial Irrigation District, minimum daily, 288 ft<sup>3</sup>/s (8.16 m<sup>3</sup>/s) Jan. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,330 ft<sup>3</sup>/s (37.7 m<sup>3</sup>/s) Mar. 2; minimum daily, 449 ft<sup>3</sup>/s (12.7 m<sup>3</sup>/s) Jan. 20.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	941	741	641	690	1150	1290	1140	771	802	891	866
2	1010	933	763	586	661	1330	1300	1130	748	817	882	817
3	975	874	711	545	711	992	1270	1160	756	817	882	794
4	949	841	748	634	779	733	1250	1020	763	817	850	810
5	924	882	690	606	833	704	1260	1050	726	794	850	833
6	850	841	675	572	810	697	1220	1040	719	763	899	817
7	779	833	661	586	858	620	1270	1040	741	719	891	794
8	907	841	682	572	841	613	1250	1070	697	719	899	787
9	992	817	697	620	907	599	1220	1040	654	741	907	794
10	1070	817	726	654	915	592	1280	1010	654	726	866	763
11	1030	794	756	613	763	627	1310	1020	697	719	841	748
12	958	748	763	850	733	733	1320	975	741	766	850	787
13	891	733	756	1170	763	882	1280	858	726	766	858	825
14	891	748	763	552	733	874	1240	891	733	763	882	810
15	874	802	682	467	733	949	1250	850	733	850	1210	825
16	858	771	690	500	719	1090	1200	850	719	810	1050	841
17	850	675	704	487	726	1160	1200	771	719	817	810	891
18	874	741	817	455	748	1220	1240	779	726	833	704	933
19	941	763	697	468	779	1150	1270	825	741	866	697	941
20	891	779	704	449	825	1290	1080	900	779	841	690	941
21	866	841	675	468	874	1190	1070	950	771	899	682	866
22	983	841	647	474	802	1160	1130	992	748	860	711	850
23	1010	810	647	467	833	1150	1170	949	763	833	741	850
24	915	748	654	480	907	1120	1210	924	756	825	787	891
25	915	741	592	480	1000	1180	1240	882	763	825	794	933
26	915	690	500	493	1050	1200	1310	866	779	833	850	891
27	825	690	525	565	1040	1310	1260	900	802	841	891	850
28	748	668	592	592	1030	1320	1210	949	802	810	874	779
29	750	661	606	613	---	1280	1200	941	794	833	874	794
30	787	719	654	668	---	1240	1170	858	825	874	866	756
31	858	---	620	690	---	1230	---	825	---	915	841	---
TOTAL	28096	23583	21138	18057	23063	31385	36970	29455	22346	25064	26320	25077
MEAN	906	786	682	582	824	1012	1232	950	745	809	849	836
MAX	1070	941	817	1170	1050	1330	1320	1160	825	915	1210	941
MIN	748	661	500	449	661	592	1070	771	654	719	682	748
AC-FT	55730	46780	41930	35820	45750	62250	73330	58420	44320	49710	52210	49740
CAL YR 1980	TOTAL	323504	MEAN	884	MAX	1620						

10254730 ALAMO RIVER NEAR NILAND, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964, 1967, 1969-71, 1975 to current year.

CHEMICAL ANALYSES: Water years 1964, 1967, 1969-71, 1975 to current year.

BIOLOGICAL DATA: Water year 1979.

COOPERATION.--Chemical-quality data were furnished by California Department of Water Resources.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SPECIFIC COND MICROMHO	PH FIELD (UNITS)	TEMP WATER (DEG C)	OXYGEN DISS (MG/L)	COD LOWLEVEL (MG/L)	BOD 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM CA, DISS (MG/L)	MAGNESIUM MG, DISS (MG/L)	SODIUM NA, DISS (MG/L)
80/10/21	15 10	3820	8.1	21.0	8.4	26					
80/11/11	08 50	3960	7.8	20.5	8.8	30					
80/11/19	08 35	3680	8.1	13.5	10.0			930	200	100	540
80/12/16	09 10	3520	7.9	13.0	9.7	33		940			
81/01/13	08 40	3530	7.7	16.1	7.9	47					
81/02/10	14 30	3580	8.0	16.0	9.2	39					
81/03/10	10 25			18.5		46	1.6				
81/03/17	10 15	3090	8.0	18.0	8.4			810			
81/04/14	16 15	3570	7.8	23.5	6.9	41					
81/05/12	10 35	3680	7.8	25.5	7.4	34					
81/06/09	17 30	3870	8.0	29.5	6.4	39		1000			
81/09/23	12 15	4350	8.0		6.8			1000	210	120	580

DATE	TIME	PTSSSIUM K, DISS (MG/L)	ALKA- LINITY (MG/L)	SULFATE SO4-DISS (MG/L)	CHLORIDE CL DISS (MG/L)	FLUORIDE F, DISS (MG/L)	SILICA DISOLVED (MG/L)	NOE DISS 180 C (MG/L)	RESIDUE TOT NFLT (MG/L)	NITRATE N, DISS (MG/L)	NITRITE N, DISS (MG/L)
80/10/21	15 10								300	7.3	0.17
80/11/11	08 50								249	7.6	0.25
80/11/19	08 35	12	210	920	650	0.6	10	2780			
80/12/16	09 10			910	660			2680	258	7.4	0.45
81/01/13	08 40								1080	8.7	0.69
81/02/10	14 30								320	10	0.67
81/03/10	10 05								119	7.7	0.42
81/03/17	10 15			820	530			2350			
81/04/14	16 15								296	7.2	0.65
81/05/12	10 35								276	6.9	0.42
81/06/09	17 30			970	730			2960	429	6.6	0.38
81/09/23	12 15	15	210	1000	690	1.4		2970			

DATE	TIME	PHOS-TOT AS P (MG/L)	PHOS-DIS ORTHO P (MG/L)
80/10/21	15 10	0.20	0.12
80/11/11	08 50	0.24	0.13
80/11/19	08 35		
80/12/16	09 10	0.38	0.27
81/01/13	08 40	0.28	0.08
81/02/10	14 30	0.24	0.15
81/03/10	10 05	0.31	0.16
81/03/17	10 15		
81/04/14	16 15	0.36	0.20
81/05/12	10 35	0.56	0.23
81/06/09	17 30	0.31	0.25
81/09/23	12 15		

DATE	TIME	ARSENIC AS, DISS (UG/L)	BARIUM BA, DISS (UG/L)	BORON B, DISS (UG/L)	CADMIUM CD, DISS (UG/L)	CHROMIUM CR, DISS (UG/L)	COPPER CU, DISS (UG/L)	LEAD PB, DISS (UG/L)	MERCURY HG, TOTAL (UG/L)	NICKEL NI, DISS (UG/L)	STRONTIUM SR, DISS (UG/L)
80/11/19	08 35	0	0	800	0	0	0	0	0.0	10	3500
81/09/23	12 15			800							

DATE	TIME	ZINC ZN, DISS (UG/L)
80/11/19	08 35	10
81/09/23	12 15	

## SALTON SEA BASIN

10254970 NEW RIVER AT INTERNATIONAL BOUNDARY, AT CALEXICO, CA  
(National stream-quality accounting network station)

LOCATION.--Lat 32°39'57", long 115°30'08", in NE¼SW¼SE¼ sec.14, T.17 S., R.14 E., Imperial County, Hydrologic Unit 18100200, at Second Street bridge, 0.2 mi (0.3 km) downstream from international boundary in Calexico (revised).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 1 ft (0.3 m), from topographic map.

REMARKS.--Records excellent. Discharge represents seepage and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 431 ft<sup>3</sup>/s (12.2 m<sup>3</sup>/s) Aug. 15, 1981; minimum daily, 145 ft<sup>3</sup>/s (4.11 m<sup>3</sup>/s) Oct. 3, 6, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 431 ft<sup>3</sup>/s (12.2 m<sup>3</sup>/s) Aug. 15; minimum daily, 188 ft<sup>3</sup>/s (5.32 m<sup>3</sup>/s) Feb. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	255	221	221	245	202	199	224	245	262	266	204	244
2	252	225	232	257	198	202	217	253	256	264	208	243
3	247	232	233	241	205	236	215	258	252	250	219	231
4	252	236	229	231	211	250	215	255	248	241	226	220
5	257	240	218	229	205	281	217	268	243	239	231	232
6	258	232	216	233	197	275	223	282	234	240	233	229
7	264	215	218	225	202	233	236	284	223	238	220	225
8	262	206	215	212	202	223	248	267	219	235	212	272
9	254	199	209	209	203	225	261	263	219	227	204	253
10	255	207	204	195	206	224	263	275	222	221	209	221
11	238	212	201	197	215	211	265	281	218	221	210	222
12	218	205	192	279	216	207	253	286	207	221	242	217
13	218	196	190	326	211	204	245	282	204	230	292	210
14	206	203	204	324	210	203	253	274	201	235	407	225
15	210	213	215	265	209	206	265	255	201	247	431	227
16	218	236	222	242	208	215	252	249	213	242	386	239
17	210	237	224	225	203	223	244	250	225	228	329	238
18	232	216	213	213	203	222	255	250	203	247	327	236
19	227	216	206	223	198	220	283	248	192	247	304	223
20	213	216	201	224	196	216	341	243	197	258	276	218
21	235	212	195	215	192	217	332	242	201	257	255	214
22	207	202	226	214	199	216	312	241	227	248	240	216
23	208	201	231	212	203	214	302	239	224	246	257	205
24	210	201	229	206	204	219	276	242	209	237	252	197
25	206	195	257	207	199	220	259	247	216	238	260	197
26	202	193	264	215	195	214	250	247	226	239	250	201
27	211	196	255	218	196	207	250	251	235	245	239	202
28	221	201	235	211	188	217	252	257	239	243	248	214
29	223	210	233	208	---	222	249	254	244	230	244	200
30	230	214	233	207	---	216	247	257	248	212	244	204
31	223	---	245	210	---	224	---	259	---	203	237	---
TOTAL	7122	6388	6866	7118	5676	6861	7704	8004	6708	7395	8096	6675
MEAN	230	213	221	230	203	221	257	258	224	239	261	223
MAX	264	240	264	326	216	281	341	286	262	266	431	272
MIN	202	193	190	195	188	199	215	239	192	203	204	197
AC-FT	14130	12670	13620	14120	11260	13610	15280	15880	13310	14670	16060	13240
CAL YR 1980	TOTAL	78870	MEAN	215	MAX	335	MIN	152	AC-FT	156400		
WTR YR 1981	TOTAL	84613	MEAN	232	MAX	431	MIN	188	AC-FT	167800		

10254970 NEW RIVER AT INTERNATIONAL BOUNDARY, AT CALEXICO, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to 1971, 1973 to current year.  
 CHEMICAL ANALYSES: Water years 1969 to 1971, 1973 to current year.  
 BIOLOGICAL DATA: Water years 1973 to September 1981 (discontinued).  
 SPECIFIC CONDUCTANCE: Water years 1974 to current year.  
 WATER TEMPERATURES: Water years 1974 to current year.  
 SEDIMENT RECORDS: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--  
 SPECIFIC CONDUCTANCE: October 1973 to September 1981 (discontinued).  
 WATER TEMPERATURES: October 1973 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor recording specific conductance and water temperature, October 1973 to September 1981.

REMARKS.--Periods of missing conductivity and temperature data due to equipment malfunction or fouled probe. Sudden changes in chemical quality can occur due to slug flows of wastewater.

COOPERATION.--The letter "A" following a date indicates chemical-quality data furnished by California Department of Water Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--  
 SPECIFIC CONDUCTANCE: Maximum recorded, 12,000 micromhos July 12, 1978; minimum recorded, 2,240 micromhos Oct. 31, 1976.  
 WATER TEMPERATURES: Maximum recorded, 38.0°C June 20, 1980; minimum recorded, 10.0°C Dec. 8-11, 1979.

EXTREMES FOR CURRENT YEAR.--  
 SPECIFIC CONDUCTANCE: Maximum recorded, 9,040 micromhos Mar. 27; minimum recorded, 4,800 micromhos Dec. 14.  
 WATER TEMPERATURES: Maximum recorded, 34.5°C Aug. 28, 29; minimum recorded, 12.0°C on several days during December and February.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-HF (COLS./ 100 ML)	STREP- TOCOCCEI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT										
07...	0830	266	5800	7.7	27.0	34	4.6	140000	49000	900
NOV										
17...	1500	237	5890	7.9	--	6.0	7.7	75000	30000	940
DEC										
10...	1500	204	5870	7.6	14.5	16	5.2	K940000	K900000	1000
11...A	0810	193	5400	7.6	13.5	7.0	6.2	--	--	960
JAN										
13...	1500	246	6070	7.8	16.5	2.6	7.3	K130000	53000	1200
FEB										
10...	1500	200	6210	7.7	16.5	5.3	6.5	61000	35000	1200
MAR										
10...	1500	220	6550	7.8	--	9.1	7.8	K31000	K3000	1200
18...A	0950	221	--	7.9	20.0	20	7.3	--	--	1200
APR										
14...	1400	257	7630	7.7	26.0	15	7.0	190000	13000	1300
27...	1310	251	6850	7.8	22.0	--	--	--	--	1100
MAY										
19...	1600	244	7950	8.1	24.0	20	4.4	K120000	6800	1100
JUN										
09...	1600	216	7030	7.8	31.5	7.7	4.2	76000	6100	1100
12...A	1805	219	7200	7.9	30.5	5.0	--	--	--	1100
JUL										
14...	1700	233	7900	7.9	33.5	5.7	4.0	140000	11000	990
AUG										
11...	1500	210	7700	8.1	31.5	32	4.9	37000	3400	1400
SEP										
08...	1500	287	7480	7.8	31.5	5.7	4.8	34000	4600	--
24...A	1125	197	6800	7.8	27.0	6.0	4.6	--	--	1100

K Results based on colony count outside the acceptable range (non-ideal colony count).

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 07...	680	200	98	880	66	13	50	220	610	1500
NOV 17...	--	210	100	910	66	13	69	--	570	1600
DEC 10...	790	220	120	860	62	12	75	250	660	1400
11... A	--	--	--	--	--	--	--	--	710	1400
JAN 13...	920	230	140	1000	64	13	56	230	800	1700
FEB 10...	--	250	130	950	63	12	52	--	780	1700
MAR 10...	960	250	130	1100	67	14	12	240	840	1700
18... A	--	--	--	--	--	--	--	--	810	2100
APR 14...	1000	270	140	1200	66	15	88	250	850	2100
27...	--	250	120	1000	64	13	75	--	--	--
MAY 19...	880	250	120	1300	69	17	110	240	700	2200
JUN 09...	850	240	120	1200	69	16	80	240	820	1900
12... A	--	--	--	--	--	--	--	--	810	1800
JUL 14...	740	200	120	1300	71	18	120	250	940	2000
AUG 11...	1200	280	170	1000	59	12	92	240	800	1900
SEP 08...	--	--	--	1100	--	--	100	250	790	2000
24... A	--	240	120	1100	67	14	86	--	800	1700

[illegible]



10254970 NEW RIVER AT INTERNATIONAL BOUNDARY, AT CALEXICO, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE		NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDEB TOTAL (MG/L AS C)
OCT										
07...		4.80	2.8	5.8	3.8	.970	.250	--	4.4	--
NOV										
17...		--	3.8	--	5.1	1.00	.230	9.3	--	--
DEC										
10...		11.0	8.3	12	9.2	1.90	.770	18	--	--
11...A		--	--	--	--	--	--	--	--	--
JAN										
13...		--	3.9	--	5.1	1.00	.180	--	19	2.2
FEB										
10...		7.70	--	8.7	--	1.90	.490	17	--	--
MAR										
10...		6.80	4.0	7.9	5.1	.950	.100	16	--	--
18...A		--	--	--	--	--	--	--	--	--
APR										
14...		4.40	3.0	5.4	4.0	.930	.500	--	12	2.7
27...		--	--	--	--	--	--	--	--	--
MAY										
19...		5.90	2.4	6.8	3.3	.940	.360	24	--	--
JUN										
09...		8.40	2.2	9.3	3.2	1.30	.460	26	--	--
12...A		--	--	--	--	--	--	--	--	--
JUL										
14...		4.90	2.6	6.1	3.8	1.00	.500	--	14	1.0
AUG										
11...		3.80	2.4	--	3.3	.780	.360	18	--	--
SEP										
08...		4.60	3.0	5.7	3.9	.760	.140	17	--	--
24...A		--	--	--	--	--	--	--	--	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)
OCT											
07...	0830	22	19	200	200	--	--	1	10	0	0
JAN											
13...	1500	20	16	200	200	--	--	2	0	0	1
APR											
14...	1400	35	35	300	200	--	1	0	30	30	0
27...	1310	--	30	--	300	1700	--	0	--	--	--
JUL											
14...	1700	74	66	200	200	--	--	1	20	20	0
SEP											
24...A	1125	--	--	--	--	1500	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

[illegible]

10254970 NEW RIVER AT INTERNATIONAL BOUNDARY, AT CALEXICO, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	NOV 17,80 1500		MAR 10,81 1500		MAY 19,81 1600		JUN 9,81 1600	
TOTAL CELLS/ML	85000		50000		95000		120000	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE	--	-	--	-	--	-	--	-
...SCHROEDERIA	--	-	--	-	--	-	--	-
...COELASTRACEAE	--	-	--	-	--	-	--	-
...COELASTRUM	--	-	--	-	--	-	--	-
...MICRACCTINIACEAE	--	-	--	-	--	-	--	-
...MICRACCTINIUM	--	-	--	-	17000#	18	24000#	20
...OOCYSTACEAE	--	-	--	-	--	-	--	-
...ANKISTRODESMUS	--	-	310	1	790	1	1200	1
...CHODATELLA	--	-	--	-	--	-	--	-
...DICTYOSPHAERIUM	--	-	--	-	10000	11	3100	3
...KIRCHNERIELLA	--	-	--	-	--	-	1900	2
...OOCYSTIS	--	-	--	-	--	-	--	-
...SCENEDESMACEAE	--	-	--	-	--	-	--	-
...CRUCIGENIA	--	-	--	-	7400	8	--	-
...SCENEDESMUS	--	-	--	-	3700	4	2400	2
...TETRASTRUM	--	-	--	-	--	-	1900	2
...VOLVOCALES	--	-	--	-	--	-	--	-
...CHLAMYDOMONADACEAE	--	-	--	-	--	-	--	-
...CHLAMYDOMONAS	1500	2	310	1	*	0	1900	2
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
..CENTRALES								
...CHAETOCERACEAE	--	-	--	-	1600	2	--	-
...CHAETOCEROS	--	-	--	-	--	-	--	-
...COSCINODISCACEAE	--	-	--	-	--	-	--	-
...CYCLOTELLA	5700	7	3700	7	21000#	22	6500	5
...HELOSIRA	--	-	620	1	--	-	--	-
...PENNALES	--	-	--	-	--	-	--	-
...CYMBELLACEAE	--	-	--	-	--	-	--	-
...AMPHORA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE	--	-	--	-	--	-	--	-
...SYNEDRA	*	0	--	-	--	-	--	-
...NAVICULACEAE	--	-	--	-	--	-	--	-
...NAVICULA	--	-	--	-	530	1	--	-
...NITZSCHACEAE	--	-	--	-	--	-	--	-
...NITZSCHIA	--	-	--	-	1300	1	720	1
..CHRYSTOPHYCEAE								
..CHRYSSOMONADALES								
...OCHROMONADACEAE	--	-	--	-	--	-	--	-
...OCHROMONAS	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE	--	-	--	-	--	-	*	0
...CHROMONAS	--	-	--	-	--	-	*	0
...CRYPTOMONADACEAE	--	-	--	-	--	-	*	0
...CRYPTOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE	--	-	--	-	17000#	18	9600	8
...AGMENELLUM	77000#	91	45000#	90	11000	11	39000#	33
...ANACYSTIS	--	-	--	-	--	-	--	-
...HORMOGONALES	--	-	--	-	--	-	--	-
...NOSTOCACEAE	--	-	--	-	--	-	--	-
...APHANIZOENON	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE	--	-	--	-	--	-	--	-
...OSCILLATORIA	--	-	--	-	4000	4	27000#	22
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE	--	-	--	-	--	-	--	-
...EUGLENA	*	0	--	-	*	0	--	-
...TRACHELOMONAS	--	-	--	-	*	0	--	-
PYRRHOPHYTA (FIRE ALGAE)								
..DINOPHYCEAE								
..PERIDINIALES								
...PERIDINIACEAE	--	-	--	-	--	-	--	-
...PERIDINIUM	--	-	--	-	--	-	--	-

See footnotes at end of table.

10254970 NEW RIVER AT INTERNATIONAL BOUNDARY, AT CALEXICO, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	JUL 14,81 1700		AUG 11,81 1500		SEP 8,81 1500	
TOTAL CELLS/ML	250000		72000		24000	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...CHARACIACEAE						
...SCHROEDERIA	--	-	--	-	*	0
...COELASTRACEAE						
...COELASTRUM	--	-	--	-	580	2
...MICRACTINIACEAE						
...MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
...ANKISTRODESMUS	*	0	720	1	--	-
...CHODATELLA	--	-	--	-	*	0
...DICTYOSPHAERIUM	--	-	--	-	230	1
...KIRCHNERIELLA	*	0	--	-	--	-
...OOCYSTIS	--	-	*	0	--	-
...SCENEDESMACEAE						
...CRUCIGENIA	--	-	--	-	--	-
...SCENEDESMUS	1300	1	580	1	--	-
...TETRASTRUM	--	-	--	-	--	-
...VOLVOCALES						
...CHLAMYDOMONADACEAE						
...CHLAMYDOMONAS	1900	1	*	0	--	-
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...CHAETOCERACEAE						
...CHAETOCEROS	--	-	--	-	--	-
...COSCINODISCAEAE						
...CYCLOTELLA	6400	3	2800	4	810	3
...MELOSIRA	--	-	--	-	--	-
...PENNALES						
...CYMBELLACEAE						
...AMPHORA	--	-	*	0	*	0
...FRAGILARIACEAE						
...SYNEDRA	--	-	--	-	--	-
...NAVICULACEAE						
...NAVICULA	--	-	--	-	520	2
...NITZSCHIAEAE						
...NITZSCHIA	1300	1	*	0	430	2
..CHRYSOPHYCEAE						
...CHRYSOMONADALES						
...OCHROMONADACEAE						
...OCHROMONAS	*	0	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
...CHROOMONAS	*	0	--	-	--	-
...CRYPTOMONADACEAE						
...CRYPTOMONAS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
...AGMENELLUM	70000#	28	15000#	21	1900	8
...ANACYSTIS	30000	12	940	1	380	2
...HORMOGONALES						
...NOSTOCAEAE						
...APHANIZOMENON	--	-	51000#	71	19000#	79
...OSCILLATORIACEAE						
...OSCILLATORIA	140000#	55	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
...EUGLENA	--	-	--	-	*	0
...TRACHELOMONAS	--	-	--	-	*	0
PYRRHOPHYTA (FIRE ALGAE)						
..DINOPHYCEAE						
...PERIDINIALES						
...PERIDINIACEAE						
...PERIDINIUM	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

\* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

10254970 NEW RIVER AT INTERNATIONAL BOUNDARY, AT CALEXICO, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1										6800	6080	6470
2										6840	6060	6450
3										6820	6060	6480
4										6900	6060	6490
5										6900	6040	6460
6										6600	5900	6250
7										6460	5740	6070
8										6460	5680	6060
9										6220	5480	5900
10										6200	5300	5830
11										6100	5840	5970
12							5520	4860	5200	6220	5000	5710
13							5720	4900	5320	6520	5900	6100
14							5680	4800	5270	6280	5420	5650
15							5820	4860	5370	5620	4880	5170
16							6160	5080	5610	5470	5050	5160
17							6280	5320	5840	5920	5140	5440
18				6470	5570	6120	6300	5460	5930	5950	5540	5640
19				6470	5360	5950	6380	5460	5970	5940	5430	5700
20				6200	5730	5980	6380	5480	5990	6000	5580	5760
21				6280	5580	5970	6380	5480	5980	6130	5680	5820
22				6530	5910	6250	6360	5580	6010	5960	5530	5760
23							6420	5620	6000	5880	5600	5710
24							6280	5420	5860	6030	5670	5940
25							6180	5340	5800	6070	5880	5980
26							6180	5340	5780	6160	5660	5970
27							6200	5480	5880	6100	5910	6020
28							6340	5460	5930	6330	5900	6140
29							6560	5540	6080	6380	6110	6300
30							6720	5680	6180	6520	5920	6330
31							6640	5760	6220	6320	5930	6180
MONTH				6530	5360	6050	6720	4800	5810	6900	4880	5960

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6470	6250	6390	7410	6040	6920	8620	7970	8380	7330	7110	7250
2	6510	6290	6390	7190	6870	7020	8560	8180	8400	7160	7000	7060
3	6460	6210	6350	7160	6470	6860	8630	8140	8450	7720	6720	7210
4	6250	5960	6170	7600	6900	7110	8560	7850	8290	8250	7400	7710
5	6320	5910	6100	7030	6110	6580	8590	8400	8520	7630	7380	7500
6	6500	6260	6380	6460	5570	6140	8620	8180	8350	8170	6620	7480
7	6590	6100	6390	6400	5820	6140	8250	7940	8060	7770	6640	7500
8	6550	6270	6440	6730	6030	6270	8270	7980	8130	7680	7410	7600
9	6510	6280	6370	6730	6400	6480	8300	7670	7950	7840	7450	7660
10	6510	6110	6320	7020	6210	6450	7670	7310	7540	8090	7530	7790
11	6520	6190	6400	6730	6460	6610	7420	7100	7260	7960	7590	7840
12	6570	6270	6460	7090	6550	6760	7550	7140	7390	8020	7670	7800
13	6730	6520	6650	7150	6890	7060	7940	7320	7550	7840	7530	7720
14	6870	6610	6690	7180	6740	7020	8120	7580	7890	7960	7500	7770
15	7030	6780	6910	7480	6680	7100	8180	7820	8080	8160	7840	8060
16	7140	6890	6990	7650	6430	7290	7990	7630	7800	8390	7980	8200
17	7330	7030	7160	7800	7330	7560	7960	7500	7790	8060	7650	7880
18	7460	7220	7320	7740	7210	7560	7920	7220	7620	7840	7390	7670
19	7610	7310	7470	7980	6900	7630	8220	7270	7900	8060	7410	7760
20	7450	7280	7370	8410	7840	8130	8090	6920	7690	8300	7610	8050
21	7610	7270	7530	8760	8090	8390	6950	5890	6410	8330	8000	8210
22	7660	7150	7390	8740	8170	8460	6880	5890	6350	8460	7930	8200
23	7520	7140	7380	8630	8050	8390	6600	5890	6260	8740	8320	8550
24	7580	7180	7290	8680	7940	8370	6550	5870	6260	8820	8470	8660
25	7380	6970	7200	8760	8070	8480	7060	6260	6640	8540	7800	8270
26	7670	7130	7390	8900	8200	8510	7240	6720	6980	8420	7800	8180
27	7530	7040	7290	9040	8570	8870	7660	6540	7120	7850	7040	7420
28	7650	7290	7480	8980	8510	8730	7990	7120	7440	8000	7000	7500
29	---	---	---	8920	8490	8720	7920	7300	7560	8000	7000	7500
30	---	---	---	8870	8270	8560	7460	6940	7330	8000	7000	7500
31	---	---	---	8630	8280	8510	---	---	---	8000	7000	7500
MONTH	7670	5910	6850	9040	5570	7510	8630	5870	7580	8820	6620	7810

10254970 NEW RIVER AT INTERNATIONAL BOUNDARY, AT CALEXICO, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	8750	8070	8610	7690	7340	7450	7130	6800	7000
2	7380	6320	6740	8620	7880	8410	7810	7310	7590	7260	6840	7070
3	7800	6750	7030	8550	7750	8010	7940	7520	7690	7080	6720	6930
4	6930	6280	6540	7970	7350	7590	7710	7230	7470	7320	6970	7160
5	6600	6310	6460	7850	7330	7610	7590	7090	7310	7180	6460	6910
6	6820	6460	6620	8750	7520	8120	7270	6740	6930	7200	6790	7030
7	6870	6630	6740	8720	8370	8510	7070	6050	6710	7550	7180	7400
8	---	---	---	8500	8170	8310	7280	6540	7030	7540	6720	7360
9	---	---	---	8340	8030	8160	7340	7130	7210	6720	5950	6300
10	7060	6600	6870	8480	8110	8310	7270	6670	7030	6910	6310	6630
11	7260	6940	7140	8790	8260	8600	7720	7230	7410	---	---	---
12	7370	7060	7140	8820	8370	8640	7480	7040	7320	---	---	---
13	7270	7040	7170	8600	7910	8070	7340	6850	7180	6780	6430	6600
14	7460	7160	7320	8100	7540	7810	---	---	---	---	---	---
15	7720	7500	7620	7990	7450	7720	---	---	---	6810	5280	6570
16	7830	7400	7630	7900	7260	7510	---	---	---	6540	6200	6350
17	7790	7510	7640	7490	7260	7410	---	---	---	6380	6100	6270
18	7760	6940	7350	7330	7050	7180	---	---	---	---	---	---
19	7340	6970	7190	7560	7050	7300	---	---	---	6270	5960	6100
20	7440	7040	7270	7530	6950	7300	6760	6270	6540	6300	5930	6160
21	7640	7110	7520	7110	6840	6950	6770	6250	6560	6530	6120	6360
22	7820	7460	7670	6980	6470	6780	---	---	---	6620	6240	6400
23	7880	7410	7690	7150	6460	6780	6980	6370	6730	6810	6290	6670
24	7800	7380	7510	7340	6660	7060	7120	6840	7010	7290	6800	7050
25	7790	7350	7630	7380	6780	7130	6970	6630	6830	---	---	---
26	8030	7330	7570	7220	6650	6990	6890	6580	6790	---	---	---
27	7590	7180	7300	6970	6640	6840	7010	6690	6820	---	---	---
28	7840	7300	7550	6990	6600	6820	7100	6720	6820	---	---	---
29	8230	7990	8130	7040	6580	6850	6810	6240	6530	7160	6750	6990
30	8600	8260	8450	6940	6570	6760	---	---	---	7200	6780	7050
31	---	---	---	7440	6760	7120	6920	6600	6780	---	---	---
MONTH	8600	6280	7310	8820	6460	7590	7940	6050	7030	7550	5280	6740
YEAR	9040	4800	7040									

## TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	30.0	26.0	28.0	19.5	16.5	18.0	---	---	---	17.0	15.0	16.0
2	30.0	26.5	28.0	20.0	17.0	18.5	---	---	---	17.0	15.0	16.0
3	29.5	26.0	27.5	20.5	18.0	19.0	---	---	---	17.0	15.0	16.0
4	30.5	27.5	28.5	20.5	18.0	19.5	---	---	---	17.0	15.0	16.0
5	30.0	27.5	28.5	21.0	18.5	19.5	---	---	---	17.0	15.0	16.0
6	29.5	26.0	28.0	21.0	18.5	20.0	---	---	---	16.5	14.5	15.5
7	29.5	26.0	27.5	21.5	19.0	20.0	---	---	---	16.0	14.5	15.0
8	29.5	26.0	27.5	21.0	18.5	20.0	---	---	---	16.0	14.0	15.0
9	29.5	26.5	28.0	21.5	19.0	20.5	---	---	---	15.5	13.5	14.5
10	29.5	26.5	28.0	21.5	19.0	20.0	---	---	---	15.5	13.0	14.5
11	29.5	26.5	28.0	21.5	19.5	20.5	14.0	13.5	14.0	15.0	14.5	15.0
12	29.5	26.5	28.0	21.0	18.5	20.0	14.0	12.0	13.0	15.5	14.5	15.0
13	28.5	25.0	26.5	20.0	17.5	18.5	14.5	12.0	13.5	16.5	14.5	15.5
14	26.0	22.0	24.0	19.0	17.5	18.0	14.0	12.0	13.0	17.0	15.0	16.0
15	22.5	20.5	21.5	18.0	16.0	17.0	14.5	12.0	13.5	17.5	15.5	16.5
16	21.5	18.5	20.0	17.0	15.0	16.0	15.5	12.5	14.0	17.5	15.5	16.5
17	21.0	18.5	19.5	15.5	14.0	14.5	15.5	13.5	14.5	17.5	15.5	16.5
18	21.0	18.5	19.5	---	---	---	15.5	13.5	15.0	17.5	15.5	16.5
19	21.5	18.5	20.0	---	---	---	16.0	13.5	15.0	17.5	15.5	16.5
20	22.0	18.5	20.5	---	---	---	16.0	13.5	15.0	18.0	15.5	16.5
21	22.5	19.0	21.0	---	---	---	16.0	13.5	15.0	18.0	15.5	16.5
22	22.5	19.5	21.0	---	---	---	16.0	14.0	15.0	17.5	15.5	16.5
23	22.5	20.0	21.0	---	---	---	16.0	14.0	15.0	17.5	15.5	16.5
24	22.5	19.5	21.0	---	---	---	15.5	13.5	14.5	16.5	14.5	16.0
25	22.5	19.0	20.5	---	---	---	15.5	13.5	14.5	17.0	14.5	15.5
26	21.0	18.5	19.5	---	---	---	15.5	13.5	14.5	16.5	14.0	15.0
27	21.0	18.5	19.5	---	---	---	15.5	13.5	14.5	16.5	14.0	15.5
28	20.0	17.5	18.5	---	---	---	16.0	13.5	15.0	16.5	14.5	15.5
29	20.0	17.0	18.5	---	---	---	16.5	14.0	15.0	16.0	13.5	15.0
30	19.5	17.0	18.0	---	---	---	17.0	14.0	15.5	15.5	13.5	14.5
31	19.5	17.0	18.0	---	---	---	16.5	14.5	15.5	15.0	12.5	13.5
MONTH	30.5	17.0	23.5	21.5	14.0	19.0	17.0	12.0	14.5	18.0	12.5	15.5



10254970 NEW RIVER AT INTERNATIONAL BOUNDARY, AT CALEXICO, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
OCT 07...	0830	27.0	266	85	61	58	--	--
NOV 17...	1430	--	237	82	52	62	--	--
DEC 10...	1500	14.5	204	43	24	46	--	--
JAN 13...	1500	16.5	246	106	70	78	--	--
FEB 10...	1500	16.5	200	159	86	36	--	--
MAR 10...	1500	--	220	36	21	72	--	--
APR 14...	1400	26.0	257	53	37	71	--	--
MAY 19...	1600	24.0	244	127	84	92	98	100
JUN 09...	1600	31.5	216	57	33	87	97	100
JUL 14...	1700	33.5	233	47	30	77	--	--
AUG 11...	1500	31.5	210	860	488	25	--	--
SEP 08...	1500	31.5	287	54	42	82	96	100



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LOCATION.--Lat 33°06'17", long 115°39'49", in SW<sup>4</sup>SW<sup>4</sup>SW<sup>4</sup> sec.19, T.12 S., R.13 E., Imperial County, Hydrologic Unit 18100200, on right bank 3.5 mi (5.6 km) upstream from mouth, and 5.2 mi (8.4 km) northwest of Westmorland.

PERIOD OF RECORD.--January 1943 to current year. Monthly discharge only for January 1943 to September 1960, published in WSP 1734.

COOPERATION.--Records were furnished by Imperial Irrigation District and reviewed by the Geological Survey.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 883 ft<sup>3</sup>/s (25.0 m<sup>3</sup>/s) Aug. 16; minimum daily, 466 ft<sup>3</sup>/s (13.2 m<sup>3</sup>/s) Dec. 18.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	681	605	565	532	565	633	746	759	619	607	648	656
2	715	603	599	525	549	709	759	719	654	629	621	623
3	736	591	577	540	557	690	767	700	625	645	621	635
4	727	617	542	544	561	633	771	677	607	625	617	639
5	679	601	521	523	601	650	776	658	555	569	595	623
6	692	597	523	530	603	652	767	675	573	567	593	619
7	690	587	523	545	601	635	782	685	551	557	589	619
8	709	565	530	561	617	575	795	704	523	551	617	615
9	683	563	542	538	652	553	763	704	515	565	631	621
10	679	555	540	525	675	567	729	683	528	575	607	643
11	673	547	547	551	591	593	755	683	542	569	603	587
12	677	553	544	660	569	613	804	681	561	595	637	585
13	625	569	530	753	519	585	815	687	555	611	639	585
14	615	555	553	698	536	591	800	702	557	625	671	540
15	589	538	557	631	559	611	780	681	585	605	755	545
16	589	534	523	615	565	669	793	664	567	603	883	587
17	615	542	468	561	577	711	804	652	577	593	822	597
18	621	561	466	561	565	696	811	637	591	585	771	615
19	641	575	468	525	587	692	811	654	577	607	702	621
20	675	577	490	498	607	717	786	631	525	615	667	654
21	641	559	553	494	587	702	850	621	519	613	637	643
22	635	565	545	475	615	727	869	654	521	617	607	607
23	637	567	549	474	613	736	844	633	565	617	593	607
24	589	538	597	481	607	725	811	648	603	643	619	605
25	557	555	540	487	563	690	819	637	569	623	617	569
26	545	530	509	502	557	734	802	599	579	623	639	551
27	547	523	577	506	561	767	776	581	599	635	664	563
28	557	513	575	509	569	819	771	635	525	656	664	559
29	563	525	555	496	---	793	748	658	613	669	673	563
30	577	557	587	504	---	751	748	664	615	683	673	549
31	581	---	557	523	---	748	---	652	---	631	650	---
TOTAL	19740	16867	16752	16867	16328	20967	23652	20618	17095	18898	20325	18025
MEAN	637	562	540	544	583	676	788	665	570	610	656	601
MAX	736	617	599	753	675	819	869	759	654	683	883	656
MIN	545	513	466	474	519	553	729	581	515	551	589	540
AC-FT	39150	33460	33230	33460	32390	41590	46910	40900	33910	37480	40310	35750
WAL YR 1980	TOTAL	229162	MEAN 626	MAX 903	MIN 416	AC-FT	454500					
CAL YR 1981	TOTAL	226134	MEAN									

## SALTON SEA BASIN

10255700 SAN FELIPE CREEK NEAR JULIAN, CA

LOCATION.--Lat 33°07'07", long 116°26'04", in NW¼NE¼ sec.23, T.12 S., R.5 E., San Diego County, Hydrologic Unit 18100200, in Anza-Borrego Desert State Park, on left bank under bridge on State Highway 78 in Sentenac Canyon, 1.0 mi (1.6 km) upstream from Grapevine Canyon, and 10 mi (16 km) northeast of Julian.

DRAINAGE AREA.--89.2 mi<sup>2</sup> (231.0 km<sup>2</sup>).

PERIOD OF RECORD.--August 1958 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 1,872.69 ft (570.796 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--23 years, 0.56 ft<sup>3</sup>/s (0.016 m<sup>3</sup>/s), 406 acre-ft/yr (501,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,150 ft<sup>3</sup>/s (174 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 7.85 ft (2.393 m), on basis of slope-area measurement of maximum flow; no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.2 ft<sup>3</sup>/s (0.232 m<sup>3</sup>/s) Mar. 1, gage height, 1.55 ft (0.472 m), no peak above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s); minimum daily, no flow many days during July to September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	.40	.48	.85	.75	2.8	.67	.33	.22	.06	0	0
2	.18	.34	.54	.84	.76	1.2	.68	.32	.21	.07	0	0
3	.17	.34	.59	.86	.77	1.0	.85	.29	.20	.06	0	0
4	.18	.35	.67	.79	.76	.92	.72	.31	.19	.02	0	.18
5	.17	.35	.67	.76	.76	1.3	.70	.34	.17	0	0	.09
6	.17	.36	.66	.76	.78	.95	.68	.33	.14	.01	0	.05
7	.17	.36	.69	.78	.76	.93	.62	.29	.16	.03	0	.05
8	.19	.37	.90	.76	1.1	.92	.66	.26	.15	.04	0	.05
9	.19	.39	.68	.77	2.3	.90	.62	.24	.15	.02	0	.05
10	.20	.40	.67	.78	.91	.88	.56	.23	.15	.05	0	.04
11	.22	.40	.66	.93	.83	.87	.55	.19	.15	.12	0	.03
12	.23	.40	.68	1.3	.83	.86	.55	.16	.15	.12	0	.03
13	.22	.40	.74	.84	.81	.86	.54	.20	.15	.10	0	.02
14	.27	.42	.76	.77	.82	.87	.50	.22	.16	.15	.04	.01
15	.39	.47	.76	.77	.82	.86	.50	.28	.17	.16	.10	.01
16	.33	.43	.76	.77	.82	.86	.48	.36	.17	.09	.06	.03
17	.34	.43	.77	.77	.82	.87	.48	.34	.18	.05	.02	.04
18	.35	.44	.76	.76	.82	.87	.45	.25	.15	.03	.03	.06
19	.33	.48	.76	.77	.82	.90	.51	.27	.14	.03	.10	.08
20	.32	.51	.77	.76	.79	1.3	.50	.39	.09	0	.05	.06
21	.32	.50	.77	.76	.75	.88	.47	.38	.08	0	.03	.04
22	.32	.46	.80	.76	.80	.86	.43	.34	.06	0	0	.05
23	.32	.51	.82	.76	.82	.83	.40	.30	.07	0	0	.07
24	.32	.54	.79	.75	.82	.75	.39	.27	.06	0	0	.08
25	.33	.53	.79	.75	.89	.74	.36	.24	.07	0	0	.08
26	.34	.56	.82	.75	1.5	.92	.34	.26	.12	0	0	.09
27	.37	.55	.84	.74	.94	1.0	.37	.47	.10	0	0	.10
28	.33	.55	.84	.84	1.1	.79	.36	.40	.09	0	0	.09
29	.34	.55	.84	.79	---	.77	.33	.32	.07	0	0	.10
30	.37	.53	.83	.79	---	.77	.32	.29	.05	0	0	.18
31	.39	---	.85	.76	---	.75	---	.23	---	0	0	---
TOTAL	8.54	13.32	22.96	24.84	25.45	29.98	15.59	9.10	4.02	1.21	.43	1.76
MEAN	.28	.44	.74	.80	.91	.97	.52	.29	.13	.039	.014	.059
MAX	.39	.56	.90	1.3	2.3	2.8	.85	.47	.22	.16	.10	.18
MIN	.17	.34	.48	.74	.75	.74	.32	.16	.05	0	0	0
AC-FT	17	26	46	49	50	59	31	18	8.0	2.4	.9	3.5

CAL YR 1980 TOTAL 2422.89 MEAN 6.62 MAX 500 MIN .07 AC-FT 4810  
WTR YR 1981 TOTAL 157.20 MEAN .43 MAX 2.8 MIN 0 AC-FT 312

## 10255800 COYOTE CREEK NEAR BORREGO SPRINGS, CA

LOCATION.--Lat 33°22'25", long 116°25'36", in NE¼NE¼ sec. 23, T.9 S., R.5 E., San Diego County, Hydrologic Unit 18100200, on right bank just upstream from Box Canyon, 2.3 mi (3.7 km) northwest of Rancho De Anza, and 8.7 mi (13.9 km) northwest of Borrego Springs.

DRAINAGE AREA.--144 mi<sup>2</sup> (373 km<sup>2</sup>).

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for October and November 1950, published in WSP 1734.

REVISED RECORDS.--WDR CA-72-1: 1969, 1971.

GAGE.--Water-stage recorder. Altitude of gage is 1,250 ft (381 m), from topographic map. Since Apr. 19, 1978, at present site and datum. Prior to Mar. 24, 1967, at site 250 ft (76 m) upstream at different datum. Mar. 24, 1967 to Aug. 16, 1977 at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records fair except those for periods of no gage-height record, Dec. 16 to Jan. 20, and Mar. 20 to Apr. 30, which are poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--31 years, 2.39 ft<sup>3</sup>/s (0.068 m<sup>3</sup>/s), 1,730 acre-ft/yr (2.13 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,890 ft<sup>3</sup>/s (110 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 7.50 ft (2.286 m) on basis of slope-area measurement of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s) Mar. 1, gage height, 1.40 ft (0.427 m), no peak above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s); minimum daily, 2.8 ft<sup>3</sup>/s (0.079 m<sup>3</sup>/s) July 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	5.4	6.3	4.7	5.1	11	5.2	5.0	5.1	3.8	3.4	3.4
2	5.0	5.1	6.3	4.6	5.8	8.9	5.2	4.9	5.2	4.1	3.4	3.2
3	4.8	5.2	6.5	4.5	5.9	7.9	5.2	4.8	5.0	3.7	3.5	3.8
4	4.9	5.2	6.6	4.4	6.5	7.5	5.1	4.8	4.5	3.5	3.5	4.6
5	5.2	5.2	6.4	4.4	6.7	10	5.1	4.9	4.1	3.3	3.8	4.8
6	4.8	5.2	6.5	4.3	6.8	6.8	5.1	4.7	4.7	3.5	3.9	4.7
7	4.4	5.2	6.6	4.2	6.7	6.3	5.1	4.5	4.6	3.5	3.5	4.8
8	4.3	5.2	6.3	4.1	7.5	6.3	5.1	4.5	4.4	3.2	3.5	5.0
9	4.6	5.5	6.2	4.1	7.5	6.2	5.0	4.5	4.3	2.8	3.7	4.6
10	4.7	5.7	6.3	4.0	7.2	5.8	5.0	4.1	4.2	2.8	3.6	4.3
11	4.9	5.7	6.5	4.5	7.1	5.8	5.0	3.7	4.2	3.5	3.9	4.1
12	5.0	5.5	6.4	6.0	6.9	5.8	5.0	3.9	4.1	4.6	4.1	4.0
13	5.1	5.4	6.4	8.0	7.4	5.8	5.0	4.3	4.0	4.2	4.2	4.0
14	5.1	5.4	6.2	5.5	8.0	5.4	5.0	4.0	3.9	4.5	4.3	4.1
15	5.1	5.6	6.2	3.7	7.7	5.5	5.0	4.6	3.8	4.9	3.9	4.3
16	5.2	5.7	6.0	3.6	7.4	5.9	5.0	4.9	3.7	4.4	3.5	4.3
17	5.1	5.7	5.9	3.6	6.7	5.7	4.9	4.6	3.6	4.3	3.4	4.4
18	5.2	5.8	5.8	3.5	5.9	5.5	4.9	4.1	3.5	4.1	3.3	4.4
19	5.4	5.9	5.7	3.4	6.0	6.1	4.9	4.8	3.5	3.8	3.4	4.5
20	5.4	5.9	5.6	3.4	5.1	6.8	4.9	5.0	3.6	3.8	3.4	4.0
21	5.1	5.8	5.6	3.4	4.3	6.2	4.9	4.8	4.0	3.7	3.4	3.6
22	5.0	5.9	5.5	3.4	4.2	5.7	4.9	4.3	4.2	3.9	3.2	3.8
23	5.0	6.0	5.4	3.4	5.3	5.5	4.9	4.0	4.1	3.8	3.3	3.8
24	5.1	6.1	5.3	3.6	6.2	5.4	4.9	3.3	3.8	3.8	3.2	3.9
25	5.1	5.8	5.2	4.1	5.2	5.4	4.8	4.1	3.8	3.9	3.2	3.8
26	5.6	5.9	5.1	4.1	5.1	5.3	4.8	4.3	4.3	4.1	3.2	4.2
27	5.7	6.1	5.0	4.1	5.2	6.0	4.8	5.0	4.1	3.9	3.3	4.3
28	5.2	6.3	5.0	4.4	5.6	5.4	4.8	5.1	3.8	3.6	3.3	4.2
29	5.3	6.4	4.9	4.5	---	5.2	4.8	4.8	3.9	3.5	3.2	4.4
30	5.5	6.8	4.8	4.4	---	5.2	4.8	5.1	3.6	3.6	3.1	4.4
31	5.4	---	4.7	4.7	---	5.2	---	5.5	---	3.3	3.3	---
TOTAL	157.0	170.6	181.2	132.6	175.0	195.5	149.1	140.9	123.6	117.4	108.9	125.7
MEAN	5.06	5.69	5.85	4.28	6.25	6.31	4.97	4.55	4.12	3.79	3.51	4.19
MAX	5.7	6.8	6.6	8.0	8.0	11	5.2	5.5	5.2	4.9	4.3	5.0
MIN	4.3	5.1	4.7	3.4	4.2	5.2	4.8	3.3	3.5	2.8	3.1	3.2
AC-FT	311	338	359	263	347	388	296	279	245	233	216	249
CAL YR 1980	TOTAL	5673.5	MEAN	15.5	MAX	900	MIN	1.6	AC-FT	11250		
WTR YR 1981	TOTAL	1777.5	MEAN	4.87	MAX	11	MIN	2.8	AC-FT	3530		

LOCATION.--Lat 33°16'44", long 116°25'45", in Anza-Borrego Desert State Park, San Diego County, Hydrologic Unit 18100200, on left bank 3.3 mi (5.3 km) northwest of Borrego Springs.

PERIOD OF RECORD.--October 1950 to current year. Prior to October 1960, published as "Palm Canyon Creek near Borrego Springs." Monthly discharge only for October to November 1950, published in WSP 1734.

REMARKS.--Records good. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft<sup>3</sup>/s (74.8 m<sup>3</sup>/s) Aug. 16, 1979, gage height, 9.8 ft (2.99 m) from floodmarks, on basis of slope-area measurement of peak flow; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) and maximum (\*):

Minimum daily discharge, no flow Aug. 10 to Sept. 11.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.4	2.6	2.7	3.5	20	3.0	2.1	.72	.03	.02	0
2	1.8	1.5	2.8	2.6	3.3	11	3.8	2.1	.70	.03	.01	0
3	1.8	1.5	2.9	2.6	3.2	6.2	4.1	2.1	.66	.02	.01	0
4	1.9	1.5	3.9	2.6	3.1	4.3	3.6	2.1	.57	.02	.01	0
5	1.8	1.5	4.1	2.6	3.0	7.0	3.4	2.1	.50	.02	.01	0
6	1.8	1.5	2.6	2.6	3.1	5.7	2.9	2.0	.44	.02	.01	0
7	1.9	1.5	2.7	2.7	3.0	4.2	2.6	1.8	.37	.02	.01	0
8	1.9	1.5	3.0	2.7	3.9	3.6	2.6	1.8	.30	.02	.01	0
9	1.9	1.7	2.6	2.7	13	3.4	2.6	1.4	.28	.02	.01	0
10	1.9	1.8	2.4	2.7	2.9	2.8	2.5	1.0	.29	.02	0	0
11	2.0	1.9	2.4	3.8	2.8	3.0	2.4	.96	.31	.03	0	0
12	2.2	2.0	2.4	8.1	2.8	3.0	2.4	.77	.31	.71	0	.01
13	2.1	2.1	2.4	4.0	2.7	3.2	2.5	.87	.34	.15	0	.02
14	2.4	2.1	2.3	3.3	2.6	3.2	2.3	.96	.33	.06	0	.04
15	4.8	2.3	2.3	3.1	2.6	2.8	2.2	1.3	.30	.14	0	.04
16	3.1	2.2	2.3	3.1	2.5	2.5	3.1	1.8	.24	.29	0	.05
17	1.6	2.3	2.3	3.1	2.4	2.3	2.3	1.6	.19	.08	0	.05
18	1.3	2.3	2.3	3.1	2.4	2.1	3.5	1.2	.15	.06	0	.05
19	1.2	2.3	2.4	3.0	2.4	2.5	5.1	1.3	.11	.06	0	.05
20	1.2	2.3	2.4	2.8	2.3	8.8	4.1	1.8	.09	.05	0	.05
21	1.2	2.3	2.4	2.6	2.3	3.4	3.3	1.7	.07	.05	0	.05
22	1.2	2.2	2.4	2.8	3.5	2.9	2.8	1.3	.06	.04	0	.05
23	1.1	2.6	2.4	2.8	4.5	2.3	2.6	1.2	.06	.04	0	.05
24	1.1	2.8	2.4	3.0	4.5	2.0	2.5	1.1	.05	.04	0	.04
25	1.2	2.7	2.4	2.9	5.0	1.7	2.3	.96	.04	.04	0	.04
26	1.4	2.9	2.6	2.9	8.4	4.1	2.3	1.0	.05	.03	0	.04
27	1.5	2.9	2.7	2.9	6.3	5.4	2.6	2.2	.04	.03	0	.04
28	1.3	2.9	2.6	4.7	6.9	4.0	2.4	2.2	.04	.03	0	.04
29	1.3	2.9	2.6	4.0	---	3.5	2.1	1.3	.03	.02	0	.04
30	1.4	2.6	2.6	6.3	---	3.3	2.1	1.0	.03	.03	0	.04
31	1.4	---	2.6	4.1	---	3.1	---	.82	---	.02	0	---
TOTAL	54.6	64.0	80.8	102.9	108.9	137.3	86.0	45.84	7.67	2.22	.10	.79
MEAN	1.76	2.13	2.61	3.32	3.89	4.43	2.87	1.48	.26	.072	.003	.026
MAX	4.8	2.9	4.1	8.1	13	20	5.1	2.2	.72	.71	.02	.05
MIN	1.1	1.4	2.3	2.6	2.3	1.7	2.1	.77	.03	.02	0	0
AC-FT	108	127	160	204	216	272	171	91	15	4.4	.2	1.0

CAL YR 1980	TOTAL	2872.40	MEAN	7.85	MAX	126	MIN	1.1	AC-FT	5700
WTR YR 1981	TOTAL	691.12	MEAN	1.89	MAX	20	MIN	0	AC-FT	1370

## SALTON SEA BASIN

65

## 10255850 VALLECITO CREEK NEAR JULIAN, CA

LOCATION.--Lat 32°59'10", long 116°25'10", in SW¼NE¼ sec.1, T.14 S., R.5 E., San Diego County, Hydrologic Unit 18100200, on right bank 0.2 mi (0.3 km) downstream from Cottonwood Wash, and 12.6 mi (20.3 km) southeast of Julian.

DRAINAGE AREA.--39.7 mi<sup>2</sup> (102.8 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,950 ft (594 m), from topographic map.

REMARKS.--Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--18 years, 0.12 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s), 87 acre-ft/yr (107,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft<sup>3</sup>/s (32.9 m<sup>3</sup>/s) Sept. 10, 1976, gage height, 6.30 ft (1.920 m), from high-water mark in well, from rating curve extended above 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) on basis of slope-area study of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.59 ft<sup>3</sup>/s (0.017 m<sup>3</sup>/s) Apr. 10, gage height, 4.02 ft (1.225 m), no peak above base of 15 ft<sup>3</sup>/s (0.425 m<sup>3</sup>/s); minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.13	.18	.18	.14	.12	.33	.14	.10	.12	.11	.11
2	.07	.13	.17	.18	.14	.10	.35	.13	.10	.13	.11	.11
3	.07	.13	.16	.18	.14	.10	.37	.13	.10	.13	.10	.12
4	.07	.13	.13	.18	.13	.09	.34	.13	.10	.13	.10	.13
5	.07	.13	.12	.18	.13	.10	.37	.13	.10	.13	.11	.11
6	.07	.13	.12	.18	.12	.10	.38	.12	.10	.13	.11	.11
7	.07	.14	.12	.18	.12	.11	.40	.12	.11	.12	.11	.11
8	.07	.14	.13	.18	.13	.11	.41	.12	.11	.13	.10	.12
9	.07	.15	.13	.18	.14	.11	.48	.11	.11	.12	.10	.11
10	.08	.13	.13	.18	.12	.10	.54	.11	.11	.12	.11	.11
11	.08	.13	.14	.18	.12	.11	.50	.11	.11	.12	.11	.12
12	.08	.13	.15	.18	.11	.13	.52	.11	.12	.13	.11	.11
13	.09	.13	.15	.18	.10	.15	.53	.11	.12	.13	.11	.11
14	.09	.13	.15	.17	.10	.15	.49	.11	.13	.14	.10	.12
15	.09	.14	.15	.17	.10	.17	.45	.12	.13	.15	.10	.11
16	.09	.15	.17	.20	.11	.16	.46	.12	.12	.14	.10	.11
17	.10	.15	.18	.19	.10	.18	.44	.11	.12	.13	.10	.11
18	.10	.15	.18	.19	.11	.20	.41	.11	.11	.12	.10	.12
19	.10	.15	.18	.19	.10	.22	.41	.12	.12	.11	.10	.12
20	.10	.16	.18	.18	.10	.25	.42	.11	.13	.11	.11	.11
21	.10	.18	.18	.19	.10	.27	.43	.11	.14	.11	.11	.10
22	.11	.18	.17	.19	.10	.35	.41	.11	.14	.11	.11	.10
23	.11	.18	.15	.18	.10	.37	.39	.10	.14	.11	.11	.10
24	.11	.19	.17	.17	.10	.31	.36	.10	.14	.11	.11	.11
25	.10	.21	.18	.17	.10	.25	.33	.10	.14	.11	.11	.11
26	.11	.20	.18	.17	.10	.26	.30	.10	.15	.12	.11	.12
27	.11	.20	.18	.17	.10	.26	.29	.10	.14	.11	.11	.12
28	.11	.18	.18	.17	.10	.28	.25	.10	.14	.11	.11	.11
29	.12	.19	.18	.16	---	.31	.22	.10	.13	.11	.11	.11
30	.12	.19	.18	.15	---	.28	.18	.10	.12	.11	.11	.11
31	.12	---	.18	.13	---	.27	---	.10	---	.11	.11	---
TOTAL	2.84	4.66	4.95	5.48	3.16	5.97	11.76	3.49	3.63	3.76	3.31	3.37
MEAN	.092	.16	.16	.18	.11	.19	.39	.11	.12	.12	.11	.11
MAX	.12	.21	.18	.20	.14	.37	.54	.14	.15	.15	.11	.13
MIN	.06	.13	.12	.13	.10	.09	.18	.10	.10	.11	.10	.10
AC-FT	5.6	9.2	9.8	11	6.3	12	23	6.9	7.2	7.5	6.6	6.7
CAL YR 1980	TOTAL	45.36	MEAN	.12	MAX	15	MIN	.01	AC-FT	90		
WTR YR 1981	TOTAL	56.38	MEAN	.15	MAX	.54	MIN	.06	AC-FT	112		

## 10255885 SAN FELIPE CREEK NEAR WESTMORLAND, CA

LOCATION (Revised).--Lat 33°07'24", long 115°51'10", in NW¼SW¼ sec.17, T.12 S., R.11 E., Imperial County, Hydrologic Unit 18100200, on right bank 35 ft (11 m) downstream from State Highway 86, and 14.6 mi (23.5 km) northwest of Westmorland.

DRAINAGE AREA.--1,693 mi<sup>2</sup> (4,385 km<sup>2</sup>).

PERIOD OF RECORD.--December 1960 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is -190 ft (-58 m), from topographic map.

REMARKS.--Records poor. No regulation above station. Diversion and pumping for domestic use and irrigation in Borrego Valley 25 mi (40 km) upstream.

AVERAGE DISCHARGE.--20 years (water years 1962-81) 7.21 ft<sup>3</sup>/s (0.204 m<sup>3</sup>/s), 5,220 acre-ft/yr (6.44 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft<sup>3</sup>/s (2,830 m<sup>3</sup>/s) Sept. 10, 1976, gage height, 19.0 ft (5.79 m), from rating curve extended above 500 ft<sup>3</sup>/s (14.2 m<sup>3</sup>/s) on basis of contracted-opening measurement combined with road overflow at peak gage height; no flow for months each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s) and maximum (\*) from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Aug. 14	2330	* 760	21.5	5.22	1.591
Sept. 4	2200	240	6.80	2.02	0.616

Minimum daily discharge, no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0				0	.70				0	0	
2	0				0	5.0				0	0	
3	0				0	.26				0	0	
4	0				0	.23				0	9.0	
5	0				0	.32				0	10	
6	0				0	.25				0	.50	
7	0				0	.20				0	.35	
8	.45				0	.13				0	.23	
9	0				.56	.07				0	.10	
10	0				.20	.06				0	0	
11	0				.10	.06				0	0	
12	0				.09	.05				0	0	
13	0				.08	.04				0	0	
14	0				.08	.03				45	0	
15	0				.07	.01				33	0	
16	0				.07	0				.50	0	
17	0				.07	0				.45	0	
18	0				.06	0				.30	0	
19	0				.05	0				.15	0	
20	0				.04	0				0	0	
21	0				.03	0				0	0	
22	0				0	0				0	0	
23	0				0	0				0	0	
24	0				0	0				0	0	
25	0				0	0				0	0	
26	0				.37	0				0	0	
27	0				.24	0				0	0	
28	0				.26	0				0	0	
29	0				---	0				0	0	
30	0				---	0				0	0	
31	0	---			---	0	---		---	0	---	
TOTAL	.45	0	0	0	2.37	7.41	0	0	0	0	79.40	20.18
MEAN	.015	0	0	0	.085	.24	0	0	0	0	2.56	.67
MAX	.45	0	0	0	.56	5.0	0	0	0	0	45	10
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.9	0	0	0	4.7	15	0	0	0	0	157	40
CAL YR 1980	TOTAL	3343.57	MEAN 9.14	MAX 1600	MIN 0	AC-FT 6630						
WTR YR 1981	TOTAL	109.81	MEAN .30	MAX 45	MIN 0	AC-FT 218						

## 10256000 WHITEWATER RIVER AT WHITE WATER, CA

LOCATION.--Lat 33°56'48", long 116°38'24", in NW¼NW¼NE¼ sec.2, T.3 S., R.3 E., Riverside County, Hydrologic Unit 18100200, on right bank 1.5 mi (2.4 km) north of White Water, and 3.5 mi (5.6 km) upstream from San Geronio River.  
DRAINAGE AREA.--57.5 mi<sup>2</sup> (148.9 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1948 to September 1981 (discontinued).

GAGE.--Water-stage recorder on river; water-stage recorder and Cipolletti weir on diversion 500 ft (152 m) downstream. Datum of river gage is 1,610 ft (491 m) National Geodetic Vertical Datum of 1929. Feb. 24, 1950, to Sept. 30, 1952, and Apr. 13, 1960, to June 19, 1968, supplementary gages at different sites and datums within 200 ft (61 m) of base gage. Since Aug. 12, 1969, supplementary gage at site 1.5 mi (2.4 km) downstream at different datum.

REMARKS.--Indefinite stage-discharge relation entire year. No regulation above station. Water is diverted out of basin about 15 mi (24 km) upstream to powerplants in San Geronio River basin and then to an area north of Banning for irrigation. One small diversion for domestic use and one for irrigation are made 2 to 3 mi (3.2 to 4.8 km) upstream. White Water Mutual Water Company diverts 500 ft (150 m) downstream. Coachella Valley Water District imported water is released to channel 0.9 mi (1.4 km) downstream. Discharge measurements for the 1980 water year are given in table below.

AVERAGE DISCHARGE.--River only: 31 years (water years 1949-79) 17.4 ft<sup>3</sup>/s (0.493 m<sup>3</sup>/s), 12,610 acre-ft/yr (15.5 hm<sup>3</sup>/yr).

Combined river and infiltration line: 30 years (water years 1950-79), 18.8 ft<sup>3</sup>/s (0.532 m<sup>3</sup>/s), 13,620 acre-ft/yr (16.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 24,000 ft<sup>3</sup>/s (680 m<sup>3</sup>/s) Nov. 22, 1965, gage height, 13.60 ft (4.145 m), from rating curve extended above 660 ft<sup>3</sup>/s (18.7 m<sup>3</sup>/s) on basis of field estimate of maximum flow; no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--River only: Maximum discharge, 42,000 ft<sup>3</sup>/s (1,190 m<sup>3</sup>/s) Mar. 2, 1938, by slope-area measurement of peak flow, at site 2.5 mi (4.0 km) upstream, drainage area, 51.4 mi<sup>2</sup> (133 km<sup>2</sup>).

## DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	
Oct. 14	1245	75	2.12	May 7	1515	112	3.17
Nov. 18	1030	115	3.26	June 19	1445	97	2.75
Dec. 2	1530	135	3.82	July 31	1130	4.2	0.12
Jan. 6	1415	113	3.20	Aug. 13	1200	3.9	0.11
Feb. 2	1245	133	3.77	Aug. 21	1315	5.9	0.17
Mar. 13	1115	113	3.20	Sept. 4	1200	4.0	0.11
Apr. 10	1045	26	0.74	Sept. 9	1815	11	0.31

NOTE.--Discharge measurements were made at old Highway 60 bridge 1.5 mi (2.4 km) downstream and include imported water.

## SALTON SEA BASIN

10256000 WHITEWATER RIVER AT WHITE WATER, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES: Water years 1967 to current year.

COOPERATION.--Chemical-quality records were furnished by California Department of Water Resources.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SPECIFIC COND MICROMHO	PH FIELD (UNITS)	TEMP WATER (DEG C)	TURB- IDITY (NTU)	OXYGEN DISS (MG/L)	HARDNESS (MG/L AS CaCO3)	CALCIUM CA,DISS (MG/L)	MAGNESIUM MG,DISS (MG/L)	SODIUM NA,DISS (MG/L)	POTASSIUM K,DISS (MG/L)
80/12/15	12 20	270	8.2	15.0	0.0	9.7	150	44	10	11	3.7
81/03/16	12 35	275	8.4	18.0	1.0	8.9	150	43	11	13	4.0
81/05/14	08 35	270	8.7	22.0		8.1					
81/06/11	13 55	260	8.9	26.0	0.0	7.4	150	42	12	13	4.2
81/09/22	14 10	290	8.9	24.0	0.0	7.8	150	41	11	13	4.3

DATE	TIME	ALKA- LITY (MG/L)	SULFATE SO4-DISS (MG/L)	CHLORIDE CL DISS (MG/L)	FLUORIDE F,DISS (MG/L)	ROE DISS 180 C (MG/L)	NITRATE DISS-N (MG/L)	BORON B,DISS (UG/L)
80/12/15	12 20	150	25	3	0.9	193	0.80	0
81/03/16	12 35	150	25	2	0.9	200	1.10	0
81/05/14	08 35							
81/06/11	13 55	150	27	2	0.9	219	2.00	0
81/09/22	14 10	140	29	6	1.0	195	1.50	0

DATE	TIME	ARSENIC AS,DISS (UG/L)	CADMIUM CD,DISS (UG/L)	COPPER CU,DISS (UG/L)	IRON FE,DISS (UG/L)	LEAD PB,DISS (UG/L)	MERCURY HG,TOTAL (UG/L)	ZINC ZN,DISS (UG/L)
81/05/14	08 35	0	0	0	20	0	0.0	0



## SALTON SEA BASIN

69

10256300 SAN GORGONIO RIVER AT BANNING, CA

LOCATION.--Lat 33°55'52", long 116°49'37", in NW¼NE¼ sec.12, T.3 S., R.1 E., Riverside County on left bank 1.7 mi (1.04 km) east of Banning.

DRAINAGE AREA.--44.2 mi<sup>2</sup> (114.5 km<sup>2</sup>).

PERIOD OF RECORD.--February 1981 to September 1981.

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (853 m) from topographic map.

REMARKS.--Records poor. No regulation above station. Some pumping upstream for irrigation. Discharge measurements for 1980 water year published for station 10256200 during the period Jan. 30 to Sept. 24 were made at station 10256300.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s) Mar. 26, gage height, 1.68 ft (0.512 m); no flow June 28, 30, July 1 to Sept. 30. Discharge measurements made during the year prior to period of daily discharge are given in table below:

## DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)
Oct. 6	1500	4.8 0.136	Dec. 2	1315	4.3 0.122
Oct. 14	1045	5.8 0.164	Dec. 17	1345	4.8 0.136
Nov. 6	1330	3.6 0.102	Jan. 16	1330	4.6 0.130
Nov. 18	1145	5.2 0.147	Jan. 28	1030	7.0 0.198

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	12	6.1	2.0	1.1			
2					0	13	8.7	2.1	1.2			
3					0	11	9.0	2.6	1.1			
4					7.1	9.8	7.5	2.7	.68			
5					7.4	12	5.7	2.7	.51			
6					7.5	11	4.5	2.9	.35			
7					6.9	9.2	4.1	2.6	.40			
8					7.3	9.0	4.8	2.4	.40			
9					9.1	8.3	4.0	2.1	.35			
10					6.3	7.7	3.7	1.4	.30			
11					6.9	7.1	3.8	.72	.27			
12					6.7	6.9	3.4	.57	.34			
13					6.4	7.9	3.1	.60	.32			
14					6.0	5.8	2.9	.67	.34			
15					5.4	3.9	2.8	1.6	.39			
16					5.2	3.3	2.5	2.0	.24			
17					4.6	3.4	2.1	1.4	.10			
18					4.3	3.3	4.9	1.2	.06			
19					3.8	4.0	7.9	1.8	.05			
20					4.0	5.9	7.5	2.3	.05			
21					4.7	4.7	7.1	1.6	.06			
22					4.3	3.6	6.4	1.3	.09			
23					3.8	3.3	4.6	.90	.10			
24					3.8	3.0	3.4	.61	.10			
25					4.1	2.8	3.3	.66	.08			
26					4.4	8.5	3.9	.34	.02			
27					3.8	15	3.6	.64	.01			
28					3.9	9.0	3.2	.60	0			
29					---	8.6	2.4	1.7	.01			
30					---	8.3	1.9	2.3	0			
31		---			---	6.8	---	1.7	---			---
TOTAL	0	0	0	0	137.7	228.1	138.8	48.71	9.02	0	0	0
MEAN	0	0	0	0	4.92	7.36	4.63	1.57	.30	0	0	0
MAX	0	0	0	0	9.1	15	9.0	2.9	1.2	0	0	0
MIN	0	0	0	0	0	2.8	1.9	.34	0	0	0	0
AC-FT	0	0	0	0	273	452	275	.97	18	0	0	0

WTR YR 1981 TOTAL 562.33 MEAN 1.54 MAX 15 MIN 0 AC-FT 1120

## SALTON SEA BASIN

10256400 SAN GORGONIO RIVER NEAR WHITE WATER, CA

LOCATION.--Lat 33°55'14", long 116°41'45", in NW¼SE¼SW¼ sec.8, T.3 S., R.3 E., Riverside County, Hydrologic Unit 18100200, on right bank 0.2 mi (0.3 km) south of Interstate Highway 10, and 3.4 mi (5.5 km) west of town of White Water.

DRAINAGE AREA.--154 mi<sup>2</sup> (399 km<sup>2</sup>).

PERIOD OF RECORD.--February 1966 to September 1978, October 1979 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 1,320 ft (402 m), from topographic map. Prior to Mar. 19, 1968, flood-hydrograph recorder.

REMARKS.--No flow since 1980 water year. No regulation or diversion above station.

AVERAGE DISCHARGE.--13 years (water years 1967-78, 1981), 1.20 ft<sup>3</sup>/s (0.034 m<sup>3</sup>/s), 869 acre-ft/yr (1.07 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,250 ft<sup>3</sup>/s (205 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 6.0 ft (1.83 m), from floodmarks, on basis of slope-area measurement of maximum flow, may have been exceeded in 1980 water year; no flow most of each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 23, 1965, reached a stage of 6.10 ft (1.859 m), from floodmarks, discharge, 4,500 ft<sup>3</sup>/s (127 m<sup>3</sup>/s), on basis of slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Discharge figures for the 1980 calendar year are unknown; minimum daily, no flow.

## SALTON SEA BASIN

71

10256500 SNOW CREEK NEAR WHITE WATER, CA

LOCATION.--Lat 33°52'14", long 116°40'49", in SE¼NW¼NW¼ sec.33, T.3 S., R.3 E., Riverside County, Hydrologic Unit 18100200, on left bank 300 ft (90 m) upstream from Southern Pacific Railroad diversion dam, 300 ft (90 m) downstream from East Fork, 2.5 mi (4.0 km) upstream from mouth, and 4.4 mi (7.1 km) southwest of White Water.

DRAINAGE AREA.--10.8 mi<sup>2</sup> (28.0 km<sup>2</sup>).

PERIOD OF RECORD.--July to December 1921, May 1922 to February 1927, December 1927 to September 1931, October 1959 to current year. Yearly discharge only for 1930, published in WSP 1314.

GAGE.--Water-stage recorder on creek; water-stage recorder and Parshall flume on diversion. Altitude of both gages is 2,000 ft (610 m), from topographic map. Prior to September 1931, at various sites within 500 ft (150 m) of present site at different datums. September 1931 to Oct. 6, 1970, at site 190 ft (58 m) downstream at datum 15.9 ft (4.85 m) lower. Oct. 6, 1970 to Oct. 25, 1978, at site 280 ft (85.3 m) upstream above diversion at same datum. Gage moved to present site 10 ft (3.05 m) downstream of diversion to concrete control Oct. 25, 1978.

REMARKS.--Records fair. No regulation above station. Palm Springs Water Co. diverts 10 ft. (3.05 m) upstream, generally taking most of the base flow. Total flow is computed by combining discharge records for the diversion and the creek. Discharge records for Snow Creek diversion beginning October 1978 available in the files of the Geological Survey.

AVERAGE DISCHARGE.--Combined creek and diversion: 29 years (water years 1923-26, 1929-31, 1960-81), 9.52 ft<sup>3</sup>/s (0.269 m<sup>3</sup>/s), 6,900 acre-ft/yr (8.51 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft<sup>3</sup>/s (368 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 13.8 ft (4.21 m), from floodmarks, site and datum then in use, from rating curve extended above 55 ft<sup>3</sup>/s (1.56 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum daily, 2.1 ft<sup>3</sup>/s (0.059 m<sup>3</sup>/s) June 23-27, Sept. 5-11, 1961.

EXTREMES FOR CURRENT YEAR.--Combined creek and diversion: Peak discharges above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) on basis of study of flow over broad-crested weir:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Feb. 9	0645	*132	3.74	2.89	0.881
May 27	1115	71	2.01	2.55	0.777

Minimum daily discharge, 4.0 ft<sup>3</sup>/s (0.113 m<sup>3</sup>/s) Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	7.1	7.4	6.7	7.1	11	9.4	11	7.7	5.1	4.4	4.5
2	7.9	7.0	7.7	6.7	7.0	10	9.6	12	7.7	5.1	4.4	4.5
3	8.0	7.0	6.2	6.7	7.2	8.2	9.2	11	7.4	5.1	4.3	4.5
4	7.8	7.0	19	6.6	7.1	7.9	8.7	10	7.1	5.0	4.4	4.4
5	7.5	7.0	15	6.6	6.7	12	8.2	9.5	7.0	5.1	4.4	4.5
6	7.5	7.0	8.8	6.4	6.3	10	8.2	9.4	7.1	5.1	4.4	4.9
7	7.3	7.0	7.3	6.5	6.3	8.9	8.2	9.0	6.9	5.1	4.4	4.3
8	7.2	7.0	6.7	6.4	6.9	8.8	8.2	8.7	6.7	5.1	4.4	4.0
9	6.9	6.9	6.5	6.4	52	9.0	8.2	8.6	6.4	5.1	4.4	4.7
10	7.0	6.9	6.5	6.3	15	8.7	9.0	8.3	6.5	5.0	4.4	5.0
11	7.0	6.3	6.8	7.4	9.7	8.4	9.4	8.3	6.3	5.0	4.4	4.9
12	7.0	6.8	6.7	9.3	8.3	8.4	9.4	8.3	6.1	5.0	4.5	4.7
13	7.0	7.2	6.8	7.9	7.9	7.7	9.4	8.3	5.8	4.9	4.6	4.7
14	6.8	7.3	6.7	7.0	7.3	7.7	9.4	8.2	5.8	4.9	4.6	4.7
15	7.3	7.0	6.7	6.6	7.8	8.2	9.4	7.9	5.6	5.2	4.5	4.7
16	7.5	6.7	7.4	6.5	7.8	7.7	9.4	7.9	5.5	5.1	4.4	4.7
17	6.9	6.7	7.7	6.5	7.3	7.6	9.8	7.9	5.4	4.9	4.4	4.6
18	7.3	6.7	7.9	6.3	7.3	7.6	10	7.9	5.4	4.8	4.6	4.6
19	7.0	6.7	7.7	6.5	7.3	8.9	11	7.9	5.4	4.8	4.5	4.7
20	6.9	6.7	6.8	6.7	7.3	21	9.6	7.9	5.4	4.7	4.4	4.6
21	7.1	6.7	6.8	6.4	7.3	12	9.3	7.8	5.5	4.6	4.4	4.6
22	7.3	6.7	6.6	5.8	7.3	10	8.9	7.9	5.4	4.6	4.4	4.6
23	7.1	6.7	6.6	5.5	7.3	10	9.3	7.9	5.4	4.5	4.4	4.7
24	7.1	7.2	6.7	5.8	7.3	10	10	7.9	5.4	4.5	4.4	4.7
25	7.0	6.7	6.7	5.9	7.3	9.7	10	7.9	5.3	4.5	4.3	4.6
26	6.6	7.2	6.7	5.9	7.3	11	10	7.9	5.3	4.6	4.7	4.6
27	7.0	7.4	6.6	5.9	7.8	11	10	9.2	5.4	4.5	4.7	4.6
28	7.2	7.4	6.5	7.8	6.8	10	9.8	8.3	5.3	4.5	4.6	4.6
29	7.3	7.4	6.4	9.4	---	9.5	9.8	8.2	5.2	4.5	4.5	4.6
30	7.3	7.4	6.5	9.3	---	9.4	10	8.3	5.1	4.5	4.4	4.2
31	7.3	---	6.7	7.3	---	9.4	---	8.0	---	4.5	4.5	---
TOTAL	224.0	208.8	235.1	211.0	258.0	299.7	280.8	267.3	180.5	149.9	138.1	138.0
MEAN	7.23	6.96	7.58	6.81	9.21	9.67	9.36	8.62	6.02	4.84	4.45	4.60
MAX	8.0	7.4	19	9.4	52	21	11	12	7.7	5.2	4.7	5.0
MIN	6.6	6.3	6.2	5.5	6.3	7.6	8.2	7.8	5.1	4.5	4.3	4.0
AC-FT	444	414	466	419	512	594	557	530	358	297	274	274
CAL YR 1980 TOTAL	11946.4			MEAN 32.6	MAX 537	MIN 6.0	AC-FT 23700					
WTR YR 1981 TOTAL	2591.2			MEAN 7.10	MAX 52	MIN 4.0	AC-FT 5140					

## 10257600 MISSION CREEK NEAR DESERT HOT SPRINGS, CA

LOCATION.--Lat 34°00'40", long 116°37'38", in NE¼SW¼ sec.12, T.2 S., R.3 E., Riverside County, Hydrologic Unit 18100200, in Mission Creek Indian Reservation, 0.6 mi (1.0 km) downstream from West Fork, and 6.8 mi (10.9 km) northwest of Desert Hot Springs.

DRAINAGE AREA.--35.7 mi<sup>2</sup> (92.5 km<sup>2</sup>).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,400 ft (732 m), from topographic map.

REMARKS.--Records good. Slight regulation of low flow by two small dams with a combined capacity of about 3 acre-ft (3,700 m<sup>3</sup>), 2 mi (3 km) above station.

AVERAGE DISCHARGE.--14 years, 4.46 ft<sup>3</sup>/s (0.126 m<sup>3</sup>/s), 3,230 acre-ft/yr (3.98 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,660 ft<sup>3</sup>/s (47.0 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 6.40 ft (1.951 m) on basis of slope-area measurement of maximum flow; no flow for long periods in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.9 ft<sup>3</sup>/s (0.25 m<sup>3</sup>/s) Mar. 5, gage height, 0.60 ft (0.183 m), no peak above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s); minimum daily, 0.71 ft<sup>3</sup>/s (0.020 m<sup>3</sup>/s) July 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.6	3.9	3.9	4.4	5.4	4.1	3.1	2.4	1.3	.89	1.1
2	2.9	3.6	3.9	3.9	4.4	5.4	4.1	3.1	2.4	1.1	.89	1.1
3	3.1	3.6	3.9	3.9	4.1	5.0	4.1	3.1	2.4	1.1	.89	1.1
4	3.1	3.6	4.4	3.9	4.1	4.7	4.1	3.1	2.2	1.1	.89	1.1
5	2.9	3.6	4.4	3.9	4.1	7.0	4.1	3.1	2.2	.89	1.1	1.1
6	3.1	3.6	4.4	3.9	4.1	6.4	3.9	3.1	2.2	.89	.89	1.3
7	3.3	3.6	4.4	3.9	4.1	5.7	3.9	3.1	2.0	.89	.89	1.3
8	2.6	3.6	4.4	3.9	4.4	5.4	3.9	3.1	2.0	.89	.89	1.3
9	2.6	3.6	4.4	3.9	5.0	4.7	3.9	3.1	2.0	.89	.89	1.3
10	2.9	3.9	4.4	3.9	4.7	4.7	3.9	3.1	2.2	.71	.89	1.1
11	2.9	3.9	4.1	4.4	4.4	4.7	3.6	3.1	2.2	.89	.89	1.1
12	3.1	3.9	4.1	5.4	4.4	4.7	3.6	3.1	2.2	1.3	.89	.89
13	3.1	3.9	4.1	5.0	4.1	4.7	3.6	3.1	2.2	1.1	1.1	.89
14	3.9	3.9	4.1	4.4	3.9	5.0	3.6	3.1	2.2	1.1	1.6	.89
15	4.4	3.9	4.1	4.4	3.9	4.7	3.3	3.3	2.2	1.3	2.4	.89
16	3.9	3.9	3.9	4.4	3.9	4.7	3.3	3.3	2.0	1.1	2.0	.89
17	3.6	3.9	3.9	4.4	3.9	4.7	3.3	3.1	1.7	1.1	1.7	.89
18	3.3	4.5	3.9	4.1	3.9	4.7	3.6	3.1	1.7	1.1	1.7	.89
19	3.3	4.7	3.9	4.1	3.9	5.0	3.9	3.3	1.7	1.1	1.6	.89
20	3.3	4.4	3.9	4.1	3.9	5.0	3.9	3.3	1.6	1.1	1.3	.89
21	3.3	4.4	3.9	4.1	3.6	4.7	3.6	3.5	1.6	.89	1.3	.89
22	3.3	4.1	3.9	4.1	3.6	4.4	3.6	3.3	1.6	.89	1.3	.89
23	3.3	3.9	3.9	4.1	3.6	4.4	3.6	3.1	1.6	.89	1.3	.89
24	3.9	3.9	4.1	4.1	3.6	4.1	3.6	2.6	1.6	.89	1.1	1.1
25	3.9	3.9	4.1	4.1	3.9	4.1	3.6	2.4	1.6	.89	1.1	1.1
26	3.9	4.1	4.1	4.1	4.4	4.7	3.6	2.6	1.6	.89	1.1	.89
27	3.9	4.1	3.9	4.1	3.9	4.7	3.6	3.3	1.6	.89	1.1	.89
28	3.9	4.1	3.9	4.7	4.1	4.4	3.3	3.6	1.6	.89	1.1	.89
29	3.9	4.1	3.9	5.4	---	4.1	3.3	2.6	1.3	.89	1.1	.89
30	3.6	3.9	3.9	5.4	---	4.1	3.1	2.4	1.3	.89	1.1	1.1
31	3.6	---	3.9	5.0	---	3.9	---	2.4	---	.89	1.1	---
TOTAL	104.7	117.7	126.0	132.9	114.3	149.9	110.6	94.6	57.1	30.74	36.99	30.44
MEAN	3.38	3.92	4.06	4.29	4.08	4.84	3.69	3.05	1.90	.99	1.19	1.01
MAX	4.4	4.7	4.4	5.4	5.0	7.0	4.1	3.6	2.4	1.3	2.4	1.3
MIN	2.6	3.6	3.9	3.9	3.6	3.9	3.1	2.4	1.3	.71	.89	.89
AC-FT	208	233	250	264	227	297	219	188	113	61	73	60
CAL YR 1980 TOTAL	10463.50			MEAN 28.6	MAX	54.0	MIN 1.7	AC-FT 20750				
WTR YR 1981 TOTAL	1105.97			MEAN 3.03	MAX	7.0	MIN .71	AC-FT 2190				

## 10257710 CHINO CANYON CREEK NEAR PALM SPRINGS, CA

LOCATION.--Lat 33°50'21", long 116°36'45", in SW¼SW¼NW¼ sec.7, T.4 S., R.4 E., Riverside County, Hydrologic Unit 18100200, on left bank 800 ft (240 m) downstream from tram building, 3.7 mi (6.0 km) west of Highway 111 on road leading to Palm Springs aerial tramway and 5.5 mi (8.8 km) west of Palm Springs.

DRAINAGE AREA.--3.88 mi<sup>2</sup> (10.05 km<sup>2</sup>).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,500 ft (762 m), from topographic map.

REMARKS.--Records fair. Two diversions for the city of Palm Springs 0.5 mi (0.8 km) upstream.

AVERAGE DISCHARGE.--7 years, 0.89 ft<sup>3</sup>/s (0.025 m<sup>3</sup>/s), 648 acre-ft/yr (799,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 247 ft<sup>3</sup>/s (7.00 m<sup>3</sup>/s) Aug. 15, 1977, gage height, 5.93 ft (1.807 m), from floodmark, from rating curve extended above 61 ft<sup>3</sup>/s (1.73 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17 ft<sup>3</sup>/s (0.48 m<sup>3</sup>/s) Sept. 7 (1615 hrs), gage height, 4.39 ft (1.338 m), no other peak above base of 10.0 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.17	.07	.11	.57	.65						0
2	.04	.17	.07	.17	.44	.78						0
3	.04	.11	.04	.17	.23	.65						0
4	.07	.09	.33	.11	.22	.54						0
5	.07	.09	1.4	.11	.24	1.0						0
6	.04	.09	1.0	.11	.24	1.5						0
7	.04	.09	.50	.11	.24	1.2						1.2
8	.04	.09	.30	.11	.24	.78						1.5
9	.04	.09	.27	.11	.78	.54						1.2
10	.04	.07	.24	.12	.54	.54						.98
11	.04	.07	.24	.38	.54	.54						.37
12	.04	.17	.17	.44	.54	.54						.09
13	.07	.17	.11	.28	.54	.54						0
14	.08	.11	.11	.24	.44	.54						0
15	.54	.17	.11	.20	.33	.54						0
16	.44	.33	.11	.26	.33	.54						0
17	.17	.11	.09	.26	.17	.51						0
18	.11	.11	.09	.25	.17	.44						0
19	.09	.09	.09	.20	.17	.44						0
20	.04	.09	.07	.16	.11	0						0
21	.07	.07	.07	.14	.11	0						0
22	.07	.07	.07	.15	.11	0						0
23	.07	.09	.07	.20	.11	0						0
24	.07	.09	.07	.25	.07	0						0
25	.07	.11	.07	.26	.07	0						0
26	.44	.09	.07	.25	.17	0						0
27	.65	.11	.07	.19	.11	0						0
28	.24	.07	.07	.30	.09	0						0
29	.17	.07	.04	.37	---	0						0
30	.17	.07	.04	.44	---	0						0
31	.24	---	.07	.53	---	0	---		---			---
TOTAL	4.34	3.32	6.12	6.98	7.92	12.81	0	0	0	0	0	5.34
MEAN	.14	.11	.20	.23	.28	.41	0	0	0	0	0	.18
MAX	.65	.33	1.4	.53	.78	1.5	0	0	0	0	0	1.5
MIN	.04	.07	.04	.11	.07	0	0	0	0	0	0	0
AC-FT	8.6	6.6	12	14	16	25	0	0	0	0	0	11
CAL YR 1980	TOTAL	1390.22	MEAN	3.80	MAX	.66	MIN	.03	AC-FT	2760		
WTR YR 1981	TOTAL	46.83	MEAN	.13	MAX	1.5	MIN	0	AC-FT	93		

## 10258000 TAHQUITZ CREEK NEAR PALM SPRINGS, CA

LOCATION.--Lat 33°48'18", long 116°33'30", in NE¼SW¼ sec.22, T.4 S., R.4 E., Riverside County, Hydrologic Unit 18100200, 2.2 mi (3.5 km) southwest of Palm Springs, and 7 mi (11 km) upstream from mouth.

DRAINAGE AREA.--16.8 mi<sup>2</sup> (43.5 km<sup>2</sup>).

PERIOD OF RECORD.--October 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 762.5 ft (232.41 m) National Geodetic Vertical Datum of 1929 (levels by Riverside County Flood Control District). Prior to Aug, 25, 1970, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--34 years, 5.18 ft<sup>3</sup>/s (0.147 m<sup>3</sup>/s), 3,750 acre-ft/yr (4.62 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,900 ft<sup>3</sup>/s (82.1 m<sup>3</sup>/s) Nov. 22, 1965, Jan. 25, 1969, gage height, 12.34 ft (3.761 m), from rating curve extended above 70 ft<sup>3</sup>/s (1.98 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 10.45 ft (3.185 m) and 12.34 ft (3.761 m); maximum gage height, 15.78 ft (4.810 m) Sept. 7, 1981, from debris wave produced by thunderstorm following a brushfire, no flow for parts of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,620 ft<sup>3</sup>/s (45.9 m<sup>3</sup>/s), Sept. 7, gage height, 15.78 ft (4.810 m), from slope-area measurement, no other peak above base of 85 ft<sup>3</sup>/s (2.41 m<sup>3</sup>/s); minimum daily, 0.30 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	2.3	2.0	2.3	3.1	6.2	4.4	6.9	2.8	.86	.46	.31
2	2.2	2.2	2.0	2.3	3.0	4.8	4.7	8.1	2.8	.83	.38	.31
3	2.2	2.2	2.0	2.3	3.6	4.1	4.1	8.6	2.6	.80	.38	.50
4	2.2	2.1	3.3	2.3	4.0	3.9	3.9	6.2	2.5	.76	.41	.45
5	2.1	2.1	6.5	2.3	4.1	6.3	3.7	6.0	2.4	.74	.41	.40
6	2.1	2.1	3.8	2.4	4.0	4.8	4.1	5.7	2.3	.72	.42	.35
7	2.1	2.1	3.0	2.4	3.7	4.1	4.7	5.5	2.2	.70	.40	100
8	2.1	2.1	2.8	2.3	3.6	3.9	4.7	5.4	2.0	.68	.38	10
9	2.1	2.0	2.6	2.3	3.6	3.7	5.5	5.0	2.0	.66	.39	2.5
10	2.1	2.0	2.6	2.3	3.7	3.6	6.8	4.8	1.9	.64	.40	2.1
11	2.0	2.0	2.5	3.3	3.6	3.6	6.6	4.6	1.9	.62	.40	1.9
12	2.1	2.1	2.5	5.7	3.5	3.6	6.2	4.5	1.9	.60	.41	1.7
13	2.1	2.1	2.4	5.3	3.5	3.6	6.0	4.3	1.8	.59	.43	1.5
14	2.1	2.2	2.4	3.8	3.5	3.5	5.7	4.1	1.7	.57	.47	1.4
15	2.4	2.1	2.4	3.3	3.5	3.4	6.2	4.1	1.6	.56	.51	1.3
16	2.8	2.1	2.4	3.0	3.5	3.2	6.7	4.0	1.6	.53	.46	1.3
17	2.8	2.1	2.4	2.9	3.5	3.5	7.3	3.9	1.5	.51	.40	1.3
18	2.7	2.1	2.4	2.8	3.5	3.5	7.5	3.7	1.4	.50	.37	1.3
19	2.7	2.1	2.4	2.7	3.5	3.9	6.8	3.7	1.3	.46	.39	1.3
20	2.6	2.2	2.4	2.7	3.5	4.8	6.0	3.8	1.2	.45	.39	1.2
21	2.6	2.2	2.4	2.6	3.5	3.6	5.5	3.9	1.2	.44	.34	1.2
22	2.5	2.2	2.4	2.5	3.5	3.4	5.6	3.6	1.1	.39	.31	1.2
23	2.5	2.2	2.4	2.5	3.5	3.5	6.3	3.5	1.1	.37	.31	1.2
24	2.4	2.2	2.4	2.5	3.5	3.7	7.2	3.4	1.0	.36	.33	1.2
25	2.4	2.2	2.4	2.6	3.5	4.0	7.0	3.3	.98	.38	.33	1.1
26	2.4	2.1	2.3	2.8	5.4	4.9	7.0	3.2	.91	.41	.33	1.0
27	2.4	2.1	2.3	3.1	3.7	4.3	6.3	3.7	.95	.40	.35	.91
28	2.4	2.1	2.3	3.4	3.5	4.1	5.7	4.4	.94	.36	.31	.89
29	2.4	2.0	2.3	3.5	---	3.9	6.3	3.8	.91	.36	.31	.80
30	2.3	2.0	2.3	3.7	---	4.4	6.7	3.3	.88	.37	.31	.72
31	2.3	---	2.3	3.0	---	4.3	---	3.0	---	.40	.30	---
TOTAL	72.4	63.6	80.6	90.9	101.6	126.1	175.2	142.0	49.37	17.02	11.79	141.34
MEAN	2.34	2.12	2.60	2.93	3.63	4.07	5.84	4.58	1.65	.55	.38	4.71
MAX	2.8	2.3	6.5	5.7	5.4	6.3	7.5	8.6	2.8	.86	.51	100
MIN	2.0	2.0	2.0	2.3	3.0	3.2	3.7	3.0	.88	.36	.30	.31
AC-FT	144	126	160	180	202	250	348	282	98	34	23	280
CAL YR 1980 TOTAL	12050.70			MEAN 32.9		MAX 480	MIN 1.9	AC-FT 23900				
WTR YR 1981 TOTAL	1071.92			MEAN 2.94		MAX 100	MIN .30	AC-FT 2130				

## SALTON SEA BASIN

75

10258500 PALM CANYON CREEK NEAR PALM SPRINGS, CA

LOCATION.--Lat 33°44'42", long 116°32'05", in NE¼SW¼SE¼ sec.11, T.5 S., R.4 E., Riverside County, Hydrologic Unit 18100200, on right bank 0.8 mi (1.3 km) upstream from Murray Canyon Creek, and 6 mi (10 km) south of Palm Springs.

DRAINAGE AREA.--93.3 mi<sup>2</sup> (241.6 km<sup>2</sup>).

PERIOD OF RECORD.--January 1930 to January 1942, October 1947 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 700 ft (213 m), from topographic map. Prior to Jan. 14, 1942, at datum 0.2 ft (0.06 m) higher.

REMARKS.--Records poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--45 years (water years 1931-41, 1948-81), 4.69 ft<sup>3</sup>/s (0.133 m<sup>3</sup>/s), 3,400 acre-ft/yr (4.19 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,000 ft<sup>3</sup>/s (198 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 7.29 ft (2.222 m), from rating curve extended above 650 ft<sup>3</sup>/s (18.4 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 6.38 ft (1.945 m); no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 59 ft<sup>3</sup>/s (1.67 m<sup>3</sup>/s) Feb. 9, gage height, 2.47 ft (0.753 m), no peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); minimum daily, no flow for many days June through September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.6	2.9	3.0	4.3	25	4.1	2.4	1.9	0	0	0
2	3.0	2.6	2.9	3.0	4.0	27	4.0	2.4	1.9	0	0	0
3	3.0	2.4	2.9	3.0	3.7	19	3.9	2.1	1.7	.24	0	0
4	3.0	2.6	9.0	3.0	3.7	15	3.9	2.1	1.5	0	0	.02
5	3.0	2.6	7.7	3.0	3.3	20	3.8	1.9	1.3	0	0	1.0
6	2.8	2.4	5.8	3.0	3.3	15	3.8	1.9	1.3	0	0	.72
7	2.8	2.6	5.0	3.0	3.0	12	3.8	1.7	1.3	0	0	3.6
8	2.8	2.6	4.0	3.0	3.3	8.0	3.8	1.9	.93	0	0	1.5
9	2.8	2.9	3.5	3.0	29	6.4	3.8	1.9	.38	0	0	1.3
10	3.2	2.9	3.2	3.0	18	6.0	3.8	1.9	.77	0	0	1.0
11	3.2	2.9	3.2	4.0	11	5.6	3.8	1.9	1.2	0	0	1.0
12	2.9	2.9	3.2	5.0	7.0	5.6	3.5	1.9	1.2	.35	0	1.0
13	2.9	2.9	3.5	4.6	6.4	5.6	3.5	1.7	.84	.32	0	.85
14	2.9	2.9	3.2	4.0	6.2	5.6	3.5	1.5	.55	.17	0	.72
15	3.2	2.9	3.5	3.7	6.0	5.6	3.2	1.7	.48	.35	.28	.72
16	3.2	2.9	3.3	3.3	5.8	5.6	3.2	1.7	.48	.38	.08	.72
17	2.9	2.9	3.0	3.3	5.6	5.6	3.2	1.7	0	.13	0	.72
18	2.9	2.9	3.0	3.3	5.6	5.2	3.2	1.7	0	0	0	.72
19	2.9	2.9	3.0	3.3	5.6	5.9	3.5	1.7	0	0	0	.60
20	2.9	2.9	3.0	3.3	5.6	12	3.5	1.7	0	0	0	.60
21	2.9	2.9	3.0	3.3	5.6	9.0	3.5	1.7	0	0	0	.60
22	2.6	2.9	3.3	3.3	5.6	7.0	3.2	1.7	0	0	0	.60
23	2.6	2.9	3.3	3.3	5.6	5.4	2.9	1.5	0	0	0	.72
24	2.9	2.9	3.3	3.3	5.6	4.8	2.6	1.2	0	0	0	.72
25	2.9	2.9	3.3	3.3	5.6	4.5	2.4	1.0	.05	0	2.0	.72
26	2.9	2.9	3.3	3.3	5.6	5.0	2.4	1.0	.06	0	2.9	.72
27	2.9	2.9	3.3	3.3	5.6	4.5	2.4	2.4	.19	0	.72	.72
28	2.9	2.9	3.0	4.3	5.6	4.4	2.4	3.2	.12	0	.33	.72
29	2.6	2.9	3.0	5.0	---	4.3	2.4	2.4	.16	0	.24	.72
30	2.6	2.9	3.0	6.9	---	4.2	2.4	1.9	.20	0	.11	.72
31	2.6	---	3.0	5.4	---	4.2	---	1.9	---	0	0	---
TOTAL	89.7	84.2	113.6	112.5	185.2	273.0	99.4	57.3	18.51	1.94	6.66	23.75
MEAN	2.89	2.81	3.66	3.63	6.61	8.81	3.31	1.85	.62	.063	.21	.79
MAX	3.2	2.9	9.0	6.9	29	27	4.1	3.2	1.9	.38	2.9	3.6
MIN	2.6	2.4	2.9	3.0	3.0	4.2	2.4	1.0	0	0	0	0
AC-FT	178	167	225	223	367	541	197	114	37	3.8	13	47

CAL YR 1980 TOTAL 17603.10 MEAN 48.1 MAX 2040 MIN .60 AC-FT 34920  
WTR YR 1981 TOTAL 1065.76 MEAN 2.92 MAX 29 MIN 0 AC-FT 2110

## SALTON SEA BASIN

10259000 ANDREAS CREEK NEAR PALM SPRINGS, CA

LOCATION.--Lat 33°45'36", long 116°32'57", in NW¼SE¼SE¼ sec.3, T.5 S., R.4 E., Riverside County, Hydrologic Unit 18100200, on left bank at Bureau of Indian Affairs diversion dam, 1.1 mi (1.8 km) above mouth, and 5.1 mi (8.2 km) south of Palm Springs.

DRAINAGE AREA.--8.61 mi<sup>2</sup> (22.30 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 800 ft (244 m), from topographic map. Prior to Mar. 25, 1949, reference point at same site at different datum.

REMARKS.--Records poor. No regulation above station. One small diversion for domestic use about 1 mi (2 km) above station.

AVERAGE DISCHARGE.--33 years, 2.64 ft<sup>3</sup>/s (0.075 m<sup>3</sup>/s), 1,910 acre-ft/yr (2.36 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,960 ft<sup>3</sup>/s (55.5 m<sup>3</sup>/s) Aug. 31, 1954, gage height, 7.11 ft (2.167 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 of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37 ft<sup>3</sup>/s (1.05 m<sup>3</sup>/s) Feb. 9, and Sept. 7, gage height, 2.25 ft (0.686 m), no peak above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s); minimum daily, 1.6 ft<sup>3</sup>/s (0.045 m<sup>3</sup>/s) Aug. 30-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.0	4.1	3.0	3.0	6.9	3.9	3.1	2.8	2.3	2.1	1.8
2	3.5	3.0	4.2	3.1	2.8	6.2	4.1	3.1	2.8	2.3	2.0	2.2
3	3.6	3.0	4.2	3.1	2.7	5.6	4.0	3.1	2.7	2.3	2.1	2.3
4	3.5	3.0	5.8	3.0	2.6	5.3	3.8	3.1	2.6	2.3	2.1	2.4
5	3.3	3.0	5.3	3.1	2.5	6.2	3.6	3.0	2.6	2.3	2.1	2.6
6	3.3	2.9	4.5	3.0	2.5	5.8	3.6	3.0	2.6	2.3	2.3	2.6
7	3.3	3.0	4.2	2.8	2.4	5.5	3.7	2.9	2.5	2.3	2.2	6.1
8	3.3	2.9	3.9	2.6	2.7	5.3	3.7	2.9	2.5	2.3	2.2	3.1
9	3.6	2.9	3.8	2.5	13	5.1	3.7	2.9	2.5	2.3	2.3	2.2
10	4.0	3.3	3.8	2.6	8.1	5.0	3.7	2.9	2.5	2.2	2.2	2.1
11	4.0	3.7	3.7	3.8	7.0	5.0	3.5	2.8	2.6	2.3	2.1	2.0
12	3.8	3.7	3.7	4.4	6.4	4.8	3.3	2.8	2.6	2.4	2.1	1.9
13	3.9	3.9	3.7	4.0	6.0	4.9	3.2	2.8	2.6	2.3	2.4	1.7
14	3.3	3.9	3.6	3.3	5.5	4.9	3.2	2.8	2.6	2.2	2.7	1.7
15	3.0	3.8	3.4	3.1	5.1	4.6	3.5	2.9	2.6	2.5	2.1	1.8
16	3.0	3.8	3.4	3.0	4.7	4.5	3.5	2.9	2.6	2.3	1.8	1.8
17	2.9	4.0	3.4	2.8	4.6	4.3	3.5	2.9	2.6	2.3	1.8	1.7
18	2.8	4.1	3.4	2.8	4.3	4.3	3.5	2.9	2.5	2.1	1.8	1.9
19	2.6	4.1	3.4	2.8	4.3	4.6	3.8	2.9	2.5	2.1	1.7	1.9
20	2.7	4.0	3.4	2.7	4.1	6.1	3.5	2.9	2.5	2.1	1.7	1.9
21	2.7	4.1	3.4	2.5	3.9	4.5	3.1	2.9	2.5	2.3	1.7	2.1
22	2.7	4.1	3.4	2.5	4.0	4.3	3.0	2.8	2.5	2.3	1.7	2.1
23	2.7	4.2	3.3	2.5	3.9	4.2	3.1	2.8	2.6	2.3	1.8	2.1
24	2.8	4.1	3.4	2.5	3.9	4.1	3.2	2.6	2.6	2.3	1.8	2.1
25	2.9	4.0	3.4	2.5	4.0	3.9	3.0	2.7	2.6	2.4	1.8	2.2
26	3.0	4.1	3.4	2.5	5.7	4.7	3.2	2.8	2.6	2.3	1.8	2.2
27	2.9	4.1	3.3	2.5	4.2	4.9	3.2	3.6	2.6	2.3	1.8	2.2
28	2.8	4.1	3.2	3.4	4.3	4.4	3.1	3.1	2.6	2.2	1.7	2.2
29	3.0	4.2	3.1	3.5	---	4.3	3.1	2.9	2.6	2.1	1.7	2.3
30	3.0	4.1	3.1	4.3	---	4.3	3.2	2.8	2.6	2.2	1.6	2.4
31	3.0	---	3.1	3.5	---	4.2	---	2.8	---	2.1	1.6	---
TOTAL	98.5	110.1	115.0	93.7	128.2	152.7	103.5	90.4	77.6	70.3	60.8	67.6
MEAN	3.18	3.67	3.71	3.02	4.58	4.93	3.45	2.92	2.59	2.27	1.96	2.25
MAX	4.0	4.2	5.8	4.4	13	6.9	4.1	3.6	2.8	2.5	2.7	6.1
MIN	2.6	2.9	3.1	2.5	2.4	3.9	3.0	2.6	2.5	2.1	1.6	1.7
AC-FT	195	218	228	186	254	303	205	179	154	139	121	134
CAL YR 1980	TOTAL	4558.4	MEAN	12.5	MAX	239	MIN	1.7	AC-FT	9040		
WTR YR 1981	TOTAL	1168.4	MEAN	3.20	MAX	13	MIN	1.6	AC-FT	2320		



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LOCATION.--Lat 33°37'52", long 116°23'29", in SE¼NE¼SE¼ sec.19, T.6 S., R.6 E., Riverside County, Hydrologic Unit 18100200, on left bank 500 ft (150 m) downstream from unnamed tributary, and 6.3 mi (10.1 km) south of Palm Desert.

PERIOD OF RECORD.--May 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,440 ft (439 m), from topographic map.

REMARKS.--Records good except for those for period of no gage-height record, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--19 years, 1.87 ft<sup>3</sup>/s (0.053 m<sup>3</sup>/s), 1,350 acre-ft/yr (1.66 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,100 ft<sup>3</sup>/s (201 m<sup>3</sup>/s) Sept. 10, 1976, gage height, 7.84 ft (2.390 m), recorded in gage well, 9.85 ft (3.002 m) from floodmarks, from rating curve extended above 40 ft<sup>3</sup>/s (1.13 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 2.68 ft (0.817 m), 5.15 ft (1.570 m), and 7.84 ft (2.390 m); no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 128 ft<sup>3</sup>/s (3.62 m<sup>3</sup>/s) Sept. 7 (2015 hrs), gage height, 3.32 ft (1.012 m), no other peak above base of 20 ft<sup>3</sup>/s (0.56 m<sup>3</sup>/s); minimum daily, 0.02 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) many days.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	.87	.94	1.0	1.2	5.3	1.5	.58	.12	.04	.03	.02
2	.57	.86	.96	1.0	1.1	5.2	1.5	.57	.12	.04	.03	.02
3	.53	.84	1.0	1.0	1.1	4.0	1.5	.51	.11	.03	.02	.02
4	.57	.82	1.0	1.0	1.1	2.7	1.4	.49	.11	.03	.02	.94
5	.53	.81	1.1	1.0	1.1	2.8	1.3	.50	.10	.03	.02	.07
6	.53	.82	1.2	1.0	1.1	2.9	1.2	.48	.10	.03	.02	.05
7	.53	.83	1.2	1.0	1.1	2.3	1.1	.46	.09	.03	.02	8.3
8	.53	.85	1.1	1.0	1.2	2.1	1.1	.45	.09	.03	.02	2.9
9	.53	.84	1.1	1.0	3.1	1.9	1.1	.41	.08	.03	.02	.22
10	.57	.88	1.1	1.0	2.6	1.7	1.2	.38	.08	.03	.02	.11
11	.61	.91	1.1	1.5	1.8	1.6	1.1	.33	.08	.03	.02	.10
12	.66	.93	1.1	2.1	1.5	1.8	1.1	.32	.07	.03	.02	.08
13	.66	.95	1.1	1.7	1.4	1.7	1.0	.30	.07	.03	.02	.07
14	.66	.95	1.1	1.4	1.3	1.5	.97	.29	.07	.03	.02	.06
15	.76	.95	1.1	1.3	1.2	1.5	.93	.28	.06	.03	.02	.06
16	.84	.97	1.1	1.2	1.2	1.4	.88	.26	.06	.03	.02	.05
17	.90	.99	1.1	1.2	1.2	1.3	.89	.25	.06	.03	.02	.04
18	.92	1.0	1.1	1.2	1.2	1.3	.86	.24	.05	.03	.02	.04
19	.88	1.0	1.1	1.2	1.2	1.3	.96	.23	.05	.03	.02	.04
20	.86	1.0	1.1	1.1	1.2	2.7	1.0	.22	.05	.03	.02	.04
21	.82	1.0	1.1	1.1	1.2	2.2	1.0	.21	.05	.03	.02	.04
22	.82	1.0	1.1	1.1	1.2	1.9	.85	.20	.05	.03	.02	.04
23	.80	1.0	1.1	1.1	1.2	1.7	.79	.19	.05	.03	.02	.04
24	.79	1.0	1.0	1.0	1.2	1.6	.77	.18	.05	.03	.02	.04
25	.78	1.0	1.0	1.1	1.2	1.6	.68	.17	.05	.03	.02	.04
26	.79	1.0	1.0	1.1	1.2	1.9	.79	.16	.05	.03	.02	.04
27	.84	1.0	1.0	1.0	1.1	2.3	.77	.15	.04	.03	.02	.04
28	.88	1.0	1.0	1.4	1.1	1.9	.68	.40	.04	.03	.02	.04
29	.89	.98	.99	1.5	---	---	.60	.14	.04	.03	.02	.04
30	.88	.96	1.0	1.4	---	---	.58	.13	.04	.03	.02	.04
31	.88	---	1.0	1.4	---	---	---	.13	---	.03	.02	---
TOTAL	22.38	28.01	32.99	37.1	37.3	67.2	30.10	9.61	2.08	.95	.64	13.63
MEAN	.72	.93	1.06	1.20	1.33	2.17	1.00	.31	.069	.031	.021	.45
MAX	.92	1.0	1.2	2.1	3.1	5.3	1.5	.58	.12	.04	.03	8.3
MIN	.53	.81	.94	1.0	1.1	1.3	.58	.13	.04	.03	.02	.02
AC-FT	44	56	65	74	74	133	60	19	4.1	1.9	1.3	27
CAL YR 1980	TOTAL	4985.41	MEAN	13.6	MAX	501	MIN	.53	AC-FT	9890		
WTR YR 1981	TOTAL	281.99	MEAN	.77	MAX	8.3	MIN	.02	AC-FT	559		

## SALTON SEA BASIN

10259300 WHITEWATER RIVER AT INDIO, CA

LOCATION.--Lat 33°44'14", long 116°14'07", in SW¼SE¼NE¼ sec.15, T.5 S., R.7 E., Riverside County, Hydrologic Unit 18100200, on right bank of concrete drop-structure, 1000 ft (305 m) upstream from Monroe Street bridge, and 1.7 mi (2.7 km) northwest of Indio.

DRAINAGE AREA.--1,073 mi<sup>2</sup> (2,779 km<sup>2</sup>).

PERIOD OF RECORD.--March 1966 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 0 ft, from topographic map. Prior to October 1979, water-stage recorder at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Records good. No regulation above station. Water diverted from tributary streams for municipal supply in vicinity of Palm Springs. At times water is released at Coachella Canal crossing, 0.8 mi (1.3 km) upstream.

AVERAGE DISCHARGE.--15 years, 4.13 ft<sup>3</sup>/s (0.117 m<sup>3</sup>/s), 2,990 acre-ft/yr (3.69 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) Jan. 25, 1969, gage height, 14.41 ft (4.392 m), site and datum then in use, from rating curve extended above 1,300 ft<sup>3</sup>/s (36.8 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 15.3 ft (4.66 m); no flow all or most of each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 2 or 3, 1938, reached a discharge of 29,000 ft<sup>3</sup>/s (821 m<sup>3</sup>/s), on basis of slope-area measurement at site 5.0 mi (8.0 km) upstream. Flood of November 22, 1965, reached a stage of 15.3 ft (4.66 m) from floodmarks, site and datum then in use, discharge 14,100 ft<sup>3</sup>/s (399 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27 ft<sup>3</sup>/s (0.76 m<sup>3</sup>/s) Nov. 11, gage height, 2.18 ft (0.664 m), no peak above base of 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s); no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

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	0	0							
4		0	0	0	0							
5		0	0	0	0							
6		0	0	0	0							
7		0	0	0	0							
8		0	0	0	0							
9		0	0	0	0							
10		0	0	0	0							
11		1.6	0	0	0							
12		0	0	0	0							
13		0	0	.05	0							
14		0	0	0	0							
15		0	0	0	0							
16		0	0	0	.27							
17		0	0	0	0							
18		0	.10	0	0							
19		0	0	0	0							
20		0	0	0	0							
21		0	0	0	0							
22		0	0	0	0							
23		0	0	0	0							
24		0	0	0	0							
25		0	0	0	0							
26		0	0	0	0							
27		0	0	0	0							
28		0	0	0	0							
29		0	0	0	---							
30		0	0	0	---							
31		---	0	0	---		---		---			---
TOTAL	0	1.6	.10	.05	.27	0	0	.0	0	0	0	0
MEAN	0	.053	.003	.002	.010	0	0	0	0	0	0	0
MAX	0	1.6	.10	.05	.27	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	3.2	.2	.10	.5	0	0	0	0	0	0	0
CAL YR 1980	TOTAL	9419.61	MEAN	25.7	MAX	1980	MIN	0	AC-FT	18680.		
WTR YR 1981	TOTAL	2.02	MEAN	.006	MAX	1.6	MIN	0	AC-FT	4		

## SALTON SEA BASIN

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10259540 WHITEWATER RIVER NEAR MECCA, CA

LOCATION.--Lat 33°31'29", long 116°04'36", in NW¼NW¼NW¼ sec.32, T.7 S., R.9 E., Riverside County, Hydrologic Unit 18100200, on left bank 1.6 mi (2.6 km) upstream from mouth at Salton Sea and 3.3 mi (5.3 km) south of Mecca.

DRAINAGE AREA.--1,495 mi<sup>2</sup> (3,872 km<sup>2</sup>).

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 221.00 ft (67.361 m) below National Geodetic Vertical Datum of 1929 (levels by Coachella County Water District). Oct. 1, 1960, to Mar. 22, 1967, at site 1.3 mi (2.1 km) downstream and Mar. 23, 1967, to July 22, 1970, at site 0.7 mi (1.1 km) downstream at different datums.

REMARKS.--Records poor. Most of the flow represents seepage and return flow from irrigated areas.

COOPERATION.--Thirty-nine discharge measurements were furnished by Coachella Valley County Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,500 ft<sup>3</sup>/s (70.8 m<sup>3</sup>/s) Jan. 25, 1969, estimated; minimum daily, 37 ft<sup>3</sup>/s (1.05 m<sup>3</sup>/s) Nov. 25-29, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 173 ft<sup>3</sup>/s (4.90 m<sup>3</sup>/s) Apr. 16, estimated; minimum daily, 70 ft<sup>3</sup>/s (1.98 m<sup>3</sup>/s) Nov. 13, estimated.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	98	104	115	119	133	140	140	149	128	136	150
2	114	101	107	116	120	133	140	140	147	128	135	153
3	113	104	109	117	122	133	141	141	145	127	135	149
4	111	107	112	118	122	133	141	142	143	127	135	144
5	110	109	111	119	123	133	141	142	142	127	135	140
6	108	112	110	120	123	133	142	143	140	127	137	136
7	107	103	108	121	124	133	142	143	138	127	139	131
8	105	97	107	122	125	133	142	145	136	127	140	126
9	106	91	106	121	125	133	146	146	133	127	141	121
10	107	85	104	121	126	133	150	147	131	127	143	122
11	108	79	106	120	127	133	153	148	127	127	145	124
12	109	74	108	120	128	133	158	149	127	127	147	125
13	110	70	109	119	124	133	162	149	128	128	145	126
14	111	72	111	119	129	133	166	150	129	128	143	128
15	112	73	112	118	129	133	169	151	130	128	141	129
16	114	75	114	118	130	133	173	151	130	127	138	145
17	112	76	116	118	131	133	170	150	129	126	135	145
18	110	78	116	117	131	133	168	150	128	125	132	145
19	108	79	116	117	132	133	167	150	127	124	129	145
20	106	80	116	116	132	133	166	150	126	123	130	144
21	104	82	116	116	132	132	164	150	125	122	131	144
22	103	84	115	116	132	132	162	150	125	120	131	144
23	101	85	115	116	132	132	161	151	126	125	132	144
24	99	87	115	116	132	131	160	151	127	127	132	142
25	97	89	115	116	132	131	152	152	128	129	133	139
26	96	91	115	116	132	134	144	152	128	131	133	136
27	94	94	114	116	133	138	137	152	128	133	136	134
28	92	96	114	116	133	138	137	153	128	135	139	131
29	91	99	114	116	---	139	138	153	128	136	142	128
30	93	102	114	117	---	139	139	151	128	136	145	126
31	96	---	114	118	---	139	---	150	---	136	148	---
TOTAL	3261	2672	3463	3651	3584	4145	4571	4592	3956	3965	4263	4096
MEAN	105	89.1	112	118	128	134	152	148	132	128	138	137
MAX	114	112	116	122	133	139	173	153	149	136	148	153
MIN	91	70	104	115	119	131	137	140	125	120	129	121
AC-FT	6470	5300	6870	7240	7110	8220	9070	9110	7850	7860	8460	8120
CAL YR 1980	TOTAL	52983	MEAN 145	MAX	2100	MIN 70	AC-FT	105100				
WTR YR 1981	TOTAL	46219	MEAN 127	MAX	173	MIN 70	AC-FT	91680				

## SALTON SEA BASIN

10259920 WASTEWAY NO. 1 NEAR MECCA, CA

LOCATION.--Lat 33°31'40", long 115°58'23", in NW¼SW¼SW¼ sec.29, T.7 S., R.10 E., Riverside County, Hydrologic Unit 18100100, on right bank of concrete channel, 1,000 ft (300 m) upstream from mouth, 2,250 ft (690 m) downstream from State Highway 111, and 6.6 mi (10.6 km) southeast of Mecca.

PERIOD OF RECORD.--February 1966 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is -220 ft (-67.1 m), from topographic map.

REMARKS.--Records fair. Discharge represents seepage and return flows from irrigated areas. At times water is wasted from Coachella Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 586 ft<sup>3</sup>/s (16.6 m<sup>3</sup>/s) Aug. 18, 1977; minimum daily, 1.1 ft<sup>3</sup>/s (0.03 m<sup>3</sup>/s) Jan. 8, Apr. 9, 10, May 21-23, 1977 and Jan 3, 1981.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.0	2.4	1.7	1.6	2.4	2.2	2.5	2.2	5.1	3.7	2.9
2	2.3	2.2	2.2	1.4	1.8	2.0	3.0	2.5	2.2	5.1	3.6	2.0
3	2.2	2.2	2.2	1.1	1.8	2.1	3.4	2.2	1.7	4.9	3.2	1.9
4	2.6	2.1	2.1	1.3	1.8	2.2	2.6	2.2	1.9	4.1	3.3	2.8
5	2.5	2.2	2.0	1.7	2.2	2.5	2.3	2.3	1.9	3.5	3.7	3.7
6	2.7	2.3	2.0	1.9	2.4	2.4	2.4	2.2	10	3.3	4.2	3.2
7	2.6	2.4	2.0	1.6	2.3	2.4	2.3	2.4	13	3.1	4.1	2.9
8	2.7	2.8	1.8	1.8	2.2	2.2	2.0	2.4	6.4	3.2	4.1	3.2
9	2.9	11	2.1	1.8	2.2	2.4	2.0	2.5	1.4	3.2	4.1	3.3
10	2.4	5.7	1.8	1.6	2.2	2.7	2.0	2.4	1.6	3.3	3.9	3.0
11	2.7	1.8	1.8	1.6	2.2	2.5	2.0	2.4	2.0	2.8	3.6	3.2
12	2.7	1.8	2.0	1.8	2.2	2.4	2.0	2.4	2.3	2.7	4.2	2.9
13	2.4	2.0	2.0	1.8	2.1	2.4	2.0	2.8	2.8	2.9	4.3	2.7
14	2.4	2.2	2.1	1.3	2.0	2.3	2.2	3.0	2.9	3.2	4.5	2.7
15	2.3	2.2	2.0	1.6	2.1	2.2	2.2	3.2	3.4	3.1	4.2	2.7
16	3.4	2.2	1.9	1.6	1.8	2.4	2.3	3.6	3.5	5.1	4.3	2.9
17	3.1	1.6	1.8	1.6	1.7	2.6	2.3	2.7	3.2	3.3	4.4	3.2
18	2.8	1.8	1.8	1.6	1.7	2.6	2.4	2.2	3.2	3.0	4.1	2.9
19	3.5	2.2	1.9	1.6	1.8	2.7	3.4	2.2	2.7	3.3	3.6	2.4
20	3.1	2.2	1.4	1.6	1.8	2.9	3.2	2.2	2.4	3.5	3.9	2.4
21	2.1	2.0	1.4	1.4	2.0	2.8	2.9	2.3	2.4	3.7	3.6	2.4
22	2.3	2.1	1.4	1.5	2.0	2.7	2.3	2.3	2.6	3.2	3.8	2.4
23	2.5	2.0	1.4	1.6	1.8	2.4	2.2	2.2	2.8	3.1	4.5	2.9
24	3.2	1.9	1.8	1.6	2.0	2.5	2.0	2.2	2.9	3.2	3.7	2.4
25	3.2	2.0	1.8	1.6	2.0	2.8	2.2	2.1	2.9	3.2	3.6	3.2
26	3.1	2.2	1.5	1.6	1.7	2.6	2.3	1.8	3.4	3.1	3.3	2.9
27	3.2	2.4	1.2	1.6	2.1	2.5	2.4	1.8	4.1	3.4	3.5	2.4
28	2.6	2.4	1.6	1.8	2.2	2.6	2.2	1.8	4.2	3.8	3.2	2.4
29	2.7	2.5	1.4	1.8	---	3.9	2.9	1.8	4.8	3.6	3.5	2.4
30	2.7	2.7	1.6	2.0	---	3.8	2.4	2.1	5.0	3.4	3.4	2.9
31	1.9	---	2.1	1.6	---	2.4	---	2.4	---	3.6	3.2	---
TOTAL	83.0	77.1	56.5	50.1	55.7	79.3	72.0	73.1	105.8	109.0	118.3	83.2
MEAN	2.68	2.57	1.82	1.62	1.99	2.56	2.40	2.36	3.53	3.52	3.82	2.77
MAX	3.5	11	2.4	2.0	2.4	3.9	3.4	3.6	13	5.1	4.5	3.7
MIN	1.9	1.6	1.2	1.1	1.6	2.0	2.0	1.8	1.4	2.7	3.2	1.9
AC-FT	165	153	112	99	110	157	143	145	210	216	235	165

CAL YR 1980 TOTAL 2233.8 MEAN 6.10 MAX 196 MIN 1.2 AC-FT 4430  
WTR YR 1981 TOTAL 963.1 MEAN 2.64 MAX 13 MIN 1.1 AC-FT 1910

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LOCATION (REVISED).--Lat 34°20'28", long 117°13'39", in NW¼NE¼SE¼ sec.18, T.3 N., R.3 W., San Bernardino County, Hydrologic Unit 18090208, on right bank 0.5 mi (0.8 km) upstream from confluence with West Fork Mojave River at Mojave River Forks Dam, 7 mi (11 km) southeast of Hesperia and 11 mi (18 km) downstream from Lake Arrowhead.

PERIOD OF RECORD.--October 1904 to September 1922, October 1929 to current year. Monthly discharge only prior to January 1930, published in WSP 1314.

REMARKS.--Records good. Slight regulation by Lake Arrowhead, capacity, 48,000 acre-ft (59.2 hm<sup>3</sup>), used principally for recreation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,600 ft<sup>3</sup>/s (1,320 m<sup>3</sup>/s) Mar. 2, 1938, gage height unknown, based on slope-area measurement of maximum flow; maximum gage height, 23.81 ft (7.257 m) Feb. 10, 1978, (back-water from Forks Reservoir); no flow July 17, 18, 1961.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	13	16	15	22	61	45	16	11	3.3	1.5	1.3
2	8.7	13	16	16	21	68	45	15	10	3.5	1.5	1.4
3	8.3	13	16	16	22	44	46	15	9.5	3.5	1.4	1.4
4	8.0	13	16	16	21	38	42	15	9.0	3.4	1.4	1.4
5	7.7	13	22	17	21	39	38	14	8.2	3.1	1.6	1.6
6	7.7	13	20	17	20	45	37	14	7.6	2.8	1.6	1.6
7	7.7	13	19	16	20	38	38	13	6.8	2.7	1.6	1.7
8	7.7	14	19	16	20	34	37	13	6.7	2.7	1.3	1.9
9	7.9	14	17	16	28	35	36	13	6.6	2.6	1.3	1.9
10	8.0	14	17	16	36	41	35	12	6.4	2.5	1.3	2.0
11	8.0	14	17	17	29	45	33	11	6.1	2.3	1.4	1.9
12	7.9	14	17	19	27	49	31	11	6.1	2.2	1.4	1.9
13	8.3	15	17	20	27	51	29	11	6.0	2.1	1.5	1.9
14	9.0	15	17	20	26	46	28	11	5.9	2.0	1.6	1.9
15	10	16	17	19	26	39	26	11	6.0	2.1	1.5	1.9
16	12	16	17	19	28	41	25	12	5.8	2.5	1.5	1.9
17	13	16	17	19	27	48	25	13	5.5	2.3	1.5	2.0
18	14	16	17	19	26	49	25	12	5.4	2.1	1.5	2.0
19	13	16	16	18	26	47	40	11	5.1	2.3	1.6	2.1
20	13	16	16	18	24	74	30	12	4.6	2.0	1.6	2.1
21	12	16	16	18	23	60	28	14	4.4	2.0	1.6	2.1
22	13	16	16	18	22	57	26	13	4.3	1.9	1.5	2.1
23	13	16	16	17	21	64	24	12	4.3	1.7	1.5	2.0
24	12	16	16	17	20	59	22	12	4.2	1.6	1.6	2.0
25	12	16	16	17	20	60	20	11	4.1	1.6	1.6	1.4
26	12	16	16	17	24	68	19	10	3.8	1.6	1.5	1.8
27	13	16	16	17	23	63	18	12	3.7	1.5	1.5	1.4
28	13	16	16	20	22	55	17	25	3.5	1.5	1.4	7.7
29	13	16	15	30	---	49	17	20	3.3	1.4	1.4	4.7
30	13	16	15	51	---	52	16	15	3.3	1.4	1.3	4.0
31	13	---	15	26	---	47	---	12	---	1.4	1.3	---
TOTAL	327.6	447	519	597	672	1566	898	411	177.2	69.6	45.8	106.4
MEAN	10.6	14.9	16.7	19.3	24.0	50.5	29.9	13.3	5.91	2.25	1.48	3.55
MAX	14	16	22	51	36	74	46	25	11	3.5	1.6	1.8
MIN	7.7	13	15	15	20	34	16	10	3.3	1.4	1.3	1.3
AC-FT	650	887	1030	1180	1330	3110	1780	815	351	138	91	211
CAL YR 1980	TOTAL	97878.1	MEAN	267	MAX	7700	MIN	7.7	AC-FT	194100		
WTR YR 1981	TOTAL	5836.6	MEAN	16.0	MAX	74	MIN	1.3	AC-FT	11580		

## MOJAVE RIVER BASIN

## 10260620 HOUSTON CREEK ABOVE LAKE GREGORY AT CRESTLINE, CA

LOCATION.--Lat 34°14'33", long 117°16'48", in NW¼NE¼SE¼ sec.22, T.2 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank 0.1 mi (0.2 km) east of Wildrose Road and 0.1 mi (0.2 km) southeast of intersection of Lake Gregory Road and Wildrose Road, and 0.3 mi (0.5 km) east of Crestline.

DRAINAGE AREA.--0.35 mi<sup>2</sup> (0.91 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 4,540 ft (1,384 m), from topographic map.

REMARKS.--Records good. No regulation above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 272 ft<sup>3</sup>/s (7,70 m<sup>3</sup>/s) Feb. 19, 1980, gage height, 7.18 ft (2.188 m), from rating curve extended above 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s) on basis of slope-conveyance study at gage height 7.12 ft (2.170 m); minimum daily, no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15 ft<sup>3</sup>/s (0.425 m<sup>3</sup>/s) and maximum (\*), from rating curve extended as explained above:

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)
Dec. 4	1430	17 0.48	5.42 1.652	Mar. 19	2115	22 0.62	5.42 1.652
Jan. 29	1600	111 3.14	6.30 1.920	Apr. 18	1145	*160 4.53	6.63 2.021
Mar. 1	1115	22 0.62	5.38 1.640				

Minimum daily discharge, no flow for many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.01	.05	.22	6.3	.12	.13	.10	.05	0	0
2	0	0	.01	.05	.19	1.4	.29	.13	.08	.05	.01	.01
3	.01	0	.01	.05	.18	.40	.15	.13	.07	.06	0	.02
4	.01	0	1.4	.05	.17	.36	.13	.18	.06	.05	.01	.02
5	.02	0	.03	.05	.15	1.1	.12	.19	.08	.05	.02	.01
6	.02	0	.02	.06	.15	.78	.12	.18	.05	.03	.02	.01
7	.02	0	.02	.06	.15	.40	.12	.18	.09	0	.01	.01
8	.03	0	.02	.06	.26	.24	.12	.16	.08	0	0	.01
9	.03	0	.03	.06	.76	.22	.12	.15	.06	0	.03	.01
10	.03	0	.03	.07	.19	.17	.12	.18	.05	0	.03	.01
11	.02	0	.03	.18	.16	.15	.12	.12	.06	0	.03	0
12	.02	.03	.04	.05	.14	.15	.12	.10	.07	0	.02	0
13	0	0	.03	.03	.13	.31	.12	.10	.07	0	0	0
14	.01	0	.03	.03	.13	.18	.12	.09	.07	0	0	0
15	.02	0	.03	.03	.12	.15	.12	.10	.07	0	0	0
16	.05	0	.03	.03	.12	.14	.12	.08	.06	0	0	0
17	0	.01	.04	.03	.12	.13	.12	.08	.06	0	.01	0
18	0	.01	.04	.03	.12	.13	7.9	.08	.06	0	.01	0
19	0	.01	.04	.03	.12	2.5	.97	.07	.05	0	.01	0
20	0	.01	.04	.03	.12	.57	.17	.20	.05	0	.01	0
21	0	.01	.04	.04	.13	.20	.14	.09	.05	0	.02	0
22	0	0	.04	.04	.13	.18	.12	.09	.04	0	.03	0
23	0	0	.03	.04	.13	.16	.13	.08	.06	0	.02	0
24	0	.01	.04	0	.13	.15	.13	.08	.07	0	.02	0
25	0	.01	.05	0	.14	.15	.12	.08	.08	0	.02	.01
26	0	.01	.05	.01	.23	.39	.13	.09	.07	0	.02	0
27	0	.01	.05	.02	.16	.18	.13	.08	.06	0	.03	.01
28	0	.01	.05	.83	.36	.16	.13	.08	.06	0	.03	.01
29	0	.01	.05	22	---	.13	.12	.08	.05	0	.03	.01
30	0	.01	.05	.49	---	.13	.12	.09	.06	0	.02	.01
31	0	---	.05	.27	---	.12	---	.09	---	0	.01	---
TOTAL	.29	.15	2.43	24.77	5.11	17.73	12.56	3.56	1.94	.29	.47	.16
MEAN	.009	.005	.078	.80	.18	.57	.42	.11	.065	.009	.015	.005
MAX	.05	.03	1.4	22	.76	6.3	7.9	.20	.10	.06	.03	.02
MIN	0	0	.01	0	.12	.12	.12	.07	.04	0	0	0
AC-FT	.6	.3	4.8	49	10	35	25	7.1	3.8	.6	.9	.3

CAL YR 1980 TOTAL 801.34 MEAN 2.19 MAX 69 MIN 0 AC-FT 1590  
WTR YR 1981 TOTAL 69.46 MEAN .19 MAX 22 MIN 0 AC-FT 138

## 10260630 ABONDIGAS CREEK ABOVE LAKE GREGORY AT CRESTLINE, CA

LOCATION.--Lat 34°14'16", long 117°15'51", in SE4SW4SE4 sec.23, T.2 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on right bank 80 ft (24 m) north of south gate for San Moritz Park, and 1.4 mi (2.3 km) east of Crestline.

DRAINAGE AREA.--1.15 mi<sup>2</sup> (2.98 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 4,550 ft (1,387 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 380 ft<sup>3</sup>/s (10.8 m<sup>3</sup>/s) Jan. 29, 1980, gage height 7.28 ft (2.219 m), from rating curve extended above 50 ft<sup>3</sup>/s (1.416 m<sup>3</sup>/s) on basis of field estimate of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 63 ft<sup>3</sup>/s (1.78 m<sup>3</sup>/s) Jan. 29 (1645 hrs), gage height, 5.68 ft (1.731 m) no other peak above base of 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s); minimum daily, no flow for several days in July, and August 1 to September 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.07	.10	.16	.34	3.0	.30	.24	.12	0		
2	.04	.07	.12	.16	.29	1.3	.49	.23	.12	0		
3	.04	.07	.10	.15	.27	.56	.39	.25	.12	0		
4	.04	.07	1.7	.15	.20	.47	.33	.23	.11	0		
5	.04	.07	.27	.15	.19	.78	.30	.23	.10	0		
6	.03	.07	.22	.15	.17	.71	.29	.21	.10	0		
7	.03	.07	.20	.15	.17	.57	.28	.19	.10	.01		
8	.03	.07	.20	.15	.23	.51	.26	.21	.09	.02		
9	.03	.07	.19	.15	.91	.47	.25	.20	.09	.04		
10	.03	.08	.17	.15	.25	.46	.28	.18	.08	.03		
11	.04	.08	.17	.23	.21	.45	.27	.19	.08	.02		
12	.03	.10	.17	.19	.18	.40	.26	.19	.08	.02		
13	.04	.10	.17	.16	.16	.53	.25	.19	.07	.01		
14	.06	.10	.16	.15	.15	.45	.25	.20	.06	0		
15	.07	.10	.15	.15	.15	.38	.23	.27	.06	0		
16	.16	.10	.15	.15	.20	.32	.22	.26	.06	.06		
17	.09	.10	.15	.14	.20	.29	.22	.21	.05	0		
18	.09	.10	.15	.15	.19	.28	3.3	.18	.05	0		
19	.07	.10	.15	.15	.16	1.5	1.8	.21	.04	0		
20	.07	.10	.15	.15	.16	.88	.64	.41	.04	0		
21	.07	.10	.15	.15	.15	.42	.50	.22	.04	0		
22	.07	.10	.15	.12	.14	.38	.43	.20	.03	0		
23	.07	.12	.15	.17	.16	.34	.39	.20	.03	0		
24	.08	.12	.15	.15	.15	.33	.36	.18	.03	0		
25	.08	.12	.14	.15	.18	.30	.34	.17	.02	0		
26	.10	.12	.14	.15	.29	.53	.33	.18	.02	0		
27	.09	.12	.16	.15	.23	.40	.31	.26	.02	0		
28	.09	.12	.15	.56	.40	.36	.28	.20	.01	0		
29	.09	.12	.15	11	---	.35	.26	.17	.01	0		
30	.08	.10	.15	1.3	---	.33	.24	.14	.01	0		
31	.08	---	.16	.47	---	.30	---	.14	---	0		---
TOTAL	1.97	2.83	6.49	17.51	6.48	18.35	14.05	6.54	1.84	.21	0	0
MEAN	.064	.094	.21	.56	.23	.59	.47	.21	.061	.007	0	0
MAX	.16	.12	1.7	11	.91	3.0	3.3	.41	.12	.06	0	0
MIN	.03	.07	.10	.12	.14	.28	.22	.14	.01	0	0	0
AC-FT	3.9	5.6	13	35	13	36	28	13	3.6	.4	0	0
CAL YR 1980	TOTAL	1417.23	MEAN	3.87	MAX	103	MIN	.03	AC-FT	2810		
WTR YR 1981	TOTAL	76.27	MEAN	.21	MAX	11	MIN	0	AC-FT	151		

## MOJAVE RIVER BASIN

## 10260640 LAKE GREGORY AT CRESTLINE, CA

LOCATION.--Lat 34°14'35", long 117°16'22", in NE&NW&SW& sec.23, T.2 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, in boathouse on north side of Lake Gregory, 0.8 mi (1.3 km) east of Lake Gregory Drive, and 0.9 mi (1.5 km) east of Crestline.

DRAINAGE AREA.--2.66 mi<sup>2</sup> (6.89 km<sup>2</sup>).

PERIOD OF RECORD.--August 1978 to current year. Records for September 1966 through November 1971 in files of California Department of Water Resources.

GAGE.--Water-stage recorder. Datum of gage is 4,510.00 ft (1,374.648 m) based on map from land survey of 1892 (see Remarks paragraph); approximately 4,517.1 ft (1,376.81 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by earth-type dam. Dam was completed to a height of 90 ft (27.4 m) in 1938. Capacity table developed from land survey dated 1892 (furnished by California Department of Water Resources). Capacity is 2,070 acre-ft (2.55 hm<sup>3</sup>) below spillway elevation, 4,517.0 ft (1,376.78 m). Water is released from lake to Houston Creek for eventual water supply and recreational use in Silverwood Lake, 4.5 mi (7.2 km) downstream. Spillway elevation is raised by addition of flashboards to accommodate summer recreational use.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents recorded, 2,360 acre-ft (2.91 hm<sup>3</sup>) Jan. 29, 1980, elevation, 4,520.33 ft (1,377.797 m); minimum, 2,060 acre-ft (2.54 hm<sup>3</sup>) Sept. 30, 1980, elevation, 4,516.91 ft (1,376.754 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents recorded, 2,200 acre-ft (2.71 hm<sup>3</sup>) May 27, 28, elevation, 4,518.43 ft (1,377.217 m); minimum, 2,000 acre-ft (2.47 hm<sup>3</sup>) Sept. 30, elevation, 4,516.20 ft (1,376.538 m).

MONTHEND ELEVATION, 1892 DATUM, AND CONTENTS, AT 0800 HRS, WATER YEARS OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	4,516.91	2,060	--
Oct. 31.....	4,516.85	2,060	0
Nov. 30.....	4,516.87	2,060	0
Dec. 31.....	4,517.23	2,090	+30
CAL YR 1980.....	--	-50	-50
Jan. 31.....	4,517.36	2,100	+10
Feb. 28.....	4,517.25	2,090	-10
Mar. 31.....	4,517.24	2,090	0
Apr. 30.....	4,518.26	2,180	+90
May 31.....	4,518.42	2,190	+10
June 30.....	4,518.03	2,160	-30
July 31.....	4,517.36	2,100	-60
Aug. 31.....	4,516.74	2,050	-50
Sept. 30.....	4,516.20	2,000	-50
WTR YEAR 1981.....	--	-60	-60



LOCATION.--Lat 34°14'54", long 117°16'05", SW¼NE¼NW¼ sec.23, T.2 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank of channel on Camp Switzerland campgrounds, 0.2 mi (0.3 km) downstream from Lake Gregory spillway, 0.5 mi (0.8 km) east of the intersection of Gregory Lake Road and Lake Gregory Drive, and 1.2 mi (1.9 km) northeast of Crestline.

REMARKS.--Records fair. Flow regulated by Lake Gregory (10260640) 0.2 mi (0.3 km) upstream, usable capacity, 2,070 acre-ft (2.55 hm<sup>3</sup>), corrected.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 570 ft<sup>3</sup>/s (16.1 m<sup>3</sup>/s) Jan. 29, 1980, gage height, 7.31 ft (2.228 m); from rating curve extended above 121 ft<sup>3</sup>/s (3.43 m<sup>3</sup>/s) on basis of velocity-area study of maximum flow; minimum daily, no flow for several days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78 ft<sup>3</sup>/s (2.21 m<sup>3</sup>/s) Jan. 29, gage height, 6.31 ft (1.923 m); minimum daily, no flow Oct. 10-13, 23.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.06	.07	.16	2.9	14	.45	.11	.09	.04	.03	.03
2	.05	.06	.07	.16	2.0	13	.10	.11	.08	.04	.03	.03
3	.05	.06	.07	.14	1.6	6.3	.11	.09	.07	.04	.03	.03
4	.06	.06	.46	.11	1.2	4.1	.12	.09	.07	.04	.03	.03
5	.06	.06	.94	.11	1.1	4.4	.12	.09	.06	.04	.03	.03
6	.05	.05	.71	.12	.92	5.4	.13	.09	.07	.08	.03	.03
7	.04	.05	.54	.11	.65	3.7	.14	.09	.06	.15	.02	.03
8	.03	.06	.43	.09	.98	2.7	.14	.08	.06	.15	.02	.03
9	.02	.05	.40	.09	2.7	2.2	.14	.08	.06	.16	.02	.03
10	0	.05	.33	.08	1.8	1.8	.14	.08	.06	.16	.03	.03
11	0	.05	.31	.95	1.4	1.6	.13	.08	.05	.21	.02	.03
12	0	.05	.32	1.9	1.1	1.6	.12	.07	.05	.15	.02	.03
13	0	.05	.28	1.6	.91	1.9	.12	.07	.05	.16	.02	.03
14	.01	.05	.26	1.2	.74	1.8	.15	.07	.05	.13	.02	.03
15	.05	.05	.27	.53	.66	1.4	.14	.07	.05	.13	.02	.03
16	.09	.05	.28	.21	.58	1.3	.14	.08	.05	.11	.02	.03
17	.06	.06	.21	.14	.54	1.2	.14	.08	.05	.10	.02	.03
18	.05	.06	.12	.11	.50	1.1	.47	.09	.04	.10	.03	.03
19	.05	.06	.12	.11	.48	2.6	.25	.08	.04	.10	.03	.03
20	.03	.06	.12	.10	.39	7.5	.14	.17	.04	.08	.03	.03
21	.02	.06	.14	.11	.31	3.3	.14	.14	.04	.04	.03	.03
22	.01	.06	.14	.09	.30	2.2	.13	.12	.05	.03	.03	.03
23	0	.06	.15	.10	.31	1.7	.12	.11	.05	.03	.02	.04
24	.03	.06	.14	.10	.78	1.4	.12	.10	.05	.03	.02	.04
25	.01	.07	.14	.10	.40	1.5	.11	.09	.05	.03	.03	.04
26	.02	.07	.13	.11	1.2	1.9	.11	.08	.04	.03	.03	.04
27	.03	.07	.12	.08	1.1	1.9	.11	.16	.04	.04	.03	.04
28	.05	.07	.13	2.7	2.0	1.5	.11	.15	.04	.04	.03	.04
29	.05	.07	.27	23	---	1.3	.11	.13	.04	.04	.03	.05
30	.05	.07	.39	14	---	1.1	.12	.11	.04	.03	.03	.05
31	.05	---	.25	5.2	---	1.1	---	.10	---	.03	.03	---
TOTAL	1.07	1.76	8.31	53.61	29.55	98.5	4.57	3.06	1.59	2.54	.81	1.00
MEAN	.035	.059	.27	1.73	1.06	3.18	.15	.099	.053	.082	.026	.033
MAX	.09	.07	.94	23	2.9	14	.47	.17	.09	.21	.03	.05
MIN	0	.05	.07	.08	.30	1.1	.10	.07	.04	.03	.02	.03
AC-FT	2.1	3.5	16	106	59	195	9.1	6.1	3.2	5.0	1.6	2.0

CAL YR 1980	TOTAL	3588.89	MEAN	9.81	MAX	285	MIN	0	AC-FT	7120
WTR YR 1981	TOTAL	206.37	MEAN	.57	MAX	23	MIN	0	AC-FT	409

## MOJAVE RIVER BASIN

10260820 WEST FORK MOJAVE RIVER BELOW SILVERWOOD LAKE, CA

LOCATION.--Lat 34°18'33", long 117°18'58", in SE¼NW¼NE¼ sec.32, T.3 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on downstream side of middle pier at Highway 173 bridge, 0.35 mi (0.56 km) downstream from Cedar Springs Dam, 6.3 mi (10.1 km) upstream from Mojave River Forks Reservoir, and 8.0 mi (12.9 km) southwest of Hesperia.

DRAINAGE AREA.--34.0 mi<sup>2</sup> (88.1 km<sup>2</sup>).

PERIOD OF RECORD.--October 1980 to September 30, 1981.

GAGE.--Water-stage recorder. Altitude of gage is 3,160 ft (960 m), from topographic map.

REMARKS.--Records good. Regulated by Cedar Springs Dam (holding basin for imported water), total capacity, 78,000 acre-ft (96.2 hm<sup>3</sup>), 0.35 mi (0.56 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 132 ft<sup>3</sup>/s (3.74 m<sup>3</sup>/s) Jan. 29, gage height, 3.23 ft (0.985 m); no flow for several weeks.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.11	.51	.25	0	3.2	.30	.25		0	.07	.08
2	0	.13	.51	.25	.02	53	.32	.23		0	.08	.07
3	0	.15	.46	.25	.05	83	.32	.21		0	.10	.07
4	0	.19	.46	.25	.06	21	.32	.19		0	.10	.07
5	0	.21	.42	.23	.09	.01	.30	.18		0	.09	.07
6	0	.23	.35	.23	.12	.05	.27	.16		.01	0	.06
7	0	.27	.35	.21	.16	.06	.30	.14		.03	.06	.06
8	0	.32	.35	.21	.21	.08	.27	.12		.02	.08	.06
9	0	.42	.35	.21	.35	.08	.27	.11		0	.11	.06
10	0	.46	.35	.23	.39	20	.25	.10		0	.04	.06
11	0	.46	.39	.30	.39	0	.23	.08		0	0	.06
12	0	.39	.39	.27	.46	0	.21	.07		0	0	.06
13	0	.35	.39	.27	.56	0	.21	.06		0	.05	.06
14	0	.32	.39	.30	.68	.02	.18	.06		0	.06	.04
15	0	.30	.39	.32	.74	.04	.16	.06		0	.07	0
16	0	.27	.39	.32	.81	.06	.16	.05		0	.08	0
17	0	.30	.35	.35	.88	.07	.15	.05		0	.08	0
18	.01	.35	.35	.39	1.1	.10	.23	.04		0	.08	0
19	.03	.46	.39	.39	.81	.18	.27	.04		0	.09	0
20	.04	.51	.35	.42	.68	.19	.27	.05		0	.09	0
21	.05	.74	.35	.46	.88	.11	.25	.05		0	.10	0
22	.05	1.1	.35	.46	1.1	.13	.25	.05		0	.10	0
23	.06	.96	.35	.51	1.2	.18	.27	.04		0	.09	0
24	.08	1.1	.35	.51	1.4	.23	.30	.05		.02	.10	0
25	.10	.62	.30	.51	1.8	.23	.30	.05		.02	.10	0
26	.08	.46	.30	.56	1.8	.25	.30	.05		.04	.10	0
27	.08	.46	.27	.51	1.7	.27	.32	.04		.05	.10	0
28	.09	.46	.27	.74	1.8	.27	.30	.04		.05	.10	0
29	.09	.51	.25	39	---	.27	.30	.03		.06	.09	0
30	.10	.51	.25	121	---	.30	.27	.01		.06	.08	0
31	.10	---	.25	2.6	---	.32	---	0	---	.07	.08	---
TOTAL	.96	13.12	11.18	172.51	20.24	183.70	7.85	2.66	0	.43	2.37	.88
MEAN	.031	.44	.36	5.56	.72	5.93	.26	.086	0	.014	.077	.029
MAX	.10	1.1	.51	121	1.8	83	.32	.25	0	.07	.11	.08
MIN	0	.11	.25	.21	0	0	.15	0	0	0	0	0
AC-FT	1.9	26	22	342	40	364	16	5.3	0	.9	4.7	1.7

WTR YR 1981 TOTAL 415.90 MEAN 1.14 MAX 121 MIN 0 AC-FT 825

## MOJAVE RIVER BASIN

87

10261000 WEST FORK MOJAVE RIVER NEAR HESPERIA, CA

LOCATION.--Lat 34°20'20", long 117°15'25", in NW¼NW¼ sec.24, T.3 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank on upstream wingwall of concrete double box culvert on Arrowhead Lake Road, 0.1 mi (0.2 km) northeast of junction with Highway 174, 4.5 mi (7.2 km) downstream from Cedar Springs Dam, and 6.5 mi (10.5 km) southeast of Hesperia.

DRAINAGE AREA.--70.3 mi<sup>2</sup> (182 km<sup>2</sup>).

PERIOD OF RECORD.--October 1904 to September 1922, October 1929 to September 1971, October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,040 ft (927 m), from topographic map. Prior to June 30, 1922, nonrecording gage or water-stage recorder 1.6 mi (2.6 km) downstream at different datum. June 30, 1922 to September 1971, water-stage recorder 1.5 mi (2.4 km) downstream at different datum. June 30, 1942 to April 14, 1966, at datum 2.00 ft (0.610 m) higher than datum then in use.

REMARKS.--Records good above 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) and fair below. Since 1972 regulated by Cedar Springs Dam (holding basin for imported water), total capacity, 78,000 acre-ft (96.2 hm<sup>3</sup>), 4.5 mi (7.24 km) upstream.

AVERAGE DISCHARGE.--60 years (water years 1905-22, 1930-71), 39.4 ft<sup>3</sup>/s (1.116 m<sup>3</sup>/s), 28,550 acre-ft/yr (35.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,100 ft<sup>3</sup>/s (739 m<sup>3</sup>/s) Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of maximum flow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 252 ft<sup>3</sup>/s (7.14 m<sup>3</sup>/s) Jan. 29, gage height, 2.47 ft (0.753 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07		0	11	13	88	13	1.6				
2	.07		0	9.6	7.8	91	13	1.5				
3	.06		0	9.6	11	143	12	1.7				
4	.09		0	10	11	53	9.6	2.8				
5	.07		0	11	9.6	35	10	2.3				
6	.05		0	11	6.3	35	12	2.0				
7	.06		.13	11	9.1	31	9.6	.13				
8	.09		2.8	11	13	22	8.6	0				
9	.09		3.6	12	17	22	9.6	0				
10	.09		3.9	12	14	46	9.1	0				
11	.05		4.4	13	12	26	7.8	0				
12	.04		4.7	12	11	18	7.4	0				
13	.01		4.7	11	11	16	7.8	0				
14	.01		5.0	10	13	17	6.6	0				
15	.10		5.9	10	12	13	5.9	0				
16	.05		6.3	10	12	15	6.3	0				
17	0		6.3	10	13	15	6.3	0				
18	0		6.3	9.6	15	17	8.2	0				
19	0		6.3	9.6	15	21	13	0				
20	0		6.3	9.6	13	35	12	0				
21	0		7.4	11	11	25	11	0				
22	0		9.1	11	9.1	23	7.0	0				
23	0		11	12	13	18	5.0	0				
24	0		11	12	15	16	4.4	0				
25	0		12	12	17	16	5.3	0				
26	0		13	11	27	14	4.7	0				
27	0		13	10	15	11	3.6	0				
28	0		14	14	11	11	3.9	0				
29	0		12	70	---	9.1	3.0	0				
30	0		12	132	---	11	2.1	0				
31	0	---	12	39	---	13	---	0	---			
TOTAL	1.00	0	193.13	547.0	356.9	926.1	237.8	12.03	0	0	0	0
MFAN	.032	0	6.23	17.6	12.7	29.9	7.93	.39	0	0	0	0
MAX	.10	0	14	132	27	143	13	2.8	0	0	0	0
MIN	0	0	0	9.6	6.3	9.1	2.1	0	0	0	0	0
AC-FT	2.0	0	383	1080	708	1840	472	24	0	0	0	0
CAL YR 1980 TOTAL	57263.16			MEAN 156	MAX 3150	MIN 0	AC-FT 113600					
WTR YR 1981 TOTAL	2273.96			MEAN 6.23	MAX 143	MIN 0	AC-FT 4510					

## MOJAVE RIVER BASIN

10261100 MOJAVE RIVER BELOW FORKS RESERVOIR, NEAR HESPERIA, CA.

LOCATION.--Lat 34°20'38", long 117°14'15", in SW¼NE¼SW¼ sec.18, T.3 N., R.3 W., San Bernardino County, on left bank of reservoir outlet channel, 6.5 mi (10.5 km) southeast of Hesperia.

DRAINAGE AREA.--211 mi<sup>2</sup> (546 km<sup>2</sup>).

PERIOD OF RECORD.--October 1971 to September 1974, October 1980 to September 1981.

GAGE.--Water-stage recorder. Altitude of gage is 3,000 ft (914 m), from topographic map.

REMARKS.--Records poor. Flow partially regulated by Lake Arrowhead, capacity, 48,000 acre-ft (59.2 hm<sup>3</sup>) used principally for recreation, Silverwood Lake, capacity, 78,000 acre-ft (96.2 hm<sup>3</sup>) used for the storage and distribution of imported water and recreation, and Mojave Forks Reservoir, capacity, 79,800 acre-ft (98.4 hm<sup>3</sup>) used for flood control with ungated opening, capacity, 23,500 ft<sup>3</sup>/s (666 m<sup>3</sup>/s). Silverwood Reservoir releases all natural inflow to the west fork of the Mojave River as soon as possible after a storm. Sewage effluent from Lake Arrowhead area is released above gage at times.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft<sup>3</sup>/s (207 m<sup>3</sup>/s) Feb. 11, 1974, on basis of computation of flow through dam; maximum gage height, 4.50 ft (1.372 m) Dec. 23, 1971; minimum daily, no flow for many days in 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 290 ft<sup>3</sup>/s (8.21 m<sup>3</sup>/s) Mar. 1, gage height, 1.02 ft (0.311 m); minimum daily, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	9.8	13	31	35	112	68	18	9.2	.01	0	.27
2	8.1	9.8	13	34	29	164	74	16	4.4	.01	0	.29
3	7.9	9.8	13	33	33	182	79	16	5.2	.01	0	.30
4	7.5	9.8	13	41	32	102	68	17	3.7	0	0	.32
5	7.4	9.8	19	29	30	75	68	15	3.4	0	0	.36
6	7.3	9.9	18	24	26	75	63	13	3.2	0	0	.39
7	7.3	9.9	18	27	29	56	86	11	3.0	0	0	.40
8	7.3	9.9	19	26	32	54	91	13	2.9	0	.01	.41
9	7.4	9.9	20	25	44	55	85	13	2.7	0	.02	.42
10	7.5	9.9	20	28	49	69	79	16	2.6	0	.04	.44
11	7.5	9.9	22	37	42	44	79	13	2.4	0	.06	.49
12	7.5	9.9	20	43	31	51	72	13	2.3	0	.08	.51
13	7.7	9.9	25	26	31	49	62	9.7	2.2	0	.10	.52
14	8.1	9.9	29	26	36	44	63	7.7	2.0	0	.12	.54
15	8.6	9.9	33	26	36	42	62	6.6	1.8	0	.14	.56
16	8.9	9.9	30	25	33	49	59	8.6	1.6	0	.16	.57
17	9.3	10	33	25	39	55	59	11	1.4	0	.17	.59
18	10	9.8	26	25	39	55	71	9.6	1.3	0	.18	.61
19	9.6	9.5	25	25	49	67	95	11	1.1	0	.19	.63
20	9.6	9.6	33	25	45	122	69	9.7	.90	0	.19	.65
21	9.5	9.6	37	26	42	98	62	13	.62	0	.19	.64
22	9.7	9.7	34	26	36	74	48	14	.47	0	.19	.63
23	9.7	9.7	33	27	28	79	39	11	.47	0	.20	.63
24	9.6	12	30	27	23	68	40	4.7	.27	0	.20	.63
25	9.6	12	28	26	23	79	27	7.2	.04	0	.20	5.4
26	9.8	12	28	26	45	98	24	10	.01	0	.21	8.0
27	9.8	12	33	25	33	85	28	16	.01	0	.22	5.0
28	9.8	13	27	28	36	74	25	34	.01	0	.23	2.5
29	9.8	13	29	80	---	63	20	22	.01	0	.24	1.0
30	9.8	13	33	183	---	79	19	16	.01	0	.25	.68
31	9.8	---	31	75	---	91	---	13	---	0	.26	---
TOTAL	269.6	312.8	785	1130	986	2410	1784	408.8	59.22	.03	3.85	34.38
MEAN	8.70	10.4	25.3	36.5	35.2	77.7	59.5	13.2	1.97	.001	.12	1.15
MAX	10	13	37	183	49	182	95	34	9.2	.01	.26	8.0
MIN	7.3	9.5	13	24	23	42	19	4.7	.01	0	0	.27
AC-FT	535	620	1560	2240	1960	4780	3540	811	117	.06	7.6	68

WTR YR 1981 TOTAL 8183.68 MEAN 22.4 MAX 183 MIN 0 AC-FT 16230

## 10261100 MOJAVE RIVER BELOW FORKS RESERVOIR, NEAR HESPERIA, CA

## WATER-QUALITY RECORDS

LOCATION.--Lat 34°20'38", long 117°14'15", in SW¼NE¼SW¼ sec.18, T.3 N., R.3 W., San Bernardino County, Hydrologic Unit 18090208, on left bank of reservoir outlet channel, 6.5 mi (10.5 km) southeast of Hesperia.

DRAINAGE AREA.--21½ mi² (546 km²).

PERIOD OF RECORD.--Water years 1967-71, 1974 to current year.

CHEMICAL ANALYSES: Water years 1967-71, 1974 to current year.

COOPERATION.--Chemical analyses were furnished by California Department of Water Resources; discharges were furnished by Corps of Engineers.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM FLOW, INST-CFS	SPECIFIC COND MICROMHO	PH FIELD (UNITS)	TEMP WATER (DEG C)	TURB- IDITY NTU	OXYGEN DISS (MG/L)	HARDNESS (MG/L AS CaCO3)	CALCIUM CA,DISS (MG/L)	MAGNESIUM MG,DISS (MG/L)	SODIUM NA,DISS (MG/L)
80/11/13	12 40	15 E	270	7.9	11.5	3.0	10.0	100	30	7	30
81/01/16	13 10	25 E	310	8.2	11.5	1.0	10.1	120	33	8	33
81/04/17	14 05	40 E	210	8.6	19.5	2.0	8.3	82	23	6	23
81/05/14	12 40	25 E	230	8.5	20.0		7.9				
81/07/29	12 50	2 E	380	8.7	25.5	1.0	7.1	94	26	7	65

DATE	TIME	POTASSIUM K,DISS (MG/L)	ALKA- LINITY (MG/L)	SULFATE SO4-DISS (MG/L)	CHLORIDE CL DISS (MG/L)	FLUORIDE F,DISS (MG/L)	ROE DISS 180 C (MG/L)	RESIDUE TOT NFLT (MG/L)	NITRATE DISS-N (MG/L)	BORON B,DISS (UG/L)
80/11/13	12 40	1.9	130	28	8	1.8	145		0.20	100
81/01/16	13 10	2.2	120	29	24	0.9	200		0.20	100
81/04/17	14 05	1.5	93	19	14	0.7	146		0.20	100
81/05/14	12 40									
81/07/29	12 50	3.4	110	90	15				0.00	200

DATE	TIME	ARSENIC AS,DISS (UG/L)	CADMIUM CD,DISS (UG/L)	COPPER CU,DISS (UG/L)	IRON FE,DISS (UG/L)	LEAD PB,DISS (UG/L)	MERCURY HG,TOTAL (UG/L)	ZINC ZN,DISS (UG/L)
81/05/14	12 40	0	0	0	60	10	0.0	0

E Estimated

## MOJAVE RIVER BASIN

10261500 MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE, CA  
(National stream-quality accounting network station)

LOCATION.--Lat 34°34'23", long 117°19'11", in SW¼SW¼SE¼ sec.29, T.6 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank 650 ft (198 m) upstream from bridge on county road, formerly U.S. Highway 66, 0.6 mi (1.0 km) downstream from Atchison, Topeka, and Santa Fe Railway bridge, 3 mi (5 km) northwest of Victorville, 28 mi (45 km) downstream from Mojave River Forks Reservoir, and 33 mi (53 km) downstream from Silverwood Lake.

DRAINAGE AREA.--513 mi<sup>2</sup> (1,329 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1899 to September 1906, October 1930 to current year. Monthly discharge only for January to September 1906, October, November 1930, published in WSP 1314. Prior to October 1936, published as "at Victorville" and as "near Victorville" in 1937.

GAGE.--Water-stage recorder. Datum of gage is 2,643.01 ft (805.589 m) National Geodetic Vertical Datum of 1929. See WSP 1314 for history of gage changes prior to Mar. 28, 1938. Mar. 28, 1938, to Apr. 14, 1966, at site 350 ft (107 m) upstream at datum 5.00 ft (1.524 m) higher; Apr. 14, 1966, to July 17, 1969, at site 350 ft (107 m) upstream at datum 3.00 ft (0.914 m) higher.

REMARKS.--Records fair. Regulation by Silverwood Lake, capacity, 78,000 acre-ft (96.2 hm<sup>3</sup>) used for the storage and distribution of imported water and recreation, and by Mojave Forks Reservoir since June 1970, capacity, 89,700 acre-ft (111 hm<sup>3</sup>) with ungated opening, capacity, 23,500 ft<sup>3</sup>/s (666 m<sup>3</sup>/s). Diversions and pumping for irrigation of about 5,000 acres (20.2 km<sup>2</sup>) and Mojave State Fish Hatchery (since 1970) above station.

AVERAGE DISCHARGE.--58 years (water years 1900-06, 1931-81), 78.8 ft<sup>3</sup>/s (2.232 m<sup>3</sup>/s), 57,090 acre-ft/yr (70.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,600 ft<sup>3</sup>/s (2,000 m<sup>3</sup>/s) Mar. 2, 1938, gage height, 23.7 ft (7.22 m), present datum, from rating curve extended above 10,000 ft<sup>3</sup>/s (283 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; minimum daily, 3.4 ft<sup>3</sup>/s (0.096 m<sup>3</sup>/s) July 25, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 149 ft<sup>3</sup>/s (4.22 m<sup>3</sup>/s), Mar. 1, gage height, 4.14 ft (1.262 m); minimum daily, 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s) several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	41	45	47	47	80	40	29	24	13	12	16
2	27	38	48	47	45	53	41	30	23	13	12	15
3	28	38	52	47	44	47	41	30	23	13	13	18
4	29	38	48	48	44	49	41	31	22	15	13	19
5	29	37	47	48	42	49	41	29	22	14	13	16
6	30	40	47	48	46	55	40	31	22	14	13	17
7	31	40	42	49	44	46	39	29	22	15	13	18
8	33	41	42	49	47	48	42	27	21	15	15	19
9	34	38	39	49	49	43	42	27	18	15	15	19
10	35	41	42	50	46	46	42	26	21	15	16	18
11	36	41	41	65	47	42	43	26	21	15	15	18
12	37	41	40	60	50	48	41	25	19	15	15	19
13	38	40	41	50	43	46	36	23	19	15	15	18
14	39	41	41	49	42	47	35	21	19	15	15	16
15	40	41	40	54	44	45	33	21	19	15	15	17
16	38	42	40	57	42	47	33	21	17	14	17	15
17	36	43	40	51	40	43	33	20	17	13	18	14
18	36	41	42	50	44	39	34	20	16	13	17	15
19	36	41	41	51	43	37	35	22	17	13	17	16
20	36	40	43	51	40	46	33	23	19	13	16	17
21	36	38	41	48	41	46	31	24	19	12	16	17
22	36	41	44	47	40	50	29	23	20	13	16	17
23	39	41	44	47	38	43	29	24	17	12	16	17
24	37	44	44	46	37	44	31	22	16	12	17	17
25	38	42	44	45	37	43	31	22	15	12	17	19
26	36	43	45	42	41	44	31	23	15	13	18	17
27	37	45	45	42	38	41	31	24	15	13	19	18
28	37	45	45	45	47	42	31	29	14	12	18	17
29	36	46	46	53	---	43	28	29	13	13	16	19
30	36	44	46	51	---	44	27	28	13	12	17	22
31	38	---	46	49	---	41	---	26	---	12	17	---
TOTAL	1081	1232	1351	1535	1208	1437	1064	785	558	419	482	520
MEAN	34.9	41.1	43.6	49.5	43.1	46.4	35.5	25.3	18.6	13.5	15.5	17.3
MAX	40	46	52	65	50	80	43	31	24	15	19	22
MIN	27	37	39	42	37	37	27	20	13	12	12	14
AC-FT	2140	2440	2680	3040	2400	2850	2110	1560	1110	831	956	1030
CAL YR 1980	TOTAL	115625	MEAN	316	MAX	10000	MIN 19	AC-FT	229300			
WTR YR 1981	TOTAL	11672	MEAN	32.0	MAX	80	MIN 12	AC-FT	23150			

## 10261500 MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-65, 1967 to current year.

CHEMICAL ANALYSES: Water years 1967 to current year; water years 1969-74 (partial-record station).

