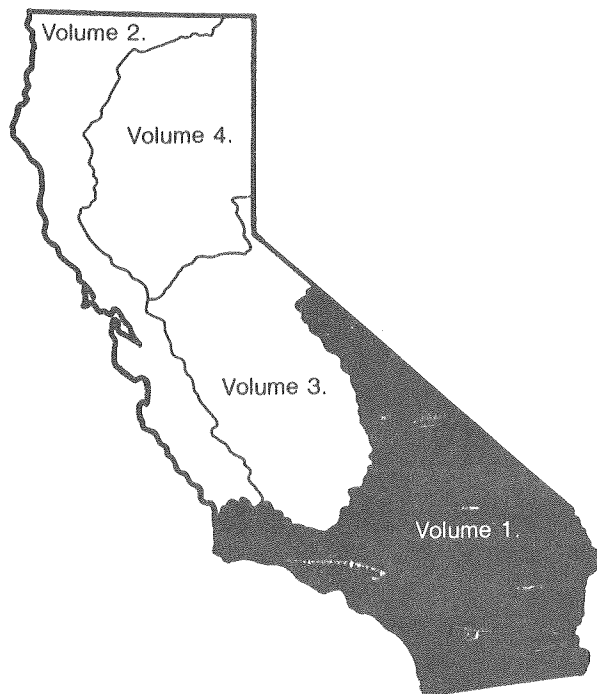




# Water Resources Data California Water Year 1982

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-82-1  
Prepared in cooperation with the California Department of  
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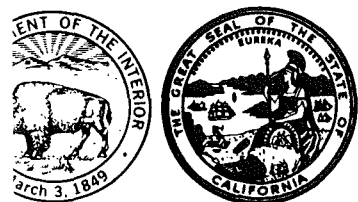
# CALENDAR FOR WATER YEAR 1982

1981

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1982

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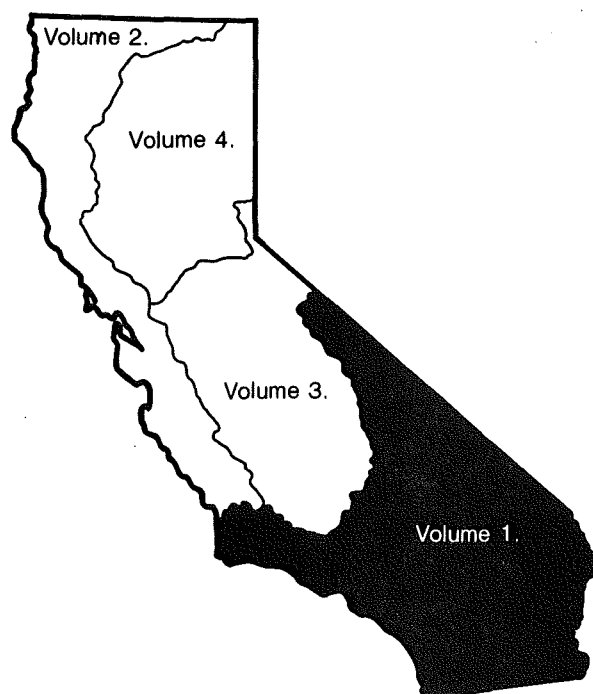


# Water Resources Data California

## Water Year 1982

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

by J.C. Bowers, M.T. Butcher, C.E. Lamb, J.A. Singer, and G.B. Smith



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-82-1  
Prepared in cooperation with the California Department of  
Water Resources and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

WILLIAM P. CLARK, SECRETARY

GEOLOGICAL SURVEY

Dallas L. Peck, Director

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## PREFACE

This volume of the annual hydrologic data report of California is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for California are contained in 4 volumes:

- Volume 1. 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

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data. Debra A. Grillo typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the individuals contributing significantly to the collection, processing, and tabulation of the data are given on page V.

This report was prepared in cooperation with the California Department of Water Resources and with other agencies under the general supervision of Timothy J. Durbin, District Chief, California.

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SURFACE-WATER AND WATER-QUALITY STATIONS,  
IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

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

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# WATER RESOURCES DATA FOR CALIFORNIA, 1982

## Volume 1

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### INTRODUCTION

Water-resources data for the 1982 water year for California consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and records of water levels in selected observation wells. These data, a contribution to the National Water Data System, were collected by the 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, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Virginia 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-82-1." 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, Virginia 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 Mercardo, Director.  
California Department of Water Resources, R. B. Robie, Director.  
Carpinteria County Water District, Robert Lieberknecht, Manager.  
Casitas Municipal Water District, Robert N. McKinney, General Manager-Chief Engineer.  
Coachella Valley Water District, L. O. Weeks, General Manager-Chief Engineer.  
Crestline-Lake Arrowhead Water Agency, Roxanne Holmes, Acting General Manager.  
Desert Water Agency, P. G. Payne, General Manager.  
East San Bernardino County Water District, Larry W. Rowe, Assistant General Manager-District Engineer.  
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-Chief Engineer.  
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 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, H. 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 Land Management, National Park Service, and Bureau of Reclamation, 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; Southern California Edison Co.; and Temescal Water Co.

## SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Runoff during the last 7 months of the 1982 water year in the area covered by this volume was well above normal as was the total runoff for the entire year, which averaged 165 percent of the 1951-80 median. Runoff in the Santa Ana River basin and coastal basins to the south was 162 percent of the median; in the Los Angeles River basin, 203 percent; and in the Santa Clara River basin, 132 percent. The runoff at selected sites in California is shown in figure 1.

Large variations in precipitation and streamflow are common in both the high and low desert as well as the coastal and the mountain frontal basins of southern California. Figure 2 shows the variation of runoff during the 1982 water year and compares the 1982 monthly and annual flow with median flow for representative streams in southern California.

Precipitation was very erratic in the desert area this year, ranging from 176 percent at Death Valley to 87 percent at Blythe, and was near normal in much of the coastal area, ranging from 82 percent at Los Angeles to 125 percent at San Diego and 104 percent at Santa Barbara.

Three early storms, November 27-28, December 30 to January 1, and January 20-21 were light to moderate throughout the area and runoff from them was minimal to moderate. The storm of February 10 was heavy in several coastal and mountain basins; in the low desert some streams had peaks for the year. Most southern coastal and frontal basins received significant precipitation during March 14-17 and this storm produced large runoff and some area streams had peaks for the year. The storms of April 1 and April 11 brought heavier precipitation to coastal basins, especially in the Santa Barbara and Ventura area basins where the resulting runoff generated peaks for the year. Most basins in the area received light to moderate precipitation from tropical storm Olivia on September 26 resulting in minor runoff. Since the major storms were well scattered throughout the water year, there were no peaks of record on southern California streams and only very minor local flooding occurred.

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 water level in the index well declined less than 1.5 ft in 1982. Water level in the observation well in the Coastal Plain of Los Angeles rose 2.7 ft and increases of 0.4, 0.9, and 1.6 ft were observed in three wells in the Coastal Plain of Orange County.

Water Quality

Water samples taken at eight NASQAN sites in the area covered by this volume were analyzed for water-quality properties and constituents during the 1982 water year. Water quality at these sites was similar to previous years records. No significant changes in any of the constituents sampled was evident.

The observed range in specific conductance at NASQAN sites ranged from 180 to 337 micromhos in the Owens River to 5,900 to 7,790 micromhos in the New River. The other NASQAN sites had a minimum specific conductance value in excess of 480. Dissolved-oxygen concentrations were frequently low at the New River near Calexico (0.8-7.6 mg/L). Numbers of indicator bacteria sampled were highest at the New River where fecal coliform and fecal streptococci (col/100 mL) ranged from 58,000 to 4,700,000 and 23,000 to 580,000, respectively. These counts are higher than the 1981 water year ranges of 34,000 to 940,000 and 3,400 to 90,000. Sulfate concentrations in excess of 250 mg/L (EPA drinking water objective<sup>1/</sup>) were detected at 4 of the 8 NASQAN sites. Water from the Alamo River near Calpatria had the highest mean sulfate concentrations (920 mg/L), which ranged from 810 to 980 mg/L.

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

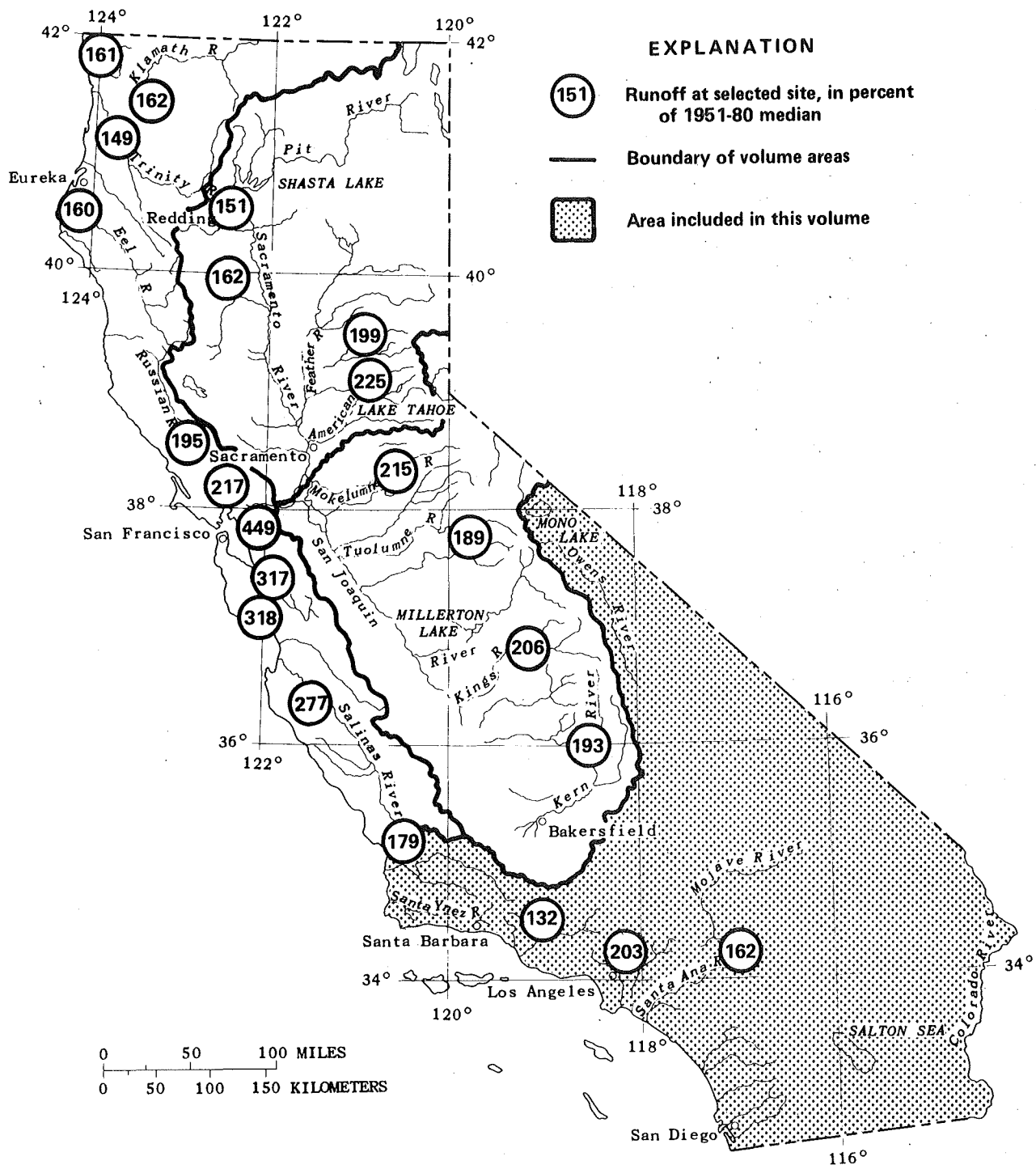


FIGURE 1. — Runoff for the current water year.

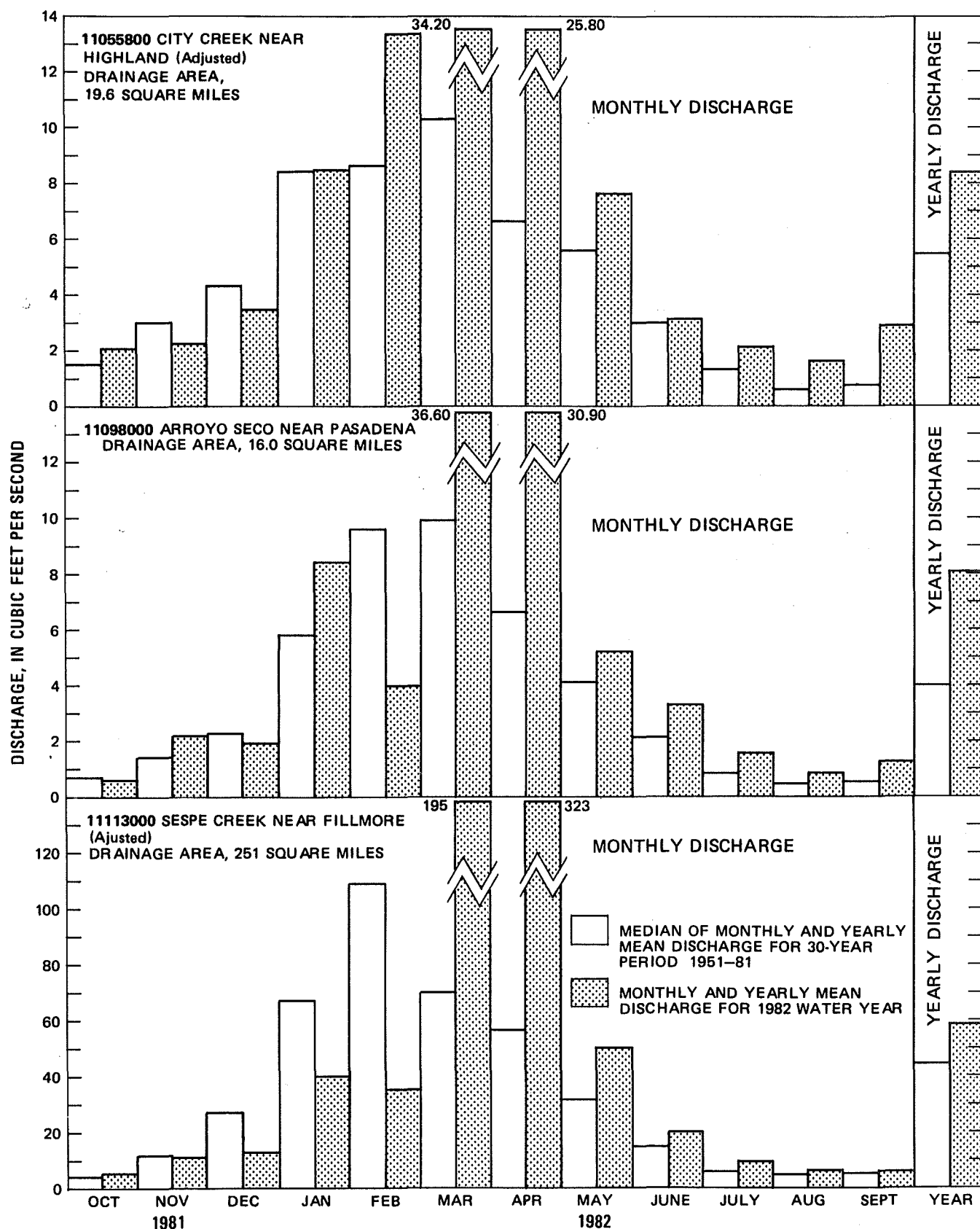


FIGURE 2. — Comparison of discharge at representative gaging stations during 1982 water year with median discharge for the period 1951-80.

## 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 ± 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 ± 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 ± 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. It is recognized that certain kinds of samples cannot be filtered; to provide for this, procedures that are considered equivalent to filtering through a 0.45-micrometer membrane filter will be identified and announced a later date.

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

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

where  $n_i$  is the number of individuals per taxon,  $n$  is the total number of individuals, and  $s$  is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the 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.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with a pH less than 7 are termed acidic, and solutions with a pH greater than 7 are termed basic. Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

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

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--Continued

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 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. 25).

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 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.

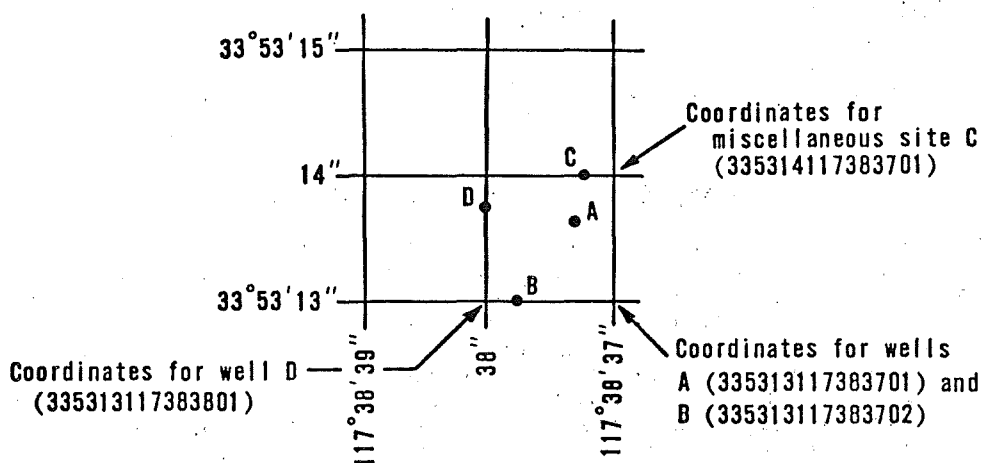


Figure 3.--System for numbering wells and miscellaneous sites (latitude and longitude).

### 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.

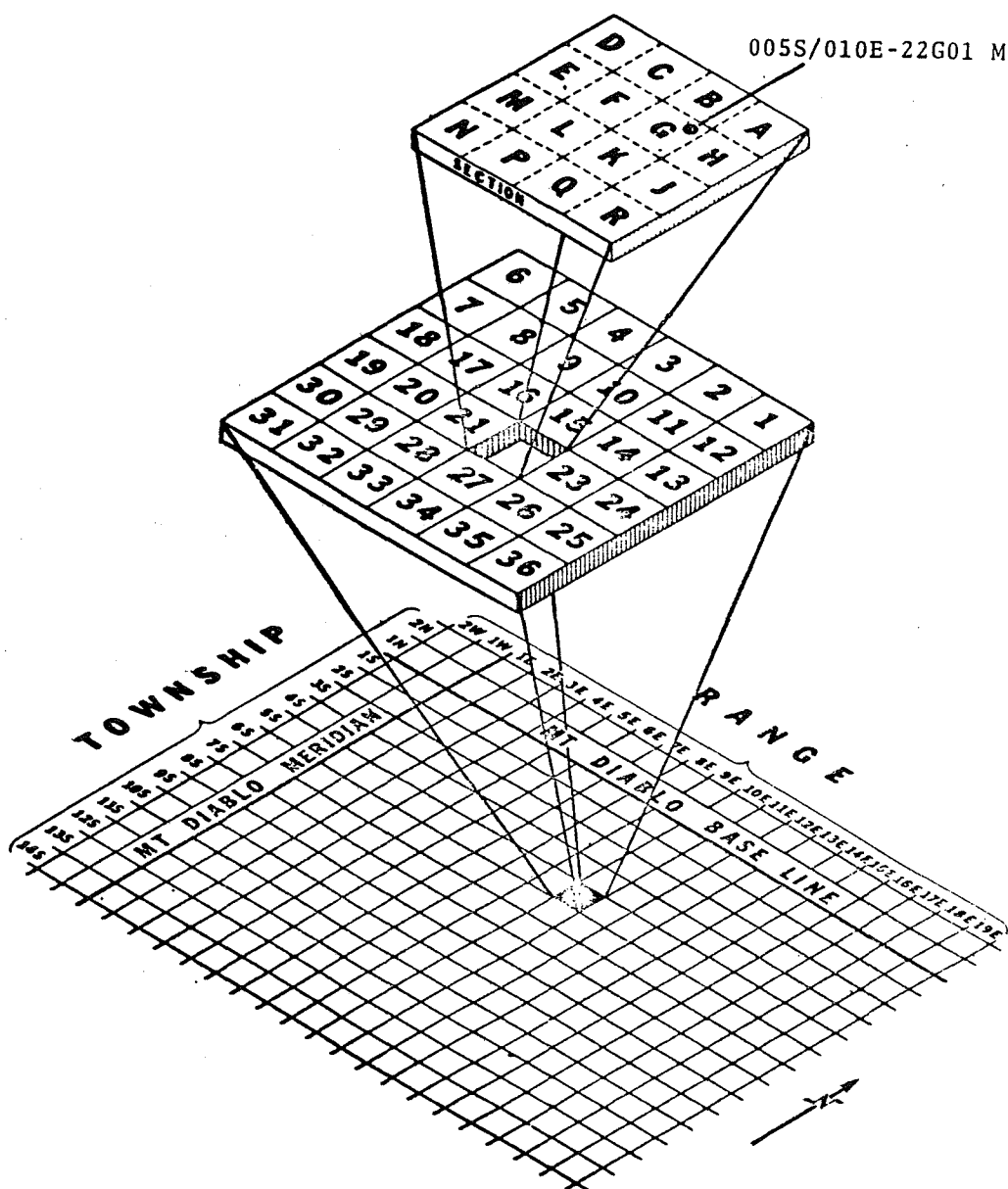


FIGURE 4.--California well-numbering system.

## 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:

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 River at Oceanside, CA  
11074000 Santa Ana River below Prado Dam, CA  
11103010 Los Angeles River at Willow Street Bridge, 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  
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 10.

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 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.

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

Water analysis

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

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between 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.

pH

At some stations, pH is measured on a continual basis. The results are reported as maximum, minimum, and mean values for each day and month. The mean pH values reported were computed from the pH values recorded by the monitor and is equal to the negative logarithm of the geometric mean of the hydrogen-ion activity.

### 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

#### Collection of the data

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 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. The height of the measuring point (MP above or below land-surface datum), if known, is given in each well description.

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 of water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

## PUBLICATIONS OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-seven 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 U.S. Geological Survey, Branch of Distribution, 604 South Picket Street, Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

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

- 1-D1. Water temperature-influential factors, field measurement, and data presentation, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-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-A9. Measurement of time of travel and dispersion in streams by dye tracing, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr: USGS--TWRI Book 3, Chapter A9. 1982. 44 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. 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. Greeson, 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.
- 7-C3. A model for simulation of flow in singular and interconnected channels, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. Methods of measuring water levels in deep wells, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-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.



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.

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

AVERAGE DISCHARGE.--8 years (water years 1975-82), 0.310 ft<sup>3</sup>/s (0.009 m<sup>3</sup>/s), 225 acre-ft/yr (277,000 m<sup>3</sup>/s).

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 maximum 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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.12	.24	.28	.38	.41	.41	.31	.15	.12	.06	.09
2	.13	.12	.22	.29	.38	.42	.41	.31	.15	.11	.07	.09
3	.11	.12	.19	.29	.39	.41	.43	.58	.14	.10	.08	.09
4	.11	.12	.20	.30	.39	.41	.44	.40	.13	.09	.08	.08
5	.12	.12	.20	.33	.39	.39	.42	.37	.14	.09	.09	.09
6	.11	.12	.20	.31	.39	.40	.41	.33	.14	.09	.11	.10
7	.10	.12	.20	.31	.39	.42	.39	.32	.14	.08	.10	.09
8	.11	.12	.20	.31	.39	.42	.41	.29	.14	.10	.09	.11
9	.12	.13	.20	.32	.40	.42	.41	.30	.14	.10	.09	.11
10	.12	.13	.20	.32	.40	.44	.42	.32	.14	.10	.07	.10
11	.11	.13	.21	.32	.78	.42	.44	.31	.13	.10	.06	.10
12	.12	.13	.21	.33	.44	.42	.43	.31	.13	.09	.07	.10
13	.12	.13	.21	.33	.43	.42	.41	.29	.13	.08	.08	.10
14	.13	.11	.22	.33	.42	.49	.41	.29	.12	.08	.07	.09
15	.13	.12	.22	.33	.41	.48	.40	.28	.11	.08	.07	.09
16	.12	.12	.22	.33	.41	.42	.38	.27	.11	.07	.08	.11
17	.12	.12	.23	.33	.41	1.5	.38	.26	.11	.08	.08	.11
18	.12	.11	.23	.34	.41	.95	.38	.24	.10	.08	.08	.12
19	.12	.12	.23	.34	.41	.62	.36	.24	.11	.08	.08	.12
20	.12	.13	.24	.34	.40	.55	.34	.24	.10	.08	.08	.11
21	.12	.13	.24	.40	.40	.52	.34	.24	.10	.08	.08	.11
22	.12	.13	.24	.36	.40	.50	.36	.23	.09	.07	.10	.11
23	.11	.13	.25	.36	.40	.50	.35	.22	.10	.06	.09	.11
24	.12	.13	.25	.37	.40	.49	.36	.20	.10	.08	.10	.14
25	.12	.12	.26	.37	.40	.49	.36	.19	.10	.08	.09	.16
26	.12	.12	.26	.37	.41	.48	.35	.16	.10	.11	.09	.17
27	.12	.12	.26	.37	.40	.46	.35	.14	.09	.09	.09	.17
28	.11	.35	.27	.37	.40	.42	.34	.15	.09	.08	.09	.17
29	.12	.98	.27	.41	---	.40	.32	.16	.10	.08	.08	.16
30	.12	.22	.28	.37	---	.40	.32	.16	.11	.07	.08	.16
31	.12	---	.28	.38	---	.40	---	.14	---	.07	.09	---
TOTAL	3.65	4.87	7.13	10.51	11.63	15.47	11.53	8.25	3.54	2.67	2.57	3.46
MEAN	.12	.16	.23	.34	.42	.50	.38	.27	.12	.086	.083	.12
MAX	.13	.98	.28	.41	.78	1.5	.44	.58	.15	.12	.11	.17
MIN	.10	.11	.19	.28	.38	.39	.32	.14	.09	.06	.06	.08
AC-FT	7.2	9.7	14	21	23	31	23	16	7.0	5.3	5.1	6.9
WAL YR 1981	TOTAL	79.27	MEAN .22	MAX 1.4	MIN .06	AC-FT	157					
CAL YR 1982	TOTAL	85.28	MEAN .23	MAX 1.5	MIN .06	AC-FT	169					

## DEATH VALLEY

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 poor. No regulation. City of Tecopa pumps water for municipal use upstream.