BIOLOGICAL DATA: Water years 1975 to current year.

WATER TEMPERATURES: Water years 1962-65, 1975 to September 1980.

SEDIMENT RECORDS: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1975 to September 1981 (discontinued).

WATER TEMPERATURES: March 1962 to September 1965, June 1975 to September 1980.

INSTRUMENTATION.--Specific-conductance recorder from June 1975 to September 1981. Temperature recorder from March 1962 to September 1965 and from June 1975 to September 1980.

REMARKS.--Periods of missing conductivity data due to sand accumulation around probes, equipment malfunction, or vandalism.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,570 micromhos Aug. 6, 1981; minimum recorded, 124 micromhos May 8, 1980.

WATER TEMPERATURES: Maximum recorded, 36.0°C Aug. 5, 1978; minimum recorded, 0.0°C Feb. 12, 1980.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,570 micromhos Aug. 6; minimum recorded, 320 micromhos Mar. 1.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW- INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FFCAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT										
17...	1230	36	480	7.8	20.5	1.3	6.7	50	370	130
NOV										
20...	1100	40	450	8.2	16.0	4.0	7.9	K32	51	130
DEC										
17...	1200	43	470	7.9	4.5	2.0	--	K21	40	120
JAN										
14...	1245	44	425	8.2	15.0	.70	7.2	K8	64	120
FEB										
20...	1130	40	440	8.2	15.0	2.1	7.2	K14	--	130
MAR										
19...	1100	37	450	8.1	11.5	2.1	7.4	K12	67	130
APR										
16...	1200	30	420	8.1	29.0	1.5	6.3	98	95	130
MAY										
21...	1130	22	500	7.9	18.2	1.4	--	40	220	140
JUN										
16...	1300	18	560	7.6	30.0	--	6.8	K41	160	--
JUL										
22...	1130	13	520	8.0	25.0	.50	7.5	61	K270	140
AUG										
14...	1100	15	500	8.0	26.0	.90	5.3	52	K290	130
SEP										
18...	1130	14	505	8.0	25.0	1.5	5.2	29	380	130

K Results based on colony count outside the acceptable range (non-ideal colony count).

## MOJAVE RIVER BASIN

10261500 MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT 17...	.00	38	7.4	46	43	1.8	4.3	160	31	24
NOV 20...	.00	39	7.9	39	39	1.5	4.0	150	32	24
DEC 17...	.00	34	7.4	39	41	1.6	5.5	--	30	22
JAN 14...	.00	35	6.9	38	41	1.5	3.7	140	33	21
FEB 20...	.00	38	8.0	39	39	1.5	3.1	140	35	22
MAR 19...	.00	38	7.9	40	40	1.5	3.9	140	33	23
APR 16...	.00	40	7.9	42	40	1.6	3.4	150	35	20
MAY 21...	.00	41	8.6	49	43	1.8	3.4	160	39	26
JUN 16...	--	--	--	--	--	--	--	--	--	--
JUL 22...	.00	41	8.1	53	45	2.0	5.1	160	46	23
AUG 14...	.00	39	8.3	55	46	2.2	5.0	160	39	29
SEP 18...	.00	39	8.7	52	45	2.1	4.6	160	--	30

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
OCT 17...	.4	25	269	280	2.3	1.8	1.10	.940	--	--
NOV 20...	.4	23	260	264	.92	.94	1.10	1.10	.40	.30
DEC 17...	.4	23	253	256	1.0	1.0	.910	.930	.69	.37
JAN 14...	.4	23	247	249	.96	.94	.710	.760	--	.74
FEB 20...	.4	23	261	258	1.1	1.1	.400	.400	.90	--
MAR 19...	.4	22	253	257	.99	.98	--	.500	--	.60
APR 16...	.4	24	270	267	1.0	.98	.430	.460	.57	.54
MAY 21...	.4	24	284	293	1.1	1.2	.460	.460	.52	.40
JUN 16...	--	--	--	--	--	--	--	--	--	--
JUL 22...	.4	28	307	305	.95	.93	.640	.650	.76	.55
AUG 14...	.4	29	305	304	.77	.76	1.00	1.10	.50	.50
SEP 18...	.4	--	294	--	.87	--	.550	--	--	--



## 10261500 MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDEO TOTAL (MG/L AS C)
OCT 17...	--	--	--	--	.410	.260	--	6.9	--
NOV 20...	1.50	1.4	2.4	2.3	.370	.320	2.6	--	--
DEC 17...	1.60	1.3	2.6	2.3	.370	.330	4.7	--	--
JAN 14...	--	1.5	--	2.4	.330	--	--	7.5	.1
FEB 20...	1.30	--	2.4	--	.270	.210	6.5	--	--
MAR 19...	--	1.1	--	2.1	--	.220	4.8	--	--
APR 16...	1.00	1.0	2.0	2.0	.280	.260	--	5.8	.2
MAY 21...	.98	.86	2.1	2.1	.290	.250	6.0	--	--
JUN 16...	--	--	--	--	--	--	--	--	--
JUL 22...	1.40	1.2	2.4	2.1	.640	.630	--	2.6	.1
AUG 14...	1.50	1.6	2.3	2.4	.650	.550	8.0	--	--
SEP 18...	1.10	.79	2.0	--	.500	--	3.1	--	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)
OCT 17...	1230	--	4	100	50	0	<1	10	0	1
JAN 14...	1245	3	3	100	50	0	<1	0	0	0
APR 16...	1200	3	3	100	90	0	<1	20	10	1
JUL 22...	1130	7	6	--	50	2	<1	10	0	0

DATE	CORAL, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
OCT 17...	<3	10	2	1600	20	3	3	80	20	.0
JAN 14...	<3	5	1	670	40	72	0	30	20	.1
APR 16...	<3	3	3	310	40	0	0	20	8	.1
JUL 22...	<3	3	2	430	30	4	0	50	10	.5

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 17...	.0	2	0	0	0	0	0	40	30
JAN 14...	.0	2	0	0	0	--	1	20	5
APR 16...	.0	2	1	0	0	0	0	--	20
JUL 22...	.1	0	0	0	0	0	0	--	30

&lt; Actual value is known to be less than the value shown.

## MOJAVE RIVER BASIN

10261500 MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR 1980 TO SEPTEMBER 1981  
PHYTOPLANKTON

DATE TIME	NOV 20,80 1155	MAR 19,81 1100	MAY 21,81 1130	JUN 16,81 1300				
TOTAL CELLS/ML	1700	77	1200	630				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....SCHROEDERIA	14	1	--	-	--	-	13	2
....DICTYOSPHAERIACEAE	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....HYDRODICTYACEAE	--	-	--	-	570#	46	--	-
....HYDRODICTYON	--	-	--	-	--	-	39	6
....PEDIASTRUM	--	-	--	-	--	-	--	-
....OOCYSTACEAE	--	-	--	-	--	-	--	-
....ANKISTRODESMUS	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	14	1	--	-	--	-	--	-
....PALMELLACEAE	--	-	--	-	--	-	--	-
....SPHAEROCYSTIS	110	6	--	-	--	-	--	-
....SCENEDESMACEAE	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	100	8	210#	33
..VOLVOCES								
...CHLAMYDOMONADACEAE								
...CHLAMYDOMONAS	150	9	13#	17	90	7	77	12
...VOLVOCACEAE	--	-	--	-	--	-	--	-
...PANDORINA	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
..BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
...CYCLOTELLA	14	1	--	-	--	-	--	-
...MELOSIRA	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
...ACHNANTHES	150	9	--	-	--	-	13	2
...CYMBELLACEAE								
...AMPHORA	27	2	--	-	--	-	--	-
...CYMBELLA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
...SYNEDRA	14	1	--	-	--	-	--	-
...GOMPHONEMATACEAE								
...GOMPHONEMA	--	-	--	-	--	-	26	4
...NAVICULACEAE								
...NAVICULA	55	3	39#	50	150	13	90	14
...NITZSCHIA								
...NITZSCHIA	260#	15	26#	33	13	1	90	14
..CHRYSOPHYCEAE								
..OCHROMONADALES								
...OCHROMONADACEAE								
...OCHROMONAS	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
...CHROOMONAS	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE								
...CRYPTOMONAS	--	-	--	-	--	-	13	2
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	55	3	--	-	--	-	13	2
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-
..NOSTOCALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	310#	25	52	8
...OSCILLATORIALES								
...OSCILLATORIACEAE								
....LYNGBYA	410#	24	--	-	--	-	--	-
...OSCILLATORIA	450#	26	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-

See footnotes at end of table.

10261500 MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	JUL 22,81 1130		AUG 14,81 1100		SEP 18,81 1130	
TOTAL CELLS/ML	4000		3700		2800	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...CHLOROCOCCALES						
...CHLOROCOCCACEAE						
....SCHROEDERIA	--	-	--	-	--	-
....DICTYOSPHAERIACEAE						
....DICTYOSPHAERIUM	--	-	--	-	56	2
....HYDRODICTYACEAE						
....HYDRODICTYON	--	-	--	-	--	-
....PEDIASTRUM	--	-	--	-	--	-
....OOCYSTACEAE						
....ANKISTRODESMUS	--	-	--	-	28	1
....KIRCHNERIELLA	--	-	41	1	--	-
....OOCYSTIS	--	-	--	-	--	-
....PALMELLACEAE						
....SPHAEROCYSTIS	--	-	--	-	--	-
....SCENEDESMACEAE						
....SCENEDESMUS	210	5	150	4	84	3
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
...CHLAMYDOMONAS	77	2	--	-	200	7
...VOLVOCAEAE						
....PANDORINA	1000#	26	--	-	--	-
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
...CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	--	-	--	-	*	0
....MELOSIRA	--	-	190	5	--	-
..PENNALES						
...ACHNANTHACEAE						
...ACHNANTHES	--	-	--	-	320	11
...CYMBELLACEAE						
....AMPHORA	--	-	--	-	--	-
....CYMBELLA	--	-	55	1	--	-
....FRAGILARIACEAE						
....SYNEDRA	--	-	41	1	--	-
...GOMPHONEMACEAE						
....GOMPHONEMA	*	0	--	-	28	1
...NAVICULACEAE						
....NAVICULA	26	1	1000#	28	56	2
...NITZSCHACEAE						
....NITZSCHIA	150	4	180	5	150	5
..CHRYSOPHYCEAE						
...OCHROMONADALES						
...OCHROMONADACEAE						
....OCHROMONAS	--	-	--	-	70	2
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	--	-	*	0
...CRYPTOMONADACEAE						
....CRYPTOMONAS	64	2	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	140	4	--	-	310	11
....GOMPHOSPHAERIA	--	-	380	10	700#	25
...NOSTOCALES						
...NOSTOCAEAE						
....ANABAENA	--	-	1600#	44	--	-
...OSCILLATORIALES						
...OSCILLARIACEAE						
....LYNGBYA	320	8	--	-	--	-
....OSCILLATORIA	1900#	49	--	-	780#	28
EUGLENOPHYTA (EUGLENIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	--	-	28	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

\* - OBSERVED ORGANISM; MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## 10261500 MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE, CA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	532	516	525	513	493	499	508	476	493
2	---	---	---	533	525	530	500	482	492	507	455	485
3	---	---	---	535	525	529	510	478	490	499	469	487
4	---	---	---	529	477	503	512	468	490	540	488	515
5	---	---	---	496	476	485	485	473	477	518	466	501
6	---	---	---	498	486	491	477	473	474	511	471	487
7	---	---	---	495	485	491	478	470	473	503	455	488
8	---	---	---	491	487	488	476	470	472	490	420	442
9	---	---	---	490	478	484	505	459	476	500	428	464
10	---	---	---	488	474	480	517	457	479	454	390	421
11	---	---	---	480	474	476	539	451	494	457	439	447
12	---	---	---	501	481	489	484	458	474	---	---	---
13	---	---	---	519	489	504	488	448	471	---	---	---
14	---	---	---	508	478	489	535	473	500	---	---	---
15	---	---	---	492	474	480	551	479	514	369	341	355
16	---	---	---	479	477	478	514	460	492	419	359	366
17	---	---	---	483	471	476	512	430	492	---	---	---
18	---	---	---	481	469	474	532	448	480	---	---	---
19	---	---	---	476	470	476	549	451	516	---	---	---
20	---	---	---	478	472	477	493	413	454	---	---	---
21	---	---	---	481	473	476	498	452	483	---	---	---
22	502	494	498	483	473	478	500	434	476	---	---	---
23	498	490	495	488	470	477	461	403	432	---	---	---
24	503	491	498	480	474	476	481	395	443	---	---	---
25	503	493	498	482	476	478	531	409	461	---	---	---
26	511	497	502	483	473	479	536	502	523	---	---	---
27	514	500	507	487	475	478	538	464	520	---	---	---
28	514	500	507	490	476	481	529	483	506	---	---	---
29	529	515	521	512	480	492	513	467	490	---	---	---
30	537	523	531	515	489	498	492	456	475	---	---	---
31	542	530	535	---	---	---	498	458	485	---	---	---
MONTH	542	490	509	535	469	488	551	395	484	540	341	458
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	612	320	475	535	479	508	633	541	596
2	---	---	---	522	410	454	530	504	523	616	582	599
3	---	---	---	599	517	555	557	497	528	621	581	597
4	---	---	---	663	569	612	568	498	537	601	577	590
5	---	---	---	682	634	658	551	479	517	602	532	582
6	---	---	---	680	592	643	531	487	510	589	521	575
7	---	---	---	679	485	559	506	484	497	602	496	546
8	---	---	---	679	629	666	499	479	492	523	507	515
9	---	---	---	995	501	788	544	480	500	526	502	514
10	---	---	---	540	488	511	547	461	495	535	465	504
11	---	---	---	864	476	511	490	468	484	507	443	496
12	---	---	---	495	463	484	495	471	482	526	494	506
13	---	---	---	515	477	493	509	467	489	1080	483	583
14	---	---	---	512	422	485	502	472	485	1350	558	1160
15	---	---	---	530	428	473	547	487	525	1180	467	773
16	---	---	---	464	418	446	566	390	468	1280	612	934
17	---	---	---	469	425	453	389	377	382	1290	451	796
18	---	---	---	473	435	459	398	382	389	913	451	564
19	---	---	---	498	442	470	423	367	398	1210	452	618
20	478	446	466	501	491	495	429	415	422	505	453	484
21	475	443	465	498	484	492	520	430	468	530	440	486
22	491	459	476	497	471	488	635	499	556	---	---	---
23	529	475	497	533	491	507	654	632	641	---	---	---
24	530	494	520	496	480	490	633	507	590	---	---	---
25	524	488	509	509	487	498	612	552	581	---	---	---
26	509	461	494	512	478	489	585	477	567	---	---	---
27	515	459	495	561	491	516	571	479	514	---	---	---
28	634	456	516	526	482	497	592	470	523	---	---	---
29	---	---	---	495	479	489	601	481	542	---	---	---
30	---	---	---	505	477	489	612	486	566	---	---	---
31	---	---	---	514	484	502	---	---	---	---	---	---
MONTH	634	443	493	995	320	521	654	367	506	1350	440	620



## MOJAVE RIVER BASIN

10262000 MOJAVE RIVER NEAR HODGE, CA

LOCATION.--Lat 34°50'09", long 117°11'27", in SW¼SE¼SE¼ sec.28, T.9 N., R.3 W., San Bernardino County, Hydrologic Unit 18090208, at county bridge 1.5 mi (2.4 km) north of Hodge, 10.9 mi (17.5 km) southwest of Barstow, and 44.5 mi (71.6 km) downstream from Silverwood Lake.

DRAINAGE AREA.--1,091 mi<sup>2</sup> (2,826 km<sup>2</sup>).

PERIOD OF RECORD.--October 1930 to September 1932, October 1970 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 2,260 ft (689 m), from topographic map. Prior to Oct. 1, 1970, at different datum.

REMARKS.--No flow since Aug. 17, 1979. No gage-height record Oct. 1 to July 23. Regulation by Lake Arrowhead, capacity 48,000 acre-ft (59.2 hm<sup>3</sup>) used principally for recreation, Silverwood Lake, capacity, 78,000 acre-ft (96.2 hm<sup>3</sup>) used for the storage and distribution of imported water and recreation, and Mojave Forks Reservoir, capacity 89,700 acre-ft (111 hm<sup>3</sup>), with ungated opening, capacity, 23,500 ft<sup>3</sup>/s (666 m<sup>3</sup>/s). Diversion and pumping for irrigation of about 12,000 acres (48.6 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--13 years, (water years 1931-32, 1971-81), 44.4 ft<sup>3</sup>/s (1.257 m<sup>3</sup>/s), 32,170 acre-ft/yr (39.7 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft<sup>3</sup>/s (360 m<sup>3</sup>/s) Feb. 10, 1978, gage height, 8.80 ft (2.682 m), no flow all or most of each year.

EXTREMES FOR CURRENT YEAR.--Discharge figures for the calendar year 1980 are as follows: Total, 86,759.40 ft<sup>3</sup>/s (2457.03 m<sup>3</sup>/s), 172,100 acre-ft/yr (212 hm<sup>3</sup>/yr); mean, 237 ft<sup>3</sup>/s (6.71 m<sup>3</sup>/s); maximum daily, 9,430 ft<sup>3</sup>/s (267 m<sup>3</sup>/s); minimum daily, no flow.

## 10262500 MOJAVE RIVER AT BARSTOW, CA

LOCATION.--Lat 34°54'25", long 117°01'19", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec.31, T.10 N., R.1 W., San Bernardino County, Hydrologic Unit 18090208, on left bank 75 ft (23 m) upstream from bridge on U.S. Highway 91 at Barstow.

DRAINAGE AREA.--1,291 mi<sup>2</sup> (3,344 km<sup>2</sup>).

PERIOD OF RECORD.--October 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,089.34 ft (636.831 m) National Geodetic Vertical Datum of 1929.

REMARKS.--No flow since May 6, 1980. Regulation by Lake Arrowhead, capacity, 48,000 acre-ft (59.2 hm<sup>3</sup>) used principally for recreation, Silverwood Lake, capacity, 78,000 acre-ft (96.2 hm<sup>3</sup>) used for the storage and distribution of imported water and recreation, and Mojave Forks Reservoir, capacity, 89,700 acre-ft (111 hm<sup>3</sup>) with ungated opening, capacity, 23,500 ft<sup>3</sup>/s (666 m<sup>3</sup>/s). Diversions and pumping for irrigation of about 15,000 acres (60.7 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--51 years, 25.2 ft<sup>3</sup>/s (0.714 m<sup>3</sup>/s), 18,260 acre-ft/yr (22.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,300 ft<sup>3</sup>/s (1,820 m<sup>3</sup>/s) Mar. 3, 1938, gage height, 8.60 ft (2.621 m), on basis of slope-area measurement of maximum flow; no flow for most months each year.

EXTREMES FOR CURRENT YEAR.--Discharge figures for the calendar year 1980 are as follows: Total, 69,400.44 ft<sup>3</sup>/s (1965.41 m<sup>3</sup>/s); 137,700 acre-ft/yr (170 hm<sup>3</sup>/yr); mean, 190 ft<sup>3</sup>/s (5.38 m<sup>3</sup>/s); maximum daily, 8,280 ft<sup>3</sup>/s (234 m<sup>3</sup>/s); minimum daily, no flow.

## MOJAVE RIVER BASIN

10263000 MOJAVE RIVER AT AFTON, CA

LOCATION.--Lat 35°02'14", long 116°23'00", in SW¼NW¼SE¼ sec.18, T.11 N., R.6 E., San Bernardino County, Hydrologic Unit 18090208, on downstream end of right pier of Union Pacific Railroad bridge, 0.3 mi (0.5 km) west of Afton.

DRAINAGE AREA. --2,121 mi<sup>2</sup> (5,493 km<sup>2</sup>).

PERIOD OF RECORD.--October 1929 to September 1932, October 1952 to current year. Records for the water year 1930 incomplete, yearly estimate published in WSP 1314. Records for the water years 1979 and 1980 incomplete, discharge measurements only were published at that time.

GAGE.--Water-stage recorder. Datum of gage is 1,398.15 ft (426.156 m) National Geodetic Vertical Datum of 1929. Dec. 21, 1929, to Sept. 30, 1932, at site 1.7 mi (2.7 km) downstream at different datum; Oct. 1952 to May 1978 at datum 2 ft (0.61 m) higher.

REMARKS.--Records fair. Natural flow affected by ground-water withdrawals, diversions, municipal use, and storage in upstream reservoirs 100 mi (160 km) upstream (station 10261500).

AVERAGE DISCHARGE.--30 years (water years 1930-32, 1953-78, 1981), 7.02 ft<sup>3</sup>/s (0.199 m<sup>3</sup>/s), 5,090 acre-ft/yr (6.28 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft<sup>3</sup>/s (510 m<sup>3</sup>/s) Jan. 26, 1969, gage height, 10.40 ft (3.170 m), from rating curve extended above 3,200 ft<sup>3</sup>/s (90.6 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 571 ft<sup>3</sup>/s (16.2 m<sup>3</sup>/s) Sept. 7, gage height, 7.94 ft (2.420 m), on basis of slope-area measurement; minimum daily, 0.88 ft<sup>3</sup>/s (0.025 m<sup>3</sup>/s) July 29, 31, Aug. 1, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.9	3.2	2.4	2.4	1.9	1.6	1.5	1.5	1.4	.88	1.6
2	1.6	1.8	3.4	2.4	2.4	1.9	1.6	1.6	1.5	1.4	.96	1.5
3	1.6	2.1	3.2	2.4	2.4	1.9	1.6	1.5	1.5	1.4	.88	1.5
4	1.5	2.1	2.9	2.5	2.4	1.8	1.6	1.7	1.6	1.4	.96	6.0
5	1.3	1.9	2.5	2.5	2.4	2.1	1.7	1.7	1.6	1.4	.96	3.5
6	1.2	2.4	2.4	2.5	2.4	1.7	1.7	1.7	1.5	1.3	1.1	2.5
7	1.2	2.4	2.2	2.5	2.4	1.7	1.7	1.7	1.5	1.3	.96	38
8	1.3	2.4	2.1	2.5	2.4	1.8	1.7	1.7	1.6	1.3	.96	4.0
9	1.5	2.1	2.1	2.4	2.4	1.8	1.7	1.7	1.6	1.3	.96	3.0
10	1.5	2.1	2.2	2.2	2.5	1.8	1.7	1.6	1.6	1.2	.96	2.0
11	1.3	1.9	2.2	2.2	2.7	1.9	1.9	1.6	1.6	1.2	.96	2.0
12	1.3	2.2	2.1	2.2	2.5	1.9	1.9	1.5	1.5	1.3	1.1	2.0
13	1.5	2.2	2.1	1.9	2.4	1.9	1.9	1.5	1.6	1.3	1.1	1.5
14	1.5	2.2	1.8	1.8	2.5	2.0	1.9	1.5	1.5	1.2	2.1	1.5
15	1.5	2.1	1.9	1.7	2.9	2.0	1.9	1.5	1.7	1.5	1.5	1.4
16	1.5	2.1	1.9	1.8	2.7	2.0	1.9	1.3	1.6	1.2	1.4	1.1
17	1.8	2.1	1.9	1.9	2.7	2.1	2.1	1.5	1.7	1.2	1.4	1.3
18	1.9	2.1	2.0	1.9	2.7	2.1	2.2	1.5	1.7	1.1	1.4	1.3
19	1.8	2.1	2.0	1.8	2.5	2.1	1.9	1.5	1.7	1.1	1.4	1.1
20	1.8	2.4	2.0	1.7	2.9	1.9	1.9	1.3	1.7	1.1	1.4	1.1
21	1.6	2.4	2.0	1.7	2.7	1.9	1.9	1.5	1.6	1.1	1.4	1.1
22	1.7	2.2	2.1	1.6	3.0	1.9	1.9	1.5	1.6	1.1	1.3	1.1
23	1.7	2.4	2.2	1.6	2.7	1.9	1.9	1.5	1.6	1.1	1.3	1.1
24	1.6	2.4	2.2	2.1	2.5	1.9	1.8	1.5	1.6	1.1	1.3	1.1
25	1.7	2.2	2.2	2.2	2.4	1.9	1.7	1.5	1.6	1.1	1.3	1.1
26	1.7	2.7	2.2	2.4	2.2	2.1	1.8	1.5	1.5	1.1	1.3	1.1
27	1.7	2.9	2.3	2.2	2.1	1.9	1.9	2.0	1.5	1.1	1.3	1.1
28	1.7	3.0	2.3	2.2	1.9	1.9	1.7	1.5	1.5	1.1	1.3	1.1
29	1.6	2.9	2.3	2.5	---	1.8	1.8	1.5	1.5	.88	1.3	1.1
30	1.8	3.0	2.3	2.4	---	1.5	1.6	1.5	1.5	.96	1.3	1.1
31	1.8	---	2.4	2.4	---	1.7	---	1.5	---	.88	1.2	---
TOTAL	48.8	68.7	70.6	66.5	70.1	58.7	54.1	48.1	47.3	37.12	37.64	88.9
MEAN	1.57	2.29	2.28	2.15	2.50	1.89	1.80	1.55	1.58	1.20	1.21	2.96
MAX	1.9	3.0	3.4	2.5	3.0	2.1	2.2	2.0	1.7	1.5	2.1	38
MIN	1.2	1.8	1.8	1.6	1.9	1.5	1.6	1.3	1.5	.88	.88	1.1
AC-FT	97	136	140	132	139	116	107	95	94	74	75	176
CAL YR 1980	TOTAL	4760.04	MEAN 13.0	MAX 2100	MIN .99	AC-FT	9440					
WTR YR 1981	TOTAL	696.56	MEAN 1.91	MAX 38	MIN .88	AC-FT	1380					



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LOCATION.--Lat 34°25'15", long 117°50'19", in NW¼SE¼NE¼ sec.20, T.4 N., R.9 W., Los Angeles County, Hydrologic Unit 18090206, on left bank 0.1 mi (0.2 km) upstream from Punchbowl Canyon, and 1.9 mi (3.1 km) southeast of Valvermo.

PERIOD OF RECORD.--January 1923 to current year. Monthly discharge only for October 1937 to January 1939, published in WSP 1314. Prior to October 1954, published as Rock Creek near Valyermo.

GAGE.--Water-stage recorder. Altitude of gage is 4,050 ft (1,234 m), from topographic map. Prior to May 4, 1938, at same site at different datums. May 4, 1938, to Jan. 26, 1939, at site 0.2 mi (0.3 km) downstream (below Punchbowl Canyon) at different datum.

AVERAGE DISCHARGE.--58 years (water years 1924-81), 17.5 ft<sup>3</sup>/s (0.496 m<sup>3</sup>/s), 12,680 acre-ft/yr (15.6 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,300 ft<sup>3</sup>/s (235 m<sup>3</sup>/s) Mar. 2, 1938, on basis of slope-area measurement of maximum flow; minimum daily, 0.70 ft<sup>3</sup>/s (0.020 m<sup>3</sup>/s) Nov. 5, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23 ft<sup>3</sup>/s (0.651 m<sup>3</sup>/s) Mar. 1, gage height, 1.31 ft (0.399 m), no peak above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s); minimum daily, 2.8 ft<sup>3</sup>/s (0.079 m<sup>3</sup>/s) Sept. 10-26.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	6.3	7.5	5.1	6.4	15	12	11	7.1	4.7	3.8	3.0
2	7.4	6.3	7.5	5.2	6.4	11	13	11	6.8	4.7	3.8	3.0
3	7.4	6.8	8.8	5.4	6.4	10	12	11	6.7	4.6	3.8	3.0
4	7.4	6.8	7.3	5.4	6.4	9.7	11	11	6.7	4.6	3.8	3.0
5	6.7	6.6	5.6	5.4	6.5	10	11	11	6.6	4.7	3.7	2.9
6	6.7	6.5	5.4	5.4	6.5	10	11	10	6.2	4.7	3.9	2.9
7	7.4	6.4	5.4	5.3	6.5	9.6	11	10	5.7	4.6	3.9	2.9
8	6.7	6.2	5.4	5.3	7.0	9.4	11	10	5.7	4.7	3.8	2.9
9	6.7	5.8	5.8	5.1	7.7	9.3	11	9.9	5.5	5.0	3.8	2.9
10	6.7	5.9	5.8	5.1	7.8	9.4	11	9.6	5.4	4.9	3.8	2.8
11	6.7	6.0	5.6	5.4	8.2	9.7	11	9.5	5.4	4.4	3.7	2.8
12	7.4	6.7	5.4	5.4	8.1	10	11	9.4	5.4	4.7	3.7	2.8
13	8.2	6.7	5.4	5.3	8.0	10	11	9.3	5.3	4.7	3.7	2.8
14	9.1	6.7	5.4	5.4	7.4	10	11	9.2	5.2	4.7	3.6	2.8
15	9.1	6.8	5.3	5.5	7.3	9.6	11	9.2	5.1	4.8	3.6	2.8
16	9.1	6.8	5.3	5.8	7.3	9.3	11	9.2	5.0	4.8	3.5	2.8
17	8.5	6.8	5.3	5.8	7.4	9.4	11	9.0	4.9	4.5	3.5	2.8
18	8.0	6.7	5.2	5.8	7.4	9.8	12	8.8	4.8	4.5	3.5	2.8
19	7.7	6.6	5.2	5.6	7.4	11	12	8.8	4.8	4.5	3.4	2.8
20	7.1	7.0	5.1	5.7	7.4	13	12	8.9	4.8	4.5	3.4	2.8
21	6.9	7.3	5.1	5.8	7.5	12	11	8.7	4.7	4.4	3.4	2.8
22	6.9	6.8	5.1	5.8	7.6	12	12	8.3	4.7	4.4	3.3	2.8
23	6.8	6.6	5.1	6.3	7.6	13	12	8.1	4.7	4.3	3.3	2.8
24	6.7	7.1	5.1	6.1	7.4	13	13	7.8	4.7	4.3	3.3	2.8
25	6.4	7.3	5.0	6.4	7.5	13	12	7.9	4.7	4.3	3.2	2.8
26	6.4	6.8	5.0	6.5	7.7	15	12	7.9	4.7	4.2	3.2	2.8
27	6.5	6.4	4.8	6.1	7.3	15	12	8.2	4.7	4.0	3.2	2.9
28	6.6	6.3	4.8	7.0	8.5	14	12	7.9	4.7	4.0	3.1	2.9
29	6.7	6.0	4.8	8.9	---	13	11	7.5	4.7	3.8	3.1	2.9
30	6.5	7.2	4.9	6.8	---	13	11	7.3	4.7	3.8	3.1	2.9
31	6.5	---	5.2	6.4	---	13	---	7.3	---	3.9	3.1	---
TOTAL	225.1	198.2	172.6	180.5	204.6	351.2	345	282.7	160.1	138.7	109.0	85.7
MEAN	7.26	6.61	5.57	5.82	7.31	11.3	11.5	9.12	5.34	4.47	3.52	2.86
MAX	9.1	7.3	8.8	8.9	8.5	15	13	11	7.1	5.0	3.9	3.0
MIN	6.4	5.8	4.8	5.1	6.4	9.3	11	7.3	4.7	3.8	3.1	2.8
AC-FT	446	393	342	358	406	697	684	561	318	275	216	170
CAL YR 1980	TOTAL	20563.7	MEAN	56.2	MAX	1400	MIN	4.8	AC-FT	40790		
WTR YR 1981	TOTAL	2453.4	MEAN	6.72	MAX	15						

## ANTELOPE VALLEY

10264600 OAK CREEK NEAR MOJAVE, CA

LOCATION.--Lat 35°03'00", long 118°21'25", in NW¼ sec.15, T.11 N., R.14 W., Kern County, Hydrologic Unit 18090206, on upstream right wingwall of culvert, 100 ft (30 m) downstream from unnamed tributary, 0.1 mi (0.2 km) west of junction of Oak Creek and Willow Springs Roads, and 10.5 mi (16.9 km) west of Mojave.

DRAINAGE AREA. - 15.8 mi<sup>2</sup> (40.9 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 4,100 ft (1,250 m), from topographic map.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--24 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, 1,740 ft<sup>3</sup>/s (49.3 m<sup>3</sup>/s) May 14, 1973, by slope-area measurement, peak caused by failure of small earthen dam 4 mi (6 km) upstream during intense local thunderstorm; maximum gage height, 10.53 ft (3.210 m) May 14, 1973, ponding at culvert 0.1 mi (0.2 km) downstream; no flow for some months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11 ft<sup>3</sup>/s (0.31 m<sup>3</sup>/s) Mar. 6, gage height, 1.28 ft (0.390 m); minimum daily, 0.02 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Sept. 3-14, 20-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.36	.55	.52	1.1	2.1	1.1	.77	.40	.06	.05	.03
2	.11	.38	.55	.55	1.0	1.3	1.2	.77	.35	.06	.05	.03
3	.10	.39	.55	.55	1.1	1.2	1.1	.82	.34	.06	.04	.02
4	.10	.41	.55	.56	1.1	1.1	1.0	.84	.32	.06	.05	.02
5	.10	.43	.55	.60	1.0	1.1	1.0	.91	.27	.06	.05	.02
6	.10	.45	.57	.60	1.0	2.8	1.0	.82	.25	.06	.05	.02
7	.10	.47	.57	.59	1.0	1.5	1.0	.84	.24	.07	.05	.02
8	.10	.48	.55	.65	1.2	1.2	1.0	.81	.25	.07	.05	.02
9	.12	.50	.53	.66	1.3	1.1	1.0	.77	.24	.08	.04	.02
10	.13	.51	.51	.66	1.1	.97	1.0	.74	.22	.08	.04	.02
11	.15	.52	.52	.66	1.0	.91	.99	.66	.22	.08	.04	.02
12	.17	.54	.55	.66	1.0	.86	1.0	.69	.24	.07	.04	.02
13	.19	.55	.54	.67	.99	.85	1.0	.76	.27	.07	.04	.02
14	.22	.57	.54	.67	.97	.85	.96	.75	.26	.07	.04	.02
15	.22	.58	.55	.67	.99	.84	.93	.79	.25	.07	.04	.03
16	.23	.60	.54	.66	.97	.84	.94	.81	.22	.07	.04	.03
17	.23	.62	.52	.68	.95	.83	.97	.73	.17	.07	.04	.03
18	.23	.63	.48	.68	.92	.83	1.1	.71	.16	.07	.04	.03
19	.23	.64	.48	.68	.90	.91	1.1	.84	.15	.06	.03	.03
20	.20	.66	.49	.68	.88	1.5	1.1	.85	.12	.05	.03	.02
21	.20	.68	.50	.68	.86	1.3	1.0	.80	.11	.05	.04	.02
22	.20	.63	.49	.68	.84	1.1	.97	.65	.10	.05	.04	.03
23	.20	.59	.48	.75	.82	1.1	.92	.60	.09	.05	.04	.03
24	.20	.60	.49	.68	.81	1.0	.91	.54	.08	.05	.03	.03
25	.22	.62	.55	.68	.90	1.0	.92	.54	.08	.05	.03	.03
26	.29	.62	.55	.68	.82	1.2	.95	.57	.07	.05	.03	.03
27	.28	.58	.55	.68	.81	2.0	.96	.63	.07	.05	.03	.03
28	.29	.59	.55	1.1	.80	1.5	.90	.57	.06	.05	.03	.03
29	.32	.57	.55	1.4	---	1.3	.86	.47	.06	.05	.03	.03
30	.32	.56	.55	1.2	---	1.2	.82	.42	.06	.05	.03	.03
31	.34	---	.55	1.1	---	1.1	---	.43	---	.05	.03	---
TOTAL	6.00	16.33	16.50	22.28	27.13	37.39	29.70	21.90	5.72	1.89	1.21	.76
MEAN	.19	.54	.53	.72	.97	1.21	.99	.71	.19	.061	.039	.025
MAX	.34	.68	.57	1.4	1.3	2.8	1.2	.91	.40	.08	.05	.03
MIN	.10	.36	.48	.52	.80	.83	.82	.42	.06	.05	.03	.02
AC-FT	12	32	33	44	54	74	59	43	11	3.7	2.4	1.5
CAL YR 1980	TOTAL 531.04		MEAN 1.45	MAX 9.2	MIN .09	AC-FT 1050						
WTR YR 1981	TOTAL 186.81		MEAN .51	MAX 2.8	MIN .02	AC-FT 371						

## 10271210 BISHOP CREEK BELOW POWERPLANT NO. 6, NEAR BISHOP, CA

LOCATION.--Lat 37°20'59", long 118°27'41", in SE4SE4 sec.9, T.7 S., R.32 E., Inyo County, Hydrologic Unit 18090102, below powerplant No. 6 tailrace, and 3.6 mi (5.8 km) west of Bishop.

DRAINAGE AREA.--104 mi<sup>2</sup> or 269 km<sup>2</sup> (natural flow).

PERIOD OF RECORD.--October 1936 to current year. Monthly and yearly mean discharge prior to October 1969, published in WSP 2127.

GAGE.--None.

REMARKS.--Flow regulated for power development by South Lake, Lake Sabrina, and Intake No. 2 Reservoir, combined capacity, 20,660 acre-ft (25.5 hm<sup>3</sup>) and many powerhouses. Records for "actual flow" include Bishop Creek above powerplant No. 6 tailrace and Bishop Creek powerplant No. 6 conduit. Records for "natural flow" include "actual flow" of Bishop Creek below powerplant No. 6, Abelour ditch near Bishop, minus Birch-McGee diversion to Bishop Creek powerplant near Bishop, and the change in contents and evaporation for South Lake, Lake Sabrina, and Intake No. 2 Reservoir.

COOPERATION.--Records furnished by Southern California Edison Co. and reviewed by the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (Actual flow).--46 years, 99.5 ft<sup>3</sup>/s (2.818 m<sup>3</sup>/s), 72,090 acre-ft/yr (88.9 hm<sup>3</sup>/yr).  
(Natural flow).--46 years, 105 ft<sup>3</sup>/s (2.974 m<sup>3</sup>/s), 76,070 acre-ft/yr (93.8 hm<sup>3</sup>/yr).

EXTREMES (ACTUAL FLOW) FOR PERIOD OF RECORD (SINCE 1970).--Maximum daily discharge, 809 ft<sup>3</sup>/s (22.9 m<sup>3</sup>/s) Sept. 6, 1978; minimum daily, 32 ft<sup>3</sup>/s (0.91 m<sup>3</sup>/s) Dec. 19, 1977.

EXTREMES (ACTUAL FLOW) FOR CURRENT YEAR.--Maximum daily discharge, 136 ft<sup>3</sup>/s (3.85 m<sup>3</sup>/s) June 25; minimum daily, 59 ft<sup>3</sup>/s (1.67 m<sup>3</sup>/s) Jan. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	112	90	85	61	71	81	132	105	107	108	109
2	121	111	87	82	61	70	96	130	110	109	109	109
3	120	110	87	83	61	71	100	121	110	108	108	109
4	120	110	87	82	60	71	100	126	112	109	107	109
5	120	107	85	81	60	71	101	108	111	109	108	109
6	120	111	85	66	60	72	101	113	118	109	108	110
7	119	111	85	65	64	72	101	106	120	108	109	109
8	118	109	86	68	62	67	100	111	117	109	108	110
9	116	113	86	66	64	75	101	107	129	110	109	109
10	118	111	84	68	63	69	105	106	129	109	107	110
11	113	112	77	66	65	66	100	106	118	109	107	108
12	113	113	84	67	62	71	101	109	112	110	111	111
13	111	104	82	68	64	71	101	108	113	111	109	110
14	113	103	81	70	69	72	101	111	110	110	109	109
15	116	115	78	68	68	72	109	108	110	108	110	96
16	112	105	74	69	68	71	108	101	112	106	109	85
17	113	104	76	68	69	71	108	101	100	108	109	81
18	116	106	78	61	69	71	108	104	110	108	111	85
19	115	117	83	61	69	73	109	100	107	108	109	86
20	107	94	83	61	69	75	104	106	108	113	109	89
21	111	101	80	61	67	76	106	102	109	108	110	87
22	113	101	79	61	69	74	113	102	110	110	109	87
23	112	101	80	61	69	75	114	100	109	108	109	86
24	112	104	81	61	69	71	121	102	107	112	109	88
25	112	101	85	59	69	77	125	101	136	108	109	88
26	116	97	76	63	69	79	116	101	109	108	109	87
27	111	101	82	63	69	78	123	107	98	108	110	88
28	112	102	84	62	70	79	122	106	111	108	109	87
29	110	99	81	61	---	77	124	101	107	105	110	87
30	111	98	82	60	---	79	127	101	111	105	110	87
31	111	---	82	61	---	79	---	101	---	107	109	---
TOTAL	3564	3183	2550	2078	1839	2266	3226	3338	3360	3365	3377	2925
MEAN	115	106	82.3	67.0	65.7	73.1	108	108	112	109	109	97.5
MAX	132	117	90	85	70	79	127	132	136	113	111	111
MIN	107	94	74	59	60	66	81	100	98	105	107	81
AC-FT	7070	6310	5060	4120	3650	4490	6400	6620	6680	6670	6700	5800
a	3410	2790	2970	2740	2590	2940	4520	9480	16380	8000	5050	3590
CAL YR 1980 TOTAL	54337		MEAN 148	MAX 442	MIN 49	AC-FT 107800						
WTR YR 1981 TOTAL	35079		MEAN 96.1	MAX 136	MIN 59	AC-FT 69580	a	64460				

a Computed natural flow, in acre-feet.

## OWENS LAKE BASIN

10277400 OWENS RIVER BELOW TINEMAHA RESERVOIR, NEAR BIG PINE, CA  
(National stream-quality accounting network station)

LOCATION.--Lat 37°03'15", long 118°13'33", in SW¼NE¼ sec.26, T.10 S., R.34 E., Inyo County, Hydrologic Unit 18090102, about 100 ft (30 m) west of center of dam, and 8.4 mi (13.5 km) southeast of Big Pine.

DRAINAGE AREA.--1,964 mi<sup>2</sup> (5,087 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year. Since November 1951 in files of city of Los Angeles, Department of Water and Power as Owens River at Tinemaha Dam.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 3,860 ft (1,177 m), from topographic map.

REMARKS.--Records fair. Flow regulated since 1941 by Lake Crowley, capacity, 183,500 acre-ft (226 km<sup>3</sup>) and several small reservoirs, combined capacity, 41,400 acre-ft (51.0 km<sup>3</sup>). Diversions from both main stream and tributaries. Water imported from Mono Basin since 1941 for diversion to Los Angeles Aqueduct which diverts 4 mi (6 km) downstream.

COOPERATION.--Records were furnished by city of Los Angeles, Department of Water and Power.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 919 ft<sup>3</sup>/s (26.0 m<sup>3</sup>/s) Aug. 6, 1980; minimum daily, 5.0 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s) Sept. 15, 16, 25-30, 1976, Mar. 29, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 781 ft<sup>3</sup>/s (22.1 m<sup>3</sup>/s) Nov. 15; minimum daily, 9.0 ft<sup>3</sup>/s (0.25 m<sup>3</sup>/s) Mar. 14-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	645	723	681	670	698	592	11	632	656	597	695	635
2	645	726	684	670	695	595	11	605	651	597	698	637
3	645	729	670	670	695	587	11	605	600	605	698	643
4	645	729	673	678	692	566	11	605	582	608	698	637
5	648	746	676	678	692	320	11	603	576	605	692	635
6	648	775	678	678	692	307	11	600	574	619	695	635
7	648	772	678	687	692	303	11	603	579	645	687	637
8	518	772	673	701	701	295	11	603	576	659	692	637
9	445	775	667	701	704	289	11	603	576	701	687	640
10	440	772	667	698	704	287	11	605	579	695	695	640
11	435	772	667	698	704	281	11	605	579	692	701	643
12	576	772	673	698	704	261	11	605	561	692	698	637
13	673	769	676	698	704	97	12	632	550	692	692	635
14	673	778	676	695	637	9.0	12	651	550	695	698	632
15	673	781	673	695	605	9.0	11	651	550	695	704	629
16	673	778	676	692	605	9.0	11	645	553	695	698	621
17	704	758	676	692	605	9.0	141	645	548	698	690	619
18	723	735	525	692	608	9.0	584	645	569	701	687	619
19	723	732	423	692	605	9.0	746	645	592	695	701	619
20	723	732	423	692	603	10	778	645	592	698	695	621
21	723	715	423	692	595	10	840	645	592	605	701	629
22	726	706	423	692	592	11	816	648	595	528	698	635
23	726	712	423	692	592	11	795	651	595	533	681	635
24	726	712	421	695	595	11	795	648	597	632	670	637
25	726	712	423	695	597	10	795	648	597	692	659	640
26	726	706	423	695	597	10	793	533	597	692	648	640
27	726	701	421	695	600	10	787	454	595	692	643	645
28	720	681	423	698	595	10	760	566	592	692	640	645
29	718	676	423	698	---	10	749	627	592	692	637	645
30	720	678	561	698	---	10	726	643	595	695	637	645
31	720	---	667	698	---	11	---	651	---	695	635	---
TOTAL	20460	22125	17866	21423	18108	4958.0	10283	19147	17540	20432	21150	19047
MEAN	660	738	576	691	647	160	343	618	585	659	682	635
MAX	726	781	684	701	704	595	840	651	656	701	704	645
MIN	435	676	421	670	592	9.0	11	454	548	528	635	619
AC-FT	40580	43880	35440	42490	35920	9830	20400	37980	34790	40530	41950	37780
CAL YR 1980 TOTAL	220580.0			MEAN 603	MAX 919	MIN 10	AC-FT 437500					
WTR YR 1981 TOTAL	212539.0			MEAN 582	MAX 840	MIN 9.0	AC-FT 421600					

## 10277400 OWENS RIVER BELOW TINEMAHA RESERVOIR, NEAR BIG PINE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.  
 CHEMICAL ANALYSES: Water years 1975 to current year.  
 BIOLOGICAL DATA: Water years 1975 to current year.  
 SPECIFIC CONDUCTANCE: Water years 1975 to current year.  
 WATER TEMPERATURES: Water years 1975 to current year.  
 SEDIMENT RECORDS: Water years 1975 to current year (partial-record station).

PERIOD OF DAILY RECORD.--  
 SPECIFIC CONDUCTANCE: May 1975 to September 1981 (discontinued).  
 WATER TEMPERATURES: February 1975 to September 1981 (discontinued).

INSTRUMENTATION.--Specific-conductance recorder since May 1975. Temperature recorder since February 1975.

REMARKS.--Records good. Periods of missing temperature and conductivity data due to equipment malfunction or no release of water.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 442 micromhos Feb. 13, 1978; minimum recorded, 129 micromhos July 5, 1980.  
 WATER TEMPERATURES: Maximum recorded, 26.5°C July 20, 1978; minimum recorded, 0.0°C Dec. 7-8, 1978.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 367 micromhos Apr. 16; minimum recorded, 226 micromhos July 2.  
 WATER TEMPERATURES: Maximum recorded, 24.5°C Aug. 11, 30; minimum recorded, 1.0°C Mar. 14, 15.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW- INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT										
16...	1415	673	260	8.4	12.0	1.1	9.4	K15	41	61
NOV										
19...	1330	735	260	7.6	6.0	2.0	10.7	K9	K14	64
DEC										
16...	1400	678	280	8.4	5.0	1.8	--	K1	K16	65
JAN										
21...	1345	692	285	8.3	6.0	1.2	10.8	--	--	65
FEB										
19...	1400	605	305	8.6	9.5	3.4	10.2	K1	K1	69
MAR										
18...	1400	8.8	300	8.6	11.0	5.6	8.6	K2	20	74
APR										
15...	1530	12	305	8.6	14.5	2.1	7.8	0	K3	76
MAY										
20...	1400	648	300	8.2	14.5	7.7	--	--	--	65
JUN										
15...	1300	553	280	7.8	16.0	--	8.8	K4	K2	--
JUL										
21...	1330	528	278	8.4	21.5	15	7.2	40	46	65
AUG										
13...	1330	692	280	8.3	21.5	9.9	7.0	33	86	64
SEP										
17...	1430	619	285	8.3	21.0	9.1	7.9	25	K250	66

DATE	HARD- NESS NONCAH- MONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT										
16...	.00	19	3.2	29	49	1.6	3.5	93	17	11
NOV										
19...	.00	20	3.4	30	49	1.6	3.9	--	16	12
DEC										
16...	.00	20	3.6	30	48	1.6	4.3	97	24	13
JAN										
21...	.00	20	3.6	36	53	1.9	3.5	110	22	13
FEB										
19...	.00	21	3.9	39	54	2.1	3.5	99	25	18
MAR										
18...	--	23	3.9	30	46	1.5	3.2	86	34	12
APR										
15...	.00	24	4.0	32	46	1.6	3.6	93	30	11
MAY										
20...	.00	20	3.7	37	54	2.0	3.5	100	23	13
JUN										
15...	--	--	--	--	--	--	--	--	--	--
JUL										
21...	.00	20	3.6	31	49	1.7	4.0	100	--	10
AUG										
13...	.00	19	4.1	32	50	1.8	3.7	100	6.0	16
SEP										
17...	.00	19	4.4	33	50	1.9	4.4	110	5.0	12

K Results based on colony count outside the acceptable range (non-ideal colony count).

## OWENS LAKE BASIN

10277400 OWENS RIVER BELOW TINEMAHA RESERVOIR, NEAR BIG PINE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
OCT										
16...	.5	16	152	155	.42	.00	.120	--	.41	--
NOV										
19...	.5	17	162	169	.06	.06	.070	.040	.79	.34
DEC										
16...	.5	18	174	172	.04	.04	.030	.040	.60	.38
JAN										
21...	.7	21	180	186	.07	.09	.110	.060	--	.92
FEB										
19...	.6	20	180	191	.00	.00	.020	.020	.60	.65
MAR										
18...	.5	25	188	183	.00	.00	.030	.030	--	.63
APR										
15...	.6	24	192	185	.02	.01	.050	.030	.51	.49
MAY										
20...	.6	19	178	180	--	.09	--	.110	--	.49
JUN										
15...	--	--	--	--	--	--	--	--	--	--
JUL										
21...	.5	23	179	--	.01	.00	.030	--	1.3	--
AUG										
13...	.5	25	169	167	.16	.16	.110	.120	.62	.53
SEP										
17...	.6	25	176	170	.05	.05	--	.080	--	.56

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT									
16...	.53	.19	.95	.19	.060	.050	--	4.4	--
NOV									
19...	.86	.38	.92	.44	.040	.030	2.9	--	--
DEC									
16...	.63	.42	.67	.46	.060	.040	4.1	--	--
JAN									
21...	--	.98	--	1.1	.080	.050	--	4.8	.3
FEB									
19...	.62	.67	.62	.67	.080	.050	4.1	--	--
MAR									
18...	--	.66	--	.66	.050	.040	4.7	--	--
APR									
15...	.56	.52	.58	.53	.070	.060	--	5.0	.3
MAY									
20...	--	.60	--	.69	.120	.100	10	--	--
JUN									
15...	--	--	--	--	--	--	--	--	--
JUL									
21...	1.30	.75	1.3	.75	.160	.180	--	3.9	.1
AUG									
13...	.73	.65	.89	.81	.200	.130	2.1	--	--
SEP									
17...	.83	.64	.88	.69	.080	.050	3.0	--	--

10277400 OWENS RIVER BELOW TINEMAHA RESERVOIR, NEAR BIG PINE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)
OCT 16...	1415	27	21	100	30	0	<1	0	0	0
JAN 21...	1345	30	25	100	20	0	<1	0	0	0
APR 15...	1530	--	20	100	60	0	<1	30	10	0
JUL 21...	1330	30	33	--	20	2	2	10	0	1

DATE	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
OCT 16...	<3	27	5	290	30	6	0	30	3	.0
JAN 21...	<3	17	3	280	50	28	4	20	6	.2
APR 15...	<3	41	19	170	40	0	0	30	10	.1
JUL 21...	<3	110	10	1300	30	88	1	70	3	.9

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 16...	.0	3	0	0	0	1	0	30	5
JAN 21...	.0	1	0	0	0	1	1	10	5
APR 15...	.0	3	0	0	0	0	0	10	30
JUL 21...	.3	3	1	0	0	0	0	50	8

&lt; Actual value is known to be less than the value shown.

10277400 OWENS RIVER BELOW TINEMAHA RESERVOIR, NEAR BIG PINE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	NOV 19,80 1500		MAR 18,81 1400		MAY 20,81 1400		JUN 15,81 1300	
TOTAL CELLS/ML	1400		42000		7000		5600	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
....CHLOROCOCCACEAE								
....SCHROEDERIA	--	-	--	-	* 0		39	1
....TETRAEDRON	--	-	--	-	--	-	--	-
....COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	--	-	--	-	52	1
....DICTYOSPHAERIAEAE								
....DICTYOSPHAERIUM	--	-	--	-	4700# 67		210	4
....WESTELLA	--	-	--	-	150 2		--	-
....MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	--	-	52	1
....OOCYSTACEAE								
....ANKISTRODESMUS	55	4	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	*	0
....PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
....SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	150	3
....TETRASTRUM	--	-	--	-	--	-	52	1
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
...CHLAMYDOMONAS	--	-	--	-	51 1		--	-
...VOLVOCAEAE								
...PANDORINA	--	-	--	-	410 6		620	11
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
....COSCINODISCACEAE							52	1
....CYCLOTELLA	440# 32		--	-	--	-	--	-
....MELOSIRA	27 2		--	-	--	-	4000# 71	
....STEPHANODISCUS	110 8		42000#100		260 4		--	-
...PENNALES								
....ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
....CYMBELLACEAE								
....CYMBELLA	--	-	--	-	--	-	--	-
....DIATOMACEAE								
....DIATOMA	--	-	--	-	--	-	--	-
....FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	* 0		--	-
....FRAGILARIA	430# 31		--	-	960 14		--	-
....SYNEDRA	--	-	--	-	--	-	*	0
....GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
....NAVICULACEAE								
....DIPLONEIS	--	-	--	-	--	-	--	-
....NAVICULA	14 1		--	-	--	-	*	0
....NITZSCHIAEAE								
....NITZSCHIA	55 4		--	-	140 2		77	1
....SURIRELLACEAE								
....SURIRELLA	14 1		--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
....CRYPTOCHRYSIDACEAE								
....CHROOMONAS	27 2		--	-	--	-	*	0
....CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	90	2

See footnotes at end of table.



10277400 OWENS RIVER BELOW TINEMAH RESERVOIR, NEAR BIG PINE, CA--Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	NOV 19,80 1500		MAR 18,81 1400		MAY 20,81 1400		JUN 15,81 1300	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
...AGMENELLUM			--	-			--	-
...ANACYSTIS	55	4	--	-	240	4	190	3
...COCCOCHLORIS	14	1	--	-	--	-	--	-
...NOSTOCALES								
...NOSTOACEAE								
...ANABAENA	--	-	--	-	--	-	--	-
...APHANIZOMENON	140	10	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
...EUGLENA	14	1	--	-	--	-	--	-
...TRACHELOMONAS	--	-	--	-	--	-	--	-
DATE								
TIME	JUL 21,81 1330		AUG 13,81 1330		SEP 17,81 1430			
TOTAL CELLS/ML	12000		22000		280			
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT		
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...CHLOROCOCCACEAE								
...SCHROEDERIA	65	1	*	0	--	-		
...TETRAEDRON	--	-	*	0	--	-		
...COCCOMYXACEAE								
...ELAKATOTHRIX	--	-	--	-	--	-		
...DICTYOSPHAERIACEAE								
...DICTYOSPHAERIUM	6000#	48	17000#	75	--	-		
...WESTELLA	--	-	--	-	--	-		
...MICRACTINIACEAE								
...MICRACTINIUM	310	3	--	-	--	-		
...OOCYSTACEAE								
...ANKISTRODESMUS	*	0	440	2	--	-		
...KIRCHNERIELLA	--	-	*	0	--	-		
...OOCYSTIS	210	2	550	2	--	-		
...PALMELLACEAE								
...SPHAEROCYSTIS	--	-	890	4	--	-		
...SCENEDESMACEAE								
...ACTINASTRUM	--	-	590	3	--	-		
...CRUCIGENIA	100	1	--	-	--	-		
...SCENEDESMUS	180	1	220	1	--	-		
...TETRASTRUM	*	0	300	1	--	-		
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
...CHLAMYDOMONAS	78	1	220	1	--	-		
...VOLVOCAEAE								
...PANDORINA	--	-	--	-	--	-		
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
...CYCLOTELLA	*	0	550	2	--	-		
...MELOSIRA	690	6	--	-	--	-		
...STEPHANODISCUS	--	-	--	-	--	-		
..PENNALES								
...ACHNANTHACEAE								
...ACHNANTHES	--	-	*	0	--	-		
...COCCONEIS	--	-	*	0	14	5		
...RHOICOSPHENIA	--	-	--	-	14	5		
...CYMBELLACEAE								

See footnotes at end of table.

## OWENS LAKE BASIN

10277400 OWENS RIVER BELOW TINEMAHA RESERVOIR, NEAR BIG PINE, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	JUL 21,81 1330		AUG 13,81 1330		SEP 17,81 1430	
TOTAL CELLS/ML	12000		22000		, 280	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
....CYMBELLA	--	-	*	0	--	-
...DIATOMACEAE	--	-	*	0	--	-
...DIATOMA	--	-	*	0	--	-
...FRAGILARIACEAE	--	-	--	-	--	-
...ASTERIONELLA	--	-	--	-	220#	80
...FRAGILARIA	*	0	--	-	--	-
...SYNEDRA	--	-	*	0	--	-
...GOMPHONEMACEAE	--	-	*	0	--	-
...GOMPHONEMA	--	-	*	0	--	-
...NAVICULACEAE	--	-	*	0	--	-
...DIPLOEIS	--	-	150	1	--	-
...NAVICULA	--	-	150	1	--	-
...NITZSCHIA	540	4	630	3	28	10
...NITZSCHIA	540	4	630	3	28	10
...SURIPELLACEAE	--	-	*	0	--	-
...SURIPELLA	--	-	*	0	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
...CHROOMONAS	--	-	--	-	--	-
...CRYPTOMONADACEAE	--	-	--	-	--	-
...CRYPTOMONAS	--	-	--	-	--	-
DATE TIME	JUL 21,81 1330		AUG 13,81 1330		SEP 17,81 1430	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
...AGMENELLUM	--	-	300	1	--	-
...ANACYSTIS	91	1	150	1	--	-
...COCCOCHLORIS	--	-	--	-	--	-
...NOSTOCALES						
...NOSTOCACEAE						
...ANABAENA	4000#	32	--	-	--	-
...APHANIZOMENON	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
...EUGLENA	--	-	*	0	--	-
...TRACHELOMONAS	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

\* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

10277400 OWENS RIVER BELOW TINEMAHA RESERVOIR, NEAR BIG PINE, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	254	251	253	253	251	252	288	286	287
2	---	---	---	254	252	253	252	250	251	288	287	288
3	---	---	---	253	252	253	254	249	252	289	287	288
4	---	---	---	254	250	253	255	252	254	287	286	287
5	---	---	---	253	250	252	256	253	254	286	286	286
6	---	---	---	253	250	252	257	254	255	285	285	285
7	---	---	---	252	249	251	289	258	265	285	284	285
8	---	---	---	252	249	251	301	274	289	284	284	284
9	---	---	---	253	249	251	299	275	286	284	284	284
10	---	---	---	254	251	253	297	274	281	283	283	283
11	---	---	---	254	250	252	281	273	278	282	282	282
12	---	---	---	257	252	254	282	276	280	281	281	281
13	---	---	---	257	254	255	282	275	279	280	280	280
14	---	---	---	257	254	255	278	274	276	280	280	280
15	---	---	---	255	251	253	274	269	271	279	279	279
16	259	237	247	257	254	256	272	270	277	278	278	278
17	260	257	259	256	253	255	286	278	285	277	277	277
18	259	254	257	256	252	255	306	285	293	276	276	276
19	259	254	256	256	247	251	293	289	291	276	276	276
20	256	252	254	252	247	249	292	288	289	276	275	276
21	256	253	254	249	246	247	293	288	290	282	275	277
22	257	255	256	247	244	245	293	289	291	281	274	277
23	258	254	256	248	242	247	291	288	289	283	278	280
24	255	247	253	251	245	249	291	289	290	283	279	282
25	257	252	256	251	248	249	289	287	289	282	277	281
26	258	255	257	252	247	250	289	285	287	282	278	280
27	258	254	256	252	247	250	289	286	287	280	273	276
28	257	253	255	250	248	250	289	285	288	277	272	275
29	256	253	254	250	245	249	290	287	289	277	267	273
30	255	248	252	251	244	248	292	289	290	277	270	275
31	253	249	251	---	---	---	291	288	290	279	272	275
MONTH	260	237	255	257	242	251	306	249	279	289	267	280
FEBRUARY			MARCH			APRIL			MAY			
1	286	281	284	---	---	---	---	---	---	292	285	290
2	285	280	282	---	---	---	---	---	---	291	283	290
3	294	283	289	---	---	---	---	---	---	292	283	289
4	290	283	286	---	---	---	---	---	---	291	279	286
5	293	283	289	---	---	---	---	---	---	290	284	288
6	292	288	291	---	---	---	---	---	---	289	286	288
7	293	288	290	---	---	---	---	---	---	290	281	286
8	293	288	291	---	---	---	---	---	---	286	283	284
9	290	284	287	---	---	---	---	---	---	288	277	284
10	293	288	290	---	---	---	---	---	---	286	282	285
11	292	286	288	---	---	---	---	---	---	287	281	286
12	294	290	292	---	---	---	---	---	---	289	285	287
13	291	289	290	---	---	---	---	---	---	292	281	287
14	294	288	292	---	---	---	---	---	---	288	283	287
15	297	291	294	---	---	---	---	---	---	289	287	288
16	296	292	294	---	---	---	367	281	320	289	287	288
17	298	295	296	---	---	---	352	276	313	288	279	285
18	299	296	298	---	---	---	309	306	308	287	281	284
19	---	---	---	---	---	---	308	305	306	289	282	286
20	---	---	---	---	---	---	308	300	307	290	285	286
21	---	---	---	---	---	---	308	304	306	290	282	287
22	---	---	---	---	---	---	308	305	306	292	290	291
23	---	---	---	---	---	---	305	295	301	296	293	295
24	---	---	---	---	---	---	303	298	300	298	290	296
25	---	---	---	---	---	---	301	292	298	303	295	300
26	---	---	---	---	---	---	297	288	292	306	291	301
27	---	---	---	---	---	---	300	295	298	308	304	306
28	---	---	---	---	---	---	297	292	295	308	300	304
29	---	---	---	---	---	---	295	289	292	305	298	302
30	---	---	---	---	---	---	293	287	291	306	299	304
31	---	---	---	---	---	---	---	---	---	315	299	309
MONTH	299	280	290	---	---	---	367	276	302	315	277	291

10277400 OWENS RIVER BELOW TINEMAHA RESERVOIR, NEAR BIG PINE, CA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	306	291	298	276	261	270	285	277	281	271	266	269
2	308	295	299	273	266	265	285	275	281	272	266	269
3	316	303	308	273	262	267	284	272	280	273	269	271
4	306	291	301	273	260	267	284	269	280	275	271	273
5	295	275	287	274	259	268	284	276	281	273	268	271
6	294	278	289	275	259	269	290	276	281	273	269	271
7	335	277	290	273	261	268	282	277	280	274	270	272
8	297	265	286	273	261	269	280	277	278	273	269	271
9	294	267	283	270	258	264	279	268	276	271	268	270
10	298	263	284	269	257	265	284	274	278	277	271	273
11	293	254	275	270	258	266	277	262	271	277	273	275
12	282	264	273	273	261	269	271	258	267	277	274	276
13	282	274	277	275	262	271	273	264	269	275	271	273
14	280	279	280	274	263	270	273	266	270	274	267	271
15	281	276	280	280	265	274	272	265	269	271	268	269
16	274	262	270	279	268	276	273	265	268	273	269	270
17	282	272	276	281	266	277	273	265	270	274	269	272
18	283	280	281	278	269	275	273	265	269	274	271	273
19	285	273	280	282	272	276	272	264	269	273	268	271
20	282	271	278	282	271	276	271	265	268	272	267	270
21	287	273	283	280	264	273	269	262	266	271	261	268
22	281	269	277	285	254	273	272	263	267	272	270	271
23	285	266	276	281	265	276	270	261	267	272	269	271
24	283	262	273	283	263	278	269	260	266	272	272	272
25	276	261	269	283	269	280	270	265	267	272	272	272
26	271	261	267	287	266	281	270	264	267	273	272	273
27	273	263	269	285	271	281	268	264	266	273	273	273
28	275	263	270	286	277	282	270	265	267	273	273	273
29	274	260	268	287	277	282	271	266	268	273	273	273
30	276	264	272	285	266	281	270	264	267	273	273	273
31	---	---	---	284	275	280	270	263	266	---	---	---
MONTH	335	254	281	287	226	273	290	258	272	277	261	272
YEAR	367	226	276									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.5	17.5	17.5	10.5	9.5	9.5	5.5	5.0	5.0	6.0	5.5	5.5
2	19.0	17.5	18.0	10.0	9.0	9.5	6.0	5.5	5.5	5.5	5.0	5.5
3	18.5	17.5	18.0	11.0	9.5	10.0	6.5	5.5	6.0	5.5	5.0	5.5
4	18.5	17.5	18.0	10.5	10.0	10.5	6.5	6.0	6.5	5.5	5.0	5.0
5	18.5	17.5	18.0	11.5	10.5	11.0	6.0	5.5	6.0	5.5	4.5	5.0
6	18.5	17.5	18.0	11.5	10.5	11.0	6.0	5.5	5.5	5.0	5.0	5.0
7	18.5	17.0	18.0	11.5	10.5	11.0	5.5	4.5	5.0	5.0	4.5	5.0
8	---	---	---	11.5	10.5	11.0	4.5	2.5	3.5	5.0	4.5	4.5
9	18.0	17.5	17.5	11.0	10.5	11.0	3.5	2.5	3.0	5.0	4.5	4.5
10	18.0	17.5	17.5	11.0	10.5	10.5	3.5	2.5	3.0	5.0	4.0	4.5
11	17.5	17.0	17.5	10.5	10.0	10.5	3.0	2.5	3.0	5.0	4.0	4.5
12	17.0	16.0	16.5	10.5	9.5	10.0	3.5	2.5	3.0	5.5	4.5	5.0
13	16.5	15.5	16.0	9.5	9.0	9.5	3.5	3.0	3.0	5.5	5.0	5.5
14	15.5	14.0	15.0	9.0	8.5	8.5	4.0	3.5	3.5	6.0	5.0	5.5
15	14.0	11.5	12.5	8.5	7.0	8.0	5.0	4.0	4.5	6.5	6.0	6.5
16	11.5	11.0	11.0	7.0	5.5	6.0	5.0	4.5	5.0	6.5	6.5	6.5
17	11.5	10.5	11.0	6.5	5.5	6.0	5.0	5.0	5.0	7.0	6.5	6.5
18	11.0	10.5	11.0	6.5	5.5	6.0	5.5	5.0	5.0	6.5	6.0	6.5
19	12.0	10.5	11.0	6.0	5.5	6.0	6.0	5.0	5.5	6.5	6.0	6.5
20	12.0	11.0	11.5	6.0	5.5	5.5	6.0	5.5	6.0	6.0	5.5	6.0
21	12.5	11.5	12.0	5.5	5.0	5.5	6.0	5.5	5.5	6.0	5.5	6.0
22	13.0	11.5	12.5	6.0	5.5	5.5	6.0	5.5	6.0	7.0	6.0	6.5
23	13.0	12.0	12.5	6.0	5.5	6.0	6.0	5.5	5.5	7.0	6.5	6.5
24	12.5	12.0	12.5	6.0	5.0	5.5	5.5	5.0	5.5	6.5	6.0	6.5
25	12.5	12.0	12.0	5.0	4.5	4.5	5.5	5.0	5.5	6.0	5.5	5.5
26	11.5	11.0	11.5	5.0	4.5	4.5	6.0	5.5	6.0	5.5	5.0	5.5
27	11.0	10.0	10.5	5.0	4.5	5.0	6.0	5.5	6.0	5.5	4.5	5.0
28	10.0	9.5	9.5	5.5	4.5	5.0	6.5	5.5	6.0	5.0	4.5	5.0
29	9.5	9.0	9.0	5.5	5.0	5.5	6.5	6.0	6.5	5.0	3.5	4.5
30	10.0	8.5	9.5	6.0	5.0	5.5	6.5	6.0	6.5	4.0	3.5	3.5
31	10.0	9.5	9.5	---	---	---	6.0	5.5	6.0	3.5	2.0	3.0
MONTH	19.0	8.5	14.0	11.5	4.5	8.0	6.5	2.5	5.0	7.0	2.0	5.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	3.0	2.0	2.5	7.0	6.5	7.0	14.5	8.0	11.0	18.5	17.5	17.5
2	3.5	2.5	3.0	7.5	5.0	6.5	8.0	3.0	5.5	19.5	17.5	18.5
3	4.0	2.5	3.5	9.5	6.0	7.5	11.5	4.0	7.0	18.0	16.5	17.0
4	4.0	3.5	3.5	9.5	7.0	8.0	13.0	4.0	8.0	17.5	16.0	16.0
5	4.0	3.5	4.0	9.0	7.0	7.5	13.0	5.0	9.0	17.0	15.5	16.0
6	4.5	4.0	4.5	11.0	6.5	8.5	15.5	5.0	9.5	16.5	14.5	15.5
7	5.0	4.0	4.5	11.5	7.5	9.5	12.0	6.5	9.0	15.5	14.0	14.5
8	4.5	4.5	4.5	12.5	8.0	10.0	12.5	7.5	10.5	15.5	14.0	14.5
9	6.0	4.5	5.0	13.5	8.5	11.0	13.5	8.0	11.0	16.0	15.0	15.5
10	6.0	5.0	5.5	13.5	9.0	11.0	13.5	8.5	11.0	16.5	15.5	16.0
11	6.5	5.5	6.0	11.5	8.5	10.0	12.5	7.5	10.0	17.0	15.5	16.5
12	7.0	6.0	6.5	12.0	8.5	10.0	12.5	6.0	9.5	18.0	16.0	17.0
13	7.5	6.5	7.0	9.0	1.5	5.0	13.0	6.5	10.5	17.5	17.0	17.0
14	7.5	6.5	7.0	6.0	1.0	4.5	13.5	6.5	11.0	18.0	17.0	17.0
15	8.0	7.0	7.5	10.0	1.0	6.5	14.5	9.0	12.5	17.0	16.0	16.5
16	8.5	7.0	7.5	12.5	4.0	8.0	14.5	13.5	14.0	16.0	13.5	15.0
17	9.5	8.0	8.5	10.5	2.5	6.5	16.0	14.0	15.0	14.5	12.5	13.5
18	10.0	8.5	9.0	12.0	3.5	8.0	15.5	15.0	15.5	14.0	13.5	14.0
19	10.0	8.5	9.0	10.0	6.5	8.5	15.0	14.5	14.5	14.0	13.0	13.5
20	9.0	7.5	8.5	8.5	4.0	6.0	15.5	14.5	14.5	15.0	13.0	14.0
21	7.5	7.0	7.0	11.0	2.5	7.0	15.5	14.5	15.0	16.0	13.5	14.5
22	8.0	7.0	7.5	12.0	3.0	7.5	16.0	15.0	15.5	17.0	15.0	16.0
23	8.5	7.0	8.0	11.0	4.0	7.5	16.0	15.5	15.5	17.0	16.5	16.5
24	8.0	7.0	7.5	14.0	3.5	9.0	17.5	16.0	16.5	18.0	16.5	17.0
25	7.0	6.0	6.5	15.0	6.5	11.0	17.0	17.0	17.0	17.5	17.0	17.5
26	7.5	6.0	7.0	10.0	4.0	7.0	16.5	15.5	16.0	17.0	16.5	17.0
27	8.0	7.0	7.5	8.5	3.5	6.5	16.5	15.5	16.0	18.0	16.0	17.0
28	7.5	6.5	7.5	14.0	5.5	9.5	16.5	15.0	15.5	19.5	17.0	18.0
29	---	---	---	14.5	5.0	9.5	17.0	15.5	16.0	19.5	17.5	18.5
30	---	---	---	10.5	4.0	7.5	17.5	16.0	17.0	19.5	18.5	19.0
31	---	---	---	13.5	2.0	8.5	---	---	---	20.0	19.0	19.0
MONTH	10.0	2.0	6.5	15.0	1.0	8.0	17.5	3.0	12.5	20.0	12.5	16.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.5	18.5	19.0	22.5	20.5	21.5	22.5	21.0	21.5	22.5	19.5	20.5
2	21.5	19.0	20.0	21.0	20.0	20.5	22.5	21.0	21.5	23.0	19.0	20.5
3	20.5	18.5	19.5	20.5	19.5	20.0	22.5	20.5	21.5	22.5	19.0	20.5
4	20.5	18.5	19.5	21.5	20.0	20.5	22.5	20.5	21.5	22.5	18.5	20.5
5	20.0	19.0	19.5	21.5	21.0	21.5	22.5	21.0	21.5	23.5	19.0	21.0
6	20.5	19.5	20.0	22.0	21.0	21.0	22.5	21.5	22.0	23.0	19.0	20.5
7	21.5	19.5	20.0	22.0	21.0	21.5	24.0	21.5	23.0	23.5	19.0	20.5
8	21.5	18.5	20.0	22.0	20.5	21.5	24.0	22.0	23.0	22.5	19.5	20.5
9	22.0	20.0	20.5	21.5	21.0	21.5	23.5	22.0	23.0	23.0	19.0	20.5
10	22.0	19.5	20.5	21.5	21.0	21.5	23.5	22.5	23.0	23.0	19.0	21.0
11	21.0	19.5	20.5	21.5	20.5	21.0	24.5	21.5	22.5	22.0	19.0	20.5
12	21.0	20.0	20.5	21.0	20.5	21.0	24.0	21.5	22.5	21.5	19.0	20.0
13	20.0	17.5	18.5	21.5	20.5	20.5	23.5	21.5	22.5	23.0	18.5	20.0
14	19.0	16.5	17.0	21.0	20.5	20.5	24.0	21.5	22.5	22.5	19.0	20.0
15	17.0	15.5	16.0	22.0	21.0	21.5	24.0	21.5	22.5	23.0	18.5	20.5
16	17.0	16.0	16.5	22.5	21.5	22.0	23.5	21.5	22.5	22.0	19.0	20.5
17	18.0	17.0	17.5	22.5	21.5	22.0	23.5	21.5	22.5	22.0	19.0	20.0
18	18.5	17.5	18.0	22.0	21.0	21.5	22.5	20.5	21.5	22.0	18.0	19.5
19	19.5	18.5	19.0	22.0	21.0	21.5	23.0	20.0	21.5	22.5	18.0	20.0
20	21.0	19.5	20.0	22.0	20.5	21.0	22.5	19.5	21.0	---	---	---
21	22.0	20.5	21.0	21.5	21.0	21.5	22.5	19.0	20.5	---	---	---
22	21.5	21.0	21.0	23.0	21.5	22.5	22.5	19.0	20.5	---	---	---
23	22.5	20.5	21.5	23.5	22.0	22.5	22.5	18.5	20.0	---	---	---
24	22.5	21.5	22.0	23.5	22.5	23.0	22.0	18.5	20.0	---	---	---
25	21.5	21.0	21.5	23.0	22.0	22.5	23.5	18.5	20.5	---	---	---
26	21.5	21.0	21.5	23.5	21.5	22.0	23.5	19.5	21.0	---	---	---
27	21.5	21.0	21.5	22.5	21.5	22.5	24.0	20.0	21.5	---	---	---
28	22.5	21.0	21.5	22.5	22.0	22.5	23.5	20.0	21.5	---	---	---
29	22.0	21.0	21.5	22.5	21.5	22.0	24.0	20.0	21.5	---	---	---
30	22.5	21.5	22.0	22.5	22.0	22.5	24.5	19.0	21.5	---	---	---
31	---	---	---	22.5	21.5	22.0	24.0	19.0	21.0	---	---	---
MONTH	22.5	15.5	20.0	23.5	19.5	21.5	24.5	18.5	21.5	23.5	18.0	20.5
YEAR	24.5	1.0	13.0									

## MONO LAKE BASIN

10287000 MONO LAKE NEAR MONO LAKE, CA

LOCATION.--Lat 37°58'46", long 119°08'11", in NW¼ sec.5, T.2 N., R.26 E., Mono County, Hydrologic Unit 18090101, on west bank 1 mi (2 km) south of town of Mono Lake.

DRAINAGE AREA.--785 mi<sup>2</sup> (2,033 km<sup>2</sup>).

PERIOD OF RECORD.--June 1912 to current year. Records prior to September 1934, published in WSP 765.

GAGE.--Nonrecording gage or reference point read once a week. Gage readings have been reduced to elevations to National Geodetic Vertical Datum of 1929. Gage heights prior to October 1944 are converted to elevations to NGVD in WSP 1314.

REMARKS.--Since 1941 water diverted to Owens Lake basin via Mono tunnel, capacity, 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s).

COOPERATION.--Records were furnished by City of Los Angeles, Department of Water and Power.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 6,428.1 ft (1,959.28 m) July 18, 1919, present datum; minimum observed, 6,371.96 ft (1,942.173 m) Sept. 30, 1981.

## ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
Oct. 1	6,373.50	Jan. 7	6,373.24	Apr. 8	6,373.57	July 1	6,373.10
8	6,373.51	14	6,373.27	15	6,373.56	8	6,373.01
15	6,373.42	21	6,373.31	22	6,373.59	15	6,372.89
22	6,373.35	Feb. 5	6,373.41	29	6,373.56	22	6,372.80
29	6,373.31	11	6,373.47	May 6	6,373.51	29	6,372.71
Nov. 5	6,373.29	18	6,373.50	13	6,373.48	Aug. 5	6,372.61
12	6,373.30	26	6,373.50	20	6,373.38	12	6,372.57
19	6,373.25	Mar. 4	6,373.56	28	6,373.42	19	6,372.45
25	6,373.20	11	6,373.55	June 3	6,373.37	26	6,372.32
Dec. 10	6,373.20	18	6,373.56	10	6,373.29	Sept. 2	6,372.24
17	6,373.20	25	6,373.54	17	6,373.20	9	6,372.16
23	6,373.20	Apr. 1	6,373.56	24	6,373.13	23	6,372.05
						30	6,371.96

## 10287070 MILL CREEK BELOW LUNDY LAKE, NEAR MONO LAKE, CA

LOCATION.--Lat 38°01'58", long 119°12'53", in SE¼NE¼ sec.16, T.2 N., R.25 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, at road crossing 1,500 ft (457 m) downstream from Lundy Lake Dam, and 4.9 mi (7.9 km) northwest of Mono Lake Post Office.

DRAINAGE AREA.--18.1 mi<sup>2</sup> or 46.9 km<sup>2</sup> (natural flow).

PERIOD OF RECORD.--October 1942 to current year. Monthly and yearly mean discharges prior to October 1969, published in WSP 2127.

GAGE.--Water-stage recorder and Parshall flume on creek. Altitude of gage is 7,760 ft (2,365 m), from topographic map.

REMARKS.--Flow regulated for power development by Lundy Lake, capacity, 3,820 acre-ft (4.71 hm<sup>3</sup>). Records for "actual flow" include Mill Creek, Lundy powerplant tailrace, and Upper Conway ditch. Records for "natural flow" are computed as the "actual flow" plus change in contents and evaporation of Lundy Lake.

COOPERATION.--Records were furnished by Southern California Edison Co. and reviewed by the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (Actual flow).--40 years, 28.4 ft<sup>3</sup>/s (0.804 m<sup>3</sup>/s), 20,580 acre-ft/yr (25.4 hm<sup>3</sup>/yr). (Natural flow).--40 years, 30.0 ft<sup>3</sup>/s (0.849 m<sup>3</sup>/s), 21,740 acre-ft/yr (26.8 hm<sup>3</sup>/yr).

EXTREMES (ACTUAL FLOW) FOR PERIOD OF RECORD (SINCE 1970).--Maximum daily discharge, 141 ft<sup>3</sup>/s (3.99 m<sup>3</sup>/s) July 28, 1978; no flow many days in 1971 and 1974.

EXTREMES (ACTUAL FLOW) FOR CURRENT YEAR.--Maximum daily discharge, 71 ft<sup>3</sup>/s (2.01 m<sup>3</sup>/s) June 12-14; minimum daily, 8.1 ft<sup>3</sup>/s (0.23 m<sup>3</sup>/s) Jan. 31-Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	16	11	10	8.1	10	12	39	58	66	20	12
2	20	16	10	10	8.1	10	12	49	59	66	20	12
3	19	16	11	10	8.1	10	12	52	59	67	19	12
4	20	15	11	10	8.1	10	12	53	61	66	19	12
5	20	16	11	10	8.1	10	12	53	62	66	19	12
6	18	16	11	10	8.8	10	12	53	63	66	18	12
7	17	16	11	9.5	9.2	10	12	47	65	66	18	12
8	15	16	11	9.0	9.2	10	12	39	65	65	18	13
9	15	16	11	9.0	9.2	10	12	37	66	65	18	13
10	16	15	11	9.0	9.8	10	12	37	68	64	18	14
11	16	15	11	9.0	10	10	12	51	69	63	18	13
12	16	15	11	9.0	10	10	12	59	71	63	18	12
13	16	15	11	9.0	10	10	12	59	71	62	18	12
14	16	15	11	9.0	10	10	12	59	71	62	18	12
15	16	15	11	9.0	10	10	12	58	70	62	18	12
16	15	15	11	9.0	10	10	13	58	70	62	18	12
17	15	15	11	9.0	10	10	14	58	70	46	18	12
18	15	15	11	9.0	10	10	14	58	69	35	18	12
19	15	13	11	9.0	10	10	14	58	69	34	17	12
20	15	12	11	9.0	10	10	15	52	69	31	17	12
21	15	12	11	9.0	10	10	15	40	69	30	15	12
22	15	12	11	8.5	10	10	15	31	69	28	14	11
23	16	12	11	8.3	10	11	41	27	69	28	14	11
24	16	12	11	8.3	10	12	59	27	68	27	14	11
25	16	12	11	8.3	10	12	47	27	67	25	14	11
26	16	12	11	8.3	10	12	40	29	68	25	14	11
27	16	12	11	8.3	10	12	40	47	68	25	13	11
28	16	12	11	8.3	10	12	34	57	67	24	12	11
29	16	12	10	8.3	---	12	30	57	67	21	13	9.8
30	16	12	10	8.2	---	12	30	57	67	21	13	8.8
31	16	---	10	8.1	---	12	---	57	---	21	13	---
TOTAL	509	423	337	278.4	266.7	327	601	1485	2004	1452	514	352.6
MEAN	16.4	14.1	10.9	8.98	9.53	10.5	20.0	47.9	66.8	46.8	16.6	11.8
MAX	20	16	11	10	10	12	59	59	71	67	20	14
MIN	15	12	10	8.1	8.1	10	12	27	58	21	12	8.8
AC-FT	1010	839	668	552	529	649	1190	2950	3970	2880	1020	699
a	1020	774	674	582	523	656	1100	3190	4780	2040	1040	701
CAL YR 1980 TOTAL	15916.8											
WTR YR 1981 TOTAL	8549.7											
	MEAN 43.5 MAX 287 MIN 9.8 AC-FT 31570											
	MEAN 23.4 MAX 71 MIN 8.1 AC-FT 16960 a 17080											

a Computed natural flow, in acre-feet.

## 10287290 RUSH CREEK BELOW AGNEW LAKE, NEAR JUNE LAKE, CA

LOCATION.--Lat 37°45'32", long 119°07'47", in NE¼SW¼ sec.20, T.2 S., R.26 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, 500 ft (152 m) downstream from Agnew Lake Dam, and 3.4 mi (5.5 km) southwest of town of June Lake.

DRAINAGE AREA.--23.3 mi<sup>2</sup> or 60.3 km<sup>2</sup> (natural flow).

PERIOD OF RECORD.--October 1951 to current year. Monthly and yearly mean discharges prior to October 1969, published in WSP 2127.

GAGE.--Water-stage recorder and Parshall flume on creek. Altitude of gage is 8,480 ft (2,585 m), from topographic map.

REMARKS.--Flow regulated for power development by Waugh, Gem, and Agnew Lakes, combined capacity, 23,420 acre-ft (28.9 hm<sup>3</sup>) and Rush Creek powerplant. "Actual flow" is total flow of Rush Creek below Agnew Lake and Rush Creek powerplant tailrace. "Natural flow" is the sum of "actual flow," change in contents and evaporation for Waugh, Gem, and Agnew Lakes.

COOPERATION.--Records furnished by Southern California Edison Co., and reviewed by the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (Actual flow).--30 years, 55.1 ft<sup>3</sup>/s (1,560 m<sup>3</sup>/s), 39,920 acre-ft/yr (49.2 hm<sup>3</sup>/yr). (Natural flow).--30 years, 59.1 ft<sup>3</sup>/s (1,674 m<sup>3</sup>/s), 42,820 acre-ft/yr (52.8 hm<sup>3</sup>/yr).

EXTREMES (ACTUAL FLOW) FOR PERIOD OF RECORD (SINCE 1970).--Maximum daily discharge, 421 ft<sup>3</sup>/s (11.9 m<sup>3</sup>/s) July 15, 1978; minimum daily, 0.90 ft<sup>3</sup>/s (0.025 m<sup>3</sup>/s) Aug. 31 to Sept. 2, 1976.

EXTREMES (ACTUAL FLOW) FOR CURRENT YEAR.--Maximum daily discharge, 89 ft<sup>3</sup>/s (2.52 m<sup>3</sup>/s) Nov. 1, 2; minimum daily, 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s) Mar. 7, 8, Apr. 10, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	89	49	37	28	27	28	83	57	65	63	63
2	86	89	40	37	28	27	29	83	63	65	63	63
3	86	87	36	37	28	27	28	83	63	64	63	62
4	86	85	36	37	28	27	27	83	63	64	63	62
5	86	85	36	37	27	27	27	83	63	64	63	62
6	59	86	36	32	27	27	27	73	63	64	63	62
7	47	86	36	27	27	25	26	55	64	64	63	62
8	47	86	36	27	27	25	26	55	66	64	62	41
9	48	86	35	27	27	28	26	55	70	64	62	31
10	47	55	36	27	27	27	25	55	68	64	62	31
11	48	41	36	27	27	27	26	55	69	64	62	31
12	49	41	36	27	27	26	26	55	66	64	62	31
13	48	41	36	27	27	26	25	55	62	64	62	31
14	48	40	36	28	28	26	27	55	63	64	64	31
15	48	40	36	31	28	27	27	55	63	64	63	31
16	48	40	36	32	28	27	29	55	64	64	63	31
17	68	40	36	31	28	27	62	55	62	65	63	31
18	85	40	36	28	28	27	82	55	63	65	63	32
19	84	40	36	27	28	27	82	55	64	64	63	33
20	84	40	36	27	28	27	82	53	63	64	63	32
21	81	47	36	27	28	27	82	53	62	64	63	32
22	75	52	36	27	28	27	82	53	63	64	63	32
23	73	52	36	27	28	27	83	53	63	64	63	32
24	73	52	36	28	32	27	83	53	63	63	63	33
25	73	52	37	28	28	27	83	53	62	63	60	33
26	73	53	37	27	28	27	83	53	63	63	64	32
27	73	53	37	28	28	26	83	54	62	63	62	32
28	73	53	37	28	27	26	83	54	62	63	62	32
29	73	53	37	28	---	26	83	54	62	63	64	32
30	73	59	37	28	---	26	83	54	63	63	64	32
31	71	---	37	28	---	26	---	54	---	63	63	---
TOTAL	2099	1763	1139	914	778	826	1565	1844	1904	1980	1946	1175
MEAN	67.7	58.8	36.7	29.5	27.8	26.6	52.2	59.5	63.5	63.9	62.8	39.2
MAX	86	89	49	37	32	28	83	83	70	65	64	63
MIN	47	40	35	27	27	25	25	53	57	63	60	31
AC-FT	4160	3500	2260	1810	1540	1640	3100	3660	3780	3930	3860	2330
a	418	259	293	436	494	644	3440	11620	9840	2310	861	304
CAL YR 1980	TOTAL	28783	MEAN 78.6	MAX 346	MIN 26	AC-FT	57090					
WTR YR 1981	TOTAL	17933	MEAN 49.1	MAX 89	MIN 25	AC-FT	35570	a	30920			

a Computed natural flow, in acre-feet.



## 11012000 COTTONWOOD CREEK ABOVE TECATE CREEK, NEAR DULZURA, CA

LOCATION.--Lat 32°34'30", long 116°45'11", in NW¼NW¼SW¼ sec.26, T.18 S., R.2 E., San Diego County, Hydrologic Unit 18070305, on right bank 0.8 mi (1.3 km) upstream from confluence with Tecate Creek, and 5.1 mi (8.2 km) south of Dulzura.

DRAINAGE AREA.--310 mi<sup>2</sup> (803 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 569.40 ft (173.553 m) National Geodetic Vertical Datum of 1929 (levels by International Boundary and Water Commission).

REMARKS.--Records good. Flow regulated by Morena Reservoir, capacity, 50,120 acre-ft (61.8 hm<sup>3</sup>) and Barrett Reservoir, capacity, 44,760 acre-ft (55.2 hm<sup>3</sup>). Water diverted from Barrett Reservoir through San Diego and Dulzura conduits to Lower Otay Reservoir.

AVERAGE DISCHARGE.--45 years, 10.9 ft<sup>3</sup>/s (0.309 m<sup>3</sup>/s), 7,900 acre-ft/yr (9.74 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft<sup>3</sup>/s (331 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 11.15 ft (3.399 m); no flow for part of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 49.0 ft<sup>3</sup>/s (1.39 m<sup>3</sup>/s) Mar. 28, gage height, 7.10 ft (2.164 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	7.9	3.2	1.5	10	19	32	1.8	.56			
2	3.2	9.0	5.5	1.6	9.8	20	28	1.5	.55			
3	4.6	4.8	7.5	1.6	11	17	25	1.1	.56			
4	5.3	4.8	4.8	1.2	9.5	17	18	.62	.37			
5	5.1	7.1	3.2	1.0	9.5	29	9.3	.52	.24			
6	4.8	7.3	1.8	.83	6.3	25	10	.40	.19			
7	3.9	9.0	1.2	1.1	2.8	20	12	.36	.16			
8	4.4	10	.65	2.4	3.5	15	11	.26	.09			
9	3.3	7.0	.67	3.5	18	12	9.8	.19	.04			
10	2.8	3.3	1.6	4.2	14	9.0	8.3	.12	.07			
11	2.5	3.2	1.7	4.7	9.3	8.3	6.2	.09	.04			
12	3.0	2.2	1.8	8.0	5.7	8.4	6.8	.16	.02			
13	2.7	1.9	2.9	5.2	3.1	7.0	7.8	.67	.01			
14	2.9	2.2	2.2	6.6	3.5	6.5	4.4	1.4	0			
15	2.6	2.8	1.7	4.7	3.8	5.2	1.9	2.1	0			
16	3.3	2.0	1.7	3.7	3.5	3.7	1.2	2.4	0			
17	3.0	1.3	.71	4.5	6.6	12	1.2	1.5	0			
18	1.8	1.2	1.3	4.5	4.8	15	1.4	.94	0			
19	.81	1.2	1.1	4.5	5.1	13	7.4	1.2	0			
20	.81	1.3	1.5	4.6	4.9	27	6.6	1.8	0			
21	1.3	1.3	2.0	5.8	4.8	40	5.3	1.4	0			
22	2.4	1.8	1.5	4.6	5.5	38	5.0	1.1	0			
23	2.1	3.1	1.7	6.8	5.3	33	5.5	.91	0			
24	2.5	3.8	1.9	7.9	6.8	26	5.3	.63	0			
25	2.7	2.5	2.3	7.7	8.2	22	5.2	.60	0			
26	4.9	1.7	2.7	7.9	10	19	6.0	.61	0			
27	4.1	1.8	2.4	8.9	5.7	28	6.1	1.6	0			
28	2.4	2.1	2.3	12	5.6	41	5.0	2.2	0			
29	1.8	2.3	2.0	11	---	39	3.2	1.3	0			
30	1.8	3.2	1.8	10	---	37	2.1	.92	0			
31	5.1	---	1.6	11	---	35	---	.62	---			---
TOTAL	98.02	109.1	68.93	163.53	196.6	647.1	257.0	31.46	2.94	0	0	0
MEAN	3.16	3.64	2.22	5.28	7.02	20.9	8.57	1.01	.098	0	0	0
MAX	6.1	10	7.5	12	18	41	32	2.9	.56	0	0	0
MIN	.81	1.2	.65	.83	2.8	3.7	1.2	.09	0	0	0	0
AC-FT	194	216	137	324	390	1280	510	62	5.8	0	0	0

CAL YR 1980 TOTAL 77793.04 MEAN 213 MAX 8430 MIN .40 AC-FT 154300  
WTR YR 1981 TOTAL 1574.68 MEAN 4.31 MAX 41 MIN 0 AC-FT 3120

LOCATION.--Lat 32°35'28", long 116°31'29", in SW¼NE¼SE¼ sec.24, T.18 S., R.4 E., San Diego County, Hydrologic Unit 18070305, on left bank just upstream from bridge on State Highway 94, and 3.5 mi (5.6 km) southwest of Campo.

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

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 2,178.92 ft (664.135 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1954, at datum 1 ft (0.3 m) higher.

REMARKS.--Records poor. Broad-crested weir completely buried by sand Mar. 28, 1980 to Sept. 30, 1981 and was ineffective as low-water control. Flow regulated by small conservation reservoir 1 mi (1.6 km) upstream since August 1956. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 880 ft<sup>3</sup>/s (24.9 m<sup>3</sup>/s) Feb. 6, 1937, gage height, 4.80 ft (1.463 m), present datum, from rating curve extended above 110 ft<sup>3</sup>/s (3.12 m<sup>3</sup>/s) on basis of velocity-area study and cross-sectional area at control; no flow for part of most years.

EXTREMES FOR CURRENT YEAR--Maximum discharge, 135 ft<sup>3</sup>/s (3.82 m<sup>3</sup>/s) Feb. 9, gage height, 4.31 ft (1.314 m);  
minimum daily, 0.09 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) July 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	11	7.6	10	12	71	12	6.3	2.5	.55	.21	.18
2	7.4	10	8.0	10	11	46	14	6.2	2.6	.50	.20	.20
3	7.6	11	8.1	10	11	22	19	6.0	2.6	.48	.19	.28
4	7.7	13	10	10	12	18	14	5.8	2.6	.46	.17	.37
5	7.5	13	13	9.6	12	29	13	5.7	2.5	.44	.17	.46
6	8.1	11	8.0	8.2	13	23	12	5.6	2.5	.41	.17	.53
7	6.7	12	8.1	8.2	14	15	11	5.5	2.5	.35	.17	1.0
8	7.3	11	7.5	8.4	29	15	11	5.3	2.4	.30	.16	.50
9	7.0	9.2	6.6	7.8	90	16	10	5.2	2.3	.22	.16	.43
10	7.3	8.0	6.4	7.5	22	17	10	5.0	2.2	.09	.17	.48
11	6.9	7.9	6.2	7.2	16	18	9.9	4.9	2.1	.09	.17	.52
12	6.9	8.0	6.5	7.0	17	17	9.8	4.8	2.1	.12	.18	.60
13	6.9	8.2	6.9	7.0	19	17	9.8	4.6	2.0	.12	.17	.70
14	7.4	8.1	6.9	7.1	20	17	9.1	4.4	1.7	.12	.17	.80
15	9.8	8.3	6.7	7.2	20	15	9.2	4.6	1.6	.15	.18	.89
16	11	8.5	6.9	7.3	20	13	9.4	5.2	1.5	.18	.17	.99
17	9.5	8.0	7.3	7.1	20	12	10	4.6	1.3	.18	.17	1.1
18	9.1	8.2	7.7	6.9	21	13	9.6	4.1	1.3	.17	.16	1.2
19	9.6	9.0	7.8	7.3	22	14	12	4.0	1.3	.16	.13	.67
20	8.4	8.6	7.7	8.0	23	25	11	3.9	1.3	.15	.14	.51
21	9.3	8.1	7.5	8.0	23	12	10	3.7	1.1	.17	.13	.57
22	10	8.3	7.5	8.1	22	11	10	3.6	1.0	.16	.13	.59
23	11	8.4	7.6	8.8	24	12	8.9	3.4	.97	.17	.15	.61
24	8.7	8.3	7.6	9.5	27	11	8.1	3.2	.95	.18	.16	.69
25	8.9	7.0	7.9	10	31	11	7.7	3.0	.89	.18	.16	.80
26	11	6.7	8.3	9.8	45	13	7.0	3.0	.82	.20	.19	.92
27	14	6.8	8.8	10	33	21	6.8	2.9	.85	.21	.18	1.0
28	12	6.5	9.2	25	31	14	6.8	2.9	.76	.21	.16	1.1
29	10	6.8	9.5	24	---	13	6.5	2.9	.74	.25	.16	1.3
30	12	7.3	9.3	29	---	13	6.4	2.9	.67	.25	.17	1.3
31	12	---	9.9	17	---	12	---	2.7	---	.23	.18	---
TOTAL	278.0	266.2	247.0	321.0	660	576	304.0	135.9	49.65	7.45	5.18	21.29
MEAN	8.97	8.87	7.97	10.4	23.6	18.6	10.1	4.38	1.66	.24	.17	.71
MAX	14	13	13	29	90	71	19	6.3	2.6	.55	.21	1.3
MIN	6.7	6.5	6.2	6.9	11	11	6.4	2.7	.67	.09	.13	.18
AC-FT	551	528	490	637	1310	1140	603	270	98	15	10	42
CAL YR 1980	TOTAL	9707.41	MEAN	26.5	MAX	364	MIN	.41	AC-FT	19250		
WTR YR 1981	TOTAL	2871.67	MEAN	7.87	MAX	90	MIN	.09	AC-FT	5700		

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LOCATION.--Lat 32°33'56", long 116°46'27", in E½ sec.33, T.18 S., R.2 E., San Diego County, Hydrologic Unit 18070305, on left bank 0.5 mi (0.8 km) downstream from confluence of Cottonwood and Tecate Creeks, and 5.5 mi (8.8 km) south of Dulzura.

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

GAGE.--Water-stage recorder. Datum of gage is 542.42 ft (165.330 m) National Geodetic Vertical Datum of 1929 (levels by International Boundary and Water Commission). Prior to Sept. 19, 1939, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair. Flow regulated by Moreña Reservoir, capacity, 50,210 acre-ft (61.9 hm<sup>3</sup>) and Barrett Reservoir, capacity, 44,760 acre-ft (55.2 hm<sup>3</sup>). Water diverted from Barrett Reservoir through San Diego and Dulzura conduits to Lower Otay Reservoir.

AVERAGE DISCHARGE.--45 years, 19.1 ft<sup>3</sup>/s (0.541 m<sup>3</sup>/s), 13,840 acre-ft/yr (17.1 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft<sup>3</sup>/s (346 m<sup>3</sup>/s) estimated, Feb. 21, 1980, gage height, 10.66 ft (3.249 m), from rating curve extended above 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s) on basis of hydrographic comparison with upstream station; maximum gage height, 11.19 ft (3.411 m) Feb. 18, 1980; no flow for part of most years.

EXTREMES FOR CURRENT YEAR. --Maximum discharge, 553 ft<sup>3</sup>/s (15.7 m<sup>3</sup>/s) Mar. 1, gage height, 1.87 ft (0.570 m), from rating curve extended above 120 ft<sup>3</sup>/s (3.40 m<sup>3</sup>/s); minimum daily, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) Sept. 9-12.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	16	12	17	22	126	52	7.9	.67	.02	.20	.08
2	8.8	17	13	20	23	170	54	7.5	.74	.02	.13	.06
3	7.8	20	13	21	19	42	65	7.0	1.2	.03	.08	.08
4	8.3	22	17	22	16	29	40	6.6	.53	.03	.08	.13
5	9.6	18	25	21	15	88	29	5.9	.33	.03	.11	.20
6	8.4	23	24	19	14	121	26	5.3	.29	.05	.13	.35
7	7.5	19	24	21	12	61	26	4.7	.29	.07	.15	.42
8	6.4	18	23	24	12	38	23	4.6	.27	.06	.17	2.8
9	6.5	17	22	25	115	29	22	4.2	.29	.08	.30	.01
10	8.0	16	17	21	51	25	21	3.9	.31	.04	.39	.01
11	9.7	14	15	17	24	23	19	3.4	.24	.04	.35	.01
12	10	13	16	30	17	21	18	3.0	.05	.04	.35	.01
13	9.9	14	12	30	13	20	16	2.3	.02	.03	.46	.02
14	11	17	15	28	10	25	16	4.0	.02	.05	.46	.02
15	20	16	17	26	9.8	26	15	1.6	.02	.09	.43	.02
16	19	16	16	22	9.2	22	15	1.8	.02	.07	.49	.03
17	16	13	13	19	8.8	21	14	.79	.02	.05	.41	.12
18	14	9.5	12	18	8.5	23	13	.33	.02	.07	.34	.30
19	9.0	11	13	18	8.2	25	14	.33	.03	.06	.17	.53
20	11	12	13	16	8.0	94	17	1.2	.03	.05	.18	.59
21	11	12	12	18	7.8	88	18	.71	.03	.05	.35	1.1
22	12	11	13	15	7.5	71	16	.90	.03	.05	.39	.13
23	11	11	15	9.6	7.4	54	13	1.1	.04	.07	.36	.05
24	13	15	15	17	7.3	39	11	1.6	.04	.08	.38	.05
25	12	10	12	15	7.2	33	11	1.3	.03	.11	.29	.05
26	15	9.5	12	15	18	33	9.8	1.1	.02	.08	.33	.05
27	18	11	14	16	17	55	9.6	1.4	.02	.14	.19	.05
28	17	12	15	21	14	79	9.8	1.1	.02	.17	.16	.05
29	17	12	15	20	---	77	9.3	.81	.03	.31	.26	.05
30	19	11	14	22	---	72	8.1	.66	.02	.35	.17	.08
31	18	---	18	22	---	62	---	.75	---	.35	.12	---
TOTAL	373.9	436.0	487	625.6	501.7	1692	630.6	87.78	5.67	2.74	8.38	7.45
MEAN	12.1	14.5	15.7	20.2	17.9	54.6	21.0	2.83	.19	.088	.27	.25
MAX	20	23	25	30	115	170	65	7.9	1.2	.35	.49	2.8
MIN	6.4	9.5	12	9.6	7.2	20	8.1	.33	.02	.02	.08	.01
AC-FT	742	865	966	1240	995	3360	1250	174	11	5.4	17	15
CAL YR 1980	TOTAL	145460.40	MEAN	397	MAX	11000	MIN	3.5	AC-FT	288500		
WTR YR 1981	TOTAL	4858.82	MEAN	13.3	MAX	170	MIN	.01	AC-FT	9640		

## 11013200 RODRIGUEZ RESERVOIR AT RODRIGUEZ DAM, BAJA CALIFORNIA, MEXICO

LOCATION.--Lat 32°26'40", long 116°54'25", Baja California, Mexico, Hydrologic Unit 18070305, at Rodriguez Dam on Rio de las Palmas, 0.2 mi (0.3 km) upstream from Arroyo Matanuco, and 10 mi (16 km) southeast of Tijuana.

DRAINAGE AREA.--977 mi<sup>2</sup> (2,530 km<sup>2</sup>), of which 10 mi<sup>2</sup> (26 km<sup>2</sup>) are in the United States.

PERIOD OF RECORD.--April 1937 to current year. Published with record for Tijuana River near Nestor, Calif., October 1953 to September 1957. Monthend contents for April 1937 to September 1950 published in WSP 1315-B and for October 1950 to September 1960 in WSP 1735.

GAGE.--Nonrecording gage read once a day. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by National Irrigation Commission, Mexico).

REMARKS.--Reservoir is formed by thin-shell concrete-arch dam completed in 1936; storage began in 1937. Capacity table is based on surveys made in 1927. Maximum storage at crest of spillway gates, elevation, 410.10 ft (124.998 m), 111,070 acre-ft (137 hm<sup>3</sup>); at spillway lip, elevation, 380.08 ft (115.848 m), 74,580 acre-ft (92.0 hm<sup>3</sup>); dead storage below outlet, elevation, 267.39 ft (81.500 m), 1,650 acre-ft (2.03 hm<sup>3</sup>) included in contents. Reservoir stores water for irrigation of 3,000 acres (12.1 km<sup>2</sup>) on both banks 0.5 to 5.5 mi (0.8 to 8.8 km) downstream and municipal supply for city of Tijuana. Since August 1972, Colorado River water diverted through Otay aqueduct into the reservoir for Tijuana emergency use; this year none was imported.

COOPERATION.--Records were furnished by Ministry of Hydraulic Resources, Government of Mexico, through International Boundary and Water Commission, United States section.

EXTREMES FOR PERIOD OF RECORD.--Reservoir spilled during March 1938, September 1940, February to May 1941, March 1942, February and March 1944, January to July 1980; reservoir dry Apr. 2, 1964, to Apr. 9, 1965, Aug. 21 to Nov. 22, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 75,330 acre-ft (92.9 hm<sup>3</sup>) Apr. 7; minimum observed, 64,800 acre-ft (79.9 hm<sup>3</sup>) Sept. 30.

## MONTHEND CONTENTS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Contents (acre- feet)	Change in contents (acre- feet)
Sept. 30.....	71,240	--
Oct. 31.....	69,530	-1,710
Nov. 30.....	68,560	-970
Dec. 31.....	68,340	-220
CAL YR 1980.....	--	-15,290
Jan. 31.....	68,860	+520
Feb. 28.....	69,720	+860
Mar. 31.....	75,020	+5,300
Apr. 30.....	74,720	-300
May 31.....	73,010	-1,710
June 30.....	71,100	-1,910
July 31.....	68,930	-2,170
Aug. 31.....	66,760	-2,170
Sept. 30.....	64,800	-1,960
WTR YR 1981.....	--	-6,440

## 11013500 TIJUANA RIVER NEAR NESTOR, CA

LOCATION.--Lat 32°33'06", long 117°05'00", on line between secs.3 and 4, T.19 S., R.2 W., San Diego County, Hydrologic Unit 18070305, on downstream side of Hollister Street bridge, 1.7 mi (2.7 km) south of Nestor, and 2.9 mi (4.7 km) upstream from mouth at Pacific Ocean.

DRAINAGE AREA.--1,695 mi<sup>2</sup> (4,390 km<sup>2</sup>), of which 1,236 mi<sup>2</sup> (3,201 km<sup>2</sup>) are in Mexico.

PERIOD OF RECORD.--October 1914 to September 1915, October 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 15.14 ft (4.615 m) National Geodetic Vertical Datum of 1929. See WSP 1735 for history of changes prior to Aug. 5, 1958.

REMARKS.--Records fair. Flow regulated by Morena Reservoir, capacity, 50,210 acre-ft (61.9 hm<sup>3</sup>) and Barrett Reservoir, capacity, 44,760 acre-ft (55.2 hm<sup>3</sup>) in the United States, and Rodriguez Reservoir (station 11013200) in Mexico. Water diverted from Cottonwood Creek at Barrett Dam by Dulzura conduit to Jamul Creek. AVERAGE DISCHARGE represents flow to the ocean regardless of upstream development.

COOPERATION.--The International Boundary and Water Commission provided gage-height record for period Dec. 19 to Mar. 31, and 6 discharge measurements during the year.

AVERAGE DISCHARGE.--46 years, 45.8 ft<sup>3</sup>/s (1.30 m<sup>3</sup>/s), 33,180 acre-ft/yr (40.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1936).--Maximum discharge, 33,500 ft<sup>3</sup>/s (949 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 8.70 ft (2.652 m), affected by channel outbreak; maximum gage height, 11.50 ft (3.505 m) Jan. 30, 1980, prior to channel outbreak and major river movement caused by February 1980 floods; no flow parts of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 690 ft<sup>3</sup>/s (19.5 m<sup>3</sup>/s) Mar. 1, gage height, 5.48 ft (1.670 m); no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	2.7	7.6	11	29	198	49	3.1	.51	.13	.00	.00
2	3.4	6.2	7.0	11	30	223	54	3.8	.25	.13	.00	.00
3	2.6	8.8	8.1	10	26	116	57	4.5	.14	.13	.00	.00
4	2.1	8.7	11	12	23	80	40	4.3	.18	.11	.00	.00
5	2.1	8.5	16	12	23	214	23	3.2	.16	.10	.00	.00
6	2.3	9.0	18	16	23	231	16	1.4	.10	.10	.00	.00
7	2.4	9.5	16	16	24	132	15	1.1	.14	.09	.00	.00
8	3.0	8.5	18	17	27	90	14	.75	.12	.11	.00	.00
9	2.7	7.7	16	16	51	75	13	.56	.10	.12	.00	.00
10	2.9	8.2	13	19	103	60	13	.38	.12	.11	.00	.00
11	3.7	7.7	11	19	63	55	12	1.1	.05	.12	.00	.00
12	4.5	7.8	10	21	42	50	11	1.3	.01	.13	.00	.00
13	4.2	8.1	9.8	22	38	45	11	.44	.02	.12	.00	.00
14	4.6	7.6	9.9	20	30	40	9.5	.53	.08	.11	.00	.00
15	5.2	7.9	11	22	24	35	9.6	1.3	.03	.12	.00	.00
16	7.2	4.0	9.7	21	20	33	8.5	.81	.00	.12	.00	.00
17	9.8	6.7	9.0	19	17	30	8.8	1.6	.01	.10	.00	.00
18	8.3	6.5	9.2	20	15	34	10	.35	.03	.08	.00	.00
19	8.6	3.6	11	19	14	62	20	.52	.06	.08	.00	.00
20	5.5	4.0	14	19	13	117	18	.27	.09	.07	.00	.00
21	5.4	5.0	15	19	12	112	14	.55	.12	.07	.00	.00
22	6.4	6.0	17	19	12	96	10	.68	.14	.05	.00	.00
23	5.2	7.0	16	18	11	80	9.1	.38	.13	.03	.00	.00
24	4.2	8.0	14	18	11	68	7.7	.27	.13	.00	.00	.00
25	3.9	8.0	14	18	28	55	6.6	.37	.15	.00	.00	.00
26	8.3	7.6	14	19	24	47	5.5	.65	.16	.00	.00	.00
27	6.5	7.4	14	18	27	61	5.6	.94	.19	.00	.00	.00
28	6.8	7.0	14	29	21	68	5.9	1.1	.18	.00	.00	.00
29	4.7	7.7	14	30	---	76	4.5	1.3	.15	.00	.00	.00
30	2.2	8.9	14	33	---	72	3.5	.89	.13	.00	.00	.00
31	2.5	---	11	30	---	63	---	.95	---	.00	.00	---
TOTAL	146.6	214.3	392.3	593	781	2718	484.8	39.39	3.68	2.33	.00	.00
MEAN	4.73	7.14	12.7	19.1	27.9	87.7	16.2	1.27	.12	.075	.000	.000
MAX	9.8	9.5	18	33	103	231	57	4.5	.51	.13	.00	.00
MIN	2.1	2.7	7.0	10	11	30	3.5	.27	.00	.00	.00	.00
AC-FT	291	425	778	1180	1550	5390	962	78	7.3	4.6	.00	.00

CAL YR 1980 TOTAL 296494.40 MEAN 810 MAX 30200 MIN 2.1 AC-FT 588100  
WTR YR 1981 TOTAL 5375.40 MEAN 14.7 MAX 231 MIN .00 AC-FT 10660

## OTAY RIVER BASIN

11014550 LOWER OTAY LAKE NEAR CHULA VISTA, CA  
(Formerly published as Lower Otay Reservoir near Chula Vista)

LOCATION.--Lat 32°36'33", long 116°55'45", in NE¼NE¼ sec.13, T.18 S., R.1 E., San Diego County, Hydrologic Unit 18070304, on outlet tower near right bank, 1,000 ft (305 m) west of right end of Savage Dam on Otay River, and 9 mi (14 km) east of Chula Vista.

DRAINAGE AREA.--99.0 mi<sup>2</sup> (256.4 km<sup>2</sup>).

PERIOD OF RECORD.--October 1945 to September 1959 (published with Otay River at Savage Dam, station 11014500). October 1972 to current year. Records of monthend gage heights October 1936 to September 1945, in files of San Diego County Department of Sanitation and Flood Control.

GAGE.--Nonrecording gage. Datum of gage is 347.20 ft (105.827 m) National Geodetic Vertical Datum of 1929 (levels by County of San Diego); gage readings have been reduced to NGVD. Since October 1972 to current year, supplementary water-stage recorder for flood warning only 30 ft (9.1 m) upstream from right end of dam at datum 50.0 ft (15.24 m) higher.

REMARKS.--Reservoir is formed by gravity section cyclopean concrete and masonry dam, built in 1919. Capacity from Geological Survey table dated Apr. 3, 1956. Maximum capacity at top of spillway gates, 56,520 acre-ft (69.7 hm<sup>3</sup>), elevation, 490.70 ft (149.565 m). Capacity at permanent spillway level, 49,510 acre-ft (61.0 hm<sup>3</sup>), elevation, 484.70 ft (147.737 m). Dead storage below lowest outlet, 1,150 acre-ft (1.42 hm<sup>3</sup>), elevation, 395.05 ft (120.411 m). Dulzura conduit carries water from Barrett Reservoir on Cottonwood Creek to Dulzura Creek, where water is carried to the reservoir by Jamul Creek (station 11014000). Reservoir storage includes supplemental Colorado River water. Small diversions for local use near reservoir. Water used for municipal supply by city of San Diego.

COOPERATION.--Gage heights were furnished by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD (1945-59 AND SINCE 1972).--Maximum contents observed, 50,070 acre-ft (61.7 hm<sup>3</sup>), spilling, Mar. 11, 1980, elevation, 485.22 ft (147.895 m). Maximum elevation prior to 1980, 483.87 ft (147.484 m) revised, Oct. 1, 1945; minimum observed, 3,160 acre-ft (3.90 hm<sup>3</sup>) Dec. 31, 1951, elevation, 407.56 ft (124.224 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 49,470 acre-ft (61.0 hm<sup>3</sup>), Mar. 7, elevation, 484.66 ft (147.724 m); minimum observed, 45,430 acre-ft (56.0 hm<sup>3</sup>) Oct. 5, elevation, 480.90 ft (146.578 m).

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	480.94	45,470	--
Oct. 31.....	481.40	45,950	+480
Nov. 30.....	481.84	46,410	+460
Dec. 31.....	482.68	47,310	+900
CAL YR 1980.....	--	--	+16,020
Jan. 31.....	483.40	48,080	+770
Feb. 28.....	484.16	48,910	+830
Mar. 31.....	484.42	49,200	+290
Apr. 30.....	483.80	48,520	-680
May 31.....	483.20	47,870	-650
June 30.....	483.28	47,950	+80
July 31.....	483.30	47,970	+20
Aug. 31.....	483.28	47,950	-20
Sept. 30.....	483.56	48,260	+310
WTR YR 1981.....	--	--	+2,790

## SWEETWATER RIVER BASIN

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## 11015000 SWEETWATER RIVER NEAR DESCANSO, CA

LOCATION.--Lat 32°50'05", long 116°37'20", in NW¼SE¼ sec.25, T.15 S., R.3 E., San Diego County, Hydrologic Unit 18070304, near right bank at Los Terrenitos Road bridge, 0.7 mi (1.1 km) downstream from unnamed tributary, and 1.3 mi (2.1 km) south of Descanso.

DRAINAGE AREA.--45.4 mi<sup>2</sup> (117.6 km<sup>2</sup>).

PERIOD OF RECORD.--October 1905 to September 1927, October 1956 to current year. Monthly discharge only for October to December 1905, January to February 1916, February, March, June to September 1927, published in WSP 1315-B. Combined records of river and diversion since October 1956.

GAGE.--Water-stage recorder on river; water-stage recorder on concrete diversion. Datum of river gage is 3,269.24 ft (996.464 m) National Geodetic Vertical Datum of 1929. Prior to June 25, 1927, nonrecording gages at several sites within 0.1 mi (0.2 km) upstream at various datums. Diversion gage at different datum.

REMARKS.--Records fair. No regulation above station. Sweetwater River diversion diverts 0.3 mi (0.5 km) above station for irrigation below. No diversion since November 1976.

AVERAGE DISCHARGE.--River only: 47 years, 11.1 ft<sup>3</sup>/s (0.314 m<sup>3</sup>/s), 8,040 acre-ft/yr (9.91 hm<sup>3</sup>/yr). Combined river and diversion: 25 years, 7.24 ft<sup>3</sup>/s (0.205 m<sup>3</sup>/s), 5,250 acre-ft/yr (6.47 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 11,200 ft<sup>3</sup>/s (317 m<sup>3</sup>/s) Feb. 16, 1927, gage height, 13.2 ft (4.023 m), from floodmarks, site and datum then in use, on basis of slope-area measurement of maximum flow; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 124 ft<sup>3</sup>/s (3.51 m<sup>3</sup>/s) Feb. 9 (1200 hrs), gage height, 5.76 ft (1.756 m), no other peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); minimum daily, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.6	3.8	2.0	3.2	50	12	4.8	1.9	.38		
2	.91	2.0	4.5	2.0	2.2	30	17	3.8	1.3	.36		
3	.80	1.4	4.4	2.2	2.3	16	19	3.3	1.3	.30		
4	.98	2.3	7.3	2.3	2.6	9.8	18	2.7	1.4	.22		
5	1.0	2.4	7.3	2.0	2.2	13	15	3.6	1.3	.20		
6	.95	2.2	3.5	2.1	2.2	13	12	3.8	.64	.26		
7	.19	2.6	4.1	1.6	2.0	8.0	12	4.1	.59	.35		
8	.22	2.2	4.2	1.6	4.7	5.5	11	3.4	.70	.31		
9	.44	2.3	6.1	2.1	80	4.1	11	3.8	.96	.27		
10	.38	2.3	5.8	2.4	48	3.1	8.9	3.6	.77	.18		
11	.49	2.6	2.5	3.0	30	2.2	7.8	3.7	.68	.22		
12	.61	2.5	2.1	3.1	22	2.1	7.2	3.5	.45	.30		
13	1.1	2.5	2.0	2.9	14	1.8	6.2	3.3	.10	.39		
14	1.3	3.5	1.6	2.8	9.4	2.6	5.8	3.0	.12	.18		
15	5.0	3.4	1.9	2.4	5.0	2.0	5.6	3.0	.05	.37		
16	3.5	2.9	2.0	2.3	3.5	2.2	6.1	3.2	.04	.57		
17	1.9	2.6	1.5	2.2	2.5	1.8	5.7	3.1	.07	.28		
18	1.0	2.4	1.2	1.9	2.0	1.7	6.5	2.9	.09	.13		
19	1.3	2.4	1.3	1.6	1.5	2.3	13	2.9	.09	.07		
20	1.6	2.9	.71	1.3	1.2	17	11	4.0	.10	.05		
21	2.0	2.7	.50	.78	.90	13	10	4.4	.09	.05		
22	1.9	3.2	.43	.53	.80	10	8.6	3.0	.16	.01		
23	1.0	3.1	1.3	.79	.60	8.4	7.9	2.7	.13	0		
24	.40	3.1	3.9	.57	.50	5.7	6.4	2.6	.22	0		
25	.11	3.1	3.9	1.3	1.4	4.4	5.9	2.4	.21	0		
26	.79	3.7	4.3	1.1	7.1	7.9	6.5	2.1	.36	0		
27	.98	5.1	4.1	.86	3.0	18	6.1	2.6	.68	0		
28	.29	6.0	2.6	3.5	1.0	16	6.4	2.1	.61	0		
29	.58	4.5	2.4	3.6	---	16	5.7	1.9	.54	0		
30	.95	3.9	2.0	4.9	---	15	5.1	1.3	.49	0		
31	1.5	---	2.0	4.7	---	13	---	2.0	.44	0		
TOTAL	35.27	87.4	95.24	66.43	255.80	315.6	279.4	96.6	16.14	5.45	0	0
MEAN	1.14	2.91	3.07	2.14	9.14	10.2	9.31	3.12	.54	.18	0	0
MAX	5.0	6.0	7.3	4.9	80	50	19	4.8	1.9	.57	0	0
MIN	.11	1.4	.43	.53	.50	1.7	5.1	1.3	.04	0	0	0
AC-FT	70	173	189	132	507	626	554	192	32	11	0	0

CAL YR 1980 TOTAL 22179.01 MEAN 60.6 MAX 2500 MIN .11 AC-FT 43990  
WTR YR 1981 TOTAL 1253.33 MEAN 3.43 MAX 80 MIN 0 AC-FT 2490

## SAN DIEGO RIVER BASIN

11020600 EL CAPITAN LAKE NEAR LAKESIDE, CA  
(Formerly published as El Capitan Reservoir near Lakeside)

LOCATION.--Lat 32°53'00", long 116°48'25", in NE¼SE¼NE¼ sec.7, T.15 S., R.2 E., San Diego County, Hydrologic Unit 18070304, on outlet tower 100 ft (30 m) upstream of El Capitan Dam on San Diego, and 7 mi (11 km) east of Lakeside.

DRAINAGE AREA.--188 mi<sup>2</sup> (487 km<sup>2</sup>).

PERIOD OF RECORD.--October 1936 to September 1966 (published with San Diego River at El Capitan Dam, station 11020500), October 1972 to current year. October 1936 to September 1945, published in WSP 1315-B, not equivalent owing to exclusion of greater part of flow released from Cuyamaca Reservoir.

GAGE.--Nonrecording gage. Datum of gage is 553.0 ft (168.55 m) National Geodetic Vertical Datum of 1929 (levels by city of San Diego); gage readings have been reduced to NGVD. October 1972 to current year, supplementary water-stage recorder used for flood warning only on left side of outlet tower at datum 110.0 ft (33.53 m) higher.

REMARKS.--Reservoir is formed by hydraulic fill-rock embankment, completed in 1935. Capacity table dated Mar. 29, 1956. Capacity of reservoir at spillway level, 112,810 acre-ft (139 hm<sup>3</sup>), elevation, 750.00 ft (228.600 m). Dead storage below lowest outlet, 59.2 acre-ft (73,000 m<sup>3</sup>), elevation, 574.00 ft (174.955 m). Reservoir storage includes supplemental Colorado River water. No significant diversion above reservoir. Flow partly regulated by Cuyamaca Reservoir. Water is released as required for municipal use and irrigation.

COOPERATION.--Gage heights were furnished by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD (1945-66 AND SINCE 1972).--Maximum contents observed, 114,500 acre-ft (141 hm<sup>3</sup>), spilling, Mar. 7, 1980, elevation, 751.09 ft (228.932 m); minimum observed, 2,252 acre-ft (2.78 hm<sup>3</sup>) May 1, 1957, elevation, 606.28 ft (184.794 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 68,690 acre-ft (84.7 hm<sup>3</sup>), Oct. 1, elevation, 717.32 ft (218.639 m); minimum observed, 30,840 acre-ft (38.0 hm<sup>3</sup>) Sept. 30, elevation, 676.02 ft (206.051 m).

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	717.40	68,780	--
Oct. 31.....	714.74	65,790	-2,990
Nov. 30.....	711.31	62,060	-3,730
Dec. 31.....	708.00	58,600	-3,460
CAL YR 1980.....	--	--	+4,780
Jan. 31.....	705.14	55,710	-2,890
Feb. 28.....	703.66	54,250	-1,460
Mar. 31.....	703.46	54,050	-200
Apr. 30.....	701.24	51,910	-2,140
May 31.....	696.60	47,590	-4,320
June 30.....	691.88	43,410	-4,180
July 31.....	686.78	39,130	-4,280
Aug. 31.....	681.48	34,920	-4,210
Sept. 30.....	676.02	30,840	-4,080
WTR YR 1981.....	--	--	-37,940



## 11022100 SAN VICENTE RESERVOIR NEAR LAKESIDE, CA

LOCATION.--Lat 32°54'45", long 116°55'25", in SE¼SW¼NW¼ sec.31, T.14 S., R.1 E., San Diego County, Hydrologic Unit 18070304, at outlet tower near center of upstream face of San Vicente Dam on San Vicente Creek, and 3.6 mi (5.8 km) north of Lakeside.

DRAINAGE AREA.--74.2 mi<sup>2</sup> (192.2 km<sup>2</sup>).

PERIOD OF RECORD.--October 1946 to September 1961 (published as San Vicente Creek at San Vicente Dam, at Foster, station 11022000), October 1972 to current year.

GAGE.--Nonrecording gage. Datum of gage is 460.0 ft (140.21 m) National Geodetic Vertical Datum of 1929 (levels by County of San Diego); gage readings have been reduced to elevations NGVD. October 1972 to current year, supplementary water-stage recorder used for flood warning only, at same site at datum 100 ft (30.5 m) higher.

REMARKS.--Reservoir is formed by concrete-gravity dam, constructed in 1941-43 by city of San Diego; storage began during construction period. Capacity table is dated Feb. 18, 1944. Capacity of reservoir at spillway level, 90,230 acre-ft (111 hm<sup>3</sup>), elevation, 650 ft (198.1 m). Dead storage below lowest outlet, 350 acre-ft (432,000 m<sup>3</sup>), elevation, 493.0 ft (150.27 m). Reservoir storage includes supplemental water from the San Diego River, Santa Ysabel Creek, and Colorado River basins. No diversion above reservoir. Water is released as required for municipal use.

COOPERATION.--Gage heights were furnished by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD (1946-61 AND SINCE 1972).--Maximum contents observed, 94,200 acre-ft (116 hm<sup>3</sup>), spilling, Feb. 21, 1980, elevation, 653.54 ft (199.199 m); minimum observed, 12,390 acre-ft (15.3 hm<sup>3</sup>) Nov. 1, 1947, elevation, 549.22 ft (167.402 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 79,960 acre-ft (98.6 hm<sup>3</sup>), Oct. 10, elevation, 640.16 ft (195.121 m); minimum observed, 54,520 acre-ft (67.2 hm<sup>3</sup>) Sept. 30, elevation, 613.10 ft (186.873 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	640.32	80,120	--
Oct. 31.....	635.52	75,300	-4,820
Nov. 30.....	632.96	72,780	-2,520
Dec. 31.....	630.96	70,840	-1,940
CAL YR 1980.....	--	--	-3,470
Jan. 31.....	628.55	68,530	-2,310
Feb. 28.....	626.66	66,750	-1,780
Mar. 31.....	625.38	65,550	-1,200
Apr. 30.....	628.14	68,140	+2,590
May 31.....	631.52	71,380	+3,240
June 30.....	628.12	68,130	-3,250
July 31.....	622.29	62,690	-5,440
Aug. 31.....	617.36	58,250	-4,440
Sept. 30.....	613.10	54,520	-3,730
WTR YR 1981.....	--	--	-25,600

## SAN DIEGO RIVER BASIN

11022490 SAN DIEGO RIVER AT OLD MISSION DAM NEAR SANTEE, CA

## WATER-QUALITY RECORDS

LOCATION.--Lat 33°50'28", long 117°02'14", in Mission San Diego Land Grant, T.15 S., R.2 W., San Diego County, Hydrologic Unit 18070304, 3.5 mi (5.6 km) west of Santee.

PERIOD OF RECORD.--

CHEMICAL ANALYSES: September 1979 to September 1981.

COOPERATION.--Chemical-quality records were furnished by California Department of Water Resources.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SPECIFIC COND MICROMHO	PH FIELD (UNITS)	TEMP WATER (DEG C)	TURB- IDITY (NTU)	OXYGEN DISS (MG/L)	COD LOWLEVEL (MG/L)	HARDNESS (MG/L AS CaCO3)	CALCIUM CA,DISS (MG/L)	MAGNESIUM MG,DISS (MG/L)	SODIUM NA,DISS (MG/L)
80/10/21	08 50	1500	8.4	19.5		10.4	25				
80/11/11	16 10	1700	7.9	18.0		8.4	24				
80/12/16	15 35	1660	7.7	13.5	6.0	9.9	34	530			
81/01/13	16 15	1270	7.8	15.5		7.6	42				
81/02/10	08 30	960	7.8	14.5		8.9	26				
81/03/10	17 15			18.0			28				
81/03/18	12 50	1570	8.8	19.5	3.0	13.0		450			
81/04/14	09 25	1680	8.7	22.0		12.8	35				
81/05/12	16 15	1980	7.8	24.5		6.8	25				
81/06/09	09 20	1980	8.5	28.0	6.0	12.8	38	540			
81/09/25	11 00	2690	7.9	25.5	0.0			730	150	89	290

DATE	TIME	POTASSIUM K,DISS (MG/L)	ALKALI- LINEITY (MG/L)	SULFATE SO4-DISS (MG/L)	CHLORIDE CL DISS (MG/L)	FLUORIDE F,DISS (MG/L)	ROE DISS 180 C (MG/L)	NITRATE N,DISS (MG/L)	BORON B,DISS (UG/L)
80/10/21	08 50								
80/11/11	16 10								
80/12/16	15 35			300	300		1150		
81/01/13	16 15								
81/02/10	08 30								
81/03/18	12 50			260	280		1070		
81/04/14	09 25								
81/05/12	16 15								
81/06/09	09 20			350	400		1340		
81/09/25	11 00	6.6	220	440	480	0.6	1670	1.1	300

DATE	TIME	ARSENIC AS,DISS (UG/L)	BARIUM BA,DISS (UG/L)	CADMIUM CD,DISS (UG/L)	CHROMIUM CR,DISS (UG/L)	COPPER CU,DISS (UG/L)	IRON FE,DISS (UG/L)	LEAD PB,DISS (UG/L)	MANGANESE MN,DISS (UG/L)	MERCURY HG,TOTAL (UG/L)	SELENIUM SE,DISS (UG/L)
80/12/16	15 35	0	100	0	0	10	10	0	290	0.0	10
81/03/18	12 50	0	0	0	0	0	10	0	100	0.0	10
81/06/09	09 20	0	100	0	0	0	30	0	160	0.0	0

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LOCATION.--Lat 32°49'29", long 117°03'17", in Ex Mission San Diego Grant, San Diego County, Hydrologic Unit 18070304, on right bank in Mission Gorge, 0.2 mi (0.3 km) upstream from left tributary, 6 mi (10 km) west of Santee, and 18 mi (29 km) downstream from El Capitan Reservoir.

PERIOD OF RECORD.--May 1912 to December 1915, March 1916 to current year. Monthly discharge only for some periods and yearly estimates only for 1924-25. published in WSP 1315-B.

REMARKS.--Records good. Flow regulated by Cuyamaca Reservoir, capacity, 11,540 acre-ft (46.7 hm<sup>3</sup>), El Capitan Reservoir (station 11020500), and San Vicente Reservoir (station 11022000). Diversions by city of San Diego for municipal supply and by Helix Irrigation District. AVERAGE DISCHARGE represents flow to ocean during period of record, regardless of upstream development.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,200 ft<sup>3</sup>/s (1,990 m<sup>3</sup>/s) Jan. 27, 1916, based on slope-conveyance computation of peak flow, gage height, 25.1 ft (7.651 m), from floodmarks, site and datum then in use; no flow at times in some years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	12	8.7	4.2	15	411	16	3.8	7.5	1.5	1.8	4.1
2	14	12	8.4	4.8	14	239	40	4.4	7.3	1.4	1.8	4.1
3	14	11	8.6	5.8	13	66	31	4.6	7.5	1.4	1.8	4.6
4	14	10	29	6.7	12	35	18	4.3	5.2	1.4	1.8	4.8
5	14	10	26	7.2	11	255	16	4.2	3.9	1.3	1.7	4.9
6	14	10	13	7.3	10	121	16	3.9	5.2	1.2	1.8	5.0
7	14	10	11	7.3	11	52	15	3.7	6.2	1.3	1.8	4.9
8	14	10	11	7.0	12	38	15	3.5	6.1	1.5	1.8	4.7
9	13	9.9	9.2	7.1	234	31	15	3.3	5.4	1.6	1.8	4.4
10	13	9.6	8.2	7.0	41	26	14	3.7	5.5	1.6	1.7	4.1
11	12	9.4	8.0	11	22	22	15	3.9	5.2	1.6	1.7	4.1
12	12	11	7.6	53	17	21	15	6.3	5.0	1.6	1.7	3.9
13	12	10	6.2	21	15	19	14	5.6	5.3	1.5	1.9	4.1
14	12	9.9	5.5	11	14	26	13	4.5	5.3	1.6	2.0	3.8
15	11	10	5.3	10	13	20	13	4.2	5.2	1.7	2.0	3.6
16	11	10	5.3	9.5	12	18	13	4.3	4.8	1.9	1.9	3.0
17	11	10	5.8	8.9	12	18	12	5.3	4.5	1.8	2.3	2.8
18	12	10	5.6	8.5	11	17	9.2	6.1	4.8	1.8	3.3	2.4
19	12	9.1	5.4	8.0	11	40	50	6.3	4.6	1.6	4.3	2.3
20	12	8.4	5.7	7.8	11	134	16	6.5	3.8	1.6	4.5	1.6
21	10	8.3	6.0	7.7	10	31	9.6	6.7	3.1	1.6	5.0	1.5
22	9.4	8.6	5.9	7.5	10	21	7.3	6.5	2.8	1.5	5.1	1.5
23	11	8.9	4.8	7.7	12	18	6.3	6.5	2.5	1.6	5.4	1.5
24	11	9.0	10	7.9	14	17	5.5	6.6	2.4	1.6	5.5	1.5
25	12	8.5	9.2	8.3	17	17	4.9	6.4	2.3	1.8	4.9	1.5
26	12	7.4	6.6	8.4	90	23	4.7	6.5	1.9	1.8	4.2	1.6
27	13	8.1	4.8	8.6	23	34	4.9	11	1.8	1.7	3.9	1.6
28	12	8.4	4.4	228	39	20	4.1	11	1.7	1.7	4.1	1.6
29	11	8.2	4.2	96	---	16	3.4	7.4	1.5	1.8	4.2	1.8
30	10	8.4	4.2	66	---	16	3.4	8.7	1.5	1.8	4.5	2.0
31	10	---	4.2	22	---	15	---	8.1	---	1.8	4.3	---
TOTAL	376.4	286.1	257.8	681.2	726	1837	420.3	177.8	129.8	49.6	94.5	93.3
MEAN	12.1	9.54	8.32	22.0	25.9	59.3	14.0	5.74	4.33	1.60	3.05	3.11
MAX	14	12	29	228	234	411	50	11	7.5	1.9	5.5	5.0
MIN	9.4	7.4	4.2	4.2	10	15	3.4	3.3	1.5	1.2	1.7	1.5
AC-FT	747	567	511	1350	1440	3640	834	353	257	98	187	185
CAL YR 1980	TOTAL	72697.1	MEAN 199	MAX 3000	MIN 4.2	AC-FT	144200					
WTR YR 1981	TOTAL	5129.8	MEAN 14.1	MAX 411	MIN 1.2	AC-FT	10170					

## LOS PENASQUITOS CREEK BASIN

11023250 POWAY CREEK NEAR POWAY, CA

LOCATION.--Lat 32°57'13", long 117°00'50", in SE¼NE¼SE¼ sec.18, T.14 S., R.1 W., San Diego County, Hydrologic Unit 18070304, on right bank 100 ft (30 m) downstream from unnamed tributary, 1,000 ft (300 m) upstream from bridge on Standish Drive, and 1.4 mi (2.3 km) southeast of Poway Post Office.

DRAINAGE AREA.--7.92 mi<sup>2</sup> (20.51 km<sup>2</sup>).

PERIOD OF RECORD.--October 1977 to current year. Data for period October 1969 to October 1977 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Altitude of gage is 540 ft (165 m), from topographic map.

REMARKS.--Records poor. Flow partly regulated by small conservation reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 755 ft<sup>3</sup>/s (21.4 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 7.26 ft (2.213 m), on basis of rating extended above 40 ft<sup>3</sup>/s (1.13 m<sup>3</sup>/s) based on a step-backwater analysis up to 8.3 ft (2.53 m); no flow many months each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft<sup>3</sup>/s (0.283 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. 28	1440	21 0.59	4.43 1.350	Mar. 5	1705	17 0.48	4.39 1.338
Mar. 1	1645	*35 0.99	4.55 1.387				

Minimum daily discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.20	8.2	.02	.01	.01			
2			0	0	.10	3.1	.02	.01	.01			
3			0	0	.08	1.5	.02	.01	.01			
4			.40	0	.06	3.0	.02	.01	.01			
5			1.7	0	.04	6.3	.02	.01	.01			
6			1.5	0	.02	1.5	.02	.01	.01			
7			.80	0	0	1.0	.02	.01	.01			
8			.20	0	0	.80	.02	.01	.01			
9			0	0	1.1	.60	.02	.01	.01			
10			0	0	.60	.50	.02	.01	.01			
11			0	0	.40	.40	.01	.01	.01			
12			0	.16	.30	.30	.01	.01	.01			
13			0	.05	.20	.25	.01	.01	.01			
14			0	0	.10	.20	.01	.01	.01			
15			0	0	.08	.10	.01	.01	.01			
16			0	0	.06	.08	.01	.01	.01			
17			0	0	.04	.06	.01	.01	.01			
18			0	0	.02	.04	.01	.01	.01			
19			0	0	0	.66	.02	.01	.01			
20			0	0	0	.10	.03	.01	.01			
21			0	0	0	.06	.01	.01	0			
22			0	0	0	.04	.01	.01	0			
23			0	0	0	.02	.01	.01	0			
24			0	0	0	.02	.01	.01	0			
25			0	0	.85	.02	.01	.01	0			
26			0	0	.50	.20	.01	.01	0			
27			0	0	.20	.06	.01	.01	0			
28			0	1.7	.10	.02	.05	.01	0			
29			0	1.3	---	.02	.01	.01	0			
30			0	.60	---	.02	.01	.01	0			
31		---	0	.30	---	.02	---	.01	---			---
TOTAL	0	0	4.60	4.11	5.05	29.19	.47	.31	.20	0	0	0
MEAN	0	0	.15	.13	.18	.94	.016	.010	.007	0	0	0
MAX	0	0	1.7	1.7	1.1	8.2	.05	.01	.01	0	0	0
MIN	0	0	0	0	0	.02	.01	.01	0	0	0	0
AC-FT	0	0	4.1	8.2	10	58	.9	.6	.4	0	0	0
CAL YR 1980	TOTAL	1828.47	MEAN	5.00	MAX	250	MIN	0	AC-FT	3630		
WTR YR 1981	TOTAL	43.93	MEAN	.12	MAX	8.2	MIN	0	AC-FT	87		

## LOS PENASQUITOS CREEK BASIN

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11023310 RATTLESNAKE CREEK AT POWAY, CA

LOCATION.--Lat 32°57'07", long 117°02'56", in NE¼SE¼SE¼ sec.14, T.14 S., R.2 W., San Diego County, Hydrologic Unit 18070304, on right bank 400 ft (122 m) above mouth, and 1.0 mi (1.6 km) southwest of Poway Post Office.

DRAINAGE AREA.--8.13 mi<sup>2</sup> (21.1 km<sup>2</sup>).

PERIOD OF RECORD.--October 1977 to current year. Data for period October 1969 to October 1977 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Altitude of gage is 457 ft (139 m), from topographic map.

REMARKS.--Records poor. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 1,430 ft<sup>3</sup>/s (40.5 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 2.88 ft (0.878 m), from rating curve extended above 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) on basis of step-backwater computations and slope-conveyance study at 1.20 ft (0.366 m); no flow for much of each year.

EXTREMES FOR CURRENT YEAR.--Estimated 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)
Jan. 28	1445	150 4.25	1.41 0.430	Mar. 1	1145	*350 9.91	1.63 0.497
Feb. 25	2045	160 4.53	1.04 0.317	Mar. 19	2130	160 4.53	1.03 0.314

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.05	.09	1.2	80	1.9	.05				
2	0	0	.05	.10	.91	29	1.6	.16				
3	0	.02	.06	.12	.82	8.8	.71	.18				
4	0	0	12	.13	.67	6.7	.63	.08				
5	0	0	1.7	.14	.60	31	.57	.14				
6	0	0	.23	.14	.59	12	.57	.09				
7	0	0	.16	.10	.49	5.8	.57	.04				
8	0	0	.12	.09	2.7	4.1	.45	0				
9	.01	0	.09	.10	31	3.2	.51	0				
10	0	0	.09	.09	4.6	2.6	.49	0				
11	0	.02	.09	.77	.95	2.3	.44	.09				
12	0	.02	.10	.69	.55	1.6	.39	0				
13	0	.02	.10	.10	.29	1.3	.37	0				
14	0	.03	.10	.08	.32	1.5	.32	0				
15	.22	.03	.10	.09	.31	1.3	.33	0				
16	.01	.03	.12	.10	.30	1.2	.28	0				
17	0	.01	.09	.09	.29	1.3	.31	0				
18	0	0	.11	.08	.28	1.6	2.9	0				
19	0	0	.12	.08	.27	8.2	.90	0				
20	0	0	.11	.09	.26	17	.30	0				
21	0	.03	.10	.08	.25	1.1	.21	0				
22	0	.02	.09	.08	.24	.72	.13	0				
23	0	.03	.08	.09	.23	1.1	.11	0				
24	0	.04	.08	.10	.22	.87	.10	0				
25	0	.03	.09	.09	16	.46	.08	0				
26	.35	.02	.10	.08	11	6.1	.06	0				
27	.02	.03	.10	.08	1.2	2.2	.16	0				
28	0	.03	.11	19	8.5	.35	.05	0				
29	0	.04	.10	7.9	---	.41	.02	0				
30	0	.04	.08	4.3	---	.91	.10	0				
31	0	---	.08	1.5	---	.79	---	0	---			---
TOTAL	.61	.49	16.60	36.57	85.04	235.51	15.56	.83	0	0	0	0
MEAN	.020	.016	.54	1.18	3.04	7.60	.52	.027	0	0	0	0
MAX	.35	.04	12	19	31	80	2.9	.18	0	0	0	0
MIN	0	0	.05	.08	.22	.35	.02	0	0	0	0	0
AC-FT	1.2	1.0	33	73	169	467	31	1.6	0	0	0	0

CAL YR 1980 TOTAL 3473.43 MEAN 9.49 MAX 260 MIN 0 AC-FT 6890  
WTR YR 1981 TOTAL 391.21 MEAN 1.07 MAX 80 MIN 0 AC-FT 776

## LOS PENASQUITOS CREEK BASIN

11023325 BEELEER CREEK AT POMERADO ROAD NEAR POWAY, CA

LOCATION.--Lat 32°56'23", long 117°03'57", in SW¼NW¼SW¼ sec.23, T.14 S., R.2 W., San Diego County, Hydrologic Unit 18070304, on right downstream wingwall of bridge on Pomerado Road, 0.8 mi (1.3 km) upstream from Poway Creek and 1.7 mi (2.7 km) southwest of Poway Post Office.

DRAINAGE AREA.--5.46 mi<sup>2</sup> (14.14 km<sup>2</sup>).

PERIOD OF RECORD.--October 1977 to current year. Data for period October 1969 to October 1977 are available in files of the Geological Survey.

GAGE.--Water-stage recorder. Altitude of gage is 465 ft (142 m), from topographic map.

REMARKS.--Records good. Flow partially regulated by several conservation reservoirs above station.

AVERAGE DISCHARGE.--5 years, 2.62 ft<sup>3</sup>/s (0.074 m<sup>3</sup>/s) 1,900 acre-ft/yr (2.34 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft<sup>3</sup>/s (39.9 m<sup>3</sup>/s) Jan. 29, 1980, gage height, 9.20 ft (2.804 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 at gage height 8.79 ft (2.679 m); no flow for much of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft<sup>3</sup>/s (0.85 m<sup>3</sup>/s) Mar. 5, gage height, 5.87 ft (1.789 m), no peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); no flow many months.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	.01	3.7	.80	.20	.04			
2				0	.04	4.5	.67	.20	.04			
3				0	.04	3.8	.67	.20	.04			
4				0	.05	1.4	.67	.20	.03			
5				0	.05	15	.65	.20	.03			
6				0	.05	15	.49	.20	.02			
7				0	.05	6.3	.49	.20	.02			
8				0	.08	3.6	.45	.19	.02			
9				0	.18	2.1	.42	.17	.02			
10				0	.05	1.3	.42	.15	.02			
11				0	.02	.89	.41	.15	.02			
12				0	.03	.66	.38	.15	.01			
13				0	.04	.54	.35	.14	.01			
14				0	.03	.50	.35	.14	0			
15				0	.03	.48	.35	.13	0			
16				0	.02	.40	.35	.11	0			
17				0	.02	.46	.28	.10	0			
18				0	.02	.53	.27	.09	0			
19				0	.01	1.2	.30	.09	0			
20				0	.02	1.9	.30	.08	0			
21				0	.02	.76	.28	.07	0			
22				0	.03	.62	.26	.07	0			
23				0	.03	.59	.25	.06	0			
24				0	.03	.66	.22	.05	0			
25				0	.04	.66	.20	.05	0			
26				0	.03	.74	.20	.05	0			
27				0	.02	.89	.20	.05	0			
28				.05	.05	.78	.20	.05	0			
29				.04	---	.79	.20	.05	0			
30				.03	---	.95	.20	.04	0			
31		---		0	---	.76	---	.04	---			---
TOTAL	0	0	0	.12	1.09	72.46	11.28	3.67	.32	0	0	0
MEAN	0	0	0	.004	.039	2.34	.38	.12	.011	0	0	0
MAX	0	0	0	.05	.18	15	.80	.20	.04	0	0	0
MIN	0	0	0	0	.01	.40	.20	.04	0	0	0	0
AC-FT	0	0	0	.2	2.2	144	22	7.3	.6	0	0	0
CAL YR 1980	TOTAL	1578.32	MEAN	4.31	MAX	349	MIN	0	AC-FT	3130		
WTR YR 1981	TOTAL	88.94	MEAN	.24	MAX	15	MIN	0	AC-FT	176		

## LOS PENASQUITOS CREEK BASIN

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11023330 LOS PENASQUITOS CREEK BELOW POWAY CREEK, NEAR POWAY, CA

LOCATION.--Lat 32°56'58", long 117°04'08", in NW¼NE¼NE¼ sec.22, T.14 S., R.2 W., San Diego County, Hydrologic Unit 18070304, on right bank at Cobblestone Creek Road, 0.2 mi (0.3 km) downstream from confluence of Poway and Pomerado Creeks, and 2.0 mi (3.2 km) southwest of Poway.

DRAINAGE AREA.--31.2 mi<sup>2</sup> (80.8 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and rain-gage attachment. Altitude of gage is 415 ft (126 m), from topographic map. Rainfall data in files of the Geological Survey.

REMARKS.--Records fair. Flow partly regulated by small conservation reservoirs.

AVERAGE DISCHARGE.--11 years, 6.19 ft<sup>3</sup>/s (0.175 m<sup>3</sup>/s), 4,480 acre-ft/yr (5.52 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,990 ft<sup>3</sup>/s (141 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 11.11 ft (3.386 m), from rating curve extended above 170 ft<sup>3</sup>/s (4.81 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 9.58 ft (2.920 m) and 11.11 ft (3.386 m); no flow for parts of some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 170 ft<sup>3</sup>/s (4.81 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 9.58 ft (2.920 m) and 11.11 ft (3.386 m):

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. 28	1700	208 5.89	5.95 1.814	Mar. 19	2145	228 6.46	6.03 1.838
Mar. 1	1230	*455 12.9	6.74 2.054				

Minimum daily discharge, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) many days in June, August, and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.07	.55	.49	2.5	1.87	1.7	.66	.17	.66	.07	.07
2	.08	.09	.66	.49	1.5	.66	1.8	.87	.07	.66	.07	.07
3	.07	.07	.66	.49	1.4	.19	1.3	.82	.17	.87	.17	.07
4	.07	.17	21	.49	1.3	9.3	1.0	.66	.07	.87	.17	.07
5	.07	.17	9.0	.50	1.1	70	.90	.66	.07	.87	.07	.06
6	.07	.49	1.6	.29	1.1	26	.90	.49	.07	.96	.66	.06
7	.07	.49	.87	.29	.90	12	.87	.66	.07	1.1	1.1	.06
8	.07	.29	.49	.29	5.0	7.8	.87	.49	.07	1.4	1.1	.07
9	.16	.24	.29	.49	70	5.8	.66	.49	.07	1.4	.87	.06
10	.25	.29	.29	.25	10	4.4	.66	.29	.07	1.4	1.1	.06
11	.12	.29	.29	2.2	3.0	3.6	.66	1.1	.07	1.4	1.1	.06
12	.12	.29	.29	2.2	2.0	3.3	.49	.29	.07	1.1	1.1	.07
13	.12	.29	.29	.49	1.5	3.0	.49	.17	.07	1.1	.87	.07
14	.12	.29	.29	.29	1.4	2.4	.47	.29	.06	1.1	.66	.06
15	1.2	.29	.29	.29	1.3	2.0	.45	.66	.06	1.4	.07	.06
16	.25	.47	.29	.17	1.2	1.8	.43	.66	.06	1.6	.07	.06
17	.20	.17	.27	.17	1.1	1.6	.41	.29	.06	1.4	.06	.06
18	.15	.17	.49	.17	1.0	1.5	.40	.29	.06	.66	.07	.06
19	.15	.17	.49	.17	.90	20	3.3	.49	.06	.29	.06	.06
20	.15	.26	.66	.17	.80	40	1.0	.29	.06	.29	.07	.06
21	.15	.29	.49	.17	.70	2.4	.75	.29	.07	.07	.66	.06
22	.15	.39	.49	.17	.60	1.7	.60	.17	.07	.07	.06	.06
23	.15	.49	.49	.17	.80	2.0	.49	.17	.66	.13	.06	.06
24	.15	.66	.29	.29	1.0	1.8	.29	.17	.87	.07	.06	.29
25	.15	.49	.49	.29	5.8	1.7	.29	.17	.66	.07	.06	.66
26	1.6	.39	.49	.29	25	3.5	.29	.17	1.5	.07	.06	.66
27	.25	.49	.49	.29	1.3	6.0	.66	1.8	.87	.07	.07	.61
28	.20	.29	.49	43	18	2.5	.49	.66	.66	.07	.07	.49
29	.17	.29	.49	19	---	1.5	.49	.49	.66	.07	.07	.49
30	.17	.29	.49	9.2	---	1.4	.49	.29	.49	.07	.07	.66
31	.17	---	.88	3.5	---	1.5	---	.17	---	.07	.07	---
TOTAL	6.89	9.13	44.64	86.76	162.20	512.5	23.60	15.17	8.04	21.36	10.82	5.31
MEAN	.22	.30	1.44	2.80	5.79	16.5	.79	.49	.27	.69	.35	.18
MAX	1.6	.66	21	43	70	187	3.3	1.8	1.5	1.6	1.1	.66
MIN	.07	.07	.27	.17	.60	1.4	.29	.17	.06	.07	.06	.06
AC-FT	14	18	89	172	322	1020	47	30	16	42	21	11
CAL YR 1980	TOTAL	8544.84	MEAN 23.3	MAX 1050	MIN .07	AC-FT 16950						
WTR YR 1981	TOTAL	906.42	MEAN 2.48	MAX 187	MIN .06	AC-FT 1800						

## LOS PENASQUITOS CREEK BASIN

11023340 LOS PENASQUITOS CREEK NEAR POWAY, CA

LOCATION.--Lat 32°56'35", long 117°07'15", in Los Penasquitos Grant, San Diego County, Hydrologic Unit 18070304, on left bank 1.0 mi (1.6 km) downstream from Cypress Creek, and 5.5 mi (8.8 km) southwest of Poway.

DRAINAGE AREA.--42.1 mi<sup>2</sup> (109 km<sup>2</sup>).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 260 ft (79.2 m), from topographic map.

REMARKS.--Records good. Flow partly regulated by several conservation reservoirs above station. Pumping from wells along stream for irrigation. Flow augmented by reclaimed water from Poway area.

AVERAGE DISCHARGE.--17 years, 7.71 ft<sup>3</sup>/s (0.218 m<sup>3</sup>/s), 5,590 acre-ft/yr (6.89 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft<sup>3</sup>/s (135 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 10.26 ft (3.127 m) from rating curve extended above 1,400 ft<sup>3</sup>/s (39.6 m<sup>3</sup>/s); no flow at times in 1968, 1972, and 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 466 ft<sup>3</sup>/s (13.2 m<sup>3</sup>/s) Mar. 1 (1445 hrs), gage height, 4.57 ft (1.393 m), no other peak above base of 400 ft<sup>3</sup>/s (11.3 m<sup>3</sup>/s); minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) June 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	.43	.98	.18	3.1	252	3.1	1.3	.63	.63	.23	.29
2	.43	.43	.83	.18	2.5	135	3.5	1.2	.56	.61	.22	.33
3	.43	.43	.84	.16	2.2	53	2.7	1.3	.56	.66	.18	.34
4	.43	.43	11	.16	2.0	17	2.1	1.2	.55	.59	.21	.33
5	.43	.56	32	.16	1.8	125	1.8	1.2	.49	.59	.24	.36
6	.45	.59	2.8	.16	1.8	82	1.6	1.1	.44	.63	.29	.35
7	.48	.66	1.5	.14	1.8	33	1.7	.97	.41	.75	.32	.31
8	.48	.66	1.1	.14	9.7	19	1.6	.92	.37	.83	.38	.28
9	.50	.74	.77	.14	115	12	1.6	.91	.31	.84	.27	.27
10	.53	.83	.58	.15	16	9.1	1.5	.83	.34	.81	.23	.26
11	.66	.83	.46	.37	5.4	7.1	1.5	.76	.37	.83	.31	.26
12	.61	.78	.36	1.1	3.6	6.1	1.3	1.0	.33	.75	.40	.32
13	.58	.78	.33	.80	2.8	5.3	1.3	.75	.29	.69	.74	.29
14	.56	.78	.29	.30	2.4	5.4	1.3	.70	.25	.71	.75	.28
15	1.2	.78	.27	.24	2.3	4.5	1.2	.72	.20	.84	.66	.31
16	1.7	.78	.26	.22	2.2	4.2	1.1	.96	.10	.89	.50	.33
17	.77	.78	.25	.22	2.1	4.0	1.1	1.0	.07	.78	.63	.33
18	.66	.70	.26	.21	2.0	3.9	1.8	.79	.06	.73	.58	.30
19	.57	.70	.24	.18	1.8	13	11	.70	.11	.51	.47	.26
20	.52	.70	.24	.19	1.8	71	2.8	1.1	.12	.36	.56	.22
21	.49	.70	.23	.20	1.8	7.5	2.1	.74	.15	.29	.55	.28
22	.46	.70	.24	.21	1.4	4.5	1.8	.66	.12	.25	.58	.42
23	.43	.73	.22	.22	1.5	4.1	1.6	.61	.11	.25	.78	.31
24	.45	.78	.22	.22	1.6	3.8	1.5	.59	.13	.21	.77	.28
25	.46	1.1	.18	.22	17	3.3	1.4	.59	.12	.24	.57	.33
26	1.8	1.4	.17	.22	45	6.1	1.3	.61	.17	.23	.36	.30
27	1.5	.86	.14	.22	2.4	12	1.3	1.1	.17	.23	.25	.31
28	.82	.84	.13	78	31	3.6	1.4	1.5	.18	.20	.27	.43
29	.48	.83	.12	47	---	2.8	1.3	1.0	.43	.20	.26	.70
30	.46	.87	.12	43	---	2.8	1.2	.90	.62	.20	.29	.71
31	.43	---	.12	6.9	---	2.9	---	.73	---	.20	.29	---
TOTAL	20.22	22.18	57.25	181.81	284.0	915.0	60.5	28.44	8.76	16.53	13.14	10.09
MEAN	.65	.74	1.85	5.86	10.1	29.5	2.02	.92	.29	.53	.42	.34
MAX	1.8	1.4	32	78	115	252	11	1.5	.63	.89	.78	.71
MIN	.43	.43	.12	.14	1.4	2.8	1.1	.59	.06	.20	.18	.22
AC-FT	40	44	114	361	563	1810	120	56	17	33	26	20
CAL YR 1980 TOTAL	11398.64			MEAN 31.1	MAX 1390	MIN .12	AC-FT 22610					
WTR YR 1981 TOTAL	1617.92			MEAN 4.43	MAX 252	MIN .06	AC-FT 3210					



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LOCATION.--Lat 33°06'25", long 116°51'55", in SW¼NW¼NE¼ sec.27, T.12 S., R.1 E., San Diego County, Hydrologic Unit 18070304, on left bank 1.6 mi (2.6 km) downstream from Temescal Creek, and 4.5 mi (7.2 km) north of Ramona.

PERIOD OF RECORD.--February 1912 to February 1923, October 1943 to current year. Monthly discharge only for February 1912, published in WSP 1315-B.

REMARKS.--Records good. Flow regulated by Sutherland Reservoir (station 11024000) since July 1954. Some small diversions above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 149 ft<sup>3</sup>/s (4.22 m<sup>3</sup>/s) Feb. 9, gage height, 3.33 ft (1.015 m), minimum daily, 0.55 ft<sup>3</sup>/s (0.016 m<sup>3</sup>/s) Sept. 20.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	6.0	7.0	6.4	8.2	56	11	7.5	6.2	1.5	1.0	.82
2	5.8	6.1	7.3	6.3	7.6	74	12	7.2	6.6	1.6	1.1	.92
3	5.4	6.2	7.4	6.1	8.0	35	15	7.5	6.4	2.2	.85	1.0
4	5.8	6.3	13	6.4	7.1	24	12	7.5	6.0	1.9	.98	.85
5	5.8	6.6	15	6.6	6.8	25	10	7.7	5.6	2.0	1.6	.76
6	6.1	7.2	10	6.5	7.0	34	9.3	7.3	5.4	1.9	1.3	.95
7	6.1	6.5	8.8	6.6	6.8	24	9.7	7.3	5.1	1.8	1.5	.87
8	5.7	6.1	8.3	6.9	9.5	21	9.7	6.9	4.8	1.4	1.5	.85
9	6.1	6.2	7.7	6.5	6.4	19	9.8	6.7	4.6	1.6	1.1	.73
10	5.9	6.1	6.8	6.4	33	17	9.8	6.6	4.5	1.5	.98	.76
11	5.9	6.8	6.6	6.7	20	16	9.4	6.6	4.3	1.4	1.0	.83
12	6.0	7.6	6.7	7.0	14	16	9.1	6.6	4.5	1.4	1.4	.71
13	6.3	6.8	6.6	7.0	12	15	9.1	6.6	4.3	1.3	1.4	.80
14	6.7	6.6	6.5	6.9	11	17	9.4	6.6	3.8	1.5	1.2	.87
15	9.0	7.0	6.5	6.9	11	15	9.3	7.2	3.1	1.9	1.2	.82
16	7.7	7.1	6.4	6.7	10	14	9.1	7.6	3.5	2.1	1.0	.88
17	7.2	6.0	6.5	6.8	9.7	13	8.8	7.2	3.3	1.4	1.1	.71
18	6.8	6.2	6.7	6.5	9.3	13	10	6.6	3.8	1.2	1.4	.62
19	6.7	6.3	6.9	6.6	9.2	15	12	6.8	3.6	1.2	1.1	.62
20	6.3	6.5	6.7	6.7	9.3	30	12	7.2	3.4	1.1	1.0	.55
21	6.1	6.6	6.4	6.7	8.6	19	9.6	6.6	3.0	.93	1.2	.61
22	6.0	6.7	6.6	6.6	8.7	15	8.6	6.4	3.1	1.0	1.1	.64
23	6.2	6.7	6.5	6.7	8.5	14	8.2	6.2	3.5	1.0	1.1	.84
24	6.1	6.7	6.3	6.7	8.9	13	7.6	6.1	2.8	1.0	1.1	1.0
25	5.9	5.6	6.2	7.0	11	11	7.8	6.0	3.2	1.2	1.0	.96
26	6.6	6.4	6.3	6.7	18	13	7.9	5.9	3.6	1.3	.99	.83
27	7.2	6.9	6.0	6.7	13	17	7.3	8.0	3.7	1.3	.93	.81
28	6.1	7.1	6.3	10	14	14	8.1	7.4	3.2	1.1	.76	.92
29	6.1	6.7	6.3	12	---	13	7.9	6.8	2.5	.99	.72	1.2
30	5.8	6.6	6.1	16	---	12	7.1	6.4	2.4	1.2	.73	1.3
31	5.8	---	6.4	11	---	12	---	6.0	---	1.2	.83	---
TOTAL	195.3	196.2	226.8	228.6	364.2	646	286.6	213.0	123.8	44.12	34.17	25.03
MEAN	6.30	6.54	7.32	7.37	13.0	20.8	9.55	6.87	4.13	1.42	1.10	.83
MAX	9.0	7.6	15	16	64	74	15	8.0	6.6	2.2	1.6	1.3
MIN	5.4	5.6	6.0	6.1	6.8	11	7.1	5.9	2.4	.93	.72	.55
AC-FT	387	389	450	453	722	1280	568	422	246	88	68	50
CAL YR 1980	TOTAL	48249.10	MEAN	132	MAX	6190	MIN	2.4	AC-FT	45700		
WTR YR 1981	TOTAL	2583.82	MEAN	7.08	MAX	74	MIN	.55	AC-FT	5130		

## 11027000 GUEJITO CREEK NEAR SAN PASQUAL, CA

LOCATION.--Lat 33°06'57", long 116°57'08", in NW¼NW¼SE¼ sec.23, T.12 S., R.1 W., San Diego County, Hydrologic Unit 18070304, on left bank 0.3 mi (0.5 km) upstream from Rockwood Canyon Creek, and 1.8 mi (2.9 km) north of San Pasqual.

DRAINAGE AREA.--22.5 mi<sup>2</sup> (58.3 km<sup>2</sup>).

PERIOD OF RECORD.--December 1946 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 560 ft (171 m), from topographic map.

REMARKS.--Records good. No regulation above station. Diversion for irrigation 0.2 mi (0.3 km) upstream.