AVERAGE DISCHARGE.--21 years, 3.14 ft<sup>3</sup>/s (0.089 m<sup>3</sup>/s), 2,270 acre-ft/yr (2.80 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)
Mar. 15	Unknown	*202 5.72	6.02 1.835
Apr. 12	Unknown	97 2.75	5.03 1.533
Sept. 12	0845	61 1.73	4.66 1.420

Minimum, no flow many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.04	.40	.97	.95	.95	.45	.12	.03	0	0	0
2	0	.05	.37	.63	.50	.84	10	.12	.03	0	0	0
3	0	.05	.39	.33	.28	.72	1.0	.14	.03	0	0	0
4	0	.05	.41	.63	.78	.65	.60	.17	.03	0	0	0
5	0	.06	.46	.81	.70	.66	.45	.39	.03	0	0	0
6	0	.06	.45	1.2	.64	.32	.41	.29	.03	0	0	0
7	0	.06	.47	.36	.56	.30	.38	.17	.03	0	0	0
8	0	.06	.48	.41	.50	.51	.37	.12	.03	0	0	0
9	0	.07	.54	.39	.60	.56	.36	.12	.03	0	0	0
10	0	.07	.60	.56	.70	.54	.35	.14	.02	0	0	0
11	0	.07	.68	.90	.80	.51	.35	.17	.02	0	0	0
12	.01	.07	.68	1.4	13	.94	40	.18	.02	.59	27	0
13	.01	.07	.74	.86	2.5	.83	5.1	.14	.02	1.3	6.4	0
14	.01	.07	.78	.45	1.0	10	.80	.13	.02	.01	.23	0
15	.01	.07	.84	.57	.70	83	.35	.13	.02	0	.04	0
16	.01	.07	.90	.57	.73	15	.33	.11	.01	0	.01	0
17	.01	.08	.83	.69	.76	6.0	.30	.10	.01	0	.01	0
18	.01	.09	.55	.78	.79	2.0	.28	.08	.01	0	0	0
19	.01	.08	.88	.88	.82	1.2	.27	.08	0	0	0	0
20	.01	.09	.77	.98	.86	.80	.27	.08	0	0	0	0
21	.02	.10	.73	15	.89	.69	.26	.08	0	0	0	0
22	.03	.10	.89	3.6	.93	.64	.25	.08	0	0	0	0
23	.04	.12	.38	1.1	1.0	.59	.25	.08	0	0	0	0
24	.04	.12	.25	1.2	1.0	.56	.24	.07	0	0	0	0
25	.04	.13	.45	1.4	.93	.54	.24	.06	0	.07	0	0
26	.04	.08	.51	1.4	.88	.52	.23	.04	0	.05	0	0
27	.04	.13	.65	1.6	.81	.51	.22	.03	0	0	0	0
28	.04	.19	.71	1.2	.87	.50	.22	.03	0	0	0	0
29	.04	6.8	.84	2.0	---	.49	.18	.04	0	0	0	0
30	.05	.73	.89	.60	---	.47	.15	.04	0	0	0	0
31	.04	---	1.1	.41	---	.46	---	.03	---	0	---	---
TOTAL	.51	9.83	19.62	43.88	35.48	132.30	64.66	3.56	.42	0	2.02	33.69
MEAN	.017	.33	.63	1.42	1.27	4.27	2.16	.11	.014	0	.065	1.12
MAX	.05	6.8	1.1	15	13	83	40	.39	.03	0	1.3	27
MIN	0	.04	.25	.33	.28	.30	.15	.03	0	0	0	0
AC-FT	1.0	19	39	87	70	262	128	7.1	.8	0	4.0	67

CAL YR 1981 TOTAL 383.67 MEAN 1.05 MAX 90 MIN 0 AC-FT 761  
WTR YR 1982 TOTAL 345.97 MEAN .95 MAX 83 MIN 0 AC-FT 686



## 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 1981, May 1982 to current year.

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

REMARKS.--Records fair. Station not operated October 1981 through April 1982. No regulation or diversion above station.

AVERAGE DISCHARGE.--18 years, (water years 1964-81) 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, 814 ft<sup>3</sup>/s (23.1 m<sup>3</sup>/s) (revised), Aug. 12, 1979, gage height, 5.75 ft (1.753 m) from rating curve extended above 2.0 ft<sup>3</sup>/s (0.057 m<sup>3</sup>/s), on basis of slope-conveyance study at gage height 5.22 ft (1.591 m); no flow most of 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 (\*) from rating curve extended above 2.0 ft<sup>3</sup>/s (0.057 m<sup>3</sup>/s) on basis of slope-conveyance study at gage height 5.22 ft (1.591 m):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
July 26	1800	12	0.33	1.61	0.491
Aug. 25	1700	*614	17.4	5.22	1.591

Minimum, no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										0	0	.02
2										0	0	.01
3										0	0	0
4										0	0	0
5										0	0	0
6										0	0	0
7										0	0	.14
8										0	0	.12
9										0	0	.10
10										0	0	.06
11										0	0	.03
12										0	0	.01
13										0	0	0
14										0	0	0
15										0	0	0
16										0	0	0
17										0	0	0
18										0	0	0
19										0	0	0
20										0	0	0
21										0	0	0
22										0	0	0
23										0	0	0
24										0	3.0	0
25										0	31	0
26										.80	3.4	0
27										.01	.53	0
28										0	.26	0
29										0	.12	0
30										0	.07	0
31		---			---		---		---	0	.04	---
TOTAL	0	0	0	0	0	0	0	0	0	.81	38.42	.49
MEAN	0	0	0	0	0	0	0	0	0	.026	1.24	.016
MAX	0	0	0	0	0	0	0	0	0	.80	31	.14
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	1.6	76	1.0
CAL YR 1981	TOTAL	6.29	MEAN .017	MAX	1.3	MIN 0	AC-FT 12					
WTR YR 1982	TOTAL	39.72	MEAN .11	MAX	31	MIN 0	AC-FT 79					

## 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, 227.4 ft (69.22 m) below NGVD, Apr. 29 to May 5; minimum, 228.5 ft (69.55 m) below NGVD Sept. 27-30.

MEAN DAILY MONTHEND ELEVATIONS, IN FEET, BELOW NGVD, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Date	Elevation (feet)
Sept. 30.....	228.0	Apr. 30.....	227.4
Oct. 31.....	228.2	May 31.....	227.6
Nov. 30.....	228.3	June 30.....	227.8
Dec. 31.....	228.2	July 31.....	228.0
Jan. 31.....	228.0	Aug. 31.....	228.2
Feb. 28.....	227.8	Sept. 30.....	228.5
Mar. 31.....	227.6		

## 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 1981 to September 1982 and the annual inflow for the calendar year January to December 1981. 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	86640	74030	68520	80200	78580	99780	116200	101800	74950	79490	87550	84170
Coachella Valley	21830	19210	17460	17370	21120	22040	22310	23930	21550	21130	22010	19890
Total cal yr 1981		1,379,000 ac-ft										
Total wtr yr 1982		1,282,000 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

Alamo River	156	169	209	214	155	257	257	196	147	135	155	147
New River	11900	10960	10960	14790	12980	17260	15700	15380	10500	11500	15040	13670
Cal yr 1981:	Alamo River		2,270 ac-ft		Wtr yr 1982:		2,200 ac-ft					
Cal yr 1981:	New River		161,300 ac-ft		Wtr yr 1982:		160,600 ac-ft					

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.

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

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

AVERAGE DISCHARGE.--21 years, 7.16 ft<sup>3</sup>/s (0.203 m<sup>3</sup>/s), 5,190 acre-ft/yr (6.40 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, 394 ft<sup>3</sup>/s (11.2 m<sup>3</sup>/s) Aug. 22, gage height 9.88 ft (3.011 m) from highwater mark; minimum daily, 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) July 25.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	7.0	13	11	11	10	9.8	4.6	3.8	1.4	1.5	4.1
2	5.2	7.3	12	11	11	10	11	4.9	4.0	1.5	1.5	4.2
3	5.9	8.6	12	9.0	10	10	9.8	4.9	3.5	1.7	1.5	4.3
4	6.2	30	12	8.6	11	10	9.7	5.2	3.5	1.3	1.5	4.4
5	6.6	12	12	11	11	10	9.7	6.6	3.5	1.3	1.5	4.5
6	6.6	10	11	11	9.5	10	9.6	6.6	3.5	1.4	1.5	4.6
7	7.4	9.5	11	11	11	10	9.6	5.2	3.3	1.5	1.5	4.8
8	7.0	9.5	10	7.8	12	10	9.6	4.9	3.0	1.5	1.5	8.0
9	7.0	9.5	9.5	9.0	12	10	9.6	5.9	3.3	1.4	1.6	6.5
10	7.4	9.5	9.5	11	13	10	9.5	8.2	3.3	1.3	1.6	5.5
11	7.8	8.6	10	20	32	10	9.5	4.6	3.0	1.4	1.6	4.9
12	7.8	8.6	10	20	24	12	9.5	5.5	2.6	1.4	1.6	4.5
13	7.4	8.6	10	14	16	20	9.5	6.2	2.6	1.1	1.7	4.4
14	7.8	9.0	9.5	12	14	28	9.0	5.5	2.6	1.1	1.7	4.3
15	8.2	10	8.6	13	13	20	9.0	5.2	2.6	1.1	1.7	4.4
16	8.2	9.5	9.0	12	12	15	8.2	5.2	2.6	1.1	1.8	4.5
17	8.2	9.5	8.6	12	11	12	8.6	4.9	2.6	1.1	1.8	4.7
18	7.8	10	8.2	13	11	10	8.2	4.9	2.6	2.0	1.8	5.0
19	7.4	9.0	8.6	13	10	10	7.8	4.6	2.8	1.5	1.9	5.3
20	7.4	8.6	8.6	13	8.6	10	6.6	4.3	2.8	1.3	1.9	5.6
21	8.2	9.5	8.7	13	9.0	10	5.5	4.6	2.4	1.1	1.9	5.9
22	8.2	11	8.8	16	9.5	10	4.9	4.9	2.4	1.1	100	6.2
23	8.2	11	8.8	13	10	10	4.6	4.9	2.4	1.3	4.8	6.2
24	8.2	11	8.9	12	10	10	4.9	4.9	2.4	1.4	5.0	6.2
25	8.2	11	9.0	13	10	9.9	5.5	4.6	2.2	1.0	5.4	6.2
26	8.2	11	9.3	13	10	9.9	5.5	4.6	2.0	1.3	5.7	5.9
27	8.6	11	9.6	13	10	9.9	5.2	4.6	2.0	2.4	5.0	5.9
28	10	20	9.9	13	10	9.8	4.9	5.2	2.0	1.9	4.6	5.2
29	10	22	11	12	---	9.8	4.9	5.2	1.9	1.7	4.3	5.5
30	8.6	16	11	10	---	9.8	4.6	4.3	1.4	1.6	4.1	6.2
31	7.4	---	11	9.4	---	9.8	---	4.0	---	1.5	4.1	---
TOTAL	236.3	480.9	309.1	379.8	341.6	355.9	234.3	159.7	82.6	43.7	177.6	157.9
MEAN	7.62	16.0	9.97	12.3	12.2	11.5	7.81	5.15	2.75	1.41	5.73	5.26
MAX	10	86	13	20	32	28	11	8.2	4.0	2.4	100	8.0
MIN	5.2	7.0	8.2	7.8	8.6	9.8	4.6	4.0	1.4	1.0	1.5	4.1
AC-FT	469	954	613	753	678	706	465	317	164	87	352	313
CAL YR 1981	TOTAL	3979.8	MEAN	10.9	MAX	141	MIN	3.5	AC-FT	7890		
WTR YR 1982	TOTAL	2959.4	MEAN	8.11	MAX	100	MIN	1.0	AC-FT	5870		

## SALTON SEA BASIN

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 .25 mi (.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, 1,880 ft<sup>3</sup>/s (53.2 m<sup>3</sup>/s) Mar. 15, gage height 3.18 ft (0.969 m);  
minimum daily, 438 ft<sup>3</sup>/s (12.4 m<sup>3</sup>/s) Dec. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	699	584	491	530	540	712	1010	848	509	472	524	548
2	719	588	491	492	507	701	1060	847	507	482	491	546
3	695	595	473	456	555	700	1070	830	498	499	490	604
4	739	599	459	498	604	682	1070	865	523	504	508	594
5	744	590	455	517	629	698	1020	868	527	484	544	600
6	714	586	490	529	623	667	987	790	557	476	535	607
7	701	605	517	508	605	671	946	844	510	492	613	619
8	720	632	492	492	614	682	986	759	488	508	635	1020
9	725	618	507	484	605	713	982	708	488	541	651	918
10	698	622	511	525	622	739	954	693	499	531	647	686
11	654	588	477	567	636	809	910	723	538	502	607	621
12	583	577	465	577	628	867	898	739	530	526	586	581
13	574	577	470	561	598	1140	879	727	502	547	566	564
14	568	580	463	507	576	1000	863	752	497	564	576	581
15	622	583	465	467	528	1310	884	717	513	563	583	578
16	638	587	487	455	493	679	928	678	532	573	580	602
17	641	567	507	487	528	529	1010	678	586	562	605	644
18	635	557	506	481	551	490	1000	693	588	566	603	628
19	638	559	492	478	571	490	917	730	564	543	596	662
20	655	562	493	500	597	492	919	643	570	546	603	672
21	643	575	493	509	616	520	870	629	523	578	596	665
22	649	581	473	514	618	550	918	643	491	568	622	665
23	651	561	451	534	623	615	970	657	477	568	617	679
24	664	534	462	533	632	645	955	636	474	611	646	675
25	667	508	484	534	645	650	956	608	489	616	668	701
26	632	490	454	529	665	711	945	629	511	671	757	702
27	633	483	438	540	691	794	933	648	516	859	684	684
28	619	483	474	521	723	842	894	594	495	611	608	661
29	611	571	494	558	---	896	897	564	482	583	575	721
30	586	518	495	594	---	928	907	576	475	537	527	726
31	579	---	503	617	---	945	---	555	---	561	534	---
TOTAL	20296	17060	14932	16094	16823	22867	28538	21871	15459	17224	18377	19754
MEAN	655	569	482	519	601	738	951	706	515	556	593	658
MAX	744	632	517	617	723	1310	1070	868	588	859	757	1020
MIN	568	483	438	455	493	490	863	555	474	472	490	546
AC-FT	40260	33840	29620	31920	33370	45360	56610	43380	30660	34160	36450	39180
CAL YR 1981	TOTAL	255475	MEAN 700	MAX 1610	MIN 351	AC-FT 506700						
WTR YR 1982	TOTAL	229295	MEAN 628	MAX 1310	MIN 438	AC-FT 454800						

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 1979-81.

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 1981 to current year.

WATER TEMPERATURES: March 1981 to current year.

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, 6,410 micromhos Mar. 17, 1982; minimum recorded, 2,890 micromhos

June 26, 27, 1982.

WATER TEMPERATURES: Maximum recorded, 32.0°C on several days during August; minimum recorded, 9.0°C

Jan. 8, 9, 1982.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 6,410 micromhos Mar. 17; minimum recorded, 2,890 micromhos June 26, 27.

WATER TEMPERATURES: Maximum recorded, 31.0°C several days during July and August; minimum recorded, 9.0°C

Jan. 8, 9.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD 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- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
NOV 13...	1100	568	4400	7.9	18.5	84	9.5	K17000	5000	1085	865
JAN 13...	1200	561	4040	8.0	13.0	100	10.6	7700	23000	911	671
MAR 10...	1100	700	3900	8.0	19.0	160	9.8	10000	5000	994	764
MAY 11...	1200	693	3850	8.1	18.5	130	9.5	8700	12000	902	672
JUL 08...	0830	502	3770	8.0	27.5	200	7.7	9800	--	886	656
SEP 08...	1100	987	4150	7.9	27.5	74	8.3	40000	39000	1019	799

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- LINEITY FIELD (MG/L AS CAC03)	ALKA- LINEITY 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 13...	220	130	570	53	7.7	12	--	220	970	780	.6
JAN 13...	200	100	500	54	7.4	11	240	--	810	680	.6
MAR 10...	200	120	550	54	7.8	13	230	--	920	680	.6
MAY 11...	180	110	520	55	7.7	14	230	--	940	650	.8
JUL 08...	190	100	520	56	7.8	14	230	--	880	640	.6
SEP 08...	210	120	600	56	8.4	16	220	--	980	780	.6

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (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)
NOV 13...	12	3070	2828 <sup>1</sup>	4.2	8.9	.41	2.1	.41	.37	.31
JAN 13...	11	2750	2463	3.7	6.9	4.0	4.7	.34	.32	.31
MAR 10...	10	2830	2638	3.8	8.5	3.9	5.8	.48	.44	.42
MAY 11...	11	2710	2565	3.7	6.4	.59	2.5	.60	.30	.23
JUL 08...	13	2630	2497	3.6	4.5	.88	2.8	.62	.29	.15
SEP 08...	11	3020	2850	4.1	--	.41	3.9	.79	.10	.12

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

<sup>1</sup> Results based on Laboratory Alkalinity value.

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ARSENIC		ARSENIC		BARIUM,		BARIUM,		CADMIUM		CADMIUM		CHRO-		CHRO-		COBALT,	
		TOTAL	(UG/L	DIS-	(UG/L	TOTAL	(UG/L	DIS-	(UG/L	TOTAL	(UG/L	DIS-	(UG/L	TOTAL	(UG/L	DIS-	(UG/L	TOTAL	(UG/L
		AS AS)		SOLVED	AS AS)	RECOV-	AS BA)	SOLVED	AS BA)	RECOV-	AS CD)	SOLVED	AS CD)	MIUM,	AS CR)	MIUM,	AS CR)	RECOV-	AS CO)
NOV																			
13...	1100	6		5		<100		100		33		11		20		10		2	
JAN																			
13...	1200	6		5		100		100		<1		<1		20		<10		2	
MAR																			
10...	1100	7		6		200		100		<1		<1		20		10		2	
JUL																			
08...	0830	7		5		300		71		1		<1		20		<10		4	

DATE	COBALT,		COPPER,		IRON,		IRON,		LEAD,		LEAD,		MANGA-		MANGA-		MERCURY	
	DIS-	(UG/L	TOTAL	(UG/L	DIS-	(UG/L	DIS-	(UG/L	TOTAL	(UG/L	DIS-	(UG/L	TOTAL	(UG/L	DIS-	(UG/L	TOTAL	(UG/L
	SOLVED	AS CO)	RECOV-	AS CU)	SOLVED	AS FE)	SOLVED	AS FE)	RECOV-	AS PB)	SOLVED	AS PB)	RECOV-	AS MN)	SOLVED	AS MN)	RECOV-	AS HG)
NOV																		
13...	1		17		5		4500		10		480		130		210		20	.1
JAN																		
13...	<1		30		3		3700		10		4		<1		210		50	<.1
MAR																		
10...	2		20		3		7500		10		6		<1		330		50	.1
JUL																		
08...	<1		15		3		6000		<3		5		<1		330		8	.2

DATE	MERCURY		NICKEL,		NICKEL,		SELE-		SELE-		SILVER,		SILVER,		ZINC,		ZINC,	
	DIS-	(UG/L	TOTAL	(UG/L	DIS-	(UG/L	TOTAL	(UG/L	DIS-	(UG/L	TOTAL	(UG/L	DIS-	(UG/L	TOTAL	(UG/L	DIS-	(UG/L
	SOLVED	AS HG)	RECOV-	AS NI)	SOLVED	AS NI)	RECOV-	AS SE)	SOLVED	AS SE)	RECOV-	AS AG)	SOLVED	AS AG)	RECOV-	AS ZN)	SOLVED	AS ZN)
NOV																		
13...	<.1		7		2		11		1		<1		<1		40		20	
JAN																		
13...	<.1		5		<1		9		10		1		<1		50		20	
MAR																		
10...	<.1		2		<1		11		11		<1		<1		50		10	
JUL																		
08...	<.1		19		<1		9		9		1		<1		50		7	

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

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C). WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3950	4200	4470	3900	4130	4150	3810	4030	4200	4080	4210	4330
2	3810	3960	4440	3970	4480	4260	3790	3960	4260	3970	4340	4360
3	3620	4030	4760	4270	4310	4360	3870	4030	4130	3890	4430	4380
4	---	4020	4690	3880	4160	4400	3870	3910	4070	3850	4250	4340
5	---	4120	4690	3820	4020	4340	3970	3860	3900	3910	4260	4120
6	---	4110	4450	3880	3950	---	4200	3730	3960	3920	4330	4080
7	---	4040	4280	3950	3970	---	4160	3640	3980	3740	4280	4090
8	3870	3920	4400	3900	4120	---	3870	3640	3930	3760	4230	4190
9	3810	3920	4220	4080	4220	---	4020	3770	4090	3580	4260	3890
10	3880	3780	4210	3990	4170	4230	4050	3840	4040	3670	4260	4310
11	3950	4000	4350	3920	4280	4100	4080	3980	4000	3940	4360	4830
12	4230	4020	4410	4120	4290	4070	4110	4000	3940	4040	4440	4800
13	4170	4040	4330	4080	4280	4050	4070	3890	4150	3800	4480	4790
14	4170	4160	4310	4230	4490	4300	4040	3880	4150	3860	4500	4520
15	3930	4160	4180	4550	4440	4630	3920	3820	4220	3890	4410	4480
16	3980	4160	4050	4550	4650	5450	3940	3890	4210	---	4410	4410
17	4050	4470	4100	4420	4470	6130	3870	3950	4000	---	4160	4100
18	4090	4530	4190	4310	4460	6270	3880	3980	3880	---	4040	4110
19	4130	4400	4320	4390	4290	5930	4040	4020	3960	---	4000	4280
20	4000	4450	4350	4100	4100	5600	4070	4190	3940	---	4020	4090
21	4000	4440	4340	4110	4020	5390	3970	4140	3650	---	4080	4090
22	4170	4290	4440	4110	4130	5210	3990	4200	3890	---	4050	4130
23	4070	4340	4490	3950	4140	4770	3810	3950	4010	---	4070	4090
24	3980	4470	4430	3870	4020	4610	3870	3990	3990	---	4120	4120
25	3950	4520	4300	4030	3960	4590	3890	4130	3380	---	4030	4090
26	3960	4660	4390	4170	3960	4520	3920	3790	2960	---	4120	4190
27	3890	4630	4830	4110	3940	4220	3720	3690	3470	---	4130	4150
28	4020	4550	4210	4400	3990	4000	3890	3770	3940	---	4190	4130
29	4200	4390	4150	4300	---	3990	3850	3970	4040	4280	4260	4030
30	4300	4410	4140	4190	---	3790	3870	4110	4090	4330	4310	3980
31	4320	---	4170	3810	---	3770	---	3920	---	4280	4350	---
MONTH	4020	4240	4360	4110	4190	4630	3950	3920	3950	---	4240	4250

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	24.5	23.5	17.0	16.0	14.5	14.0	15.0	14.0	---	---	---	---
2	24.0	23.0	18.0	16.5	14.5	13.5	14.0	12.0	---	---	---	---
3	23.0	22.0	19.0	17.5	15.0	14.0	12.0	10.5	---	---	---	---
4	24.0	22.0	19.0	18.0	16.0	14.0	10.5	9.5	---	---	---	---
5	24.5	23.5	19.5	18.0	16.0	15.0	12.5	10.5	---	---	---	---
6	25.0	23.5	20.0	18.5	16.0	15.0	13.5	12.5	---	---	---	---
7	25.0	24.0	19.5	18.5	15.5	14.5	---	---	---	---	---	---
8	24.0	23.0	19.5	18.5	15.0	14.5	10.0	9.0	---	---	---	---
9	23.5	22.5	19.5	18.5	15.0	14.5	10.0	9.0	---	---	---	---
10	24.0	23.0	19.5	18.0	15.5	14.5	11.0	9.5	---	---	19.0	16.5
11	23.5	21.0	19.0	18.0	16.5	15.5	13.0	11.0	---	---	19.0	18.0
12	20.5	18.5	19.0	18.0	16.5	15.5	14.0	13.0	---	---	18.0	17.5
13	19.0	17.5	19.0	18.0	15.5	14.5	13.5	12.5	---	---	18.5	17.0
14	19.0	17.5	19.0	18.0	15.0	14.0	12.0	11.5	16.0	14.5	19.0	19.0
15	19.5	18.0	19.0	18.0	15.0	14.0	12.0	11.0	17.5	16.0	18.5	16.5
16	19.5	18.5	19.5	18.0	15.0	14.0	12.5	11.5	18.5	17.0	17.0	16.0
17	20.0	18.5	18.5	18.0	15.0	14.0	13.0	12.0	---	---	16.5	15.5
18	20.0	19.0	18.5	18.0	14.5	14.0	---	---	---	---	17.0	16.0
19	21.0	19.5	17.5	16.0	14.0	13.5	---	---	17.0	16.0	16.5	15.0
20	21.5	20.0	16.0	15.0	14.5	13.5	---	---	17.0	15.5	17.5	15.5
21	22.0	20.5	16.0	15.0	15.0	14.0	13.0	12.5	18.0	16.5	17.5	16.0
22	22.0	20.5	16.0	15.5	14.5	13.0	12.5	11.5	---	---	18.5	16.5
23	21.5	20.5	16.5	15.5	13.0	11.5	11.5	10.5	---	---	18.5	17.0
24	21.5	20.5	16.5	15.5	11.5	10.5	---	---	---	---	19.0	17.5
25	21.0	20.0	16.5	15.5	11.0	10.5	---	---	17.5	16.0	19.0	18.0
26	21.0	19.5	15.5	14.5	11.5	10.5	---	---	---	---	20.0	18.0
27	20.5	20.0	16.5	14.5	12.5	11.0	---	---	---	---	19.5	18.5
28	21.5	20.5	15.5	15.0	13.0	12.0	---	---	---	---	19.5	18.0
29	21.0	19.5	15.5	14.5	13.5	12.0	---	---	---	---	18.0	16.0
30	18.5	17.0	15.5	14.5	13.5	13.0	---	---	---	---	17.0	15.0
31	17.0	16.0	---	---	14.5	13.5	---	---	---	---	18.5	16.5
MONTH	25.0	16.0	20.0	14.5	16.5	10.5	---	---	---	---	---	---

## SALTON SEA BASIN

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

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.5	17.0	24.0	23.0	25.0	22.0	25.0	22.0	30.5	30.0	29.0	27.0
2	17.0	15.5	24.5	22.5	24.5	22.0	26.0	24.5	30.5	29.5	29.5	27.0
3	18.0	16.5	24.5	23.5	23.0	20.5	27.5	25.0	29.5	27.0	29.5	27.5
4	19.0	18.0	24.5	23.0	25.0	22.0	26.0	25.0	28.0	27.0	30.0	29.0
5	19.0	18.0	24.0	22.5	24.0	22.0	25.0	22.5	29.5	27.0	30.0	27.5
6	18.5	17.5	24.5	23.0	24.5	22.0	26.0	23.0	29.5	27.0	30.5	29.5
7	17.5	16.5	25.0	24.0	24.5	22.0	28.0	25.0	28.0	26.0	30.5	29.0
8	19.0	17.0	24.0	22.5	24.0	22.0	29.5	27.0	30.5	27.5	29.0	25.5
9	20.5	19.0	22.5	19.0	25.5	22.0	29.0	27.0	29.5	27.5	28.0	25.0
10	21.5	20.0	19.5	18.0	26.0	24.0	29.0	27.0	30.0	27.5	28.0	26.0
11	22.5	21.0	20.0	18.0	26.0	24.5	29.5	27.0	30.5	29.5	26.0	25.0
12	22.5	21.0	20.0	18.5	26.0	25.0	29.5	27.0	30.5	29.0	26.0	24.5
13	21.5	20.5	22.0	20.0	26.0	24.5	29.5	27.5	31.0	29.5	26.0	25.0
14	20.5	19.0	23.5	22.0	25.5	22.5	30.0	27.5	30.5	29.5	25.5	24.5
15	20.0	18.5	23.0	21.5	26.0	24.0	30.0	27.5	30.0	29.0	26.0	25.0
16	19.5	18.5	24.5	22.5	27.5	25.0	30.5	28.0	30.5	29.0	24.5	22.0
17	21.0	19.5	26.0	23.0	27.5	25.0	29.5	27.5	30.0	27.0	22.5	20.5
18	22.0	21.0	25.5	22.5	26.0	25.0	30.0	27.5	28.0	25.5	25.0	22.0
19	22.5	21.5	23.0	22.0	27.5	25.0	30.5	29.0	30.0	27.0	26.0	25.0
20	22.0	20.5	24.5	22.0	28.0	25.5	31.0	29.5	30.5	29.5	26.0	25.0
21	20.5	18.5	25.5	23.0	27.5	25.0	31.0	30.0	30.5	29.5	26.0	25.0
22	19.0	17.5	26.0	24.0	26.0	25.0	31.0	30.0	31.0	30.0	26.0	25.0
23	20.5	19.0	26.5	24.5	27.5	25.0	30.5	29.5	31.0	27.0	28.0	25.0
24	21.5	20.5	26.5	24.5	28.0	25.5	31.0	29.5	28.0	25.5	28.0	27.0
25	21.5	20.5	26.5	24.5	28.0	25.5	31.0	30.0	27.5	25.5	29.5	27.0
26	22.0	21.0	26.0	24.5	28.0	25.5	30.5	29.5	29.0	27.0	28.0	25.0
27	23.0	21.5	25.0	22.5	28.0	25.5	30.0	27.5	29.5	27.5	26.0	20.5
28	24.0	22.5	25.0	22.0	28.0	27.0	31.0	29.5	30.5	28.0	21.0	20.0
29	24.0	22.5	25.0	22.0	27.0	25.0	31.0	29.5	30.0	29.0	22.0	20.0
30	24.5	22.5	23.0	22.0	25.5	24.0	31.0	29.5	30.0	27.5	21.0	20.0
31	---	---	25.5	22.0	---	---	31.0	30.0	29.0	27.0	---	---
MONTH	24.5	15.5	26.5	18.0	28.0	20.5	31.0	22.0	31.0	25.5	30.5	20.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	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 13...	1100	568	18.5	290	445	--	--
JAN 13...	1200	561	13.0	229	347	--	--
MAR 10...	1100	700	19.0	751	1420	--	--
MAY 11...	1200	693	18.5	375	702	49	61
JUL 08...	0830	502	27.5	570	773	48	59
SEP 08...	1100	987	27.5	1440	3840	--	57