AVERAGE DISCHARGE.--34 years (water years 1948-81), 2.89 ft<sup>3</sup>/s (0.082 m<sup>3</sup>/s), 2,090 acre-ft/yr (2.58 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,940 ft<sup>3</sup>/s (112 m<sup>3</sup>/s) Feb. 20, 1980, gage height, 7.22 ft (2.201 m) from rating curve extended above 180 ft<sup>3</sup>/s (5.10 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 5.83 ft (1.777 m) and 6.30 ft (1.920 m); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68 ft<sup>3</sup>/s (1.93 m<sup>3</sup>/s) Mar. 1, gage height, 2.69 ft (0.820 m), no peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); minimum daily, 0.03 ft<sup>3</sup>/s (<0.001) Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.8	2.3	2.2	2.9	28	3.4	1.9	1.4	.11	.05	.05
2	2.0	1.9	2.4	2.2	2.6	20	3.9	2.1	1.6	.12	.05	.04
3	1.8	1.9	2.4	2.3	2.5	13	5.3	2.2	1.6	.07	.04	.06
4	1.9	1.9	5.5	2.3	2.5	9.1	3.6	2.1	1.3	.08	.03	.05
5	2.0	1.9	5.7	2.2	2.5	8.9	2.8	2.1	1.1	.07	.05	.04
6	2.0	2.0	3.1	2.0	2.5	12	2.9	1.5	.89	.08	.04	.05
7	2.1	2.1	3.1	2.0	2.5	8.7	2.9	1.7	.93	.07	.05	.06
8	2.1	2.0	3.3	2.1	3.2	6.4	2.9	1.8	.71	.05	.08	.05
9	2.3	2.1	2.6	2.1	17	5.2	2.9	1.7	.66	.05	.04	.05
10	2.3	2.2	2.3	2.0	9.5	4.8	2.9	1.6	.60	.07	.04	.05
11	2.3	2.3	2.3	2.2	5.6	4.6	2.8	1.6	.60	.11	.04	.05
12	2.3	2.4	2.4	2.4	4.3	4.5	2.8	1.6	.60	.25	.04	.04
13	2.5	2.3	2.5	2.2	3.5	4.4	2.7	1.6	.70	.13	.04	.05
14	2.8	2.3	2.4	2.2	3.1	5.2	2.6	1.7	.79	.06	.04	.05
15	3.7	2.3	2.4	2.2	3.0	5.0	2.5	1.9	.69	.08	.04	.05
16	2.9	2.2	2.4	2.3	2.9	4.3	2.5	2.2	.37	.15	.04	.05
17	2.6	2.0	2.3	2.2	2.8	4.1	2.5	1.9	.33	.08	.04	.05
18	2.2	2.0	2.4	2.1	2.7	4.0	2.8	1.7	.34	.05	.04	.04
19	2.0	2.1	2.5	2.1	2.6	4.8	4.1	1.8	.14	.09	.04	.04
20	2.0	2.1	2.5	2.2	2.7	13	3.5	2.1	.16	.05	.04	.04
21	1.9	2.1	2.4	2.1	2.4	5.9	2.9	1.9	.15	.08	.06	.05
22	1.9	2.2	2.4	2.0	2.2	4.3	2.6	1.8	.10	.05	.06	.05
23	1.9	2.3	2.3	2.2	2.3	4.0	2.4	1.8	.16	.08	.04	.04
24	1.8	2.4	2.1	2.3	2.5	3.8	2.2	1.7	.45	.05	.08	.06
25	1.9	2.1	2.2	2.3	3.0	3.5	1.3	1.1	.42	.04	.05	.05
26	2.3	2.0	2.2	2.2	8.4	4.5	1.6	1.1	.25	.04	.06	.04
27	2.4	2.0	2.2	2.2	3.8	6.3	2.2	1.7	.20	.06	.07	.23
28	1.9	2.1	2.3	6.1	5.1	4.1	2.2	1.8	.23	.15	.05	.07
29	1.8	2.2	2.2	4.9	---	3.8	2.0	1.8	.17	.05	.05	.11
30	1.8	2.2	2.0	8.6	---	3.8	1.9	1.6	.29	.06	.05	.34
31	1.7	---	2.0	3.6	---	3.5	---	1.5	---	.07	.09	---
TOTAL	67.2	63.4	81.1	82.0	110.6	217.5	83.6	54.6	17.93	2.55	1.53	2.00
MEAN	2.17	2.11	2.62	2.65	3.95	7.02	2.79	1.76	.60	.082	.049	.067
MAX	3.7	2.4	5.7	8.6	17	28	5.3	2.2	1.6	.85	.09	.34
MIN	1.7	1.8	2.0	2.0	2.2	3.5	1.3	1.1	.10	.04	.03	.04
AC-FT	133	126	161	163	219	431	166	108	36	5.1	3.0	4.0

CAL YR 1980 TOTAL 12158.10 MEAN 33.2 MAX 1310 MIN 1.4 AC-FT 24120  
WTR YR 1981 TOTAL 784.01 MEAN 2.15 MAX 28 MIN .03 AC-FT 1560

11028500 SANTA MARIA CREEK NEAR RAMONA, CA

LOCATION.--Lat 33°03'08", long 116°56'41", in SE¼SE¼SE¼ sec.11, T.13 S., R.1 W., San Diego County, Hydrologic Unit 18070304, on left bank 3.8 mi (6.1 km) northwest of Ramona, and 4.6 mi (7.4 km) upstream from mouth.

DRAINAGE AREA.--57.6 mi<sup>2</sup> (149.2 km<sup>2</sup>).

PERIOD OF RECORD.--November 1912 to September 1920, October 1946 to current year.

GAGE.--Water-stage recorder. Concrete control since October 1946. Datum of gage is 1,294.44 ft (394.545 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1946, at datum 1.78 ft (0.543 m) lower.

REMARKS.--Records good, except those below 2.0 ft<sup>3</sup>/s (0.057 m<sup>3</sup>/s), which are fair. No regulation above station.

AVERAGE DISCHARGE.--42 years (water years 1914-20, 1947-81) 5.52 ft<sup>3</sup>/s (0.156 m<sup>3</sup>/s), 4,000 acre-ft/yr (4.93 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) Feb. 21, 1980, gage height, 14.39 ft (4.386 m), from rating curve extended above 130 ft<sup>3</sup>/s (3.68 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 4.56 ft (1.390 m) and slope-conveyance study at gage height 14.39 ft (4.386 m); no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 226 ft<sup>3</sup>/s (6.40 m<sup>3</sup>/s) Mar. 1, gage height, 2.49 ft (0.759 m), no peak above base of 250 ft<sup>3</sup>/s (7.08 m<sup>3</sup>/s); minimum daily, no flow several days in May and July.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.12	.09	.41	.45	102	1.7	.39	.44	.12	.04	.05
2	.27	.01	.16	.42	.52	81	2.2	.28	.06	.20	.07	.21
3	.15	.05	.20	.36	.55	25	4.5	.28	.03	.04	.10	.11
4	.27	.35	.39	.37	.55	16	4.0	.26	.07	.18	.15	.08
5	.27	.14	.45	.34	.54	36	2.1	.10	.10	.25	.17	.07
6	.27	.10	.12	.32	.37	33	1.2	.05	.09	.28	.17	.14
7	.24	.19	.23	.04	.38	16	.68	0	.17	.29	.15	.16
8	.28	.22	.33	.04	1.4	11	.45	0	.17	.30	.15	.20
9	.30	.23	.26	.03	34	8.9	.31	0	.16	.29	.14	.18
10	.31	.24	.13	.03	17	7.8	.56	0	.30	.30	.15	.14
11	.31	.22	.11	.06	6.2	6.7	.87	.02	.26	.13	.16	.01
12	.31	.30	.16	.06	3.2	2.8	.86	.04	.24	.11	.18	.02
13	.50	.16	.17	.03	1.7	2.6	.59	.08	.19	0	.14	.06
14	.40	.25	.17	.05	1.3	5.1	.61	.13	.20	0	.12	.10
15	.18	.27	.18	.31	1.4	3.3	.57	.16	.15	0	.11	.13
16	.26	.23	.18	.41	1.2	2.9	.57	.17	.16	.02	.13	.10
17	.27	.31	.41	.43	.98	2.7	.33	.12	.16	0	.13	.10
18	.32	.32	.40	.44	.93	2.2	.53	.01	.17	0	.12	.11
19	.33	.29	.09	.31	.71	4.0	.96	.31	.01	0	.13	.12
20	.33	.13	.34	.20	.92	24	1.1	.55	.19	0	.13	.15
21	.11	.13	.37	.21	.40	13	1.1	.55	.28	.03	.13	.16
22	.22	.17	.38	.21	.42	6.7	.54	.57	.30	.03	.13	.02
23	.11	.22	.46	.26	.45	4.6	.19	.61	.02	.04	.17	.02
24	.16	.23	.26	.27	.50	2.9	.19	.60	.04	.11	.17	.03
25	.18	.20	.37	.26	2.2	2.1	.11	.59	.08	.11	.16	.10
26	.25	.25	.38	.38	11	5.0	.09	.59	.11	.12	.19	.06
27	.02	.31	.40	.25	2.8	12	.10	.56	.12	.14	.19	.04
28	.01	.35	.40	.48	4.0	6.1	.24	.81	.14	.13	.03	.02
29	.01	.38	.54	.81	---	3.9	.32	.79	.13	.14	.16	.06
30	.06	.42	.37	.77	---	3.2	.37	.70	.14	.12	.21	.10
31	.10	---	.40	.52	---	2.3	---	.52	---	.03	.25	---
TOTAL	7.00	6.79	8.90	9.08	96.07	454.8	27.94	9.84	4.68	3.51	4.43	2.85
MEAN	.23	.23	.29	.29	3.43	14.7	.93	.32	.16	.11	.14	.095
MAX	.50	.42	.54	.81	34	102	4.5	.81	.44	.30	.25	.21
MIN	.01	.01	.09	.03	.37	2.1	.09	0	.01	0	.03	.01
AC-FT	14	13	18	18	191	902	55	20	9.3	7.0	8.8	5.7

CAL YR 1980 TOTAL 22084.40 MEAN 60.3 MAX 4120 MIN .01 AC-FT 43800  
WTR YR 1981 TOTAL 635.89 MEAN 1.74 MAX 102 MIN 0 AC-FT 1260

## SAN DIEGUITO RIVER BASIN

11030020 LAKE HODGES NEAR ESCONDIDO, CA

LOCATION.--Lat 33°02'41", long 117°07'39", in SE¼SE¼NW¼ sec.18, T.13 S., R.2 W., San Diego County, Hydrologic Unit 18070304, 20 ft (6 m) upstream from right upstream end of Hodges Dam on San Dieguito River, 6.4 mi (10.3 km) southwest of Escondido, and 20 mi (32 km) southwest of Sutherland Reservoir.

DRAINAGE AREA.--303 mi<sup>2</sup> (785 km<sup>2</sup>).

PERIOD OF RECORD.--October 1945 to September 1968 (published with San Dieguito River at Lake Hodges, station 11030000), October 1972 to current year. Records of monthend gage heights February 1919 to September 1945, in files of San Diego County Department of Sanitation and Flood Control.

GAGE.--Nonrecording gage. Datum of gage is 200.0 ft (60.96 m) National Geodetic Vertical Datum of 1929 (levels by county of San Diego); gage readings have been reduced to elevations NGVD. Prior to Oct. 1, 1972, nonrecording gage at site 800 ft (244 m) upstream on right bank at same datum. October 1972 to current year, supplementary water-stage recorder used for flood warning only on left upstream face of dam at same datum.

REMARKS.--Reservoir is formed by multiple-arch reinforced concrete dam, constructed in 1917-19. Storage began in February 1919. Capacity table based on a 1948 survey; table dated Sept. 18, 1951. Capacity of reservoir at spillway level, 33,550 acre-ft (41.4 hm<sup>3</sup>), elevation, 315.0 ft (96.01 m). Dead storage below lowest outlet, 1,160 acre-ft (1.43 hm<sup>3</sup>), elevation, 254.0 ft (77.42 m) included in these records. Reservoir can be drawn down to 207 acre-ft (255,000 m<sup>3</sup>), elevation, 240.0 ft (73.15 m) by pumping. Water drawn from Lake Hodges passes through a conduit to San Dieguito re-regulating reservoir, from which it is released as required for municipal use. Flow regulated since July 1954 by Sutherland Reservoir (station 11024000). Diversions for irrigation above Lake Hodges.

COOPERATION.--Gage heights were furnished by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD (1945-68 AND SINCE 1972).--Maximum contents, 41,620 acre-ft (51.3 hm<sup>3</sup>), spilling, Feb. 21, 1980, elevation, 321.50 ft (97.993 m); minimum, 114 acre-ft (141,000 m<sup>3</sup>) Oct. 31, 1965, elevation, 235.80 ft (71.872 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 34,600 acre-ft (42.7 hm<sup>3</sup>), spilling, Mar. 2, elevation, 315.84 ft (96.268 m); minimum observed, 27,910 acre-ft (34.4 hm<sup>3</sup>) Sept. 30, elevation, 310.12 ft (94.525 m).

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	313.49	31,720	--
Oct. 31.....	313.18	31,350	-370
Nov. 30.....	313.54	31,780	+430
Dec. 31.....	314.90	33,430	+1,650
CAL YR 1980.....	--	--	-4,200
Jan. 31.....	315.35	33,990	+560
Feb. 28.....	315.32	33,950	-40
Mar. 31.....	315.28	33,900	-50
Apr. 30.....	315.24	33,850	-50
May 31.....	314.97	33,510	-340
June 30.....	314.12	32,480	-1,030
July 31.....	312.68	30,770	-1,710
Aug. 31.....	311.32	29,230	-1,540
Sept. 30.....	310.12	27,910	-1,320
WTR YR 1981.....	--	--	-3,810

## 11030700 LAKE WOHLFORD NEAR ESCONDIDO, CA

LOCATION.--Lat 33°10'00", long 117°00'14", in NW¼NE¼ sec.5, T.12 S., R.1 W., San Diego County, Hydrologic Unit 18070303, on face of Lake Wohlford Dam, 330 ft (100 m) left of spillway, 3.9 mi (6.3 km) southeast of Valley Center Post Office, and 5.7 mi (9.2 km) northeast of Escondido.

DRAINAGE AREA.--7.96 mi<sup>2</sup> (20.62 km<sup>2</sup>).

PERIOD OF RECORD.--October 1972 to current year. October 1933 to September 1972 in files of San Diego County Department of Sanitation and Flood Control.

GAGE.--Nonrecording gage. Datum of gage is 1,385.0 ft (422.15 m) National Geodetic Vertical Datum of 1929 (levels by city of Escondido Engineering Department); gage readings have been reduced to NGVD. Since October 1972, supplementary water-stage recorder for flood warning only, at same site at datum 15.0 ft (4.57 m) higher.

REMARKS.--Reservoir is formed by earthfill dam riprapped upstream and downstream, with concrete spillway anchored to natural rock. Dam was completed in 1932. Capacity table dated March 1955. Capacity at spillway level, 6,940 acre-ft (8.56 hm<sup>3</sup>), elevation, 1,480.0 ft (451.10 m). Dead storage below lowest outlet, 131 acre-ft (162,000 m<sup>3</sup>), elevation, 1,420.0 ft (432.82 m). Reservoir storage includes supplemental water diverted from the San Luis Rey River via Escondido Mutual Water Co.'s canal to Lake Wohlford Reservoir. Stored water is released for municipal use by Vista Irrigation District and city of Escondido.

COOPERATION.--Gage heights were furnished by Escondido Mutual Water Company.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 7,140 acre-ft (8.80 hm<sup>3</sup>) Feb. 21, 1980, elevation, 1,480.9 ft (451.38 m); minimum, 809 acre-ft (997,000 m<sup>3</sup>) Dec. 1, 1953, elevation, 1,437.0 ft (438.00 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 5,280 acre-ft (6.51 hm<sup>3</sup>) Oct. 1, elevation, 1,472.0 ft (448.67 m); minimum observed, 1,500 acre-ft (1.85 hm<sup>3</sup>) Jan. 6, elevation, 1,446.0 ft (440.74 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 0700, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,472.5	5,380	--
Oct. 31.....	1,461.8	3,500	-1,880
Nov. 30.....	1,459.3	3,110	-390
Dec. 31.....	1,449.7	1,870	-1,240
CAL YR 1980.....	--	--	+20
Jan. 31.....	1,459.2	3,100	+1,230
Feb. 28.....	1,467.4	4,430	+1,330
Mar. 31.....	1,469.2	4,760	+330
Apr. 30.....	1,470.6	5,020	+260
May 31.....	1,471.8	5,240	+220
June 30.....	1,470.7	5,040	-200
July 31.....	1,469.1	4,740	-300
Aug. 31.....	1,468.4	4,610	-130
Sept. 30.....	1,462.8	3,660	-950
WTR YR 1981.....	--	--	-1,720

## 11031500 AGUA CALIENTE CREEK NEAR WARNER SPRINGS, CA

LOCATION.--Lat 33°17'19", long 116°39'11", in San Jose del Valle Grant, San Diego County, Hydrologic Unit 18070303, on downstream end of right pier of bridge on State Highway 79, 1.2 mi (1.9 km) upstream from Canada Verde Creek, and 1.2 mi (1.9 km) northwest of Warner Springs.

DRAINAGE AREA.--19.0 mi<sup>2</sup> (49.2 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 2,950 ft (899 m), from topographic map. Prior to Jan. 29, 1966, at site 120 ft (37 m) upstream at same datum, used as supplementary gage since Dec. 12, 1968.

REMARKS.--Records poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--20 years, 2.41 ft<sup>3</sup>/s (0.068 m<sup>3</sup>/s), 1,750 acre-ft/yr (2.16 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft<sup>3</sup>/s (40.8 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 4.80 ft (1.463 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 maximum flow; maximum gage height, 5.18 ft (1.579 m) Dec. 6, 1966; no flow for many days some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Mar. 1	Unknown	63	1.78	1.51	0.460
July 12	Unknown	*162	4.59	2.28	0.695

Minimum daily discharge, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 15-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	1.3	.90	.40	1.2	17	2.5	1.0	1.4	.35	.22	.15
2	.60	1.3	1.3	.55	1.0	14	2.7	1.0	1.4	.35	.20	.14
3	.52	1.1	1.5	.74	.90	11	2.8	.98	1.4	.35	.19	.14
4	.48	1.1	1.8	1.0	.85	9.1	2.6	.95	1.3	.34	.19	.14
5	.45	1.1	3.6	1.0	.80	6.3	2.4	.92	1.2	.34	.20	.13
6	.45	.74	3.0	1.0	.75	10	2.2	.88	1.1	.34	.18	.13
7	.45	.74	2.6	1.0	.70	7.0	2.0	.85	1.0	.34	.18	.13
8	.45	.74	2.6	1.0	.80	6.0	1.8	.82	.90	.34	.17	.12
9	.45	.74	2.0	1.0	17	4.2	1.6	.78	.84	.35	.16	.12
10	.45	.52	1.5	1.1	10	3.5	1.4	.76	.78	.35	.16	.12
11	.45	.52	1.5	1.4	6.5	3.0	1.3	.74	.72	.35	.16	.11
12	.45	.37	1.5	2.0	4.2	2.6	1.5	.72	.66	10	.17	.11
13	.45	.37	1.5	1.7	3.4	2.4	1.3	.74	.62	4.0	.18	.11
14	.45	.52	1.5	1.6	2.6	2.4	1.2	1.1	.58	.74	.20	.11
15	.52	.37	1.5	1.5	2.2	2.2	1.5	1.3	.54	.35	.19	.10
16	1.4	.52	3.9	1.4	1.8	2.0	1.1	1.8	.50	.35	.19	.10
17	1.3	.37	2.5	1.4	1.6	1.8	1.5	2.0	.47	.34	.20	.10
18	1.6	.37	1.6	1.4	1.3	1.6	1.0	1.5	.44	.33	.21	.10
19	1.6	.23	1.3	1.4	1.1	2.4	1.4	1.5	.43	.32	.20	.10
20	1.1	.52	1.1	1.4	1.0	8.5	2.5	1.6	.42	.32	.20	.10
21	1.5	.37	.90	1.3	.90	6.0	1.7	1.8	.41	.31	.20	.10
22	1.3	.37	.75	1.3	.85	4.0	1.6	1.6	.40	.30	.19	.10
23	1.3	.23	.80	1.3	.85	3.2	1.5	1.3	.39	.30	.19	.10
24	1.3	.23	.65	1.1	.85	2.7	1.3	.74	.37	.29	.18	.11
25	1.3	.37	.55	.52	1.0	2.4	1.2	.74	.36	.28	.18	.11
26	1.3	.52	.48	.74	3.1	3.1	1.2	.74	.35	.28	.17	.11
27	1.1	.74	.40	1.1	2.8	4.0	1.2	1.4	.35	.27	.17	.11
28	1.1	.74	.35	2.4	2.5	3.5	1.2	2.6	.35	.27	.17	.11
29	.74	.74	.35	3.8	---	3.0	1.1	2.4	.35	.26	.16	.11
30	1.1	.80	.35	4.0	---	2.6	1.1	1.5	.35	.26	.16	.12
31	1.3	---	.35	3.4	---	2.3	---	1.6	---	.25	.15	---
TOTAL	27.66	18.65	44.63	44.95	72.55	153.8	49.4	38.36	20.38	23.62	5.67	3.44
MEAN	.89	.62	1.44	1.45	2.59	4.96	1.65	1.24	.68	.76	.18	.11
MAX	1.6	1.3	3.9	4.0	17	17	2.8	2.6	1.4	10	.22	.15
MIN	.45	.23	.35	.40	.70	1.6	1.0	.72	.35	.25	.15	.10
AC-FT	55	37	89	89	144	305	98	76	40	47	11	6.8

CAL YR 1980	TOTAL	6468.95	MEAN	17.7	MAX	624	MIN	.10	AC-FT	12830
WTR YR 1981	TOTAL	503.11	MEAN	1.38	MAX	17	MIN	.10	AC-FT	998

## 11033000 WEST FORK SAN LUIS REY RIVER NEAR WARNER SPRINGS, CA

LOCATION.--Lat 33°17'48", long 116°45'32", in San Jose del Valle Grant, San Diego County, Hydrologic Unit 18070303, on left bank 0.2 mi (0.3 km) upstream from Fink Road, 2.6 mi (4.2 km) upstream from mouth, and 7.5 mi (12.1 km) west of Warner Springs.

DRAINAGE AREA.--25.5 mi<sup>2</sup> (66.0 km<sup>2</sup>).

PERIOD OF RECORD.--January 1913 to November 1915, October 1956 to current year. Low-flow records not equivalent prior to Nov. 5, 1971, due to undetermined amount of underflow between sites.

REVISED RECORDS.--WDR CA-74: 1973(P).

GAGE.--Water-stage recorder. Altitude of gage is 2,800 ft (853 m), from topographic map. Prior to Oct. 1, 1956, at different datum. Prior to Nov. 5, 1971, at site 500 ft (150 m) downstream at same datum.

REMARKS.--Records good, except those periods below 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--26 years (water years 1914-15, 1957-81), 9.8 ft<sup>3</sup>/s (0.278 m<sup>3</sup>/s), 7,090 acre-ft/yr (8.74 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft<sup>3</sup>/s (176 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 15.60 ft (4.755 m), from high-water marks, from rating curve extended above 130 ft<sup>3</sup>/s (3.68 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s) Mar. 1, gage height, 11.86 ft (3.615 m), no peak above base of 300 ft<sup>3</sup>/s (8.50 m<sup>3</sup>/s); minimum daily, 0.08 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	.62	1.2	1.3	4.6	63	7.0	3.4	1.0	.29	.28	.18
2	.32	.62	1.2	1.4	3.9	53	9.0	3.3	1.0	.29	.29	.18
3	.32	.62	1.3	1.4	3.4	30	13	3.2	.96	.29	.27	.18
4	.32	.62	2.2	1.6	3.1	19	9.5	3.2	.83	.29	.27	.18
5	.32	.62	4.8	1.6	2.9	29	7.9	3.1	.66	.29	.27	.17
6	.32	.62	2.8	1.6	2.7	29	6.9	3.0	.63	.29	.27	.16
7	.32	.62	2.1	1.6	2.6	19	7.4	2.8	.58	.29	.27	.16
8	.32	.62	2.0	1.6	3.2	15	5.7	2.6	.54	.30	.26	.16
9	.32	.62	2.1	1.6	47	13	5.5	2.5	.50	.30	.26	.16
10	.32	.62	2.1	1.6	20	11	4.7	2.2	.50	.30	.26	.15
11	.32	.62	2.1	2.0	10	9.7	4.8	2.1	.48	.30	.26	.14
12	.32	.62	2.0	2.5	7.8	8.8	6.0	2.0	.41	.30	.25	.14
13	.32	.73	2.0	2.4	6.3	8.5	4.1	1.9	.40	.30	.24	.13
14	.40	.81	2.0	2.2	5.5	9.1	4.5	1.8	.40	.30	.24	.13
15	.46	.82	1.9	2.1	4.9	7.9	5.8	2.0	.40	.29	.24	.12
16	.64	.82	5.3	2.1	4.5	7.2	3.6	2.8	.39	.30	.24	.11
17	.61	.82	2.8	2.0	4.1	6.6	5.5	3.0	.36	.30	.23	.11
18	.49	.82	2.1	2.0	3.9	6.2	3.5	2.4	.36	.29	.22	.11
19	.45	.82	2.0	2.0	3.6	6.4	8.1	2.0	.36	.29	.22	.11
20	.40	.87	1.9	2.0	3.4	39	8.3	2.5	.35	.29	.22	.10
21	.40	.90	1.7	1.9	3.2	15	6.8	2.9	.32	.29	.22	.10
22	.38	1.0	1.3	1.8	3.0	11	5.4	2.4	.32	.29	.21	.10
23	.36	1.1	1.7	1.7	3.0	9.6	4.7	2.0	.31	.28	.21	.11
24	.36	1.1	1.6	1.7	3.0	8.4	4.5	1.7	.30	.27	.21	.11
25	.40	1.1	1.3	1.7	3.3	7.5	4.3	1.5	.30	.27	.21	.10
26	.40	1.0	1.3	1.6	9.2	11	4.3	1.4	.30	.27	.21	.11
27	.40	1.0	1.2	1.6	7.6	18	4.3	1.7	.30	.27	.19	.11
28	.40	1.2	1.2	3.7	7.6	12	4.2	1.9	.30	.27	.19	.11
29	.40	1.2	1.2	6.1	---	9.6	3.9	1.6	.30	.27	.19	.08
30	.43	1.2	1.2	13	---	8.7	3.6	1.3	.30	.27	.19	.08
31	.57	---	1.2	6.4	---	7.7	---	1.1	---	.27	.19	---
TOTAL	12.14	24.75	60.8	77.8	187.3	508.9	176.8	71.3	14.16	8.91	7.28	3.89
MEAN	.39	.83	1.96	2.51	6.69	16.4	5.89	2.30	.47	.29	.23	.13
MAX	.64	1.2	5.3	13	47	63	13	3.4	1.0	.30	.29	.18
MIN	.32	.62	1.2	1.3	2.6	6.2	3.5	1.1	.30	.27	.19	.08
AC-FT	24	49	121	154	372	1010	351	141	28	18	14	7.7

CAL YR 1980 TOTAL 18731.33 MEAN 51.2 MAX 1700 MIN .32 AC-FT 37150  
WTR YR 1981 TOTAL 1154.03 MEAN 3.16 MAX 63 MIN .08 AC-FT 2290

## 11037700 PAUMA CREEK NEAR PAUMA VALLEY, CA

LOCATION.--Lat 33°20'10", long 116°58'25", in Pauma Grant, San Diego County, Hydrologic Unit 18070303, on right bank 0.3 mi (0.5 km) downstream from unnamed tributary, and 2.2 mi (3.5 km) north of Pauma Valley.

DRAINAGE AREA.--11.0 mi<sup>2</sup> (28.5 km<sup>2</sup>).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder on creek; water-stage recorder and Parshall flume on diversion. Altitude of creek gage is 1,240 ft (378 m), from topographic map. Diversion gage is at different datum.

REMARKS.--Records fair. No regulation above station. Pauma Valley Water Co. diverts from a site 0.2 mi (0.3 km) upstream. For records of combined discharge of Pauma Creek and Pauma Valley Water Co.'s diversion, see following page.

AVERAGE DISCHARGE.--Creek only: 17 years, 5.31 ft<sup>3</sup>/s (0.150 m<sup>3</sup>/s), 3,850 acre-ft/yr (4.75 hm<sup>3</sup>/yr).  
Combined creek and diversion: 17 years, 5.97 ft<sup>3</sup>/s (0.169 m<sup>3</sup>/s), 4,330 acre-ft/yr (5.34 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 3,170 ft<sup>3</sup>/s (89.8 m<sup>3</sup>/s) Feb. 20, 1980, gage height, 8.51 ft (2.594 m), from rating curve extended above 130 ft<sup>3</sup>/s (3.68 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; maximum gage height, 8.60 ft (2.621 m) Dec. 6, 1966; no flow much of most years. Combined creek and diversion: Maximum discharge, 3,170 ft<sup>3</sup>/s (89.8 m<sup>3</sup>/s) Feb. 20, 1980; minimum daily, 0.41 ft<sup>3</sup>/s (0.012 m<sup>3</sup>/s) Oct. 24, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Feb. 9	1030	*74.0 2.10	2.50 0.762
Mar. 1	1845	64.0 1.81	2.43 0.741

Minimum daily discharge, 0.05 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Oct. 24, 25, 28.

Combined creek and diversion: Maximum discharge, 74.0 ft<sup>3</sup>/s (2.10 m<sup>3</sup>/s) Feb. 9; minimum daily, 0.41 ft<sup>3</sup>/s (0.012 m<sup>3</sup>/s) Oct. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.9	1.9	2.0	3.9	24	3.3	1.5	.58	.20	.09	.08
2	2.0	3.1	1.8	2.1	3.4	18	3.7	1.5	.61	.19	.09	.08
3	2.0	3.3	1.9	2.2	3.3	11	4.5	1.6	.58	.18	.09	.09
4	2.0	3.1	2.0	2.1	3.2	8.7	4.2	1.6	.41	.16	.10	.09
5	2.0	2.0	2.1	2.0	3.0	9.6	3.5	1.5	.37	.17	.10	.10
6	2.0	2.1	2.1	2.1	3.0	9.2	3.3	1.4	.38	.16	.10	.10
7	2.1	2.2	2.0	2.3	2.8	7.9	2.9	1.3	.35	.15	.09	.10
8	2.1	2.3	1.9	2.3	3.5	6.9	2.5	1.1	.36	.17	.08	.10
9	2.1	1.5	1.9	2.3	32	6.3	2.4	.95	.32	.17	.08	.09
10	2.1	1.4	1.8	2.3	12	5.4	2.3	.83	.29	.16	.08	.10
11	2.1	1.3	1.8	2.4	6.4	4.9	2.3	.84	.27	.14	.08	.09
12	2.1	1.2	1.8	2.4	4.9	4.5	2.3	.86	.29	.14	.08	.08
13	2.1	1.1	1.8	2.4	4.3	4.3	2.2	.84	.27	.14	.09	.08
14	2.1	1.0	1.9	2.3	3.9	4.3	2.0	.87	.25	.12	.08	.09
15	2.3	.90	1.9	2.4	3.7	3.8	2.0	1.7	.36	.12	.09	.09
16	2.7	.80	1.9	2.4	3.5	3.4	1.9	1.8	.53	.13	.08	.09
17	2.5	.90	1.9	2.3	3.1	2.9	1.8	1.5	.67	.09	.07	.08
18	2.5	.90	2.0	2.2	3.0	2.5	2.3	1.1	.76	.08	.08	.08
19	2.2	.90	2.0	2.1	3.0	2.8	4.2	1.1	.73	.08	.08	.07
20	2.1	.90	1.9	2.1	2.2	11	4.1	1.6	.67	.07	.07	.08
21	2.0	.90	1.9	2.0	2.0	5.1	3.1	1.5	.64	.08	.07	.08
22	1.9	.90	1.8	2.0	2.5	4.2	2.4	1.3	.64	.07	.07	.08
23	1.9	.90	1.8	2.1	2.1	3.8	2.1	1.2	.61	.08	.07	.06
24	1.8	.90	1.8	2.1	1.4	3.4	1.9	.99	.60	.08	.07	.05
25	1.8	.90	1.9	2.1	1.6	3.3	1.8	.84	.51	.08	.07	.05
26	2.4	.95	2.0	2.2	4.1	3.6	1.8	.84	.47	.08	.07	.06
27	2.5	.94	1.9	2.3	2.8	4.4	1.9	1.1	.47	.08	.06	.06
28	2.9	.94	1.9	4.3	3.0	4.1	1.8	1.0	.42	.09	.07	.05
29	3.0	1.5	2.0	5.5	---	3.7	1.6	.88	.23	.09	.06	.06
30	2.7	1.6	2.0	7.7	---	3.5	1.5	.74	.20	.09	.07	.07
31	2.8	---	2.0	4.7	---	3.3	---	.64	---	.09	.08	---
TOTAL	68.8	44.23	59.3	81.7	127.6	193.8	77.6	36.52	13.81	3.73	2.46	2.38
MEAN	2.22	1.47	1.91	2.64	4.56	6.25	2.59	1.18	.46	.12	.079	.079
MAX	3.0	3.3	2.1	7.7	32	24	4.5	1.8	.76	.20	.10	.10
MIN	1.8	.80	1.8	2.0	1.4	2.5	1.5	.64	.20	.07	.06	.05
AC-FT	136	88	118	162	253	384	154	72	27	7.4	4.9	4.7
CAL YR 1980 TOTAL	8919.43			MEAN 24.4	MAX 713	MIN .80	AC-FT 17690					
WTR YR 1981 TOTAL	711.93			MEAN 1.95	MAX 32	MIN .05	AC-FT 1410					





## 11040000 SAN LUIS REY RIVER AT MONSERATE NARROWS, NEAR PALA, CA

LOCATION.--Lat 33°20'14", long 117°08'07", in SW¼SE¼NW¼ sec.6, T.10 S., R.2 W., San Diego County, Hydrologic Unit 18070303, on left bank 4 mi (6 km) southwest of Pala, 6 mi (10 km) northeast of Bonsall, and 27 mi (43 km) downstream from Lake Henshaw.

DRAINAGE AREA.--373 mi<sup>2</sup> (966 km<sup>2</sup>).

PERIOD OF RECORD.--December 1935 to March 1938 (fragmentary), April 1938 to November 1941, October 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 270.82 ft (82.546 m) National Geodetic Vertical Datum of 1929 (levels by State of California). Prior to October 1946, at same site at different datum. Oct. 22, 1946, to Nov. 30, 1954, at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Flow regulated by Lake Henshaw, capacity, 194,300 acre-ft (240 hm<sup>3</sup>) since 1923. Several diversions above station.

AVERAGE DISCHARGE.--38 years (water years 1939-41, 1947-81), 17.4 ft<sup>3</sup>/s (0.493 m<sup>3</sup>/s), 12,600 acre-ft/yr (15.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge since 1938, 15,500 ft<sup>3</sup>/s (439 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 9.68 ft (2.950 m) on basis of slope-area measurement of maximum flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 243 ft<sup>3</sup>/s (6.88 m<sup>3</sup>/s) Mar. 1, gage height, 4.77 ft (1.454 m); minimum daily, 0.26 ft<sup>3</sup>/s (0.007 m<sup>3</sup>/s) Sept. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	10	17	18	34	117	34	14	5.4	1.3	.65	.45
2	11	10	19	19	34	149	37	15	5.5	1.2	.69	.51
3	10	9.8	18	19	35	83	36	14	5.1	.96	.69	.49
4	10	9.8	22	19	35	61	34	15	4.3	.92	.67	.55
5	9.7	10	26	20	34	68	32	15	4.3	.94	.68	.66
6	9.4	11	25	19	34	61	31	13	4.3	1.0	.60	.74
7	10	11	25	19	35	55	30	13	4.1	.87	.39	.71
8	9.0	11	25	18	38	48	28	12	3.9	.86	.33	.65
9	9.0	11	25	18	124	47	28	11	4.0	.83	.27	.56
10	9.2	11	27	18	86	47	26	11	3.5	.74	.35	.56
11	9.0	12	28	18	53	47	26	11	3.3	.80	.34	.49
12	9.4	11	31	19	51	48	26	9.3	3.0	.54	.36	.41
13	9.8	11	30	22	49	48	25	8.8	2.6	.55	.36	.32
14	9.2	11	28	20	46	50	24	8.6	2.4	.85	.34	.37
15	9.6	13	30	20	49	46	24	8.7	2.4	.74	.36	.39
16	9.9	12	28	20	49	45	23	8.8	2.5	.87	.36	.39
17	9.9	13	25	17	52	45	22	7.5	1.9	.85	.38	.44
18	10	14	22	18	53	45	23	8.4	2.2	.89	.39	.45
19	11	14	20	17	50	50	24	7.7	1.8	.88	.37	.34
20	12	14	19	17	49	66	23	8.3	1.9	.82	.33	.26
21	10	14	20	17	46	52	23	7.6	1.6	.47	.31	.26
22	9.1	13	20	16	47	48	21	7.7	1.6	.81	.32	.32
23	8.4	11	19	16	45	45	20	7.1	1.6	.61	.37	.36
24	8.5	11	19	16	45	43	19	6.7	1.6	.61	.47	.43
25	11	13	19	16	51	43	19	6.9	1.2	.89	.39	.49
26	11	13	19	16	69	42	18	6.4	1.2	.53	.33	.50
27	9.6	13	19	16	49	48	17	6.2	.92	.55	.35	.47
28	9.4	13	19	23	52	42	16	6.0	.93	.82	.35	.55
29	9.4	15	20	35	---	39	15	5.7	1.5	.85	.37	.58
30	9.6	16	20	48	---	37	15	5.6	1.7	.85	.46	.66
31	9.9	---	19	39	---	36	---	5.6	---	.88	.51	---
TOTAL	304.0	361.6	703	633	1394	1701	739	291.6	82.25	21.88	12.74	14.36
MEAN	9.81	12.1	22.7	20.4	49.8	54.9	24.6	9.41	2.74	1.70	.41	.48
MAX	12	16	31	48	124	149	37	15	5.5	1.3	.69	.74
MIN	8.4	9.8	17	16	34	36	15	5.6	.92	.47	.27	.26
AC-FT	603	717	1390	1260	2760	3370	1470	578	163	43	25	28

CAL YR 1980 TOTAL 105893.30 MEAN 289 MAX 5140 MIN 1.4 AC-FT 210000  
WTR YR 1981 TOTAL 6258.23 MEAN 17.1 MAX 149 MIN .26 AC-FT 12410

## 11040200 KEYS CREEK TRIBUTARY AT VALLEY CENTER, CA

LOCATION.--Lat 33°13'45", long 117°02'09", in NW¼SE¼SE¼ sec.12, T.11 S., R.2 W., San Diego County, Hydrologic Unit 18070303, on left bank 140 ft (43 m) upstream from bridge on Valley Center Road, 0.3 mi (0.5 km) downstream from unnamed tributary, and 0.8 mi (1.3 km) north of Valley Center.

DRAINAGE AREA.--7.65 mi<sup>2</sup> (19.81 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 1,279.99 ft (390.141 m) San Diego County Special District Services datum.

REMARKS.--Records fair. No regulation above station. Some pumping for irrigation above station.

AVERAGE DISCHARGE.--11 years, 2.25 ft<sup>3</sup>/s (0.064 m<sup>3</sup>/s), 1,630 acre-ft/yr (2.01 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,680 ft<sup>3</sup>/s (47.6 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 8.80 ft (2.682 m); no flow for part of each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1969, 990 ft<sup>3</sup>/s (28.0 m<sup>3</sup>/s), by San Diego County Special District Services.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 165 ft<sup>3</sup>/s (4.67 m<sup>3</sup>/s) Mar. 1 (1300 hrs), gage height, 3.83 ft (1.167 m), no other peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s), (\*); minimum daily, no flow many days June through September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.08	.15	.11	.63	46	.90	1.2	.23	0		0
2	.08	.08	.16	.12	.57	10	1.1	1.4	.23	0		0
3	.08	.07	.16	.13	.57	4.1	1.1	1.5	.35	0		0
4	.08	.03	.18	.14	.52	1.5	.84	1.5	.26	0		0
5	.07	.04	.21	.14	.54	16	.76	1.6	.03	0		0
6	.07	.08	.18	.12	.57	6.2	.78	.99	.03	0		0
7	.07	.09	.18	.12	.58	4.0	.70	.72	.15	0		0
8	.06	.10	.18	.12	1.1	3.2	.77	.65	.22	0		0
9	.05	.10	.16	.12	21	2.4	.89	.52	.25	0		0
10	.05	.11	.16	.12	3.5	1.3	.96	.22	.31	0		0
11	.04	.12	.15	.13	1.8	1.0	.86	.20	.36	.01		0
12	.10	.13	.15	.13	1.1	.86	.85	.21	.38	0		0
13	.05	.13	.15	.14	.89	.66	.89	.22	.43	0		0
14	.05	.22	.14	.15	.83	.92	.87	.29	.41	0		0
15	.02	.15	.13	.16	.84	.64	.89	.20	.25	.01		0
16	.08	.14	.05	.18	.81	.54	.88	.21	.25	0		0
17	.06	.14	.09	.20	.78	.46	.98	.17	.22	0		0
18	.06	.15	.12	.21	.70	.38	1.1	.15	.21	0		0
19	.06	.16	.13	.20	.68	5.6	1.5	.24	.19	0		0
20	.06	.16	.14	.06	.75	21	1.3	.21	.39	0		0
21	.06	.17	.14	.16	.54	4.1	1.3	.20	.11	0		0
22	.06	.17	.14	.21	.49	2.8	1.2	.18	.13	0		0
23	.06	.16	.14	.24	.59	1.6	1.1	.19	.14	0		0
24	.06	.16	.14	.24	.60	1.3	1.2	.15	.08	0		0
25	.07	.16	.13	.27	1.5	.89	1.2	.14	0	0		0
26	.07	.14	.03	.27	6.0	1.1	1.3	.18	0	0		.02
27	.07	.15	.06	.28	1.8	1.3	1.3	10	0	0		.02
28	.07	.14	.09	1.5	3.1	.99	1.2	2.7	0	0		.02
29	.07	.15	.10	3.2	---	.91	1.1	.80	0	0		.02
30	.07	.15	.10	2.1	---	.93	1.0	.63	0	0		.01
31	.08	---	.11	.86	---	.87	---	.36	---	0		---
TOTAL	2.02	3.83	4.15	12.13	53.38	143.55	30.82	27.93	5.61	.02	0	.09
MEAN	.065	.13	.13	.39	1.91	4.63	1.03	.90	.19	.0086	0	.003
MAX	.10	.22	.21	3.2	21	46	1.5	10	.43	.01	0	.02
MIN	.02	.03	.03	.06	.49	.38	.70	.14	0	0	0	0
AC-FT	4.0	7.6	8.2	24	106	285	.61	55	11	.04	0	.2
CAL YR 1980 TOTAL	3922.01			MEAN 10.7	MAX 500	MIN .02	AC-FT 7780					
WTR YR 1981 TOTAL	283.53			MEAN .78	MAX 46	MIN 0	AC-FT 562					

## SAN LUIS REY RIVER BASIN

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA  
(National stream-quality accounting network station)

LOCATION.--Lat 33°12'48", long 117°22'33", in SW¼SE¼SW¼ sec.14, T.11 S., R.5 W., San Diego County, Hydrologic Unit 18070303, on right bank 0.7 mi (1.1 km) upstream from bridge on Interstate Highway 5, 1.1 mi (1.8 km) upstream from mouth, and 1.2 mi (1.9 km) north of Oceanside.

DRAINAGE AREA.--558 mi<sup>2</sup> (1,450 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1912 to September 1914 (published as "near Oceanside"), January 1916, October 1929 to January 1942, October 1946 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6.1 m), from topographic map. April 1912 to September 1914, nonrecording gage at site 0.8 mi (1.3 km) upstream at different datum. January 1916, nonrecording gage 0.2 mi (0.3 km) downstream at different datum. Prior to Oct. 1, 1978, at datum 10.00 ft (3.048 m) lower.

REMARKS.--Records good. Flow regulated by Lake Henshaw, capacity, 194,300 acre-ft (240 hm<sup>3</sup>) since 1923. Several diversions for irrigation and domestic use above station. AVERAGE DISCHARGE represents flow to ocean during period of record regardless of upstream development.

AVERAGE DISCHARGE.--49 years (water years 1913-14, 1930-41, 1947-81), 30.8 ft<sup>3</sup>/s (0.872 m<sup>3</sup>/s), 22,310 acre-ft/yr (27.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,600 ft<sup>3</sup>/s (2,710 m<sup>3</sup>/s) Jan. 27, 1916, from hydrograph based on discharge measurements; no flow for several months in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 971 ft<sup>3</sup>/s (27.5 m<sup>3</sup>/s) Mar. 2, gage height, 7.86 ft (2.396 m); minimum daily, 2.0 ft<sup>3</sup>/s (0.057 m<sup>3</sup>/s) Sept. 24-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	30	48	57	63	357	87	41	29	5.8	6.3	6.3
2	36	32	45	54	63	552	101	46	26	5.8	6.3	6.3
3	36	32	45	51	63	191	83	46	26	5.8	6.3	5.8
4	36	34	67	54	63	107	64	46	23	5.3	5.8	5.8
5	34	34	102	51	74	192	64	44	21	5.8	5.3	5.8
6	36	38	87	43	71	155	64	41	20	6.3	5.3	6.3
7	36	38	97	43	63	106	64	41	17	6.3	5.3	4.8
8	36	45	92	36	93	96	71	37	14	6.3	5.8	4.4
9	34	48	71	43	385	83	79	33	14	6.3	5.8	4.0
10	34	45	67	51	170	75	61	31	14	6.9	5.3	4.4
11	34	45	79	54	151	75	58	26	13	8.9	5.8	4.0
12	34	46	87	54	124	79	55	25	13	7.5	6.3	4.0
13	32	46	97	54	112	79	52	21	12	7.5	6.3	3.7
14	34	47	102	60	102	91	52	20	11	8.2	5.8	4.0
15	32	47	87	57	102	87	52	25	8.9	6.9	5.8	4.0
16	43	48	83	63	83	79	52	26	5.8	8.2	5.8	3.7
17	38	48	74	63	74	83	55	26	5.3	7.5	6.9	3.0
18	32	49	74	67	71	83	61	25	5.3	7.5	6.3	2.8
19	32	49	71	67	71	100	83	25	5.8	7.5	6.3	2.8
20	32	50	67	71	67	281	91	25	4.0	6.3	6.9	2.3
21	30	48	60	63	57	155	91	23	4.4	4.8	7.5	2.5
22	32	44	51	60	54	106	79	23	5.3	5.8	7.5	2.8
23	32	41	54	54	51	96	67	21	4.8	5.3	7.5	2.3
24	32	38	54	60	51	90	58	23	5.3	5.3	8.2	2.0
25	32	34	57	74	59	85	52	23	5.8	5.8	8.2	2.0
26	32	34	57	74	228	80	46	25	6.3	6.3	8.2	2.0
27	36	32	54	71	158	78	46	25	6.3	6.3	7.5	2.5
28	34	32	54	144	118	76	46	26	5.8	6.9	7.5	3.3
29	32	32	57	174	---	75	44	31	5.8	6.9	7.5	3.3
30	32	40	60	218	---	75	41	33	5.8	6.9	7.5	3.3
31	32	---	63	118	---	83	---	29	---	6.3	6.9	---
TOTAL	1053	1226	2163	2203	2841	3950	1919	932	343.7	203.2	203.7	114.2
MEAN	34.0	40.9	69.8	71.1	101	127	64.0	30.1	11.5	6.55	6.57	3.81
MAX	43	50	102	218	385	552	101	46	29	8.9	8.2	6.3
MIN	30	30	45	36	51	75	41	20	4.0	4.8	5.3	2.0
AC-FT	2090	2430	4290	4370	5640	7830	3810	1850	682	403	404	227
CAL YR 1980	TOTAL	154351.0	MEAN	422	MAX	9080	MIN	25	AC-FT	306200		
WTR YR 1981	TOTAL	17151.8	MEAN	47.0	MAX	552	MIN	2.0	AC-FT	34020		

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1978 to current year.

BIOLOGICAL DATA: Water years 1978 to September 1981 (discontinued).

SPECIFIC CONDUCTANCE: Water years 1978 to current year.

WATER TEMPERATURES: Water years 1971 to current year.

SEDIMENT RECORDS: Water years 1969 to current year.

PERIOD OF DAILY RECORD.--

SEDIMENT RECORDS: October 1968 to September 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 5,580 mg/L Jan. 17, 1978; minimum daily, 2 mg/L on several days in 1972 and 1977.

SEDIMENT DISCHARGE: Maximum daily, 59,700 tons (54,200 metric tons) Jan. 17, 1978; minimum daily, 0.01 tons (0.01 metric tons) Nov. 4, 1969.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)
NOV 20...	1230	50	1720	8.3	14.0	21	9.8	K450	K400	600
JAN 19...	1300	51	1620	8.2	21.0	--	8.9	1000	900	620
MAR 30...	1000	84	1670	8.2	21.0	55	8.7	500	280	570
MAY 13...	1300	26	2100	8.2	24.0	5.5	--	--	62	650
JUL 28...	1200	7.6	2260	8.2	29.0	2.2	8.6	K30	84	800
SEP 28...	1100	3.5	2580	8.4	24.0	.60	11.2	57	1200	820

DATE	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 20...	360	130	66	170	38	3.0	7.4	240	330	300
JAN 19...	400	140	66	170	37	3.0	6.9	220	330	280
MAR 30...	370	130	59	140	35	2.6	5.7	200	300	260
MAY 13...	420	140	73	180	37	3.1	7.4	230	360	320
JUL 28...	610	180	86	240	39	3.7	9.2	190	450	440
SEP 28...	620	180	90	260	41	4.0	8.6	200	500	480

K Results based on colony count outside the acceptable range (non-ideal colony count).

## SAN LUIS REY RIVER BASIN

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued

## WATER-QUALITY RECORDS

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
NOV 20...	.4	29	1240	1190	1.7	1.8	.140	.160	.96	.84
JAN 19...	.4	29	1210	1170	2.4	2.4	.120	.040	4.5	.77
MAR 30...	.3	30	1100	1050	1.7	1.7	--	.060	--	.72
MAY 13...	.3	27	1330	1250	1.4	1.4	.110	.120	.89	.98
JUL 28...	.3	20	1520	1550	3.1	3.0	.180	.210	1.1	.99
SEP 28...	.4	18	1770	1660	.21	.22	--	.100	--	.70

DATE	NITRO- GEN+AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN+AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHOPHOS- PHATE TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
NOV 20...	1.10	1.0	2.8	2.8	.250	.210	--	8.0	--	--
JAN 19...	4.60	.81	7.0	3.2	.340	.100	--	--	13	1.2
MAR 30...	1.30	.78	3.0	2.5	.260	.160	--	9.8	--	--
MAY 13...	1.00	1.1	2.4	2.5	.200	.150	--	7.3	--	--
JUL 28...	1.30	1.2	4.4	4.2	.090	.070	.070	--	6.3	.2
SEP 28...	.85	.80	1.1	1.0	.040	.020	--	--	6.8	.2

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT				NOV			
02...	1600	1600	27.0	26...	1600	1740	15.0
04...	1300	1630	23.0	28...	1530	1740	18.0
05...	1415	1640	24.0	29...	1500	1760	17.0
07...	1530	1660	25.0	30...	1600	1760	17.0
08...	1445	1670	24.0	DEC			
09...	1500	1630	23.0	01...	1530	1730	17.0
12...	1400	1680	26.0	02...	1400	1720	17.0
14...	1400	1680	24.0	03...	1500	1730	16.0
15...	1500	1600	24.0	04...	1530	1650	17.0
16...	1530	1670	24.0	05...	1400	1640	17.0
18...	1500	1720	25.0	06...	1630	1670	16.0
20...	1500	1730	25.0	09...	1530	1680	16.0
21...	1400	1730	25.0	10...	1500	1690	16.0
22...	1530	1730	24.0	11...	1600	1690	16.0
23...	1400	1730	25.0	12...	1530	1680	15.0
24...	1600	1730	26.0	14...	1530	1710	16.0
27...	1500	1750	23.0	15...	1600	1710	16.0
28...	1600	1740	24.0	17...	1500	1710	17.0
30...	1600	1760	22.0	19...	1200	1680	15.0
NOV				20...	1400	1680	15.0
01...	1430	1760	23.0	26...	1300	1680	14.0
03...	1500	1770	22.0	27...	1400	1680	14.0
04...	1600	1760	22.0	28...	1400	1700	--
06...	1530	1750	21.0	29...	1500	1700	--
07...	1600	1750	21.0	30...	1400	1700	--
09...	1500	1730	20.0	31...	1600	1710	--
10...	1530	1730	20.0	JAN			
11...	1630	1720	20.0	19...	1300	1620	21.0
12...	1600	1730	20.0	FEB			
13...	1600	1730	20.0	01...	1330	1720	17.0
15...	1200	1720	16.0	03...	1530	1790	17.0
16...	1400	1730	16.0	04...	1530	1800	17.0
18...	1530	1750	17.0	05...	1600	1790	16.0
19...	1530	1760	16.0	06...	1500	1780	16.0
20...	1230	1720	14.0	07...	1330	1790	16.0
20...	1445	1680	16.0	08...	1330	1840	--
21...	1600	1690	16.0	09...	1400	1800	--
22...	1200	1700	15.0	10...	1530	1350	18.0
23...	1500	1700	15.0	11...	1500	1680	16.0
25...	1500	1740	15.0	12...	1600	1680	16.0

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued

## WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
FEB				MAY			
13...	1700	1720	18.5	22...	1600	1840	29.0
15...	1330	1740	20.0	27...	1400	1840	24.0
16...	1530	1740	21.0	28...	1600	1850	23.0
17...	1400	1740	22.0	29...	1500	1840	24.0
19...	1530	1740	21.0	30...	1400	1850	25.0
21...	1530	1770	22.0	JUN			
22...	1700	1770	22.0	02...	1600	1860	24.0
23...	1600	1770	22.0	03...	1630	1870	25.0
24...	1600	1800	21.0	04...	1530	1870	25.0
25...	1530	1830	22.0	05...	1630	1880	26.0
26...	1600	1560	21.0	07...	1600	1910	26.0
27...	1700	1690	20.0	08...	1500	1910	26.0
28...	1300	1460	19.0	09...	1500	2150	26.0
MAR				10...	1430	2110	27.0
01...	1200	1430	18.0	11...	1400	2210	27.0
03...	1600	1440	20.0	12...	1530	2220	27.0
04...	1600	1550	20.0	14...	1500	2160	30.0
05...	1400	1530	19.0	16...	1600	2310	31.0
06...	1600	1530	19.0	17...	1630	2380	32.0
07...	1300	1590	19.0	19...	1630	2450	32.0
08...	1200	1630	20.0	21...	1500	2390	34.0
10...	1600	1650	20.0	23...	1600	2360	34.0
11...	0925	--	18.5	25...	1630	2340	34.0
11...	1600	1670	21.0	26...	1500	2350	35.0
12...	1400	1690	20.0	27...	1200	2350	26.0
13...	1600	1690	19.0	29...	1600	2320	--
15...	1200	1670	19.0	JUL			
16...	1500	1690	21.0	02...	1600	2380	30.0
17...	1600	1680	23.0	03...	1500	2390	31.0
18...	1600	1680	24.0	05...	1400	2260	33.0
19...	1600	1680	21.0	07...	1600	2300	--
20...	1500	1510	18.0	09...	1700	2340	32.0
21...	1530	1500	19.0	10...	1700	2320	--
22...	1300	1560	23.0	11...	1630	2250	--
24...	1700	1650	24.0	14...	1600	2250	--
25...	1530	1660	25.0	15...	1600	2240	31.0
26...	1530	1660	24.0	16...	1600	2290	--
27...	1700	1660	23.0	18...	1400	2290	32.0
28...	1600	1670	24.0	19...	1600	2300	33.0
29...	1200	1650	21.0	21...	1700	2400	32.0
30...	1000	1670	21.0	25...	1500	2380	32.0
31...	1500	1600	23.0	26...	1400	2390	33.0
APR				28...	1200	2260	29.0
02...	1400	1590	23.0	28...	1600	--	33.0
03...	1600	1590	24.0	29...	1600	2540	32.0
04...	1700	1600	23.0	30...	1630	2520	32.0
07...	1600	1620	24.0	31...	1700	2590	33.0
08...	1530	1620	24.0	AUG			
09...	1400	1630	24.0	16...	1430	2660	--
10...	1500	1630	23.0	SEP			
11...	1600	1650	22.0	01...	1630	2720	27.0
12...	1700	1650	24.0	03...	1500	2840	29.0
14...	1600	1660	24.0	05...	1500	2740	--
15...	1600	1670	24.0	06...	1300	2730	--
16...	1600	1680	25.0	08...	1400	2770	27.0
17...	1600	1680	25.0	10...	1700	2800	27.0
18...	1600	1690	24.0	12...	1700	2770	26.0
21...	1630	1660	--	13...	1500	2780	26.0
22...	1630	1660	27.0	14...	1600	2780	26.0
23...	1600	1680	27.0	16...	1500	2800	--
24...	1600	1690	27.0	17...	1600	2800	--
26...	1600	1700	27.0	19...	1200	2850	25.0
28...	1545	1720	--	20...	1300	2860	25.0
29...	1600	1730	29.0	21...	1400	2860	26.0
MAY				22...	1500	2850	26.0
01...	1600	1730	28.0	23...	1630	2860	25.0
02...	1500	1730	27.0	24...	1630	2870	25.0
05...	1500	1740	28.0	25...	1630	2890	25.0
06...	1630	1740	28.0	26...	1300	2900	24.0
07...	1700	1750	28.0	27...	1500	2890	24.0
11...	1500	1800	29.0	28...	1100	2580	24.0
12...	1600	1800	29.0				
13...	1300	2100	24.0				
13...	1530	--	29.0				
14...	1530	1830	28.0				
15...	1600	1820	28.0				
16...	1600	1820	27.0				
17...	1500	1820	26.0				
19...	1600	1840	24.0				
20...	1600	1800	24.0				

SAN LUIS REY RIVER BASIN  
11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued  
WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)
JAN 19...	1300	2	2	200	100	4	4	10	0	2
JUL 28...	1200	1	1	100	100	1	1	10	10	1
SEP 28...	1100	1	1	100	0	--	1	10	10	--

DATE	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
JAN 19...	<3	15	3	11000	30	260	1	290	80	.3
JUL 28...	0	--	8	290	170	2	2	230	190	.2
SEP 28...	2	5	1	230	40	5	6	70	50	--

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
JAN 19...	.1	7	3	1	1	1	0	40	10
JUL 28...	.1	4	2	5	5	0	0	20	20
SEP 28...	.3	--	4	2	2	--	1	20	10

< Actual value is known to be less than the value shown.



11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued

## QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	NOV 20,80 1230		MAR 30,81 1000		MAY 13,81 1300		JUL 28,81 1200		SEP 28,81 1100	
TOTAL CELLS/ML	16000		6100		1600		2400		370	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
..CHLOROPHYCEAE										
..CHLOROCOCCALES										
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	28	2	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	*	0	*	0	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	14	1	--	-	--	-
....KIRCHNERIELLA	--	-	*	0	--	-	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	170	3	--	-	--	-	--	-
....SCENEDESMUS	250	2	170	3	210	13	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CARTERIA	*	0	--	-	--	-	1100#	47	--	-
....CHLAMYDOMONAS	130	1	250	4	310#	20	120	5	--	-
....CHLOROGONIUM	--	-	*	0	--	-	--	-	--	-
CHRYSOPHYTA										
..BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	150	1	490	8	--	-	180	8	--	-
....MELOSIRA	250	2	--	-	--	-	--	-	--	-
...STEPHANODISCUS	--	-	--	-	85	5	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	*	0	110	2	--	-	60	3	--	-
...COCCONEIS	--	-	--	-	--	-	--	-	68#	19
...CYMBELLACEAE										
....AMPHORA	*	0	42	1	--	-	20	1	--	-
....CYMBELLA	--	-	42	1	--	-	--	-	--	-
....RHOPALODIA	*	0	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	42	1	--	-	--	-	--	-
...FRAGILARIACEAE										
....SYNEDRA	*	0	*	0	28	2	--	-	--	-
...GOMPHONEMACEAE										
....GOMPHONEMA	--	-	--	-	--	-	60	3	95#	26
...NAVICULACEAE										
....ENTOMONEIS	--	-	42	1	--	-	--	-	--	-
....NAVICULA	710	5	1100#	19	160	10	320	13	140#	37
...NITZSCHACEAE										
....HANTZSCHIA	*	0	--	-	--	-	--	-	--	-
....NITZSCHIA	680	4	1000#	16	670#	42	260	11	68#	19
...SURIPELLACEAE										
....SURIPELLA	100	1	*	0	--	-	20	1	--	-
..CHRYSOPHYCEAE										
...CHRYSOMONADALES										
...MALLONADACEAE										
....MALLOMONAS	*	0	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
..CRYPTOPHYCEAE										
...CRYPTOMONADALES										
....CRYPTOMONADACEAE										
.....CRYPTOMONAS	*	0	*	0	--	-	40	2	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
..CYANOPHYCEAE										
...CHROOCOCCALES										
....CHROOCOCCACEAE										
.....ANACYSTIS	--	-	--	-	85	5	40	2	--	-
...HORMOGONALES										
...NOSTOCACEAE										
....APHANIZOMENON	3100#	20	1200#	19	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	9700#	63	1200#	20	--	-	--	-	--	-
...RIVULARIACEAE										
....RAPHIDIOPSIS	150	1	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
..EUGLENOPHYCEAE										
...EUGLENALES										
....EUGLENACEAE										
.....EUGLENA	--	-	42	1	--	-	--	-	--	-
....TRACHELOMONAS	--	-	*	0	--	-	140	6	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

\* - OBSERVED ORGANISM; MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

SAN LUIS REY RIVER BASIN  
11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued  
WATER-QUALITY RECORDS

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
NOV 20...	1230	14.0	50	224	30	65	--	--	--
JAN 19...	1300	21.0	51	310	43	60	--	--	--
MAR 30...	1000	21.0	84	325	74	48	67	96	100
MAY 13...	1300	24.0	26	180	13	27	--	--	--
JUL 28...	1200	29.0	7.6	63	1.3	26	--	--	--
SEP 28...	1100	24.0	3.5	21	.20	43	--	--	--

## 11042400 TEMECULA CREEK NEAR AGUANGA, CA

LOCATION.--Lat 33°27'33", long 116°55'22", in NE¼SW¼SW¼ sec.19, T.8 S., R.1 E., Riverside County, Hydrologic Unit 18070302, on right bank 1.6 mi (2.6 km) downstream from Long Canyon, and 3.5 mi (5.6 km) northwest of Aguanga.

DRAINAGE AREA.--131 mi<sup>2</sup> (339 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,590 ft (485 m), from topographic map.

REMARKS.--Records good. No regulation above station. Pumping for irrigation above station.

AVERAGE DISCHARGE.--24 years, 6.56 ft<sup>3</sup>/s (0.186 m<sup>3</sup>/s), 4,750 acre-ft/yr (5.86 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,540 ft<sup>3</sup>/s (100 m<sup>3</sup>/s) Apr. 3, 1958, gage height, 6.57 ft (2.003 m), from rating curve extended above 1,200 ft<sup>3</sup>/s (34 m<sup>3</sup>/s); maximum gage height, 12.0 ft (3.66 m) from floodmarks, Feb. 21, 1980; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s), and maximum (\*), from rating curve extended above 700 ft<sup>3</sup>/s (19.8 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 7.34 ft (2.237 m):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Mar. 1	1630	120	3.40	2.42	0.738
May 3	0830	* 398	11.3	3.51	1.070

Minimum daily discharge, 3.30 ft<sup>3</sup>/s (0.09 m<sup>3</sup>/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	7.4	7.8	8.0	10	45	10	9.7	6.5	4.9	4.6	4.0
2	6.5	7.4	8.0	8.0	9.6	50	11	8.8	6.5	4.9	4.6	4.4
3	6.8	7.4	8.1	7.9	9.1	27	13	15	6.5	4.8	4.8	4.4
4	6.8	7.7	8.6	8.0	8.9	18	12	8.6	6.1	4.9	4.7	4.3
5	6.8	7.5	11	8.0	8.6	18	11	8.4	5.9	4.9	4.7	4.5
6	6.8	7.6	9.9	7.8	8.4	20	11	8.3	5.9	4.9	4.7	4.5
7	6.8	7.5	9.9	7.9	8.5	17	11	8.1	5.7	5.0	4.6	4.4
8	6.7	7.6	9.7	8.0	9.6	16	11	8.0	5.6	5.0	4.6	4.3
9	6.9	7.8	9.0	7.7	20	15	11	7.8	5.6	5.0	4.6	4.2
10	7.0	7.5	9.3	7.9	15	15	11	7.6	5.7	5.0	4.7	4.3
11	7.1	7.7	9.0	8.4	12	14	11	7.6	5.6	5.0	4.8	4.2
12	7.4	7.9	9.0	8.7	11	14	11	7.5	5.6	5.2	4.9	4.2
13	7.7	8.4	8.9	8.6	10	13	10	7.4	5.6	5.0	4.6	4.2
14	8.2	8.5	8.5	8.1	9.4	13	9.9	7.4	5.4	5.1	4.6	4.1
15	9.0	8.6	8.3	8.1	9.1	12	10	7.6	5.0	5.7	4.5	4.2
16	9.2	8.3	8.4	8.2	9.1	12	10	7.7	5.1	5.4	4.3	4.2
17	8.5	8.2	8.6	8.1	8.6	12	10	7.5	5.1	5.1	4.6	4.1
18	8.1	8.6	8.7	7.9	8.3	11	11	7.3	4.9	5.1	4.8	4.0
19	7.7	8.5	8.8	7.7	8.1	12	12	7.6	4.8	5.0	4.6	4.1
20	7.5	8.3	8.7	7.7	7.0	21	12	8.2	4.7	4.8	4.5	4.1
21	7.4	7.8	8.6	7.8	6.7	15	11	8.1	4.8	4.9	4.4	4.0
22	7.5	8.2	8.4	8.1	7.7	13	10	7.7	4.8	4.9	4.4	4.4
23	7.5	8.3	8.4	8.0	8.4	13	10	7.5	4.8	4.9	4.2	4.5
24	7.5	8.3	8.4	7.5	8.5	12	10	7.2	4.7	4.9	3.7	4.4
25	7.4	7.9	8.3	7.8	8.9	12	10	7.2	4.7	4.9	4.0	4.6
26	7.6	7.8	8.3	8.0	16	12	10	7.3	4.7	5.0	4.2	4.7
27	7.7	7.9	8.2	7.7	11	13	10	7.8	4.9	5.0	4.1	4.7
28	7.3	7.9	8.3	12	11	12	10	7.7	5.0	4.9	4.1	4.7
29	7.3	7.5	8.0	12	---	12	9.7	7.3	4.9	4.8	3.7	4.5
30	7.4	7.5	7.8	19	---	12	9.6	6.9	4.8	4.7	3.3	5.1
31	7.3	---	7.8	12	---	11	---	6.7	---	4.6	3.9	---
TOTAL	229.9	237.5	268.7	270.6	278.5	512	319.2	247.5	159.9	154.2	136.8	130.3
MEAN	7.42	7.92	8.67	8.73	9.95	16.5	10.6	7.98	5.33	4.97	4.41	4.34
MAX	9.2	8.6	11	19	20	50	13	15	6.5	5.7	4.9	5.1
MIN	6.5	7.4	7.8	7.5	6.7	11	9.6	6.7	4.7	4.6	3.3	4.0
AC-FT	456	471	533	537	552	1020	633	491	317	306	271	258
CAL YR 1980	TOTAL	15472.5	MEAN	42.3	MAX	1800	MIN	2.5	AC-FT	30690		
WTR YR 1981	TOTAL	2945.1	MEAN	8.07	MAX	50	MIN	3.3	AC-FT	5840		

## SANTA MARGARITA RIVER BASIN

11042510 VAIL LAKE NEAR TEMECULA, CA

LOCATION.--Lat 33°29'44", long 116°58'33", in Pauba Grant, Riverside County, Hydrologic Unit 18070302, near center of Vail Dam, 0.2 mi (0.3 km) downstream from Arroyo Seco, and 10 mi (16 km) east of Temecula.

DRAINAGE AREA.--320 mi<sup>2</sup> (829 km<sup>2</sup>).

PERIOD OF RECORD.--October 1960 to current year. October 1960 to September 1977 published with Temecula Creek at Vail Dam.

GAGE.--Nonrecording gage. Prior to June 3, 1979, water-stage recorder at same site and datum. Datum of gage is 1,350.0 ft (411.48 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service); gage readings have been reduced to elevations above NGVD.

REMARKS.--Reservoir is formed by a concrete arch-type dam with spillway on left end, completed in June 1949 (corrected). Capacity of reservoir at spillway level, 49,370 acre-ft (60.9 hm<sup>3</sup>), elevation, 1,470 ft (448.1 m). Dead storage, 2.4 acre-ft (2,960 m<sup>3</sup>) below lowest outlet at elevation 1,352.5 ft (412.24 m). Area-capacity tables for reservoir are based on a survey made in 1947. There had been no spill from Nov. 13, 1948, date of closure, to Feb. 20, 1980, when a peak spill of about 8,000 ft<sup>3</sup>/s (227 m<sup>3</sup>/s) occurred (from theoretical discharge curve). Water is released as required down Temecula Creek for diversion about 1 mi (1.6 km) below dam.

COOPERATION.--Water levels were furnished by Rancho California Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, about 52,670 acre-ft (64.9 hm<sup>3</sup>), Feb. 21, 1980, elevation, 1,473.0 ft (448.97 m) from observed high-water mark; minimum, 1,038 acre-ft (1.28 hm<sup>3</sup>) Oct. 31, 1960, elevation, 1,379.44 ft (420.453 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, about 42,610 acre-ft (52.5 hm<sup>3</sup>) Mar. 23, elevation, 1,463.45 ft (446.060 m) from observed high-water mark; minimum, 36,720 acre-ft (45.3 hm<sup>3</sup>) Sept. 30, elevation, 1,457.25 ft (444.170 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,461.55	40,760	--
Oct. 31.....	1,461.42	40,630	-130
Nov. 30.....	1,461.56	40,770	+140
Dec. 31.....	1,461.81	41,110	+340
CAL YR 1980.....	--	--	11,860
Jan. 31.....	1,462.55	41,720	+610
Feb. 28.....	1,462.80	41,970	+250
Mar. 31.....	1,463.40	42,560	+590
Apr. 30.....	1,463.17	42,330	-230
May 31.....	1,462.52	41,690	-640
June 30.....	1,461.26	40,480	-1,210
July 31.....	1,459.80	39,090	-1,390
Aug. 31.....	1,458.50	37,880	-1,210
Sept. 30.....	1,457.25	36,720	-1,160
WTR YR 1981.....	--	--	-4,040

## 11043000 MURRIETA CREEK AT TEMECULA, CA

LOCATION.--Lat 33°28'47", long 117°08'35", in Temecula Grant, Riverside County, Hydrologic Unit 18070302, on right bank 0.4 mi (0.6 km) upstream from confluence with Temecula Creek, 1.0 mi (1.6 km) south of Temecula, and about 12 mi (19 km) downstream from Skinner Reservoir on Tualota Creek.

DRAINAGE AREA.--222 mi<sup>2</sup> (575 km<sup>2</sup>).

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only October 1924 to September 1930, published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 970 ft (296 m), from topographic map. See WSP 1735 for history of changes prior to Dec. 16, 1938.

REMARKS.--Records fair. Flow partly regulated since 1974 by Skinner Reservoir. Pumping above station for irrigation of about 2,500 acres (10.1 km<sup>2</sup>). Rancho California Water District can discharge into creek, approximately 0.10 mi (0.16 km) upstream, to supplement low flow.

AVERAGE DISCHARGE.--57 years, 11.2 ft<sup>3</sup>/s (0.317 m<sup>3</sup>/s), 8,110 acre-ft/yr (10.0 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,800 ft<sup>3</sup>/s (617 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 13.70 ft (4.176 m); minimum daily, 0.02 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) at times in 1969, no flow Dec. 11, 1976 because of upstream channel work.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 118 ft<sup>3</sup>/s (3.34 m<sup>3</sup>/s) Mar. 1, gage height, 1.82 ft (0.555 m), no peak above base of 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s), minimum daily, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	1.2	.99	.99	1.8	30	1.4	.78	1.1	2.6	1.8	2.2
2	1.7	1.2	.99	.99	1.2	31	1.9	.74	1.1	3.0	1.6	3.2
3	1.2	1.1	1.1	.99	1.1	15	1.3	.72	1.1	2.6	1.9	2.6
4	1.2	1.1	5.0	.99	1.1	7.0	.92	.60	1.1	2.3	1.8	2.6
5	1.2	1.1	18	.99	1.1	9.0	.78	.60	1.1	2.7	1.5	2.6
6	1.1	1.1	3.0	.99	1.1	5.4	.78	.60	1.1	2.7	1.2	2.6
7	1.1	1.1	1.5	.99	1.1	2.1	.78	.60	1.1	2.3	1.1	2.6
8	.99	1.1	1.3	.99	2.8	1.5	.78	.60	1.9	2.3	.42	2.6
9	.92	1.1	1.2	.99	20	1.5	.78	.60	2.4	2.3	.60	2.6
10	.92	1.1	1.1	.99	4.3	1.5	.78	.60	3.2	2.4	1.4	2.6
11	.99	1.1	1.0	1.3	3.0	1.3	.78	.66	3.0	2.6	1.2	2.6
12	1.1	1.1	1.0	1.2	2.0	1.3	.78	.85	3.4	2.6	.66	2.4
13	1.1	.99	1.0	1.6	1.5	1.3	.78	.99	3.2	2.4	.85	2.4
14	.99	.99	1.0	1.2	1.3	1.3	.78	.99	2.9	2.4	1.3	2.4
15	.99	.99	1.0	.99	1.2	1.2	.92	.92	2.3	2.6	1.2	2.4
16	1.1	.99	1.0	.92	1.2	1.2	.78	1.1	2.4	2.3	.99	2.4
17	1.4	.99	1.0	.72	1.2	1.2	.66	.92	2.3	2.3	1.1	2.4
18	1.2	.99	1.0	.72	1.2	1.2	1.1	.92	2.1	2.3	.70	2.6
19	1.1	.99	1.0	.66	1.2	9.0	1.6	.72	2.1	2.3	.02	3.4
20	1.1	.99	1.0	1.1	1.2	6.4	.92	.99	1.9	2.1	.01	3.6
21	1.1	.99	1.0	.92	.99	2.0	.72	1.1	1.4	2.3	.70	3.2
22	1.1	.99	1.0	.85	.99	1.6	.60	1.1	1.9	2.4	2.3	3.0
23	.92	.99	1.0	.99	.99	1.4	.60	1.0	1.9	2.4	2.3	3.0
24	2.1	.99	1.0	.99	2.0	1.4	.60	1.1	1.9	2.1	2.3	3.0
25	1.6	.92	1.0	.92	4.3	1.4	.60	1.1	2.7	2.0	2.3	3.0
26	1.4	.92	1.0	.92	8.0	1.4	.60	1.2	2.4	1.9	2.2	3.0
27	1.2	.92	1.0	.92	4.5	1.2	.60	1.6	2.1	2.0	2.2	3.0
28	1.3	.99	1.0	9.9	2.5	1.1	.60	1.8	2.1	1.9	2.2	3.0
29	1.2	.99	1.0	12	---	1.1	.55	1.6	2.3	1.9	2.2	2.6
30	1.1	.99	1.0	5.8	---	1.1	.66	.92	2.4	1.9	2.2	.97
31	1.1	---	1.0	3.0	---	1.2	---	1.0	---	1.9	2.2	---
TOTAL	36.30	31.01	55.18	57.52	74.87	144.3	25.43	29.02	61.9	71.8	44.45	80.57
MEAN	1.17	1.03	1.78	1.86	2.67	4.65	.85	.94	2.06	2.32	1.43	2.69
MAX	2.1	1.2	18	12	20	31	1.9	1.8	3.4	3.0	2.3	3.6
MIN	.78	.92	.99	.66	.99	1.1	.55	.60	1.1	1.9	.01	.97
AC-FT	72	62	109	114	149	286	50	58	123	142	88	160
CAL YR 1980	TOTAL	37469.09	MEAN	102	MAX	6170	MIN	.46	AC-FT	74320		
WTR YR 1981	TOTAL	712.35	MEAN	1.95	MAX	31	MIN	.01	AC-FT	1410		

## 11044000 SANTA MARGARITA RIVER NEAR TEMECULA, CA

LOCATION.--Lat 33°28'26", long 117°08'29", in Temecula Grant, Riverside County, Hydrologic Unit 18070302, on left bank at upper end of Temecula Canyon, 0.1 mi (0.2 km) downstream from confluence of Murrieta and Temecula Creeks, 1.4 mi (2.3 km) south of Temecula, 10 mi (16 km) downstream from Vail Lake, and about 12 mi (19 km) downstream from Skinner Reservoir.

DRAINAGE AREA.--588 mi<sup>2</sup> (1,520 km<sup>2</sup>).

PERIOD OF RECORD.--January 1923 to current year. Prior to October 1952, published as Temecula Creek at Railroad Canyon, near Temecula.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 950 ft (290 m), from topographic map. Prior to Nov. 3, 1966, at site 100 ft (30 m) downstream at same datum.

REMARKS.--Records fair. Flow partly regulated since November 1948 by Vail Lake (station 11042510) on Temecula Creek, and since 1974 by Skinner Reservoir on Tocalota Creek which is tributary to Murrieta Creek. Rancho California Water District can discharge into Murrieta Creek, approximately 0.6 mi (1.0 km) upstream, to supplement low flow.

AVERAGE DISCHARGE.--25 years (water years 1924-48), unregulated, 28.2 ft<sup>3</sup>/s (0.799 m<sup>3</sup>/s), 20,420 acre-ft/yr (25.2 hm<sup>3</sup>/yr); 33 years (water years 1949-81), 15.7 ft<sup>3</sup>/s (0.445 m<sup>3</sup>/s), 11,370 acre-ft/yr (14.0 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft<sup>3</sup>/s (708 m<sup>3</sup>/s), Feb. 16, 1927, gage height, 14.6 ft (4.45 m), at site then in use, from rating curve extended above 10,000 ft<sup>3</sup>/s (283 m<sup>3</sup>/s); minimum daily, 0.30 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Aug. 18-22, 1965, regulation by construction work above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 140 ft<sup>3</sup>/s (3.96 m<sup>3</sup>/s), Mar. 1, gage height, 3.00 ft (0.914 m); minimum daily, 0.61 ft<sup>3</sup>/s (0.017 m<sup>3</sup>/s) Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.1	2.1	3.1	5.0	6.1	4.2	3.0	2.0	3.4	2.6	2.7
2	2.2	2.1	2.2	3.1	3.5	6.2	4.5	3.2	2.1	3.2	2.5	3.4
3	2.0	2.5	2.1	3.1	3.3	1.5	4.1	3.1	2.0	3.2	2.5	2.8
4	2.0	2.0	7.4	3.1	3.3	1.1	3.2	2.9	1.8	3.1	2.3	3.0
5	2.1	2.0	3.7	3.1	3.3	1.4	3.7	2.9	1.8	3.4	2.3	3.0
6	2.0	2.1	6.2	3.1	3.3	9.0	3.4	2.8	1.8	3.4	1.9	3.0
7	2.0	2.1	4.0	3.1	3.3	5.1	3.7	2.7	2.5	3.1	1.5	3.0
8	2.0	2.1	3.5	3.2	8.0	3.7	3.7	2.6	3.4	3.1	1.3	3.0
9	2.2	2.1	3.4	3.2	4.0	4.0	3.7	2.5	3.7	2.9	2.0	3.0
10	2.2	2.2	3.3	3.2	7.2	3.7	3.8	2.4	4.3	2.8	1.9	2.8
11	2.2	2.2	3.2	3.8	5.2	3.4	3.6	2.4	4.1	2.9	1.7	2.8
12	2.2	2.2	3.2	3.8	4.9	4.6	3.7	2.5	4.3	2.8	1.7	2.8
13	2.2	2.1	3.1	4.5	4.2	4.5	3.8	2.4	4.0	2.7	2.4	2.8
14	2.3	2.2	3.1	3.5	4.2	4.3	3.7	2.4	3.4	2.7	1.8	2.8
15	2.2	1.8	3.1	3.3	4.2	3.3	3.7	2.6	3.5	2.8	1.8	2.8
16	2.2	1.8	3.1	3.1	4.0	4.0	3.5	2.7	3.4	2.9	1.7	2.7
17	2.7	1.9	3.1	3.0	4.0	3.8	3.4	2.4	3.4	2.6	1.8	2.7
18	2.4	2.1	3.1	3.0	3.8	4.3	4.0	2.4	3.1	2.7	1.4	2.8
19	2.2	1.8	3.1	3.0	3.9	1.0	5.0	2.5	3.2	2.4	.67	3.4
20	2.1	2.1	3.1	3.5	4.0	1.3	4.1	2.4	3.2	2.5	.61	3.7
21	2.1	2.1	3.1	3.3	3.6	3.7	3.8	2.4	2.8	2.5	.92	3.4
22	2.0	2.1	3.1	3.2	3.4	4.5	3.6	2.4	3.2	2.7	2.5	3.0
23	2.0	2.2	3.1	3.5	3.3	4.5	3.3	2.3	3.3	2.7	2.5	3.0
24	2.7	2.2	3.1	3.3	4.7	4.3	3.3	2.3	3.2	2.7	2.4	3.0
25	2.6	2.1	3.1	3.3	9.1	4.5	3.3	2.1	3.6	2.5	2.2	3.1
26	2.4	2.1	3.1	3.3	1.6	4.5	3.2	2.4	3.5	2.5	2.5	3.0
27	2.1	2.1	3.1	3.3	6.6	3.4	3.2	2.9	3.3	2.5	2.3	3.0
28	2.3	2.2	3.1	2.7	9.5	3.5	3.0	3.2	3.4	2.8	2.3	2.9
29	2.0	2.1	3.1	2.3	---	4.4	2.8	2.9	3.4	2.6	2.5	2.9
30	2.1	2.1	3.1	1.3	---	4.3	2.8	2.0	3.4	2.7	2.4	1.6
31	2.1	---	3.1	7.6	---	3.8	---	1.9	---	2.8	2.6	---
TOTAL	67.3	62.8	136.5	159.6	178.8	289.1	108.8	79.6	94.1	87.6	61.50	87.9
MEAN	2.17	2.09	4.40	5.15	6.39	9.33	3.63	2.57	3.14	2.83	1.98	2.93
MAX	2.7	2.5	3.7	2.7	4.0	6.2	5.0	3.2	4.3	3.4	2.6	3.7
MIN	1.5	1.8	2.1	3.0	3.3	3.3	2.8	1.9	1.8	2.4	.61	1.6
AC-FT	133	125	271	317	355	573	216	158	187	174	122	174

CAL YR 1980 TOTAL 51599.97 MEAN 141 MAX 7500 MIN .68 AC-FT 102300  
WTR YR 1981 TOTAL 1413.60 MEAN 3.87 MAX 62 MIN .61 AC-FT 2800

## SANTA MARGARITA RIVER BASIN

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11044500 SANTA MARGARITA RIVER NEAR FALLBROOK, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES: Water years 1967 to current year.

COOPERATION.--Chemical-quality records were furnished by California Department of Water Resources.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SPECIFIC COND MICROMHO	PH FIELD (UNITS)	TEMP WATER (DEG C)	TURB- IDITY (NTU)	OXYGEN DISS (MG/L)	COD LOWLEVEL (MG/L)	BOD 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM CA,DISS (MG/L)	MANGANESE MG,DISS (MG/L)
80/12/11	18 30	980	8.3	12.0	17	10.2			390	90	39
81/01/15	17 05	1050	8.5	14.0	26	9.8			380	91	37
81/02/24	13 20	1010	8.4	18.0	8.0	9.2			380	88	39
81/03/10	19 15			15.5			11	0.6			
81/03/18	19 15	1060	8.4	17.0	8.0	9.2			370	87	38
81/06/15	14 05	1080	8.2	28.5	1.0	7.0			380	90	39
81/09/25	16 25	1170	8.4	22.0	0.0	8.1			400	89	43

DATE	TIME	SODIUM NA,DISS (MG/L)	POTASSIUM K,DISS (MG/L)	ALKA- LITY (MG/L)	SULFATE SO4-DISS (MG/L)	CHLORIDE CL DISS (MG/L)	FLUORIDE F,DISS (MG/L)	MOE DISS 180 C (MG/L)	RESIDUE TOT NFLT (MG/L)	NITRATE N,DISS (MG/L)
80/12/11	18 30	96	3.3	230	160	140	0.5	727		0.81
81/01/15	17 05	100	3.0	230	160	140	0.5	718		0.63
81/02/24	13 20	99	3.3	220	160	140	0.5	712		1.4
81/03/10	19 15								54	0.23
81/03/18	19 15	100	3.3	220	160	140	0.5	724		
81/06/15	14 05	97	4.5	210	170	140	0.5	762		3.4
81/09/25	16 25	100	4.0	220	190	140	0.6	824		

DATE	TIME	NITRITE N,DISS (MG/L)	PHOS-TOT AS P (MG/L)	PHOS-DIS ORTHO P (MG/L)	ORGANIC CARBON T (MG/L)	BORON B,DISS (UG/L)
80/12/11	18 30	0.003	0.11	0.07		100
81/01/15	17 05	0.001	0.08	0.02		100
81/02/24	13 20	0.006	0.19	0.14		100
81/03/10	19 15	0.005	0.23	0.13	6.4	
81/03/18	19 15					100
81/06/15	14 05	0.011	0.64	0.62		100
81/09/25	16 25					100

DATE	TIME	ARSENIC AS,DISS (UG/L)	BARIUM BA,DISS (UG/L)	CADMIUM CD,DISS (UG/L)	CHROMIUM CR,DISS (UG/L)	COPPER CU,DISS (UG/L)	IRON FE,DISS (UG/L)	LEAD PB,DISS (UG/L)	MANGANESE MN,DISS (UG/L)	MERCURY HG,TOTAL (UG/L)	SELENIUM SE,DISS (UG/L)
81/03/18	19 15	0	0	0	0	0	10	0	30	0.0	0

## 11046000 SANTA MARGARITA RIVER AT YSIDORA, CA

LOCATION.--Lat 33°18'40", long 117°20'45", in NW¼NW¼ sec.18, T.10 S., R.4 W., San Diego County, Hydrologic Unit 18070302, on Camp Joseph H. Pendleton Naval Reservation, on right bank 7.9 mi (12.7 km) upstream from mouth at Pacific Ocean at Basilone Road Bridge. Prior to Dec. 10, 1980, at site 6.2 mi (10.0 km) downstream.

DRAINAGE AREA.--740 mi<sup>2</sup> (1,917 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1923 to current year. Low-flow records not equivalent prior to Dec. 10, 1980, due to installation of conservation ponds above downstream site.

GAGE.--Water-stage recorder. See WSP 1735 for history of changes prior to Nov. 27, 1935. Nov. 27, 1935, to Feb. 25, 1970, at site 5.4 mi (8.7 km) downstream at different datum. Feb. 25, 1970 to Dec. 10, 1980, at site 6.2 mi (10.0 km) downstream at different datum.

REMARKS.--Records poor. Flow partly regulated by Vail Lake since November 1948 (station 11042500). Diversions for irrigation on Rancho California (formerly Santa Margarita Ranch and Pauba Ranch).

AVERAGE DISCHARGE.--58 years, 33.8 ft<sup>3</sup>/s (0.957 m<sup>3</sup>/s), 24,500 acre-ft/yr (30.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,600 ft<sup>3</sup>/s (952 m<sup>3</sup>/s) Feb. 16, 1927, gage height, 18.00 ft (5.486 m), site and datum then in use, on basis of slope-area measurement of maximum flow; maximum gage height, 18.80 ft (5.730 m) Feb. 18, 1980, possibly affected by tide; no flow for all or part of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 529 ft<sup>3</sup>/s (15.0 m<sup>3</sup>/s), Mar. 2, gage height, 6.24 ft (1.902 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	12	12	22	24	106	33	14	9.9			
2	11	12	12	16	23	244	33	19	9.9			
3	12	12	12	14	23	96	27	22	9.9			
4	12	12	25	19	27	70	31	17	6.6			
5	12	12	92	19	20	85	25	16	5.3			
6	12	12	40	19	20	115	23	17	4.2			
7	12	12	25	19	17	63	23	14	4.7			
8	12	12	24	19	22	44	19	14	4.7			
9	12	12	22	19	105	37	20	13	4.7			
10	12	12	20	19	73	31	20	9.9	4.7			
11	12	12	20	20	44	27	22	9.9	6.6			
12	12	12	29	22	33	25	20	8.1	6.6			
13	12	12	29	20	25	25	23	9.0	5.9			
14	12	12	31	19	22	25	16	11	5.9			
15	12	12	33	18	20	25	14	17	4.2			
16	14	12	29	18	23	23	19	14	2.3			
17	13	12	27	18	22	25	23	12	1.0			
18	12	12	27	18	17	23	27	11	.04			
19	12	12	27	18	22	29	33	9.9	0			
20	12	12	25	18	23	109	25	11	0			
21	12	12	27	18	22	42	23	12	0			
22	12	12	27	18	22	33	23	13	0			
23	12	12	27	19	22	27	22	16	0			
24	12	12	19	19	19	31	20	11	0			
25	12	12	22	19	19	31	19	13	0			
26	13	12	23	19	55	27	19	13	0			
27	12	12	23	19	29	31	17	12	0			
28	12	12	22	62	22	31	16	17	0			
29	12	12	22	50	---	29	13	17	0			
30	12	12	20	35	---	29	14	17	0			
31	12	---	20	27	---	27	---	12	---			---
TOTAL	373	360	813	679	815	1565	662	421.8	97.14	0	0	0
MEAN	12.0	12.0	26.2	21.9	29.1	50.5	22.1	13.6	3.24	0	0	0
MAX	14	12	92	62	105	244	33	22	9.9	0	0	0
MIN	10	12	12	14	17	23	13	8.1	0	0	0	0
AC-FT	740	714	1610	1350	1620	3100	1310	837	193	0	0	0

CAL YR 1980	TOTAL	104883.79	MEAN	287	MAX	18000	MIN	0	AC-FT	208000
WTR YR 1981	TOTAL	5785.94	MEAN	15.9	MAX	244	MIN	0	AC-FT	11480



## SANTA MARGARITA RIVER BASIN

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11046000 SANTA MARGARITA RIVER AT YSIDORA, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1980 to current year.

WATER TEMPERATURES: Water years 1969 to September 1978.

SEDIMENT RECORDS: Water years 1969 to September 1978.

PERIOD OF DAILY RECORD.--

SEDIMENT RECORDS: October 1968 to September 1978.

REMARKS.--Water-quality records for the 1980 water year were collected 4.5 mi (7.2 km) upstream at Basilone Road.

COOPERATION.--Chemical-quality data was furnished by California Department of Water Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 13,000 mg/L Feb. 24, 1969; minimum daily mean, no flow for many days each year.

SEDIMENT DISCHARGE: Maximum daily, 534,000 tons (484,000 metric tons) Feb. 24, 1969; minimum daily, 0 tons on many days each year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM FLOW, INST-CFS	SPECIFIC COND MICROMHO	PH FIELD (UNITS)	TEMP WATER (DEG C)	TURB- IDITY (NTU)	OXYGEN DISS (MG/L)	COD LOWLEVEL (MG/L)	BOD 5 DAY (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM CA,DISS (MG/L)
80/12/11	17 05	20	910	8.2	15.5		9.9				
81/01/15	15 40	18E	900	8.5	18.0	2.0	9.5			320	77
81/02/24	10 40	18	920	8.5	20.0	8.0	8.7			320	75
81/03/18	17 55	23	920	8.5	18.5	8.0	8.4			310	75
81/06/10	15 20	5.2	960	8.6	24.5	0.0	8.1	14	0.4	310	75

DATE	TIME	MGNSIUM MG,DISS (MG/L)	SODIUM NA,DISS (MG/L)	PTSIUM K,DISS (MG/L)	ALKA- LINITY (MG/L)	SULFATE SO4-DISS (MG/L)	CHLORIDE CL DISS (MG/L)	FLUORIDE F,DISS (MG/L)	ROE DISS 180 C (MG/L)	RESIDUE TOT NFLT (MG/L)
80/12/11	17 05									
81/01/15	15 40	31	92	3.0	220	120	120	0.5	611	
81/02/24	10 40	32	96	3.1	220	120	130	0.5	650	
81/03/18	17 55	30	94	3.1	220	120	120	0.5	623	
81/06/10	15 20	31	100	3.7	210	130	140	0.5	610	9

DATE	TIME	NITRATE N,DISS (MG/L)	NITRITE N,DISS (MG/L)	PHOS-TOT AS P (MG/L)	PHOS-DIS ORTHOP P (MG/L)	ORGANIC CARBON T (MG/L)	BORON B,DISS (UG/L)
80/12/11	17 05	0.00	0.003	0.15	0.10		
81/01/15	15 40	0.16	0.001	0.12	0.06		100
81/02/24	10 40	0.47	0.004	0.12	0.05		100
81/03/18	17 55	0.54	0.004	0.18	0.11		
81/06/10	15 20						100

DATE	TIME	ARSENIC AS,DISS (UG/L)	BARIUM BA,DISS (UG/L)	CADMIUM CD,DISS (UG/L)	CHROMIUM CR,DISS (UG/L)	COPPER CU,DISS (UG/L)	IRON FE,DISS (UG/L)	LEAD PB,DISS (UG/L)	MANGNESE MN,DISS (UG/L)	MERCURY HG,TOTAL (UG/L)	SELENIUM SE,DISS (UG/L)
81/09/10	15 20	0	100	0	0	0	20	0	10	0.0	0

E Estimated

## SAN JUAN CREEK BASIN

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA

LOCATION (REVISED).--Lat 33°29'31", long 117°39'41", in SW¼SE¼NE¼ sec.12, T.8 S., R.8 W., Orange County, Hydrologic Unit 18070301, on left bank 300 ft (90 m) above Camino Capistrano bridge, 0.3 mi (0.5 km) upstream from Arroyo Trabuco, and 0.6 mi (1.0 km) south of San Juan Capistrano.

DRAINAGE AREA.--117 mi<sup>2</sup> (303 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 67 ft (20 m), from topographic map. Prior to Jan. 10, 1979, at datum 10.00 ft (3.048 m) higher. Prior to Aug. 29, 1979, at site 300 ft (90 m) downstream on downstream side of bridge.

REMARKS.--Records fair. No regulation above station. Capistrano Water Co. diverts 3.0 mi (4.8 km) upstream. Various amounts of diverted water reach station as irrigation return flow and rising ground water. Data for San Juan Creek near San Juan Capistrano (station 11046500) previously collected at site 2.8 mi (4.5 km) upstream was published as creek only and combined.

AVERAGE DISCHARGE.--12 years, 25.5 ft<sup>3</sup>/s (0.722 m<sup>3</sup>/s), 18,470 acre-ft/yr (22.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft<sup>3</sup>/s (416 m<sup>3</sup>/s), estimated, Mar. 4, 1978, gage height, 7.0 ft (2.13 m), from floodmarks, site and datum then in use; on basis of slope-conveyance study; maximum gage height, 17.8 ft (5.44 m) Feb. 18, 1980 (from floodmarks); no flow at times in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1969, 22,400 ft<sup>3</sup>/s (634 m<sup>3</sup>/s), at site 2.8 mi (4.5 km) upstream, as station 11046500.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 256 ft<sup>3</sup>/s (7.25 m<sup>3</sup>/s) Mar. 2 (1300 hrs), gage height, 12.84 ft (3.914 m), no other peak above base of 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s); minimum daily, 0.24 ft<sup>3</sup>/s (0.007 m<sup>3</sup>/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.2	1.2	3.9	10	18	5.7	1.4	1.0	.98	.36	.44
2	1.3	1.3	1.2	3.7	8.5	45	5.5	1.4	1.2	1.0	.36	.44
3	1.3	1.2	1.2	3.6	6.8	23	5.5	1.5	1.5	1.0	.38	.44
4	1.2	1.0	1.2	3.7	6.1	21	5.0	1.5	1.7	.94	.41	.44
5	1.2	1.1	4.4	3.7	6.1	46	4.5	1.5	1.7	.98	.41	.44
6	1.2	1.1	4.3	4.0	5.5	23	4.3	1.4	1.6	.89	.41	.44
7	1.1	1.1	3.3	3.9	5.9	19	4.3	1.5	1.6	.89	.38	.44
8	1.1	1.0	3.6	3.6	11	14	4.1	1.5	1.6	.84	.41	.44
9	1.1	1.0	3.7	3.6	24	10	3.9	1.6	1.6	.80	.44	.44
10	1.9	1.1	3.7	2.8	17	8.5	3.7	1.8	1.4	.71	.44	.41
11	1.7	1.1	3.7	3.6	11	8.3	3.7	1.7	1.4	.55	.44	.38
12	1.6	1.1	4.0	3.4	8.3	7.2	3.6	1.7	1.5	.59	.41	.36
13	1.6	1.1	4.0	3.3	6.8	7.2	3.6	1.7	1.6	.59	.44	.36
14	1.6	1.1	3.9	2.9	6.3	7.2	3.6	1.6	1.6	.51	.44	.36
15	1.4	1.1	3.7	2.6	6.5	6.5	3.6	1.6	1.6	.55	.44	.36
16	1.4	1.0	3.7	2.6	5.7	6.5	3.6	1.4	1.4	.51	.38	.36
17	1.4	1.0	3.7	2.7	4.8	6.5	3.7	1.3	1.4	.55	.44	.36
18	1.4	1.0	3.4	2.7	4.8	6.5	4.3	1.2	1.5	.55	.44	.36
19	1.4	1.4	3.2	2.7	4.5	13	3.9	1.0	1.3	.51	.44	.33
20	1.4	1.5	3.2	2.6	3.9	18	3.7	.89	1.4	.55	.41	.33
21	1.6	1.5	3.1	2.4	3.7	15	3.4	.71	1.5	.44	.44	.33
22	1.4	1.6	3.3	2.1	3.3	12	3.1	.59	1.5	.41	.44	.33
23	1.6	1.2	3.4	2.2	3.4	10	2.6	.63	1.4	.36	.44	.31
24	1.6	1.2	3.6	2.3	4.0	8.8	2.1	.63	1.3	.33	.44	.31
25	1.4	1.2	3.6	2.6	4.5	8.3	2.0	.59	1.3	.31	.44	.28
26	1.4	1.2	3.9	2.6	4.9	7.5	1.8	.59	1.4	.31	.44	.28
27	1.2	1.1	3.7	2.7	4.8	7.7	1.7	.71	1.4	.31	.44	.28
28	1.2	1.2	3.9	8.7	4.6	6.5	1.6	.71	1.2	.36	.44	.26
29	1.2	1.2	3.7	11	---	6.3	1.4	.84	1.1	.36	.44	.26
30	1.1	1.2	3.7	15	---	5.9	1.3	.98	1.1	.36	.44	.24
31	1.2	---	4.0	12	---	5.5	---	.98	---	.36	.44	---
TOTAL	42.5	35.1	104.2	129.2	196.7	407.9	104.8	37.15	42.8	18.40	13.12	10.81
MEAN	1.37	1.17	3.36	4.17	7.03	13.2	3.49	1.20	1.43	.59	.42	.36
MAX	1.9	1.6	4.4	15	24	46	5.7	1.8	1.7	1.0	.44	.44
MIN	1.1	1.0	1.2	2.1	3.3	5.5	1.3	.59	1.0	.31	.36	.24
AC-FT	84	70	207	256	390	809	208	74	85	36	26	21

CAL YR 1980 TOTAL 53945.70 MEAN 147 MAX 4500 MIN 1.0 AC-FT 107000  
WTR YR 1981 TOTAL 1142.68 MEAN 3.13 MAX 46 MIN .24 AC-FT 2270

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--  
WATER TEMPERATURES: October 1970 to current year.  
SEDIMENT RECORDS: October 1970 to current year.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 22,000 mg/L Feb. 18, 1980; minimum daily mean, no flow for many days in 1970-72.

SEDIMENT DISCHARGE: Maximum daily, 331,000 tons (300,000 metric tons) Mar. 4, 1978; minimum daily, 0 tons on many days during most years.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 947 mg/L Mar. 2; minimum daily mean, 7 mg/L Dec. 18, 19.

SEDIMENT DISCHARGE: Maximum daily, 301 tons (273 metric tons), Mar. 2; minimum daily, 0.06 tons (0.05 metric tons) Dec. 18, 19.

[illegible]

## WATER-QUALITY RECORDS

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.3	20	.07	1.2	26	.08	1.2	38	.12
2	1.3	15	.05	1.3	26	.09	1.2	33	.11
3	1.3	10	.04	1.2	26	.08	1.2	23	.07
4	1.2	22	.07	1.0	11	.03	1.2	23	.07
5	1.2	30	.10	1.1	25	.07	4.4	95	1.3
6	1.2	33	.11	1.1	18	.05	4.3	21	.24
7	1.1	14	.04	1.1	15	.04	3.3	16	.14
8	1.1	13	.04	1.0	17	.05	3.6	10	.10
9	1.1	16	.05	1.0	19	.05	3.7	8	.08
10	1.9	45	.37	1.1	22	.07	3.7	8	.08
11	1.7	23	.11	1.1	14	.04	3.7	8	.08
12	1.6	25	.11	1.1	18	.05	4.0	10	.11
13	1.6	26	.11	1.1	10	.03	4.0	15	.16
14	1.6	36	.16	1.1	10	.03	3.9	15	.16
15	1.4	20	.08	1.1	12	.04	3.7	15	.15
16	1.4	33	.12	1.0	14	.04	3.7	15	.15
17	1.4	49	.19	1.0	15	.04	3.7	9	.09
18	1.4	42	.16	1.0	16	.04	3.4	7	.06
19	1.4	34	.13	1.4	24	.09	3.2	7	.06
20	1.4	26	.10	1.5	31	.13	3.2	8	.07
21	1.6	12	.05	1.5	33	.13	3.1	11	.09
22	1.4	39	.15	1.6	40	.17	3.3	15	.13
23	1.6	43	.19	1.2	48	.16	3.4	20	.18
24	1.6	40	.17	1.2	56	.18	3.6	15	.15
25	1.4	33	.12	1.2	28	.09	3.6	21	.20
26	1.4	26	.10	1.2	38	.12	3.9	29	.31
27	1.2	20	.06	1.1	37	.11	3.7	17	.17
28	1.2	33	.11	1.2	28	.09	3.9	22	.23
29	1.2	24	.08	1.2	54	.17	3.7	27	.27
30	1.1	29	.09	1.2	68	.22	3.7	34	.34
31	1.2	26	.08	---	---	---	4.0	31	.33
TOTAL	42.5	---	3.41	35.1	---	2.58	104.2	---	5.80
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3.9	17	.18	10	125	3.4	18	231	33
2	3.7	13	.13	8.5	21	.48	45	947	301
3	3.6	16	.16	6.8	16	.29	23	120	7.5
4	3.7	28	.28	6.1	13	.21	21	83	4.7
5	3.7	85	.85	6.1	23	.38	46	740	127
6	4.0	120	1.3	5.5	30	.45	23	420	26
7	3.9	45	.47	5.9	28	.45	19	350	18
8	3.6	44	.43	11	26	.77	14	260	9.8
9	3.6	35	.34	24	23	1.5	10	175	4.7
10	2.8	17	.13	17	31	1.4	8.5	49	1.1
11	3.6	13	.13	11	23	.68	8.3	69	1.5
12	3.4	26	.24	8.3	13	.29	7.2	70	1.4
13	3.3	36	.32	6.8	16	.29	7.2	40	.78
14	2.9	33	.26	6.3	18	.31	7.2	35	.68
15	2.6	27	.19	6.5	20	.35	6.5	25	.44
16	2.6	23	.16	5.7	20	.31	6.5	35	.61
17	2.7	20	.15	4.8	17	.22	6.5	52	.91
18	2.7	18	.13	4.8	13	.17	6.5	40	.70
19	2.7	16	.12	4.5	7	.09	13	118	12
20	2.6	16	.11	3.9	13	.14	18	58	2.8
21	2.4	18	.12	3.7	14	.14	15	44	1.8
22	2.1	24	.14	3.3	15	.13	12	34	1.1
23	2.2	30	.18	3.4	17	.16	10	24	.65
24	2.3	36	.22	4.0	20	.22	8.8	38	.90
25	2.6	35	.25	4.5	27	.48	8.3	44	.99
26	2.6	35	.25	4.9	18	.30	7.5	43	.87
27	2.7	30	.22	4.8	21	.35	7.7	48	1.0
28	8.7	203	6.9	4.6	25	.31	6.5	52	.91
29	11	652	51	---	---	---	6.3	54	.92
30	15	380	15	---	---	---	5.9	52	.83
31	12	225	7.3	---	---	---	5.5	44	.65
TOTAL	129.2	---	87.66	196.7	---	14.27	407.9	---	565.24

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA--Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	5.7	35	.54	1.4	42	.16	1.0	61	.16
2	5.5	44	.65	1.4	51	.19	1.2	57	.18
3	5.5	58	.86	1.5	62	.25	1.5	52	.21
4	5.0	62	.84	1.5	73	.30	1.7	45	.21
5	4.5	61	.74	1.5	64	.26	1.7	39	.18
6	4.3	57	.66	1.4	33	.12	1.6	35	.15
7	4.3	50	.58	1.5	28	.11	1.6	34	.15
8	4.1	37	.41	1.5	35	.14	1.6	35	.15
9	3.9	48	.51	1.6	50	.22	1.6	37	.16
10	3.7	53	.53	1.8	63	.31	1.4	39	.15
11	3.7	56	.56	1.7	76	.35	1.4	41	.15
12	3.6	55	.53	1.7	64	.29	1.5	43	.17
13	3.6	52	.51	1.7	60	.28	1.6	43	.19
14	3.6	46	.45	1.6	41	.18	1.6	40	.17
15	3.6	40	.39	1.6	31	.13	1.6	35	.15
16	3.6	38	.37	1.4	34	.13	1.4	29	.11
17	3.7	40	.40	1.3	39	.14	1.4	26	.10
18	4.3	43	.50	1.2	50	.16	1.5	25	.10
19	3.9	46	.48	1.0	68	.18	1.3	26	.09
20	3.7	50	.50	.89	36	.09	1.4	29	.11
21	3.4	50	.46	.71	30	.06	1.5	33	.13
22	3.1	56	.47	.59	34	.05	1.5	37	.15
23	2.6	53	.37	.63	35	.06	1.4	40	.15
24	2.1	53	.30	.63	34	.06	1.3	42	.15
25	2.0	54	.29	.59	31	.05	1.3	42	.15
26	1.8	48	.23	.59	33	.05	1.4	45	.17
27	1.7	42	.19	.71	41	.08	1.4	49	.19
28	1.6	69	.30	.71	50	.10	1.2	54	.17
29	1.4	55	.21	.84	56	.13	1.1	61	.18
30	1.3	45	.16	.98	62	.16	1.1	69	.20
31	---	---	---	.98	63	.17	---	---	---
TOTAL	104.8	---	13.99	37.15	---	4.96	42.8	---	4.68
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.98	79	.21	.36	61	.06	.44	40	.05
2	1.0	91	.25	.36	56	.05	.44	40	.05
3	1.0	91	.25	.38	61	.06	.44	40	.05
4	.94	82	.21	.41	68	.08	.44	40	.05
5	.98	69	.18	.41	70	.08	.44	40	.05
6	.89	68	.16	.41	61	.07	.44	40	.05
7	.89	60	.14	.38	49	.05	.44	40	.05
8	.84	65	.15	.41	46	.05	.44	40	.05
9	.80	73	.16	.44	55	.07	.44	40	.05
10	.71	77	.15	.44	68	.08	.41	40	.04
11	.55	88	.13	.44	77	.09	.38	40	.04
12	.59	93	.15	.41	76	.08	.36	40	.04
13	.59	95	.15	.44	71	.08	.36	40	.04
14	.51	92	.13	.44	63	.07	.36	40	.04
15	.55	77	.11	.44	53	.06	.36	40	.04
16	.51	57	.08	.38	45	.05	.36	40	.04
17	.55	52	.08	.44	41	.05	.36	40	.04
18	.55	59	.09	.44	40	.05	.36	40	.04
19	.51	72	.10	.44	41	.05	.33	40	.04
20	.55	85	.13	.41	43	.05	.33	40	.04
21	.44	89	.11	.44	47	.06	.33	40	.04
22	.41	80	.09	.44	49	.06	.33	40	.04
23	.36	69	.07	.44	61	.07	.31	40	.03
24	.33	60	.05	.44	73	.09	.31	40	.03
25	.31	63	.05	.44	85	.10	.28	30	.02
26	.31	70	.06	.44	75	.09	.28	25	.02
27	.31	82	.07	.44	65	.08	.28	20	.02
28	.36	92	.09	.44	55	.07	.26	14	.0
29	.36	97	.09	.44	45	.05	.26	30	.02
30	.36	92	.09	.44	40	.05	.24	45	.03
31	.36	76	.07	.44	40	.05	---	---	---
TOTAL	18.40	---	3.85	13.12	---	2.05	10.81	---	1.14
YEAR	1142.68		709.63						

## SAN JUAN CREEK BASIN

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA--Continued

## WATER-QUALITY RECORDS

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
JAN 28...	1010	13.0	7.5	777	16	--	--	--
MAR 02...	1530	16.0	43	857	99	72	84	92
MAR 02...	1650	16.0	43	625	73	70	81	87
AUG 19...	1240	27.0	.44	112	.13	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
JAN 28...	--	--	96	97	98	100	--
MAR 02...	98	100	--	--	--	--	--
MAR 02...	93	95	95	--	97	--	100
AUG 19...	--	--	92	95	100	--	--

## 11047000 ARROYO TRABUCO NEAR SAN JUAN CAPISTRANO, CA

LOCATION.--Lat 33°31'36", long 117°40'08", in NE¼NE¼NW¼ sec.36, T.7 S., R.8 W., Orange County, Hydrologic Unit 18070301, on downstream side of center pier of Camino Capistrano Road, (formerly U.S. Highway 101), 1.8 mi (2.9 km) north of San Juan Capistrano.

DRAINAGE AREA.--35.7 mi<sup>2</sup> (92.5 km<sup>2</sup>).

PERIOD OF RECORD.--October 1929 to September 1972, October 1979 to current year. Water years 1978 and 1979 not published due to lack of data. Prior to October 1956, published as Trabuco Creek near San Juan Capistrano.

GAGE.--Water-stage recorder. Divided concrete channel with two low-flow pilot channels. Since Mar. 20, 1969, supplementary water-stage recorder at site 0.3 mile upstream at different datum.

REMARKS.--Records fair. A sand and gravel mining operation 1 mi (1.6 km) upstream possibly affects flows.

COOPERATION.--Records were furnished by Orange County Environmental Management Agency and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--44 years (water years 1931-72, 80,81), 6.20 ft<sup>3</sup>/s (0.176 m<sup>3</sup>/s), 4,490 acre-ft/yr (5.54 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 9,240 ft<sup>3</sup>/s (262 m<sup>3</sup>/s), Feb. 6, 1937, gage height unknown, no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 564 ft<sup>3</sup>/s (16.0 m<sup>3</sup>/s) Jan. 29, gage height, 1.78 ft (0.543 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	.20	.90	.10	12	53	5.2	1.4	.90	0	0	
2	1.9	0	1.3	.80	11	58	4.8	1.5	1.2	0	0	
3	2.1	0	.80	1.6	9.9	21	4.3	1.7	.90	0	0	
4	1.1	.80	4.4	2.0	9.0	14	4.5	2.1	.80	0	0	
5	.90	.60	2.7	1.2	8.5	14	4.8	2.3	.70	0	0	
6	1.5	0	2.3	1.6	8.0	15	4.8	2.5	.50	0	0	
7	2.0	.20	2.4	1.2	7.6	14	4.8	2.7	.40	0	0	
8	1.5	.40	2.7	.90	8.5	14	4.8	2.7	.50	0	0	
9	1.1	.40	2.5	.70	37	11	5.3	1.9	.50	0	0	
10	0	.80	2.2	.90	10	6.0	5.4	1.3	.50	0	0	
11	0	1.0	2.3	1.4	8.2	9.8	5.7	1.2	.50	0	.10	
12	0	.40	2.0	.80	8.0	9.6	5.9	.90	.10	0	0	
13	.10	.20	1.9	.70	7.4	8.2	6.3	.40	.40	0	0	
14	.60	.20	1.6	1.2	6.7	9.2	6.8	.40	.10	0	0	
15	.50	.20	2.1	.90	6.7	8.4	8.3	.40	0	0	0	
16	.90	0	1.9	.50	6.7	7.4	9.1	.10	0	0	0	
17	2.0	.40	2.0	1.0	6.5	7.4	9.9	0	0	0	0	
18	5.2	.60	1.5	1.4	5.6	7.0	21	.40	0	0	0	
19	5.0	0	1.5	1.6	4.9	25	5.7	.90	0	0	0	
20	5.2	.10	1.4	1.6	5.0	36	4.5	.50	.10	0	0	
21	5.6	0	1.5	1.7	1.8	11	4.1	.30	.10	.10	0	
22	3.0	.40	1.4	1.7	2.8	9.4	4.3	0	.10	.20	0	
23	1.0	.30	1.7	1.7	3.7	6.6	1.9	.10	.10	.20	0	
24	.80	.70	1.1	1.5	3.4	6.2	2.6	.60	.10	0	0	
25	.80	.60	1.6	.70	4.5	6.4	1.9	.60	.10	0	0	
26	.40	.50	1.3	.10	9.0	6.4	.70	.40	.10	0	0	
27	.40	.70	1.4	.50	7.2	6.4	1.5	.40	.10	0	0	
28	.60	.90	1.3	24	6.4	6.6	2.1	.30	.10	0	0	
29	.60	1.1	.70	92	---	6.6	.70	.30	.10	0	0	
30	.30	.80	.60	37	---	6.1	1.2	1.0	0	0	0	
31	0	---	0	14	---	5.7	---	.80	---	0	0	---
TOTAL	46.70	12.50	53.00	197.00	226.0	425.4	152.90	30.10	9.00	.50	.10	0
MEAN	1.51	.42	1.71	6.35	8.07	13.7	5.10	.97	.30	.016	.003	0
MAX	5.6	1.1	4.4	92	37	58	21	2.7	1.2	.20	.10	0
MIN	0	0	0	.10	1.8	5.7	.70	0	0	0	0	0
AC-FT	93	25	105	391	448	844	303	60	18	1.0	.2	0
CAL YR 1980	TOTAL	13246.40	MEAN	36.2	MAX	1470	MIN	0	AC-FT	26270		
WTR YR 1981	TOTAL	1153.20	MEAN	3.16	MAX	92	MIN	0	AC-FT	2290		

## SAN JUAN CREEK BASIN

11047200 OSO CREEK AT CROWN VALLEY PARKWAY, NEAR MISSION VIEJO, CA

LOCATION.--Lat 33°33'29", long 117°40'33", in SE¼ sec.14, T.7 S., R.8 W., Orange County, Hydrologic Unit 18070301, on right upstream side of Crown Valley Parkway bridge, 2.7 mi (4.3 km) south of Mission Viejo, and 4.0 mi (6.4 km) north of San Juan Capistrano.

DRAINAGE AREA.--14.0 mi<sup>2</sup> (36.3 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 250 ft (76 m), from topographic map.

REMARKS.--Records fair except those above 200 cfs (5.66 m<sup>3</sup>/s), which are poor. No regulation or diversion above station.

COOPERATION.--Records were furnished by Orange County Environmental Management Agency and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--11 years (water years 1971-81), 5.18 ft<sup>3</sup>/s (0.147 m<sup>3</sup>/s), 4,110 acre-ft/yr (5.07 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,510 ft<sup>3</sup>/s (146 m<sup>3</sup>/s) Feb. 16, 1980, gage height, 7.60 ft (2.316 m); maximum gage height, 7.67 ft (2.338 m) Feb. 11, 1973 (backwater from channel growth); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 955 ft<sup>3</sup>/s (27.0 m<sup>3</sup>/s) Mar. 1, gage height, 4.34 ft (1.323 m); minimum daily, 0.76 ft<sup>3</sup>/s (0.022 m<sup>3</sup>/s) Jan. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	2.6	3.0	2.2	9.4	126	3.9	1.1	2.3	3.5	3.7	4.6
2	3.9	2.5	3.0	2.1	7.8	131	8.1	1.2	4.3	3.7	3.2	4.5
3	4.1	2.8	2.8	2.0	6.9	3.9	3.0	1.2	3.8	3.9	3.2	3.9
4	3.7	2.6	9.1	1.9	5.5	2.9	3.9	1.1	3.3	4.2	3.4	4.2
5	3.4	2.8	5.1	1.9	4.9	59	3.7	1.1	3.0	3.9	3.9	4.2
6	3.5	2.6	2.6	1.5	4.5	3.7	3.8	1.2	2.8	3.9	3.8	3.8
7	3.8	3.0	2.3	1.1	4.2	2.8	3.7	1.4	2.6	3.9	3.8	3.9
8	3.8	3.2	3.8	.95	11	2.6	3.8	1.3	3.0	3.8	3.7	4.2
9	3.8	2.9	2.4	.86	19	2.6	4.4	1.4	2.8	3.7	3.4	3.9
10	3.7	2.9	2.2	.76	3.8	3.0	4.2	1.4	2.9	3.7	3.4	3.9
11	3.5	3.2	2.2	3.0	2.8	3.3	4.1	1.5	2.6	3.7	3.8	4.1
12	3.4	3.2	2.2	2.5	2.8	3.3	12	1.6	2.6	3.3	3.9	3.9
13	3.4	2.6	2.0	1.9	2.8	3.3	3.9	1.9	2.6	3.7	3.8	3.5
14	3.3	2.5	1.9	1.3	2.9	2.9	3.7	1.8	2.2	3.5	4.1	4.1
15	3.3	2.4	1.9	1.4	3.0	2.9	3.3	1.7	2.3	3.8	3.5	4.2
16	3.3	2.3	1.9	1.1	3.2	2.8	3.2	1.5	4.7	3.8	3.4	3.8
17	3.3	2.4	1.9	.95	3.2	2.8	3.0	1.3	2.8	3.7	3.8	3.7
18	3.2	2.4	2.1	1.8	3.2	2.9	34	2.1	2.6	3.5	3.9	3.9
19	3.2	2.5	2.2	2.4	3.2	76	8.9	2.9	2.3	3.3	4.2	3.7
20	3.3	2.4	2.3	3.0	3.5	32	3.0	1.3	2.3	3.4	4.2	3.5
21	3.2	2.5	2.1	3.8	3.8	2.3	2.5	1.0	2.2	3.4	4.1	3.9
22	3.2	2.6	2.2	3.8	3.9	2.0	2.5	1.2	2.5	2.1	4.1	3.8
23	3.2	2.5	2.4	7.2	4.1	1.7	2.6	1.2	2.6	3.0	3.7	4.1
24	2.8	2.5	2.4	8.7	3.9	1.8	2.5	1.1	3.0	3.2	3.9	3.8
25	2.8	2.8	2.0	10	3.8	1.9	2.2	1.2	2.9	3.7	4.5	3.9
26	2.8	2.5	2.0	12	28	2.2	1.9	1.4	2.8	3.3	4.2	3.8
27	2.8	3.0	2.2	15	25	2.9	1.7	1.7	3.0	3.5	4.5	3.2
28	2.8	3.3	2.2	132	3.8	3.0	1.1	1.6	3.0	3.4	4.4	3.4
29	2.9	3.4	2.1	65	---	3.0	1.0	1.8	3.0	3.5	4.5	3.5
30	2.8	3.3	2.4	22	---	3.3	.95	1.9	3.3	3.5	4.1	3.3
31	2.8	---	2.4	11	---	3.8	---	1.9	---	3.3	4.5	---
TOTAL	103.1	82.2	81.3	325.12	183.9	497.6	140.55	46.0	86.1	109.8	120.6	116.2
MEAN	3.33	2.74	2.62	10.5	6.57	16.1	4.69	1.48	2.87	3.54	3.89	3.87
MAX	4.1	3.4	9.1	132	28	131	34	2.9	4.7	4.2	4.5	4.6
MIN	2.8	2.3	1.9	.76	2.8	1.7	.95	1.0	2.2	2.1	3.2	3.2
AC-FT	204	163	161	645	365	987	279	91	171	218	239	230
CAL YR 1980	TOTAL	7017.70	MEAN	19.2	MAX	725	MIN	1.3	AC-FT	13420		
WTR YR 1981	TOTAL	1892.47	MEAN	5.18	MAX	132	MIN	.76	AC-FT	3750		



11048500 SAN DIEGO CREEK AT SAND CANYON AVENUE, NEAR IRVINE, CA

LOCATION.--Lat 33°39'50", long 117°46'16", in San Joaquin Grant, Orange County, Hydrologic Unit 18070204, on downstream side of Sand Canyon Avenue bridge, 1.0 mi (1.6 km) southwest of East Irvine, and 2.8 mi (4.5 km) east of Irvine.

DRAINAGE AREA.--40.5 mi<sup>2</sup> (104.9 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1976 published as "near Irvine".

GAGE.--Water-stage recorder. Altitude of gage is 140 ft (42.7 m), from topographic map. Prior to Oct. 1, 1976, at site 1.0 mi (1.6 km) downstream at different datum.

REMARKS.--Records good. Sewage inflow and irrigation runoff cause low-flow fluctuations in discharge.

AVERAGE DISCHARGE.--32 years, 5.84 ft<sup>3</sup>/s (0.165 m<sup>3</sup>/s), 4,230 acre-ft/yr (5.22 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,720 ft<sup>3</sup>/s (219 m<sup>3</sup>/s) Feb. 16, 1980, gage height, 21.17 ft (6.453 m), from rating curve extended above 605 ft<sup>3</sup>/s (17.1 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 19.55 ft (5.959 m); no flow for long periods in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft<sup>3</sup>/s (42.5 m<sup>3</sup>/s) and maximum (\*), from rating curve extended as explained above:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 29	1600	*3,470 98.3	17.01 5.185
Mar. 1	1030	2,450 69.4	15.93 4.855

Minimum daily discharge, no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MFAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	7.5	11	1.7	1.0	324	1.3	2.7	3.7	1.9	.81	1.9
2	6.3	8.9	11	1.3	0	122	3.7	2.7	3.7	1.9	.83	1.5
3	8.4	6.7	10	.80	0	3.0	1.9	3.2	2.4	1.2	.83	1.3
4	6.3	6.3	46	.80	0	2.3	1.7	2.7	4.4	1.5	.84	1.9
5	7.1	7.1	28	.80	0	102	1.7	2.7	3.2	1.3	.88	1.5
6	5.6	6.3	8.4	.70	1.3	11	.88	2.7	2.4	1.3	.88	1.9
7	6.7	6.3	8.9	.80	1.4	5.4	1.7	3.2	1.9	.90	.84	1.9
8	3.7	6.0	10	.90	14	0	2.1	3.2	1.5	.84	.83	1.9
9	6.0	6.0	8.9	1.0	70	0	1.9	3.2	1.9	.84	.86	2.4
10	6.3	5.6	10	.80	4.7	3.0	1.3	3.2	2.1	.86	.88	2.4
11	5.0	5.0	11	4.2	1.8	5.4	1.0	3.2	1.3	.83	.90	3.2
12	5.3	6.3	9.4	.90	0	7.0	2.1	3.2	1.3	.86	1.0	2.7
13	6.7	4.4	9.4	.90	0	3.4	1.9	3.2	2.1	.81	.88	2.4
14	6.3	4.4	9.4	.80	0	1.8	2.4	3.2	2.1	.77	.90	2.4
15	6.7	6.7	9.4	.80	0	3.4	1.5	4.4	1.9	.79	1.2	2.4
16	6.7	6.7	9.4	.80	1.6	3.4	1.9	3.7	2.4	.79	1.3	3.7
17	6.7	8.4	6.0	.90	3.3	4.5	2.7	3.7	3.2	.75	1.2	1.9
18	6.7	8.9	5.0	.80	2.8	5.4	5.0	2.1	2.4	.79	1.2	2.1
19	7.1	8.4	5.0	.80	4.3	64	2.1	5.0	2.4	.75	1.0	1.9
20	6.7	8.9	4.7	.80	5.4	18	.81	4.7	2.4	.77	1.0	1.9
21	6.3	9.4	3.7	.80	4.7	3.2	.90	5.0	2.1	.75	1.0	1.9
22	6.7	8.4	3.7	.80	4.0	.90	.90	5.3	2.1	.75	.88	1.5
23	6.7	8.0	3.2	.70	4.7	1.3	1.2	3.7	2.4	.77	1.7	1.2
24	6.0	7.1	2.1	.80	4.7	1.7	1.9	3.2	3.7	.81	1.7	1.0
25	6.3	8.0	1.5	.79	21	1.7	1.5	2.7	2.4	.68	1.0	.86
26	7.1	9.4	1.5	.79	15	1.5	1.5	2.7	2.4	.69	1.5	.84
27	6.7	8.0	1.7	.79	5.0	2.1	1.7	2.7	2.7	.73	1.5	.86
28	5.3	10	1.7	209	4.7	.79	1.9	3.7	2.7	.75	1.9	.88
29	6.3	8.9	1.7	345	---	1.5	2.4	3.7	2.4	.79	1.5	.73
30	6.7	8.9	1.0	12	---	1.2	2.1	2.1	2.4	.71	1.3	.73
31	7.1	---	1.2	2.3	---	1.7	---	3.2	---	.84	2.1	---
TOTAL	197.8	220.9	253.9	595.07	175.4	706.59	55.59	103.9	74.0	28.72	35.14	53.70
MEAN	6.38	7.36	8.19	19.2	6.26	22.8	1.85	3.35	2.47	.93	1.13	1.79
MAX	8.4	10	46	345	70	324	5.0	5.3	4.4	1.9	2.1	3.7
MIN	3.7	4.4	1.0	.70	0	0	.81	2.1	1.3	.68	.81	.73
AC-FT	392	438	504	1180	348	1400	110	206	147	57	70	107
CAL YR 1980	TOTAL	12753.83	MEAN	34.8	MAX	1490	MIN	.83	AC-FT	25300		
WTR YR 1981	TOTAL	2500.71	MEAN	6.85	MAX	345	MIN	0	AC-FT	4960		

WATER-QUALITY RECORDS

WATER TEMPERATURES: June 1972 to current year.  
SEDIMENT RECORDS: June 1972 to current year.

SEDIMENT DISCHARGE: Maximum daily, 246,000 tons (223,000 metric tons) Feb. 16, 1980; minimum daily, 0 tons on several days most years.

SEDIMENT DISCHARGE: Maximum daily, 5,890 tons (5,340 metric tons) Mar. 1; minimum daily, 0 tons Feb. 2-6, Mar. 8, 9.

[illegible]

## SAN DIEGO CREEK BASIN

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11048500 SAN DIEGO CREEK AT SAND CANYON AVENUE, NEAR IRVINE, CA--Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	6.3	850	14	7.5	280	5.7	11	350	10
2	6.3	1500	26	8.9	375	9.0	11	280	8.3
3	4.4	695	16	6.7	500	9.0	10	375	10
4	6.3	450	7.7	6.3	750	13	46	1670	207
5	7.1	430	8.2	7.1	1280	25	28	2580	195
6	5.6	425	6.4	6.3	1400	24	8.4	1800	41
7	6.7	400	7.2	6.3	1000	17	8.9	1100	26
8	3.7	450	4.5	6.0	950	15	10	500	13
9	6.0	450	14	6.0	925	15	8.9	400	9.6
10	6.3	500	8.5	5.6	940	14	10	325	8.8
11	5.0	160	2.2	5.0	975	13	11	360	11
12	5.3	150	2.1	6.3	980	17	9.4	425	11
13	6.7	270	4.9	4.4	660	7.8	9.4	400	10
14	6.3	375	0.4	4.4	650	7.7	9.4	350	8.9
15	6.7	210	3.8	6.7	925	17	9.4	275	7.0
16	6.7	270	4.9	6.7	1090	20	9.4	225	5.7
17	6.7	425	7.7	8.4	1260	29	6.0	140	2.3
18	6.7	440	8.0	8.9	1550	37	5.0	120	1.6
19	7.1	380	7.3	8.4	1130	26	5.0	175	2.4
20	6.7	300	5.4	8.9	990	24	4.7	250	3.2
21	6.3	175	3.0	9.4	975	25	3.7	260	2.6
22	6.7	250	4.7	8.4	900	20	3.7	340	3.4
23	6.7	275	5.0	8.0	780	17	3.2	750	6.5
24	6.0	225	3.5	7.1	775	15	2.1	550	3.1
25	6.3	275	4.7	8.0	1000	22	1.5	290	1.2
26	7.1	375	7.2	9.4	580	15	1.5	275	1.1
27	6.7	450	8.1	8.0	270	4.8	1.7	650	3.0
28	5.3	820	12	10	360	9.7	1.7	975	4.5
29	6.3	1050	18	8.9	550	13	1.7	1200	5.5
30	6.7	725	13	8.9	500	12	1.0	1150	3.1
31	7.1	375	7.2	---	---	---	1.2	700	2.3
TOTAL	197.8	---	251.7	220.9	---	498.7	253.9	---	628.1
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.7	740	3.4	1.0	450	1.2	324	6730	5890
2	1.3	560	2.0	0	0	0	122	4000	1320
3	.80	325	.70	0	0	0	3.0	125	1.0
4	.80	340	.84	0	0	0	2.3	75	.47
5	.80	560	1.2	0	0	0	102	3290	906
6	.70	150	.28	1.3	0	0	11	250	7.4
7	.80	150	.32	1.4	275	1.0	5.4	125	1.8
8	.90	940	2.3	14	720	27	0	0	0
9	1.0	620	1.7	70	2640	499	0	0	0
10	.80	125	.27	4.7	250	3.2	3.0	40	.32
11	4.2	1300	15	1.8	75	.36	5.4	50	.73
12	.90	750	1.8	0	0	0	7.0	40	.76
13	.90	700	1.7	0	0	0	3.4	20	.18
14	.80	540	1.2	0	0	0	1.8	5	.02
15	.80	190	.41	0	0	0	3.4	10	.09
16	.80	160	.35	1.6	50	.22	3.4	45	.41
17	.90	425	1.0	3.3	60	.53	4.5	75	.91
18	.80	650	1.4	2.8	50	.38	5.4	45	.66
19	.80	750	1.6	4.3	200	2.3	64	1610	278
20	.80	625	1.4	5.4	25	.36	18	989	48
21	.80	540	1.2	4.7	35	.44	3.2	250	2.2
22	.80	850	1.8	4.0	40	.43	.90	95	.23
23	.70	1100	2.1	4.7	50	.63	1.3	89	.31
24	.80	1100	2.4	4.7	50	.63	1.7	77	.35
25	.79	950	2.0	21	625	35	1.7	80	.37
26	.79	775	1.7	15	750	30	1.5	60	.24
27	.79	600	1.3	5.0	175	2.4	2.1	100	.57
28	209	5240	2900	4.7	180	2.3	.79	120	.26
29	345	4630	4310	---	---	---	1.5	50	.20
30	12	800	26	---	---	---	1.2	25	.08
31	2.3	625	3.9	---	---	---	1.7	15	.07
TOTAL	595.07	---	7351.27	175.40	---	607.38	706.59	---	8461.63

11048500 SAN DIEGO CREEK AT SAND CANYON AVENUE, NEAR IRVINE, CA--Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY) • WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

APRIL				MAY				JUNE			
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)		
1	1.3	12	.04	2.7	1200	8.7	3.7	2000	20		
2	3.7	350	3.5	2.7	1050	7.7	3.7	2200	22		
3	1.9	18	.09	3.2	940	8.1	2.4	2300	15		
4	1.7	15	.07	2.7	920	6.7	4.4	2300	27		
5	1.7	12	.06	2.7	700	5.1	3.2	2440	21		
6	.88	30	.07	2.7	700	5.1	2.4	2400	16		
7	1.7	290	1.3	3.2	1200	10	1.9	2350	12		
8	2.1	1700	9.6	3.2	1150	9.9	1.5	2300	9.3		
9	1.9	5000	25	3.2	1100	9.5	1.9	2250	12		
10	1.3	3100	12	3.2	1100	9.5	2.1	2200	12		
11	1.0	2200	5.9	3.2	1000	8.6	1.3	2150	7.5		
12	2.1	2950	12	3.2	500	4.3	1.3	2080	7.3		
13	1.9	2450	13	3.2	50	.43	2.1	1880	11		
14	2.4	4300	24	3.2	150	1.3	2.1	1730	9.8		
15	1.5	2150	8.7	4.4	300	3.6	1.9	1300	6.7		
16	1.9	580	3.0	3.7	330	3.3	2.4	900	5.8		
17	2.7	200	1.5	3.7	280	2.8	3.2	600	5.2		
18	5.0	350	4.7	2.1	425	2.4	2.4	550	3.6		
19	2.1	475	2.7	5.0	1300	18	2.4	600	3.9		
20	.81	300	.66	4.7	2000	25	2.4	750	4.9		
21	.90	890	1.9	5.0	1800	24	2.1	875	5.0		
22	.90	400	1.9	5.3	1600	23	2.1	950	5.4		
23	1.2	290	.94	3.7	1400	14	2.4	400	2.6		
24	1.9	100	.51	3.2	1200	10	3.7	200	2.0		
25	1.5	280	1.1	2.7	1000	7.3	2.4	275	1.8		
26	1.5	200	.81	2.7	800	5.8	2.4	450	2.9		
27	1.7	400	1.8	2.7	1000	7.3	2.7	700	5.1		
28	1.9	1600	8.2	3.7	1200	12	2.7	950	6.9		
29	2.4	1800	10	3.7	1400	14	2.4	1150	7.5		
30	2.1	1400	7.9	2.1	1600	9.1	2.4	1230	8.0		
31	---	---	---	3.2	1800	16	---	---	---		
TOTAL	55.54	---	167.95	103.9	---	292.53	74.0	---	279.2		
JULY				AUGUST				SEPTEMBER			
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)		
1	1.9	1250	6.4	.81	80	.17	1.9	275	1.4		
2	1.9	1150	5.9	.83	100	.22	1.5	325	1.3		
3	1.2	800	2.6	.83	150	.34	1.3	400	1.4		
4	1.5	450	1.8	.84	125	.28	1.9	450	2.3		
5	1.3	250	.88	.88	150	.36	1.5	475	1.9		
6	1.3	175	.61	.88	200	.48	1.9	425	2.2		
7	.90	180	.44	.84	375	.85	1.9	375	1.9		
8	.84	200	.45	.83	425	.95	1.9	200	1.0		
9	.84	250	.57	.86	475	1.1	2.4	150	.97		
10	.86	300	.70	.88	450	1.1	2.4	125	.81		
11	.83	325	.73	.90	400	.97	3.2	150	1.3		
12	.86	300	.70	1.0	325	.88	2.7	100	.73		
13	.81	200	.44	.88	275	.65	2.4	80	.52		
14	.77	50	.10	.90	200	.49	2.4	75	.49		
15	.79	80	.17	1.2	150	.49	2.4	125	.81		
16	.79	200	.43	1.3	130	.46	3.7	200	2.0		
17	.75	300	.41	1.2	130	.42	1.9	250	1.3		
18	.79	300	.64	1.2	125	.41	2.1	250	1.4		
19	.75	250	.51	1.0	100	.27	1.9	250	1.3		
20	.77	150	.33	1.0	100	.27	1.9	250	1.3		
21	.75	140	.28	1.0	90	.24	1.9	300	1.5		
22	.75	160	.32	.88	60	.14	1.5	200	.81		
23	.77	220	.45	1.7	50	.23	1.2	80	.26		
24	.81	250	.55	1.7	60	.28	1.0	50	.14		
25	.68	250	.46	1.0	90	.24	.86	100	.23		
26	.69	250	.47	1.5	100	.41	.84	150	.34		
27	.73	250	.49	1.5	125	.51	.86	200	.46		
28	.75	250	.51	1.9	130	.67	.88	237	.56		
29	.79	200	.43	1.5	130	.53	.73	240	.47		
30	.71	125	.24	1.3	150	.53	.73	240	.47		
31	.84	75	.17	2.1	200	1.1	---	---	---		
TOTAL	28.72	---	24.39	35.14	---	16.04	53.70	---	31.57		
YEAR	2500.71		18615.46								

11048500 SAN DIEGO CREEK AT SAND CANYON AVENUE, NEAR IRVINE, CA--Continued

## WATER-QUALITY RECORDS

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1980	197.80	251.70	455	707
NOVEMBER ...	220.90	498.70	576	1080
DECEMBER ...	253.90	628.10	1020	1650
JANUARY 1981	595.07	7351.27	6780	14100
FEBRUARY ...	175.40	607.38	947	1550
MARCH .....	706.59	8461.63	7100	15600
APRIL .....	55.59	167.95	55	223
MAY .....	103.90	292.53	153	446
JUNE .....	74.00	279.20	88	367
JULY .....	28.72	29.39	7	36
AUGUST .....	35.14	16.04	17	33
SEPTEMBER ..	53.70	31.57	50	82
TOTAL .....	2500.71	18615.46	17248	35874

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT 07...	1540	26.0	7.2	346	6.7	--	--	--
NOV 24...	1410	18.0	817	879	1940	37	44	49
26...	1530	13.0	14	420	16	43	48	53
JAN 28...	1130	16.0	577	15300	23800	--	22	23
FEB 09...	1500	15.5	14	879	33	45	50	54
MAR 02...	1550	16.0	129	3550	1240	--	28	32
20...	1330	23.0	8.1	638	14	60	69	75
DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT 07...	--	--	44	53	86	100	--	--
NOV 24...	52	55	56	60	70	91	99	100
26...	58	64	70	83	97	100	--	--
JAN 28...	28	34	40	50	69	94	98	99
FEB 09...	58	62	66	78	95	--	100	--
MAR 02...	36	39	44	66	79	95	99	100
20...	79	83	86	93	99	100	--	--

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
SEP 28...	1100	21.5	3	5	8	20	54	87	98	100

## SAN DIEGO CREEK BASIN

11048500 SAN DIEGO CREEK AT SAND CANYON AVENUE, NEAR IRVINE, CA--Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4.0	300	3.2	4.0	150	1.6	10	150	4.1
2	3.5	240	2.7	4.0	140	1.5	8.7	150	3.5
3	4.4	280	3.3	5.4	130	1.9	7.0	150	2.8
4	5.2	270	3.8	6.7	306	10	11	160	4.8
5	6.4	270	4.7	4.1	200	2.2	8.7	160	3.8
6	6.8	260	4.8	5.5	190	2.8	9.3	160	4.0
7	6.2	260	4.4	15	818	87	8.7	160	3.8
8	6.2	250	4.2	20	1240	117	9.3	160	4.0
9	5.6	250	3.8	14	250	9.8	6.1	160	2.6
10	5.6	240	3.6	9.4	260	6.6	5.6	160	2.4
11	5.4	230	3.4	11	225	6.7	5.4	170	2.5
12	5.6	210	3.2	7.1	165	3.2	5.2	170	2.4
13	5.6	200	3.0	7.1	92	1.8	5.0	170	2.3
14	5.6	200	3.0	4.8	57	.74	4.8	170	2.2
15	4.7	200	2.5	6.5	52	.91	4.6	170	2.1
16	4.8	200	2.6	2.9	51	.40	4.4	170	2.0
17	5.1	200	2.8	5.2	59	.83	4.2	170	1.9
18	4.9	200	2.6	7.0	70	1.3	4.0	180	1.9
19	5.1	200	2.5	4.3	79	2.0	4.0	180	1.9
20	25	1350	222	8.7	88	2.1	9.0	180	4.4
21	4.4	110	1.3	10	97	2.6	19	180	9.2
22	4.1	117	1.3	14	108	4.1	15	180	7.3
23	4.1	122	1.4	11	120	3.6	11	180	5.3
24	4.7	150	1.9	13	128	4.5	13	180	6.3
25	4.7	160	2.0	8.7	138	3.2	13	190	6.7
26	5.2	150	2.1	9.3	150	3.8	11	190	5.6
27	4.0	150	1.6	8.1	150	3.3	10	190	5.1
28	4.1	150	1.7	10	150	4.1	9.3	190	4.8
29	4.3	150	1.7	11	150	4.5	8.8	190	4.5
30	4.1	150	1.7	11	150	4.5	8.4	190	4.3
31	4.6	150	1.9	---	---	---	8.8	200	4.8
TOTAL	174.1	---	305.0	263.8	---	298.58	262.3	---	123.3
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7.5	200	4.1	11	650	19	7.8	400	8.4
2	7.3	200	3.9	10	635	17	283	4020	9120
3	7.0	200	3.8	9.6	620	16	37	1400	140
4	6.7	200	3.6	9.0	605	15	10	1200	32
5	6.4	200	3.5	8.5	590	14	13	1000	35
6	6.2	200	3.3	8.0	575	12	200	700	378
7	12	675	46	7.6	560	11	50	500	67
8	24	1470	165	7.2	545	11	10	450	12
9	559	8470	24900	6.9	530	9.9	7.0	430	8.1
10	20	1050	100	6.7	515	9.3	5.4	410	6.0
11	816	7870	35400	6.5	500	8.3	4.5	400	4.9
12	50	2920	637	6.4	500	8.6	4.0	400	4.3
13	12	600	19	1110	9760	76300	3.7	390	3.9
14	11	600	18	600	6110	27900	3.4	390	3.6
15	13	760	51	382	6820	9980	3.3	370	3.3
16	5.8	140	2.2	1490	10900	105000	3.2	370	3.2
17	6.6	135	2.4	983	12000	60200	3.1	360	3.0
18	13	918	40	909	12100	51300	3.0	360	2.9
19	9.1	460	11	232	7520	5370	15	360	15
20	9.6	450	12	614	12700	33800	11	360	11
21	5.3	450	6.4	66	4310	2460	10	360	9.7
22	5.7	440	6.8	6.6	1400	25	10	360	9.7
23	5.6	430	6.5	5.6	1200	18	10	360	9.7
24	7.4	430	8.6	5.4	1000	15	10	360	9.7
25	6.9	420	7.8	5.2	650	9.1	25	360	24
26	7.3	410	8.1	5.2	510	7.2	19	1050	54
27	7.1	400	7.7	5.5	445	6.6	14	850	32
28	1080	7190	52800	5.8	419	6.6	12	540	17
29	921	9530	50300	5.8	405	6.3	14	425	16
30	32	1600	145	---	---	---	13	435	15
31	25	1620	168	---	---	---	13	475	17
TOTAL	3705.6	---	164890.7	6528.5	---	372555.4	827.4	---	10075.4

11048500 SAN DIEGO CREEK AT SAND CANYON AVENUE, NEAR IRVINE, CA--Continued

## WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

APRIL					MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	13	540	19	11	460	14	3.3	350	3.1	
2	14	600	23	10	460	12	2.0	350	1.9	
3	14	600	23	9.8	460	12	2.0	330	1.8	
4	13	600	21	9.2	460	11	3.1	330	2.8	
5	14	600	23	8.4	460	10	2.6	310	2.2	
6	11	900	27	8.9	460	11	4.1	750	8.3	
7	13	700	25	8.4	460	10	2.8	1150	8.7	
8	11	600	18	8.9	460	11	3.6	1250	12	
9	13	590	21	7.8	460	9.7	3.9	1220	13	
10	12	590	19	11	400	27	2.5	1180	8.0	
11	12	570	18	4.1	800	8.9	2.3	1150	7.1	
12	13	570	20	6.9	700	13	1.5	1130	4.6	
13	10	550	15	6.9	600	11	3.1	1100	9.2	
14	13	550	19	7.5	600	12	3.3	1050	9.4	
15	12	530	17	7.2	600	12	1.1	1000	3.0	
16	10	530	14	8.4	600	14	1.1	950	2.8	
17	11	510	15	6.9	550	10	4.3	940	2.1	
18	11	510	15	7.8	550	12	1.3	925	3.2	
19	11	490	15	6.6	550	9.4	2.6	900	6.3	
20	10	490	13	6.6	550	9.8	1.3	825	2.9	
21	10	470	13	6.6	550	9.8	1.5	650	2.6	
22	10	470	13	7.2	500	9.7	1.3	550	1.9	
23	13	460	16	5.8	500	7.8	1.5	525	2.1	
24	12	460	15	5.8	500	7.8	2.6	930	6.5	
25	11	460	14	6.6	450	8.0	2.0	655	3.5	
26	11	460	14	6.1	450	7.4	1.5	540	2.2	
27	11	460	14	4.4	450	5.3	2.6	590	4.1	
28	12	460	15	3.1	450	3.8	1.8	680	3.3	
29	9.5	460	12	4.1	400	4.4	3.3	725	6.5	
30	10	460	12	3.9	400	4.2	3.6	550	5.3	
31	---	---	---	3.1	400	3.3	---	---	---	
TOTAL	350.5	---	518	219.0	---	311.7	70.03	---	150.4	
JULY					AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	2.0	440	2.4	6.9	725	14	3.9	230	2.4	
2	2.3	775	4.8	6.6	750	13	1.3	225	7.9	
3	2.3	710	4.4	7.2	575	11	2.0	600	3.2	
4	1.8	150	7.3	5.8	550	8.6	3.3	820	7.3	
5	1.1	430	1.3	5.5	640	9.5	3.1	580	4.9	
6	1.8	890	4.3	4.4	460	5.5	2.3	360	2.2	
7	1.3	1030	3.6	3.9	280	2.9	3.9	375	3.9	
8	1.3	1130	4.0	3.3	195	1.7	2.6	740	5.2	
9	2.3	1100	6.8	2.3	300	1.9	3.1	1180	9.9	
10	1.8	950	4.6	2.8	550	4.2	3.6	1280	12	
11	2.6	1230	8.6	3.0	690	5.6	4.4	1200	14	
12	2.8	1180	8.9	1.8	495	2.4	3.3	1160	10	
13	3.3	560	5.0	2.8	460	3.5	4.4	870	10	
14	3.6	280	2.7	2.6	220	1.5	5.0	780	11	
15	4.7	480	6.1	2.3	230	1.4	3.9	570	6.0	
16	4.7	580	7.4	2.3	425	2.6	5.0	675	9.1	
17	4.4	550	6.5	2.3	565	3.5	4.4	425	5.0	
18	4.7	620	7.9	3.3	500	4.5	4.1	200	2.2	
19	5.2	400	5.6	2.0	350	1.9	5.5	200	3.0	
20	5.0	525	7.1	2.3	425	2.6	5.8	250	3.9	
21	5.0	490	6.6	2.8	475	3.6	5.5	300	4.5	
22	5.2	310	4.4	2.6	380	2.7	5.8	325	5.1	
23	5.5	850	13	3.1	250	2.1	6.1	280	4.6	
24	6.9	1170	22	2.6	225	1.6	5.8	340	5.3	
25	6.6	1240	22	2.6	360	2.5	5.8	350	5.5	
26	7.2	650	13	3.9	580	6.1	6.1	200	3.3	
27	8.9	260	6.2	2.8	350	2.6	5.8	125	2.0	
28	9.2	310	7.7	2.3	610	3.8	5.5	260	3.9	
29	10	1660	45	3.1	615	5.1	6.1	375	6.2	
30	9.2	1650	41	3.1	410	3.4	6.1	375	6.2	
31	8.6	675	16	3.1	280	2.3	---	---	---	
TOTAL	141.3	---	299.63	105.4	---	137.6	133.5	---	172.59	
YEAR 12781.43			547834.3							

## SAN DIEGO CREEK BASIN

11048500 SAN DIEGO CREEK AT SAND CANYON AVENUE, NEAR IRVINE, CA--Continued

## WATER-QUALITY RECORDS

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, IN- STANTANEOUS (CFS)	SEDIM- ENT, SUS- PENDED (MG/L)	SEDIM- ENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
OCT										
04...	1025	24.0	7.5	179	3.6	--	--	--	--	--
23...	0910	14.5	5.1	118	1.6	--	--	--	--	--
NOV										
13...	0950	12.0	11	61	1.8	--	--	--	--	--
26...	1050	--	12	146	3.5	--	--	--	--	--
DEC										
31...	0935	11.0	8.8	200	4.8	--	--	--	--	--
JAN										
08...	1115	14.0	45	2640	321	--	19	22	25	28
09...	1130	14.0	2260	18600	7280	--	--	--	--	--
09...	1445	--	510	8080	19600	--	28	30	36	43
09...	1530	14.0	312	5280	6700	--	40	41	50	58
10...	1455	16.0	8.7	446	10	--	--	--	--	--
11...	1030	15.0	2000	11500	62100	--	21	22	28	35
11...	1100	16.0	1260	10200	25100	--	24	25	32	39
11...	1225	17.0	324	6900	6040	--	30	30	39	47
15...	1450	19.0	5.0	192	2.6	--	--	--	--	--
17...	1117	16.0	5.3	105	1.5	--	--	--	--	--
30...	1430	--	19	924	47	--	--	--	--	--
31...	1415	20.0	13	925	32	37	42	44	48	52
FEB										
21...	1415	--	8.5	3730	86	--	--	--	--	--
25...	1430	22.0	4.4	651	7.7	--	--	--	--	--
MAR										
03...	1715	17.0	37	2700	273	--	--	--	--	--
18...	1450	17.0	2.6	358	2.5	--	--	--	--	--
26...	1030	19.0	16	1080	47	--	--	--	--	--
27...	1300	--	20	874	47	--	--	--	--	--
APR										
23...	1255	16.0	10	459	13	50	55	62	69	77
JUL										
29...	1455	35.0	11	2060	65	--	--	--	--	--
SEP										
24...	1640	28.0	5.9	473	7.5	--	--	--	--	--
29...	1645	26.0	6.9	364	6.8	--	--	--	--	--

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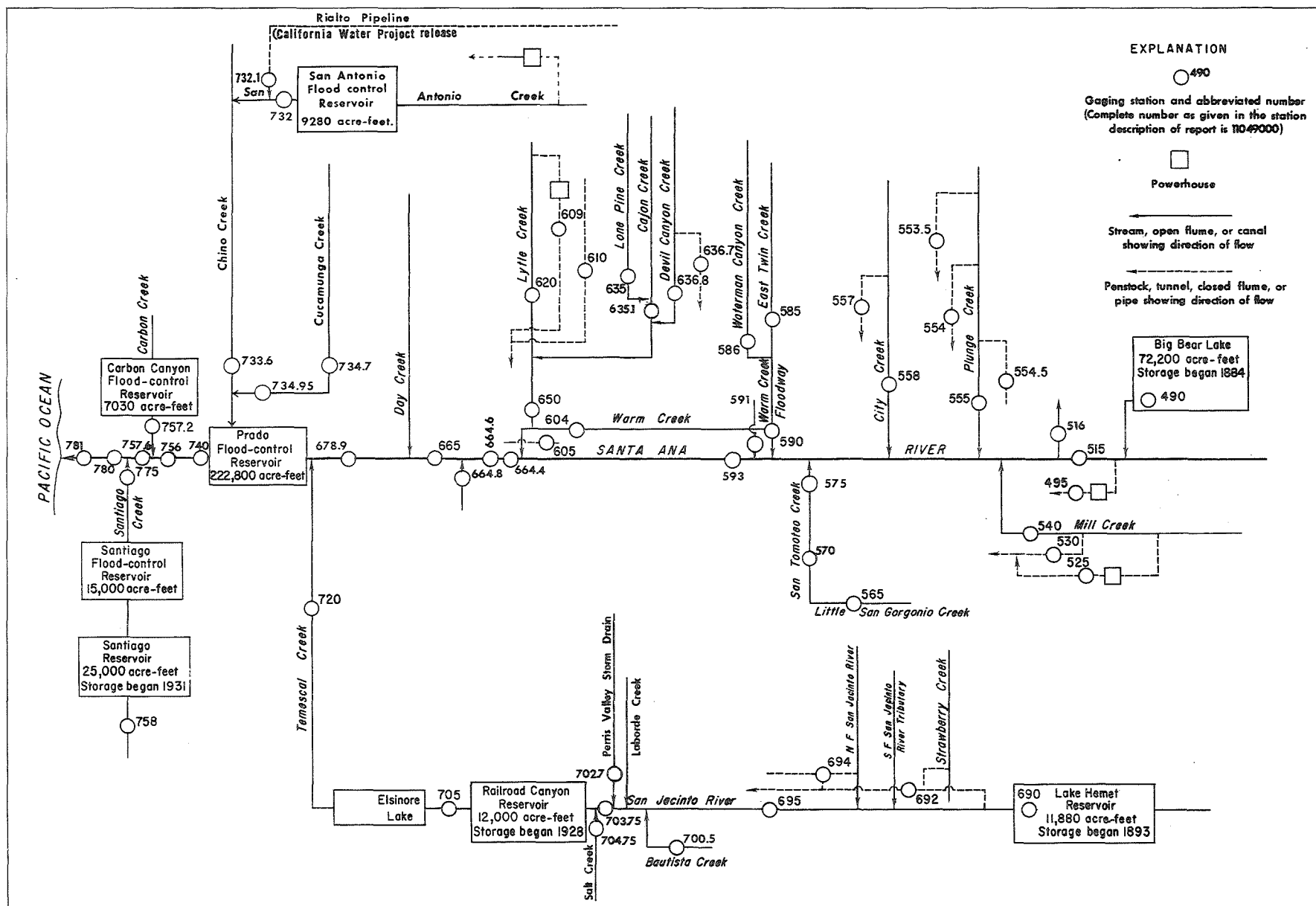


Figure 5.-- Schematic diagram showing diversions and storage in Santa Ana River basin.

## SANTA ANA RIVER BASIN

11049000 BIG BEAR LAKE NEAR BIG BEAR LAKE, CA

LOCATION.--Lat 34°14'33", long 116°58'33", in SW¼ sec.22, T.2 N., R.1 W., San Bernardino County, Hydrologic Unit 18070203, at Big Bear Lake Dam on Bear Creek, 4 mi (6 km) west of town of Big Bear Lake, and 7.5 mi (12.1 km) upstream from mouth.

DRAINAGE AREA.--72.2 mi<sup>2</sup> (187.0 km<sup>2</sup>), including Baldwin Lake drainage.

PERIOD OF RECORD.--October 1950 to current year in reports of Geological Survey. February 1884 to September 1950 in files of Bear Valley Mutual Water Co.

GAGE.--Nonrecording gage. Datum of gage is 6,670.9 ft (2,033.29 m) National Geodetic Vertical Datum of 1929 (levels by Bear Valley Mutual Water Co.). Prior to 1912 at old dam 200 ft (61 m) upstream at same datum; spillway at gage height 52.4 ft (15.97 m).

REMARKS.--Lake is formed by multiple-arch concrete dam, completed in 1912, replacing existing lower dam built in 1884; storage began in spring of 1884. Capacity (based on July 1977 resurvey, new capacity table put into use August, 1977) 73,320 acre-ft (90.4 hm<sup>3</sup>) at elevation 6,743.3 ft (2,055.36 m), top of dam. No dead storage. Water used for irrigation only. See schematic diagram of Santa Ana River basin.

COOPERATION.--Record of contents were furnished by Big Bear Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents unknown, lake spilled in 1916, 1917, 1922, 1923, 1938, 1939, 1969, 1970; lake dry October, November 1898, August to November 1899, October, November 1904.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 66,544 acre-ft (82.0 hm<sup>3</sup>) Apr. 30; minimum contents observed, 57,490 acre-ft (70.9 hm<sup>3</sup>) Sept. 30.

## MONTHEND CONTENTS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	66,650	--
Oct. 31.....	64,650	-2,000
Nov. 30.....	63,700	-950
Dec. 31.....	63,470	-230
CAL YR 1980.....	--	-470
Jan. 31.....	63,700	+230
Feb. 28.....	64,650	+950
Mar. 31.....	66,100	+1,450
Apr. 30.....	66,500	+400
May 31.....	65,120	-1,380
June 30.....	63,700	-1,420
July 31.....	61,140	-2,560
Aug. 31.....	59,300	-1,840
Sept. 30.....	57,500	-1,800
WTR YR 1981.....	--	-9,150

## 11051500 SANTA ANA RIVER NEAR MENTONE, CA

LOCATION.--Lat 34°06'30", long 117°05'59", in NE¼SW¼ sec.4, T.1 S., R.2 W., San Bernardino County, Hydrologic Unit 18070203, on right bank at spreading ground diversion near mouth of canyon, 1.6 mi (2.6 km) upstream from Mill Creek, 3.2 mi (5.1 km) northeast of Mentone, and 16 mi (26 km) downstream from Big Bear Lake.

DRAINAGE AREA.--210 mi<sup>2</sup> (544 km<sup>2</sup>), including area tributary to Baldwin Lake at head of Bear Valley.

PERIOD OF RECORD.--July 1896 to current year. Prior to October 1914, records for river only not equivalent owing to Greenspot pipeline diversion between sites and exclusion of discharge from Warm Springs Canyon.

Monthly discharge only for January 1910, January and February 1916 published in WSP 1315-B.

GAGE.--Three water-stage recorders. Main gage on right bank of river, canal gage on powerhouse diversion, and since 1970 supplementary gage on left bank of river. Altitude of main and supplementary gages is 1,950 ft (594 m), from topographic map. Prior to Sept. 2, 1917, nonrecording gages at several sites within 1.5 mi (2.4 km) upstream at various datums. Sept. 3, 1917, to May 27, 1969, water-stage recorder at site 0.2 mi (0.3 km) upstream at different datum. Canal gage at different datum.

REMARKS.--Records fair. Flow partly regulated by Big Bear Lake (station 11049000) 16 mi (26 km) upstream.

For records of combined discharge of Santa Ana River and Southern California Edison Co.'s canal below powerplant No. 2, which diverts above station, see following page. Prior to Oct. 1, 1952, and since Apr. 26, 1976, Bear Valley Mutual Water Co. pumps water into channel above canal gage. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--River only: 67 years (water years 1915-81), 36.5 ft<sup>3</sup>/s (1.034 m<sup>3</sup>/s), 26,440 acre-ft/yr (32.6 hm<sup>3</sup>/yr).

Combined river and canal: 85 years, 83.4 ft<sup>3</sup>/s (2.362 m<sup>3</sup>/s), 60,420 acre-ft/yr (74.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 52,300 ft<sup>3</sup>/s (1,480 m<sup>3</sup>/s) Mar. 2, 1938, gage height, 14.3 ft (4.36 m), site and datum then in use, on basis of slope-area measurement of maximum flow; no flow at times in some years.

Combined river and canal: Maximum discharge, 52,300 ft<sup>3</sup>/s (1,480 m<sup>3</sup>/s) Mar. 2, 1938; minimum daily, 7.4 ft<sup>3</sup>/s (0.21 m<sup>3</sup>/s) Sept. 21, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Combined river and canal: Flood of Feb. 23, 1891, 53,700 ft<sup>3</sup>/s (1,520 m<sup>3</sup>/s), from notes furnished by F. C. Finkle, consulting engineer, Los Angeles.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 230 ft<sup>3</sup>/s (6.51 m<sup>3</sup>/s) Jan. 29, gage height, 4.92 ft (1.50 m); minimum daily, 0.36 ft<sup>3</sup>/s (0.010 m<sup>3</sup>/s) Sept. 8-12.

Combined river and canal: Maximum discharge, 270 ft<sup>3</sup>/s (7.65 m<sup>3</sup>/s) Jan. 29; minimum daily, 28 ft<sup>3</sup>/s (0.793 m<sup>3</sup>/s) Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	24	9.8	10	18	39	9.2	6.6	4.9	1.5	.81	.42
2	56	23	9.2	10	14	87	10	6.5	4.9	1.6	.81	.41
3	56	23	8.4	10	13	72	10	6.5	4.8	1.6	.81	.40
4	53	19	8.8	10	13	69	9.4	8.0	4.5	1.6	.78	.39
5	53	11	17	11	13	76	9.4	6.6	4.5	1.6	.76	.38
6	53	9.2	12	10	12	67	8.6	6.5	4.5	1.4	.76	.38
7	53	8.8	11	11	12	27	8.4	6.5	4.4	1.3	.74	.37
8	53	8.6	12	10	12	23	8.2	6.1	4.3	1.4	.72	.36
9	53	8.6	11	12	53	21	8.2	6.1	4.4	1.4	.70	.36
10	52	8.8	11	11	62	20	8.0	5.7	4.3	1.4	.69	.36
11	51	8.8	12	11	61	18	7.8	5.8	4.4	1.4	.68	.36
12	51	8.8	12	11	60	18	7.8	5.7	4.4	1.4	.66	.36
13	50	8.8	11	11	46	18	7.8	5.5	4.4	1.4	.64	.37
14	53	9.0	11	11	12	18	7.8	5.7	4.3	1.4	.63	.37
15	55	8.8	11	11	11	18	7.7	5.7	4.0	1.4	.62	.37
16	48	9.8	12	11	12	17	20	5.5	3.9	1.4	.60	.37
17	37	9.6	11	11	13	17	8.0	5.2	3.4	1.4	.58	1.6
18	35	9.2	10	10	15	17	12	5.2	2.7	1.4	.58	6.0
19	31	9.2	10	10	14	18	12	4.9	2.0	1.3	.56	2.0
20	30	8.8	10	9.8	12	34	9.4	5.7	1.7	1.1	.56	3.0
21	27	8.4	10	9.6	14	27	8.8	5.4	1.6	1.1	.54	2.0
22	28	8.4	12	9.4	15	21	8.0	5.1	1.5	1.0	.52	10
23	28	8.2	11	9.6	13	19	7.7	5.1	1.5	.99	.52	.38
24	26	9.2	11	9.8	13	18	7.3	4.9	1.5	.99	.50	.38
25	25	9.2	11	9.6	12	17	7.3	4.9	1.5	.94	.49	.38
26	24	9.2	11	9.6	14	21	7.3	4.9	1.4	.90	.48	.38
27	33	9.0	11	9.6	14	14	7.1	5.2	1.4	.85	.47	.38
28	28	8.8	10	9.6	12	10	6.8	6.0	1.4	.85	.46	.38
29	26	9.2	10	55	---	9.4	6.8	5.4	1.4	.85	.45	.38
30	26	10	10	58	---	9.1	6.8	5.2	1.6	.85	.44	.39
31	24	---	10	29	---	9.0	---	4.9	---	.81	.43	---
TOTAL	1272	324.4	337.2	430.6	585	868.5	263.6	177.0	95.5	38.43	18.99	46.08
MEAN	41.0	10.8	10.9	13.9	20.9	28.0	8.79	5.71	3.18	1.24	.61	1.54
MAX	56	24	17	58	62	87	20	8.0	4.9	1.6	.81	1.6
MIN	24	8.2	8.4	9.4	11	9.0	6.8	4.9	1.4	.81	.43	.36
AC-FT	2520	643	669	854	1160	1720	523	351	189	76	38	91
CAL YR 1980 TOTAL	90994.00			MEAN 249	MAX 3840	MIN 3.7	AC-FT 180500					
WTR YR 1981 TOTAL	4457.30			MEAN 12.2	MAX 87	MIN .36	AC-FT 8840					

## SANTA ANA RIVER BASIN

11051500 SANTA ANA RIVER NEAR MENTONE, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SANTA ANA RIVER AND SOUTHERN CALIFORNIA EDISON CO.'S CANAL NEAR MENTONE, CA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	84	67	63	63	80	65	52	44	42	35	36
2	131	83	67	62	62	87	72	53	43	41	35	38
3	132	83	67	62	61	72	69	53	43	40	35	38
4	129	78	69	60	60	69	64	52	41	39	35	36
5	130	70	76	60	59	76	63	51	40	43	35	35
6	129	69	72	61	59	81	62	52	40	40	34	34
7	130	69	70	61	56	82	62	50	39	37	34	34
8	126	69	70	58	62	77	62	49	39	36	34	34
9	127	68	69	62	74	75	62	48	38	35	34	33
10	128	69	69	61	62	74	62	47	38	35	34	32
11	127	71	69	66	61	73	61	47	37	35	34	33
12	127	71	67	68	60	73	60	48	38	35	35	33
13	127	71	68	65	60	75	59	47	38	34	36	32
14	132	69	66	63	60	72	58	47	37	33	36	30
15	130	69	68	62	59	71	58	49	37	39	40	30
16	124	70	65	62	59	69	69	51	35	41	38	32
17	110	70	66	61	59	69	57	48	37	39	36	32
18	105	69	65	60	59	70	69	47	37	38	33	32
19	100	68	65	60	59	73	72	51	37	37	33	31
20	98	68	65	59	58	103	64	58	37	37	34	31
21	95	67	65	59	58	86	63	51	34	36	36	30
22	93	68	63	57	58	80	59	48	36	36	33	30
23	93	68	64	59	57	78	57	47	37	36	32	30
24	91	68	65	57	57	77	56	46	37	36	33	32
25	90	68	65	56	57	76	56	44	41	36	33	31
26	87	68	65	55	65	86	56	46	45	36	36	29
27	87	68	65	56	59	77	55	51	47	36	36	28
28	88	67	63	63	60	71	53	53	48	35	37	30
29	87	64	63	91	---	69	52	48	46	35	36	33
30	87	67	63	73	---	68	52	45	44	35	34	29
31	85	---	63	67	---	67	---	44	---	35	34	---
TOTAL	3454	2111	2064	1929	1683	2356	1829	1523	1190	1148	1080	968
MEAN	111	70.4	66.6	62.2	60.1	76.0	61.0	49.1	39.7	37.0	34.8	32.3
MAX	132	84	76	91	74	103	72	58	48	43	40	38
MIN	85	64	63	55	56	67	52	44	34	33	32	28
AC-FT	6850	4190	4090	3830	3340	4670	3630	3020	2360	2280	2140	1920
CAL YR 1980	TOTAL	110710	MEAN 302	MAX 3840	MIN 47	AC-FT 219600						
WTR YR 1981	TOTAL	21335	MEAN 58.5	MAX 132	MIN 28	AC-FT 42320						

## 11054000 MILL CREEK NEAR YUCAIPA, CA

LOCATION.--Lat 34°05'27", long 117°02'12", in NW¼NE¼NE¼ sec.13, T.1 S., R.2 W., San Bernardino County, Hydrologic Unit 18070203, on left bank 50 ft (15 m) downstream from bridge on State Highway 38, 3.9 mi (6.3 km) north of Yucaipa, and 5.3 mi (8.5 km) upstream from mouth.