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	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
NOV 13...	--	--	--	88	--	--	--
JAN 13...	--	--	--	92	--	--	--
MAR 10...	--	--	--	95	--	--	--
MAY 11...	69	77	83	89	96	100	--
JUL 08...	68	76	84	91	98	99	100
SEP 08...	64	78	84	95	100	--	--



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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3950	4200	4470	3900	4130	4150	3810	4030	4200	4080	4210	4330
2	3810	3960	4440	3970	4480	4260	3790	3960	4260	3970	4340	4360
3	3620	4030	4760	4270	4310	4360	3870	4030	4130	3890	4430	4380
4	---	4020	4690	3880	4160	4400	3870	3910	4070	3850	4250	4340
5	---	4120	4690	3820	4020	4340	3970	3860	3900	3910	4260	4120
6	---	4110	4450	3880	3950	---	4200	3730	3960	3920	4330	4080
7	---	4040	4280	3950	3970	---	4160	3640	3980	3740	4280	4090
8	3870	3920	4400	3900	4120	---	3870	3640	3930	3760	4230	4190
9	3810	3920	4220	4080	4220	---	4020	3770	4090	3580	4260	3890
10	3880	3780	4210	3990	4170	4230	4050	3840	4040	3670	4260	4310
11	3950	4000	4350	3920	4280	4100	4080	3980	4000	3940	4360	4830
12	4230	4020	4410	4120	4290	4070	4110	4000	3940	4040	4440	4800
13	4170	4040	4330	4080	4280	4050	4070	3890	4150	3800	4480	4790
14	4170	4160	4310	4230	4490	4300	4040	3880	4150	3860	4500	4520
15	3930	4160	4180	4550	4440	4630	3920	3820	4220	3890	4410	4480
16	3980	4160	4050	4550	4650	5450	3940	3890	4210	---	4410	4410
17	4050	4470	4100	4420	4470	6130	3870	3950	4000	---	4160	4100
18	4090	4530	4190	4310	4460	6270	3880	3980	3880	---	4040	4110
19	4130	4400	4320	4390	4290	5930	4040	4020	3960	---	4000	4280
20	4000	4450	4350	4100	4100	5600	4070	4190	3940	---	4020	4090
21	4000	4440	4340	4110	4020	5390	3970	4140	3650	---	4080	4090
22	4170	4290	4440	4110	4130	5210	3990	4200	3890	---	4050	4130
23	4070	4340	4490	3950	4140	4770	3810	3950	4010	---	4070	4090
24	3980	4470	4430	3870	4020	4610	3870	3990	3990	---	4120	4120
25	3950	4520	4300	4030	3960	4590	3890	4130	3380	---	4030	4090
26	3960	4660	4390	4170	3960	4520	3920	3790	2960	---	4120	4190
27	3890	4630	4830	4110	3940	4220	3720	3690	3470	---	4130	4150
28	4020	4550	4210	4400	3990	4000	3890	3770	3940	---	4190	4130
29	4200	4390	4150	4300	---	3990	3850	3970	4040	4280	4260	4030
30	4300	4410	4140	4190	---	3790	3870	4110	4090	4330	4310	3980
31	4320	---	4170	3810	---	3770	---	3920	---	4280	4350	---
MONTH	4020	4240	4360	4110	4190	4630	3950	3920	3950	---	4240	4250

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	24.5	23.5	17.0	16.0	14.5	14.0	15.0	14.0	---	---	---	---
2	24.0	23.0	18.0	16.5	14.5	13.5	14.0	12.0	---	---	---	---
3	23.0	22.0	19.0	17.5	15.0	14.0	12.0	10.5	---	---	---	---
4	24.0	22.0	19.0	18.0	16.0	14.0	10.5	9.5	---	---	---	---
5	24.5	23.5	19.5	18.0	16.0	15.0	12.5	10.5	---	---	---	---
6	25.0	23.5	20.0	18.5	16.0	15.0	13.5	12.5	---	---	---	---
7	25.0	24.0	19.5	18.5	15.5	14.5	---	---	---	---	---	---
8	24.0	23.0	19.5	18.5	15.0	14.5	10.0	9.0	---	---	---	---
9	23.5	22.5	19.5	18.5	15.0	14.5	10.0	9.0	---	---	---	---
10	24.0	23.0	19.5	18.0	15.5	14.5	11.0	9.5	---	---	19.0	16.5
11	23.5	21.0	19.0	18.0	16.5	15.5	13.0	11.0	---	---	19.0	18.0
12	20.5	18.5	19.0	18.0	16.5	15.5	14.0	13.0	---	---	18.0	17.5
13	19.0	17.5	19.0	18.0	15.5	14.5	13.5	12.5	---	---	18.5	17.0
14	19.0	17.5	19.0	18.0	15.0	14.0	12.0	11.5	16.0	14.5	19.0	19.0
15	19.5	18.0	19.0	18.0	15.0	14.0	12.0	11.0	17.5	16.0	18.5	16.5
16	19.5	18.5	19.5	18.0	15.0	14.0	12.5	11.5	18.5	17.0	17.0	16.0
17	20.0	18.5	18.5	18.0	15.0	14.0	13.0	12.0	---	---	16.5	15.5
18	20.0	19.0	18.5	18.0	14.5	14.0	---	---	---	---	17.0	16.0
19	21.0	19.5	17.5	16.0	14.0	13.5	---	---	17.0	16.0	16.5	15.0
20	21.5	20.0	16.0	15.0	14.5	13.5	---	---	17.0	15.5	17.5	15.5
21	22.0	20.5	16.0	15.0	15.0	14.0	13.0	12.5	18.0	16.5	17.5	16.0
22	22.0	20.5	16.0	15.5	14.5	13.0	12.5	11.5	---	---	18.5	16.5
23	21.5	20.5	16.5	15.5	13.0	11.5	11.5	10.5	---	---	18.5	17.0
24	21.5	20.5	16.5	15.5	11.5	10.5	---	---	---	---	19.0	17.5
25	21.0	20.0	16.5	15.5	11.0	10.5	---	---	17.5	16.0	19.0	18.0
26	21.0	19.5	15.5	14.5	11.5	10.5	---	---	---	---	20.0	18.0
27	20.5	20.0	16.5	14.5	12.5	11.0	---	---	---	---	19.5	18.5
28	21.5	20.5	15.5	15.0	13.0	12.0	---	---	---	---	19.5	18.0
29	21.0	19.5	15.5	14.5	13.5	12.0	---	---	---	---	18.0	16.0
30	18.5	17.0	15.5	14.5	13.5	13.0	---	---	---	---	17.0	15.0
31	17.0	16.0	---	---	14.5	13.5	---	---	---	---	18.5	16.5
MONTH	25.0	16.0	20.0	14.5	16.5	10.5	---	---	---	---	---	---

## SALTON SEA BASIN

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

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.5	17.0	24.0	23.0	25.0	22.0	25.0	22.0	30.5	30.0	29.0	27.0
2	17.0	15.5	24.5	22.5	24.5	22.0	26.0	24.5	30.5	29.5	29.5	27.0
3	18.0	16.5	24.5	23.5	23.0	20.5	27.5	25.0	29.5	27.0	29.5	27.5
4	19.0	18.0	24.5	23.0	25.0	22.0	26.0	25.0	28.0	27.0	30.0	29.0
5	19.0	18.0	24.0	22.5	24.0	22.0	25.0	22.5	29.5	27.0	30.0	27.5
6	18.5	17.5	24.5	23.0	24.5	22.0	26.0	23.0	29.5	27.0	30.5	29.5
7	17.5	16.5	25.0	24.0	24.5	22.0	28.0	25.0	28.0	26.0	30.5	29.0
8	19.0	17.0	24.0	22.5	24.0	22.0	29.5	27.0	30.5	27.5	29.0	25.5
9	20.5	19.0	22.5	19.0	25.5	22.0	29.0	27.0	29.5	27.5	28.0	25.0
10	21.5	20.0	19.5	18.0	26.0	24.0	29.0	27.0	30.0	27.5	28.0	26.0
11	22.5	21.0	20.0	18.0	26.0	24.5	29.5	27.0	30.5	29.5	26.0	25.0
12	22.5	21.0	20.0	18.5	26.0	25.0	29.5	27.0	30.5	29.0	26.0	24.5
13	21.5	20.5	22.0	20.0	26.0	24.5	29.5	27.5	31.0	29.5	26.0	25.0
14	20.5	19.0	23.5	22.0	25.5	22.5	30.0	27.5	30.5	29.5	25.5	24.5
15	20.0	18.5	23.0	21.5	26.0	24.0	30.0	27.5	30.0	29.0	26.0	25.0
16	19.5	18.5	24.5	22.5	27.5	25.0	30.5	28.0	30.5	29.0	24.5	22.0
17	21.0	19.5	26.0	23.0	27.5	25.0	29.5	27.5	30.0	27.0	22.5	20.5
18	22.0	21.0	25.5	22.5	26.0	25.0	30.0	27.5	28.0	25.5	25.0	22.0
19	22.5	21.5	23.0	22.0	27.5	25.0	30.5	29.0	30.0	27.0	26.0	25.0
20	22.0	20.5	24.5	22.0	28.0	25.5	31.0	29.5	30.5	29.5	26.0	25.0
21	20.5	18.5	25.5	23.0	27.5	25.0	31.0	30.0	30.5	29.5	26.0	25.0
22	19.0	17.5	26.0	24.0	26.0	25.0	31.0	30.0	31.0	30.0	26.0	25.0
23	20.5	19.0	26.5	24.5	27.5	25.0	30.5	29.5	31.0	27.0	28.0	25.0
24	21.5	20.5	26.5	24.5	28.0	25.5	31.0	29.5	28.0	25.5	28.0	27.0
25	21.5	20.5	26.5	24.5	28.0	25.5	31.0	30.0	27.5	25.5	29.5	27.0
26	22.0	21.0	26.0	24.5	28.0	25.5	30.5	29.5	29.0	27.0	28.0	25.0
27	23.0	21.5	25.0	22.5	28.0	25.5	30.0	27.5	29.5	27.5	26.0	20.5
28	24.0	22.5	25.0	22.0	28.0	27.0	31.0	29.5	30.5	28.0	21.0	20.0
29	24.0	22.5	25.0	22.0	27.0	25.0	31.0	29.5	30.0	29.0	22.0	20.0
30	24.5	22.5	23.0	22.0	25.5	24.0	31.0	29.5	30.0	27.5	21.0	20.0
31	---	---	25.5	22.0	---	---	31.0	30.0	29.0	27.0	---	---
MONTH	24.5	15.5	26.5	18.0	28.0	20.5	31.0	22.0	31.0	25.5	30.5	20.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	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 13...	1100	568	18.5	290	445	--	--
JAN 13...	1200	561	13.0	229	347	--	--
MAR 10...	1100	700	19.0	751	1420	--	--
MAY 11...	1200	693	18.5	375	702	49	61
JUL 08...	0830	502	27.5	570	773	48	59
SEP 08...	1100	987	27.5	1440	3840	--	57

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	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
NOV 13...	--	--	--	88	--	--	--
JAN 13...	--	--	--	92	--	--	--
MAR 10...	--	--	--	95	--	--	--
MAY 11...	69	77	83	89	96	100	--
JUL 08...	68	76	84	91	98	99	100
SEP 08...	64	78	84	95	100	--	--

LOCATION.--Lat 33°12'03", long 115°36'07", in NE½SW¼NE¼ 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.

GAGE.--Water-stage recorder. Altitude of gage is -235 ft (-72 m), from topographic map.

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, 1,380 ft<sup>3</sup>/s (39.1 m<sup>3</sup>/s) Mar. 13; minimum daily, 443 ft<sup>3</sup>/s (12.5 m<sup>3</sup>/s) Dec. 26.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	771	654	613	719	599	802	1180	1040	697	586	654	654
2	825	661	592	602	586	899	1176	1050	704	634	675	668
3	810	704	586	613	668	858	1150	1010	647	634	661	756
4	850	690	558	682	741	756	1130	1080	675	654	641	726
5	866	675	558	599	726	787	1080	1070	697	586	654	733
6	858	661	572	606	711	756	1140	1020	711	592	661	733
7	858	675	586	572	682	748	1080	1010	741	613	756	733
8	858	697	579	545	697	771	1160	1100	641	654	794	1070
9	810	675	579	572	704	817	1180	1150	620	661	817	1060
10	787	675	613	697	756	833	1100	958	654	654	794	825
11	825	634	565	756	794	899	1080	882	668	620	748	697
12	668	647	558	682	726	1040	1070	907	668	634	726	634
13	634	641	586	661	668	1380	1050	899	682	675	697	647
14	627	654	552	592	675	1060	1010	891	627	704	726	675
15	711	647	599	565	606	1390	1060	691	641	690	719	711
16	711	641	627	545	565	771	1020	841	641	704	704	719
17	719	641	647	599	654	519	1060	802	726	704	741	771
18	704	634	586	572	661	545	1120	874	726	704	741	704
19	697	668	592	606	682	500	1050	794	704	697	741	756
20	719	690	606	634	733	500	1110	771	682	711	733	733
21	726	682	606	641	756	525	1050	763	641	733	697	733
22	719	661	572	627	726	552	1030	797	592	690	756	733
23	704	627	538	634	771	654	1050	810	565	719	711	771
24	726	641	565	599	779	711	1060	810	565	763	802	748
25	733	586	572	572	833	763	1080	741	599	748	850	802
26	690	586	443	599	833	858	1100	771	620	841	915	874
27	704	565	474	586	924	915	1120	833	613	1040	794	825
28	726	668	627	613	933	1050	1060	779	606	810	711	719
29	733	627	620	690	---	1070	1080	763	599	733	668	833
30	641	586	606	719	---	1030	1070	726	641	647	634	810
31	634	---	634	733	---	1070	---	726	---	675	641	---
TOTAL	23044	19493	18011	19512	20189	25829	32700	27559	19593	21510	22562	22853
MEAN	743	650	581	629	721	833	1090	889	653	694	728	762
MAX	866	704	647	756	933	1390	1180	1150	741	1040	915	1070
MIN	627	565	443	545	565	500	1010	726	565	586	634	634
AC-FT	45710	38660	35720	38700	40040	51230	64860	54660	38860	42670	44750	45330
CAL YR 1981	TOTAL	298285	MEAN 817	MAX	1330	MIN 443	AC-FT	591600				
WTR YR 1982	TOTAL	272855	MEAN 748	MAX	1390	MIN 443	AC-FT	541200				

## 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.

## 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, 435 ft<sup>3</sup>/s (12.3 m<sup>3</sup>/s) Mar. 13, 1982; 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, 435 ft<sup>3</sup>/s (12.3 m<sup>3</sup>/s) Mar. 13; minimum daily, 159 ft<sup>3</sup>/s (4.50 m<sup>3</sup>/s) July 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216	197	173	231	261	251	247	301	192	159	218	284
2	213	200	176	236	258	248	247	297	197	171	217	256
3	209	198	174	240	252	238	252	293	193	187	220	236
4	213	193	175	248	243	243	260	285	196	181	233	233
5	218	188	182	240	235	255	254	280	187	177	242	229
6	222	191	177	245	222	246	265	267	183	181	238	235
7	217	181	170	237	216	233	256	262	185	193	230	237
8	215	176	176	221	221	239	256	256	183	210	221	253
9	211	188	179	226	229	252	261	252	181	198	218	240
10	191	189	178	237	234	240	269	251	176	191	217	257
11	186	193	177	246	235	241	287	281	174	190	211	250
12	180	195	174	266	231	404	293	303	187	191	208	267
13	179	195	175	287	230	435	298	281	187	187	213	256
14	183	195	174	275	226	427	293	265	184	192	218	248
15	182	191	174	263	222	345	272	246	182	186	221	236
16	189	178	178	241	234	324	259	242	172	173	229	222
17	199	179	178	228	245	344	253	252	168	168	233	220
18	184	174	174	222	227	334	257	253	173	169	227	233
19	175	170	175	220	219	330	260	254	170	174	220	238
20	175	185	177	225	220	294	262	253	167	176	231	229
21	179	194	174	223	221	258	252	251	164	179	233	221
22	175	176	167	220	224	247	246	235	162	180	239	218
23	177	170	169	222	224	245	252	231	163	181	243	210
24	176	166	176	231	228	244	253	225	166	178	249	202
25	172	174	173	238	243	249	255	221	169	189	311	198
26	176	174	176	250	249	260	264	215	165	191	312	192
27	189	172	182	255	248	249	262	218	170	206	324	198
28	199	180	191	251	249	259	267	214	171	284	322	198
29	202	176	194	246	---	259	274	194	167	215	304	199
30	197	187	202	243	---	256	290	186	161	202	290	195
31	200	---	205	244	---	255	---	191	---	200	290	---
TOTAL	5999	5525	5525	7457	6546	8704	7916	7755	5295	5799	7582	6890
MEAN	194	184	178	241	234	281	264	250	177	187	245	230
MAX	222	200	205	287	261	435	298	303	197	224	324	284
MIN	172	166	167	220	216	233	246	186	161	159	208	192
AC-FT	11900	10960	10960	14790	12980	17260	15700	15380	10500	11500	15040	13670

CAL YR 1981 TOTAL 81286 MEAN 223 MAX 431 MIN 166 AC-FT 161200  
WTR YR 1982 TOTAL 80993 MEAN 222 MAX 435 MIN 159 AC-FT 160600

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 1973-81.  
 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.  
 WATER TEMPERATURES: October 1973 to September 1981.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD 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 CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
NOV 12...	1500	195	6660	7.6	20.5	20	5.2	K130000	K160000	961	721
JAN 12...	1500	272	5900	7.9	14.0	8.0	7.6	K150000	86000	961	701
MAR 09...	1500	252	6200	8.0	20.0	3.4	5.0	94000	77000	1160	900
MAY 10...	1630	250	6700	8.2	23.5	2.8	5.9	58000	23000	1135	875
JUL 07...	1500	200	7790	7.7	29.5	19	.8	4700000	580000	1110	870
SEP 07...	1530	227	6200	7.6	31.0	28	5.5	3500000	550000	874	664

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 CACO3)	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)
NOV 12...	220	100	1000	67	14	89	--	240	660	1700	.6
JAN 12...	220	100	890	65	13	66	260	--	690	1600	.7
MAR 09...	250	130	1000	64	13	71	--	260	770	1700	.6
MAY 10...	240	130	1100	66	15	79	260	--	860	1800	1.0
JUL 07...	230	130	1200	67	16	120	240	--	820	2100	.6
SEP 07...	200	91	930	67	14	90	210	--	--	--	.6

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (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)
NOV 12...	28	4070	3948 <sup>1</sup>	5.5	1.1	3.8	6.8	1.5	.51	.43
JAN 12...	25	3940	3757	5.4	.95	6.0	6.7	.97	.45	.39
MAR 09...	22	4340	4105 <sup>1</sup>	5.9	.95	3.7	6.7	1.1	.14	.09
MAY 10...	26	4310	4395	5.9	.82	2.1	6.2	1.0	.22	.15
JUL 07...	33	4990	4785	6.8	.43	3.6	9.3	1.7	.97	.73
SEP 07...	32	3860	--	5.2	1.5	4.4	--	.01	.71	.63

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

<sup>1</sup> Results based on Laboratory Alkalinity value.

## SALTON SEA BASIN

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
NOV 12...	1500	40	38	<100	200	12	16	20	10	<1
JAN 12...	1500	32	30	100	100	<1	<1	10	10	<1
MAR 09...	1500	23	20	<100	100	<1	<1	10	10	2
JUL 07...	1500	47	45	300	200	1	1	20	10	<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)
NOV 12...	1	12	3	1000	50	100	230	130	90	.1
JAN 12...	<1	24	2	740	80	4	<1	160	120	<.1
MAR 09...	<1	25	2	640	60	7	<1	120	110	.1
JUL 07...	<1	14	<1	1100	90	14	1	200	140	.2

DATE	TIME	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)
NOV 12...		.1	4	1	2	2	<1	<1	30	20
JAN 12...		<.1	2	1	3	3	1	<1	60	20
MAR 09...		<.1	3	<1	3	3	<1	<1	30	20
JUL 07...		.2	7	4	2	2	2	<1	50	20

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

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 12...	1500	195	20.5	64	34	58
JAN 12...	1500	272	14.0	60	44	55
MAR 09...	1500	252	20.0	23	16	53
MAY 10...	1630	250	23.5	72	49	67
JUL 07...	1500	200	29.5	18	9.7	100
SEP 07...	1530	227	31.0	145	89	50

LOCATION.--Lat 33°06'17", long 115°39'49", in SW<sub>4</sub>SW<sub>4</sub>SW<sub>4</sub> 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.

GAGE.--Water-stage recorder. Altitude of gage is -220 ft (-67 m), from topographic map.

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,000 ft<sup>3</sup>/s (85 m<sup>3</sup>/s) Aug. 17-18, 1977, estimated by Imperial Irrigation District; minimum daily, 293 ft<sup>3</sup>/s (8.30 m<sup>3</sup>/s) Jan. 6, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 789 ft<sup>3</sup>/s (22.3 m<sup>3</sup>/s) Mar. 30; minimum daily, 394 ft<sup>3</sup>/s (11.2 m<sup>3</sup>/s) Dec. 17.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	553	500	456	509	573	595	755	738	507	461	485	575
2	577	494	457	479	579	607	734	759	489	421	489	591
3	597	521	436	504	575	603	729	715	496	438	513	544
4	629	513	445	530	575	585	717	711	489	443	513	513
5	617	509	452	589	601	579	765	685	485	448	519	496
6	587	490	459	573	613	587	780	700	470	454	534	509
7	583	481	436	561	597	605	753	650	474	492	581	540
8	555	481	418	567	542	595	734	625	477	509	549	761
9	587	475	452	542	540	625	723	599	487	513	502	765
10	581	479	461	542	561	613	715	597	485	496	530	587
11	573	500	463	567	597	635	687	645	465	466	519	496
12	538	504	474	605	563	615	675	662	447	461	579	475
13	532	506	487	573	534	664	700	698	465	454	563	472
14	536	517	490	589	527	727	725	685	456	465	561	485
15	517	504	481	569	509	774	721	656	468	479	565	506
16	549	479	427	577	513	706	725	633	457	452	532	523
17	540	489	394	591	507	605	732	581	477	448	555	530
18	561	466	396	532	540	585	736	603	461	438	563	532
19	547	483	398	536	545	585	709	579	461	434	565	555
20	519	474	450	507	553	583	723	569	463	434	545	498
21	527	465	448	523	559	607	746	593	443	465	547	477
22	530	479	447	540	561	589	740	609	447	479	571	466
23	511	472	438	536	583	595	721	597	507	492	555	487
24	549	504	429	545	573	609	698	575	466	492	595	515
25	528	494	434	545	593	619	675	559	468	532	641	507
26	500	536	414	563	603	681	681	557	461	557	615	507
27	498	454	438	571	639	725	696	565	466	597	677	492
28	507	487	447	599	650	755	711	573	461	521	635	492
29	513	490	475	613	---	776	753	542	450	525	609	511
30	506	477	468	619	---	789	742	527	447	489	583	525
31	500	---	507	595	---	778	---	500	---	489	561	---
TOTAL	16947	14723	13877	17291	15905	19996	21701	19287	14095	14844	17351	15932
MEAN	547	491	448	558	568	645	723	622	470	479	560	531
MAX	629	536	507	619	650	789	780	759	507	597	677	765
MIN	498	454	394	479	507	579	675	500	443	421	485	466
AC-FT	33610	29200	27530	34300	31550	39660	43040	38260	27960	29440	34420	31600
CAL YR 1981	TOTAL	218322		MEAN 598	MAX 883	MIN 394	AC-FT 433000					

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

AVERAGE DISCHARGE.--24 years, 0.58 ft<sup>3</sup>/s (0.016 m<sup>3</sup>/s), 420 acre-ft/yr (518,000 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 most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25 ft<sup>3</sup>/s (0.71 m<sup>3</sup>/s) Apr. 2, gage height, 1.85 ft (0.564 m), no peak above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s); minimum daily 0.08 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.36	.69	1.8	1.4	1.6	2.2	1.1	.52	.37	.22	.16
2	.17	.39	.75	1.4	1.3	1.7	7.7	1.1	.49	.31	.20	.14
3	.18	.40	.77	.96	1.3	1.6	1.7	1.1	.47	.28	.14	.12
4	.18	.41	.77	1.1	1.4	1.5	1.5	1.2	.41	.24	.13	.10
5	.19	.42	.77	1.5	1.4	1.4	1.4	1.1	.40	.22	.12	.16
6	.18	.42	.77	1.3	1.4	1.3	1.4	1.0	.38	.26	.13	.15
7	.17	.43	.77	1.1	1.5	1.4	1.4	.97	.36	.28	.18	.12
8	.14	.45	.77	1.0	1.5	1.4	1.4	.99	.36	.28	.14	.66
9	.19	.46	.77	1.0	1.5	1.4	1.4	1.1	.32	.22	.09	.45
10	.20	.47	.77	1.1	3.8	1.4	1.3	1.1	.29	.20	.08	.32
11	.25	.48	.77	1.3	6.2	2.0	1.3	1.1	.26	.19	.28	.30
12	.27	.48	.80	1.2	1.9	2.0	1.3	1.1	.25	.16	.56	.28
13	.27	.48	.78	1.0	1.7	2.2	1.3	1.0	.23	.14	.36	.26
14	.29	.48	.78	.98	1.6	1.7	1.3	.97	.26	.12	.23	.28
15	.29	.51	.78	.95	1.6	1.7	1.3	.95	.24	.11	.18	.29
16	.30	.51	.79	.94	1.6	1.5	1.3	.93	.19	.11	.16	.44
17	.30	.54	.80	.94	1.6	1.6	1.3	.87	.31	.09	.18	.62
18	.30	.61	.80	.95	1.5	2.2	1.3	.82	.38	.10	.27	.75
19	.30	.60	.81	.97	1.5	1.7	1.2	.84	.38	.11	.32	.49
20	.32	.61	.82	1.3	1.5	1.5	1.2	.84	.35	.10	.20	.34
21	.32	.61	.82	3.6	1.5	1.5	1.2	.83	.46	.10	.19	.29
22	.33	.61	.83	1.1	1.5	1.5	1.2	.76	.45	.12	.24	.27
23	.33	.61	.84	1.1	1.5	1.5	1.2	.69	.40	.18	.33	.27
24	.34	.65	.85	1.1	1.6	1.5	1.2	.66	.37	.24	.46	.26
25	.30	.68	.86	1.1	1.7	1.5	1.1	.64	.35	.26	.58	.26
26	.30	.69	.87	1.2	1.7	1.7	1.1	.60	.32	2.5	.56	.27
27	.33	.74	.88	1.2	1.6	1.5	1.1	.65	.21	.94	.58	.31
28	.34	1.3	.90	1.2	1.6	1.5	1.1	.68	.20	.35	.36	.34
29	.42	.77	.94	1.3	---	1.8	1.1	.60	.24	.23	.26	.34
30	.38	.69	.98	1.2	---	1.4	1.1	.54	.32	.22	.21	.37
31	.35	---	1.0	1.3	---	1.3	---	.51	.20	.20	.18	---
TOTAL	8.43	16.86	25.30	38.19	49.9	49.5	45.6	27.34	10.17	9.83	8.12	9.41
MEAN	.27	.56	.82	1.23	1.78	1.60	1.52	.88	.34	.30	.26	.31
MAX	.42	1.3	1.0	3.6	6.2	2.2	7.7	1.2	.52	2.5	.58	.75
MIN	.14	.36	.69	.94	1.3	1.3	1.1	.51	.19	.09	.08	.10
AC-FT	17	33	50	76	99	98	90	54	20	18	16	19

CAL YR 1981 TOTAL 162.97 MEAN .45 MAX 2.8 MIN 0 AC-FT 323  
WTR YR 1982 TOTAL 298.05 MEAN .82 MAX 7.7 MIN .08 AC-FT 591



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.

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

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.

**AVERAGE DISCHARGE.**--32 years, 2.45 ft<sup>3</sup>/s (0.069 m<sup>3</sup>/s), 1,780 acre-ft/yr (2.19 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, 161 ft<sup>3</sup>/s (4.56 m<sup>3</sup>/s) Aug. 26, gage height, 3.01 ft (0.917 m), no other peak above base of 50 ft<sup>3</sup>/s (1.42 m<sup>3</sup>/s); minimum daily, 1.9 ft<sup>3</sup>/s (0.054 m<sup>3</sup>/s) July 14.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	4.6	4.4	5.9	4.4	4.4	6.1	3.9	4.6	3.2	3.4	2.9
2	4.9	4.6	4.4	5.8	4.5	4.5	4.6	3.8	4.9	3.0	2.8	2.8
3	5.1	4.5	4.3	5.1	4.5	4.8	4.3	4.0	4.8	2.8	3.0	2.6
4	5.1	4.5	4.3	5.4	4.5	4.8	5.4	5.0	4.4	2.6	3.1	2.5
5	5.0	4.2	4.4	5.5	3.8	4.6	5.6	4.9	4.5	2.5	3.0	2.4
6	5.0	4.2	4.3	5.4	3.7	4.7	3.9	4.6	4.3	2.7	3.6	2.3
7	4.7	4.2	4.3	5.0	3.9	5.3	3.9	4.0	4.3	3.0	3.1	2.2
8	4.6	4.3	4.3	5.3	3.8	5.3	3.8	4.1	4.3	2.7	3.0	2.1
9	4.5	4.2	4.4	5.5	4.0	4.9	3.6	4.7	3.9	2.5	2.9	2.1
10	4.6	4.3	4.8	5.9	7.3	5.2	3.7	5.0	4.0	2.3	3.0	2.2
11	5.1	4.3	4.8	6.1	6.0	6.1	4.0	5.2	3.8	2.3	3.7	2.3
12	5.1	4.2	4.9	5.6	5.3	6.3	3.9	4.9	3.9	2.3	4.2	2.4
13	5.1	4.3	4.9	5.4	4.6	6.5	3.9	4.6	4.1	2.2	4.0	2.4
14	5.2	4.4	4.8	5.5	5.3	7.0	4.3	4.5	3.9	1.9	3.7	2.6
15	4.9	4.4	4.9	5.5	4.7	6.1	4.5	4.4	3.7	2.1	3.6	2.9
16	4.7	4.3	4.8	4.9	4.3	5.6	4.4	4.3	3.6	2.2	3.5	2.8
17	4.6	4.3	4.9	4.9	3.3	7.6	4.3	4.1	3.5	2.2	3.5	3.8
18	4.7	4.6	5.2	4.8	3.3	7.9	4.1	4.0	3.3	2.0	3.9	4.2
19	4.8	4.5	5.2	4.5	3.7	5.6	4.5	4.2	3.0	2.1	3.9	3.0
20	4.4	4.5	5.2	5.7	3.7	5.5	4.3	4.3	2.7	2.9	3.8	2.8
21	4.4	4.6	5.3	7.5	4.4	5.6	4.3	4.5	2.8	3.1	4.1	2.7
22	4.2	4.6	4.8	5.0	5.6	5.6	4.3	4.4	2.7	3.1	4.8	2.7
23	4.3	4.6	4.9	4.8	5.5	5.2	4.7	4.3	2.6	3.2	5.0	2.8
24	4.4	4.6	4.9	5.0	4.2	5.1	4.6	4.3	2.6	3.1	5.9	2.9
25	4.3	4.3	4.9	4.9	4.1	5.4	4.8	4.3	2.7	3.4	6.5	3.0
26	4.0	4.4	4.9	5.0	3.8	5.7	4.5	4.7	2.7	4.0	15	3.1
27	4.4	4.5	5.0	5.0	3.9	5.2	4.3	5.0	2.6	3.7	8.0	3.0
28	4.6	5.2	5.1	4.9	4.0	5.1	4.2	5.1	2.5	3.4	4.8	2.9
29	4.7	4.3	5.2	4.6	---	4.6	4.0	4.9	2.7	3.3	4.0	2.9
30	4.5	4.4	5.3	4.5	---	4.0	3.8	4.6	3.0	3.2	3.4	2.8
31	4.5	---	5.2	4.5	---	4.0	---	4.5	---	3.2	3.0	---
TOTAL	145.2	132.9	149.0	163.4	124.1	168.2	130.6	139.1	106.4	86.2	133.2	82.1
MEAN	4.68	4.43	4.81	5.27	4.43	5.43	4.35	4.49	3.55	2.78	4.30	2.74
MAX	5.2	5.2	5.3	7.5	7.3	7.9	6.1	5.2	4.9	4.0	15	4.2
MIN	4.0	4.2	4.3	4.5	3.3	4.0	3.6	3.8	2.5	1.9	2.8	2.1
AC-FT	288	264	296	324	246	334	259	276	211	171	264	163
WTR YR 1981	TOTAL	1695.8	MEAN	4.65	MAX	11	MIN	2.8	AC-FT	3360		

10255810 BORREGO PALM CREEK NEAR BORREGO SPRINGS, CA

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.

DRAINAGE AREA.--21.8 mi<sup>2</sup> (56.5 km<sup>2</sup>).

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.

GAGE.--Water-stage recorder. Altitude of gage is 1,200 ft (366 m), from topographic map.

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

AVERAGE DISCHARGE.--32 years, 0.75 ft<sup>3</sup>/s (0.021 m<sup>3</sup>/s), 543 acre-ft/yr (670,000 m<sup>3</sup>/yr).

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 (\*):

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. 1	1515	29	0.82	3.25	0.991	Mar. 18	0300	30	.85	3.24	.988
Jan. 21	0530	38	1.08	3.35	1.021	Apr. 1	1715	50	1.42	3.45	1.052
Feb. 11	0245	*76	2.15	3.74	1.140	Sep. 8	0515	49	1.39	3.47	1.058
Mar. 14	2130	16	.45	3.04	.927						

Minimum, no flow many days August to September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.60	1.3	7.0	1.9	1.4	20	1.3	.49	.27	.01	.14
2	.06	.59	1.3	4.5	1.7	1.5	25	1.3	.49	.19	.01	.13
3	.14	.59	1.2	2.5	1.6	1.6	19	1.3	.50	.14	.01	.12
4	.20	.60	1.2	1.9	1.6	1.6	14	1.6	.41	.12	.01	.12
5	.23	.60	1.2	4.0	1.6	1.5	10	1.9	.41	.12	0	.11
6	.20	.65	1.2	3.3	1.5	1.5	8.6	1.3	.42	.12	.01	.10
7	.20	.66	1.1	1.8	1.4	1.5	7.0	1.1	.42	.13	0	.10
8	.20	.67	1.1	1.5	2.2	1.5	5.6	1.1	.40	.16	0	6.1
9	.22	.67	1.1	1.6	1.9	1.4	4.7	1.6	.38	.14	0	.08
10	.23	.66	1.1	1.9	1.4	1.4	4.7	1.8	.33	.13	0	0
11	.32	.66	1.0	3.2	37	2.6	4.2	1.8	.30	.13	0	0
12	.49	.66	1.1	1.9	7.7	3.9	3.8	1.9	.26	.11	.01	0
13	.52	.66	1.1	1.5	3.2	4.6	2.9	1.4	.27	.09	.01	0
14	.52	.64	1.1	1.5	2.0	4.8	2.7	1.1	.31	.09	0	0
15	.53	.66	1.2	1.4	1.6	6.2	2.5	1.1	.25	.08	0	0
16	.52	.66	1.1	1.3	1.4	4.1	2.4	.96	.24	.06	0	.01
17	.49	.65	1.1	1.3	1.3	14	2.3	.99	.25	.04	0	.03
18	.43	.67	1.2	1.3	1.2	20	2.1	.93	.28	.03	0	.05
19	.37	.71	1.2	1.3	1.1	13	2.0	.93	.29	.02	0	.03
20	.37	.74	1.1	5.9	1.2	10	1.9	.86	.28	.01	0	.01
21	.37	.74	1.1	22	1.1	8.2	1.8	.80	.27	0	0	0
22	.37	.74	1.2	7.0	1.1	6.7	1.7	.75	.25	0	0	0
23	.36	.74	1.2	1.5	1.1	5.8	1.7	.69	.23	0	0	0
24	.37	.75	1.2	1.6	1.2	4.9	1.5	.62	.20	.02	0	0
25	.37	.79	1.3	1.5	1.4	4.3	1.4	.59	.18	0	.10	0
26	.40	.90	1.3	1.6	1.3	7.6	1.4	.64	.15	.28	.50	0
27	.47	1.9	1.2	1.6	1.3	5.2	1.4	.75	.13	.17	.86	.35
28	.46	2.9	1.2	2.8	1.3	4.4	1.3	.83	.12	.02	.35	.41
29	.68	2.1	1.3	3.3	---	8.4	1.4	.70	.16	.01	.20	.06
30	.72	1.5	1.4	2.5	---	10	1.3	.64	.20	.01	.15	.06
31	.64	---	2.2	2.1	---	8.6	---	.51	---	.01	.15	---
TOTAL	11.50	26.06	37.6	98.1	96.9	172.2	160.3	33.79	8.87	2.70	2.38	8.01
MEAN	.37	.87	1.21	3.16	3.46	5.55	5.34	1.09	.30	.087	.077	.27
MAX	.72	2.9	2.2	22	37	20	25	1.9	.50	.28	.86	6.1
MIN	.05	.59	1.0	1.3	1.1	1.4	1.3	.51	.12	0	0	0
AC-FT	23	52	75	195	192	342	318	67	18	5.4	4.7	16

CAL YR 1981 TOTAL 566.88 MEAN 1.55 MAX 20 MIN 0 AC-FT 1120  
WTR YR 1982 TOTAL 658.41 MEAN 1.80 MAX 37 MIN 0 AC-FT 1310

## 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.--19 years, 0.13 ft<sup>3</sup>/s (0.004 m<sup>3</sup>/s), 94 acre-ft/yr (116,000 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, 0.45 ft<sup>3</sup>/s (0.013 m<sup>3</sup>/s) July 10-12, gage height, 4.20 ft (1.280 m), no peak above base of 15 ft<sup>3</sup>/s (0.425 m<sup>3</sup>/s); minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 22-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.12	.26	.16	.22	.18	.35	.21	.19	.29	.14	.25
2	.13	.12	.27	.17	.22	.18	.33	.21	.19	.29	.13	.24
3	.13	.12	.25	.16	.20	.18	.33	.21	.19	.30	.14	.24
4	.13	.12	.25	.19	.21	.21	.32	.21	.20	.31	.14	.23
5	.12	.13	.26	.19	.20	.22	.31	.20	.21	.35	.14	.22
6	.13	.13	.25	.18	.20	.20	.33	.19	.21	.35	.14	.20
7	.14	.13	.24	.17	.21	.20	.31	.19	.20	.37	.15	.15
8	.15	.13	.21	.16	.22	.21	.30	.19	.20	.36	.15	.15
9	.15	.13	.18	.18	.22	.21	.30	.19	.20	.36	.14	.13
10	.16	.13	.18	.18	.27	.22	.29	.18	.19	.37	.13	.12
11	.18	.15	.17	.18	.29	.27	.28	.18	.20	.37	.12	.12
12	.18	.15	.17	.18	.22	.23	.28	.18	.20	.35	.12	.11
13	.18	.16	.17	.18	.22	.23	.28	.17	.22	.31	.12	.11
14	.19	.18	.18	.18	.22	.25	.27	.17	.21	.24	.11	.11
15	.19	.20	.16	.18	.20	.23	.27	.16	.20	.22	.12	.11
16	.19	.20	.15	.18	.20	.25	.25	.16	.21	.20	.13	.11
17	.18	.20	.15	.18	.20	.27	.25	.17	.22	.20	.14	.11
18	.18	.20	.15	.18	.19	.28	.27	.17	.23	.20	.17	.10
19	.18	.20	.17	.18	.20	.27	.25	.17	.24	.23	.17	.10
20	.16	.20	.17	.21	.20	.30	.25	.18	.25	.22	.19	.11
21	.16	.20	.18	.23	.20	.29	.26	.18	.25	.19	.20	.11
22	.16	.20	.18	.20	.20	.31	.24	.18	.23	.18	.21	.10
23	.14	.20	.19	.21	.20	.32	.23	.19	.24	.19	.23	.10
24	.13	.20	.18	.22	.20	.31	.22	.18	.24	.21	.24	.10
25	.12	.24	.18	.22	.20	.34	.22	.17	.25	.21	.24	.10
26	.11	.26	.18	.22	.19	.33	.23	.18	.25	.21	.24	.10
27	.12	.25	.17	.20	.18	.31	.23	.19	.26	.18	.22	.10
28	.12	.26	.18	.22	.18	.33	.22	.20	.28	.17	.23	.10
29	.12	.25	.17	.22	---	.33	.21	.20	.26	.16	.24	.10
30	.12	.25	.15	.22	---	.32	.22	.20	.29	.16	.23	.10
31	.12	---	.15	.22	---	.34	---	.19	---	.15	.24	---
TOTAL	4.59	5.41	5.90	5.95	5.86	8.12	8.10	5.75	6.71	7.90	5.31	4.03
MEAN	.15	.18	.19	.19	.21	.26	.27	.19	.22	.25	.17	.13
MAX	.19	.26	.27	.23	.29	.34	.35	.21	.29	.37	.24	.25
MIN	.11	.12	.15	.16	.18	.18	.21	.16	.19	.15	.11	.10
AC-FT	9.1	11	12	12	12	16	16	11	13	16	11	8.0
CAL YR 1981	TOTAL 59.83	MEAN .16	MAX .54	MIN .09	AC-FT 119							
WTR YR 1982	TOTAL 73.63	MEAN .20	MAX .37	MIN .10	AC-FT 146							

## SALTON SEA BASIN

10255885 SAN FELIPE CREEK NEAR WESTMORLAND, CA

LOCATION.--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.--21 years (water years 1962-82) 7.00 ft<sup>3</sup>/s (0.198 m<sup>3</sup>/s), 5,070 acre-ft/yr (6.25 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 many 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)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Mar. 12	2100	675	19.1	6.17	1.881	Aug. 26	0315	1,420	40.2	8.06	2.457
Aug. 11	2200	756	21.4	6.40	1.951	Sept. 8	0430	*2,570	72.8	10.02	3.054

Minimum, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	.01	0	.01	.01	.01	0	0
2				0	0	.01	0	.01	.01	.01	0	0
3				0	0	.01	.20	.01	.01	.01	0	0
4				0	0	0	.10	.01	.01	.01	0	0
5				0	0	0	.06	.01	.01	.01	0	0
6				0	0	0	.03	.01	.01	.01	0	0
7				0	0	0	.02	.01	.01	.01	0	0
8				0	0	0	.02	.01	.01	.01	0	314
9				0	0	0	.02	.01	.01	.01	0	.01
10				0	0	0	.02	.01	.01	.01	0	.01
11				.07	.01	0	.02	.01	.01	.01	84	.01
12				0	.25	47	.02	.01	.01	.01	61	.01
13				0	.10	.80	.02	.01	.01	.01	0	.01
14				0	.04	0	.02	.01	.01	.01	0	0
15				0	.02	0	.02	.01	.01	.01	0	0
16				0	.01	0	.02	.01	.01	.01	0	0
17				0	.01	0	.02	.01	.01	.01	0	0
18				0	.01	0	.02	.01	.01	.01	0	0
19				0	.01	0	.02	.01	.01	.01	0	0
20				0	.01	0	.01	.01	.01	.01	0	0
21				0	.01	0	.01	.01	.01	.01	0	0
22				0	.01	0	.01	.01	.01	.01	0	0
23				0	.01	0	.01	.01	.01	.01	20	0
24				0	.01	0	.01	.01	.01	.01	21	0
25				0	.01	0	.01	.01	.01	.01	203	0
26				0	.01	0	.01	.01	.01	51	178	0
27				0	.01	0	.01	.01	.01	20	0	0
28				0	.01	0	.01	.01	.01	.12	0	0
29				0	---	0	.01	.01	.01	0	0	0
30				0	---	0	.01	.01	.01	0	0	0
31		---		0	---	0	---	.01	---	0	0	---
TOTAL	0	0	0	.07	.55	47.83	.76	.31	.30	71.37	567	314.05
MEAN	0	0	0	.002	.020	1.54	.025	.010	.010	2.30	18.3	10.5
MAX	0	0	0	.07	.25	47	.20	.01	.01	51	203	314
MIN	0	0	0	0	0	0	0	.01	.01	0	0	0
AC-FT	0	0	0	.1	1.1	95	1.5	.6	.6	142	1120	623

CAL YR 1981 TOTAL 109.36 MEAN .30 MAX 45 MIN 0 AC-FT 217  
WTR YR 1982 TOTAL 1002.24 MEAN 2.75 MAX 314 MIN 0 AC-FT 1990

10256300 SAN GORGONIO RIVER AT BANNING, CA

LOCATION.--Lat 33°55'52", long 116°49'37", in NW¼NE¼NE¼ 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 current year.

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

REMARKS.--Indefinite stage-discharge relation Feb. 10 to Aug. 9. No regulation above station. Some pumping upstream for irrigation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge occurred Mar. 17, discharge unknown; no flow several months. Discharge measurements made during the year are given in table below:

## DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1981 to SEPTEMBER 1982

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)	
Feb. 11	1000	27	0.76	May 13	1530	6.4	.18
Feb. 12	1100	5.9	.17	June 1	1145	6.2	.18
Mar. 17	1045	1.0	.028	July 7	1000	1.6	.045
Mar. 17	1330	4.0	.11	July 23	1600	0.13	.004
Mar. 19	1000	5.1	.14	Aug. 3	1100	.34	.010

## 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 (57.9 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 poor. No regulation above station. Desert Water Agency 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: 30 years (water years 1923-26, 1929-31, 1960-82), 9.52 ft<sup>3</sup>/s (0.270 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)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Feb. 10	2215	*376 10.6	3.86 1.177	Apr. 1	1200	56 1.59	2.46 .750
Mar. 17	1900	65 1.84	2.52 0.768	Apr. 11	2200	104 2.95	2.73 .832
Mar. 26	0600	88 2.49	2.65 .808				

Minimum daily, 3.4 ft<sup>3</sup>/s (0.096 m<sup>3</sup>/s) Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.4	4.6	4.5	5.4	8.5	26	19	11	6.8	6.5	4.9
2	4.1	4.4	4.6	5.5	6.1	8.6	21	20	11	6.8	6.3	4.9
3	4.3	4.4	4.6	4.7	6.1	9.4	17	20	10	6.8	5.9	4.8
4	4.5	4.4	4.6	4.3	6.1	9.3	15	22	9.6	6.9	5.7	4.8
5	4.5	4.4	4.6	12	6.1	8.8	15	21	9.6	6.9	5.6	4.8
6	4.5	4.5	4.6	12	5.9	8.3	14	17	9.6	7.0	5.1	4.8
7	4.4	4.6	4.6	11	5.9	8.1	14	16	9.3	6.8	5.1	4.8
8	4.4	4.6	4.6	4.5	6.0	8.1	13	16	9.1	6.5	5.4	4.7
9	4.5	4.6	4.6	5.2	6.0	8.0	13	15	9.1	6.5	5.3	4.7
10	4.4	4.6	4.6	5.1	123	8.8	17	13	9.1	6.3	5.2	4.2
11	4.4	4.6	4.5	5.1	115	15	54	12	9.1	6.4	4.8	4.2
12	4.5	4.6	4.5	5.1	27	17	47	11	9.1	6.6	5.1	4.4
13	4.5	4.6	4.5	5.1	17	13	26	11	9.1	6.6	5.1	4.7
14	4.5	4.6	4.5	5.1	21	15	22	10	9.2	6.8	4.6	5.1
15	4.6	4.6	4.5	5.1	24	14	20	9.6	8.7	6.9	5.2	6.6
16	4.5	4.6	4.5	5.1	29	12	17	9.6	8.5	7.0	5.1	4.2
17	4.4	4.6	4.5	5.1	22	25	17	9.7	8.8	7.0	5.1	3.4
18	4.4	4.6	4.5	5.1	16	21	16	10	8.8	6.9	5.1	4.1
19	4.3	4.6	4.5	5.1	12	14	14	10	8.6	6.9	5.1	4.2
20	4.4	4.6	4.5	11	11	12	14	10	8.4	6.9	5.0	4.0
21	4.3	4.6	4.5	32	11	11	15	9.6	8.4	6.8	5.0	4.3
22	4.3	4.6	4.5	11	11	12	13	9.6	8.4	7.0	5.0	4.7
23	4.3	4.6	4.5	8.1	11	12	12	9.9	8.4	7.5	4.9	4.7
24	4.3	4.8	4.5	7.5	11	12	12	13	7.9	8.4	5.0	4.4
25	4.3	4.6	4.5	6.8	11	12	12	15	7.2	7.6	5.0	3.7
26	4.4	4.9	4.5	6.0	10	56	12	15	6.9	8.1	4.9	3.8
27	4.4	4.5	4.5	5.1	9.9	28	14	15	6.9	6.6	4.9	3.7
28	4.1	4.5	4.5	5.0	9.4	21	14	14	7.0	6.7	4.9	4.5
29	4.1	4.5	4.5	5.0	---	19	16	13	6.9	7.0	4.9	4.9
30	4.4	5.7	4.5	4.4	---	19	18	12	6.9	6.8	4.9	4.8
31	4.4	---	4.5	4.8	---	14	---	12	---	6.8	4.9	---
TOTAL	135.4	138.2	140.5	221.4	554.9	459.9	550	420.0	260.6	214.6	160.6	135.8
MEAN	4.37	4.61	4.53	7.14	19.8	14.8	18.3	13.5	8.69	6.92	5.18	4.53
MAX	4.6	5.7	4.6	32	123	56	54	22	11	8.4	6.5	6.6
MIN	4.0	4.4	4.5	4.3	5.4	8.0	12	9.6	6.9	6.3	4.6	3.4
AC-FT	269	274	279	439	1100	912	1090	833	517	426	319	269

CAL YR 1981 TOTAL 1030.42 MEAN 2.82 MAX 50 MIN 0 AC-FT 2040  
WTR YR 1982 TOTAL 3391.90 MEAN 9.29 MAX 123 MIN 3.4 AC-FT 6730

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.

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

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.

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, 26 ft<sup>3</sup>/s (0.74 m<sup>3</sup>/s) Feb. 10, gage height, 0.90 ft (0.274 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) Sept. 3-6.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.1	1.3	1.7	2.2	2.2	5.7	2.2	1.1	1.7	1.6	1.6
2	1.3	1.1	1.3	2.0	2.2	2.2	4.7	2.2	1.1	1.6	1.6	1.3
3	1.3	1.1	1.3	1.7	2.2	2.2	3.6	2.2	1.1	1.6	1.3	.71
4	1.1	1.1	1.3	1.6	2.2	2.2	3.6	4.1	1.1	1.6	1.3	.71
5	.89	1.1	1.3	2.6	2.2	2.2	3.3	2.9	1.1	1.6	1.3	.71
6	.89	1.1	1.3	2.6	2.2	2.2	3.3	2.6	1.1	1.6	1.3	.71
7	.89	1.1	1.3	2.2	2.2	2.2	3.3	2.4	1.1	1.6	1.3	1.1
8	.89	1.1	1.3	3.3	2.2	2.0	3.3	2.4	1.1	1.6	1.1	1.6
9	.89	1.1	1.3	1.3	2.2	2.0	3.1	2.4	1.1	1.3	.89	1.7
10	.89	1.1	1.3	1.3	7.6	1.7	2.9	2.2	1.1	1.1	.89	1.6
11	1.1	1.1	1.3	1.6	8.1	1.7	2.9	2.2	1.3	1.1	1.1	1.6
12	1.1	1.1	1.3	1.6	4.1	2.0	5.0	2.2	1.3	.89	2.0	1.6
13	1.1	.89	1.3	1.6	3.6	2.0	5.0	2.0	1.3	.89	1.6	1.6
14	1.3	.89	1.1	1.6	2.9	2.2	4.1	1.6	1.3	.89	1.3	1.6
15	1.3	.89	1.1	1.6	2.6	2.2	3.9	1.6	1.3	.89	1.3	1.6
16	1.3	.89	1.1	1.6	2.6	2.4	3.6	1.3	1.3	.89	1.3	1.7
17	1.1	.89	1.1	1.6	2.6	6.7	3.3	1.3	1.3	.89	1.3	1.7
18	1.1	.89	1.1	1.6	2.6	6.7	2.9	1.3	1.3	.89	1.3	1.7
19	.89	1.1	1.1	1.6	2.6	4.4	2.6	1.6	1.3	.89	.89	1.7
20	.89	1.1	1.1	2.9	2.2	3.6	2.6	1.3	1.3	.89	.89	1.6
21	.89	.89	1.1	4.1	2.2	3.6	2.6	1.3	1.3	.89	.89	1.3
22	.89	.89	1.3	2.6	2.2	3.6	2.6	1.3	1.3	1.1	1.3	1.1
23	.89	1.1	1.3	2.4	2.2	3.6	2.4	1.1	1.3	1.6	1.6	.89
24	.89	1.1	1.3	2.2	2.4	3.3	2.6	1.1	1.6	1.6	1.7	.89
25	.89	1.1	1.3	2.2	2.4	3.3	2.6	1.1	1.6	1.6	4.5	.89
26	.89	1.3	1.3	2.0	2.2	3.3	2.6	1.1	1.3	1.7	3.9	.89
27	.89	1.6	1.3	2.0	2.2	3.3	2.4	1.3	1.3	1.7	2.6	1.1
28	.89	1.6	1.3	2.2	2.2	3.1	2.4	1.6	1.6	1.6	2.3	1.6
29	1.1	1.6	1.3	2.2	---	3.3	2.4	1.3	1.7	1.6	2.0	1.6
30	1.1	1.6	1.6	2.0	---	3.3	2.4	1.1	1.7	1.6	1.7	1.6
31	1.1	---	1.6	2.0	---	2.9	---	1.1	---	1.6	1.6	---
TOTAL	31.94	33.52	39.3	63.5	79.3	91.6	97.7	55.4	38.7	41.00	49.65	40.00
MEAN	1.03	1.12	1.27	2.05	2.83	2.95	3.26	1.79	1.29	1.32	1.60	1.33
MAX	1.3	1.6	1.6	4.1	8.1	6.7	5.7	4.1	1.7	1.7	4.5	1.7
MIN	.89	.89	1.1	1.3	2.2	1.7	2.4	1.1	1.1	.89	.89	.71
AC-FT	63	66	78	126	157	182	194	110	77	81	98	79
CAL YR 1981	TOTAL	862.33	MEAN	2.36	MAX	7.0	MIN	.71	AC-FT	1710		
WTR YR 1982	TOTAL	661.61	MEAN	1.81	MAX	8.1						

## 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.--8 years, 0.84 ft<sup>3</sup>/s (0.024 m<sup>3</sup>/s), 609 acre-ft/yr (751,000 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, 6.6 ft<sup>3</sup>/s (0.19 m<sup>3</sup>/s) Feb. 10, gage height, 4.19 ft (1.277 m), no peak above base of 10.0 ft<sup>3</sup>/s (0.283 m<sup>3</sup>/s); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				.26	.34	.63	2.1	.77	.28		0	0
2				.48	.29	.63	2.2	.76	.26		0	0
3				.48	.29	.65	2.2	.75	.24		0	0
4				.48	.27	.65	2.2	.74	.21		0	0
5				.70	.25	.62	2.3	.72	.19		0	0
6				.75	.24	.62	2.3	.71	.16		0	0
7				.49	.12	.63	2.2	.69	.14		0	0
8				.22	.01	.62	2.0	.67	.17		0	.14
9				.20	0	.57	2.0	.65	.15		0	.36
10				.14	1.1	.47	1.8	.62	.11		0	.42
11				.12	2.3	.44	1.8	.59	.07		0	.46
12				.10	1.8	.43	2.0	.56	.03		.31	.47
13				.04	1.8	.40	1.7	.52	.01		.48	.26
14				0	1.7	.65	1.5	.49	.01		.32	0
15				0	1.7	.71	1.5	.47	0		.22	0
16				0	1.5	.78	1.6	.46	0		.13	0
17				0	1.2	1.4	1.7	.43	0		.08	0
18				0	1.2	2.1	1.7	.42	.01		.08	0
19				0	1.2	2.8	1.8	.41	0		.03	0
20				.45	1.2	3.0	1.7	.40	0		0	0
21				1.8	1.2	3.0	1.6	.39	0		0	0
22				.98	1.0	2.9	1.4	.37	0		0	0
23				.79	.78	2.5	1.2	.36	0		0	0
24				.79	.76	2.5	1.0	.35	0		0	0
25				.72	.75	2.5	.95	.35	0		0	0
26				.56	.75	2.5	.89	.34	0		0	0
27				.44	.72	2.2	.85	.33	0		0	0
28				.42	.66	2.1	.82	.32	0		0	0
29				.37	---	2.1	.79	.31	0		0	0
30				.38	---	2.0	.78	.30	0		0	0
31		---		.36	---	2.0	---	.29	---		0	---
TOTAL	0	0	0	12.52	25.13	45.10	48.58	15.54	2.04	0	1.65	2.11
MEAN	0	0	0	.40	.90	1.45	1.62	.50	.068	0	.053	.070
MAX	0	0	0	1.8	2.3	3.0	2.3	.77	.28	0	.48	.47
MIN	0	0	0	0	0	.40	.78	.29	0	0	0	0
AC-FT	0	0	0	25	50	89	96	31	4.0	0	3.3	4.2
CAL YR 1981	TOTAL	33.05	MEAN .091	MAX 1.5	MIN 0	AC-FT 66						
WTR YR 1982	TOTAL	152.67	MEAN .42	MAX 3.0	MIN 0	AC-FT 303						



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.