DRAINAGE AREA.--42.4 mi<sup>2</sup> (109.8 km<sup>2</sup>).

PERIOD OF RECORD.--January 1919 to September 1938, October 1947 to current year. Monthly figures only for April and May 1923, published in WSP 1315-B. Prior to October 1954, published as "near Craftonville."

GAGE.--Water-stage recorder on creek; water-stage recorder and sharp-crested weir on power canal No. 1; water-stage recorder and Parshall flume on power canals Nos. 2 and 3. Datum of creek gage is 2,916.36 ft (888.907 m) Southern California Edison Company datum. Canals are all at different datums. See WSP 1735 for history of changes prior to Mar. 2, 1938.

REMARKS.--Records poor. No regulation above station. Mill Creek power canals Nos. 1, 2, and 3 divert from points 100 ft (30 m), 3 mi (5 km), and 6 mi (10 km) above station, respectively. Combined flow of Mill Creek and Mill Creek power canals Nos. 1, 2, and 3 is given on following page. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--Creek only: 53 years (water years 1920-38, 1948-81), 16.0 ft<sup>3</sup>/s (0.453 m<sup>3</sup>/s), 11,590 acre-ft/yr (14.3 hm<sup>3</sup>/yr).

Combined creek and canals: 53 years, 37.8 ft<sup>3</sup>/s (1.070 m<sup>3</sup>/s), 27,390 acre-ft/yr (33.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 35,400 ft<sup>3</sup>/s (1,000 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 16.8 ft (5.12 m), from floodmark, from rating curve extended above 1,100 ft<sup>3</sup>/s (31.2 m<sup>3</sup>/s) on basis of two field estimates at gage height 14.5 ft (4.42 m) and slope-area measurement of maximum flow; no flow at times in some years.

Combined creek and canals: Maximum discharge, 35,400 ft<sup>3</sup>/s (1,000 m<sup>3</sup>/s) Jan. 25, 1969; minimum daily, 2.7 ft<sup>3</sup>/s (0.076 m<sup>3</sup>/s) Feb. 23, 1949.

EXTREMES FOR CURRENT YEAR.--Creek only: Maximum discharge, 111 ft<sup>3</sup>/s (3.14 m<sup>3</sup>/s) Jan. 29 (1730 hrs), gage height, 6.43 ft (1.960 m), no other peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); minimum daily, 0.05 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Sept. 22.

Combined creek and canals: Maximum discharge, 134 ft<sup>3</sup>/s (3.79 m<sup>3</sup>/s) Jan. 29 (1730 hrs), no other peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); minimum daily, 18 ft<sup>3</sup>/s (0.51 m<sup>3</sup>/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	.67	.67	.53	1.0	8.0	.60	.53	.47	.12	.08	.14
2	1.0	.67	.67	.53	.80	19	.84	.53	.41	.12	.17	.14
3	1.5	.67	.67	.53	.62	19	.84	.53	.36	.12	.08	.14
4	2.9	.60	2.6	.60	.54	16	.75	.53	.14	.53	.08	.14
5	2.9	.60	1.6	.60	.52	16	.75	.53	.07	.11	.08	.14
6	.93	.67	.93	.60	.52	10	2.8	.53	.36	.11	.07	.14
7	.93	.74	.75	.60	.52	4.0	4.3	.53	3.0	.11	.07	14
8	.88	.83	.67	.53	.52	1.7	.67	.47	7.1	.11	.07	15
9	.83	.83	.67	.53	1.3	1.0	.67	.47	2.5	.12	.07	4.1
10	.92	1.0	.67	.53	.52	.70	.93	1.1	.12	.12	.07	.09
11	.92	1.1	.67	.58	.52	.60	1.5	.47	.12	.12	.07	.11
12	1.0	.92	.60	.58	.52	.56	1.5	.47	.12	.24	.07	.11
13	1.0	.74	.60	.58	.52	.56	1.5	.47	.68	.12	.07	.11
14	3.0	.74	.60	.58	1.4	.55	1.1	.41	.20	.12	.07	.11
15	3.8	.74	.60	.58	3.5	.55	.75	.47	.11	.12	.07	.11
16	4.4	.74	.60	.58	1.9	.54	.75	.41	.20	.11	.07	.11
17	2.3	.75	.60	.58	.52	.54	.75	.41	.23	.11	.07	.13
18	1.3	.75	.60	.58	.52	.53	1.1	.63	.11	.71	.07	.13
19	1.1	.75	.60	.58	.52	1.7	.90	5.2	.54	.09	.07	.13
20	1.0	.75	.60	.58	.52	6.0	.84	2.1	.74	.08	.07	11
21	.92	.75	.53	.58	.52	.53	.67	.47	.14	.08	.33	2.8
22	.92	.75	.53	.75	.52	.47	.47	.41	.23	.08	2.4	.05
23	.92	.75	.53	.75	.52	.47	.41	.41	.20	.08	2.1	.07
24	.83	.75	.53	1.1	.52	.47	.41	3.5	.35	.08	.57	.07
25	.83	.75	.53	1.4	.56	.47	.82	4.8	.68	.08	.43	.08
26	.92	.67	.53	1.4	.68	1.1	.53	.41	1.3	.08	11	.08
27	1.0	.67	.53	1.4	.54	1.0	.53	.53	.99	.08	6.5	.09
28	1.0	.67	.53	3.7	.52	.84	.53	.53	1.2	.19	2.6	.11
29	.74	.67	.53	25	---	.84	.53	.47	.12	.11	.12	.11
30	.67	.67	.53	16	---	.84	.53	.47	.12	.08	.12	.11
31	.67	---	.53	2.7	---	.60	---	.41	---	.08	.14	---
TOTAL	45.43	22.36	21.80	66.16	21.68	115.16	29.27	29.20	22.91	4.41	27.85	49.65
MEAN	1.47	.75	.70	2.13	.77	3.71	.98	.94	.76	.14	.90	1.66
MAX	4.4	1.1	2.6	25	3.5	19	4.3	5.2	7.1	.71	11	15
MIN	.67	.60	.53	.53	.52	.47	.41	.41	.07	.08	.07	.05
AC-FT	90	44	43	131	43	228	58	58	45	8.7	55	98

CAL YR 1980 TOTAL 30861.74 MEAN 84.3 MAX 1590 MIN .45 AC-FT 61210  
WTR YR 1981 TOTAL 455.88 MEAN 1.25 MAX 25 MIN .05 AC-FT 904

## SANTA ANA RIVER BASIN

## 11054000 MILL CREEK NEAR YUCAIPA, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MILL CREEK AND MILL CREEK POWER  
CANALS NOS. 1, 2, AND 3 NEAR YUCAIPA, CA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	39	35	32	33	45	35	34	29	25	20	27
2	41	38	35	32	33	37	36	34	30	25	20	27
3	42	38	35	32	32	29	35	35	30	25	20	25
4	40	37	42	32	32	32	33	34	31	24	20	26
5	40	36	41	32	32	37	32	34	31	24	20	26
6	41	37	39	32	31	42	33	34	29	25	19	26
7	41	37	39	32	30	35	34	33	30	24	19	35
8	41	37	37	32	34	32	32	33	31	24	19	23
9	41	36	37	32	41	31	32	33	28	23	19	24
10	41	36	37	32	34	30	33	33	28	24	18	27
11	41	37	36	34	34	31	33	32	29	23	21	26
12	41	36	36	34	32	30	32	32	28	23	19	25
13	41	37	36	33	32	31	32	31	28	22	19	25
14	46	37	36	32	31	32	34	32	28	22	19	25
15	47	37	40	32	31	31	35	33	28	22	19	25
16	47	37	43	32	30	31	34	33	27	22	19	25
17	44	37	42	32	31	31	34	31	27	21	20	25
18	44	37	42	31	31	31	37	30	27	21	21	25
19	43	36	38	31	30	35	36	36	27	21	21	24
20	42	35	34	31	30	45	34	36	27	20	21	24
21	42	36	34	31	30	34	34	32	27	20	20	24
22	41	36	34	30	30	33	33	31	26	20	20	24
23	41	36	34	30	30	33	34	30	26	20	21	23
24	41	32	34	30	29	32	34	31	26	20	20	24
25	40	34	33	29	31	32	34	31	26	19	19	23
26	41	35	33	29	33	37	34	30	26	20	22	24
27	40	35	33	30	31	36	34	31	26	20	30	24
28	40	35	33	36	32	35	33	33	25	20	29	24
29	40	35	33	52	---	34	33	29	25	20	28	23
30	39	35	33	42	---	34	34	29	25	20	27	24
31	39	---	33	35	---	34	---	29	---	20	27	---
TOTAL	1289	1086	1127	1016	890	1052	1013	999	831	679	656	752
MEAN	41.6	36.2	36.4	32.8	31.8	33.9	33.8	32.2	27.7	21.9	21.2	25.1
MAX	47	39	43	52	41	45	37	36	31	25	30	35
MIN	39	32	33	29	29	29	32	29	25	19	18	23
AC-FT	2560	2150	2240	2020	1770	2090	2010	1980	1650	1350	1300	1490
CAL YR 1980	TOTAL	44006	MEAN	120	MAX	1400	MIN	27	AC-FT	87290		
WTR YR 1981	TOTAL	11390	MEAN	31.2	MAX	52	MIN	18	AC-FT	22590		

## SANTA ANA RIVER BASIN

179

11055500 PLUNGE CREEK NEAR EAST HIGHLANDS, CA

LOCATION.--Lat 34°07'06", long 117°08'27", in SW¼NE¼NE¼ sec.1, T.1 S., R.3 W., San Bernardino County, Hydrologic Unit 18070203, on left bank at mouth of canyon at crossing of North Fork ditch siphon, and 1.8 mi (2.9 km) northeast of East Highlands.

DRAINAGE AREA.--16.9 mi<sup>2</sup> (43.8 km<sup>2</sup>).

PERIOD OF RECORD.--January 1919 to current year; combined records of creek and diversions, March 1951 to current year.

GAGE.--Water-stage recorder on creek. Since March 1951 water-stage recorder and weir on upper diversion; water-stage recorder and concrete-lined canal on middle diversion; crest-stage gage and sharp-crested weir on lower diversion. Altitude of creek gage is 1,590 ft (485 m), from topographic map. Prior to Oct. 1, 1969, creek gage at datum 4.00 ft (1.219 m) higher. Diversions are all at different datums.

REMARKS.--Records fair. No regulation above station. Diversion from Alder Creek to Upper Plunge Creek area was active 1904-67. Diversions for irrigation are made at sites 0.5 mi (0.8 km), 1.0 mi (1.6 km), and 2.5 mi (4.0 km) above station. Water has been diverted above station for irrigation during entire period of record. Combined discharge of Plunge Creek and upper, middle, and lower diversions is given on following page. No flow in lower diversion since May 29, 1966. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--Creek only: 62 years, 6.75 ft<sup>3</sup>/s (0.191 m<sup>3</sup>/s), 4,890 acre-ft/yr (6.03 km<sup>3</sup>/yr).  
Combined creek and diversions: 30 years, 8.90 ft<sup>3</sup>/s (0.252 m<sup>3</sup>/s), 6,450 acre-ft/yr (7.95 km<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 5,340 ft<sup>3</sup>/s (151 m<sup>3</sup>/s) Mar. 2, 1938, on basis of slope-area measurement of maximum flow; no flow for part of most years.  
Combined creek and diversions: Maximum discharge, 4,770 ft<sup>3</sup>/s (135 m<sup>3</sup>/s) Dec. 6, 1966; no flow Nov. 12, 1964, Sept. 19, 1965.

EXTREMES FOR CURRENT YEAR.--Creek only: Maximum discharge, 351 ft<sup>3</sup>/s (9.94 m<sup>3</sup>/s) Jan. 29 (1900 hrs), gage height, 4.45 ft (1.356 m), no other peak above base of 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s); minimum daily, 0.07 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Sept. 4-30.  
Combined creek and diversions: Maximum discharge, 356 ft<sup>3</sup>/s (10.1 m<sup>3</sup>/s) Jan. 29 (1900 hrs); minimum daily, 0.96 ft<sup>3</sup>/s (0.027 m<sup>3</sup>/s) Aug. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.37	.47	.42	5.8	18	5.8	.37	.32	.24	.18	.10
2	.28	.37	.47	.47	5.3	17	7.0	.42	.28	.24	.18	.10
3	.28	.37	.47	.47	5.1	12	5.3	.47	.28	.24	.18	.10
4	.28	.37	2.0	.47	4.9	9.2	2.8	.47	.28	.24	.18	.07
5	.28	.37	2.5	.47	4.7	13	2.0	.47	.24	.24	.18	.07
6	.28	.37	1.7	.47	4.5	14	1.6	.47	.21	.24	.18	.07
7	.28	.37	.87	.47	4.5	11	1.6	.47	.21	.24	.18	.07
8	.28	.37	.52	.47	4.5	9.2	1.6	.47	.18	.24	.18	.07
9	.28	.37	.52	.52	8.8	8.0	1.6	.32	.18	.28	.18	.07
10	.28	.37	.52	.52	6.4	7.7	1.4	.37	.18	.28	.18	.07
11	.28	.37	.52	.79	5.3	7.4	1.4	.28	.18	.28	.18	.07
12	.32	.47	.52	.87	5.1	7.7	1.4	.28	.21	.28	.16	.07
13	.32	.47	.52	.64	4.9	7.7	1.2	.24	.21	.28	.16	.07
14	.37	.47	.52	.64	4.7	7.4	1.2	.24	.21	.24	.16	.07
15	.79	.47	.52	.64	4.7	6.7	1.1	.32	.21	.24	.16	.07
16	1.1	.71	.52	.71	4.5	5.8	1.1	.37	.21	.24	.16	.07
17	.58	.64	.58	.71	4.3	5.8	.96	.32	.21	.24	.16	.07
18	.42	.37	.47	.71	4.3	5.6	3.0	.24	.21	.24	.16	.07
19	.37	.37	.47	.71	4.3	6.1	4.3	.24	.21	.24	.16	.07
20	.37	.37	.47	.79	4.3	15	2.9	.28	.21	.24	.16	.07
21	.37	.37	.42	.79	2.2	8.8	2.3	.32	.21	.24	.16	.07
22	.37	.37	.42	.79	.71	8.0	1.4	.28	.21	.24	.16	.07
23	.37	.32	.37	.87	.64	6.7	1.2	.24	.21	.21	.16	.07
24	.37	.42	.37	.87	.52	6.1	.71	.24	.21	.21	.12	.07
25	.37	.96	.37	.87	.58	5.8	.42	.24	.21	.21	.12	.07
26	.32	.96	.37	.87	2.2	7.7	.37	.28	.21	.21	.12	.07
27	.37	.52	.37	.96	1.2	7.7	.37	12	.21	.21	.12	.07
28	.37	.47	.37	4.8	.96	6.7	.37	6.9	.21	.21	.12	.07
29	.37	.47	.37	62	---	6.7	.37	1.4	.24	.21	.12	.07
30	.37	.42	.42	17	---	6.7	.37	.71	.24	.21	.12	.07
31	.37	---	.42	7.0	---	6.4	---	.47	---	.21	.10	---
TOTAL	11.74	13.69	19.42	108.78	109.91	271.6	57.14	30.19	6.59	7.37	4.84	2.19
MEAN	.38	.46	.63	3.51	3.93	8.76	1.90	.97	.22	.24	.16	.073
MAX	1.1	.96	2.5	62	8.8	18	7.0	12	.32	.28	.18	.10
MIN	.28	.32	.37	.42	.52	5.6	.37	.24	.18	.21	.10	.07
AC-FT	23	27	39	216	218	539	113	60	13	15	9.6	4.3
CAL YR 1980 TOTAL	11513.42			31.5	491	27		22840				
WTR YR 1981 TOTAL	643.46			1.76	62	07		1280				

## SANTA ANA RIVER BASIN

11055500 PLUNGE CREEK NEAR EAST HIGHLANDS, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF PLUNGE CREEK AND  
DIVERSIONS NEAR EAST HIGHLANDS, CA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

NEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.9	3.9	4.0	5.8	21	5.8	4.0	3.4	1.5	1.4	1.1
2	3.2	3.7	3.9	4.1	5.3	18	7.0	4.0	3.5	1.5	1.4	1.2
3	3.0	3.6	4.0	4.1	5.1	12	6.6	4.1	3.4	1.4	1.3	1.1
4	3.1	3.5	5.3	4.0	4.9	9.2	6.8	4.1	3.0	1.3	1.4	1.1
5	3.1	3.7	5.5	4.0	4.7	13	6.3	4.1	2.6	1.4	1.4	1.2
6	3.1	3.8	5.2	4.0	4.5	14	5.9	4.0	2.7	1.4	1.3	1.2
7	3.1	3.7	4.7	4.0	4.5	11	5.8	4.0	2.6	1.4	1.3	1.2
8	3.2	3.7	4.3	4.1	4.5	9.2	5.8	3.9	2.4	1.4	1.3	1.1
9	3.2	3.8	4.4	4.1	8.8	8.0	5.8	3.6	2.4	1.5	1.3	1.1
10	3.4	4.2	4.5	4.0	6.4	7.7	5.6	3.5	2.4	1.5	1.3	1.1
11	3.2	4.1	4.7	4.8	5.3	7.4	5.6	3.4	2.4	1.5	1.3	1.1
12	3.4	4.5	4.8	4.9	5.1	7.7	5.5	3.5	2.4	1.4	1.4	1.0
13	3.8	4.4	4.9	4.6	4.9	7.7	5.1	3.4	2.3	1.5	1.5	1.0
14	4.2	4.2	4.9	4.5	4.7	7.4	5.0	3.5	2.2	1.4	1.4	1.1
15	5.5	4.1	4.8	4.5	4.7	6.7	4.8	4.0	1.9	1.5	1.4	1.1
16	6.2	4.5	4.7	4.6	4.5	5.8	4.6	4.1	1.9	1.5	1.3	1.1
17	5.3	5.5	4.9	4.6	4.3	5.8	4.4	3.8	1.8	1.4	1.3	.99
18	4.7	5.2	4.9	4.6	4.3	5.6	6.1	3.5	1.7	1.4	1.3	.97
19	4.4	5.3	4.7	4.7	4.3	6.1	7.7	3.6	1.7	1.4	1.4	1.0
20	4.2	5.1	4.7	4.8	4.3	15	6.9	3.8	1.7	1.3	1.3	.98
21	4.1	5.2	4.5	4.6	3.5	8.8	6.1	3.6	1.7	1.3	1.2	.99
22	4.0	5.2	4.5	4.7	3.2	8.0	4.9	3.4	1.7	1.3	1.2	.99
23	3.9	4.9	4.5	5.0	3.2	6.7	4.6	3.3	1.6	1.3	1.2	1.0
24	3.8	3.9	4.5	4.9	3.2	6.1	4.4	3.2	1.6	1.3	1.1	1.1
25	3.9	3.7	4.2	4.9	3.4	5.8	4.3	3.1	1.5	1.3	1.1	1.2
26	4.3	4.5	4.1	4.9	5.4	7.7	4.3	3.5	1.5	1.3	1.1	1.2
27	4.4	3.8	4.2	5.0	4.3	7.7	4.3	16	1.5	1.4	1.0	1.1
28	4.1	3.8	4.1	10	4.1	6.7	4.1	11	1.5	1.4	.98	1.0
29	4.0	3.8	4.1	65	---	6.7	4.0	5.1	1.5	1.4	.96	1.1
30	4.0	3.7	4.1	17	---	6.7	3.9	4.2	1.5	1.4	.96	1.2
31	3.9	---	4.0	7.0	---	6.4	---	3.8	---	1.4	.99	---
TOTAL	121.0	127.0	140.5	220.0	131.2	275.6	162.0	135.9	64.0	43.4	38.79	32.62
MEAN	3.90	4.23	4.53	7.10	4.69	8.89	5.40	4.38	2.13	1.40	1.25	1.09
MAX	6.2	5.5	5.5	65	8.8	21	7.7	16	3.5	1.5	1.5	1.2
MIN	3.0	3.5	3.9	4.0	3.2	5.6	3.9	3.1	1.5	1.3	.96	.97
AC-FT	240	252	279	436	260	547	321	270	127	86	77	65
CAL YR 1980	TOTAL	12477.40	MEAN	34.1	MAX	491	MIN	3.0	AC-FT	24750		
WTR YR 1981	TOTAL	1492.01	MEAN	4.09	MAX	65	MIN	.96	AC-FT	2960		



LOCATION.--Lat 34°08'38", long 117°11'16", in SE¼SW¼NW¼ sec.27, T.1 N., R.3 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 0.6 mi (1.0 km) upstream from Highland Avenue, and 1.5 mi (2.4 km) northeast of Highland.

PERIOD OF RECORD.--October 1919 to current year; combined records of creek and canal, June 1924 to current year.

GAGE.--Water-stage recorder on creek; water-stage recorder on canal. Altitude of creek gage is 1,580 ft (482 m), from topographic map. Prior to Mar. 1, 1939, at site 0.2 mi (0.3 km) downstream at different datum. Canal gage at different datum.

REMARKS.--Records good. No regulation above station. City Creek Water Co.'s canal has diverted from point 0.5 mi (0.8 km) above station for irrigation throughout period of record. See schematic diagram of Santa Ana River basin. Combined discharge of City Creek and canal is given on following page.

AVERAGE DISCHARGE.--Creek only: 62 years, 9.69 ft<sup>3</sup>/s (0.274 m<sup>3</sup>/s), 7,020 acre-ft/yr (8.66 hm<sup>3</sup>/yr).  
Combined creek and canal: 57 years, 11.3 ft<sup>3</sup>/s (0.320 m<sup>3</sup>/s), 8,190 acre-ft/yr (10.1 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 7,000 ft<sup>3</sup>/s (198 m<sup>3</sup>/s) Feb. 25, 1969, gage height, 9.39 ft (2.862 m), from rating curve extended above 580 ft<sup>3</sup>/s (16.4 m<sup>3</sup>/s) on basis of slope-area estimate at gage height 8.83 ft (2.691 m); no flow for several months in some years.  
Combined creek and canal: Maximum discharge, 7,000 ft<sup>3</sup>/s (198 m<sup>3</sup>/s) Feb. 25, 1969; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Creek only: Maximum discharge, 101 ft<sup>3</sup>/s (2.86 m<sup>3</sup>/s) Jan. 29, gage height, 5.33 ft (1.625 m), no peak above base of 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s); minimum daily, 0.52 ft<sup>3</sup>/s (0.015 m<sup>3</sup>/s) May 29.  
Combined creek and diversion: 103 ft<sup>3</sup>/s (2.92 m<sup>3</sup>/s) Jan. 29; minimum daily, 0.79 ft<sup>3</sup>/s (0.022 m<sup>3</sup>/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	4.6	5.4	5.3	9.0	22	3.9	5.7	3.2	1.4	1.2	.91
2	4.4	4.8	5.1	5.3	7.8	24	7.3	5.7	3.6	1.4	1.2	.87
3	4.4	4.5	4.6	5.3	7.0	16	7.6	6.5	3.9	1.4	1.2	.84
4	4.3	4.1	12	5.3	6.6	13	7.0	6.5	3.5	1.4	1.2	.90
5	4.2	4.0	12	5.0	6.5	17	5.8	6.5	3.1	1.4	1.2	.96
6	4.2	4.3	9.7	4.9	6.5	19	5.4	6.5	2.7	1.4	1.1	1.1
7	4.1	4.2	9.3	4.9	6.4	16	6.2	5.7	2.4	1.4	1.0	1.2
8	4.1	4.3	8.6	5.0	7.1	14	7.1	5.7	2.2	1.4	1.1	1.0
9	4.0	5.1	8.1	5.0	13	13	7.5	5.0	2.0	1.4	1.0	.96
10	3.8	5.4	6.5	4.8	8.6	12	7.5	4.3	1.9	1.4	1.1	.96
11	3.8	6.7	6.6	6.7	7.5	11	7.5	4.3	1.8	1.3	1.1	.95
12	3.8	7.7	7.3	6.1	8.2	12	7.5	4.3	1.8	1.3	1.2	.89
13	5.0	6.3	7.7	6.4	7.7	12	6.5	5.0	1.7	1.1	1.4	.85
14	6.7	5.5	8.4	7.1	7.4	9.3	6.5	5.0	1.7	1.1	1.3	.94
15	9.3	5.7	11	5.9	7.0	8.5	7.5	8.6	1.6	1.2	1.1	.95
16	13	6.0	11	5.4	6.6	6.6	9.3	7.5	1.6	1.7	.95	.93
17	8.9	6.8	11	5.3	6.5	6.7	8.6	5.7	1.6	1.3	1.0	1.5
18	7.4	7.6	9.9	5.0	6.5	7.2	14	4.8	1.5	1.1	1.2	1.4
19	6.3	8.3	7.2	4.9	6.6	8.1	13	5.4	1.5	1.0	1.1	1.3
20	5.6	7.1	5.2	4.9	6.4	14	11	7.3	1.5	.94	1.0	1.2
21	5.4	6.0	5.0	4.6	5.9	11	9.3	6.2	1.5	.90	.90	.86
22	5.5	5.5	5.0	4.3	6.1	11	7.5	5.8	1.4	.92	.88	.84
23	5.4	6.1	5.6	5.2	6.2	11	6.5	5.5	1.4	1.1	.87	.86
24	5.9	5.9	5.4	5.5	6.5	11	6.5	4.9	1.4	1.1	.90	.88
25	5.5	7.8	5.3	4.9	7.4	11	6.5	4.6	1.4	1.1	.88	.91
26	6.3	7.2	5.3	4.7	12	13	6.5	4.9	1.4	1.1	.83	.88
27	6.5	4.9	5.4	5.5	7.7	4.6	6.5	9.2	1.4	1.2	.82	.86
28	5.2	4.8	5.4	16	7.5	3.6	6.1	1.0	1.4	1.2	.81	.90
29	5.1	4.7	5.2	28	---	4.1	5.7	.52	1.4	1.2	.79	1.0
30	4.8	4.8	5.2	19	---	4.1	5.7	.93	1.4	1.2	.80	1.8
31	4.6	---	5.3	11	---	3.5	---	2.6	---	1.2	.85	---
TOTAL	172.0	170.7	224.7	217.2	208.2	349.3	223.5	162.15	58.9	38.26	31.98	30.40
MEAN	5.55	5.69	7.25	7.01	7.44	11.3	7.45	5.23	1.96	1.23	1.03	1.01
MAX	13	8.3	12	28	13	24	14	9.2	3.9	1.7	1.4	1.8
MIN	3.8	4.0	4.6	4.3	5.9	3.5	3.9	.52	1.4	.90	.79	.84
AC-FT	341	339	446	431	413	693	443	322	117	76	63	60
CAL YR 1980	TOTAL	19787.60	MEAN	54.1	MAX	1320	MIN	3.8	AC-FT	39250		
WTR YR 1981	TOTAL	1887.29	MEAN	5.17	MAX	28	MIN	.52	AC-FT	3740		

## SANTA ANA RIVER BASIN

11055800 CITY CREEK NEAR HIGHLAND, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF CITY CREEK AND CITY CREEK  
WATER CO.'S CANAL NEAR HIGHLAND, CA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	5.7	5.4	6.1	9.2	22	4.2	5.8	3.5	1.4	1.2	.91
2	5.9	5.7	5.0	6.1	8.0	24	7.7	6.0	3.9	1.4	1.2	.87
3	5.8	5.6	5.5	6.2	7.2	16	8.0	6.8	3.9	1.4	1.2	.84
4	5.7	5.4	12	6.2	6.6	13	7.3	6.5	3.5	1.4	1.2	.90
5	5.5	5.4	12	5.7	6.5	17	6.0	6.6	3.1	1.4	1.2	.96
6	5.4	5.7	9.7	5.8	6.5	19	5.5	6.5	2.7	1.4	1.1	1.1
7	5.3	5.6	9.4	5.9	6.4	16	6.3	5.7	2.4	1.4	1.0	1.2
8	5.3	5.7	8.6	6.0	7.1	14	7.4	5.7	2.2	1.4	1.1	1.0
9	5.3	5.6	8.3	5.9	13	13	7.8	5.0	2.0	1.4	1.0	.96
10	5.1	5.8	6.9	5.4	8.6	12	7.7	4.3	1.9	1.4	1.1	.96
11	5.1	6.8	6.8	7.1	7.5	11	7.5	4.3	1.8	1.3	1.1	.95
12	5.1	8.2	7.4	6.4	8.2	12	7.5	4.3	1.8	1.3	1.2	.89
13	6.3	7.4	7.8	6.6	7.7	12	6.5	5.0	1.7	1.1	1.4	.85
14	8.1	6.6	8.5	8.0	7.4	9.3	6.5	5.0	1.7	1.1	1.3	.94
15	11	6.5	11	6.5	7.0	9.0	7.5	9.1	1.6	1.2	1.1	.95
16	15	6.8	11	6.2	6.6	7.2	9.3	7.9	1.6	1.7	.95	.93
17	10	7.7	11	6.2	6.5	7.2	8.6	5.9	1.6	1.3	1.0	1.5
18	8.7	8.1	10	5.9	6.5	7.7	14	4.9	1.5	1.1	1.2	1.4
19	7.6	8.3	7.9	5.8	6.6	8.6	13	5.5	1.5	1.0	1.1	1.3
20	7.0	7.1	6.0	5.8	6.4	15	11	7.5	1.5	.94	1.0	1.2
21	6.8	6.4	5.8	5.4	5.9	12	9.3	6.3	1.5	.90	.90	.86
22	7.0	6.1	5.8	5.1	6.1	12	7.5	5.8	1.4	.92	.88	.84
23	6.8	6.7	6.4	6.1	6.2	11	6.5	5.5	1.4	1.1	.87	.86
24	6.4	6.4	6.3	6.4	6.5	11	6.5	4.9	1.4	1.1	.90	.88
25	6.3	8.0	6.2	5.7	7.4	11	6.5	4.6	1.4	1.1	.88	.91
26	7.5	7.2	6.1	5.4	12	14	6.5	4.9	1.4	1.1	.83	.88
27	7.6	5.7	6.2	5.9	7.7	5.1	6.5	10	1.4	1.2	.82	.86
28	6.4	5.8	6.2	16	7.5	4.0	6.1	1.9	1.4	1.2	.81	.90
29	6.2	5.7	5.9	28	---	4.5	5.7	1.1	1.4	1.2	.79	1.0
30	5.9	5.8	6.0	19	---	4.4	5.7	1.4	1.4	1.2	.80	1.8
31	5.7	---	6.1	11	---	3.8	---	3.0	---	1.2	.85	---
TOTAL	211.8	193.7	239.2	238.0	208.8	357.8	226.1	167.7	59.5	38.26	31.98	30.40
MEAN	6.83	6.46	7.72	7.68	7.46	11.5	7.54	5.41	1.98	1.23	1.03	1.01
MAX	15	8.3	12	28	13	24	14	10	3.9	1.7	1.4	1.8
MIN	5.1	5.4	5.5	5.1	5.9	3.8	4.2	1.1	1.4	.90	.79	.84
AC-FT	420	384	474	472	414	710	448	333	118	76	63	60
CAL YR 1980	TOTAL	20056.60	MEAN	54.8	MAX	1320	MIN	4.9	AC-FT	39780		
WTR YR 1981	TOTAL	2003.24	MEAN	5.49	MAX	28	MIN	.79	AC-FT	3970		

11056200 SANTA ANA RIVER AT WATERMAN AVENUE, AT SAN BERNARDINO, CA

LOCATION.--Lat 34°04'14", long 117°16'41", in San Bernardino Grant, San Bernardino County, Hydrologic Unit 18070203, on downstream end of fifth pier from left bank of southbound Waterman Avenue bridge, 0.1 mi (0.16 km) upstream from San Timoteo Creek, and 2.7 mi (4.3 km) southeast of San Bernardino.

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

WATER TEMPERATURES: Water years 1975 to September 1977.

SEDIMENT RECORDS: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1976 to September 1977.

SEDIMENT RECORDS: October 1976 to September 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 10,800 mg/L October 22, 1976; minimum daily mean, no flow for many days each year.

SEDIMENT DISCHARGE: Maximum daily mean, 16,900 tons (15,330 metric tons) October 22, 1976; minimum daily mean, 0 tons on many days each year.

## SUSPENDED SEDIMENT MEASUREMENTS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	WATER TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDIMENT CONCEN- TRATION (MG/L)
Nov. 25, 1980	1213	12.0		316
Dec. 03, 1980	1500	14.0	4.5	845
Dec. 22, 1980	0930	14.0	16	3,340
Jan. 06, 1981	0910	9.0	3.5	2,670
Jan. 19, 1981	0905	14.0	0.32	84
Jan. 28, 1981	0757	10.0		3,250
Jan. 28, 1981	0900	9.0	119	2,270
Jan. 28, 1981	1135	11.0		1,470
Jan. 30, 1981	0935	10.0		1,210
Jan. 30, 1981	0945	10.0	127	1,100
Feb. 02, 1981	1330		0.05	167
Feb. 09, 1981	1545	11.0		466
Feb. 26, 1981	1315	19.0		165
Mar. 02, 1981	0840	11.0	178	1,100
Mar. 02, 1981		14.0		216
Mar. 05, 1981	1708	12.0		176
Mar. 11, 1981	1720	17.0		74
Mar. 13, 1981	1700	18.0		36
Mar. 16, 1981	1640	21.0		21
Mar. 18, 1981	1630	23.0		28
Mar. 27, 1981	1350	21.0		47
Mar. 28, 1981	1300	18.0		99
Mar. 30, 1981	1320	19.0		25
Apr. 01, 1981	1610	19.0		20
Apr. 02, 1981	0825	14.0	0.28	65
Apr. 06, 1981	1626	20.0		56
Apr. 21, 1981	1010	14.0	0.92	54
May 27, 1981	1700	25.0		71
June 02, 1981	1115	18.0	0.15	105
June 30, 1981	1400	24.0	3.8	113
Aug. 31, 1981	1410	22.0	2.0	194

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT

DATE	TIME	WATER TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDIMENT CONCEN- TRATION (MG/L)	PERCENT FINER THAN .062 MM	PERCENT FINER THAN .125 MM	PERCENT FINER THAN .250 MM	PERCENT FINER THAN .500 MM	PERCENT FINER THAN 1.00 MM
Jan. 30, 1981	0945	10.0	127	1,100	56	68	86	95	100

## SANTA ANA RIVER BASIN

11056500 LITTLE SAN GORGONIO CREEK NEAR BEAUMONT, CA

LOCATION.--Lat 34°01'45", long 116°56'43", in NW¼SW¼NW¼ sec.1, T.2 S., R.1 W., San Bernardino County, Hydrologic Unit 18070203, on right bank at upstream side of bridge on Oak Glen Road, 3.0 mi (4.8 km) upstream from Wallace Creek, and 7 mi (11 km) north of Beaumont.

DRAINAGE AREA.--1.74 mi<sup>2</sup> (4.51 km<sup>2</sup>).

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

REVISED RECORDS.--WDR-CA-79-1: 1969(M).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,320 ft (1,317 m), from topographic map. Prior to July 30, 1970, at site 42 ft (13 m) downstream on left bank at same datum.

REMARKS.--Records poor. No regulation above station. Several small diversions above station for irrigation. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--33 years, 0.62 ft<sup>3</sup>/s (0.018 m<sup>3</sup>/s), 449 acre-ft/yr (554,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft<sup>3</sup>/s (167 m<sup>3</sup>/s) Feb. 25, 1969, gage height, 8.50 ft (2.591 m), from floodmarks, from rating curve extended above 32 ft<sup>3</sup>/s (0.91 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 2.18 ft (0.664 m), 3.45 ft (1.052 m), and 8.50 ft (2.591 m); no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s) Jan. 29 (1730 hrs), gage height, 3.51 ft (1.070 m), no other peak above base of 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s); minimum daily, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) several days in August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	1.8	1.4	1.2	2.3	2.6	1.2	.61	.59	.28	.09	.02
2	.72	2.1	1.4	1.2	2.3	1.8	1.6	.65	.54	.25	.09	.01
3	.76	1.9	1.4	1.2	2.3	1.5	1.2	.68	.53	.25	.09	.01
4	.80	1.6	2.0	1.2	2.3	1.4	1.1	.68	.48	.21	.07	.01
5	.83	1.4	1.8	1.2	2.3	1.8	1.1	.68	.44	.21	.05	.02
6	.86	1.2	1.6	1.1	2.3	1.6	1.0	.63	.45	.21	.04	.03
7	1.4	1.0	1.4	1.1	2.3	1.6	.93	.60	.43	.20	.05	.03
8	1.6	.93	1.4	1.1	2.4	1.4	.93	.58	.42	.20	.03	.03
9	1.9	.98	1.4	1.1	4.8	1.3	.93	.58	.42	.20	.03	.03
10	1.5	1.3	1.4	1.1	3.5	1.4	.93	.58	.38	.18	.03	.03
11	1.2	1.3	1.5	2.0	3.1	1.4	.93	.57	.38	.16	.03	.02
12	1.9	1.2	1.6	1.3	2.7	1.4	.93	.51	.38	.16	.05	.01
13	2.3	.93	1.5	1.1	2.0	1.4	.87	.68	.37	.15	.06	.02
14	3.3	.93	1.4	1.1	1.6	1.4	.90	.68	.37	.14	.06	.01
15	4.2	1.1	1.4	1.1	1.5	1.4	.92	.77	.37	.20	.07	.01
16	3.3	1.1	1.4	1.3	1.3	1.4	.88	.80	.35	.16	.06	.01
17	2.6	1.2	1.3	1.2	1.3	1.4	.80	.73	.32	.15	.05	.01
18	2.6	1.2	1.3	1.2	1.3	1.4	1.0	.64	.33	.14	.04	.01
19	2.5	1.3	1.3	1.5	1.2	1.7	1.0	1.1	.29	.14	.04	.01
20	2.3	1.3	1.3	1.4	1.2	2.1	1.0	1.2	.28	.14	.03	.01
21	2.2	1.3	1.3	1.3	1.2	1.6	1.0	.80	.27	.14	.03	.01
22	1.7	1.3	1.3	1.5	1.2	1.4	.93	.80	.27	.14	.03	.01
23	1.3	1.4	1.3	1.3	1.2	1.3	.87	.75	.28	.13	.03	.02
24	1.3	1.4	1.3	1.3	1.2	1.3	.80	.68	.25	.13	.03	.03
25	1.3	1.6	1.3	1.4	1.2	1.3	.83	.68	.25	.12	.01	.02
26	1.3	1.6	1.3	1.3	1.2	1.6	.84	.68	.24	.14	.02	.02
27	1.5	1.6	1.3	1.3	1.2	1.7	.80	.68	.20	.13	.01	.02
28	1.6	1.6	1.2	1.6	1.2	1.5	.74	.68	.26	.10	.02	.02
29	1.6	1.8	1.2	3.6	---	1.4	.64	.64	.28	.10	.01	.03
30	1.6	1.6	1.2	2.7	---	1.3	.63	.58	.27	.09	.02	.04
31	1.8	---	1.2	2.5	---	1.1	---	.58	---	.10	.03	---
TOTAL	54.47	40.97	43.1	44.5	53.6	46.9	28.23	21.50	10.69	5.05	1.30	.56
MEAN	1.76	1.37	1.39	1.44	1.91	1.51	.94	.69	.36	.16	.042	.019
MAX	4.2	2.1	2.0	3.6	4.8	2.6	1.6	1.2	.59	.28	.09	.04
MIN	.70	.93	1.2	1.1	1.2	1.1	.63	.51	.20	.09	.01	.01
AC-FT	108	81	85	88	106	93	56	43	21	10	2.6	1.1
CAL YR 1980 TOTAL	1172.89			MEAN 3.20	MAX	35	MIN .34	AC-FT 2330				
WTR YR 1981 TOTAL	350.87			MEAN .96	MAX	4.8	MIN .01	AC-FT 696				

## 11057500 SAN TIMOTEO CREEK NEAR LOMA LINDA, CA

LOCATION.--Lat 34°03'46", long 117°16'16", in SE¼NE¼NW¼ sec. 26, T.1 S., R.4 W., San Bernardino County, Hydrologic Unit 18070203, on left bank 200 ft (61.0 m) upstream of Redlands Boulevard bridge, and 0.6 mi (0.97 km) northwest of Loma Linda.

DRAINAGE AREA.--125 mi<sup>2</sup> (324 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1954 to September 1965, February 1968 to October 1973, April 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,030 ft (314 m), from topographic map. Prior to April 1979, water-stage recorders at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records poor. No gage-height record Oct. 26 to Nov. 12, Mar. 21 to Apr. 18. No regulation above station. Natural flow affected by pumping and return flow from irrigated areas.

AVERAGE DISCHARGE.--18 years (1954-65, 1968-73, 1980-81), 2.75 ft<sup>3</sup>/s (0.078 m<sup>3</sup>/s), 1,990 acre-ft/yr (2.45 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) Feb. 25, 1969, gage height, 8.2 ft (2.50 m), from floodmark, from rating curve extended above 2,100 ft<sup>3</sup>/s (59.5 m<sup>3</sup>/s) on basis of slope-conveyance study of maximum flow, at site and datum then in use; no flow for several days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 125 ft<sup>3</sup>/s (3.54 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 7.50 ft (2.286 m):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 29	1900	*293 8.30	4.17 1.271
Mar. 1	1600	232 6.57	4.00 1.219

Minimum daily discharge, no flow for many days in most months.

DISCHARGE, IN CUHIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.50	1.1	.24	1.1	47	.60	.88	.98	.68	.88	.52
2	0	.54	1.6	.43	.63	11	2.0	.78	.98	1.2	.88	.52
3	.01	.57	3.8	.79	.10	.12	.45	1.6	.52	.22	.88	.68
4	0	.61	4.3	.79	.14	.03	.20	1.2	.44	.01	.98	.45
5	.01	.64	1.7	1.2	.03	1.5	.01	.52	.78	.19	1.0	.45
6	.06	.68	1.3	.79	.05	.43	.23	1.4	.60	.39	1.6	.78
7	0	.72	1.3	.28	.09	.03	.47	1.8	1.1	.52	.88	.88
8	0	.77	1.7	.98	1.5	0	.50	1.8	1.4	1.1	.98	.45
9	.05	.81	1.3	1.1	13	.02	.45	.88	1.2	.52	.68	.23
10	.09	.86	1.2	1.1	.33	.56	.45	1.6	.39	.39	1.2	.15
11	.33	.92	1.2	3.3	.24	0	.50	1.5	.45	.60	.60	.04
12	.43	.97	.98	2.0	.16	0	.52	.78	.45	.98	.34	.07
13	.09	.98	.79	1.9	.01	0	.20	.78	.39	.78	.50	.55
14	.31	1.2	.98	1.9	.04	0	.06	1.1	.98	1.2	1.2	1.1
15	.43	1.1	1.1	2.0	.09	0	0	1.5	.37	.68	.98	.29
16	.43	.71	1.1	1.9	.03	0	0	.60	.34	.60	1.1	.23
17	.63	.98	.98	.88	.04	0	.14	2.5	.68	1.2	2.5	1.1
18	.71	1.4	.56	.15	0	0	10	1.8	.52	.60	1.6	.99
19	.20	1.2	.63	.02	0	7.9	1.4	.78	.20	1.0	.54	.42
20	.17	1.2	.43	.09	0	12	.60	.88	.23	.60	.18	.60
21	1.1	.98	.56	.13	0	.15	.34	.39	.28	.60	.68	1.2
22	1.3	1.2	1.1	.98	0	1.5	1.4	.76	.15	.52	.23	1.3
23	.98	1.4	.63	1.4	0	1.1	.31	.23	.78	.28	.03	1.3
24	.63	1.1	.88	1.7	0	.78	.05	.07	.78	.28	.05	.55
25	.38	.71	1.2	1.2	1.3	.70	.01	.39	.52	.37	.09	.27
26	.35	.79	1.3	.88	.63	8.0	.19	1.4	.60	.88	.02	.35
27	.38	.71	.79	.88	.16	2.0	1.1	.98	.19	.45	.02	.55
28	.40	.79	.56	11	.07	1.0	.98	1.4	.33	.78	.05	.42
29	.42	.43	.33	50	---	1.1	.45	.45	.98	.98	.98	1.2
30	.45	.56	.20	5.1	---	1.1	.52	.88	1.2	.98	.60	3.2
31	.48	---	.20	1.9	---	.98	---	.98	---	.10	.28	---
TOTAL	10.82	26.03	35.80	97.01	19.74	99.00	24.13	32.61	18.81	19.68	22.53	20.84
MEAN	.35	.87	1.15	3.13	.71	3.19	.80	1.05	.63	.63	.73	.69
MAX	1.3	1.4	4.3	50	13	47	10	2.5	1.4	1.2	2.5	3.2
MIN	0	.43	.20	.02	0	0	0	.07	.15	.01	.02	.04
AC-FT	21	52	71	192	39	196	48	65	37	39	45	41
CAL YR 1980 TOTAL	2089.31			MEAN 5.71	MAX 530	MIN 0	AC-FT 4140					
WTR YR 1981 TOTAL	427.00			MEAN 1.17	MAX 50	MIN 0	AC-FT 847					

## SANTA ANA RIVER BASIN

11057500 SAN TIMOTEO CREEK NEAR LOMA LINDA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

WATER TEMPERATURES: April 1979 to current year.

SEDIMENT RECORDS: April 1979 to current year.

REMARKS.--Instantaneous suspended sediment sample concentrations and size analyses for 1981 water year given in table below. Mean daily values not determined for 1981 due to indefinite discharge-concentration relation.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV							
06...	0900	14.0	.17	110	.21	--	--
12...	1140	14.0	.08	95	.02	--	--
13...	1135	16.0	.88	108	.26	--	--
DEC							
04...	1015	12.0	9.5	192	4.8	--	--
JAN							
26...	0845	9.0	1.1	26	.08	--	--
28...	0800	11.0	32	1020	89	--	--
28...	0810	11.0	24	1050	83	--	--
28...	1120	11.0	26	396	28	--	--
29...	1440	12.0	69	959	179	36	47
29...	1500	12.0	126	3590	1220	29	37
FEB							
02...	1545	17.0	.17	234	.11	--	--
09...	1600	11.0	.71	2390	4.6	--	--
11...	1545	11.5	.38	818	.84	--	--
16...	1225	26.0	.05	111	.02	--	--
26...	1330	20.0	.14	179	.07	--	--
MAR							
02...	1630	16.0	.20	102	.06	--	--
05...	1725	12.0	1.3	283	1.0	--	--
23...	1350	23.0	1.1	3390	10	--	--
25...	1625	23.0	6.8	554	10	--	--
MAY							
18...	1710	29.0	.15	27	.01	--	--
20...	1500	25.0	.15	35	.02	--	--
22...	1630	26.0	.17	1550	.71	--	--
25...	1350	26.0	.14	1570	.58	--	--
27...	1700	27.0	.24	1550	1.0	--	--
JUL							
06...	0925	27.0	.17	10	.00	--	--
08...	1955	27.0	.71	19	.04	--	--
10...	1800	27.0	.14	15	.00	--	--
13...	1955	23.0	.79	20	.04	--	--
15...	1750	24.0	.24	38	.03	--	--
17...	1900	25.0	.98	28	.07	--	--
20...	1955	22.0	.56	28	.04	--	--
22...	2000	23.0	.88	29	.07	--	--
25...	1400	32.0	.15	26	.01	--	--
27...	2000	23.0	.17	16	.00	--	--

11057500 SAN TIMOTEO CREEK NEAR LOMA LINDA, CA--Continued

## WATER-QUALITY RECORDS

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV						
06...	--	--	--	--	--	--
12...	--	--	--	--	--	--
13...	--	--	--	--	--	--
DEC						
04...	--	--	--	--	--	--
JAN						
26...	--	--	--	--	--	--
28...	--	--	--	--	--	--
28...	--	--	--	--	--	--
28...	--	--	--	--	--	--
29...	62	78	87	91	96	100
29...	53	73	84	91	97	--
FEB						
02...	--	--	--	--	--	--
09...	--	--	--	--	--	--
11...	--	--	--	--	--	--
16...	--	--	--	--	--	--
26...	--	--	--	--	--	--
MAR						
02...	--	--	--	--	--	--
05...	--	--	--	--	--	--
23...	--	--	--	--	--	--
25...	--	--	--	--	--	--
MAY						
18...	--	--	--	--	--	--
20...	--	--	--	--	--	--
22...	--	--	--	--	--	--
25...	--	--	--	--	--	--
27...	--	--	--	--	--	--
JUL						
06...	--	--	--	--	--	--
08...	--	--	--	--	--	--
10...	--	--	--	--	--	--
13...	--	--	--	--	--	--
15...	--	--	--	--	--	--
17...	--	--	--	--	--	--
20...	--	--	--	--	--	--
22...	--	--	--	--	--	--
25...	--	--	--	--	--	--
27...	--	--	--	--	--	--

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDEd (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEd (T/DAY)
JUL					
30...	1440	25.0	1.9	14	.07
AUG					
08...	0900	18.0	1.1	254	.74
17...	1000	24.0	2.9	31	.24
22...	1140	--	.33	6	.00
SEP					
02...	1835	--	.28	4	.00
04...	1830	--	.38	4	.00
09...	1750	--	.79	3	.00
12...	1345	25.0	.43	3	.00
16...	1250	28.0	1.2	5	.02
17...	1755	26.0	2.3	5	.03
21...	1750	28.0	4.3	3	.04

## 11058500 EAST TWIN CREEK NEAR ARROWHEAD SPRINGS, CA

LOCATION.--Lat 34°10'45", long 117°15'53", in NW¼NE¼NE¼ sec.14, T.1 N., R.4 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 100 ft (30 m) upstream from Del Rosa Water Co.'s diversion, 0.5 mi (0.8 km) south of Arrowhead Springs, and 1.0 mi (1.6 km) downstream from Strawberry Creek.

DRAINAGE AREA.--8.80 mi<sup>2</sup> (22.79 km<sup>2</sup>).

PERIOD OF RECORD.--December 1919 to current year. Prior to October 1952, published as Strawberry Creek near Arrowhead Springs.

GAGE.--Water-stage recorder. Broad-crested weir since September 1938. Altitude of gage is 1,590 ft (485 m), from topographic map.

REMARKS.--Records poor. No regulation above station. One small diversion for domestic use above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--61 years (water years 1921-81), 4.76 ft<sup>3</sup>/s (0.135 m<sup>3</sup>/s), 3,450 acre-ft/yr (4.25 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,710 ft<sup>3</sup>/s (105 m<sup>3</sup>/s) Jan. 29, 1980, gage height, 8.35 ft (2.545 m), on basis of slope-area measurement of maximum flow; no flow at times in 1929, 1931-35.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 40 ft<sup>3</sup>/s (1.13 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 90 ft<sup>3</sup>/s (2.55 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 8.35 ft (2.545 m):

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. 29	Unknown	Unknown	Unknown	Mar. 26	1015	50	1.42
Mar. 20	0430	53	1.50	Apr. 18	Unknown	*1,960	55.5
			3.33				1.009
			1.015				Unknown

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	3.3	3.2	2.9	9.0	21	7.6	4.6	3.5	1.6	1.3	1.0
2	2.6	3.3	3.2	2.9	8.0	12	8.0	4.7	3.0	1.4	1.3	1.0
3	2.7	3.2	3.0	3.2	7.0	8.0	7.0	4.7	2.2	1.4	1.3	1.2
4	2.8	3.3	8.7	3.0	6.6	7.0	6.4	4.8	2.7	1.4	1.4	1.2
5	2.8	3.3	4.5	2.9	6.0	8.1	6.2	4.9	3.0	1.5	1.3	1.3
6	2.6	3.2	3.8	2.8	5.6	9.3	5.8	4.8	2.7	1.6	1.2	1.4
7	2.6	3.1	3.5	2.7	5.0	8.1	5.6	4.7	2.7	1.7	1.3	1.5
8	2.7	3.1	3.2	2.7	4.8	6.7	5.4	4.6	2.6	1.4	1.4	1.5
9	3.0	3.1	3.2	2.7	4.5	5.8	5.2	4.4	2.5	1.4	1.4	1.4
10	2.9	2.9	3.2	2.7	5.6	5.8	5.2	4.3	2.4	1.4	1.4	1.3
11	2.8	3.1	2.9	3.1	4.8	5.4	5.1	4.2	2.7	1.3	1.4	1.9
12	2.9	3.4	2.9	2.8	4.5	5.0	5.1	4.1	3.0	1.4	1.5	1.6
13	3.2	2.9	3.2	2.8	4.3	5.8	5.1	4.0	2.5	1.4	1.5	1.1
14	3.9	2.7	3.2	2.8	4.1	5.0	5.1	4.1	2.4	1.3	1.5	1.1
15	4.3	2.8	2.9	2.8	3.9	4.6	5.1	5.9	2.3	1.3	1.5	1.1
16	7.0	3.1	3.2	2.8	3.8	4.3	5.1	3.8	2.3	1.4	1.5	1.1
17	4.3	3.3	3.2	2.8	3.8	4.3	5.1	2.9	2.1	1.3	1.5	1.0
18	3.9	3.2	3.5	2.8	3.7	4.3	310	3.5	2.1	1.3	1.6	1.1
19	3.7	3.3	3.2	2.8	3.7	5.0	30	4.1	2.1	1.4	1.7	1.1
20	3.5	2.9	2.9	2.8	3.7	18	18	3.7	2.0	1.3	1.6	1.1
21	3.2	2.9	3.2	2.8	3.7	13	12	2.7	2.0	1.2	1.6	1.1
22	3.1	3.1	3.2	2.8	3.7	11	9.0	2.8	1.9	1.2	1.6	1.2
23	3.2	3.0	2.9	2.8	3.8	4.6	7.7	2.8	1.5	1.2	1.6	1.3
24	3.1	2.8	2.9	2.8	3.8	3.6	6.8	2.8	1.7	1.2	1.5	1.4
25	3.2	3.2	3.2	2.8	3.9	4.0	6.2	2.7	1.6	1.2	1.4	1.4
26	3.6	3.3	3.2	2.8	9.6	15	5.6	2.7	1.5	1.4	1.4	1.5
27	3.5	3.7	3.2	2.8	7.0	13	5.4	2.8	1.6	1.3	1.4	1.4
28	3.3	3.4	3.2	25	5.2	8.7	5.0	2.5	1.6	1.3	1.4	1.4
29	3.4	3.7	2.9	100	---	6.7	4.8	2.7	1.6	1.3	1.4	1.5
30	3.3	3.3	2.9	22	---	6.7	4.6	3.3	1.4	1.4	1.6	1.5
31	3.3	---	2.9	12	---	8.2	---	3.6	---	1.4	1.5	---
TOTAL	103.0	94.9	104.3	235.4	143.1	248.0	523.2	118.2	67.2	42.3	45.0	38.7
MEAN	3.32	3.16	3.36	7.59	5.11	8.00	17.4	3.81	2.24	1.36	1.45	1.29
MAX	7.0	3.7	8.7	100	9.6	21	310	5.9	3.5	1.7	1.7	1.9
MIN	2.6	2.7	2.9	2.7	3.7	3.6	4.6	2.5	1.4	1.2	1.2	1.0
AC-FT	204	188	207	467	284	492	1040	234	133	84	89	77

CAL YR 1980	TOTAL	8041.4	MEAN	22.0	MAX	300	MIN	2.5	AC-FT	15950
WTR YR 1981	TOTAL	1763.3	MEAN	4.83	MAX	310	MIN	1.0	AC-FT	3500



## 11058600 WATERMAN CANYON CREEK NEAR ARROWHEAD SPRINGS, CA

LOCATION.--Lat 34°11'36", long 117°16'25", in NE¼NW¼NW¼ sec.11, T.1 N., R.4 W., San Bernardino County, Hydrologic Unit 18070203, on left bank 0.8 mi (1.3 km) northwest of Arrowhead Springs, and 1.3 mi (2.1 km) north of San Bernardino National Forest boundary.

DRAINAGE AREA.--4.65 mi<sup>2</sup> (12.04 km<sup>2</sup>).

PERIOD OF RECORD.--November 1911 to October 1914 (published as "near San Bernardino"), December 1919 to current year.

GAGE.--Water-stage recorder. Broad-crested weir since September 1938. Datum of gage is 2,045.46 ft (623.456 m) National Geodetic Vertical Datum of 1929. Prior to December 1919, nonrecording gage at site 300 ft (91 m) downstream at different datum.

REMARKS.--Records fair. No regulation above station. One small diversion for domestic use above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--63 years, (water years 1913-14, 1921-81), 2.77 ft<sup>3</sup>/s (0.078 m<sup>3</sup>/s), 2,010 acre-ft/yr (2.48 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1920).--Maximum discharge, 2,350 ft<sup>3</sup>/s (66.6 m<sup>3</sup>/s) Mar. 2, 1938, based on rainfall-runoff studies; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35 ft<sup>3</sup>/s (0.99 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. 29	0530	189	5.35	3.44	1.049	Apr. 18	1315	461	13.1	4.23	1.289
Mar. 19	2130	39	1.10	2.61	0.796	Apr. 23	0515	38	1.08	2.60	0.792

Minimum daily discharge, 0.28 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Aug. 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.5	2.4	2.4	6.0	10	2.4	2.5	1.8	.77	.76	.47
2	2.1	2.4	2.4	2.4	5.6	4.8	3.3	2.5	1.8	.76	.79	.42
3	2.1	2.3	2.4	2.1	4.7	3.4	2.7	2.5	1.6	.72	.77	.51
4	2.4	2.3	7.4	2.1	4.2	3.1	2.6	2.5	1.8	.67	.77	.56
5	2.4	2.3	3.6	2.1	4.0	5.1	2.6	2.6	1.8	.73	.67	.55
6	2.0	2.3	2.8	2.3	3.4	4.3	2.6	2.2	1.5	.79	.71	.55
7	2.1	2.2	2.6	2.4	3.1	4.0	2.7	2.1	1.5	.77	.77	.43
8	2.1	2.2	2.5	2.4	3.0	3.7	2.6	2.1	1.4	.86	.76	.47
9	2.2	2.2	2.4	2.4	4.3	3.4	2.6	2.0	1.3	.82	.76	.41
10	2.1	2.3	2.4	2.4	3.6	2.8	2.6	2.0	1.4	.82	.80	.43
11	2.1	2.4	2.4	2.7	3.3	2.4	2.6	2.0	1.4	.78	.78	.39
12	2.2	2.8	2.4	2.5	3.1	2.3	2.6	2.0	1.4	.70	.80	.37
13	2.4	2.6	2.4	2.4	2.4	3.4	2.7	2.1	1.4	.73	.82	.38
14	2.9	2.6	2.4	2.4	2.7	2.8	2.7	2.4	1.3	.77	.71	.37
15	2.8	2.4	2.4	2.4	2.7	2.7	2.6	3.2	1.2	.87	.66	.37
16	4.4	2.4	2.4	2.4	2.5	2.6	2.5	2.6	1.1	.80	.67	.60
17	2.8	2.3	2.4	2.4	2.5	2.4	2.5	2.1	1.2	.73	.73	.90
18	2.6	2.3	2.4	2.4	2.4	2.4	2.8	3.3	1.5	.66	1.4	.88
19	2.5	2.4	2.5	2.1	2.4	6.6	12	9.2	1.1	.90	1.6	.96
20	2.4	2.4	2.5	2.1	2.2	5.1	8.5	5.5	1.1	1.1	1.5	.73
21	2.5	2.3	2.5	2.1	2.3	3.1	9.2	2.9	1.1	2.5	1.3	.33
22	2.5	2.3	2.5	2.2	2.4	2.5	16	2.3	1.1	2.5	2.1	.37
23	2.5	2.4	2.5	2.4	2.4	2.7	19	2.3	1.0	2.1	3.0	.42
24	2.4	2.3	2.5	2.4	2.4	2.6	6.0	2.6	.94	2.0	.28	.43
25	2.3	2.5	2.5	2.4	3.3	2.4	4.0	1.9	.87	2.2	.28	.51
26	2.6	2.5	2.4	2.4	5.1	3.8	3.3	1.9	.88	2.4	.34	.50
27	2.6	2.4	2.4	2.3	3.2	3.0	2.9	2.2	.90	.71	.56	.48
28	2.4	2.3	2.4	6.7	3.2	2.6	2.6	2.1	.89	.64	.48	.50
29	2.4	2.3	2.3	2.7	---	2.5	2.5	2.1	.82	.71	.56	.70
30	2.4	2.4	2.4	6.3	---	2.4	2.5	2.1	.82	.74	.56	.71
31	2.5	---	2.4	5.8	---	2.4	---	1.9	---	.75	.66	---
TOTAL	76.1	71.3	81.9	108.8	92.4	107.3	161.4	81.7	37.92	33.00	27.35	15.70
MEAN	2.45	2.38	2.64	3.51	3.30	3.46	5.38	2.64	1.26	1.06	.88	.52
MAX	4.4	2.8	7.4	27	6.0	10	28	9.2	1.8	2.5	3.0	.96
MIN	2.0	2.2	2.3	2.1	2.2	2.3	2.4	1.9	.82	.64	.28	.33
AC-FT	151	141	162	216	183	213	320	162	75	65	54	31

CAL YR 1980	TOTAL	5162.90	MEAN	14.1	MAX	173	MIN	1.6	AC-FT	10240
WTR YR 1981	TOTAL	894.87	MEAN	2.45	MAX	28	MIN	.28	AC-FT	1770

## SANTA ANA RIVER BASIN

11059000 WARM CREEK FLOODWAY AT SAN BERNARDINO, CA

LOCATION.--Lat 34°05'45", long 117°16'30", in San Bernardino Grant, San Bernardino County, Hydrologic Unit 18070203, on left bank 0.4 mi (0.6 km) upstream from Mill Street, and 1.8 mi (2.9 km) upstream from mouth.

DRAINAGE AREA.--47.8 mi<sup>2</sup> (123.8 km<sup>2</sup>).

PERIOD OF RECORD.--January 1961 to September 1981 (discontinued). Prior to October 1965, published as "near San Bernardino."

GAGE.--Water-stage recorder. Altitude of gage is 1,000 ft (305 m), from topographic map. Prior to Dec. 21, 1967, at site 0.4 mi (0.6 km) downstream at different datum.

REMARKS.--Records poor. Indefinite stage-discharge relationship entire year. Flow partly regulated by percolation basins above Marshall Boulevard. Del Rosa Water Company diverts from East Twin Creek for domestic use and irrigation. See schematic diagram of Santa Ana River basin. Discharge measurements made during the 1981 water year given in table below.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,600 ft<sup>3</sup>/s (272 m<sup>3</sup>/s) Feb. 25, 1969, gage height, 6.75 ft (2.057 m), from rating curve extended above 3,000 ft<sup>3</sup>/s (85.0 m<sup>3</sup>/s); no flow most of each year.

## DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)
Oct. 7	1600	No flow	Apr. 2	0945	27 0.765
Nov. 4	0900	No flow	May 4	1430	No flow
Dec. 1	1500	No flow	June 2	1400	0.01 <0.001
Jan. 5	1515	No flow	July 1	0900	3.2 0.091
Feb. 2	1500	2.6 0.074	Aug. 4	0900	0.03 0.001
Mar. 2	1130	28 0.793	Sept. 1	0845	0.05 0.001

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	41		0	4.6	220	9.4	.36	0	1.4	.03	.02
2	0	34		0	1.6	24	30	0	.16	.27	.03	0
3	0	16		0	1.3	1.3	25	0	.56	.18	.03	0
4	0	3.1		0	.06	.03	13	0	.18	.17	.03	1.8
5	0	.05		2.0	.04	101	11	0	.22	.23	.03	.03
6	0	.03		.85	.02	95	9.3	0	.86	.32	.03	.19
7	0	0		.16	.02	4.6	13	0	2.2	.58	.03	0
8	0	0		.16	.02	0	15	0	2.2	.33	.03	.13
9	0	0		.16	130	0	16	0	2.7	0	.03	1.5
10	0	0		.16	.11	0	15	0	3.1	0	.02	.33
11	0	0	50	0	0	0	19	.10	2.7	0	.02	.10
12	0	0	31	0	0	0	15	0	3.3	0	.02	.10
13	0	0	20	0	0	0	14	0	3.0	0	.02	.10
14	0	0	10	0	0	0	13	0	2.4	0	.02	.10
15	0	0	10	0	0	0	14	.05	2.1	0	.03	17
16	281	0	10	.03	0	13	0	0	2.0	0	.03	.09
17	105	0	10	.05	0	13	0	0	2.7	.01	.03	.10
18	33	0	10	.01	0	92	0	0	2.7	.01	.03	.10
19	18	0	9.5	0	.05	140	0	0	3.0	.01	.03	.11
20	10	0	9.4	0	0	63	0	0	3.5	.01	.03	.12
21	10	0	13	0	0	44	0	0	2.4	.01	.04	.13
22	14	0	40	0	0	35	.05	0	2.2	.02	.04	.14
23	7.3	0	14	0	0	31	0	0	2.0	.02	.04	.15
24	2.0	0	.04	0	0	23	0	0	2.0	.02	.04	.16
25	.34	0	0	60	0	15	0	0	1.8	.02	.04	.17
26	.12	0	.01	45	0	13	.16	0	2.5	.02	.04	.16
27	59	0	0	.02	0	.37	3.0	0	2.2	.02	.05	.15
28	17	0	246	0	8.6	0	1.8	0	2.0	.02	.05	.14
29	5.0	0	423	---	8.3	0	0	0	1.8	.03	.05	.13
30	2.5	0	24	---	8.3	0	0	0	1.7	.03	.05	.12
31	28	---	84	---	8.3	---	0	0	---	.03	.05	---
TOTAL	592.26	44.18	0	1129.44	100.64	483.48	714.07	5.52	60.18	3.76	1.04	23.37
MEAN	19.1	3.14	0	36.4	10.7	15.6	23.8	.18	2.01	.12	.034	.78
MAX	281	41	0	423	130	220	140	3.0	3.5	1.4	.05	.17
MIN	0	0	0	0	0	0	0	0	0	0	.02	0
AC-FT	1170	187	0	2240	595	959	1420	11	119	7.5	2.1	46
CAL YR 1980	TOTAL	18301.34	MEAN	50.0	MAX	984	MIN	0	AC-FT	36300		
WTR YR 1981	TOTAL	3407.98	MEAN	9.34	MAX	423	MIN	0	AC-FT	6760		

## 11059100 SAN BERNARDINO WATER QUALITY CONTROL PLANT AT SAN BERNARDINO, CA

LOCATION.--Lat 34°04'16", long 117°17'16", in San Bernardino Grant, San Bernardino County, Hydrologic Unit 18070203, at effluent end of chlorine contact chamber, 0.5 mi (0.8 km) upstream from Santa Ana River at E Street bridge, in San Bernardino.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 979.50 ft (298.552 m) National Geodetic Vertical Datum of 1929 (levels by city of San Bernardino).

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 43 ft<sup>3</sup>/s (1.22 m<sup>3</sup>/s) Jan. 24, 1978; minimum daily, 12 ft<sup>3</sup>/s (0.34 m<sup>3</sup>/s) Oct. 25, Nov. 4, 5, 7-9, 1972.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	28	30	27	29	32	30	29	30	24	27	27
2	30	29	29	28	30	30	29	29	30	25	26	26
3	29	30	29	28	29	30	30	29	30	25	29	26
4	28	27	30	29	29	29	30	29	30	23	28	27
5	30	28	29	29	29	30	29	29	30	24	29	26
6	29	29	29	29	29	29	30	29	29	26	29	24
7	28	30	29	27	29	29	29	30	29	26	30	26
8	28	29	29	28	29	29	29	29	29	25	30	27
9	28	29	29	28	31	30	29	29	28	25	29	26
10	29	28	29	28	29	30	29	28	28	26	31	26
11	29	28	30	29	28	30	29	30	28	25	30	27
12	28	27	29	29	29	29	28	29	27	25	29	26
13	30	29	29	29	29	29	30	30	27	27	30	26
14	29	29	29	29	28	30	29	29	27	27	30	28
15	28	28	29	27	27	29	29	29	27	27	29	28
16	30	29	28	28	30	30	29	29	27	28	27	28
17	29	29	29	29	29	29	29	28	27	27	29	28
18	29	29	29	29	29	30	30	30	26	27	28	28
19	29	29	29	29	29	30	29	29	26	25	27	27
20	30	29	29	29	29	30	30	29	26	26	27	27
21	29	27	28	29	29	30	30	30	26	25	28	29
22	30	28	30	29	28	29	30	29	26	25	26	28
23	27	28	29	28	30	30	30	28	26	26	26	28
24	27	29	30	29	30	30	29	27	26	27	27	28
25	26	29	25	29	29	30	29	29	25	26	27	28
26	27	29	29	30	30	30	28	29	25	25	28	27
27	29	29	29	29	29	30	30	30	25	27	27	27
28	29	29	28	31	29	30	29	30	25	27	28	28
29	29	29	30	34	---	30	29	30	25	27	27	27
30	29	28	30	29	---	30	29	30	25	27	26	28
31	28	---	30	29	---	30	---	30	---	28	27	---
TOTAL	888	858	900	894	814	923	879	904	815	803	871	812
MEAN	28.6	28.6	29.0	28.8	29.1	29.8	29.3	29.2	27.2	25.9	28.1	27.1
MAX	30	30	30	34	31	32	30	30	30	28	31	29
MIN	26	27	25	27	27	29	28	27	25	23	26	24
AC-FT	1760	1700	1790	1770	1610	1830	1740	1790	1620	1590	1730	1610
CAL YR 1980	TOTAL	10416	MEAN 28.5	MAX 42	MIN 17	AC-FT 20660						
WTR YR 1981	TOTAL	10361	MEAN 28.4	MAX 34	MIN 23	AC-FT 20550						

## SANTA ANA RIVER BASIN

11059300 SANTA ANA RIVER AT E STREET, NEAR SAN BERNARDINO, CA

LOCATION.--Lat 34°03'54", long 117°17'58", in San Bernardino Grant, San Bernardino County, Hydrologic Unit 18070203, 0.4 mi (0.6 m) downstream from E Street bridge, 1.2 mi (1.9 km) downstream from San Timoteo Creek, 0.4 mi (0.6 km) upstream from Warm Creek 2.8 mi (4.5 km) south of San Bernardino, and 26 mi (42 km) downstream from Big Bear Lake.

DRAINAGE AREA.--532 mi<sup>2</sup> (1,378 km<sup>2</sup>).

PERIOD OF RECORD.-- March 1939 to September 1954, October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 940 ft (286.5 m), from topographic map. Prior to Nov. 10, 1950, water-stage recorder on right bank 0.4 mi (0.6 km) downstream at datum 964.50 ft (293.980 m) National Geodetic Vertical Datum of 1929. Nov. 11, 1950 to Sept. 30, 1954, water-stage recorder on both banks 0.4 mi (0.6 km) downstream at datum 964.50 ft (293.980 m) NGVD. Oct. 1, 1966 to Sept. 30, 1976 water-stage recorder on right bank 0.4 mi (0.6 km) downstream at datum 954.50 ft (290.932 m) NGVD. Oct. 1, 1976 to Sept. 30, 1977 gage was removed for channel construction. Oct. 1, 1977 to Jan 28, 1981 water-stage recorder on right bank 0.5 mi (0.9 km) upstream at altitude 950 ft (289.6 m), from topographic map.

REMARKS.--Records poor. Flow partly regulated by Big Bear Lake (station 11049000) 26 mi (42 km) upstream. Natural flow of stream affected by ground-water withdrawals and diversion for domestic use and irrigation above station. Effluent from sewage reclamation plant 1.0 mi (1.6 km) upstream, causes sustained flow past gage since 1967. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--15 years (water years 1940-54), 12.5 ft<sup>3</sup>/s (0.354 m<sup>3</sup>/s), 9,050 acre-ft/yr (11.2 hm<sup>3</sup>/yr); 15 years (water years 1967-81), 93.1 ft<sup>3</sup>/s (2.637 m<sup>3</sup>/s), 67,450 acre-ft/yr (83.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft<sup>3</sup>/s (793 m<sup>3</sup>/s) Feb. 25, 1969, gage height 11.9 ft (3.63 m), site and datum then in use; maximum gage height, 16.50 ft (5.029 m) Jan. 23, 1943, site and datum then in use, discharge uncertain, but was probably less than 8,000 ft<sup>3</sup>/s (227 m<sup>3</sup>/s); no flow many days prior to 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge occurred Jan. 29, gage height and discharge unknown, no other peak above base of 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s); minimum daily, 26 ft<sup>3</sup>/s (0.736 m<sup>3</sup>/s) Oct. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	28	30	28	39	229	39	33	35	33	32	29
2	30	29	29	29	36	160	38	33	36	34	31	29
3	29	30	29	29	34	61	37	32	34	32	31	29
4	28	27	38	30	31	50	35	32	36	30	30	31
5	30	28	36	29	28	54	36	32	34	30	31	32
6	29	29	35	30	29	57	35	29	32	30	32	31
7	28	30	35	31	30	50	35	31	32	30	32	31
8	28	29	34	32	32	45	36	30	32	31	32	32
9	28	29	32	34	124	44	34	32	32	31	32	31
10	29	28	30	35	36	44	35	30	32	31	32	31
11	29	28	30	38	33	45	36	32	32	31	32	30
12	28	27	29	37	32	44	33	32	32	30	32	30
13	30	29	29	37	30	44	35	31	32	31	32	30
14	29	29	29	35	31	45	32	32	32	32	33	32
15	28	28	29	31	28	42	34	32	32	32	34	31
16	38	29	30	28	30	37	34	33	32	34	31	32
17	35	29	30	28	31	37	33	34	31	32	32	32
18	31	29	30	28	30	37	85	33	31	32	31	32
19	30	29	30	32	30	70	69	32	31	30	33	32
20	30	29	30	31	32	90	39	32	31	31	34	31
21	29	27	30	32	29	44	41	32	31	31	33	32
22	30	28	31	32	30	44	35	34	31	31	32	32
23	27	28	31	32	31	39	33	34	32	32	34	33
24	27	29	31	32	29	36	36	34	32	32	33	32
25	26	29	29	31	41	36	33	34	32	31	33	32
26	27	29	31	32	60	84	36	33	32	31	32	32
27	29	29	31	32	32	50	35	33	33	32	32	33
28	29	29	30	160	32	45	41	32	33	32	31	33
29	29	29	31	290	---	42	33	32	33	31	31	33
30	29	28	31	170	---	41	32	32	33	32	30	34
31	28	---	30	39	---	40	---	32	---	32	29	---
TOTAL	905	858	960	1514	1010	1786	1145	999	973	974	989	944
MEAN	29.2	28.6	31.0	48.8	36.1	57.6	38.2	32.2	32.4	31.4	31.9	31.5
MAX	38	30	38	290	124	229	85	34	36	34	34	34
MIN	26	27	29	28	28	36	32	29	31	30	29	29
AC-FT	1800	1700	1900	3000	2000	3540	2270	1980	1930	1930	1960	1870
CAL YR 1980	TOTAL	161476	MEAN	441	MAX	7400	MIN	26	AC-FT	320300		
WTR YR 1981	TOTAL	13057	MEAN	35.8	MAX	290	MIN	26	AC-FT	25900		

## 11060400 WARM CREEK NEAR SAN BERNARDINO, CA

LOCATION.--Lat 34°04'42", long 117°17'58", in San Bernardino Grant, San Bernardino County, Hydrologic Unit 18070203, on left bank 0.2 mi (0.3 km) downstream from State Highway 395 bridge, and 2.0 mi (3.2 km) southeast of San Bernardino.

DRAINAGE AREA.--15.0 mi<sup>2</sup> (38.9 km<sup>2</sup>).

PERIOD OF RECORD.--February 1964 to September 1972, October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 960 ft (293 m), from topographic map. Prior to Oct. 1, 1974, at site 0.1 mi (0.2 km) upstream at different datum.

REMARKS.--Records fair. Natural channel prior to September 1972; concrete-lined channel October 1974 to current year. No regulation or diversion above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--8 years (water years 1965-72), 1.61 ft<sup>3</sup>/s (0.046 m<sup>3</sup>/s), 1,170 acre-ft/yr (1.44 hm<sup>3</sup>/yr); 7 years (water years 1975-81), 16.8 ft<sup>3</sup>/s (0.476 m<sup>3</sup>/s), 12,170 acre-ft/yr (15.0 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft<sup>3</sup>/s (340 m<sup>3</sup>/s), estimated, March 1, 1978, gage height unknown; no flow some days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft<sup>3</sup>/s (36.5 m<sup>3</sup>/s), Jan. 29, gage height, 2.50 ft (0.762 m); minimum daily, 1.1 ft<sup>3</sup>/s (0.031 m<sup>3</sup>/s) Nov. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.8	1.4	4.6	4.6	112	9.7	8.6	7.3	7.9	6.8	10
2	2.6	2.8	1.4	4.6	6.4	15	14	7.9	7.7	8.4	6.8	11
3	2.5	2.9	1.9	4.5	6.0	7.7	9.3	7.3	7.7	8.0	6.8	10
4	2.3	2.8	2.5	4.1	6.0	7.7	10	7.2	7.7	7.9	6.9	9.7
5	2.3	2.8	2.1	4.0	6.1	30	12	7.4	7.8	7.7	7.0	8.7
6	2.4	2.6	1.9	4.0	6.1	8.7	11	7.2	7.0	7.7	7.0	8.7
7	2.4	2.4	1.8	4.0	6.4	7.7	11	6.9	6.9	7.8	6.8	8.7
8	2.4	2.8	1.8	4.0	13	7.7	12	7.6	7.4	7.8	6.8	8.7
9	2.4	3.4	1.9	4.0	56	8.7	12	7.6	7.6	7.7	6.8	8.7
10	2.4	3.5	2.3	4.0	6.8	9.7	13	7.6	7.4	7.7	6.8	9.4
11	2.4	4.0	2.6	37	6.8	9.7	13	7.2	7.2	7.4	7.0	8.6
12	2.4	4.0	2.8	6.8	6.8	8.7	15	7.1	7.2	7.2	7.7	8.0
13	2.4	4.4	3.1	6.8	6.8	16	16	6.9	7.1	7.1	7.3	7.7
14	2.4	4.8	3.5	6.8	6.8	7.8	18	6.9	7.2	7.0	7.2	7.7
15	2.4	5.5	3.5	7.7	7.7	7.7	19	7.9	7.6	7.5	7.4	7.7
16	45	5.8	3.6	7.7	7.7	8.3	23	7.7	8.2	7.2	7.5	8.6
17	2.8	6.2	3.6	6.8	7.7	8.7	23	7.3	7.7	6.9	7.7	8.4
18	2.8	6.0	3.7	7.7	7.7	8.7	88	7.7	7.7	6.8	7.2	9.6
19	2.4	6.0	4.0	7.7	7.7	30	18	7.7	7.7	6.9	7.3	8.7
20	2.4	5.9	4.0	7.7	7.7	9.8	6.0	7.7	8.3	6.8	7.5	8.7
21	2.8	6.0	4.0	8.7	7.7	7.7	5.3	7.5	8.7	6.8	7.7	7.9
22	2.4	6.0	3.9	9.7	8.4	7.7	6.0	7.5	8.8	6.8	7.7	7.7
23	2.4	6.0	3.9	11	8.7	8.1	6.8	7.9	8.7	6.8	7.7	7.7
24	2.4	2.8	4.0	11	8.7	8.7	7.7	7.7	8.1	6.8	7.7	7.7
25	2.4	1.1	4.0	11	37	9.2	7.7	7.7	8.0	6.4	7.7	7.7
26	2.8	1.4	4.0	11	18	37	8.7	8.2	8.0	6.4	7.7	7.7
27	2.8	1.4	4.0	11	8.7	7.8	7.7	8.4	8.2	6.7	7.7	7.7
28	2.8	1.4	4.0	156	9.3	7.7	7.7	6.2	7.7	6.5	7.8	7.7
29	2.4	1.4	4.0	60	---	8.2	8.7	6.2	7.7	6.7	7.7	7.8
30	2.4	1.4	4.5	11	---	8.7	8.5	6.9	7.8	6.8	7.7	9.7
31	2.8	---	4.8	4.6	---	8.8	---	6.9	---	6.8	8.9	---
TOTAL	120.1	110.3	121.0	449.5	297.3	449.9	427.8	230.5	232.1	222.9	228.3	256.6
MEAN	3.87	3.68	3.90	14.5	10.6	14.5	14.3	7.44	7.74	7.19	7.36	8.55
MAX	45	6.2	25	156	56	112	88	8.6	8.8	8.4	8.9	11
MIN	2.3	1.1	1.4	4.0	4.6	7.7	5.3	6.2	6.9	6.4	6.8	7.7
AC-FT	238	219	240	892	590	892	849	457	460	442	453	509
CAL YR 1980	TOTAL	9811.22	MEAN	26.8	MAX	610	MIN	.19	AC-FT	19460		
WTR YR 1981	TOTAL	3146.30	MEAN	8.62	MAX	156	MIN	1.1	AC-FT	6240		

## SANTA ANA RIVER BASIN

11060500 MEEKS AND DALEY CANAL NEAR COLTON, CA

LOCATION.--Lat 34°04'47", long 117°18'00", in San Bernardino Grant, San Bernardino County, Hydrologic Unit 18070203, 1.5 mi (2.4 km) northeast of Colton.

PERIOD OF RECORD.--September 1920 to current year. Published with station Warm Creek near Colton, October 1950 to September 1961.

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 965 ft (294 m), from topographic map.

REMARKS.--Records poor. All flow passing station is pumped from ground-water basin for irrigation in vicinity of Colton, Riverside, and Corona. See schematic diagram of Santa Ana River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s) Mar. 2, 1938; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.5	3.7	5.0	5.6	6.2	4.1	2.8	1.7	1.5	1.0	.85
2	1.8	1.3	3.8	5.0	5.6	6.4	4.0	2.8	1.7	1.4	1.0	.84
3	1.9	1.3	3.8	5.0	5.6	6.5	4.0	2.7	1.7	1.3	1.0	.84
4	1.9	1.3	4.1	5.0	5.6	6.8	4.0	2.6	1.7	1.3	.96	.90
5	2.0	1.5	4.3	4.8	5.6	6.7	3.9	2.6	1.6	1.3	.93	.92
6	2.2	1.7	4.4	4.7	5.6	6.5	3.9	2.6	1.2	1.3	.92	.96
7	2.2	1.5	4.4	4.7	5.9	6.5	3.8	2.6	1.1	1.2	.88	.96
8	2.1	1.5	4.4	4.7	5.9	6.5	3.8	2.4	1.3	1.2	.97	.96
9	2.1	1.5	4.4	4.9	6.2	6.6	3.8	2.4	1.3	1.2	.96	.96
10	2.0	1.7	4.4	4.7	6.2	6.4	3.7	2.1	1.2	1.2	.96	1.0
11	2.0	1.7	4.4	4.7	6.2	6.5	3.7	2.1	1.1	1.2	.96	1.1
12	1.9	2.1	4.4	4.7	6.2	6.2	3.6	1.8	1.3	1.2	.96	1.0
13	1.9	2.4	4.4	4.5	6.2	6.2	3.6	1.6	1.7	1.1	.96	1.0
14	1.8	2.4	4.4	4.4	6.2	6.4	3.6	1.7	1.3	1.1	.96	.99
15	1.8	2.4	4.4	4.4	6.5	6.5	3.5	1.6	1.2	1.1	.96	.98
16	1.7	2.6	4.4	4.4	6.5	6.5	3.5	1.9	.91	1.1	.91	.97
17	1.7	2.8	4.7	4.4	6.3	6.4	3.4	2.1	.94	1.1	.91	.96
18	1.7	2.8	5.0	4.7	6.2	4.9	3.4	2.2	.44	1.1	1.0	.96
19	1.7	2.9	5.0	4.7	6.1	5.2	3.4	2.0	1.9	1.1	.98	.97
20	1.7	3.0	4.7	4.7	5.8	6.4	3.3	1.7	2.1	1.1	.98	.96
21	1.7	3.0	4.4	4.7	5.5	6.5	3.3	1.5	1.7	1.0	.99	.95
22	1.5	3.1	4.2	4.8	5.7	6.7	3.2	1.5	1.3	1.0	.96	.94
23	1.3	3.2	4.2	5.0	5.6	6.8	3.2	1.4	1.5	1.0	.97	.93
24	1.1	3.2	4.4	5.2	5.5	5.4	3.2	1.3	1.4	1.0	1.0	.93
25	.70	3.3	4.4	5.2	5.3	4.2	3.1	1.5	1.3	1.0	.97	.94
26	.83	3.3	4.7	5.2	5.2	3.9	3.1	1.5	1.2	1.0	.97	.93
27	1.1	3.4	4.7	5.3	5.6	5.0	3.0	1.5	1.3	1.0	.98	.92
28	1.7	3.5	4.7	5.3	5.9	6.4	3.0	1.5	1.5	1.0	1.1	.91
29	1.5	3.5	5.0	5.4	---	6.5	2.9	1.7	1.6	1.0	1.1	.91
30	1.6	3.6	5.0	5.4	---	5.3	2.9	1.7	1.6	1.0	1.1	.90
31	1.5	---	5.0	5.5	---	4.2	---	1.7	---	1.0	.95	---
TOTAL	52.43	73.0	138.2	151.1	164.3	187.2	104.9	61.1	41.79	35.1	30.25	28.34
MEAN	1.69	2.43	4.46	4.87	5.87	6.04	3.50	1.97	1.39	1.13	.99	.94
MAX	2.2	3.6	5.0	5.5	6.5	6.8	4.1	2.8	2.1	1.5	1.1	1.1
MIN	.70	1.3	3.7	4.4	5.2	3.9	2.9	1.3	.44	1.0	.88	.84
AC-FT	104	145	274	300	326	371	208	121	83	70	60	56

CAL YR 1980 TOTAL 920.15 MEAN 2.51 MAX 13 MIN 0 AC-FT 1830  
WTR YR 1981 TOTAL 1067.71 MEAN 2.93 MAX 6.8 MIN .44 AC-FT 2120

## 11062000 LYTLE CREEK NEAR FONTANA, CA

LOCATION.--Lat 34°12'44", long 117°27'26", in SE¼NW¼SE¼ sec.36, T.2 N., R.6 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 75 ft (20 m) upstream from highway culvert crossing, 0.7 mi (1.1 km) upstream from right tributary, 2.3 mi (3.7 km) downstream from Lytle Creek conduit, and 8 mi (13 km) north of Fontana.

DRAINAGE AREA.--46.3 mi<sup>2</sup> (119.9 km<sup>2</sup>).

PERIOD OF RECORD.--October 1918 to current year. Combined records of Lytle Creek and diversions, October 1898 to December 1899, October 1904 to current year (published as "at mouth of canyon near Rialto" 1898-99, as "near San Bernardino" 1904-18, and as Lytle Creek and Fontana pipeline near Fontana 1919-31). Monthly discharge only for some periods published in WSP 1315-B.

GAGE.--Water-stage recorder on creek. Dual arch-culvert control since 1964. Water-stage recorders and sharp-crested weirs on conduit since June 3, 1949, and infiltration line since Oct. 1, 1971. Altitude of creek gage is 2,380 ft (725 m), from topographic map. October 1918 to Mar. 21, 1938, at site 1 mi (1.6 km) downstream at different datum. Mar. 22, 1938, to Nov. 20, 1963, at site 75 ft (20 m) downstream at datum 4.58 ft (1.396 m) lower. Sharp-crested weirs at different datum.

REMARKS.--Records, creek only, good; combined creek and diversion, good. No regulation above station. Southern California Edison Co.'s Lytle Creek conduit diverts 2.3 mi (3.7 km) upstream for power development, and Fontana Union Water Co. collects water from an infiltration line upstream for irrigation. See schematic diagram of Santa Ana River basin. For records of combined discharge of Lytle Creek and diversions, see following page.

AVERAGE DISCHARGE.--Creek only: 63 years, 17.5 ft<sup>3</sup>/s (0.496 m<sup>3</sup>/s), 12,680 acre-ft/yr (15.6 hm<sup>3</sup>/yr).

Combined creek and diversions: 78 years (water years 1899, 1905-81), 45.1 ft<sup>3</sup>/s (1.277 m<sup>3</sup>/s), 32,670 acre-ft/yr (40.3 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 35,900 ft<sup>3</sup>/s (1,020 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 15.0 ft (4.57 m), from floodmark, from rating curve extended above 570 ft<sup>3</sup>/s (16.1 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 10.78 ft (3.286 m) and 15.0 ft (4.57 m); no flow at times most years. Combined creek and diversions: Maximum discharge, 35,900 ft<sup>3</sup>/s (1,020 m<sup>3</sup>/s) Jan. 25, 1969; minimum daily, 0.12 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) June 21, 22, 1976.

EXTREMES FOR CURRENT YEAR.--Creek only: Maximum discharge, 266 ft<sup>3</sup>/s (7.53 m<sup>3</sup>/s) Jan. 29, gage height, 5.26 ft (1.603 m), from rating curve extended above 120 ft<sup>3</sup>/s (3.40 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 10.6 ft (3.23 m), no peak above base of 300 ft<sup>3</sup>/s (8.50 m<sup>3</sup>/s); minimum daily, no flow several days in June and July.

Combined creek and diversions: Maximum discharge, 292 ft<sup>3</sup>/s (8.27 m<sup>3</sup>/s) Jan. 29, minimum daily, 14 ft<sup>3</sup>/s (0.40 m<sup>3</sup>/s) many days in August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	19	14	8.1	12	52	7.2	2.6	.24	.01	.05	.13
2	23	19	14	7.5	11	37	7.8	2.4	.20	0	.05	.13
3	16	19	14	7.2	10	19	7.2	2.3	.18	0	.06	.09
4	39	19	19	7.2	9.4	16	6.5	2.3	.06	0	.05	.07
5	32	19	17	7.2	7.8	18	6.3	2.3	.04	0	.07	.06
6	28	17	16	7.2	6.9	17	6.3	2.1	.02	.01	.02	.08
7	25	16	15	6.9	6.3	18	6.3	2.0	.01	.01	.02	.42
8	18	15	15	6.9	6.7	13	6.1	1.9	.01	.02	.03	.29
9	28	15	14	6.7	6.7	12	5.9	1.8	0	.15	.11	.14
10	45	16	13	6.5	6.7	12	5.9	1.7	0	.01	.03	.14
11	52	15	12	7.8	6.3	10	5.5	1.5	0	.02	.04	.14
12	31	16	12	7.5	6.1	9.7	5.3	1.6	0	.01	.04	.13
13	36	16	12	6.9	5.9	9.7	5.0	1.4	.03	.02	.06	.08
14	42	15	12	7.5	5.7	9.0	4.7	1.3	.14	.02	.04	.07
15	33	16	11	7.8	5.5	8.7	4.5	1.2	.04	.01	.03	.11
16	27	16	11	6.3	5.3	8.1	4.0	1.1	.02	.01	.10	.04
17	25	15	11	6.1	5.0	7.8	3.8	1.0	.03	.02	.03	.05
18	24	16	11	5.9	4.8	7.5	6.3	.94	.38	.04	.01	.04
19	25	15	10	5.9	4.7	9.7	7.5	.90	.10	.03	.03	.05
20	26	15	10	5.9	4.7	14	5.9	.86	.06	.03	.06	.05
21	25	15	10	5.7	4.8	11	5.0	.82	.07	.01	.03	.06
22	24	15	10	5.7	4.2	9.7	4.6	.76	0	.04	.05	.08
23	24	16	10	6.3	4.4	9.0	4.4	.70	.01	.04	.04	.08
24	23	15	10	5.9	18	8.7	4.1	.64	.01	.03	.07	.09
25	23	16	9.7	5.5	19	8.4	4.0	.58	0	.05	.04	.09
26	22	15	9.4	5.5	15	10	3.9	.50	.01	.16	.02	.05
27	21	15	9.4	5.3	6.5	8.7	3.6	.46	0	.11	.02	.05
28	21	14	8.7	11	6.7	8.4	3.4	.42	0	.05	.03	.05
29	21	14	8.7	8.6	---	8.4	3.2	.38	0	.05	.03	.03
30	20	14	8.4	28	---	7.8	4.0	.32	0	.04	.04	.03
31	20	---	8.4	15	---	7.5	---	.28	---	.04	.15	---
TOTAL	839	476	365.7	294.4	223.1	405.8	158.2	39.06	1.66	1.04	1.45	2.92
MEAN	27.1	15.2	11.8	9.64	7.47	13.1	5.27	1.26	.055	.034	.047	.097
MAX	52	19	19	66	19	52	7.8	2.6	.38	.16	.15	.42
MIN	16	14	4.4	5.3	4.2	7.5	3.2	.28	0	0	.01	.03
AC-FT	1560	943	725	593	443	805	314	77	3.3	2.1	2.9	5.8

CAL YR 1980 TOTAL 46652.30 MEAN 127 MAX 2820 MIN 3.4 AC-FT 92530  
WTR YR 1981 TOTAL 2814.83 MEAN 7.71 MAX 66 MIN 0 AC-FT 5480

## SANTA ANA RIVER BASIN

## 11062000 LYTLE CREEK NEAR FONTANA, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF LYTLE CREEK,  
SOUTHERN CALIFORNIA EDISON CO.'S LYTLE CONDUIT, AND FONTANA UNION WATER  
CO.'S INFILTRATION LINE, NEAR FONTANA, CA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	53	45	36	40	74	35	26	21	17	16	14
2	61	53	45	35	40	56	35	27	22	16	16	14
3	53	53	45	34	38	52	35	26	22	16	16	14
4	76	52	52	35	36	48	33	26	21	16	15	14
5	69	51	49	36	34	50	33	27	21	16	15	14
6	65	49	47	35	34	49	33	27	21	16	16	14
7	61	48	46	34	34	49	33	26	21	16	16	14
8	55	46	46	35	34	43	33	26	20	17	14	14
9	66	46	42	35	37	42	33	24	20	17	14	14
10	83	47	37	34	34	41	33	24	20	16	15	14
11	90	46	42	35	35	39	33	24	21	16	14	14
12	68	47	42	35	33	38	32	24	21	15	14	14
13	72	47	42	34	32	38	32	24	20	15	15	14
14	79	47	42	34	31	38	30	25	19	16	14	14
15	71	48	41	35	31	36	30	25	19	16	14	14
16	65	47	41	33	31	36	30	25	19	15	17	14
17	62	47	41	33	31	35	28	25	18	15	14	14
18	61	47	41	33	30	35	33	24	18	16	15	14
19	61	45	40	33	30	37	35	25	19	16	14	14
20	61	45	39	33	30	44	33	25	19	16	14	14
21	60	46	38	32	30	41	32	23	19	16	14	14
22	59	45	36	32	30	37	30	23	19	16	14	14
23	59	46	38	33	24	37	31	23	17	16	14	14
24	57	45	38	33	29	36	30	22	18	16	14	15
25	57	46	38	31	30	36	29	22	17	16	14	15
26	56	46	37	31	36	38	29	22	17	15	14	15
27	55	46	37	31	36	37	28	23	17	15	14	15
28	55	45	37	41	34	36	28	23	17	16	14	15
29	55	45	37	40	---	35	27	22	17	16	14	15
30	54	44	36	43	---	35	27	22	17	16	14	15
31	54	---	36	41	---	35	---	22	---	16	14	---
TOTAL	1957	1418	1275	1125	924	1243	943	752	577	493	452	427
MEAN	63.1	47.3	41.1	36.3	33.0	41.4	31.4	24.3	19.2	15.9	14.6	14.2
MAX	90	53	52	40	40	74	35	27	22	17	17	15
MIN	53	44	36	31	24	35	27	22	17	15	14	14
AC-FT	3880	2810	2530	2230	1830	2540	1870	1490	1140	978	897	847
CAL YR 1980 TOTAL	60281		MEAN 165	MAX 2830	MIN 27	AC-FT 119600						
WTR YR 1981 TOTAL	11626		MEAN 31.9	MAX 90	MIN 14	AC-FT 23060						



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LOCATION.--Lat 34°16'01", long 117°27'33", in SE<sub>4</sub>SW<sub>4</sub>SE<sub>4</sub> sec.12, T.2 N., R.6 W., San Bernardino County, Hydrologic Unit 18070203, on left bank 1,300 ft (400 m) upstream from Lone Pine Creek and 1.2 mi (1.9 km) north of Keenbrook.

GAGE.--Water-stage recorder. Altitude of gage is 2,630 ft (802 m), from topographic map. Prior to Oct. 24, 1935, at site 1,300 ft (400 m) downstream at different datum. Oct. 24, 1935, to Jan. 26, 1966, and Oct. 1, 1977 to Sept. 30, 1980, at site 500 ft (150 m) upstream at datum 13.40 ft (4.084 m) higher.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft<sup>3</sup>/s (411 m<sup>3</sup>/s) Mar. 2, 1938, gage height, 26.0 ft (7.92 m) datum then in use, on basis of slope-area measurement of peak flow; minimum daily, 0.05 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) June 25, 1920.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	6.7	8.0	7.1	8.0	81	10	7.1	6.7	4.9	5.2	5.3
2	6.9	6.7	8.0	7.5	7.0	32	9.7	7.6	6.7	5.3	5.2	5.3
3	6.9	6.7	8.1	8.1	6.9	15	8.1	8.1	5.8	4.9	5.2	5.3
4	6.9	6.7	10	8.1	7.7	13	7.6	7.6	5.3	5.3	5.3	5.3
5	6.9	6.7	8.2	8.1	7.6	11	7.6	7.1	4.9	5.3	4.9	5.2
6	6.8	6.8	8.2	8.1	7.5	11	7.1	7.1	5.3	5.3	4.9	5.3
7	6.8	6.8	8.3	8.1	7.6	11	6.7	6.7	4.5	5.3	5.3	12
8	6.8	6.9	8.3	8.1	8.2	11	6.7	6.7	4.5	5.3	5.8	6.0
9	6.8	6.9	8.4	8.1	9.0	11	6.7	7.0	4.9	5.3	5.3	6.2
10	6.8	7.0	8.4	8.1	8.9	11	7.1	7.2	5.3	5.3	5.8	6.7
11	6.8	7.0	8.5	8.1	8.8	10	7.1	7.6	5.8	5.3	5.8	6.2
12	6.8	7.1	8.5	8.1	8.7	10	7.6	7.6	6.2	5.3	5.8	6.2
13	6.8	7.1	8.6	8.1	8.7	11	7.1	7.1	6.2	5.3	5.8	5.8
14	6.8	7.2	8.6	8.1	8.6	10	7.6	7.1	5.8	5.3	5.8	5.3
15	8.1	7.2	8.7	8.1	8.6	10	6.7	6.7	5.8	5.3	5.8	5.3
16	6.8	7.3	8.7	8.1	8.5	10	7.1	6.2	5.8	5.3	5.8	5.3
17	6.8	7.3	9.1	8.1	8.4	9.7	7.1	6.2	5.8	5.3	5.8	5.8
18	6.8	7.4	9.1	8.1	8.3	10	7.1	6.2	5.8	5.3	5.8	5.8
19	6.8	7.4	8.7	8.1	8.3	11	7.1	6.0	6.2	5.2	6.2	5.7
20	6.8	7.5	8.0	8.1	8.1	10	7.1	5.8	6.2	5.2	6.2	5.7
21	6.8	7.5	7.6	8.1	8.1	9.7	7.6	5.8	5.8	5.2	6.2	5.6
22	6.8	7.6	7.6	7.6	7.6	9.7	7.2	5.3	5.3	5.2	5.8	5.6
23	6.8	7.6	7.6	7.6	6.7	9.1	6.7	5.3	5.3	5.2	6.2	5.6
24	6.7	7.7	7.6	7.5	6.7	9.1	7.1	5.3	5.3	5.2	5.8	5.6
25	6.7	7.7	7.6	7.5	8.6	10	8.6	5.8	4.9	5.2	5.8	5.6
26	6.7	7.8	7.6	7.5	9.7	9.7	8.6	6.2	4.9	5.2	5.3	5.5
27	6.7	7.8	7.6	7.8	8.6	9.7	8.6	9.7	4.9	5.2	5.2	5.5
28	6.7	7.9	7.6	8.5	9.7	9.7	8.6	11	4.9	5.2	5.3	5.5
29	6.7	7.9	7.1	24	---	9.7	7.6	9.1	4.5	5.2	5.3	5.5
30	6.7	8.0	7.1	10	---	9.7	7.6	8.1	4.9	5.2	5.2	5.5
31	6.7	---	7.1	9.0	---	10	---	6.7	---	5.2	5.3	---
TOTAL	211.8	217.9	252.5	265.5	229.1	414.8	227.1	217.0	164.2	162.2	173.1	175.2
MEAN	6.83	7.26	8.15	8.56	8.18	13.4	7.57	7.00	5.47	5.23	5.58	5.84
MAX	8.1	8.0	10	24	9.7	81	10	11	6.7	5.3	6.2	12
MIN	6.7	6.7	7.1	7.1	6.7	9.1	6.7	5.3	4.5	4.9	4.9	5.2
AC-FT	420	432	501	527	454	823	450	430	326	322	343	348
CAL YR 1980	TOTAL	13938.8	MEAN	38.1	MAX	1380	MIN	5.8	AC-FT	27650		
WTR YR 1981	TOTAL	2710.4	MEAN	7.43	MAX	81	MIN	4.5	AC-FT			



11063680 DEVIL CANYON CREEK NEAR SAN BERNARDINO, CA

LOCATION.--Lat 34°12'30", long 117°19'50", in Muscupiabe Grant, San Bernardino County, Hydrologic Unit 18070203, on left bank 0.6 mi (1.0 km) downstream from confluence of East and West Forks, and 7.5 mi (12.1 km) northwest of San Bernardino.

DRAINAGE AREA.--5.49 mi<sup>2</sup> (14.22 km<sup>2</sup>).

PERIOD OF RECORD.--November 1911 to September 1912, October 1913 to September 1914, December 1919 to current year. Monthly figures only for January 1914, published in WSP 1315-B.

GAGE.--Water-stage recorder on creek; flowmeter on diversion. Altitude of gage is 2,080 ft (634 m), from topographic map. Prior to December 1919, nonrecording gage at site 0.5 mi (0.8 km) downstream at different datum. December 1919 to July 1969, at site 0.4 mi (0.6 km) downstream at different datum. July 1969 to September 1972, present gage used as supplementary gage. Oct. 1, 1973, to Feb. 25, 1974, supplementary gage at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records poor. No regulation above station. City of San Bernardino diverts above station for municipal supply. See schematic diagram of Santa Ana River basin. Records given below are for creek only unless otherwise indicated.

COOPERATION.--Records of diversion were furnished by city of San Bernardino.

AVERAGE DISCHARGE.--62 years (water years 1914, 1921-81), 2.27 ft<sup>3</sup>/s (0.064 m<sup>3</sup>/s), 1,640 acre-ft/yr (2.02 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD (1913-14 AND SINCE 1919).--Maximum discharge, 3,720 ft<sup>3</sup>/s (105 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 5.40 ft (1.646 m), site and datum then in use, on basis of slope-area measurement of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft<sup>3</sup>/s (1.22 m<sup>3</sup>/s) Jan. 29 (1715 hrs), gage height, 4.33 ft (1.320 m), no other peak above base of 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s); minimum daily, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.03	.03	0	5.2	11	.93					0
2	0	.03	.03	0	3.3	3.8	2.1					0
3	0	.02	1.4	0	.75	2.0	.01					0
4	0	.02	9.1	0	.35	5.0	.01					0
5	0	.01	3.2	0	.03	7.9	0					0
6	0	0	.20	0	.03	4.3	0					0
7	0	0	.10	0	.02	.72	0					0
8	0	0	.08	0	1.4	.31	0					0
9	0	0	.06	0	4.0	.17	0					0
10	0	0	.04	0	3.5	.10	0					0
11	0	.65	.03	2.3	3.4	.09	0					.09
12	0	.11	.03	1.8	1.8	.77	0					0
13	0	.08	.03	0	.04	1.5	0					0
14	0	.07	.02	0	.07	.44	0					0
15	0	.06	.02	0	.06	0	0					0
16	.22	.05	.02	0	.06	0	0					0
17	0	.05	.01	0	.06	0	0					0
18	0	.04	.01	0	.05	.20	3.7					0
19	0	.04	.01	0	.05	2.3	6.1					0
20	.02	.03	.01	0	.05	3.5	1.8					0
21	0	.03	.01	0	.04	.79	.01					0
22	0	.03	.01	1.2	.04	.01	.01					0
23	0	.03	0	1.4	.03	.01	.01					0
24	0	.03	0	0	.03	.01	0					0
25	0	.03	0	0	.03	0	0					0
26	0	.03	0	0	2.5	1.6	0					0
27	.05	.03	0	1.5	1.2	1.2	0					0
28	.63	.03	0	7.3	1.0	.01	0					0
29	1.1	.03	0	15	---	0	0					0
30	.51	.03	0	6.9	---	0	0					0
31	.06	---	0	5.7	---	0	---		---			---
TOTAL	2.59	1.59	14.45	43.1	29.09	47.73	14.68	0	0	0	0	.09
MEAN	.084	.053	.47	1.39	1.04	1.54	.49	0	0	0	0	.003
MAX	1.1	.65	9.1	15	5.2	11	6.1	0	0	0	0	.09
MIN	0	0	0	0	.02	0	0	0	0	0	0	0
AC-FT	5.1	3.2	24	85	58	95	29	0	0	0	0	.2
a	224	204	257	303	225	333	262	215	148	111	93	71
CAL YR 1980	TOTAL	5886.94	MEAN	16.1	MAX	441	MIN	0	AC-FT	11680	a	2446
WTR YR 1981	TOTAL	153.32	MEAN	.42	MAX	15	MIN	0	AC-FT	304	a	14540

a Combined discharge, in acre-feet, of Devil Canyon Creek and city of San Bernardino diversion.

## SANTA ANA RIVER BASIN

11065000 LYTLE CREEK AT COLTON, CA

LOCATION.--Lat 34°04'44", long 117°18'17", in San Bernardino Grant, San Bernardino County, Hydrologic Unit 18070203, on right bank 400 ft (120 m) downstream from Colton Avenue, 1,930 ft (588 m) upstream from outlet end of channel, and 1.3 mi (2.1 km) northeast of Colton.

DRAINAGE AREA.--172 mi<sup>2</sup> (445 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 974.67 ft (297.079 m) Corps of Engineers datum.

REMARKS.--Records poor. Flow partly regulated by Lytle Creek spreading grounds 3.2 mi (5.1 km) upstream. Diversions above station for irrigation, power development, domestic use, and ground-water replenishment. See schematic diagram of Santa Ana River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft<sup>3</sup>/s (496 m<sup>3</sup>/s) Mar. 4, 1978, gage height, 14.8 ft (4.51 m), from rating curve extended above 4,200 ft<sup>3</sup>/s (119 m<sup>3</sup>/s) on basis of discharge for design flood at gage height 21.4 ft (6.52 m); no flow many days of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 620 ft<sup>3</sup>/s (17.6 m<sup>3</sup>/s) Jan. 29, gage height, 2.59 ft (0.789 m); minimum daily, 0.25 ft<sup>3</sup>/s (0.007 m<sup>3</sup>/s) Mar. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MFAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	8.6	16	6.1	4.2	125	1.8	.42	.40	.39	.34	.37
2	4.2	7.3	16	6.1	3.4	30	1.8	.41	.40	.39	.34	.37
3	5.1	8.6	18	6.1	2.9	2.0	.56	.40	.40	.39	.34	.37
4	8.6	10	30	6.1	2.6	.60	.54	.40	.40	.39	.34	.37
5	10	12	14	5.1	2.3	1.0	1.0	.40	.39	.38	.34	.37
6	5.2	16	14	4.3	2.0	1.0	.54	.40	.39	.38	.34	.37
7	3.4	20	14	3.9	1.7	.50	.48	.40	.39	.38	.34	.37
8	16	18	14	3.6	5.0	.38	.45	.40	.39	.38	.34	.37
9	16	16	16	3.3	19	.33	.41	.40	.39	.38	.34	.37
10	23	18	12	4.0	4.0	.30	.37	.40	.39	.37	.34	.37
11	26	16	12	5.1	3.0	.29	.34	.40	.39	.37	.34	.37
12	33	18	12	4.2	2.0	.28	.33	.40	.39	.37	.34	.37
13	30	18	8.6	3.8	1.7	.56	.31	.40	.39	.37	.34	.37
14	30	26	8.6	3.4	1.5	.34	.30	.40	.39	.37	.34	.37
15	42	23	10	3.0	1.4	.30	.28	.40	.39	.37	.34	.37
16	53	23	10	2.7	1.2	.28	.27	.40	.39	.36	.34	.37
17	17	23	10	2.4	1.1	.26	.27	.40	.39	.36	.34	.37
18	36	20	14	2.3	1.0	.25	5.2	.40	.39	.36	.50	.37
19	35	18	14	2.2	.96	.25	2.8	.40	.39	.36	1.0	.37
20	16	18	8.6	2.0	.91	6.2	1.5	.40	.39	.36	.50	.37
21	3.9	16	10	1.8	.86	1.4	.94	.40	.39	.35	.45	.37
22	.30	20	8.6	1.7	.82	.56	.74	.40	.39	.35	.43	.37
23	3.3	20	7.3	1.6	.77	.47	.62	.40	.39	.35	.41	.37
24	5.1	18	8.6	1.5	.73	.42	.56	.40	.39	.35	.40	.37
25	3.2	23	8.6	1.4	.69	1.0	.47	.40	.39	.35	.39	.37
26	13	26	8.6	1.4	.66	1.0	.46	.40	.39	.35	.39	.37
27	3.8	20	7.3	1.3	.64	.75	.44	.40	.39	.35	.38	.37
28	7.3	18	7.3	18	7.0	.62	.43	.40	.39	.35	.38	.37
29	14	16	7.3	135	---	.55	.42	.40	.39	.34	.37	.37
30	14	20	6.1	10	---	.50	.42	.40	.39	.34	.37	.37
31	8.6	---	6.1	5.1	---	.48	---	.40	---	.34	.37	---
TOTAL	490.20	534.5	357.6	258.5	74.04	177.87	25.05	12.43	11.74	11.30	12.12	11.10
MEAN	15.8	17.8	11.5	8.34	2.64	5.74	.84	.40	.39	.36	.39	.37
MAX	53	26	30	135	19	125	5.2	.42	.40	.39	1.0	.37
MIN	.30	7.3	6.1	1.3	.64	.25	.27	.40	.39	.34	.34	.37
AC-FT	972	1060	709	513	147	353	50	25	23	22	24	22
CAL YR 1980	TOTAL	15120.04	MEAN	41.3	MAX	2530	MIN	0	AC-FT	29990		
WTP YR 1981	TOTAL	1976.45	MEAN	5.41	MAX	135	MIN	.25	AC-FT	3920		

## 11066460 SANTA ANA RIVER AT MWD CROSSING, NEAR ARLINGTON, CA

LOCATION.--Lat 33°58'04", long 117°26'46", in NE¼NE¼SW¼ sec.30, T.2 S., R.5 W., Riverside County, Hydrologic Unit 18070203, on left bank 300 ft (91 m) upstream from MWD crossing, 0.7 mi (1.1 km) downstream from Union Pacific Railroad bridge, 1.2 mi (1.9 km) upstream from bridge on Van Buren Boulevard, and 3.3 mi (5.3 km) north of Arlington.

DRAINAGE AREA.--854 mi<sup>2</sup> (2,110 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 685 ft (209 m), from topographic map.

REMARKS.--Records fair. Flow partly regulated by Big Bear Lake (station 11049000). Natural streamflow affected by ground-water withdrawals, diversions for irrigation, and return flows from irrigated areas. The records at this station are equivalent to those collected at 11066500 Santa Ana River at Riverside Narrows, near Arlington minus the flow at 11066480 Riverside Water Quality Control Plant at Riverside Narrows, near Arlington. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--11 years, 87.5 ft<sup>3</sup>/s (2,478 m<sup>3</sup>/s), 63,390 acre-ft/yr (78.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 19,500 ft<sup>3</sup>/s (552 m<sup>3</sup>/s) Mar. 4, 1978, by flood routing, gage height, 20.23 ft (6.166 m); minimum daily, 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) Sept. 7, 8, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1927, 100,000 ft<sup>3</sup>/s (2,830 m<sup>3</sup>/s) Mar. 2, 1938, on basis of slope-area measurement at site 1.2 mi (1.9 km) downstream. Flood of Jan. 22, 1862, 320,000 ft<sup>3</sup>/s (9,060 m<sup>3</sup>/s), by slope-conveyance measurement at site 8.1 mi (13.0 km) upstream. Stage at that site was 5 ft (2 m) higher than Mar. 2, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,910 ft<sup>3</sup>/s (82.4 m<sup>3</sup>/s) Jan. 29 (1845 hrs), gage height, 11.64 ft (3.548 m), no other peak above base of 1,500 ft<sup>3</sup>/s (42.5 m<sup>3</sup>/s); minimum daily, 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) July 6-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	24	25	27	261	464	48	40	24	16	19	20
2	27	24	25	27	150	200	45	33	24	17	19	22
3	27	24	25	27	120	68	42	36	24	17	19	22
4	27	24	25	27	110	63	40	40	23	16	19	21
5	27	24	25	27	110	75	38	43	20	16	20	21
6	26	25	25	27	110	80	37	29	19	15	20	21
7	26	25	26	27	120	70	36	26	22	15	18	20
8	26	25	26	27	282	69	35	27	20	17	17	20
9	26	25	26	27	407	62	34	29	20	17	16	18
10	26	25	26	27	154	62	33	32	19	18	17	18
11	25	25	26	27	175	62	32	35	20	18	17	18
12	25	25	26	27	150	67	32	30	19	17	16	18
13	25	25	26	27	107	64	32	26	17	17	16	18
14	25	25	27	26	82	58	32	27	19	16	17	19
15	25	24	27	26	76	54	31	28	20	18	18	19
16	25	24	27	26	67	51	31	27	19	16	18	19
17	24	24	27	26	82	48	31	28	19	16	18	19
18	24	24	27	26	78	45	198	27	19	16	19	19
19	24	24	27	25	73	94	151	29	19	16	18	19
20	24	24	27	25	68	200	61	32	20	16	18	19
21	24	24	27	25	56	101	62	30	20	18	17	18
22	23	24	27	25	54	70	44	28	20	18	18	20
23	23	23	27	25	48	50	30	27	20	17	18	20
24	23	23	27	25	44	50	36	26	20	16	17	20
25	23	23	27	24	58	50	35	27	19	16	18	20
26	23	23	27	24	148	143	43	32	20	16	18	20
27	23	24	27	24	93	116	51	31	21	17	18	20
28	23	24	27	318	59	62	38	28	21	18	18	20
29	24	24	27	634	---	57	34	27	20	18	18	21
30	24	24	27	434	---	63	42	25	18	18	18	22
31	24	---	27	338	---	53	---	24	---	18	19	---
TOTAL	768	725	818	2427	3342	2771	1434	929	605	520	556	591
MEAN	24.8	24.2	26.4	78.3	119	89.4	47.8	30.0	20.2	16.8	17.9	19.7
MAX	27	25	27	634	407	464	198	43	24	18	20	22
MIN	23	23	25	24	44	45	30	24	17	15	16	18
AC-FT	1520	1440	1620	4810	6630	5500	2840	1840	1200	1030	1100	1170
CAL YR 1980 TOTAL	132739		MEAN 363	MAX 8300	MIN 15	AC-FT 263300						
WTR YR 1981 TOTAL	15486		MEAN 42.4	MAX 634	MIN 15	AC-FT 30720						

## SANTA ANA RIVER BASIN

11066460 SANTA ANA RIVER AT MWD CROSSING, NEAR ARLINGTON, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1970 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to September 1978.

INSTRUMENTATION.--Specific-conductance recorder October 1969 to September 1978.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,320 micromhos Nov. 4, 1969; minimum recorded, 95 micromhos Nov. 27, 1970.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT					
03...	1045	27	1120	28.0	682
24...	1100	22	1120	22.0	685
NOV					
10...	1130	25	1100	--	698
25...	1415	23	1160	15.0	841
DEC					
03...	1115	25	1120	14.5	793
18...	1145	27	1220	15.0	686
JAN					
09...	1315	23	1200	19.0	746
26...	1615	24	1100	16.0	679
28...	1430	620	485	14.0	282
FEB					
09...	1550	191	980	--	594
24...	1040	41	1100	17.5	685
MAR					
03...	1615	67	995	19.0	592
16...	1130	43	1080	22.5	669
31...	1130	43	1090	24.0	675
APR					
21...	1100	56	1080	25.0	679
MAY					
06...	1330	29	1100	28.0	723
18...	1230	29	1100	26.5	730
JUN					
04...	1045	23	1180	25.5	750
18...	1230	19	1100	30.5	667
JUL					
17...	1015	18	1190	25.0	739
AUG					
07...	1045	22	1190	26.0	713
20...	1000	19	1100	24.5	720
SEP					
10...	1045	19	1160	24.0	731
24...	1045	21	1120	21.0	708

LOCATION.--Lat 33°57'53", long 117°27'26", in SE<sub>4</sub>NE<sub>4</sub>SE<sub>4</sub> sec.25, T.2 S., R.6 W., Riverside County, Hydrologic Unit 18070203, at effluent end of chlorine contact chambers, 0.4 mi (0.6 km) upstream from Van Buren Boulevard, and 3.1 mi (5.0 km) northwest of Arlington.

PERIOD OF RECORD.--October 1947 to current year. Prior to May 25, 1967, published as "Sheehan ditch."

REMARKS.--Records poor. Discharge reported is total effluent from city of Riverside's Water Quality Control Plants Nos. 1 and 2, released to river 1.0 mi (1.6 km) downstream from Santa Ana River at MWD crossing (station 11066460).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 44 ft<sup>3</sup>/s (1.25 m<sup>3</sup>/s) Feb. 18, 1980, result of an additional 5 to 6 ft<sup>3</sup>/s (0.14 to 0.17 m<sup>3</sup>/s) effluent caused by transfer of sewage load from Jurupa plant; minimum daily, 16 ft<sup>3</sup>/s (0.45 m<sup>3</sup>/s) Feb. 11, 1978, due to temporary shutdown of Plant No. 1.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	33	33	30	33	36	34	35	35	34	33	31
2	36	32	33	31	34	36	34	34	35	33	31	35
3	36	33	33	31	34	35	33	33	35	33	32	35
4	34	31	33	32	34	34	33	35	34	30	32	33
5	33	34	33	33	34	35	32	35	34	31	32	31
6	35	32	33	33	33	34	35	35	34	34	31	31
7	35	34	33	34	32	34	33	35	32	34	32	33
8	35	32	35	33	32	32	33	35	35	34	32	35
9	34	31	34	32	35	36	34	33	36	34	31	35
10	36	33	34	33	34	34	33	31	36	34	32	35
11	34	35	33	33	34	35	33	35	35	33	31	35
12	33	34	33	34	34	34	32	34	35	31	34	33
13	34	34	33	34	34	34	34	34	33	33	31	33
14	34	33	32	34	33	34	34	34	31	33	34	33
15	34	33	33	34	31	33	34	34	34	33	33	33
16	35	33	33	34	34	34	34	33	34	33	31	34
17	34	33	33	34	34	34	34	33	34	35	32	34
18	32	35	33	32	34	34	33	35	35	32	31	35
19	32	33	33	34	34	35	32	34	34	31	32	33
20	34	33	33	34	34	34	35	35	33	34	32	33
21	34	33	32	34	34	34	35	34	31	34	32	33
22	33	35	34	32	32	33	35	35	35	33	31	32
23	33	33	33	33	34	34	35	33	34	34	31	33
24	32	33	33	34	32	34	35	31	34	34	31	33
25	32	33	30	32	34	34	34	34	35	33	31	33
26	31	33	32	34	34	34	33	35	34	31	33	34
27	32	33	31	34	34	34	36	36	32	32	32	33
28	33	31	31	35	33	34	35	35	31	34	35	35
29	33	33	32	37	---	32	35	35	35	33	33	35
30	33	33	33	34	---	34	34	33	35	34	32	35
31	33	---	33	33	---	35	---	33	---	33	31	---
TOTAL	1044	991	1017	1031	938	1059	1016	1056	1020	1024	991	1006
MEAN	33.7	33.0	32.8	33.3	33.5	34.2	33.4	34.1	34.0	33.0	32.0	33.5
MAX	36	35	35	37	35	36	36	36	36	35	35	35
MIN	31	31	30	30	31	32	32	31	31	30	31	31
AC-FT	2070	1970	2020	2040	1860	2100	2020	2090	2020	2030	1970	2000
CAL YR 1980	TOTAL	11776	MEAN	32.2	MAX	44	MIN	27	AC-FT	23360		
WTR YR 1981	TOTAL	12193	MEAN	33.4	MAX	37	MIN	30	AC-FT	24180		

## 11066480 RIVERSIDE WATER QUALITY CONTROL PLANT AT RIVERSIDE NARROWS, NEAR ARLINGTON, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1970 to current year.

SPECIFIC CONDUCTANCE: Water years 1970 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to current year.

INSTRUMENTATION.--Specific-conductance recorder since October 1969.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,740 micromhos Oct. 29, 1971; minimum recorded, 480 micromhos Apr. 25, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,300 micromhos Apr. 17; minimum recorded, 560 micromhos Dec. 21.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT					
06...	1340	41	987	27.0	546
NOV					
10...	1215	44	1030	--	557
25...	1600	34	1110	20.5	--
DEC					
03...	1230	42	1125	21.5	--
18...	1315	34	1140	25.0	615
JAN					
08...	1145	42	1060	21.5	599
26...	1430	44	1040	21.0	563
FEB					
10...	1320	43	1070	21.5	591
24...	1250	43	1100	21.0	600
MAR					
04...	1330	43	1130	21.0	616
16...	1320	45	1100	22.5	602
31...	1300	39	1100	22.5	604
APR					
21...	1400	44	1100	23.5	618
MAY					
06...	1025	46	1030	24.0	590
18...	1030	47	1005	24.0	583
JUN					
04...	1215	43	1005	26.0	576
18...	1515	40	1150	27.0	643
JUL					
17...	1245	45	1100	27.5	565
AUG					
07...	1245	41	1010	28.0	592
20...	1230	41	1050	27.5	566
SEP					
10...	1215	44	970	28.0	556
24...	1320	24	930	27.5	513



11066480 RIVERSIDE WATER QUALITY CONTROL PLANT AT RIVERSIDE NARROWS, NEAR ARLINGTON, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	1140	996	1050	1180	1020	1080	1260	1010	1110	1200	1100	1140
2	1160	994	1060	1050	1010	1030	1270	1110	1180	1220	1060	1120
3	1130	1010	1070	1130	1000	1050	1260	1110	1180	1150	1090	1120
4	1110	984	1030	1150	1030	1090	1210	1050	1130	1110	1020	1060
5	980	948	962	1170	1020	1090	1170	1060	1110	1230	984	1080
6	1060	936	993	1130	1030	1070	1130	1060	1090	1230	1090	1150
7	1100	982	1050	1140	885	1040	1120	1040	1070	1220	1080	1130
8	1080	944	1010	1100	1010	1060	1210	1050	1110	1180	1010	1110
9	1070	967	1010	1030	987	1010	1190	1060	1110	1200	1060	1120
10	1110	1000	1040	1160	999	1100	1200	1030	1090	1170	1040	1090
11	1110	947	1010	1180	1040	1100	1210	1060	1110	1070	1010	1040
12	973	927	949	1180	1020	1080	1260	1080	1150	1180	1030	1090
13	1100	952	1010	1180	1040	1100	1220	1070	1130	1170	1060	1110
14	1050	967	1010	1190	1040	1100	1110	1050	1080	1220	1060	1110
15	1020	971	997	1170	1020	1090	1260	1060	1140	1210	1050	1110
16	1070	964	996	1030	990	1010	1270	1120	1190	1160	1060	1110
17	1080	947	1000	1170	963	1040	1280	1090	1160	1120	1040	1090
18	1050	960	994	1230	1050	1120	1240	1020	1180	1040	997	1020
19	1010	946	978	1220	1080	1140	1210	1060	1120	1110	988	1040
20	1120	977	1030	1220	1070	1130	1070	869	1020	1150	1020	1070
21	1130	1010	1070	1230	1090	1150	824	560	616	1200	1030	1090
22	1110	1020	1050	1190	1050	1100	1130	600	766	1170	1030	1100
23	1120	965	1020	1090	1020	1060	1240	1060	1130	1160	1040	1100
24	1070	1000	1040	1210	1050	1110	1170	1040	1100	1110	1030	1070
25	1060	966	1000	1240	1070	1150	1070	1030	1060	1060	1010	1030
26	992	946	969	1220	1070	1140	1170	1020	1090	1180	1000	1070
27	1080	948	994	1200	1020	1090	1170	1070	1110	1170	1030	1090
28	1100	978	1030	1250	995	1090	1130	1070	1100	1150	991	1060
29	1110	994	1040	1220	1100	1140	1180	1050	1100	1100	972	1030
30	1120	972	1030	1130	1040	1070	1250	1080	1150	1130	829	997
31	1090	1010	1050	---	---	---	1260	1110	1190	---	---	---
MONTH	1160	927	1020	1250	885	1090	1280	560	1090	1230	829	1080
FEBRUARY			MARCH			APRIL			MAY			
1	1030	1020	1020	1050	980	1020	1210	1100	1150	1190	959	1100
2	1170	981	1060	---	---	---	1200	1120	1160	1180	1020	1100
3	1250	1030	1110	1230	1060	1130	1210	1100	1150	1090	886	1040
4	1210	1070	1140	1250	1100	1160	1220	1090	1150	1240	973	1080
5	1210	1070	1130	1260	1130	1190	1110	1010	1070	1200	1000	1120
6	1230	1070	1140	1220	1120	1170	1250	1030	1130	1130	814	1010
7	1160	1060	1110	1160	1050	1100	1250	1170	1210	1060	895	962
8	1090	1020	1060	1090	1020	1050	1270	1160	1210	1110	904	985
9	1230	951	1050	1250	1040	1120	1230	1130	1170	1040	859	973
10	1180	1060	1120	1250	1100	1160	1280	1150	1220	1010	842	958
11	1190	1020	1090	1240	1130	1170	1250	1150	1180	1180	989	1070
12	1170	1050	1110	1200	1120	1150	1200	1130	1170	1180	1050	1110
13	1180	1040	1110	1240	1100	1160	1290	1160	1210	1140	1060	1100
14	1150	1040	1080	1200	1080	1140	1290	1180	1230	1200	1040	1120
15	1080	1020	1050	1120	1040	1080	1300	1210	1250	1210	1060	1120
16	1240	1020	1110	1220	1050	1120	1290	1160	1220	1160	1030	1090
17	1210	1090	1150	1210	1110	1140	1300	1210	1240	1060	1000	1030
18	1210	1100	1150	1230	1100	1150	1280	1150	1210	1150	961	1040
19	1220	1100	1160	1230	1080	1140	1170	940	1110	1160	1040	1100
20	1240	1100	1150	1200	1060	1120	1210	877	1030	1130	1030	1070
21	1200	1030	1090	1150	1040	1090	1180	930	1080	1090	980	1040
22	1090	1000	1050	1060	1020	1040	1070	939	1000	1200	967	1060
23	1260	1050	1130	---	---	---	1110	859	992	1160	1020	1060
24	1210	1100	1150	1140	1080	1110	1120	866	1020	1030	951	994
25	1220	1070	1120	1160	1060	1110	1090	875	978	1090	964	1020
26	1230	1030	1110	1220	1070	1130	1030	885	962	1120	981	1050
27	1220	1070	1140	1190	1100	1140	1130	844	1010	1090	995	1030
28	1160	1050	1100	1160	1060	1110	1120	975	1060	1110	968	1020
29	---	---	---	1120	1040	1080	1120	961	1040	1110	973	1040
30	---	---	---	1200	1080	1130	1130	958	1050	1100	994	1040
31	---	---	---	1170	1080	1130	---	---	---	1060	979	1000
MONTH	1260	951	1110	1260	980	1120	1300	844	1120	1240	814	1050



## 11069000 LAKE HEMET NEAR IDYLLWILD, CA

LOCATION.--Lat 33°39'56", long 116°42'19", in SE4SW4NE4 sec.7, T.6 S., R.3 E., Riverside County, Hydrologic Unit 18070202, on upstream face near right end of dam on South Fork San Jacinto River, 5 mi (8 km) southeast of Idyllwild, and 6.5 mi (10.5 km) upstream from mouth.

DRAINAGE AREA.--65.6 mi<sup>2</sup> (169.9 km<sup>2</sup>).

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

GAGE.--Nonrecording gage read once daily. Datum of gage is 4,201.5 ft (1,280.617 m) National Geodetic Vertical Datum of 1929 (levels by Lake Hemet Municipal Water District).

REMARKS.--Lake is formed by single-arch dam. Dam was completed to a height of 110 ft (33.5 m) in 1893; raised to 122.5 ft (37.34 m) in 1895, and to 135 ft (41.1 m) in 1923. Capacity table is dated February 1932 (furnished by Lake Hemet Municipal Water District). Capacity below spillway level with flashboards (usually in place except for emergency operations), elevation, 4,336.5 ft (1,321.77 m), 13,540 acre-ft (16.7 hm<sup>3</sup>). Capacity below spillway level (without flashboards), elevation, 4,333.0 ft (1,320.70 m), 12,170 acre-ft (15.0 hm<sup>3</sup>), revised. Water is released from lake to South Fork San Jacinto River for domestic use and irrigation in the Hemet-San Jacinto Valley. See schematic diagram of Santa Ana River basin.

COOPERATION.--Elevations and contents were furnished by Lake Hemet Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 14,690 acre-ft (18.1 hm<sup>3</sup>) Feb. 21, 1980, elevation, 4,339.4 ft (1,322.65 m), from capacity table extended above 4,336.5 (1,321.77 m); minimum observed, 264 acre-ft (326 m<sup>3</sup>) Nov. 19, 1962, Nov. 19, 1963, elevation, 4,266.9 ft (1,300.55 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 12,160 acre-ft (15.0 hm<sup>3</sup>) May 31, elevation, 4,333.7 ft (1,320.91 m); minimum observed, 9,740 acre-ft (12.0 hm<sup>3</sup>) Sept. 30, elevation, 4,327.5 ft (1,319.02 m).

## MONTHEND ELEVATION, NGVD, AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	4,332.1	11,800	--
Oct. 31.....	4,330.2	10,720	-1,080
Nov. 30.....	4,328.0	9,940	-780
Dec. 31.....	4,328.4	10,080	+140
CAL YR 1980.....	--	--	-1,100
Jan. 31.....	4,329.1	10,320	+240
Feb. 28.....	4,330.5	10,850	+530
Mar. 31.....	4,332.9	11,830	+980
Apr. 30.....	4,333.4	12,060	+230
May 31.....	4,333.7	12,160	+100
June 30.....	4,332.6	11,700	-460
July 31.....	4,330.4	10,820	-880
Aug. 31.....	4,329.2	10,350	-470
Sept. 30.....	4,327.5	9,740	-610
NTR YR 1981.....	--	--	-2,060

## SANTA ANA RIVER BASIN

## 11069500 SAN JACINTO RIVER NEAR SAN JACINTO, CA

LOCATION.--Lat 33°44'10", long 116°49'26", in NE&NE&SE& sec.13, T.5 S., R.1 E., Riverside County, Hydrologic Unit 18070202, on right bank 350 ft (107 m) upstream from bridge on State Highway 74, 1 mi (2 km) downstream from North Fork, 8.3 mi (13.4 km) southeast of San Jacinto, and 9 mi (14 km) downstream from Lake Hemet.

DRAINAGE AREA.--141 mi<sup>2</sup> (365 km<sup>2</sup>).

PERIOD OF RECORD.--October 1920 to February 1927, March 1927 to current year. Records for Oct. 1, 1969 to Sept. 30, 1980 equivalent to prior records if lower diversion is deducted from flow past station. For the 1981 water year records are from the auxiliary gage below the lower diversion and are equivalent to records for March 1927 to Sept. 30, 1969. Combined records of river and diversion, October 1948 to current year. Monthly discharge only for October 1920 and July to September 1926, published in WSP 1315-B.

GAGE.--Water-stage recorder on river; water-stage recorder on upper canal. Datum of river gage is 1,982.75 ft (604.342 m) Corps of Engineers datum. See WSP 1735 for history of changes prior to Jan. 23, 1948. Oct. 1, 1969 to Sept. 30, 1980, at site 350 ft (107 m) upstream at same datum. Canal gage at different datum.

REMARKS.--Records good except those for periods of missing gage-height record, June 22-Sept. 30, which are poor. Flow partly regulated by Lake Hemet (station 11069000). Lake Hemet Municipal Water District's upper canal diverts 4.0 mi (6.4 km) above station. One small diversion for domestic use above station. Diversion above station began prior to 1920. Auxiliary gage below lower diversion operated prior to Oct. 1, 1969, was used for the 1981 water year during reconstruction of the upstream gage site. Records of lower diversion are available at Lake Hemet Municipal Water District. See schematic diagram of Santa Ana River basin. Combined records are equivalent for period of record. For records of combined daily discharge of San Jacinto River and diversion, see following page. Gage height of all peaks from auxiliary gage at downstream site below lower diversion.

AVERAGE DISCHARGE.--River only: 49 years (water years 1921-26, 1928-69, 1981), 17.7 ft<sup>3</sup>/s (0.501 m<sup>3</sup>/s), 12,820 acre-ft/yr (15.8 hm<sup>3</sup>/yr); 11 years (water years 1970-80), 29.0 ft<sup>3</sup>/s (0.821 m<sup>3</sup>/s), 21,010 acre-ft/yr (25.9 hm<sup>3</sup>/yr).

Combined river and diversion: 32 years (water years 1949-80), 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.--River only: Maximum discharge, 45,000 ft<sup>3</sup>/s (1,270 m<sup>3</sup>/s) Feb. 16, 1927, on basis of slope-area measurement of maximum flow; no flow for several months in some years. Combined river and diversion: Maximum discharge, 17,300 ft<sup>3</sup>/s (490 m<sup>3</sup>/s) Feb. 21, 1980; no flow at times in 1951, 1952, 1957, 1976.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 208 ft<sup>3</sup>/s (5.89 m<sup>3</sup>/s) Feb. 9, gage height, 5.10 ft (1.554 m), no peaks above base of 500 ft<sup>3</sup>/s (14.2 m<sup>3</sup>/s); minimum daily, no flow July 4-Sept. 30. Combined river and diversion: Maximum discharge, 208 ft<sup>3</sup>/s (5.89 m<sup>3</sup>/s) Feb. 9; minimum daily, 0.17 ft<sup>3</sup>/s (0.005 m<sup>3</sup>/s) Jan. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.8	2.2	.28	.54	12	3.3	.51	.04	.01		
2	1.8	3.1	2.1	.26	.48	18	3.9	.58	.03	.01		
3	1.8	3.1	1.9	.24	.45	8.5	3.9	.58	.03	.01		
4	1.8	3.1	2.7	.23	.42	4.3	3.6	.51	.03	0		
5	1.9	3.1	5.6	.21	.42	3.9	3.1	.51	.02	0		
6	1.8	3.1	2.8	.20	.40	3.3	3.1	.48	.02	0		
7	1.9	3.1	2.2	.19	.37	3.1	3.1	.40	.02	0		
8	2.1	3.1	1.9	.17	.42	2.8	2.8	.19	.02	0		
9	2.2	3.1	1.8	.17	70	2.8	2.6	.12	.03	0		
10	2.2	2.8	1.8	.17	23	2.6	2.2	.05	.04	0		
11	2.4	2.8	1.7	.22	6.8	2.6	2.1	.05	.09	0		
12	2.4	2.8	1.6	.25	3.6	2.6	1.8	.04	.15	0		
13	2.4	2.8	1.4	.23	1.9	2.8	1.7	.04	.16	0		
14	2.6	2.8	1.4	.23	1.3	2.6	1.6	.04	.20	0		
15	2.6	3.1	1.4	.23	1.8	2.2	1.3	.04	.25	0		
16	2.6	3.1	1.4	.23	2.2	2.2	1.0	.03	.27	0		
17	2.6	3.1	1.4	.22	2.2	2.4	1.0	.03	.27	0		
18	2.6	3.1	1.4	.22	2.1	2.4	1.3	.03	.27	0		
19	2.6	3.1	1.4	.19	1.9	2.6	2.4	.03	.31	0		
20	2.6	3.1	1.4	.19	1.8	8.2	2.1	.03	.37	0		
21	2.6	2.8	1.6	.17	1.6	5.1	1.7	.03	.42	0		
22	2.6	3.1	1.6	.19	1.4	4.3	1.1	.02	.34	0		
23	2.6	3.1	1.6	.19	1.3	4.3	.81	.02	.12	0		
24	2.6	3.1	1.6	.20	1.3	3.9	.54	.02	.03	0		
25	2.6	3.1	1.6	.23	1.3	3.6	.58	.02	.03	0		
26	2.6	3.1	1.4	.23	2.2	4.3	.71	.02	.03	0		
27	2.6	2.8	1.4	.23	1.9	4.7	.71	.05	.02	0		
28	2.8	2.8	1.4	.37	1.8	3.9	.62	.24	.02	0		
29	2.8	2.4	1.3	.59	---	3.6	.48	.04	.02	0		
30	2.8	2.2	1.3	1.9	---	3.9	.48	.04	.01	0		
31	2.8	---	.72	.66	---	3.6	---	.04	---	0		---
TOTAL	74.1	88.7	55.02	9.29	134.90	137.1	55.63	4.83	3.66	.03	0	0
MEAN	2.39	2.96	1.77	.30	4.82	4.42	1.85	.16	.12	.001	0	0
MAX	2.8	3.1	5.6	1.9	70	18	3.9	.58	.42	.01	0	0
MIN	1.8	2.2	.72	.17	.37	2.2	.44	.02	.01	0	0	0
AC-FT	147	176	109	18	268	272	110	9.6	7.3	.06	0	0
CAL YR 1980 TOTAL	56211.72			MEAN 154	MAX 7590	MIN .72	AC-FT 111500					
WTR YR 1981 TOTAL	563.26			MEAN 1.54	MAX 70	MIN 0	AC-FT 1120					

## SANTA ANA RIVER BASIN

209

11069500 SAN JACINTO RIVER NEAR SAN JACINTO, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SAN JACINTO RIVER AND LAKE HEMET  
WATER CO.'S UPPER CANAL, NEAR SAN JACINTO, CA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.8	2.2	.28	.71	12	3.3	7.6	4.9	7.4	6.1	7.7
2	1.8	3.1	2.1	.26	.65	18	3.9	7.6	4.8	7.3	6.0	7.8
3	1.8	3.1	1.9	.24	.62	8.5	3.9	7.2	5.6	7.4	6.0	7.9
4	1.8	3.1	3.1	.23	.57	4.3	3.6	7.0	8.0	7.3	6.0	8.2
5	1.9	3.1	8.3	.21	.49	3.9	3.1	6.9	7.8	7.4	5.9	8.2
6	1.8	3.1	5.3	.20	.45	3.3	3.1	6.8	7.6	7.5	5.8	8.3
7	1.9	3.1	4.0	.19	.42	3.1	3.1	7.6	5.2	7.5	5.9	9.0
8	2.1	3.1	3.1	.17	.53	2.8	2.8	7.9	3.6	7.4	5.9	9.3
9	2.2	3.1	2.7	.17	70	2.8	3.7	7.3	6.1	6.8	5.9	8.2
10	2.2	2.8	2.5	.17	23	2.6	5.3	6.7	6.0	6.6	6.1	8.0
11	2.4	2.8	2.2	.52	6.8	2.6	5.2	6.3	6.0	6.4	6.2	7.9
12	2.4	2.8	2.0	1.6	3.6	2.6	4.8	6.0	6.2	6.5	7.4	7.8
13	2.4	2.8	1.8	1.1	1.9	2.8	4.7	6.0	6.0	6.5	7.8	7.9
14	2.6	2.8	1.7	.86	1.3	2.6	4.6	5.9	6.0	6.4	7.9	8.0
15	2.6	3.1	1.6	.73	1.8	2.2	5.6	6.5	5.8	7.0	7.9	8.0
16	2.6	3.1	1.6	.66	2.2	2.2	7.2	6.9	5.7	7.1	7.7	8.2
17	2.6	3.1	1.6	.65	2.2	2.4	7.2	6.8	5.5	6.9	7.7	8.1
18	2.6	3.1	1.6	.60	2.1	2.4	5.1	6.0	5.4	6.6	7.9	8.1
19	2.6	3.1	1.6	.44	2.1	2.6	4.1	5.8	5.9	6.3	7.8	8.1
20	2.6	3.1	1.6	.44	2.0	8.2	3.7	7.1	6.0	6.1	7.7	8.1
21	2.6	2.8	1.7	.33	1.8	5.1	6.7	7.1	5.9	6.1	7.7	8.1
22	2.6	3.1	1.7	.28	1.6	4.3	7.6	6.1	5.1	6.1	7.6	8.1
23	2.6	3.1	1.7	.24	1.4	4.3	7.3	5.6	8.2	6.1	7.6	8.2
24	2.6	3.1	1.7	.25	1.4	3.9	7.1	5.2	7.9	6.0	7.7	8.2
25	2.6	3.1	1.7	.23	1.4	3.6	7.2	4.9	7.8	5.9	7.8	8.3
26	2.6	3.1	1.4	.23	2.2	4.3	7.4	5.0	7.7	6.0	8.0	8.3
27	2.6	2.8	1.4	.23	1.9	4.7	7.6	6.6	7.8	6.0	7.9	8.2
28	2.8	2.8	1.4	.94	1.8	3.9	7.6	8.3	7.7	6.0	7.8	8.0
29	2.8	2.4	1.3	1.5	---	3.6	7.6	7.1	7.6	6.0	7.7	8.0
30	2.8	2.2	1.3	2.3	---	3.9	7.7	6.1	7.5	6.0	7.7	2.4
31	2.8	---	.72	.86	---	3.6	---	5.4	---	6.1	7.8	---
TOTAL	74.1	88.7	68.52	17.11	136.94	137.1	161.8	203.3	191.3	204.7	220.9	238.6
MEAN	2.39	2.96	2.21	.55	4.89	4.42	5.39	6.56	6.38	6.60	7.13	7.95
MAX	2.8	3.1	8.3	2.3	70	18	7.7	8.3	8.2	7.5	8.0	9.3
MIN	1.8	2.2	.72	.17	.42	2.2	2.8	4.9	3.6	5.9	5.8	2.4
AC-FT	147	176	136	34	272	272	321	403	379	406	438	473

CAL YR 1980	TOTAL	56543.32	MEAN	154	MAX	7590	MIN	.72	AC-FT	112200
WTR YR 1981	TOTAL	1743.07	MEAN	4.78	MAX	70	MIN	.17	AC-FT	3460

## SANTA ANA RIVER BASIN

11070050 BAUTISTA CREEK AT VALLE VISTA, CA

LOCATION.--Lat 33°44'04", long 116°53'33", in SE&NE&SE& sec.17, T.5 S., R.1 E., Riverside County, Hydrologic Unit 18070202, on left levee of flood channel, 1.0 mi (1.6 km) south of Valle Vista.

DRAINAGE AREA, - 47.2 mi<sup>2</sup> (122.2 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,835 ft (559 m), from topographic map.

REMARKS.--Records fair. No major regulation above station but peaks are affected by detention dam. Diversion above station for irrigation of about 15 acres (61,000 m<sup>2</sup>). Some infiltration in detention dam, 1.5 mi (2.4 km) upstream.

AVERAGE DISCHARGE.--12 years, 2.69 ft<sup>3</sup>/s (0.076 m<sup>3</sup>/s), 1,950 acre-ft/yr (2.40 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) Feb. 21, 1980, gage height, 8.30 ft (2.530 m), from rating curve extended above 80 ft<sup>3</sup>/s (2.27 m<sup>3</sup>/s) on basis of computation of flow in concrete-lined channel at gage heights 1.50 ft (0.457 m), 2.00 ft (0.610 m), 3.00 ft (0.914 m), and 8.30 ft (2.530 m); no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42 ft<sup>3</sup>/s (1.19 m<sup>3</sup>/s) Jan. 28, gage height, 1.34 ft (0.408 m), no peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	5.3	0	3.0	0	3.8	0	.08	0	0	.01	0
2	.05	11	.10	2.7	0	1.4	.01	.15	.02	0	0	0
3	0	11	.25	1.9	0	.16	0	.17	.17	0	0	0
4	0	8.2	.49	1.8	0	.04	0	.89	.06	0	.13	0
5	.03	19	2.8	.94	0	.26	0	.51	0	0	.01	.02
6	.27	2.3	2.6	.02	.25	0	.18	0	.06	0	0	0
7	.65	2.3	0	0	.96	0	1.5	0	.04	0	0	.08
8	1.7	2.3	1.6	.07	2.7	0	2.0	.02	0	0	.03	.26
9	.31	2.3	2.4	0	3.5	.02	1.5	0	0	0	0	.07
10	0	2.3	1.4	0	0	0	.63	.01	0	0	0	.02
11	.45	2.3	.06	1.2	.07	0	.22	0	0	0	0	0
12	1.5	2.3	.38	2.0	0	.25	.17	.02	0	0	.06	0
13	1.5	2.3	1.7	2.1	.01	.13	.33	.11	0	0	.02	0
14	1.1	2.3	1.5	1.6	0	.08	.32	.01	.18	0	0	0
15	2.9	2.3	2.2	.04	0	0	.11	3.6	.05	0	0	0
16	3.1	2.3	.92	1.5	0	0	0	5.2	.10	0	0	0
17	2.8	2.3	.10	2.1	.22	0	0	.48	0	0	0	0
18	3.5	2.3	.21	1.5	1.6	0	3.3	1.4	0	0	0	0
19	4.3	1.6	.01	2.2	1.3	.97	2.9	0	0	0	0	0
20	2.5	2.0	0	.96	.15	.13	.59	.46	.09	0	0	0
21	2.8	.45	.59	1.5	0	.01	1.5	.09	.09	.04	0	.05
22	2.7	.26	.80	.48	0	0	.49	1.4	.14	0	0	0
23	10	.12	.39	1.5	1.2	0	.86	.92	.42	0	.04	0
24	12	.03	1.4	3.3	1.7	0	1.2	0	0	0	.07	.02
25	12	.04	2.7	3.0	1.2	0	1.6	0	.12	0	.01	0
26	13	.04	2.0	2.4	1.5	.07	1.2	0	.02	.05	.05	0
27	14	.05	.24	2.8	2.1	0	.83	.33	.02	0	.02	.01
28	6.8	.01	.04	5.6	1.7	0	.10	3.0	0	0	0	.05
29	4.1	0	0	4.3	---	0	0	.31	0	.03	.04	0
30	4.7	0	0	5.6	---	0	0	.03	0	0	0	.25
31	3.5	---	1.1	.04	---	0	---	.13	---	.03	0	---
TOTAL	112.27	89.00	27.98	56.15	20.16	7.32	21.54	19.40	1.58	.15	.49	.83
MEAN	3.62	2.97	.90	1.81	.72	.24	.72	.63	.053	.085	.016	.028
MAX	14	19	2.8	5.6	3.5	3.8	3.3	5.2	.42	.05	.13	.26
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	223	177	55	111	40	15	43	38	3.1	.3	1.0	1.6
CAL YR 1980	TOTAL	6207.62	MEAN	17.0	MAX	2600	MIN	0	AC-FT	12310		
WTR YR 1981	TOTAL	356.87	MEAN	.98	MAX	19	MIN	0	AC-FT	708		

## 11070375 SAN JACINTO RIVER AT RAILROAD CANYON WEIR, NEAR ELSINORE, CA

LOCATION.--Lat 33°44'10", long 117°15'08", in SW¼SE¼NW¼ sec.13, T.5 S., R.4 W., Riverside County, Hydrologic Unit 18070202, on right bank 4.3 mi (6.9 km) northeast of Railroad Canyon Dam, and 5.8 mi (9.3 km) northeast of Elsinore.

DRAINAGE AREA.--562 mi<sup>2</sup> (1,456 km<sup>2</sup>).

PERIOD OF RECORD.--October 1951 to current year. Monthly discharge only prior to October 1971. Daily discharge available in district files.

GAGE.--Water-stage recorder. Altitude of gage is 1,400 ft (427 m), from topographic map. Prior to Sept. 28, 1960, at site 0.8 mi (1.3 km) upstream at different datum.

REMARKS.--Flow partially regulated by Lake Hemet (station 11069000). Diversions for irrigation and domestic use above station. At times imported Colorado River water is discharged into channel above station by Temescal Water Co. or Elsinore Valley Municipal Water District.

COOPERATION.--Records were published as furnished by Riverside County Flood Control and Water Conservation District.

AVERAGE DISCHARGE.--River only: 30 years, 12.7 ft<sup>3</sup>/s (0.360 m<sup>3</sup>/s), 9,200 acre-ft/yr (11.3 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,700 ft<sup>3</sup>/s (161 m<sup>3</sup>/s) Feb. 22, 1980, gage height, 7.27 ft (2.216 m); no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 404 ft<sup>3</sup>/s (11.4 m<sup>3</sup>/s) Mar. 1, gage height, 2.59 ft (0.789 m) no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	.81	120			0	74	0	62
2				0	.36	120			0	76	0	56
3				0	0	20			0	71	0	9.8
4				0	0	0			0	16	0	1.0
5				0	0	0			0	2.2	0	.36
6				0	0	0			0	1.1	0	0
7				0	0	0			0	.30	0	0
8				0	0	0			0	0	0	0
9				0	39	0			0	0	0	31
10				0	6.6	0			0	0	0	68
11				0	1.1	0			0	0	0	69
12				0	.72	0			0	0	0	70
13				0	.54	0			0	0	0	70
14				0	.45	0			0	0	0	70
15				0	.18	0			0	0	30	28
16				0	0	0			26	0	66	2.8
17				0	0	0			68	0	70	1.0
18				0	0	0			72	0	71	.58
19				0	0	0			71	0	59	.36
20				0	0	10			66	0	22	.09
21				0	0	3.0			66	0	3.1	0
22				0	0	.90			20	0	1.1	0
23				0	0	.72			2.3	0	.54	0
24				0	0	.51			.53	0	0	0
25				0	0	0			0	0	0	0
26				0	3.1	0			0	0	0	0
27				0	2.5	0			0	0	6.2	0
28				.02	.87	0			60	0	64	0
29				7.7	---	0			73	0	63	0
30				52	---	0			73	0	62	0
31		---		2.0	---	0	---		---	0	63	---
TOTAL	0	0	0	61.72	56.23	275.13	0	0	597.83	240.60	580.94	539.99
MEAN	0	0	0	1.99	2.01	8.88	0	0	19.9	7.76	18.7	18.0
MAX	0	0	0	52	39	120	0	0	73	76	71	70
MIN	0	0	0	0	0	0	0	0	0	0	0	0
a	0	0	0	0	0	0	0	0	1190	478	1150	1070

WTR YR 1981 TOTAL 2352.44 MEAN 6.45 MAX 120 MIN 0 AC-FT a 7780

a Imported Colorado River water, in acre-ft.

## SANTA ANA RIVER BASIN

11070500 SAN JACINTO RIVER NEAR ELSINORE, CA

LOCATION.--Lat 33°39'51", long 117°17'35", in SE<sub>4</sub>SE<sub>4</sub>NE<sub>4</sub> sec.9, T.6 S., R.4 W., Riverside County, Hydrologic Unit 18070203, on right bank 2 mi (3 km) east of Elsinore, 2.1 mi (3.4 km) downstream from Railroad Canyon Dam, and 36 mi (58 km) downstream from Lake Hemet.

DRAINAGE AREA. -- 723 mi<sup>2</sup> (1,873 km<sup>2</sup>).

PERIOD OF RECORD.--January 1916 to current year. Monthly figures 1927-50, adjusted for diversion, published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 1,270 ft (387 m), from topographic map. Prior to Feb. 13, 1916, nonrecording gage at site 0.7 mi (1.1 km) downstream at different datum. Feb. 13, 1916, to Oct. 27, 1921, nonrecording gage at present site at different datum.

REMARKS.--Records good. Flow partly regulated by Lake Hemet (station 11069000) and regulated since 1928 by Railroad Canyon Reservoir, capacity, 12,000 acre-ft (14.8 hm<sup>3</sup>), 2.1 mi (3.4 km) above station. Diversion for irrigation and domestic use above Railroad Canyon Reservoir. Temescal Water Co. diverted 292 acre-ft (360,000 m<sup>3</sup>) during current year from Railroad Canyon Reservoir for irrigation below station in vicinity of Corona. See schematic diagram of Santa Ana River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft<sup>3</sup>/s (453 m<sup>3</sup>/s) Feb. 17, 1927, gage height, 11.8 ft (3.60 m), from rating curve extended above 2,000 ft<sup>3</sup>/s (56.6 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR--Maximum discharge, 83 ft<sup>3</sup>/s (2.35 m<sup>3</sup>/s) May 27, gage height, 3.67 ft (1.119 m); minimum daily, 0.18 ft<sup>3</sup>/s (0.005 m<sup>3</sup>/s) Aug. 26, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.83	1.0	1.2	1.1	1.6	7.4	1.2	1.0	.92	.41	.33	.31
2	.91	1.1	1.2	1.1	1.6	6.9	1.3	1.1	.87	.41	.33	.33
3	1.1	1.1	1.1	1.1	1.6	3.5	1.2	1.1	.85	.33	.33	.31
4	1.1	1.1	1.1	1.2	1.6	2.3	1.1	1.1	.75	.30	.33	.29
5	1.1	1.1	1.2	1.3	1.5	2.4	1.1	1.1	.65	.29	.33	.31
6	1.0	1.2	1.1	1.2	1.5	3.4	1.1	1.1	.64	.30	.33	.32
7	1.0	1.2	1.1	1.3	1.5	2.0	1.3	1.0	.63	.35	.33	.31
8	.96	1.2	1.1	1.3	1.7	1.8	1.2	.96	.64	.42	.33	.29
9	.92	1.2	1.0	1.3	3.0	1.6	1.2	.93	.64	.43	.33	.30
10	.93	1.3	1.0	1.3	1.9	1.6	1.2	.82	.65	1.0	.33	.30
11	1.0	1.4	1.0	1.4	1.8	1.5	1.2	.81	.58	1.1	.33	.28
12	1.1	1.4	1.1	1.4	1.8	1.5	1.2	.82	.58	1.2	.31	.25
13	1.1	1.4	1.1	1.4	1.7	1.6	1.1	.89	.58	1.2	.32	.24
14	1.1	1.4	1.1	1.4	1.7	1.6	1.1	.97	.53	1.2	.29	.24
15	1.1	1.4	1.1	1.3	1.9	1.5	1.1	1.2	.46	1.3	.35	.29
16	1.1	1.2	1.1	1.3	1.8	1.5	1.1	1.1	.44	1.3	.36	.27
17	1.2	1.3	1.1	1.3	1.7	1.5	1.1	1.1	.43	1.2	.61	.25
18	1.1	1.4	1.1	1.3	1.7	1.4	1.3	.92	.54	1.2	.36	.23
19	1.1	1.4	1.1	1.3	1.6	1.5	1.5	1.1	.49	1.2	.32	.23
20	.97	1.3	1.1	1.4	1.6	1.8	1.3	1.3	.44	1.0	.30	.25
21	.62	1.3	1.1	1.4	1.6	1.5	1.2	1.1	.42	.35	.26	.28
22	.84	1.2	1.0	1.3	1.6	1.4	1.1	1.2	.39	.31	.24	.29
23	.96	1.3	1.0	1.4	1.6	1.4	1.0	1.1	.37	.25	.23	.30
24	.97	1.2	1.1	1.4	1.6	1.3	1.1	1.0	.37	.24	.21	.36
25	1.0	1.2	1.0	1.4	1.7	1.3	1.1	1.2	.36	.25	.20	.39
26	1.1	1.3	1.0	1.4	1.9	1.2	1.1	1.4	.36	.25	.18	.40
27	1.1	1.3	1.1	1.4	1.7	1.3	1.1	1.1	.41	.27	.19	.43
28	1.0	1.2	1.1	2.2	1.8	1.2	.94	4.6	.44	.30	.19	.42
29	.98	1.3	1.1	1.7	---	1.2	.88	1.4	.44	.44	.18	.45
30	1.0	1.3	1.1	1.8	---	1.3	.89	1.1	.43	.33	1.2	.49
31	1.0	---	1.1	1.7	---	1.2	---	.94	---	.34	.44	---
TOTAL	31.29	37.7	33.7	42.8	48.3	62.6	34.31	46.46	16.30	19.47	10.37	9.41
MEAN	1.01	1.26	1.09	1.38	1.73	2.02	1.14	1.50	.54	.63	.33	.31
MAX	1.2	1.4	1.2	2.2	3.0	7.4	1.5	1.1	.92	1.3	1.2	.49
MIN	.62	1.0	1.0	1.1	1.5	1.2	.88	.81	.36	.24	.18	.23
AC-FT	62	75	67	85	96	124	68	92	32	39	21	19
CAL YR 1980	TOTAL	84975.31	MEAN	232	MAX	8080	MIN	.62	AC-FT	168500		
WTR YR 1981	TOTAL	392.71	MEAN	1.08	MAX	11	MIN	.18	AC-FT	779		



11072100 TEMESCAL CREEK ABOVE MAIN STREET, AT CORONA, CA

LOCATION.--Lat 33°53'22", long 117°33'48", in La Sierra Grant, Riverside County, Hydrologic Unit 18070203, on left bank on upstream side of Main Street bridge, in Corona, 1.4 mi (2.3 km) upstream from topographic boundary of Prado Flood Control Basin.

DRAINAGE AREA.--224 mi<sup>2</sup> (580 km<sup>2</sup>), excludes 768 mi<sup>2</sup> (1,990 km<sup>2</sup>) above Lake Elsinore.

PERIOD OF RECORD.--December 1967 to September 1974, December 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 580 ft (177 m) from topographic map. Dec. 1967 to Sept. 1974, water-stage recorder at site 1.1 mi (1.8 km) downstream at different datum.

REMARKS.--Records poor. Flow regulated by Lake Elsinore and several storage reservoirs. Many diversions upstream for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,850 ft<sup>3</sup>/s (251 m<sup>3</sup>/s) Feb. 25, 1969, gage height, 8.17 ft (2.490 m) from floodmark, at old site 1.1 mi (1.8 km) downstream, on basis of slope-area measurement of maximum flow; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,130 ft<sup>3</sup>/s (32.0 m<sup>3</sup>/s), gage height, 7.95 ft (2.423 m); minimum daily 0.27 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) Sept. 25.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	4.8	116	132	31	129	12	7.1	9.9	9.3	3.2	.33
2	5.3	4.6	117	132	28	90	18	7.3	10	8.9	4.3	.69
3	5.0	4.5	118	132	26	47	16	7.0	10	9.2	3.5	.74
4	4.8	4.5	113	132	25	32	15	5.2	9.7	8.8	3.2	.80
5	4.6	4.4	114	132	24	30	13	3.8	9.2	8.0	3.7	.86
6	4.5	5.3	119	132	23	28	11	7.3	10	6.6	2.6	.93
7	4.4	8.0	122	132	22	25	9.8	6.8	9.9	8.3	2.6	1.0
8	4.3	18	124	132	29	22	8.3	5.7	9.7	8.3	2.5	1.1
9	4.2	18	125	135	102	21	7.5	5.5	9.2	8.9	2.3	1.2
10	4.1	18	137	139	44	19	11	5.9	9.9	9.2	2.1	1.3
11	4.0	16	129	140	31	17	14	5.7	11	9.3	2.1	1.4
12	3.9	14	126	140	26	16	14	7.1	12	8.6	2.0	1.5
13	3.8	14	125	139	23	16	23	9.1	11	8.3	1.9	1.6
14	3.8	15	124	139	22	16	17	8.7	9.8	8.1	2.0	1.8
15	3.7	25	124	139	20	15	16	8.1	9.4	7.0	1.8	1.9
16	3.7	54	124	138	21	14	15	8.4	11	5.0	1.8	1.4
17	3.6	88	124	138	18	13	16	8.0	11	5.9	1.9	2.0
18	3.6	92	124	138	17	13	34	7.6	10	5.9	1.9	2.4
19	3.5	98	128	136	17	33	40	9.2	12	7.0	2.2	1.4
20	3.4	94	132	145	17	35	25	8.3	13	5.7	1.9	.68
21	3.4	92	130	150	16	22	15	9.2	15	5.6	2.0	.77
22	8.0	105	128	148	14	19	11	10	15	5.9	2.1	1.0
23	12	110	130	110	13	16	10	10	13	5.8	1.9	.84
24	17	111	132	40	13	14	9.7	8.8	13	5.4	.43	.81
25	20	109	132	16	25	13	9.5	8.8	13	4.3	.64	.27
26	30	105	132	18	29	14	9.3	8.5	12	3.9	.80	.50
27	30	104	132	26	19	14	9.6	13	13	4.6	1.1	.62
28	30	110	132	94	18	13	8.6	9.6	11	6.1	.89	.51
29	30	116	132	181	---	13	8.2	9.8	10	7.0	.86	.38
30	10	116	132	64	---	12	6.9	11	9.6	6.5	.97	2.0
31	5.3	---	132	36	---	10	---	10	---	4.0	.51	---
TOTAL	279.3	1678.1	3409	3607	713	791	433.4	250.5	332.3	215.4	61.70	32.73
MEAN	9.01	55.9	126	116	25.5	25.5	14.4	8.08	11.1	6.95	1.99	1.09
MAX	30	116	137	181	102	129	40	13	15	9.3	4.3	2.4
MIN	3.4	4.4	113	16	13	10	6.9	3.8	9.2	3.9	.43	.27
AC-FT	554	3330	7750	7150	1410	1570	860	497	659	427	122	65

WTR YR 1981 TOTAL 12303.43 MEAN 33.7 MAX 181 MIN .27 AC-FT 24400

## 11073360 CHINO CREEK AT SCHAEFER AVENUE, NEAR CHINO, CA

LOCATION.--Lat 34°00'14", long 117°43'34", in Santa Ana del Chino Grant, San Bernardino County, Hydrologic Unit 18070203, on right bank 300 ft (91 m) downstream from Schaefer Avenue, 0.8 mi (1.3 km) downstream from San Antonio Creek, and 1.5 mi (2.4 km) southwest of Chino.

DRAINAGE AREA.--48.9 mi<sup>2</sup> (126.7 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Concrete wingwalls have formed low-water control since October 1975. Altitude of gage is 685 ft (209 m), from topographic map.