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.

AVERAGE DISCHARGE.--35 years, 5.28 ft<sup>3</sup>/s (0.150 m<sup>3</sup>/s), 3,830 acre-ft/yr (4.72 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.--Peak discharges above base of 85 ft<sup>3</sup>/s (2.41 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Feb. 10	2315	*330	9.35	7.47	2.277
Sept. 7	2345	135	3.82	6.31	1.923

Minimum daily, 0.65 ft<sup>3</sup>/s (0.018 m<sup>3</sup>/s) Oct. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.86	.90	1.8	2.4	6.7	28	43	18	5.9	2.6	1.2
2	.84	.84	.90	2.1	2.4	6.7	27	44	17	5.7	2.4	1.1
3	.84	.84	.90	1.6	2.3	6.4	26	42	16	5.5	2.2	1.1
4	.78	.84	.90	1.5	2.3	6.2	25	46	15	5.4	2.2	1.0
5	.77	.82	.90	4.7	2.3	6.0	24	40	14	5.2	2.0	1.1
6	.74	.82	.90	2.9	2.2	5.7	24	39	14	5.1	2.3	1.3
7	.72	.88	.90	1.9	2.2	5.5	24	40	13	5.2	2.6	3.6
8	.73	.88	.91	1.5	2.2	5.5	23	35	13	5.0	2.2	3.9
9	.73	.88	.91	1.4	2.2	5.9	23	30	12	4.7	1.9	1.6
10	.74	.88	.90	1.3	61	6.9	26	27	12	4.4	7.6	1.4
11	.75	.88	.89	1.8	97	11	42	25	12	4.2	12	1.3
12	.80	.88	.90	1.8	18	11	61	23	11	4.0	5.0	1.2
13	.81	.88	1.4	1.5	11	9.9	33	22	11	3.9	3.1	1.2
14	.82	.88	1.9	1.4	8.2	11	30	23	11	3.6	2.5	1.1
15	.82	.88	1.9	1.3	7.7	9.4	28	24	10	3.3	2.2	1.2
16	.82	.88	1.9	1.2	10	13	24	24	9.8	3.2	2.0	1.2
17	.78	.88	2.0	1.2	12	24	22	27	9.1	3.1	1.9	1.5
18	.76	.88	1.7	1.2	9.6	25	21	28	8.7	3.0	1.8	1.8
19	.72	.88	1.5	1.2	8.2	22	25	25	8.6	2.9	1.7	1.6
20	.73	.88	1.6	3.9	7.6	20	27	24	8.4	2.8	1.7	1.3
21	.74	.88	1.6	7.4	7.7	19	25	24	8.1	2.7	1.6	1.2
22	.72	.88	1.8	3.1	7.7	18	23	25	7.6	2.7	1.6	1.0
23	.71	.88	1.5	2.8	7.5	18	23	25	7.4	4.1	2.3	.95
24	.72	.88	1.1	3.1	7.5	18	24	25	7.1	5.9	2.0	.92
25	.67	.88	1.1	3.4	7.1	18	25	26	6.8	3.9	2.1	1.1
26	.65	.88	1.1	3.4	7.0	33	26	26	6.5	4.3	2.7	1.1
27	.67	.88	1.1	3.1	6.8	27	28	25	6.4	4.2	2.4	2.0
28	.69	1.0	1.1	2.9	6.6	25	32	24	6.1	3.4	2.0	1.6
29	.79	1.4	1.1	2.7	---	24	36	22	6.0	3.1	1.8	1.1
30	.79	1.0	1.1	2.6	---	23	39	20	6.1	2.8	1.7	1.0
31	.83	---	1.1	2.4	---	22	---	19	---	2.6	1.5	---
TOTAL	23.68	26.90	38.41	74.1	328.7	462.8	844	892	311.7	125.8	83.6	42.67
MEAN	.76	.90	1.24	2.39	11.7	14.9	28.1	28.8	10.4	4.06	2.70	1.42
MAX	1.0	1.4	2.0	7.4	97	33	61	46	18	5.9	12	3.9
MIN	.65	.82	.89	1.2	2.2	5.5	21	19	6.0	2.6	1.5	.92
AC-FT	47	53	76	147	652	918	1670	1770	618	250	166	85
CAL YR 1981	TOTAL	944.31	MEAN	2.59	MAX	100	MIN	.30	AC-FT	1870		
WTR YR 1982	TOTAL	3254.36	MEAN	8.92	MAX	97	MIN	.65	AC-FT	6460		

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.--46 years (water years 1931-41, 1948-82), 4.73 ft<sup>3</sup>/s (0.134 m<sup>3</sup>/s), 3,430 acre-ft/yr (4.23 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.--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. 21	0230	266 7.53	3.20 0.975	July 23	1500	125 3.54	2.78 .847
Feb. 10	2030	1,180 33.4	4.50 1.372	Aug. 11	1600	*1,320 37.4	4.62 1.408
Mar. 17	2300	138 3.91	2.83 .863	Sep. 7	2330	603 17.1	3.82 1.164
Apr. 1	1900	219 6.20	3.10 .945				

Minimum, no flow Sept. 2, 3, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.60	.60	14	4.4	4.4	77	3.2	1.7	.78	.19	.02
2	.41	.60	.60	7.7	4.1	4.4	69	3.1	1.7	.64	.15	0
3	.32	.50	.60	2.2	3.8	4.4	39	3.0	1.7	.36	.14	0
4	.32	.41	.49	1.7	3.6	4.1	30	8.0	1.5	.21	.11	0
5	.32	.41	.32	38	3.5	3.8	27	6.8	1.6	.18	.09	.03
6	.25	.32	.32	15	3.5	3.5	23	6.0	1.5	.18	.10	0
7	.25	.32	.32	6.5	3.5	3.5	20	5.6	1.3	.41	.10	43
8	.25	.32	.40	3.8	3.8	3.5	19	5.2	1.3	.26	.10	33
9	.19	.32	.40	3.3	3.8	3.5	18	4.9	1.2	.18	.05	1.5
10	.25	.32	.40	2.9	228	3.2	17	4.7	1.1	.11	.05	.50
11	.25	.25	.40	5.5	150	4.1	15	4.7	1.1	.09	59	.10
12	.32	.25	.40	3.8	35	4.1	18	4.7	.99	.11	6.7	.07
13	.41	.25	.49	2.8	27	4.4	15	4.0	1.1	.06	3.8	.05
14	.41	.32	.49	2.0	26	4.8	13	4.0	1.2	.05	1.2	.05
15	.50	.25	.49	1.5	26	8.4	11	3.5	.99	.05	.60	.05
16	.50	.25	.60	1.3	25	5.6	9.7	3.3	.88	.03	.45	.07
17	.50	.19	.60	1.0	22	30	8.4	3.1	.88	.03	.41	.41
18	.50	.19	.60	1.0	18	73	7.6	2.9	.99	.03	.41	.41
19	.50	.25	.72	.85	13	36	6.8	2.9	.99	.03	.60	.14
20	.50	.25	.72	11	13	23	6.3	2.9	.88	.02	.64	.07
21	.50	.25	.60	111	10	18	5.7	2.9	.88	.03	1.3	.05
22	.41	.25	.72	109	8.4	14	5.2	2.9	.88	.03	.40	.04
23	.41	.25	1.0	40	7.4	11	4.9	2.9	.78	14	.32	.03
24	.41	.25	1.0	18	6.9	8.9	4.6	2.5	.78	4.1	.85	.02
25	.41	.25	1.0	12	6.4	7.9	4.3	2.3	.52	1.9	1.5	.02
26	.41	.25	1.2	9.4	6.0	19	4.0	2.3	.49	1.9	1.7	.02
27	.50	1.3	1.2	7.8	5.2	15	3.8	2.5	.36	1.3	1.7	.32
28	.60	1.3	1.3	6.6	4.8	12	3.6	2.3	.27	.72	.72	.25
29	.85	1.0	1.3	5.9	---	14	3.4	2.3	.39	.41	.30	.07
30	.85	.60	1.7	5.2	---	13	3.3	2.2	.33	.85	.07	.05
31	.72	---	1.7	4.8	---	11	---	1.9	---	.19	.06	---
TOTAL	13.52	12.27	22.68	455.55	672.1	375.5	492.6	113.5	30.28	28.64	83.81	80.34
MEAN	.44	.41	.73	14.7	24.0	12.1	16.4	3.66	1.01	.92	2.70	2.68
MAX	.85	1.3	1.7	111	228	73	77	8.0	1.7	14	59	43
MIN	.19	.19	.32	.85	3.5	3.2	3.3	1.9	.27	.02	.05	0
AC-FT	27	24	45	904	1330	745	977	225	60	57	166	159
CAL YR 1981	TOTAL	826.73	MEAN	2.27	MAX	29	MIN	0	AC-FT	1640		
WTR YR 1982	TOTAL	2380.79	MEAN	6.52	MAX	228	MIN	0	AC-FT	4720		

## 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> (22.3 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.--34 years, 2.71 ft<sup>3</sup>/s (0.077 m<sup>3</sup>/s), 1,960 acre-ft/yr (2.42 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.--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 80 ft<sup>3</sup>/s (2.27 m<sup>3</sup>/s) on basis of slope-area measurement of maximum flow:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Jan. 5	1345	51	1.44	2.50	0.762
Feb. 10	2245	*223	6.32	3.51	1.070
Aug. 12	1545	88	2.49	2.85	.869

Minimum daily, 2.20 ft<sup>3</sup>/s (0.062 m<sup>3</sup>/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.6	2.7	5.8	4.6	5.9	16	7.2	6.2	4.1	2.9	2.6
2	2.4	2.6	2.7	4.7	4.6	5.7	10	7.5	6.1	4.0	2.8	2.5
3	2.4	2.8	2.7	3.8	4.5	5.6	9.0	6.6	6.2	3.8	2.7	2.4
4	2.4	2.8	2.7	3.5	4.4	5.6	8.4	6.7	6.4	3.7	2.6	2.3
5	2.5	2.8	2.7	15	4.3	5.5	8.3	6.7	6.2	3.6	2.5	2.3
6	2.4	2.7	2.7	4.5	4.1	5.6	8.2	6.5	6.2	3.6	3.0	2.2
7	2.5	2.8	2.7	3.5	3.9	5.5	8.2	6.9	6.2	3.9	2.8	3.0
8	2.6	2.7	2.7	2.9	4.0	5.6	8.2	7.3	6.1	3.6	2.5	5.3
9	2.5	2.6	2.7	2.7	3.8	5.4	8.1	7.6	6.1	3.4	2.4	3.6
10	2.5	2.5	2.7	2.8	62	5.6	8.0	6.8	6.0	3.3	2.4	3.3
11	2.5	2.5	2.7	4.2	60	6.3	8.0	6.9	4.0	3.3	5.2	3.0
12	2.5	2.5	2.7	3.6	16	6.1	10	6.8	2.4	3.3	8.7	3.0
13	2.5	2.5	2.7	3.2	8.2	5.9	8.8	6.8	2.3	3.2	4.0	3.0
14	2.5	2.5	2.7	3.2	7.8	6.4	8.2	6.7	3.5	3.0	4.2	2.9
15	2.5	2.5	2.7	3.1	7.4	6.3	8.0	6.8	4.8	3.0	3.9	2.9
16	2.5	2.5	2.7	3.0	7.4	6.0	7.9	7.1	4.8	2.9	3.6	3.1
17	2.5	2.5	2.7	3.0	7.2	10	7.9	7.0	4.9	2.9	3.6	3.3
18	2.6	2.6	2.7	3.0	6.5	8.3	8.0	7.0	4.9	3.0	3.6	3.2
19	2.6	2.6	2.7	3.0	6.1	8.8	7.7	6.9	4.8	2.9	3.2	3.0
20	2.7	2.6	2.7	9.4	5.8	6.4	7.4	6.8	4.7	2.8	3.1	2.9
21	2.8	2.5	2.7	15	5.6	6.3	7.4	6.8	4.7	2.9	2.9	2.8
22	2.8	2.5	2.7	6.2	5.7	6.2	7.3	6.5	4.6	3.0	2.7	2.7
23	2.8	2.5	2.8	5.4	5.7	6.3	7.2	6.4	4.4	6.4	2.4	2.7
24	2.7	2.5	2.8	5.7	5.6	6.6	7.0	6.5	4.3	4.7	2.8	2.7
25	2.7	2.5	2.9	6.3	5.6	6.8	7.1	6.5	4.0	3.8	2.9	2.7
26	2.8	2.5	2.9	6.4	5.6	15	7.0	6.5	3.9	4.6	3.3	2.7
27	2.8	3.5	2.9	6.1	5.5	8.7	7.1	6.5	3.9	3.8	2.7	3.6
28	2.8	3.1	3.0	5.9	5.7	7.8	7.6	6.4	3.8	3.3	2.5	3.1
29	2.8	2.9	3.0	5.3	---	7.2	7.8	6.4	4.0	3.0	2.4	2.9
30	2.6	2.8	3.0	5.0	---	7.3	7.2	6.3	4.1	3.0	2.5	2.7
31	2.6	---	3.0	4.8	---	7.1	---	6.1	---	2.9	2.6	---
TOTAL	80.2	79.5	85.7	160.0	277.6	209.8	247.0	209.5	144.5	108.7	99.4	88.4
MEAN	2.59	2.65	2.76	5.16	9.91	6.77	8.23	6.76	4.82	3.51	3.21	2.95
MAX	2.8	3.5	3.0	15	62	15	16	7.6	6.4	6.4	8.7	5.3
MIN	2.4	2.5	2.7	2.7	3.8	5.4	7.0	6.1	2.3	2.8	2.4	2.2
AC-FT	159	158	170	317	551	416	490	416	287	216	197	175

CAL YR 1981 TOTAL 1090.2 MEAN 2.99 MAX 13 MIN 1.6 AC-FT 2160  
WTR YR 1982 TOTAL 1790.3 MEAN 4.90 MAX 62 MIN 2.2 AC-FT 3550

## SALTON SEA BASIN

10259200 DEEP CREEK NEAR PALM DESERT, CA

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.

DRAINAGE AREA.--30.6 mi<sup>2</sup> (79.3 km<sup>2</sup>).

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 fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--20 years, 1.83 ft<sup>3</sup>/s (0.052 m<sup>3</sup>/s), 1,330 acre-ft/yr (1.64 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.--Peak discharges above base of 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s) and maximum (\*), on basis of 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)
Feb. 10	2145	*138 3.91	3.37 1.027	Mar. 26	0700	27 0.76	2.37 .722
Mar. 17	2215	86 2.44	3.06 0.933	Sep. 8	0200	62 1.76	2.84 .866

Minimum daily, 0.02 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.02	.22	.37	.65	.77	8.4	1.0	.13	.02	.04	.02
2	.04	.03	.23	.63	.61	.75	10	1.4	.11	.02	.04	.02
3	.04	.02	.24	.59	.58	.74	7.7	1.0	.10	.02	.03	.02
4	.04	.03	.24	.43	.56	.72	6.0	.82	.09	.02	.03	.02
5	.03	.03	.25	.47	.54	.70	5.1	.71	.08	.02	.03	.02
6	.03	.03	.25	.76	.53	.67	4.5	.64	.09	.02	.03	.02
7	.03	.03	.25	.53	.53	.65	4.0	.66	.08	.02	.03	.91
8	.03	.03	.26	.43	.53	.61	3.6	.67	.08	.02	.02	12
9	.03	.03	.26	.39	.53	.61	3.3	.72	.07	.02	.02	3.8
10	.03	.03	.26	.39	17	.61	3.6	.61	.06	.02	.02	2.4
11	.03	.03	.26	.56	36	.63	5.8	.52	.06	.02	.03	.76
12	.03	.03	.26	.48	7.7	1.3	8.5	.46	.06	.02	.02	.43
13	.03	.03	.26	.45	4.1	1.7	5.5	.44	.05	.02	.02	.31
14	.03	.03	.26	.42	2.8	1.4	4.1	.37	.05	.02	.02	.22
15	.03	.03	.26	.39	2.5	3.2	3.4	.30	.04	.02	.02	.21
16	.03	.03	.26	.36	2.5	2.2	2.9	.29	.04	.02	.02	.21
17	.03	.03	.25	.36	2.8	17	2.5	.28	.04	.02	.02	.33
18	.03	.03	.24	.35	2.2	33	2.3	.26	.04	.02	.02	.52
19	.03	.03	.24	.33	1.7	11	2.0	.25	.03	.02	.02	.39
20	.03	.07	.24	.59	1.4	6.6	1.9	.24	.03	.02	.02	.32
21	.03	.12	.23	5.0	1.2	5.1	1.8	.22	.03	.02	.02	.26
22	.03	.14	.24	1.9	1.1	4.3	1.5	.18	.03	.02	.02	.23
23	.03	.15	.24	1.1	1.0	4.2	1.3	.18	.03	.02	.02	.19
24	.03	.15	.24	.87	.95	4.1	1.2	.18	.03	.02	.02	.19
25	.03	.15	.24	1.0	.94	4.2	1.1	.18	.02	.02	.02	.17
26	.03	.15	.24	1.3	.89	20	1.1	.18	.02	.11	.02	.17
27	.03	.17	.25	1.3	.86	14	1.0	.18	.02	.29	.02	.18
28	.03	.21	.25	1.1	.80	9.3	1.0	.18	.02	.07	.02	.17
29	.03	.27	.26	.95	---	7.1	1.0	.17	.02	.06	.02	.18
30	.03	.22	.26	.79	---	5.4	.94	.16	.02	.05	.02	.17
31	.03	---	.28	.70	---	4.4	---	.14	---	.04	.02	---
TOTAL	.97	2.35	7.72	25.29	93.50	166.96	107.04	13.59	1.57	1.12	.72	24.84
MEAN	.031	.078	.25	.82	3.34	5.39	3.57	.44	.052	.036	.023	.83
MAX	.04	.27	.28	5.0	36	33	10	1.4	.13	.29	.04	12
MIN	.03	.02	.22	.33	.53	.61	.94	.14	.02	.02	.02	.02
AC-FT	1.9	4.7	15	50	185	331	212	27	3.1	2.2	1.4	49

CAL YR 1981	TOTAL	209.65	MEAN	.57	MAX	8.3	MIN	.02	AC-FT	416
WTR YR 1982	TOTAL	445.67	MEAN	1.22	MAX	36	MIN	.02	AC-FT	884

## 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, 1,000 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.--16 years, 3.88 ft<sup>3</sup>/s (0.110 m<sup>3</sup>/s), 2,810 acre-ft/yr (3.46 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, 458 ft<sup>3</sup>/s (13.0 m<sup>3</sup>/s) Feb. 11, (0400 hrs), gage height, 2.67 ft (0.814 m), from rating curve extended above 350 ft<sup>3</sup>/s (9.91 m) on basis of critical-depth study at gage height 4.12 ft (1.256 m), no other 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 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		15			0							
2		4.0			0							
3		0			0							
4		0			0							
5		0			0							
6		0			0							
7		0			0							
8		0			0							
9		0			0							
10		0			0							
11		0			83							
12		0			0							
13		0			0							
14		0			0							
15		0			0							
16		0			0							
17		0			0							
18		0			0							
19		0			0							
20		0			0							
21		0			0							
22		0			0							
23		0			0							
24		0			0							
25		0			0							
26		0			0							
27		0			0							
28		0			0							
29		0			---							
30		0			---							
31		---			---		---		---			---
TOTAL	0	19.0	0	0	83	0	0	0	0	0	0	0
MEAN	0	.63	0	0	2.96	0	0	0	0	0	0	0
MAX	0	15	0	0	83	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	38	0	0	165	0	0	0	0	0	0	0
CAL YR 1981	TOTAL	19.32	MEAN .053	MAX 15	MIN 0	AC-FT 38						
WTR YR 1982	TOTAL	102.00	MEAN .28	MAX 83	MIN 0	AC-FT 202						

## SALTON SEA BASIN

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.--Fifty-two 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, 210 ft<sup>3</sup>/s (5.95 m<sup>3</sup>/s) Feb. 11, estimated; minimum daily, 97 ft<sup>3</sup>/s (2.75 m<sup>3</sup>/s) Jan. 7, estimated.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	124	101	99	122	134	145	150	134	131	114	108
2	121	122	100	98	126	131	143	150	133	130	112	109
3	119	120	100	98	129	128	142	150	132	129	107	113
4	115	117	100	98	131	124	141	149	131	127	151	117
5	112	118	100	98	131	128	140	148	133	127	145	113
6	109	119	100	98	132	130	139	147	133	125	145	101
7	111	120	100	97	132	130	138	146	136	124	142	113
8	110	120	100	98	133	131	137	144	137	124	133	125
9	109	121	100	99	134	132	136	143	138	122	117	126
10	108	122	99	99	136	132	135	141	139	121	111	115
11	107	123	100	99	210	133	133	140	140	119	145	108
12	106	125	101	100	190	133	132	140	141	118	141	106
13	106	123	101	100	170	133	131	141	142	118	117	109
14	105	122	101	100	150	133	131	142	143	117	114	111
15	106	121	102	100	125	133	132	143	128	116	117	108
16	107	120	102	101	114	133	133	144	155	114	121	110
17	107	119	102	101	125	133	133	146	132	113	109	111
18	108	118	103	101	137	131	134	148	133	113	116	121
19	108	117	104	102	137	130	134	149	135	111	115	108
20	109	116	105	102	140	128	135	151	137	111	110	104
21	109	114	105	103	140	126	136	148	138	111	109	103
22	109	112	106	103	142	123	138	146	139	117	116	106
23	108	110	106	104	143	122	140	144	140	115	121	108
24	107	107	104	104	144	120	142	143	139	107	102	112
25	106	104	103	105	147	118	144	140	138	107	113	114
26	105	104	101	105	143	117	147	143	137	115	123	116
27	104	103	100	105	140	123	150	141	136	109	117	116
28	103	103	98	109	138	133	151	140	135	109	114	115
29	110	102	98	112	---	147	151	139	133	113	114	116
30	117	102	99	115	---	147	150	138	132	119	115	114
31	120	---	99	119	---	147	---	137	---	110	111	---
TOTAL	3404	3468	3140	3172	3941	4043	4173	4471	4099	3642	3737	3356
MEAN	110	116	101	102	141	130	139	144	137	117	121	112
MAX	123	125	106	119	210	147	151	151	155	131	151	126
MIN	103	102	98	97	114	117	131	137	128	107	102	101
AC-FT	6750	6880	6230	6290	7820	8020	8280	8870	8130	7220	7410	6660
CAL YR 1981	TOTAL	46835	MEAN 128	MAX 173	MIN 98	AC-FT	92900					
WTR YR 1982	TOTAL	44646	MEAN 122	MAX 210	MIN 97	AC-FT	88560					

## 10260500 DEEP CREEK NEAR HESPERIA, CA

LOCATION.--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.

DRAINAGE AREA.--134 mi<sup>2</sup> (347 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Broad-crested weir since December 1938. Altitude of gage is 3,050 ft (930 m), from topographic map. See WSP 1314 for history of changes prior to Dec. 10, 1938.

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

AVERAGE DISCHARGE.--71 years, 71.2 ft<sup>3</sup>/s (2.016 m<sup>3</sup>/s), 51,580 acre-ft/yr (63.6 hm<sup>3</sup>/yr).