REMARKS.--Records fair. Flow mostly regulated by San Antonio flood-control reservoir, capacity, 7,620 acre-ft (9.40 hm<sup>3</sup>). Natural streamflow affected by extensive ground-water withdrawals, diversions for power, domestic use, irrigation, and return flow from irrigated areas. California Water Project reported releases of 9,140 acre-ft (11.3 hm<sup>3</sup>) to the basin via San Antonio Creek from Rialto Pipeline below San Antonio Dam (station 11073210) at a point 10 mi (16 km) upstream. Chino Basin Municipal Water District took all of the imported water for ground-water replenishment in the Montclair Spreading Grounds upstream of this site. See schematic diagram of Santa Ana River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,190 ft<sup>3</sup>/s (175 m<sup>3</sup>/s) Mar. 1, 1978, gage height, 9.66 ft (2.944 m), from rating curve extended above 1,520 ft<sup>3</sup>/s (43.0 m<sup>3</sup>/s); no flow May 21, June 30, July 1, Oct. 30, Nov. 3, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1969, 9,200 ft<sup>3</sup>/s (261 m<sup>3</sup>/s), gage height, 9.23 ft (2.813 m), present datum, by contracted-opening measurement at site 6.1 mi (9.8 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,050 ft<sup>3</sup>/s (29.7 m<sup>3</sup>/s) Mar. 1, gage height, 6.85 ft (2.088 m); minimum daily 0.33 ft<sup>3</sup>/s (0.009 m<sup>3</sup>/s) June 3, 4, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.2	1.4	.82	2.8	308	.50	.50	.36	.45	.40	.66
2	3.2	1.9	1.4	.50	19	76	.60	.74	.40	.55	.50	.55
3	3.2	1.6	1.4	.60	21	1.7	.60	.66	.33	.50	.45	.50
4	.91	1.6	.60	.60	1.6	1.4	.50	.55	.33	.60	.45	.50
5	1.1	1.6	2.2	.66	.55	1.2	.50	.50	.36	.45	.50	.55
6	1.1	1.3	1.7	.82	.50	.80	.55	.45	.36	.50	.50	.66
7	1.3	1.3	1.4	.74	.45	.80	.66	.45	.36	.50	.50	.55
8	1.3	1.4	1.4	.91	79	.70	.55	.50	.40	.40	.55	.82
9	1.1	1.9	1.9	.82	29	.60	.55	.50	.36	.50	.50	.50
10	1.3	1.6	1.4	.45	.82	.60	.60	.45	.36	.55	.55	.66
11	1.1	1.3	1.1	30	.60	.60	.50	.50	.40	.55	.55	.55
12	1.4	1.1	.82	1.0	.60	.50	.60	.50	.45	.50	.50	.50
13	1.3	1.3	.74	.74	.55	.60	.60	.45	.40	.55	.50	.50
14	1.3	1.4	.74	.66	.60	.60	.66	.50	.36	.55	.50	.82
15	1.4	1.0	.74	.66	.55	.60	.60	.66	.33	.55	.74	1.0
16	15	1.1	.55	.60	.66	.60	.66	.50	.40	.55	.66	.66
17	1.7	1.0	.82	.50	.82	.60	.66	.50	.40	.55	.60	.55
18	1.4	1.0	.55	.50	1.0	.60	42	.50	.45	.50	.60	.66
19	1.1	.91	.60	.50	1.3	.60	22	.55	.55	.40	.66	.66
20	1.1	.91	.74	.50	.82	60	10	.60	.50	.40	.66	.60
21	1.0	2.2	.60	.55	.66	2.2	.91	.55	.55	.45	.66	.66
22	1.1	1.4	.91	.50	.82	1.1	.55	.55	.50	.45	.60	.50
23	1.9	1.4	1.0	34	.66	.80	.55	.55	.50	.45	.66	.50
24	1.4	1.1	1.3	.50	1.0	.60	.50	.50	.50	.45	.74	.55
25	1.4	.60	1.0	.45	73	.50	.50	.50	.50	.55	.74	.60
26	1.4	.91	.82	.45	8.5	.50	.55	.55	.45	.55	.82	.60
27	1.6	1.4	1.1	.45	1.4	.60	.66	4.3	.50	.74	.91	.60
28	1.3	1.4	1.6	130	35	.60	.50	.40	.55	.55	.82	.60
29	1.4	1.4	1.1	192	---	.50	.50	.36	.45	.50	.66	.60
30	1.4	1.4	1.0	3.2	---	.60	.55	.45	.45	.74	.60	3.7
31	1.7	---	.74	1.7	---	.60	---	.36	---	.50	1.1	---
TOTAL	58.81	40.63	92.77	406.38	283.26	465.70	89.66	19.63	12.81	16.03	19.18	21.36
MEAN	1.90	1.35	2.99	13.1	10.1	15.0	2.99	.63	.43	.52	.62	.71
MAX	15	2.2	60	192	79	308	42	4.3	.55	.74	1.1	3.7
MIN	.91	.60	.55	.45	.45	.50	.50	.36	.33	.40	.40	.50
AC-FT	117	81	184	806	562	924	178	39	25	32	38	42
CAL YR 1980 TOTAL	8548.02			23.4		954			16950			
WTR YR 1981 TOTAL	1526.22			4.18		308			3030			

LOCATION.--Lat 33°58'58", long 117°35'55", in SW¼SW¼NE¼ sec.22, T.2 S., R.7 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 300 ft (91 m) upstream from Merrill Avenue bridge, and 4.6 mi (7.4 km) west of Mira Loma.

PERIOD OF RECORD.--January 1968 to July 31, 1977, January 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 660 ft (201 m) above mean sea level, from topographic map. Prior to July 1977 at site 100 ft (30.5 m) downstream at different datum.

REMARKS.--Records poor. No gage-height record or indefinite stage-discharge relation Oct. 1 to Sept. 4. No regulation above station. See schematic diagram of Santa Ana River basin. Station reinstalled after channel construction on Dec. 22, 1979. Channel is now a trapezoidal concrete floodway, and records for low and medium flows are not equivalent.

AVERAGE DISCHARGE.--8 years (water years 1969-76) 2.74 ft<sup>3</sup>/s (0.078 m<sup>3</sup>/s), 1,990 acre-ft/yr (2.45 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,100 ft<sup>3</sup>/s (258 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 7.08 ft (2.158 m), from floodmark, on basis of slope-area measurement of maximum flow; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft<sup>3</sup>/s (30.3 m<sup>3</sup>/s) Jan. 29, gage height, 5.20 ft (1.585 m); minimum daily, no flow for several days.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.02	.02	.02	.06	135	.02	.01	.06	.02	.02	.11
2	.03	.02	.02	.02	.03	15	.20	.02	.13	.02	.02	.11
3	.03	.02	.02	.02	.02	1.9	.05	.02	.14	.03	.03	.10
4	.03	.02	50	.02	.02	.90	.03	.01	.10	.08	.07	.09
5	.02	.02	40	.02	.02	1.7	.02	.02	.03	.01	.09	.09
6	.02	.02	.10	.02	.02	1.3	.02	.02	.08	.01	.07	.09
7	.03	.01	.04	.02	.02	1.1	.03	.01	.15	.01	.09	.06
8	.03	.01	.02	.02	4.5	.72	.03	.02	.09	.03	.08	.10
9	.03	.01	.02	.02	.08	1.1	.03	.03	.13	.03	.05	.18
10	.02	.01	.02	.03	.03	.47	.05	.05	.16	.04	.10	.08
11	.01	.01	.02	3.0	.03	.58	.02	.03	.10	.02	.13	.08
12	.01	.01	.02	.06	.03	.47	.02	.04	.06	.01	.19	.08
13	.03	.01	.02	.03	.03	1.1	.02	.04	.04	0	.22	.08
14	.08	.01	.02	.06	.03	.47	.02	.04	.02	0	.46	.08
15	.02	.01	.02	.02	.03	.37	.02	.29	.02	.01	.32	.08
16	2.0	.01	.02	.03	.03	.37	.03	.06	.02	.02	.70	.08
17	.11	.01	.02	.04	.03	.58	.03	.04	.02	.04	.46	.08
18	.02	.01	.02	.06	.03	.58	.28	.03	.02	.85	.07	.08
19	.02	.01	.02	.14	.03	6.1	.28	.20	.02	.02	.01	.08
20	.02	.01	.02	.06	.03	.02	.25	.14	.01	.01	.01	.08
21	.02	.01	.02	.03	0	0	.10	.15	.01	.01	0	.08
22	.02	.04	.02	.03	.03	0	.02	.09	.01	.01	0	.08
23	.02	.02	.02	3.6	.03	0	.02	.08	.01	.01	.10	.08
24	.02	.03	.02	.02	.03	0	.02	.06	.01	.01	.08	.08
25	.02	0	.02	.01	50	.01	.01	.07	.03	.01	.18	.08
26	.02	.01	.02	0	31	.02	.01	.08	.02	.81	.05	.08
27	.02	.02	.02	.01	2.8	.10	.01	.13	.01	.01	.08	.08
28	.02	.02	.02	86	16	.05	.01	.05	.02	.01	.09	.08
29	.02	.01	.02	67	---	.10	.01	.06	.01	.02	.11	.08
30	.02	.01	.02	7.0	---	.10	.01	.08	.02	.02	.12	.10
31	.02	---	.02	.20	---	.03	---	.19	---	.02	.08	---
TOTAL	2.81	.43	90.68	167.61	104.99	170.24	1.67	2.16	1.55	.60	4.08	2.63
MEAN	.091	.014	2.93	5.41	3.75	5.49	.056	.070	.052	.019	.13	.088
MAX	2.0	.04	50	86	50	135	.28	.29	.16	.08	.70	.18
MIN	.01	0	.02	0	0	0	.01	.01	.01	0	0	.06
AC-FT	5.6	.9	180	332	208	338	3.3	4.3	3.1	1.2	8.1	5.2
CAL YR 1980	TOTAL	8702.94	MEAN	23.8	MAX	1590	MIN	0	AC-FT	17260		
WTR YR 1981	TOTAL	549.45	MEAN	1.51	MAX	135	MIN	0	AC-FT	1090		

## SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA  
(National stream-quality accounting network station)

LOCATION.--Lat 33°53'00", long 117°38'40", in La Sierra Grant, Riverside County, Hydrologic Unit 18070203, on left bank of outlet channel, 2,500 ft (762 m) downstream from axis of Prado Dam, and 4.5 mi (7.2 km) west of Corona.

DRAINAGE AREA.--1,490 mi<sup>2</sup> (3,859 km<sup>2</sup>), excludes 768 mi<sup>2</sup> (1,989 km<sup>2</sup>) above Lake Elsinore.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1930 to November 1939 (irrigation seasons only), March 1940 to current year. Published as "at Santa Fe Railroad Bridge, near Prado" May 1930 to November 1931, as "at Atchison, Topeka, and Santa Fe Railroad Bridge, near Prado" May 1932 to November 1939, and as "below Prado Dam, near Prado" March 1940 to September 1950.

GAGE.--Water-stage recorder and concrete control since August 1944. Datum of gage is approximately 449 ft (136.9 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Mar. 18, 1940, at about same site at various datums.

REMARKS.--Records good. Flow regulated since 1941 by Prado Reservoir, capacity, 201,200 acre-ft (248 hm<sup>3</sup>). Natural streamflow affected by extensive ground-water withdrawals, diversion for irrigation, and return flow from irrigated areas. California Water Project released 9,142 acre-ft (11.3 hm<sup>3</sup>) to basin. Chino Basin Municipal Water District used all the imported water for ground-water replenishment in the Montclair spreading grounds. (See station 11073360.) See schematic diagram of Santa Ana River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,440 ft<sup>3</sup>/s (211 m<sup>3</sup>/s) Feb. 21, 1980, gage height, 6.88 ft (2.097 m); minimum daily 2.4 ft<sup>3</sup>/s (0.068 m<sup>3</sup>/s) July 29 to Aug. 3, Sept. 20, 1978 (result of gate closure).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, reached a discharge of 100,000 ft<sup>3</sup>/s (2,830 m<sup>3</sup>/s), by slope-area measurement at site 2.5 mi (4.0 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 672 ft<sup>3</sup>/s (19.0 m<sup>3</sup>/s) Mar. 2, gage height, 3.91 ft (1.192 m); minimum daily, 45 ft<sup>3</sup>/s (1.274 m<sup>3</sup>/s) Jan. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	107	257	255	72	118	288	444	129	73	66	57
2	91	104	246	242	131	523	288	375	151	75	63	63
3	93	103	266	253	211	668	287	191	163	71	65	63
4	94	104	324	266	241	660	285	122	152	66	67	66
5	98	104	237	265	263	332	284	124	132	62	68	70
6	100	108	227	249	289	89	282	120	113	56	69	72
7	103	118	222	245	252	89	285	114	104	63	67	67
8	105	123	244	255	52	89	287	109	95	64	65	66
9	102	132	259	254	120	112	320	105	95	67	65	67
10	106	136	272	260	206	134	343	101	87	68	58	61
11	105	141	295	356	247	151	340	96	69	68	59	64
12	104	141	325	146	259	150	340	96	70	68	60	64
13	102	141	269	45	216	163	335	87	71	65	61	64
14	108	148	250	169	152	187	331	112	64	65	64	66
15	109	138	265	241	153	189	324	119	59	70	64	67
16	115	130	253	243	150	189	321	108	65	70	65	64
17	112	137	252	242	210	191	404	106	65	68	64	67
18	107	165	253	241	245	191	438	99	66	67	63	69
19	98	170	251	243	282	122	434	105	68	66	63	73
20	99	174	247	240	295	98	420	106	70	62	64	73
21	96	184	249	236	288	172	412	99	66	62	60	73
22	97	188	251	234	288	169	446	100	63	63	62	71
23	98	211	245	149	285	185	480	106	65	62	65	71
24	108	215	250	93	219	273	492	98	64	62	64	78
25	112	206	270	93	132	304	495	92	67	60	63	74
26	128	224	267	92	172	299	486	91	65	58	62	72
27	134	235	271	119	175	297	475	102	68	60	60	72
28	117	243	264	228	118	295	463	121	67	65	62	69
29	115	243	265	304	---	293	482	112	67	67	62	74
30	120	251	263	213	---	290	478	117	68	69	57	71
31	110	---	249	62	---	290	---	118	---	68	57	---
TOTAL	3279	4824	8053	6533	5723	7312	11345	3995	2548	2030	1954	2048
MEAN	106	161	260	211	204	236	378	129	84.9	65.5	63.0	68.3
MAX	134	251	325	356	295	668	495	444	163	75	69	78
MIN	91	103	222	45	52	89	282	87	59	56	57	57
AC-FT	6500	9570	15970	12960	11350	14500	22500	7920	5050	4030	3880	4060
CAL YR 1980 TOTAL	273078		MEAN 746	MAX 6440	MIN 17	AC-FT 541700						
WTR YR 1981 TOTAL	59644		MEAN 163	MAX 668	MIN 45	AC-FT 118300						

## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES: Water years 1967 to current year.

BIOLOGICAL DATA: Water years 1975 to September 1981 (discontinued).

SPECIFIC CONDUCTANCE: Water years 1970 to current year.

WATER TEMPERATURES: Water years 1970 to current year.

SEDIMENT RECORDS: Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

CHLORIDE: October 1970 to September 1971.

SPECIFIC CONDUCTANCE: October 1969 to current year.

WATER TEMPERATURES: October 1969 to current year.

SEDIMENT RECORDS: October 1973 to current year.

INSTRUMENTATION.--Water-quality monitor recording specific conductance and water temperature since October 1969.

COOPERATION.--The letter "A" following a date indicates chemical-quality data furnished by California Department of Water Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,830 micromhos Apr. 30, 1971; minimum recorded, 220 micromhos Feb. 20, 1978.

WATER TEMPERATURES: Maximum recorded, 36.0°C Sept. 4, 1972; minimum recorded, 2.5°C Dec. 30, 1969.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,870 mg/L Mar. 5, 1978; minimum daily mean, 3 mg/L Apr. 2, 1980.

SEDIMENT DISCHARGE: Maximum daily, 18,900 tons (17,100 metric tons) Mar. 5, 1978; minimum daily, 0.58 tons (0.53 metric tons) Sept. 20, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,580 micromhos May 25, June 11, 14; minimum recorded, 845 micromhos Mar. 13.

WATER TEMPERATURES: Maximum recorded, 28.5°C June 24, 25, July 7; minimum recorded, 8.5°C Nov. 19, Dec. 14.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 455 mg/L Oct. 3; minimum daily mean, 3 mg/L Feb. 28, 29.

SEDIMENT DISCHARGE: Maximum daily, 266 tons (242 metric tons) Dec. 18; minimum daily, 0.96 tons (0.87 metric tons) Feb. 28.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
OCT											
03...	1300	98	--	--	21.5	--	--	--	--	--	--
29...	1300	114	1390	--	16.0	38	9.2	--	K1500	400	130
NOV											
07...	1400	118	--	--	18.5	--	--	--	--	--	--
25...	1230	161	1280	7.9	--	39	10.2	350	680	320	72
DEC											
05...	1130	243	1280	--	13.0	--	--	--	--	--	--
12...A	1340	303	--	8.0	--	40	10.4	--	--	330	--
17...	1200	262	1190	7.8	12.5	170	10.2	180	380	320	58
JAN											
10...	1200	259	1380	--	14.0	--	--	--	--	--	--
15...	1400	242	1380	8.0	14.0	7.7	9.8	240	640	290	64
19...A	1520	241	1280	7.9	13.5	15	9.7	--	--	320	--
28...	1200	210	1240	7.9	13.0	3.3	--	--	--	340	--
FEB											
03...	1145	244	1000	--	12.0	--	--	--	--	--	--
23...	1200	284	1190	7.5	15.0	7.0	9.9	260	K10	340	--
25...A	1450	132	1160	7.8	14.5	2.0	--	--	--	350	--
MAR											
02...	1100	398	1045	7.5	14.0	3.4	8.8	--	--	320	87
05...	1200	93	980	7.5	14.0	3.3	9.1	--	--	300	85
12...A	1545	121	--	7.9	--	3.0	9.6	--	--	300	--
23...	1200	197	1100	7.3	16.5	40	10.6	780	56	330	--
31...	1200	287	1080	--	18.0	--	--	--	--	--	--
APR											
16...A	1450	319	1080	7.9	18.5	1.0	8.8	--	--	330	--
21...	1200	414	1160	7.4	18.0	3.5	8.9	40	130	330	--
MAY											
04...	1200	123	1300	--	21.5	--	--	--	--	--	--
13...	1245	93	1260	7.7	20.5	80	--	540	600	370	110
15...A	1505	117	--	7.8	21.0	150	7.8	--	--	390	--
JUN											
02...	1300	149	1190	--	20.5	--	--	--	--	--	--
04...	1100	159	--	--	20.5	--	--	--	--	--	--
16...	1100	69	1400	8.0	21.5	45	8.6	3000	2400	390	130
16...A	1510	67	--	8.0	28.0	75	7.1	--	--	400	--
JUL											
01...	1200	77	1290	--	22.5	--	--	--	--	--	--
20...	1200	64	1300	8.0	22.5	90	8.2	1700	510	370	140
30...A	1535	67	1240	8.2	24.0	40	7.4	--	--	380	--

K Results based on colony count outside the acceptable range (non-ideal colony count).

## SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued  
WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT											
03...	--	--	--	--	--	--	--	--	--	--	--
29...	110	31	130	41	2.8	8.8	--	270	160	170	.6
NOV											
07...	--	--	--	--	--	--	--	--	--	--	--
25...	86	26	150	49	3.6	10	--	250	150	170	.5
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
12...A	92	25	140	47	3.3	10	250	--	160	160	.7
17...	86	25	150	50	3.7	8.6	--	260	140	170	.6
JAN											
10...	--	--	--	--	--	--	--	--	--	--	--
15...	78	24	170	55	4.3	6.3	--	230	180	180	.6
19...A	90	24	140	47	3.4	13	260	--	150	160	.6
28...	92	26	130	45	3.1	8.2	--	--	--	--	.5
FEB											
03...	--	--	--	--	--	--	--	--	--	--	--
23...	94	25	100	38	2.4	9.9	--	--	150	130	.5
25...A	98	26	110	40	2.6	11	270	--	130	130	.6
MAR											
02...	89	23	94	38	2.3	11	--	230	130	120	.4
05...	82	22	96	41	2.4	6.7	--	210	140	120	.4
12...A	84	22	93	39	2.3	11	230	--	110	110	.8
23...	91	25	98	38	2.3	8.7	--	230	130	120	.5
31...	--	--	--	--	--	--	--	--	--	--	--
APR											
16...A	90	25	100	39	2.4	11	240	--	120	120	.7
21...	94	24	100	39	2.4	10	--	--	140	130	.6
MAY											
04...	--	--	--	--	--	--	--	--	--	--	--
13...	100	28	120	41	2.7	8.1	--	260	160	140	.5
15...A	110	28	120	39	2.6	9.0	260	--	160	140	.7
JUN											
02...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
16...	110	28	120	40	2.6	7.6	--	260	170	150	.5
16...A	110	30	120	39	2.6	10	260	--	170	140	.7
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
20...	100	28	120	41	2.7	7.8	--	230	180	150	.5
30...A	110	29	120	39	2.6	10	240	--	170	130	.7
DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
OCT											
03...	--	824	--	--	--	--	--	--	--	--	--
29...	25	823	--	826	--	6.5	6.3	1.20	1.30	1.1	.40
NOV											
07...	--	761	--	--	--	--	--	--	--	--	--
25...	20	804	--	784	--	4.7	4.7	1.80	1.80	.90	.40
DEC											
05...	--	810	--	--	--	--	--	--	--	--	--
12...A	--	812	--	--	6.10	--	--	--	--	--	--
17...	18	791	--	775	--	4.6	4.6	1.70	1.70	2.1	1.0
JAN											
10...	--	805	--	--	--	--	--	--	--	--	--
15...	14	864	--	810	--	3.9	4.1	.380	.400	1.5	.80
19...A	--	801	29	--	4.90	--	--	--	--	--	--
28...	21	--	--	--	--	4.2	3.5	.780	.820	1.7	.78
FEB											
03...	--	675	--	--	--	--	--	--	--	--	--
23...	21	689	--	693	--	5.2	4.1	1.50	1.70	1.5	1.2
25...A	--	687	7	--	3.20	--	--	--	--	--	--
MAR											
02...	20	650	--	644	--	4.2	4.1	1.60	1.70	1.5	.90
05...	19	621	--	629	--	3.5	3.3	1.50	1.50	1.5	1.2
12...A	--	606	8	--	5.60	--	--	--	--	--	--
23...	18	679	--	649	--	4.3	4.5	1.40	1.40	1.3	1.6
31...	--	630	--	--	--	--	--	--	--	--	--
APR											
16...A	--	659	5	--	5.40	--	--	--	--	--	--
21...	15	730	--	686	--	4.9	4.9	.970	.910	1.2	1.5
MAY											
04...	--	811	--	--	--	--	--	--	--	--	--
13...	26	785	--	765	--	8.5	6.0	1.30	1.20	1.8	1.6
15...A	--	758	343	--	7.90	--	--	--	--	--	--
JUN											
02...	--	754	--	--	--	--	--	--	--	--	--
04...	--	724	--	--	--	--	--	--	--	--	--
16...	26	834	--	810	--	9.6	9.3	.710	.730	1.7	1.9
16...A	--	783	158	--	9.00	--	--	--	--	--	--
JUL											
01...	--	813	--	--	--	--	--	--	--	--	--
20...	29	795	--	789	--	--	7.9	.230	.200	2.2	1.3
30...A	--	833	148	--	10.0	--	--	--	--	--	--

## SANTA ANA RIVER BASIN

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11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PEN- DED TOTAL (MG/L AS C)
OCT										
03...	--	--	--	--	--	--	--	--	--	--
29...	2.30	1.7	8.8	8.0	2.30	1.80	--	--	19	3.4
NOV										
07...	--	--	--	--	--	--	--	--	--	--
25...	2.70	2.2	7.4	6.9	2.40	1.70	--	18	--	--
DEC										
05...	--	--	--	--	--	--	--	--	--	--
12...A	--	--	--	--	--	--	--	--	--	--
17...	3.80	2.7	8.4	7.3	--	1.60	--	23	--	--
JAN										
10...	--	--	--	--	--	--	--	--	--	--
15...	1.90	1.2	5.8	5.3	.420	.320	--	--	22	1.7
19...A	--	--	--	--	--	--	1.60	--	--	--
28...	2.50	1.6	6.7	5.1	--	4.10	--	--	16	2.9
FEB										
03...	--	--	--	--	--	--	--	--	--	--
23...	3.00	2.9	8.2	7.0	1.90	2.10	--	20	--	--
25...A	--	--	--	--	--	--	1.90	--	--	--
MAR										
02...	3.10	2.6	7.3	6.7	2.50	1.70	--	--	17	--
05...	3.00	2.7	6.5	6.0	1.70	1.50	--	--	11	.2
12...A	--	--	--	--	--	--	2.10	--	--	--
23...	2.70	3.0	7.0	7.5	1.50	1.40	--	13	--	--
31...	--	--	--	--	--	--	--	--	--	--
APR										
16...A	--	--	--	--	--	--	2.10	--	--	--
21...	2.20	2.4	7.1	7.3	2.50	2.20	--	--	9.1	.1
MAY										
04...	--	--	--	--	--	--	--	--	--	--
13...	3.10	2.8	12	8.8	2.90	3.10	--	10	--	--
15...A	--	--	--	--	--	--	2.20	--	--	--
JUN										
02...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
16...	2.40	2.6	12	12	3.00	2.70	--	5.6	--	--
16...A	--	--	--	--	--	--	2.20	--	--	--
JUL										
01...	--	--	--	--	--	--	--	--	--	--
20...	2.40	1.5	--	9.4	3.50	2.90	--	--	5.2	.3
30...A	--	--	--	--	--	--	2.50	--	--	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)
AUG											
03...	1100	69	1260	--	20.5	--	--	--	--	--	--
24...	1100	66	1220	7.9	22.0	130	7.0	500	4200	360	130
26...A	1605	61	--	7.9	26.0	1.0	6.9	--	--	370	--
SEP											
01...	1230	63	1200	--	23.0	--	--	--	--	--	--
21...	1200	75	1240	7.9	21.5	63	7.1	900	5400	360	130

## SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (MG/L AS CAC03)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
AUG										
03...	--	--	--	--	--	--	--	--	--	--
24...	100	27	100	37	2.3	7.0	--	240	150	130
26...A	100	29	100	36	2.3	9.0	230	--	150	120
SEP										
01...	--	--	--	--	--	--	--	--	--	--
21...	100	27	110	39	2.5	7.7	--	240	170	140

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
AUG										
03...	--	--	765	--	--	--	--	--	--	--
24...	.5	29	752	--	729	--	9.9	8.8	.920	.860
26...A	.7	--	763	256	--	11.0	--	--	--	--
SEP										
01...	--	--	742	--	--	--	--	--	--	--
21...	.5	29	784	--	770	--	9.1	8.2	.470	.520

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
AUG										
03...	--	--	--	--	--	--	--	--	--	--
24...	1.8	1.1	2.70	1.9	13	11	4.10	3.60	--	7.5
26...A	--	--	--	--	--	--	--	--	2.90	--
SEP										
01...	--	--	--	--	--	--	--	--	--	--
21...	1.8	1.1	2.30	1.6	11	9.8	3.00	2.70	--	9.9



## SANTA ANA RIVER BASIN

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11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

		ARSENIC		ARSENIC		BARIUM,		BARIUM,		BORON,		CADMIUM		CADMIUM		CHROMIUM,		CHROMIUM,		COBALT,	
		TOTAL		DIS-		TOTAL		DIS-		DIS-		TOTAL		DIS-		TOTAL		DIS-		TOTAL	
		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L		(UG/L	
		AS AS)		AS AS)		AS BA)		AS BA)		AS B)		AS CD)		AS CD)		AS CR)		AS CR)		AS CO)	
DATE	TIME																				
OCT																					
29...	1300	--		6		200		70		--		1		<1		--		10		6	
DEC																					
12...A	1340	--		--		--		--		400		--		--		--		--		--	
17...	1200	--		--		--		--		--		--		--		--		--		--	
JAN																					
15...	1400		6	4		100		70		--		--		<1		0		0		--	
19...A	1520	--		--		--		--		400		--		--		--		--		--	
28...	1200		5	4		100		70		--		--		4		0		0		--	
FEB																					
23...	1200	--		--		--		--		--		--		--		--		--		--	
25...A	1450	--		--		--		--		300		--		--		--		--		--	
MAR																					
02...	1100		4	4		100		70		--		--		2		10		0		--	
05...	1200		5	5		100		60		--		--		5		0		0		4	
12...A	1545	--		--		--		--		300		--		--		--		--		--	
23...	1200	--		--		--		--		--		--		--		--		--		--	
APR																					
16...A	1450	--		--		--		--		300		--		--		--		--		--	
21...	1200		5	6		100		60		--		4		2		10		0		4	
MAY																					
13...	1245	--		--		--		--		--		--		--		--		--		--	
15...A	1505	--		0		--		--		400		--		0		--		--		--	
JUN																					
16...	1100	--		--		--		--		--		--		--		--		--		--	
16...A	1510	--		--		--		--		400		--		--		--		--		--	
JUL																					
20...	1200		6	5		100		60		--		1		<1		20		10		4	
30...A	1535	--		--		--		--		500		--		--		--		--		--	
AUG																					
24...	1100	--		--		--		--		--		--		--		--		--		--	
26...A	1605	--		--		--		--		400		--		--		--		--		--	
SEP																					
21...	1200	--		--		--		--		--		--		--		--		--		--	
DATE		COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)									
OCT																					
29...	<3	23	4	11000	20	17	2	360	160	.2	.0										
DEC																					
12...A	--	--	--	--	--	--	--	--	--	--	--	--									
17...	--	--	--	--	--	--	--	--	--	--	--	--									
JAN																					
15...	<3	10	4	2500	10	14	0	190	100	.1	.0										
19...A	--	--	--	--	--	--	--	--	--	--	--	--									
28...	<3	7	4	770	30	10	1	200	90	--	1.2										
FEB																					
23...	--	--	--	--	--	--	--	--	--	--	--	--									
25...A	--	--	--	--	--	--	--	--	--	--	--	--									
MAR																					
02...	<3	5	3	460	30	13	0	290	270	1.5	1.0										
05...	<3	6	6	380	30	7	0	310	310	1.7	.9										
12...A	--	--	--	--	--	--	--	--	--	--	--	--									
23...	--	--	--	--	--	--	--	--	--	--	--	--									
APR																					
16...A	--	--	--	--	--	--	--	--	--	--	--	--									
21...	<3	6	5	410	30	5	0	370	350	.4	.5										
MAY																					
13...	--	--	--	--	--	--	--	--	--	--	--	--									
15...A	--	--	10	--	40	--	10	--	--	.0	--	--									
JUN																					
16...	--	--	--	--	--	--	--	--	--	--	--	--									
16...A	--	--	--	--	--	--	--	--	--	--	--	--									
JUL																					
20...	<3	24	3	9900	<10	11	0	240	60	2.8	.2										
30...A	--	--	--	--	--	--	--	--	--	--	--	--									
AUG																					
24...	--	--	--	--	--	--	--	--	--	--	--	--									
26...A	--	--	--	--	--	--	--	--	--	--	--	--									
SEP																					
21...	--	--	--	--	--	--	--	--	--	--	--	--									

&lt; Actual value is known to be less than the value shown.

## SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	PCB, TOTAL (UG/L)
OCT										
29...	17	12	--	2	0	0	50	10	--	ND
DEC										
12... A	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	0	--	--	--	--	--
JAN										
15...	20	2	1	1	0	0	50	10	--	ND
19... A	--	--	--	--	--	--	--	--	.43	--
28...	14	8	1	1	0	0	30	30	--	ND
FEB										
23...	--	--	--	--	0	--	--	--	--	--
25... A	--	--	--	--	--	--	--	--	.42	--
MAR										
02...	10	10	1	1	0	0	20	20	--	ND
05...	--	8	1	1	5	0	20	20	--	ND
12... A	--	--	--	--	--	--	--	--	.38	--
23...	--	--	--	--	0	--	--	--	--	--
APR										
16... A	--	--	--	--	--	--	--	--	.30	--
21...	9	4	1	1	1	0	40	10	--	ND
MAY										
13...	--	--	--	--	1	--	--	--	--	--
15... A	--	--	--	--	--	--	--	10	.32	--
JUN										
16...	--	--	--	--	0	--	--	--	--	--
16... A	--	--	--	--	--	--	--	--	.40	--
JUL										
20...	27	16	1	1	1	0	110	9	--	--
30... A	--	--	--	--	--	--	--	--	.33	--
AUG										
24...	--	--	--	--	0	--	--	--	--	--
26... A	--	--	--	--	--	--	--	--	.29	--
SEP										
21...	--	--	--	--	0	--	--	--	--	--

ND Material specifically analyzed for but not detected.

## SANTA ANA RIVER BASIN

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11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ALDRIN, TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
OCT 29...	1300	ND	ND	ND	.01	ND	.09	ND	ND	ND
JAN 15...	1400	ND	ND	ND	ND	ND	.02	ND	ND	ND
28...	1200	ND	ND	ND	ND	ND	.04	ND	ND	ND
MAR 02...	1100	ND	ND	ND	ND	ND	.25	ND	ND	ND
05...	1200	ND	ND	ND	ND	ND	--	ND	ND	ND
APR 21...	1200	ND	ND	ND	ND	ND	.21	ND	ND	ND

DATE	ETHION, TOTAL (UG/L)	HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)
OCT 29...	ND	ND	ND	.01	ND	ND	ND	ND	.03
JAN 15...	ND	ND	ND	ND	ND	ND	ND	ND	ND
28...	ND	ND	ND	.01	ND	ND	ND	ND	ND
MAR 02...	ND	ND	ND	.02	.04	ND	ND	ND	ND
05...	ND	ND	ND	.02	.02	ND	ND	ND	ND
APR 21...	ND	ND	ND	.01	.01	ND	ND	ND	ND

DATE	PER- THANE TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	MIREX, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT 29...	ND	ND	ND	.07	ND	ND	ND	ND	ND
JAN 15...	ND	ND	ND	.05	ND	ND	ND	ND	.01
28...	ND	ND	ND	.12	ND	ND	ND	ND	ND
MAR 02...	ND	ND	ND	.26	.02	ND	ND	ND	ND
05...	ND	ND	ND	.26	ND	ND	ND	ND	ND
APR 21...	ND	ND	ND	.17	ND	ND	ND	ND	ND

ND Material specifically analyzed for but not detected.

## SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	NOV 25,80 1230		MAR 23,81 1200		MAY 13,81 1245		JUN 16,81 1100	
TOTAL CELLS/ML	10000		260		2000		9000	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...								
...PALMELLACEAE								
...SPHAEROCYSTIS	--	-	--	-	--	-	--	-
...CHLOROCOCCALES								
...CHARACIACEAE								
...SCHROEDERIA	--	-	100#	40	13	1	--	-
...MICRACTINIACEAE								
...MICRACTINIUM	--	-	--	-	100	5	--	-
...OOCYSTACEAE								
...ANKISTRODESMUS	280	3	--	-	--	-	2800#	31
...CHODATELLA	330	3	--	-	--	-	--	-
...DICTYOSPHAERIUM			--	-	--	-	230	3
...KIRCHNERIELLA	140	1	--	-	77	4	120	1
...OOCYSTIS	280	3	--	-	--	-	--	-
...SCENEDESMACEAE								
...CRUCIGENIA	--	-	--	-	--	-	--	-
...SCENEDESMUS	2800#	28	--	-	--	-	--	-
...VOLVOCALES								
...CHLAMYDOMONADACEAE								
...CARTERIA	140	1	--	-	--	-	--	-
...CHLAMYDOMONAS	710	7	39	15	120	6	58	1
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCAEAE								
...CYCLOTELLA	660	6	--	-	140	7	410	5
...MELOSIRA	1300	13	--	-	52	3	180	2
...STEPHANODISCUS	--	-	--	-	64	3	--	-
..PENNALES								
...ACHNANTHACEAE								
...ACHNANTHES	*	0	13	5	--	-	58	1
...CYMBELLACEAE								
...CYMBELLA	*	0	--	-	--	-	--	-
...FRAGILARIACEAE								
...FRAGILARIA	--	-	--	-	--	-	--	-
...SYNEDRA	95	1	--	-	--	-	--	-
...GOMPHONEMACEAE								
...GOMPHONEMA	--	-	--	-	--	-	58	1
...NAVICULACEAE								
...NAVICULA	280	3	26	10	140	7	350	4
...NITZSCHIAEAE								
...NITZSCHIA	330	3	52#	20	570#	29	1400#	16
...SURIPELLACEAE								
...SURIPELLA	95	1	--	-	--	-	--	-
..CHRYSTOPHYCEAE								
..CHRYSSOMONADALES								
..SYNURACEAE								
..SYNURA	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
..CRYPTOMONADALES								
..CRYPTOMONADACEAE								
..CRYPTOMONAS	--	-	26	10	13	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
..CHROOCOCCALES								
..CHROOCOCCACEAE								
...ANACYSTIS	330	3	--	-	150	8	700	8
...HORMOGONALES								
...NOSTOCACEAE								
...ANABAENA	--	-	--	-	190	10	--	-
...OSCILLATORIACEAE								
...OSCILLATORIA	2200#	22	--	-	330#	17	2600#	29
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
..EUGLENALES								
..EUGLENACEAE								
...EUGLENA	--	-	--	-	13	1	--	-
...TRACHELOMONAS	*	0	--	-	--	-	--	-

See footnotes at end of table.

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	JUL 20,81 1200		AUG 24,81 1100		SEP 21,81 1200	
TOTAL CELLS/ML	1800		1300		220	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
...						
...PALMELLACEAE						
...SPHAEROCYSTIS	110	6	--	-	--	-
...CHLOROCOCCALES						
...CHARACIACEAE						
...SCHROEDERIA	99	5	--	-	56#	25
...MICRACTINIACEAE						
...MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
...ANKISTRODESMUS	28	2	--	-	--	-
...CHODATELLA	--	-	--	-	--	-
...DICTYOSPHAERIUM	--	-	--	-	--	-
...KIRCHNERIELLA	--	-	--	-	--	-
...OOCYSTIS	--	-	--	-	--	-
...SCENEDESMACEAE						
...CRUCIGENIA	230	12	--	-	--	-
...SCENEDESMUS	84	5	--	-	--	-
...VOLVOCALES						
...CHLAMYDOMONADACEAE						
...CARTERIA						
...CHLAMYDOMONAS	210	12	--	-	--	-
CHRYSTOPHYTA						
..BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
...CYCLOTELLA	--	-	--	-	110#	50
...MELOSIRA	--	-	--	-	--	-
...STEPHANODISCUS	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
...ACHNANTHES	28	2	--	-	--	-
...CYMBELLACEAE						
...CYMBELLA	--	-	--	-	--	-
...FRAGILARIACEAE						
...FRAGILARIA	--	-	--	-	56#	25
...SYNEDRA	--	-	43	3	--	-
...GOMPHONEMACEAE						
...GOMPHONEMA	28	2	--	-	--	-
...NAVICULACEAE						
...NAVICULA	180	10	290#	22	--	-
...NITZSCHACEAE						
...NITZSCHIA	580#	32	960#	74	--	-
...SURIPELLACEAE						
...SURIPELLA	--	-	--	-	--	-
..CHRYSTOPHYCEAE						
...CHRYSSOMONADALES						
...SYNURACEAE						
...SYNURA	210	12	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
...CRYPTOMONADALES						
...CRYPTOMONADACEAE						
...CRYPTOMONAS	14	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
...CHROOCOCCALES						
...CHROOCOCCACEAE						
...ANACYSTIS	--	-	--	-	--	-
...HORMOGONALES						
...NOSTOCACEAE						
...ANABAENA	--	-	--	-	--	-
...OSCILLATORIACEAE						
...OSCILLATORIA	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
...EUGLENALES						
...EUGLENACEAE						
...EUGLENA	28	2	--	-	--	-
...TRACHELOMONAS	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

\* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

## SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	1150	1120	1140	1320	1290	1300	1280	1240	1250	1270	1250	1260
2	1130	1110	1120	1290	1260	1280	1300	1270	1290	1270	1250	1260
3	1120	1110	1120	1280	1250	1260	1300	1270	1280	1250	1230	1240
4	1130	1090	1120	1270	1240	1250	1310	1210	1270	1250	1230	1240
5	1120	1090	1100	1270	1250	1250	1390	1210	1290	1230	1230	1230
6	1090	1090	1090	1340	1270	1290	1390	1370	1380	---	---	---
7	1090	1080	1090	1370	1340	1360	1380	1360	1370	---	---	---
8	1090	1080	1080	1350	1310	1340	1370	1360	1370	---	---	---
9	1130	1080	1100	1320	1300	1310	1370	1350	1360	---	---	---
10	1090	1090	1090	1300	1280	1290	1360	1350	1350	---	---	---
11	1100	1090	1090	1290	1270	1280	1360	1310	1340	---	---	---
12	1130	1090	1100	1290	1270	1280	1330	1300	1310	---	---	---
13	1100	1090	1090	1290	1270	1280	1300	1280	1290	---	---	---
14	1190	1100	1140	1290	1280	1290	1280	1260	1270	---	---	---
15	1220	1190	1210	1330	1290	1310	1260	1230	1250	---	---	---
16	1230	1190	1210	1310	1300	1310	1250	1220	1240	---	---	---
17	1260	1240	1250	1320	1310	1310	1270	1140	1230	---	---	---
18	1320	1260	1290	1330	1300	1310	1300	1250	1280	---	---	---
19	1380	1310	1330	1310	1290	1300	1300	1290	1300	---	---	---
20	1370	1330	1350	1310	1300	1300	1300	1280	1290	---	---	---
21	1380	1340	1350	1310	1300	1310	1300	1280	1290	---	---	---
22	1390	1350	1360	1330	1310	1320	1310	1290	1300	---	---	---
23	1380	1350	1360	1320	1300	1310	1310	1280	1300	---	---	---
24	1360	1310	1330	1310	1300	1300	1300	1280	1290	---	---	---
25	1360	1330	1340	1310	1280	1300	1290	1270	1280	---	---	---
26	1340	1300	1320	1300	1280	1290	1280	1260	1270	---	---	---
27	1400	1310	1360	1310	1280	1290	1280	1260	1270	---	---	---
28	1400	1370	1390	1300	1280	1290	1270	1260	1270	---	---	---
29	1410	1390	1400	1270	1260	1270	1270	1240	1260	---	---	---
30	1400	1330	1360	1270	1240	1250	1260	1240	1250	---	---	---
31	1350	1310	1330	---	---	---	1270	1250	1260	---	---	---
MONTH	1410	1080	1230	1370	1240	1290	1390	1140	1290	1270	1230	1250
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	1050	965	1000	1170	1110	1140
2	---	---	---	---	---	---	1000	974	988	1330	1190	1260
3	---	---	---	---	---	---	1010	979	994	1380	1290	1330
4	---	---	---	---	---	---	1040	993	1020	1390	1290	1340
5	---	---	---	1010	981	995	1070	1020	1050	1420	1390	1410
6	---	---	---	1020	966	986	1050	1010	1030	1430	1380	1410
7	---	---	---	1010	985	997	1030	974	1010	1390	1310	1350
8	---	---	---	1080	1000	1050	1020	991	1010	1320	1280	1300
9	---	---	---	1080	1010	1050	1060	1020	1040	1290	1270	1280
10	---	---	---	1050	981	1020	1080	1040	1060	1280	1210	1250
11	---	---	---	1030	950	994	1090	1050	1080	1260	1240	1250
12	---	---	---	954	894	918	1090	1040	1060	1270	1240	1260
13	---	---	---	935	845	882	1060	1000	1040	1410	1230	1320
14	---	---	---	880	860	868	1080	1010	1030	1410	1370	1390
15	---	---	---	887	853	871	1090	1050	1070	1410	1340	1370
16	---	---	---	886	874	881	1080	1060	1060	1380	1290	1340
17	---	---	---	938	906	923	1080	1050	1070	1340	1310	1320
18	---	---	---	963	929	947	1080	1060	1070	1440	1330	1390
19	---	---	---	1020	950	983	1090	1060	1070	1440	1410	1420
20	---	---	---	1070	973	1020	1130	1110	1110	1470	1440	1450
21	---	---	---	1030	1030	1020	1210	1130	1160	1560	1480	1500
22	---	---	---	1090	1060	1060	1200	1130	1170	1570	1510	1540
23	---	---	---	1120	1060	1100	1130	1080	1100	1540	1520	1530
24	---	---	---	1110	1020	1080	1110	1070	1090	1560	1490	1530
25	---	---	---	1080	1010	1040	1090	1050	1070	1580	1450	1520
26	---	---	---	1080	930	1000	1070	1040	1060	1490	1410	1460
27	---	---	---	955	919	944	1080	1040	1050	1470	1340	1390
28	---	---	---	986	946	961	1110	1050	1070	1400	1350	1370
29	---	---	---	1040	975	1020	1120	1070	1090	1520	1400	1460
30	---	---	---	1040	1010	1020	1160	1080	1110	1540	1520	1530
31	---	---	---	1120	978	1030	---	---	---	---	---	---
MONTH	---	---	---	1120	845	987	1210	965	1060	1580	1110	1380

## SANTA ANA RIVER BASIN

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11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	1450	1250	1340	---	---	---	1200	1180	1190
2	---	---	---	1410	1350	1380	---	---	---	1190	1160	1180
3	1370	1280	1320	1380	1300	1350	---	---	---	1170	1150	1160
4	1300	1260	1280	1330	1280	1310	1260	1250	1250	1170	1140	1150
5	1270	1230	1260	1340	1230	1300	1280	1250	1270	1140	1120	1130
6	1350	1260	1320	1260	1220	1240	1290	1260	1270	1120	1050	1090
7	1420	1320	1360	1260	1220	1240	1270	1240	1260	1200	1030	1060
8	1440	1380	1420	1280	1220	1260	1300	1230	1250	1220	1180	1200
9	1450	1400	1430	1280	1250	1270	1250	1210	1230	1230	1190	1210
10	1500	1400	1440	1280	1250	1260	1250	1220	1240	1230	1210	1220
11	1580	1500	1540	1330	1260	1280	1250	1230	1240	1240	1220	1230
12	1560	1440	1540	1320	1260	1300	1260	1230	1240	1250	1210	1230
13	1540	1480	1510	1350	1310	1330	1250	1240	1250	1230	1210	1220
14	1580	1480	1530	1340	1310	1330	1270	1250	1260	1250	1210	1230
15	1500	1400	1450	1350	1310	1340	1270	1230	1250	1270	1240	1260
16	1460	1400	1430	1340	1310	1330	1260	1220	1240	1270	1250	1260
17	1450	1370	1420	1360	1310	1330	1250	1230	1240	1260	1240	1250
18	1390	1320	1360	1320	1250	1290	1270	1230	1250	1250	1230	1240
19	1330	1270	1300	1330	1270	1300	1240	1200	1220	1250	1220	1240
20	1460	1350	1420	1400	1300	1340	1230	1200	1220	1250	1230	1240
21	1380	1340	1360	1350	1280	1330	1250	1200	1230	1250	1220	1240
22	1370	1300	1330	1310	1260	1290	1290	1240	1260	1260	1230	1250
23	1340	1280	1300	1270	1230	1250	1280	1070	1220	1270	1220	1240
24	1320	1270	1290	1270	1230	1250	1240	1130	1180	1260	1230	1250
25	1300	1250	1280	1300	1240	1270	1220	1170	1200	1260	1220	1240
26	1320	1270	1290	1260	1220	1240	1220	1170	1190	1240	1180	1220
27	1300	1250	1280	1260	1220	1240	1230	1180	1210	1230	1220	1230
28	1290	1260	1280	1280	1240	1260	1200	1140	1180	1250	1130	1210
29	1300	1240	1280	1300	1240	1280	1150	1120	1140	1190	1140	1170
30	1270	1230	1260	---	---	---	1240	1140	1180	1230	1210	1220
31	---	---	---	---	---	---	1200	1180	1190	---	---	---
MONTH	1580	1230	1370	1450	1220	1290	1300	1070	1230	1270	1030	1210
YEAR	1580	845	1240									

## TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	26.0	19.0	22.0	18.5	13.0	15.5	15.5	12.5	13.5	16.5	11.0	13.5
2	25.0	19.0	21.5	18.0	12.5	15.5	15.0	10.5	12.5	16.0	11.5	13.5
3	24.5	19.0	21.5	18.5	13.0	16.0	14.0	11.5	13.0	16.5	13.0	14.5
4	24.0	19.0	21.0	19.0	13.5	16.5	14.0	13.0	13.5	15.5	12.0	13.5
5	24.0	19.0	21.0	19.0	15.0	17.0	14.0	13.0	13.5	17.0	12.5	14.5
6	23.5	18.5	20.5	18.5	16.0	17.0	14.0	12.5	13.5	16.0	12.0	13.5
7	23.5	18.5	21.0	18.5	15.0	16.5	13.0	11.5	12.5	15.5	10.5	13.0
8	24.0	18.5	21.0	19.0	16.0	17.0	12.5	11.0	12.0	15.5	10.5	13.0
9	23.5	19.0	20.5	18.0	15.0	16.5	12.5	10.0	11.0	15.5	10.0	12.5
10	23.0	18.5	20.5	18.0	15.5	16.5	12.5	10.0	11.0	15.5	9.5	12.5
11	23.0	18.0	20.0	18.5	16.0	17.0	12.5	10.5	11.5	15.5	13.0	14.0
12	22.0	18.5	20.0	19.0	16.0	17.5	13.0	10.5	11.5	16.0	13.5	14.5
13	22.5	18.0	19.5	17.5	14.0	16.0	13.5	9.5	11.5	15.0	13.0	14.0
14	20.5	17.0	18.0	17.0	13.0	15.0	14.0	8.5	11.0	14.5	13.0	14.0
15	19.0	14.5	16.5	14.5	11.0	13.0	15.0	9.0	11.5	14.5	14.0	14.5
16	19.0	14.5	16.5	13.5	11.0	12.0	17.0	11.5	14.0	14.5	14.0	14.5
17	19.5	13.5	16.5	14.0	10.0	12.0	16.0	11.5	13.5	14.5	13.5	14.0
18	19.5	13.0	16.0	14.5	9.5	12.0	15.0	12.5	13.5	14.5	13.5	14.0
19	19.5	13.5	16.5	14.0	8.5	11.5	14.5	11.5	13.0	14.5	13.5	14.0
20	20.5	14.0	17.0	14.0	9.0	11.5	15.5	10.5	12.5	14.5	13.5	14.0
21	20.0	14.0	17.0	15.0	10.0	12.5	15.5	10.5	13.0	14.5	14.0	14.0
22	19.5	14.0	17.0	15.0	11.0	13.0	15.5	11.0	13.0	14.5	14.0	14.5
23	19.5	14.0	17.0	15.5	11.0	13.0	16.0	11.0	13.5	15.0	14.0	14.5
24	20.0	14.5	17.5	15.0	11.5	13.5	16.0	10.5	13.0	15.0	13.5	14.0
25	19.0	14.5	17.0	11.5	10.0	10.5	15.5	10.0	12.5	15.0	13.5	14.0
26	19.5	16.0	17.5	14.5	10.0	12.0	16.5	11.5	13.5	14.5	13.0	13.5
27	19.5	14.0	16.5	14.5	9.0	11.5	15.0	10.5	13.0	13.5	13.0	13.0
28	18.0	13.5	15.5	14.5	9.5	12.0	15.5	12.0	13.5	13.5	13.0	13.0
29	19.0	13.0	17.5	15.0	10.0	12.5	16.5	10.5	13.5	13.0	12.5	13.0
30	19.5	13.0	16.0	14.5	10.5	12.5	17.0	12.5	14.5	13.0	11.0	12.5
31	18.0	13.5	16.0	---	---	---	16.0	11.0	13.5	13.0	11.0	12.0
MONTH	26.0	13.0	18.5	19.0	8.5	14.0	17.0	8.5	13.0	17.0	9.5	13.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	13.0	11.0	12.0	15.5	14.0	14.5				---	---	---
2	12.5	11.5	12.0	14.5	14.0	14.5				---	---	---
3	12.5	11.5	12.0	14.5	14.0	14.0				---	---	---
4	12.5	11.5	12.0	14.0	14.0	14.0				---	---	---
5	12.5	11.5	12.0	15.0	13.5	14.0				24.0	17.0	20.0
6	12.5	11.5	12.0	14.5	13.5	14.0				24.0	16.5	20.0
7	12.5	11.0	11.5	15.0	13.5	14.0				24.5	16.5	20.0
8	13.0	11.5	12.5	15.5	13.5	14.5				25.0	16.5	20.5
9	12.5	12.0	12.0	15.0	14.0	14.0				26.5	17.5	21.5
10	12.5	11.5	12.0	15.0	14.0	14.0				26.5	18.0	22.0
11	12.0	11.5	12.0	14.5	14.0	14.0				26.5	18.0	21.5
12	12.5	12.0	12.0	14.5	14.0	14.0				25.5	18.5	21.0
13	13.0	12.0	12.0	14.5	14.0	14.0				24.0	18.0	20.5
14	13.0	12.0	12.5	15.0	14.0	14.5				22.0	18.5	19.5
15	13.0	12.5	12.5	15.0	14.0	14.5				22.0	17.5	19.0
16	13.5	12.5	13.0	15.0	14.0	14.5				23.0	16.5	19.5
17	14.5	13.0	13.0	15.5	14.5	14.5				24.5	15.5	20.0
18	14.0	13.5	13.5	15.5	14.5	15.0				25.0	16.5	20.5
19	14.5	14.0	14.0	15.5	13.5	15.0				21.5	18.0	19.5
20	16.0	14.5	15.0	17.0	13.5	14.5				22.5	16.0	19.0
21	16.0	14.5	15.5	16.0	15.0	15.0				23.5	15.0	19.0
22	15.5	14.5	15.0	16.0	15.5	15.5				25.0	16.5	20.0
23	15.5	14.5	15.0	16.5	15.5	16.0				25.0	17.0	20.5
24	15.5	14.5	14.5	16.5	15.5	16.0				25.5	18.5	21.0
25	15.5	14.5	14.5	16.5	16.0	16.0				24.5	19.5	21.5
26	15.5	14.5	14.5	---	---	---				25.5	19.0	21.5
27	15.5	14.5	15.0	---	---	---				24.5	19.0	21.0
28	15.0	14.0	14.5	---	---	---				26.0	19.0	22.0
29	---	---	---	---	---	---				24.0	19.0	21.0
30	---	---	---	---	---	---				24.5	19.5	21.5
31	---	---	---	---	---	---				27.0	20.0	22.5
MONTH	16.0	11.0	13.0	17.0	13.5	14.5				27.0	15.0	20.5
JUNE				JULY			AUGUST			SEPTEMBER		
1	26.0	20.0	22.0	26.5	20.0	22.0	25.5	19.5	22.5	25.0	20.0	22.5
2	24.0	20.0	21.5	27.5	19.0	23.0	26.0	19.5	22.5	25.0	20.0	22.0
3	26.5	19.5	22.5	28.0	20.0	23.5	25.5	19.0	22.0	24.5	20.0	22.0
4	28.0	19.5	23.5	28.0	20.0	24.0	25.5	19.5	22.5	24.5	20.0	22.0
5	27.5	21.0	24.0	28.0	20.5	24.0	26.0	20.0	22.5	24.5	20.5	22.0
6	27.5	20.0	23.0	28.0	20.5	24.0	26.5	20.0	23.0	25.0	21.0	22.5
7	28.0	20.5	23.5	28.5								



## 11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	93	350	84	107	320	92	257	225	156
2	91	410	101	104	318	69	246	238	158
3	93	455	114	103	302	84	266	304	218
4	94	413	105	104	212	60	324	288	252
5	98	355	94	104	198	56	237	140	90
6	100	310	84	106	215	63	222	85	51
7	103	295	82	118	258	82	222	65	39
8	105	278	74	123	234	74	244	55	36
9	102	265	73	132	229	82	259	53	37
10	106	265	76	136	220	81	272	55	40
11	105	260	74	141	220	84	295	73	58
12	104	250	70	141	222	85	325	90	79
13	102	230	63	141	210	80	269	102	74
14	108	204	54	144	187	75	250	109	74
15	109	188	55	134	174	65	265	111	79
16	115	180	56	130	168	54	253	110	75
17	112	180	54	137	166	61	252	265	180
18	107	178	51	165	172	77	253	390	266
19	98	178	47	170	177	81	251	385	261
20	99	180	48	174	200	94	247	342	228
21	96	230	60	184	220	109	249	267	180
22	97	302	74	188	263	133	251	200	136
23	94	308	81	211	310	177	245	195	129
24	108	330	96	215	280	163	250	204	138
25	112	333	191	206	284	158	270	210	153
26	128	335	116	224	297	180	267	220	159
27	134	390	141	235	264	168	271	228	167
28	117	315	100	243	248	163	264	235	168
29	115	320	99	243	238	156	265	242	173
30	120	332	108	251	230	156	263	247	175
31	110	323	96	---	---	---	249	251	169
TOTAL	3279	---	2550	4824	---	3091	8053	---	4198
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	255	256	176	72	38	7.4	118	6	1.9
2	242	262	171	131	37	13	523	10	14
3	253	270	184	211	18	10	668	9	16
4	266	276	198	241	20	13	660	8	14
5	265	280	200	253	20	14	332	7	6.3
6	249	287	193	254	21	16	89	8	1.9
7	245	283	187	252	21	14	89	11	2.6
8	255	240	165	52	45	6.3	89	15	3.6
9	254	172	118	120	48	16	112	16	4.8
10	260	142	100	206	32	18	134	15	5.4
11	356	130	125	247	15	10	151	13	5.3
12	146	128	50	259	14	9.8	150	11	4.5
13	45	115	14	216	12	7.0	163	10	4.4
14	169	90	41	152	12	4.9	187	9	4.5
15	241	75	49	153	12	5.0	189	9	4.6
16	243	64	42	150	12	4.9	189	8	4.1
17	242	60	37	210	12	6.8	191	8	4.1
18	241	57	37	245	12	7.9	191	7	3.6
19	243	52	34	242	12	9.1	122	9	3.0
20	240	58	38	295	12	9.6	98	10	2.6
21	236	63	40	288	11	8.6	172	8	3.7
22	234	57	36	286	9	7.0	169	7	3.2
23	144	49	20	285	7	5.4	185	5	2.5
24	93	40	10	214	5	3.0	273	6	4.4
25	93	31	7.9	132	4	1.4	304	9	7.4
26	92	22	5.5	172	4	1.9	299	10	8.1
27	119	21	6.7	175	3	1.4	297	10	8.0
28	228	22	14	118	3	9.6	295	9	7.2
29	304	29	24	---	---	---	293	8	6.3
30	213	32	18	---	---	---	290	7	5.5
31	62	35	5.9	---	---	---	290	8	6.3
TOTAL	6533	---	2348.9	5723	---	232.36	7312	---	173.8

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	248	9	7.0	444	33	40	129	280	98
2	288	12	9.1	375	40	40	151	280	114
3	287	15	12	191	95	49	163	280	123
4	285	15	12	122	370	122	152	280	115
5	284	14	11	124	390	131	132	280	100
6	282	14	11	170	370	120	113	280	85
7	285	13	10	114	350	108	104	280	79
8	287	13	10	169	330	97	95	283	73
9	320	12	10	105	307	87	95	260	67
10	343	10	9.3	101	280	76	87	242	57
11	340	19	9.2	96	255	66	69	225	42
12	340	11	10	96	228	59	70	213	40
13	335	11	9.9	87	212	50	71	200	38
14	331	11	9.8	112	200	60	64	192	33
15	324	11	9.5	119	250	80	59	187	30
16	321	12	10	108	240	70	65	190	33
17	404	13	14	106	220	63	65	175	31
18	438	14	17	99	200	53	66	175	31
19	434	14	16	105	200	57	68	174	32
20	420	15	17	106	200	57	70	174	33
21	412	14	16	99	200	53	66	173	31
22	446	20	24	100	200	54	63	172	29
23	480	22	29	106	200	57	65	181	32
24	492	19	25	98	280	74	64	194	34
25	495	19	25	92	320	79	67	220	40
26	486	22	29	91	300	74	65	243	43
27	475	26	33	102	280	77	68	235	43
28	463	29	36	121	280	91	67	220	40
29	482	30	39	112	280	85	67	216	39
30	478	30	39	117	280	88	68	210	39
31	---	---	---	118	280	89	---	---	---
TOTAL	11345	---	519.1	3995	---	2306	2548	---	1624
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	73	205	40	66	240	43	57	190	29
2	75	190	38	63	245	42	63	190	32
3	71	160	31	65	260	46	63	190	32
4	66	120	21	67	230	42	66	190	34
5	62	105	18	68	205	38	70	190	36
6	56	105	16	69	220	41	72	190	37
7	63	130	22	67	230	42	67	190	34
8	64	160	28	65	230	40	66	190	34
9	67	160	29	65	240	42	67	192	35
10	68	160	29	58	240	38	61	170	28
11	68	159	29	59	240	38	64	148	26
12	68	159	29	60	250	40	64	165	29
13	65	158	28	61	250	41	64	255	44
14	65	175	31	64	250	43	66	330	59
15	70	105	20	64	250	43	67	275	50
16	70	195	37	65	250	44	64	200	35
17	68	200	37	64	250	43	67	200	36
18	67	220	40	63	250	43	69	205	38
19	66	250	45	63	250	43	73	220	43
20	62	273	46	64	250	43	73	250	49
21	62	218	36	60	250	40	73	260	51
22	63	174	30	62	280	47	71	225	43
23	62	220	37	65	300	53	71	180	35
24	62	328	55	64	335	58	78	185	39
25	60	295	48	63	300	51	74	192	38
26	58	275	43	62	240	40	72	190	37
27	60	245	40	60	200	32	72	185	36
28	65	240	42	62	173	29	69	179	33
29	67	238	43	62	178	30	74	220	44
30	69	240	45	57	140	28	71	320	61
31	68	240	44	57	183	28	---	---	---
TOTAL	2030	---	1077	1954	---	1271	2048	---	1157
YEAR	59644.0		20748.16						

## SANTA ANA RIVER BASIN

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11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
03...	1240	--	98	460	122	--	--	--
29...	1420	16.0	114	356	110	--	--	--
NOV								
07...	1455	18.5	116	249	78	34	50	67
24...	1135	12.0	213	277	159	46	63	75
25...	1200	--	161	255	111	--	--	--
DEC								
05...	1255	13.0	243	122	80	--	--	--
17...	1200	12.5	262	452	320	--	--	--
JAN								
07...	0845	--	238	292	188	39	51	63
15...	1400	14.0	242	72	47	--	--	--
28...	1200	13.0	210	27	15	--	--	--
FEB								
23...	1200	15.0	284	12	9.2	--	--	--
MAR								
02...	1100	14.0	398	11	12	--	--	--
05...	1200	14.0	93	8	2.0	--	--	--
31...	1300	18.0	287	9	7.0	--	--	--
APR								
21...	1200	18.0	414	14	16	--	--	--
JUN								
02...	1300	20.5	149	339	136	40	52	67
16...	1100	21.5	69	188	35	--	--	--
JUL								
20...	1200	22.5	64	334	58	--	--	--
AUG								
03...	1100	20.5	69	289	54	42	54	70
24...	1100	22.0	66	335	60	--	--	--
SEP								
01...	1230	23.0	63	1120	191	--	--	--
21...	1200	21.5	75	282	57	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT							
03...	--	--	95	--	--	--	--
29...	--	--	97	--	--	--	--
NOV							
07...	83	93	96	98	99	100	--
24...	85	93	97	99	99	99	100
25...	--	--	95	--	--	--	--
DEC							
05...	--	--	82	--	--	--	--
17...	--	--	94	--	--	--	--
JAN							
07...	76	86	94	95	100	--	--
15...	--	--	81	--	--	--	--
28...	--	--	62	--	--	--	--
FEB							
23...	--	--	63	--	--	--	--
MAR							
02...	--	--	52	--	--	--	--
05...	--	--	86	--	--	--	--
31...	--	--	82	--	--	--	--
APR							
21...	--	--	95	--	--	--	--
JUN							
02...	81	93	99	100	--	--	--
16...	--	--	97	--	--	--	--
JUL							
20...	--	--	97	--	--	--	--
AUG							
03...	86	96	100	--	--	--	--
24...	--	--	97	--	--	--	--
SEP							
01...	--	--	100	--	--	--	--
21...	--	--	95	--	--	--	--

## SANTA ANA RIVER BASIN

11075600 SANTA ANA RIVER AT IMPERIAL HIGHWAY, NEAR ANAHEIM, CA

LOCATION.--Lat 33°51'23", long 117°47'23", in Canon De Santa Ana, Orange County, Hydrologic Unit 18070203, on right bank 500 ft (150 m) upstream from State Highway 91, and 0.4 mi (0.6 km) south of Orangethorpe Avenue, and 9 mi (14 km) east of Anaheim, and 9.8 mi (15.8 km) downstream from Prado Dam.

DRAINAGE AREA.--1,544 mi<sup>2</sup> (3,999 km<sup>2</sup>), excludes 768 mi<sup>2</sup> (1,989 km<sup>2</sup>) above Lake Elsinore.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 282 ft (86.0 m), from topographic map. Prior to June 4, 1975, at datum 3.00 ft (0.914 m) higher due to channel degradation.

REMARKS.--Records poor. Natural flow affected by ground-water withdrawals, diversions, importation from Metropolitan Water District and California Aqueduct, municipal use, return flow from irrigation, Prado flood-control reservoir, capacity, 201,200 acre-ft (248 hm<sup>3</sup>) since 1940. See schematic diagram of Santa Ana River Basin.

COOPERATION.--Records were furnished by Orange County Environmental Management Agency and reviewed by the Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft<sup>3</sup>/s (300 m<sup>3</sup>/s) Feb. 19, 1980, gage height, 4.80 ft (1.463 m), maximum gage height, 5.22 ft (1.591 m) Dec. 4, 1974, datum then in use; minimum daily discharge, 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) Sept. 20, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 665 ft<sup>3</sup>/s (18.8 m<sup>3</sup>/s) Mar. 3; minimum daily, 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s) Feb. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	107	263	263	70	121	245	345	123	71	66	54
2	88	107	284	242	130	520	245	306	130	71	63	55
3	92	114	276	250	210	665	264	200	153	69	65	56
4	88	100	422	242	240	660	276	158	145	69	67	55
5	107	100	250	242	260	330	274	158	140	67	68	55
6	128	100	194	242	290	90	286	150	114	67	69	56
7	135	107	194	234	250	90	294	143	95	62	67	57
8	135	135	210	263	50	90	288	135	95	64	60	56
9	128	156	234	276	150	110	294	128	95	62	60	56
10	128	156	276	284	205	135	312	120	95	62	60	54
11	128	163	302	464	245	150	309	113	70	64	59	54
12	121	178	341	121	260	150	303	105	75	64	60	54
13	107	163	341	55	215	165	288	97	75	65	60	54
14	107	202	341	150	150	190	276	112	73	65	59	54
15	107	186	341	234	150	190	273	120	73	70	58	56
16	107	170	341	234	150	190	270	110	71	70	58	55
17	114	218	241	234	210	190	300	105	71	68	59	72
18	100	289	241	234	245	209	339	100	75	64	60	73
19	88	315	241	234	242	197	348	105	75	62	60	73
20	100	315	241	234	245	130	334	100	75	62	60	74
21	100	328	241	234	285	181	339	110	73	62	66	77
22	96	302	241	226	285	185	351	110	73	63	67	73
23	100	289	241	130	285	147	374	114	73	62	68	71
24	100	276	241	80	220	243	385	112	71	62	56	71
25	114	226	241	80	130	267	395	110	71	60	56	73
26	142	226	241	80	170	264	388	114	71	58	56	73
27	156	263	263	110	175	261	341	118	69	60	56	73
28	135	302	263	176	118	252	378	148	69	65	56	74
29	100	276	263	420	---	249	381	118	69	67	55	74
30	135	276	263	260	---	243	371	121	71	69	56	76
31	121	---	250	60	---	240	---	123	---	68	55	---
TOTAL	3503	6145	8327	5793	5725	7154	9544	4208	2628	2014	1885	1908
MEAN	113	205	264	219	204	231	319	136	87.6	65.0	60.8	63.6
MAX	156	328	422	464	295	565	395	345	153	71	69	77
MIN	88	100	194	55	50	90	246	97	69	58	55	54
AC-FT	6450	12190	16520	13470	11360	14190	19010	8350	5210	3990	3740	3780
CAL YR 1980 TOTAL	272800			MEAN 745	MAX 7310	MIN 78	AC-FT 541100					
WTR YR 1981 TOTAL	59874			MEAN 164	MAX 665	MIN 50	AC-FT 118800					

## SANTA ANA RIVER BASIN

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11075620 SANTA ANA RIVER SPREADING DIVERSION BELOW IMPERIAL HIGHWAY, NEAR ANAHEIM, CA

LOCATION.--Lat 33°51'23", long 117°48'00", in Canon De Santa Ana, Orange County, Hydrologic Unit 1807020, on diversion channel, 100 ft (30 m) downstream from diversion point, 0.1 mi (0.2 km) south of La Palma Avenue, 0.6 mi (1.0 km) west of Imperial Highway, and 7.8 mi (12.6 km) east of Anaheim.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1974 to current year. Records prior to Sept. 30, 1976, in files of Geological Survey.

GAGE.--Water-stage recorder and concrete Parshall flume control. Altitude of gage is 262 ft (80 m), from topographic map.

REMARKS.--Records fair. Water is diverted from Santa Ana River at diversion point 100 ft (30 m) upstream, for recharging to spreading basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 431 ft<sup>3</sup>/s (12.2 m<sup>3</sup>/s) Jan. 14, 1978; no flow for some periods in each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 297 ft<sup>3</sup>/s (8.41 m<sup>3</sup>/s) Apr. 25; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.07	30	135	91	96	200	284				
2	0	.04	41	133	122	51	197	257				
3	0	.04	41	135	181	81	197	181				
4	0	.04	52	137	208	93	196	83				
5	0	0	46	137	211	76	195	44				
6	0	0	51	134	222	89	194	10				
7	0	0	73	133	222	114	193	2.0				
8	0	0	120	135	74	108	193	1.0				
9	0	0	146	137	118	117	198	0				
10	0	0	147	138	173	139	208	0				
11	0	.07	152	153	196	144	206	0				
12	0	.08	161	104	200	153	206	0				
13	0	.09	153	13	189	139	205	0				
14	0	.09	142	56	146	164	202	0				
15	0	.08	138	115	144	159	199	0				
16	0	.06	134	131	144	157	198	0				
17	0	.04	132	138	171	155	219	0				
18	0	.07	134	138	198	152	243	0				
19	0	.16	134	138	203	150	244	0				
20	0	.16	133	138	210	55	236	0				
21	.14	.16	133	137	200	129	241	0				
22	.16	.36	134	138	203	133	258	0				
23	.16	.55	133	115	205	144	282	0				
24	.17	17	133	75	187	176	292	0				
25	.24	27	137	81	153	194	297	0				
26	.24	27	138	80	165	196	295	0				
27	.24	28	139	97	175	197	291	0				
28	.15	27	138	225	143	198	285	0				
29	.13	25	138	170	---	200	289	0				
30	.12	27	137	53	---	201	295	0				
31	.10	---	135	44	---	201	---	0	---			---
TOTAL	1.85	180.16	3655	3693	4854	4361	6954	862.0	0	0	0	0
MEAN	.060	6.01	118	119	173	141	232	27.8	0	0	0	0
MAX	.24	28	161	225	222	201	297	284	0	0	0	0
MIN	0	0	30	13	74	51	193	0	0	0	0	0
AC-FT	3.7	357	7250	7330	9630	8650	13790	1710	0	0	0	0
CAL YR 1980	TOTAL	48814.41	MEAN	133	MAX	367	MIN	0	AC-FT	96820		
WTR YR 1981	TOTAL	24561.01	MEAN	67.3	MAX	297	MIN	0	AC-FT	48720		

## SANTA ANA RIVER BASIN

11075620 SANTA ANA RIVER SPREADING DIVERSION BELOW IMPERIAL HIGHWAY, NEAR ANAHEIM, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1975 to current year.

SPECIFIC CONDUCTANCE: Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1974 to current year.

INSTRUMENTATION.--Specific-conductance recorder since July 1974.

REMARKS.--Missing specific-conductance data due to probe or battery malfunction and periods of no flow.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,640 micromhos Sept. 21, 1978; minimum recorded, 143 micromhos Mar. 10, 1980.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,410 micromhos Mar. 20; minimum recorded, 896 micromhos Mar. 5.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
DEC					
03...	1330	42	1280	13.5	794
JAN					
07...	1200	131	1320	--	786
FEH					
09...	0945	60	--	14.0	853
MAR					
03...	1530	103	1100	13.5	672
20...	1145	43	1310	19.0	865
23...	1100	138	1100	19.5	697
31...	1030	202	1090	20.5	672
APR					
21...	1100	237	1140	21.0	710
MAY					
04...	1030	57	1320	20.0	871

## SANTA ANA RIVER BASIN

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11075620 SANTA ANA RIVER SPREADING DIVERSION BELOW IMPERIAL HIGHWAY, NEAR ANAHEIM, CA--Continued

## WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1				---	---	---	1310	1240	1280	1310	1290	1300
2				---	---	---	1320	1260	1310	1310	1290	1300
3				---	---	---	1320	1270	1300	1300	1280	1300
4				---	---	---	1340	990	1240	1310	1290	1300
5				---	---	---	1330	1130	1200	1310	1290	1300
6				---	---	---	1310	1190	1280	1310	1300	1310
7				---	---	---	1330	1300	1320	1320	1310	1310
8				---	---	---	1340	1300	1320	1310	1300	1300
9				---	---	---	1330	1310	1320	1310	1290	1300
10				---	---	---	1340	1310	1330	1310	1280	1290
11				---	---	---	1340	1320	1330	1290	1170	1240
12				---	---	---	1330	1300	1320	1260	1130	1200
13				---	---	---	1330	1300	1310	1300	1250	1280
14				---	---	---	1320	1300	1310	1320	1260	1300
15				---	---	---	1320	1290	1310	1310	1290	1300
16				---	---	---	1320	1300	1310	1290	1270	1280
17				---	---	---	1330	1310	1320	1310	1260	1280
18				---	---	---	1330	1310	1320	1300	1270	1280
19				---	---	---	1330	1310	1320	1290	1260	1270
20				---	---	---	1320	1300	1320	1290	1260	1280
21				---	---	---	1320	1300	1310	1300	1260	1280
22				---	---	---	1320	1300	1310	1290	1270	1280
23				---	---	---	1330	1300	1310	---	---	---
24				---	---	---	1320	1300	1310	---	---	---
25				1370	1320	1350	1310	1290	1300	---	---	---
26				1400	1320	1360	1310	1290	1300	---	---	---
27				1340	1290	1320	1310	1290	1300	---	---	---
28				1370	1260	1340	1310	1290	1300	---	---	---
29				1360	1210	1330	1310	1290	1300	---	---	---
30				1340	1220	1300	1300	1280	1290	---	---	---
31				---	---	---	1300	1270	1290	1280	1050	1190
MONTH				1400	1210	1330	1340	990	1300	1320	1050	1280
FEBRUARY				MARCH			APRIL			MAY		
1	1070	982	1020	---	---	---	1150	1050	1080	1220	1120	1180
2	1170	1040	1090	---	---	---	1120	1050	1070	1290	1170	1240
3	1190	1100	1150	1130	1090	1100	1080	1040	1060	1350	1270	1320
4	1150	1070	1090	1120	1020	1070	1140	1040	1070	1320	1320	1320
5	1120	1040	1070	1030	896	997	---	---	---	---	---	---
6	1120	1010	1060	---	---	---	1130	1060	1120	---	---	---
7	1110	989	1030	1240	1220	1230	1140	975	1100	---	---	---
8	1200	956	1120	1290	1240	1260	1130	1060	1070	---	---	---
9	---	---	---	1280	1220	1260	1080	1000	1060	---	---	---
10	---	---	---	1220	1200	1210	1090	1020	1050	---	---	---
11	---	---	---	1200	1140	1180	1140	1020	1080	---	---	---
12	---	---	---	1140	1090	1110	1150	1070	1090	---	---	---
13	---	---	---	1150	1070	1120	1150	1030	1100	---	---	---
14	---	---	---	1070	1010	1030	1130	1020	1100	---	---	---
15	---	---	---	1030	987	1010	1180	1070	1100	---	---	---
16	---	---	---	993	967	983	1180	1060	1100	---	---	---
17	---	---	---	1030	981	1010	1200	1080	1100	---	---	---
18	---	---	---	1030	998	1010	1110	1000	1080	---	---	---
19	---	---	---	---	---	---	1100	1030	1070	---	---	---
20	---	---	---	1410	1050	1260	1150	1100	1130	---	---	---
21	---	---	---	1080	1030	1060	1180	1130	1150	---	---	---
22	---	---	---	1110	1050	1090	1150	1120	1130	---	---	---
23	---	---	---	1150	1100	1120	1120	1100	1110	---	---	---
24	---	---	---	1160	1100	1130	1120	1090	1100	---	---	---
25	---	---	---	1130	1080	1100	1140	1100	1120	---	---	---
26	---	---	---	1120	1030	1090	1140	1100	1120	---	---	---
27	---	---	---	1060	1010	1030	1160	1100	1120	---	---	---
28	---	---	---	1030	924	1000	1180	1100	1120	---	---	---
29	---	---	---	1090	977	1050	1190	1090	1120	---	---	---
30	---	---	---	1160	973	1090	1220	1110	1140	---	---	---
31	---	---	---	1110	1080	1090	---	---	---	---	---	---
MONTH	1200	956	1080	1410	896	1100	1220	975	1100	1350	1120	1270

## SANTA ANA RIVER BASIN

11075720 CARBON CREEK BELOW CARBON CANYON DAM, CA

LOCATION.--Lat 33°54'40", long 117°50'29", in SW¼NE¼ sec.17, T.3 S., R.9 W., Orange County, Hydrologic Unit 18070106, on right wall of outlet channel 250 ft (76 m) downstream from toe of Carbon Canyon Dam, and 2.4 mi (3.9 km) northwest of Yorba Linda.

DRAINAGE AREA.--19.5 mi<sup>2</sup> (50.5 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 396.29 ft (120.789 m) Corps of Engineers datum. Prior to Dec. 3, 1971, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records poor. Flow regulated by Carbon Canyon flood-control reservoir, capacity, 6,610 acre-ft (8.15 hm<sup>3</sup>). No diversion above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--20 years, 1.06 ft<sup>3</sup>/s (0.030 m<sup>3</sup>/s), 768 acre-ft/yr (947,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 454 ft<sup>3</sup>/s (12.9 m<sup>3</sup>/s) Mar. 1, 1981, gage height, 4.66 ft (1.420 m), present datum, from rating curve extended above 110 ft<sup>3</sup>/s (3.12 m<sup>3</sup>/s) on basis of computation of flow in concrete-lined channel at gage heights 6.18 ft (1.884 m) and 4.12 ft (1.256 m); no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 454 ft<sup>3</sup>/s (12.9 m<sup>3</sup>/s) Mar. 1, gage height, 4.66 ft (1.420 m), from rating curve extended as explained above; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.80	49	.04	.02				
2			0	0	.48	17	.06	.02				
3			0	0	.25	6.0	.05	.02				
4			2.6	0	.20	3.0	0	.02				
5			1.7	0	.55	4.6	0	.02				
6			1.1	0	.23	1.7	0	.01				
7			.70	0	.10	.17	0	0				
8			.60	0	.74	.18	0	0				
9			.33	0	5.8	.34	0	0				
10			.36	0	.99	.26	.03	0				
11			.19	0	.60	.17	.04	0				
12			.07	0	.50	.17	.04	0				
13			.08	0	.30	.17	.04	0				
14			.06	0	.20	.25	.04	0				
15			.07	0	.15	.20	.04	0				
16			.05	0	.10	.36	.03	0				
17			0	0	.04	.23	.02	0				
18			0	0	0	.24	.10	0				
19			.05	0	0	2.6	.13	0				
20			.04	0	0	3.0	.10	0				
21			.01	0	0	.63	.07	0				
22			0	0	0	.40	.06	0				
23			0	0	1.1	.30	.06	0				
24			0	0	.10	.25	.04	0				
25			0	0	.10	.22	.04	0				
26			0	0	2.0	.20	.02	0				
27			0	0	.06	.18	.02	0				
28			0	1.7	1.2	.16	.02	0				
29			0	15	---	.14	.02	0				
30			0	6.0	---	.12	.02	0				
31		---	0	2.1	---	.10	---	0	---			---
TOTAL	0	0	8.01	24.8	16.59	92.34	1.17	.11	0	0	0	0
MEAN	0	0	.26	.80	.59	2.98	.039	.004	0	0	0	0
MAX	0	0	2.6	15	5.8	49	.13	.02	0	0	0	0
MIN	0	0	0	0	0	.10	0	0	0	0	0	0
AC-FT	0	0	16	49	33	183	2.3	.2	0	0	0	0
CAL YR 1980	TOTAL	2670.54	MEAN	7.30	MAX	305	MIN	0	AC-FT	5300		
WTR YR 1981	TOTAL	143.02	MEAN	.39	MAX	49	MIN	0	AC-FT	284		



## SANTA ANA RIVER BASIN

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11075755 SANTA ANA RIVER AT BALL ROAD, AT ANAHEIM, CA

LOCATION.--Lat 33°49'00", long 117°52'17", in SE&SW&SE& sec.24, T.4 S., R.10 W., Orange County, Hydrologic Unit 18070203, 350 ft (110 m) south of Ball Road, 0.6 mi (1.0 km) west of Batavia Street, 1.0 mi (1.6 km) east of State College Boulevard in Anaheim, and 16 mi (26 km) downstream from Prado Dam.

DRAINAGE AREA.--1,587 mi<sup>2</sup> (4,110 km<sup>2</sup>), excludes 768 mi<sup>2</sup> (1,989 km<sup>2</sup>) above Lake Elsinore.

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

GAGE.--Water-stage recorder with concrete cut-off wall. Altitude of gage is 170 ft (51.8 m), from topographic map.

REMARKS.--Records fair except for those periods of no gage-height record, Oct. 1 to Dec. 3, Dec. 12 to Jan. 31, and Feb. 2-9, which are poor. River flow is regulated by Prado Dam, infiltration ponds and diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,070 ft<sup>3</sup>/s (314 m<sup>3</sup>/s) Feb. 16, 1980, gage height, 5.08 ft (1.548 m); maximum gage height, 5.40 ft (1.646 m) Jan. 6, 1979, due to infiltration dikes in channel; no flow for many months each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,160 ft<sup>3</sup>/s (203 m<sup>3</sup>/s) Mar. 1, gage height, 4.32 ft (1.317 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.80	936	5.0	3.4				
2			0	0	0	666	3.0	4.1				
3			0	0	0	531	2.7	4.1				
4			3.1	0	0	491	2.7	4.5				
5			0	0	0	581	2.7	4.1				
6			0	0	0	71	2.4	4.1				
7			0	0	0	.10	2.2	3.7				
8			0	0	0	.10	2.2	4.1				
9			0	0	0	.10	2.2	4.1				
10			0	0	0	.08	2.2	3.7				
11			0	0	0	.08	2.2	3.7				
12			0	50	0	.06	2.2	3.7				
13			0	0	0	.06	2.2	3.4				
14			0	0	0	.06	1.9	3.4				
15			0	0	0	.06	0	3.4				
16			0	9	0	.05	0	3.4				
17			0	0	0	0	0	3.7				
18			0	0	0	0	0	3.7				
19			0	0	0	0	.26	2.7				
20			0	0	0	0	3.4	1.3				
21			0	0	0	0	7.9	.67				
22			0	0	0	0	2.7	.30				
23			0	0	0	0	.50	.10				
24			0	0	0	0	3.4	.04				
25			0	0	0	0	10	0				
26			0	0	0	0	11	0				
27			0	0	0	0	15	0				
28			0	0	0	0	15	0				
29			0	230	---	0	14	0				
30			0	180	---	0	6.5	0				
31		---	0	150	---	0	---	0	---			---
TOTAL	0	0	3.1	610	.80	3276.75	125.86	73.41	0	0	0	0
MEAN	0	0	.10	19.7	.029	106	4.20	2.37	0	0	0	0
MAX	0	0	3.1	230	.80	936	15	4.5	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	6.1	1210	1.6	6500	250	146	0	0	0	0
CAL YR 1980	TOTAL	210592.97	MEAN	575	MAX	6450	MIN	0	AC-FT	417700		
WTR YR 1981	TOTAL	4049.92	MEAN	11.2	MAX	936	MIN	0	AC-FT	8110		

## SANTA ANA RIVER BASIN

11075800 SANTIAGO CREEK AT MODJESKA, CA

LOCATION.--Lat 33°42'32", long 117°38'05", in SE¼SE¼NW¼ sec.29, T.5 S., R.7 W., Orange County, Hydrologic Unit 18070203, on right bank at Santiago Canyon road bridge, 0.3 mi (0.5 km) west of Modjeska, and 0.4 mi (0.6 km) downstream from Harding Creek.

DRAINAGE AREA.--12.5 mi<sup>2</sup> (32.4 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 1,254.35 ft (382.326 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 10, 1969, at datum 4.42 ft (1.347 m) higher.

REMARKS.--Records poor. Slight regulation by Modjeska Reservoir on Harding Creek. No diversion above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--20 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, 6,520 ft<sup>3</sup>/s (185 m<sup>3</sup>/s) Feb. 25, 1969, gage height, 10.50 ft (3.200 m), present datum, from rating curve extended above 840 ft<sup>3</sup>/s (23.8 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 483 ft<sup>3</sup>/s (13.7 m<sup>3</sup>/s) Jan. 29 (1700 hrs), gage height, 6.35 ft (1.935 m), no other peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); minimum daily, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	.32	.32	.62	3.7	32	1.8	.82	.63	.09	.01	.02
2	.32	.32	.32	.60	3.3	13	3.3	.82	.63	.09	.01	.02
3	.32	.33	.32	.60	1.5	15	2.0	.94	.69	.09	.01	.02
4	.32	.32	.43	.43	1.1	15	1.6	1.0	.53	.07	.01	.01
5	.32	.32	.72	.21	.97	14	1.2	1.0	.44	.06	.01	.01
6	.32	.32	.70	.36	.97	12	.97	.94	.40	.06	.01	.01
7	.31	.32	.65	.42	.97	14	.97	.82	.40	.06	.01	.01
8	.29	.32	.65	.40	2.8	8.3	.85	.75	.36	.06	.01	.01
9	.28	.32	.65	.35	12	5.4	.97	.63	.36	.06	.01	.01
10	.28	.32	.62	.32	4.2	5.2	.97	.58	.33	.07	.01	.01
11	.28	.33	.60	.35	3.3	4.0	.85	.58	.33	.07	.01	.01
12	.27	.33	.58	.35	3.1	2.5	.74	.53	.29	.07	.01	.01
13	.27	.33	.58	.35	2.7	2.3	.74	.53	.29	.06	.03	.01
14	.27	.33	.55	.35	2.5	1.6	.54	.58	.26	.06	.05	.01
15	.27	.33	.53	.36	2.3	1.6	.45	.88	.23	.06	.03	.01
16	.27	.33	.53	.36	2.1	1.5	.37	.82	.20	.05	.03	.01
17	.27	.33	.53	.36	2.0	1.4	.37	.75	.18	.05	.03	.01
18	.25	.33	.53	.35	1.8	1.4	.45	.58	.18	.03	.02	.01
19	.25	.33	.53	.35	1.6	7.5	1.2	.88	.16	.03	.02	.01
20	.25	.32	.53	.35	1.5	4.4	1.5	.88	.14	.03	.03	.01
21	.27	.32	.53	.35	1.4	2.9	1.4	.82	.14	.02	.02	.01
22	.27	.32	.53	.36	1.3	2.7	1.2	.75	.12	.01	.02	.01
23	.28	.32	.53	.43	1.2	2.5	1.1	.75	.12	.01	.03	.01
24	.29	.32	.53	.45	1.1	2.3	1.1	.69	.10	.01	.04	.02
25	.31	.32	.53	.43	8.0	2.3	1.1	.63	.14	.01	.05	.02
26	.32	.32	.55	.43	6.0	2.1	1.1	.63	.12	.01	.40	.02
27	.32	.32	.58	.43	4.8	2.1	1.0	.75	.12	.01	.03	.02
28	.33	.32	.58	4.0	4.5	2.0	.88	.75	.10	.01	.02	.02
29	.33	.32	.60	23	---	2.0	.75	.69	.10	.01	.02	.02
30	.33	.32	.62	7.4	---	2.0	.75	.69	.09	.01	.02	.02
31	.33	---	.62	4.2	---	2.0	---	.69	---	.01	.02	---
TOTAL	9.14	9.70	17.07	49.32	82.71	187.0	32.22	23.15	8.18	1.34	1.03	.40
MEAN	.29	.32	.55	1.59	2.95	6.03	1.07	.75	.27	.043	.033	.013
MAX	.35	.33	.72	23	12	32	3.3	1.0	.69	.09	.40	.02
MIN	.25	.32	.32	.21	.97	1.4	.37	.53	.09	.01	.01	.01
AC-FT	18	19	34	98	164	371	64	46	16	2.7	2.0	.8
CAL YR 1980 TOTAL	10638.33			MEAN 29.1	MAX 1320	MIN .25	AC-FT 21100					
WTR YR 1981 TOTAL	421.26			MEAN 1.15	MAX 32	MIN .01	AC-FT 836					

## SANTA ANA RIVER BASIN

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11077500 SANTIAGO CREEK AT SANTA ANA, CA

LOCATION.--Lat 33°46'13", long 117°53'01", in NW¼SW¼NW¼ sec.1, T.5 S., R.10 W., Orange County, Hydrologic Unit 18070203, on left bank 127 ft (39 m) upstream from Bristol Street bridge at Santa Ana, and 1,700 ft (520 m) upstream from mouth at Santa Ana River.

DRAINAGE AREA.--98.6 mi<sup>2</sup> (255.4 km<sup>2</sup>).

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only October to December 1928, published in WSP 1315-B.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 105.00 ft (32.004 m) Orange County Environmental Management Agency datum. Prior to Sept. 8, 1969, at site 0.1 mi (0.2 km) upstream at different datum, Sept. 9, 1969 to July 21, 1976, at site 127 ft (39 m) downstream at datum 2.66 ft (0.811 m) lower.

REMARKS.--Records good. Flow regulated by Santiago Reservoir, capacity, 25,000 acre-ft (30.8 hm<sup>3</sup>), since January 1963 by Villa Park flood-control reservoir, capacity, 15,500 acre-ft (19.1 hm<sup>3</sup>), and affected by intervening gravel pits. Diversions above station by Irvine Co. and Serrano and Carpenter Irrigation Districts. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--53 years, 5.22 ft<sup>3</sup>/s (0.148 m<sup>3</sup>/s), 3,780 acre-ft/yr (4.66 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,600 ft<sup>3</sup>/s (187 m<sup>3</sup>/s) Feb. 25, 1969, gage height, 9.10 ft (2.774 m), site and datum then in use; maximum gage height, 9.85 ft (3.002 m) Jan. 16, 1952, site and datum then in use; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,190 ft<sup>3</sup>/s (33.7 m<sup>3</sup>/s) Jan. 29, gage height, 4.99 ft (1.521 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	122	1.7					0
2				0	0	34	1.4					0
3				0	0	.06	2.0					0
4				0	0	.07	0					0
5				0	0	13	0					0
6				0	0	.09	1.2					0
7				0	0	0	2.1					0
8				0	1.0	0	1.4					0
9				0	21	0	1.4					0
10				0	0	0	1.9					0
11				.11	0	.02	0					0
12				0	0	.57	0					0
13				0	0	1.0	0					.01
14				0	0	0	0					0
15				0	0	0	0					0
16				0	0	1.2	0					0
17				0	0	0	0					0
18				0	0	2.1	0					0
19				0	0	17	0					0
20				0	0	1.5	0					0
21				0	0	0	0					0
22				0	0	0	0					0
23				.01	0	0	0					0
24				0	0	0	0					0
25				0	3.0	.51	0					0
26				0	.78	1.3	0					0
27				0	0	.70	0					0
28				38	4.2	0	0					0
29				120	---	0	0					0
30				0	---	.76	0					0
31		---		0	---	1.4	---		---			---
TOTAL	0	0	0	158.12	29.98	197.28	14.6	0	0	0	0	.01
MEAN	0	0	0	5.10	1.07	6.36	.49	0	0	0	0	.0003
MAX	0	0	0	120	21	122	2.1	0	0	0	0	.01
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	314	59	391	29	0	0	0	0	.02
CAL YR 1980	TOTAL	4103.85	MEAN	11.2	MAX	784	MIN	0	AC-FT	8140		
WTR YR 1981	TOTAL	399.99	MEAN	1.10	MAX	122	MIN	0	AC-FT	793		

## SANTA ANA RIVER BASIN

11078000 SANTA ANA RIVER AT SANTA ANA, CA

LOCATION.--Lat 33°44'56", long 117°54'30", in NW¼SW¼SE¼ sec.10, T.5 S., R.10 W., Orange County, Hydrologic Unit 18070203, on right bank 50 ft (15 m) downstream from Fifth Street Bridge in Santa Ana and 1.8 mi (2.9 km) downstream from Santiago Creek. Prior to Nov. 29, 1979, at site 50 ft (15 m) upstream.

DRAINAGE AREA.--1,700 mi<sup>2</sup> (4,403 km<sup>2</sup>), excludes 768 mi<sup>2</sup> (1,989 km<sup>2</sup>) above Lake Elsinore.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1923 to current year.

REVISED RECORDS.--WDR CA-74-1: Drainage area. WDR CA-79-1: 1978 (M).

GAGE.--Water-stage recorder. Datum of gage is 61.23 ft (14.082 m) Orange County datum. Jan. 3, 1923, to Jan. 24, 1929, at same site at different datum. Jan. 25, 1929, to June 20, 1948, at site 450 ft (137 m) upstream at different datum. June 21, 1948, to May 2, 1960, at same site at different datum. Feb. 28, 1961, to Oct. 1, 1961, at same site at datum 27.00 ft (8.230 m) higher. Oct. 2, 1961, to Nov. 28, 1979, at same site at datum 25.00 ft (7.620 m) higher. Nov. 29, 1979, at same site at datum 20.00 ft (6.096 m) higher. Apr. 21, 1980, to Aug. 14, 1981, no gage due to rebuilding of channel.

REMARKS.--Records poor. Natural flow affected by ground-water withdrawals, diversions, importation by Metropolitan Water District, municipal use, return flow from irrigation. Since 1940, natural flow affected by Prado flood-control reservoir, capacity, 201,200 acre-ft (248 hm<sup>3</sup>), three small flood-control reservoirs, combined capacity, 31,900 acre-ft (39.3 hm<sup>3</sup>), Big Bear Lake (station 11049000), and Santiago Reservoir, capacity, 25,000 acre-ft (30.8 hm<sup>3</sup>). Discharge up to 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) can be diverted from Carbon Creek to Coyote Creek 1.5 mi (2.4 km) upstream from mouth of Carbon Creek. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--17 years (water years 1924-40), 23.4 ft<sup>3</sup>/s (0.663 m<sup>3</sup>/s), 16,940 acre-ft/yr (20.9 hm<sup>3</sup>/yr); 41 years (unadjusted for storage since 1940) 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, 46,300 ft<sup>3</sup>/s (1,310 m<sup>3</sup>/s) Mar. 3, 1938, gage height, 10.20 ft (3.109 m), site and datum then in use, on basis of slope-area measurement of maximum flow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,200 ft<sup>3</sup>/s (176 m<sup>3</sup>/s) Jan. 30, gage height, 16.00 ft (4.877 m); no flow many days during the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	20	1700	.35	.10	.05		.05	.20
2			0	0	5.0	1100	0	.10	.10		.05	.20
3			0	0	.20	360	0	.10	.10		.10	.10
4			2.0	0	.10	350	0	.10	.10		.10	.05
5			1.0	0	.10	340	0	.15	.10		.10	.05
6			0	0	.05	60	0	.20	.10		.10	.05
7			0	0	.05	2.0	0	.20	.10		.10	.05
8			0	0	10	1.0	0	.20	.05		.15	.05
9			0	0	100	.30	0	.20	0		.20	.05
10			0	0	2.0	0	0	.10	0		.20	.05
11			0	2.5	.70	0	0	.10	0		.20	.05
12			0	2.0	.60	0	0	0	0		.20	.05
13			0	0	.45	0	0	0	0		.20	.05
14			0	0	.40	0	0	0	0		.20	.05
15			0	0	.30	0	0	0	0		.20	.05
16			0	0	.30	0	0	0	0		.20	.05
17			0	0	.25	0	0	0	0		.20	.05
18			0	0	.20	0	0	0	0		.20	.05
19			0	0	.20	45	2.0	0	0		.20	.05
20			0	0	.15	5.2	2.5	0	0		.20	.05
21			0	0	.10	1.0	1.6	0	0		.20	.05
22			0	0	.10	.70	0	0	0		.20	.05
23			0	1.0	.10	.60	0	0	0		.20	.05
24			0	0	.10	.50	0	0	0		.20	.05
25			0	0	50	.40	0	0	0		.20	.05
26			0	0	10	.40	0	0	0		.20	.05
27			0	0	3.0	.35	0	0	0		.20	.05
28			0	190	100	.35	0	0	0		.20	.05
29			0	30	---	.35	.05	0	0		.20	.05
30			0	2700	---	.35	.05	0	0		.20	.05
31		---	0	350	---	.35	---	0	---		.20	---
TOTAL	0	0	3.0	3275.5	304.45	4004.85	6.55	1.55	.70	0	5.35	1.85
MEAN	0	0	.097	106	10.4	129	.22	.050	.023	0	.17	.062
MAX	0	0	2.0	2700	100	1700	2.5	.20	.10	0	.20	.20
MIN	0	0	0	0	.05	0	0	0	0	0	.05	.05
AC-FT	0	0	6.0	6500	604	7950	13	3.1	1.4	0	11	3.7

CAL YR 1980 TOTAL 204250.22 MEAN 558 MAX 7140 MIN 0 AC-FT 405200  
WTR YR 1981 TOTAL 1607.80 MEAN 20.4 MAX 2760 MIN 0 AC-FT 15090

## 11078000 SANTA ANA RIVER AT SANTA ANA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-71, 1973 to current year.

WATER TEMPERATURES: Water years 1968-71, 1973 to current year.

SEDIMENT RECORDS: Water years 1968-71, 1973 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to September 1969, October 1970 to September 1971, October 1972 to September 1980. (No daily record due to channel reconstruction.)

SEDIMENT RECORDS: October 1967 to September 1971, October 1972 to September 1980. (No daily record due to channel reconstruction.)

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean (water years 1968-71, 1973-80), 78,000 mg/L Feb. 25, 1969; minimum daily mean, no flow for many days each year.

SEDIMENT DISCHARGE: Maximum daily (water years 1968-71, 1973-80), 2,670,000 tons (2,420,000 metric tons) Feb. 25, 1969; minimum daily, 0 tons on many days each year.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
JAN								
28...	1230	13.0	193	1900	990	33	42	54
29...	1145	12.5	2.1	277	1.6	--	--	--
30...	1235	10.5	345	1060	987	61	78	91
31...	1235	10.5	341	1120	1030	--	--	--
FEB								
03...	1530	17.0	.17	105	.05	--	--	--
09...	1330	12.5	37	235	23	--	--	--
MAR								
02...	1310	14.0	1200	3990	12900	33	44	61
03...	1430	17.0	352	994	945	43	56	71
05...	1330	--	343	788	730	--	--	--
20...	0915	18.0	5.2	74	1.0	--	--	--
APR								
01...	1500	23.0	.37	5	.00	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
JAN							
28...	60	62	63	64	71	82	96
29...	--	--	--	--	--	--	--
30...	97	99	99	99	99	100	--
31...	--	--	--	--	--	--	--
FEB							
03...	--	--	--	--	--	--	--
09...	--	87	90	94	100	--	--
MAR							
02...	83	91	93	96	99	100	--
03...	87	94	95	96	100	--	--
05...	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--
APR							
01...	--	--	--	--	--	--	--

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
SEP											
28...	1400	.04	1	2	5	32	69	84	90	95	100

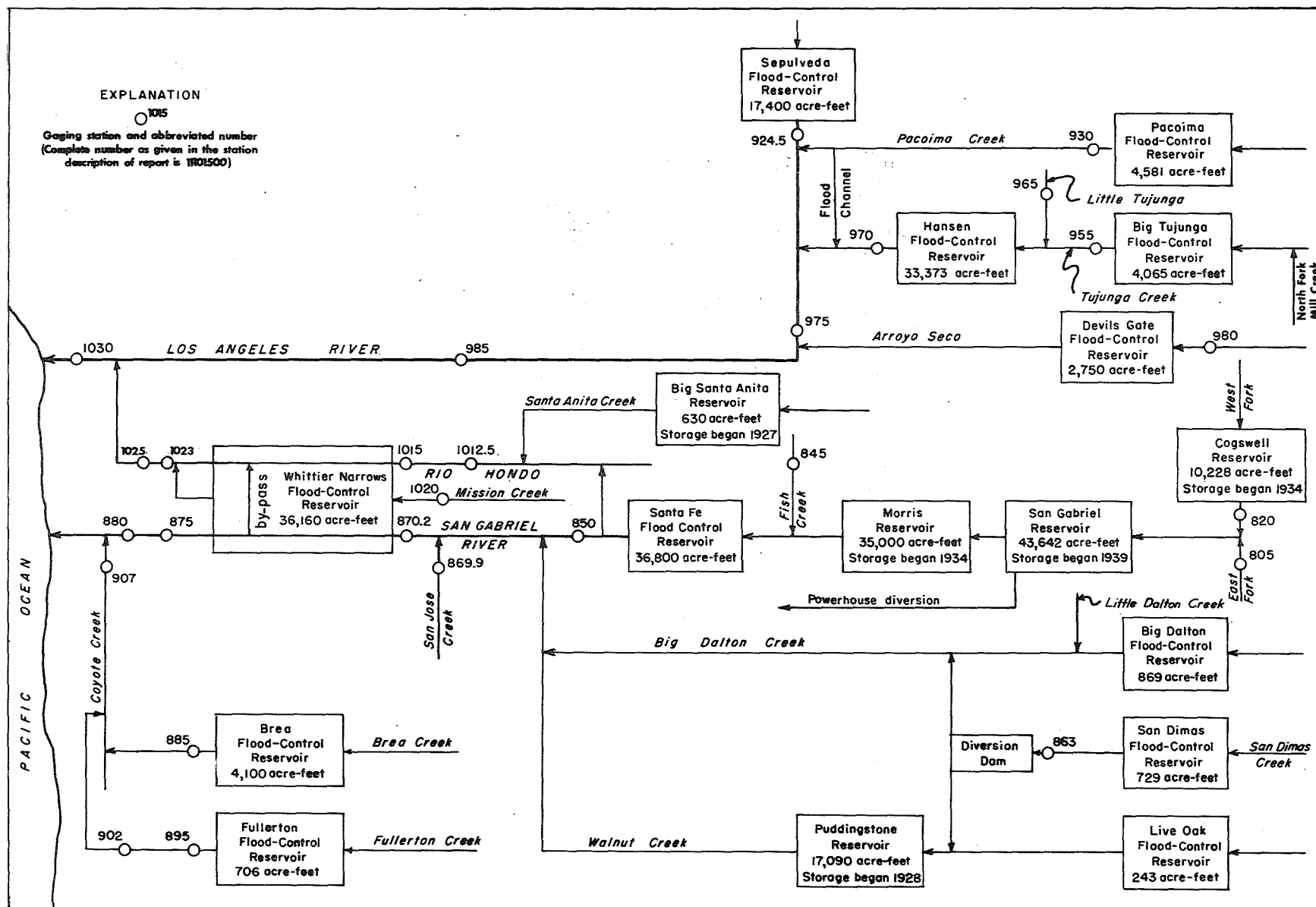


Figure 6.--Schematic diagram showing diversions and storage in San Gabriel and Los Angeles River basins.

## 11085000 SAN GABRIEL RIVER BELOW SANTA FE DAM, NEAR BALDWIN PARK, CA

LOCATION.--Lat 34°06'44", long 117°58'07", in SE¼NE¼SW¼ sec.6, T.1 S., R.10 W., Los Angeles County, Hydrologic Unit 18070106, on left bank at stilling basin of outlet of Santa Fe flood-control dam, 500 ft (150 m) downstream from axis of dam, and 1.7 mi (2.7 km) north of Baldwin Park.

DRAINAGE AREA.--236 mi<sup>2</sup> (611 km<sup>2</sup>).

PERIOD OF RECORD.--October 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft (121.920 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good. Flow regulated by Cogswell and San Gabriel flood-control reservoirs, combined capacity, 53,870 acre-ft (66.4 hm<sup>3</sup>), Morris Reservoir, capacity, 35,000 acre-ft (43.2 hm<sup>3</sup>), and Santa Fe flood-control reservoir, capacity, 32,640 acre-ft (40.2 hm<sup>3</sup>). Diversions above station for irrigation, power development, and ground-water replenishment. At times water diverted from side of stilling basin to headwaters of Rio Hondo; 61,600 acre-ft (76.0 hm<sup>3</sup>) were diverted during current year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversions to Rio Hondo were furnished by Los Angeles County Flood Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,900 ft<sup>3</sup>/s (875 m<sup>3</sup>/s) Jan. 26, 1969, gage height, 22.20 ft (6.767 m); no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 400 ft<sup>3</sup>/s (11.3 m<sup>3</sup>/s) Mar. 1, gage height, 11.16 ft (3.402 m); no flow for many days,

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	3.5	68						
2		0	0	0	3.2	41						
3		0	28	0	3.0	15						
4		0	48	0	2.8	7.4						
5		0	.02	0	2.7	13						
6		0	0	0	2.5	6.3						
7		0	0	0	1.6	3.9						
8		0	0	0	2.1	2.1						
9		0	.43	0	8.4	1.1						
10		0	.88	0	2.2	1.1						
11		0	0	0	1.6	1.0						
12		0	24	0	1.5	.73						
13		0	2.4	0	1.1	.61						
14		1.5	.92	0	.97	.39						
15		.94	.24	0	.93	.21						
16		1.1	0	0	.86	.05						
17		.73	0	0	.84	.75						
18		0	0	0	.77	2.4						
19		.02	0	0	.69	10						
20		.28	0	0	3.7	30						
21		0	0	0	.65	4.5						
22		0	0	0	.22	2.2						
23		0	0	0	0	1.0						
24		0	0	0	0	.89						
25		0	0	0	0	.73						
26		0	0	0	3.9	.31						
27		0	0	0	.81	.18						
28		0	0	1.0	2.6	.02						
29		0	0	63	---	0						
30		0	0	10	---	0						
31		---	0	4.0	---	0	---		---			---
TOTAL	0	4.57	104.94	78.0	53.14	214.87	0	0	0	0	0	0
MEAN	0	.15	3.39	2.52	1.90	6.93	0	0	0	0	0	0
MAX	0	1.5	48	63	8.4	68	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	9.1	208	155	105	426	0	0	0	0	0	0
CAL YR 1980	TOTAL	96244.76	MEAN	263	MAX	10100	MIN	0	AC-FT	190900		
WTR YR 1981	TOTAL	455.52	MEAN	1.25	MAX	68	MIN	0	AC-FT	904		

## SAN GABRIEL RIVER BASIN

11087020 SAN GABRIEL RIVER ABOVE WHITTIER NARROWS DAM, CA

LOCATION.--Lat 34°02'00", long 118°02'14", in La Puente Grant, Los Angeles County, Hydrologic Unit 18070106, on downstream side of bridge near center on Peck Road, 0.8 mi (1.3 km) downstream from San Jose flood channel, 1.2 mi (1.9 km) upstream from axis of Whittier Narrows Dam, and 1.8 mi (2.9 km) south of El Monte.

DRAINAGE AREA.--353 mi<sup>2</sup> (914 km<sup>2</sup>).

PERIOD OF RECORD.--October 1955 to September 1957, October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 220 ft (67 m), from topographic map.

REMARKS.--Records good. Flow regulated by San Gabriel, Cogswell, and Santa Fe flood-control reservoirs, combined capacity, 90,670 acre-ft (112 hm<sup>3</sup>), several small flood-control reservoirs, combined capacity, 19,100 acre-ft (23.6 hm<sup>3</sup>), and Morris Reservoir, capacity, 35,000 acre-ft (43.2 hm<sup>3</sup>). Many diversions above station for irrigation, power development, and ground-water replenishment. Colorado River water released to the San Gabriel River at a site 14.9 mi (24.0 km) upstream from gage, at Metropolitan Water District aqueduct crossing on San Dimas Creek for ground-water replenishment, 61,600 acre-ft (76.0 hm<sup>3</sup>) were diverted by Los Angeles County Flood Control District from San Gabriel River below Santa Fe Dam to Rio Hondo during current year. 516 acre-ft (636,000 m<sup>3</sup>) were released from Puddingstone Reservoir during current year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversion to Rio Hondo and from Puddingstone Reservoir were furnished by Los Angeles County Flood Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,600 ft<sup>3</sup>/s (1,320 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 10.90 ft (3.322 m); no flow for part of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,780 ft<sup>3</sup>/s (305 m<sup>3</sup>/s) Mar. 1, gage height, 7.09 ft (2.161 m); minimum daily, 14.0 ft<sup>3</sup>/s (0.40 m<sup>3</sup>/s) June 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	119	26	94	54	3070	80	131	136	106	151	132
2	249	119	16	94	44	1060	91	132	146	109	152	39
3	244	119	16	95	33	67	89	131	149	112	149	143
4	250	124	447	94	52	51	88	125	153	112	155	144
5	185	124	68	94	93	419	87	125	156	112	164	138
6	155	124	27	96	97	42	73	128	156	108	164	134
7	120	105	29	97	60	40	42	134	152	109	166	128
8	121	94	27	92	43	40	47	135	146	76	168	127
9	125	93	24	93	291	40	122	145	136	95	162	132
10	127	90	26	94	18	40	122	144	135	96	160	130
11	127	30	24	186	21	40	121	141	135	93	162	130
12	125	33	24	100	20	40	114	142	138	90	161	134
13	125	87	24	96	20	38	101	145	140	90	167	137
14	125	85	26	99	21	38	121	145	120	90	167	130
15	127	84	25	92	21	38	130	143	135	97	169	128
16	149	81	23	52	21	38	135	138	130	123	171	134
17	132	74	18	93	28	38	141	132	122	124	160	130
18	136	17	19	93	90	38	229	131	117	124	151	131
19	135	17	18	94	91	429	198	133	112	126	150	131
20	130	18	19	112	92	104	70	135	106	132	150	126
21	133	16	22	117	93	42	98	132	102	157	144	125
22	136	18	44	108	94	42	105	134	99	165	149	125
23	131	18	90	263	92	42	116	142	33	157	147	124
24	132	17	91	62	73	40	118	144	14	160	147	128
25	135	19	93	115	309	40	122	137	80	156	147	131
26	132	20	93	116	152	48	118	139	109	157	147	130
27	129	19	92	37	23	40	116	145	113	152	147	130
28	125	16	94	1180	257	40	99	136	111	145	147	126
29	124	16	93	1530	---	40	93	139	106	144	147	131
30	124	22	92	85	---	41	134	143	105	145	147	141
31	124	---	95	65	---	75	---	142	---	147	147	---
TOTAL	4541	1818	1825	5638	2303	6200	3320	4248	3592	3809	4815	3849
MEAN	146	60.6	58.9	182	82.3	200	111	137	120	123	155	128
MAX	250	124	447	1530	309	3070	229	145	156	165	171	144
MIN	120	16	16	37	18	38	42	125	14	76	144	39
AC-FT	9010	3610	3620	11180	4570	12300	6590	8430	7120	7560	9550	7630
CAL YR 1980 TOTAL	196626.6			MEAN 537	MAX 17000	MIN 9.8	AC-FT 390000					
WTR YR 1981 TOTAL	45958.0			MEAN 126	MAX 3070	MIN 14	AC-FT 91160					



## SAN GABRIEL RIVER BASIN

245

11087040 SAN GABRIEL RIVER AT WHITTIER NARROWS, CA

LOCATION.--Lat 34°01'25", long 118°03'11", in sec.5, T.2 S., R.11 W., Los Angeles County, Hydrologic Unit 18070106, 200 ft (60 m) southeast from end of San Gabriel Boulevard (Siphon Road), 1,000 ft (300 m) upstream from Whittier Narrows Dam, and 2.5 mi (4.0 km) northeast of Montebello.

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES: Water years 1967 to current year.

COOPERATION.--Chemical-quality records were furnished by California Department of Water Resources.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SPECIFIC COND MICROMHO	PH FIELD (UNITS)	TEMP WATER (DEG C)	TURB- IDITY (NTU)	OXYGEN DISS (MG/L)	HARDNESS (MG/L AS CaCO3)	CALCIUM CA+DISS (MG/L)	MAGNESIUM MG+DISS (MG/L)	SODIUM NA+DISS (MG/L)	POTASSIUM K+DISS (MG/L)
80/10/22	11 00	910	8.3	24.5	100	9.0	330				
80/11/18	09 30	920	9.1	16.5	3.0	10.2	340				
81/01/20	09 05	400	8.9	15.5	11	11.8	150				
81/02/23	15 45	870	9.4	18.5	6.0	9.9	310				
81/03/11	15 25	1020	8.9	24.5	6.0	11.9	420				
81/04/15	11 20	420	9.0	19.0	2.0	10.3	140				
81/05/18	15 35	1000	9.1	25.0	1.0	12.4	350				
81/06/16	23 05	1070	8.5	21.5	1.0	6.4	360				
81/07/31	13 10	970	9.0	31.0	0.0	9.6	360				
81/09/28	13 25	1100	9.0	25.0	1.0	11.8	350	82	36	110	5.3

DATE	TIME	ALKA- LITY (MG/L)	SULFATE SO4-DISS (MG/L)	CHLORIDE CL DISS (MG/L)	FLUORIDE F+DISS (MG/L)	ROE DISS 180 C (MG/L)	NITRATE N+DISS (MG/L)	BORON B+DISS (UG/L)
80/10/22	11 00		200	90		674		
80/11/18	09 30		250	93		698		
81/01/20	09 05		70	50		309		
81/02/23	15 45		220	85		619		
81/03/11	15 25		240	120		810		
81/04/15	11 20		71	59		328		
81/05/18	15 35		300	99		739		
81/06/16	23 05		300	100		791		
81/07/31	13 10		310	100		784		
81/09/28	13 25	140	300	99	0.5	770	0.62	200

## SAN GABRIEL RIVER BASIN

11088500 BREA CREEK BELOW BREA DAM, NEAR FULLERTON, CA

LOCATION.--Lat 33°53'16", long 117°55'32", in NE¼NE¼NE¼ sec.28, T.3 S., R.10 W., Orange County, Hydrologic Unit 18070106, on right bank 0.2 mi (0.3 km) downstream from Brea Dam, and 1 mi (2 km) north of Fullerton.

DRAINAGE AREA.--21.6 mi<sup>2</sup> (55.9 km<sup>2</sup>).

PERIOD OF RECORD.--January 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 196.67 ft (59.945 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Dec. 4, 1964, at datum 1.03 ft (0.314 m) higher.

REMARKS.--Records poor. No gage-height record Oct. 1 to Mar. 2. Indefinite stage-discharge relation Mar. 3 to Sept. 30. Flow regulated by Brea flood-control reservoir, capacity, 4,100 acre-ft (506 hm<sup>3</sup>). No diversion above station. Since August 1966 low flow mostly the result of irrigation wastewater from golf course 0.8 mi (1.3 km) upstream. See schematic diagram of San Gabriel and Los Angeles River basins.

AVERAGE DISCHARGE.--39 years, 2.42 ft<sup>3</sup>/s (0.069 m<sup>3</sup>/s), 1,750 acre-ft/yr (2.16 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft<sup>3</sup>/s (33.7 m<sup>3</sup>/s) Jan. 31, 1979, gage height unknown, from release records of Brea Dam as furnished by Corps of Engineers; no flow for parts of some years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, unknown, Mar. 1; minimum daily, 0.48 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) estimated, Sept. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1940 TO SEPTEMBER 1961  
MEAN VALUES

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
TOTAL	34.1	33.0	42.6	255.8	137.8	437.8	54.44	24.49	18.74	25.86	26.87	18.64
MEAN	1.10	1.10	1.37	8.25	4.92	14.1	1.81	.79	.62	.83	.87	.62
MAX	1.1	1.1	5.0	165	31	210	21	5.0	.85	1.1	5.0	.82
MIN	1.1	1.1	1.1	1.3	1.4	1.4	.64	.58	.50	.57	.51	.48
AC-FT	68	65	84	507	273	868	108	49	37	51	53	37
CAL YR 1980	TOTAL	7582.40	MEAN	20.7	MAX	1700	MIN	1.1	AC-FT	15040		
WTR YR 1981	TOTAL	1110.14	MEAN	3.04	MAX	210	MIN	.48	AC-FT	2200		

## 11089500 FULLERTON CREEK BELOW FULLERTON DAM, NEAR BREA, CA

LOCATION.--Lat 33°53'45", long 117°53'07", in NE¼NW¼SW¼ sec.24, T.3 S., R.10 W., Orange County, Hydrologic Unit 18070106, on left bank of outlet channel of Fullerton Dam, 1.6 mi (2.6 km) southeast of Brea.

DRAINAGE AREA.--4.94 mi<sup>2</sup> (12.79 km<sup>2</sup>).

PERIOD OF RECORD.--October 1941 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 250 ft (76 m), from topographic map. V-notch sharp-crested weir used Oct. 25, 1946, to Feb. 2, 1956. Prior to Dec. 3, 1971, at datum 3.00 ft (0.914 m) higher.

REMARKS.--Records excellent. Flow regulated by Fullerton flood-control reservoir, capacity, 706 acre-ft (870,000 m<sup>3</sup>). Small tributary formerly entering below station diverted into reservoir since December 1954. See schematic diagram of San Gabriel and Los Angeles River basins.

AVERAGE DISCHARGE.--13 years (water years 1942-54), 0.19 ft<sup>3</sup>/s (0.005 m<sup>3</sup>/s), 135 acre-ft/yr (166,000 m<sup>3</sup>/yr); 27 years (water years 1955-81), 0.95 ft<sup>3</sup>/s (0.027 m<sup>3</sup>/s), 688 acre-ft/yr (848,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 313 ft<sup>3</sup>/s (8.86 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 7.32 ft (2.231 m), present datum; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 275 ft<sup>3</sup>/s (7.79 m<sup>3</sup>/s) Mar. 1, gage height, 7.43 ft (2.265 m); minimum daily, 0.09 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) June 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.53	.36	.66	.78	114	.56	.98	.89	.66	.93	.98
2	.25	.47	.36	.66	.62	28	2.8	1.0	.89	.70	.84	.09
3	.35	.47	.33	.58	.67	.94	.67	1.0	.83	.79	.80	.10
4	.43	.49	16	.62	.55	.92	.61	.88	.83	.74	1.0	.09
5	.52	.55	.68	.65	.47	14	1.2	.77	1.0	.71	.77	.09
6	.51	.59	.31	.47	.32	1.4	.69	.83	.94	.80	.84	.08
7	.49	.50	.25	.50	.31	.58	.66	.82	.90	.82	.79	.09
8	.46	.46	.25	.47	6.1	.47	.66	.83	.82	.91	.77	.09
9	.45	.47	.21	.47	21	.47	.66	.79	.84	.78	.80	.08
10	.45	.46	.31	.41	.45	.55	.76	.77	.86	.77	.83	.09
11	.54	.46	.33	3.9	.33	.63	.88	1.1	.66	.90	.84	.09
12	.53	.47	.35	.57	.31	.50	.66	1.3	.89	.94	.80	.09
13	.47	.58	.31	.46	1.1	.47	.71	1.3	.86	1.1	.82	.08
14	.45	.45	.31	.38	.29	.68	.85	1.3	.68	.95	.96	.09
15	.38	.38	.35	.40	.31	.55	.82	.83	.52	.96	.95	.09
16	.41	.34	.45	.47	.31	.54	.77	.89	.89	1.1	.82	.08
17	.44	.35	.49	.38	.33	.54	.69	.85	.89	.93	.85	.09
18	.38	.38	.43	.42	.73	.46	3.8	.88	1.4	1.0	.86	.09
19	.77	.38	.32	.39	.46	13	1.7	.80	.94	.80	.81	.08
20	.41	.38	.40	.38	.39	2.4	.98	.77	.85	.88	.81	.08
21	.38	.40	.39	.38	.35	.63	.88	.85	.87	.91	.86	.08
22	.38	.31	.45	.26	.31	.56	.77	.88	.81	.86	.78	.08
23	.47	.31	.47	4.9	.37	.58	2.3	.98	1.4	1.8	.71	.08
24	.39	.31	.39	.52	.38	.56	1.6	.81	.09	.91	.84	.08
25	.42	.29	.37	.32	9.0	.56	1.1	.88	.19	.86	.85	.09
26	.38	.33	.31	.38	2.6	1.6	.98	.87	.57	.85	.56	.08
27	.43	.32	.43	.38	7.48	.78	1.0	1.7	.67	.87	1.0	.08
28	.21	.34	.55	28	7.7	.56	.88	.95	.61	.80	.96	.08
29	.27	.31	.47	51	---	.66	.88	.89	.58	.82	.81	.08
30	.37	.34	.41	6.1	---	.66	.89	.94	.66	.83	.66	.08
31	.47	---	.54	1.3	---	.66	---	.89	---	.88	.82	---
TOTAL	13.04	12.42	27.58	106.78	57.02	188.91	32.41	29.33	23.83	27.03	25.74	3.45
MEAN	.42	.41	.89	3.44	2.04	6.09	1.08	.95	.79	.87	.83	.12
MAX	.77	.59	16	51	21	114	3.8	1.7	1.4	1.2	1.0	.98
MIN	.18	.29	.21	.26	.29	.46	.56	.77	.09	.66	.56	.08
AC-FT	26	25	55	212	113	375	64	58	47	54	51	6.8
CAL YR 1980	TOTAL	1475.51	MEAN 4.03	MAX 154	MIN .01	AC-FT 2930						
WTR YR 1981	TOTAL	547.54	MEAN 1.50	MAX 114	MIN .08	AC-FT 1090						

## SAN GABRIEL RIVER BASIN

11090200 FULLERTON CREEK AT RICHMAN AVENUE, AT FULLERTON, CA

LOCATION.--Lat 33°51'45", long 117°55'55", in NW¼SW¼SE¼ sec.33, T.3 S., R.10 W., Orange County, Hydrologic Unit 18070106, on right bank 125 ft (38 m) east of Richman Avenue, at Fullerton.

DRAINAGE AREA, - - 12.1 mi<sup>2</sup> (31.3 km<sup>2</sup>).

PERIOD OF RECORD.--October 1959 to September 1977, October 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 126.4 ft (38.53 m) National Geodetic Vertical Datum of 1929 (levels by Orange County Environmental Management Agency).

REMARKS.--Flow regulated by Fullerton flood-control reservoir, capacity, 706 acre-ft (870,000 m<sup>3</sup>). No diversion above station. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records were furnished by Orange County Environmental Management Agency and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--21 years, 2.87 ft<sup>3</sup>/s (0.081 m<sup>3</sup>/s), 2,080 acre-ft/yr (2.56 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,050 ft<sup>3</sup>/s (58.1 m<sup>3</sup>/s) Jan. 28, 1980, gage height, 6.70 ft (2.042 m); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,260 ft<sup>3</sup>/s (35.7 m<sup>3</sup>/s) Mar. 1, gage height, 5.13 ft (1.564 m); no flow Sept. 13, 14, 19-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	1.0	.80	.70	1.2	295	0	.60	.23	.91	.99	.76
2	.60	1.5	.70	.60	.68	71	2.2	.60	.36	.76	.99	.99
3	.70	1.5	.70	.70	1.6	.60	.23	.60	.36	.91	.91	.83
4	.80	1.1	51	.70	.99	1.6	.23	.52	.60	.99	.83	.99
5	.80	1.1	1.4	.70	.36	42	.52	.36	.76	.91	.76	.68
6	1.0	1.1	.80	.60	.36	.27	.30	.36	.76	.91	.76	.36
7	1.1	1.1	.60	.60	.36	.23	.36	.36	.60	.76	.83	.23
8	1.0	1.1	.60	.60	26	.22	.30	.44	.52	.83	.76	.30
9	.80	1.3	.60	.60	66	.18	.30	.44	.52	.76	.68	.30
10	.80	.80	.70	.50	.52	.30	.36	.36	.44	.83	.60	.30
11	1.1	1.0	.80	7.0	.36	.36	.52	.52	.44	.68	.83	.30
12	1.0	1.0	.80	.60	.30	.36	.30	.36	.52	.76	.76	.17
13	1.0	2.1	.80	.50	.30	.30	.30	.23	.52	.68	.91	0
14	.80	1.7	.80	.60	.30	.52	.36	.30	.52	.76	.91	0
15	.70	1.0	.80	.50	.23	.44	.36	.52	.68	.99	.91	.23
16	.70	.80	.70	.80	.17	.36	.36	.44	.76	.99	.83	.23
17	1.0	.70	.70	.60	.17	.44	.30	.36	1.4	1.1	.91	.23
18	1.1	1.5	1.0	.60	.76	.36	4.1	.44	1.1	1.1	.83	.17
19	1.4	1.0	.70	.60	.36	20	1.1	.30	.76	1.2	.91	0
20	1.3	.80	.70	.50	.23	4.8	.44	.23	.76	1.2	.83	0
21	1.0	1.0	.80	.40	.10	.36	.30	.44	.68	.99	.83	0
22	.80	.80	.80	.30	.10	.30	.30	.44	.76	.91	.83	0
23	1.1	.70	.70	4.5	.17	.30	.70	.36	1.4	1.8	.76	0
24	.80	.80	1.1	.60	.23	.30	1.3	.36	.44	1.5	.76	0
25	1.0	.80	1.1	.60	21	.30	.52	.36	.30	.83	.76	0
26	.80	1.0	1.0	.30	7.3	7.8	.44	.32	.44	.91	.91	0
27	1.0	1.0	1.3	.50	.23	.91	.52	1.1	.76	.91	.99	0
28	.70	1.0	1.3	56	18	.30	.36	.44	.68	.91	.91	0
29	.70	1.0	1.7	156	---	.23	.36	.44	.68	.91	.91	0
30	.80	.80	1.1	9.9	---	.17	.36	.36	.76	.99	.76	0
31	1.0	---	.60	2.6	---	.17	---	.30	---	.99	.83	---
TOTAL	27.90	32.10	77.20	250.30	148.38	450.48	18.16	13.26	19.51	29.68	25.99	7.07
MEAN	.90	1.07	2.49	8.07	5.30	14.5	.61	.43	.65	.96	.84	.24
MAX	1.4	2.1	51	156	66	295	4.1	1.1	1.4	1.8	.99	.99
MIN	.50	.70	.60	.30	.10	.17	0	.23	.23	.68	.60	0
AC-FT	55	64	153	496	294	894	36	26	39	59	52	14
CAL YR 1980	TOTAL	4261.60	MEAN	11.6	MAX	463	MIN	.20	AC-FT	8450		
WTR YR 1981	TOTAL	1100.03	MEAN	3.01	MAX	295	MIN	0	AC-FT	2180		

## 11097000 BIG TUJUNGA CREEK BELOW HANSEN DAM, CA

LOCATION.--Lat 34°15'13", long 118°23'17", in Ex Mission San Fernando Grant, Los Angeles County, Hydrologic Unit 18070105, in city of Los Angeles, on left bank of outlet channel of Hansen Dam, 0.1 mi (0.2 km) upstream from Glen Oaks Boulevard, and 3 mi (5 km) southeast of San Fernando.

DRAINAGE AREA.--153 mi<sup>2</sup> (396 km<sup>2</sup>).

PERIOD OF RECORD.--May 1932 to February 1938, August 1940 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 943.32 ft (287.524 m) Corps of Engineers datum. See WSP 1735 for history of changes prior to Oct. 1, 1953.

REMARKS.--Records good above 5.0 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s) and poor below. Flow regulated since July 1931 by Big Tujunga flood-control reservoir, capacity, 4,240 acre-ft (5.23 hm<sup>3</sup>) and since September 1940 by Hansen flood-control reservoir, capacity, 29,700 acre-ft (36.6 hm<sup>3</sup>). Several small diversions for domestic use and irrigation. Water reported herein is that which passed Hansen Dam. Los Angeles County Flood Control District diverts 0.3 mi (0.5 km) upstream from gage to spreading grounds. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversion were furnished by Los Angeles County Flood Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft<sup>3</sup>/s (340 m<sup>3</sup>/s) Feb. 10, 1978, gage height, 7.63 ft (2.326 m), from rating curve extended above 5,000 ft<sup>3</sup>/s (142 m<sup>3</sup>/s) on basis of gate openings at dam; no flow for all or parts of most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 54,000 ft<sup>3</sup>/s (1,530 m<sup>3</sup>/s), estimated, Mar. 2, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft<sup>3</sup>/s (30.3 m<sup>3</sup>/s) Jan. 29, gage height, 2.39 ft (0.728 m); minimum daily, no flow Feb. 18-24, Mar. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1940 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	3.0	1.1	.63	7.0	83	4.0	4.8	31	.85	.14	.53
2	2.7	3.5	1.1	.14	6.5	74	3.8	4.2	27	.50	.50	.50
3	1.1	3.7	.99	.15	10	1.4	4.1	3.1	25	1.1	.50	.50
4	1.1	3.7	1.4	.17	12	5.3	4.4	145	25	1.1	.36	.50
5	1.5	3.5	2.4	.18	8.2	89	5.2	48	21	1.1	.14	.16
6	1.1	4.0	2.5	.16	2.9	.04	4.6	10	19	1.1	.14	.50
7	1.8	4.0	2.2	.10	1.9	0	5.0	58	19	.51	.14	.50
8	2.1	3.9	.96	1.5	1.9	.36	5.3	41	19	.50	.14	.50
9	2.0	4.0	.94	2.9	14	.84	5.0	35	17	.50	.14	.50
10	1.9	4.0	1.1	2.9	.77	5.1	4.0	34	17	.50	.14	.50
11	2.0	3.0	1.2	2.6	.50	6.1	4.2	30	17	.50	.14	.50
12	1.9	1.9	1.0	1.9	.50	.21	3.8	30	17	.50	.14	.50
13	1.9	2.4	.77	1.9	.14	.14	3.9	28	15	.50	.14	.26
14	1.5	3.0	1.3	2.3	.14	.23	3.7	25	12	.32	.50	.14
15	1.3	2.2	1.7	1.9	.14	.21	3.8	24	12	.14	.50	.14
16	1.4	1.7	1.7	1.9	.14	.23	3.7	25	10	.14	.33	.50
17	1.7	1.1	1.6	1.9	.07	.14	3.2	25	7.7	.14	.14	.50
18	2.3	1.1	1.3	1.9	0	.14	30	23	4.5	.14	.14	.50
19	3.2	1.3	1.2	1.9	0	44	72	22	4.0	.50	.14	.50
20	3.1	1.9	.58	1.4	0	69	28	25	4.0	.50	.14	.50
21	3.1	3.1	.73	2.8	0	6.4	4.5	25	4.0	.38	.14	.41
22	3.0	1.9	.65	2.9	0	5.6	4.5	25	2.1	.14	.14	.14
23	2.9	1.9	.85	3.0	0	5.5	7.0	25	2.5	.14	.14	.14
24	3.6	1.9	.78	2.9	0	5.8	6.2	28	2.4	.14	.14	.14
25	2.9	.52	.97	3.1	5.1	5.1	6.8	28	1.9	.14	.14	.14
26	2.4	.78	.84	2.9	6.9	4.0	6.4	28	1.9	.14	.50	.50
27	1.9	1.5	.64	2.3	3.3	4.0	6.4	28	1.1	.14	.50	.50
28	1.9	1.5	.61	154	1.9	4.0	4.0	31	1.1	.14	.50	.50
29	1.5	1.1	.69	372	---	4.0	4.6	31	1.1	.14	.50	.45
30	1.2	1.1	.74	166	---	4.0	5.0	29	1.1	.14	.50	.14
31	1.9	---	.62	7.9	---	4.0	---	28	---	.14	.50	---
TOTAL	64.0	72.29	34.97	748.24	82.00	432.83	257.1	946.1	342.4	12.92	8.35	11.79
MEAN	2.06	2.41	1.13	24.1	2.93	14.0	8.57	30.5	11.4	.42	.27	.39
MAX	3.6	4.0	2.5	372	14	89	72	145	31	1.1	.50	.53
MIN	1.1	.52	.58	.10	0	0	3.2	3.1	1.1	.14	.14	.14
AC-FT	127	143	69	1480	163	859	510	1880	679	26	17	23
a	1410	1470	1500	2840	1450	4440	2090	2260	1080	760	450	690
CAL YR 1980 TOTAL	42928.54			MEAN 117	MAX 3680	MIN .14	AC-FT 45150		AC-FT a 120270			
WTR YR 1981 TOTAL	3012.90			MEAN 4.25	MAX 372	MIN 0	AC-FT 5980		AC-FT a 20440			

a Combined discharge, in acre-feet, of creek and diversion.

## LOS ANGELES RIVER BASIN

11098000 ARROYO SECO NEAR PASADENA, CA

LOCATION.--Lat 34°13'20", long 118°10'36", in NW¼NW¼NE¼ sec.31, T.2 N., R.12 W., Los Angeles County, Hydrologic Unit 18070105, on right bank, 0.7 mi (1.1 km) east of Angeles Crest Highway, 1.5 mi (2.4 km) upstream from Millard Canyon, and 5.5 mi (8.8 km) northwest of Pasadena.

DRAINAGE AREA.--16.0 mi<sup>2</sup> (41.4 km<sup>2</sup>).

PERIOD OF RECORD.--December 1910 to current year.

GAGE.--Water-stage recorder. Broad-crested weir since November 1938. Datum of gage is 1,397.88 ft (426.074 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1916, nonrecording gage at different datum. Oct. 1, 1916, to Oct. 19, 1945, water-stage recorder at datum 4.00 ft (1.219 m) lower.

REMARKS.--Records fair. Minor regulation by debris dam 1.5 mi (2.4 km) upstream. Temporary diversion above station by City of Pasadena. See schematic diagram of San Gabriel and Los Angeles River basins.

AVERAGE DISCHARGE.--67 years (water years 1914-15, 1917-81), 9.76 ft<sup>3</sup>/s (0.276 m<sup>3</sup>/s), 7,070 acre-ft/yr (8.72 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,620 ft<sup>3</sup>/s (244 m<sup>3</sup>/s) Mar. 2, 1938, gage height, 9.42 ft (2.871 m), present datum, on basis of slope-area measurement of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 627 ft<sup>3</sup>/s (17.8 m<sup>3</sup>/s), Jan. 29 (1315 hrs), gage height, 3.76 ft (1.146 m), no other peak above base of 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s); minimum daily, 0.03 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.2	2.4	2.8	5.5	59	4.9	3.2	2.2	.75	.50	.35
2	2.2	2.2	2.5	2.9	5.0	49	5.1	2.3	2.3	.71	.50	.35
3	2.4	2.3	2.5	2.9	4.6	17	5.1	3.4	2.2	.63	.50	.35
4	2.4	2.2	5.2	2.9	4.4	11	4.8	3.5	2.0	.61	.49	.35
5	2.5	2.2	4.2	2.8	4.2	40	4.0	3.4	1.8	.62	.49	.40
6	2.5	2.3	3.5	2.7	4.0	22	3.6	3.2	1.8	.63	.45	.33
7	2.4	2.3	3.3	2.8	3.9	14	3.5	3.0	1.8	.66	.40	.29
8	2.3	2.4	3.3	2.9	4.6	11	3.7	2.8	1.7	.65	.38	.27
9	2.4	2.4	3.2	2.9	7.8	9.2	3.6	2.6	1.8	.65	.37	.35
10	2.4	2.5	3.1	2.8	5.3	8.1	3.5	2.4	1.9	.49	.38	.35
11	2.4	2.6	3.0	3.1	4.9	7.4	3.7	2.4	2.0	.05	.42	.33
12	2.4	2.8	3.0	3.5	4.5	7.0	3.5	2.5	2.0	.03	.40	.35
13	2.6	2.8	3.0	3.3	4.2	6.7	3.4	2.5	1.9	.08	.41	.34
14	2.7	2.7	3.1	3.1	4.0	6.2	3.5	2.7	1.7	.56	.36	.35
15	2.6	2.3	3.0	3.1	3.8	5.9	3.2	2.9	1.6	.59	.33	.35
16	2.6	2.0	3.0	3.1	3.6	5.6	3.1	2.8	1.5	.56	.31	.34
17	2.7	2.2	3.0	3.1	3.4	5.5	3.5	2.6	1.4	.57	.35	.34
18	2.6	2.3	3.1	3.0	3.3	5.4	3.7	2.4	1.4	.58	.39	.32
19	2.5	2.4	3.1	2.9	3.2	13	13	2.5	1.3	.59	.37	.34
20	2.4	2.4	3.1	3.0	3.1	15	8.5	2.6	1.2	.60	.31	.34
21	2.4	2.4	3.0	2.9	2.8	7.8	6.3	2.6	1.1	.60	.28	.34
22	2.4	2.4	3.0	2.9	2.9	6.9	5.4	2.5	1.0	.61	.29	.35
23	2.4	2.5	3.0	4.0	2.9	6.4	4.8	2.5	1.0	.63	.33	.42
24	2.4	2.5	2.9	3.6	3.0	5.8	4.5	2.3	.85	.53	.58	.53
25	2.4	2.3	2.9	3.2	3.5	5.4	4.3	2.3	.81	.48	.38	.44
26	2.6	2.3	2.9	3.0	5.3	5.4	4.5	2.4	.78	.50	.37	.44
27	2.6	2.4	2.9	3.0	3.9	5.3	4.3	4.0	.81	.51	.37	.44
28	2.2	2.4	2.9	13	4.4	5.2	3.2	5.2	.84	.48	.35	.42
29	2.1	2.3	2.9	119	---	5.2	3.1	3.2	.78	.48	.28	.51
30	2.2	2.3	2.8	16	---	5.2	3.1	2.7	.74	.48	.35	.55
31	2.2	---	2.8	7.0	---	5.1	---	2.4	---	.48	.35	---
TOTAL	75.0	71.3	95.6	237.2	116.0	381.7	134.4	88.9	44.21	16.39	12.04	11.23
MEAN	2.42	2.38	3.08	7.65	4.14	12.3	4.48	2.87	1.47	.53	.39	.37
MAX	2.7	2.8	5.2	119	7.8	59	13	5.2	2.3	.75	.58	.55
MIN	2.1	2.0	2.4	2.7	2.8	5.1	3.1	2.3	.74	.03	.28	.27
AC-FT	149	141	190	470	230	757	267	176	88	33	24	22

CAL YR 1980 TOTAL 11013.60 MEAN 30.1 MAX 840 MIN 2.0 AC-FT 21850  
WTR YR 1981 TOTAL 1283.97 MEAN 3.52 MAX 119 MIN .03 AC-FT 2550

## 11101250 RIO HONDO ABOVE WHITTIER NARROWS DAM, CA

LOCATION.--Lat 34°03'32", long 118°04'13", in Potrero Grande Grant, Los Angeles County, Hydrologic Unit 18070105, on right bank 0.3 mi (0.5 km) downstream from Garvey Avenue, 0.4 mi (0.6 km) downstream from Rubio Wash, and 2.2 mi (3.5 km) west of El Monte.

DRAINAGE AREA.--91.2 mi<sup>2</sup> (236.2 km<sup>2</sup>).

PERIOD OF RECORD.--February 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 217.8 ft (66.39 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent. Flow regulated by Big Santa Anita, Sawpit, and Eaton flood-control reservoirs, combined capacity, 1,700 acre-ft (2.10 hm<sup>3</sup>) and Sierra Madre, Las Flores, and Rubio debris basins. Many diversions above station for domestic use and irrigation. 61,600 acre-ft (76.0 hm<sup>3</sup>) were diverted by Los Angeles County Flood Control District from San Gabriel River below Santa Fe Dam to Rio Hondo during current year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversion were furnished by the Los Angeles County Flood Control District.

AVERAGE DISCHARGE.--25 years, 37.8 ft<sup>3</sup>/s (1.070 m<sup>3</sup>/s), 27,390 acre-ft/yr (33.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,200 ft<sup>3</sup>/s (515 m<sup>3</sup>/s) Feb. 16, 1980, gage height, 7.35 ft (2.240 m); no flow in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft<sup>3</sup>/s (85.0 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. 23	0545	3,170 90	3.18 0.969	Mar. 2	0430	* 3,890 110	3.48 1.061
Feb. 25	2105	3,820 108	3.45 1.052	Mar. 19	1850	5,640 160	4.19 1.277

Minimum daily discharge, 0.31 ft<sup>3</sup>/s (0.009 m<sup>3</sup>/s) Apr. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	1.5	184	.95	1.2	976	19	.48	1.1	2.6	1.4	2.1
2	2.5	1.5	218	.87	1.2	493	24	.40	2.2	2.4	.97	1.7
3	2.5	1.5	230	.96	1.2	5.3	8.3	.43	1.8	1.5	2.2	1.5
4	3.1	2.0	341	.88	3.5	5.5	5.4	.60	1.6	1.3	3.3	1.6
5	3.6	3.1	217	.89	26	413	3.9	.49	1.7	1.2	2.4	.94
6	4.0	3.5	120	1.0	26	2.7	2.3	.53	1.1	2.0	2.6	.53
7	3.6	3.0	87	1.6	26	.54	2.3	.66	.52	2.3	3.8	.41
8	3.5	2.7	72	1.7	145	.40	.97	.81	.87	2.5	1.6	.81
9	3.4	2.4	58	1.8	187	.48	1.0	1.0	2.4	2.3	.80	.89
10	3.2	2.2	75	1.2	21	.88	1.3	.69	1.1	2.1	1.6	1.1
11	3.0	2.2	117	22	18	.66	1.4	.84	.99	1.4	2.0	1.2
12	2.6	2.1	143	5.4	15	.56	.63	2.2	1.3	.93	2.0	.75
13	2.4	2.0	128	5.9	12	.92	.75	3.1	.81	1.4	2.2	.48
14	3.5	2.0	93	1.0	8.1	.48	.78	2.1	.66	1.8	2.1	1.3
15	4.1	3.6	62	1.2	6.2	.51	.69	2.3	1.4	1.8	1.2	1.1
16	3.7	5.3	38	1.2	4.1	7.5	.70	2.1	1.8	1.8	.85	1.0
17	3.0	6.8	25	1.2	3.0	19	.79	1.3	2.0	1.6	1.5	1.1
18	2.2	8.5	24	1.2	2.2	17	161	1.3	2.5	1.2	2.3	1.1
19	2.1	10	20	1.2	.80	721	48	1.5	2.1	.75	2.0	.85
20	2.0	13	16	1.2	1.2	12	1.6	3.9	1.6	1.3	2.4	.53
21	1.9	17	12	1.2	.54	1.0	.63	8.5	.89	1.2	2.9	1.0
22	1.7	25	9.0	1.3	.56	1.0	.36	9.1	2.0	1.8	1.7	1.2
23	1.6	36	6.4	2.9	.51	1.5	.57	9.5	2.9	1.8	1.4	1.1
24	1.5	52	2.5	1.1	.64	11	1.5	9.5	2.3	1.2	1.8	1.0
25	1.5	71	1.3	1.0	217	18	.31	9.8	2.0	.80	3.6	1.0
26	1.4	92	.92	1.2	13	20	.34	6.6	2.0	.64	4.1	.45
27	1.4	118	.95	1.3	.77	15	1.6	2.9	1.6	1.0	4.2	.43
28	1.3	142	.95	228	115	15	1.5	2.3	.57	2.1	5.2	.36
29	1.1	152	.97	1.1	---	14	1.1	2.5	1.3	2.6	4.7	.77
30	1.2	161	1.4	1.1	---	11	.90	1.4	1.9	2.7	3.7	1.5
31	1.4	---	1.1	1.1	---	10	---	.84	---	1.9	3.7	---
TOTAL	76.5	944.9	2305.49	294.65	856.72	2794.93	284.62	89.67	47.01	51.92	76.22	29.80
MEAN	2.47	31.5	74.4	9.50	30.6	90.2	9.49	2.89	1.57	1.67	2.46	.99
MAX	4.1	161	341	228	217	976	161	9.8	2.9	2.7	5.2	2.1
MIN	1.1	1.5	.92	.87	.51	.40	.31	.40	.52	.64	.80	.36
AC-FT	152	1870	4570	584	1700	5540	565	178	93	103	151	59

CAL YR 1980 TOTAL 45039.79 MEAN 123 MAX 5420 MIN .72 AC-FT 89340  
WTR YR 1981 TOTAL 7852.43 MEAN 21.5 MAX 976 MIN .31 AC-FT 15580

## LOS ANGELES RIVER BASIN

11102300 RIO HONDO BELOW WHITTIER NARROWS DAM, CA

LOCATION.--Lat 34°01'00", long 118°05'15", in Paso de Bartolo Grant, Los Angeles County, Hydrologic Unit 18070105, on right levee 0.2 mi (0.3 km) upstream from Beverly Boulevard, 0.4 mi (0.6 km) downstream from axis of Whittier Narrows Dam, and 1.0 mi (1.6 km) northeast of Montebello.

DRAINAGE AREA.--124 mi<sup>2</sup> (321 km<sup>2</sup>).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 175 ft (53 m), from topographic map.

REMARKS.--Records fair above 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) and poor below. Flow regulated by Whittier Narrows flood-control reservoir, capacity, 36,160 acre-ft (44.6 hm<sup>3</sup>). There are several small flood-control reservoirs, combined capacities, 1,700 acre-ft (2.10 hm<sup>3</sup>) and several small debris basins above Whittier Narrows Dam. Many diversions for domestic use and irrigation. At times flow is diverted from San Gabriel River to Rio Hondo from sites below Santa Fe Dam and above Whittier Narrows Dam. See schematic diagram of San Gabriel and Los Angeles River basins.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,800 ft<sup>3</sup>/s (1,100 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 13.82 ft (4.212 m), from rating curve extended above 15,000 ft<sup>3</sup>/s (425 m<sup>3</sup>/s) on basis of gate openings at dam at gage heights 12.32 ft (3.755 m) and 13.82 ft (4.212 m); no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,900 ft<sup>3</sup>/s (422 m<sup>3</sup>/s) Mar. 1, gage height, 8.13 ft (2.478 m); no flow Nov. 12 and 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	250	229	110	47	2700	94	90	88	76	50	172
2	130	223	238	110	49	1150	154	90	82	78	92	70
3	135	212	177	110	25	377	86	84	90	88	60	146
4	135	174	414	110	48	136	96	79	103	100	77	151
5	134	129	139	110	171	301	92	79	115	109	71	157
6	135	107	97	110	181	246	94	76	108	111	31	160
7	136	57	102	107	166	139	27	78	104	114	36	148
8	138	28	54	124	302	112	23	77	117	87	72	83
9	157	15	55	118	626	34	97	77	130	74	72	159
10	164	2.3	166	108	98	4.8	117	71	144	65	86	165
11	167	.19	311	162	55	4.5	127	70	151	41	114	170
12	165	0	355	112	9.0	4.8	133	55	150	36	114	170
13	173	.51	238	118	2.4	29	117	32	156	33	122	173
14	185	0	208	108	2.1	39	133	31	173	39	132	179
15	179	11	158	90	3.3	42	154	30	107	.01	127	186
16	194	48	18	50	8.4	66	169	32	39	20	144	177
17	177	65	.08	96	35	147	140	39	30	105	140	169
18	193	20	13	102	154	163	130	58	64	110	129	167
19	211	29	4.6	108	176	367	122	73	61	110	160	157
20	231	35	47	115	188	651	122	74	57	120	170	131
21	260	42	124	122	178	24	115	85	63	60	176	108
22	289	41	106	128	172	9.8	108	105	11	92	191	99
23	299	74	86	280	171	9.3	108	112	.75	106	198	96
24	301	83	111	18	170	28	108	107	.75	107	208	97
25	320	92	183	62	188	61	108	111	8.5	112	218	90
26	330	104	193	68	395	87	115	105	120	104	224	90
27	328	112	142	18	58	68	120	110	98	96	233	85
28	315	150	119	649	252	60	102	118	96	92	215	91
29	314	147	111	1690	---	56	96	125	89	83	194	113
30	296	182	110	562	---	52	96	120	79	81	179	156
31	289	---	110	226	---	90	---	95	---	70	174	---
TOTAL	6610	2433.00	4418.68	6001	3930.2	7258.2	3308	2488	2635.00	2519.01	4209	4115
MEAN	213	81.1	143	194	140	234	110	80.3	87.8	81.3	136	137
MAX	330	250	414	1690	626	2700	169	125	173	120	233	186
MIN	130	0	.08	18	2.1	4.5	23	30	.75	.01	31	70
AC-FT	13110	4830	8760	11900	7800	14400	6560	4930	5230	5000	8350	8160
CAL YR 1980 TOTAL	156657.29			MEAN 428	MAX 10500	MIN 0	AC-FT 310700					
WTR YR 1981 TOTAL	49925.09			MEAN 137	MAX 2700	MIN 0	AC-FT 99030					



11103000 LOS ANGELES RIVER AT LONG BEACH, CA  
(National stream-quality accounting network station)

LOCATION.--Lat 33°49'02", long 118°12'20", in Los Cerritos Grant, Los Angeles County, Hydrologic Unit 18070105, on right bank 5,000 ft (1,524 m) upstream from Willow Street, 3.4 mi (5.5 km) north of Long Beach, and 3.7 mi (6.0 km) upstream from mouth.

DRAINAGE AREA.--827 mi<sup>2</sup> (2,140 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 11.91 ft (3.630 m) National Geodetic Vertical Datum of 1929 (levels by Los Angeles County Flood Control District). See WSP 1735 for history of changes prior to Jan. 19, 1956.

REMARKS.--Flow regulated since September 1940 by Hansen flood-control reservoir, since December 1941 by Sepulveda flood-control reservoir, combined capacity, 49,400 acre-ft (60.9 hm<sup>3</sup>), and several small flood-control reservoirs. City of Los Angeles stores imported Owens River water in San Fernando and Chatsworth reservoirs and at times discharges imported water into Los Angeles River above station. Many diversions above station for domestic use and irrigation. AVERAGE DISCHARGE represents flow to the ocean, regardless of upstream development. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records prior to 1980 water year were furnished by Los Angeles County Flood Control District.

AVERAGE DISCHARGE.--50 years (water years 1930-79), 185 ft<sup>3</sup>/s (5.239 m<sup>3</sup>/s), 134,030 acre-ft/yr (165 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 102,000 ft<sup>3</sup>/s (2,890 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 16.00 ft (4.877 m); no flow at times in 1929-30, 1934.

NOTE.--Record for current year not available from cooperator at time of publication.

## LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

CHEMICAL ANALYSES: Water years 1973 to current year.

BIOLOGICAL DATA: Water years 1973 to September 1981 (discontinued).

SPECIFIC CONDUCTANCE: Water years 1974 to current year.

WATER TEMPERATURES: Water years 1974 to current year.

SEDIMENT RECORDS: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1973 to September 1975, July 1980 to current year.

WATER TEMPERATURES: October 1973 to September 1975, January 1980 to current year.

INSTRUMENTATION.--Water-quality monitor recording specific conductance and water temperature since October 1973 to September 1975 and since January 1980.

REMARKS.--Missing specific-conductance and temperature data due to recorder malfunction.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2,010 micromhos June 30, 1975; minimum recorded, 117 micromhos Mar. 6, 1975, minimum observed, 91 micromhos May 8, 1977.

WATER TEMPERATURES: Maximum recorded, 38.0°C June 24, 1981; minimum recorded, 2.0°C Jan. 31, 1975.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,420 micromhos Sept. 11; minimum recorded, 271 micromhos March 26.

WATER TEMPERATURES: Maximum recorded, 38.0°C June 24; minimum recorded, 6.0°C Feb. 1.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI, FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT										
30...	1220	40	1130	8.6	18.5	3.3	17.4	--	K27	310
NOV										
24...	1230	63	1090	9.3	19.5	4.0	15.4	150	170	320
DEC										
16...	1400	58	1010	9.0	--	6.9	13.9	120	78	310
JAN										
20...	1400	65	980	9.7	20.5	6.5	13.8	K750	K1100	280
FEB										
24...	1200	47	1060	9.6	16.0	11	13.8	1200	370	360
MAR										
24...	1200	66	970	10.2	27.5	3.9	10.2	15	33	390
APR										
22...	1200	42	1080	9.5	32.0	3.1	16.0	K3	560	370
MAY										
13...	1200	78	1030	9.0	24.0	25	14.7	--	180	350
JUN										
17...	1200	40	1090	9.5	33.5	12	14.1	1300	180	360
JUL										
21...	1200	47	1160	8.3	28.0	3.5	15.5	1800	490	340
AUG										
25...	1200	64	1000	8.7	30.0	10	16.4	3900	90	320
SEP										
22...	1200	41	--	8.8	24.0	9.5	16.1	K16000	220	370

DATE	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT										
30...	--	79	28	110	43	2.7	9.0	--	210	130
NOV										
24...	140	77	30	110	42	2.7	9.0	180	220	110
DEC										
16...	140	78	29	110	42	2.7	9.9	170	190	110
JAN										
20...	140	69	26	100	43	2.6	7.7	140	--	96
FEB										
24...	170	83	36	110	40	2.5	7.9	190	230	110
MAR										
24...	210	100	35	96	34	2.1	5.9	180	--	93
APR										
22...	--	96	31	86	33	2.0	6.6	--	250	95
MAY										
13...	140	90	31	84	34	1.9	6.5	210	200	93
JUN										
17...	150	96	29	100	37	2.3	11	210	230	110
JUL										
21...	160	82	32	110	41	2.6	9.0	180	240	120
AUG										
25...	130	81	29	110	42	2.9	8.9	190	210	110
SEP										
22...	--	92	33	110	39	2.7	8.0	--	220	140

K Results based on colony count outside the acceptable range (non-ideal colony count).

## LOS ANGELES RIVER BASIN

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11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
OCT 30...	.7	23	739	--	5.0	4.6	--	.050	1.8	1.4
NOV 24...	.6	23	730	710	4.8	4.9	.070	.070	1.6	1.1
DEC 16...	.6	23	696	685	7.7	7.4	1.00	1.00	2.1	1.4
JAN 20...	--	--	641	--	6.4	6.0	.080	.060	1.6	1.3
FEB 24...	.6	22	749	736	6.2	5.0	--	.040	--	1.6
MAR 24...	.5	22	784	--	3.6	3.8	.030	.030	1.1	1.4
APR 22...	.5	20	766	--	2.1	2.1	--	.100	--	1.1
MAY 13...	.5	21	673	662	2.0	2.2	.080	.060	2.1	1.1
JUN 17...	.6	22	747	726	.17	.17	.120	.120	2.6	1.4
JUL 21...	.5	26	756	739	2.6	2.6	--	.060	--	1.3
AUG 25...	.1	25	707	704	3.6	3.6	.090	.110	2.4	1.7
SEP 22...	.6	26	800	--	1.8	1.8	.130	.090	1.6	1.3

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO- TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
OCT 30...	1.80	1.4	6.8	6.0	2.40	1.80	--	--	9.6	--
NOV 24...	1.70	1.2	6.5	6.1	2.20	1.90	--	15	--	--
DEC 16...	3.10	2.4	11	9.8	--	3.10	2.40	15	--	--
JAN 20...	1.70	1.4	8.1	7.4	1.60	.062	--	--	7.6	--
FEB 24...	2.80	1.6	9.0	6.6	1.80	1.50	--	18	--	--
MAR 24...	1.10	1.4	4.7	5.2	.840	.760	--	9.8	--	--
APR 22...	1.30	1.2	3.4	3.3	.550	.440	--	--	8.4	.3
MAY 13...	2.20	1.2	4.2	3.4	.810	.530	--	56	--	--
JUN 17...	2.70	1.5	2.9	1.7	1.10	.750	.710	14	--	--
JUL 21...	2.30	1.4	4.9	4.0	1.90	1.40	--	--	12	.5
AUG 25...	2.50	1.8	6.1	5.4	1.40	<.010	--	18	--	--
SEP 22...	1.70	1.4	3.5	3.2	1.90	1.70	--	16	--	--

## LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)
OCT 30...	1220	7	6	100	50	8	8	10	0	--
JAN 20...	1400	7	4	100	30	4	3	0	0	--
APR 22...	1200	4	3	100	90	--	2	20	20	3
JUL 21...	1200	6	6	100	60	3	3	20	10	--

DATE	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
OCT 30...	<3	110	31	540	30	12	4	40	9	--
JAN 20...	<3	32	10	320	20	58	2	40	7	--
APR 22...	<3	13	9	270	20	13	3	20	4	2.2
JUL 21...	<3	24	7	1400	30	15	2	100	7	1.3

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 30...	.3	51	35	2	2	0	0	30	30
JAN 20...	1.1	43	19	2	2	1	1	80	20
APR 22...	2.0	7	7	3	3	0	0	110	10
JUL 21...	.6	29	20	--	2	1	0	50	20

&lt; Actual value is known to be less than the value shown.

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	NOV 24,80 1230	MAR 24,81 1200	MAY 13,81 1200	JUN 17,81 1200				
TOTAL CELLS/ML	12000	1600	19000	620000				
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
..CHLOROPHYCEAE								
...CHLOROCOCCALES								
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
....OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	120	1	*	0
....DICTYOSPHAERIUM	540	4	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	820	4	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	13	1	--	-	--	-
....SCENEDESMACEAE								
....SCENEDESMUS	5700#	46	26	2	700	4	8200	1
..ULOTRICHALES								
...CHAETOPHORACEAE								
....STIGEOCLONIUM	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	220	2	520#	33	1000	6	*	0
...PHACOTACEAE								
....PTEROMONAS	--	-	13	1	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	--	-	--	-	--	-
CHRYSTOPHYTA								
..BACILLARIOPHYCEAE								
...CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	270	2	--	-	1500	8	3500	1
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	930	5	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....SYNEDRA	--	-	--	-	--	-	--	-
...GOMPHONEMATAACEAE								
....GOMPHONEMA	--	-	13	1	--	-	--	-
...NAVICULACEAE								
....NAVICULA	*	0	26	2	1200	6	3500	1
...NITZSCHACEAE								
....NITZSCHIA	700	6	890#	57	7700#	40	5900	1
..CHRYSTOPHYCEAE								
...CHRYSONOMADALES								
...OCHROMONADACEAE								
....OCHROMONAS	160	1	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
..CRYPTOPHYCEAE								
...CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
..CYANOPHYCEAE								
...CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	160	1	52	3	--	-	--	-
...HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	4600#	37	--	-	5000#	26	600000#	96
EUGLENOPHYTA (EUGLENOIDS)								
..EUGLENOPHYCEAE								
...EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	13	1	--	-	--	-

See footnotes at end of table.

## LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## PHYTOPLANKTON

DATE TIME	JUL 21,81 1200		AUG 25,81 1200		SEP 22,81 1200	
TOTAL CELLS/ML	84000		33000		11000	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
..CHLOROPHYCEAE						
..CHLOROCOCCALES						
...HYDRODICTYACEAE						
...PEDIASTRUM	4300	5	6200#	19	1200	10
...OOCYSTACEAE						
...ANKISTRODESMUS	--	-	--	-	130	1
...DICTYOSPHAERIUM	--	-	--	-	--	-
...KIRCHNERIELLA	--	-	--	-	--	-
...OOCYSTIS	2400	3	--	-	--	-
...SELENASTRUM	--	-	--	-	--	-
...SCENEDESMACEAE						
...SCENEDESMUS	24000#	29	23000#	69	7000#	63
...ULOTRICHAELES						
...CHAETOPHORACEAE						
...STIGEOCLONIUM	31000#	37	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
...CHLAMYDOMONAS	*	0	--	-	--	-
...PHACOTACEAE	--	-	--	-	--	-
...PTEROMONAS	--	-	--	-	--	-
..ZYGEMATALES						
...DESMIDIACEAE						
...COSMARIUM	*	0	*	0	--	-
CHRYSOPHYTA						
..BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCEAE						
...CYCLOTELLA	--	-	*	0	--	-
..PENNALES						
...ACHNANTHACEAE						
...ACHNANTHES	--	-	--	-	66	1
...CYMBELLACEAE						
...CYMBELLA	*	0	--	-	--	-
...DIATOMACEAE						
...DIATOMA	*	0	--	-	--	-
...FRAGILARIACEAE						
...SYNEDRA	*	0	--	-	--	-
...GOMPHONEMACEAE						
...GOMPHONEMA	--	-	490	1	130	1
...NAVICULACEAE						
...NAVICULA	*	0	290	1	--	-
...NITZSCHACEAE						
...NITZSCHIA	3700	4	3000	9	360	3
..CHRYSOPHYCEAE						
..CHRYSONOMADALES						
...OCHROMONADACEAE						
...OCHROMONAS	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
..CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOMONADACEAE						
...CRYPTOMONAS	--	-	--	-	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)						
..CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
...ANACYSTIS	480	1	--	-	660	6
..HORMOGONALES						
...OSCILLATORIA						
...OSCILLATORIA	17000#	20	--	-	990	9
EUGLENOPHYTA (EUGLENOIDS)						
..EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
...EUGLENA	--	-	--	-	590	5

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

\* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	1130	1020	1080	1240	1110	1160	1150	1080	1120	1050	939	1000
2	1170	1070	1110	1190	1080	1130	1160	1100	1130	1040	941	991
3	1100	1080	1090	1200	1090	1140	1180	1100	1130	992	912	954
4	1090	1050	1070	1180	1070	1120	1200	665	830	984	924	963
5	1100	1020	1050	1210	1080	1140	825	635	717	986	906	948
6	1090	1000	1030	1180	1100	1130	1010	835	931	1060	917	986
7	1040	983	1010	1150	1070	1110	1070	1020	1040	1030	509	956
8	1110	1020	1050	1130	1050	1090	1080	874	965	1080	980	1020
9	1060	1030	1040	1110	1050	1080	983	883	930	1070	942	1000
10	1060	1020	1040	1150	1040	1080	1060	1000	1030	1010	954	994
11	1080	1010	1040	1110	1050	1080	1100	1060	1080	1030	745	874
12	1060	1010	1040	1110	1050	1080	1100	1040	1070	829	717	771
13	1040	1010	1020	1130	1050	1090	1080	1050	1060	929	819	891
14	1040	1010	1030	1140	968	1110	1080	1050	1070	1030	929	1020
15	1150	1030	1110	1190	867	1120	1080	1040	1060	1140	972	1080
16	1120	1080	1100	1260	466	945	1070	963	1030	1150	983	1080
17	1080	1060	1070	1240	436	990	1050	945	996	1070	995	1030
18	1100	1040	1070	1140	985	1110	1060	956	1000	1030	967	1000
19	1050	1000	1030	1190	864	1110	1070	978	1010	1010	938	980
20	1090	1010	1040	1170	383	819	1050	939	972	1020	810	961
21	1150	1050	1090	1240	512	1130	1090	911	964	1140	977	1040
22	1200	1070	1140	1180	1090	1130	1040	893	954	1140	1020	1060
23	1160	1060	1100	1110	1060	1090	1070	904	960	1080	481	683
24	1160	1050	1100	1100	1050	1080	1030	926	969	824	534	663
25	1170	1080	1120	1190	1080	1140	1050	768	981	1010	836	926
26	1220	1050	1120	1220	1120	1150	1200	949	1050	1040	988	1010
27	1140	1050	1080	1210	1100	1150	1120	941	994	1050	980	1020
28	1150	1060	1100	1240	918	1120	1000	913	954	---	---	---
29	1150	1070	1100	1160	968	1100	984	894	929	---	---	---
30	1160	1070	1130	1180	1120	1140	996	916	956	---	---	---
31	1230	1130	1180	---	---	---	1020	947	978	---	---	---
MONTH	1230	983	1080	1260	383	1100	1200	635	995	1150	481	959

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1				---	---	---	654	544	593	1190	1120	1160
2				---	---	---	630	370	520	1240	1130	1180
3				---	---	---	490	330	409	1220	1100	1150
4				---	---	---	669	379	575	1190	1120	1150
5				---	---	---	739	659	707	1190	753	874
6				---	---	---	738	658	707	1220	830	1070
7				---	---	---	788	668	744	1260	977	1160
8				---	---	---	817	727	775	1020	944	982
9				---	---	---	897	787	854	1070	1000	1030
10				---	---	---	946	856	909	1070	999	1030
11				---	---	---	1050	886	984	1110	1030	1060
12				---	---	---	1060	945	1000	1060	993	1030
13				---	---	---	1060	935	994	1080	1010	1040
14				---	---	---	1080	954	1010	1060	1000	1040
15				---	---	---	1120	954	1030	1030	1000	1020
16				---	---	---	1050	933	1000	1070	1020	1040
17				---	---	---	1100	1020	1060	1100	1030	1050
18				---	---	---	1070	492	820	1180	1040	1110
19				---	---	---	532	372	433	1090	1020	1050
20				---	---	---	711	491	628	1080	1010	1050
21				---	---	---	871	741	801	1110	1040	1070
22				---	---	---	1140	770	1000	1120	993	1080
23				---	---	---	1260	1130	1200	1210	1120	1170
24				---	---	---	1200	1070	1140	1230	1200	1220
25				756	436	546	1210	1060	1150	1210	1180	1200
26				911	271	706	1230	1130	1180	1190	1160	1180
27				777	517	575	1280	1130	1200	1230	1170	1200
28				712	562	646	1230	1100	1160	1250	1200	1220
29				688	648	667	1210	1140	1170	1240	1200	1220
30				683	643	663	1200	1150	1180	1230	1070	1160
31				689	509	629	---	---	---	1090	986	1040
MONTH				911	271	633	1280	330	898	1260	753	1100

## 11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	997	917	955	1200	1060	1140	1210	1100	1150	1150	1080	1110
2	989	909	939	1280	1100	1180	1150	1070	1110	1180	1110	1140
3	1300	910	1110	1340	1120	1210	1100	1020	1070	1190	1140	1170
4	1110	981	1050	1230	1160	1200	1110	1030	1080	1300	1110	1180
5	1040	973	1000	1180	1070	1140	1130	1040	1090	1220	1090	1140
6	984	954	973	1100	1030	1070	1110	1030	1080	1180	1060	1120
7	986	936	961	1100	1030	1070	1100	1020	1060	1180	1070	1120
8	987	957	973	1120	1030	1080	1100	989	1050	1140	1030	1090
9	959	889	927	1170	1010	1070	1070	964	1020	1150	1060	1110
10	960	910	940	1210	1100	1150	1110	980	1020	1180	1110	1160
11	1020	971	1000	1220	1110	1170	1120	1010	1070	1420	1200	1250
12	1030	983	1010	1210	1130	1170	1150	1020	1100	1260	1150	1180
13	1010	974	994	1220	1120	1180	1240	1090	1170	1270	1110	1170
14	1040	996	1020	1280	1150	1220	1210	943	1150	1250	1100	1180
15	1060	987	1030	1280	1210	1240	1150	987	1110	1310	1110	1220
16	1090	1020	1050	1270	1160	1210	1260	830	1140	1320	1130	1200
17	1170	960	1110	1190	1110	1160	1210	843	1130	1350	1140	1260
18	1180	1090	1120	1180	1100	1150	1190	1010	1100	1220	1120	1180
19	1110	1060	1080	1170	1100	1140	1220	1000	1050	1230	1140	1190
20	1130	1030	1090	1170	1090	1140	1260	1100	1150	1280	1130	1230
21	1080	998	1050	1220	910	1160	1180	1120	1140	1250	1210	1230
22	1070	1020	1050	1260	1140	1220	1150	1120	1140	1160	1010	1050
23	1250	1030	1090	1260	1140	1200	1130	1010	1080	----	----	----
24	1210	1110	1150	1290	1140	1220	1020	987	1010	----	----	----
25	1230	1130	1170	1260	1140	1220	1110	990	1010	----	----	----
26	1260	1110	1160	1230	1130	1180	1140	1080	1100	1130	1010	1070
27	1280	1100	1190	1180	1100	1150	1200	1120	1150	1130	1010	1080
28	1180	1090	1140	1310	1120	1180	1280	1160	1200	1110	1040	1080
29	1170	1050	1090	1300	1130	1190	1240	1210	1220	1110	1030	1080
30	1130	1060	1090	1300	1170	1220	1270	1090	1180	1120	1050	1090
31	----	----	----	1200	1100	1160	1160	1080	1110	----	----	----
MONTH	1300	889	1050	1340	910	1170	1280	830	1100	1420	1010	1150
YEAR	1420	271	1050									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	29.0	21.0	24.5	22.0	13.5	18.0	20.0	13.5	16.0	20.0	11.5	15.0
2	28.0	21.0	24.5	21.5	14.0	18.0	19.0	11.5	14.5	18.5	12.5	15.0
3	28.0	21.0	24.0	22.5	14.5	18.5	17.0	12.0	14.5	20.5	13.5	16.0
4	29.0	21.0	24.0	22.5	15.5	18.5	14.5	13.0	13.5	18.0	13.5	15.5
5	26.0	20.0	22.5	21.5	17.0	19.0	18.5	11.5	14.5	20.0	11.0	14.5
6	27.0	19.5	22.5	22.5	16.5	19.0	18.0	9.5	13.0	19.0	10.5	14.0
7	27.0	19.5	23.0	19.5	15.0	17.0	17.0	9.0	12.5	20.0	10.5	13.5
8	27.0	20.5	23.5	21.0	16.0	18.0	18.5	9.0	13.0	19.0	12.5	15.0
9	25.5	20.0	22.5	20.5	15.5	17.5	17.0	8.0	11.5	19.0	10.0	14.0
10	26.0	20.5	22.5	19.0	16.5	17.5	17.5	7.0	11.5	19.0	10.0	14.0
11	26.0	19.5	22.5	19.0	16.5	18.0	17.5	7.0	12.0	18.5	13.5	16.0
12	26.0	20.0	22.5	21.0	16.0	18.0	14.5	9.5	12.0	20.0	14.0	16.0
13	23.5	19.0	21.0	20.0	14.0	17.0	16.5	8.5	12.0	21.5	11.5	16.0
14	24.0	17.5	20.0	19.0	13.0	16.0	18.0	9.5	13.5	20.5	12.0	15.5
15	24.5	13.0	17.5	18.0	12.0	15.0	19.0	7.5	13.0	20.0	12.0	15.0
16	22.5	14.0	17.5	16.0	10.0	13.0	19.5	10.0	14.0	19.5	13.5	15.5
17	22.0	14.0	18.0	14.5	8.0	11.5	20.0	12.0	15.5	19.5	12.0	15.0
18	23.5	13.0	18.0	15.0	9.0	12.0	18.0	13.5	15.5	20.0	11.5	15.5
19	24.0	13.5	18.5	15.5	8.5	12.5	18.5	12.5	14.5	20.0	14.0	16.0
20	25.0	14.0	19.5	18.5	9.5	13.5	17.5	10.5	14.0	21.0	15.0	17.5
21	25.5	15.0	19.5	17.0	10.0	14.0	19.0	12.0	14.5	18.5	13.5	15.5
22	24.5	15.5	19.0	20.0	11.0	15.0	19.0	12.5	15.0	19.0	14.0	16.0
23	26.5	14.5	19.5	20.0	12.0	15.5	19.0	12.5	15.0	18.0	13.0	15.5
24	27.0	14.0	20.0	21.0	12.5	15.5	19.5	11.5	14.5	21.0	10.0	14.0
25	22.0	14.5	18.5	18.0	9.5	13.0	20.0	10.0	14.0	21.0	10.0	14.0
26	24.0	15.5	19.5	18.5	8.5	13.0	19.5	10.5	14.5	19.0	9.0	13.5
27	23.0	14.5	18.5	20.0	8.5	13.5	17.0	11.5	14.0	16.0	11.5	13.5
28	22.0	13.0	17.5	19.0	10.0	14.0	18.5	13.0	15.5	14.5	11.5	12.5
29	21.0	12.5	17.0	19.5	10.0	14.5	20.0	11.0	15.0	13.0	11.0	12.0
30	21.0	13.0	17.5	20.0	13.5	16.0	20.5	11.0	15.5	15.5	9.5	12.0
31	21.5	14.5	18.0	----	----	----	19.0	11.5	14.5	17.5	7.0	11.0
MONTH	29.0	12.5	20.5	22.5	8.0	15.5	20.5	7.0	14.0	21.5	7.0	14.5





## LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
OCT 30...	1220	18.5	40	18	1.9	31	--	--	--
NOV 24...	1230	19.5	63	7	1.2	38	--	--	--
DEC 16...	1400	--	58	23	3.6	26	--	--	--
JAN 20...	1300	20.0	65	10	1.8	57	--	--	--
FEB 24...	1200	16.0	47	14	1.8	42	--	--	--
MAR 24...	1200	27.5	66	16	2.9	31	--	--	--
APR 22...	1200	32.0	42	8	.91	44	--	--	--
MAY 13...	1200	24.0	78	123	26	97	98	100	--
JUN 17...	1200	33.5	40	42	4.5	90	--	--	--
JUL 21...	1200	28.0	47	29	3.7	76	--	--	--
AUG 25...	1200	30.0	64	56	9.7	82	86	96	100
SEP 22...	1200	24.0	41	19	2.1	60	--	--	--

LOCATION.--Lat 34°16'41", long 118°47'43", on line between secs.7 and 8, T.2 N., R.18 W., Ventura County, Hydrologic Unit 18070103, on left bank on downstream side of bridge on Madera Avenue, 30 ft (9 m) upstream from steel-lipped concrete stabilizer, 0.5 mi (0.8 km) upstream from Brea Canyon, and 1.1 mi (1.8 km) northwest of Simi.

PERIOD OF RECORD.--October 1933 to September 1951, October 1952 to current year. Monthly discharge, in acre-ft only, for October 1933 to September 1951, October 1952 to October 1968, published in WSP 2128.

REMARKS.--Records good. No regulation above station. Pumping from wells for irrigation. City of Simi Valley intermittently discharged ground water into channel from extraction wells this year.

AVERAGE DISCHARGE.--13 years (water years 1969-81) 10.1 ft<sup>3</sup>/s (0.286 m<sup>3</sup>/s), 7,320 acre-ft/yr (9.03 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,310 ft<sup>3</sup>/s (264 m<sup>3</sup>/s) Feb. 16, 1980, gage height, 8.80 ft (2.682 m); no flow at times in some years.

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. 29	1000	972	27.5	3.97	1.210	Mar. 5	0315	*1,680	47.6	4.54	1.384
Feb. 28	1815	1,090	30.9	4.00	1.219						

Minimum daily discharge, 0.40 ft<sup>3</sup>/s (0.011 m<sup>3</sup>/s) Dec. 11.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.7	2.7	3.0	3.3	223	2.7	3.5	3.9	2.2	3.9	3.5
2	3.5	2.7	2.7	3.0	2.7	63	4.3	3.3	1.8	2.7	3.9	3.9
3	3.5	3.3	3.2	3.0	2.7	3.9	3.0	2.7	2.7	2.7	3.9	4.2
4	3.5	2.7	46	3.0	2.5	24	2.7	3.3	3.5	2.7	3.9	4.5
5	3.5	2.7	9.4	2.7	2.5	357	2.5	4.2	3.0	2.7	3.5	4.2
6	3.5	2.7	2.7	2.7	2.7	19	2.5	4.2	2.7	3.0	3.5	4.2
7	3.5	2.7	2.2	3.0	2.7	8.2	2.5	4.2	1.3	3.0	3.5	4.2
8	3.5	2.7	2.0	3.0	31	4.9	2.5	3.9	90	3.3	3.5	3.9
9	3.5	2.7	2.0	3.0	57	3.5	2.5	3.3	2.5	3.9	3.9	3.9
10	3.9	2.7	1.5	3.0	3.0	2.5	2.7	3.5	2.2	3.9	4.2	3.9
11	3.9	2.7	.40	6.2	2.7	2.5	2.7	3.9	2.2	3.9	3.9	4.2
12	3.9	2.5	.90	2.7	2.7	2.5	2.2	4.2	2.2	3.9	3.3	3.3
13	3.9	2.5	2.5	2.7	2.7	2.5	2.7	3.9	2.2	4.2	3.3	3.5
14	3.9	2.5	2.2	2.7	2.5	2.5	2.7	3.9	2.0	3.9	3.3	3.5
15	3.9	2.5	2.0	2.7	2.5	2.7	2.7	3.9	2.0	3.9	3.3	3.5
16	3.5	2.5	2.0	2.7	2.5	2.7	2.7	3.9	2.2	3.9	3.3	3.5
17	3.3	2.2	2.2	2.7	2.5	2.5	3.0	3.9	2.2	3.9	3.5	3.5
18	3.0	2.2	2.7	2.7	2.5	2.5	18	3.9	2.2	4.2	4.5	3.5
19	3.0	2.2	2.7	2.7	2.5	85	25	3.9	2.2	3.9	3.9	3.5
20	3.0	2.2	2.7	2.7	2.5	13	6.4	3.9	2.5	3.9	3.9	3.9
21	3.0	2.2	3.0	2.7	2.2	3.3	2.7	4.2	2.5	3.9	3.9	3.9
22	2.7	2.5	3.0	2.7	2.2	3.3	2.7	4.5	3.0	4.2	3.9	3.9
23	2.7	2.7	2.7	18	2.2	2.5	3.0	4.5	3.9	4.2	3.9	3.9
24	2.7	2.7	3.3	3.5	2.5	2.7	3.0	4.5	3.9	4.5	3.9	3.9
25	3.0	2.5	3.3	3.3	26	2.7	3.6	4.5	4.2	4.5	3.5	3.9
26	3.0	2.2	3.3	2.7	6.7	2.7	3.5	4.9	4.2	4.2	3.3	3.9
27	3.0	2.2	3.3	3.3	2.7	2.7	3.9	4.9	4.2	4.5	3.5	3.5
28	3.0	2.2	3.3	163	121	2.7	3.3	4.2	4.2	3.9	3.5	3.5
29	2.7	2.5	3.0	141	---	2.7	3.3	4.2	3.9	3.5	3.9	3.3
30	2.7	2.7	2.7	4.2	---	2.7	3.3	4.2	3.0	3.5	3.9	2.7
31	3.0	---	2.7	3.3	---	2.7	---	4.2	---	2.5	3.9	---
TOTAL	101.2	76.0	128.30	407.6	301.2	858.1	128.3	124.2	83.40	113.1	115.0	112.7
MEAN	3.26	2.53	4.14	13.1	10.8	27.7	4.28	4.01	2.78	3.65	3.71	3.76
MAX	3.9	3.3	46	163	121	357	25	4.9	4.2	4.5	4.5	4.5
MIN	2.5	2.2	.40	2.7	2.2	2.5	2.2	2.7	.90	2.2	3.3	2.7
AC-FT	201	151	254	808	597	1700	254	246	165	224	228	224
CAL YR 1980	TOTAL	7214.30	MEAN	19.7	MAX	1670	MIN	.40	AC-FT	14310		
WTR YR 1981</												

## CALLEGUAS CREEK BASIN

11106400 CONEJO CREEK ABOVE HIGHWAY 101, NEAR CAMARILLO, CA

LOCATION.--Lat 34°14'12", long 118°57'50", T.2 N., R.20 W., Ventura County, Hydrologic Unit 18070103, on left bank 2.6 mi (4.2 km) upstream from U.S. Highway 101, and 4.4 mi (7.1 km) northeast of Camarillo.

DRAINAGE AREA.--64.2 mi<sup>2</sup> (166.3 km<sup>2</sup>).

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 180 ft (55 m), from topographic map. Mar. 4, 1978 to Oct. 25, 1978, at same site at datum 10.00 ft (3.048 m) lower.

REMARKS.--No regulation or diversion above station.

COOPERATION.--Records were furnished by Ventura County Flood Control District and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--9 years, 25.8 ft<sup>3</sup>/s (0.731 m<sup>3</sup>/s), 18,690 acre-ft/yr (23.0 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft<sup>3</sup>/s (334 m<sup>3</sup>/s) Feb. 16, 1980, gage height, 21.67 ft (6.605 m) from rating curve extended above 900 ft<sup>3</sup>/s (25.5 m<sup>3</sup>/s) on basis of slope-conveyance study of maximum flow; minimum daily, 0.13 ft<sup>3</sup>/s (0.004 m<sup>3</sup>/s) May 31, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft<sup>3</sup>/s (34.0 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Mar. 1	1400	1,470 41.6	15.50 4.724
Mar. 5	0200	*1,510 42.8	15.57 4.746

Minimum daily discharge, 11 ft<sup>3</sup>/s (0.31 m<sup>3</sup>/s) Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	15	17	14	18	373	20	13	15	15	15	14
2	15	16	17	14	17	141	24	13	16	13	15	13
3	15	16	17	14	17	25	19	14	16	13	15	13
4	15	15	171	14	17	28	17	15	16	12	15	13
5	16	15	16	14	17	334	17	15	16	13	15	13
6	16	15	15	13	17	32	17	13	16	12	14	14
7	16	16	16	13	17	24	16	13	16	14	15	13
8	16	16	16	14	61	22	16	13	16	13	15	13
9	16	17	16	15	130	22	16	13	16	13	15	12
10	16	17	15	15	25	22	16	14	16	13	16	11
11	16	17	15	18	19	21	16	14	16	14	14	13
12	16	17	15	15	18	21	15	13	16	14	13	13
13	16	17	15	15	16	20	16	13	16	14	13	13
14	16	16	15	15	16	20	15	14	15	15	13	14
15	16	16	15	15	16	21	16	14	15	15	14	13
16	16	17	15	15	16	21	16	15	14	13	15	13
17	16	17	14	15	16	20	17	14	14	13	15	13
18	16	17	15	15	16	20	26	15	13	14	15	13
19	15	17	15	15	16	128	39	15	13	14	15	14
20	15	17	15	14	16	36	25	15	13	14	15	13
21	15	17	15	15	15	22	14	15	14	14	15	15
22	15	17	15	14	16	22	14	16	14	14	15	15
23	15	17	14	43	15	21	13	16	14	14	15	13
24	15	17	14	18	15	20	14	15	13	15	15	13
25	15	17	14	17	36	20	14	15	13	15	14	14
26	15	17	13	16	30	20	15	16	14	15	13	14
27	15	17	14	15	15	20	15	16	16	16	12	15
28	15	17	14	180	98	20	14	16	16	16	12	15
29	15	17	14	171	---	20	13	16	16	15	12	14
30	15	17	13	28	---	20	13	15	15	15	14	13
31	15	---	13	19	---	20	---	15	---	15	14	---
TOTAL	479	496	618	828	741	1576	518	449	449	435	443	402
MEAN	15.5	16.5	19.9	26.7	26.5	50.8	17.3	14.5	15.0	14.0	14.3	13.4
MAX	16	17	171	180	130	373	39	16	16	16	16	15
MIN	15	15	13	13	15	20	13	13	13	12	12	11
AC-FT	950	984	1230	1640	1470	3130	1030	891	891	863	879	797
CAL YR 1980 TOTAL	19335.2			52.8	3060	MIN	6.7	AC-FT	38350			
WTR YR 1981 TOTAL	7434.0			20.4	373	MIN	11	AC-FT	14750			

11106550 CALLEGUAS CREEK AT CAMARILLO STATE HOSPITAL, CA

LOCATION.--Lat 34°10'46", long 119°02'20", in Guadalupe Grant, Ventura County, Hydrologic Unit 18070103, on downstream side of county road bridge, 1.0 mi (1.6 km) northeast of Camarillo State Hospital, and 1.4 mi (2.3 km) downstream from Conejo Creek.

DRAINAGE AREA.--248 mi<sup>2</sup> (642 km<sup>2</sup>).

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 58.42 ft (17.806 m) National Geodetic Vertical Datum of 1929 (levels by Ventura County Flood Control District).

REMARKS.--No regulation above station. Pumping for irrigation in valley 1.0 mi (1.6 km) above station. Sustained flow from city of Thousand Oaks reclamation plant.

COOPERATION.--Records were furnished by Ventura County Flood Control District and reviewed by Geological Survey.

AVERAGE DISCHARGE.--13 years, 36.4 ft<sup>3</sup>/s (1.03 m<sup>3</sup>/s), 26,370 acre-ft/yr (32.5 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,300 ft<sup>3</sup>/s (716 m<sup>3</sup>/s) Feb. 16, 1980, gage height, 10.54 ft (3.213 m), from rating curve extended above 4,600 ft<sup>3</sup>/s (130 m<sup>3</sup>/s) on basis of slope-conveyance study of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft<sup>3</sup>/s (31.2 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)
Jan. 29	1130	2,380 67.4	3.42 1.042	Mar. 5	0515	*4,870 138	4.45 1.356
Mar. 1	1400	2,020 57.2	3.26 0.994				

Minimum daily discharge, 2.3 ft<sup>3</sup>/s (0.065 m<sup>3</sup>/s) Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	18	28	25	28	610	46	28	23	16	23	9.1
2	17	11	25	28	36	195	25	30	23	16	25	7.9
3	18	16	23	30	46	36	25	25	25	16	25	9.1
4	16	13	267	25	28	36	21	28	28	16	25	11
5	11	18	37	30	30	870	33	36	30	18	25	7.9
6	21	18	21	23	28	66	46	30	33	16	23	13
7	13	21	21	13	21	49	46	25	33	21	21	13
8	16	18	23	23	57	46	23	28	30	16	18	23
9	11	21	18	23	162	40	43	28	28	13	13	11
10	9.1	18	18	28	23	46	25	28	25	16	11	11
11	7.9	21	21	28	21	46	40	18	25	13	9.1	11
12	16	21	21	33	23	49	40	16	25	21	6.7	18
13	13	21	23	28	23	40	40	18	21	25	5.6	18
14	11	18	18	33	25	33	40	18	21	16	3.7	16
15	11	11	28	30	21	33	21	21	13	16	6.7	13
16	11	18	49	23	21	36	30	21	13	16	11	11
17	11	18	28	23	28	23	43	23	13	11	7.9	9.1
18	13	21	30	23	18	23	36	23	18	9.1	7.9	7.9
19	13	23	28	23	21	98	43	23	21	18	16	9.1
20	13	18	33	23	23	80	59	21	6.7	18	11	9.1
21	9.1	25	18	23	28	46	18	23	11	9.1	11	11
22	11	18	33	25	25	46	21	25	11	9.1	13	16
23	18	18	43	98	21	36	21	28	9.1	13	13	16
24	16	25	36	28	23	33	21	25	6.7	18	9.0	21
25	11	23	23	21	23	33	21	25	6.7	18	6.7	21
26	11	23	21	25	58	33	28	18	11	18	6.7	13
27	13	23	36	25	40	33	30	23	33	21	2.3	13
28	18	21	30	228	89	33	21	23	33	21	4.7	16
29	13	23	25	436	---	33	21	16	36	16	3.7	21
30	11	25	25	61	---	30	21	13	23	23	6.7	11
31	13	---	40	28	---	40	---	13	---	23	7.9	---
TOTAL	413.1	584	1090	1513	990	2851	948	720	635.2	516.3	379.3	397.2
MEAN	13.3	19.5	35.2	48.8	35.4	92.0	31.6	23.2	21.2	16.7	12.2	13.2
MAX	21	25	267	436	162	870	59	36	36	25	25	23
MIN	7.9	11	18	13	18	23	18	13	6.7	9.1	2.3	7.9
AC-FT	819	1160	2160	3000	1960	5650	1880	1430	1260	1020	752	788

CAL YR 1980	TOTAL	33737.1	MEAN	92.2	MAX	5690	MIN	7.9	AC-FT	66920
WTR YR 1981	TOTAL	11037.1	MEAN	30.2	MAX	870	MIN	2.3	AC-FT	21890

## SANTA CLARA RIVER BASIN

11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA  
(National stream-quality accounting network station)

LOCATION.--Lat 34°23'59", long 118°42'14", in San Francisco Grant, Ventura County, Hydrologic Unit 18070102, on downstream end of old diversion weir on right bank, on private road 0.2 mi (0.3 km) south of Highway 126, 0.8 mi (1.3 km) west of Los Angeles-Ventura County line, and 6.4 mi (10.3 km) west of intersection of Highway 126 and Interstate 5.

DRAINAGE AREA.--625 mi<sup>2</sup> (1,620 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 794.93 ft (242.295 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Base flow affected by pumping from wells along stream for irrigation. Flow partly regulated since January 1972 by Castaic Reservoir, capacity, 324,000 acre-ft (399 hm<sup>3</sup>). Imported water from California Water Project stored and released at Castaic Dam.

AVERAGE DISCHARGE.--29 years, 44.6 ft<sup>3</sup>/s (1.263 m<sup>3</sup>/s), 32,310 acre-ft/yr (39.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,800 ft<sup>3</sup>/s (1,950 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 19.01 ft (5.794 m), from rating curve extended above 9,200 ft<sup>3</sup>/s (261 m<sup>3</sup>/s) on basis of field estimate of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft<sup>3</sup>/s (21.2 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 28	0600	*2,470 70.0	5.77 1.759
Mar. 5	0630	851 24.1	5.08 1.548

Minimum daily discharge, 13 ft<sup>3</sup>/s (0.37 m<sup>3</sup>/s) July 31, Aug. 1 to 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	22	26	31	32	234	33	29	26	17	13	16
2	27	23	25	32	25	143	34	28	26	17	13	16
3	28	24	25	32	21	142	34	26	25	17	13	16
4	27	24	42	32	19	156	34	27	25	17	13	16
5	27	24	31	32	20	311	37	27	24	17	14	17
6	28	25	31	31	20	103	36	26	24	17	14	18
7	27	25	31	31	19	94	37	26	24	17	14	18
8	27	26	30	31	25	94	36	26	23	16	15	18
9	27	25	30	30	38	95	35	26	22	16	15	17
10	28	24	32	31	28	90	32	25	22	16	15	17
11	29	25	33	34	28	75	30	25	23	15	15	18
12	27	26	33	34	29	77	31	26	23	17	15	18
13	28	26	32	33	29	67	29	27	22	16	15	18
14	28	25	32	33	25	65	30	28	22	16	15	18
15	25	25	32	34	23	64	28	28	21	15	15	18
16	23	24	31	35	22	64	28	28	21	16	15	19
17	21	25	30	35	25	63	27	27	21	15	15	19
18	21	24	31	38	20	63	30	27	21	15	15	19
19	21	24	30	37	20	138	29	27	20	15	15	20
20	20	24	31	35	23	91	29	27	20	15	16	20
21	20	24	30	35	19	50	28	27	20	14	15	20
22	20	24	30	35	18	51	27	28	20	14	15	20
23	20	24	29	40	18	52	27	28	20	14	15	21
24	19	24	30	36	18	53	27	27	19	14	15	22
25	20	23	29	35	27	49	27	29	18	14	15	21
26	22	23	30	34	55	51	28	29	18	14	15	22
27	22	25	31	34	42	49	28	29	19	14	15	23
28	21	26	32	319	45	39	29	27	19	14	15	23
29	20	24	31	355	---	36	28	26	19	14	15	23
30	21	25	30	75	---	36	27	26	18	14	16	23
31	21	---	30	43	---	35	---	26	---	13	16	---
TOTAL	741	732	950	1702	773	2730	915	838	645	475	457	574
MEAN	23.9	24.4	30.6	54.9	27.6	88.1	30.5	27.0	21.5	15.3	14.7	19.1
MAX	29	26	42	355	85	311	37	29	26	17	16	23
MIN	19	22	25	30	18	35	27	25	18	13	13	16
AC-FT	1470	1450	1880	3380	1530	5410	1810	1660	1280	942	906	1140
CAL YR 1980	TOTAL	48002	MEAN 131	MAX 5000	MIN 15	AC-FT 95210						
WTR YR 1981	TOTAL	11532	MEAN 31.6	MAX 355	MIN 13	AC-FT 22870						

## 11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSIS: Water years 1969, 1972 to current year.

BIOLOGICAL DATA: Water years 1979 to Sept. 1980.

WATER TEMPERATURES: Water years 1969 to September 1978 (observed), February 1980 to September 1980.

SEDIMENT RECORDS: Water years 1969 to September 1978, October 1978 to current year (periodic record only).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1969 to Sept. 1981 (discontinued).

pH: June to September 1969.

CHLORIDE: June to September 1969.

WATER TEMPERATURES: February 1980 to September 1981 (discontinued).

SEDIMENT RECORDS: October 1968 to September 1978.

INSTRUMENTATION.--Water-quality monitor from June to September 1969. Specific-conductance recorder since June 1969. Temperature recorder since February 1980.

REMARKS.--The letter "A" following a date indicates chemical-quality data furnished by California Department of Water Resources. Missing specific-conductance and temperature data due to probe or recorder malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 3,600 micromhos Mar. 31, 1971; minimum recorded, 160 micromhos Mar. 17, 1979.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 48,500 mg/L Feb. 10, 1978; minimum daily mean, 4 mg/L Sept. 9, 1976.

SEDIMENT DISCHARGE: Maximum daily, 3,300,000 tons (2,990,000 metric tons), estimated, Feb. 25, 1969; minimum daily, 0.03 tons (0.03 metric tons) Sept. 9, 1976.

WATER TEMPERATURES: Maximum recorded, 32.0°C Aug. 9; minimum recorded, 6.0°C Feb. 10.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,810 micromhos Feb. 25; minimum recorded, 70 micromhos Jan. 8.

WATER TEMPERATURES: Maximum recorded, 33.0°C June 16, July 3; minimum recorded, 8.5°C Feb. 23, 27.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCUCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)
NOV 24...	1030	22	1550	8.2	12.0	1.0	8.8	87	97	550
JAN 23...	1015	45	1670	8.2	16.0	300	9.2	--	--	610
FEB 03...	1030	18	1600	8.0	10.0	170	9.4	65	280	630
MAR 19...	0950	61	1300	7.8	14.0	--	8.1	76	110	--
APR 20...	1255	29	1320	8.4	21.5	15	7.5	--	--	500
MAY 20...	1450	27	1390	8.3	25.0	--	8.1	--	--	--
JUN 10...	1050	22	1410	8.2	21.0	4.3	9.1	52	130	550
JUL 28...	1820	14	1400	8.2	23.3	3.0	7.7	--	--	550
AUG 05...	1000	14	1480	8.4	21.5	1.6	8.5	62	580	580
SEP 28...	0900	23	1400	8.0	12.5	1.0	--	180	1300	510
DATE	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 24...	280	140	49	140	35	2.6	5.5	270	390	120
JAN 23...	--	--	--	--	--	--	--	--	530	110
FEB 03...	350	160	57	160	35	2.8	5.5	280	500	110
MAR 19...	--	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	380	91
MAY 20...	--	--	--	--	--	--	--	--	--	--
JUN 10...	270	140	48	140	35	2.6	6.2	280	420	93
JUL 28...	--	--	--	--	--	--	--	--	420	100
AUG 05...	290	150	49	150	36	2.9	6.6	290	440	100
SEP 28...	240	128	45	140	37	2.9	6.4	270	380	91

## SANTA CLARA RIVER BASIN

11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	FLUO- RIDF, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DFG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)
NOV 24...	.5	22	1140	1050	4.8	4.9	.150	.140	.95	.71
JAN 23...	--	--	1320	--	--	--	--	--	--	--
FEB 03...	.7	21	1220	1200	3.7	3.4	.330	.300	1.5	1.0
MAR 19...	--	--	--	--	--	--	--	--	--	--
APR 20...	--	--	1040	--	--	--	--	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--	--
JUN 10...	.5	23	1080	1060	4.1	4.1	.080	.100	.92	.90
JUL 28...	--	--	1120	--	--	--	--	--	--	--
AUG 05...	.6	24	1130	1110	3.3	3.0	.070	.050	--	1.3
SEP 28...	.6	24	1060	994	3.7	3.8	.110	.120	.85	.52

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)
NOV 24...	1.10	.85	5.9	5.8	1.50	1.50	--	--	9.7	.3
JAN 23...	--	--	--	--	--	--	--	--	--	--
FEB 03...	1.80	1.3	5.5	4.7	1.10	.800	--	--	5.4	2.0
MAR 19...	--	--	--	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--	--	--	--
MAY 20...	--	--	--	--	--	--	--	--	--	--
JUN 10...	1.00	1.0	5.1	5.1	--	2.10	--	4.2	--	--
JUL 28...	--	--	--	--	--	--	--	--	--	--
AUG 05...	--	1.3	--	4.3	1.10	1.20	.980	--	4.5	.3
SEP 28...	.96	.64	4.7	4.4	1.50	1.70	--	2.1	--	--



11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS HA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)
NOV 24...	1030	2	2	100	70	0	<1	0	0	2
FEB 03...	1030	3	3	200	100	1	1	30	0	6
MAY 20...	1450	--	0	--	--	--	0	--	--	--
AUG 05...	1000	3	2	100	70	--	1	0	0	1

DATE	CORALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
NOV 24...	<3	7	3	2200	10	3	0	90	30	.7
FEB 03...	0	23	4	--	50	9	1	400	110	2.4
MAY 20...	--	--	0	--	20	--	0	--	--	.0
AUG 05...	<3	10	6	490	<10	7	0	30	7	--

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 24...	.3	4	0	3	3	0	0	20	10
FEB 03...	1.3	12	2	3	3	1	0	70	20
MAY 20...	--	--	--	--	--	--	--	--	10
AUG 05...	.8	6	6	3	3	0	0	40	17

## SANTA CLARA RIVER BASIN

11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1				---	---	---	670	520	598	380	150	257
2				---	---	---	620	450	536	400	120	238
3				---	---	---	550	400	489	430	130	259
4				---	---	---	550	400	478	360	100	211
5				---	---	---	590	440	504	300	70	196
6				---	---	---	550	340	450	310	140	216
7				---	---	---	480	300	390	430	90	229
8				---	---	---	440	320	380	380	70	184
9				---	---	---	460	270	371	---	---	---
10				---	---	---	490	350	416	---	---	---
11				---	---	---	480	310	391	---	---	---
12				---	---	---	420	260	325	---	---	---
13				---	---	---	360	190	260	---	---	---
14				---	---	---	370	110	243	---	---	---
15				---	---	---	410	150	306	---	---	---
16				---	---	---	470	240	368	---	---	---
17				---	---	---	420	280	351	---	---	---
18				---	---	---	430	190	286	---	---	---
19				---	---	---	410	140	257	---	---	---
20				---	---	---	340	120	210	---	---	---
21				---	---	---	310	90	200	---	---	---
22				---	---	---	330	90	208	---	---	---
23				---	---	---	340	140	243	---	---	---
24				1310	1170	1250	370	130	239	---	---	---
25				1240	1060	1180	330	120	247	---	---	---
26				1200	1060	1140	420	200	285	---	---	---
27				1090	890	1000	360	140	237	---	---	---
28				970	750	865	370	130	235	---	---	---
29				850	680	772	400	120	263	---	---	---
30				740	560	659	380	150	260	---	---	---
31				---	---	---	460	150	293	---	---	---
MONTH				1310	560	981	670	90	333	430	70	224

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	---	---	---	1500	1440	1470			
2	---	---	---	1340	1130	1240	1500	1430	1470			
3	---	---	---	1200	1150	1180	1490	1440	1470			
4	---	---	---	1200	1150	1170	1510	1410	1460			
5	---	---	---	1380	630	1040	1490	1450	1470			
6	---	---	---	1220	1150	1190	1550	1400	1510			
7	---	---	---	1210	1170	1190	1560	1510	1530			
8	---	---	---	1210	1130	1160	1540	1490	1520			
9	---	---	---	1170	1110	1150	1540	1490	1510			
10	---	---	---	1220	1130	1160	1540	1490	1520			
11	---	---	---	1320	1250	1300	1550	1500	1530			
12	---	---	---	1320	1290	1310	1570	1510	1530			
13	---	---	---	1310	1260	1290	1560	1500	1530			
14	---	---	---	1330	1190	1270	1570	1500	1530			
15	---	---	---	1290	1250	1270	1580	1520	1540			
16	---	---	---	1280	1200	1250	1570	1500	1540			
17	---	---	---	1310	1210	1270	1560	1520	1540			
18	---	---	---	1310	1240	1260	1540	1510	1530			
19	---	---	---	1590	740	1280	1560	1490	1530			
20	1730	1390	1520	1360	960	1240	---	---	---			
21	1700	1590	1640	1410	1370	1380	---	---	---			
22	1740	1590	1640	1430	1400	1410	---	---	---			
23	1690	1580	1630	1430	1310	1390	---	---	---			
24	1690	1570	1620	1440	1350	1400	---	---	---			
25	1810	1540	1620	1480	1410	1440	---	---	---			
26	1720	1360	1620	1470	1270	1400	---	---	---			
27	1660	1580	1630	1480	1270	1390	---	---	---			
28	---	---	---	1490	1350	1440	---	---	---			
29	---	---	---	1490	1410	1450	---	---	---			
30	---	---	---	1460	1340	1390	---	---	---			
31	---	---	---	1490	1390	1450	---	---	---			
MONTH	1810	1360	1620	1590	630	1290	1580	1400	1510			

## SANTA CLARA RIVER BASIN

271

11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

## IONAL DATA

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	27.5	14.5	20.0	---	---	---	12.5	10.5	11.5	15.5	12.0	13.5
2	26.0	14.5	19.5	---	---	---	12.5	10.5	11.5	15.5	11.5	13.5
3	25.0	14.5	19.5	---	---	---	12.0	10.5	11.5	16.0	12.0	14.0
4	24.0	16.5	19.5	---	---	---	16.0	12.0	13.5	15.0	12.0	13.5
5	23.5	15.5	19.0	---	---	---	13.5	11.5	12.5	15.5	11.5	13.5
6	24.0	15.0	19.0	---	---	---	12.5	10.0	11.5	15.0	11.0	13.0
7	25.0	15.0	19.5	---	---	---	12.0	10.0	11.0	15.5	10.0	12.5
8	24.5	15.0	19.0	---	---	---	11.5	9.5	10.5	13.5	10.5	11.0
9	23.0	14.5	18.5	---	---	---	11.0	9.0	10.0	16.5	12.0	14.0
10	23.5	16.5	19.0	---	---	---	11.5	10.0	11.0	16.0	11.5	13.5
11	24.0	14.0	18.0	---	---	---	13.0	10.0	11.0	16.5	13.5	15.0
12	22.5	15.5	18.0	---	---	---	14.5	10.0	11.5	18.0	14.5	16.0
13	20.5	13.0	16.5	---	---	---	13.5	10.0	11.5	19.0	13.5	16.0
14	19.5	14.0	16.0	---	---	---	14.0	9.5	11.5	19.0	13.5	15.5
15	18.5	13.0	15.5	---	---	---	14.5	10.5	12.5	19.0	13.5	16.0
16	---	---	---	---	---	---	16.0	12.0	13.5	18.5	13.5	15.5
17	---	---	---	---	---	---	16.5	12.0	13.5	18.5	13.5	15.5
18	---	---	---	---	---	---	15.0	11.5	13.0	19.5	13.5	16.0
19	---	---	---	---	---	---	15.5	11.0	13.0	18.5	13.5	15.5
20	---	---	---	---	---	---	15.5	11.5	13.0	18.5	13.0	15.5
21	---	---	---	---	---	---	15.5	11.0	13.0	18.5	14.0	15.5
22	---	---	---	---	---	---	16.0	11.5	13.5	18.5	14.0	16.0
23	---	---	---	---	---	---	15.0	12.0	13.5	19.0	14.5	16.5
24	---	---	---	12.5	11.5	12.0	15.0	11.0	13.0	16.5	12.5	14.5
25	---	---	---	13.0	11.0	12.0	14.5	11.0	13.0	16.0	12.5	14.0
26	---	---	---	13.0	11.0	11.5	16.0	12.0	13.5	16.5	11.5	13.5
27	---	---	---	12.5	10.0	11.0	15.5	11.5	13.5	15.5	13.0	14.5
28	---	---	---	12.0	9.5	11.0	16.0	12.5	14.0	18.0	12.5	14.5
29	---	---	---	12.0	10.5	11.0	15.5	12.0	13.5	---	---	---
30	---	---	---	12.0	10.0	11.0	15.0	11.0	13.0	---	---	---
31	---	---	---	---	---	---	15.5	11.0	13.0	---	---	---
MONTH	27.5	13.0	18.5	13.0	9.5	11.5	16.5	9.0	12.5	19.5	10.0	14.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	13.5	11.5	12.0	---	---	---	---	---	---
2	---	---	---	17.0	11.0	13.0	---	---	---	---	---	---
3	---	---	---	20.0	10.0	14.0	---	---	---	---	---	---
4	---	---	---	14.5	12.0	13.0	---	---	---	---	---	---
5	---	---	---	12.5	9.5	11.0	---	---	---	---	---	---
6	---	---	---	15.5	10.0	13.0	---	---	---	---	---	---
7	---	---	---	19.0	11.5	14.5	---	---	---	---	---	---
8	---	---	---	21.0	10.0	14.5	---	---	---	---	---	---
9	---	---	---	21.0	10.5	15.0	---	---	---	---	---	---
10	---	---	---	23.0	11.0	15.5	18.5	13.0	15.5	---	---	---
11	---	---	---	22.5	11.0	16.0	---	---	---	---	---	---
12	---	---	---	21.0	13.0	16.0	---	---	---	---	---	---
13	---	---	---	19.5	11.5	14.5	---	---	---	---	---	---
14	---	---	---	22.0	10.0	14.5	---	---	---	---	---	---
15	---	---	---	22.0	10.5	15.5	---	---	---	26.0	15.5	20.0
16	---	---	---	23.5	11.5	16.5	---	---	---	27.0	14.5	19.5
17	---	---	---	23.0	11.0	16.0	---	---	---	---	---	---
18	---	---	---	22.0	11.5	16.0	---	---	---	---	---	---
19	---	---	---	16.0	13.0	14.5	---	---	---	---	---	---
20	19.0	10.0	13.5	20.0	11.5	14.5	---	---	---	---	---	---
21	18.5	9.0	12.5	19.5	11.5	15.0	---	---	---	---	---	---
22	20.0	9.5	13.5	19.5	14.5	16.5	---	---	---	---	---	---
23	21.0	8.5	13.5	24.5	13.0	17.5	---	---	---	---	---	---
24	19.5	10.0	13.5	25.0	12.0	17.5	---	---	---	---	---	---
25	16.0	9.5	12.0	24.5	12.5	17.5	---	---	---	---	---	---
26	21.0	9.5	13.5	21.0	12.5	16.0	---	---	---	---	---	---
27	21.0	8.5	13.5	24.0	11.0	15.5	---	---	---	---	---	---
28	14.0	10.5	12.0	22.5	10.5	15.5	---	---	---	---	---	---
29	---	---	---	17.5	13.0	15.0	---	---	---	---	---	---
30	---	---	---	---	11.5	---	---	---	---	---	---	---
31	---	---	---	---	10.0	---	---	---	---	---	---	---
MONTH	21.0	8.5	13.0	25.0	9.5	15.0	18.5	13.0	15.5	27.0	14.5	20.0

## SANTA CLARA RIVER BASIN

11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

JAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	30.5	18.5	23.5	28.0	18.0	22.0	27.0	17.0	21.5
2	---	---	---	32.0	17.5	24.0	28.5	17.0	22.5	---	---	---
3	---	---	---	33.0	17.5	24.0	27.0	18.0	22.0	---	---	---
4	---	---	---	32.0	18.5	24.5	27.5	18.0	22.5	---	---	---
5	---	---	---	31.5	19.0	24.5	26.5	18.5	22.0	---	---	---
6	---	---	---	32.0	19.5	25.0	25.5	16.5	22.0	---	---	---
7	---	---	---	32.5	20.0	25.5	27.0	17.0	21.5	---	---	---
8	---	---	---	32.5	20.0	25.5	27.0	16.5	21.5	---	---	---
9	---	---	---	32.0	20.5	25.0	27.0	16.5	20.0	---	---	---
10	---	---	---	32.0	19.5	25.0	27.5	17.5	21.5	---	---	---
11	---	---	---	32.0	19.0	24.5	26.0	18.5	21.5	---	---	---
12	---	---	---	31.5	19.0	24.5	26.0	18.5	21.5	---	---	---
13	27.0	14.5	19.5	31.0	19.0	24.5	26.0	18.5	21.5	---	---	---
14	26.5	13.5	19.0	31.5	19.0	24.5	26.5	17.5	21.5	---	---	---
15	27.5	14.0	20.0	31.0	19.5	24.0	26.0	18.0	21.5	---	---	---
16	33.0	14.5	22.0	30.5	17.5	23.0	26.0	18.0	22.0	---	---	---
17	31.5	15.5	22.5	30.5	17.0	23.0	26.0	17.5	21.5	---	---	---
18	30.5	16.0	23.0	30.5	17.0	23.0	26.5	18.5	21.5	---	---	---
19	29.5	16.5	22.5	31.0	16.0	22.5	27.0	19.0	22.0	---	---	---
20	29.5	17.0	22.5	30.5	16.0	22.5	26.5	16.5	21.5	---	---	---
21	30.0	18.0	23.5	31.5	16.5	22.0	26.0	15.5	21.0	---	---	---
22	31.0	18.0	23.5	29.0	16.5	22.0	25.0	16.0	21.0	---	---	---
23	31.0	18.5	24.0	29.0	17.0	22.5	25.5	16.5	21.0	---	---	---
24	31.5	18.5	24.0	29.0	17.5	22.5	25.0	17.0	21.0	---	---	---
25	32.0	18.0	24.0	29.5	17.0	22.0	26.0	19.0	22.0	---	---	---
26	30.5	17.5	23.5	29.0	18.0	22.5	25.5	19.0	22.5	---	---	---
27	30.5	18.0	23.5	27.5	18.0	22.0	27.0	19.5	22.5	---	---	---
28	30.0	19.5	23.5	28.0	17.0	22.0	25.5	19.5	22.5	---	---	---
29	29.5	18.5	23.5	28.5	18.0	22.5	27.0	19.5	22.5	---	---	---
30	30.0	18.0	23.5	27.0	18.5	22.0	25.5	18.5	22.0	---	---	---
31	---	---	---	27.5	17.5	22.0	25.5	18.5	22.0	---	---	---
MONTH	33.0	13.5	22.5	33.0	16.0	23.5	28.5	15.5	21.5	27.0	17.0	21.5
YEAR	33.0	8.5	17.5									

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV 24...	1030	12.0	22	82	4.9	--	--	--
FEB 03...	1030	10.0	18	601	29	25	33	40
JUN 10...	1050	21.0	22	119	7.1	--	--	--
AUG 05...	1000	21.5	14	26	.98	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV 24...	--	--	48	--	--	--	--
FEB 03...	45	48	52	63	88	99	100
JUN 10...	--	--	10	--	--	--	--
AUG 05...	--	--	57	--	--	--	--

## SANTA CLARA RIVER BASIN

273

11109250 LOCKWOOD CREEK AT GORGE, NEAR STAUFFER, CA

LOCATION.--Lat 34°43'57", long 119°02'14", in SE¼SW¼SE¼ sec.31, T.8 N., R.20 W., Ventura County, Hydrologic Unit 18070102, on right bank 2.1 mi (3.4 km) southeast of Stauffer, and 3.8 mi (6.1 km) upstream from Piru Creek.

DRAINAGE AREA.--58.7 mi<sup>2</sup> (152.0 km<sup>2</sup>).

PERIOD OF RECORD.--October 1971 to September 1981 (discontinued).

REVISED RECORDS.--WDR CA-74-1: 1973 (M)

GAGE.--Water-stage recorder. Altitude of gage is 4,790 ft (1,460 m), from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--10 years, 7.10 ft<sup>3</sup>/s (0.201 m<sup>3</sup>/s), 5,140 acre-ft/yr (6.34 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,490 ft<sup>3</sup>/s (70.5 m<sup>3</sup>/s) Feb. 16, 1980, gage height, 5.45 ft (1.661 m), from rating curve extended above 17 ft<sup>3</sup>/s (0.48 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; maximum gage height, 7.32 ft (2.231 m) Mar. 4, 1978; minimum daily, 0.90 ft<sup>3</sup>/s (0.025 m<sup>3</sup>/s) Aug. 5, 9-16, Aug. 19 to Oct. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 211 ft<sup>3</sup>/s (5.98 m<sup>3</sup>/s) Mar. 19 (1815 hrs), gage height, 2.96 ft (0.902 m), from rating curve extended above 41 ft<sup>3</sup>/s (1.16 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 2.56 ft (0.780 m) and 5.45 ft (1.661 m), no other peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); minimum daily, 3.2 ft<sup>3</sup>/s (0.091 m<sup>3</sup>/s) July 30, 31, Aug. 31, Sept. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	5.2	4.8	4.8	5.7	14	10	6.5	4.8	4.1	3.3	3.2
2	4.1	5.2	4.8	4.8	5.2	18	9.8	6.2	4.8	4.3	3.3	3.3
3	4.1	5.2	5.0	4.8	5.0	19	9.6	6.2	4.8	4.3	3.3	3.3
4	4.1	5.0	6.2	4.8	5.0	18	9.4	6.2	4.8	4.1	3.3	3.3
5	4.1	5.0	5.2	4.6	5.0	17	9.2	6.2	4.6	4.1	3.3	3.3
6	4.1	5.0	5.0	4.6	5.0	20	9.1	6.0	4.6	4.1	3.3	3.3
7	4.1	5.0	4.8	4.6	5.0	19	9.0	5.7	4.6	4.1	3.3	3.5
8	4.1	5.2	4.8	4.6	7.4	27	9.3	5.7	4.8	4.1	3.3	3.7
9	4.1	5.2	4.6	4.6	19	34	9.0	5.7	4.8	4.1	3.3	3.5
10	4.1	5.2	4.6	4.6	8.4	34	9.0	5.7	4.6	4.1	3.3	3.5
11	4.1	5.2	4.6	5.0	7.9	32	8.6	5.7	4.6	3.9	3.3	3.5
12	4.1	5.2	4.6	5.0	7.2	30	7.7	5.5	4.8	3.9	3.5	3.7
13	4.3	5.2	4.6	4.8	6.4	23	7.4	5.5	4.6	3.9	3.5	3.7
14	4.6	5.2	4.6	5.0	6.4	20	7.4	5.5	4.3	3.9	3.5	3.7
15	4.6	5.2	4.6	5.0	6.4	25	7.4	5.5	4.3	3.9	3.5	3.7
16	4.8	5.0	4.6	5.0	6.2	31	7.4	5.5	4.8	3.9	3.5	3.7
17	4.8	4.8	4.6	5.0	6.4	29	7.4	5.5	4.8	3.9	3.5	3.9
18	4.8	5.0	4.6	5.0	6.2	26	9.0	5.5	4.8	4.1	3.3	3.9
19	4.8	4.8	4.6	4.8	5.7	67	10	5.5	4.8	3.7	3.3	3.7
20	4.8	4.8	4.6	4.8	5.7	30	8.0	5.5	4.8	3.7	3.5	3.7
21	4.8	4.8	4.6	4.8	5.1	24	7.7	5.2	4.3	3.7	3.5	3.7
22	5.0	4.8	4.8	4.6	4.8	20	7.7	5.2	4.6	3.7	3.3	3.7
23	5.0	4.8	4.6	5.7	4.8	18	7.7	5.2	4.1	3.7	3.3	3.7
24	5.0	4.8	4.6	5.0	5.1	17	7.7	5.2	4.1	3.7	3.3	3.7
25	5.0	4.8	4.6	5.0	5.0	16	7.4	5.2	4.1	3.7	3.3	3.9
26	5.0	4.8	4.8	4.8	5.2	16	7.1	5.7	4.1	3.5	3.3	3.9
27	5.0	4.8	4.8	5.2	5.0	16	6.8	6.0	4.6	3.5	3.3	3.9
28	5.0	4.8	4.6	8.6	6.0	12	6.5	5.5	4.6	3.3	3.3	3.9
29	5.0	4.6	4.6	11	---	11	6.5	5.2	4.1	3.3	3.3	3.9
30	5.2	4.6	4.8	8.3	---	11	6.5	5.0	4.1	3.2	3.3	3.9
31	5.2	---	4.8	6.2	---	10	---	4.8	---	3.2	3.2	---
TOTAL	141.9	149.2	147.4	165.4	176.2	704	245.3	173.5	136.5	118.7	103.8	109.3
MEAN	4.58	4.97	4.75	5.34	6.29	22.7	8.18	5.60	4.55	3.83	3.35	3.64
MAX	5.2	5.2	6.2	11	19	67	10	6.5	4.8	4.3	3.5	3.9
MIN	4.1	4.6	4.6	4.6	4.8	10	6.5	4.8	4.1	3.2	3.2	3.2
AC-FT	281	296	292	328	349	1400	487	344	271	235	206	217

CAL YR 1980 TOTAL 4229.9 MEAN 11.6 MAX 561 MIN 3.8 AC-FT 8390  
WTR YR 1981 TOTAL 2371.2 MEAN 6.50 MAX 67 MIN 3.2 AC-FT 4700

## SANTA CLARA RIVER BASIN

11109600 PIRU CREEK ABOVE LAKE PIRU, CA

LOCATION.--Lat 34°31'23", long 118°45'22", in SW¼NE¼NW¼ sec.15, T.5 N., R.18 W., Ventura County, Hydrologic Unit 18070102, on left bank near Blue Point, 1.3 mi (2.1 km) downstream from Agua Blanca Creek, 4.3 mi (6.9 km) upstream from Santa Felicia Dam, and 8.0 mi (12.9 km) northeast of Piru.

DRAINAGE AREA.--372 mi<sup>2</sup> (963 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Datum of gage is 1,058.55 ft (322.646 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Forest Service). Prior to Dec. 15, 1972, at site 0.3 mi (0.5 km) upstream at different datum.

REMARKS.--Records good. Flow regulated beginning December 1971 by Pyramid Dam, capacity, 173,500 acre-ft (214 hm<sup>3</sup>) 15 mi (24 km) upstream. Imported water from the California Water Project stored and released from Pyramid Dam.

AVERAGE DISCHARGE.--16 years (water years 1956-71), 55.1 ft<sup>3</sup>/s (1.560 m<sup>3</sup>/s), 39,920 acre-ft/yr (49.2 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,200 ft<sup>3</sup>/s (884 m<sup>3</sup>/s) Feb. 25, 1969, gage height, 18.6 ft (5.67 m), site and datum then in use, from floodmark, from rating curve extended above 4,000 ft<sup>3</sup>/s (113 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 12.2 ft (3.72 m) and inflow-outflow records for Lake Piru; no flow in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, 35,000 ft<sup>3</sup>/s (991 m<sup>3</sup>/s), is the greatest since that date.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 431 ft<sup>3</sup>/s (12.2 m<sup>3</sup>/s) Mar. 5, gage height, 3.54 ft (1.079 m); minimum daily, 9.8 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) Sept. 4, 5, 8 to 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	17	18	22	30	230	60	57	32	16	16	10
2	16	17	18	22	28	160	66	57	32	16	15	10
3	16	17	19	22	28	146	63	57	31	15	15	10
4	16	17	33	22	27	134	61	57	30	15	15	9.8
5	16	17	23	22	27	264	60	57	23	16	21	9.8
6	16	18	20	22	27	193	60	57	28	16	30	10
7	16	18	19	22	26	149	60	57	29	16	30	10
8	16	18	19	22	28	137	60	57	27	16	30	9.8
9	16	18	19	22	44	132	60	57	27	16	30	9.8
10	16	18	19	22	32	130	61	57	27	16	30	9.8
11	16	18	18	22	30	113	61	57	27	16	30	9.8
12	16	19	18	23	29	75	61	57	27	16	30	9.8
13	16	19	19	23	28	72	59	59	26	16	30	9.8
14	16	19	20	23	27	70	59	57	26	16	30	9.8
15	17	19	20	23	27	70	59	57	26	15	20	9.8
16	17	18	21	23	27	66	60	57	16	15	12	9.8
17	17	18	21	23	27	46	60	56	14	15	12	9.8
18	17	18	21	23	26	45	64	56	12	16	12	9.8
19	17	18	21	23	26	104	72	56	12	15	12	9.8
20	17	18	21	23	26	96	69	60	14	15	12	9.8
21	17	18	21	23	26	67	64	59	15	15	11	9.8
22	17	18	21	23	25	56	61	57	15	16	11	9.8
23	17	18	21	24	25	53	56	57	15	16	11	9.8
24	17	18	21	24	25	53	37	56	15	16	11	9.8
25	17	18	21	24	27	63	54	56	15	16	11	9.8
26	17	18	21	24	32	66	56	57	15	16	11	9.8
27	17	18	22	24	27	64	56	57	15	16	11	11
28	17	18	22	46	38	63	56	54	16	16	11	11
29	17	18	22	61	---	63	56	35	16	16	10	11
30	17	18	22	37	---	63	57	33	16	16	10	11
31	17	---	22	32	---	63	---	32	---	16	10	---
TOTAL	513	539	643	791	795	3106	1788	1695	639	488	550	299.8
MEAN	16.5	18.0	20.7	25.5	28.4	100	59.6	54.7	21.3	15.7	17.7	9.99
MAX	17	19	33	61	44	264	72	60	32	16	30	11
MIN	16	17	18	22	25	45	37	32	12	15	10	9.8
AC-FT	1020	1070	1280	1570	1580	6160	3550	3360	1270	968	1090	595

CAL YR 1980 TOTAL 47252.0 MEAN 129 MAX 2450 MIN 12 AC-FT 43720  
WTR YR 1981 TOTAL 11846.8 MEAN 32.5 MAX 264 MIN 9.8 AC-FT 23500

11041.8  
11044.8

## SANTA CLARA RIVER BASIN

275

11109700 LAKE PIRU NEAR PIRU, CA

LOCATION.--Lat 34°27'52", long 118°44'57", in Temescal Grant, Ventura County, Hydrologic Unit 18070102, at Santa Felicia Dam on Piru Creek, on left bank 1,000 ft (305 m) upstream from left end of dam, 0.5 mi (0.8 km) downstream from Santa Felicia Canyon, 4.2 mi (6.8 km) northeast of Piru, and 20 mi (32 km) downstream from Pyramid Dam.

DRAINAGE AREA.--425 mi<sup>2</sup> (1,101 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Gage is to National Geodetic Vertical Datum of 1929 (levels by United Water Conservation District). Prior to Jan. 27, 1956, reference point at intake tower at same datum. Jan. 27, 1956, to Dec. 1, 1980, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by earthfill dam. Storage began May 20, 1955. Capacity table is based on a survey made in 1975. Capacity below spillway level at elevation 1,055.0 ft (321.56 m), 91,010 acre-ft (112 hm<sup>3</sup>). Flow regulated since December 1971 by Pyramid Dam 20 mi (32 km) upstream, capacity, 173,500 acre-ft (214 hm<sup>3</sup>). Imported water from the California Water Project stored behind and released from Pyramid Dam. Water is released from outlet to Piru Creek for ground-water recharge, domestic use, and irrigation on the Oxnard plain.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 109,400 acre-ft (135 hm<sup>3</sup>) Feb. 25, 1969, elevation, 1,061.45 ft (323.530); lake dry Oct. 25 to Nov. 20, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 65,200 acre-ft (80.4 hm<sup>3</sup>) May 28, elevation, 1,032.05 ft (314.569 m); minimum observed, 30,910 acre-ft (38.1 hm<sup>3</sup>) Sept. 30, elevation, 994.20 ft (303.032 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,028.90	61,950	--
Oct. 31.....	1,020.30	53,420	-8,530
Nov. 30.....	1,018.55	51,750	-1,670
Dec. 31.....	1,018.96	52,140	+390
CAL YR 1980.....	--	--	+1,710
Jan. 31.....	1,018.69	51,890	-250
Feb. 28.....	1,020.02	53,150	+1,260
Mar. 31.....	1,026.84	59,860	+6,710
Apr. 30.....	1,029.92	62,990	+3,130
May 31.....	1,032.03	65,180	+2,190
June 30.....	1,030.68	63,780	-1,400
July 31.....	1,022.55	55,610	-8,170
Aug. 31.....	1,010.60	44,450	-11,160
Sept. 30.....	994.20	30,910	-13,540
WTR YR 1981.....	--	--	-31,040

## SANTA CLARA RIVER BASIN

11109800 PIRU CREEK BELOW SANTA FELICIA DAM, CA

LOCATION.--Lat 34°27'37", long 118°45'04", in Temescal Grant, Ventura County, Hydrologic Unit 18070102, on right bank 750 ft (229 m) downstream from Santa Felicia Dam, 1 mi (2 km) upstream from Lime Canyon, 4 mi (6 km) northeast of Piru, and 20 mi (30 km) downstream from Pyramid Dam.

DRAINAGE AREA.--425 mi<sup>2</sup> (1,100 km<sup>2</sup>).

PERIOD OF RECORD.--October 1955 to September 1968, October 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 858.8 ft (261.76 m) National Geodetic Vertical Datum of 1929 (levels by United Water Conservation District).

REMARKS.--Records good. Since May 1955 flow regulated by Santa Felicia Dam (Lake Piru, station 11109700) and since December 1971 by Pyramid Dam, capacity 173,500 acre-ft (214 hm<sup>3</sup>). Imported water from the California Water Project stored by Pyramid Dam. No diversion above station. Spill from Santa Felicia Dam bypasses gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 544 ft<sup>3</sup>/s (15.4 m<sup>3</sup>/s) Aug. 18, 1958, gage height, 3.66 ft (1.116 m); no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 342 ft<sup>3</sup>/s (9.69 m<sup>3</sup>/s) Sept. 18; minimum daily, 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) Dec. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	79	21	8.8	8.1	7.9	8.8	13	33	34	217	216
2	177	79	34	8.8	8.1	7.8	8.8	13	33	34	218	216
3	189	79	39	8.9	8.1	7.8	8.8	13	33	34	217	216
4	194	73	32	8.9	8.1	7.8	8.8	13	33	34	216	217
5	194	74	21	9.0	8.1	8.0	8.8	13	33	34	217	216
6	194	78	21	9.1	8.1	7.8	8.8	13	33	34	216	215
7	194	80	21	25	8.1	7.8	8.8	13	33	34	216	211
8	193	81	14	56	8.1	7.9	8.8	13	33	34	215	207
9	214	81	11	56	8.1	8.0	8.8	13	33	34	216	155
10	233	65	20	56	8.1	8.1	8.8	13	33	34	216	95
11	233	50	20	56	8.1	8.1	8.8	13	33	34	213	182
12	232	43	19	56	8.1	8.1	8.8	13	33	34	217	184
13	232	21	19	55	8.1	8.1	8.8	13	33	34	64	185
14	231	21	19	55	8.1	8.1	8.8	13	33	109	23	251
15	231	21	19	55	8.1	8.1	8.8	13	33	167	40	300
16	237	21	8.2	55	8.1	8.1	8.8	13	33	195	18	335
17	238	21	1.0	55	8.1	8.1	11	13	33	210	1.6	341
18	238	21	4.6	55	8.1	8.6	13	13	33	222	47	342
19	237	21	3.3	55	8.1	8.8	13	13	33	222	167	337
20	132	21	3.3	55	8.0	8.7	13	13	33	223	225	337
21	8.1	21	3.3	55	8.1	8.8	13	13	33	222	224	283
22	43	21	14	55	8.0	8.8	13	13	33	222	223	244
23	58	21	20	55	8.0	8.8	13	13	33	221	223	163
24	58	21	20	55	7.9	8.8	13	13	34	222	222	162
25	58	21	20	55	8.1	8.8	13	13	34	224	220	162
26	58	21	20	55	8.1	8.8	13	13	34	223	220	192
27	58	21	20	55	7.9	8.8	13	13	34	221	219	245
28	58	21	20	15	7.8	8.8	13	27	34	221	218	238
29	58	21	20	8.2	---	8.8	13	33	34	220	217	190
30	70	21	12	8.1	---	8.8	13	33	34	219	217	158
31	79	---	8.8	8.1	---	8.8	---	33	---	219	217	---
TOTAL	4800.1	1240	528.5	1222.9	225.8	258.5	320.8	477	997	4224	5599.6	6795
MEAN	155	41.3	17.0	39.4	8.06	8.34	10.7	15.4	33.2	136	181	227
MAX	238	81	39	56	8.1	8.8	13	33	34	224	225	342
MIN	8.1	21	1.0	8.1	7.8	7.8	8.8	13	33	34	1.6	95
AC-FT	9520	2460	1050	2430	448	513	636	946	1980	8380	11110	13480
CAL YR 1980	TOTAL	33594.18	MEAN	91.8	MAX	422	MIN	0	AC-FT	66630		
WTR YR 1981	TOTAL	26689.20	MEAN	73.1	MAX	342	MIN	1.0	AC-FT	52940		



## SANTA CLARA RIVER BASIN

277

11110500 HOPPER CREEK NEAR PIRU, CA

LOCATION.--Lat 34°24'03", long 118°49'32", in NE¼NE¼SW¼ sec.25, T.4 N., R.19 W., Ventura County, Hydrologic Unit 18070102, on downstream end of center pier of bridge on State Highway 126, 1 mi (2 km) upstream from mouth, and 2.1 mi (3.4 km) southwest of Piru.

DRAINAGE AREA.--23.6 mi<sup>2</sup> (61.1 km<sup>2</sup>).

PERIOD OF RECORD.--October 1930 to September 1932, October 1933 to September 1936, October 1937 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 590 ft (180 m), from topographic map.

REMARKS.--No regulation above station. Some pumping along stream for irrigation.

COOPERATION.--Records were furnished by Ventura County Flood Control District and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--49 years (water years 1931-32, 1934-36, 1938-81) 5.91 ft<sup>3</sup>/s (0.167 m<sup>3</sup>/s), 4,280 acre-ft/yr (5.28 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,400 ft<sup>3</sup>/s (238 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 12.72 ft (3.877 m), from floodmarks, from rating curve extended above 850 ft<sup>3</sup>/s (24.1 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 311 ft<sup>3</sup>/s (8.81 m<sup>3</sup>/s) Jan. 29 (1000 hrs), gage height, 5.95 ft (1.814 m), from rating curve extended above 52 ft<sup>3</sup>/s (1.47 m<sup>3</sup>/s), no other peak above base of 250 ft<sup>3</sup>/s (7.08 m<sup>3</sup>/s); minimum daily, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	.51	.60	.98	2.4	91	1.5	.56	.18			
2	.44	.51	.60	.98	1.9	43	1.8	1.0	.16			
3	.51	.60	.60	.98	1.9	9.6	1.8	1.0	.20			
4	.51	.60	24	.98	1.9	5.0	1.3	.79	.08			
5	.51	.60	4.2	.98	1.9	90	1.3	1.0	.01			
6	.51	.60	1.9	.98	1.6	28	1.3	1.0	.01			
7	.51	.60	1.3	.98	1.6	6.0	1.3	.56	.03			
8	.51	.60	1.3	.98	1.6	3.5	1.3	.41	.02			
9	.51	.60	1.3	.98	6.1	2.9	1.3	.30	0			
10	.51	.60	1.3	1.1	2.7	2.5	1.3	.22	0			
11	.51	.71	1.3	1.1	1.9	2.5	1.3	.30	0			
12	.51	.71	1.2	1.1	1.9	2.5	1.0	.41	0			
13	.51	.71	1.2	1.1	1.6	2.2	1.0	.56	0			
14	.51	.71	1.2	1.1	1.6	1.8	1.0	.56	0			
15	.51	.71	1.2	1.1	1.3	1.8	1.0	.56	0			
16	.51	.71	1.2	1.1	1.0	1.5	1.0	.41	0			
17	.51	.71	1.1	1.1	1.0	1.3	1.0	.30	0			
18	.51	.71	1.1	1.1	1.0	1.3	1.8	.30	0			
19	.51	.71	1.1	1.1	1.0	34	2.8	.26	0			
20	.51	.71	1.1	.98	1.0	22	2.5	.24	0			
21	.51	.71	1.1	.98	1.0	4.5	1.8	.30	0			
22	.51	.71	1.1	.83	1.0	3.2	1.5	.41	0			
23	.51	.71	1.1	1.1	1.0	2.2	1.3	.28	0			
24	.51	.71	1.1	1.1	1.0	1.8	1.0	.29	0			
25	.51	.71	1.1	.98	1.6	1.8	1.0	.30	0			
26	.51	.60	1.1	.83	1.9	1.8	1.0	.41	0			
27	.51	.60	1.1	.98	1.6	1.8	1.0	.30	0			
28	.51	.60	1.1	30	2.4	1.8	.56	.22	0			
29	.51	.60	1.1	58	---	1.8	.41	.21	0			
30	.51	.60	.98	7.3	---	1.5	.41	.30	0			
31	.51	---	.98	3.4	---	1.5	---	.22	---			---
TOTAL	15.67	19.47	60.66	126.30	48.4	376.1	38.58	13.98	.69	0	0	0
MEAN	.51	.65	1.96	4.07	1.73	12.1	1.29	.45	.023	0	0	0
MAX	.51	.71	24	58	6.1	91	2.8	1.0	.20	0	0	0
MIN	.44	.51	.60	.83	1.0	1.3	.41	.21	0	0	0	0
AC-FT	31	39	120	251	96	746	77	28	1.4	0	0	0
CAL YR 1980 TOTAL	6835.41			MEAN 18.7	MAX 2000	MIN 0	AC-FT 13560					
WTR YR 1981 TOTAL	699.85			MEAN 1.92	MAX 91	MIN 0	AC-FT 1390					

## SANTA CLARA RIVER BASIN

## 11111500 SESPE CREEK NEAR WHEELER SPRINGS, CA

LOCATION.--Lat 34°34'40", long 119°15'25", in SE¼NW¼SW¼ sec.30, T.6 N., R.22 W., Ventura County, Hydrologic Unit 18070102, on right bank at Sespe Gorge, 1.6 mi (2.6 km) upstream from Tule Creek, and 5 mi (8 km) northeast of Wheeler Springs.

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

PERIOD OF RECORD.--October 1947 to current year. Daily discharge for period October 1947 to July 1948 estimated on basis of weather records and records for North Fork Matilija Creek.

GAGE.--Water-stage recorder. Datum of gage is 3,500.65 ft (1,066.998 m) National Geodetic Vertical Datum of 1929 (levels by Ventura County Flood Control District).

REMARKS.--Records good.

AVERAGE DISCHARGE.--34 years, 12.7 ft<sup>3</sup>/s (0.360 m<sup>3</sup>/s), 9,200 acre-ft/yr (11.3 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft<sup>3</sup>/s (303 m<sup>3</sup>/s) Feb. 10, 1978, gage height, 14.18 ft (4.322 m), from rating curve extended above 640 ft<sup>3</sup>/s (18.1 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 13.60 ft (4.145 m); no flow many days in some years.

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)
Mar. 1	0845	172 4.87	4.40 1.341	Mar. 19	1845	*228 6.46	4.65 1.417
Mar. 5	0145	124 3.51	4.14 1.262				

Minimum daily discharge, 0.27 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Sept. 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1940 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.71	1.3	1.6	1.6	3.8	87	14	4.0	1.7	.79	.33	.32
2	.70	1.3	1.6	1.6	3.7	56	13	3.9	1.6	.79	.34	.32
3	.68	1.2	1.7	1.6	3.4	51	13	3.9	1.6	.79	.32	.31
4	.66	1.2	4.0	1.6	3.2	42	12	3.9	1.5	.73	.33	.32
5	.66	1.2	2.0	1.6	3.1	75	11	3.8	1.5	.74	.33	.35
6	.65	1.3	1.7	1.7	3.1	52	11	3.7	1.4	.74	.32	.35
7	.63	1.3	1.7	1.7	3.0	52	10	3.6	1.4	.74	.32	.35
8	.63	1.2	1.8	1.7	4.2	44	9.3	3.4	1.3	.72	.31	.34
9	.63	1.3	1.8	1.7	7.3	38	8.9	3.3	1.2	.72	.32	.33
10	.63	1.4	1.8	1.7	4.1	35	8.8	3.2	1.1	.70	.31	.32
11	.71	1.4	1.9	1.6	3.4	33	8.4	3.2	1.1	.69	.32	.32
12	.74	1.4	1.9	1.7	3.2	28	8.2	3.1	1.1	.66	.31	.30
13	.81	1.5	1.9	1.7	3.0	24	7.9	3.1	1.2	.63	.31	.30
14	.90	1.5	1.9	1.6	3.0	20	7.6	3.0	1.2	.53	.31	.30
15	1.1	1.5	1.8	1.6	2.8	16	7.2	3.0	1.2	.47	.30	.30
16	1.2	1.5	1.8	1.6	2.7	15	6.8	2.9	1.1	.47	.31	.27
17	1.3	1.5	1.8	1.5	2.6	15	6.6	2.8	1.1	.50	.29	.27
18	1.3	1.5	1.8	1.5	2.5	14	8.5	2.7	1.0	.47	.31	.27
19	1.2	1.5	1.8	1.5	2.5	86	8.5	2.6	1.0	.47	.32	.30
20	1.2	1.5	1.7	1.4	2.4	80	8.3	2.5	1.0	.44	.31	.30
21	1.1	1.5	1.7	1.4	2.4	43	7.2	2.4	.96	.39	.31	.32
22	1.1	1.5	1.7	1.4	2.4	36	6.6	2.3	.88	.39	.30	.32
23	1.1	1.5	1.6	1.8	2.3	31	6.1	2.2	.84	.36	.32	.32
24	1.1	1.5	1.7	1.5	2.3	27	5.6	2.2	.84	.36	.33	.34
25	1.2	1.7	1.7	1.5	2.5	24	5.4	2.1	.81	.36	.33	.34
26	1.2	1.7	1.6	1.5	3.0	24	5.3	2.0	.79	.34	.32	.34
27	1.2	1.7	1.6	1.8	2.9	23	5.3	2.0	.79	.34	.31	.34
28	1.2	1.7	1.6	6.2	12	20	4.9	1.9	.79	.33	.31	.34
29	1.3	1.6	1.6	13	---	17	4.6	1.8	.80	.32	.31	.36
30	1.3	1.6	1.6	6.2	---	15	4.3	1.8	.79	.32	.33	.36
31	1.3	---	1.6	4.4	---	15	---	1.7	---	.32	.33	---
TOTAL	30.14	43.5	55.0	72.9	95.8	1138	244.3	88.0	33.59	16.62	9.82	9.62
MEAN	.97	1.45	1.81	2.35	3.46	36.7	8.14	2.84	1.12	.54	.32	.32
MAX	1.3	1.7	4.0	13	12	87	14	4.0	1.7	.79	.34	.36
MIN	.63	1.2	1.6	1.4	2.3	14	4.3	1.7	.79	.32	.29	.27
AC-FT	60	86	111	145	192	2260	485	175	67	33	19	19

CAL YR 1980 TOTAL 12359.75 MEAN 33.8 MAX 2000 MIN .63 AC-FT 24520  
WTR YR 1981 TOTAL 1839.29 MEAN 5.04 MAX 87 MIN .27 AC-FT 3650

## 11113000 SESPE CREEK NEAR FILLMORE, CA

LOCATION.--Lat 34°27'03", long 118°55'30", in NE¼NW¼NE¼ sec.12, T.4 N., R.20 W., Ventura County, Hydrologic Unit 18070102, on right bank 0.1 mi (0.2 km) downstream from Little Sespe Creek, and 3.5 mi (5.6 km) north of Fillmore.

DRAINAGE AREA.--251 mi<sup>2</sup> (650 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1911 to September 1913, October 1927 to current year; combined records of creek and canal, October 1927 to current year. Prior to 1935, published as "at Sespe."

GAGE.--Water-stage recorder on creek; water-stage recorder and Parshall flume on canal. Altitude of creek gage is 580 ft (177 m), from topographic map. Canal gage is at different datum. See WSP 1315-B for history of changes prior to Jan. 17, 1946.

REMARKS.--Records good. No regulation above station. Fillmore Irrigation Co. has diverted water 1 mi (2 km) upstream since September 1911. For records of combined discharge of Sespe Creek and Fillmore Irrigation Company's canal, see following page.

AVERAGE DISCHARGE.--Creek only: 56 years, 112 ft<sup>3</sup>/s (3.172 m<sup>3</sup>/s), 81,140 acre-ft/yr (100 hm<sup>3</sup>/yr).

Combined creek and canal: 54 years, 117 ft<sup>3</sup>/s (3.313 m<sup>3</sup>/s) 84,770 acre-ft/yr (105 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 73,000 ft<sup>3</sup>/s (2,070 m<sup>3</sup>/s) Feb. 10, 1978, gage height, 22.40 ft (6.828 m), from rating curve extended above 17,000 ft<sup>3</sup>/s (481 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 22.40 ft (6.828 m); maximum gage height, 24.95 ft (7.605 m) Feb. 25, 1969, from debris wave; no flow at times in some years.

Combined creek and canal: Maximum discharge, 73,000 ft<sup>3</sup>/s (2,070 m<sup>3</sup>/s) Feb. 10, 1978; minimum daily, 1.1 ft<sup>3</sup>/s (0.031 m<sup>3</sup>/s) July 31, Aug. 2, 1951.

EXTREMES FOR CURRENT YEAR.--Creek only: Peak discharges above base of 1,300 ft<sup>3</sup>/s (36.8 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)
Mar. 1	1330	*2,160 61.2	13.25 4.039	Mar. 20	0130	1,310 37.1	12.31 3.752
Mar. 5	0500	1,370 38.8	12.38 3.773				

Minimum daily discharge, 0.54 ft<sup>3</sup>/s (0.015 m<sup>3</sup>/s) Sept. 30.

Combined creek and canal: Maximum discharge, 2,160 ft<sup>3</sup>/s (61.2 m<sup>3</sup>/s) Mar. 1; minimum daily, 4.2 ft<sup>3</sup>/s (0.12 m<sup>3</sup>/s) Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.5	7.0	6.6	52	1160	93	25	11	1.6	.84	.79
2	4.2	4.3	7.2	6.7	44	850	100	24	11	1.6	.80	.80
3	4.4	4.3	7.4	6.6	39	434	40	25	10	1.3	.79	.76
4	4.5	4.4	57	6.6	37	263	80	26	9.8	.85	.81	.77
5	4.5	4.3	40	7.9	36	951	73	25	8.9	.89	.79	.77
6	4.6	4.3	29	6.5	35	494	71	23	8.4	.80	.82	1.3
7	4.8	4.4	24	6.5	34	326	70	22	8.1	.81	.82	.78
8	5.5	4.2	21	6.6	38	253	70	21	7.8	.82	.82	.87
9	5.8	4.3	20	6.6	86	216	67	19	7.2	.86	.82	.81
10	4.9	4.4	19	6.5	82	193	65	18	6.2	.85	.84	.79
11	5.0	4.8	18	6.6	63	173	63	17	6.0	1.1	.88	.70
12	5.0	5.3	18	6.8	49	158	60	17	5.2	.90	.84	.73
13	4.8	4.6	18	7.0	46	143	58	17	5.1	.95	.82	.72
14	5.1	4.9	18	8.4	41	123	54	17	2.8	.84	.82	.68
15	5.6	5.8	18	10	35	110	52	17	2.3	.82	.82	.69
16	4.5	6.8	17	8.9	38	104	49	17	1.7	.84	.82	.73
17	4.2	5.7	17	7.1	36	100	44	16	1.4	.84	.82	.68
18	4.3	5.8	13	7.1	34	94	46	16	5.3	.89	.82	.65
19	4.0	5.8	8.7	7.4	35	385	54	15	4.2	.84	.82	.64
20	3.7	6.0	8.9	7.3	33	739	56	16	1.4	.82	.76	.64
21	3.8	6.0	8.1	7.1	31	295	51	17	1.3	.84	.76	.63
22	3.8	6.1	8.7	6.9	30	220	44	16	1.5	.86	.73	.63
23	4.0	6.1	8.5	9.0	30	196	40	14	1.4	.89	.70	.58
24	4.5	6.3	8.6	10	30	166	38	14	1.3	1.1	.70	.59
25	5.0	7.0	9.5	14	33	147	37	13	1.2	1.2	.76	.60
26	3.8	6.0	8.5	17	39	139	36	13	1.1	1.1	.76	.60
27	4.2	6.1	7.3	17	36	136	34	14	1.0	.91	.76	.59
28	4.8	6.3	7.2	100	58	120	31	13	1.0	.88	.76	.60
29	4.3	6.4	6.9	341	---	112	30	13	1.2	.86	.78	.58
30	4.2	6.5	6.6	110	---	110	28	13	1.4	.86	.80	.54
31	4.4	---	6.7	65	---	102	---	12	---	.90	.78	---
TOTAL	140.4	161.7	472.8	840.7	1184	9012	1684	545	136.2	29.62	24.66	21.24
MEAN	4.53	5.39	15.3	27.1	42.3	291	56.1	17.6	4.54	.96	.80	.71
MAX	5.8	7.0	57	341	86	1160	100	26	11	1.6	.88	1.3
MIN	3.7	4.2	6.6	6.5	30	94	28	12	1.0	.80	.70	.54
AC-FT	278	321	938	1670	2350	17880	3340	1080	270	59	49	42

CAL YR 1980 TOTAL 78364.74 MEAN 214 MAX 9320 MIN 3.7 AC-FT 155408  
WTR YR 1981 TOTAL 14252.32 MEAN 37.0 MAX 1160 MIN .54 AC-FT 28270

## 11113000 SESPE CREEK NEAR FILLMORE, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SESPE CREEK AND FILLMORE  
IRRIGATION CO.'S CANAL NEAR FILLMORE, CA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	13	16	17	52	1160	93	35	20	7.2	5.4	4.6
2	11	13	16	18	44	850	100	34	19	7.3	5.3	4.8
3	11	13	17	18	39	434	90	34	18	6.9	5.3	4.8
4	11	13	60	17	37	263	80	33	17	6.4	5.3	4.9
5	11	13	42	17	36	951	73	33	17	6.3	5.3	4.9
6	11	13	33	17	35	494	71	32	16	6.2	5.2	5.3
7	11	13	27	17	34	326	70	30	16	6.2	5.1	5.0
8	11	13	24	17	38	253	70	30	15	6.1	5.1	5.0
9	11	13	22	17	86	216	67	28	15	6.2	5.0	4.7
10	11	13	22	17	82	193	65	28	14	6.0	5.0	4.7
11	11	13	21	17	63	173	63	27	13	6.2	5.2	4.7
12	12	14	21	18	49	158	60	27	13	5.9	5.1	4.6
13	12	14	21	18	46	143	58	27	12	6.0	5.2	4.6
14	12	14	21	17	41	123	54	27	11	5.6	5.1	4.6
15	12	14	21	17	39	110	52	27	11	5.5	5.0	4.6
16	12	14	20	18	38	104	49	27	10	5.5	5.0	4.6
17	12	14	19	18	36	100	48	25	10	5.5	5.1	4.5
18	12	14	20	17	34	94	52	25	9.7	5.5	5.1	4.4
19	12	14	19	17	35	385	61	24	11	5.4	5.1	4.2
20	12	15	19	17	33	734	62	24	9.4	5.3	5.0	4.3
21	12	15	18	17	31	295	56	24	9.0	5.3	4.8	4.3
22	12	15	18	17	30	220	50	24	9.0	5.4	4.6	4.4
23	12	16	18	19	30	196	47	24	8.7	5.4	4.6	4.4
24	12	16	18	20	30	166	45	24	8.4	5.6	4.6	4.6
25	12	15	18	18	33	147	44	23	7.9	5.7	4.6	4.7
26	12	15	18	18	39	139	43	22	7.7	5.7	4.6	4.8
27	12	15	18	18	37	136	42	23	7.4	5.6	4.6	4.8
28	12	15	18	100	59	120	39	23	7.2	5.6	4.5	4.7
29	12	15	17	341	---	112	37	23	7.2	5.6	4.5	4.9
30	12	16	17	110	---	110	36	23	7.3	5.6	4.5	4.8
31	13	---	17	65	---	102	---	21	---	5.6	4.6	---
TOTAL	362	423	676	1089	1186	9012	1777	831	356.9	182.3	153.4	140.2
MEAN	11.7	14.1	21.8	35.1	42.4	291	59.2	26.8	11.9	5.88	4.95	4.67
MAX	13	16	60	341	86	1160	100	35	20	7.3	5.4	5.3
MIN	11	13	16	17	30	94	36	21	7.2	5.3	4.5	4.2
AC-FT	718	839	1340	2160	2350	17880	3520	1650	708	362	304	278
CAL YR 1980	TOTAL	80155.0	MEAN	219	MAX	9320	MIN	11	AC-FT	154000		
WTR YR 1981	TOTAL	16188.8	MEAN	44.4	MAX	1160	MIN	4.2	AC-FT	32110		

1528447  
14727.6  
8

11113000 SESPE CREEK NEAR FILLMORE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1956-62, 1967 to current year.

CHEMICAL ANALYSES: Water years 1967 to current year.

WATER TEMPERATURES: Water years 1967 to September 1978.

SEDIMENT RECORDS: Water years 1956-62, 1967 to September 1978.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1969 to September 1970.

SPECIFIC CONDUCTANCE: October 1969 to September 1980.

SEDIMENT RECORDS: October 1966 to September 1978.

COOPERATION.--Chemical-quality records were furnished by California Department of Water Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,590 micromhos Dec. 17, 1977; minimum recorded, 112 micromhos

Feb. 9, 1978.

WATER TEMPERATURES: Maximum, 29.5°C, July 4, 18, 20, 1970; minimum, 4.5°C Jan. 4, 1970.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 33,800 mg/L Mar. 4, 1978; minimum daily, 1 mg/L on many

days in 1966-69 and 1976-77.

SEDIMENT DISCHARGE: Maximum daily, 3,280,000 tons (2,976,000 metric tons) Feb. 9, 1978; minimum daily, 0 tons

on many days in most years.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM FLOW INST-CFS	SPECIFIC COND MICROMHU	PH FIELD (UNITS)	TEMP WATER (DEG C)	TURB- IDITY (NTU)	OXYGEN DISS (MG/L)	HARDNESS (MG/L AS CAC03)	SULFATE SO4-DISS (MG/L)	CHLORIDE CL DISS (MG/L)	ROE DISS 180 C (MG/L)
80/11/20	17 10	6.0	970	8.6	13.5	0.0	11.1	390	320	58	749
81/01/22	16 50	6.8	970	8.8	15.0	0.0	11.4	400	330	52	765
81/04/20	15 35	5.5	730	8.8	16.5	0.0	9.3	350	270	24	633
81/05/20	11 15	1.6	800	8.7	22.0		10.2				
81/07/28	14 05	8.8	740	8.4	25.5	0.0	8.5	280	230	64	562

DATE	TIME	ARSENIC AS,DISS (UG/L)	CADMIUM CD,DISS (UG/L)	COPPER CU,DISS (UG/L)	IRON FE,DISS (UG/L)	LEAD PB,DISS (UG/L)	MERCURY HG,TOTAL (UG/L)	ZINC ZN,DISS (UG/L)
81/05/20	11 15	0	0	0	10	0	0.0	0

## SANTA CLARA RIVER BASIN

11113500 SANTA PAULA CREEK NEAR SANTA PAULA, CA

LOCATION (REVISED).-- Lat 34°24'48", long 119°04'53", in NE¼NW¼SE¼ sec.21, T.4 N., R.21 W., Ex Mission San Buenaventura Grant, Ventura County, Hydrologic Unit 18070102, on right bank 1.3 mi (2.1 km) downstream from Sisar Creek, and 4.8 mi (7.7 km) north of Santa Paula. Prior to Oct. 22, 1980, at site 1.3 mi (2.1 km) downstream.

DRAINAGE AREA. -- 38.4 mi<sup>2</sup> (99.5 km<sup>2</sup>).

PERIOD OF RECORD.-- October 1927 to current year. March 1912 to September 1913, at site 2.5 mi (4.0 km) upstream; records not equivalent.

GAGE.--Water-stage recorder. Elevation of gage is 790 ft (240 m), from topographic map. Prior to Oct. 22, 1980, at various sites and datums 1.3 mi (2.1 km) downstream. See U.S. Geological Survey Water-Data Report CA-79-1 for history of charges prior to Oct. 22, 1980.

REMARKS.--Records fair. No regulation above station.

AVERAGE DISCHARGE.--54 years, 23.1 ft<sup>3</sup>/s (0.654 m<sup>3</sup>/s), 16,740 acre-ft/yr (20.6 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD. --Maximum discharge, 21,000 ft<sup>3</sup>/s (595 m<sup>3</sup>/s) Feb. 25, 1969, gage height, 18.18 ft (5.541 m), from floodmark, site and datum then in use, from rating curve extended above 2,300 ft<sup>3</sup>/s (65.1 m<sup>3</sup>/s) on basis of critical-depth measurement at gage height 15.2 ft (4.63 m); no flow at times in 1949, 1951-52, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 176 ft<sup>3</sup>/s (4.98 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow:

Date	Time	Discharge		Gage height	
		(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)
Mar. 1	Unknown	*527	14.9	4.84	1.475
Mar. 5	Unknown	460	13.0	4.60	1.402

‡ From high-water marks.

Minimum daily discharge, 1.6 ft<sup>3</sup>/s (0.045 m<sup>3</sup>/s) Aug. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	5.6	4.5	4.2	7.6	264	14	7.7	5.2	3.6	5.8	2.6
2	6.5	5.6	4.5	4.2	7.4	89	14	7.9	5.2	3.6	5.5	2.4
3	6.2	5.6	4.7	3.8	7.0	27	15	7.4	5.1	3.5	4.7	2.6
4	6.1	5.6	4.7	3.9	6.6	26	14	7.6	5.1	3.5	4.5	2.7
5	5.7	5.6	5.8	3.8	6.3	161	13	7.6	5.1	3.5	3.8	2.8
6	5.7	5.6	5.5	3.8	6.0	48	13	4.3	5.1	3.2	3.4	2.7
7	5.5	5.6	5.3	3.6	5.7	34	13	7.6	5.0	3.1	3.3	2.6
8	5.2	5.6	4.9	3.8	6.9	28	13	7.4	5.0	3.2	3.7	2.6
9	5.3	5.6	4.7	3.8	12	25	13	7.1	4.9	3.2	3.4	2.5
10	5.3	5.6	4.5	3.8	7.2	25	13	7.0	4.8	3.3	3.4	2.5
11	5.5	5.6	4.2	3.8	6.4	25	13	6.4	4.9	3.3	3.7	2.7
12	5.7	5.6	4.0	3.8	5.6	23	13	6.1	4.9	3.0	4.1	2.8
13	6.4	5.6	4.0	4.0	5.6	22	12	6.2	4.9	3.0	3.8	2.9
14	6.3	5.6	4.0	4.1	5.6	21	12	6.5	4.8	3.0	3.5	2.6
15	5.9	5.6	3.8	3.9	5.4	19	11	6.1	4.3	3.0	3.7	2.6
16	5.9	5.6	3.6	3.8	5.4	18	12	6.1	4.3	3.2	3.5	2.6
17	5.8	5.6	3.7	3.7	5.4	18	12	5.7	4.3	3.6	3.2	2.5
18	5.7	5.6	3.8	3.8	5.4	18	13	5.6	4.4	3.8	3.0	2.4
19	5.7	5.5	4.0	4.0	5.4	29	14	5.8	4.3	3.9	2.7	2.6
20	6.2	5.4	3.9	4.5	5.2	24	12	5.7	4.2	4.2	2.3	2.4
21	5.9	5.3	3.9	4.9	5.2	19	11	5.6	4.3	4.8	2.3	2.7
22	6.0	5.1	3.8	4.9	5.2	16	11	5.6	4.4	5.6	2.5	2.2
23	5.7	5.0	4.0	5.7	5.0	15	10	5.5	4.0	6.6	2.2	2.7
24	5.7	4.9	3.8	4.7	5.0	15	9.8	5.4	4.0	7.4	1.8	3.2
25	5.7	4.9	3.9	4.4	5.0	15	9.0	5.5	4.0	7.9	1.9	2.6
26	5.7	4.8	3.8	4.0	7.0	14	9.4	5.4	3.9	4.0	1.6	2.6
27	5.6	4.8	3.9	4.7	5.6	14	8.8	5.5	3.8	7.9	1.6	2.6
28	5.6	4.7	4.0	15	10	14	7.4	5.4	4.0	7.6	1.9	2.3
29	5.6	4.6	3.8	31	---	14	7.3	5.3	3.9	7.2	2.1	2.4
30	5.6	4.6	3.7	11	---	14	7.9	5.2	3.8	6.5	2.0	2.6
31	5.6	---	4.1	8.0	---	14	---	5.2	---	6.0	2.3	---
TOTAL	180.2	160.4	134.8	176.4	176.1	1108	350.6	145.4	135.9	143.2	97.2	78.0
MEAN	5.81	5.35	4.35	5.69	5.29	35.7	11.7	4.34	4.53	4.62	3.14	2.60
MAX	6.9	5.6	4.7	31	12	26.4	15	4.3	5.2	8.0	5.8	3.2
MIN	5.2	4.6	3.6	3.6	5.0	14	7.3	5.2	3.8	3.0	1.6	2.2
AC-FT	357	318	267	350	349	2200	695	388	270	284	193	155
CAL YH 1980	TOTAL	17228.4	MEAN	47.1	MAX	1460	MIN	2.9	AC-FT	34170		
WTR YR 1981	TOTAL	2936.2	MEAN	8.04	MAX	264	MIN	1.6	AC-FT	5420		

11113500 SANTA PAULA CREEK NEAR SANTA PAULA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES: Water years 1967 to September 1979.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1969 to September 1980.

WATER TEMPERATURES: April 1969 to September 1970.

INSTRUMENTATION.--Specific-conductance recorder since April 1969. Water-temperature recorder April 1969 to September 1970.

COOPERATION.--Chemical-quality data were furnished by California Department of Water Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,570 micromhos July 17, 1980; minimum recorded, 191 micromhos Mar. 8, 1975.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,570 micromhos July 17; minimum recorded, 286 micromhos Dec. 24.

DATE	TIME	STREAM FLOW, INST-CFS	SPECIFIC COND MICROMHO	PH FIELD (UNITS)	TEMP WATER (DEG C)	TURB- IDITY (NTU)	OXYGEN DISS (MG/L)	HARDNESS (MG/L AS CaCO3)	SULFATE SO4-DISS (MG/L)	CHLORIDE CL DISS (MG/L)	ROE DISS 180 C (MG/L)
80/11/21	10 10	5E	680	8.6	14.5	0.0	13.1	300	220	27	540
81/01/22	14 20	5E	720	8.6	16.0	0.0	11.3	290	220	27	589
81/04/20	18 20	16E	670	8.4	16.5	0.0	9.0	310	190	22	501
81/05/19	08 25	8E	670	8.3	20.0		4.7				
81/07/28	10 45	3E	670	8.3	27.0	0.0	9.2	260	210	35	519

DATE	TIME	ARSENIC AS,DISS (UG/L)	CADMIUM CD,DISS (UG/L)	COPPER CU,DISS (UG/L)	IRON FE,DISS (UG/L)	LEAD PB,DISS (UG/L)	MERCURY HG,TOTAL (UG/L)	ZINC ZN,DISS (UG/L)
81/05/19	08 25	0	0	0	20	0	0.0	10

E Estimated

## SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION NEAR SATICOY, CA

LOCATION.--Lat 34°17'35", long 119°06'00", in Santa Paula Y Saticoy Grant, Ventura County, Hydrologic Unit 18070102, on diversion works at Santa Clara River, 1.9 mi (3.1 km) east of Saticoy.

PERIOD OF RECORD.--April 1969 to September 1981 (discontinued). October 1928 to April 1969 in files of United Water Conservation District.

GAGE.--Water-stage recorder. Altitude of gage is 160 ft (49 m), from topographic map.

REMARKS.--Water is diverted from left bank of Santa Clara River to percolation basin near Los Angeles Avenue (State Highway 118) and for irrigation in Pleasant Valley. Imported water from the California Water Project released to the basin at Castaic Dam and Pyramid Dam since 1972.

COOPERATION.--Records were furnished by United Water Conservation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 437 ft<sup>3</sup>/s (12.4 m<sup>3</sup>/s) Dec. 10, 1978; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	85	73	68	149	0	201	110	55	28	125	161
2	174	93	67	68	135	46	224	108	52	25	132	166
3	154	99	67	68	126	52	161	114	52	28	134	170
4	165	94	125	72	125	5.9	174	108	52	28	134	175
5	167	87	121	64	122	0	147	102	36	32	133	168
6	172	92	121	56	122	87	157	98	47	22	138	163
7	170	97	114	58	119	231	162	94	47	24	143	176
8	168	98	113	64	142	310	162	92	43	24	148	185
9	162	100	113	65	51	220	163	84	40	23	147	193
10	179	68	117	68	133	234	161	80	38	22	156	134
11	186	76	124	73	136	238	165	78	38	22	150	150
12	186	69	88	76	130	247	168	74	39	23	147	190
13	185	61	94	75	116	270	172	72	38	27	141	202
14	177	71	102	77	108	243	166	70	42	24	70	207
15	174	72	104	80	106	245	163	70	42	24	47	276
16	178	78	89	75	106	230	157	66	34	72	42	321
17	191	81	83	74	106	274	153	66	31	74	34	324
18	182	65	86	78	100	220	162	69	31	88	29	316
19	186	63	87	80	95	134	178	66	29	100	65	301
20	178	61	86	80	103	99	179	65	28	98	150	300
21	106	59	84	78	106	94	160	62	29	100	170	301
22	77	64	86	80	103	74	150	57	30	98	165	182
23	79	68	86	92	96	198	139	59	30	100	149	147
24	76	68	82	87	90	189	130	59	31	102	152	118
25	75	63	82	90	97	173	140	61	28	109	152	120
26	85	59	83	87	115	185	140	60	28	115	156	121
27	80	61	82	89	101	209	142	58	30	116	160	121
28	78	65	81	29	98	210	126	57	29	116	154	126
29	72	67	78	13	---	201	116	56	30	116	151	125
30	71	73	74	33	---	211	111	54	28	118	167	124
31	78	---	70	123	---	216	---	55	---	114	166	---
TOTAL	4387	2257	2862	2220	3136	5295.9	4729	2324	1107	2012	4007	5763
MEAN	142	75.2	92.3	71.6	112	171	158	75.0	36.9	64.9	129	192
MAX	191	100	125	123	149	310	224	114	55	118	170	324
MIN	71	59	67	13	51	0	111	54	28	22	29	118
AC-FT	8700	4480	5680	4400	6220	10500	9380	4610	2200	3990	7950	11430
CAL YR 1980	TOTAL	50242.00	MEAN	137	MAX	349	MIN	0	AC-FT	99650		
WTR YR 1981	TOTAL	40099.90	MEAN	110	MAX	324	MIN	0	AC-FT	79540		



## SANTA CLARA RIVER BASIN

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## 11114000 SANTA CLARA RIVER AT MONTALVO, CA

LOCATION.--Lat 34°14'31", long 119°11'21", in San Miguel Grant, Ventura County, Hydrologic Unit 18070102, on downstream end of center pier of southbound bridge on U.S. Highway 101, 0.9 mi (1.4 km) southeast of Montalvo, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--1,612 mi<sup>2</sup> (4,175 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to September 1932, October 1949 to current year. Monthly discharge only for 1950-67, published in WRD 1968 report. October 1949 to September 1969, published as "at Saticoy."

GAGE.--Water-stage recorder. Datum of gage is 51.88 ft (15.813 m) National Geodetic Vertical Datum of 1929 (levels by Ventura County Flood Control District). Oct. 1, 1927, to Sept. 30, 1932, and Oct. 1, 1949, to Sept. 30, 1967, at same site at different datums. Oct. 1, 1967, to Feb. 2, 1970, at site 3.9 mi (6.3 km) upstream at different datum.

REMARKS.--Records fair except those for periods of no gage-height record or questionable gage-height record, Nov. 10 to Dec. 17, Mar. 7 to 16, Mar. 24, to Apr. 2, and Aug. 3 to Sept. 30, which are poor. Flow partly regulated by Lake Piru (station 11109500) 33 mi (53 km) upstream since May 1955; by Pyramid Lake, capacity, 173,500 acre-ft (214 hm<sup>3</sup>) 42 mi (68 km) upstream since December 1971; and by Castaic Reservoir, capacity, 324,000 acre-ft (399 hm<sup>3</sup>) 43 mi (69 km) upstream since January 1972. Natural flow affected by ground-water withdrawals, diversions, municipal use, and ground-water replenishment. Imported water from the California Water Project released to the basin at Castaic Dam and Pyramid Dam. Diversion to spreading grounds and for irrigation in Pleasant Valley, at site 6.0 mi (9.7 km) upstream (station 1113900). AVERAGE DISCHARGE represents flow to the ocean regardless of upstream development.

COOPERATION.--Five discharge measurements were furnished by Ventura County Flood Control District.

AVERAGE DISCHARGE.--37 years, 145 ft<sup>3</sup>/s (4.106 m<sup>3</sup>/s), 105,100 acre-ft/yr (130 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 165,000 ft<sup>3</sup>/s (4,670 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 17.41 ft (5.307 m), present datum; no flow for long periods in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, 120,000 ft<sup>3</sup>/s (3,400 m<sup>3</sup>/s), estimated by Ventura County Flood Control District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,620 ft<sup>3</sup>/s (103 m<sup>3</sup>/s) Mar. 1, gage height, 4.52 ft (1.378 m); minimum daily, no flow Jan. 18, 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	5.7	2.3	.39	43	2380	14	10	1.3	.43	1.3	.24
2	7.6	4.9	3.9	1.8	32	1920	14	10	1.3	.43	1.3	.22
3	8.1	6.1	3.8	.37	26	561	18	10	1.3	.41	1.3	.22
4	8.1	7.6	3.7	.26	24	507	17	10	1.1	.41	1.1	.21
5	8.1	8.1	2.0	1.1	22	2220	15	10	1.1	.41	1.1	.19
6	8.1	8.1	.94	2.9	22	809	17	9.0	.89	.41	.89	.15
7	9.3	8.7	.90	2.3	11	453	14	8.0	.89	.43	.89	.15
8	9.3	6.6	1.7	2.2	29	280	14	7.1	.71	.43	.71	.13
9	7.6	5.3	3.2	1.6	249	160	12	6.3	.71	.43	.71	.13
10	8.1	6.0	3.1	.24	76	100	14	6.3	.71	.43	.56	.13
11	8.1	6.5	3.0	.11	18	60	12	6.3	.71	.43	.56	.11
12	7.6	6.4	1.4	.26	15	37	12	6.3	.71	.43	.43	.11
13	8.1	6.2	.64	.41	15	23	12	6.3	.71	.56	.43	.11
14	8.7	4.5	.60	.35	12	14	12	5.5	.56	.56	.41	.11
15	8.7	2.8	1.3	.24	11	9.0	10	5.5	.43	.56	.41	.11
16	8.7	2.7	2.6	.29	10	5.2	10	4.8	.43	.56	.39	.13
17	8.7	3.8	2.7	.02	9.6	4.9	9.0	4.8	.56	.71	.39	.13
18	8.1	5.4	2.7	0	8.3	4.8	9.0	4.8	.71	.71	.37	.13
19	7.6	5.3	3.7	.12	6.1	169	8.0	5.5	.71	.71	.37	.13
20	7.6	5.2	2.3	.18	5.7	974	8.0	5.5	.71	.71	.36	.09
21	9.3	3.4	.26	.19	6.6	453	8.0	4.8	.71	.89	.36	.09
22	9.3	2.0	.25	.22	5.0	356	8.0	5.5	.71	1.1	.34	.09
23	8.7	1.9	1.8	.02	5.7	169	8.0	5.5	.71	1.1	.32	.09
24	8.1	3.0	1.6	0	5.7	100	8.0	5.5	.71	1.1	.30	.09
25	6.1	4.6	.41	0	14	56	9.0	4.8	.71	1.1	.28	.08
26	5.7	4.5	.22	.11	10	31	9.0	4.2	.71	1.1	.28	.08
27	5.7	2.8	.24	.19	8.3	18	9.0	3.7	.56	1.1	.28	.06
28	5.3	1.5	.24	184	181	16	9.0	3.2	.56	1.1	.28	.09
29	6.1	1.4	.42	788	---	15	10	3.2	.56	1.1	.26	.06
30	5.7	1.4	2.0	611	---	15	11	2.3	.56	1.3	.26	.06
31	6.6	---	2.8	272	---	14	---	1.9	---	1.3	.24	---
TOTAL	240.4	142.4	56.72	1870.87	881.0	11933.9	340.0	186.6	22.75	22.45	17.18	3.72
MEAN	7.75	4.75	1.83	60.4	31.5	385	11.3	6.02	.76	.72	.55	.12
MAX	9.3	8.7	3.9	788	249	2380	18	10	1.3	1.3	1.3	.24
MIN	5.3	1.4	.22	0	5.0	4.8	8.0	1.9	.43	.41	.24	.06
AC-FT	477	282	113	3710	1750	23670	674	370	45	45	34	7.4
CAL YR 1980 TOTAL	205642.09			MEAN 562	MAX 26000	MIN 0	AC-FT 407900					
WTR YR 1981 TOTAL	15717.99			MEAN 43.1	MAX 2380	MIN 0	AC-FT 31180					

WATER-QUALITY RECORDS

WATER TEMPERATURES: Water years 1968, 1969, 1971 to current year.

SEDIMENT RECORDS: Water years 1968 to current year.

WATER TEMPERATURES: October 1967 to September 1969, October 1970 to current year.

SEDIMENT RECORDS: October 1967 to current year.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 108,000 mg/L Mar. 4, 1978; minimum daily mean, no flow for many days most years.

SEDIMENT DISCHARGE: Maximum daily, 20,400,000 tons (18,500,000 metric tons) Feb. 25, 1969; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR. - -

SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,630 mg/L Mar. 1; minimum daily mean, no flow Jan. 18, 24, 25.

SEDIMENT DISCHARGE: Maximum daily, 34,800 tons (31,600 metric tons) Mar. 1; minimum daily, 0 tons several days.

[illegible]

## SANTA CLARA RIVER BASIN

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11114000 SANTA CLARA RIVER AT MONTALVO, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7.6	135	2.8	5.7	150	2.3	2.3	17	.11
2	7.6	130	2.7	4.9	80	1.1	3.9	45	.47
3	8.1	125	2.7	6.1	98	1.6	3.8	150	1.5
4	8.1	120	2.6	7.6	400	8.2	3.7	380	3.8
5	8.1	116	2.5	8.1	400	8.7	2.0	230	1.2
6	8.1	112	2.4	8.1	200	4.4	.94	21	.05
7	9.3	108	2.7	8.7	32	.75	.90	15	.04
8	9.3	105	2.6	6.6	32	.57	1.7	15	.07
9	7.6	105	2.2	5.3	32	.46	3.2	15	.13
10	8.1	105	2.3	6.0	660	11	3.1	50	.42
11	8.1	105	2.3	6.5	660	12	3.0	50	.41
12	7.6	105	2.2	6.4	660	11	1.4	19	.07
13	8.1	105	2.3	6.2	165	2.8	.64	10	.02
14	8.7	120	2.8	4.5	30	.36	.60	10	.02
15	8.7	130	3.1	2.8	30	.23	1.3	70	.25
16	8.7	130	3.1	2.7	48	.35	2.6	60	.42
17	8.7	130	3.1	3.8	300	3.1	2.7	20	.15
18	8.1	130	2.8	5.4	1200	17	2.7	22	.16
19	7.6	110	2.3	5.3	1200	17	3.7	25	.25
20	7.6	110	2.3	5.2	1240	17	2.3	15	.09
21	9.3	150	3.8	3.4	50	.46	.26	8	.01
22	9.3	180	4.5	2.0	25	.14	.25	8	.01
23	8.7	180	4.2	1.9	41	.21	1.8	40	.19
24	8.1	180	3.9	3.0	400	3.2	1.6	40	.17
25	6.1	100	1.6	4.6	400	5.0	.41	30	.03
26	5.7	74	1.1	4.5	60	.73	.22	12	.01
27	5.7	74	1.1	2.8	15	.11	.24	9	.01
28	5.3	150	2.1	1.5	15	.06	.24	9	.01
29	6.1	300	4.9	1.4	15	.06	.42	9	.01
30	5.7	370	5.7	1.4	15	.06	2.0	40	.22
31	6.6	390	6.9	---	---	---	2.8	40	.30
TOTAL	240.4	---	91.6	142.4	---	129.95	56.72	---	10.60
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.39	40	.04	43	290	33	2380	4630	34800
2	1.8	20	.10	32	260	22	1920	2670	16000
3	.37	9	.01	26	240	17	561	647	978
4	.26	9	.01	24	230	15	507	562	1200
5	1.1	20	.06	22	220	13	2220	4520	29600
6	2.9	45	.35	22	210	12	809	915	2200
7	2.3	45	.28	11	200	5.9	453	400	489
8	2.2	45	.27	29	307	39	280	260	197
9	1.6	30	.13	249	1100	742	160	190	82
10	.24	9	.01	76	278	65	100	150	41
11	.11	9	0	18	150	7.3	60	110	18
12	.26	45	.03	15	140	5.7	37	80	8.0
13	.41	50	.06	15	135	5.5	23	65	4.0
14	.35	50	.05	12	125	4.1	14	50	1.9
15	.24	47	.03	11	110	3.3	9.0	40	.97
16	.29	40	.03	10	95	2.6	5.2	740	10
17	.02	10	0	9.6	90	2.1	4.9	759	10
18	0	0	0	8.3	70	1.6	4.8	761	9.9
19	.12	10	0	6.1	60	.99	169	666	881
20	.18	10	0	5.7	60	.92	974	1840	5650
21	.19	10	.01	6.6	70	1.2	453	450	550
22	.22	10	.01	5.0	65	.88	356	275	264
23	.02	10	0	5.7	60	.92	169	959	438
24	0	0	0	6.7	60	.92	100	969	262
25	0	0	0	14	119	7.4	56	980	148
26	.11	10	0	10	100	2.7	31	1000	84
27	.19	10	.01	8.3	75	1.7	18	1020	50
28	184	2600	1670	181	559	1620	16	1040	45
29	788	4110	10800	---	---	---	15	1060	43
30	611	2780	4970	---	---	---	15	1080	44
31	272	689	641	---	---	---	14	1100	42
TOTAL	1870.87	---	18082.49	881.0	---	2683.73	11933.9	---	94150.77

## 11114000 SANTA CLARA RIVER AT MONTALVO, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	14	1120	42	10	1580	43	1.3	725	2.5
2	14	1130	43	10	1580	43	1.3	693	2.4
3	18	1140	55	10	1590	43	1.3	661	2.3
4	17	1150	53	10	1590	43	1.1	639	1.9
5	15	1160	47	10	1600	43	1.1	617	1.8
6	17	1180	54	9.0	1610	39	.89	595	1.4
7	14	1200	45	8.0	1610	35	.89	573	1.4
8	14	1220	46	7.1	1620	31	.71	550	1.1
9	12	1240	40	6.3	1630	28	.71	529	1.0
10	14	1260	48	6.3	1630	28	.71	507	.97
11	12	1280	41	6.3	1630	28	.71	485	.93
12	12	1290	42	6.3	1630	28	.71	472	.90
13	12	1310	42	6.3	1630	28	.71	448	.86
14	12	1320	43	5.5	1580	23	.56	434	.66
15	10	1340	36	5.5	1540	23	.43	419	.49
16	10	1350	36	4.8	1500	19	.43	405	.47
17	9.0	1370	33	4.8	1450	19	.56	392	.59
18	9.0	1380	34	4.8	1410	18	.71	378	.72
19	8.0	1400	30	5.5	1370	20	.71	365	.70
20	8.0	1420	31	5.5	1330	20	.71	351	.67
21	8.0	1430	31	4.8	1270	16	.71	340	.65
22	8.0	1440	31	5.5	1210	18	.71	329	.63
23	8.0	1460	32	5.5	1150	17	.71	318	.61
24	8.0	1480	32	5.5	1090	16	.71	306	.59
25	9.0	1490	36	4.8	1030	13	.71	297	.57
26	9.0	1510	37	4.2	983	11	.71	288	.55
27	9.0	1520	37	3.7	940	9.4	.56	279	.42
28	9.0	1540	37	3.2	897	7.8	.56	270	.41
29	10	1550	42	3.2	853	7.4	.56	261	.39
30	11	1570	47	2.3	811	5.0	.56	252	.38
31	---	---	---	1.9	768	3.9	---	---	---
TOTAL	340.0	---	1203	186.6	---	726.5	22.75	---	28.96
DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.43	245	.28	1.3	104	.37	.24	47	.03
2	.43	238	.28	1.3	101	.35	.22	46	.03
3	.41	232	.26	1.3	99	.35	.22	45	.03
4	.41	226	.25	1.1	96	.29	.21	44	.02
5	.41	220	.24	1.1	94	.28	.19	43	.02
6	.41	214	.24	.89	92	.22	.15	42	.02
7	.43	208	.24	.89	89	.21	.15	41	.02
8	.43	203	.24	.71	87	.17	.13	40	.01
9	.43	197	.23	.71	84	.16	.13	40	.01
10	.43	191	.22	.56	82	.12	.13	38	.01
11	.43	186	.22	.56	80	.12	.11	38	.01
12	.43	181	.21	.43	78	.09	.11	37	.01
13	.56	176	.27	.43	76	.09	.11	36	.01
14	.56	172	.26	.41	74	.08	.11	36	.01
15	.56	167	.25	.41	72	.08	.11	35	.01
16	.56	162	.24	.39	70	.07	.13	34	.01
17	.71	158	.30	.39	69	.07	.13	32	.01
18	.71	153	.29	.37	67	.07	.13	31	.01
19	.71	149	.29	.37	65	.06	.13	31	.01
20	.71	144	.28	.36	64	.06	.09	30	.01
21	.89	140	.34	.36	62	.06	.09	30	.01
22	1.1	135	.40	.34	60	.06	.09	29	.01
23	1.1	132	.39	.32	59	.05	.09	28	.01
24	1.1	128	.38	.30	58	.05	.09	27	.01
25	1.1	124	.37	.28	56	.04	.08	26	.01
26	1.1	121	.36	.28	54	.04	.08	26	.01
27	1.1	117	.35	.28	53	.04	.06	25	0
28	1.1	114	.34	.28	52	.04	.09	24	.01
29	1.1	111	.33	.26	51	.04	.06	24	0
30	1.3	109	.38	.26	49	.03	.06	24	0
31	1.3	106	.37	.24	48	.03	---	---	---
TOTAL	22.45	---	9.10	17.18	---	3.79	3.72	---	.37

YEAR 15717.99

117120.9

## 11114000 SANTA CLARA RIVER AT MONTALVO, CA--Continued

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1980	240.40	91.60	60	152
NOVEMBER ...	142.40	129.95	32	162
DECEMBER ...	56.72	10.60	10	21
JANUARY 1981	1870.87	18082.49	1440	19500
FEBRUARY ...	881.00	2683.73	360	3040
MARCH .....	11933.90	94150.77	48900	143000
APRIL .....	340.00	1203.00	93	1300
MAY .....	186.60	726.50	45	772
JUNE .....	22.75	28.96	2	31
JULY .....	22.45	9.10	2	11
AUGUST .....	17.18	3.79	1	5
SEPTEMBER ..	3.72	0.37	0	0
TOTAL .....	15717.99	117120.86	50945	167994

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
08...	1055	21.0	9.0	105	2.6	--	--	--
DEC								
17...	0930	14.0	.88	20	.05	--	--	--
JAN								
28...	1350	16.0	197	3480	1850	--	--	--
FEB								
13...	0930	13.0	15	134	5.4	--	--	--
MAR								
03...	1400	13.0	605	532	869	--	--	--
04...	1240	16.0	426	321	369	--	--	--
06...	1145	12.0	724	803	1570	--	--	--
17...	1035	20.0	4.9	3500	46	--	--	--
20...	1310	--	911	1220	3000	--	42	55
APR								
02...	1015	19.0	14	185	7.0	--	--	--
MAY								
12...	1250	23.5	6.2	7290	122	--	77	94
JUN								
09...	0845	21.0	.71	63	.12	--	--	--
AUG								
03...	1205	--	1.3	409	1.4	56	70	86

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT							
08...	--	--	82	--	--	--	--
DEC							
17...	--	--	68	--	--	--	--
JAN							
28...	--	--	96	--	--	--	--
FEB							
13...	--	--	53	57	69	95	100
MAR							
03...	--	--	86	--	--	--	--
04...	--	--	79	87	97	100	--
06...	--	--	86	--	--	--	--
17...	--	--	99	--	--	--	--
20...	69	83	92	97	100	--	--
APR							
02...	--	--	100	--	--	--	--
MAY							
12...	100	--	--	--	--	--	--
JUN							
09...	--	--	89	96	100	--	--
AUG							
03...	97	99	99	100	--	--	--

## SANTA CLARA RIVER BASIN

11114000 SANTA CLARA RIVER AT MONTALVO, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM
SEP 30...	0845	6	.06	2	6	20	47

DATE	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP 30...	67	76	82	88	94	98	100

VENTURA RIVER BASIN

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11115000 MATILIJA RESERVOIR AT MATILIJA HOT SPRINGS, CA

LOCATION.--Lat 34°29'08", long 119°18'25", in NE¼NW¼SE¼ sec.29, T.5 N., R.23 W., Ventura County, Hydrologic Unit 18070101, on left end of dam on Ventura River, 0.2 mi (0.3 km) east of Matilija Hot Springs, and 1.8 mi (2.9 km) southwest of Wheeler Springs.

DRAINAGE AREA.--54.4 mi<sup>2</sup> (140.9 km<sup>2</sup>).

PERIOD OF RECORD.--March 1948 to September 1965, October 1970 to current year. Prior to October 1953, published as "at Matilija."

GAGE.--Water-stage recorder. Datum of gage is 0.00 ft Ventura County Department of Public Works datum. Prior to Nov. 12, 1970, at site near right end of dam at same datum.

REMARKS.--Reservoir is formed by concrete-arch dam. Dam was completed in 1948. Storage began Mar. 14, 1948. Structural modifications have resulted in lowering the crest of the dam since March 1964. A new capacity table dated June 1978 was furnished by Ventura County Flood Control District. Lowest sluice gate silted, elevation, 1,000 ft (304.8 m). Usable capacity, 1,475 acre-ft (1.82 hm<sup>3</sup>) between elevations 1,064 ft (324.3 m), lowest usable outlet and 1,095 ft (333.8 m), crest of spillway. Dead storage below lowest usable outlet, 218 acre-ft (269,000 m<sup>3</sup>). Capacity below spillway, 1,693 acre-ft (2.09 hm<sup>3</sup>). Water is released from reservoir to natural stream for recharge of ground-water basin in Ventura River Valley and since May 1959 is at times diverted at Robles diversion dam downstream to Lake Casitas on Coyote Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 7,399 acre-ft (9.12 hm<sup>3</sup>) Apr. 3, 1958, elevation, 1,128.10 ft (343.843 m); minimum, reservoir dry several days in 1979 due to construction.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum contents from October 1965 to September 1970, 3,128 acre-ft (3.86 hm<sup>3</sup>) Jan. 25, 1969, elevation, 1,103.6 ft (336.38 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,540 acre-ft (1.90 hm<sup>3</sup>) Apr. 22, elevation, 1,092.71 ft (333.058 m); minimum, 424 acre-ft (523,000 m<sup>3</sup>), Oct. 12, elevation, 1,070.59 ft (326.316 m).

MONTHEND ELEVATION NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,070.68	427	--
Oct. 31.....	1,070.87	434	+7
Nov. 30.....	1,071.34	451	+17
Dec. 31.....	1,072.31	487	+36
CAL YR 1980.....	--	--	+440
Jan. 31.....	1,074.60	577	+90
Feb. 28.....	1,080.48	847	+270
Mar. 31.....	1,077.76	715	-132
Apr. 30.....	1,084.40	1,050	+335
Mar. 31.....	1,077.76	715	-132
Apr. 30.....	1,084.40	1,050	+335
Mar. 31.....	1,077.76	715	-132
Apr. 30.....	1,084.40	1,050	+335
May 31.....	1,086.05	1,140	+90
June 30.....	1,085.04	1,090	-50
July 31.....	1,084.82*	1,080	-10
Aug. 31.....	1,084.79	1,070	-10
Sept. 30.....	1,085.80	1,130	+60
WTR YR 1981.....	--	--	+703

\* Estimated.

## VENTURA RIVER BASIN

## 11115500 MATILIJA CREEK AT MATILIJA HOT SPRINGS, CA

LOCATION.--Lat 34°28'58", long 119°18'03", in SW¼NW¼SW¼ sec.28, T.5 N., R.23 W., Ventura County, Hydrologic Unit 18070101, on right bank 0.2 mi (0.3 km) east of Matilija Hot Springs, 0.2 mi (0.3 km) upstream from North Fork, and 0.4 mi (0.6 km) downstream from Matilija Dam.

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

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to current year. Combined monthly records for creek and diversion, May 1951 to September 1969. Prior to October 1953, published as "at Matilija."

GAGE.--Water-stage recorder. Concrete control since September 1969. Altitude of gage is 900 ft (274 m), from topographic map. Prior to Feb. 11, 1939, at site 0.6 mi (1.0 km) upstream at different datum.

REMARKS.--Records good. Flow regulated by Matilija Reservoir March 1948 to March 1964, capacity, 7,020 acre-ft (8.66 hm<sup>3</sup>). Structural modification of dam and siltation has resulted in only partial regulation since March 1964. Current capacity, 1,693 acre-ft (2.09 hm<sup>3</sup>), capacity table dated June 23, 1978.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft<sup>3</sup>/s (566 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 16.5 ft (5.03 m), from rating curve extended above 4,200 ft<sup>3</sup>/s (119 m<sup>3</sup>/s) on basis of computation of maximum flow over dam; minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) for several days in some years of regulated flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 323 ft<sup>3</sup>/s (9.15 m<sup>3</sup>/s) Apr. 22, gage height, 3.88 ft (1.183 m); minimum daily, 0.27 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Sept. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	4.2	4.7	5.3	22	101	2.5	10	6.6	2.8	3.1	.30
2	4.9	4.2	4.7	5.3	18	237	2.3	9.7	6.8	2.8	3.1	.28
3	4.9	4.2	4.8	5.2	16	169	2.0	8.5	6.8	2.7	3.1	.27
4	5.0	4.2	6.6	5.1	14	99	2.0	7.2	6.2	2.7	3.1	.27
5	5.0	4.2	6.6	5.0	13	128	2.0	6.8	6.4	2.6	3.1	.28
6	5.0	4.2	6.8	4.9	12	129	2.0	6.5	7.1	2.6	3.0	.41
7	5.0	4.2	7.1	4.8	11	101	2.0	5.9	7.1	2.6	3.1	.39
8	4.7	4.2	7.0	4.7	11	78	2.0	5.8	6.9	2.6	3.1	.35
9	4.7	4.2	7.0	4.7	12	64	2.0	4.7	7.1	2.8	3.1	.35
10	4.7	4.2	7.3	4.7	7.3	39	2.0	4.9	6.8	2.9	3.3	.37
11	4.7	4.2	6.8	4.6	2.7	2.3	2.0	4.3	6.1	2.9	3.2	.63
12	4.7	4.2	6.8	4.4	2.7	2.4	2.1	4.0	4.9	2.9	3.1	1.3
13	4.7	4.2	6.7	4.5	2.7	2.5	2.1	6.0	4.7	2.8	3.2	1.3
14	4.7	4.3	6.2	4.5	2.7	2.5	2.1	9.1	4.7	2.8	3.1	1.4
15	4.6	4.4	6.1	4.6	2.7	2.5	2.1	9.0	4.5	2.8	3.1	1.2
16	4.4	4.4	5.8	4.5	2.7	2.5	2.1	6.4	4.3	2.8	2.9	1.2
17	4.5	4.4	5.8	4.4	2.7	2.5	2.1	11	4.4	2.8	2.0	1.2
18	4.5	4.4	5.8	4.5	2.7	2.5	2.3	13	4.4	2.8	2.1	1.2
19	4.3	4.4	5.8	4.4	2.7	3.0	2.3	8.5	4.2	2.8	1.4	1.2
20	4.3	4.4	5.8	4.5	2.7	117	2.2	2.6	4.4	2.8	.35	1.3
21	4.3	4.4	5.8	4.6	2.7	235	2.2	2.6	4.4	2.8	.30	1.3
22	4.2	4.4	5.8	4.7	2.7	131	179	6.5	4.4	2.8	.30	1.3
23	4.2	4.4	5.7	4.9	2.7	77	112	8.7	4.4	2.8	.30	1.3
24	4.2	4.4	5.5	5.0	2.7	55	9.5	8.2	4.4	2.8	.29	1.3
25	4.3	4.6	5.3	5.0	2.9	44	9.2	7.9	4.1	3.0	.29	1.3
26	4.4	4.6	5.3	5.0	2.7	38	8.5	7.5	4.0	3.1	.29	1.3
27	4.4	4.7	5.3	5.7	2.7	24	7.1	7.2	4.0	3.1	.29	1.3
28	4.3	4.7	5.3	14	2.8	2.5	6.0	6.8	3.9	3.1	.28	1.3
29	4.2	4.7	5.3	24	---	2.5	7.1	6.5	3.5	3.1	.30	1.3
30	4.2	4.7	5.3	32	---	2.5	11	6.2	2.8	3.1	.30	1.3
31	4.2	---	5.3	26	---	2.5	---	6.1	---	3.1	.31	---
TOTAL	141.2	130.9	184.3	225.5	185.2	1898.7	393.8	218.1	154.3	88.1	58.80	28.20
MEAN	4.55	4.36	5.95	7.27	6.61	61.2	13.1	7.04	5.14	2.84	1.90	.94
MAX	5.0	4.7	7.3	32	22	237	179	13	7.1	3.1	3.3	1.4
MIN	4.2	4.2	4.7	4.4	2.7	2.3	2.0	2.6	2.8	2.6	.28	.27
AC-FT	280	260	366	447	367	3770	781	433	306	175	117	56
CAL YR 1980 TOTAL	26561.83			MEAN 72.6	MAX 2560	MIN .36	AC-FT 52690					
WTR YR 1981 TOTAL	3707.10			MEAN 10.2	MAX 247	MIN .27	AC-FT 7350					



VENTURA RIVER BASIN

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11115500 MATILIJA CREEK AT MATILIJA HOT SPRINGS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.  
CHEMICAL ANALYSES: Water years 1972 to current year.

COOPERATION.--Chemical-quality records were furnished by California Department of Water Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM FLOW, INST-CFS	SPECIFIC COND MICROMHO	PH FIELD (UNITS)	TEMP WATER (DEG C)	TURB- IDITY (NTU)	OXYGEN DISS (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM CA,DISS (MG/L)	MGNISIUM MG,DISS (MG/L)	SODIUM NA,DISS (MG/L)
80/11/21	11 35	4.4	770	8.1	13.0	0.0	10.9	380	110	27	50
81/01/22	10 15	4.7	830	8.3	13.5	0.0	11.0	390	110	28	48
81/04/21	11 25	2.3	700	8.4	20.0	0.0	9.8	350	97	26	40
81/05/19	10 40	1.2	770	8.2	19.5		9.4				
81/07/28	08 55	3.1	760	8.2	25.5	0.0	9.1	360	95	30	46

DATE	TIME	PTISSIUM K,DISS (MG/L)	ALKA- LINITY (MG/L)	SULFATE SO4-DISS (MG/L)	CHLORIDE CL DISS (MG/L)	FLUORIDE F,DISS (MG/L)	ROE DISS 180 C (MG/L)	BORON B,DISS (UG/L)
80/11/21	11 35	3.0	210	230	31	0.9	539	800
81/01/22	10 15	2.8	200	240	32	0.7	697	900
81/04/21	11 25	2.4	170	240	13	0.8	553	400
81/05/19	10 40							
81/07/28	08 55	2.7	170	250	25	0.8	617	600

DATE	TIME	ARSENIC AS,DISS (UG/L)	CADMIUM CD,DISS (UG/L)	COPPER CU,DISS (UG/L)	IRON FF,DISS (UG/L)	LEAD PB,DISS (UG/L)	MERCURY HG,TOTAL (UG/L)	ZINC ZN,DISS (UG/L)
81/05/19	10 40	0	0	0	20	0	0.0	10

## VENTURA RIVER BASIN

11116000 NORTH FORK MATILIJIA CREEK AT MATILIJIA HOT SPRINGS, CA

LOCATION.--Lat 34°29'33", long 119°18'20", in NE¼NW¼NE¼ sec.29, T.5 N., R.23 W., Ventura County, Hydrologic Unit 18070101, on right bank at bridge on State Highway 33, 0.7 mi (1.1 km) north of Matilija Hot Springs, and 0.8 mi (1.3 km) upstream from mouth.

DRAINAGE AREA.--15.6 mi<sup>2</sup> (40.4 km<sup>2</sup>).

PERIOD OF RECORD.--October 1928 to September 1932, October 1933 to current year. Prior to October 1953, published as "at Matilija."

GAGE.--Water-stage recorder. Concrete control since September 1966. Datum of gage is 1,141.62 ft (347.966 m) National Geodetic Vertical Datum of 1929 (levels by Ventura County Flood Control District). Prior to Nov. 12, 1948, at site 0.3 mi (0.5 km) downstream at different datum.

REMARKS.--Records good. No regulation or diversion above station.

COOPERATION.--Records were furnished by Ventura County Flood Control District and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--52 years, 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).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,440 ft<sup>3</sup>/s (267 m<sup>3</sup>/s) Feb. 24, 1969, gage height, 11.0 ft (3.35 m), from floodmark, from rating curve extended above 1,700 ft<sup>3</sup>/s (48.1 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 10.0 ft (3.05 m); minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) for several days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 322 ft<sup>3</sup>/s (9.12 m<sup>3</sup>/s) Mar. 1, gage height, 3.77 ft (1.149 m), no peak above base of 400 ft<sup>3</sup>/s (11.3 m<sup>3</sup>/s); minimum daily, 0.68 ft<sup>3</sup>/s (0.019 m<sup>3</sup>/s) for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.0	2.2	2.5	5.2	120	6.4	3.8	2.2	1.1	.90	.75
2	1.8	2.0	2.5	2.5	4.4	67	6.4	3.8	2.2	1.1	.82	.75
3	1.6	2.0	3.0	2.5	4.1	23	6.0	3.8	2.0	1.1	.82	.75
4	1.6	2.0	8.4	2.5	4.1	15	6.0	3.8	1.8	1.1	.75	.75
5	1.8	2.0	5.6	2.5	3.8	63	5.6	3.8	1.5	.98	.75	.75
6	1.8	2.0	3.8	2.5	3.5	27	5.6	3.8	1.5	1.1	.75	.75
7	1.8	2.0	3.5	2.5	3.5	17	5.6	3.2	1.5	1.1	.75	.75
8	1.8	2.2	3.2	2.5	5.2	14	5.6	3.0	1.5	1.1	.75	.75
9	1.8	2.2	3.0	2.7	7.6	11	5.6	3.0	1.5	.98	.68	.75
10	2.0	2.2	2.7	2.7	6.0	10	5.6	3.0	1.4	.98	.68	.75
11	2.0	2.2	2.7	2.7	5.2	8.6	5.6	3.0	1.4	.98	.75	.75
12	2.0	2.2	2.7	2.7	4.8	8.2	5.6	3.0	1.4	.90	.82	.75
13	2.0	2.2	2.7	2.7	4.4	7.7	5.2	3.0	1.4	.98	.90	.75
14	2.0	2.2	2.7	2.7	4.1	7.2	5.2	3.2	1.4	.90	.90	.75
15	2.0	2.2	2.7	2.7	4.1	6.8	5.2	3.2	1.3	.90	.82	.75
16	2.0	2.2	2.7	2.7	3.8	6.4	5.2	3.0	1.3	.90	.82	.75
17	2.0	2.2	2.7	2.7	3.5	6.4	4.8	3.2	1.2	.90	.75	.75
18	2.0	2.2	2.7	2.7	3.5	6.4	6.4	2.5	1.2	.82	.75	.75
19	2.0	2.2	2.7	2.7	3.5	24	6.8	2.5	1.2	.82	.75	.68
20	2.0	2.2	2.7	2.7	3.2	18	5.6	2.5	1.2	.82	.75	.68
21	2.0	2.2	2.7	2.7	3.2	12	4.8	2.3	1.3	.82	.75	.75
22	2.0	2.2	2.7	2.7	3.0	10	4.4	2.3	1.3	.82	.75	.75
23	2.0	2.2	2.7	3.5	3.0	8.6	4.4	2.3	1.3	.82	.68	.75
24	2.0	2.2	2.7	3.0	2.7	8.6	4.4	2.3	1.3	.90	.75	.82
25	2.0	2.2	2.7	3.0	3.5	8.2	4.4	2.3	1.3	.90	.68	.90
26	2.0	2.2	2.5	3.0	4.4	7.7	4.4	2.5	1.3	.90	.68	.90
27	2.0	2.2	2.5	5.2	3.5	7.2	4.1	2.7	1.2	.90	.68	.90
28	2.0	2.2	2.5	15	5.4	7.2	4.1	2.7	1.2	.90	.68	.90
29	2.0	2.2	2.5	23	---	6.8	3.8	2.5	1.2	.90	.68	.90
30	2.0	2.2	2.5	9.0	---	6.8	3.8	2.5	1.1	.90	.68	.98
31	2.0	---	2.5	6.0	---	6.8	---	2.5	---	.90	.75	---
TOTAL	59.8	64.6	93.4	128.5	116.2	556.6	156.6	91.0	42.6	29.22	23.42	23.41
MEAN	1.93	2.15	3.01	4.15	4.15	18.0	5.22	2.94	1.42	.94	.76	.78
MAX	2.0	2.2	8.4	23	7.6	120	6.8	3.8	2.2	1.1	.90	.98
MIN	1.6	2.0	2.2	2.5	2.7	6.4	3.8	2.3	1.1	.82	.68	.68
AC-FT	119	128	185	255	230	1100	311	180	84	58	46	46
CAL YR 1980 TOTAL	8631.90			23.6		1090	1.6		17120			
WTR YR 1981 TOTAL	1385.35			3.80		120	.68		2750			

## 11116550 VENTURA RIVER NEAR MEINERS OAKS, CA

LOCATION.--Lat 34°27'49", long 119°17'22", in NE&NW&NE& sec.4, T.4 N., R.23 W., Ventura County, Hydrologic Unit 18070101, on right bank 500 ft (150 m) downstream from Robles diversion dam, and 1.2 mi (1.9 km) northwest of Meiners Oaks. Prior to Sept. 30, 1978, at site 500 ft (150 m) upstream.

DRAINAGE AREA.--76.4 mi<sup>2</sup> (197.9 km<sup>2</sup>).

PERIOD OF RECORD.--May 1959 to September 1978, December 1980 to September 1981.

GAGE.--Water-stage recorder and concrete control since Dec. 1980. Datum of gage is 745.85 ft (227.335 m) Bureau of Reclamation datum. Prior to Oct. 30, 1969, at datum 1.25 ft (0.381 m) lower. Oct. 30, 1969 to Sept. 30, 1978, at site 500 ft (150 m) upstream at datum 4.15 ft (1.265 m) higher.

REMARKS.--Records good. Flow regulated by Matilija Reservoir, capacity 1,690 acre-ft (2.08 hm<sup>3</sup>). Flow up to 500 ft<sup>3</sup>/s (14.2 m<sup>3</sup>/s) diverted since May 1959 at Robles diversion dam to Lake Casitas on Coyote Creek. Flow reported herein in that released downstream from Robles diversion dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft<sup>3</sup>/s (790 m<sup>3</sup>/s), estimated, Jan. 25, 1969, gage height unknown; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 96 ft<sup>3</sup>/s (2.72 m<sup>3</sup>/s), Apr. 23, gage height, 3.74 ft (1.140 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	3.8	22	5.7	1.6	9.7	5.2			
2			---	3.8	21	5.7	1.8	9.8	5.0			
3			---	3.8	20	2.0	1.6	8.4	4.7			
4			---	3.2	17	2.7	1.4	7.0	4.5			
5			---	3.2	13	4.0	1.3	6.5	4.3			
6			---	3.2	14	4.6	1.5	5.3	4.2			
7			---	3.2	13	3.1	1.8	9.95	4.1			
8			---	3.0	15	3.3	1.9	2.9	4.1			
9			---	2.8	12	4.6	1.6	4.6	4.1			
10			---	2.8	10	3.1	1.7	3.5	4.2			
11			---	2.8	8.3	1.5	1.7	5.8	4.0			
12			---	2.8	6.1	2.5	2.0	6.1	3.8			
13			---	4.1	4.4	2.5	2.4	3.7	3.4			
14			---	4.9	4.4	1.4	3.5	6.3	2.7			
15			---	3.4	3.9	8.88	3.2	6.8	1.6			
16			---	2.1	3.5	1.7	1.4	6.5	1.6			
17			3.3	2.2	2.9	1.8	1.7	5.9	1.5			
18			4.0	2.3	3.3	1.7	2.5	11	1.5			
19			4.1	2.3	5.3	2.0	2.5	14	1.5			
20			3.7	2.3	5.1	2.0	2.2	8.0	1.7			
21			3.4	2.3	3.7	1.6	2.1	3.0	1.7			
22			3.9	2.3	3.1	1.6	11	11	1.5			
23			3.8	2.7	3.0	2.1	24	11	1.3			
24			3.7	3.2	2.4	2.4	12	10	1.2			
25			3.9	3.0	3.3	2.4	11	9.0	1.1			
26			3.8	2.8	4.2	2.2	9.9	8.3	8.3			
27			4.4	5.0	3.0	2.0	8.5	7.7	3.9			
28			4.2	21	3.4	2.1	5.7	7.1	5.8			
29			4.1	21	---	2.0	5.6	6.6	3.0			
30			4.1	20	---	1.9	10	8.1	0			
31			3.9	23	---	1.4	---	5.6	---			---
TOTAL			---	168.3	230.3	78.38	139.1	218.15	76.60	0	0	0
MEAN			---	5.43	8.23	2.53	4.64	7.04	2.55	0	0	0
MAX			---	23	22	5.7	24	14	5.2	0	0	0
MIN			---	2.1	2.4	8.88	1.3	9.5	0	0	0	0
AC-FT			---	334	457	155	276	433	152	0	0	0

## VENTURA RIVER BASIN

11117500 SAN ANTONIO CREEK AT CASITAS SPRINGS, CA

LOCATION.--Lat 34°22'49", long 119°18'13", in Santa Ana Grant, Ventura County, Hydrologic Unit 18070101, on left bank at downstream side of bridge on State Highway 33, 0.2 mi (0.3 km) upstream from mouth, and 0.9 mi (1.4 km) north of Casitas Springs.

DRAINAGE AREA.--51.2 mi<sup>2</sup> (132.6 km<sup>2</sup>).

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 306.72 ft (93.488 m) National Geodetic Vertical Datum of 1929 (levels by Ventura County Flood Control District). Prior to Jan. 30, 1962, at datum 0.83 ft (0.253 m) higher.

REMARKS.--Records good. No regulation above station; pumping from wells 100 ft (30 m) upstream for irrigation during summer months.

COOPERATION.--Records were furnished by Ventura County Flood Control District and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--32 years, 13.5 ft<sup>3</sup>/s (0.382 m<sup>3</sup>/s), 9,780 acre-ft/yr (12.1 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft<sup>3</sup>/s (459 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 14.30 ft (4.359 m), from inside gage, from rating curve extended above 2,000 ft<sup>3</sup>/s (56.6 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 310 ft<sup>3</sup>/s (8.78 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 10.65 ft (3.246 m):

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. 28	0045	481 13.6	5.54 1.689	Mar. 5	0230	577 16.3	5.64 1.719
Mar. 1	1300	*828 23.4	6.05 1.844				

Minimum daily discharge, 0.53 ft<sup>3</sup>/s (0.015 m<sup>3</sup>/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	3.9	3.6	3.0	6.5	216	6.5	6.1	3.9	2.3	1.5	.76
2	3.9	3.6	3.3	3.0	5.7	188	6.5	5.7	4.2	2.3	1.5	.76
3	4.2	3.6	3.3	3.0	5.7	35	6.5	6.1	4.6	2.3	1.3	.76
4	4.2	3.3	22	3.0	5.0	36	6.1	5.7	3.9	2.3	1.3	.76
5	4.2	3.3	6.1	3.0	5.0	189	6.1	5.7	3.9	2.3	1.2	.89
6	4.2	3.3	5.0	3.0	4.6	27	6.1	5.3	4.2	2.3	1.2	1.0
7	3.9	3.3	4.6	3.0	4.6	16	6.5	5.7	5.0	2.3	1.0	1.0
8	3.6	3.0	4.2	3.0	8.9	12	6.9	6.1	4.2	2.3	1.0	.89
9	3.6	3.0	4.2	3.0	25	11	6.9	6.1	3.9	2.3	1.0	.89
10	3.6	3.0	4.2	3.0	7.8	11	6.9	6.1	3.6	2.3	1.0	1.0
11	3.6	3.0	3.9	3.0	6.5	11	6.5	6.5	3.3	2.3	1.2	1.2
12	3.9	3.0	3.3	3.0	5.7	10	6.5	7.3	3.3	2.1	1.2	1.0
13	3.6	3.0	3.3	3.0	5.3	9.3	6.1	7.8	3.0	2.1	1.2	1.0
14	3.9	3.0	3.0	3.0	5.0	8.8	6.1	6.9	2.8	2.1	1.2	1.2
15	3.9	3.0	3.0	3.0	5.0	8.3	6.1	7.8	2.8	1.9	1.2	1.2
16	4.2	3.0	2.8	3.0	5.0	8.3	6.1	6.9	3.0	1.9	1.2	1.2
17	4.2	3.0	2.8	3.0	4.6	7.3	6.1	6.1	3.0	1.7	1.2	1.2
18	3.6	3.0	2.8	3.0	4.2	7.3	6.5	5.3	3.6	1.7	1.0	1.2
19	3.3	3.0	3.0	2.8	4.2	34	8.8	4.6	3.9	1.7	1.0	1.0
20	3.0	3.0	3.0	2.8	4.2	15	8.3	4.6	3.9	1.7	.89	1.0
21	3.3	3.0	3.0	2.8	4.2	11	6.5	4.2	3.0	1.9	.89	1.0
22	3.6	3.0	3.0	2.8	4.2	10	6.1	4.6	2.6	2.1	.76	1.0
23	3.3	3.0	3.0	6.0	4.2	9.3	5.7	4.6	2.3	2.3	.89	1.2
24	3.6	3.0	3.3	4.6	4.2	8.3	6.1	4.6	2.3	2.3	.76	1.2
25	3.6	3.0	3.3	4.2	7.1	7.8	6.1	5.0	2.3	2.3	.76	1.2
26	3.9	3.3	3.3	4.2	8.6	7.3	6.1	5.0	2.6	2.1	.76	1.2
27	3.9	3.3	3.3	6.7	5.0	7.3	6.1	5.0	2.6	2.1	.64	1.2
28	3.9	3.6	3.3	63	6.3	7.3	6.1	4.6	2.6	2.1	.64	1.2
29	3.9	3.6	3.3	46	---	7.3	5.7	4.2	2.6	1.9	.53	1.2
30	4.2	3.3	3.0	12	---	7.3	5.7	3.9	2.6	1.9	.64	1.2
31	4.2	---	3.0	7.3	---	6.9	---	3.6	---	1.7	.64	---
TOTAL	117.9	95.4	126.2	219.2	172.3	950.1	192.3	171.7	99.5	64.9	31.20	31.51
MEAN	3.80	3.18	4.07	7.07	6.15	30.6	6.41	5.54	3.32	2.09	1.01	1.05
MAX	4.2	3.9	22	63	25	216	8.8	7.8	5.0	2.3	1.5	1.2
MIN	3.0	3.0	2.8	2.8	4.2	6.9	5.7	3.6	2.3	1.7	.53	.76
AC-FT	234	189	250	435	342	1880	381	341	197	129	62	63

CAL YR 1980	TOTAL	13666.80	MEAN	37.3	MAX	1890	MIN	2.8	AC-FT	27110
WTR YR 1981	TOTAL	2272.21	MEAN	6.23	MAX	216	MIN	.53	AC-FT	4510

VENTURA RIVER BASIN

297

11117600 COYOTE CREEK NEAR OAK VIEW, CA

LOCATION (REVISED).--Lat 34°25'00", long 119°22'11", in Santa Ana Grant, Ventura County, Hydrologic Unit 18070101, on left bank at Los Padres National Forest boundary, 0.8 mi (1.3 km) upstream from Poplin Creek, and 4.2 mi (6.8 km) northwest of Oak View.

DRAINAGE AREA.--13.2 mi<sup>2</sup> (34.2 km<sup>2</sup>).

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 577.37 ft (175.982 m) Bureau of Reclamation datum. Prior to Oct. 1, 1980, at site 1,000 ft (305 m) downstream at datum 16.90 ft (5.151 m) lower.

REMARKS.--Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--23 years, 8.24 ft<sup>3</sup>/s (0.233 m<sup>3</sup>/s), 5,970 acre-ft/yr (7.36 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft<sup>3</sup>/s (227 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 12.00 ft (3.658 m) site and datum then in use, from floodmarks, from rating curve extended above 2,100 ft<sup>3</sup>/s (59.5 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 9.10 ft (2.774 m) and 12.00 ft (3.658 m); maximum gage height, 13.72 ft (4.182 m) site and datum then in use, Feb. 16, 1980, from backwater from Casitas Reservoir; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 82 ft<sup>3</sup>/s (2.32 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Mar. 1	1115	*386 10.9	4.17 1.271
Mar. 5	0400	347 9.83	4.06 1.237

Minimum daily discharge, 0.21 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	.46	.62	.81	2.4	115	3.8	1.3	1.3	.46	.34	.24
2	.62	.46	.62	.81	1.9	43	3.7	1.3	1.3	.46	.34	.24
3	.62	.46	.66	.81	1.4	12	3.1	1.3	1.3	.46	.34	.24
4	.62	.46	2.1	.81	1.3	8.9	3.0	1.3	1.3	.46	.34	.24
5	.62	.46	.86	.81	1.3	140	2.6	1.3	1.3	.46	.34	.24
6	.62	.46	.81	.81	1.2	18	2.6	1.3	1.2	.46	.34	.24
7	.62	.46	.81	.81	1.0	11	2.6	1.3	1.2	.46	.33	.24
8	.62	.46	.81	.81	1.3	8.6	2.6	1.3	1.0	.46	.24	.24
9	.62	.46	.81	.81	7.1	7.1	2.6	1.3	1.0	.34	.24	.24
10	.62	.46	.81	.81	3.2	6.3	2.5	1.3	.96	.34	.24	.24
11	.62	.46	.81	.81	2.2	5.5	2.6	1.3	.94	.34	.24	.24
12	.62	.46	.81	.81	2.0	4.6	2.3	1.3	.81	.34	.24	.24
13	.62	.46	.81	.81	1.7	4.5	2.1	1.3	.76	.34	.24	.24
14	.62	.46	.81	.81	1.7	4.0	2.1	1.3	.74	.34	.24	.24
15	.62	.46	.81	.81	1.4	3.7	2.1	1.3	.72	.34	.24	.24
16	.52	.46	.81	.81	1.3	3.1	2.1	1.3	.71	.34	.24	.24
17	.46	.46	.81	.81	1.3	3.1	2.1	1.3	.67	.34	.24	.24
18	.46	.46	.81	1.0	1.3	3.1	4.1	1.3	.56	.34	.24	.24
19	.46	.52	.81	1.0	1.3	8.1	5.4	1.3	.54	.34	.24	.24
20	.46	.62	.81	1.0	1.3	9.2	6.2	1.3	.52	.34	.24	.24
21	.46	.62	.81	1.0	1.3	6.8	3.1	1.3	.50	.34	.24	.24
22	.46	.62	.81	1.0	1.3	8.6	2.1	1.3	.46	.34	.24	.24
23	.46	.62	.81	1.3	1.3	9.3	1.3	1.3	.46	.34	.24	.24
24	.46	.62	.81	1.0	1.3	7.4	1.3	1.3	.46	.34	.24	.24
25	.46	.62	.81	1.0	1.5	6.0	1.7	1.3	.46	.34	.24	.24
26	.46	.62	.81	1.0	1.7	5.4	1.7	1.3	.46	.34	.23	.24
27	.46	.62	.81	1.8	1.7	5.3	1.7	1.3	.46	.34	.21	.24
28	.46	.62	.81	7.2	3.3	4.5	1.3	1.3	.46	.34	.22	.24
29	.46	.62	.81	27	---	4.5	1.3	1.3	.46	.34	.24	.24
30	.46	.62	.81	6.8	---	3.8	1.2	1.3	.46	.34	.24	.24
31	.46	---	.81	3.6	---	3.8	---	1.3	---	.34	.24	---
TOTAL	16.72	15.62	25.92	69.47	51.0	484.2	76.9	40.3	23.47	11.50	8.07	7.20
MEAN	.54	.52	.84	2.24	1.82	15.6	2.56	1.30	.78	.37	.26	.24
MAX	.62	.62	2.1	.27	7.1	14.0	6.2	1.3	1.3	.46	.34	.24
MIN	.46	.46	.62	.81	1.0	3.1	1.2	1.3	.46	.34	.21	.24
AC-FT	33	31	51	138	101	960	153	80	47	23	16	14

CAL YR 1980	TOTAL	8539.32	MEAN	23.3	MAX	1900	MIN	.46	AC-FT	16940
WTR YR 1981	TOTAL	830.37	MEAN	2.24	MAX	140	MIN	.21	AC-FT	1650

## VENTURA RIVER BASIN

11117800 SANTA ANA CREEK NEAR OAK VIEW, CA

LOCATION.--Lat 34°25'25", long 119°20'25", in Santa Ana Grant, Ventura County, Hydrologic Unit 18070101, on upstream end of right abutment of bridge on Santa Ana Road, 400 ft (120 m) upstream from unnamed tributary, and 3.0 mi (4.8 km) northwest of Oak View.

DRAINAGE AREA.--9.11 mi<sup>2</sup> (23.6 km<sup>2</sup>).

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 612.43 ft (186.669 m) Bureau of Reclamation datum. Prior to Aug. 17, 1970, on downstream end of right abutment at same datum.

REMARKS.--Records good. Low flow slightly regulated by one small reservoir upstream. Some small diversions above station.

AVERAGE DISCHARGE.--23 years, 5.96 ft<sup>3</sup>/s (0.169 m<sup>3</sup>/s), 4,320 acre-ft/yr (5.33 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,330 ft<sup>3</sup>/s (151 m<sup>3</sup>/s) Mar. 4, 1978, gage height, 10.01 ft (3.051 m), from rating curve extended above 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 8.57 ft (2.612 m), maximum gage height, 10.70 ft (3.261 m) Jan. 25, 1969; no flow at times in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, reached a discharge of 3,780 ft<sup>3</sup>/s (107 m<sup>3</sup>/s), by slope-area measurement at site 2.0 mi (3.2 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 219 ft<sup>3</sup>/s (6.20 m<sup>3</sup>/s) Mar. 1 (1215 hrs), gage height, 5.37 ft (1.637 m), no other peak above base of 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s); minimum, no flow July 13 to Aug. 2, Aug. 4 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.02	.01	.35	2.3	62	3.5	1.4	.16	.05	0	
2	.04	.01	.02	.21	2.1	38	3.1	1.3	.15	.06	0	
3	.04	.01	.03	.17	1.8	14	3.2	1.5	.14	.04	.01	
4	.04	.01	.53	.15	1.6	8.7	3.0	1.4	.13	.03	0	
5	.04	.01	.13	.14	1.5	69	2.7	1.0	.12	.03	0	
6	.04	.01	.14	.13	1.2	19	2.3	1.3	.11	.02	0	
7	.04	.01	.13	.12	1.1	11	2.0	.74	.11	.02	0	
8	.04	.01	.12	.12	2.0	8.2	2.2	1.0	.10	.02	0	
9	.04	.01	.21	.11	6.5	6.3	1.8	.95	.11	.02	0	
10	.04	.01	.26	.10	2.9	5.2	2.2	.59	.11	.01	0	
11	.03	.01	.27	.11	1.5	4.4	2.2	.56	.11	.01	0	
12	.03	.01	.17	.12	1.2	3.9	2.1	.94	.10	.01	0	
13	.04	.01	.15	.11	1.9	3.6	1.9	1.1	.08	0	0	
14	.04	.01	.14	.11	1.5	3.3	1.3	1.0	.08	0	0	
15	.03	.01	.13	.17	.95	2.6	1.8	1.0	.08	0	0	
16	.04	.01	.22	.24	1.4	1.9	1.6	.43	.10	0	0	
17	.04	.01	.26	.27	1.3	2.1	1.1	.69	.09	0	0	
18	.04	.01	.30	.29	1.3	2.3	2.0	.43	.08	0	0	
19	.04	.01	.21	.32	.79	8.8	2.5	.69	.08	0	0	
20	.04	.01	.29	.34	1.1	7.5	2.2	.72	.09	0	0	
21	.03	.01	.33	.36	.95	5.5	1.9	.73	.08	0	0	
22	.03	.01	.33	.37	.60	7.0	1.8	.71	.07	0	0	
23	.03	.01	.30	.58	.55	6.8	1.0	.70	.07	0	0	
24	.03	.01	.17	.27	.75	5.6	1.8	.29	.06	0	0	
25	.03	.01	.16	.20	.98	5.2	1.9	.26	.06	0	0	
26	.04	.01	.28	.18	1.3	4.9	1.8	.24	.05	0	0	
27	.03	.01	.31	.88	.94	4.7	1.7	.22	.06	0	0	
28	.02	.01	.31	6.5	1.7	4.4	.97	.20	.06	0	0	
29	.02	.01	.30	21	---	4.2	1.3	.19	.05	0	0	
30	.02	.01	.30	5.1	---	3.6	1.3	.18	.05	0	0	
31	.02	---	.35	3.0	---	3.0	---	.17	---	0	0	---
TOTAL	1.07	.31	6.86	42.12	43.71	336.7	60.17	22.63	2.74	.32	.01	0
MEAN	.035	.010	.22	1.36	1.56	10.9	2.01	.73	.091	.010	.0003	0
MAX	.04	.02	.53	21	6.5	69	3.5	1.5	.16	.06	.01	0
MIN	.02	.01	.01	.10	.55	1.9	.97	.17	.05	0	0	0
AC-FT	2.1	.6	14	84	87	668	119	45	5.4	.6	.02	0
CAL YR 1980	TOTAL	4626.69	MEAN	12.6	MAX	1010	MIN	.01	AC-FT	9180		
WTR YR 1981	TOTAL	516.64	MEAN	1.42	MAX	69	MIN	0	AC-FT	1020		

## 11117900 LAKE CASITAS NEAR CASITAS SPRINGS, CA

LOCATION.--Lat 34°22'24", long 119°19'56", in Santa Ana Grant, Ventura County, Hydrologic Unit 18070101, on left end of dam on Coyote Creek, 1.5 mi (2.4 km) west of Casitas Springs.

DRAINAGE AREA.--38.6 mi<sup>2</sup> (100.0 km<sup>2</sup>).

PERIOD OF RECORD.--December 1978 to current year. Daily readings prior to December 1978 in files of Casitas Municipal Water District.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill dam. Storage began January 1959. Capacity table is dated December 1958. Usable capacity, 250,835 acre-ft (309 hm<sup>3</sup>) between bottom of lowest outlet gate at elevation 350.00 ft (106.680 m) and crest of spillway at elevation 567.00 ft (172.822 m). Dead storage, 3,167 acre-ft (3.90 hm<sup>3</sup>) included in contents. Flow from Ventura River is diverted at Robles Diversion Dam through concrete canal to Lake Casitas and is included in these records.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 260,100 acre-ft (321 hm<sup>3</sup>) Feb. 21, 1980, elevation 569.24 ft (173.504 m); minimum, 222,300 acre-ft (274 hm<sup>3</sup>) Sept. 30, 1981, elevation 554.87 ft (169.124 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 240,200 acre-ft (296 hm<sup>3</sup>) Mar. 29, elevation 561.85 ft (171.252 m); minimum, 222,300 acre-ft (274 hm<sup>3</sup>) Sept. 30, elevation 554.87 ft (169.124 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	561.67	239,800	--
Oct. 31.....	560.58	236,900	-2,900
Nov. 30.....	559.62	234,400	-2,500
Dec. 31.....	559.18	233,300	-1,100
CAL YR 1980.....	--	--	-4,100
Jan. 31.....	559.00	232,800	-500
Feb. 28.....	558.87	232,500	-300
Mar. 31.....	561.83	240,200	+7,700
Apr. 30.....	561.56	239,500	-700
May 31.....	560.64	237,100	-2,400
June 30.....	559.31	233,600	-3,500
July 31.....	557.73	229,600	-4,000
Aug. 31.....	556.26	225,800	-3,800
Sept. 30.....	554.87	222,300	-3,500
WTR YR 1981.....	--	--	-17,500

VENTURA RIVER BASIN

11118000 COYOTE CREEK NEAR VENTURA, CA

LOCATION.--Lat 34°21'26", long 119°18'46", near southeast corner of Santa Ana Grant, Ventura County, Hydrologic Unit 18070101, on right bank 200 ft (60 m) downstream from bridge on Santa Ana Road, 0.3 mi (0.5 km) upstream from mouth, 1.6 mi (2.6 km) downstream from Casitas Reservoir, and 5.5 mi (8.8 km) northwest of Ventura.

DRAINAGE AREA. -- 41.2 mi<sup>2</sup> (106.7 km<sup>2</sup>).

PERIOD OF RECORD.--October 1927 to September 1932, October 1933 to September 1958, October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 224.95 ft (68.565 m) Ventura County Flood Control District datum.  
See WSP 1735 for history of changes prior to Oct. 1, 1969.

REMARKS.--Records poor. Flow mostly regulated by Casitas Reservoir since October 1959, capacity, 267,000 acre-ft (329 hm<sup>3</sup>).

AVERAGE DISCHARGE.--30 years (water years 1928-32, 1934-58), 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, 11,500 ft<sup>3</sup>/s (326 m<sup>3</sup>/s) Mar. 2, 1938, on basis of slope-area measurement of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46 ft<sup>3</sup>/s (1.30 m<sup>3</sup>/s) Mar. 5, gage height, 4.55 ft (1.387 m) from rating curve extended above 3.5 ft<sup>3</sup>/s (0.099 m<sup>3</sup>/s); minimum daily, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) Oct. 23 to Nov. 8.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.01	.05	.10	.17	3.5	.39	.23	.16	.06	.04	.03
2	.07	.01	.05	.10	.17	7.6	.38	.23	.16	.06	.04	.03
3	.07	.01	.06	.10	.17	.81	.37	.22	.15	.06	.04	.03
4	.07	.01	.33	.10	.17	1.2	.36	.22	.14	.06	.04	.03
5	.07	.01	.14	.10	.17	9.5	.34	.22	.14	.06	.04	.03
6	.07	.01	.11	.10	.17	.77	.35	.22	.13	.06	.03	.03
7	.07	.01	.09	.10	.17	.69	.35	.22	.13	.06	.03	.03
8	.07	.01	.09	.10	.29	.68	.33	.21	.12	.06	.03	.03
9	.06	.02	.09	.10	.55	.66	.35	.20	.12	.06	.03	.03
10	.06	.02	.09	.11	.41	.62	.34	.20	.11	.06	.03	.03
11	.06	.02	.09	.11	.38	.61	.33	.19	.11	.06	.03	.03
12	.06	.02	.09	.11	.36	.59	.31	.19	.09	.06	.03	.03
13	.05	.02	.09	.11	.34	.57	.30	.19	.09	.06	.03	.03
14	.05	.02	.09	.11	.34	.61	.28	.19	.09	.06	.03	.03
15	.05	.02	.09	.11	.33	.60	.31	.19	.08	.06	.03	.03
16	.05	.02	.09	.11	.33	.58	.29	.19	.08	.06	.03	.03
17	.05	.02	.09	.12	.32	.56	.29	.19	.08	.06	.03	.03
18	.04	.02	.10	.12	.31	.56	.29	.19	.07	.05	.03	.03
19	.04	.02	.10	.12	.31	1.1	.30	.19	.04	.05	.03	.03
20	.04	.03	.10	.12	.31	.58	.30	.18	.04	.05	.03	.03
21	.04	.03	.10	.12	.31	.54	.28	.17	.05	.05	.03	.03
22	.03	.03	.10	.11	.29	.52	.28	.17	.05	.05	.03	.03
23	.01	.04	.10	.16	.29	.50	.29	.17	.05	.05	.03	.03
24	.01	.04	.10	.13	.29	.46	.29	.17	.05	.04	.03	.03
25	.01	.04	.10	.13	.35	.45	.29	.17	.05	.05	.03	.03
26	.01	.04	.10	.13	.34	.44	.29	.17	.04	.04	.03	.03
27	.01	.04	.10	.58	.33	.44	.27	.17	.04	.04	.03	.03
28	.01	.04	.10	.63	.37	.50	.26	.17	.04	.04	.03	.03
29	.01	.04	.10	.41	---	.45	.25	.17	.05	.04	.03	.03
30	.01	.04	.10	.23	---	.43	.24	.17	.05	.04	.03	.03
31	.01	---	.10	.19	---	.41	---	.17	---	.04	.03	---
TOTAL	1.33	.71	3.13	4.97	8.34	37.53	9.30	5.93	2.60	1.65	.98	.90
MEAN	.043	.024	.10	.16	.30	1.21	.31	.19	.087	.053	.032	.030
MAX	.07	.04	.33	.63	.55	9.5	.39	.23	.16	.06	.04	.03
MIN	.01	.01	.05	.10	.17	.41	.24	.17	.04	.04	.03	.03
AC-FT	2.6	1.4	6.2	9.9	17	74	18	12	5.2	3.3	1.9	1.8
CAL YR 1980	TOTAL	8117.52	MEAN	22.2	MAX	612	MIN	.01	AC-FT	16100		
WTR YR 1981	TOTAL	77.37	MEAN	.21	MAX	9.5	MIN	.01	AC-FT	153		



## VENTURA RIVER BASIN

301

## 11118500 VENTURA RIVER NEAR VENTURA, CA

LOCATION.--Lat 34°21'08", long 119°18'27", in southeast corner of Santa Ana Grant, Ventura County, Hydrologic Unit 18070101, on right bank 50 ft (15 m) downstream from bridge on Casitas Pass Road at Foster Memorial Park, 0.2 mi (0.3 km) downstream from Coyote Creek, and 5 mi (8 km) north of Ventura.

DRAINAGE AREA.--188 mi<sup>2</sup> (487 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1911 to January 1914, October 1929 to current year; combined records of river and diversion, October 1932 to current year.

GAGE.--Water-stage recorder on river; water-stage recorder and Parshall flume on diversion. Datum of gage is 205.23 ft (62.554 m) Ventura County Flood Control datum. See WSP 1315-B for history of changes prior to Nov. 2, 1949. Nov. 2, 1949, to June 12, 1969, at site 450 ft (137 m) downstream at datum 4.00 ft (1.219 m) lower.

REMARKS.--Records good. Flow partly regulated since March 1948 by Matilija Reservoir, usable capacity, 1,475 acre-ft (1.82 hm<sup>3</sup>) and since October 1959 by Casitas Reservoir, capacity, 267,000 acre-ft (329 hm<sup>3</sup>). Water diverted to Casitas Reservoir on Coyote Creek since January 1959. Diversion by city of Ventura for municipal supply began prior to 1911. AVERAGE DISCHARGE (River only) represents flow to ocean regardless of upstream development. For records of combined discharge of river and Ventura City diversion, see following page.

AVERAGE DISCHARGE.--River only: 54 years (water years 1912-13, 1930-81), 59.3 ft<sup>3</sup>/s (1.679 m<sup>3</sup>/s), 42,960 acre-ft/yr (53.0 hm<sup>3</sup>/yr).

Combined river and diversion: 49 years, 68.9 ft<sup>3</sup>/s (1.951 m<sup>3</sup>/s), 49,920 acre-ft/yr (61.6 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 63,600 ft<sup>3</sup>/s (1,800 m<sup>3</sup>/s) Feb. 10, 1978, gage height, 19.14 ft (5.834 m), from rating curve extended above 34,000 ft<sup>3</sup>/s (963 m<sup>3</sup>/s); maximum gage height, 24.3 ft (7.41 m) Jan. 25, 1969, present datum, from floodmarks; no flow at times in many years. Combined river and diversion: Maximum discharge, 63,600 ft<sup>3</sup>/s (1,800 m<sup>3</sup>/s) Feb. 10, 1978; no flow Nov. 28, 29, 1977.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 1,210 ft<sup>3</sup>/s (34.3 m<sup>3</sup>/s) Mar. 1, gage height, 4.52 ft (1.378 m); minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Aug. 26-28, Sept. 22-26. Combined river and diversion: Maximum discharge, 1,220 ft<sup>3</sup>/s (34.6 m<sup>3</sup>/s) Mar. 1; minimum daily, 3.1 ft<sup>3</sup>/s (0.088 m<sup>3</sup>/s) Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	6.4	6.1	4.4	12	357	19	7.8	8.5	3.3	2.2	.22
2	5.6	7.4	4.5	5.3	12	337	18	15	5.1	4.1	5.7	.15
3	5.9	5.6	3.6	2.8	9.9	80	15	14	6.9	7.3	3.1	.15
4	6.6	5.3	25	4.7	5.4	45	15	10	6.8	9.8	1.6	.15
5	7.8	6.1	7.4	4.7	4.5	342	18	7.6	4.6	9.6	1.2	.09
6	7.2	5.8	6.4	3.1	9.3	70	13	11	7.9	6.8	1.2	.09
7	6.1	5.3	6.9	2.8	14	45	11	12	15	4.9	1.0	.75
8	6.9	8.2	4.8	2.6	17	35	11	10	6.1	8.0	.76	.63
9	6.5	6.5	4.6	3.1	38	29	11	14	4.0	7.9	1.6	.31
10	6.4	5.5	4.8	5.6	18	23	17	13	3.8	7.4	2.2	.22
11	6.1	5.9	7.4	5.4	9.1	16	21	7.2	3.7	9.6	1.0	.15
12	9.2	7.3	5.4	3.8	3.5	17	20	6.0	3.5	6.7	1.2	.15
13	7.8	4.8	5.0	2.2	7.7	20	14	9.6	7.2	6.0	1.4	.09
14	4.9	3.2	6.6	2.5	12	23	8.7	8.6	7.2	4.7	.90	.09
15	5.8	8.0	4.6	2.5	12	22	8.7	7.1	4.7	2.6	.63	.22
16	7.3	7.4	4.2	2.5	7.8	15	9.1	9.9	2.6	1.6	1.0	.22
17	7.0	5.6	3.5	2.8	4.1	10	12	12	2.8	1.6	1.9	.15
18	8.1	3.1	5.6	5.4	3.1	9.9	15	11	3.8	2.1	1.0	.15
19	8.0	3.6	7.2	4.2	3.1	67	18	7.2	3.3	4.0	.76	.09
20	6.9	4.7	5.4	2.4	4.7	45	14	6.7	3.3	3.4	.51	.09
21	4.4	5.7	5.6	2.4	7.5	26	9.9	5.8	4.7	1.7	.31	.09
22	3.8	4.9	4.6	2.5	7.8	25	11	6.8	5.1	1.7	.15	.06
23	6.5	8.2	3.4	3.3	6.6	21	12	8.9	3.5	1.6	.15	.06
24	6.6	5.7	4.9	3.4	5.1	17	10	9.8	3.3	1.2	.31	.06
25	7.8	3.9	8.5	4.9	8.0	18	12	13	3.5	1.2	.15	.06
26	8.9	3.3	5.6	4.0	11	18	15	7.8	4.1	2.0	.06	.06
27	6.2	4.2	3.1	5.4	6.4	16	12	4.0	4.1	4.0	.06	.09
28	3.6	6.7	5.1	82	7.6	16	11	12	6.1	1.7	.06	.31
29	5.5	4.3	5.0	69	---	18	8.3	5.7	7.8	1.6	.65	.76
30	3.0	5.2	2.8	23	---	17	7.2	12	5.8	1.2	1.9	.76
31	3.7	---	2.6	14	---	20	---	10	---	1.2	.76	---
TOTAL	196.7	167.8	180.2	286.7	267.2	1819.9	396.9	295.5	158.8	130.5	35.42	6.47
MEAN	6.35	5.59	5.81	9.25	9.54	58.7	13.2	9.53	5.29	4.21	1.14	.22
MAX	9.2	8.2	25	82	38	357	21	15	15	9.8	5.7	.76
MIN	3.0	3.1	2.6	2.2	3.1	9.9	7.2	4.0	2.6	1.2	.06	.06
AC-FT	390	333	357	569	511	3610	787	586	315	259	70	13

CAL YR 1980 TOTAL 66392.20 MEAN 181 MAX 8340 MIN 1.3 AC-FT 131700  
WTR YR 1981 TOTAL 3942.09 MEAN 10.4 MAX 357 MIN .06 AC-FT 7820

## VENTURA RIVER BASIN

11118500 VENTURA RIVER NEAR VENTURA, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF VENTURA RIVER AND VENTURA CITY DIVERSION NEAR VENTURA, CA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MEAN VALUES												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	15	16	15	20	364	29	19	18	16	6.3	10
2	18	15	17	16	20	344	28	20	18	14	9.9	10
3	17	17	15	15	20	89	24	21	18	12	15	10
4	14	16	32	15	16	55	23	24	18	15	15	10
5	15	16	18	15	14	349	24	19	18	15	13	8.7
6	18	14	16	15	16	77	26	20	17	18	13	6.5
7	18	14	15	15	15	53	25	20	17	16	12	7.6
8	17	15	15	15	18	43	23	21	17	12	11	9.9
9	17	16	14	15	39	38	24	18	17	16	7.9	10
10	17	19	15	15	19	35	25	19	17	16	13	10
11	16	12	15	15	22	29	24	21	17	17	12	10
12	14	17	15	15	24	27	23	17	17	16	10	8.4
13	19	17	13	15	15	31	23	18	14	15	12	7.3
14	17	13	13	15	15	26	23	20	17	17	12	9.2
15	17	15	18	15	15	28	23	18	17	16	9.7	9.1
16	17	15	14	15	18	27	22	18	16	15	8.8	8.8
17	17	19	12	15	20	25	23	19	16	14	13	10
18	15	15	14	15	18	24	22	21	16	12	11	9.7
19	17	15	15	15	15	76	24	20	15	13	12	9.0
20	19	13	16	15	14	55	24	17	14	14	12	9.0
21	18	18	15	14	14	36	22	19	14	13	11	8.2
22	17	14	15	12	16	34	21	18	16	13	10	9.0
23	13	15	15	15	19	32	22	17	17	15	8.9	9.0
24	18	18	15	12	18	30	21	17	15	14	10	9.0
25	15	16	15	13	17	25	22	17	16	11	10	9.0
26	16	15	15	14	22	29	22	21	16	11	10	6.8
27	17	12	15	13	17	26	22	19	15	15	10	3.7
28	16	17	15	91	15	24	25	19	12	14	10	7.1
29	17	14	15	76	---	25	20	19	18	14	3.1	9.8
30	15	13	15	30	---	27	22	19	18	13	8.3	9.7
31	13	---	15	24	---	30	---	18	---	13	10	---
TOTAL	513	460	483	615	511	2113	701	593	491	445	329.9	264.5
MEAN	16.5	15.3	15.6	19.8	18.3	68.2	23.4	19.1	16.4	14.4	10.6	8.82
MAX	19	19	32	91	39	364	29	24	18	18	15	10
MIN	13	12	12	12	14	24	20	17	12	11	3.1	3.7
AC-FT	1020	912	958	1220	1010	4190	1390	1180	974	883	654	525
CAL YR 1980	TOTAL	70049.0	MEAN	191	MAX	8340	MIN	10	AC-FT	138900		
WTR YR 1981	TOTAL	7519.4	MEAN	20.6	MAX	364	MIN	3.1	AC-FT	14910		

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD. - -

REMARKS.--Surface-bed material particle sizes coarser than 16.0 mm were determined by particle count. Data is available in files of the Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD. --

EXTREMES FOR CURRENT YEAR. --

SEDIMENT DISCHARGE: Maximum daily, 1,900 tons (1,720 metric tons) Mar. 1; minimum daily, 0 tons on several days during August and September.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
(ONCE-DAILY)

[illegible]

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	6.6	9	.16	6.4	9	.16	6.1	6	.10
2	5.6	10	.15	7.4	12	.24	4.5	6	.07
3	5.9	11	.18	5.6	15	.23	3.6	6	.06
4	6.6	12	.21	5.3	18	.26	25	22	2.1
5	7.8	14	.29	6.1	22	.36	7.4	17	.33
6	7.2	15	.29	5.8	7	.11	6.4	14	.24
7	6.1	17	.28	5.3	8	.11	6.9	12	.22
8	6.9	19	.35	8.2	9	.20	4.8	11	.14
9	6.5	19	.33	6.5	9	.16	4.6	9	.11
10	6.4	19	.33	5.5	10	.15	4.8	8	.10
11	6.1	19	.31	5.9	11	.18	7.4	7	.14
12	9.2	19	.47	7.3	11	.22	5.4	7	.10
13	7.8	19	.40	4.8	11	.14	5.0	8	.11
14	4.9	18	.24	3.2	10	.09	6.6	11	.20
15	5.8	17	.27	8.0	10	.22	4.6	13	.16
16	7.3	15	.30	7.4	10	.20	4.2	16	.18
17	7.0	14	.26	5.6	10	.15	3.5	19	.18
18	8.1	13	.28	3.1	10	.08	5.6	20	.30
19	8.0	13	.28	3.6	9	.09	7.2	12	.23
20	6.9	14	.26	4.7	9	.11	5.4	9	.13
21	4.4	14	.17	5.7	9	.14	5.6	8	.12
22	3.8	15	.15	4.9	9	.12	4.6	10	.12
23	6.5	15	.26	8.2	9	.20	3.4	12	.11
24	6.6	15	.27	5.7	10	.15	4.9	16	.21
25	7.8	16	.34	3.9	19	.20	8.5	21	.48
26	8.9	16	.38	3.3	31	.28	5.6	22	.33
27	6.2	17	.28	4.2	29	.33	3.1	22	.18
28	3.6	17	.17	6.7	22	.40	5.1	23	.32
29	5.5	15	.22	4.3	15	.17	5.0	23	.31
30	3.0	13	.11	5.2	9	.13	2.8	24	.18
31	3.7	11	.11	---	---	---	2.6	24	.17
TOTAL	196.7	---	8.10	167.8	---	5.58	180.2	---	7.73
DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4.4	23	.27	12	32	1.0	357	1190	1900
2	5.3	21	.30	12	27	.87	337	702	766
3	2.8	18	.14	9.9	22	.59	80	121	31
4	4.7	15	.19	5.4	17	.25	45	89	14
5	4.7	15	.19	4.5	14	.17	342	896	1380
6	3.1	19	.16	9.3	13	.33	70	55	11
7	2.8	24	.18	14	12	.45	45	25	3.0
8	2.6	26	.18	17	17	.97	35	24	2.3
9	3.1	26	.22	38	48	6.6	29	24	1.9
10	5.6	26	.39	18	10	.49	23	24	1.5
11	5.4	26	.38	9.1	9	.22	16	25	1.1
12	3.8	26	.27	3.5	9	.09	17	25	1.1
13	2.2	26	.15	7.7	9	.19	20	24	1.3
14	2.5	26	.18	12	9	.29	23	21	1.3
15	2.5	26	.18	12	9	.29	22	19	1.1
16	2.5	26	.18	7.8	9	.19	15	17	.69
17	2.8	25	.19	4.1	17	.19	10	15	.41
18	5.4	23	.34	3.1	29	.24	9.9	15	.40
19	4.2	22	.25	3.1	39	.33	67	196	71
20	2.4	20	.13	4.7	35	.44	45	44	6.8
21	2.4	25	.16	7.5	29	.59	26	17	1.2
22	2.5	27	.18	7.8	23	.48	25	37	2.5
23	3.3	28	.25	6.6	19	.34	21	37	2.1
24	3.4	28	.26	5.1	18	.25	17	35	1.6
25	4.9	28	.37	8.0	23	.50	18	33	1.6
26	4.0	28	.30	11	26	.77	18	31	1.5
27	5.4	49	1.4	6.4	26	.45	16	22	.95
28	82	451	202	7.6	33	.71	16	6	.26
29	69	349	140	---	---	---	18	6	.29
30	23	48	3.4	---	---	---	17	7	.32
31	14	34	1.3	---	---	---	20	7	.38
TOTAL	286.7	---	354.09	267.2	---	18.28	1819.9	---	4208.60

## 11118500 VENTURA RIVER NEAR VENTURA, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	19	7	.36	7.8	15	.32	8.5	4	.09
2	18	11	.52	15	13	.53	5.1	5	.07
3	15	16	.65	14	11	.42	6.9	6	.11
4	15	20	.81	10	9	.24	6.8	6	.11
5	18	25	1.2	7.6	7	.14	4.6	6	.07
6	13	29	1.0	11	6	.18	7.9	7	.15
7	11	26	.77	12	6	.19	15	7	.28
8	11	22	.65	10	6	.16	6.1	8	.13
9	11	18	.53	14	5	.19	4.0	8	.09
10	17	15	.69	13	5	.18	3.8	18	.18
11	21	12	.68	7.2	5	.10	3.7	29	.29
12	20	17	.92	6.0	5	.08	3.5	22	.21
13	14	23	.87	9.6	5	.13	7.2	16	.31
14	8.7	29	.68	8.6	5	.12	7.2	9	.17
15	8.7	34	.80	7.1	5	.10	4.7	10	.13
16	9.1	33	.81	9.9	11	.29	2.6	11	.08
17	12	32	1.0	12	17	.55	2.8	12	.09
18	15	31	1.3	11	23	.68	3.8	13	.13
19	18	30	1.5	7.2	29	.56	3.3	15	.13
20	14	29	1.1	6.7	4	.07	3.3	12	.11
21	9.9	25	.67	5.8	4	.06	4.7	9	.11
22	11	19	.56	6.8	4	.07	5.1	6	.08
23	12	15	.49	8.9	4	.10	3.5	3	.03
24	10	11	.30	9.8	4	.11	3.3	1	.01
25	12	7	.23	13	4	.14	3.5	15	.14
26	15	9	.36	7.8	4	.08	4.1	13	.14
27	12	11	.36	4.0	4	.04	4.1	10	.11
28	11	13	.39	12	3	.10	6.1	8	.13
29	8.3	15	.34	5.7	3	.05	7.8	6	.13
30	7.2	17	.33	12	3	.10	5.8	6	.09
31	---	---	---	10	3	.08	---	---	---
TOTAL	396.9	---	20.88	295.5	---	6.16	158.8	---	3.90

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3.3	6	.05	2.2	37	.22	.22	29	.02
2	4.1	7	.08	5.7	34	.52	.15	30	.01
3	7.3	7	.14	3.1	30	.25	.15	26	.01
4	9.8	7	.19	1.6	33	.14	.15	21	.01
5	9.6	11	.29	1.2	36	.12	.09	16	0
6	6.8	15	.28	1.2	39	.13	.09	12	0
7	4.9	19	.25	1.0	42	.11	.75	8	.02
8	8.0	23	.50	.76	45	.09	.63	8	.01
9	7.9	28	.60	1.6	39	.17	.31	9	.01
10	7.4	28	.56	2.2	33	.20	.22	9	.01
11	9.6	29	.75	1.0	28	.08	.15	10	0
12	6.7	29	.52	1.2	22	.07	.15	10	0
13	6.0	30	.49	1.4	16	.06	.09	12	0
14	4.7	30	.38	.90	17	.04	.09	14	0
15	2.6	28	.20	.63	18	.03	.22	16	.01
16	1.6	26	.11	1.0	20	.05	.22	18	.01
17	1.6	24	.10	1.9	21	.11	.15	20	.01
18	2.1	22	.12	1.0	22	.06	.15	18	.01
19	4.0	20	.22	.76	24	.05	.09	16	0
20	3.4	24	.22	.51	27	.04	.09	14	0
21	1.7	28	.13	.31	30	.03	.09	12	0
22	1.7	32	.15	.15	32	.01	.06	10	0
23	1.6	37	.16	.15	35	.01	.06	13	0
24	1.2	41	.13	.31	33	.03	.06	16	0
25	1.2	42	.14	.15	31	.01	.06	20	0
26	2.0	44	.24	.06	29	0	.06	23	0
27	4.0	45	.49	.06	28	0	.09	26	.01
28	1.7	46	.21	.06	26	0	.31	23	.02
29	1.6	47	.20	.65	27	.05	.76	20	.04
30	1.2	44	.14	1.9	28	.14	.76	17	.03
31	1.2	40	.13	.75	28	.06	---	---	---
TOTAL	130.5	---	8.17	35.42	---	2.88	6.47	---	.24
YEAR	3942.09		4644.61						

## VENTURA RIVER BASIN

11118500 VENTURA RIVER NEAR VENTURA, CA--Continued

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1980	196.70	8.10	0	8
NOVEMBER ...	167.80	5.58	0	6
DECEMBER ...	180.20	7.73	0	8
JANUARY 1981	286.70	354.09	1	355
FEBRUARY ...	267.20	18.28	0	18
MARCH .....	1819.90	4208.60	59	4270
APRIL .....	396.90	20.88	0	21
MAY .....	295.50	6.16	0	6
JUNE .....	158.80	3.90	0	4
JULY .....	130.50	8.17	0	8
AUGUST .....	35.42	2.88	0	3
SEPTEMBER ..	6.47	0.24	0	0
TOTAL .....	3942.09	4644.61	60	4707

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV								
05...	1400	19.0	3.0	22	.18	--	--	--
25...	0950	12.0	3.6	18	.17	--	--	--
JAN								
28...	0700	11.0	75	687	139	71	88	95
29...	1300	12.0	138	915	341	--	79	91
MAR								
01...	0745	10.0	194	1140	597	--	75	89
01...	1200	11.0	684	1690	3120	--	58	67
02...	0745	10.0	394	686	730	55	67	78
02...	1615	16.0	204	262	144	66	79	86
05...	0710	10.0	628	1750	2970	--	55	68
05...	1005	11.0	358	813	786	50	62	80
19...	1700	14.0	180	792	385	--	58	71
JUN								
11...	1140	22.0	3.8	48	.49	--	--	--
JUL								
09...	1000	21.0	4.8	51	.66	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV							
05...	--	--	30	--	--	--	--
25...	--	--	20	--	--	--	--
JAN							
28...	98	99	99	99	100	--	--
29...	96	98	99	99	100	--	--
MAR							
01...	95	97	98	99	99	100	--
01...	83	91	94	96	98	100	--
02...	88	94	97	98	99	99	100
02...	91	98	99	100	--	--	--
05...	81	91	95	97	99	100	--
05...	87	93	96	98	99	100	--
19...	83	93	96	99	100	--	--
JUN							
11...	--	--	12	--	--	--	--
JUL							
09...	--	--	25	--	--	--	--

VENTURA RIVER BASIN

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11118500 VENTURA RIVER NEAR VENTURA, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP 30...	0930	2	.76	1	3	6	8	11	14	19	27	33

DATE	TIME	NUMBER OF SAM- PLING POINTS	STREAM- FLOW, INSTAN- TANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP 30...	0930	2	.76	1	3	6	8	11	14	19	27	33

## CARPINTERIA CREEK BASIN

11119500 CARPINTERIA CREEK NEAR CARPINTERIA, CA

LOCATION.--Lat 34°24'05", long 119°29'08", in El Rincon Grant, Santa Barbara County, Hydrologic Unit 18060013, on right bank 100 ft (30 m) upstream of bridge on State Highway 192, 165 ft (50 m) downstream from Gobernador Creek, and 1.8 mi (2.9 km) northeast of Carpinteria.

DRAINAGE AREA.--13.1 mi<sup>2</sup> (33.9 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1941 to September 1977, October 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 130 ft (40 m), from topographic map. Prior to July 1, 1958, at site 100 ft (30 m) downstream, at datum 6.00 ft (1.829 m) higher. July 2, 1958, to Aug. 27, 1970, at site 65 ft (20 m) downstream at datum 4.00 ft (1.219 m) higher. Aug. 28, 1970, to Sept. 30, 1977, at site 100 ft (30 m) downstream at same datum.

REMARKS.--Records fair. No regulation above station. Gobernador Land and Water Co. diverts from Gobernador Creek 1.8 mi (2.9 km) above station. Small lake 0.8 mi (1.3 km) southeast of station and outside the drainage area stores storm runoff and surplus water diverted by Gobernador Land and Water Co. from Gobernador Creek. At times this lake is drained by pumping water back into Gobernador Creek 1,000 ft (305 m) above station.

AVERAGE DISCHARGE.--39 years (water years 1941-77, 1979-81), 2.93 ft<sup>3</sup>/s (0.083 m<sup>3</sup>/s), 2,120 acre-ft/yr (2.61 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,880 ft<sup>3</sup>/s (251 m<sup>3</sup>/s) Dec. 27, 1971, gage height, 14.10 ft (4.298 m), from floodmark, from rating curve extended above 130 ft<sup>3</sup>/s (3.68 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharge, 163 ft<sup>3</sup>/s (4.62 m<sup>3</sup>/s) March 5 (0230 hrs), gage height, 4.63 ft (1.411 m); no other peak above base of 125 ft<sup>3</sup>/s (3.54 m<sup>3</sup>/s); minimum daily, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	.55	12	.44	.02				
2		.01	0	0	1.3	10	.45	.10				
3		"	0	0	.73	5.0	.38	.09				
4		0	1.5	0	.46	4.4	.33	.04				
5		0	.25	0	.20	57	.26	.05				
6		0	.04	0	.16	9.2	.20	.03				
7		0	.02	0	.15	6.4	.21	0				
8		0	0	0	1.0	3.6	.28	0				
9		0	0	0	4.3	2.0	.28	0				
10		0	0	0	.80	1.5	.25	0				
11		0	0	0	.38	1.2	.25	0				
12		0	0	0	.23	1.0	.22	0				
13		0	0	0	.15	.86	.17	.03				
14		0	0	0	.08	.77	.15	.01				
15		0	0	0	.05	.71	.13	.02				
16		0	0	0	.05	.60	.12	0				
17		0	0	0	.01	.48	.10	0				
18		0	0	0	0	.45	.55	0				
19		0	0	0	0	2.1	1.0	0				
20		0	0	0	0	2.3	.64	0				
21		0	0	0	0	1.3	.27	0				
22		0	0	0	0	1.7	.16	0				
23		0	0	.40	0	2.1	.12	0				
24		0	0	.04	0	1.3	.59	0				
25		0	0	0	.08	.96	.86	0				
26		0	0	0	.38	.81	.22	0				
27		0	0	1.5	.05	.77	.13	0				
28		0	0	8.5	1.1	.66	.01	0				
29		0	0	16	---	.63	0	0				
30		0	0	3.1	---	.60	0	0				
31		---	0	.95	---	.50	---	0	---			---
TOTAL	0	.01	1.81	30.49	12.21	132.90	8.77	.39	0	0	0	0
MEAN	0	.0003	.058	.98	.44	4.29	.29	.013	0	0	0	0
MAX	0	.01	1.5	16	4.3	57	1.0	.10	0	0	0	0
MIN	0	0	0	0	0	.45	0	0	0	0	0	0
AC-FT	0	.02	3.6	60	24	264	17	.8	0	0	0	0

CAL YR 1980 TOTAL 3064.94 MEAN 8.37 MAX 463 MIN 0 AC-FT 6080  
WTR YR 1981 TOTAL 186.58 MEAN .51 MAX 57 MIN 0 AC-FT 370



## CARPINTERIA CREEK BASIN

309

11119500 CARPINTERIA CREEK NEAR CARPINTERIA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: October 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STRE- AM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JAN 23...	1105	.82	--	7.9	12.0	--	--	--	--	--	--	--
MAR 05...	1550	32	313	8.0	11.5	160	41	14	18	20	.6	1.4
APR 08...	1455	.27	570	8.4	17.0	--	--	--	--	--	--	--

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JAN 23...	--	--	--	--	--	578	--	--	--	--	--
MAR 05...	110	68	12	.2	14	--	240	1.2	.030	30	70
APR 08...	--	--	--	--	--	394	--	--	--	--	--

11119660 SAN YSIDRO CREEK AT MONTECITO, CA

LOCATION.--Lat 34°27'00", long 119°37'19", in Pueblo Lands of Santa Barbara, Santa Barbara County, Hydrologic Unit 18060013, on left bank 150 ft (46 m) downstream from debris basin, and 0.8 mi (1.3 km) north-northeast of intersection of San Ysidro and East Valley Roads, in Montecito.

DRAINAGE AREA.--3.07 mi<sup>2</sup> (7.95 km<sup>2</sup>).

PERIOD OF RECORD.--1969, 1972-79 (yearly maximum discharge only), October 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 570 ft (174 m), from topographic map.

REMARKS.--Records fair. Debris basin may at times affect peak flows.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,620 ft<sup>3</sup>/s (159 m<sup>3</sup>/s), Jan. 25, 1969, from slope-area measurement of maximum flow; minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Aug. 24 to Sept. 3, Sept. 23, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharge 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)	
Jan. 27	2245	32	0.91	1.41	0.430
Mar. 5	0400	*52	1.47	1.49	0.454

Minimum daily discharge, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Aug. 24 to Sept. 3, Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	.30	.30	.36	1.1	5.2	1.2	.66	.43	.25	.19	.10
2	.31	.30	.30	.36	1.0	4.6	1.2	.66	.43	.25	.18	.10
3	.30	.30	.36	.36	.88	3.6	1.2	.66	.43	.25	.18	.10
4	.28	.30	1.5	.36	.77	5.4	1.1	.66	.43	.20	.20	.11
5	.26	.30	.74	.36	.77	.23	1.1	.66	.43	.23	.16	.12
6	.25	.30	.57	.36	.77	6.9	.95	.65	.43	.22	.19	.12
7	.25	.30	.56	.32	.66	4.7	.94	.58	.43	.20	.18	.15
8	.25	.36	.54	.36	.90	3.4	.94	.58	.42	.23	.20	.15
9	.25	.30	.51	.36	1.8	3.2	.94	.50	.39	.25	.18	.12
10	.25	.30	.50	.36	1.0	2.8	.94	.50	.36	.21	.16	.12
11	.25	.30	.50	.39	.94	2.5	.84	.50	.33	.20	.20	.12
12	.25	.30	.53	.43	.84	2.2	.84	.50	.32	.20	.20	.12
13	.30	.30	.59	.43	.75	1.4	.84	.50	.32	.20	.20	.12
14	.36	.30	.63	.43	.66	1.8	.81	.50	.32	.19	.20	.12
15	.30	.30	.64	.46	.66	1.7	.75	.50	.30	.20	.19	.12
16	.30	.30	.68	.50	.58	1.6	.75	.50	.23	.19	.16	.12
17	.30	.30	.55	.50	.58	1.6	.75	.50	.23	.21	.16	.12
18	.30	.30	.46	.50	.55	1.5	.91	.50	.20	.16	.16	.12
19	.29	.30	.42	.50	.50	2.6	1.0	.50	.22	.18	.16	.12
20	.25	.30	.36	.50	.50	1.8	.90	.50	.20	.19	.16	.12
21	.25	.30	.36	.50	.50	1.8	.81	.50	.20	.16	.16	.12
22	.25	.30	.36	.50	.50	2.2	.75	.49	.20	.17	.13	.12
23	.27	.30	.36	.50	.50	2.7	.75	.43	.24	.14	.11	.10
24	.30	.31	.36	.50	.50	2.2	.75	.43	.23	.14	.10	.11
25	.30	.30	.36	.43	.71	2.0	.75	.43	.25	.16	.10	.12
26	.30	.30	.36	.43	.83	1.8	.75	.43	.25	.19	.10	.12
27	.30	.30	.36	2.0	.60	1.7	.72	.43	.25	.19	.10	.12
28	.30	.30	.36	6.5	1.3	1.7	.66	.43	.23	.19	.10	.12
29	.30	.30	.36	6.3	---	1.5	.66	.43	.25	.20	.10	.12
30	.30	.30	.36	2.7	---	1.5	.66	.43	.25	.20	.10	.13
31	.30	---	.36	1.4	---	1.4	---	.43	---	.23	.10	---
TOTAL	8.79	9.07	15.20	29.58	21.55	102.9	26.16	15.97	9.20	6.18	4.81	3.57
MEAN	.28	.30	.49	.95	.77	3.32	.87	.52	.31	.20	.16	.12
MAX	.36	.36	1.5	6.5	1.8	23	1.2	.66	.43	.25	.20	.15
MIN	.25	.30	.30	.32	.50	1.4	.66	.43	.20	.14	.10	.10
AC-FT	17	18	30	59	43	204	52	32	18	12	9.5	7.1

CAL YR 1980	TOTAL	1186.84	MEAN	1.24	MAX	106	MIN	.25	AC-FT	2350
WTR YR 1981	TOTAL	252.98	MEAN	.69	MAX	23	MIN	.10	AC-FT	502

## MISSION CREEK BASIN

311

11119750 MISSION CREEK NEAR MISSION STREET, AT SANTA BARBARA, CA

LOCATION.--Lat 34°25'35", long 119°43'20", in Pueblo Lands of Santa Barbara, Santa Barbara County, Hydrologic Unit 18060013, on left bank just south of end of Los Olivos Street in Santa Barbara.

DRAINAGE AREA.--8.38 mi<sup>2</sup> (21.70 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Concrete-lined channel. Altitude of gage is 105 ft (32 m), from topographic map.

REMARKS.--Records fair except those below 0.20 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) which are poor. No regulation or diversion above station. Water at times released to creek for ground-water recharge from Gibraltar tunnel, several miles upstream.

AVERAGE DISCHARGE.--11 years, 3.38 ft<sup>3</sup>/s (0.096 m<sup>3</sup>/s), 2,450 acre-ft/yr (3.02 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,580 ft<sup>3</sup>/s (73.1 m<sup>3</sup>/s) Jan. 18, 1973, gage height, 4.97 ft (1.515 m), from rating curve extended above 41 ft<sup>3</sup>/s (1.16 m<sup>3</sup>/s) on basis of computation of flow in concrete-lined channel; maximum gage height, 5.45 ft (1.661 m) Feb. 16, 1980; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 302 ft<sup>3</sup>/s (8.55 m<sup>3</sup>/s) Mar. 1 (0830 hrs), gage height, 3.18 ft (0.969 m), no other peak above base of 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s), revised; minimum daily, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.03	45	1.6	.12				
2			0	0	0	27	2.5	.22				
3			4.1	0	0	4.6	2.7	.15				
4			7.8	0	0	28	3.1	8.3				
5			.30	0	0	67	3.2	10				
6			.01	.09	0	10	3.0	.87				
7			0	0	0	5.4	3.2	.43				
8			0	0	8.4	3.2	3.0	.08				
9			0	0	11	2.8	3.0	.05				
10			0	0	.87	1.9	3.0	.03				
11			0	0	.79	1.1	3.0	.02				
12			0	0	.09	.79	3.0	.01				
13			0	0	.01	.51	2.8	.74				
14			0	0	0	.40	1.9	3.6				
15			0	0	0	.12	1.2	.04				
16			0	0	0	.28	1.1	.02				
17			0	0	0	1.1	1.0	0				
18			0	0	0	1.5	2.8	0				
19			0	0	0	22	2.3	0				
20			0	0	0	6.4	1.0	0				
21			0	0	0	4.6	.96	0				
22			0	.09	0	6.8	1.6	0				
23			0	3.4	0	6.4	4.1	0				
24			0	.07	0	4.1	4.3	0				
25			0	0	6.2	3.4	4.0	0				
26			0	0	.35	2.8	.59	0				
27			0	13	0	2.5	.40	0				
28			0	17	12	2.4	.45	0				
29			0	17	---	2.4	.18	0				
30			0	1.8	---	2.2	.10	0				
31		---	0	.22	---	1.9	---	0	---			---
TOTAL	0	0	12.21	52.67	39.74	268.60	65.28	24.68	0	0	0	0
MEAN	0	0	.39	1.70	1.42	8.66	2.18	.80	0	0	0	0
MAX	0	0	7.8	17	12	67	4.3	10	0	0	0	0
MIN	0	0	0	0	0	.12	.10	0	0	0	0	0
AC-FT	0	0	24	104	79	533	129	49	0	0	0	0

CAL YR 1980 TOTAL 1874.34 MEAN 5.12 MAX 392 MIN 0 AC-FT 3720  
WTR YR 1981 TOTAL 463.18 MEAN 1.27 MAX 67 MIN 0 AC-FT 919

## MISSION CREEK BASIN

11119750 MISSION CREEK NEAR MISSION STREET, AT SANTA BARBARA, CA

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1980 to March 1981 (discontinued).

CHEMICAL ANALYSIS: February 1980 to March 1981 (discontinued).

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JAN 28...	0730	27	480	7.6	11.0	--	--	--	--	--	--	--
MAR 03...	1620	47	920	8.1	15.5	400	100	37	57	23	1.2	2.6

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JAN 28...	--	--	--	--	--	350	--	--	--	--	--
MAR 03...	170	290	44	.3	18	--	656	1.1	.100	180	20

## ARROYO BURRO CREEK BASIN

313

11119780 ARROYO BURRO CREEK AT SANTA BARBARA, CA

LOCATION.--Lat 34°26'13", long 119°44'44", in Pueblo Lands of Santa Barbara, Santa Barbara County, Hydrologic Unit 18060013, on right bank 0.4 mi (0.6 km) south of State Street on Hope Avenue in Santa Barbara.

DRAINAGE AREA.--6.65 mi<sup>2</sup> (17.22 km<sup>2</sup>).

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

REVISED RECORDS.--WDR CA-76-1: 1974, 1975 (M).

GAGE.--Water-stage recorder. Concrete-lined channel with a low-water control. Altitude of gage is 160 ft (49 m), from topographic map.

REMARKS.--Records good except those below 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s), which are poor. Small amount of inflow occurs at times from large shopping center that empties water directly into the stream. Partial regulation by Lauro Canyon Reservoir on San Roque Creek.

AVERAGE DISCHARGE.--11 years, 2.59 ft<sup>3</sup>/s (0.073 m<sup>3</sup>/s), 1,880 acre-ft/yr (2.32 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,850 ft<sup>3</sup>/s (52.4 m<sup>3</sup>/s) Mar. 4, 1978, and Feb. 16, 1980, from rating curve extended above 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s) on basis of computation of flow in trapezoidal section; maximum gage height, 5.67 ft (1.728 m) Mar. 4, 1978; no flow many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 620 ft<sup>3</sup>/s (17.6 m<sup>3</sup>/s) Mar. 1 (0915 hrs), gage height, 3.96 ft (1.207 m) from rating curve extended above 62 ft<sup>3</sup>/s (1.76 m<sup>3</sup>/s) on basis of computation of flow in trapezoidal channel; no other peak above base of 300 ft<sup>3</sup>/s (8.50 m<sup>3</sup>/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.03	0	0	.04	.03	.72	.03	0	.01	.01	.01
2	0	.02	0	0	.02	.02	.71	.07	0	.01	.01	0
3	0	.01	1.7	0	.80	3.1	.60	.03	.01	.02	1.3	0
4	0	0	6.7	0	.02	.3	.55	.03	.02	.02	1.3	0
5	0	0	.01	0	0	.04	.45	.03	0	.01	.04	.02
6	0	0	0	.01	0	1.9	.43	.02	0	.01	0	.01
7	0	0	0	.01	0	1.9	.43	.01	0	.01	.01	.02
8	0	.02	0	0	1.2	2.4	.74	.01	0	.01	.01	.02
9	.01	.05	0	0	9.5	1.6	.37	.02	0	0	.01	.03
10	0	.02	0	0	.29	1.8	.37	.01	0	.01	.02	.02
11	.01	0	.01	0	.12	1.5	.33	0	0	.01	0	0
12	0	0	0	0	.07	1.3	.30	.01	0	.01	0	.01
13	.01	.01	.01	0	.04	1.2	.25	0	0	.02	.02	.02
14	.01	0	0	0	.01	.45	.27	0	0	.01	.02	.02
15	.01	.01	.01	0	.01	.65	.20	.01	0	.03	.02	.10
16	.01	.01	.04	0	0	.91	.14	.02	.01	.04	.02	.04
17	0	0	.04	0	.01	.50	.17	0	.02	.02	.02	.02
18	.01	0	.04	0	.01	.47	1.8	0	.15	.01	0	.02
19	.01	.01	0	.01	.01	20	1.4	0	.02	.01	.02	.04
20	.02	0	0	0	.01	1.5	.21	0	.01	.01	.02	.02
21	.01	.01	.01	0	.01	2.3	.14	0	.01	.01	.02	0
22	.01	.02	.03	.91	0	2.8	.10	.01	.01	0	.01	0
23	.01	.02	.57	4.9	.01	1.6	.09	0	.01	0	.01	0
24	.01	0	.59	0	0	1.2	.04	0	.01	0	0	.05
25	.01	0	0	.01	.01	8.8	1.9	.09	.02	.02	.02	.01
26	.02	0	.03	0	.32	2.4	.06	.01	.02	0	.01	.03
27	.03	0	0	20	.05	1.1	.06	0	.01	0	.02	0
28	.03	0	0	13	14	1.1	.06	0	0	0	0	.02
29	.03	.01	0	13	---	1.0	.03	0	0	0	.01	.02
30	.02	.01	0	.43	---	---	.92	.05	.01	.01	0	.01
31	.01	---	0	.13	---	---	.68	---	0	---	0	---
TOTAL	.29	.26	15.83	52.41	46.75	225.78	11.24	.35	.34	.38	2.95	.56
MEAN	.009	.009	.51	1.67	1.67	7.28	.37	.011	.011	.012	.095	.019
MAX	.03	.05	1.7	20	14	54	1.8	.07	.15	.09	1.3	.10
MIN	0	0	0	0	0	.47	.03	0	0	0	0	0
AC-FT	.6	.5	.1	104	.93	444	.22	.7	.7	.8	5.9	1.1

CAL YR 1980 TOTAL 1456.57 MEAN 3.98 MAX 496 MIN 0 AC-FT 2840  
WTR YR 1981 TOTAL 357.14 MEAN .98 MAX 54 MIN 0 AC-FT 708

## ATASCADERO CREEK BASIN

11119940 MARIA YGNACIO CREEK AT UNIVERSITY DRIVE, NEAR GOLETA, CA

LOCATION.--Lat 34°26'42", long 119°48'10", in Goleta Grant, Santa Barbara County, Hydrologic Unit 18060013, on right bank at University Drive, 0.2 mi (0.3 km) east of Patterson Avenue, and 1.5 mi (2.4 km) northeast of Goleta.

DRAINAGE AREA.--6.35 mi<sup>2</sup> (16.4 km<sup>2</sup>).

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 60 ft (18 m), from topographic map.

REMARKS.--Records good except those below 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) which are fair. No regulation. Some pumping for irrigation.

AVERAGE DISCHARGE.--11 years, 1.79 ft<sup>3</sup>/s (0.051 m<sup>3</sup>/s), 1,300 acre-ft/yr (1.60 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft<sup>3</sup>/s (46.7 m<sup>3</sup>/s) Jan. 16, 1978, gage height, 5.87 ft (1.789 m), from rating curve extended above 290 ft<sup>3</sup>/s (8.21 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 75 ft<sup>3</sup>/s (2.12 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 35 ft<sup>3</sup>/s (0.99 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 3.69 ft (1.125 m):

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. 28	0330	106 3.00	2.18 0.664	Mar. 5	0045	268 7.59	2.62 0.799
Mar. 1	0930	*731 20.7	3.62 1.103				

Minimum daily discharge, no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.35	.59	.47	.08				
2			0	0	.34	.47	.44	.15				
3			1.3	0	.25	4.8	.32	.15				
4			2.3	0	.12	.33	.33	.12				
5			.21	0	.08	.75	.31	.05				
6			0	0	.09	7.6	.24	.07				
7			0	0	.06	3.2	.34	0				
8			0	0	3.0	1.6	.29	.01				
9			0	0	6.0	1.0	.29	0				
10			0	0	.76	.96	.40	.01				
11			0	0	.44	.93	.38	0				
12			0	0	.32	.80	.31	.02				
13			0	0	.22	.69	.19	.09				
14			0	0	.18	.69	.24	.05				
15			0	0	.15	.69	.18	0				
16			0	0	.08	.55	.18	0				
17			0	0	0	.44	.17	0				
18			0	0	0	.48	.65	0				
19			0	0	0	6.2	1.3	0				
20			0	0	0	1.9	.54	0				
21			0	0	0	1.3	.32	0				
22			0	.04	0	2.8	.33	0				
23			0	1.1	0	1.9	.11	0				
24			0	0	0	1.1	.27	0				
25			0	0	2.0	.86	.35	0				
26			0	0	.52	.90	.34	0				
27			0	9.9	.18	.80	.12	0				
28			0	18	2.3	.64	.05	0				
29			0	18	---	.59	.04	0				
30			0	1.5	---	.53	.05	0				
31		---	0	.59	---	.51	---	0	---			---
TOTAL	0	0	3.81	49.18	17.48	258.46	9.58	.80	0	0	0	0
MEAN	0	0	.12	1.59	.62	8.34	.32	.026	0	0	0	0
MAX	0	0	2.3	18	6.0	75	1.3	.15	0	0	0	0
MIN	0	0	0	0	0	.44	.05	0	0	0	0	0
AC-FT	0	0	7.6	98	35	513	19	1.6	0	0	0	0

CAL YR 1980 TOTAL 934.22 MEAN 2.55 MAX 214 MIN 0 AC-FT 1850  
WTR YR 1981 TOTAL 339.31 MEAN .43 MAX 75 MIN 0 AC-FT 673

LOCATION.--Lat 34°25'29", long 119°48'39", in La Goleta Grant, Santa Barbara County, Hydrologic Unit 18060013, on downstream side of center pier of county road bridge 100 ft (30 m) downstream from Maria Ygnacio Creek, 1.3 mi (2.1 km) upstream from mouth, and 1.3 mi (2.1 km) southeast of Goleta.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Datum of gage is 8.59 ft (2.618 m) Santa Barbara County benchmark. Prior to Dec. 14, 1967, at site 275 ft (84 m) downstream, datum 4.00 ft (1.219 m) higher. Dec. 14, 1967, to Sept. 30, 1976, at datum 4.00 ft (1.219 m) higher and Oct. 1, 1976, to Sept. 30, 1978, at datum 2.00 ft (0.610 m) higher, both at present site.

AVERAGE DISCHARGE.--40 years, 4.71 ft<sup>3</sup>/s (0.133 m<sup>3</sup>/s), 3,410 acre-ft/yr (4.20 hm<sup>3</sup>/yr).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 225 ft<sup>3</sup>/s (6.37 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. 27	2145	347	9.83	4.12	1.256	Mar. 4	2300	591	16.7	4.86	1.481
Mar. 1	0930	*1010	28.6	5.87	1.789						

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUMIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.01	.04	.02	.32	146	.51	.08	.06	0	0	0
2	.03	.01	.05	.04	.14	127	.40	.09	.06	0	0	0
3	.05	.01	.01	.01	.10	14	.26	.05	.06	.01	0	0
4	.06	.01	.03	.01	.09	84	.16	.05	.06	0	0	0
5	.06	.01	1.1	.01	.12	186	.13	.05	.05	0	0	0
6	.06	.03	.03	.00	.46	21	.21	.05	.03	0	0	0
7	.07	.10	.01	.09	.10	11	.25	.05	.07	0	0	0
8	.07	.06	.05	.18	.26	7.9	.12	.05	.14	0	0	0
9	.07	.05	.01	.02	.39	4.0	.15	.08	.30	0	0	0
10	.07	.05	0	.02	1.2	2.7	.10	.04	.13	0	0	0
11	.03	.04	.04	.02	.27	2.2	.04	.08	.06	0	0	0
12	.02	.22	.04	.03	.20	1.4	.05	.48	.01	0	0	0
13	.01	.02	.02	.03	.15	1.4	.05	.13	.01	0	0	0
14	0	.50	.05	.02	.12	1.2	.05	.08	0	0	0	0
15	0	.02	.02	.03	.12	.96	.05	.05	0	0	0	0
16	0	.03	.03	.03	.12	.86	.05	.06	0	0	.01	0
17	0	.14	.02	.03	.12	.57	.05	.06	0	0	0	0
18	0	.04	.02	.03	.12	.40	.20	.06	0	0	0	0
19	0	.01	.04	.03	.12	3.5	.32	.06	0	0	0	0
20	0	0	.03	.03	.12	7.8	1.2	.05	0	0	0	.01
21	0	.01	.02	.03	.12	6.7	.21	.06	0	0	0	0
22	.04	.01	.01	.11	.12	9.8	.17	.05	0	0	0	0
23	.07	.01	.02	.20	.12	5.9	.18	.06	0	0	0	0
24	.04	.01	.01	.50	.23	3.1	.17	.05	0	0	0	.01
25	.08	0	.02	.45	.17	2.1	.14	.05	0	0	0	.01
26	.08	.01	.03	.32	1.3	2.1	.16	.05	0	0	0	.02
27	.05	.02	.02	.43	.25	2.0	.04	.05	0	0	0	.08
28	.03	.02	.02	.62	.27	1.4	.04	.05	0	0	0	.05
29	.02	.03	.02	.45	---	1.2	.04	.05	0	0	0	.05
30	.07	.05	.04	.23	---	.92	.04	.05	0	0	0	.10
31	.03	---	.13	.37	---	.88	---	.06	---	0	0	---
TOTAL	1.18	1.25	3.00	1.00	11.03	693.89	10.49	2.47	1.04	.01	.01	.33
MEAN	.038	.045	1.00	.321	4.13	22.4	.35	.080	.035	.0003	.0003	.011
MAX	.09	.50	.23	.62	.34	186	.32	.48	.30	.01	.01	.10
MIN	0	0	0	.01	.04	.57	.05	.05	0	0	0	0
AC-FT	2.3	3.3	65	357	229	1340	21	4.9	2.1	.02	.02	.7
CAL YR 1960	TOTAL	3176.62	MEAN	8.68	MAX	955	MIN	0	AC-FT	6300		
WTR YR 1961	TOTAL	1039.75	MEAN	2.45	MAX	186	MIN	0	AC-FT	2060		

## ATASCADERO CREEK BASIN

11120000 ATASCADERO CREEK NEAR GOLETA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES: Water years 1978 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 01...	1140	.02	2840	8.0	26.5	--	--	--	--	--	--	--
DEC 02...	1500	11	2620	7.8	13.5	--	--	--	--	--	--	--
JAN 08...	1450	.08	1490	8.1	17.0	--	--	--	--	--	--	--
FEB 03...	1300	.10	1480	8.0	17.5	580	300	140	55	120	31	2.2
MAR 03...	1400	10	765	8.0	16.0	--	--	--	--	--	--	--
APR 01...	1520	.56	--	8.0	19.0	--	--	--	--	--	--	--
MAY 15...	1430	.07	2050	7.8	18.5	--	--	--	--	--	--	--
JUN 04...	1610	.06	--	7.5	22.5	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 01...	--	--	--	--	--	1920	--	--	--	--	--
DEC 02...	--	--	--	--	--	1900	--	--	--	--	--
JAN 08...	--	--	--	--	--	1110	--	--	--	--	--
FEB 03...	5.0	350	130	.4	17	--	987	.35	.070	140	20
MAR 03...	--	--	--	--	--	541	--	--	--	--	--
APR 01...	--	--	--	--	--	1110	--	--	--	--	--
MAY 15...	--	--	--	--	--	1520	--	--	--	--	--
JUN 04...	--	--	--	--	--	1500	--	--	--	--	--



## SAN JOSE CREEK BASIN

317

11120500 SAN JOSE CREEK NEAR GOLETA, CA

LOCATION.--Lat 34°27'33", long 119°48'29", in La Goleta Grant, Santa Barbara County, Hydrologic Unit 18060013, on right bank, 1.1 mi (1.8 km) downstream from unnamed tributary, and 1.7 mi (2.7 km) northeast of Goleta.

DRAINAGE AREA.--5.51 mi<sup>2</sup> (14.27 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1941 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 95.61 ft (29.142 m) Santa Barbara County Road Department datum. Prior to Dec. 24, 1955, at datum 5.50 ft (1.676 m) higher. Dec. 24, 1955, to Jan. 10, 1960, at datum 1.5 ft (0.46 m) higher. Prior to Oct. 1, 1971, at site 75 ft (23 m) downstream at same datum.

REMARKS.--Records fair except those below 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s), which are poor. No regulation above station. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--40 years, 1.98 ft<sup>3</sup>/s (0.056 m<sup>3</sup>/s), 1,430 acre-ft/yr (1.76 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) Jan. 25, 1969, gage height, 10.10 ft (3.078 m), from rating curve extended above 400 ft<sup>3</sup>/s (11.3 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 9.32 ft (2.841 m); maximum gage height, 12.74 ft (3.883 m), present datum, Jan. 21, 1943; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 40 ft<sup>3</sup>/s (1.13 m<sup>3</sup>/s) on basis of theoretical computation of flow at gage height 5.00 ft (1.524 m).

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Mar. 1	0945	*267 7.56	5.00 1.524
Mar. 5	0115	171 4.84	4.53 1.381

Minimum daily discharge, 0.02 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) July 20 to Aug. 4, Sept. 3-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.09	.13	.24	.34	.39	1.5	.44	.27	.04	.02	.03
2	.13	.12	.14	.24	.32	.42	1.5	.44	.26	.05	.02	.03
3	.14	.08	.21	.28	.30	5.9	1.5	.44	.14	.05	.02	.02
4	.14	.05	2.0	.38	.28	17	1.5	.44	.14	.05	.02	.02
5	.14	.05	1.3	.44	.27	69	1.4	.44	.24	.05	.03	.02
6	.15	.05	.64	.42	.26	17	1.4	.44	.24	.05	.03	.02
7	.16	.05	.59	.37	.25	8.1	1.4	.41	.24	.05	.03	.02
8	.14	.05	.53	.49	0.0	4.4	1.4	.37	.20	.05	.03	.02
9	.14	.05	.53	.44	8.0	3.1	1.0	.40	.11	.05	.04	.02
10	.16	.05	.53	.43	1.8	2.7	.84	.44	.11	.05	.04	.02
11	.17	.05	.53	.41	1.3	2.5	1.2	.44	.11	.05	.03	.02
12	.20	.05	.53	.38	1.1	1.8	1.2	.49	.09	.05	.05	.02
13	.19	.09	.46	.11	.97	1.8	1.2	.54	.12	.05	.04	.02
14	.16	.08	.44	.12	.66	1.5	1.2	.44	.10	.05	.03	.02
15	.18	.07	.27	.15	.63	1.5	1.2	.41	.08	.05	.03	.02
16	.36	.05	.15	.13	.54	1.5	1.1	.40	.08	.05	.03	.02
17	.26	.05	.14	.11	.56	1.4	.87	.37	.07	.05	.03	.02
18	.16	.05	.18	.11	.53	1.4	1.1	.33	.08	.04	.03	.02
19	.20	.09	.14	.11	.53	10	2.3	.33	.08	.04	.03	.02
20	.14	.04	.22	.09	.53	5.7	2.5	.25	.06	.02	.03	.02
21	.16	.10	.24	.11	.53	4.1	1.5	.26	.03	.02	.03	.02
22	.15	.10	.14	.20	.40	10	1.4	.34	.05	.02	.03	.02
23	.14	.08	.14	1.2	.50	0.2	.94	.31	.08	.02	.03	.02
24	.14	.10	.14	.68	.45	3.9	.73	.20	.07	.02	.03	.02
25	.13	.11	.14	.53	1.2	2.9	.76	.23	.06	.02	.03	.02
26	.13	.11	.14	.53	1.5	2.7	.91	.23	.08	.02	.03	.03
27	.12	.11	.18	7.2	.79	2.6	.73	.19	.08	.02	.03	.03
28	.11	.11	.40	1.1	1.3	2.3	.54	.22	.08	.02	.03	.03
29	.12	.11	.51	7.1	---	2.2	.44	.24	.06	.02	.03	.03
30	.12	.11	.34	2.0	---	1.9	.44	.25	.04	.02	.03	.03
31	.11	---	.24	.40	---	1.1	---	.24	.02	.03	.03	---
TOTAL	4.88	2.34	12.27	41.30	31.96	277.6	35.62	10.97	3.55	1.16	.95	.67
MEAN	.16	.074	.40	1.40	1.14	8.96	1.19	.35	.12	.037	.031	.022
MAX	.36	.12	2.0	.18	.80	.69	2.5	.54	.27	.05	.05	.03
MIN	.11	.05	.13	.09	.25	1.4	.44	.19	.03	.02	.02	.02
AC-FT	9.7	4.6	24	86	63	551	71	22	7.0	2.3	1.9	1.3

CAL YR 1980 TOTAL 1234.33 MEAN 3.37 MAX 265 MIN .05 AC-FT 2450  
WTR YR 1981 TOTAL 425.47 MEAN 1.17 MAX 69 MIN .02 AC-FT 844

SAN JOSE CREEK BASIN  
11120500 SAN JOSE CREEK NEAR GOLETA, CA--Continued  
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.  
CHEMICAL ANALYSES: Water years 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SURFAC- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 01...	1230	.17	1420	7.8	21.0	--	--	--	--	--	--	--
NOV 10...	1500	.05	1790	8.0	16.0	--	--	--	--	--	--	--
DEC 10...	1320	.55	1140	8.0	10.0	520	250	140	42	81	25	1.5
JAN 08...	1720	.54	1220	7.9	12.0	--	--	--	--	--	--	--
28...	1230	8.0	320	7.5	11.5	--	--	--	--	--	--	--
MAR 03...	1430	6.7	488	7.8	11.5	--	--	--	--	--	--	--
APR 03...	1640	1.4	890	8.0	16.5	--	--	--	--	--	--	--
30...	1530	.46	1170	8.0	22.0	--	--	--	--	--	--	--
JUN 04...	1500	.20	1300	7.9	25.0	--	--	--	--	--	--	--
JUL 08...	1115	.04	--	4.0	20.0	--	--	--	--	--	--	--
AUG 13...	1300	.05	2000	8.0	20.5	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 01...	--	--	--	--	--	--	1120	--	--	--	--	--
NOV 10...	--	--	--	--	--	--	1410	--	--	--	--	--
DEC 10...	2.8	270	300	52	.4	20	--	804	.77	.010	90	10
JAN 08...	--	--	--	--	--	--	937	--	--	--	--	--
28...	--	--	--	--	--	--	241	--	--	--	--	--
MAR 03...	--	--	--	--	--	--	348	--	--	--	--	--
APR 03...	--	--	--	--	--	--	638	--	--	--	--	--
30...	--	--	--	--	--	--	826	--	--	--	--	--
JUN 04...	--	--	--	--	--	--	956	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	1430	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	1570	--	--	--	--	--

## SAN JOSE CREEK BASIN

319

## 11120510 SAN JOSE CREEK AT GOLETA, CA

LOCATION.--Lat 34°25'49", long 119°49'16", in La Goleta Grant, Santa Barbara County, Hydrologic Unit 18060013, on right bank south of Hollister Avenue on Kellogg Avenue, 0.5 mi (0.8 km) southeast of Goleta.

DRAINAGE AREA.--9.42 mi<sup>2</sup> (24.40 km<sup>2</sup>).

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

REVISED RECORDS.--WDR CA-73-1: 1973(M).

GAGE.--Water-stage recorder and concrete channel. Altitude of gage is 10 ft (3 m), from topographic map.

REMARKS.--Records fair. No regulation above station. Diversions for irrigation and domestic use above station.

AVERAGE DISCHARGE.--11 years, 2.99 ft<sup>3</sup>/s (0.085 m<sup>3</sup>/s), 2,170 acre-ft/yr (2.68 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,330 ft<sup>3</sup>/s (66.0 m<sup>3</sup>/s) Mar. 4, 1978, gage height, 5.65 ft (1.722 m), from rating curve extended above 400 ft<sup>3</sup>/s (11.3 m<sup>3</sup>/s) on basis of slope-conveyance computation of flow in concrete channel at gage height 8.00 ft (2.438 m); no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft<sup>3</sup>/s (7.08 m<sup>3</sup>/s) and maximum (\*), from rating curve extended as explained above:

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. 28	0300	309 8.75	2.53 0.771	Mar. 5	0130	427 12.1	2.82 0.860
Mar. 1	0915	*854 24.2	3.68 1.122				

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.96	85	1.7	.49	.11	0	0	0
2			0	0	.85	79	1.4	.44	.16	0	0	0
3			6.5	0	.81	8.3	1.2	.29	.07	0	0	0
4			4.8	0	.77	49	1.2	.42	.04	0	0	0
5			.84	.03	.74	107	1.1	.30	.04	0	0	0
6			.20	.02	.69	16	1.1	.25	.07	0	0	0
7			.03	0	.67	8.2	1.1	.20	.11	0	0	0
8			0	.08	8.0	5.7	1.1	.20	.13	0	0	0
9			0	.18	13	3.8	1.0	.24	.10	0	0	.02
10			0	.18	2.2	3.0	.92	.20	.03	0	0	0
11			0	.17	1.5	2.5	1.0	.22	.03	0	0	0
12			0	.22	1.5	1.9	1.3	.27	.02	0	.01	0
13			0	.04	.84	2.0	1.4	.48	.01	0	0	0
14			0	0	.91	1.6	1.3	.27	0	0	0	0
15			0	0	.78	1.4	1.1	.21	0	0	0	0
16			0	.01	.80	1.4	1.2	.16	0	0	0	0
17			0	.01	1.0	1.2	.83	.18	0	0	0	0
18			0	0	.84	1.3	2.0	.18	0	0	0	0
19			0	0	.80	18	3.2	.09	0	0	0	0
20			0	0	1.0	6.7	2.3	.09	0	0	0	0
21			0	0	1.0	6.0	1.2	.05	0	0	0	0
22			0	1.4	.89	12	1.1	.05	0	0	0	0
23			0	3.3	.72	7.1	.99	.05	0	0	0	0
24			0	.45	.57	4.5	.91	.04	0	0	0	0
25			0	.27	9.8	3.3	.97	.09	0	0	0	0
26			0	.23	1.7	3.0	.92	.08	0	0	0	0
27			0	20	.85	2.7	.82	.04	0	0	0	0
28			0	24	5.8	2.1	.69	.05	0	.27	0	0
29			0	16	---	1.9	.32	.07	0	.02	0	0
30			0	4.0	---	1.8	.35	.06	0	0	0	0
31		---	0	1.4	---	1.5	---	.07	---	0	0	---
TOTAL	0	0	12.37	71.99	59.99	448.9	35.72	5.83	.92	.29	.01	.02
MEAN	0	0	.40	2.32	2.14	14.5	1.19	.19	.031	.009	.0003	.0007
MAX	0	0	6.5	24	13	107	3.2	.49	.16	.27	.01	.02
MIN	0	0	0	0	.57	1.2	.32	.04	0	0	0	0
AC-FT	0	0	25	143	119	890	71	12	1.8	.6	.02	.04
CAL YR 1980	TOTAL	1292.49	MEAN 3.53	MAX 339	MIN 0	AC-FT 2560						
WTR YR 1981	TOTAL	636.04	MEAN 1.74	MAX 107	MIN 0	AC-FT 1260						

## CARNEROS CREEK BASIN

11120530 TECOLOTITO CREEK NEAR GOLETA, CA

LOCATION.--Lat 34°26'05", long 119°52'04", in Los Dos Pueblos Grant, Santa Barbara County, Hydrologic Unit 18060013, on right bank 0.2 mi (0.3 km) east of Glen Annie Road, and 2.1 mi (3.4 km) west of Goleta.

DRAINAGE AREA.--4.42 mi<sup>2</sup> (11.45 km<sup>2</sup>).

PERIOD OF RECORD.--October 1970 to September 1972, January 1980 to current year.

GAGE.--Water-stage recorder and concrete channel. Altitude of gage is 40 ft (12.2 m), from topographic map. Prior to Jan. 25, 1980, at same site at different datum.

REMARKS.--Records fair. No regulation above station. Some pumping for irrigation and water is occasionally released to channel from Tecolote Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,610 ft<sup>3</sup>/s (45.6 m<sup>3</sup>/s) Feb. 16, 1980, gage height, 4.47 ft (1.362 m), from rating curve extended above 160 ft<sup>3</sup>/s (4.53 m<sup>3</sup>/s) on basis of slope-conveyance computation of flow in concrete channel; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) and maximum (\*), from rating curve extended as explained above:

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. 27	2145	109 3.09	1.67 0.509	Mar. 5	0100	208 5.89	2.01 0.613
Mar. 1	0845	*850 24.1	3.42 1.042				

Minimum daily discharge, 0.11 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.39	.40	.40	.51	.92	1.7	.51	.26	.26	.50	.17
2	.24	.42	.43	.40	.47	.57	1.4	.51	.30	.31	.43	.15
3	.26	.40	4.2	.40	.45	1.6	.95	.45	.25	.30	.62	.19
4	.28	.34	13	.40	.48	32	.88	.48	.23	.29	.38	.24
5	.25	.34	.46	.40	.47	80	.81	.47	.26	.26	.20	.23
6	.24	.33	.38	.37	.47	9.3	.80	.54	.29	.18	.23	.24
7	.24	.33	.34	.39	.47	2.1	.79	.51	.31	.25	.20	.23
8	.29	.32	.33	.46	8.5	1.3	.70	.50	.24	.26	.21	.22
9	.35	.31	.33	.47	15	1.1	.71	.46	.24	.26	.20	.17
10	.28	.33	.33	.43	.68	1.1	.88	.48	.28	.32	.20	.16
11	.28	.38	.33	.39	.56	1.0	.84	.51	.31	.33	.21	.17
12	.38	.40	.33	.38	.56	.88	.85	.68	.31	.35	.23	.17
13	.33	.41	.33	.46	.56	.88	.84	.55	.21	.32	.26	.17
14	.32	.35	.33	.46	.50	.88	.88	.51	.31	.43	.30	.13
15	.47	.39	.34	.51	.48	.88	.72	.52	.16	.44	.22	.15
16	.45	.39	.35	.52	.47	.88	.72	.42	.17	.53	.26	.16
17	.31	.39	.33	.47	.47	.88	.81	.32	.29	.49	.37	.20
18	.27	.44	.39	.41	.44	.88	1.1	.32	.27	.57	.30	.14
19	.26	.42	.40	.40	.47	13	1.5	.33	.29	.43	.29	.13
20	.29	.40	.40	.43	.43	2.9	.96	.29	.26	.32	.21	.11
21	.32	.38	.40	.49	.41	3.0	.76	.30	.25	.38	.17	.14
22	.35	.32	.40	1.1	.46	9.9	.68	.29	.27	.30	.18	.18
23	.33	.29	.40	5.6	.47	3.3	.69	.31	.31	.25	.18	.16
24	.32	.33	.40	.51	.47	2.0	.88	.29	.40	.27	.19	.14
25	.31	.30	.40	.47	2.2	1.7	.88	.29	.43	.31	.16	.14
26	.34	.28	.39	.47	.58	1.7	.75	.32	.46	.43	.15	.23
27	.31	.30	.40	13	.41	1.7	.59	.31	.47	.47	.14	.22
28	.31	.30	.40	13	4.8	1.7	.51	.25	.32	.40	.15	.16
29	.36	.33	.44	16	---	1.7	.43	.27	.38	.37	.15	.15
30	.40	.38	.39	1.0	---	1.8	.44	.27	.34	.46	.13	.19
31	.37	---	.40	.61	---	1.7	---	.39	---	.46	.13	---
TOTAL	9.75	10.69	28.15	60.80	42.24	330.76	25.45	12.65	8.87	11.00	7.55	5.24
MEAN	.31	.36	.91	1.96	1.51	10.7	.85	.41	.30	.35	.24	.17
MAX	.47	.44	.13	.16	.15	.92	1.7	.68	.47	.57	.62	.24
MIN	.24	.28	.33	.37	.41	.88	.43	.25	.16	.18	.13	.11
AC-FT	19	21	56	121	84	656	50	25	18	22	15	10

WTR YR 1981 TOTAL 553.15 MEAN 1.52 MAX 92 MIN .11 AC-FT 1100

## GAVIOTA CREEK BASIN

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11120550 GAVIOTA CREEK NEAR GAVIOTA, CA

LOCATION.--Lat 34°29'16", long 120°13'34", in Nuestra Senora Del Refugio Grant, Santa Barbara County, Hydrologic Unit 18060013, on left bank 1.3 mi (2.1 km) northwest of Gaviota, and 1.6 mi (2.6 km) upstream from mouth.

DRAINAGE AREA.--18.8 mi<sup>2</sup> (48.7 km<sup>2</sup>).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 100 ft (30 m), from topographic map.

REMARKS.--Records good. No regulation. Small pumping for domestic use.

AVERAGE DISCHARGE.--15 years, 6.27 ft<sup>3</sup>/s (0.178 m<sup>3</sup>/s), 4,540 acre-ft/yr (5.60 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft<sup>3</sup>/s (113 m<sup>3</sup>/s) Jan. 24, 1967, gage height, 8.40 ft (2.560 m), from rating curve extended above 1,300 ft<sup>3</sup>/s (36.8 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow; maximum gage height, 9.09 ft (2.771 m) Mar. 4, 1978; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft<sup>3</sup>/s (8.50 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 460 ft<sup>3</sup>/s (13.0 m<sup>3</sup>/s) on basis of computation of flow over weir at gage height 9.09 ft (2.771 m):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Mar. 1	0800	*1,140 32.3	6.18 1.884
Mar. 5	0215	974 27.6	5.87 1.789

Minimum daily discharge, 0.41 ft<sup>3</sup>/s (0.012 m<sup>3</sup>/s) Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.92	.97	.93	.96	1.8	138	5.1	2.2	1.6	.85	.62	.56
2	1.1	.97	.93	.93	1.6	32	5.0	2.0	1.5	.89	.60	.53
3	1.1	.97	3.3	.93	1.6	9.5	4.7	2.0	1.4	.83	.61	.51
4	1.1	.96	11	.95	1.5	117	4.7	2.0	1.3	.76	.61	.51
5	1.0	.96	1.5	.95	1.4	343	4.4	2.0	1.3	.74	.63	.53
6	1.0	.96	1.1	.95	1.4	33	4.3	2.0	1.3	.72	.65	.58
7	.96	.96	1.1	.97	1.4	16	4.3	2.0	1.3	.68	.66	.56
8	.96	.96	1.1	1.0	4.4	11	4.3	2.0	1.2	.67	.65	.48
9	.97	.96	1.1	1.1	10	8.8	4.0	1.9	1.1	.73	.62	.42
10	.97	.96	1.1	1.1	2.5	7.3	3.7	1.9	1.1	.68	.61	.46
11	.90	.96	1.1	1.1	2.2	6.2	3.6	1.8	1.1	.66	.61	.49
12	.88	.96	1.1	1.0	2.0	6.2	3.4	1.9	1.1	.62	.62	.51
13	.91	.96	.93	1.0	1.9	6.0	3.2	2.0	.99	.62	.71	.63
14	.90	.96	.93	1.1	1.8	5.5	3.3	1.8	.95	.59	.65	.44
15	.93	.96	.93	1.1	1.8	5.1	3.2	1.8	.94	.60	.61	.45
16	.98	.96	.92	1.1	1.7	4.7	3.1	1.8	.91	.61	.55	.43
17	.98	.95	.93	1.0	1.7	4.5	2.9	1.7	.91	.61	.55	.42
18	.98	.95	.93	1.1	1.6	4.4	3.8	1.6	.90	.61	.60	.43
19	.98	.95	.99	1.1	1.6	30	3.7	1.6	.96	.62	.56	.43
20	.98	.95	.93	1.1	1.6	12	3.0	1.6	.98	.59	.53	.42
21	.98	.95	.93	1.1	1.6	10	2.8	1.6	1.0	.60	.48	.43
22	.98	.95	.93	2.5	1.6	21	2.6	1.6	.99	.61	.50	.44
23	.97	.95	.92	4.9	1.6	12	2.6	1.6	.93	.59	.49	.45
24	.97	.95	.93	1.6	1.6	8.6	2.7	1.6	.90	.58	.50	.45
25	.97	.95	.92	1.4	9.2	7.5	2.7	1.7	.90	.60	.46	.43
26	.97	.97	.93	1.4	3.5	7.4	2.6	1.7	.93	.63	.43	.48
27	.97	.94	.97	8.6	2.4	6.2	2.3	1.6	.99	.66	.41	.44
28	.97	.98	.91	7.4	13	6.1	2.2	1.6	.89	.64	.42	.47
29	.97	.88	.93	8.0	---	5.9	2.1	1.6	.87	.66	.43	.49
30	.97	.93	.93	2.8	---	5.4	2.1	1.5	.84	.64	.54	.43
31	.97	---	.93	2.0	---	5.2	---	1.6	---	.63	.58	---
TOTAL	30.19	28.64	43.08	62.24	80.0	895.5	102.4	55.3	32.08	20.52	17.49	14.09
MEAN	.97	.95	1.39	2.01	2.86	28.9	3.41	1.78	1.07	.66	.56	.47
MAX	1.1	.98	11	8.6	13	343	5.1	2.2	1.6	.89	.71	.58
MIN	.88	.88	.91	.93	1.4	4.4	2.1	1.5	.84	.58	.41	.42
AC-FT	60	57	85	123	159	1780	203	110	64	41	35	28
CAL YR 1980	TOTAL	4121.42	MEAN	11.3	MAX	498	MIN	.80	AC-FT	8170		
WTR YR 1981	TOTAL	1381.53	MEAN	3.79	MAX	343	MIN	.41	AC-FT	2740		

## JALAMA CREEK BASIN

11120600 JALAMA CREEK NEAR LOMPOC, CA

LOCATION.--Lat 34°30'50", long 120°29'02", in San Julian Grant, Santa Barbara County, Hydrologic Unit 18060013, on downstream side of right bridge pier on Jalama Road, 0.6 mi (1.0 km) downstream from Gasper Creek, 1.4 mi (2.3 km) upstream from mouth, and 8.9 mi (14.3 km) southwest of Lompoc.

DRAINAGE AREA.--20.5 mi<sup>2</sup> (53.1 km<sup>2</sup>).

PERIOD OF RECORD.--September 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 80 ft (24 m), from topographic map.

REMARKS.--Records good. No regulation or diversion above station. Some pumping upstream from wells for irrigation of about 400 acres (1.62 km<sup>2</sup>).

AVERAGE DISCHARGE.--16 years, 3.85 ft<sup>3</sup>/s (0.109 m<sup>3</sup>/s), 2,790 acre-ft/yr (3.44 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,020 ft<sup>3</sup>/s (114 m<sup>3</sup>/s) Mar. 4, 1978, gage height, 11.34 ft (3.456 m), from rating curve extended above 1,700 ft<sup>3</sup>/s (48.1 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 8.05 ft (2.454 m); no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft<sup>3</sup>/s (4.25 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)
Mar. 1	0800	557 15.8	5.60 1.707	Mar. 19	1015	213 6.03	4.55 1.387
Mar. 5	0330	*574 16.3	5.66 1.725				

Minimum daily discharge, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Aug. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.28	.35	.45	.62	72	3.1	1.0	.50	.32	.21	.09
2	.21	.28	.28	.51	.53	20	3.0	1.1	.53	.32	.21	.17
3	.26	.28	.78	.53	.53	5.3	2.7	1.1	.44	.32	.23	.21
4	.29	.28	4.4	.51	.53	95	2.6	1.0	.38	.32	.24	.21
5	.32	.24	.94	.45	.53	167	2.6	.98	.34	.27	.25	.20
6	.32	.26	.63	.45	.53	16	2.4	.98	.37	.26	.25	.21
7	.32	.30	.53	.45	.53	7.4	2.4	.91	.37	.24	.22	.26
8	.32	.32	.51	.45	.93	5.0	2.1	.81	.33	.20	.24	.21
9	.34	.32	.45	.45	8.1	3.7	2.0	.77	.38	.22	.24	.17
10	.37	.32	.45	.43	2.0	3.0	2.0	.62	.39	.26	.26	.13
11	.32	.29	.45	.45	1.2	2.7	2.0	.75	.41	.24	.26	.10
12	.31	.26	.45	.45	1.0	2.6	1.8	.77	.38	.19	.26	.12
13	.31	.26	.45	.45	.94	2.4	1.8	.82	.38	.17	.26	.15
14	.31	.26	.45	.38	.85	2.2	1.8	.86	.39	.18	.26	.15
15	.31	.23	.45	.38	.80	1.7	1.6	.86	.32	.18	.24	.16
16	.31	.26	.45	.38	.69	1.6	1.6	.80	.26	.18	.21	.19
17	.31	.29	.45	.38	.68	1.6	1.6	.71	.26	.21	.20	.18
18	.30	.32	.45	.38	.62	1.6	1.8	.68	.26	.21	.20	.18
19	.30	.32	.45	.38	.62	54	1.9	.72	.26	.25	.23	.19
20	.30	.32	.38	.38	.58	15	1.7	.67	.26	.26	.19	.17
21	.30	.32	.41	.39	.53	10	1.5	.62	.26	.20	.16	.18
22	.30	.33	.45	.61	.59	33	1.3	.62	.26	.18	.15	.19
23	.30	.38	.45	2.3	.62	13	1.3	.58	.26	.20	.14	.16
24	.29	.31	.45	.75	.69	7.8	1.3	.53	.26	.18	.14	.15
25	.29	.29	.45	.54	2.6	5.9	1.3	.56	.26	.18	.15	.16
26	.29	.29	.45	.53	2.3	5.6	1.2	.62	.26	.21	.11	.17
27	.29	.32	.45	1.4	1.1	4.8	1.1	.53	.26	.25	.10	.17
28	.29	.32	.45	5.4	5.2	4.2	1.0	.53	.24	.26	.08	.16
29	.28	.32	.45	1.6	---	3.9	1.1	.53	.28	.26	.09	.14
30	.28	.32	.45	1.2	---	3.6	1.0	.52	.32	.26	.08	.13
31	.28	---	.45	.77	---	3.2	---	.45	---	.21	.06	---
TOTAL	9.23	8.89	18.66	24.18	36.44	574.8	54.6	23.00	9.87	7.19	5.92	5.06
MEAN	.30	.30	.60	.78	1.30	18.5	1.82	.74	.33	.23	.19	.17
MAX	.37	.38	4.4	5.4	8.1	167	3.1	1.1	.53	.32	.26	.26
MIN	.21	.23	.28	.38	.53	1.6	1.0	.45	.24	.17	.06	.09
AC-FT	18	18	37	48	72	1140	108	46	20	14	12	10

CAL YR 1980	TOTAL	2755.76	MEAN 7.53	MAX 448	MIN .21	AC-FT 5470
WTR YR 1981	TOTAL	777.84	MEAN 2.13	MAX 167	MIN .06	AC-FT 1540

## 11121000 SANTA YNEZ RIVER AT JAMESON LAKE, NEAR MONTECITO, CA

LOCATION.--Lat 34°29'32", long 119°30'25", in SW¼NE¼NW¼ sec.28, T.5 N., R.25 W., Santa Barbara County, Hydrologic Unit 18060010, on upstream face of Juncal Dam, 6.5 mi (10.5 km) north of Carpinteria, and 8 mi (13 km) northeast of Montecito.

DRAINAGE AREA.--13.9 mi<sup>2</sup> (36.0 km<sup>2</sup>), excludes that of Alder Creek.

PERIOD OF RECORD.--December 1930 to current year. Prior to October 1938, published as "at Juncal Reservoir, near Montecito."

GAGE.--Two water-stage recorders. Datum of lake gage is 2,021.6 ft (616.18 m) Water and Power Resources Service datum, or 2,000 ft (609.6 m) above arbitrary datum (called sea level) generally used for work in this vicinity. Supplementary gage and sharp-crested weir on outlet conduit of lake release, at different datum.

REMARKS.--Records of total inflow represent all water reaching Jameson Lake including precipitation on the lake. Total inflow computed on basis of records of storage, diversion (draft) to the city of Montecito, spill and release to river, and evaporation and seepage. Records of net inflow exclude precipitation on lake surface. Monthly evaporation from lake surface computed on basis of evaporation from Colorado land pan. Area and capacity tables are based on survey made in 1980. Lake capacity at spillway level, gage height, 223.82 ft (68.220 m), 5,725 acre-ft (7.06 hm<sup>3</sup>). Dead storage, 32 acre-ft (39,500 m<sup>3</sup>), below lowest outlet at gage height 139.0 ft (42.37 m) included in these records. There is no regulation or diversion above station. At times flow of Alder Creek, which enters Santa Ynez River 2 mi (3 km) downstream from Juncal Dam, is diverted at elevation 2,250 ft (685.8 m) through a tunnel to Jameson Lake and is included in these records.

COOPERATION.--Reservoir-operation records and related data were furnished by Montecito County Water District.

AVERAGE DISCHARGE.--50 years (water years 1932-81), 6.92 ft<sup>3</sup>/s (0.196 m<sup>3</sup>/s), 5,010 acre-ft/yr (6.18 hm<sup>3</sup>/yr).

## MONTHLY NET DISCHARGE, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Gage height (feet) <sup>a</sup>	Contents (acre- feet)	Change in contents (acre- feet)	Draft (acre- feet)	Spill and release (acre- feet)	Evapo- ration and seepage (acre- feet)	Total inflow (acre- feet)	Rain on reser- voir (acre- feet)	Net inflow (acre- feet)
Sept. 30.....	217.81	4,970	--	--	--	--	--	--	--
Oct. 31.....	213.32	4,440	-530	186	328	33	17	0	17
Nov. 30.....	212.01	4,300	-140	152	0	19	31	0	31
Dec. 31.....	211.48	4,240	-60	118	0	12	70	12	58
CAL YR 1980.....	--	--	-240	1,887	9,673	438	11,758	377	11,381
Jan. 31.....	211.79	4,270	+30	101	0	8	139	58	81
Feb. 28.....	211.99	4,290	+20	89	0	12	121	19	102
Mar. 31.....	214.95	4,620	+330	121	538	14	1,003	83	920
Apr. 30.....	214.64	4,590	-30	169	0	41	180	12	168
May 31.....	213.50	4,460	-130	191	0	52	113	0	113
June 30.....	211.26	4,210	-250	238	0	83	71	0	71
July 31.....	208.24	3,880	-330	289	0	83	42	0	42
Aug. 31.....	205.51	3,590	-290	231	0	73	14	0	14
Sept. 30.....	203.08	3,350	-240	197	0	46	3	3	0
WTR YR 1981.....	--	--	-1,620	2,082	866	476	1,804	187	1,617

<sup>a</sup> Gage height at 0800.

NOTE.--For months when inflow to the lake was small and other quantities were large, preliminary computations may indicate negative net inflow. This arises primarily from the difficulty of computing net inflow as the residual of several large quantities, which are not susceptible to precise measurement. When this occurs, evaporation and seepage are adjusted to produce non-negative inflows.

## SANTA YNEZ RIVER BASIN

11122000 SANTA YNEZ RIVER ABOVE GIBRALTAR DAM, NEAR SANTA BARBARA, CA

LOCATION.--Lat 34°31'34", long 119°41'08", in SW¼NW¼SW¼ sec.11, T.5 N., R.27 W., Santa Barbara County, Hydrologic Unit 18060010, on upstream face of Gibraltar Dam, 7 mi (11 km) north of Santa Barbara.

DRAINAGE AREA.--216 mi<sup>2</sup> (559 km<sup>2</sup>).

PERIOD OF RECORD.--April 1920 to current year. November 1903 to November 1918 (fragmentary) at river station at damsite; records not equivalent because records since April 1920 are based on operation of Gibraltar Reservoir, and since December 1930, Jameson Lake. Prior to October 1945, published as "Santa Ynez River near Santa Barbara."

GAGE.--Two water-stage recorders. Reservoir gage is to National Geodetic Vertical Datum of 1929. Supplementary gage and sharp-crested weir on diversion from reservoir at different datum. See WSP 1735 for history of changes on both gages prior to Oct. 1, 1955. Spill and release measured by river gaging station below dam (station 11123000).

REMARKS.--Records of total inflow represent all water reaching Gibraltar Reservoir, including precipitation on reservoir. Total inflow computed on basis of records of storage diversion (draft) to city of Santa Barbara, spill and release to river, evaporation, and seepage. Records of net inflow exclude precipitation on reservoir surface. Monthly evaporation from reservoir surface computed on basis of evaporation from Colorado land pan. Area and capacity tables are based on survey made in May 1979. Reservoir capacity at spillway level, elevation, 1,399.82 ft (426.665 m), 8,940 acre-ft (11.0 hm<sup>3</sup>). Lowest outlet at elevation 1,333.86 ft (406.561 m). Flow regulated by Jameson Lake (station 11121000) since December 1930.

COOPERATION.--Reservoir-operation records and related data were furnished by city of Santa Barbara.

## MONTHLY NET INFLOW, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet) <sup>a</sup>	Contents (acre- feet)	Change in contents (acre- feet)	Draft (acre- feet)	Spill and release (acre- feet)	Evapo- ration and seepage (acre- feet)	Total inflow (acre- feet)	Rain on reservoir (acre- feet)	Net inflow (acre- feet)
Sept. 30.....	1,390.90	6,720	--	--	--	--	--	--	--
Oct. 31.....	1,388.00	6,070	-650	676	0	83	109	0	109
Nov. 30.....	1,384.93	5,400	-670	655	0	48	33	0	33
Dec. 31.....	1,382.64	4,960	-440	591	0	29	180	29	151
CAL YR 1980.....	--	--	-1,110	7,214	86,846	980	93,930	724	93,206
Jan. 31.....	1,385.36	5,490	+530	282	0	25	837	100	737
Feb. 28.....	1,387.52	5,960	+470	540	0	35	1,045	53	992
Mar. 31.....	1,400.17	9,030	+3,070	736	4,100	39	7,945	205	7,740
Apr. 30.....	1,400.82	9,200	+170	899	565	82	1,716	24	1,692
May 31.....	1,399.59	8,880	-320	890	62	110	742	0	742
June 30.....	1,396.75	8,160	-720	676	85	162	203	0	203
July 31.....	1,393.22	7,290	-870	676	57	164	27	0	27
Aug. 31.....	1,389.91	6,480	-810	676	0	141	7	0	7
Sept. 30.....	1,386.68	5,780	-700	615	0	103	18	0	18
WTR YR 1981.....	--	--	-940	7,912	4,869	1,021	12,862	411	12,451

<sup>a</sup> Elevation at 0800.

NOTE.--For months when inflow to the reservoir was small and other quantities were large, negative figures of inflow may appear. This arises primarily from the difficulty of computing inflow as the residual of several larger quantities, which are not susceptible to precise measurement. When this occurs, evaporation and seepage is adjusted to produce non-negative inflows.



## SANTA YNEZ RIVER BASIN

325

11123000 SANTA YNEZ RIVER BELOW GIBRALTAR DAM, NEAR SANTA BARBARA, CA

LOCATION.--Lat 34°31'28", long 119°41'11", in NW¼SW¼SW¼ sec.11, T.5 N., R.27 W., Santa Barbara County, Hydrologic Unit 18060010, on left bank 700 ft (213 m) downstream from Gibraltar Dam, and 7 mi (11 km) north of Santa Barbara.

DRAINAGE AREA.--216 mi<sup>2</sup> (559 km<sup>2</sup>).

PERIOD OF RECORD.--April 1920 to current year (monthly discharge only prior to October 1941).

GAGE.--Two water-stage recorders. Datum of gage on main channel is 1,227 ft (374.0 m) National Geodetic Vertical Datum of 1929. Supplementary gage and sharp-crested weir on the release channel from Gibraltar Dam to river at different datum. See WSP 1735 for history of changes on both gages prior to May 20, 1958.

REMARKS.--Records good. Flow regulated by Jameson Lake (station 11121000) and Gibraltar Reservoir (station 11122000). City of Santa Barbara diverted 5,660 acre-ft (6.98 hm<sup>3</sup>) during current year from Gibraltar Reservoir; Montecito County Water District diverted 1,890 acre-ft (2.33 hm<sup>3</sup>) during current year from Jameson Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,200 ft<sup>3</sup>/s (1,530 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 25.8 ft (7.86 m), from rating curve extended above 2,100 ft<sup>3</sup>/s (59.5 m<sup>3</sup>/s) on basis of computations of flow from gate openings and flow over dam at gage heights 17.5 ft (5.33 m) and 25.8 ft (7.86 m); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 670 ft<sup>3</sup>/s (18.9 m<sup>3</sup>/s), Mar. 11, (manipulation of spill gates) gage height, 9.95 ft (3.033 m); no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	34	3.7	0	2.4		0
2						0	26	3.6	0	2.4		0
3						0	22	3.2	0	2.5		0
4						0	22	2.8	0	2.5		0
5						0	17	2.4	0	2.3		0
6						187	18	2.4	0	2.6		0
7						207	17	2.6	0	2.6		0
8						130	14	2.5	0	2.5		0
9						100	5.3	2.3	0	2.5		0
10						80	0	2.9	0	1.4		0
11						65	.10	1.6	0	.80		0
12						56	.97	1.1	0	.71		0
13						56	2.8	.71	0	.74		0
14						48	4.3	.34	0	.74		0
15						42	4.6	0	0	.80		0
16						35	4.7	0	0	.80		0
17						28	4.5	0	0	.49		0
18						25	5.2	0	0	0		0
19						108	5.5	0	2.1	0		0
20						248	7.2	0	3.9	0		0
21						112	7.4	0	3.9	0		0
22						84	7.7	0	3.9	0		0
23						80	8.1	0	3.9	0		0
24						68	8.1	0	3.9	0		0
25						65	8.0	0	3.9	0		0
26						50	7.5	0	3.9	0		0
27						47	7.1	0	3.9	0		0
28						41	6.6	0	3.9	0		0
29					---	36	5.1	0	3.0	0		.09
30					---	38	4.3	0	2.5	0		.14
31		---			---	35	---	0	---	0		---
TOTAL	0	0	0	0	0	2066	285.07	31.25	42.7	28.83	0	.23
MEAN	0	0	0	0	0	66.6	9.50	1.01	1.42	.93	0	.008
MAX	0	0	0	0	0	248	34	7.7	3.9	2.6	0	.14
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	4100	565	62	85	57	0	.5
CAL YR 1980	TOTAL	43781.87	MEAN 120	MAX 5300	MIN 0	AC-FT 86840						
WTR YR 1981	TOTAL	2454.08	MEAN 6.12	MAX 248	MIN 0	AC-FT 4870						

## 11123500 SANTA YNEZ RIVER BELOW LOS LAURELES CANYON, NEAR SANTA YNEZ, CA

LOCATION.--Lat 34°32'37", long 119°51'50", in San Marcos Grant, Santa Barbara County, Hydrologic Unit 18060010, on left bank 0.3 mi (0.5 km) downstream from Los Laureles Canyon Creek, 10 mi (16 km) downstream from Gibraltar Reservoir, and 13.3 mi (21.4 km) east of Santa Ynez.

DRAINAGE AREA.--277 mi<sup>2</sup> (717 km<sup>2</sup>).

PERIOD OF RECORD.--April 1947 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 787.8 ft (240.12 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Jameson Lake and Gibraltar Reservoir (stations 11121000, 11122000). Water diverted out of basin from these reservoirs to cities of Montecito and Santa Barbara for municipal supply. Low flow affected by intermittent pumping for irrigation from infiltration gallery in riverbed at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 67,500 ft<sup>3</sup>/s (1,910 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 18.88 ft (5.755 m), from rating curve extended above 11,600 ft<sup>3</sup>/s (329 m<sup>3</sup>/s) on basis of maximum flow for station below Gibraltar Dam plus tributary inflow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft<sup>3</sup>/s (28.6 m<sup>3</sup>/s) Mar. 5, gage height, 6.99 ft (2.131 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.05	.01	.04	9.3	256	56	11	1.6	.24		
2	.12	.05	.02	.04	6.9	315	49	11	.64	.14		
3	.12	.05	.01	0	5.7	119	43	10	.52	0		
4	.13	.05	.03	.01	4.8	108	40	9.0	.73	0		
5	.13	.05	.04	.03	4.3	484	39	8.4	.80	0		
6	.13	.05	.05	.03	3.9	249	37	7.4	.80	0		
7	.09	.05	.05	.05	3.6	311	34	8.6	.79	0		
8	.06	.05	.06	.04	4.9	203	34	8.1	.77	0		
9	.07	.05	.06	.03	35	143	33	7.6	.74	0		
10	.07	.05	.07	.03	25	123	27	7.4	.71	0		
11	.07	.05	.07	0	16	114	19	6.9	.68	.04		
12	.07	.05	.08	.03	13	89	16	6.5	.52	.06		
13	.07	.04	.10	.06	10	87	14	6.5	.30	.07		
14	.07	.04	.10	.09	8.7	82	13	6.5	.27	.06		
15	.07	.04	.11	.05	7.9	72	12	6.5	.38	.04		
16	.03	.04	.12	.03	7.0	66	11	6.3	.41	.03		
17	.01	.03	.13	.04	6.1	56	11	5.7	.37	.02		
18	.01	.03	.13	0	5.8	49	14	4.9	.23	.01		
19	.02	.03	.14	0	5.3	93	17	4.6	.23	0		
20	.02	.03	.14	.01	5.0	262	16	4.6	.20	0		
21	.03	.03	.14	.01	4.5	181	16	4.4	.22	0		
22	.04	.03	.15	.02	3.8	132	15	4.1	.11	0		
23	.04	.04	.15	.08	3.6	131	13	3.8	.12	.01		
24	.04	.04	.15	.13	3.5	104	14	3.8	.07	.01		
25	.04	.03	.16	.16	6.2	99	14	3.8	.12	0		
26	.05	.03	.16	.19	12	93	14	3.8	.19	0		
27	.05	.03	.17	.69	9.0	72	14	3.7	.21	0		
28	.05	.03	.17	21	12	70	13	3.3	.23	0		
29	.05	.02	.17	60	---	63	12	3.0	.23	0		
30	.05	.01	.12	36	---	60	11	2.7	.24	0		
31	.05	---	.05	15	---	60	---	2.4	---	0		---
TOTAL	1.97	1.17	3.11	133.89	242.8	4346	671	186.3	13.43	.73	0	0
MEAN	.064	.039	.10	4.32	8.67	140	22.4	6.01	.45	.024	0	0
MAX	.13	.05	.17	60	35	484	56	11	1.6	.24	0	0
MIN	.01	.01	.01	0	3.5	49	11	2.4	.07	0	0	0
AC-FT	3.9	2.3	6.2	266	482	8620	1330	370	27	1.4	0	0
CAL YR 1980 TOTAL	57494.23			MEAN 157	MAX 6330	MIN .01	AC-FT 114000					
WTR YR 1981 TOTAL	5600.40			MEAN 15.3	MAX 484	MIN 0	AC-FT 11110					

## SANTA YNEZ RIVER BASIN

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11124500 SANTA CRUZ CREEK NEAR SANTA YNEZ, CA

LOCATION.--Lat 34°35'48", long 119°54'28", in San Marcos Grant, Santa Barbara County, Hydrologic Unit 18060010, on right bank 0.6 mi (1.0 km) downstream from Pine Canyon, and 9.9 mi (15.9 km) east of Santa Ynez.

DRAINAGE AREA.--74.0 mi<sup>2</sup> (191.7 km<sup>2</sup>).

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 783.38 ft (238.774 m) National Geodetic Vertical Datum of 1929. See WSP 1735 for history of changes prior to Sept. 27, 1952. Sept. 27, 1952, to June 24, 1969, at datum 3.25 ft (0.991 m) higher.

REMARKS.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--40 years, 17.3 ft<sup>3</sup>/s (0.490 m<sup>3</sup>/s), 12,530 acre-ft/yr (15.4 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft<sup>3</sup>/s (200 m<sup>3</sup>/s) Feb. 24, 1969, gage height, 14.45 ft (4.404 m), from floodmark, present datum, from rating curve extended above 2,500 ft<sup>3</sup>/s (70.8 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 14.16 ft (4.316 m); no flow at times since 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 340 ft<sup>3</sup>/s (9.63 m<sup>3</sup>/s) on basis of slope-area measurement at 12.37 ft (3.770 m):

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. 29	1645	210 5.95	8.68 2.646	Mar. 4	2345	*735 20.8	9.60 2.926
Feb. 9	0845	122 3.46	8.41 2.563	Mar. 19	2130	192 5.44	8.63 2.630
Mar. 2	0530	342 9.69	8.98 2.737	Mar. 22	1500	168 4.76	8.56 2.609

Minimum daily discharge, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	1.4	7.9	124	22	9.0	2.1	.36		
2			0	1.3	6.2	166	22	8.9	2.0	.29		
3			0	1.4	5.2	80	21	8.5	1.9	.26		
4			0	1.5	4.5	96	20	8.5	1.4	.21		
5			0	1.5	4.2	241	18	8.3	1.1	.20		
6			0	1.5	3.8	74	17	8.0	.95	.18		
7			0	1.5	3.6	42	17	7.5	.92	.14		
8			0	1.5	4.9	34	17	7.0	.86	.11		
9			0	1.5	66	30	16	6.3	.73	.09		
10			0	1.5	24	24	16	6.0	.62	.08		
11			.14	1.5	13	22	16	5.9	.59	.07		
12			.35	1.6	9.2	18	15	5.8	.55	.06		
13			.46	1.7	7.7	17	15	6.1	.55	.05		
14			.58	1.6	6.6	15	14	5.8	.48	.04		
15			.71	1.7	5.9	12	13	5.8	.50	.03		
16			.76	1.7	5.4	11	13	5.4	.50	.03		
17			.84	1.7	4.9	9.9	13	5.0	.49	.02		
18			.83	1.7	4.6	9.5	15	4.8	.51	.01		
19			.86	1.8	4.5	34	17	4.5	.58	0		
20			1.0	1.9	4.5	63	15	4.6	.55	0		
21			1.1	1.9	4.3	30	14	4.5	.56	0		
22			1.2	1.9	4.3	94	13	4.3	.60	0		
23			1.3	3.3	4.3	58	12	4.0	.59	0		
24			1.3	3.6	4.4	33	12	3.5	.57	0		
25			1.3	2.6	6.8	27	11	3.2	.53	0		
26			1.3	2.3	9.5	26	11	3.2	.50	0		
27			1.4	3.1	6.8	25	11	3.2	.50	0		
28			1.5	13	7.5	23	10	3.2	.52	0		
29			1.5	75	---	24	9.6	3.0	.53	0		
30			1.4	32	---	24	9.1	2.4	.50	0		
31		---	1.4	12	---	23	---	2.2	---	0		---
TOTAL	0	0	21.23	182.2	244.5	1509.4	444.7	168.4	23.28	2.23	0	0
MEAN	0	0	.68	5.88	8.73	48.7	14.8	5.43	.78	.072	0	0
MAX	0	0	1.5	75	66	241	22	9.0	2.1	.36	0	0
MIN	0	0	0	1.3	3.6	9.5	9.1	2.2	.48	0	0	0
AC-FT	0	0	42	361	485	2990	882	334	46	4.4	0	0
CAL YR 1980	TOTAL	11965.95	MEAN	32.7	MAX	947	MIN	0	AC-FT	23730		
WTR YR 1981	TOTAL	2595.94	MEAN	7.11	MAX	241	MIN	0	AC-FT	5150		

## SANTA YNEZ RIVER BASIN

11125500 LAKE CACHUMA NEAR SANTA YNEZ, CA

LOCATION.--Lat 34°34'57", long 119°58'47", in Lomas de la Purification Grant, Santa Barbara County, Hydrologic Unit 18060010, at Bradbury Dam on Santa Ynez River, on upstream face near left end of dam, 6.1 mi (9.8 km) east of Santa Ynez.

DRAINAGE AREA.--417 mi<sup>2</sup> (1,080 km<sup>2</sup>).

PERIOD OF RECORD.--November 1952 to current year. Prior to October 1960, published as "Cachuma Reservoir near Santa Ynez."

GAGE.--Water-stage recorder. Datum of gage is 0.00 ft, Bureau of Reclamation datum. Prior to Oct. 1, 1965, nonrecording gage.

REMARKS.--Reservoir is formed by earthfill dam. Storage began November 1952. Capacity table is based on surveys made in January 1953. Dead storage below outlet gage to river, elevation, 600 ft (182.9 m), 3,114 acre-ft (3.84 hm<sup>3</sup>), included in contents. Capacity below sill of inlet to Tecolote tunnel, elevation, 660 ft (201.2 m), 32,514 acre-ft (40.1 hm<sup>3</sup>), below spillway level, elevation, 720 ft (219.5 m), 125,292 acre-ft (154 hm<sup>3</sup>); below top of 4 radial gates, elevation, 750 ft (228.6 m), 204,874 acre-ft (253 hm<sup>3</sup>). Water is released from outlet to Santa Ynez River to satisfy downstream water rights. Water diverted to Tecolote tunnel for use by city of Santa Barbara, nearby communities, Santa Ynez River Water Conservation District, and to Cachuma recreation area.

COOPERATION.--Reservoir elevation, contents, and diversion figures were furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 221,100 acre-ft (273 hm<sup>3</sup>) Feb. 24, 1969, elevation, 755.11 ft (230.158 m); minimum since initial filling in April 1958, 105,300 acre-ft (130 hm<sup>3</sup>) Dec. 24, 25, 1977, elevation, 710.56 ft (216.579 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 197,400 acre-ft (243 hm<sup>3</sup>) Apr. 20, 21, elevation, 747.56 ft (227.856 m); minimum, 168,900 acre-ft (208 hm<sup>3</sup>) Sept. 30, elevation, 737.56 ft (224.808 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Total diversions (acre-feet)
Sept. 30.....	744.16	187,400	--	--
Oct. 31.....	742.96	183,900	-3,500	2,090
Nov. 30.....	741.92	181,000	-2,900	1,940
Dec. 31.....	741.41	179,500	-1,500	1,160
CAL YR 1980.....	--	--	+2,400	25,308
Jan. 31.....	741.34	179,300	-200	1,470
Feb. 28.....	741.75	180,500	+1,200	558
Mar. 31.....	747.28	196,600	+16,100	416
Apr. 30.....	747.46	197,100	+500	1,480
May 31.....	746.19	193,300	-3,800	3,290
June 30.....	744.29	187,800	-5,500	3,930
July 31.....	742.47	182,500	-5,300	3,450
Aug. 31.....	740.59	177,200	-5,300	3,450
Sept. 30.....	737.56	168,900	-8,300	2,810
WTR YR 1981.....	--	--	-18,500	26,044

## SANTA YNEZ RIVER BASIN

329

11128250 ALAMO PINTADO CREEK NEAR SOLVANG, CA

LOCATION.--Lat 34°37'06", long 120°07'11", in SE¼NW¼NW¼ sec.11, T.6 N., R.31 W., Santa Barbara County, Hydrologic Unit 18060010, on right bank at downstream side of bridge on Alamo Pintado Road, 1.5 mi (2.4 km) northeast of Solvang.

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

PERIOD OF RECORD.--October 1970 to current year. Records prior to October 1970 in files of Santa Barbara County Flood Control District.

GAGE.--Water-stage recorder. Datum of gage is 540.49 ft (164.741 m) Santa Barbara County datum.

REMARKS.--Records poor. No regulation above station. Pumping from wells along stream for irrigation.

AVERAGE DISCHARGE.--11 years, 0.48 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s), 348 acre-ft/yr (429,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 724 ft<sup>3</sup>/s (20.5 m<sup>3</sup>/s) Feb. 9, 1978, gage height, 6.80 ft (2.073 m), from floodmark, from rating curve extended above 3.0 ft<sup>3</sup>/s (0.085 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 6.00 ft (1.829 m) and 6.80 ft (2.073 m); no flow most of each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1969, reached a stage of 10.32 ft (3.146 m), from information by Santa Barbara County Flood Control District.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 36 ft<sup>3</sup>/s (1.02 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 6.00 ft (1.829 m) and 6.80 ft (2.073 m):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Mar. 1	0815	Unknown	4.47 1.362
Mar. 5	0400	*139 3.94	4.54 1.384

Minimum daily discharge, no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						5.0					0	
2						4.0					0	
3						2.0					.04	
4						.73					0	
5						66					0	
6						3.7					0	
7						.66					0	
8						.15					0	
9						.02					0	
10						.02					0	
11						.01					0	
12						0					0	
13						0					0	
14						0					0	
15						0					0	
16						0					0	
17						0					0	
18						0					0	
19						.39					0	
20						0					0	
21						0					0	
22						1.1					0	
23						0					0	
24						0					0	
25						0					0	
26						0					0	
27						0					0	
28						0					0	
29						0					0	
30						0					0	
31		---			---	0	---		---		0	---
TOTAL	0	0	0	0	0	83.78	0	0	0	0	.04	0
MEAN	0	0	0	0	0	2.70	0	0	0	0	.001	0
MAX	0	0	0	0	0	66	0	0	0	0	.04	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	166	0	0	0	0	.08	0
CAL YR 1980	TOTAL	503.25	MEAN	1.38	MAX	139	MIN	0	AC-FT	998		
WTR YR 1981	TOTAL	83.82	MEAN	.23	MAX	66	MIN	0	AC-FT	166		

## SANTA YNEZ RIVER BASIN

11128300 ALISAL RESERVOIR NEAR SOLVANG, CA

LOCATION.--Lat 34°32'56", long 120°07'45", in SE¼NE¼NW¼ sec.4, T.5 N., R.31 W., Santa Barbara County, Hydrologic Unit 18060010, in cove, on right bank 0.4 mi (0.6 km) upstream from reservoir spillway, and 3 mi (5 km) south of Solvang.

DRAINAGE AREA.--7.83 mi<sup>2</sup> (20.28 km<sup>2</sup>).

PERIOD OF RECORD.--December 1971 to current year.

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

REMARKS.--Lake is formed by earthfill dam. Storage began Dec. 19, 1970. Usable capacity, 2,260 acre-ft (2.79 hm<sup>3</sup>) between bottom of outlet gate at elevation 555.70 ft (169.377 m) and crest of spillway at elevation 599.88 ft (182.843 m). Dead storage, 110 acre-ft (136,000 m<sup>3</sup>). Inflow must total 150 acre-ft (185,000 m<sup>3</sup>) during any one month between November and June in order to store flows for that water year.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,770 acre-ft (3.42 hm<sup>3</sup>) Mar. 4, 1978, elevation, 604.31 ft (184.194 m); minimum, 748 acre-ft (922,000 m<sup>3</sup>) Nov. 8-10, 1972, elevation, 577.15 ft (175.915 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,500 acre-ft (3.08 hm<sup>3</sup>) Mar. 5, elevation, 601.33 ft (183.285 m); minimum, 2,180 acre-ft (2.69 hm<sup>3</sup>) Sept. 30, elevation, 597.78 ft (182.203 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 1800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	598.48	2,240	--
Oct. 31.....	598.10	2,210	-30
Nov. 30.....	597.84	2,190	-20
Dec. 31.....	598.02	2,200	+10
CAL YR 1980.....	--	--	-20
Jan. 31.....	598.96	2,290	+90
Feb. 28.....	600.00	2,380	+90
Mar. 31.....	599.97	2,380	0
Apr. 30.....	599.90	2,370	-10
May 31.....	599.83	2,360	-10
June 30.....	599.35	2,320	-40
July 31.....	598.75	2,270	-50
Aug. 31.....	598.21	2,220	-50
Sept. 30.....	597.78	2,180	-40
WTR YR 1981.....	--	--	-60

## SANTA YNEZ RIVER BASIN

331

11128500 SANTA YNEZ RIVER AT SOLVANG, CA

LOCATION.--Lat 34°35'06", long 120°08'37", in San Carlos de Jonata Grant, Santa Barbara County, Hydrologic Unit 18060010, near left bank on downstream end of pier of Alisal Road bridge, 25 ft (8 m) downstream from Alisal Creek; 0.8 mi (1.3 km) southwest of Solvang, and 10 mi (16 km) downstream from Lake Cachuma.

DRAINAGE AREA.--579 mi<sup>2</sup> (1,500 km<sup>2</sup>).

PERIOD OF RECORD.--October 1928 to November 1936, June 1937 to November 1940 (irrigation seasons only), October 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 362.43 ft (110.469 m) National Geodetic Vertical Datum of 1929. Various datums used during period of record. July 29 to Sept. 30, 1953, auxiliary water-stage recorder 750 ft (230 m) upstream at different datum. Oct. 1, 1953, to Sept. 30, 1968, water-stage recorder at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records poor. No gage-height record most of year. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952 Lake Cachuma (stations 11121000, 11122000, 11125500). Water diverted out of basin from Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Water for irrigation pumped from wells along banks of river in valley upstream.

EXTREMES FOR PERIOD OF RECORD (1928-36 AND SINCE 1946).--Maximum discharge, 82,000 ft<sup>3</sup>/s (2,320 m<sup>3</sup>/s), estimated, Jan. 25, 1969, gage height, 17.1 ft (5.21 m), from floodmark; no flow for several months in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,280 ft<sup>3</sup>/s (121 m<sup>3</sup>/s) Mar. 5, gage height, 3.74 ft (1.140 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	7.8	396	14	3.2				0
2				0	7.1	372	13	2.8				0
3				.02	6.5	241	13	2.7				0
4				.04	6.2	330	12	2.5				0
5				.06	5.8	1670	11	2.1				0
6				.08	5.6	234	10	1.6				0
7				.10	5.3	85	9.0	1.5				0
8				.12	8.0	47	8.0	1.2				0
9				.12	20	38	7.0	.74				0
10				.12	8.1	30	6.5	.48				.91
11				.12	6.1	25	6.2	.33				45
12				.14	5.6	22	5.5	.22				72
13				.14	5.2	19	5.0	.17				75
14				.14	4.9	16	4.5	.18				75
15				.14	4.7	15	4.0	.17				77
16				.14	4.5	13	3.3	.14				82
17				.14	4.3	11	3.3	.13				88
18				.14	4.2	10	3.3	.11				88
19				.15	4.0	50	5.0	.13				102
20				.16	3.9	38	4.2	.12				127
21				.16	3.8	21	3.5	.10				140
22				.16	3.7	22	3.4	.06				47
23				2.0	3.6	28	3.3	.02				13
24				1.6	3.6	21	3.3	0				7.3
25				1.2	10	18	3.3	0				6.2
26				.90	7.5	19	3.2	0				5.0
27				.70	6.0	17	3.2	0				4.2
28				29	10	16	3.2	.01				4.0
29				20	---	16	3.2	0				3.3
30				10	---	15	3.2	0				2.9
31		---		8.8	---	15	---	0	---			---
TOTAL	0	0	0	76.59	176.0	3870	180.6	20.71	0	0	0	1064.81
MEAN	0	0	0	2.47	6.29	125	6.02	.67	0	0	0	35.5
MAX	0	0	0	29	20	1670	14	3.2	0	0	0	140
MIN	0	0	0	0	3.6	10	3.2	0	0	0	0	0
AC-FT	0	0	0	152	349	7680	358	41	0	0	0	2110
CAL YR 1980	TOTAL	98772.69	MEAN	270	MAX	13500	MIN	0	AC-FT	195900		
WTR YR 1981	TOTAL	5388.71	MEAN	14.8	MAX	1670	MIN	0	AC-FT	10690		

1112127  
15.0  
10,390

## SANTA YNEZ RIVER BASIN

11129800 ZACA CREEK NEAR BUELLTON, CA

LOCATION.--Lat 34°38'55", long 120°11'00", in San Carlos de Jonata Grant, Santa Barbara County, Hydrologic Unit 18060010, on upstream end of center pier of bridge on frontage road, 0.9 mi (1.4 km) upstream from Dry Creek, 2.4 mi (3.9 km) north of Buellton, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--32.8 mi<sup>2</sup> (85.0 km<sup>2</sup>).

PERIOD OF RECORD.--September 1963 to September 30, 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 471.54 ft (143.725 m) National Geodetic Vertical Datum of 1929.

REMARKS.-- Records fair. Some pumping from wells along stream for irrigation above station.

AVERAGE DISCHARGE.--18 years, 1.03 ft<sup>3</sup>/s (0.029 m<sup>3</sup>/s), 746 acre-ft/yr (920,000 m<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,390 ft<sup>3</sup>/s (39.4 m<sup>3</sup>/s) Feb. 24, 1969, gage height, 9.20 ft (2.804 m); maximum gage height, 9.66 ft (2.944 m) Mar. 4, 1978; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 142 ft<sup>3</sup>/s (4.02 m<sup>3</sup>/s) Mar. 5 (0330 hrs), gage height, 4.30 ft (1.311 m), no other peak above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s); no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	4.4	.78	0				
2				0	0	3.7	.71	.02				
3				0	0	2.2	.82	0				
4				0	0	8.3	.51	0				
5				0	0	81	.32	0				
6				0	0	14	.28	0				
7				0	0	6.5	.27	0				
8				0	1.7	3.1	.27	0				
9				0	4.4	1.5	.26	0				
10				0	.08	1.4	.24	0				
11				0	.03	1.2	.23	0				
12				0	.01	1.1	.22	0				
13				0	.01	1.0	.21	0				
14				0	.02	.80	.21	0				
15				0	.03	.70	.22	0				
16				0	.02	.60	.22	0				
17				0	.01	.40	.22	0				
18				0	.01	.30	.38	0				
19				0	.02	1.6	.32	0				
20				0	.02	.67	.22	0				
21				0	0	.58	.17	0				
22				0	0	2.8	.13	0				
23				0	.02	2.5	.11	0				
24				0	.19	1.8	.12	0				
25				0	1.4	1.2	.13	0				
26				0	.18	1.7	.08	0				
27				.27	.05	2.5	.01	0				
28				.75	.46	1.6	0	0				
29				3.7	---	1.3	0	0				
30				2.4	---	1.2	0	0				
31		---		0	---	.94	---	0	---			---
TOTAL	0	0	0	7.12	8.66	152.59	7.66	.02	0	0	0	0
MEAN	0	0	0	.23	.31	4.92	.26	.0006	0	0	0	0
MAX	0	0	0	3.7	4.4	81	.82	.02	0	0	0	0
MIN	0	0	0	0	0	.30	0	0	0	0	0	0
AC-FT	0	0	0	14	17	303	15	.04	0	0	0	0

CAL YR 1980 TOTAL 446.59 MEAN 1.22 MAX 60 MIN 0 AC-FT 886  
WTR YR 1981 TOTAL 176.05 MEAN .48 MAX 81 MIN 0 AC-FT 349



## SANTA YNEZ RIVER BASIN

333

11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA

LOCATION.--Lat 34°35'19", long 120°24'27", in W½ sec.24, T.6 N., R.34 W., Santa Barbara County, Hydrologic Unit 18060010, on right bank at bridge on Jalama Road, 0.4 mi (0.6 km) downstream from El Jaro Creek, and 4.4 mi (7.1 km) southeast of Lompoc.

DRAINAGE AREA.--47.1 mi<sup>2</sup> (122.0 km<sup>2</sup>).

PERIOD OF RECORD.--January 1941 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Altitude of gage is 220 ft (67 m), from topographic map.

REMARKS.--Records good, except those below 5 ft<sup>3</sup>/s (0.14 m<sup>3</sup>/s), which are fair. No regulation above station. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--40 years, 9.76 ft<sup>3</sup>/s (0.276 m<sup>3</sup>/s), 7,070 acre-ft/yr (8.72 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) Mar. 15, 1952, gage height, 20.8 ft (6.34 m); no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft<sup>3</sup>/s (19.8 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Mar. 1	0845	1,440 40.8	5.13 1.564
Mar. 5	0315	*1,860 52.7	5.71 1.740

Minimum daily discharge, 0.58 ft<sup>3</sup>/s (0.016 m<sup>3</sup>/s) Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.3	1.7	1.9	3.1	245	9.9	4.2	2.9	1.3	1.0	.66
2	.99	1.3	1.6	1.9	2.9	56	9.6	4.2	3.0	1.3	.99	.69
3	1.0	1.3	2.5	1.9	2.4	13	9.0	4.2	2.5	1.2	.87	.73
4	1.1	1.3	2.2	1.9	2.4	264	4.2	4.2	2.1	1.2	.93	.76
5	1.3	1.2	3.7	1.9	2.4	576	7.5	4.2	2.0	.97	.86	.73
6	1.4	1.2	2.4	1.9	2.4	47	7.5	4.1	2.0	1.0	.93	.80
7	1.4	1.4	2.2	1.9	2.4	24	7.5	3.8	1.9	1.0	.78	.89
8	1.2	1.4	2.2	1.9	5.2	17	7.1	3.8	1.8	.97	.74	.74
9	1.2	1.3	2.2	1.9	37	13	7.0	3.6	1.9	1.1	.85	.84
10	1.2	1.4	2.2	1.9	5.5	11	6.6	3.4	2.0	1.1	.80	.85
11	1.3	1.4	2.2	1.9	3.7	9.7	6.4	3.4	1.9	1.1	.83	.85
12	1.2	1.4	2.2	1.9	3.1	8.3	6.2	3.3	1.8	1.1	.94	.81
13	1.3	1.4	2.0	1.9	2.8	8.0	5.8	3.4	1.7	1.0	1.1	.79
14	1.4	1.3	2.0	1.9	2.7	7.4	5.8	3.4	1.5	.89	1.1	.80
15	1.4	1.4	1.9	1.9	2.7	6.6	5.9	3.2	1.5	.80	1.0	.78
16	1.5	1.3	1.9	1.9	2.6	6.4	5.9	3.1	1.6	.86	.91	.75
17	1.5	1.4	1.9	1.9	2.4	5.9	6.0	2.8	1.7	.99	.90	.70
18	1.4	1.4	1.9	1.9	2.4	5.9	8.1	2.5	1.7	1.1	.95	.66
19	1.3	1.4	1.9	1.9	2.4	101	8.2	2.6	1.9	1.0	.93	.66
20	1.2	1.4	1.9	1.9	2.3	26	7.0	2.5	1.5	.95	.93	.64
21	1.1	1.4	1.9	1.9	2.1	27	6.6	2.5	1.2	.98	.87	.63
22	1.2	1.5	1.9	2.3	2.1	75	6.3	2.7	1.2	.94	.90	.58
23	1.2	1.7	2.0	10	2.3	26	5.6	2.8	1.2	.97	.83	.61
24	1.3	1.7	1.9	3.2	2.4	17	5.5	2.5	1.2	1.0	.89	.70
25	1.4	1.7	1.9	2.5	11	14	5.5	2.7	1.2	1.0	.85	.71
26	1.5	1.7	1.8	2.2	7.5	17	5.1	2.8	1.3	1.1	.74	.73
27	1.4	1.7	1.9	18	3.4	13	4.6	2.8	1.2	1.1	.70	.65
28	1.5	1.6	1.9	29	21	12	4.5	2.5	1.2	1.1	.70	.64
29	1.4	1.7	1.9	13	---	11	4.2	2.7	1.2	.94	.70	.67
30	1.3	1.7	1.9	6.0	---	10	4.2	2.8	1.3	.96	.69	.71
31	1.4	---	1.9	3.8	---	10	---	2.8	---	.98	.76	---
TOTAL	34.99	43.3	83.4	124.9	145.0	1683.2	197.3	99.5	51.1	32.00	26.97	21.76
MEAN	1.29	1.44	2.69	4.19	5.18	54.3	6.58	3.21	1.70	1.03	.87	.73
MAX	1.5	1.7	2.2	29	37	576	9.9	4.2	3.0	1.3	1.1	.89
MIN	.99	1.2	1.6	1.9	2.1	5.9	4.2	2.5	1.2	.80	.69	.58
AC-FT	79	86	165	258	288	3340	391	147	101	63	53	43

CAL YR 1980	TOTAL	7509.79	MEAN	20.5	MAX	1180	MIN	.99	AC-FT	14900
WTR YR 1981	TOTAL	2553.42	MEAN	7.00	MAX	576	MIN	.58	AC-FT	5060

2499.92  
6.85

11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES: Water years 1978 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	
OCT 01...	1040	1.1	1380	8.1	17.0	--	--	--	--	--	--	--	
NOV 03...	1330	1.3	1320	8.1	14.0	520	180	120	54	110	31	2.1	
DEC 02...	1115	1.7	1260	7.9	10.5	--	--	--	--	--	--	--	
JAN 05...	1030	1.9	1260	7.9	9.0	--	--	--	--	--	--	--	
FEB 03...	1355	2.8	1300	8.0	11.5	--	--	--	--	--	--	--	
MAR 02...	0950	44	--	7.4	11.0	--	--	--	--	--	--	--	
APR 01...	1000	9.9	1300	8.2	13.0	--	--	--	--	--	--	--	
29...	1130	4.2	1350	8.0	19.0	--	--	--	--	--	--	--	
JUN 16...	1100	1.6	1300	8.2	20.0	--	--	--	--	--	--	--	
JUL 01...	0945	1.5	1300	8.2	19.0	--	--	--	--	--	--	--	
AUG 03...	1015	1.1	1400	8.2	18.0	--	--	--	--	--	--	--	
SEP 01...	1130	.73	1490	8.1	18.5	--	--	--	--	--	--	--	
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIFD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 140 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 01...	--	--	--	--	--	--	--	841	--	--	--	--	--
NOV 03...	2.2	340	240	130	.6	21	851	892	.75	.530	510	30	
DEC 02...	--	--	--	--	--	--	--	711	--	--	--	--	--
JAN 05...	--	--	--	--	--	--	--	901	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	944	--	--	--	--	--
MAR 02...	--	--	--	--	--	--	--	436	--	--	--	--	--
APR 01...	--	--	--	--	--	--	--	894	--	--	--	--	--
29...	--	--	--	--	--	--	--	870	--	--	--	--	--
JUN 16...	--	--	--	--	--	--	--	498	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	--	909	--	--	--	--	--
AUG 03...	--	--	--	--	--	--	--	938	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	--	969	--	--	--	--	--

## 11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CA

LOCATION (REVISED).--Lat 34°38'14", long 120°25'28", in Canada de Salsipuedes Grant, Santa Barbara County, on left bank 0.6 mi (1.0 km) upstream from State Highway 246, 1.9 mi (3.1 km) east of Lompoc, 1.8 mi (2.9 km) downstream from Salsipuedes Creek, and 12.4 mi (20.0 km) downstream from Lake Cachuma.

DRAINAGE AREA.--789 mi<sup>2</sup> (2040 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1947 to November 1951 (irrigation seasons only). May 1952 to September 1963, October 1964 to September 1978, October 1980 to September 1981. Records equivalent, except for low-flow periods, to those published as "near Lompoc" (station 11133500), November to December 1906, October 1907 to September 1918, May 1925 to September 1960, October 1978 to September 1980.

GAGE.--Two water-stage recorders. Altitude of main gage is 90 ft (27 m) from topographic map. See WSP 1715 for history of changes prior to Oct. 1, 1961. Since Oct. 1, 1961, at various sites and datums within 0.1 mi (0.2 km) of present site. Supplementary gage, used for high-water periods, at site 0.6 mi (1.0 km) downstream at datum 79.25 ft (24.155 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for period of no gage-height record, Oct. 1 to Nov. 20, which are poor. Supplementary recorder used Jan. 23 to Apr. 1. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952 by Lake Cachuma (stations 11121000, 11122000, 11125500). Water diverted out of Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Water pumped from wells along banks of river for irrigation in valley upstream.

EXTREMES FOR PERIOD OF RECORD (1952-63 and since 1964).--Maximum discharge, 80,000 ft<sup>3</sup>/s (2,270 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 24.20 ft (7.376 m), from supplementary gage; no flow at times in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 9, 1907, 120,000 ft<sup>3</sup>/s (3,400 m<sup>3</sup>/s), gage height, 22.0 ft (6.71 m) site and datum then in use, from mean-depth study.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,730 ft<sup>3</sup>/s (134 m<sup>3</sup>/s) Mar. 5, gage height, 6.50 ft (1.981 m); no flow Aug. 7 to Sept. 21, Sept. 24-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.7	1.7	2.5	14	496	49	16	2.4	1.2	.05	0
2	1.7	1.7	1.7	2.5	14	365	50	16	2.6	1.2	.04	0
3	1.7	1.7	2.5	2.5	13	341	54	15	2.5	1.0	.02	0
4	1.7	1.7	17	2.5	13	364	48	15	2.2	.96	.02	0
5	1.7	1.7	6.7	2.5	18	3100	44	14	2.3	.96	.02	0
6	1.7	1.7	3.6	2.5	17	655	43	12	2.2	.91	.01	0
7	1.7	1.7	3.0	2.4	18	270	40	11	1.9	.89	0	0
8	1.7	1.7	2.8	2.5	23	152	36	9.7	1.9	.79	0	0
9	1.7	1.7	2.7	2.6	70	117	37	8.7	1.9	.75	0	0
10	1.7	1.7	2.6	2.6	33	103	35	7.5	1.9	.64	0	0
11	1.7	1.7	2.5	2.6	27	100	30	7.5	1.9	.48	0	0
12	1.7	1.7	2.5	2.6	20	88	28	8.2	2.0	.27	0	0
13	1.7	1.7	2.4	2.6	18	77	29	7.5	1.9	.28	0	0
14	1.7	1.7	2.5	2.6	17	69	27	6.9	1.6	.23	0	0
15	1.7	1.7	2.5	2.6	16	56	25	6.3	1.6	.23	0	0
16	1.7	1.7	2.5	2.6	15	52	23	5.8	1.6	.23	0	0
17	1.7	1.7	2.5	2.6	15	59	24	4.8	1.6	.23	0	0
18	1.7	1.7	2.5	2.6	14	59	26	4.2	1.6	.20	0	0
19	1.7	1.7	2.5	2.6	14	248	29	4.2	1.5	.16	0	0
20	1.7	1.7	2.5	2.6	14	148	28	3.6	1.4	.14	0	0
21	1.7	1.7	2.5	2.6	14	118	30	2.8	1.4	.11	0	0
22	1.7	1.7	2.5	2.7	14	251	29	2.6	1.3	.07	0	.78
23	1.7	1.7	2.5	7.9	14	132	26	2.6	1.2	.11	0	1.5
24	1.7	1.7	2.5	3.3	15	102	23	2.5	1.2	.11	0	0
25	1.7	1.7	2.5	3.0	56	89	26	2.2	1.2	.11	0	0
26	1.7	1.7	2.5	2.9	30	87	25	2.7	1.2	.11	0	0
27	1.7	1.7	2.5	11	16	75	22	2.5	1.2	.07	0	0
28	1.7	1.7	2.5	45	32	66	20	2.5	1.0	.05	0	0
29	1.7	1.7	2.5	26	---	57	15	2.5	1.0	.05	0	0
30	1.7	1.7	2.5	21	---	58	13	2.5	1.2	.05	0	0
31	1.7	---	2.5	16	---	54	---	2.2	---	.05	0	---
TOTAL	52.7	51.0	96.7	192.5	594	8008	934	211.5	50.4	12.64	.16	2.28
MEAN	1.70	1.70	3.12	6.21	21.2	258	31.1	6.82	1.68	.41	.005	.076
MAX	1.7	1.7	17	45	70	3100	54	16	2.6	1.2	.05	1.5
MIN	1.7	1.7	1.7	2.4	13	52	13	2.2	1.0	.05	0	0
AC-FT	105	101	192	382	1180	15880	1850	420	100	25	.3	4.5

WTR YR 1981 TOTAL 10205.88 MEAN 28.0 MAX 3100 MIN 0 AC-FT 20240

SANTA YNEZ RIVER BASIN  
11133000 SANTA YNEZ RIVER NEAR LOMPOC, CA  
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.  
CHEMICAL ANALYSES: Water years 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
NOV 20...	1230	1.7	1560	8.1	18.0	650	330	130	78	110	27	1.9
JAN 05...	1230	2.5	1640	8.0	17.0	--	--	--	--	--	--	--
FEB 02...	1345	14	--	8.1	18.0	--	--	--	--	--	--	--
MAR 03...	1500	379	--	7.5	15.0	--	--	--	--	--	--	--
APR 02...	1300	48	1340	8.2	17.0	--	--	--	--	--	--	--
MAY 01...	0920	15	1520	7.9	16.5	--	--	--	--	--	--	--
JUN 17...	0945	1.7	1700	8.0	22.0	--	--	--	--	--	--	--
JUL 01...	1120	1.2	1650	8.1	22.0	--	--	--	--	--	--	--
AUG 03...	1320	.03	1750	7.9	26.0	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAR (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 20...	5.0	320	410	130	.4	25	--	1080	.02	.070	510	<10
JAN 05...	--	--	--	--	--	--	1150	--	--	--	--	--
FEB 02...	--	--	--	--	--	--	1240	--	--	--	--	--
MAR 03...	--	--	--	--	--	--	354	--	--	--	--	--
APR 02...	--	--	--	--	--	--	967	--	--	--	--	--
MAY 01...	--	--	--	--	--	--	1140	--	--	--	--	--
JUN 17...	--	--	--	--	--	--	1070	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	1220	--	--	--	--	--
AUG 03...	--	--	--	--	--	--	1190	--	--	--	--	--

## 11134800 MIGUELITO CREEK AT LOMPOC, CA

LOCATION.--Lat 34°37'57", long 120°27'51", in Lompoc Grant, Santa Barbara County, Hydrologic Unit 18060010, on right bank at upstream end of debris dam, and 1,500 ft (460 m) south of Lompoc Union High School.

DRAINAGE AREA.--11.6 mi<sup>2</sup> (30.0 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 97.94 ft (29.852 m) Santa Barbara County Flood Control District datum.

REMARKS.--Records good except those below 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s), which are poor. No regulation or diversion above station; some pumping from wells along stream for irrigation.

AVERAGE DISCHARGE.--11 years, 1.58 ft<sup>3</sup>/s (0.045 m<sup>3</sup>/s), 1,140 acre-ft/yr (1.41 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 787 ft<sup>3</sup>/s (22.3 m<sup>3</sup>/s) Feb. 16, 1980, gage height, 6.30 ft (1.920 m), from rating curve extended above 280 ft<sup>3</sup>/s (7.93 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 4.34 ft (1.323 m); no flow many days in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1969, reached a stage of 5.83 ft (1.777 m), from floodmark, discharge, 680 ft<sup>3</sup>/s (19.3 m<sup>3</sup>/s).

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)	
Jan. 27	2030	120	3.40	2.76	0.841	Mar. 4	1715	196	5.55	3.28	1.000
Mar. 1	0715	*390	11.0	4.42	1.347	Mar. 19	0830	134	3.79	2.85	0.869

Minimum daily discharge, 0.16 ft<sup>3</sup>/s (0.005 m<sup>3</sup>/s) Aug. 30.

DISCHARGE, IN CURIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	.33	.35	.61	1.2	35	1.5	.80	.50	.41	.42	.21
2	.44	.40	.32	.58	1.1	8.3	1.5	.81	.49	.42	.42	.22
3	.53	.46	2.3	.62	1.1	2.8	1.4	.89	.48	.42	.41	.21
4	.52	.39	5.1	.63	1.1	47	1.4	.92	.47	.42	.40	.18
5	.62	.35	.45	.63	.97	45	1.4	.89	.46	.42	.39	.19
6	.61	.36	.44	.60	.99	4.9	1.3	.84	.46	.42	.39	.25
7	.49	.34	.45	.59	.98	3.4	1.2	.81	.45	.42	.38	.32
8	.41	.33	.46	.55	9.4	2.8	1.1	.82	.44	.43	.37	.24
9	.37	.41	.46	.54	9.5	2.3	1.1	.77	.43	.43	.36	.23
10	.36	.45	.45	.58	1.4	2.2	1.0	.86	.43	.43	.35	.23
11	.37	.42	.51	.65	1.3	2.3	.99	.83	.42	.43	.35	.20
12	.40	.39	.56	.65	1.2	2.1	1.1	.66	.42	.43	.28	.19
13	.47	.35	.54	.61	1.1	2.1	1.0	.64	.41	.43	.28	.23
14	.39	.32	.56	.70	1.1	2.0	1.0	.66	.41	.43	.28	.28
15	.38	.31	.58	.69	1.2	1.9	1.0	.67	.40	.43	.27	.32
16	.37	.38	.57	.65	1.3	1.7	.96	.65	.40	.43	.31	.31
17	.36	.42	.57	.65	1.2	1.6	.96	.71	.40	.43	.34	.29
18	.36	.43	.54	.63	1.2	1.6	1.2	.76	.40	.43	.34	.28
19	.40	.41	.53	.64	1.3	18	1.1	.72	.40	.43	.29	.29
20	.44	.44	.56	.55	1.3	2.6	1.1	.63	.40	.44	.27	.32
21	.40	.37	.62	.50	1.2	4.5	.96	.63	.40	.44	.29	.34
22	.37	.36	.60	.85	1.1	9.1	.97	.66	.40	.44	.28	.33
23	.37	.41	.55	1.1	1.2	3.1	1.0	.62	.40	.44	.33	.24
24	.36	.39	.58	.42	1.1	2.6	.96	.61	.40	.44	.36	.20
25	.40	.36	.64	.51	3.3	2.3	.95	.60	.41	.45	.30	.23
26	.41	.40	.66	.52	1.5	2.8	.88	.59	.41	.45	.28	.23
27	.48	.40	.65	11	1.5	1.8	.86	.58	.41	.45	.26	.22
28	.42	.39	.72	3.5	2.3	1.6	.79	.56	.41	.45	.24	.25
29	.38	.32	.65	7.5	---	1.4	.79	.55	.41	.44	.20	.23
30	.36	.39	.62	1.9	---	1.6	.79	.53	.41	.44	.16	.23
31	.33	---	.64	1.5	---	1.4	---	.52	---	.43	.19	---
TOTAL	13.03	11.53	23.29	41.65	53.14	221.8	32.26	21.79	12.73	13.40	9.79	7.49
MEAN	.42	.38	.75	1.34	1.90	7.15	1.08	.70	.42	.43	.32	.25
MAX	.62	.49	5.1	11	9.5	47	1.5	.92	.50	.45	.42	.34
MIN	.33	.31	.32	.42	.97	1.4	.79	.52	.40	.41	.16	.18
AC-FT	26	23	45	83	105	440	64	43	25	27	19	15

CAL YR 1980 TOTAL 934.44 MEAN 2.55 MAX 136 MIN .31 AC-FT 1850  
WTR YR 1981 TOTAL 461.90 MEAN 1.27 MAX 47 MIN .16 AC-FT 916

## SANTA YNEZ RIVER BASIN

11134800 MIGUELITO CREEK AT LOMPOC, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1980 to current year.  
 CHEMICAL ANALYSES: June 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DFG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 01...	1200	.55	1530	8.2	20.5	--	--	--	--	--	--	--
NOV 03...	1150	.42	1480	8.1	16.0	710	320	160	76	85	21	1.4
DEC 02...	1115	.36	1440	8.0	10.5	--	--	--	--	--	--	--
JAN 06...	1155	.61	1360	8.1	13.0	--	--	--	--	--	--	--
FEB 03...	0940	1.1	1450	7.9	10.5	--	--	--	--	--	--	--
MAR 02...	1100	3.1	--	7.6	13.5	--	--	--	--	--	--	--
APR 01...	1135	1.6	1460	7.9	16.0	--	--	--	--	--	--	--
29...	1545	.84	1490	8.2	23.5	--	--	--	--	--	--	--
JUN 16...	1240	.40	1500	8.6	25.0	--	--	--	--	--	--	--
JUL 14...	1215	.43	1520	8.7	24.0	--	--	--	--	--	--	--
27...	1215	.45	1500	8.7	21.0	--	--	--	--	--	--	--
SEP 01...	1445	.25	1590	8.6	23.5	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 01...	--	--	--	--	--	--	1080	--	--	--	--	--
NOV 03...	2.7	390	320	140	.4	44	1090	1070	.73	.330	210	20
DEC 02...	--	--	--	--	--	--	1030	--	--	--	--	--
JAN 06...	--	--	--	--	--	--	1000	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	1120	--	--	--	--	--
MAR 02...	--	--	--	--	--	--	712	--	--	--	--	--
APR 01...	--	--	--	--	--	--	994	--	--	--	--	--
29...	--	--	--	--	--	--	980	--	--	--	--	--
JUN 16...	--	--	--	--	--	--	1030	--	--	--	--	--
JUL 14...	--	--	--	--	--	--	1100	--	--	--	--	--
27...	--	--	--	--	--	--	1110	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	1110	--	--	--	--	--

## SANTA YNEZ RIVER BASIN

339

11135000 SANTA YNEZ RIVER AT PINE CANYON, NEAR LOMPOC, CA

LOCATION.--Lat 34°40'20", long 120°29'30", in Lompoc Grant, Santa Barbara County, Hydrologic Unit 18060010, on right bank at Floradale Avenue bridge, 2.1 mi (3.4 km) upstream from Santa Lucia Creek, 3 mi (5 km) northwest of Lompoc, and 7 mi (11 km) upstream from mouth at Pacific Ocean.

DRAINAGE AREA.--844 mi<sup>2</sup> (2,186 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to October 1946, August 1964 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

Gage.--Water-stage recorder. Datum of gage is 40.78 ft (12.430 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 24, 1964, at different datum. Aug. 24, 1964, to Aug. 20, 1970, at datum 0.91 ft (0.277 m) lower.

REMARKS.--Records fair. Flow regulated by Jameson Lake, Gibraltar Reservoir, and Lake Cachuma (stations 11121000, 11122000, 11125500). Water diverted out of basin from Jameson Lake, Gibraltar Reservoir, and Lake Cachuma to cities of Montecito, Santa Barbara, and Goleta for municipal supply. Water pumped from wells along bank for irrigation in valley upstream. Effluent from city of Lompoc contributes to low flow most months.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 78,000 ft<sup>3</sup>/s (2,210 m<sup>3</sup>/s), estimated, Jan. 25, 1969, gage height, 24.91 ft (7.593 m), present datum, from floodmark; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,050 ft<sup>3</sup>/s (143 m<sup>3</sup>/s), Mar. 5, gage height, 9.05 ft (2.758 m); minimum daily, 0.20 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Oct. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	5.4	3.5	6.9	8.3	241	45	7.3	6.7	5.5	5.1	3.6
2	4.4	4.9	3.4	5.1	8.3	348	43	7.5	6.5	5.6	4.8	3.5
3	4.7	5.6	10	5.0	7.2	283	40	7.4	6.6	5.5	5.5	3.7
4	5.1	5.6	45	4.9	5.9	112	37	7.7	6.6	5.4	5.3	4.0
5	4.9	5.3	8.1	5.0	6.0	2680	36	7.7	6.5	5.1	4.9	3.6
6	5.1	5.4	6.5	5.2	5.9	850	34	7.5	6.0	5.6	4.5	3.4
7	4.7	5.3	6.3	5.4	6.0	435	33	7.2	5.8	5.3	4.5	3.9
8	5.3	5.2	6.4	5.3	38	265	33	7.0	6.3	5.2	4.4	4.4
9	4.9	5.1	5.9	5.4	54	194	30	7.1	6.4	5.1	4.1	4.3
10	4.9	5.0	5.8	5.2	7.8	145	28	6.9	6.5	5.0	4.1	4.6
11	4.7	4.8	5.7	5.2	6.8	115	26	7.3	6.4	5.1	3.9	4.5
12	4.6	4.7	5.7	5.3	6.7	85	24	7.4	6.7	4.6	4.2	4.6
13	5.4	4.6	5.7	5.0	6.5	71	22	7.2	6.6	5.0	4.2	4.5
14	5.1	4.5	5.4	5.0	6.3	65	21	7.4	6.5	4.7	4.4	5.0
15	5.1	4.4	5.7	5.2	6.2	58	20	7.4	6.6	4.5	4.2	4.8
16	5.4	4.3	5.3	5.2	6.3	53	19	7.0	6.6	4.6	4.1	4.9
17	6.2	4.2	5.3	5.3	6.2	51	18	6.7	6.5	4.6	4.4	4.8
18	5.6	4.1	5.1	5.1	6.0	50	17	6.9	6.3	4.4	4.1	4.7
19	5.1	4.0	5.1	5.4	6.0	207	26	6.9	6.4	4.5	4.4	4.9
20	5.4	3.8	5.2	4.9	5.9	156	18	6.7	6.1	5.0	4.5	5.0
21	2.1	3.7	5.0	5.5	5.9	109	17	6.9	6.1	4.8	3.9	5.5
22	.50	3.6	5.0	11	5.9	214	16	6.7	6.3	4.7	3.9	5.2
23	.20	3.5	5.1	31	5.9	113	15	6.5	6.2	4.7	3.8	5.1
24	.50	3.4	5.2	7.3	5.9	89	15	6.0	6.6	4.9	4.1	5.2
25	6.9	3.1	4.7	6.5	40	74	15	6.8	5.8	4.9	3.5	5.3
26	7.5	3.3	4.9	6.3	7.4	71	13	6.6	6.1	5.0	4.0	5.1
27	5.9	3.3	5.0	52	5.8	62	12	6.9	6.1	5.7	4.1	5.1
28	5.3	3.1	4.8	27	12	55	12	6.3	6.1	5.4	3.8	5.3
29	5.1	3.3	5.2	37	---	51	10	6.2	6.4	5.5	3.7	4.9
30	5.1	3.4	5.0	12	---	47	8.4	6.4	5.7	5.3	3.5	4.6
31	5.3	---	8.7	9.1	---	46	---	6.6	---	5.2	3.8	---
TOTAL	145.80	129.9	213.7	309.7	299.1	7395	703.4	216.1	190.0	156.4	131.7	138.0
MEAN	4.70	4.33	6.89	9.99	10.7	239	23.4	6.97	6.33	5.05	4.25	4.60
MAX	7.5	5.6	45	52	54	2680	45	7.7	6.7	5.7	5.5	5.5
MIN	.20	3.1	3.4	4.9	5.8	46	8.4	6.0	5.7	4.4	3.5	3.4
AC-FT	289	258	424	614	593	14670	1400	429	377	310	261	274
CAL YR 1980 TOTAL	99133.70											
MEAN 271												
MAX 11600												
MIN .20												
AC-FT 196600												
WTR YR 1981 TOTAL	10028.80											
MEAN 27.5												
MAX 2680												
MIN .20												
AC-FT 19890												

10029.4  
365  
19910  
= 27.5

## SANTA YNEZ RIVER BASIN

11135000 SANTA YNEZ RIVER AT PINE CANYON, NEAR LOMPOC, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES: October 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 01...	1250	4.8	1770	7.0	23.0	--	--	--	--	--	--	--
NOV 03...	0940	2.7	1630	7.1	15.0	250	67	21	270	69	7.4	12
DEC 02...	1245	3.0	2280	7.1	16.0	--	--	--	--	--	--	--
JAN 06...	1305	5.7	1600	--	19.0	--	--	--	--	--	--	--
FEB 03...	1055	6.7	1550	--	18.0	--	--	--	--	--	--	--
MAR 02...	1220	273	--	7.6	15.0	--	--	--	--	--	--	--
APR 01...	1345	48	1420	8.1	20.5	--	--	--	--	--	--	--
29...	1315	12	1750	7.3	28.0	--	--	--	--	--	--	--
JUN 16...	1320	7.5	1750	7.1	27.0	--	--	--	--	--	--	--
JUL 14...	1240	7.4	1750	7.2	27.0	--	--	--	--	--	--	--
27...	1000	4.9	1600	7.3	21.5	--	--	--	--	--	--	--
SEP 01...	1255	6.9	1800	7.0	25.5	--	--	--	--	--	--	--

DATE	ALKA- LITY LAH (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 01...	--	--	--	--	--	1090	--	--	--	--	--
NOV 03...	100	330	260	.3	30	1100	1110	13	3.60	530	40
DEC 02...	--	--	--	--	--	1440	--	--	--	--	--
JAN 06...	--	--	--	--	--	1090	--	--	--	--	--
FEB 03...	--	--	--	--	--	1070	--	--	--	--	--
MAR 02...	--	--	--	--	--	465	--	--	--	--	--
APR 01...	--	--	--	--	--	976	--	--	--	--	--
29...	--	--	--	--	--	1030	--	--	--	--	--
JUN 16...	--	--	--	--	--	1060	--	--	--	--	--
JUL 14...	--	--	--	--	--	1080	--	--	--	--	--
27...	--	--	--	--	--	1190	--	--	--	--	--
SEP 01...	--	--	--	--	--	979	--	--	--	--	--



## SAN ANTONIO CREEK BASIN

341

11135800 SAN ANTONIO CREEK AT LOS ALAMOS, CA

LOCATION.--Lat 34°44'36", long 120°16'12", in Los Alamos Grant, Santa Barbara County, Hydrologic Unit 18060009, on left bank 100 ft (30 m) upstream from bridge on northbound lane of Highway 101 at Los Alamos.

DRAINAGE AREA.--34.9 mi<sup>2</sup> (90.4 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 580 ft (177 m), from topographic map.

REMARKS.--Records fair. No regulation above station. Pumping for irrigation of about 1,000 acres (4.05 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--11 years, 1.15 ft<sup>3</sup>/s (0.033 m<sup>3</sup>/s), 833 acre-ft/yr (1.03 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,270 ft<sup>3</sup>/s (36.0 m<sup>3</sup>/s) Feb. 10, 1978, gage height, 9.58 ft (2.920 m), from rating curve extended above 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) on basis of slope-area measurement of peak flow; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 298 ft<sup>3</sup>/s (8.44 m<sup>3</sup>/s) Mar. 5 (0400 hours), gage height 3.88 ft (1.183 m), no other peak above base of 30 ft<sup>3</sup>/s (0.55 m<sup>3</sup>/s); no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	7.6	.06					
2				0	0	.91	.05					
3				0	0	.06	.02					
4				0	0	8.3	0					
5				0	0	127	0					
6				0	0	16	0					
7				0	0	3.8	0					
8				0	.12	.22	0					
9				0	4.9	.13	0					
10				0	.26	.17	0					
11				0	.04	.14	0					
12				0	.01	.23	0					
13				0	0	.29	0					
14				0	0	.15	0					
15				0	0	.10	0					
16				0	0	.14	0					
17				0	0	.05	0					
18				0	0	.08	0					
19				0	0	1.1	0					
20				0	0	1.4	0					
21				0	0	.14	0					
22				0	0	6.5	0					
23				0	0	1.6	0					
24				0	0	.24	0					
25				0	.98	.14	0					
26				0	.33	.17	0					
27				0	.08	.06	0					
28				.43	.90	.08	0					
29				3.5	---	.06	0					
30				.66	---	.05	0					
31		---		.02	---	.05	---		---			---
TOTAL	0	0	0	4.61	7.62	176.96	.13	0	0	0	0	0
MEAN	0	0	0	.15	.27	5.71	.004	0	0	0	0	0
MAX	0	0	0	3.5	4.9	127	.06	0	0	0	0	0
MIN	0	0	0	0	0	.05	0	0	0	0	0	0
AC-FT	0	0	0	9.1	15	351	.3	0	0	0	0	0
CAL YR 1980	TOTAL 789.76	MEAN 2.16	MAX 146	MIN 0	AC-FT 1570							
WTR YR 1981	TOTAL 189.32	MEAN .52	MAX 127	MIN 0	AC-FT 376							



## SAN ANTONIO CREEK BASIN

343

11136100 SAN ANTONIO CREEK NEAR CASMALIA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES: Water years 1978 to current year.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT 03...	0920	1.0	3100	8.3	17.5	--	--	--	--	--	--	--
30...	0955	.45	3240	7.8	10.0	750	280	200	61	470	57	7.5
DEC 02...	0945	.56	2550	7.6	7.5	--	--	--	--	--	--	--
30...	0940	.59	2720	7.7	9.0	--	--	--	--	--	--	--
FEB 03...	1325	1.9	--	7.7	7.5	--	--	--	--	--	--	--
MAR 03...	1215	6.9	1950	7.7	10.5	--	--	--	--	--	--	--
APR 02...	1035	1.4	--	7.8	10.5	--	--	--	--	--	--	--
MAY 01...	1200	.91	--	7.8	15.5	--	--	--	--	--	--	--
JUN 02...	1100	2.1	2720	7.8	9.5	--	--	--	--	--	--	--
JUL 01...	1020	1.7	1880	7.9	17.0	480	170	120	43	250	53	5.0
AUG 04...	1050	.87	2050	8.0	18.0	--	--	--	--	--	--	--
SEP 01...	1250	.85	--	8.0	18.0	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAR (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 03...	--	--	--	--	--	--	2250	--	--	--	--	--
30...	26	470	340	700	.4	53	--	2190	11	1.30	7100	60
DEC 02...	--	--	--	--	--	--	1970	--	--	--	--	--
30...	--	--	--	--	--	--	1950	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	2200	--	--	--	--	--
MAR 03...	--	--	--	--	--	--	1310	--	--	--	--	--
APR 02...	--	--	--	--	--	--	2150	--	--	--	--	--
MAY 01...	--	--	--	--	--	--	2280	--	--	--	--	--
JUN 02...	--	--	--	--	--	--	1690	--	--	--	--	--
JUL 01...	11	310	240	310	.5	44	--	1260	4.2	1.00	950	40
AUG 04...	--	--	--	--	--	--	1260	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	1320	--	--	--	--	--

2680  
2770

LOCATION.--Lat 35°01'19", long 120°13'39", in SW¼ sec.14, T.11 N., R.32 W., San Luis Obispo-Santa Barbara County line, Hydrologic Unit 18060007, on downstream side of bridge on State Highway 166, 0.7 mi (1.1 km) downstream from Buckhorn Canyon, and 13 mi (21 km) northeast of Santa Maria.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Altitude of gage is 760 ft (232 m), from topographic map. Prior to October 1959, nonrecording gage at different site and datum.

REMARKS.--Records good. No regulation above station. Pumping from wells along stream for irrigation of several thousand acres in Upper Cuyama Valley.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,800 ft<sup>3</sup>/s (504 m<sup>3</sup>/s) Feb. 25, 1969, gage height, 13.70 ft (4.176 m), from rating curve extended above 4,900 ft<sup>3</sup>/s (139 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 10.85 ft (3.307 m); maximum gage height, 14.74 ft (4.493 m) Mar. 4, 1978; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 163 ft<sup>3</sup>/s (4.62 m<sup>3</sup>/s) Mar. 5, gage height, 7.27 ft (2.216 m), no peak above base of 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s); minimum daily, 0.26 ft<sup>3</sup>/s (0.007 m<sup>3</sup>/s) Aug. 6-8, 21-23, Sept. 9.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.43	.42	.69	11	8.8	7.6	2.6	2.0	.89	.30	.29
2	.52	.44	.42	.78	7.6	46	7.3	2.5	2.0	.82	.30	.29
3	.52	.42	.50	1.1	6.0	33	8.0	2.4	1.8	.77	.31	.29
4	.52	.42	2.1	1.1	5.0	24	6.6	2.3	1.7	.72	.29	.28
5	.52	.43	3.0	1.1	4.1	104	5.6	2.3	1.7	.57	.27	.28
6	.53	.44	1.2	.99	3.4	40	5.5	2.3	1.6	.52	.26	.28
7	.52	.44	.80	1.0	2.5	32	5.2	2.3	1.6	.45	.26	.27
8	.52	.44	.66	.97	3.9	30	4.9	2.3	1.5	.42	.26	.27
9	.52	.41	.61	.97	19	17	4.7	2.2	1.4	.39	.27	.26
10	.52	.39	.58	1.0	12	10	4.2	2.3	1.4	.38	.28	.27
11	.52	.38	.54	.99	9.3	9.0	3.9	2.3	1.4	.41	.30	.27
12	.52	.40	.54	1.0	3.7	8.0	3.8	2.4	1.3	.44	.31	.27
13	.52	.40	.54	1.1	4.1	8.0	3.6	2.4	1.3	.43	.31	.27
14	.53	.41	.56	1.1	4.9	11	3.4	2.4	1.2	.39	.31	.27
15	.48	.42	.54	1.1	4.1	8.0	3.6	2.4	1.1	.42	.31	.29
16	.47	.41	.53	1.2	3.7	6.4	3.5	2.4	1.1	.45	.30	.30
17	.47	.41	.55	1.2	3.3	4.6	3.3	2.3	1.0	.44	.30	.28
18	.47	.41	.58	1.1	3.0	4.6	4.3	2.4	.98	.42	.28	.28
19	.46	.41	.58	1.1	2.8	21	7.2	2.4	.97	.37	.28	.28
20	.47	.41	.59	1.1	2.8	43	5.5	2.4	.90	.36	.27	.28
21	.46	.41	.58	1.2	2.5	52	4.5	2.4	.90	.35	.26	.28
22	.46	.40	.62	1.5	2.4	70	4.2	2.4	.90	.35	.26	.27
23	.45	.40	.61	8.2	2.2	44	4.0	2.3	.89	.36	.26	.28
24	.46	.41	.60	5.2	2.2	29	3.8	2.1	.90	.36	.28	.28
25	.48	.41	.60	2.8	5.0	24	3.4	2.2	.92	.31	.29	.28
26	.46	.41	.54	2.2	8.1	21	3.3	2.2	.94	.32	.28	.27
27	.46	.41	.56	5.1	4.9	17	3.1	2.1	.88	.32	.29	.27
28	.45	.41	.60	16	3.9	15	2.9	2.1	.87	.32	.29	.27
29	.45	.41	.60	69	---	13	2.8	2.1	.86	.33	.29	.27
30	.45	.42	.57	27	---	11	2.7	2.0	.88	.33	.29	.27
31	.44	---	.60	18	---	9.0	---	2.0	---	.31	.30	---
TOTAL	15.20	12.41	22.32	176.89	147.4	773.4	136.4	71.2	36.89	13.72	8.86	8.31
MEAN	.49	.41	.72	5.71	5.26	24.9	4.55	2.30	1.23	.44	.29	.28
MAX	.58	.44	3.0	.69	.19	104	8.0	2.6	2.0	.89	.31	.30
MIN	.44	.38	.42	.69	2.2	4.6	2.7	2.0	.86	.31	.26	.26
AC-FT	30	25	44	351	292	1530	271	141	73	27	18	11

CAL YR 1980	TOTAL	12791.55	MEAN	34.9	MAX	1800	MIN	.24	AC-FT	25370
WTR YR 1981	TOTAL	1423.00	MEAN	3.90	MAX	104	MIN	.26	AC-FT	2820

## SANTA MARIA RIVER BASIN

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11136800 CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES: Water years 1978 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT												
01...	0950	.55	--	7.7	19.0	--	--	--	--	--	--	--
29...	1015	.47	1240	8.0	16.5	560	300	120	63	98	27	1.8
DEC												
01...	1330	.37	--	8.0	15.5	--	--	--	--	--	--	--
29...	1005	.57	1290	8.0	9.5	--	--	--	--	--	--	--
FEB												
03...	1015	6.1	--	8.1	6.5	--	--	--	--	--	--	--
MAR												
03...	0920	38	--	7.9	9.5	--	--	--	--	--	--	--
APR												
01...	1700	7.5	--	8.0	14.5	--	--	--	--	--	--	--
30...	1600	2.8	--	7.9	26.5	--	--	--	--	--	--	--
JUN												
01...	1510	2.0	1680	8.0	8.3	--	--	--	--	--	--	--
30...	1600	.88	1600	8.4	30.5	--	--	--	--	--	--	--
AUG												
03...	1455	.29	1600	8.3	31.5	--	--	--	--	--	--	--
31...	1500	.26	--	8.2	31.0	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT												
01...	--	--	--	--	--	--	974	--	--	--	--	--
29...	4.1	260	400	53	.7	17	913	913	.13	.020	320	120
DEC												
01...	--	--	--	--	--	--	1000	--	--	--	--	--
29...	--	--	--	--	--	--	1010	--	--	--	--	--
FEB												
03...	--	--	--	--	--	--	2380	--	--	--	--	--
MAR												
03...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
01...	--	--	--	--	--	--	1780	--	--	--	--	--
30...	--	--	--	--	--	--	1670	--	--	--	--	--
JUN												
01...	--	--	--	--	--	--	1180	--	--	--	--	--
30...	--	--	--	--	--	--	1190	--	--	--	--	--
AUG												
03...	--	--	--	--	--	--	1120	--	--	--	--	--
31...	--	--	--	--	--	--	1050	--	--	--	--	--

## SANTA MARIA RIVER BASIN

11137900 HUASNA RIVER NEAR ARROYO GRANDE, CA

LOCATION.--Lat 35°04'40", long 120°22'15", in Huasna Grant, San Luis Obispo County, Hydrologic Unit 18060007, on right bank 300 ft (90 m) downstream from Huasna Creek, and 12 mi (19 km) southeast of Arroyo Grande.

DRAINAGE AREA.--103 mi<sup>2</sup> (267 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 640 ft (195 m), from topographic map.

REMARKS.--Records fair. No regulation above station. Some diversion above station into cattle ponds by two ranches upstream and one ranch at station. Extensive diversions by pumping for irrigation above station.

AVERAGE DISCHARGE.--22 years, 18.2 ft<sup>3</sup>/s (0.515 m<sup>3</sup>/s), 13,190 acre-ft/yr (16.3 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft<sup>3</sup>/s (595 m<sup>3</sup>/s) Jan. 25, 1969, gage height, 15.90 ft (4.846 m), from rating curve extended above 1,300 ft<sup>3</sup>/s (36.8 m<sup>3</sup>/s) on basis of slopearea measurement of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 40 ft<sup>3</sup>/s (1.13 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)
Dec. 4	1300	40 1.13	3.27 0.997	Mar. 21	2230	*507 14.4	4.96 1.512
Mar. 5	1245	157 4.45	3.94 1.200				

Minimum daily discharge, 0.19 ft<sup>3</sup>/s (0.005 m<sup>3</sup>/s) Oct. 24-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.49	.60	.82	2.5	12	31	3.6	1.2	.38	.28	.22
2	.28	.73	.58	.82	2.3	8.6	28	3.4	1.2	.37	.28	.22
3	.28	.82	.76	1.0	2.1	6.7	25	3.3	1.1	.37	.28	.22
4	.25	.82	5.7	1.1	2.1	8.1	22	3.2	1.1	.36	.28	.22
5	.21	.83	1.0	1.1	2.1	96	19	3.0	1.0	.35	.27	.22
6	.20	.89	.82	1.1	2.1	79	17	2.9	.96	.34	.27	.22
7	.20	.96	.82	.96	2.1	49	16	2.8	.92	.33	.27	.22
8	.19	.96	.80	.96	2.6	37	14	2.7	.88	.33	.27	.22
9	.19	.96	.66	.96	8.3	29	12	2.6	.84	.32	.27	.22
10	.20	.97	.69	.96	2.4	24	11	2.5	.80	.31	.27	.22
11	.22	.82	.62	.96	1.3	22	10	2.4	.77	.31	.26	.21
12	.20	.44	.64	.96	1.3	22	9.3	2.3	.73	.30	.26	.21
13	.22	.36	.69	.98	1.1	24	8.6	2.3	.70	.30	.26	.21
14	.22	.40	.69	1.0	1.1	26	7.8	2.2	.67	.29	.26	.21
15	.27	.29	.70	1.1	1.1	22	7.0	2.1	.64	.29	.26	.21
16	.30	.31	.69	1.1	.96	20	6.1	2.0	.62	.29	.25	.21
17	.30	.51	.69	1.1	1.2	19	5.9	2.0	.60	.29	.25	.21
18	.30	.57	.69	1.1	1.2	18	7.3	1.9	.57	.29	.25	.21
19	.29	.59	.69	1.1	1.1	132	7.8	1.9	.55	.29	.25	.21
20	.29	.65	.69	1.2	1.1	197	7.1	1.8	.53	.29	.25	.21
21	.25	.69	.69	1.3	1.1	233	6.8	1.7	.51	.29	.24	.21
22	.24	.69	.69	1.7	1.1	321	6.0	1.7	.49	.29	.24	.21
23	.20	.69	.72	3.4	1.3	157	5.1	1.6	.48	.29	.24	.21
24	.19	.75	.74	1.5	1.5	108	4.7	1.6	.46	.29	.23	.21
25	.19	.69	.82	1.5	4.0	79	4.6	1.5	.45	.29	.23	.22
26	.19	.69	.82	1.5	3.7	70	4.4	1.5	.44	.29	.23	.22
27	.19	.63	.82	3.5	1.7	62	4.2	1.4	.42	.29	.23	.22
28	.19	.57	.82	8.1	2.2	50	4.0	1.4	.41	.28	.23	.22
29	.19	.57	.82	11	---	44	3.9	1.3	.40	.28	.23	.22
30	.22	.57	.82	6.9	---	38	3.7	1.3	.39	.28	.23	.22
31	.26	---	.82	3.4	---	34	---	1.3	---	.28	.23	---
TOTAL	7.20	19.91	27.80	64.18	56.66	2047.4	319.3	67.2	20.83	9.55	7.85	6.46
MEAN	.23	.66	.90	2.07	2.02	66.0	10.6	2.17	.69	.31	.25	.22
MAX	.30	.97	5.7	11	8.3	321	31	3.6	1.2	.38	.28	.22
MIN	.19	.29	.58	.82	.96	6.7	3.7	1.3	.39	.28	.23	.21
AC-FT	14	39	55	127	112	4060	633	133	41	19	16	13
CAL YR 1980	TOTAL	13448.58	MEAN	36.7	MAX	1330	MIN	.10	AC-FT	26680		
WTR YR 1981	TOTAL	2654.34	MEAN	7.27	MAX	321	MIN	.19	AC-FT	5260		

## SANTA MARIA RIVER BASIN

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11137900 HUASNA RIVER NEAR ARROYO GRANDE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES: Water years 1979 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT												
29...	--	--	--	--	.4	--	602	--	--	--	--	--
NOV												
26...	1.5	270	160	52	.4	33	630	595	.27	.390	180	10
DEC												
11...	--	--	--	--	--	--	618	--	--	--	--	--
FEB												
18...	--	--	--	--	--	--	604	--	--	--	--	--
MAR												
24...	--	--	--	--	--	--	411	--	--	--	--	--
APR												
15...	--	--	--	--	--	--	571	--	--	--	--	--
JUN												
03...	--	--	--	--	--	--	603	--	--	--	--	--
JUL												
15...	--	--	--	--	--	--	612	--	--	--	--	--
AUG												
11...	--	--	--	--	--	--	635	--	--	--	--	--
SEP												
15...	1.7	260	150	54	.5	44	608	587	.17	.690	120	41

## SANTA MARIA RIVER BASIN

11138100 CUYAMA RIVER BELOW TWITCHELL DAM, CA

LOCATION.--Lat 34°56'40", long 120°17'30", in Suey Grant, Santa Barbara County, Hydrologic Unit 18060007, on left bank 3.5 mi (5.6 km) upstream from mouth, 4 mi (6 km) northeast of Garey, and 4.4 mi (7.1 km) downstream from Twitchell Dam.

DRAINAGE AREA.--1,132 mi<sup>2</sup> (2,932 km<sup>2</sup>).

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 401.94 ft (122.511 m) Water and Power Resources Service datum.

REMARKS.--Records good. Flow regulated since February 1959 by Twitchell Reservoir, capacity 240,000 acre-ft (296 hm<sup>3</sup>). Controlled releases are for ground-water recharge in Santa Maria Valley. Some pumping from wells along stream for irrigation above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,100 ft<sup>3</sup>/s (258 m<sup>3</sup>/s) June 13, 1973, gage height, 8.22 ft (2.505 m), result of sluicing at dam; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 163 ft<sup>3</sup>/s (4.62 m<sup>3</sup>/s) Apr. 9; no flow June 17 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	.92	2.1	4.3	31	34	68	10	3.4			
2	1.7	1.4	2.4	4.4	21	34	85	9.0	3.2			
3	1.7	1.8	2.8	6.7	17	56	113	9.2	2.2			
4	1.7	1.9	34	6.4	14	39	113	9.8	1.6			
5	2.0	.48	18	5.1	12	28	113	8.7	1.7			
6	1.6	.09	9.3	5.0	11	5.7	112	7.4	1.1			
7	1.4	.05	6.7	4.5	9.9	3.7	111	6.2	.63			
8	1.1	.05	5.1	4.9	15	2.6	121	5.4	1.1			
9	.78	.05	4.9	5.0	59	11	163	5.0	1.8			
10	.66	.09	4.7	5.0	34	72	162	4.7	1.3			
11	.60	.88	4.6	4.8	23	74	159	5.4	.66			
12	.78	1.9	4.8	5.1	19	74	159	5.8	.52			
13	.98	1.4	4.8	4.8	15	74	157	5.6	.44			
14	1.0	.23	4.6	4.5	13	72	155	5.5	.34			
15	.91	.06	4.7	4.7	11	72	153	5.3	.17			
16	.84	.05	4.7	4.9	9.9	70	151	4.8	.01			
17	.72	.78	4.9	5.0	9.0	69	105	4.3	0			
18	.66	1.5	4.6	5.0	8.5	68	32	4.8	0			
19	.49	1.0	4.8	4.3	8.3	66	46	5.8	0			
20	.39	.89	4.7	3.6	7.7	15	29	6.1	0			
21	.35	2.0	4.7	3.1	7.7	5.1	23	6.1	0			
22	.31	3.2	4.8	3.5	7.5	5.4	19	6.0	0			
23	.23	3.3	4.2	37	7.6	3.8	18	6.0	0			
24	.17	2.8	4.8	18	9.1	3.6	18	6.0	0			
25	.17	2.4	4.4	12	23	31	19	6.1	0			
26	.14	1.9	4.1	9.4	24	34	17	6.6	0			
27	.39	1.6	3.9	.10	17	34	15	5.8	0			
28	.23	1.2	4.0	52	14	42	14	4.7	0			
29	.14	1.6	3.7	112	---	67	13	4.2	0			
30	.16	1.7	4.1	101	---	66	11	3.8	0			
31	.30	---	4.1	42	---	66	---	3.6	---			---
TOTAL	24.40	37.22	184.0	498.0	458.2	1297.9	2474	187.7	20.17	0	0	0
MEAN	.79	1.24	5.94	16.1	16.4	41.9	82.5	6.05	.67	0	0	0
MAX	2.0	3.3	34	112	59	74	163	10	3.4	0	0	0
MIN	.14	.05	2.1	3.1	7.5	2.6	11	3.6	0	0	0	0
AC-FT	48	74	365	988	909	2570	4910	372	40	0	0	0
CAL YR 1980	TOTAL	55309.52	MEAN 151	MAX 391	MIN .05	AC-FT 109700						
WTR YR 1981	TOTAL	5181.59	MEAN 14.2	MAX 163	MIN 0	AC-FT 10280						

9/37/07  
13.5  
9790

5/21/07



## 11138500 SISQUOC RIVER NEAR SISQUOC, CA

LOCATION.--Lat 34°50'23", long 120°10'02", in Siquoc Grant, Santa Barbara County, Hydrologic Unit 18060008, on left bank 2.6 mi (4.2 km) upstream from La Brea Creek, and 7 mi (11 km) east of Sisquoc.

DRAINAGE AREA.--281 mi<sup>2</sup> (728 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year. October 1929 to September 1933, at site 0.2 mi (0.3 km) downstream; low-flow records not equivalent owing to diversion immediately upstream. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 624.30 ft (190.287 m) Corps of Engineers datum. See WSP 1735 for history of changes prior to Aug. 24, 1951.

REMARKS.--Records poor. No gage-height record Dec. 29, 1980 to Feb. 2, 1981. No regulation or diversion above station.