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.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft<sup>3</sup>/s (11.3 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Feb. 10	2400	2,130	60.3	4.40	1.341	Apr. 1	1230	1,430	40.5	3.87	1.180
Mar. 17	1900	2,340	66.3	4.54	1.384	Apr. 11	2230	*2,900	82.1	4.90	1.494

Minimum daily, 1.7 ft<sup>3</sup>/s (0.048 m<sup>3</sup>/s) Sept. 5, 6, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	5.1	9.5	9.0	19	33	535	163	26	11	4.9	2.6
2	3.2	5.4	9.0	12	20	34	362	157	25	11	4.6	2.5
3	3.2	5.6	8.9	14	20	46	333	138	24	9.9	4.3	2.2
4	3.4	5.8	9.3	10	21	40	302	132	24	9.4	4.1	2.0
5	3.6	5.6	9.3	12	21	33	290	149	23	8.9	4.0	1.7
6	3.8	5.5	9.3	30	20	29	259	105	22	8.8	4.1	1.7
7	4.0	5.5	9.2	23	20	27	235	94	22	8.7	4.2	2.0
8	4.2	5.3	9.0	15	20	26	210	86	21	8.4	4.7	2.2
9	4.5	5.5	8.8	14	19	25	185	80	21	7.9	4.8	2.3
10	4.7	5.5	8.6	14	141	25	230	74	20	7.6	4.1	2.3
11	6.0	5.6	8.9	15	810	26	923	69	19	7.0	3.5	3.1
12	5.0	6.1	9.3	20	140	90	1180	72	19	6.1	3.1	3.1
13	4.9	6.1	9.3	18	74	77	576	63	18	5.6	2.9	3.0
14	4.5	6.1	9.0	16	78	91	476	59	18	5.3	2.8	2.8
15	4.5	5.6	8.8	14	117	126	427	56	17	5.0	2.8	2.6
16	4.6	5.5	8.7	13	130	90	355	53	17	4.8	2.9	2.5
17	4.7	5.5	8.6	12	123	651	318	51	16	4.6	2.4	2.5
18	4.7	5.5	8.5	12	78	325	320	48	15	4.4	2.0	2.7
19	4.6	5.5	8.5	12	61	148	325	46	15	4.2	1.9	2.6
20	4.5	5.5	8.4	20	52	129	309	43	15	4.2	2.0	2.6
21	4.5	5.6	8.4	30	52	128	270	41	15	4.0	2.0	2.4
22	4.5	5.6	8.7	17	54	137	212	38	14	3.8	2.2	2.2
23	4.5	5.6	8.8	16	52	152	226	35	13	3.5	2.3	2.0
24	4.5	5.6	8.7	19	49	171	230	31	13	3.4	2.8	1.9
25	4.5	5.8	8.6	21	46	174	229	33	12	3.5	2.8	1.8
26	4.5	6.3	8.5	26	42	228	208	33	11	4.0	3.0	1.7
27	4.6	9.3	8.6	30	38	263	183	31	10	16	3.8	6.2
28	4.5	15	8.9	27	35	248	189	30	9.7	11	3.8	5.4
29	4.5	15	8.4	26	---	178	183	30	9.5	7.0	3.6	4.7
30	4.9	11	8.4	22	---	167	164	29	9.8	6.0	3.2	4.4
31	5.2	---	8.7	19	---	151	---	27	---	5.3	2.8	---
TOTAL	136.8	196.6	273.6	558.0	2352	4068	10244	2096	514.0	210.3	102.4	81.7
MEAN	4.41	6.55	8.83	18.0	84.0	131	341	67.6	17.1	6.78	3.30	2.72
MAX	6.0	15	9.5	30	810	651	1180	163	26	16	4.9	6.2
MIN	3.2	5.1	8.4	9.0	19	25	164	27	9.5	3.4	1.9	1.7
AC-FT	271	390	543	1110	4670	8070	20320	4160	1020	417	203	162

CAL YR 1981 TOTAL 5150.0 MEAN 14.1 MAX 74 MIN 1.3 AC-FT 10220  
WTR YR 1982 TOTAL 20833.4 MEAN 57.1 MAX 1180 MIN 1.7 AC-FT 41320

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, 295 ft<sup>3</sup>/s (8.35 m<sup>3</sup>/s) revised, Feb. 19, 1980, gage height, 7.18 ft (2.188 m), from rating curve extended above 68 ft<sup>3</sup>/s (1.93 m<sup>3</sup>/s) on basis of slope-conveyance study at gage height 7.12 ft (2.170 m); minimum, no flow many days 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) revised, and maximum (\*), from rating curve extended above 68 ft<sup>3</sup>/s (1.93 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)	
Feb. 10	1545	60	1.70	6.21	1.893	Mar. 30	2115	79	2.24	6.36	1.939
Mar. 16	0130	*84	2.38	6.40	1.951	Apr. 10	0315	57	1.61	6.09	1.856

Minimum, no flow for many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.04	1.7	.38	.32	5.2	.33	.21	.13	.14	.11
2	0	0	.02	.09	.31	.76	4.1	.29	.23	.11	.15	.10
3	0	0	.01	.10	.29	0	3.2	.29	.22	.09	.14	.09
4	0	0	.05	.07	.28	0	2.9	.36	.24	.10	.14	.11
5	0	0	.06	4.5	.19	0	2.6	.28	.25	.10	.14	.11
6	0	0	.06	1.2	.15	0	2.1	.25	.23	.11	.19	.11
7	0	0	.06	.16	.16	0	1.9	.25	.22	.11	.14	.12
8	0	0	.07	.11	.22	0	1.7	.29	.21	.11	.14	.14
9	0	0	.07	.08	.32	0	1.7	.63	.20	.11	.15	.10
10	0	0	.10	.47	8.0	.94	4.8	.37	.19	.11	.14	.11
11	.51	0	.16	.20	2.5	.01	2.1	.46	.19	.09	.12	.08
12	0	0	.19	.20	1.1	1.1	1.9	.32	.19	.09	.11	.13
13	0	0	.18	.10	.56	4.4	1.5	.29	.19	.08	.11	.10
14	0	0	.42	.07	.58	.89	1.2	.28	.17	.07	.11	.11
15	0	0	.66	.07	.60	4.0	.98	.25	.16	.07	.14	.11
16	0	0	.71	.06	.45	24	.82	.23	.17	.07	.14	.17
17	0	0	.71	.07	.35	3.0	.70	.23	.18	.07	.15	.11
18	0	0	.76	.06	.27	2.9	.62	.23	.15	.07	.17	.10
19	0	0	.77	.06	.29	2.3	.55	.26	.15	.07	.18	.10
20	0	0	.78	4.4	.31	2.2	.55	.21	.15	.11	.18	.08
21	0	0	2.7	1.2	.32	2.3	.53	.19	.15	.11	.13	.08
22	0	0	1.9	.22	.34	2.5	.47	.18	.15	.11	.13	.08
23	0	0	1.2	.16	.34	2.6	.47	.17	.13	.09	.15	.12
24	0	0	.56	.36	.32	4.1	.47	.15	.12	.11	.14	.15
25	0	0	.06	.89	.31	3.2	.40	.15	.11	.11	.14	.66
26	0	1.2	.06	1.1	.29	3.1	.40	.17	.11	.37	.14	9.5
27	.05	1.5	.06	.93	.29	3.2	.37	.19	.10	.11	.14	.32
28	.09	1.9	.05	.92	.31	4.4	.36	.19	.11	.11	.14	.15
29	0	.27	0	.98	---	4.2	.35	.19	.11	.12	.12	.16
30	0	.07	.28	.54	---	15	.34	.18	.22	.15	.11	.18
31	0	---	.27	.47	---	8.8	---	.20	---	.14	.11	---
TOTAL	.65	4.94	13.02	21.54	19.83	100.22	45.28	8.06	5.21	3.40	4.33	13.59
MEAN	.021	.16	.42	.69	.71	3.23	1.51	.26	.17	.11	.14	.45
MAX	.51	1.9	2.7	4.5	8.0	24	5.2	.63	.25	.37	.19	9.5
MIN	0	0	0	.06	.15	0	.34	.15	.10	.07	.11	.08
AC-FT	1.3	9.8	26	43	39	199	90	16	10	6.7	8.6	27
CAL YR 1981	TOTAL	85.20	MEAN	.23	MAX	22	MIN	0	AC-FT	169		
WTR YR 1982	TOTAL	240.07	MEAN	.66	MAX	24	MIN	0	AC-FT	476		



10260630 ABONDIGAS CREEK ABOVE LAKE GREGORY, AT CRESTLINE, CA

LOCATION.--Lat 34°14'16", long 117°15'51", in SE¼SW¼SE¼ 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 (1.42 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 20 ft<sup>3</sup>/s (0.57 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. 20	2115	20 0.57	5.27 1.606	Apr. 1	1000	69 1.95	5.73 1.747
Feb. 10	1545	33 .93	5.38 1.640	Apr. 11	1645	40 1.13	5.47 1.667
Mar. 17	1700	*87 2.46	5.87 1.789	Sept. 26	0330	21 .59	5.22 1.591

Minimum, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.24	1.6	.32	.41	19	.66	.24	.18	0	0
2	0	0	.21	.57	.29	1.8	17	.65	.24	.15	0	0
3	0	0	.20	.42	.29	.78	12	.61	.24	.16	0	0
4	0	0	.19	.38	.29	.55	7.5	.65	.24	.15	0	0
5	0	0	.24	3.5	.27	.48	6.8	.59	.24	.15	0	0
6	0	0	.21	.91	.25	.43	5.8	.55	.24	.14	.02	0
7	0	0	.21	.25	.24	.40	5.5	.54	.25	.17	.03	0
8	0	0	.18	.17	.24	.37	3.6	.56	.25	.16	0	0
9	0	0	.16	.12	.30	.33	3.7	.66	.24	.15	0	0
10	0	0	.12	.16	7.6	.31	4.3	.58	.23	.13	0	0
11	.52	0	.14	.17	4.7	.68	8.5	.58	.21	.11	0	0
12	.19	0	.14	.17	1.8	1.3	7.3	.55	.22	.10	0	0
13	.16	0	.14	.14	1.4	.60	7.4	.53	.26	.08	0	0
14	.03	0	.14	.12	1.6	4.2	3.6	.52	.24	.07	0	0
15	0	0	.14	.10	1.6	2.4	3.4	.48	.21	.06	0	0
16	0	0	.14	.09	1.5	2.8	3.4	.44	.19	.06	0	0
17	0	0	.19	.08	1.2	29	3.0	.40	.20	.06	0	0
18	0	0	.15	.08	1.0	9.7	2.6	.38	.23	.05	0	0
19	0	0	.13	.08	.88	4.1	2.4	.41	.22	.04	0	0
20	0	0	.13	6.5	.79	3.2	2.1	.35	.20	.03	0	0
21	0	0	.56	2.0	.71	2.3	1.8	.30	.19	.03	0	0
22	0	0	.24	.38	.66	2.4	1.5	.30	.17	.02	0	0
23	0	0	.21	.29	.62	2.6	1.3	.27	.19	.01	0	0
24	0	0	.19	.25	.58	3.0	1.2	.21	.20	.01	0	0
25	0	0	.19	.42	.54	3.1	1.0	.20	.19	.01	0	.01
26	0	.39	.18	.66	.50	5.4	.91	.22	.17	.17	0	8.3
27	0	.74	.16	.58	.47	4.7	.77	.24	.16	.07	0	.62
28	0	1.2	.17	.57	.43	5.5	.73	.25	.17	.05	0	.29
29	0	.46	.16	.45	---	4.6	.72	.25	.21	.03	0	.23
30	0	.31	.39	.38	---	8.4	.67	.24	.20	.02	0	.17
31	0	---	.39	.33	---	5.7	---	.24	---	.01	0	---
TOTAL	.90	3.10	6.24	21.92	31.07	111.54	139.50	13.41	6.44	2.83	.05	9.62
MEAN	.029	.10	.20	.71	1.11	3.60	4.65	.43	.21	.085	.002	.32
MAX	.52	1.2	.56	6.5	7.6	29	19	.66	.26	.18	.03	8.3
MIN	0	0	.12	.08	.24	.31	.67	.20	.16	.01	0	0
AC-FT	1.8	6.1	12	43	62	221	277	27	13	5.2	.10	19
CAL YR 1981	TOTAL	75.22	MEAN .21	MAX 11	MIN 0	AC-FT 149						
WTR YR 1982	TOTAL	346.42	MEAN .95	MAX 29	MIN 0	AC-FT 687						

## 10260640 LAKE GREGORY AT CRESTLINE, CA

LOCATION.--Lat 34°14'35", long 117°16'22", in NE¼NW¼SW¼ 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, 1,970 acre-ft (2.43 hm<sup>3</sup>) Nov. 26, 1981, elevation, 4,515.78 ft (1,376.410 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents recorded, 2,260 acre-ft (2.79 hm<sup>3</sup>) Apr. 11, elevation, 4,519.16 ft (1,377.440 m); minimum, 1,970 acre-ft (2.43 hm<sup>3</sup>) Nov. 26, elevation, 4,515.78 ft (1,376.410 m).

MONTHEND ELEVATION, 1892 DATUM, AND CONTENTS, AT 0800 HRS, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	4,516.20	2,000	--
Oct. 31.....	4,515.97	1,980	-20
Nov. 30.....	4,516.45	2,030	+50
Dec. 31.....	4,516.60	2,040	+10
CAL YR 1981.....	--	--	-60
Jan. 31.....	4,517.18	2,090	+50
Feb. 28.....	4,517.39	2,110	+20
Mar. 31.....	4,517.48	2,110	0
Apr. 30.....	4,518.83	2,230	+120
May 31.....	4,518.73	2,220	-10
June 30.....	4,518.60	2,210	-10
July 31.....	a4,518.18	2,170	-40
Aug. 31.....	4,517.71	2,130	-40
Sept. 30.....	4,517.20	2,090	-40
WTR YEAR 1982.....	--	--	+90

a Estimated.

## 10260650 HOUSTON CREEK BELOW LAKE GREGORY, AT CRESTLINE, CA

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.

DRAINAGE AREA.--2.68 mi<sup>2</sup> (6.94 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 4,440 ft (1,353 m), from topographic map.

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>).

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, 160 ft<sup>3</sup>/s (4.53 m<sup>3</sup>/s) Mar. 17, gage height, 6.27 ft (1.911 m); minimum, no flow Feb. 6-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.30	.10	.18	3.1	1.3	13	2.1	.80	.10	.35	.29
2	.05	.30	.09	.03	3.0	3.3	11	1.7	.78	.09	.52	.25
3	.05	.31	.08	.02	3.0	4.7	10	1.6	.76	.08	.52	.23
4	.05	.30	.08	.02	2.9	2.6	7.8	1.7	.73	.10	.36	.22
5	.06	.29	.08	.69	1.3	1.8	6.6	2.1	.72	.08	.35	.26
6	.07	.28	.07	2.2	.01	1.2	6.2	1.8	.73	.16	.63	.24
7	.08	.28	.07	2.3	.01	.79	5.6	1.8	.53	.10	.63	.23
8	.08	.28	.07	2.1	.01	.68	5.4	1.8	.33	.21	.61	.26
9	.09	.27	.07	1.8	.01	.31	5.2	1.9	.57	.22	.59	.26
10	.09	.27	.07	1.6	10	.34	6.1	1.7	.28	.21	.62	.27
11	.26	.27	.06	1.7	27	1.0	16	1.8	.25	.13	.67	.27
12	.14	.25	.08	.68	8.2	3.8	9.0	1.6	.35	.16	.68	.26
13	.13	.26	.08	.75	4.5	2.8	6.3	1.5	.29	.22	.38	16
14	.13	.27	.07	.49	3.6	15	5.4	1.4	.31	.25	.48	7.7
15	.14	.25	.04	.31	3.0	16	4.9	1.4	.49	.19	.30	3.5
16	.13	.25	.05	.27	2.9	11	4.4	1.3	.32	.45	.15	1.2
17	.14	.25	.06	.19	2.4	73	4.2	1.3	.35	.48	.34	.69
18	.15	.24	.05	.06	1.9	36	3.8	1.2	.25	.47	.24	.47
19	.15	.24	.05	.02	1.6	11	3.5	1.2	.27	.46	.26	.38
20	.15	.28	.05	15	1.2	7.6	3.0	1.2	.18	.26	.28	.34
21	.15	.27	.06	22	.80	6.3	2.4	1.1	.12	.14	.35	.30
22	.15	.25	.04	6.0	.48	6.1	2.3	1.1	.08	.21	.29	.27
23	.16	.27	.04	3.2	.34	6.2	2.8	1.1	.08	.48	.30	.25
24	.17	.28	.04	2.1	.21	6.8	2.6	1.0	.16	.60	.22	.25
25	.17	.26	.03	4.0	.15	7.4	2.3	1.0	.12	.34	.24	.31
26	.18	.54	.02	4.8	.48	11	2.2	.98	.07	.26	.25	32
27	.18	.78	.02	4.2	.73	9.3	2.2	.95	.09	.80	.23	5.0
28	.27	.74	.02	4.2	.34	9.2	2.5	.90	.15	.55	.21	1.8
29	.26	.17	.02	4.3	---	12	2.3	.88	.15	.45	.34	1.2
30	.28	.11	.03	3.6	---	13	2.2	.86	.13	.52	.37	.42
31	.29	---	.02	3.2	---	16	---	.83	---	.51	.33	---
TOTAL	4.45	9.11	1.71	92.01	83.17	297.52	161.2	42.80	10.44	8.88	12.09	75.12
MEAN	.14	.30	.055	2.97	2.97	9.60	5.37	1.38	.35	.29	.39	2.50
MAX	.29	.78	.10	22	27	73	16	2.1	.80	.85	.68	.32
MIN	.05	.11	.02	.02	.01	.31	2.2	.83	.07	.08	.15	.22
AC-FT	8.8	18	3.4	183	165	590	320	65	21	18	24	149

CAL YR 1981 TOTAL 210.50 MEAN .58 MAX 23 MIN .02 AC-FT 418  
WTR YR 1982 TOTAL 798.50 MEAN 2.19 MAX 73 MIN .01 AC-FT 1580

## 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 current year.

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

REMARKS.--Records poor. 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, 1,040 ft<sup>3</sup>/s (29.5 m<sup>3</sup>/s) Mar. 17, gage height, 8.48 ft (2.585 m); no flow for several weeks.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.19	.19	.07	.03	0	203	0	0	.11	.07	0
2	.10	.19	.19	.07	.03	0	196	0	0	.12	.07	0
3	.10	.19	.19	.06	0	0	117	0	0	.12	.06	0
4	.10	.21	.18	.06	0	0	109	0	0	.13	.06	0
5	.13	.23	.18	.06	0	0	49	0	0	.13	.06	0
6	.15	.25	.18	.05	0	0	49	0	0	.13	.07	0
7	.08	.25	.19	.05	0	0	49	3.0	0	.13	.07	0
8	0	.30	.19	.06	0	0	54	68	0	.13	.07	0
9	.07	.30	.19	.06	0	0	66	72	0	.14	.07	.01
10	.11	.32	.18	.06	1.5	0	66	76	.01	.14	.06	.03
11	.14	.17	.16	.06	38	0	66	76	.01	.14	.06	.03
12	.18	0	.16	.06	79	0	66	28	.01	.14	.06	.03
13	.19	0	.16	.06	2.7	0	66	0	.02	.13	.05	.03
14	.19	.01	.15	.06	0	.05	66	0	.02	.13	.05	.03
15	.21	.04	.14	.06	20	34	66	0	.03	.13	.04	.03
16	.21	.03	.14	.06	33	88	66	0	.04	.12	.04	.03
17	.21	0	.13	.06	0	401	2.2	0	.04	.12	.04	.03
18	.21	0	.13	.06	0	570	0	0	.05	.12	.04	.04
19	.25	0	.12	.07	0	264	0	0	.06	.12	.03	.05
20	.11	.01	.12	3.7	0	0	0	0	.06	.10	.01	.05
21	.10	.03	.12	18	0	0	0	0	.07	.10	.01	.05
22	.07	.04	.11	18	0	36	0	0	.07	.09	.01	.05
23	.08	.02	.11	0	0	81	0	0	.08	.08	0	.05
24	.09	.04	.10	0	0	44	0	0	.08	.08	0	.05
25	.10	.06	.10	0	0	0	0	0	.09	.08	0	.06
26	.12	.09	.09	0	0	0	0	0	.09	.08	0	.07
27	.14	.18	.09	0	0	0	0	0	.10	.08	0	.07
28	.15	.23	.09	.03	0	45	0	0	.10	.08	0	.08
29	.16	.18	.08	.04	---	137	0	0	.11	.08	0	.08
30	.18	.18	.08	.03	---	265	0	0	.11	.07	0	.09
31	.18	---	.08	.04	---	316	---	0	---	.07	0	---
TOTAL	4.18	3.74	4.32	40.99	174.26	2281.05	1356.2	323.0	1.25	3.42	1.10	1.04
MEAN	.13	.12	.14	1.32	6.22	73.6	45.2	10.4	.042	.11	.036	.035
MAX	.25	.32	.19	18	79	570	203	76	.11	.14	.07	.09
MIN	0	0	.08	0	0	0	0	0	0	.07	0	0
AC-FT	8.3	7.4	8.6	81	346	4520	2690	641	2.5	6.8	2.2	2.1
CAL YR 1981 TOTAL	402.88			MEAN 1.10	MAX 121	MIN 0	AC-FT 799					
WTR YR 1982 TOTAL	4194.55			MEAN 11.5	MAX 570	MIN 0	AC-FT 8320					

## 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, 3,200 ft<sup>3</sup>/s (90.6 m<sup>3</sup>/s) Mar. 17, gage height, 8.15 ft (2.484 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	10	7.7	365	4.2				
2				0	9.1	7.7	286	4.2				
3				0	8.1	13	212	3.3				
4				0	8.1	9.7	175	3.9				
5				0	8.6	6.5	101	4.4				
6				0	8.1	9.7	88	3.1				
7				0	10	9.7	77	7.5				
8				0	11	9.0	81	47				
9				0	11	7.1	101	46				
10				0	44	7.1	93	43				
11				0	89	9.7	126	44				
12				0	91	14	103	27				
13				0	50	10	81	3.9				
14				0	34	22	72	1.9				
15				0	38	41	71	.94				
16				0	67	111	69	1.4				
17				0	31	1240	26	1.5				
18				0	27	1210	15	.80				
19				0	25	419	13	.57				
20				7.2	24	111	9.3	.47				
21				9.6	17	72	7.2	.20				
22				11	14	95	6.3	.31				
23				3.2	12	230	6.3	.11				
24				3.2	9.7	196	6.1	.02				
25				3.9	8.3	95	6.1	0				
26				2.9	7.1	91	5.6	0				
27				2.9	8.3	73	5.6	0				
28				3.7	8.3	100	5.3	0				
29				3.7	---	200	5.3	0				
30				5.6	---	355	4.2	0				
31		---		8.6	---	280	---	0	---			---
TOTAL	0	0	0	65.5	688.7	5061.9	2222.3	249.72	0	0	0	0
MEAN	0	0	0	2.11	24.6	163	74.1	8.06	0	0	0	0
MAX	0	0	0	11	91	1240	365	47	0	0	0	0
MIN	0	0	0	0	7.1	6.5	4.2	0	0	0	0	0
AC-FT	0	0	0	130	1370	10040	4410	495	0	0	0	0
CAL YR 1981	TOTAL	2079.83	MEAN	5.70	MAX	143	MIN	0	AC-FT	4130		
WTR YR 1982	TOTAL	8288.12	MEAN	22.7	MAX	1240	MIN	0	AC-FT	16440		

## 10261100 MOJAVE RIVER BELOW FORKS RESERVOIR, NEAR HESPERIA, CALIF.

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

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

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, release 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.

AVERAGE DISCHARGE.--5 years (water years 1972-74, 1981-82), 52.7 ft<sup>3</sup>/s (1.492 m<sup>3</sup>/s) 38,180 acre-ft/yr (47.1 hm<sup>3</sup>/yr).

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, no flow for many days in 1981, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,550 ft<sup>3</sup>/s (157 m<sup>3</sup>/s) Mar. 17, gage height, 4.32 ft (1.317 m); minimum, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	1.2	11	3.6	23	46	1080	153	20	6.3	.80	1.2
2	.06	1.4	7.9	5.0	22	57	755	141	17	7.5	.60	1.2
3	.06	1.6	6.8	5.4	17	63	578	136	13	8.5	.50	1.2
4	.05	2.5	6.7	5.0	20	60	569	125	13	7.0	.50	.97
5	.05	3.4	3.9	4.0	19	49	388	183	18	6.1	.40	.84
6	.05	3.1	3.2	20	21	47	335	111	19	6.1	.40	.82
7	.23	3.2	2.9	17	21	38	312	104	19	6.1	.40	.84
8	0	2.4	2.9	7.4	16	55	298	194	17	6.1	.40	.84
9	0	2.4	2.9	4.7	31	44	295	158	14	5.0	.40	.93
10	0	2.5	3.0	5.0	112	31	320	175	15	5.0	.40	1.4
11	0	2.6	3.1	5.1	1260	43	1380	164	15	4.0	.20	1.9
12	.12	2.7	3.2	10	210	89	1230	148	12	2.9	.10	1.7
13	1.0	2.8	3.2	9.3	67	86	657	79	11	2.8	0	1.6
14	1.3	2.8	3.3	9.9	65	99	683	66	14	2.4	0	2.0
15	.93	2.8	3.3	12	119	160	492	66	16	2.0	0	2.2
16	1.5	2.7	3.3	9.4	187	158	378	62	14	1.7	0	2.3
17	1.6	2.7	3.3	7.9	140	2190	299	64	10	1.3	0	2.2
18	1.1	2.7	3.3	8.0	82	2430	314	56	10	1.0	0	2.6
19	.89	2.7	3.4	15	57	639	343	55	10	1.1	0	2.3
20	.81	2.7	3.4	29	57	171	312	44	11	1.1	0	2.0
21	.80	2.7	3.4	29	49	150	218	44	11	.98	0	2.0
22	.81	2.7	3.4	26	54	180	177	43	11	.80	0	2.2
23	.75	2.7	3.4	11	47	287	201	38	11	.60	0	2.4
24	.87	2.7	3.4	14	61	274	243	35	11	.40	0	2.3
25	1.3	2.7	3.4	20	70	203	211	31	10	.40	0	1.7
26	.49	2.8	3.4	30	52	256	210	32	9.9	.80	0	1.1
27	.63	3.1	3.4	38	60	327	177	34	8.1	9.0	.10	2.8
28	.74	19	3.5	38	55	344	169	30	5.0	5.0	.20	4.0
29	1.1	22	3.5	39	---	395	192	30	5.0	2.5	.60	3.1
30	.99	18	3.5	22	---	579	177	28	5.0	2.0	.90	2.8
31	1.1	---	3.5	21	---	657	---	24	---	1.0	1.2	---
TOTAL	19.39	129.3	121.8	480.7	2994	10207	12993	2653	375.0	107.48	8.10	55.44
MEAN	.63	4.31	3.93	15.5	107	329	433	85.6	12.5	3.47	.26	1.85
MAX	1.6	22	11	39	1260	2430	1380	194	20	9.0	1.2	4.0
MIN	0	1.2	2.9	3.6	16	31	169	24	5.0	.40	0	.82
AC-FT	38	256	242	953	5940	20250	25770	5260	744	213	16	110
CAL YR 1981	TOTAL	7086.77	MEAN	19.4	MAX	183	MIN	0	AC-FT	14060		
WTR YR 1982	TOTAL	30144.21	MEAN	82.6	MAX	2430	MIN	0	AC-FT	59790		

LOCATION.--Lat 34°34'23", long 117°19'11", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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.

WATER-DISCHARGE RECORDS

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.

AVERAGE DISCHARGE.--59 years (water years 1900-06, 1931-82), 78.3 ft<sup>3</sup>/s (2.217 m<sup>3</sup>/s), 56,730 acre-ft/yr (69.9 hm<sup>3</sup>/yr).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,330 ft<sup>3</sup>/s (37.7 m<sup>3</sup>/s), Apr. 12, gage height, 6.77 ft (2.063 m); minimum daily, 14 ft<sup>3</sup>/s (0.40 m<sup>3</sup>/s) July 12, 13.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	27	34	33	47	38	394	27	26	21	15	16
2	22	31	35	33	42	38	643	26	26	22	16	17
3	22	29	36	32	41	38	374	26	26	21	17	18
4	21	27	35	32	37	40	293	27	26	21	18	18
5	21	27	35	33	37	46	225	26	25	19	16	17
6	22	28	34	34	37	52	178	25	29	19	16	15
7	22	28	32	33	39	53	156	26	24	19	18	15
8	21	30	32	33	42	53	146	27	24	19	18	16
9	20	32	33	33	35	52	132	29	24	18	17	17
10	21	30	33	35	40	53	129	30	24	17	19	19
11	21	30	32	37	42	55	200	32	22	17	18	19
12	26	30	32	38	37	57	862	31	25	14	18	19
13	24	30	32	36	36	55	547	30	22	14	19	21
14	24	33	32	33	37	55	396	27	25	17	16	21
15	23	36	32	33	37	57	343	26	21	18	16	21
16	23	36	33	33	38	61	293	29	19	19	16	21
17	23	37	33	33	37	120	247	29	18	18	18	22
18	23	37	33	34	37	725	181	29	21	18	18	23
19	27	36	32	38	37	253	164	34	19	18	18	21
20	26	35	33	55	38	123	151	35	19	16	20	21
21	25	34	33	56	39	52	132	32	19	16	22	21
22	24	35	34	50	39	47	112	35	19	16	23	21
23	24	37	35	47	37	44	89	28	20	16	23	20
24	26	37	34	53	37	41	82	30	19	16	22	18
25	24	37	35	50	37	36	76	27	19	17	26	18
26	26	35	37	56	38	39	89	27	21	16	28	19
27	24	38	36	47	38	41	65	27	21	15	18	20
28	26	37	36	46	38	39	55	29	20	15	18	23
29	24	37	38	56	---	40	39	27	19	16	17	21
30	25	35	37	52	---	67	27	27	20	15	16	24
31	26	---	36	52	---	172	---	26	---	15	16	---
TOTAL	729	991	1054	1266	1076	2642	6820	886	662	538	576	582
MEAN	23.5	33.0	34.0	40.8	38.4	85.2	227	28.6	22.1	17.4	18.6	19.4
MAX	27	38	38	56	47	725	862	35	29	22	28	24
MIN	20	27	32	32	35	36	27	25	18	14	15	15
AC-FT	1450	1970	2090	2510	2130	5240	13530	1760	1310	1070	1140	1150
CAL YR 1981	TOTAL	10782	MEAN 29.5	MAX 80	MIN 12	AC-FT 21390						
WTR YR 1982	TOTAL	17822	MEAN 48.8	MAX 862	MIN 14	AC-FT 35350						

## MOJAVE RIVER BASIN

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 1975-81.