AVERAGE DISCHARGE.--38 years, 44.3 ft<sup>3</sup>/s (1.255 m<sup>3</sup>/s), 32,100 acre-ft/yr (39.6 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,200 ft<sup>3</sup>/s (657 m<sup>3</sup>/s) Dec. 6, 1966, gage height, 15.75 ft (4.801 m), from rating curve extended above 1,700 ft<sup>3</sup>/s (48.1 m<sup>3</sup>/s) on basis of slope-area measurements at gage heights 10.08 ft (3.072 m) and 15.75 ft (4.801 m); no flow Nov. 11-18, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, 11,000 ft<sup>3</sup>/s (312 m<sup>3</sup>/s), gage height, 8.1 ft (2.47 m), from high-water mark in gage well, at site in use 1929-33, from rating curve extended above 2,800 ft<sup>3</sup>/s (79.3 m<sup>3</sup>/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft<sup>3</sup>/s (7.08 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s):

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. 29	1645	*683 19.3	4.25 1.295	Mar. 5	0845	456 12.9	3.82 1.164
Mar. 2	Unknown	608 17.2	4.12 1.256	Mar. 20	0100	614 17.4	4.13 1.259

Minimum daily discharge, 0.66 ft<sup>3</sup>/s (0.019 m<sup>3</sup>/s) Nov. 3-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	.74	.93	.93	50	100	63	18	7.2	1.9	1.2	.76
2	.93	.74	.83	.93	30	300	62	18	6.7	1.8	1.1	.76
3	.93	.66	.93	2.0	22	240	58	18	5.8	1.8	1.1	.77
4	.93	.66	1.4	1.4	19	146	53	17	5.4	1.7	.99	.77
5	.93	.66	1.0	.98	16	333	49	16	5.0	1.7	1.0	.77
6	.93	.66	1.0	.98	14	291	47	15	5.0	1.7	1.0	.77
7	.93	.74	1.0	.98	13	249	45	15	5.0	1.6	.93	.78
8	.83	.74	1.0	.98	16	180	44	14	4.3	1.6	.93	.78
9	.93	.74	1.0	.98	87	148	41	13	4.3	1.6	.93	.79
10	.93	.74	1.0	.98	104	123	39	12	3.9	1.5	.93	.79
11	.93	.74	1.0	.98	59	114	37	12	3.9	1.5	.93	.78
12	.93	.83	.93	.98	42	98	36	12	3.6	1.5	.93	.79
13	.93	.83	.93	.98	34	94	34	12	3.6	1.4	.90	.80
14	.93	.74	.93	.98	29	89	32	12	3.0	1.4	.90	.80
15	1.0	.83	.93	.98	24	74	31	12	2.8	1.3	.90	.81
16	1.0	.83	1.0	.98	22	64	30	12	2.5	1.2	.86	.81
17	1.0	.83	1.0	.98	19	62	28	12	2.5	1.2	.86	.81
18	.93	.74	1.1	.98	19	58	31	12	2.4	1.2	.84	.80
19	.93	.74	1.1	.98	19	80	40	11	2.4	1.2	.82	.80
20	.93	.74	1.1	.98	18	331	40	11	2.3	1.2	.79	.80
21	.93	.74	1.1	.98	17	148	34	10	2.3	1.2	.76	.80
22	.93	.83	1.0	.98	17	185	30	10	2.2	1.1	.77	.79
23	.93	.93	1.0	.98	16	207	27	9.7	2.2	1.1	.78	.79
24	.93	.83	1.0	3.0	16	134	26	9.2	2.1	1.1	.78	.80
25	.93	.93	1.0	2.5	25	106	25	9.2	2.1	1.1	.78	.81
26	.93	.93	1.0	2.0	40	107	25	8.7	2.1	1.1	.77	.81
27	.93	.93	.93	2.2	30	106	23	8.2	2.0	1.1	.76	.81
28	.83	.93	.93	14	20	86	22	8.2	2.0	1.2	.75	.81
29	.83	.93	.93	250	---	77	21	8.2	1.9	1.2	.75	.81
30	.83	.93	.93	140	---	72	19	7.7	1.9	1.2	.75	.81
31	.74	---	.93	80	---	68	---	7.2	---	1.2	.75	---
TOTAL	28.45	23.84	30.86	517.58	837	4470	1092	370.3	102.4	42.7	27.24	23.78
MEAN	.92	.79	1.00	16.7	29.9	144	36.4	11.9	3.41	1.38	.88	.79
MAX	1.0	.93	1.4	250	104	333	63	18	7.2	1.9	1.2	.81
MIN	.74	.66	.83	.93	13	58	19	7.2	1.9	1.1	.75	.76
AC-FT	56	47	61	1030	1660	8870	2170	734	203	85	54	47

CAL YR 1980	TOTAL	38028.45	MEAN 104	MAX 2970	MIN .66	AC-FT 75430
WTR YR 1981	TOTAL	7566.15	MEAN 20.7	MAX 333	MIN .66	AC-FT 15010

SANTA MARIA RIVER BASIN  
11138500 SISQUOC RIVER NEAR SISQUOC, CA--Continued  
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.  
CHEMICAL ANALYSES: Water years 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO
OCT												
01...	1600	.97	--	8.3	18.5	--	--	--	--	--	--	--
29...	1500	.84	985	8.4	18.5	480	300	90	62	57	20	1.1
DEC												
01...	1000	1.1	900	7.6	7.0	--	--	--	--	--	--	--
29...	1415	.95	--	8.4	14.0	--	--	--	--	--	--	--
FEB												
02...	1200	30	--	8.2	9.5	--	--	--	--	--	--	--
MAR												
04...	1410	146	--	8.2	12.5	--	--	--	--	--	--	--
APR												
01...	1100	64	--	8.3	13.0	--	--	--	--	--	--	--
30...	1015	20	--	8.3	11.0	--	--	--	--	--	--	--
JUN												
01...	1700	7.2	1070	8.2	10.8	--	--	--	--	--	--	--
30...	1400	1.9	1020	8.8	27.5	--	--	--	--	--	--	--
AUG												
03...	1020	1.3	1070	8.1	19.0	--	--	--	--	--	--	--
31...	1025	.81	1100	7.9	19.0	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHOPHOSPHATE, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT												
01...	--	--	--	--	--	--	749	--	--	--	--	--
29...	2.9	180	360	20	.5	20	--	721	.00	.030	150	30
DEC												
01...	--	--	--	--	--	--	688	--	--	--	--	--
29...	--	--	--	--	--	--	785	--	--	--	--	--
FEB												
02...	--	--	--	--	--	--	777	--	--	--	--	--
MAR												
04...	--	--	--	--	--	--	648	--	--	--	--	--
APR												
01...	--	--	--	--	--	--	674	--	--	--	--	--
30...	--	--	--	--	--	--	739	--	--	--	--	--
JUN												
01...	--	--	--	--	--	--	755	--	--	--	--	--
30...	--	--	--	--	--	--	770	--	--	--	--	--
AUG												
03...	--	--	--	--	--	--	768	--	--	--	--	--
31...	--	--	--	--	--	--	794	--	--	--	--	--

LOCATION.--Lat 34°52'21", long 120°14'37", in NE¼ sec.9, T.9 N., R.32 W., Santa Barbara County, Hydrologic Unit 18060008, on downstream wingwall of right bridge abutment on Tepusquet Road, 1.1 mi (1.8 km) upstream from mouth, and 3 mi (5 km) east of Sisquoc.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft<sup>3</sup>/s (0.37 m<sup>3</sup>/s) Mar. 22, gage height, 3.72 ft (1.134 m), no peak above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s); maximum gage height, 3.73 ft (1.137 m) Mar. 5 (0745 hrs); minimum daily 0.13 ft<sup>3</sup>/s (0.004 m<sup>3</sup>/s) Sept. 26.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.27	.32	.21	.63	1.5	2.5	1.2	.57	.68	.39	.32
2	.27	.26	.34	.23	.60	.88	2.5	1.2	.57	.67	.41	.31
3	.28	.25	.34	.24	.55	.59	2.5	1.1	.59	.63	.43	.27
4	.28	.25	.38	.21	.50	1.7	2.4	1.1	.57	.59	.37	.26
5	.28	.28	.31	.19	.48	7.0	2.3	1.1	.54	.67	.32	.25
6	.29	.29	.27	.20	.48	3.3	2.4	1.1	.59	.57	.32	.23
7	.29	.30	.29	.28	.50	1.6	2.4	1.1	.59	.61	.26	.23
8	.29	.30	.28	.29	.75	1.3	2.4	1.0	.57	.63	.26	.21
9	.30	.29	.29	.29	1.3	1.2	2.4	1.0	.63	.64	.26	.23
10	.33	.29	.29	.29	.53	1.3	2.5	1.0	.62	.64	.28	.21
11	.32	.30	.28	.29	.49	1.2	2.5	1.1	.59	.64	.29	.20
12	.34	.32	.26	.29	.58	1.2	2.3	1.1	.65	.64	.28	.20
13	.35	.30	.27	.29	.57	1.2	2.3	1.1	.63	.62	.29	.15
14	.35	.30	.22	.29	.55	1.1	2.2	1.1	.63	.57	.25	.16
15	.36	.29	.21	.29	.55	1.1	2.0	1.0	.66	.57	.25	.18
16	.36	.29	.21	.29	.54	1.1	2.0	.98	.64	.59	.25	.19
17	.34	.29	.21	.29	.52	1.1	2.0	.95	.63	.60	.26	.18
18	.32	.29	.23	.29	.55	1.1	2.2	.94	.59	.59	.26	.18
19	.30	.28	.24	.29	.62	2.8	2.3	.94	.61	.55	.26	.18
20	.29	.28	.24	.31	.61	5.0	2.0	.91	.61	.50	.25	.17
21	.29	.27	.23	.33	.56	5.3	1.9	.86	.60	.50	.25	.17
22	.33	.27	.23	.40	.52	10	1.7	.83	.59	.50	.26	.16
23	.32	.28	.21	.58	.53	8.0	1.6	.77	.58	.50	.27	.17
24	.33	.26	.21	.33	.54	5.7	1.6	.71	.60	.48	.23	.18
25	.37	.27	.21	.29	1.0	4.9	1.5	.62	.62	.44	.20	.17
26	.36	.31	.21	.29	.79	5.2	1.4	.57	.62	.48	.19	.13
27	.34	.32	.21	.68	.77	4.8	1.4	.57	.63	.47	.23	.14
28	.31	.31	.20	.76	.81	4.1	1.4	.59	.62	.46	.32	.15
29	.29	.31	.21	1.7	---	3.1	1.2	.59	.63	.44	.31	.14
30	.26	.31	.21	.86	---	2.8	1.2	.61	.65	.39	.26	.15
31	.26	---	.21	.70	---	2.7	---	.57	---	.40	.29	---
TOTAL	9.67	8.63	7.82	12.27	17.42	93.87	61.0	28.31	18.22	17.21	8.75	5.87
MEAN	.31	.29	.25	.40	.62	3.03	2.03	.91	.61	.56	.28	.20
MAX	.37	.32	.38	1.7	1.3	10	2.5	1.2	.66	.68	.43	.32
MIN	.26	.25	.20	.19	.48	.59	1.2	.57	.54	.39	.19	.13
AC-FT	19	17	16	24	35	186	121	56	36	34	17	12
CAL YR 1980	TOTAL	1649.65	MEAN	4.51	MAX	235	MIN	.20	AC-FT	3270		
WTR YR 1981	TOTAL	289.04	MEAN	.79	MAX	10	MIN	.13	AC-FT	573		

## SANTA MARIA RIVER BASIN

11140000 SISQUOC RIVER NEAR GAREY, CA

LOCATION.--Lat 34°53'38", long 120°18'20", in SW¼ sec.36, T.10 N., R.33 W., Santa Barbara County, Hydrologic Unit 18060008, on downstream side of Santa Maria Mesa Road bridge near left bank, 0.6 mi (1.0 km) northeast of Garey, and 3.7 mi (6.0 km) downstream from Tepusquet Creek.

DRAINAGE AREA.--471 mi<sup>2</sup> (1,220 km<sup>2</sup>).

PERIOD OF RECORD.--October 1940 to current year. Records for water year 1941 incomplete, yearly estimate and monthly discharge only for October 1940 and January 1941, published in WSP 1315-B.

GAGE.--Two water-stage recorders. Datum of main gage is 354.8 ft (108.14 m) Santa Barbara County datum. See WSP 1735 for history of changes of main gage prior to Oct. 1, 1959. Oct. 1, 1959, to Dec. 30, 1965, at datum 6.00 ft (1.829 m) higher. Since Oct. 1, 1959, supplementary gage on downstream side of bridge near right bank at same datum.

REMARKS.--Records fair. No regulation above station. Pumping from wells along stream for irrigation of about 7,000 acres (28.3 km<sup>2</sup>) above station.

AVERAGE DISCHARGE.--41 years, 41.5 ft<sup>3</sup>/s (1.175 m<sup>3</sup>/s), 30,070 acre-ft/yr (37.1 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) Jan. 25, 1969, gage height, 13.00 ft (3.962 m); maximum gage height, 13.50 ft (4.115 m) Dec. 6, 1966; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft<sup>3</sup>/s (5.66 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. 30	0515	337 9.54	6.02 1.835	Mar. 20	0415	681 19.3	5.91 1.810
Mar. 2	0215	461 13.1	5.71 1.740	Mar. 22	1900	461 13.1	5.77 1.759
Mar. 5	0545	*3,560 101	7.09 2.161				

Minimum daily discharge, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	57	25					
2				0	0	209	30					
3				0	0	151	32					
4				0	0	87	23					
5				0	0	397	16					
6				0	0	221	15					
7				0	0	135	16					
8				0	0	71	16					
9				0	.02	54	15					
10				0	45	46	13					
11				0	11	43	11					
12				0	.11	29	4.1					
13				0	.27	29	7.5					
14				0	.07	37	6.4					
15				0	0	15	5.5					
16				0	.20	6.8	4.8					
17				0	.29	4.0	3.5					
18				0	.31	5.9	4.8					
19				0	.27	22	8.9					
20				0	.24	259	8.9					
21				0	.04	103	2.6					
22				0	0	199	.36					
23				0	.05	192	.24					
24				0	.16	96	.23					
25				0	.82	54	.23					
26				0	.15	64	.21					
27				0	.06	81	.21					
28				0	0	46	.17					
29				14	---	29	.10					
30				147	---	28	0					
31		---		5.0	---	26	---		---			---
TOTAL	0	0	0	166.0	59.06	2796.7	275.75	0	0	0	0	0
MEAN	0	0	0	5.35	2.11	90.2	9.19	0	0	0	0	0
MAX	0	0	0	147	45	397	32	0	0	0	0	0
MIN	0	0	0	0	0	4.0	0	0	0	0	0	0
AC-FT	0	0	0	329	117	5550	547	0	0	0	0	0
CAL YR 1980 TOTAL	43334.42			MEAN 118	MAX 5660	MIN 0	AC-FT 85950					
WTR YR 1981 TOTAL	3297.51			MEAN 9.03	MAX 397	MIN 0	AC-FT 6540					

## SANTA MARIA RIVER BASIN

353

11140600 BRADLEY DITCH NEAR DONOVAN ROAD, AT SANTA MARIA, CA

LOCATION.--Lat 34°58'00", long 120°25'00", in NE¼NE¼NE¼ sec.11, T.10 N., R.34 W., Santa Barbara County, on left bank 250 ft (76 m) upstream from bridge on Donovan Road, and 0.2 mi (0.3 km) east of U.S. Highway 101 in Santa Maria.

PERIOD OF RECORD.--October 1970 to September 1978, October 1979 to current year.

GAGE.--Water-stage recorder on concrete-lined channel. Altitude of gage is 225 ft (69 m), from topographic map. Prior to September 1978, at site 50 ft (15 m) downstream at same datum.

REMARKS.--Records poor. Extensive channel modification in 1979 water year widened the concrete-lined channel.

AVERAGE DISCHARGE.--10 years, 1.27 ft<sup>3</sup>/s (0.036 m<sup>3</sup>/s), 920 acre-ft/yr (1.13 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 379 ft<sup>3</sup>/s (10.7 m<sup>3</sup>/s) Mar. 4, 1978, gage height, 5.85 ft (1.783 m), from rating curve based on computation of flow in concrete-lined channel; no flow for several days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) and maximum (\*), from rating curve extended above 42 ft<sup>3</sup>/s (1.19 m<sup>3</sup>/s):

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. 29	0430	146 4.13	2.83 0.863	Mar. 1	0800	150 4.25	2.85 0.869
Feb. 8	2400	107 3.03	2.59 0.789	Mar. 5	0115	*216 6.12	3.18 0.969

Minimum daily discharge, no flow Mar. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	.58	.80	.17	.02	27	1.1	.83	.18	1.5	1.4	1.4
2	.60	.14	.80	.49	.08	3.7	1.6	1.2	.12	1.3	1.2	1.4
3	.85	.77	1.0	.52	.28	.02	1.5	.96	.30	1.3	1.6	1.5
4	.46	.73	6.2	.30	.07	30	1.4	1.2	.13	.91	1.7	1.2
5	.14	.91	1.5	.88	.29	85	1.1	.63	.26	.12	1.4	1.6
6	.24	.92	.40	.64	.27	3.2	.17	1.1	1.0	.04	1.9	.89
7	.80	.84	.40	.65	.06	1.3	.78	.33	.33	.80	2.3	.20
8	.69	.74	.40	1.2	15	.15	.66	.27	.55	1.2	2.8	.39
9	.85	.03	.40	1.0	25	.18	.76	.60	.27	1.0	2.3	.97
10	.76	.66	.40	.58	.58	.13	1.2	.06	.42	.88	1.9	1.4
11	.67	.58	.40	.76	.25	.05	1.5	.55	.72	.31	2.1	1.2
12	.49	.66	.40	.98	.08	.68	.96	.81	.33	.32	2.2	1.1
13	.43	.07	.40	1.2	.07	1.1	.82	.48	.54	.79	2.0	1.3
14	1.2	.31	.40	1.7	.29	.89	1.0	.13	.60	.74	2.6	.81
15	.47	.56	.40	1.0	.29	1.1	1.3	.03	.97	.61	3.0	.77
16	.51	.94	.40	.66	.04	1.9	1.4	.73	.69	1.9	1.3	.87
17	.49	.20	.40	.41	.04	2.7	1.1	.40	.91	1.5	1.0	1.0
18	.68	.39	.40	.69	.38	3.0	1.9	.12	.87	1.7	1.6	1.6
19	.82	.54	.40	1.4	.83	3.5	1.5	.41	1.1	.86	1.1	1.4
20	.91	.11	.40	1.3	1.2	1.7	.02	.40	1.3	.50	1.9	1.2
21	1.4	.35	.40	1.9	1.6	.68	.28	.42	.49	.41	1.3	.40
22	.75	.35	.40	2.7	2.1	2.0	.66	.46	.61	2.2	1.1	.60
23	.97	.35	.40	2.7	2.5	.25	1.0	.20	.96	2.0	1.4	.76
24	.51	.35	.40	.16	2.5	.01	.75	.33	1.1	2.0	1.3	1.4
25	.61	.35	.40	.01	13	0	.80	.10	.77	1.2	1.9	.93
26	.34	.35	.40	.36	.68	.08	.85	.46	.99	.90	1.6	.57
27	.66	.35	.40	11	.31	.03	.60	.04	.57	1.8	1.0	.61
28	.69	.35	.40	7.2	.25	.15	.55	.16	.41	2.3	1.7	.53
29	1.3	.35	.40	31	---	.78	1.3	.47	.52	1.5	2.1	1.0
30	.40	.35	.38	5.0	---	1.0	.78	.14	1.3	1.1	1.0	.85
31	.79	---	.66	.15	---	1.4	---	.41	---	1.3	.90	---
TOTAL	21.24	14.18	20.94	78.71	68.06	173.68	29.34	14.93	19.31	35.49	52.60	29.85
MEAN	.69	.47	.68	2.54	2.43	5.60	.98	.48	.64	1.14	1.70	1.00
MAX	1.4	.94	6.2	31	25	85	1.9	1.2	1.3	2.3	3.0	1.6
MIN	.14	.03	.38	.01	.02	0	.02	.03	.12	.04	.90	.20
AC-FT	42	28	42	156	135	344	58	30	38	70	104	59

CAL YR 1980 TOTAL 674.87 MEAN 1.84 MAX 87 MIN 0 AC-FT 1340  
WTR YR 1981 TOTAL 558.33 MEAN 1.53 MAX 85 MIN 0 AC-FT 1110

669.18  
1.83  
1330

## SANTA MARIA RIVER BASIN

11141000 SANTA MARIA RIVER AT GUADALUPE, CA

LOCATION.--Lat 34°58'35", long 120°34'15", in Guadalupe Grant, Santa Barbara County, Hydrologic Unit 18060008, on downstream side of bridge on State Highway 1, 0.5 mi (0.8 km) north of Guadalupe, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--1,741 mi<sup>2</sup> (4,509 km<sup>2</sup>).

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only October 1940 to January 1941, published in WSP 1315-B.

GAGE.--Three water-stage recorders. Datum of main gage (left channel) is 64.92 ft (19.788 m) National Geodetic Vertical Datum of 1929. Two supplementary gages started in 1956 at various datums and locations. Prior to Aug. 11, 1955, main gage at site 100 ft (30 m) upstream at same datum NGVD.

REMARKS.--Records poor. Cuyama River regulated since February 1959 by Twitchell Reservoir, capacity, 240,000 acre-ft (296 hm<sup>3</sup>). Several small surface diversions and extensive pumping from wells for irrigation along stream above station. AVERAGE DISCHARGE represents flow to ocean, regardless of upstream development.

AVERAGE DISCHARGE.--41 years, 28.9 ft<sup>3</sup>/s (0.818 m<sup>3</sup>/s), 20,940 acre-ft/yr (25.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,800 ft<sup>3</sup>/s (929 m<sup>3</sup>/s) Jan. 16, 1952, gage height, 8.18 ft (2.493 m); maximum gage height, 10.00 ft (3.048 m) Feb. 26, 1969; no flow for all or parts of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,300 ft<sup>3</sup>/s (36.8 m<sup>3</sup>/s) Mar. 5; gage height, 6.14 ft (1.871 m); no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0						
2						0						
3						0						
4						0						
5						246						
6						31						
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	277	0	0	0	0	0	0
MEAN	0	0	0	0	0	8.94	0	0	0	0	0	0
MAX	0	0	0	0	0	246	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	549	0	0	0	0	0	0
CAL YR 1980	TOTAL	10677.47	MEAN	29.2	MAX	3490	MIN	0	AC-FT	21180		
WTR YR 1981	TOTAL	277.00	MEAN	.76	MAX	246	MIN	0	AC-FT	549		

## Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for the current water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been obtained.

Annual maximum discharge at crest-stage partial-record stations during water year 1981

					Annual maximum		
Station No.	Station name	Location	Drainage area (mi <sup>2</sup> )	Period of record	Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Bristol Lake basin							
10253000	Gourd Creek near Ludlow, CA	Lat 34°40'35", long 116°01'20", in SW¼ sec.23, T.7 N., R.9 E., Hydrologic Unit 18090208, at culvert on U.S. Highway 66, 8.5 mi (13.7 km) southeast of Ludlow.	0.30	1959-74 1976-81	9-7-81	10.45	1.8
Mojave River basin							
10261800	Beacon Creek at Helendale, CA	Lat 34°45'00", long 117°18'53", in SE¼ sec.29 T.8 N., R.4 W., Hydrologic Unit 18090208, at culvert on county road (formerly U.S. Highway 66 and 91), 0.6 mi (1.0 km) northeast of Helendale.	0.72	1959-60 1961-67‡ 1968-69 1976-81	3-2-81	11.94	12
10262600	Boom Creek near Barstow, CA	Lat 34°54'20", long 116°56'57", NE¼NW¼NE¼ sec.2, T.9 N., R.1 W., San Bernardino County, Hydrologic Unit 18090208, at culvert on U.S. Highway I-15, 4.3 mi (6.9 km) east of Barstow.	0.24	1959-66 1967-73‡ 1976-81	9-7-81	10.00	30
Antelope Valley							
10263900	Buckhorn Creek near Valyermo, CA	Lat 34°20'35", long 117°55'13" in SW¼ sec.15, T.3 N., R.10 W., Hydrologic Unit 18090206, at culvert on State Highway 2, Angeles National Forest, 8.1 mi (13.0 km) southwest of Valyermo.	0.48	1961-66‡ 1967-69 1971-73 1977-81	3-1-81	1.50	3.6
10264530	Pine Creek near Palmdale, CA	Lat 34°36'09", long 118°14'48", in SW¼ sec.15, T.6 N., R.13 W., Hydrologic Unit 18090206, at culvert on Pine Canyon Road, 7.5 mi (12.1 km) northwest of Palmdale.	1.37	1959-73 1977-81	3-1-81	11.87	11
10264560	Spencer Canyon Creek near Fairmont, CA	Lat 34°46'33", long 118°34'08", in SE¼SW¼SW¼ sec.15, T.8 N., R.16 W., Hydrologic Unit 18090206, at culvert on county road, 8.5 mi (13.7 km) northwest of Fairmont.	3.60	1959-64 1965-73‡ 1974 1978-81	--	--	0
Franklin Creek basin							
11119530	Franklin Creek at Carpinteria, CA	Lat 34°24'17", long 119°31'05", in Pueblo Lands of Santa Barbara, Santa Barbara County, Hydrologic Unit 18060013, on right bank 20 ft (6 m) downstream from Malibu Drive bridge, 0.5 mi (0.8 km) north of Carpinteria, and 0.9 mi (1.4 km) upstream from mouth.	1.81	1970-78‡ 1981	2-8-81	2.80	486

DISCHARGE AT PARTIAL-RECORD STATIONS  
Crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drain- age area (mi <sup>2</sup> )	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
Santa Ynez River basin							
11131700	Santa Rita Creek near Lompoc, CA	Lat 34°38'41", long 120°22'09", in Santa Rita Grant, Santa Barbara County, Hydrologic Unit 18060010, on left bank 2.4 mi (3.9 km) upstream from mouth and 6.5 mi (10.5 km) east of Lompoc.	14.1	1976-79 1981	3-5-81	7.87	263
11133700	Purissima Creek near Lompoc, CA	Lat 34°41'34", long 120°25'51", in Purissima Grant, Santa Barbara County, Hydrologic Unit 18060010, on right bank 1.1 mi (1.8 km) northeast of junction of Buener Road and Lompoc-Casmalia Road, and 4.0 mi (6.4 km) northeast of Lompoc.	4.75	1972-75† 1976-81	3-5-81	1.83	37
11135200	Rodeo-San Pasqual Creek near Lompoc, CA	Lat 34°38'42", long 120°30'57", in Lompoc Grant, Santa Barbara County, Hydrologic Unit 18060010, on left bank 0.1 mi (0.2 km) east of Dewolf Avenue at Highway 246, 3.3 mi (5.3 km) west of Lompoc.	7.80	1971-72† 1973-78 1980-81	3-5-81	2.39	257

† Operated as a continuous-record gaging station



## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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## DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1981

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
Mission Creek basin						
Mission Creek		Lat 34°26'31", long 119°42'39", Santa Barbara County, 0.1 mi (0.2 km) northeast of entrance to Rocky Nook park from Mission Canyon Road, in Santa Barbara.		1980	3-17-81 3-26-81 4-2-81 4-10-81	1.83 4.08 4.03 4.46
Mission Creek		Lat 34°26'15", long 119°43'28", Santa Barbara County, 0.1 mi (0.2 km) south from intersection of Alamar and State Streets in Santa Barbara.		1980	3-17-81 3-26-81 4-2-81 4-10-81	1.71 3.77 2.84 4.36
#11119750 Mission Creek		Lat 34°25'35", long 119°43'20", in Pueblo Lands of Santa Barbara, Santa Barbara County, on left bank just south of end of Los Olivos Street in Santa Barbara.	8.38	1971-80	3-17-81 3-26-81 4-2-81 4-10-81	1.17 2.67 1.70 3.04
Mission Creek		Lat 34°24'51", long 119°41'41", in Pueblo Lands of Santa Barbara, Santa Barbara County, downstream side of bridge on Guiterrez Street between De La Vina and Chapala Streets.		1980	3-17-81 3-26-81 4-2-81 4-10-81	0.88 2.17 1.53 3.19
Tecolotito Creek basin						
Tecolotito Creek		Lat 34°27'48", long 119°52'34", Santa Barbara County, 2.1 mi (3.4 km) north of Highway 101, and 3.3 mi (5.3 km) northwest of Goleta.		1980	10-6-80 11-10-80 12-10-80 1-5-81 2-10-81 3-16-81 4-15-81 5-15-81 6-5-81 7-8-81 8-12-81 9-2-81	0.02 0.10 0.10 0.08 0.22 0.39 0.31 0.21 0.04 0.04 0.01 0.07
#11120530 Tecolotito Creek		Lat 34°26'05", long 119°52'04", in Los Dos Pueblos Grant, Santa Barbara County, on right bank 0.2 mi (0.3 km) east of Glen Annie Road, and 2.1 mi (3.4 km) west of Goleta.	4.42	1971-72, 1980	10-6-80 11-10-80 12-10-80 1-5-81 2-10-81 3-16-81 4-15-81 5-15-81 6-5-81 7-8-81 8-12-81 9-2-81	0.27 0.31 0.37 0.30 0.70 0.93 0.67 0.48 0.31 0.25 0.27 0.15
Los Carneros Creek	Tecolotito Creek	Lat 34°26'51", long 119°51'20", Santa Barbara County, 0.7 mi (1.1 km) north of Highway 101 and 1.4 mi (2.7 km) northwest of Goleta.		1980	10-6-80 11-10-80 12-10-80 1-5-81 2-10-81 3-16-81 4-15-81 5-15-81 6-5-81 7-8-81 8-12-81 9-2-81	0.16 0.20 0.20 0.20 0.32 0.37 0.34 0.28 0.31 0.31 0.11 0.14
Los Carneros Creek	Tecolotito Creek	Lat 34°26'24", long 119°51'09", Santa Barbara County, 300 ft (91 m) west of Los Carneros Road, and 1.4 mi (2.3 km) northwest of Goleta.		1980	10-6-80 11-10-80 12-10-80 1-5-81 2-10-81 3-16-81 4-15-81 5-15-81 6-5-81 7-8-81 8-12-81 9-2-81	0.20 0.29 0.33 0.20 0.59 0.54 0.37 0.39 0.51 0.41 0.15 0.16

†Operated as a continuous record station.

## GROUND WATER

IMPERIAL COUNTY

## West Salton Sea Basin (7-22)

SITE NUMBER 332501116025701 LOCAL NUMBER 0095009F04M01S

NORTH OF DESERT SHORES. DRILLED GEOTHERMAL TEST WATER-TABLE WELL. DIAM 2 IN. DEPTH 489 FT. SCREENED 486-489 FT. ALTITUDE OF LSD -105 FT. RECORDS AVAILABLE 1979, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 71.58 FEET BELOW LAND SURFACE DATUM JUN 13, 1979.

LOWEST WATER LEVEL 74.21 FEET BELOW LAND SURFACE DATUM SEP 21, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 12, 1981	73.34	SEP 21, 1981	74.21

## Arroyo Seco Valley (7-37)

SITE NUMBER 331603114550601 LOCAL NUMBER 0105019F25R01S

ABOUT 6 MI NORTHWEST OF HWY 78 AND WEST OF MIDWAY ROAD. DRILLED WATER-TABLE WELL. DIAM 8 IN. DEPTH UNKNOWN. ALTITUDE OF LSD 820 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 194.23 FEET BELOW LAND SURFACE DATUM JAN 22, 1981.

LOWEST WATER LEVEL 194.47 FEET BELOW LAND SURFACE DATUM AUG 01, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 22, 1981	194.23	AUG 27, 1981	194.25

SITE NUMBER 331659114481001 LOCAL NUMBER 0105021F30C01S

IN MILPITAS WASH, WEST OF OGILBY ROAD. DRILLED OBSERVATION WATER-TABLE WELL. DIAM 1.25 IN. DEPTH 70.1 FT. ALTITUDE OF LSD 485 FT. RECORDS AVAILABLE 1972, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 36.04 FEET BELOW LAND SURFACE DATUM AUG 01, 1979.

LOWEST WATER LEVEL 42.42 FEET BELOW LAND SURFACE DATUM AUG 24, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 22, 1981	38.27	AUG 27, 1981	39.22

## East Salton Sea Basin (7-33)

SITE NUMBER 331144115231501 LOCAL NUMBER 0115015F23M01S

EAST MESA AREA NEAR SIPHON 3 ON COACHELLA CANAL. DRILLED DOMESTIC WELL. DIAM 12 IN. DEPTH 530 FT IN 1958. ALTITUDE OF LSD 120 FT. RECORDS AVAILABLE 1963, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.68 FEET BELOW LAND SURFACE DATUM JAN 10, 1979.

LOWEST WATER LEVEL 28.59 FEET BELOW LAND SURFACE DATUM AUG 24, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 11, 1981	24.44	AUG 26, 1981	28.59

## GROUND WATER

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IMPERIAL COUNTY--Continued

## Ocotillo Valley (7-25)

SITE NUMBER 330701116003501 LOCAL NUMBER 0125009E23D015

ABOUT 0.5 MI SOUTH OF HWY 78 AND 0.75 MI NORTH OF SAN FELIPE CREEK. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 14 IN. DEPTH 580 FT. ALTITUDE OF LSD -15 FT. RECORDS AVAILABLE 1953-58, 1961-68, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 64.17 FEET BELOW LAND SURFACE DATUM DEC 15, 1953.

LOWEST WATER LEVEL 168.50 FEET BELOW LAND SURFACE DATUM JUL 22, 1940.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 11, 1981	159.91

## Amos Valley (7-34)

SITE NUMBER 330842115174701 LOCAL NUMBER 0125016F09A015

ABOUT 14 MI EAST OF CALIPATRIA ON NILAND-GLAMIS ROAD. DRILLED IRRIGATION WATER-TABLE WELL. DIAM 12 IN. DEPTH 1000 FT. PERFORATED 150-1000 FT. ALTITUDE OF LSD 220 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 126.33 FEET BELOW LAND SURFACE DATUM AUG 02, 1979.

LOWEST WATER LEVEL 134.83 FEET BELOW LAND SURFACE DATUM MAR 04, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 04, 1981	134.83	AUG 26, 1981	133.55

SITE NUMBER 325955115042601 LOCAL NUMBER 0135018F33A015

IN GLAMIS. DRILLED DOMESTIC WATER-TABLE WELL. DIAM UNKNOWN. DEPTH 660 FT. ALTITUDE OF LSD 335 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 193.45 FEET BELOW LAND SURFACE DATUM AUG 26, 1981.

LOWEST WATER LEVEL 198.90 FEET BELOW LAND SURFACE DATUM FEB 11, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 11, 1981	198.90	AUG 26, 1981	193.45

## Imperial Valley (7-30)

SITE NUMBER 324851115505901 LOCAL NUMBER 0155011F32R015

ABOUT 1.5 MI NORTH OF PLASTER CITY. DRILLED UNUSED WATER-TABLE WELL. DIAM 1.25 IN. DEPTH 152 FT. PERFORATED 138-140 FT. WELL FILLED IN TO 145.8 FT IN 1974. ALTITUDE OF LSD 65 FT. RECORDS AVAILABLE 1964, 1974, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 51.12 FEET BELOW LAND SURFACE DATUM NOV 04, 1981.

LOWEST WATER LEVEL 101.00 FEET BELOW LAND SURFACE DATUM MAR 19, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 30, 1981	51.26

## GROUND WATER

IMPERIAL COUNTY--Continued

## Imperial Valley (7-30)

SITE NUMBER 325114115335201 LOCAL NUMBER 0155014E18C01S

IN IMPERIAL. DRILLED UNUSED WATER-TABLE WELL. DIAM 8 IN. DEPTH 500 FT IN 1958, 379.02 FT IN 1978, PERFORATED 140-440 FT. ALTITUDE OF LSD -64.97 FT. RECORDS AVAILABLE 1958, 1961, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.61 FEET BELOW LAND SURFACE DATUM OCT 16, 1979.

LOWEST WATER LEVEL 11.55 FEET BELOW LAND SURFACE DATUM OCT 24, 1978.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1980	6.90	FEB 12, 1981	7.32	MAY 28, 1981	7.19	SEP 17, 1981	7.32
NOV 19	6.99	MAR 10	7.32	JUN 22	7.29		
DEC 17	7.09	APR 07	7.24	JUL 22	7.38		
JAN 16, 1981	7.19	29	7.27	AUG 17	7.31		

## Ogilby Valley (7-35)

SITE NUMBER 325255114514301 LOCAL NUMBER 0155020F04R01S

ABOUT 0.04 MI NORTH OF GOLD ROCK RANCH. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 14 IN. DEPTH 720 FT. ALTITUDE OF LSD 505 FT. RECORDS AVAILABLE 1979, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 388.80 FEET BELOW LAND SURFACE DATUM AUG 26, 1981.

LOWEST WATER LEVEL 388.80 FEET BELOW LAND SURFACE DATUM AUG 26, 1981.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
AUG 26, 1981	388.80

SITE NUMBER 324920114492201 LOCAL NUMBER 0155020F25N01S

ABOUT 1 MI NORTHEAST OF OGILBY. DRILLED UNUSED WATER-TABLE WELL. DIAM 8 IN. DEPTH 473 FT. ALTITUDE OF LSD 400 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 284.35 FEET BELOW LAND SURFACE DATUM AUG 26, 1981.

LOWEST WATER LEVEL 285.53 FEET BELOW LAND SURFACE DATUM JAN 11, 1979.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 11, 1981	284.80	AUG 26, 1981	284.35

## GROUND WATER

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## IMPERIAL COUNTY--Continued

Coyote Wells Valley (7-29)

SITE NUMBER 32455R115595201 LOCAL NUMBER 0165009E240015

ABOUT 2 MI NORTH OF OCOTILLO, BORED UNUSED WATER-TABLE WELL IN SAND AND CLAY OF QUATERNARY AGE.  
DIAM 2 IN, DEPTH 150 FT, CASED TO 145.5 FT, SAND POINT 145.5-149 FT, ALTITUDE OF LSO 382 FT.  
RECORDS AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 103.86 FEET BELOW LAND SURFACE DATUM APR 28, 1977.

LOWEST WATER LEVEL 131.00 FEET BELOW LAND SURFACE DATUM DEC 18, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE WATER  
LEVEL  
APR 30, 1981 104.58

## WATER QUALITY DATA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TIME	SPF- CLIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
0165009E240015	81-04-30	1600	760	8.9	29.5	26	.00	6.4	2.5	150

PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTIT- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
91	13	3.9	110	140	91	1.0	13	478	.82	.05	390	20

MANGA-  
NESE,  
DIS-  
SOLVED  
(UG/L  
AS MN)

&gt;

## GROUND WATER

IMPERIAL COUNTY--Continued

## Coyote Wells Valley (7-29)

SITE NUMBER 324518115591501 LOCAL NUMBER 016S009E24R01S

ABOUT 1 MI NORTH OF OCOTILLO. BORED UNUSED WATER-TABLE WELL IN SAND AND CLAY OF QUATERNARY AGE.  
DIAM 2 IN. DEPTH 105 FT. CASSED TO 101.5 FT. SAND POINT 94-101.5 FT. ALTITUDE OF LSO 335 FT. RECORDS  
AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 58.00 FEET BELOW LAND SURFACE DATUM NOV 17, 1976.

LOWEST WATER LEVEL 79.70 FEET BELOW LAND SURFACE DATUM NOV 10, 1976.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE WATER  
LEVEL  
APR 30, 1981 59.28

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
016S009E24R01S	81-04-30	1730	610	8.6	28.0	35	.00	8.1	3.5	110

PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
85	8.1	5.0	94	76	79	.9	13	355	.51	.05	240	20

MANGA-  
NESE,  
DIS-  
SOLVED  
(UG/L  
AS MN)

5

## Imperial Valley (7-30)

SITE NUMBER 324603115480501 LOCAL NUMBER 016S011E23R01S

ABOUT 3.5 MI SOUTHEAST OF PLASTER CITY. AUGERED UNUSED WATER-TABLE WELL. DIAM 1.25 IN. DEPTH 127 FT  
IN 1964. 114.7 FT IN 1974. PERFORATED 121-123 FT. ALTITUDE OF LSO 30 FT. RECORDS AVAILABLE 1964,  
1974, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 39.34 FEET BELOW LAND SURFACE DATUM APR 25, 1978.

LOWEST WATER LEVEL 101.17 FEET BELOW LAND SURFACE DATUM MAR 19, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE WATER  
LEVEL  
APR 30, 1981 39.50

## GROUND WATER

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## IMPERIAL COUNTY--Continued

## Yuma Valley (7-36)

SITE NUMBER 324444114385901 LOCAL NUMBER 0165027E21R01S

ABOUT 1 MI NORTH OF COLORADO RIVER, NORTHWEST OF YUMA, ARIZONA. DRILLED UNUSED WATER-TABLE WELL. DIAM 1.25 IN. DEPTH 157 FT. PERFORATED AT 128 FT. ALTITUDE OF LSD 128 FT. RECORDS AVAILABLE 1964, 1967, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.99 FEET BELOW LAND SURFACE DATUM JUL 23, 1980.

LOWEST WATER LEVEL 12.67 FEET BELOW LAND SURFACE DATUM JAN 05, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 04, 1980	8.53	FEB 10, 1981	9.49	MAR 10, 1981	8.88	AUG 26, 1981	9.13

SITE NUMBER 324656114345001 LOCAL NUMBER 0165023E08E01S

NEAR INTERSECTION OF ROSS AND FISHER ROADS. DRILLED UNUSED WATER-TABLE WELL. DIAM 4 IN. DEPTH 500 FT. PERFORATED 110-141 FT. ALTITUDE OF LSD 130 FT. RECORDS AVAILABLE 1968, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.49 FEET BELOW LAND SURFACE DATUM JUL 23, 1980.

LOWEST WATER LEVEL 9.15 FEET BELOW LAND SURFACE DATUM JAN 11, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 10, 1981	7.67	AUG 26, 1981	7.79

## Coyote Wells Valley (7-29)

SITE NUMBER 324123115553101 LOCAL NUMBER 0175010E11G02S

ABOUT 4.3 MI SOUTHEAST OF COYOTE WELLS IN YUMA ESTATES. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 6.6 IN. DEPTH 335 FT. PERFORATED 235-315 FT. ALTITUDE OF LSD 375 FT. RECORDS AVAILABLE 1971, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 158.00 FEET BELOW LAND SURFACE DATUM NOV 01, 1971.

LOWEST WATER LEVEL 172.38 FEET BELOW LAND SURFACE DATUM NOV 06, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 29, 1981	170.25

## WATER QUALITY DATA

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO3)	HARDNESS NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM DIS-SOLVED (MG/L AS Mg)	SODIUM DIS-SOLVED (MG/L AS Na)
0175010E11G02S	81-04-29	1030	537	8.2	31.0	54	.00	15	4.1	110

PERCENT SODIUM	SODIUM AD-SORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE DIS-SOLVED (MG/L AS CL)	FLUORIDE DIS-SOLVED (MG/L AS F)	SILICA DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, SOLVED (MG/L)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
80	6.5	4.9	110	82	99	.4	15	377	.03	.05	120	10

MANGANESE, DIS-SOLVED (UG/L AS MN)

GROUND WATER  
INYO COUNTY  
 Owens Valley (6-12)

SITE NUMBER 372527118204601 LOCAL NUMBER 006S033E15M01M

ABOUT 1 MI NORTH OF LAWS. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 12 IN, DEPTH 113 FT, PERFORATED 91-111 FT. ALTITUDE OF LSD 4125.4 FT. MEASUREMENTS FURNISHED BY LOS ANGELES DEPARTMENT OF WATER AND POWER; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1928-77, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.00 FEET BELOW LAND SURFACE DATUM NOV 15, 1945.

LOWEST WATER LEVEL 43.90 FEET BELOW LAND SURFACE DATUM NOV 01, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1980	16.30	JAN 1981	14.50	MAY 1981	13.90	AUG 11, 1981	23.13
NOV	15.50	FEB	14.60	JUN	20.60	SEP	25.00
DEC	14.90	MAR	14.50	JUL	22.00		
18	14.16	APR	13.80	AUG	23.80		

SITE NUMBER 372318118241101 LOCAL NUMBER 006S033E31D01M

ABOUT 1 MI NORTHWEST OF BISHOP. DRILLED UNUSED WATER-TABLE WELL. DIAM 16 IN, DEPTH 798 FT. CASSED TO 785 FT, PERFORATED 34-46, 47-66, 68-86, 422-431, 440-449, 454-501, 600-630, 640-643, 681-701, 704-735, 742-750 FT. ALTITUDE OF LSD 4157.15 FT. MEASUREMENTS FURNISHED BY LOS ANGELES DEPARTMENT OF WATER AND POWER; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1929 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.19 FEET BELOW LAND SURFACE DATUM JUN 14, 1956.

LOWEST WATER LEVEL 13.14 FEET BELOW LAND SURFACE DATUM OCT 12, 1931.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1980	5.0	DEC 18, 1980	4.25	APR 1981	4.4	AUG 11, 1981	6.13
NOV	4.9	JAN 1981	4.3	MAY	4.1	SEP	9.4
02	4.9	FEB	4.1	JUN	5.8		

SITE NUMBER 372247118241101 LOCAL NUMBER 006S033E31M01M

ABOUT 0.74 MI SOUTH OF DIXON LANE AND 75 FT SOUTH OF BISHOP CREEK CANAL. DRILLED PUBLIC SUPPLY WATER-TABLE WELL. DIAM 16 IN, DEPTH 565 FT. PERFORATED 40-154, 560-565 FT. ALTITUDE OF LSD 4157.6 FT. RECORDS AVAILABLE 1928, 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.00 FEET BELOW LAND SURFACE DATUM FEB 08, 1928.

LOWEST WATER LEVEL 7.69 FEET BELOW LAND SURFACE DATUM JAN 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1980	6.90	AUG 11, 1981	30.44 P

P Pumping.



## INYO COUNTY--Continued

Owens Valley (6-12)

SITE NUMBER 370616118150601 LOCAL NUMBER 010S034E03N01M

ABOUT 4.5 MI SOUTH OF BIG PINE. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 322 FT, CASED TO 114 FT, PERFORATED 96-114 FT. ALTITUDE OF LSD 3879.9 FT. MEASUREMENTS FURNISHED BY LOS ANGELES DEPARTMENT OF WATER AND POWER; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1929 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.11 FEET BELOW LAND SURFACE DATUM JUL 23, 1969.

LOWEST WATER LEVEL 74.10 FEET BELOW LAND SURFACE DATUM FEB 01, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1980	34.40	JAN 1981	34.30	MAY 1981	33.10	AUG 11, 1981	41.50
NOV	36.60	FEB	34.90	JUN	36.30	SEP	44.40
DEC	35.20	MAR	33.60	JUL	39.30		
18	35.23	APR	31.20	AUG	41.90		

SITE NUMBER 364802118105501 LOCAL NUMBER 013S035E16N01M

ABOUT 1.5 MI EAST OF INDEPENDENCE. DRILLED PUBLIC SUPPLY WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 275.5 FT, PERFORATED 60-79, 91-275.5 FT. ALTITUDE OF LSD 3866.1 FT. MEASUREMENTS FURNISHED BY LOS ANGELES DEPARTMENT OF WATER AND POWER; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1944-60, 1964-71, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.53 FEET BELOW LAND SURFACE DATUM JAN 19, 1953.

LOWEST WATER LEVEL 96.50 FEET BELOW LAND SURFACE DATUM FEB 01, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1980	42.50	JAN 1981	38.60	MAY 1981	36.00	AUG 11, 1981	36.40
NOV	40.40	FEB	37.40	JUN	35.10	SEP	35.80
DEC	40.00	MAR	37.40	JUL	35.30		
18	39.48	APR	36.00	AUG	35.80		

SITE NUMBER 364815118110401 LOCAL NUMBER 013S035F17J01M

EAST OF INDEPENDENCE, ABOUT 0.77 MI NORTH OF CITRUS ROAD. DRILLED PUBLIC SUPPLY WATER-TABLE WELL. DIAM 16 IN, DEPTH 376 FT. ALTITUDE OF LSD 368 FT. RECORDS AVAILABLE 1924, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 28.00 FEET BELOW LAND SURFACE DATUM MAY 16, 1924.

LOWEST WATER LEVEL 50.83 FEET BELOW LAND SURFACE DATUM SEP 26, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1980	31.49	AUG 11, 1981	28.54

SITE NUMBER 363555118041301 LOCAL NUMBER 015S036E28L01M

SOUTHWEST OF LONE PINE. DRILLED UNUSED WATER-TABLE WELL. DIAM 16 IN, DEPTH 276 FT, PERFORATED 100-160 FT. ALTITUDE OF LSD 3773.6 FT. MEASUREMENTS FURNISHED BY LOS ANGELES DEPARTMENT OF WATER AND POWER; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1926 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.60 FEET BELOW LAND SURFACE DATUM AUG 28, 1941.

LOWEST WATER LEVEL 54.14 FEET BELOW LAND SURFACE DATUM APR 01, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1980	39.34	JAN 1981	41.74	MAY 1981	41.54	AUG 10, 1981	41.16
DEC 17	41.01	MAR	42.94	JUL	40.54	SEP	42.44

## GROUND WATER

## INYO COUNTY--Continued

## Death Valley (6-18)

SITE NUMBER 363621117091801 LOCAL NUMBER 015S044E36M01M

ABOUT 0.5 MI WEST OF STOVEPIPE WELLS HOTEL. DRILLED OBSERVATION WATER-TABLE WELL IN ALLUVIAL FAN DEPOSITS OF QUATERNARY AGE. DIAM 2 IN, DEPTH 43.8 FT, CASED TO 45.3 FT, SAND POINT 43.3-45.3 FT. ALTITUDE OF LSD -15.22 FT. RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 27.70 FEET BELOW LAND SURFACE DATUM APR 09, 1974.

LOWEST WATER LEVEL 28.38 FEET BELOW LAND SURFACE DATUM OCT 08, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1980	28.30	MAY 27, 1981	28.26

## WATER QUALITY DATA

LOCAL IDENTIFI- FIER	DATE OF SAMPLE	TIME	SPF- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS NONCAR- BONATE (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
015S044E36M01M	81-06-18	0825	9720	7.3	28.0	730	430	78	130	2100

PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT- LAB (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (MG/L AS B)	IRON, DIS- SOLVED (MG/L AS FE)
83	34	150	300	400	2900	1.0	51	6510	.59	.36	13000	50

MANGA- NESE, DIS- SOLVED (MG/L AS MN)
210

## Panamint Valley (6-58)

SITE NUMBER 360226117134701 LOCAL NUMBER 022S044E09M01M

ABOUT 0.63 MI WEST OF BALLARAT. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 6 IN, DEPTH 79 FT. ALTITUDE OF LSD 1040 FT. RECORDS AVAILABLE 1967, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.83 FEET BELOW LAND SURFACE DATUM JAN 23, 1979.

LOWEST WATER LEVEL 11.37 FEET BELOW LAND SURFACE DATUM SEP 12, 1967.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 14, 1981	6.27	AUG 13, 1981	5.96

## GROUND WATER

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## INYO COUNTY--Continued

## Pahrump Valley (6-28)

SITE NUMBER 355832115525201 LOCAL NUMBER 022N010F27R015

ABOUT 1.4 MI WEST OF STATE LINE ON ROAD TO TECOPA. DRILLED UNUSED WATER-TABLE WELL. DIAM 20 IN, DEPTH 350.1 FT. ALTITUDE OF LSD 2640 FT. RECORDS AVAILABLE 1959, 1962, 1975-77, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 116.25 FEET BELOW LAND SURFACE DATUM FEB 03, 1959.

LOWEST WATER LEVEL 121.79 FEET BELOW LAND SURFACE DATUM JUN 19, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 15, 1981	121.56

SITE NUMBER 360951116072202 LOCAL NUMBER 024N008F21L025

ABOUT 0.9 MI WEST OF STATE LINE ON HWY 173. DRILLED UNUSED WATER-TABLE WELL. DIAM 1.5 IN, DEPTH 63.9 FT. ALTITUDE OF LSD 2476 FT. RECORDS AVAILABLE 1976-77, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 36.13 FEET BELOW LAND SURFACE DATUM FEB 18, 1976.

LOWEST WATER LEVEL 39.78 FEET BELOW LAND SURFACE DATUM OCT 07, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 14, 1981	39.58

## Middle Amargosa Valley (6-20)

SITE NUMBER 361817116244701 LOCAL NUMBER 025N005E14M015

NORTH EDGE OF DEATH VALLEY JUNCTION NEAR INTERSECTION OF HWYS 127 AND 190. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 12 IN, DEPTH 200 FT, PERFORATED 160-200 FT. ALTITUDE OF LSD 2038 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.20 FEET BELOW LAND SURFACE DATUM JAN 22, 1979.

LOWEST WATER LEVEL 5.50 FEET BELOW LAND SURFACE DATUM OCT 02, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 14, 1981	4.29

## Death Valley (6-18)

SITE NUMBER 362711116494401 LOCAL NUMBER 027N001E24E015

EAST OF FURNACE CREEK INN. DRILLED UNUSED WATER-TABLE WELL IN LACUSTRINE OF PLEISTOCENE AGE. DIAM 14 IN, DEPTH 250 FT. ALTITUDE OF LSD 490 FT. RECORDS AVAILABLE 1958-59, 1962, 1964, 1966-67, 1971-72, 1976, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 74.51 FEET BELOW LAND SURFACE DATUM NOV 20, 1958.

LOWEST WATER LEVEL 76.14 FEET BELOW LAND SURFACE DATUM JUN 16, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
OCT 07, 1980	76.09

## GROUND WATER

KERN COUNTY

Indian Wells Valley (6-54)

SITE NUMBER 353921117433901 LOCAL NUMBER 0265039E24K01M

ABOUT 0.30 MI NORTH OF GOVERNMENT RAILROAD AND 3.15 MI WEST OF SANDQUIST ROAD. DRILLED  
UNUSED WATER-TABLE WELL. DIAM 16 IN, DEPTH 323.1 FT IN 1953, PERFORATED 190-197, 230-278,  
287-301 FT. ALTITUDE OF LSD 2347.4 FT. RECORDS AVAILABLE 1952-79, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 153.54 FEET BELOW LAND SURFACE DATUM MAY 14, 1953.

LOWEST WATER LEVEL 197.35 FEET BELOW LAND SURFACE DATUM NOV 18, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 21, 1981	194.89

SITE NUMBER 353908117395201 LOCAL NUMBER 0265040E22P01M

AT CHINA LAKE. DRILLED UNUSED WATER-TABLE WELL IN SAND OF QUATERNARY AGE. DIAM 8 IN, DEPTH 1358 FT,  
PERFORATED 530-930 FT. ALTITUDE OF LSD 2258.7 FT. RECORDS AVAILABLE 1954 TO CURRENT YEAR.

HIGHEST WATER LEVEL 64.24 FEET BELOW LAND SURFACE DATUM MAY 13, 1954.

LOWEST WATER LEVEL 94.34 FEET BELOW LAND SURFACE DATUM NOV 17, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
DEC 16, 1980	90.76

SITE NUMBER 353644117380601 LOCAL NUMBER 0275040E02J01M

SOUTHEAST OF RIDGECREST. DRILLED IRRIGATION WATER-TABLE WELL. DIAM 10 IN, DEPTH 220 FT. ALTITUDE OF  
LSD 2300 FT. RECORDS AVAILABLE 1954, 1960-62, 1964-66, 1968, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 106.36 FEET BELOW LAND SURFACE DATUM JAN 21, 1960.

LOWEST WATER LEVEL 124.87 FEET BELOW LAND SURFACE DATUM SEP 08, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
DEC 10, 1980	120.57

SITE NUMBER 353630117390901 LOCAL NUMBER 0275040E03R01M

ABOUT 100 FT NORTH OF EAST HOWMAN ROAD AND 0.10 MI WEST OF SOUTH GATEWAY BLVD. DRILLED UNUSED  
WATER-TABLE WELL. DIAM 12 IN, DEPTH 162.3 FT IN 1952. ALTITUDE OF LSD 2287.31 FT. RECORDS  
AVAILABLE 1952 TO CURRENT YEAR.

HIGHEST WATER LEVEL 92.14 FEET BELOW LAND SURFACE DATUM MAY 22, 1952.

LOWEST WATER LEVEL 102.10 FEET BELOW LAND SURFACE DATUM NOV 17, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
DEC 10, 1980	101.14

## GROUND WATER

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## KERN COUNTY--Continued

Fremont Valley (6-46)

SITE NUMBER 352209117475201 LOCAL NUMBER 0295039F33K01M

NORTHEAST OF CANTIL. DRILLED UNUSED WATER-TABLE WELL IN SAND OF QUATERNARY AGE. DIAM 16 IN, DEPTH 403.4 FT. CASSED TO 402 FT. PERFORATED 210-402 FT. ALTITUDE OF LSO 2050 FT. RECORDS AVAILABLE 1958, 1976, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 131.16 FEET BELOW LAND SURFACE DATUM FEB 13, 1958.

LOWEST WATER LEVEL 224.42 FEET BELOW LAND SURFACE DATUM APR 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 16, 1981	224.42

SITE NUMBER 351745117590401 LOCAL NUMBER 0305037F26E01M

ABOUT 0.9 MI NORTHEAST OF RANCHO SFCO. DRILLED IRRIGATION WATER-TABLE WELL. DIAM 14 IN. DEPTH 485 FT. PERFORATED 233-485 FT.

## WATER QUALITY DATA

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	SPH-CIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO3)	HARDNESS NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM DIS-SOLVED (MG/L AS Mg)	SODIUM DIS-SOLVED (MG/L AS Na)
0305037E26E01M	81-06-11	1500	730	7.6	22.0	250	.00	67	20	78

PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE DIS-SOLVED (MG/L AS CL)	FLUORIDE DIS-SOLVED (MG/L AS F)	SILICA DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO DIS-SOLVED (MG/L AS P)	BORON DIS-SOLVED (UG/L AS B)	IRON DIS-SOLVED (UG/L AS FE)
40	2.1	2.5	250	110	33	.8	26	490	.34	.05	340	20

MANGANESE DIS-SOLVED (UG/L AS MN)

5

GROUND WATER  
KERN COUNTY--Continued  
Fremont Valley (6-46)

SITE NUMBER 350701117590401 LOCAL NUMBER 0325037F26M01M

IN CALIFORNIA CITY. DRILLED IRRIGATION WATER-TABLE WELL. DIAM 16 IN. DEPTH 598 FT. ALTITUDE OF LSD 2420 FT.

WATER QUALITY DATA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH	TEMPER- ATURE (DEG C)	HAR- NESS (MG/L AS CALCO3)	NONCAR- BONATE (MG/L AS CALCO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
0325037F26M01M	81-06-11	1415	680	7.9	29.0	110	.00	30	7.4	130

SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAH (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO3+NO2 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	MOMON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	
72	5.5	3.0	170	92	76	1.0	27	471	.44	.06	460	10

MANGA-  
NESE,  
DIS-  
SOLVED  
(MG/L  
AS MN)

1

Antelope Valley (6-44)

SITE NUMBER 345951117503501 LOCAL NUMBER 010N009W04001S

NORTHEAST OF ROSAMOND BLVD AND LAKE SHORE DRIVE, AT NORTH END OF ROGERS LAKE. DRILLED UNUSED WATER-TABLE WELL IN LAKESHORE DEPOSITS. DIAM 12 IN. DEPTH 502 FT. CASED TO 500 FT. PERFORATED 144-195, 200-433 FT. ALTITUDE OF LSD 2280 FT. RECORDS AVAILABLE 1957 TO CURRENT YEAR.

HIGHEST WATER LEVEL 94.21 FEET BELOW LAND SURFACE DATUM JUL 08, 1959.

LOWEST WATER LEVEL 119.44 FEET BELOW LAND SURFACE DATUM NOV 19, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1980	118.79	APR 14, 1981	117.63

## KERN COUNTY--Continued

## Antelope Valley (6-44)

SITE NUMBER 345518118172601 LOCAL NUMBER 010N013W32D01S

ABOUT 7.5 MI NORTH OF WILLOW SPRINGS. DRILLED IRRIGATION WATER-TABLE WELL. DIAM 16 IN, DEPTH 900 FT. ALTITUDE OF LSD 2775 FT.

## WATER QUALITY DATA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
010N013W32D01S	61-06-11	1100	560	7.9	28.1	190	34	58	12	51

PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
36	1.6	2.5	160	68	53	.2	22	379	3.5	.17	140	20

MANGA-  
NESE,  
DIS-  
SOLVED  
(UG/L  
AS MN)

&lt;1

## Fremont Valley (6-46)

SITE NUMBER 350411118023601 LOCAL NUMBER 011N011W09401S

NORTHEAST OF MOJAVE. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 14 IN, DEPTH 422 FT, CASED TO 422 FT, PERFORATED 262-295, 352-362 FT. ALTITUDE OF LSD 2549.6 FT. RECORDS AVAILABLE 1956-58, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 124.59 FEET BELOW LAND SURFACE DATUM OCT 17, 1956.

LOWEST WATER LEVEL 130.41 FEET BELOW LAND SURFACE DATUM NOV 19, 1981.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1980	129.96	APR 17, 1981	130.30

## Antelope Valley (6-44)

SITE NUMBER 350055118172601 LOCAL NUMBER 011N013W29M01S

WEST OF MOJAVE. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 16 IN, DEPTH 749 FT, CASED TO 744 FT, PERFORATED 520-724 FT. ALTITUDE OF LSD 3350 FT. RECORDS AVAILABLE 1954-56, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 300.00 FEET BELOW LAND SURFACE DATUM FEB 04, 1954.

LOWEST WATER LEVEL 336.19 FEET BELOW LAND SURFACE DATUM OCT 17, 1976.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1980	301.55	APR 17, 1981	302.65

GROUND WATER  
LOS ANGELES COUNTY  
Antelope Valley (6-44)

SITE NUMBER 343259117593101 LOCAL NUMBER 005N011W01M01S

NORTHWEST OF 80TH STREET EAST AND AVENUE I INTERSECTION. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 14 IN, DEPTH 414 FT IN 1963, 396.29 FT IN 1967, CASED TO 342 FT, PERFORATED 100-364 FT. ALTITUDE OF LSD 2738.5 FT. RECORDS AVAILABLE 1955, 1963, 1967-68, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 64.48 FEET BELOW LAND SURFACE DATUM APR 10, 1980.

LOWEST WATER LEVEL 111.37 FEET BELOW LAND SURFACE DATUM OCT 11, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14, 1980	70.13	APR 13, 1981	79.43

Acton Valley (4-5)

SITE NUMBER 34281811H114501 LOCAL NUMBER 005N013W36L01S

IN ACTON, NEAR INTERSECTION OF CROWN VALLEY ROAD AND SYRACUSE AVENUE. DRILLED INSTITUTION WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 12 IN, DEPTH 122 FT. ALTITUDE OF LSD 2700 FT. RECORDS AVAILABLE 1956, 1965, 1974-75, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 21.30 FEET BELOW LAND SURFACE DATUM APR 15, 1981.

LOWEST WATER LEVEL 88.56 FEET BELOW LAND SURFACE DATUM OCT 07, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 15, 1981	21.30

WATER QUALITY DATA

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH LAB (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO3)	HARDNESS NONCARBONATE (MG/L AS CaCO3)	CALCIUM SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)
005N013W36L01S	81-06-12	1530	630	7.8	23.5	200	29	55	15	50

PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3, DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
35	1.5	1.5	170	60	51	.3	40	396	4.6	.06	170	20

MANGANESE, DIS-SOLVED (UG/L AS MN)
2



## LOS ANGELES COUNTY--Continued

## Antelope Valley (6-44)

SITE NUMRER 343434117500001 LOCAL NUMBER 006N009W28P025

ABOUT 0.25 MI SOUTH OF PALMDALE BLVD AND 275 FT WEST OF 65TH STREET. DRILLED IRRIGATION WATER-TABLE WELL. DIAM 16 IN, DEPTH 797 FT. ALTITUDE OF LSD 2800 FT.

## WATER QUALITY DATA

LOCAL IDENT- I- FIELD	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CaCO3)	HARD- NESS NONCAR- BONATE (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)
006N009W28P025	81-06-09	1515	540	7.8	26.1	110	.00	36	4.0	86

PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT- Y (MG/L AS CaCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
63	3.6	2.4	110	150	23	1.6	27	400	.41	.07	280	50

MANGA-  
NESE,  
DIS-  
SOLVED  
(UG/L  
AS MN)

4

SITE NUMRER 344150118055401 LOCAL NUMBER 007N012W13H025

WEST OF 20TH STREET EAST AND NORTH OF LANCASTER BLVD. DOMESTIC WATER-TABLE WELL. DIAM 8 IN, DEPTH 218 FT. ALTITUDE OF LSD 2385 FT. RECORDS AVAILABLE 1963, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 113.95 FEET BELOW LAND SURFACE DATUM SEP 25, 1963.

LOWEST WATER LEVEL 152.91 FEET BELOW LAND SURFACE DATUM NOV 18, 1981.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14, 1980	147.76	APR 23, 1981	153.13 R

R Recently, pumped.

## GROUND WATER

## LOS ANGELES COUNTY--Continued

## Antelope Valley (6-44)

SITE NUMBER 34420011A141001 LOCAL NUMBER 007N013W14E01S

ABOUT 0.3 MI SOUTH OF INTERSECTION OF 60TH STREET AND AVENUE I. DRILLED PUBLIC SUPPLY WATER-TABLE WELL. DIAM 14 IN, DEPTH 930 FT. ALTITUDE OF LSD 2350 FT.

## WATER QUALITY DATA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
007N013W14E01S	81-06-10	1200	430	7.7	34.2	150	28	47	7.4	35

PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	MORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
33	1.3	3.3	120	41	42	.3	32	299	4.3	.04	70	<10

MANGA-  
NESE,  
DIS-  
SOLVED  
(UG/L  
AS MN)

&lt;1

SITE NUMBER 34484111A335001 LOCAL NUMBER 008N016W03F01S

NORTH OF AVENUE D AND WEST OF 240TH STREET WEST. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 1.5 TO 2 IN, DEPTH 326 FT, 1.5-IN CSG 0-295.5 FT, 2-IN CSG 295.5-326 FT, PERFORATED 317-326 FT. ALTITUDE OF LSD 2835 FT. RECORDS AVAILABLE 1965, 1967 TO CURRENT YEAR.

HIGHEST WATER LEVEL 191.64 FEET BELOW LAND SURFACE DATUM APR 13, 1965.

LOWEST WATER LEVEL 220.57 FEET BELOW LAND SURFACE DATUM OCT 14, 1980.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14, 1980	220.57	APR 15, 1981	218.23

## LOS ANGELES COUNTY--Continued

## San Gabriel Valley (4-13)

SITE NUMBER 340535117573501 LOCAL NUMBER 001S010W07R02S

NEAR INTERSECTION OF LOS ANGELES AND MAINE STREETS IN HALDWIN PARK. DRILLED OBSERVATION WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE. DIAM 16 IN. DEPTH 200 FT. PERFORATED 74-174, 181-196 FT. ALTITUDE OF LSD 387 FT. RECORDS AVAILABLE 1932 TO CURRENT YEAR. COMPARABLE RECORDS 1903-32 AS PUBLISHED IN PREVIOUS WATER-SUPPLY PAPERS WERE FOR WELL 42(001S010W1HA01S).

HIGHEST WATER LEVEL 62.40 FEET BELOW LAND SURFACE DATUM MAY 31, 1943.

LOWEST WATER LEVEL 183.79 FEET BELOW LAND SURFACE DATUM DEC 22, 1977.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1980	120.95	JAN 27, 1981	125.29	APR 23, 1981	128.77	JUL 24, 1981	137.67
NOV 25	123.55	FEB 24	126.54	MAY 26	131.26	AUG 25	140.85
DEC 18	123.83	MAR 24	127.16	JUN 23	134.12	SEP 24	143.62

## Coastal Plain of Los Angeles (4-11)

SITE NUMBER 334848118142301 LOCAL NUMBER 004S013W21H07S

NEAR SEPULVEDA BLVD AND ALAMEDA STREET, IN CARSON. DRILLED INDUSTRIAL WATER-TABLE WELL. DIAM 18 IN. DEPTH 745 FT. PERFORATED 454-552, 570-636, 676-696 FT. ALTITUDE OF LSD 21 FT.

## WATER QUALITY DATA

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO3)	HARDNESS (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM DIS-SOLVED (MG/L AS Mg)	SODIUM DIS-SOLVED (MG/L AS Na)
004S013W21H07S	80-10-02	1000	340	7.8	27.0	90	.00	26	6.1	71

SODIUM AD-SORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE DIS-SOLVED (MG/L AS CL)	FLUORIDE DIS-SOLVED (MG/L AS F)	SILICA DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, SOLVED (MG/L)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	
62	3.3	3.5	170	3.4	42	.3	21	276	.00	.04	120	60

SITE NUMBER 334905118124601 LOCAL NUMBER 004S013W23B02S

PREVIOUSLY PUBLISHED AS 4S/13W-2362. IN LONG BEACH, NEAR INTERSECTION OF 32ND AND DELTA STREETS. DRILLED UNUSED ARTESIAN WELL IN GRAVEL IN UPPERMOST PART OF SILVERADO WATER-BEARING ZONE OF PLEISTOCENE AGE. DIAM 26 TO 16 IN. DEPTH 1074 FT. 26-IN CSG 0-288 FT. 16-IN CSG 288-1068 FT. PERFORATED 650-900 FT. ALTITUDE OF LSD 24.1 FT. MEASUREMENTS FURNISHED BY CITY OF LONG BEACH. RECORDS AVAILABLE 1932 TO CURRENT YEAR.

HIGHEST WATER LEVEL 52.93 FEET BELOW LAND SURFACE DATUM FEB 06, 1939.

LOWEST WATER LEVEL 131.75 FEET BELOW LAND SURFACE DATUM JAN 20, 1953.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1980	109.38	JAN 20, 1981	110.18	APR 29, 1981	109.18	AUG 03, 1981	108.18
NOV 26	108.98	MAR 03	108.18	MAY 21	107.68	24	110.18
DEC 23	110.38	25	109.08	JUN 22	106.58	SEP 23	108.98

## GROUND WATER

MONO COUNTY

## Mono Valley (6-9)

SITE NUMBER 375332119054401 LOCAL NUMBER 001S026E03C01M

ABOUT 0.24 MI WEST OF HWY 395 AND 2 MI NORTH OF JUNE LAKE LOOP ROAD EXIT. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 8 TO 6.6 IN, DEPTH 120 FT IN 1954, DEEPENED TO 354 FT IN 1965, 8-IN CSG 0-120 FT, 6.6-IN CSG 75-305 FT, PERFORATED 74-85, 120-135, 150-170, 210-250, 270-290 FT, OPEN HOLE 305-358 FT. ALTITUDE OF LSD 6880 FT. RECORDS AVAILABLE 1965, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 33.48 FEET BELOW LAND SURFACE DATUM MAY 22, 1980.

LOWEST WATER LEVEL 119.55 FEET BELOW LAND SURFACE DATUM JAN 14, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1980	110.90 R	AUG 11, 1981	113.20

## Long Valley (6-11)

SITE NUMBER 374334118491401 LOCAL NUMBER 002S029E31P01M

ABOUT 8 MI NORTH OF HWY 395, NEAR LAKE CHOWLEY. UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 30 IN, DEPTH 7.65 FT, ALTITUDE OF LSD 6915 FT. RECORDS AVAILABLE 1966, 1972-73, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.97 FEET BELOW LAND SURFACE DATUM MAY 22, 1980.

LOWEST WATER LEVEL 6.00 FEET BELOW LAND SURFACE DATUM JUN 13, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1980	3.67	AUG 11, 1981	4.04

ORANGE COUNTY

## Coastal Plain of Orange County (8-1)

SITE NUMBER 335459117580701 LOCAL NUMBER 003S010W18C01S

NEAR INTERSECTION OF IMPERIAL HWY AND BEACH BLVD. UNUSED WATER-TABLE WELL. DIAM 26.25 TO 14.25 IN, DEPTH 385 FT, 26.25-IN CSG 0-24 FT, 14.25-IN CSG 0-385 FT, PERFORATED 144-385 FT. ALTITUDE OF LSD 211 FT. MEASUREMENTS FURNISHED BY ORANGE COUNTY FLOOD CONTROL DISTRICT 1961-77; MEASUREMENTS BY U.S. GEOLOGICAL SURVEY 1978 TO CURRENT YEAR. RECORDS AVAILABLE 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 89.15 FEET BELOW LAND SURFACE DATUM NOV 03, 1981.

LOWEST WATER LEVEL 127.80 FEET BELOW LAND SURFACE DATUM OCT 29, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1980	90.58	FEB 04, 1981	90.11	MAY 06, 1981	89.22	JUL 30, 1981	89.38

SITE NUMBER 334900117502301 LOCAL NUMBER 004S009W17Q01S

NEAR INTERSECTION OF TUSTIN AND TAFT AVENUES. UNUSED WATER-TABLE WELL. DIAM 10 IN, DEPTH UNKNOWN. ALTITUDE OF LSD 239 FT. MEASUREMENTS FURNISHED BY ORANGE COUNTY FLOOD CONTROL DISTRICT 1932-77; MEASUREMENTS BY U.S. GEOLOGICAL SURVEY 1978 TO CURRENT YEAR. RECORDS AVAILABLE 1932-35, 1937 TO CURRENT YEAR.

HIGHEST WATER LEVEL 142.79 FEET BELOW LAND SURFACE DATUM AUG 29, 1980.

LOWEST WATER LEVEL 241.34 FEET BELOW LAND SURFACE DATUM OCT 19, 1951.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1980	150.20	FEB 05, 1981	155.14	MAY 05, 1981	153.58	JUL 30, 1981	154.37

R Recently, pumped.

## GROUND WATER

377

ORANGE COUNTY--Continued

## Coastal Plain of Orange County (8-1)

SITE NUMBER 334404117480701 LOCAL NUMBER 0055009w15R03S

NEAR INTERSECTION OF BRYAN AND BROWNING STREETS. UNUSED WATER-TABLE WELL. DIAM 16 IN, DEPTH 787 FT. ALTITUDE OF LSD 96.7 FT. MEASUREMENTS FURNISHED BY ORANGE COUNTY FLOOD CONTROL DISTRICT 1969-76; MEASUREMENTS BY U.S. GEOLOGICAL SURVEY 1978 TO CURRENT YEAR. RECORDS AVAILABLE 1969-76, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.74 FEET BELOW LAND SURFACE DATUM JUL 28, 1981.

LOWEST WATER LEVEL 32.60 FEET BELOW LAND SURFACE DATUM OCT 22, 1974.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 03, 1980	20.64	FEB 06, 1981	20.59	MAY 07, 1981	19.30	JUL 28, 1981	17.74

SITE NUMBER 334456117551201 LOCAL NUMBER 0055010W09R01S

ABOUT 400 FT WEST OF 5TH STREET AND HARBOR BLVD. DRILLED UNUSED WATER-TABLE WELL. DIAM 6 IN, DEPTH 115 FT. ALTITUDE OF LSD 74.2 FT. MEASUREMENTS FROM 1938-56, 1958, 1964-77 FURNISHED BY ORANGE COUNTY FLOOD CONTROL DISTRICT. RECORDS AVAILABLE 1938-56, 1958, 1964 TO CURRENT YEAR.

HIGHEST WATER LEVEL 35.30 FEET BELOW LAND SURFACE DATUM FEB 04, 1970.

LOWEST WATER LEVEL 82.40 FEET BELOW LAND SURFACE DATUM APR 22, 1953.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 03, 1980	45.18	FEB 06, 1981	41.78	MAY 13, 1981	40.12	JUL 31, 1981	42.43

RIVERSIDE COUNTY

## Rice Valley (7-4)

SITE NUMBER 340300114473301 LOCAL NUMBER 001S021E32H01S

ABOUT 1.5 MI SOUTHEAST OF OLD RICE AIR BASE. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 175 FT IN 1962, 160.85 FT IN 1979. PERFORATED 135-175 FT. ALTITUDE OF LSD 740 FT. RECORDS AVAILABLE 1962-67, 1969, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 150.43 FEET BELOW LAND SURFACE DATUM AUG 27, 1981.

LOWEST WATER LEVEL 152.74 FEET BELOW LAND SURFACE DATUM MAR 18, 1964.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 22, 1981	150.58	AUG 27, 1981	150.43

GROUND WATER  
RIVERSIDE COUNTY--Continued  
 Coachella Valley (7-21)

SITE NUMBER 335407116353401 LOCAL NUMBER 003S004E20D01S

ABOUT 0.75 MI SOUTH OF INTERSTATE 10 NEAR 29 PALMS ROAD. DRILLED OBSERVATION WATER-TABLE WELL IN ALLUVIUM. DIAM 3 IN, DEPTH 580 FT, PERFORATED 560-580 FT. ALTITUDE OF LSD 910 FT. RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 433.30 FEET BELOW LAND SURFACE DATUM OCT 01, 1981.

LOWEST WATER LEVEL 554.50 FEET BELOW LAND SURFACE DATUM MAR 14, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1980	474.7	JAN 06, 1981	464.5	MAR 18, 1981	449.70

SITE NUMBER 335348116352701 LOCAL NUMBER 003S004E20F01S

ABOUT 0.24 MI SOUTH OF SOUTHERN PACIFIC RAILROAD TRACKS AND 2.7 MI WEST OF INDIAN AVENUE. DRILLED OBSERVATION WATER-TABLE WELL. DIAM 2 IN, DEPTH 640 FT, PERFORATED 600-640 FT. ALTITUDE OF LSD 890 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 379.70 FEET BELOW LAND SURFACE DATUM MAR 20, 1981.

LOWEST WATER LEVEL 486.40 FEET BELOW LAND SURFACE DATUM SEP 25, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1980	453.30	JAN 09, 1981	420.2	MAR 20, 1981	379.70

SITE NUMBER 335339116345301 LOCAL NUMBER 003S004E20J01S

ABOUT 0.45 MI SOUTH OF SOUTHERN PACIFIC RAILROAD TRACKS AND 2.1 MI WEST OF INDIAN AVENUE. DRILLED OBSERVATION WATER-TABLE WELL. DIAM 2 IN, DEPTH 590 FT, PERFORATED 550-590 FT. ALTITUDE OF LSD 840 FT. RECORDS AVAILABLE 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 378.30 FEET BELOW LAND SURFACE DATUM OCT 01, 1981.

LOWEST WATER LEVEL 417.20 FEET BELOW LAND SURFACE DATUM OCT 02, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1980	417.20	JAN 07, 1981	409.6	MAR 19, 1981	396.30

## GROUND WATER

379

RIVERSIDE COUNTY--Continued

## Coachella Valley (7-21)

SITE NUMBER 335304116353001 LOCAL NUMBER 003S004F29F01S

NEAR HWY 111 NORTHWEST OF PALM SPRINGS. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 3 IN, DEPTH 575 FT, CASSED TO 575 FT, PERFORATED 555-575 FT. ALTITUDE OF LSD 865 FT. RECORDS AVAILABLE 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 401.50 FEET BELOW LAND SURFACE DATUM SEP 30, 1981.

LOWEST WATER LEVEL 547.00 FEET BELOW LAND SURFACE DATUM DEC 21, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1980	442.40	JAN 06, 1981	424.6	MAR 19, 1981	410.80	SEP 30, 1981	401.50

SITE NUMBER 335231116345401 LOCAL NUMBER 003S004F29H01S

NEAR HWY 111 NORTHWEST OF PALM SPRINGS. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 8 IN, DEPTH 551 FT, CASSED TO 551 FT, PERFORATED 431-551 FT. ALTITUDE OF LSD 777 FT. RECORDS AVAILABLE 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 418.03 FEET BELOW LAND SURFACE DATUM SEP 30, 1981.

LOWEST WATER LEVEL 516.39 FEET BELOW LAND SURFACE DATUM MAR 14, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1980	453.73	JAN 06, 1981	447.63	MAR 19, 1981	439.23	SEP 30, 1981	418.03

## Pinto Valley (7-6)

SITE NUMBER 335612115243301 LOCAL NUMBER 003S015E04J01S

ABOUT 16 MI NORTH OF DESERT CENTER. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 575 FT. ALTITUDE OF LSD 1080.6 FT. RECORDS AVAILABLE 1954-67, 1969 TO CURRENT YEAR.

HIGHEST WATER LEVEL 150.00 FEET BELOW LAND SURFACE DATUM DEC 04, 1954.

LOWEST WATER LEVEL 167.72 FEET BELOW LAND SURFACE DATUM FEB 25, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20, 1980	170.20 S	APR 08, 1981	170.03 S

S Nearby, pumping.

GROUND WATER  
RIVERSIDE COUNTY--Continued  
 Rice Valley (7-4)

SITE NUMBER 335503114490201 LOCAL NUMBER 0035021E18001S

ABOUT 4.5 MI NORTH-NORTHWEST OF MIDLAND. UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 371 FT. ALTITUDE OF LSD 885 FT. RECORDS AVAILABLE 1962, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 284.99 FEET BELOW LAND SURFACE DATUM MAR 29, 1962.

LOWEST WATER LEVEL 285.75 FEET BELOW LAND SURFACE DATUM JAN 22, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 22, 1981	285.75	AUG 28, 1981	285.53

Pinto Valley (7-6)

SITE NUMBER 334712115485601 LOCAL NUMBER 0045011E27001S

ABOUT 3.5 MI NORTH OF COTTONWOOD SPRING. IN SMOKETREE WASH. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 TO 10 IN, DEPTH 403 FT, 12-IN CSG 0-232 FT, 10-IN CSG 209-403 FT, PERFORATED 212-228, 209-398 FT. ALTITUDE OF LSD 2975 FT. RECORDS AVAILABLE 1958-61, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 170.29 FEET BELOW LAND SURFACE DATUM MAR 12, 1959.

LOWEST WATER LEVEL 194.40 FEET BELOW LAND SURFACE DATUM APR 11, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 08, 1981	191.68

WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)		
0045011E27001S	80-10-20	1615	410	7.7	22.0	120	.00	35	6.9	39		
PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTIT- UENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	MOLIB- DENUM, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
42	1.6	1.9	120	27	41	.1	31	261	1.5	.00	160	10

Chuckwalla Valley (7-5)

SITE NUMBER 334647115195801 LOCAL NUMBER 0045016E32M01S

ABOUT 6.3 MI NORTHEAST OF DESERT CENTER. DRILLED UNUSED WATER-TABLE WELL. DIAM 14 IN, DEPTH 555 FT. ALTITUDE OF LSD 548 FT. RECORDS AVAILABLE 1961-62, 1970, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 66.95 FEET BELOW LAND SURFACE DATUM APR 19, 1979.

LOWEST WATER LEVEL 86.90 FEET BELOW LAND SURFACE DATUM OCT 01, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 23, 1981	74.16



## GROUND WATER

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## RIVERSIDE COUNTY--Continued

## Chuckwalla Valley (7-5)

SITE NUMBER 335133115141901 LOCAL NUMBER 0045017E06C015

ABOUT 13.5 MI NORTHEAST OF DESERT CENTER. DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN. DEPTH 501 FT. ALTITUDE OF LSD 500 FT. RECORDS AVAILABLE 1932, 1952, 1954, 1956-57, 1959, 1961-71, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 21.00 FEET BELOW LAND SURFACE DATUM MAY 21, 1952.

LOWEST WATER LEVEL 25.23 FEET BELOW LAND SURFACE DATUM OCT 01, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 23, 1981	24.52

## Orocochia Valley (7-31)

SITE NUMBER 333929115552201 LOCAL NUMBER 0065010E11N015

ABOUT 1 MI SOUTH OF INTERSTATE 10 AND 6.2 MI WEST OF COTTONWOOD SPRING ROAD. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 8-12-14 IN. DEPTH 400 FT IN 1952, PERFORATED 335-400 FT. ALTITUDE OF LSD 1275 FT. RECORDS AVAILABLE 1952, 1979, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 329. FEET BELOW LAND SURFACE DATUM JUL 02, 1952.

LOWEST WATER LEVEL 330.96 FEET BELOW LAND SURFACE DATUM SEP 23, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 03, 1981	329.75	SEP 23, 1981	330.96

## WATER QUALITY DATA

LOCAL IDENT- I- FIELD	DATE OF SAMPLE	TIME	SPF- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM		
0065010E11N015	81-03-03	1530	670	8.1	25.0	47	16	1.7	130	84		
SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, OKTHO, DIS- SOLVED (MG/L AS P)	MORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
8.3	4.1	150	110	42	3.8	25	431	1.6	.01	720	80	3

SITE NUMBER 333911115505701 LOCAL NUMBER 0065011E16E015

ABOUT 0.6 MI SOUTH OF INTERSTATE 10 AND 2.5 MI WEST OF COTTONWOOD SPRING ROAD. DRILLED UNUSED WATER-TABLE WELL. DIAM 16 IN. DEPTH 515.4 FT. PERFORATED 320-460 FT. CASED TO 528 FT. ALTITUDE OF LSD 1320 FT. RECORDS AVAILABLE 1933-34, 1940, 1961, 1979, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 243. FEET BELOW LAND SURFACE DATUM MAR 20, 1934.

LOWEST WATER LEVEL 274. FEET BELOW LAND SURFACE DATUM JUN 10, 1934.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 03, 1981	246.21	SEP 23, 1981	246.41

GROUND WATER  
 RIVERSIDE COUNTY--Continued  
 Palo Verde Mesa (7-39)

SITE NUMBER 334120114400001 LOCAL NUMBER 0065022E03B01S

ABOUT 5.5 MI NORTHWEST OF BLYTHE. DRILLED UNUSED WATER-TABLE WELL. DIAM 12.75 IN, DEPTH 370 FT IN 1971, PERFORATED 275-414 FT, CASED 0-414 FT. ALTITUDE OF LSD 421 FT. RECORDS AVAILABLE 1964, 1971, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 161.00 FEET BELOW LAND SURFACE DATUM JAN 20, 1964.

LOWEST WATER LEVEL 170.91 FEET BELOW LAND SURFACE DATUM AUG 28, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 23, 1981	170.16	AUG 28, 1981	170.91

SITE NUMBER 334044114393201 LOCAL NUMBER 0065022E03R02S

ABOUT 1 MI WEST OF PALO VERDE JUNIOR COLLEGE. DRILLED IRRIGATION WATER-TABLE WELL. DIAM 16 IN, DEPTH 350 FT, PERFORATED 170-350 FT, CASED 0-350 FT. ALTITUDE OF LSD 406 FT. RECORDS AVAILABLE 1966, 1971, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 143.00 FEET BELOW LAND SURFACE DATUM MAY 17, 1966.

LOWEST WATER LEVEL 171.56 FEET BELOW LAND SURFACE DATUM AUG 18, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 23, 1981	156.39

Palo Verde Valley (7-38)

SITE NUMBER 333717114363401 LOCAL NUMBER 0065023E30K01S

ABOUT 1.5 MI NORTHWEST OF BLYTHE. DRILLED PUBLIC SUPPLY WATER-TABLE WELL. DIAM 12 IN, DEPTH 712 FT, CASED TO 712 FT, PERFORATED 620-648, 670-690 FT. ALTITUDE OF LSD 369 FT. RECORDS AVAILABLE 1977, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 9.37 FEET BELOW LAND SURFACE DATUM SEP 23, 1981.

LOWEST WATER LEVEL 10.62 FEET BELOW LAND SURFACE DATUM JAN 23, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 23, 1981	10.62	SEP 23, 1981	9.37

SITE NUMBER 333640114330201 LOCAL NUMBER 0065023E35E01S

ABOUT 2 MI EAST OF EAST BLYTHE. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 IN, DEPTH 365.5 FT. ALTITUDE OF LSD 267 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.30 FEET BELOW LAND SURFACE DATUM AUG 27, 1981.

LOWEST WATER LEVEL 9.85 FEET BELOW LAND SURFACE DATUM JAN 22, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 22, 1981	9.85	AUG 27, 1981	8.30

## RIVERSIDE COUNTY--Continued

## Chuckwalla Valley (7-5)

SITE NUMBER 333340114552801 LOCAL NUMBER 0075020E18H01S

ABOUT 6.9 MI NORTH-NORTHWEST OF WILEYS WELL. DRILLED UNUSED WATER-TABLE WELL. DIAM 14 TO 12 IN, DEPTH 1139 FT, 14-IN CSG 0-343 FT, 12-IN CSG 343-1083 FT, PERFORATED 853-1083 FT. ALTITUDE OF LSD 445 FT. RECORDS AVAILABLE 1961, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 168.37 FEET BELOW LAND SURFACE DATUM APR 05, 1961.

LOWEST WATER LEVEL 173.48 FEET BELOW LAND SURFACE DATUM JUL 31, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 23, 1981	169.22	SEP 23, 1981	169.23

## Palo Verde Valley (7-38)

SITE NUMBER 333609114345701 LOCAL NUMBER 0075023E04D01S

ABOUT 1.3 MI SOUTHEAST OF RLYTHE. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 IN, DEPTH 502 FT, CASED TO 500 FT, PERFORATED 270-290, 334-344 FT. ALTITUDE OF LSD 248 FT. RECORDS AVAILABLE 1973, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.34 FEET BELOW LAND SURFACE DATUM AUG 27, 1981.

LOWEST WATER LEVEL 13.43 FEET BELOW LAND SURFACE DATUM JAN 22, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 22, 1981	13.43	AUG 27, 1981	11.34

SITE NUMBER 333030114412501 LOCAL NUMBER 0045022E04N02S

ABOUT 0.7 MI SOUTHWEST OF RIPLEY. UNUSED WATER-TABLE WELL. DIAM 0.75 IN, DEPTH 13.6 FT. ALTITUDE OF LSD 242 FT. MEASUREMENTS PRIOR TO 8/31/71 FURNISHED BY PALO VERDE IRRIGATION DISTRICT. RECORDS AVAILABLE 1923-26, 1936-37, 1948-71, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.11 FEET BELOW LAND SURFACE DATUM SEP 10, 1959.

LOWEST WATER LEVEL 12.75 FEET BELOW LAND SURFACE DATUM JAN 21, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 22, 1981	12.62	AUG 27, 1981	10.11

## GROUND WATER

RIVERSIDE COUNTY--Continued

Upper Santa Ana Valley (8-2)

SITE NUMBER 335732117252801 LOCAL NUMBER 0029005w32801S

IN NICHOLS PARK IN RIVERSIDE. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 IN. DEPTH 110 FT. PERFORATED 95-110 FT. ALTITUDE OF LSD 777.8 FT. RECORDS FURNISHED BY WESTERN MUNICIPAL WATER DISTRICT. RECORDS AVAILABLE 1955, 1963 TO CURRENT YEAR.

HIGHEST WATER LEVEL 47.05 FEET BELOW LAND SURFACE DATUM APR 27, 1981.

LOWEST WATER LEVEL 52.60 FEET BELOW LAND SURFACE DATUM DEC 05, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 18, 1980	50.00	APR 27, 1981	47.05

## San Jacinto Basin (8-5)

SITE NUMBER 335512117080001 LOCAL NUMBER 0035002w07801S

EAST OF INTERSECTION OF THEODORE STREET AND ALESSANDRO BLVD. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 IN. DEPTH 350 FT. ALTITUDE OF LSD 1590 FT. MEASUREMENTS FURNISHED BY RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1939-48, 1951-55, 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 101.80 FEET BELOW LAND SURFACE DATUM JAN 21, 1943.

LOWEST WATER LEVEL 145.30 FEET BELOW LAND SURFACE DATUM OCT 05, 1971.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 04, 1980	110.11	AUG 19, 1981	110.50

SITE NUMBER 335437117110101 LOCAL NUMBER 0035003w15801S

WEST OF INTERSECTION OF OLIVER STREET AND CACTUS AVENUE. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 IN. DEPTH 243.6 FT. ALTITUDE OF LSD 1539 FT. MEASUREMENTS FURNISHED BY RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1951 TO CURRENT YEAR.

HIGHEST WATER LEVEL 99.45 FEET BELOW LAND SURFACE DATUM APR 01, 1952.

LOWEST WATER LEVEL 159.09 FEET BELOW LAND SURFACE DATUM OCT 23, 1956.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 04, 1980	109.90	AUG 19, 1981	119.63

## RIVERSIDE COUNTY--Continued

Temecula Valley (9-5)

SITE NUMBER 332653117050301 LOCAL NUMBER 0085002W28R01S

SOUTHEAST OF TEMECULA ON PECHANGA INDIAN RESERVATION. DRILLED UNUSED WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE. DIAM 12.25 IN, DEPTH 1002 FT, CASED TO 1000 FT, PERFORATED 130-220, 250-350, 400-710, 750-780, 830-870, 930-940, 975-1000 FT. ALTITUDE OF LSD 1190 FT. RECORDS AVAILABLE 1973 TO CURRENT YEAR.

HIGHEST WATER LEVEL 46.86 FEET BELOW LAND SURFACE DATUM APR 08, 1980.

LOWEST WATER LEVEL 133.50 FEET BELOW LAND SURFACE DATUM DEC 18, 1973.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1980	61.79	JAN 27, 1981	53.24	APR 08, 1981	60.68	AUG 04, 1981	104.33 P
NOV 04	62.95	FEB 18	58.06	JUN 04	69.63	SEP 15	125.08 P
DEC 10	64.99	MAR 10	59.74	JUL 10	112.85 P		

## WATER QUALITY DATA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)		
0085002W28R01S	81-04-08	1200	390	7.7	19.0	80	.00	29	1.9	54		
PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
59	2.6	1.0	130	15	30	.9	24	238	.96	.03	60	20

MANGA-  
NESE,  
DIS-  
SOLVED  
(UG/L  
AS MN)

2

SITE NUMBER 332719117061501 LOCAL NUMBER 0085002W29G01S

SOUTHEAST OF TEMECULA ON PECHANGA INDIAN RESERVATION. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 IN, DEPTH 176 FT IN 1951, 159.1 FT IN 1972. ALTITUDE OF LSD 1091.1 FT. RECORDS AVAILABLE 1925-28, 1934-37, 1940, 1951-54, 1956, 1958-68, 1971 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.70 FEET BELOW LAND SURFACE DATUM APR 08, 1980.

LOWEST WATER LEVEL 55.40 FEET BELOW LAND SURFACE DATUM SEP 03, 1951.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1980	22.03	JAN 27, 1981	23.83	APR 08, 1981	24.74	AUG 04, 1981	27.02
NOV 04	22.66	FEB 18	24.13	JUN 04	25.66	SEP 15	28.30
DEC 10	23.12	MAR 10	24.33	JUL 10	26.57		

P Pumping.

## GROUND WATER

SAN BERNARDINO COUNTY

## Searles Valley (6-52)

SITE NUMBER 354040117223201 LOCAL NUMBER 026S043F18A01M

ABOUT 2 MI SOUTH OF WESTEND. UNUSED WATER-TABLE WELL. DIAM 10 IN. DEPTH 102 FT. ALTITUDE OF LSD 1680 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 29.85 FEET BELOW LAND SURFACE DATUM AUG 09, 1979.

LOWEST WATER LEVEL 31.48 FEET BELOW LAND SURFACE DATUM AUG 13, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 14, 1981	31.20	AUG 13, 1981	31.48

## Pilot Knob Valley (6-51)

SITE NUMBER 353111117174301 LOCAL NUMBER 028S043E12A01M

ON CHINA LAKE NAVAL WEAPONS CENTER AT RANDSBURG WASH HEADQUARTERS. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 8 IN. DEPTH 498 FT WHEN DRILLED AND 485 FT IN 1952, PERFORATED 307-498 FT. ALTITUDE OF LSD 2400 FT. RECORDS AVAILABLE 1950, 1952-53, 1961, 1966, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 276.00 FEET BELOW LAND SURFACE DATUM DEC 07, 1950.

LOWEST WATER LEVEL 333.50 FEET BELOW LAND SURFACE DATUM JUL 28, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 14, 1981	287.30

SITE NUMBER 353100117162001 LOCAL NUMBER 028S044E08C01M

ON CHINA LAKE NAVAL WEAPONS CENTER ABOUT 1.3 MI EAST OF RANDSBURG WASH HEADQUARTERS. DRILLED INSTITUTION WATER-TABLE WELL. DIAM 10 IN. DEPTH 690 FT IN 1953, PERFORATED 250-320, 435-445 FT. ALTITUDE OF LSD 2367 FT. RECORDS AVAILABLE 1953, 1966, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 239.70 FEET BELOW LAND SURFACE DATUM FEB 17, 1953.

LOWEST WATER LEVEL 269.22 FEET BELOW LAND SURFACE DATUM NOV 27, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 14, 1981	249.49 R

## Cuddeback Valley (6-50)

SITE NUMBER 351627117230001 LOCAL NUMBER 030S043F32N01M

AT CUDDERBACK AIR-GROUND GUNNERY RANGE. DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUM. DIAM 10 IN. DEPTH 429 FT, CASED TO 429 FT, PERFORATED 203-403 FT. ALTITUDE OF LSD 2838 FT. RECORDS AVAILABLE 1957, 1968, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 324.65 FEET BELOW LAND SURFACE DATUM AUG 06, 1980.

LOWEST WATER LEVEL 327.02 FEET BELOW LAND SURFACE DATUM NOV 16, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 13, 1981	326.92 R

R Recently, pumped.

SAN BERNARDINO COUNTY--Continued

## Superior Valley (6-49)

SITE NUMBER 351353117025101 LOCAL NUMBER 031S046E16J01M

ABOUT 0.5 MI SOUTH OF SOUTH EDGE OF SUPERIOR LAKE AND 21 MI NORTH OF BARSTOW. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 14 IN. DEPTH 245.5 FT IN 1954, 227.5 FT IN 1968, 198.6 FT IN 1978. ALTITUDE OF LSD 3011 FT. RECORDS AVAILABLE 1953-54, 1961-68, 1970, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 93.00 FEET BELOW LAND SURFACE DATUM DEC 15, 1953.

LOWEST WATER LEVEL 108.93 FEET BELOW LAND SURFACE DATUM JUL 29, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 20, 1981	93.28	SEP 24, 1981	93.29

## Copper Mountain Valley (7-11)

SITE NUMBER 340945116125001 LOCAL NUMBER 001N007E23A01S

ABOUT 1.9 MI EAST OF SUNFAIR. DRILLED UNUSED WATER-TABLE WELL. DIAM 10 IN. DEPTH 368.5 FT. PERFORATED 360-370 FT. ALTITUDE OF LSD 2376 FT. RECORDS AVAILABLE 1969, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 209.96 FEET BELOW LAND SURFACE DATUM JAN 09, 1980.

LOWEST WATER LEVEL 211.35 FEET BELOW LAND SURFACE DATUM MAY 30, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1980	210.23	FEB 11, 1981	210.25	MAY 28, 1981	210.34	SEP 18, 1981	210.40
NOV 18	210.21	MAR 10	210.24	JUN 23	210.30		
DEC 18	210.26	APR 07	210.23	JUL 22	210.32		
JAN 15, 1981	210.18	29	210.35	AUG 18	210.33		

## Twentynine Palms (7-10)

SITE NUMBER 340743116025501 LOCAL NUMBER 001N009E33F04S

ABOUT 0.3 MI SOUTHEAST OF TWENTYNINE PALMS. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 2 IN. DEPTH 42 FT. SAND POINT 40-42 FT. ALTITUDE OF LSD 1981 FT. RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.04 FEET BELOW LAND SURFACE DATUM MAR 11, 1981.

LOWEST WATER LEVEL 9.10 FEET BELOW LAND SURFACE DATUM JAN 17, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1980	8.21	MAR 11, 1981	8.04	APR 09, 1981	8.12

## Dale Valley (7-9)

SITE NUMBER 340934115451501 LOCAL NUMBER 001N012E20D01S

ABOUT 30.2 MI WEST OF AMBOY. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF PLEISTOCENE AGE. DIAM 12 IN. DEPTH 260 FT. PERFORATED 34-248 FT. ALTITUDE OF LSD 1211.3 FT. RECORDS AVAILABLE 1948, 1950-59, 1961-67, 1969-70, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 26.67 FEET BELOW LAND SURFACE DATUM OCT 01, 1981.

LOWEST WATER LEVEL 45.83 FEET BELOW LAND SURFACE DATUM APR 09, 1948.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
MAR 04, 1981	26.83

## GROUND WATER

## SAN BERNARDINO COUNTY--Continued

## Dale Valley (7-9)

SITE NUMBER 340933115451101 LOCAL NUMBER 001N012E20D045

NEAR AMBOY ROAD, ABOUT 1.5 MI NORTHWEST OF DALE LAKE. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 12 IN, DEPTH 1190 FT, PERFORATED 65-200 FT. ALTITUDE OF LSD 1212.4 FT. RECORDS AVAILABLE 1940, 1954, 1959-67, 1969-70, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 27.04 FEET BELOW LAND SURFACE DATUM MAP 18, 1964.

LOWEST WATER LEVEL 33.50 FEET BELOW LAND SURFACE DATUM JUL 01, 1940.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
MAR 04, 1981	27.69

## Vidal Valley (7-42)

SITE NUMBER 341140114353601 LOCAL NUMBER 001N023E08D01S

ABOUT 1.5 MI WEST OF VIDAL JUNCTION. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 16 IN, DEPTH 502.7 FT, PERFORATED 296-336, 475-603 FT. ALTITUDE OF LSD 960 FT. RECORDS AVAILABLE 1962-67, 1969, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 263.08 FEET BELOW LAND SURFACE DATUM APR 24, 1979.

LOWEST WATER LEVEL 268.1 FEET BELOW LAND SURFACE DATUM NOV 17, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 22, 1981	267.65	AUG 27, 1981	267.09

## Ames Valley (7-16)

SITE NUMBER 341345116234701 LOCAL NUMBER 002N006E30L01S

ABOUT 20 MI NORTHWEST OF TWENTYNINE PALMS. DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUM. DIAM 6 IN, DEPTH 377 FT. ALTITUDE OF LSD 3328 FT. RECORDS AVAILABLE 1958, 1966-71, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 311.65 FEET BELOW LAND SURFACE DATUM MAY 22, 1958.

LOWEST WATER LEVEL 359.04 FEET BELOW LAND SURFACE DATUM APR 21, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 19, 1980	329.93	MAR 26, 1981	329.75

## Ward Valley (7-3)

SITE NUMBER 341627115102901 LOCAL NUMBER 002N017E11M01S

ABOUT 0.5 MI SOUTHWEST OF MILLIGAN. DRILLED WATER-TABLE WELL. DIAM 12 IN, DEPTH 100.6 FT IN 1979. ALTITUDE OF LSD 720 FT. RECORDS AVAILABLE 1964, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 92.25 FEET BELOW LAND SURFACE DATUM JUL 20, 1979.

LOWEST WATER LEVEL 93.55 FEET BELOW LAND SURFACE DATUM AUG 22, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 21, 1981	93.07	SEP 23, 1981	93.14



SAN BERNARDINO COUNTY--Continued

## Deadman Valley (7-13)

SITE NUMBER 341918116101501 LOCAL NUMBER 003N008E29C01S

ABOUT 9 MI NORTHWEST OF TWENTYNINE PALMS MARINE CORPS BASE HEADQUARTERS. DRILLED TEST WATER-TABLE WELL IN ALLUVIUM. DIAM 10 IN. DEPTH 201.3 FT. ALTITUDE OF LSD 1890.93 FT. RECORDS AVAILABLE 1952-67, 1970, 1973, 1975, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 86.61 FEET BELOW LAND SURFACE DATUM JAN 09, 1980.

LOWEST WATER LEVEL 89.17 FEET BELOW LAND SURFACE DATUM NOV 14, 1961.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1980	88.74	FEB 11, 1981	88.69	MAY 28, 1981	88.71	SEP 18, 1981	88.67
NOV 18	88.75	MAR 10	88.69	JUN 23	88.68		
DEC 18	88.76	APR 07	88.68	JUL 22	88.68		
JAN 15, 1981	88.72	29	88.74	AUG 18	88.69		

## Johnson Valley (7-18)

SITE NUMBER 342517116380601 LOCAL NUMBER 004N003E23G01S

ABOUT 4.5 MI NORTH OF HWY 247. DRILLED UNUSED WATER-TABLE WELL. DIAM 10 IN. DEPTH 107 FT. PERFORATED 76-107 FT. ALTITUDE OF LSD 2850 FT. RECORDS AVAILABLE 1950, 1975, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 71.80 FEET BELOW LAND SURFACE DATUM OCT 14, 1950.

LOWEST WATER LEVEL 75.50 FEET BELOW LAND SURFACE DATUM APR 25, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 20, 1980	73.33	MAR 26, 1981	73.28	JUN 24, 1981	73.27

SITE NUMBER 342448116371501 LOCAL NUMBER 004N003E24Q01S

ABOUT 3 MI NORTH OF HWY 247, NORTHEAST OF OLD WOMAN SPRINGS. DRILLED WATER-TABLE WELL IN ALLUVIUM. DIAM 12 IN. DEPTH 240.8 FT. ALTITUDE OF LSD 2833 FT. RECORDS AVAILABLE 1954-67, 1969-71, 1975, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 54.60 FEET BELOW LAND SURFACE DATUM MAY 06, 1954.

LOWEST WATER LEVEL 58.56 FEET BELOW LAND SURFACE DATUM FEB 28, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 20, 1980	56.10	MAR 26, 1981	56.50

## GROUND WATER

## SAN BERNARDINO COUNTY--Continued

## Cadiz Valley (7-7)

SITE NUMBER 342513115220001 LOCAL NUMBER 004N015F24E01S

ABOUT 16.2 MI NORTHWEST OF MILLIGAN. DRILLED UNUSED WATER-TABLE WELL. DIAM UNKNOWN. DEPTH 267.9 FT. ALTITUDE OF LSD 848 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 258.30 FEET BELOW LAND SURFACE DATUM JUL 20, 1979.

LOWEST WATER LEVEL 258.41 FEET BELOW LAND SURFACE DATUM JAN 21, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 21, 1981	258.41	SEP 23, 1981	258.30

## Chemehuevi Valley (7-43)

SITE NUMBER 342641114284301 LOCAL NUMBER 004N024E17H01S

ABOUT 3.2 MI SOUTHEAST OF LAKE HAVASU ROAD, IN CHEMEHUEVI WASH. DUG WATER-TABLE WELL IN ALLUVIUM. DIAM 36 IN, DEPTH 9 FT. ALTITUDE OF LSD 770 FT. RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 5.55 FEET BELOW LAND SURFACE DATUM JAN 22, 1981.

LOWEST WATER LEVEL 6.36 FEET BELOW LAND SURFACE DATUM APR 24, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 22, 1981	5.55	AUG 27, 1981	5.95

## Lucerne Valley (7-19)

SITE NUMBER 343153116542301 LOCAL NUMBER 005N001E17D01S

ABOUT 6.5 MI NORTH OF LUCERNE VALLEY. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 14 IN, DEPTH 169.5 FT. ALTITUDE OF LSD 2980 FT. RECORDS AVAILABLE 1954-55, 1960-71, 1976, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 62.27 FEET BELOW LAND SURFACE DATUM APR 22, 1954.

LOWEST WATER LEVEL 139.38 FEET BELOW LAND SURFACE DATUM DEC 02, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 20, 1980	136.24	MAR 27, 1981	136.48	JUN 24, 1981	137.23

## Bristol Valley (7-8)

SITE NUMBER 343106115295901 LOCAL NUMBER 005N014E15K01S

ABOUT 0.5 MI EAST OF CADIZ. DRILLED UNUSED WATER-TABLE WELL. DIAM 16 IN, DEPTH 348.6 FT. ALTITUDE OF LSD 820 FT. RECORDS AVAILABLE 1910, 1929, 1954, 1964, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 204. FEET BELOW LAND SURFACE DATUM JAN 22, 1929.

LOWEST WATER LEVEL 220. FEET BELOW LAND SURFACE DATUM AUG 24, 1910.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 21, 1981	212.93	SEP 24, 1981	215.30

SAN BERNARDINO COUNTY--Continued

## Bristol Valley (7-8)

SITE NUMBER 343334115443301 LOCAL NUMBER 006N012F32R01S

IN AMBOY. DRILLED UNUSED WATER-TABLE WELL. DIAM 38 IN, DEPTH 82.1 FT. CASSED TO 55 FT. ALTITUDE OF LSD 858 FT. RECORDS AVAILABLE 1957, 1964, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 41.85 FEET BELOW LAND SURFACE DATUM AUG 12, 1964.

LOWEST WATER LEVEL 52. FEET BELOW LAND SURFACE DATUM JUL 01, 1957.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 21, 1981	42.80	SEP 24, 1981	43.02

SITE NUMBER 343407115421201 LOCAL NUMBER 006N012E35F01S

ABOUT 2 MI NORTH-NORTHWEST OF SALTUS, DRILLED UNUSED WATER-TABLE WELL. DIAM 16 IN, DEPTH 284 FT. ALTITUDE OF LSD 767 FT. RECORDS AVAILABLE 1955, 1957, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 190. FEET BELOW LAND SURFACE DATUM SEP 30, 1955.

LOWEST WATER LEVEL 203.61 FEET BELOW LAND SURFACE DATUM JUL 21, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 21, 1981	202.65	SEP 24, 1981	202.40

## Fenner Valley (7-2)

SITE NUMBER 343803115203901 LOCAL NUMBER 006N016F06K01S

IN DANBY. DRILLED UNUSED WATER-TABLE WELL. DIAM 15.5 IN 0-245 FT, 12.5 IN 224-419 FT, 9.63 IN 409-983 FT, DEPTH 983 FT IN 1925, 350.3 FT IN 1979. PERFORATED 75-920 FT. MEASUREMENTS FURNISHED BY DEPARTMENT OF WATER RESOURCES FROM 1925 TO 1964 AND BY U.S. GEOLOGICAL SURVEY FROM 1979 TO CURRENT YEAR. ALTITUDE OF LSD 1352 FT. RECORDS AVAILABLE 1925, 1953-61, 1964, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 258.10 FEET BELOW LAND SURFACE DATUM MAY 16, 1960.

LOWEST WATER LEVEL 268.60 FEET BELOW LAND SURFACE DATUM SEP 13, 1953.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 21, 1981	258.90	JUL 22, 1981	259.00

## GROUND WATER

## SAN BERNARDINO COUNTY--Continued

## Fenner Valley (7-2)

SITE NUMBER 344352115145601 LOCAL NUMBER 008N016E36R01S

ABOUT 11 MI NORTHEAST OF DANBY. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 12 IN. DEPTH DRILLED 800 FT. PERFORATED 335-400 FT. ALTITUDE OF LSD 1720 FT. RECORDS AVAILABLE 1930, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 335.00 FEET BELOW LAND SURFACE DATUM NOV 04, 1930.

LOWEST WATER LEVEL 339.80 FEET BELOW LAND SURFACE DATUM JUL 24, 1981.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 21, 1981	336.50 R	JUL 24, 1981	339.80	SEP 03, 1981	343.90 P

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	TIME	SPF- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
008N016E36R01S	81-08-06	1315	365	7.6	39.6	270	53	73	22	99

PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)
43	2.8	5.8	220	73	140	.7	44	598	616	5.9	0	320

IRON,  
DIS-  
SOLVED  
(UG/L  
AS FE)

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## Lower Mojave River Valley (6-40)

SITE NUMBER 345110116473601 LOCAL NUMBER 009N002E20Q01S

AT DAGGETT AIRPORT. UNUSED WATER TABLE WELL. DIAM 8 IN. DEPTH 90 FT. ALTITUDE OF LSD 1921.4 FT. RECORDS IN 1932, 1941-48, 1952-57, 1959 FURNISHED BY U.S. BUREAU OF RECLAMATION AND SAN BERNARDINO COUNTY FLOOD CONTROL DISTRICT. RECORDS AVAILABLE 1932, 1941-48, 1952-71, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 41.81 FEET BELOW LAND SURFACE DATUM NOV 15, 1945.

LOWEST WATER LEVEL 85.88 FEET BELOW LAND SURFACE DATUM DEC 02, 1981.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 04, 1980	82.70	MAR 26, 1981	82.23

R Recently, pumped.  
P Pumping.

SAN BERNARDINO COUNTY--Continued

## Lower Mojave River Valley (6-40)

SITE NUMBER 345709116390501 LOCAL NUMBER 010N003E15Q01S

ABOUT 0.5 MI WEST OF HARVARD ROAD AND NORTH OF CHEPOKEE ROAD. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 12 IN. DEPTH 196.4 FT IN 1959. 165 FT IN 1980. ALTITUDE OF LSD 1808 FT. RECORDS AVAILABLE 1959, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 78.00 FEET BELOW LAND SURFACE DATUM JUN 12, 1959.

LOWEST WATER LEVEL 112.28 FEET BELOW LAND SURFACE DATUM MAR 26, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 04, 1980	111.15	MAR 26, 1981	112.28

## Piute Valley (7-45)

SITE NUMBER 345629114472601 LOCAL NUMBER 010N021E21Q02S

NORTHEAST OF IBIS. UNUSED WATER-TABLE WELL. DIAM 16 IN. DEPTH 820 FT. PERFORATED 130-635 FT. ALTITUDE OF LSD 1460 FT. RECORDS AVAILABLE 1917, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 118.55 FEET BELOW LAND SURFACE DATUM SEP 01, 1981.

LOWEST WATER LEVEL 130.00 FEET BELOW LAND SURFACE DATUM OCT 25, 1917.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 21, 1981	118.89	SEP 01, 1981	118.55

## Kelso Valley (6-31)

SITE NUMBER 350040115385701 LOCAL NUMBER 011N012E25G02S

IN KELSO. DRILLED PUBLIC SUPPLY WATER-TABLE WELL. DIAM 16 IN. DEPTH 700 FT. ALTITUDE OF LSD 2120 FT. RECORDS AVAILABLE 1978, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 465.83 FEET BELOW LAND SURFACE DATUM JUL 31, 1980.

LOWEST WATER LEVEL 484.1 FEET BELOW LAND SURFACE DATUM JUL 19, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 21, 1981	471.43

## Coyote Lake Valley (6-37)

SITE NUMBER 350547116441301 LOCAL NUMBER 012N002E31A01S

ON FORT IRWIN. WEST OF COYOTE LAKE. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 14 IN. DEPTH 114.22 FT. ALTITUDE OF LSD 1789.5 FT. RECORDS AVAILABLE 1955-68, 1970, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 52.12 FEET BELOW LAND SURFACE DATUM APR 10, 1979.

LOWEST WATER LEVEL 57.44 FEET BELOW LAND SURFACE DATUM SEP 25, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 20, 1981	57.20	SEP 25, 1981	57.44

## GROUND WATER

## SAN BERNARDINO COUNTY--Continued

## Cronese Valley (6-35)

SITE NUMBER 350627116152401 LOCAL NUMBER 012N007E29A015

ABOUT 15.5 MI WEST-SOUTHWEST OF BAKER. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 IN, DEPTH 46.3 FT. ALTITUDE OF LSD 1100 FT. RECORDS AVAILABLE 1919, 1954, 1965, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.1 FEET BELOW LAND SURFACE DATUM DEC 05, 1919.

LOWEST WATER LEVEL 39.88 FEET BELOW LAND SURFACE DATUM AUG 08, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 16, 1981	37.03

## Lanfair Valley (7-1)

SITE NUMBER 350923115093501 LOCAL NUMBER 012N017E04D015

NORTHWEST OF LANFAIR BUTTES. STOCK WATER-TABLE WELL. DIAM 8 IN, DEPTH 700 FT. ALTITUDE OF LSD 3980 FT. RECORDS AVAILABLE 1937, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 510.40 FEET BELOW LAND SURFACE DATUM JAN 15, 1981.

LOWEST WATER LEVEL 570.00 FEET BELOW LAND SURFACE DATUM JAN 01, 1937.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 15, 1981	510.40	SEP 01, 1981	521.25 P

## Soda Lake Valley (6-33)

SITE NUMBER 351148116022101 LOCAL NUMBER 013N009E20J015

ABOUT 5 MI SOUTHEAST OF BAKER. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF PLEISTOCENE AGE. DIAM 16 IN, DEPTH 400 FT. ALTITUDE OF LSD 980 FT. RECORDS AVAILABLE 1954-56, 1958-68, 1970, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 64.69 FEET BELOW LAND SURFACE DATUM JUN 30, 1978.

LOWEST WATER LEVEL 66.57 FEET BELOW LAND SURFACE DATUM MAR 14, 1962.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 15, 1981	65.68

## Lanfair Valley (7-1)

SITE NUMBER 351208115120301 LOCAL NUMBER 013N017E18N015

ABOUT 15.5 MI SOUTH-SOUTHEAST OF IVANPAH. STOCK AND DOMESTIC WATER-TABLE WELL. DIAM 12 IN, DEPTH 879 FT. ALTITUDE OF LSD 4349 FT. RECORDS AVAILABLE 1912, 1974-79, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 341.60 FEET BELOW LAND SURFACE DATUM APR 17, 1979.

LOWEST WATER LEVEL 344.26 FEET BELOW LAND SURFACE DATUM JUL 27, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 15, 1981	343.99
P Pumping.	

## GROUND WATER

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SAN BERNARDINO COUNTY--Continued

## Bicycle Valley (6-25)

SITE NUMBER 351830116364501 LOCAL NUMBER 014N003F13K01S

ABOUT 5 MI NORTHEAST OF CAMP IRWIN. DRILLED INSTITUTION WATER-TABLE WELL. DIAM 14 TO 10 IN, DEPTH 600 FT, 14-IN CSG 0-430 FT, 10-IN CSG 420-600 FT, PERFORATED 180-410, 430-580 FT. ALTITUDE OF LSD 2393.8 FT. RECORDS AVAILABLE 1965, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 173.00 FEET BELOW LAND SURFACE DATUM JUN 14, 1965.

LOWEST WATER LEVEL 187.83 FEET BELOW LAND SURFACE DATUM JUL 29, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 20, 1981	187.25

## Soda Lake Valley (6-33)

SITE NUMBER 351610116035401 LOCAL NUMBER 014N009E30K01S

ABOUT 1 MI NORTHEAST OF BAKER. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 6 IN, DEPTH 95.3 FT. ALTITUDE OF LSD 965 FT. RECORDS AVAILABLE 1954-68, 1970, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.32 FEET BELOW LAND SURFACE DATUM MAR 03, 1955.

LOWEST WATER LEVEL 76.93 FEET BELOW LAND SURFACE DATUM OCT 31, 1956.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 15, 1981	76.37

## Goldstone Valley (6-48)

SITE NUMBER 352306116540901 LOCAL NUMBER 015N001F20F01S

ABOUT 7.9 MI NORTH OF GOLDSTONE. DRILLED UNUSED WATER-TABLE WELL. DIAM 4 IN, DEPTH 141 FT. ALTITUDE OF LSD 3030 FT. RECORDS AVAILABLE 1969, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 134.28 FEET BELOW LAND SURFACE DATUM JUL 12, 1978.

LOWEST WATER LEVEL 137.02 FEET BELOW LAND SURFACE DATUM AUG 20, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 20, 1981	134.30	SEP 25, 1981	134.33

## Upper Kingston Valley (6-22)

SITE NUMBER 352316115420701 LOCAL NUMBER 015N012E16H01S

ABOUT 3 MI SOUTH OF VALLEY WELLS STATION. DRILLED STOCK WATER-TABLE WELL. DIAM 8 IN, DEPTH 350 FT. ALTITUDE OF LSD 3908 FT. RECORDS AVAILABLE 1978, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 207.18 FEET BELOW LAND SURFACE DATUM JUL 20, 1978.

LOWEST WATER LEVEL 204.64 FEET BELOW LAND SURFACE DATUM JUL 30, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 15, 1981	207.35

## GROUND WATER

SAN BERNARDINO COUNTY--Continued

## Upper Kingston Valley (6-22)

SITE NUMBER 352308115420601 LOCAL NUMBER 015N012E16H02S

ABOUT 3 MI SOUTH OF VALLEY WELLS STATION. DRILLED STOCK WATER-TABLE WELL. DIAM UNKNOWN. DEPTH UNKNOWN. ALTITUDE OF LSD 3910 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 205.22 FEET BELOW LAND SURFACE DATUM JAN 15, 1981.

LOWEST WATER LEVEL 205.64 FEET BELOW LAND SURFACE DATUM OCT 07, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 15, 1981	205.22

## Ivanpah Valley (6-30)

SITE NUMBER 352306115193901 LOCAL NUMBER 015N015E13G02S

ABOUT 4.3 MI NORTH-NORTHWEST OF IVANPAH. DRILLED INDUSTRIAL WATER-TABLE WELL. DIAM 18 IN. DEPTH 822 FT IN 1923, 735 FT IN 1970. ALTITUDE OF LSD 2927 FT. RECORDS AVAILABLE 1923, 1940, 1970, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 367.00 FEET BELOW LAND SURFACE DATUM MAY 15, 1923.

LOWEST WATER LEVEL 392.00 FEET BELOW LAND SURFACE DATUM JAN 01, 1940.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 15, 1981	372.68

SITE NUMBER 352713115204401 LOCAL NUMBER 015N015E59N01S

ABOUT 4.5 MI WEST OF NIPTON. DRILLED UNUSED WATER-TABLE WELL. DIAM 18 IN. DEPTH 125 FT WITH 12 FT TUNNEL AT BOTTOM IN 1893, 110.5 FT IN 1969. ALTITUDE OF LSD 2630 FT. RECORDS AVAILABLE 1916-17, 1953-56, 1958-60, 1965, 1969, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 90.00 FEET BELOW LAND SURFACE DATUM JAN 15, 1965.

LOWEST WATER LEVEL 105.00 FEET BELOW LAND SURFACE DATUM SEP 14, 1954.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 15, 1981	99.65

## Riggs Valley (6-23)

SITE NUMBER 352722115583701 LOCAL NUMBER 016N009E24N01S

ABOUT 10 MI NORTHEAST OF SILVER LAKE. UNUSED WATER-TABLE WELL. DIAM 60 IN. DEPTH 31.0 FT. ALTITUDE OF LSD 3000 FT. RECORDS AVAILABLE 1965, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.18 FEET BELOW LAND SURFACE DATUM JUN 24, 1965.

LOWEST WATER LEVEL 14.00 FEET BELOW LAND SURFACE DATUM OCT 06, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 16, 1981	12.22



SAN BERNARDINO COUNTY--Continued

## Upper Kingston Valley (6-22)

SITE NUMBER 352626115402301 LOCAL NUMBER 016N012E26N01S

ABOUT 7.3 MI NORTHEAST OF PASO ALTO. DRILLED STOCK WATER-TABLE WELL. DIAM 48 IN. DEPTH 64.7 FT. RECORDS FURNISHED 1956-64 BY DEPARTMENT OF WATER RESOURCES. ALTITUDE OF LSD 3725 FT. RECORDS AVAILABLE 1956-64, 1969, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 44.63 FEET BELOW LAND SURFACE DATUM JUN 20, 1980.

LOWEST WATER LEVEL 64.00 FEET BELOW LAND SURFACE DATUM DEC 04, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 15, 1981	46.72 P

SITE NUMBER 353157115454801 LOCAL NUMBER 017N011E25M01S

IN SHADOW VALLEY, NORTHWEST OF VALLEY WELLS STATION. DIAM 10 IN. DEPTH 376 FT. ALTITUDE OF LSD 3320 FT. RECORDS AVAILABLE 1933, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 358.50 FEET BELOW LAND SURFACE DATUM JAN 15, 1981.

LOWEST WATER LEVEL 388.00 FEET BELOW LAND SURFACE DATUM JUN 22, 1933.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 15, 1981	358.50

## Lower Kingston Valley (6-21)

SITE NUMBER 354122116175601 LOCAL NUMBER 019N006E36N01S

ABOUT 22 MI SOUTH-SOUTHEAST OF SHOSHONE. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 6 IN. DEPTH 295 FT. ALTITUDE OF LSD 480 FT. RECORDS AVAILABLE 1978-79, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 205.30 FEET BELOW LAND SURFACE DATUM JUL 28, 1978.

LOWEST WATER LEVEL 210.70 FEET BELOW LAND SURFACE DATUM APR 17, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 16, 1981	218.05 P

## Mesquite Valley (6-29)

SITE NUMBER 354642115383601 LOCAL NUMBER 019N012E13D01S

ABOUT 3 MI SOUTHWEST OF SANDY. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 IN. DEPTH 500 FT. ALTITUDE OF LSD 2580 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 37.04 FEET BELOW LAND SURFACE DATUM JUL 10, 1979.

LOWEST WATER LEVEL 38.21 FEET BELOW LAND SURFACE DATUM OCT 07, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 15, 1981	38.04
P Pumping.	

GROUND WATER  
 SAN BERNARDINO COUNTY--Continued  
 Lucerne Valley (7-19)

SITE NUMBER 342519116591401 LOCAL NUMBER 004N001W21601S

ABOUT 0.4 MI WEST OF INTERSECTION OF CUSTEP AVENUE AND SUTTER ROAD. DOMESTIC WELL. DIAM UNKNOWN, DEPTH 250 FT. ALTITUDE OF LSD 3121 FT. RECORDS AVAILABLE 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 168.35 FEET BELOW LAND SURFACE DATUM DEC 11, 1980.

LOWEST WATER LEVEL 190.92 FEET BELOW LAND SURFACE DATUM MAR 20, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 11, 1980	168.35	MAR 27, 1981	168.52	JUN 24, 1981	168.67

WATER QUALITY DATA

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS AS CaCO3	HARDNESS NONCARBONATE AS CaCO3	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM DIS-SOLVED (MG/L AS Mg)	SODIUM DIS-SOLVED (MG/L AS Na)
004N001W21601S	81-06-24	1545	380	7.9	28.0	120	.00	37	6.9	39

PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE DIS-SOLVED (MG/L AS CL)	FLUORIDE DIS-SOLVED (MG/L AS F)	SILICA DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
41	1.5	2.3	130	55	8.9	.5	31	263	.86	.02	70	<10

MANGANESE,  
DIS-SOLVED  
(UG/L AS MN)

SAN BERNARDINO COUNTY--Continued

Upper Mojave River Valley (6-42)

SITE NUMBER 342813117123301 LOCAL NUMBER 004N003W05A025

ABOUT 0.1 MI WEST OF INTERSECTION OF BEAR VALLEY ROAD AND KIOWA ROAD IN APPLE VALLEY. DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUM. DIAM 12 IN, DEPTH 300 FT, PERFORATED 238-268 FT. ALTITUDE OF LSD 3002 FT. RECORDS AVAILABLE 1953, 1956, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 182.12 FEET BELOW LAND SURFACE DATUM MAR 21, 1980.

LOWEST WATER LEVEL 195.32 FEET BELOW LAND SURFACE DATUM OCT 04, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JUN 24, 1981	193.47

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
004N003W05A025	81-06-24	1730	340	7.8	22.0	130	44	37	8.1	20

PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT- LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	MORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
25	.8	2.0	82	77	9.8	.3	32	238	.59	.06	30	<10

MANGA-  
NESE,  
DIS-  
SOLVED  
(UG/L  
AS MN)

## GROUND WATER

SAN BERNARDINO COUNTY--Continued

## Upper Mojave River Valley (6-42)

SITE NUMBER 343122117094501 LOCAL NUMBER 005N003W14G015

ABOUT 1.5 MI NORTHEAST OF APPLE VALLEY. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 8 IN. DEPTH 226.3 FT. ALTITUDE OF LSD 2916 FT. RECORDS AVAILABLE 1957, 1964-71, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 81.64 FEET BELOW LAND SURFACE DATUM APR 25, 1957.

LOWEST WATER LEVEL 103.08 FEET BELOW LAND SURFACE DATUM OCT 07, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
NOV 21, 1980	102.22

SITE NUMBER 343150117151502 LOCAL NUMBER 005N004W11P035

IN APPLE VALLEY. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 8 IN. DEPTH 145 FT. ALTITUDE OF LSU 2788 FT. RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 51.39 FEET BELOW LAND SURFACE DATUM NOV 21, 1980.

LOWEST WATER LEVEL 55.16 FEET BELOW LAND SURFACE DATUM AUG 06, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
NOV 21, 1980	51.39

SITE NUMBER 343900117261801 LOCAL NUMBER 006N005W19J025

ABOUT 1.5 MI NORTHWEST OF ADELANTO. DRILLED UNUSED WATER-TABLE WELL. DIAM 9 IN. DEPTH 1200 FT. ALTITUDE OF LSD 2838 FT. RECORDS AVAILABLE 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 78.3 FEET BELOW LAND SURFACE DATUM APR 17, 1979.

LOWEST WATER LEVEL 78.87 FEET BELOW LAND SURFACE DATUM MAR 06, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 10, 1980	78.85	MAR 25, 1981	78.86

## GROUND WATER

401

## SAN BERNARDINO COUNTY--Continued

Middle Mojave River Valley (6-41)

SITE NUMBER 344728117145601 LOCAL NUMBER 008N004W12Q01S

ABOUT 16 MI SOUTHWEST OF BARSTOW. DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUM. DIAM 8 IN. DEPTH 49.1 FT. ALTITUDE OF LSD 2329 FT. RECORDS AVAILABLE 1931-32, 1935-37, 1939-41, 1943-64, 1966-70, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.16 FEET BELOW LAND SURFACE DATUM MAY 13, 1954.

LOWEST WATER LEVEL 33.50 FEET BELOW LAND SURFACE DATUM OCT 31, 1963.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 20, 1981	10.89	MAR 25, 1981	10.13

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)		
008N004W12Q01S	81-06-30	1300	1440	7.1	20.5	420	99	130	23	170		
PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
47	3.6	3.0	320	230	150	.5	28	971	9.9	.12	280	<10
											MANGA- NESE, DIS- SOLVED (UG/L AS MN)	

## GROUND WATER

## SAN BERNARDINO COUNTY--Continued

## Lower Mojave River Valley (6-40)

SITE NUMBER 345243116563802 LOCAL NUMBER 009N001W11R02S

NEAR BARSTOW. DRILLED UNUSED WATER-TABLE WELL. DIAM 2 IN, DEPTH 102 FT, SAND POINT 100-102 FT. ALTITUDE OF LSD 2032.51 FT. RECORDS AVAILABLE 1972-73, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.30 FEET BELOW LAND SURFACE DATUM JUN 03, 1980.

LOWEST WATER LEVEL 31.80 FEET BELOW LAND SURFACE DATUM NOV 03, 1976.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1980	19.97	MAR 26, 1981	19.45	MAY 21, 1981	19.87	JUN 25, 1981	20.25
DEC 10	19.76						

## WATER QUALITY DATA

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	SPF-CIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	ODOR (THREE-HOLD NUMBER AT ROOM TEMP)	HARDNESS (MG/L AS $CaCO_3$ )	HARDNESS NONCARBONATE (MG/L AS $CaCO_3$ )	CALCIUM DIS-SOLVED (MG/L AS $Ca$ )	MAGNESIUM DIS-SOLVED (MG/L AS $Mg$ )
009N001W11R02S	80-10-21	1545	1120	7.4	24.5	4	300	74	87	21
	81-05-21	1445	1170	7.3	21.6	6	340	84	100	23

SODIUM, DIS-SOLVED (MG/L AS $Na$ )	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS $K$ )	ALKALINITY LAB (MG/L AS $CaCO_3$ )	SULFATE DIS-SOLVED (MG/L AS $SO_4$ )	CHLORIDE, DIS-SOLVED (MG/L AS $Cl$ )	FLUORIDE, DIS-SOLVED (MG/L AS $F$ )	SILICA, DIS-SOLVED (MG/L $SiO_2$ )	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, $NO_2+NO_3$ DIS-SOLVED (MG/L AS $N$ )	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS $P$ )
110	44	2.7	4.2	230	110	160	.4	14	--	648	.26	.00
110	41	2.6	3.7	260	130	150	.2	19	694	695	.00	.00

BORON, DIS-SOLVED (UG/L AS $B$ )	IRON, DIS-SOLVED (UG/L AS $Fe$ )	CARBON, ORGANIC DIS-SOLVED (MG/L AS $C$ )	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
390	1200	8.2	--	.50
360	2000	19	1	.50

## Middle Mojave River Valley (6-41)

SITE NUMBER 345153117080701 LOCAL NUMBER 004N003W13R01S

ABOUT 2 MI SOUTHWEST OF LFNWOOD. DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUM. DIAM 12 IN, DEPTH 212 FT. ALTITUDE OF LSD 2245 FT. RECORDS AVAILABLE 1954, 1963-71, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 60.60 FEET BELOW LAND SURFACE DATUM APR 20, 1954.

LOWEST WATER LEVEL 89.14 FEET BELOW LAND SURFACE DATUM NOV 14, 1968.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 11, 1980	75.03	MAR 25, 1981	74.20	JUN 25, 1981	77.10 R

R Recently, pumped.

SAN BERNARDINO COUNTY--Continued

## Harper Valley (6-47)

SITE NUMBER 350103117134501 LOCAL NUMBER 011N003W30G01S

AT BLACKS RANCH, EAST OF HARPER LAKE, DRILLED STOCK WATER-TABLE WELL. DIAM AND DEPTH UNKNOWN. ALTITUDE OF LSD 2031 FT. RECORDS AVAILABLE 1978, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 10.18 FEET BELOW LAND SURFACE DATUM MAR 05, 1980.

LOWEST WATER LEVEL 11.12 FEET BELOW LAND SURFACE DATUM AUG 06, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
DEC 11, 1980	10.83

SITE NUMBER 350039117185301 LOCAL NUMBER 011N004W29H01S

ABOUT 2.9 MI EAST OF LOCKHART. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 IN. DEPTH 500 FT IN 1952, 303 FT IN 1968, 361.2 FT IN 1978. ALTITUDE OF LSD 2045 FT. RECORDS AVAILABLE 1953-71, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 83.42 FEET BELOW LAND SURFACE DATUM NOV 17, 1960.

LOWEST WATER LEVEL 176.00 FEET BELOW LAND SURFACE DATUM OCT 07, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 11, 1980	159.24	MAR 26, 1981	165.18	JUN 30, 1981	174.98

SITE NUMBER 350235117321501 LOCAL NUMBER 011N004W17P02S

ABOUT 6 MI NORTHEAST OF BORON. DRILLED UNUSED WATER-TABLE WELL. DIAM 10 IN. DEPTH 647 FT. ALTITUDE OF LSD 2550 FT. RECORDS AVAILABLE 1953, 1968, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 262.00 FEET BELOW LAND SURFACE DATUM JUL 13, 1953.

LOWEST WATER LEVEL 265.52 FEET BELOW LAND SURFACE DATUM AUG 09, 1968.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 10, 1980	264.66	MAR 26, 1981	263.93	JUN 25, 1981	264.12

## Upper Santa Ana Valley (8-2)

SITE NUMBER 340416117205101 LOCAL NUMBER 001S004W19E01S

EAST OF MERIDIAN AVENUE, NORTH OF VALLEY BLVD. DRILLED OBSERVATION WELL IN ALLOUVIUM. DIAM 2 IN. DEPTH 222 FT, CASED TO 251 FT, PERFORATED 223-244 FT. ALTITUDE OF LSD 1038.9 FT. RECORDS AVAILABLE 1964, 1967-70, 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 155.67 FEET BELOW LAND SURFACE DATUM NOV 20, 1981.

LOWEST WATER LEVEL 193.94 FEET BELOW LAND SURFACE DATUM JAN 02, 1969.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1980	160.98	JAN 15, 1981	159.38	MAY 15, 1981	157.74	AUG 19, 1981	158.05
NOV 21	160.59	FEB 20	158.90	JUN 11	157.68	SEP 16	156.32
DEC 04	161.28	MAR 12	158.04	JUL 22	156.92		
19	159.95	APR 16	157.87	AUG 13	156.77		

GROUND WATER  
SAN DIEGO COUNTY  
 Borrego Valley (7-24)

SITE NUMBER 331800116210901 LOCAL NUMBER 010S006F21A015

ABOUT 0.1 MI SOUTHEAST OF INTERSECTION OF BORREGO VALLEY AND HENDERSON CANYON ROADS. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM, DIAM 12 IN, DEPTH 310 FT. ALTITUDE OF LSD 640 FT. RECORDER INSTALLED BY CALIFORNIA STATE WATER RESOURCES DEPARTMENT IN 1952. RECORDS AVAILABLE 1952-75, 1978, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 130.55 FEET BELOW LAND SURFACE DATUM JAN 03, 1953.

LOWEST WATER LEVEL 185.48 FEET BELOW LAND SURFACE DATUM JUL 22, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 12, 1981	176.30	SEP 22, 1981	178.46

SITE NUMBER 33143211619A602 LOCAL NUMBER 011S006E11U025

ABOUT 1 MI SOUTHEAST OF INTERSECTION OF BORREGO VALLEY ROAD AND PALM CANYON DRIVE. DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUM, DIAM 14 IN, DEPTH 218 FT. ALTITUDE OF LSD 590 FT. RECORDS AVAILABLE 1953-71, 1978, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 17.53 FEET BELOW LAND SURFACE DATUM NOV 16, 1953.

LOWEST WATER LEVEL 59.97 FEET BELOW LAND SURFACE DATUM SEP 07, 1965.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 12, 1981	41.34

Ocotillo Valley (7-25)

SITE NUMBER 330639116074701 LOCAL NUMBER 012S006E22E015

ABOUT 2.5 MI SOUTHEAST OF INTERSECTION OF HWY 78 AND SPLIT MTN ROAD. DRILLED DOMESTIC WATER-TABLE WELL IN ALLUVIUM, DIAM 16 IN, DEPTH 226 FT, ALTITUDE OF LSD 110 FT. RECORDS AVAILABLE 1953-71, 1978, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 101.83 FEET BELOW LAND SURFACE DATUM NOV 10, 1954.

LOWEST WATER LEVEL 119.16 FEET BELOW LAND SURFACE DATUM NOV 10, 1970.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 11, 1981	109.06	SEP 22, 1981	109.04

Vallecito-Carrizo Valley (7-28)

SITE NUMBER 325848116260301 LOCAL NUMBER 014S005E02J035

ABOUT 0.2 MI NORTH OF AGUA CALIENTE. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM, DIAM 10 IN, DEPTH 181 FT. ALTITUDE OF LSD 2030 FT. RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 60.66 FEET BELOW LAND SURFACE DATUM JUL 22, 1980.

LOWEST WATER LEVEL 74.10 FEET BELOW LAND SURFACE DATUM DEC 27, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 12, 1981	61.53	SEP 22, 1981	64.54



SAN DIEGO COUNTY--Continued

## Vallecito-Carrizo Valley (7-28)

SITE NUMBER 325808116232801 LOCAL NUMBER 0145006E08F035

ABOUT 1 MI NORTHEAST OF TROUTMAN MTN. UNUSED WATER-TABLE WELL. DIAM 8 IN, DEPTH 110 FT. ALTITUDE OF LSD 1645 FT. RECORDS AVAILABLE 1960, 1962, 1964-66, 1968, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 65.31 FEET BELOW LAND SURFACE DATUM MAR 16, 1962.

LOWEST WATER LEVEL 78.15 FEET BELOW LAND SURFACE DATUM DEC 27, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 12, 1981	77.70	SEP 22, 1981	77.98

## San Diego River Valley (9-15)

SITE NUMBER 325159116551101 LOCAL NUMBER 015S001E1AL035

ABOUT 0.3 MI NORTHEAST OF INTERSECTION OF MAPLEVIEW STREET AND HWY 67, NORTH OF LAKESIDE. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM UNKNOWN, DEPTH UNKNOWN. ALTITUDE OF LSD 395 FT. RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 19.49 FEET BELOW LAND SURFACE DATUM DEC 19, 1979.

LOWEST WATER LEVEL 21.80 FEET BELOW LAND SURFACE DATUM JUL 10, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 29, 1981	21.77

## Vallecito-Carrizo Valley (7-28)

SITE NUMBER 325215116110701 LOCAL NUMBER 015S008E17D025

WEST OF BOW WILLOW RANGER STATION. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 6 IN, DEPTH 87 FT. ALTITUDE OF LSD 610 FT. RECORDS AVAILABLE 1966, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 63.60 FEET BELOW LAND SURFACE DATUM MAY 04, 1966.

LOWEST WATER LEVEL 71.40 FEET BELOW LAND SURFACE DATUM FEB 01, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 12, 1981	68.34	SEP 22, 1981	65.08

## San Luis Rey Valley (9-7)

SITE NUMBER 332141117033401 LOCAL NUMBER 009S002W26P01S

ABOUT .24 MI SOUTH OF HWY 76. DUG PUBLIC SUPPLY WATER-TABLE WELL. DIAM 96 IN, DEPTH 63 FT. ALTITUDE OF LSD 422.7 FT. RECORDS AVAILABLE 1915, 1941, 1961, 1971-72, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 7.01 FEET BELOW LAND SURFACE DATUM MAR 02, 1915.

LOWEST WATER LEVEL 40.56 FEET BELOW LAND SURFACE DATUM NOV 17, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1980	10.67	JAN 28, 1981	10.85	APR 07, 1981	10.95	AUG 07, 1981	13.22
NOV 03	10.73	FEB 18	10.90	JUN 03	11.37	SEP 16	16.71
DEC 09	10.67	MAR 11	10.82	JUL 10	11.57		

GROUND WATER  
SAN DIEGO COUNTY--Continued  
 San Mateo Valley (9-2)

SITE NUMBER 332402117345701 LOCAL NUMBER 0095007W11L015

ON CAMP PENDLETON MARINE CORPS BASE, SOUTHEAST OF SAN CLEMENTE. DRILLED UNUSED WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE. DIAM 20 TO 12 IN, DEPTH 100 FT IN 1971, 42 FT IN 1972, CASSED TO 100 FT, PERFORATED 5-100 FT. ALTITUDE OF LSD 36.95 FT. RECORDS FURNISHED BY CAMP PENDLETON. RECORDS AVAILABLE 1966 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.74 FEET BELOW LAND SURFACE DATUM MAR 13, 1979.

LOWEST WATER LEVEL 18.05 FEET BELOW LAND SURFACE DATUM JAN 03, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1980	8.61	DEC 02, 1980	5.08	MAR 24, 1981	7.07	JUL 27, 1981	9.64
21	8.35	JAN 05, 1981	8.23	APR 27	7.80	SEP 01	11.22
28	8.41	26	8.29	JUN 01	8.41		
NOV 03	8.45	FEB 24	7.95	29	8.41		

San Onofre Valley (9-3)

SITE NUMBER 332303117332801 LOCAL NUMBER 0095007W13R015

ABOUT 0.6 MI SOUTH OF BASILONE ROAD NEAR SAN ONOFRE CREEK. DRILLED UNUSED WATER-TABLE WELL, DIAM 24 IN, DEPTH 225.7 FT. PERFORATED 94-164, 215-225 FT. ALTITUDE OF LSD 51.26 FT. RECORDS FURNISHED BY CAMP PENDLETON. RECORDS AVAILABLE 1956 TO CURRENT YEAR.

HIGHEST WATER LEVEL 0.09 FEET BELOW LAND SURFACE DATUM FEB 26, 1973.

LOWEST WATER LEVEL 37.53 FEET BELOW LAND SURFACE DATUM FEB 28, 1962.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1980	15.24	JAN 05, 1981	17.42	APR 27, 1981	17.65	AUG 03, 1981	19.60
21	15.71	12	17.64	MAY 26	18.23	10	19.60
28	15.94	19	17.79	JUN 08	18.67	20	19.60
NOV 03	16.13	26	17.95	15	18.62	24	19.61
12	16.38	FEB 10	17.65	22	19.72	SEP 08	20.08
24	16.62	MAY 06	17.81	JUL 06	19.21	14	20.22
DEC 03	18.93	13	16.56	13	22.40	21	20.38
12	16.90	17	16.45	22	19.67		
22	17.04	APR 20	17.40	27	19.69		

## GROUND WATER

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## SAN DIEGO COUNTY--Continued

San Luis Rey Valley (9-7)

SITE NUMBER 3318261165H5201 LOCAL NUMBER 010S001W16H01S

NORTH OF PAUMA VALLEY. DRILLED IRRIGATION WATER-TABLE WELL IN SAND AND GRAVEL OF QUATERNARY AGE.  
DIAM UNKNOWN TO 245 FT. 10 IN 245-365 FT. 4 IN 364-419 FT. DEPTH 419 FT. PERFORATED 270-360, 364-419  
FT. ALTITUDE OF LSD 885 FT. RECORDS AVAILABLE 1961, 1967, 1971-73, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 117.39 FEET BELOW LAND SURFACE DATUM MAR 31, 1980.

LOWEST WATER LEVEL 123.50 FEET BELOW LAND SURFACE DATUM MAR 21, 1967.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1980	134.12	JAN 28, 1981	122.93	APR 07, 1981	124.65	AUG 07, 1981	139.38
NOV 03	132.04	FEB 18	123.48	JUN 03	131.10	SEP 16	143.46
DEC 09	125.16	MAR 11	117.81	JUL 10	137.48		

## WATER QUALITY DATA

LOCAL IDENTIFIER	DATE OF SAMPLE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO3)	HARDNESS (MG/L AS CaCO3)	NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM DIS-SOLVED (MG/L AS Mg)	SODIUM DIS-SOLVED (MG/L AS Na)	
010S001W16H01S	81-06-24	1200	980	7.1	23.0	330	160	76	35	74		
PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	ALUMINUM LAB (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS S04)	CHLORIDE DIS-SOLVED (MG/L AS CL)	FLUORIDE DIS-SOLVED (MG/L AS F)	SILICA DIS-SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
32	1.8	3.4	170	97	140	.2	47	641	15	.09	230	10

MANGANESE, DIS-SOLVED (UG/L AS MN)

3

SITE NUMBER 331613116570901 LOCAL NUMBER 010S001W35C01S

WEST OF HWY 6 AND SOUTH OF SECTION LINE ROAD. DRILLED UNUSED WATER-TABLE WELL. DIAM 16 IN, DEPTH 105 FT. ALTITUDE OF LSD 860 FT. RECORDS AVAILABLE 1938, 1940, 1950, 1960-63, 1971-73, 1975 TO CURRENT YEAR.

HIGHEST WATER LEVEL 9.15 FEET BELOW LAND SURFACE DATUM MAR 31, 1980.

LOWEST WATER LEVEL 48.50 FEET BELOW LAND SURFACE DATUM JUN 01, 1963.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1980	13.46	JAN 28, 1981	13.48	APR 07, 1981	13.62	AUG 07, 1981	12.54
NOV 03	13.25	FEB 18	13.46	JUN 03	13.17	SEP 16	12.70
DEC 10	13.27	MAR 11	13.18	JUL 10	12.22		

GROUND WATER  
SAN DIEGO COUNTY--Continued  
 Santa Margarita Valley (9-4)

SITE NUMBER 33154411722101 LOCAL NUMBER 010S005W35K055

ABOUT 0.5 MI NORTHWEST OF VANDERGRIFF BLVD AND EL CAMINO REAL. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 6 IN. DEPTH 150.4 FT. PERFORATED 99-119, 129-149 FT. ALTITUDE OF LSD 26.57 FT. RECORDS FURNISHED BY CAMP PENDLETON. RECORDS AVAILABLE 1951 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.19 FEET BELOW LAND SURFACE DATUM JAN 14, 1979.

LOWEST WATER LEVEL 25.61 FEET BELOW LAND SURFACE DATUM AUG 17, 1951.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 14, 1981	5.05	JUL 23, 1981	8.14	AUG 11, 1981	7.96	SEP 09, 1981	8.49
JUL 08	7.23	AUG 28	7.96	18	8.12	16	9.46
14	7.49	AUG 04	8.09	25	8.25	22	9.30

San Dieguito Valley (9-12)

SITE NUMBER 325852117134801 LOCAL NUMBER 0145003W06P045

ABOUT 0.13 MI SOUTHWEST OF INTERSECTION OF VIA DE LA VALLE AND EL CAMINO REAL NEAR DEL MAR. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 14 IN. DEPTH 36.6 FT. ALTITUDE OF LSD 18 FT. RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 1.01 FEET BELOW LAND SURFACE DATUM JAN 29, 1981.

LOWEST WATER LEVEL 5.08 FEET BELOW LAND SURFACE DATUM DEC 06, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 29, 1981	1.01	AUG 29, 1981	3.94

Mission Valley (9-14)

SITE NUMBER 324630117082701 LOCAL NUMBER 0165003W130045

ABOUT 0.3 MI SOUTHWEST OF INTERSECTION OF FRIARS ROAD AND STADIUM WAY, NORTH OF UNIVERSITY HEIGHTS. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 12 IN. DEPTH 52.45 FT. ALTITUDE OF LSD 45 FT. RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 11.60 FEET BELOW LAND SURFACE DATUM JUL 14, 1980.

LOWEST WATER LEVEL 14.86 FEET BELOW LAND SURFACE DATUM AUG 25, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 29, 1981	12.96	AUG 25, 1981	14.86

Sweetwater Valley (9-17)

SITE NUMBER 324005117012001 LOCAL NUMBER 0175001W30B015

ABOUT 0.25 MI FROM SOUTHEAST CORNER OF BONITA AND CENTRAL AVENUES IN SUNNYSIDE. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 12 IN. DEPTH UNKNOWN. ALTITUDE OF LSD 45 FT. RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 9.40 FEET BELOW LAND SURFACE DATUM DEC 07, 1978.

LOWEST WATER LEVEL 12.83 FEET BELOW LAND SURFACE DATUM AUG 25, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 29, 1981	9.45	AUG 25, 1981	12.83

## GROUND WATER

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SAN DIEGO COUNTY--Continued

## Otay Valley (9-18)

SITE NUMBER 323530117050701 LOCAL NUMBER 018S002W21H03S

ABOUT 0.25 MI SOUTH OF MAIN STREET NEAR INTERSTATE 5, EAST OF IMPERIAL BEACH. DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM. DIAM 13 IN. DEPTH UNKNOWN. ALTITUDE OF LSD 12 FT. RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 9.37 FEET BELOW LAND SURFACE DATUM JUL 14, 1980.

LOWEST WATER LEVEL 11.03 FEET BELOW LAND SURFACE DATUM DEC 07, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 29, 1981	9.77	AUG 25, 1981	9.43

## Tijuana Basin (9-19)

SITE NUMBER 323257117051201 LOCAL NUMBER 019S002W04H0H5

ABOUT 0.23 MI WEST OF HOLLISTER STREET, SOUTHEAST OF IMPERIAL BEACH. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 12 IN. DEPTH UNKNOWN. ALTITUDE OF LSD 26 FT. RECORDS AVAILABLE 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.83 FEET BELOW LAND SURFACE DATUM JAN 29, 1981.

LOWEST WATER LEVEL 12.87 FEET BELOW LAND SURFACE DATUM DEC 07, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 29, 1981	6.83	AUG 25, 1981	9.94

SAN LUIS OBISPO COUNTY

## Cuyama Valley (3-13)

SITE NUMBER 345604119340001 LOCAL NUMBER 010N025W20H01S

ABOUT 1.4 MI EAST OF CUYAMA NEAR HWY 166. DRILLED IRRIGATION WATER-TABLE WELL. DIAM 10 IN. DEPTH 656 FT IN 1946, PERFORATED 108-656 FT. ALTITUDE OF LSD 2335 FT. RECORDS AVAILABLE 1946-47, 1956, 1961, 1966, 1968, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 59.00 FEET BELOW LAND SURFACE DATUM JUL 08, 1946.

LOWEST WATER LEVEL 336.49 FEET BELOW LAND SURFACE DATUM APR 26, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 17, 1981	303.14

## Arroyo Grande Valley (3-11)

SITE NUMBER 350312120314101 LOCAL NUMBER 011N035W11H01S

ABOUT 5.5 MI SOUTHWEST OF NIPOMO MESA. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 8 IN. DEPTH 360 FT. ALTITUDE OF LSD 385 FT. RECORDS AVAILABLE 1960, 1967-75, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 306.35 FEET BELOW LAND SURFACE DATUM JUN 30, 1960.

LOWEST WATER LEVEL 350.70 FEET BELOW LAND SURFACE DATUM MAR 20, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 28, 1981	345.05

## SANTA BARBARA COUNTY

Carpinteria Basin (3-18)

SITE NUMBER 342427119294601 LOCAL NUMBER 004N025W21R01S

NORTHEAST OF CARPINTERIA. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 IN. DEPTH 468 FT, CASED TO 434 FT, PERFORATED 82-90, 120-150, 170-176, 239-240, 289-304, 314-318, 340-341, 356-366, 412-416 FT. ALTITUDE OF LSD 127 FT. MEASUREMENTS BEGINNING 2/15/78 COLLECTED BY U.S. GEOLOGICAL SURVEY AND CARPINTERIA COUNTY WATER DISTRICT. RECORDS AVAILABLE 1941 TO CURRENT YEAR.

HIGHEST WATER LEVEL 31.86 FEET BELOW LAND SURFACE DATUM JUL 17, 1980.

LOWEST WATER LEVEL 126.08 FEET BELOW LAND SURFACE DATUM NOV 26, 1951.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1980	32.42	JAN 18, 1981	33.10	APR 17, 1981	31.86	JUL 17, 1981	39.81
NOV 14	32.09	FEB 17	32.84	MAY 15	31.93	AUG 21	43.47
DEC 11	32.45	MAR 16	32.44	JUN 16	32.86	SEP 15	45.64

Santa Barbara Basin (3-17)

SITE NUMBER 342509119413703 LOCAL NUMBER 004N027W22B04S

IN VERA CRUZ PARK. DRILLED TEST WATER-TABLE WELL. DIAM 2 IN. DEPTH 660 FT. CASED TO 660 FT, PERFORATED 650-660 FT. ALTITUDE OF LSD 20 FT. MEASUREMENTS BEGINNING 6/16/76 FURNISHED BY CITY OF SANTA BARBARA. RECORDS AVAILABLE 1976 TO CURRENT YEAR.

HIGHEST WATER LEVEL 3.41 FEET BELOW LAND SURFACE DATUM JUL 06, 1978.

LOWEST WATER LEVEL 113.04 FEET BELOW LAND SURFACE DATUM MAY 19, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1980	103.38	JAN 15, 1981	73.35	APR 09, 1981	68.24	JUL 14, 1981	83.66
NOV 07	101.65	FEB 27	60.39	MAY 15	23.81	AUG 05	52.37
DEC 09	77.63	MAR 11	32.19	JUN 24	69.66	SEP 09	85.68

Some measurements reflect nearby and general pumping in the basin.

SITE NUMBER 342510119413801 LOCAL NUMBER 004N027W228065

NEAR COTA STREET AND VERA CRUZ AVENUE IN SANTA BARRERA. DRILLED PUBLIC SUPPLY WATER-TABLE WELL. DIAM 14 IN. DEPTH REPORTED 700 FT. PERFORATED 210-240, 415-435, 465-480, 560-580, 600-620, 640-670 FT. ALTITUDE OF LSD 35 FT.

## WATER QUALITY DATA

LOCAL IDENTIFIER		DATE OF SAMPLE	TIME	SPF-CIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CaCO3)	HARDNESS NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	
004N027W22H06S		81-09-09	--	750	7.3	23.0	320	85	92	23	42	
PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE, DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	IODIDE, DIS-SOLVED (MG/L AS I)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	BARIUM, DIS-SOLVED (UG/L AS BA)
22	1.1	2.0	240	110	43	.4	.04	36	521	496	.61	77

MORON,	IRON,
DIS-	DIS-
SOLVED	SOLVED
(UG/L	(UG/L
AS B)	AS FE)

## GROUND WATER

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SANTA BARBARA COUNTY--Continued

Santa Ynez River Valley (3-15)

SITE NUMBER 343911120264001 LOCAL NUMBER 007N034W34B01S

IN LOMPOC. DRILLED PUBLIC SUPPLY WATER-TABLE WELL. DIAM 14 IN. DEPTH 195 FT. CASED TO 192 FT, PERFORATED 96-192 FT. ALTITUDE OF LSD 102 FT. RECORDS BEGINNING IN 1972 FURNISHED BY U.S. BUREAU OF RECLAMATION. RECORDS AVAILABLE 1965, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 40.70 FEET BELOW LAND SURFACE DATUM APR 23, 1975.

LOWEST WATER LEVEL 68.70 FEET BELOW LAND SURFACE DATUM JUL 27, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1980	50.7	JAN 19, 1981	53.7	APR 27, 1981	52.7	JUL 17, 1981	50.70
NOV 26	50.7	FEB 24	52.7	MAY 28	48.70	AUG 16	52.70
DEC 14	51.7	MAR 25	53.7	JUN 25	51.70	SEP 26	53.70

SITE NUMBER 343840120304801 LOCAL NUMBER 007N035W36J03S

ABOUT 3 MI WEST OF LOMPOC. DRILLED UNUSED ARTESIAN WELL IN ALLUVIUM. DIAM 16 IN. DEPTH 102 FT. PERFORATED 71-95 FT. ALTITUDE OF LSD 58.76 FT. RECORDS 1930-42 FURNISHED BY CITY OF SANTA BARBARA. RECORDS AVAILABLE 1929-42, 1944, 1952, 1961 TO CURRENT YEAR.

HIGHEST WATER LEVEL 4.60 FEET BELOW LAND SURFACE DATUM APR 16, 1941.

LOWEST WATER LEVEL 81.00 FEET BELOW LAND SURFACE DATUM JUL 18, 1933.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1980	22.29	JAN 27, 1981	20.30	APR 24, 1981	21.63	JUL 27, 1981	27.46
NOV 24	20.67	FEB 25	19.67	MAY 27	26.19	AUG 26	26.65
DEC 18	22.92 S	MAR 25	18.11	JUN 24	25.04 S	SEP 23	26.37

S Nearby, pumping.

## GROUND WATER

## SANTA BARBARA COUNTY--Continued

## San Antonio Creek Valley (3-14)

SITE NUMBER 344457120174001 LOCAL NUMBER 004N032W30D01S

NORTH OF HWY 135 AND 0.33 MI WEST OF BELL STREET. DRILLED UNUSED WATER-TABLE WELL IN SAND AND GRAVEL. DIAM 16 IN, DEPTH 899 FT, PERFORATED 265-355, 378-409, 463-523, 667-895 FT. ALTITUDE OF LSD 540 FT. RECORDER INSTALLED 12/1977. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 23.18 FEET BELOW LAND SURFACE DATUM APR 30, 1978.

LOWEST WATER LEVEL 55.60 FEET BELOW LAND SURFACE DATUM AUG 08, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1980	41.07	FEB 17, 1981	35.86	MAR 29, 1981	32.38	MAY 08, 1981	35.81
10	40.76	18	35.97	30	32.34	09	35.91
15	40.96	19	35.82	31	32.31	10	36.01
20	40.41	20	35.67	APR 01	32.27	11	36.14
23	40.34	21	35.38	02	32.29	12	36.23
25	40.33	22	35.17	03	32.38	13	36.27
31	39.97	23	34.94	04	32.52	14	36.35
NOV 05	39.18	24	34.77	05	32.57	15	36.61
10	39.43	25	34.54	06	32.72	16	36.86
15	38.97	26	34.44	07	32.97	17	37.02
19	38.65	27	34.28	08	33.20	18	37.05
20	38.53	28	34.20	09	33.40	19	37.15
25	37.89	MAR 01	33.94	10	33.58	20	37.32
30	37.24	02	33.88	11	33.65	21	37.47
DEC 05	36.52	03	33.80	12	33.63	22	37.60
10	35.95	04	33.73	13	33.59	23	37.75
15	35.79	05	33.47	14	33.58	24	37.94
19	35.77	06	33.46	15	33.63	25	38.09
JAN 26, 1981	33.73	07	33.44	16	33.64	26	38.09
27	33.59	08	33.37	17	33.62	27	38.00
28	33.45	09	33.30	18	33.67	28	37.97
29	33.34	10	33.25	19	33.82	29	38.01
30	33.33	11	33.24	20	33.85	30	38.13
31	33.30	12	33.25	21	33.87	31	38.22
FEB 01	33.26	13	33.30	22	34.00	JUN 01	38.30
02	33.20	14	33.37	23	34.08	02	38.28
03	33.15	15	33.36	24	34.38	03	38.25
04	33.12	16	33.28	25	34.54	04	38.37
05	33.07	17	33.23	26	34.62	05	38.75
06	33.02	18	33.18	27	34.62	06	39.23
07	33.00	19	33.10	28	34.57	07	39.70
08	33.12	20	33.01	29	34.57	08	40.13
09	33.38	21	32.95	30	34.67	09	40.52
10	33.90	22	32.88	MAY 01	34.82	10	40.90
11	34.39	23	32.82	02	35.04	11	41.27
12	34.73	24	32.75	03	35.23	12	41.62
13	34.85	25	32.65	04	35.36	13	41.82
14	34.82	26	32.57	05	35.46	14	42.23
15	35.07	27	32.51	06	35.57	15	42.53
16	35.49	28	32.45	07	35.69	16	42.80

SITE NUMBER 344457120174001 LOCAL NUMBER 004N032W30D01S -- CONTINUED

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 17, 1981	43.06	JUL 08, 1981	47.32	JUL 29, 1981	52.82	SEP 11, 1981	52.67
18	43.34	09	47.48	30	52.64	12	52.50
19	43.59	10	47.63	31	52.55	13	52.25
20	43.83	11	47.79	AUG 01	52.72	14	52.00
21	44.05	12	47.92	02	53.14	15	51.87
22	44.25	13	48.08	03	53.63	16	51.69
23	44.46	14	48.27	04	54.00	17	51.55
24	44.56	15	48.84	05	54.37	18	51.36
25	44.87	16	49.68	06	54.77	19	51.12
26	45.05	17	50.57	07	55.22	20	50.85
27	45.27	18	51.61	08	55.60	21	50.60
28	45.50	19	52.57	SEP 01	53.82	22	50.48
29	45.70	20	53.43	02	53.56	23	50.25
30	45.88	21	54.00	03	53.42	24	50.15
JUL 01	46.00	22	54.22	04	53.37	25	50.01
02	46.22	23	53.96	05	53.16	26	49.86
03	46.41	24	53.44	06	53.00	27	49.70
04	46.59	25	52.95	07	52.85	28	49.48
05	46.75	26	52.77	08	52.77	29	49.30
06	46.94	27	52.81	09	52.74		
07	47.12	28	53.04	10	52.72		



## SANTA BARBARA COUNTY--Continued

San Antonio Creek Valley (3-14)

SITE NUMBER 344443120164501 LOCAL NUMBER 008N032W30H07S

IN LOS ALAMOS. DRILLED PUBLIC SUPPLY ARTESIAN WELL IN PASO ROBLES FORMATION. DIAM 12 IN.  
 DEPTH 310 FT, CASED TO 310 FT, PERFORATED 124-310 FT. ALTITUDE OF LSD 563 FT. RECORDS  
 AVAILABLE 1964-76, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 24.10 FEET BELOW LAND SURFACE DATUM MAR 25, 1966.

LOWEST WATER LEVEL 37.90 FEET BELOW LAND SURFACE DATUM SEP 18, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JUN 23, 1981	26.66

## WATER QUALITY DATA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TIME	SPF- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
008N032W30H07S	81-06-23	1110	740	6.7	19.0	240	140	55	24	54

PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	BOHON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
33	1.5	2.7	93	150	77	.1	59	485	1.1	.1A	90	1900

MANGA-  
NESE,  
DIS-  
SOLVED  
(UG/L  
AS MN)

170

Cuyama Valley (3-13)

SITE NUMBER 345500119343201 LOCAL NUMBER 010N025W29K02S

ABOUT 6.5 MI EAST OF NEW CUYAMA. IRRIGATION WATER-TABLE WELL. DIAM 14 IN. DEPTH 296 FT, CASED TO  
 296 FT, PERFORATED 120-296 FT. ALTITUDE OF LSD 2357 FT. RECORDS AVAILABLE 1966, 1968, 1977 TO  
 CURRENT YEAR.

HIGHEST WATER LEVEL 121.20 FEET BELOW LAND SURFACE DATUM DEC 11, 1968.

LOWEST WATER LEVEL 334.77 FEET BELOW LAND SURFACE DATUM APR 17, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 17, 1981	334.77

## GROUND WATER

SANTA BARBARA COUNTY--Continued

## Santa Maria Valley (3-12)

SITE NUMBER 34554R120242202 LOCAL NUMBER 010N034W24K01S

EAST OF HWY 101 AND SOUTH OF BATTLES ROAD. DRIVEN UNUSED ARTESIAN WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 16 IN. DEPTH 714 FT. PERFORATED 650-657, 692-710 FT. ALTITUDE OF LSD 254 FT. MEASUREMENTS FURNISHED BY SANTA MARIA VALLEY WATER CONSERVATION DISTRICT. RECORDS AVAILABLE 1941, 1972 TO CURRENT YEAR.

HIGHEST WATER LEVEL 75.32 FEET BELOW LAND SURFACE DATUM DEC 30, 1941.

LOWEST WATER LEVEL 215.50 FEET BELOW LAND SURFACE DATUM JUL 01, 1972.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1980	142.80	JAN 15, 1981	140.00	APR 03, 1981	139.00	JUL 05, 1981	148.30 S

VENTURA COUNTY

## Pleasant Valley (4-6)

SITE NUMBER 341351118583801 LOCAL NUMBER 002N020W28G02S

ABOUT 1 MI NORTHEAST OF INTERSECTION OF SANTA ROSA AND OAK CANYON ROADS. DRILLED UNUSED WATER-TABLE WELL. DIAM 10 IN. DEPTH 450 FT. ALTITUDE OF LSD 170 FT. RECORDS AVAILABLE 1956 TO CURRENT YEAR.

HIGHEST WATER LEVEL 73.82 FEET BELOW LAND SURFACE DATUM APR 21, 1981.

LOWEST WATER LEVEL 160.90 FEET BELOW LAND SURFACE DATUM JUL 12, 1966.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 21, 1981	73.82

## Santa Clara River Valley (4-4)

SITE NUMBER 341557119074401 LOCAL NUMBER 002N022W12K01S

ABOUT 0.5 MI WEST OF INTERSECTION OF ROSE AVENUE AND LOS ANGELES AVENUE. DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM. DIAM 20 IN. DEPTH 147 FT. PERFORATED 90-130 FT. ALTITUDE OF LSD 135.1 FT. RECORDS AVAILABLE 1956 TO CURRENT YEAR.

HIGHEST WATER LEVEL 20.54 FEET BELOW LAND SURFACE DATUM MAY 29, 1980.

LOWEST WATER LEVEL 128.9 FEET BELOW LAND SURFACE DATUM DEC 20, 1964.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 21, 1981	23.67

S Nearby, pumping.

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## FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound 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> )
	$4.047 \times 10^{-1}$	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	$3.785 \times 10^3$	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	$2.447 \times 10^3$	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	$4.381 \times 10^1$	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)	$9.072 \times 10^{-1}$	megagrams (Mg) or metric tons

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