SPECIFIC CONDUCTANCE: Water years 1975 to current year.

WATER TEMPERATURES: Water years 1962-65, 1975 to current year.

SEDIMENT RECORDS: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1975 to September 1981.

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.

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.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD 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- TOCOCCI FECAL, KF AGAR (COLS. PER AS CAC03)	HARD- NESS (MG/L CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
NOV 18...	1200	37	460	8.3	15.5	2.9	7.8	K24	150	141	0
JAN 21...	1330	52	430	8.2	8.5	3.0	11.7	24	K790	126	0
MAR 05...	1045	42	440	8.3	13.0	.80	10.1	K9	74	127	0
MAY 21...	1300	32	435	8.0	23.0	1.6	7.3	28	100	127	0
JUL 29...	1035	17	440	8.0	29.0	1.6	6.8	55	160	130	0
SEP 23...	1300	21	405	7.9	25.5	.90	5.8	43	93	135	0

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)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 18...	43	8.2	40	37	1.5	3.4	--	160	41	25	.5
JAN 21...	38	7.5	37	38	1.5	4.8	150	--	30	24	.4
MAR 05...	38	7.9	39	39	1.6	3.0	150	--	33	22	.5
MAY 21...	38	7.8	38	39	1.5	3.7	140	--	35	24	.4
JUL 29...	39	7.9	45	42	1.8	4.3	140	--	37	26	.4
SEP 23...	40	8.4	42	40	1.6	3.5	150	--	41	24	.4

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (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)
NOV 18...	26	274	283 <sup>1</sup>	.37	.95	.53	.80	.23	.24	.21
JAN 21...	23	247	249	.34	1.4	.42	1.0	.15	.12	.11
MAR 05...	23	253	257	.34	1.0	.26	.68	.13	.12	.11
MAY 21...	24	258	255	.35	1.2	.27	.90	.34	.27	.13
JUL 29...	26	274	282	.37	1.4	.23	1.3	.21	.17	.14
SEP 23...	26	275	274	.37	1.3	.29	1.5	.20	.18	.18

<sup>K</sup> Results based on colony count outside the acceptable range (non-ideal colony count).<sup>1</sup> Results based on Laboratory Alkalinity value.



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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
NOV 18...	1200	4	4	100	49	<1	<1	<10	<10	<1
JAN 21...	1330	2	1	<100	45	<1	<1	10	<10	<1
MAR 05...	1045	2	2	<100	43	<1	<1	10	<10	<1
MAY 21...	1300	2	2	100	44	1	<3	<10	<10	<1
SEP 23...	1300	3	3	100	46	<1	<1	<10	<10	<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)
NOV 18...	<3	8	2	760	48	3	<1	30	13	.6
JAN 21...	<3	5	1	620	69	1	1	30	9	.2
MAR 05...	<3	20	2	330	27	2	2	40	9	.3
MAY 21...	<1	8	2	280	11	8	7	20	3	.1
SEP 23...	<1	2	1	360	9	<1	<1	50	4	.1

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)
NOV 18...	<.1	<1	1	<1	<1	<1	<1	20	<3
JAN 21...	.1	<1	3	<1	<1	<1	1	40	5
MAR 05...	.2	<1	<1	<1	<1	<1	<1	20	<3
MAY 21...	.2	3	<1	<1	<1	1	1	10	13
SEP 23...	.2	<1	<1	<1	<1	<1	<1	80	7

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

## 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.--Records poor. 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.--14 years, (water years 1931-32, 1971-82), 42.2 ft<sup>3</sup>/s (1.195 m<sup>3</sup>/s), 30,600 acre-ft/yr (37.7 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.--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)	
Mar. 18	Unknown	1,060	30.0	6.72	2.048
Apr. 1	2030	1,350	38.2	6.81	2.076
Apr. 12	2245	*1,540	43.6	6.86	2.091

Minimum, no flow for many months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	272					
2						0	901					
3						0	250					
4						0	150					
5						0	125					
6						0	98					
7						0	25					
8						0	3.1					
9						0	2.0					
10						0	1.5					
11						0	4.8					
12						0	443					
13						0	547					
14						0	350					
15						0	384					
16						0	402					
17						25	402					
18						150	170					
19						12	88					
20						1.0	98					
21						0	54					
22						0	59					
23						0	37					
24						0	25					
25						0	13					
26						0	12					
27						0	12					
28						0	9.1					
29					---	0	2.5					
30					---	0	0					
31		---			---	0	---		---			---
TOTAL	0	0	0	0	0	188.0	4940.0	0	0	0	0	0
MEAN	0	0	0	0	0	6.06	165	0	0	0	0	0
MAX	0	0	0	0	0	150	901	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	373	9800	0	0	0	0	0
CAL YR 1981	TOTAL	0.00	MEAN	.000	MAX	.00	MIN	0	AC-FT	0		
WTR YR 1982	TOTAL	5128.00	MEAN	14.0	MAX	901	MIN	0	AC-FT	10170		

10262500 MOJAVE RIVER AT BARSTOW, CA

LOCATION.--Lat 34°54'25", long 117°01'19", in SE¼SW¼SW¼ 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.--Records good. 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.--52 years, 24.7 ft<sup>3</sup>/s (0.700 m<sup>3</sup>/s), 17,900 acre-ft/yr (22.1 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 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 most months each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft<sup>3</sup>/s (0.37 m<sup>3</sup>/s) July 26, gage height, 1.26 ft (0.384 m); no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										0		
2										0		
3										0		
4										0		
5										0		
6										0		
7										0		
8										0		
9										0		
10										0		
11										0		
12										0		
13										0		
14										0		
15										0		
16										0		
17										0		
18										0		
19										0		
20										0		
21										0		
22										0		
23										0		
24										0		
25										0		
26										.60		
27										0		
28										0		
29					---					0		
30					---					0		
31		---			---		---		---	0		---
TOTAL	0	0	0	0	0	0	0	0	0	.60	0	0
MEAN	0	0	0	0	0	0	0	0	0	.019	0	0
MAX	0	0	0	0	0	0	0	0	0	.60	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	1.2	0	0
CAL YR 1981	TOTAL	0.00	MEAN	.0000	MAX	.00	MIN	0	AC-FT	.0		
WTR YR 1982	TOTAL	0.60	MEAN	.0020	MAX	.60	MIN	0	AC-FT	1.2		

## 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 reservoirs 100 mi (160 km) upstream (see station 10261500).

AVERAGE DISCHARGE.--31 years (water years 1930-32, 1953-78, 1981-82), 6.84 ft<sup>3</sup>/s (0.194 m<sup>3</sup>/s), 4,960 acre-ft/yr (6.12 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.--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 1.45 ft<sup>3</sup>/s (0.041 m<sup>3</sup>/s) on basis of slope-conveyance study:

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)
Oct. 1	1930	247 7.00	4.88 1.487	Aug. 25	1630	*367 10.4	5.25 1.600
Aug. 23	2000	164 4.64	4.54 1.384	Aug. 27	1945	205 5.81	4.72 1.439

Minimum daily, 0.37 ft<sup>3</sup>/s (0.010 m<sup>3</sup>/s) Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	1.2	1.3	.97	1.4	1.6	2.5	1.2	.97	.67	.39	.89
2	14	1.3	1.2	.97	1.5	1.8	2.0	1.2	.97	.74	.37	.89
3	1.4	1.2	1.2	.97	1.5	1.6	1.9	1.3	.97	.67	.39	.89
4	1.4	1.3	1.2	.97	1.5	1.6	1.8	1.3	.97	.67	.39	.89
5	1.4	1.2	1.2	1.1	1.5	1.6	1.8	1.4	.97	.67	.44	.89
6	1.4	1.2	1.2	.97	1.5	1.6	1.7	1.4	.97	.54	.49	.89
7	1.3	1.2	1.2	.97	1.5	1.7	1.8	1.4	.89	.60	.54	.89
8	1.3	1.1	1.2	1.1	1.6	1.7	1.8	1.3	.89	.67	.49	.89
9	1.3	1.1	1.2	1.1	1.9	1.7	1.7	1.3	.89	.67	.44	.89
10	1.3	1.2	1.2	1.2	1.6	1.7	1.5	1.4	.89	.67	.44	.81
11	1.3	1.2	1.2	1.1	1.5	1.7	1.5	1.4	.89	.60	.44	.97
12	1.3	1.2	1.2	1.1	1.5	1.7	1.5	1.3	.81	.60	.49	.97
13	1.3	1.1	1.2	1.1	1.6	1.7	1.4	1.3	.74	.54	.54	.97
14	1.3	1.2	1.2	1.1	1.7	1.8	1.4	1.2	.74	.44	.54	.97
15	1.3	1.2	1.2	1.1	1.8	1.7	1.4	1.3	.74	.44	.60	1.1
16	1.2	1.2	1.2	1.1	1.7	1.6	1.5	1.3	.74	.44	.60	1.3
17	1.2	1.2	1.2	1.1	1.7	1.8	1.5	1.4	.67	.44	.67	1.3
18	1.2	1.2	1.3	1.1	1.6	1.9	1.5	1.2	.67	.44	.74	1.3
19	1.2	1.3	1.3	1.1	1.5	1.7	1.4	1.1	.67	.44	.74	1.3
20	1.2	1.3	1.3	1.5	1.5	1.7	1.4	.97	.74	.44	.74	1.1
21	1.2	1.3	1.1	2.0	1.5	1.8	1.4	.97	.74	.44	.67	1.1
22	1.2	1.3	.97	1.6	1.5	1.9	1.4	.97	.67	.44	.60	.97
23	1.2	1.3	1.1	1.5	1.5	1.9	1.3	1.3	.74	.49	9.1	.97
24	1.2	1.2	1.1	1.5	1.5	2.0	1.3	1.2	.81	.54	1.2	.97
25	1.1	1.3	1.1	1.5	1.5	2.2	1.3	1.1	.81	2.5	14	1.1
26	1.1	1.3	1.1	1.5	1.5	2.2	1.2	1.1	.81	.60	1.4	.97
27	1.1	1.4	1.1	1.5	1.5	2.2	1.2	1.1	.67	.49	29	1.3
28	1.1	1.4	1.1	1.4	1.5	2.0	1.2	1.2	.74	.44	3.9	1.2
29	1.1	1.3	1.1	1.4	---	1.9	1.2	1.1	.74	.39	1.1	1.1
30	1.1	1.3	1.1	1.4	---	1.9	1.2	1.1	.74	.39	1.0	1.1
31	1.1	---	1.1	1.4	---	1.8	---	.97	---	.39	.97	---
TOTAL	88.8	37.2	36.37	38.42	43.6	55.7	45.7	37.78	24.26	18.50	73.42	30.88
MEAN	2.86	1.24	1.17	1.24	1.56	1.80	1.52	1.22	.81	.60	2.37	1.03
MAX	39	1.4	1.3	2.0	1.9	2.2	2.5	1.4	.97	2.5	29	1.3
MIN	1.1	1.1	.97	.97	1.4	1.6	1.2	.97	.67	.39	.37	.81
AC-FT	176	74	72	76	86	110	91	75	48	37	146	61

CAL YR 1981 TOTAL 670.83 MEAN 1.84 MAX 39 MIN .88 AC-FT 1330  
WTR YR 1982 TOTAL 530.63 MEAN 1.45 MAX 39 MIN .37 AC-FT 1050

## 10263500 BIG ROCK CREEK NEAR VALVERMO, CA

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 Valyermo.

DRAINAGE AREA.--22.9 mi<sup>2</sup> (59.3 km<sup>2</sup>).

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.

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

AVERAGE DISCHARGE.--59 years (water years 1924-82), 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).

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.--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. 17	1500	60	1.70	2.60	0.792
Apr. 1	0915	100	2.83	2.78	.847
Apr. 11	1545	*484	13.7	3.66	1.116

Minimum daily, 2.1 ft<sup>3</sup>/s (0.059 m<sup>3</sup>/s) Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.4	2.7	3.2	4.3	7.0	56	43	21	15	10	9.5
2	2.9	2.4	2.7	3.2	4.1	7.1	41	43	21	14	10	9.5
3	2.8	2.3	2.7	3.1	4.0	7.2	37	41	21	14	10	9.2
4	2.7	2.3	2.6	3.2	4.0	7.3	35	43	20	15	9.9	9.5
5	2.6	2.3	2.6	3.6	3.9	7.3	35	41	20	15	9.8	9.1
6	2.6	2.4	2.6	3.4	3.9	7.2	33	37	20	15	9.8	7.4
7	2.7	2.4	2.5	3.3	4.0	7.2	31	34	19	15	9.7	8.0
8	2.9	2.4	2.6	3.2	4.0	7.1	28	33	19	16	9.7	9.1
9	2.2	2.4	2.5	3.4	4.0	7.0	27	31	19	15	9.7	10
10	2.2	2.4	2.5	3.4	4.8	6.9	34	29	19	15	9.2	10
11	2.2	2.5	2.5	3.4	5.5	7.9	194	29	18	16	9.2	10
12	2.2	2.5	2.6	3.4	5.9	15	129	27	18	16	9.2	9.8
13	2.2	2.5	2.7	3.3	5.6	11	81	25	19	15	9.7	9.6
14	2.2	2.6	2.7	3.2	5.5	15	70	24	19	15	10	9.5
15	2.2	2.6	2.7	3.2	6.2	15	64	24	19	15	8.5	9.4
16	2.2	2.6	2.8	3.2	8.0	16	58	23	18	15	8.5	9.5
17	2.2	2.6	2.8	3.6	8.0	30	53	21	17	15	8.5	9.4
18	2.2	2.6	2.8	4.4	7.0	24	51	22	17	15	8.7	9.9
19	2.1	2.5	2.8	5.5	6.4	21	53	22	17	15	8.7	9.5
20	2.2	2.5	2.8	11	6.0	20	53	22	18	15	8.5	9.3
21	2.2	2.5	2.8	5.0	5.8	19	47	22	18	15	8.5	9.0
22	2.2	2.5	2.8	3.7	5.8	20	43	22	18	15	8.2	8.9
23	2.2	2.6	2.9	3.4	6.0	21	40	21	17	15	8.2	8.7
24	2.2	2.6	3.0	4.1	6.2	22	40	21	17	14	8.5	8.7
25	2.3	2.6	3.0	5.2	6.4	24	41	22	16	13	10	8.7
26	2.3	2.6	3.1	5.2	6.4	28	41	22	16	14	12	8.7
27	2.5	2.8	3.1	5.2	6.6	32	41	22	16	14	11	8.7
28	2.6	3.3	3.1	5.3	6.7	35	43	22	15	14	10	8.5
29	2.5	2.9	3.1	4.8	---	31	43	21	15	13	10	8.4
30	2.4	2.8	3.1	4.6	---	27	43	21	15	11	9.7	8.5
31	2.4	---	3.1	4.4	---	24	---	21	---	11	9.7	---
TOTAL	74.3	76.4	86.3	128.1	155.0	529.2	1585	851	542	450	293.1	274.0
MEAN	2.40	2.55	2.78	4.13	5.54	17.1	52.8	27.5	18.1	14.5	9.45	9.13
MAX	3.0	3.3	3.1	11	8.0	35	194	43	21	16	12	10
MIN	2.1	2.3	2.5	3.1	3.9	6.9	27	21	15	11	8.2	7.4
AC-FT	147	152	171	254	307	1050	3140	1690	1080	893	581	543
CAL YR 1981	TOTAL	2094.5	MEAN	5.74	MAX	15	MIN	2.1	AC-FT	4150		
WTR YR 1982	TOTAL	5044.4	MEAN	13.8	MAX	194	MIN	2.1	AC-FT	10010		

## 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.--25 years, 0.97 ft<sup>3</sup>/s (0.027 m<sup>3</sup>/s), 703 acre-ft/yr (867,000 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, 1.4 ft<sup>3</sup>/s (0.04 m<sup>3</sup>/s) June 2, gage height, 1.53 ft (0.466 m); minimum daily, 0.04 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Oct. 3-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.06	.15	.13	.29	.27	1.0	.56	1.1	.88	.20	.11
2	.05	.06	.12	.16	.29	.29	.86	.56	1.1	.78	.20	.11
3	.04	.06	.13	.15	.32	.29	.73	.58	1.1	.70	.21	.11
4	.04	.06	.13	.18	.30	.29	.59	.63	1.1	.70	.23	.10
5	.04	.06	.14	.31	.31	.29	.55	.64	1.1	.71	.22	.10
6	.04	.06	.11	.27	.29	.30	.55	.63	1.1	.70	.23	.10
7	.04	.06	.11	.25	.30	.31	.57	.65	1.2	.66	.24	.11
8	.04	.06	.16	.23	.28	.31	.57	.67	1.1	.63	.23	.12
9	.04	.06	.14	.25	.29	.31	.56	.73	1.1	.61	.20	.15
10	.04	.05	.14	.24	.32	.34	.54	.77	1.1	.53	.20	.14
11	.05	.05	.12	.25	.33	.43	.62	.86	1.0	.51	.20	.13
12	.05	.06	.12	.24	.29	.44	.55	.86	1.0	.47	.19	.12
13	.06	.06	.08	.23	.29	.38	.55	.85	1.0	.41	.17	.12
14	.06	.08	.08	.25	.30	.56	.56	.89	1.0	.39	.19	.13
15	.06	.07	.08	.27	.28	.52	.57	.89	.93	.38	.18	.15
16	.06	.07	.08	.24	.28	.52	.57	.87	.90	.39	.17	.17
17	.06	.06	.08	.26	.28	.69	.57	.88	.91	.39	.16	.17
18	.06	.06	.09	.27	.27	.62	.56	.95	.97	.38	.15	.20
19	.06	.07	.09	.28	.28	.65	.56	.97	.92	.37	.14	.18
20	.06	.07	.08	.31	.28	.66	.52	.97	.94	.35	.13	.17
21	.06	.07	.08	.30	.27	.65	.54	.97	.90	.34	.14	.14
22	.06	.08	.08	.27	.26	.63	.56	.95	.84	.32	.13	.13
23	.06	.07	.08	.25	.27	.61	.55	.96	.85	.30	.11	.12
24	.06	.08	.08	.26	.28	.62	.54	.94	.84	.28	.11	.14
25	.06	.09	.08	.28	.25	.63	.56	.95	.85	.28	.13	.18
26	.06	.15	.08	.31	.26	.61	.56	.94	.78	.32	.14	.20
27	.07	.18	.08	.29	.27	.61	.56	.99	.74	.36	.13	.21
28	.06	.18	.08	.30	.27	.71	.57	1.0	.76	.32	.14	.21
29	.06	.18	.10	.30	---	.81	.57	1.0	.88	.27	.15	.21
30	.06	.12	.08	.30	---	.77	.56	1.0	.94	.24	.14	.21
31	.06	---	.08	.29	---	.73	---	1.1	---	.21	.13	---
TOTAL	1.69	2.44	3.13	7.92	8.00	15.85	17.72	26.21	29.05	14.18	5.29	4.44
MEAN	.055	.081	.10	.26	.29	.51	.59	.85	.97	.46	.17	.15
MAX	.07	.18	.16	.31	.33	.81	1.0	1.1	1.2	.88	.24	.21
MIN	.04	.05	.08	.13	.25	.27	.52	.56	.74	.21	.11	.10
AC-FT	3.4	4.8	6.2	16	16	31	35	52	58	88	10	8.8

CAL YR 1981 TOTAL 155.24 MEAN .43 MAX 2.8 MIN .02 AC-FT 308  
WTR YR 1982 TOTAL 135.92 MEAN .37 MAX 1.2 MIN .04 AC-FT 270

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

LOCATION.--Lat 37°20'59", long 118°27'41", in SE¼SE¼ 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> (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).--47 years, 100 ft<sup>3</sup>/s (2.832 m<sup>3</sup>/s), 72,450 acre-ft/yr (89.3 hm<sup>3</sup>/yr).  
(Natural flow).--47 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, 1,070 ft<sup>3</sup>/s (30.3 m<sup>3</sup>/s) Sept. 26, 1982; 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, 1,070 ft<sup>3</sup>/s (30.3 m<sup>3</sup>/s) Sept. 26; minimum daily, 59 ft<sup>3</sup>/s (1.67 m<sup>3</sup>/s) Feb. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	86	91	89	66	64	106	156	205	219	297	212
2	87	87	87	88	61	64	103	165	199	200	279	188
3	87	86	61	87	68	76	99	213	195	195	260	177
4	87	86	90	88	63	97	105	250	192	194	240	166
5	87	86	85	89	63	98	102	185	190	196	225	162
6	87	85	87	87	63	98	101	163	189	197	214	158
7	88	86	89	86	65	100	98	160	186	198	211	154
8	87	86	86	84	61	100	101	164	188	214	231	149
9	87	86	90	81	65	99	101	164	196	214	259	148
10	87	86	86	79	64	101	101	163	203	220	257	151
11	87	86	88	77	64	100	174	166	211	208	242	150
12	87	86	86	77	64	101	105	164	217	204	229	151
13	88	90	88	74	64	99	102	161	220	227	223	151
14	88	98	87	77	64	101	107	163	213	229	218	148
15	88	89	87	76	59	101	100	161	223	233	212	148
16	87	90	87	77	79	102	103	161	232	241	204	149
17	88	93	89	77	66	104	101	170	236	280	199	142
18	87	99	86	78	65	103	103	176	253	295	197	142
19	86	100	86	78	64	103	103	174	274	287	199	142
20	87	99	88	77	63	103	107	178	275	280	204	136
21	87	97	87	68	63	102	126	186	275	269	205	143
22	86	96	87	63	63	102	135	199	271	274	216	143
23	86	91	87	61	64	102	134	205	263	290	290	135
24	86	91	88	61	62	102	134	214	272	318	408	149
25	89	91	88	61	61	103	130	214	251	320	367	254
26	86	90	87	61	64	101	136	228	241	317	329	1070
27	86	91	87	61	63	102	137	233	241	312	298	750
28	86	95	86	61	61	104	142	224	256	301	310	454
29	86	97	87	60	---	102	150	219	244	294	301	315
30	85	93	86	60	---	103	148	212	224	300	271	232
31	86	---	87	60	---	104	---	208	---	301	240	---
TOTAL	2693	2722	2681	2303	1792	3041	3494	5799	6835	7827	7835	6769
MEAN	86.9	90.7	86.5	74.3	64.0	98.1	116	187	228	252	253	226
MAX	89	100	91	89	79	104	174	250	275	320	408	1070
MIN	85	85	61	60	59	64	98	156	186	194	197	135
AC-FT	5340	5400	5320	4570	3550	6030	6930	11500	13560	15520	15540	13430
a	2920	3100	2690	3180	2370	2820	4620	12170	20060	22170	14670	12320

CAL YR 1981 TOTAL 33878 MEAN 92.8 MAX 136 MIN 59 AC-FT 67200  
WTR YR 1982 TOTAL 53791 MEAN 147 MAX 1070 MIN 59 AC-FT 106700 a 103100

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, 892 ft<sup>3</sup>/s (25.3 m<sup>3</sup>/s) Sept. 29; minimum daily, 14 ft<sup>3</sup>/s (0.40 m<sup>3</sup>/s) Oct. 15, Mar. 13-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	648	766	670	629	613	715	828	508	428	530	698	684
2	654	737	635	632	613	752	831	508	452	556	698	681
3	659	718	624	632	616	749	846	508	452	558	695	665
4	665	701	627	629	608	746	852	505	454	556	695	651
5	654	692	629	632	360	746	849	503	456	556	695	648
6	438	684	632	632	178	746	846	508	454	553	695	648
7	287	684	635	632	180	749	849	498	452	556	695	645
8	273	687	637	503	389	766	843	493	471	576	692	645
9	102	690	637	407	632	795	840	495	500	605	659	648
10	19	684	605	410	651	787	843	498	498	603	624	651
11	20	687	582	520	678	453	724	500	498	603	566	648
12	21	690	584	621	681	15	697	503	495	600	528	651
13	21	690	579	619	681	14	752	503	495	600	525	651
14	17	692	576	624	678	14	755	505	498	600	525	648
15	14	706	579	627	684	14	755	505	495	600	523	645
16	15	715	582	624	684	14	752	508	493	603	579	648
17	16	706	582	621	684	14	749	508	490	643	621	648
18	16	715	576	619	684	14	746	535	490	640	619	648
19	17	718	579	624	681	15	749	553	490	645	624	648
20	17	718	584	627	687	15	691	550	495	698	637	651
21	163	718	582	624	684	16	648	548	495	695	645	651
22	566	720	579	621	687	16	645	548	468	695	645	654
23	766	720	582	624	684	16	645	548	445	695	643	651
24	769	723	584	627	684	15	645	545	447	692	659	651
25	772	687	584	621	684	15	651	523	447	692	676	548
26	766	670	587	616	681	15	571	498	449	690	678	385
27	772	673	589	621	676	388	508	449	449	690	681	466
28	766	673	584	627	676	793	508	401	466	692	681	704
29	760	678	582	629	---	793	505	403	495	695	681	892
30	758	676	611	624	---	784	505	403	495	695	681	798
31	760	---	629	619	---	816	---	405	---	698	681	---
TOTAL	12191	21018	18627	18717	17118	11800	21628	15465	14212	19510	19944	19452
MEAN	393	701	601	604	611	381	721	499	474	629	643	648
MAX	772	766	670	632	687	816	852	553	500	698	698	892
MIN	14	670	576	407	178	14	505	401	428	530	523	385
AC-FT	24180	41690	36950	37130	33950	23410	42900	30670	28190	38700	39560	38580
CAL YR 1981 TOTAL	203924.0			MEAN 559	MAX 840	MIN	9.0	AC-FT 404500				
WTR YR 1982 TOTAL	209682.0			MEAN 574	MAX 892	MIN	14	AC-FT 415900				



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 1975-81.

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.

WATER TEMPERATURES: February 1975 to September 1981.

INSTRUMENTATION.--Specific-conductance recorder from May 1975 to September 1981. Temperature recorder from February 1975 to September 1981.

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.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD 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 AS CAC03)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L CAC03)
NOV 17...	1425	723	337	8.2	10.5	11	9.5	46	170	75	0
JAN 20...	1500	627	334	8.4	3.0	5.8	10.4	K12	64	71	0
MAR 30...	1430	784	315	8.6	9.5	6.0	11.4	1	64	65	0
MAY 20...	1330	553	270	8.0	17.0	4.9	11.8	10	38	61	0
JUL 28...	1530	690	180	7.8	23.0	14	7.2	K8	K170	47	0
SEP 22...	1335	654	240	8.2	18.0	.70	12.0	K3	--	59	0

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)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 17...	23	4.2	32	46	1.7	4.7	--	100	25	15	.7
JAN 20...	22	3.9	37	51	2.0	4.0	120	--	25	13	.7
MAR 30...	19	4.2	36	53	2.0	4.0	110	--	19	17	.7
MAY 20...	19	3.2	30	50	1.7	3.5	94	--	9.0	11	.7
JUL 28...	15	2.2	17	43	1.1	2.7	62	--	12	5.7	.4
SEP 22...	19	2.9	24	45	1.4	3.1	90	--	15	9.4	.5

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (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)
NOV 17...	22	196	187 <sup>1</sup>	.27	.14	.17	.37	.07	.05	.07
JAN 20...	25	191	197	.26	<.09	.12	.51	.06	.07	.07
MAR 30...	25	194	191	.26	<.10	.09	.69	.05	.03	.05
MAY 20...	22	160	156	.22	--	--	--	--	--	--
JUL 28...	15	109	112	.15	<.10	.07	.90	.11	.05	.04
SEP 22...	21	147	144	.20	<.10	<.06	1.0	.10	.08	.05

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

<sup>1</sup> Results based on Laboratory Alkalinity value.

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

## OWENS LAKE BASIN

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

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
NOV 17...	1425	33	30	100	21	<1	<1	<10	<10	<1
JAN 20...	1500	29	30	<100	24	<1	<1	10	<10	<1
MAY 20...	1330	23	23	<100	17	<1	<3	<10	<10	<1
SEP 22...	1335	25	25	<100	14	<1	<1	<10	<10	<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)
NOV 17...	<3	36	7	1100	33	7	2	40	12	.3
JAN 20...	<3	42	4	680	23	12	2	30	7	.3
MAY 20...	<1	15	3	490	30	12	5	20	3	.2
SEP 22...	<1	11	5	590	14	7	3	40	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 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 17...	<.1	2	<1	<1	<1	<1	<1	20	<3
JAN 20...	.5	1	3	<1	<1	<1	1	40	6
MAY 20...	.1	5	<1	<1	<1	<1	<1	--	17
SEP 22...	.1	<1	<1	<1	<1	<1	<1	30	<3

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

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 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 1981 TO SEPTEMBER 1982

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
Oct. 7	6,371.84	Jan. 6	6,371.69	Apr. 8	6,371.99	July 7	6,372.03
14	6,371.77	13	6,371.71	15	6,372.11	15	6,372.14
21	6,371.74	20	6,371.67	21	6,372.18	21	6,372.22
28	6,371.71	28	6,371.67	28	6,372.17	28	6,372.29
Nov. 4	6,371.72	Feb. 4	6,371.70	May 5	6,372.15	Aug. 4	6,372.31
13	6,371.71	17	6,371.93	12	6,372.12	11	6,372.31
18	6,371.81	24	6,371.93	19	6,372.09	18	6,372.27
25	6,371.79	Mar. 3	6,371.96	26	6,372.05	26	6,372.33
Dec. 2	6,371.72	10	6,371.99	June 2	6,371.97	Sept. 1	6,372.39
9	6,371.70	17	6,371.97	9	6,371.91	8	6,372.39
17	6,371.63	24	6,371.96	16	6,371.87	15	6,372.31
30	6,371.63	31	6,371.93	23	6,371.94	22	6,372.31
				30	6,371.99	30	6,372.39

## MONO LAKE BASIN

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

LOCATION.--Lat 38°01'58", long 119°12'53", in SE4NE4 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> (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 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).--41 years, 28.8 ft<sup>3</sup>/s (0.816 m<sup>3</sup>/s) 20,870 acre-ft/yr (25.7 hm<sup>3</sup>/yr).  
(Natural flow).--41 years, 30.5 ft<sup>3</sup>/s (0.864 m<sup>3</sup>/s) 22,100 acre-ft/yr (27.2 hm<sup>3</sup>/yr).

EXTREMES (ACTUAL FLOW) FOR PERIOD OF RECORD (SINCE 1970).--Maximum daily discharge, 188 ft<sup>3</sup>/s (5.32 m<sup>3</sup>/s) July 28, 1982; no flow many days in 1971 and 1974.

EXTREMES (ACTUAL FLOW) FOR CURRENT YEAR.--Maximum daily discharge, 188 ft<sup>3</sup>/s (5.32 m<sup>3</sup>/s) July 28; minimum daily, 8.8 ft<sup>3</sup>/s (0.25 m<sup>3</sup>/s) Oct. 1-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	10	10	16	10	17	18	51	64	124	123	87
2	8.8	10	11	16	10	17	14	51	64	123	105	85
3	8.8	10	11	16	10	17	9.6	51	65	106	92	84
4	8.8	10	11	16	10	17	9.6	51	65	92	91	83
5	8.8	10	11	16	10	17	9.6	55	65	86	91	84
6	9.2	10	11	16	10	17	10	57	65	81	90	82
7	9.6	10	11	16	11	17	11	57	65	82	90	81
8	9.6	10	11	16	11	17	11	57	65	82	90	80
9	9.6	10	12	16	11	17	11	58	66	83	90	79
10	9.6	10	12	16	11	17	11	58	68	83	90	77
11	9.6	10	12	16	11	17	27	58	69	84	90	76
12	9.6	10	12	16	11	17	39	58	70	102	89	75
13	9.6	13	12	16	11	17	39	58	71	127	89	75
14	9.6	18	12	16	11	17	39	58	72	140	88	74
15	9.6	18	12	16	11	17	42	58	73	140	87	73
16	9.6	18	12	16	11	17	39	58	74	141	87	73
17	9.6	19	11	16	12	18	39	58	107	141	86	72
18	9.6	19	11	16	15	18	39	58	144	140	86	71
19	9.6	19	11	16	15	18	46	58	160	116	85	70
20	9.6	19	11	16	15	18	44	58	170	101	84	69
21	9.6	19	12	16	15	18	42	58	166	103	84	68
22	9.6	19	14	16	15	32	19	57	165	104	84	68
23	9.6	13	14	16	16	49	13	58	165	106	85	67
24	9.8	11	15	16	17	49	9.8	58	139	122	85	67
25	10	11	15	16	17	49	9.8	57	119	135	87	67
26	10	11	15	16	17	44	17	58	120	139	87	68
27	10	11	15	16	17	39	20	59	121	162	87	70
28	10	11	15	16	17	39	32	60	123	188	87	71
29	10	10	15	16	---	39	46	62	124	175	88	71
30	10	10	16	13	---	38	51	62	124	141	87	71
31	10	---	16	10	---	24	---	63	---	125	88	---
TOTAL	296.2	389	389	487	358	764	767.4	1778	3028	3674	2772	2238
MEAN	9.55	13.0	12.5	15.7	12.8	24.6	25.6	57.4	101	119	89.4	74.6
MAX	10	19	16	16	17	49	51	63	170	188	123	87
MIN	8.8	10	10	10	10	17	9.6	51	64	81	84	67
AC-FT	588	772	772	966	710	1520	1520	3530	6010	7290	5500	4440
a	654	820	890	849	864	865	1580	4740	7320	7930	5450	3530

CAL YR 1981 TOTAL 8354.9 MEAN 22.9 MAX 71 MIN 8.1 AC-FT 16570  
WTR YR 1982 TOTAL 16940.6 MEAN 46.4 MAX 188 MIN 8.8 AC-FT 33600 a 35500

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> (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).--31 years, 55.8 ft<sup>3</sup>/s (1.580 m<sup>3</sup>/s), 40,430 acre-ft/yr (49.9 hm<sup>3</sup>/yr). (Natural flow).--31 years, 60.2 ft<sup>3</sup>/s (1.705 m<sup>3</sup>/s), 43,610 acre-ft/yr (53.8 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, 287 ft<sup>3</sup>/s (8.13 m<sup>3</sup>/s) July 28; minimum daily, 15 ft<sup>3</sup>/s (0.42 m<sup>3</sup>/s) Oct. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	28	25	36	27	27	31	83	178	203	193	85
2	36	27	26	38	27	30	29	83	180	166	167	86
3	29	26	26	31	27	49	28	83	180	92	144	86
4	26	26	25	29	28	55	28	83	180	93	131	86
5	25	26	25	30	27	55	28	83	180	92	124	86
6	27	26	25	30	25	55	28	83	176	94	103	86
7	41	25	25	32	25	55	28	83	180	95	96	86
8	49	25	25	37	25	53	27	83	179	95	98	86
9	42	25	25	25	25	53	27	83	181	95	103	86
10	29	25	28	25	25	53	27	83	183	96	103	86
11	29	25	31	25	25	54	33	83	182	97	92	86
12	29	25	31	25	25	53	32	83	178	97	87	87
13	29	28	31	25	25	52	46	83	176	96	87	86
14	29	30	31	25	26	53	54	82	176	96	87	86
15	29	28	31	25	27	54	53	83	178	96	87	87
16	29	26	30	25	28	53	51	83	183	94	86	87
17	28	26	30	25	26	55	51	83	188	136	85	86
18	31	26	30	24	26	52	55	83	195	210	86	86
19	20	25	30	24	26	55	55	83	196	225	88	86
20	15	25	30	42	25	55	55	83	194	233	88	84
21	15	25	31	59	25	55	55	83	191	225	87	84
22	22	25	29	47	25	55	60	83	199	234	87	85
23	34	26	29	27	25	55	69	83	202	242	87	84
24	32	26	29	27	25	54	68	84	201	239	158	88
25	30	26	29	27	26	55	68	84	201	254	161	90
26	29	26	29	27	26	55	81	99	203	258	128	116
27	28	26	30	27	25	54	87	177	204	286	108	223
28	29	26	30	27	25	55	87	180	204	287	106	202
29	28	25	30	27	---	54	88	178	206	247	109	190
30	28	25	31	27	---	53	86	177	205	228	99	180
31	28	---	30	27	---	37	---	177	---	213	90	---
TOTAL	909	779	887	927	722	1603	1515	3064	5659	5214	3355	3062
MEAN	29.3	26.0	28.6	29.9	25.8	51.7	50.5	98.8	189	168	108	102
MAX	49	30	31	59	28	55	88	180	206	287	193	223
MIN	15	25	25	24	25	27	27	82	176	92	85	84
AC-FT	1800	1550	1760	1840	1430	3180	3010	6080	11220	10340	6650	6070
a	723	649	814	724	518	800	2000	13520	20270	15710	6460	5630

CAL YR 1981 TOTAL 15507 MEAN 42.5 MAX 83 MIN 15 AC-FT 30760  
WTR YR 1982 TOTAL 27696 MEAN 75.9 MAX 287 MIN 15 AC-FT 54940 a 67820

a Computed natural flow, in acre-feet.

## TIJUANA RIVER BASIN

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 fair. 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.--46 years, 10.8 ft<sup>3</sup>/s (0.306 m<sup>3</sup>/s), 7,820 acre-ft/yr (9.64 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, 309 ft<sup>3</sup>/s (8.75 m<sup>3</sup>/s) Mar. 18, gage height, 7.63 ft (2.326 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.08	1.4	5.5	2.0	42	3.1	1.2	.16		
2		0	.07	1.3	5.3	2.3	78	2.8	1.0	.07		
3		0	.07	.36	5.6	.99	115	2.6	.90	.03		
4		0	.07	.15	5.7	1.2	159	2.9	.74	.02		
5		0	.07	.65	4.2	.86	124	2.9	.59	.01		
6		0	.08	2.1	2.4	.39	64	2.6	.52	0		
7		0	.07	1.4	2.6	.27	59	2.1	.51	0		
8		0	.07	.80	7.0	.27	60	2.0	.43	0		
9		0	.07	.78	4.8	.31	55	2.2	.36	0		
10		0	.08	1.6	10	.22	56	2.1	.40	0		
11		0	.08	2.9	34	.45	55	2.6	.38	0		
12		0	.09	2.2	17	.52	56	3.0	.38	0		
13		0	.09	1.7	9.7	.30	57	2.7	.29	0		
14		0	.08	1.8	2.0	2.7	57	2.8	.24	0		
15		0	.08	2.1	3.2	12	56	2.8	.23	0		
16		0	.08	2.1	2.3	5.4	52	2.9	.42	0		
17		0	.08	2.4	3.1	21	49	2.5	.79	0		
18		0	.08	2.6	1.3	214	48	2.3	.93	0		
19		0	.08	2.8	1.2	95	47	2.2	.97	0		
20		0	.08	9.1	1.5	64	43	2.2	.85	0		
21		0	.09	14	1.8	34	39	2.3	1.1	0		
22		0	.09	5.0	1.8	27	32	2.2	1.2	0		
23		0	.08	.26	1.8	24	17	2.1	1.0	0		
24		.60	.08	.10	2.0	24	13	2.0	.76	0		
25		4.9	.08	1.6	1.4	26	9.7	1.9	.47	0		
26		8.7	.08	3.4	1.4	26	7.1	2.1	.23	0		
27		1.2	.08	.80	1.2	27	5.3	2.5	.12	0		
28		1.5	.09	1.5	1.8	27	4.8	2.4	.07	0		
29		.35	.09	5.8	---	31	4.0	1.9	.10	0		
30		.09	.64	8.2	---	35	3.6	1.7	.22	0		
31		---	.15	7.6	---	36	---	1.4	---	0		---
TOTAL	0	17.34	3.10	88.50	141.6	741.18	1467.5	73.8	17.40	.29	0	0
MEAN	0	.58	.10	2.85	5.06	23.9	48.9	2.38	.58	.009	0	0
MAX	0	8.7	.64	14	34	214	159	3.1	1.2	.16	0	0
MIN	0	0	.07	.10	1.2	.22	3.6	1.4	.07	0	0	0
AC-FT	0	34	6.1	176	281	1470	2910	146	35	.6	0	0
CAL YR 1981	TOTAL	1319.07	MEAN 3.61	MAX 41	MIN 0	AC-FT 2620						
WTR YR 1982	TOTAL	2550.71	MEAN 6.99	MAX 214	MIN 0	AC-FT 5060						

LOCATION.--Lat 32°35'28", long 116°31'29", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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.

REMARKS.--Records fair. Broad-crested weir partially buried by sand Oct. 1, 1981 to Sept. 30, 1982 and was generally ineffective as a 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.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.61	2.6	22	8.8	7.3	33	5.5	2.5	1.5	.65	.37
2	.96	.67	2.7	34	8.3	8.0	41	4.7	2.5	1.4	.63	.31
3	.77	.72	2.8	20	8.3	8.5	23	4.7	2.5	1.4	.61	.28
4	.60	.77	2.9	9.5	8.5	8.5	18	4.3	2.5	1.3	.58	.27
5	.48	.85	3.0	15	8.1	8.0	16	4.4	2.4	1.3	.55	.27
6	.47	.93	3.2	17	7.4	7.4	14	4.6	2.4	1.2	.58	.25
7	.47	1.0	3.3	9.5	7.7	7.6	13	4.7	2.3	1.1	.57	.26
8	.51	1.1	3.5	6.7	13	7.7	12	5.0	2.3	1.0	.53	.37
9	.47	1.2	3.7	6.6	14	7.7	11	5.2	2.3	.93	.53	.47
10	.51	1.3	3.8	6.7	31	7.7	10	5.0	2.3	.87	.51	.51
11	.51	1.4	4.1	11	54	11	9.9	6.1	2.3	.78	.53	.52
12	.47	1.5	4.5	9.6	18	22	9.3	6.2	2.2	.72	.56	.50
13	.43	1.6	4.3	7.6	14	23	8.7	5.2	1.5	.71	.59	.53
14	.43	1.7	4.3	6.7	13	28	8.6	4.8	1.8	.70	.59	.57
15	.51	1.9	4.3	6.7	11	37	8.7	4.4	2.1	.68	.57	.59
16	.56	2.1	4.5	6.4	11	17	8.4	4.2	2.0	.68	.52	.72
17	.56	2.2	4.5	6.4	11	20	8.4	4.0	2.0	.67	.51	.71
18	.43	2.5	4.5	6.4	10	84	8.3	3.4	2.0	.64	.49	.64
19	.39	2.6	4.6	6.4	8.8	41	8.4	3.4	2.1	.61	.46	.60
20	.35	2.9	4.6	15	8.4	26	7.9	3.3	2.1	.56	.47	.56
21	.43	3.4	5.0	67	8.4	20	7.3	3.2	2.1	.54	.67	.54
22	.60	4.3	5.1	21	8.5	15	7.9	3.7	2.1	.67	.60	.60
23	.47	4.4	4.9	12	8.0	14	8.3	3.5	2.0	.81	.66	.40
24	.65	4.5	5.0	10	7.7	14	8.2	3.1	1.8	.76	.73	.41
25	.65	4.8	5.0	9.6	8.0	14	8.4	3.1	1.7	.74	.79	.48
26	.47	4.6	5.5	8.9	7.7	18	8.4	3.7	1.6	.73	.72	.70
27	.43	5.2	5.6	8.6	7.5	16	8.3	3.5	1.5	.69	.59	.76
28	.41	5.0	5.8	9.0	7.1	15	8.0	2.7	1.4	.60	.52	.62
29	1.0	4.7	5.8	16	---	23	8.6	2.7	1.4	.60	.50	.62
30	.52	2.5	7.8	10	---	19	6.9	2.6	1.5	.56	.48	.61
31	.56	---	14	9.2	---	16	---	2.6	---	.58	.43	---
TOTAL	17.27	72.95	145.2	410.5	337.2	571.4	357.9	127.5	61.2	26.03	17.72	14.90
MEAN	.56	2.43	4.68	13.2	12.0	18.4	11.9	4.11	2.04	.84	.57	.50
MAX	1.2	5.2	14	67	54	84	41	6.2	2.5	1.5	.79	.76
MIN	.35	.61	2.6	6.4	7.1	7.3	6.9	2.6	1.4	.54	.43	.25
AC-FT	34	145	288	814	669	1130	710	253	121	52	35	30
CAL YR 1981	TOTAL	2315.89	MEAN	6.34	MAX	90	MIN	.09	AC-FT	4590		
WTR YR 1982	TOTAL	2159.77	MEAN	5.92	MAX	84	MIN	.25	AC-FT	4280		

LOCATION.--Lat 32°33'56", long 116°46'27", in E<sub>1</sub> 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 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>). Water diverted from Barrett Reservoir through San Diego and Dulzura conduits to Lower Otay Reservoir.

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, 454 ft<sup>3</sup>/s (12.9 m<sup>3</sup>/s) Mar. 18, gage height, 2.77 ft (0.844 m), from rating curve extended above 170 ft<sup>3</sup>/s (4.81 m<sup>3</sup>/s); minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Aug. 11.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.15	1.2	37	14	13	80	9.6	2.0	.33	.17	.09
2	.12	.15	1.3	37	13	12	152	9.2	1.6	.32	.14	.09
3	.12	.16	1.2	26	13	12	153	11	1.4	.33	.17	.09
4	.12	.16	1.1	20	13	12	186	19	1.2	.33	.26	.10
5	.12	.16	1.2	29	12	11	160	13	1.1	.29	.16	.10
6	.11	.16	1.3	29	11	9.7	77	12	.90	.38	.07	.10
7	.11	.16	1.4	22	12	11	71	12	.80	.40	.07	.10
8	.10	.16	1.4	12	19	12	71	10	.70	.18	.08	.10
9	.10	.16	1.3	7.4	19	11	69	12	.60	.25	.09	.10
10	.10	.16	1.5	9.5	29	12	71	14	.60	.24	.07	.10
11	.11	.17	1.6	21	77	23	75	19	.60	.24	.06	.10
12	.12	.17	1.7	12	35	47	78	18	.60	.24	.07	.10
13	.11	.17	1.6	6.5	22	23	79	16	.50	.30	.07	.10
14	.11	.17	1.4	4.4	18	60	82	15	.40	.33	.07	.10
15	.14	.18	1.5	5.0	18	25	82	14	.40	.42	.08	.10
16	.15	.18	1.6	3.9	17	9.0	78	12	.50	.41	.09	.09
17	.13	.18	1.3	3.8	17	60	75	9.2	.70	.32	.12	.09
18	.13	.18	1.1	3.6	17	350	71	7.5	1.0	.24	.11	.09
19	.13	.18	1.3	3.5	16	150	67	7.4	1.6	.23	.13	.09
20	.13	.18	1.3	10	16	90	51	5.6	1.4	.21	.11	.09
21	.14	.19	1.4	125	15	70	37	6.0	1.5	.19	.13	.09
22	.14	.19	1.4	67	15	60	54	5.9	1.7	.18	.14	.09
23	.14	.18	1.4	33	15	49	40	6.6	1.9	.21	.16	.09
24	.14	.19	1.3	29	14	39	25	6.3	.90	.22	.17	.09
25	.14	.19	1.3	23	14	34	20	5.5	.44	.21	.13	.09
26	.14	.19	1.2	19	14	48	15	3.9	.33	.19	.10	.08
27	.14	.21	1.2	17	13	43	12	8.2	.30	.17	.10	.08
28	.14	7.2	1.3	17	13	36	8.7	9.1	.22	.21	.10	.08
29	.14	8.3	1.5	35	---	74	10	6.3	.28	.19	.08	.08
30	.15	1.3	10	18	---	63	9.6	3.0	.29	.14	.10	.08
31	.15	---	28	15	---	53	---	2.4	---	.14	.10	---
TOTAL	3.94	21.48	77.3	700.6	521	1521.7	2059.3	308.7	26.46	8.04	3.50	2.77
MEAN	.13	.72	2.49	22.6	18.6	49.1	68.6	9.96	.88	.26	.11	.092
MAX	.15	8.3	28	125	77	350	186	19	2.0	.42	.26	.10
MIN	.10	.15	1.1	3.5	11	9.0	8.7	2.4	.22	.14	.06	.08
AC-FT	7.8	43	153	1390	1030	3020	4080	612	52	16	6.9	5.5

CAL YR 1981	TOTAL	3664.64	MEAN	10.0	MAX	170	MIN	.01	AC-FT	7270
WTR YR 1982	TOTAL	5254.79	MEAN	14.4	MAX	350	MIN	.06	AC-FT	10420



## 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, 74,270 acre-ft (91.6 hm<sup>3</sup>) Apr. 19; minimum observed, 59,310 acre-ft (73.1 hm<sup>3</sup>) Feb. 9.

## MONTHEND CONTENTS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Contents (acre- feet)	Change in contents (acre- feet)
Sept. 30.....	64,800	--
Oct. 31.....	62,910	-1,890
Nov. 30.....	61,580	-1,330
Dec. 31.....	60,230	-1,350
CAL YR 1981.....	--	-8,110
Jan. 31.....	59,650	-580
Feb. 28.....	60,840	+1,190
Mar. 31.....	71,360	+10,520
Apr. 30.....	73,860	+2,500
May 31.....	72,640	-1,220
June 30.....	70,650	-1,990
July 31.....	68,600	-2,050
Aug. 31.....	66,370	-2,230
Sept. 30.....	64,400	-1,970
WTR YR 1982.....	--	-400

## TIJUANA RIVER BASIN

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 December 1981 (discontinued).

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 poor. 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 Oct. 1 to Dec. 31.

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 PERIOD.--Maximum discharge, unknown, maximum gage height, 4.16 ft (1.268 m) Nov. 28; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	2.0									
2		0	1.0									
3		0	.50									
4		0	.25									
5		0	0									
6		0	0									
7		0	0									
8		0	0									
9		0	0									
10		0	0									
11		0	0									
12		0	0									
13		0	0									
14		0	0									
15		0	0									
16		0	0									
17		0	0									
18		0	0									
19		0	0									
20		0	0									
21		0	0									
22		0	0									
23		0	0									
24		0	0									
25		0	0									
26		0	0									
27		19	0									
28		25	0									
29		10	0									
30		3.0	9.0									
31		---	3.0									
TOTAL	0	57.0	15.75	0	0	0	0	0	0	0	0	0
MEAN	0	1.90	.51	0	0	0	0	0	0	0	0	0
MAX	0	25	9.0	0	0	0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	113	31	0	0	0	0	0	0	0	0	0
CAL YR 1981 TOTAL		4694.95	MEAN 12.9	MAX 231	MIN 0	AC-FT 9310						
WTR YR 1982 TOTAL		72.75	MEAN .20	MAX 25	MIN 0	AC-FT 144						

## 11014550 LOWER OTAY LAKE NEAR CHULA VISTA, CA

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, 50,630 acre-ft (62.4 hm<sup>3</sup>), spilling, May 17, 1981, elevation, 485.70 ft (148.041 m); 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, 50,630 acre-ft (62.4 hm<sup>3</sup>), May 17, elevation, 485.70 ft (148.041 m); minimum observed, 47,090 acre-ft (58.1 hm<sup>3</sup>) Mar. 11, elevation, 482.48 ft (147.060 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	483.56	48,260	--
Oct. 31.....	483.80	48,520	+260
Nov. 30.....	484.04	48,780	+260
Dec. 31.....	484.15	48,900	+120
CAL YR 1981.....	--	--	+1,590
Jan. 31.....	483.53	48,230	-670
Feb. 28.....	482.58	47,200	-1,030
Mar. 31.....	484.74	49,550	+2,350
Apr. 30.....	485.64	50,560	+1,010
May 31.....	485.66	50,590	+30
June 30.....	485.46	50,360	-230
July 31.....	483.96	48,690	-1,670
Aug. 31.....	483.22	47,890	-800
Sept. 30.....	483.16	47,820	-70
WTR YR 1982.....	--	--	-440

## SWEETWATER RIVER BASIN

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: 48 years, 11.2 ft<sup>3</sup>/s (0.317 m<sup>3</sup>/s), 8,110 acre-ft/yr (10.00 hm<sup>3</sup>/yr). Combined river and diversion: 26 years, 7.55 ft<sup>3</sup>/s (0.214 m<sup>3</sup>/s), 5,470 acre-ft/yr (6.74 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.--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. 21	0545	169 4.79	5.97 1.820	Mar. 26	1115	166 4.70	5.99 1.826
Feb. 10	2300	*1,130 32.0	8.10 2.469	Mar. 30	0745	162 4.59	6.01 1.832
Mar. 18	0430	543 15.4	7.07 2.155	Apr. 1	1915	677 19.2	7.35 2.240

Minimum, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.09	.12	3.8	1.3	5.6	271	17	8.7	3.1	0	.02
2	.02	.09	.23	4.2	1.3	6.1	247	16	8.0	1.8	0	.03
3	.17	.10	.34	4.0	1.3	7.1	128	16	7.9	1.3	0	.02
4	.19	.10	.31	1.5	1.2	6.7	98	16	8.3	1.1	0	.03
5	.16	.10	.17	4.2	1.1	6.7	91	16	8.2	.39	.01	.03
6	.05	.11	.25	4.6	1.1	7.1	92	16	6.7	.59	0	.02
7	.05	.11	.25	2.3	1.5	7.2	90	15	7.7	.34	0	.03
8	.06	.11	.29	1.3	1.9	8.0	83	15	7.1	.09	0	.07
9	.06	.10	.21	1.0	2.1	8.4	78	16	5.9	.04	0	.08
10	.08	.11	.32	1.6	215	9.3	72	18	6.2	.03	0	.62
11	.20	.11	.90	2.6	324	14	67	19	6.3	.02	0	1.4
12	.06	.11	1.2	2.8	51	27	62	18	6.1	.02	0	1.5
13	.05	.12	1.8	2.5	30	30	58	16	5.3	.01	0	1.4
14	.05	.14	1.8	2.5	22	46	53	15	6.7	0	0	1.5
15	.05	.12	2.0	2.7	16	65	48	14	7.4	0	0	1.7
16	.05	.13	1.8	3.0	14	40	43	13	6.5	0	0	2.2
17	.04	.20	.77	2.9	12	100	39	12	7.3	0	0	2.4
18	.03	.19	.31	3.4	8.8	338	36	11	7.1	0	0	2.0
19	.02	.12	.08	2.6	8.6	139	31	11	6.2	0	0	1.9
20	.02	.11	.07	10	9.3	90	26	11	4.7	0	0	1.6
21	.02	.11	.11	98	8.7	76	24	11	4.3	0	0	1.1
22	.02	.12	.11	29	8.0	75	23	11	3.4	0	0	.87
23	.02	.12	.12	18	6.7	72	22	10	4.4	0	0	.73
24	.03	.13	.13	12	6.6	67	21	11	4.3	0	.04	.85
25	.04	.22	.23	7.8	6.3	63	20	10	3.1	.02	.30	.98
26	.04	.32	1.2	4.3	5.7	127	19	10	3.6	.03	.07	2.5
27	.06	1.2	1.6	2.5	5.9	96	17	11	3.0	.02	.06	2.0
28	.07	1.7	1.8	1.4	5.7	73	17	11	2.5	0	.04	1.3
29	.11	.61	1.6	3.6	---	128	18	11	2.8	0	.02	.99
30	.09	.11	4.1	1.7	---	133	17	10	3.9	0	.03	.82
31	.09	---	2.7	1.5	---	87	---	10	---	0	.02	---
TOTAL	2.00	7.01	26.92	243.3	777.1	1958.2	1911	417	173.6	8.90	.59	30.69
MEAN	.065	.23	.87	7.85	27.8	63.2	63.7	13.5	5.79	.29	.019	1.02
MAX	.20	1.7	4.1	98	324	338	271	19	8.7	3.1	.30	2.5
MIN	0	.09	.07	1.0	1.1	5.6	17	10	2.5	0	0	.02
AC-FT	4.0	14	53	483	1540	3880	3790	827	344	18	1.2	61
CAL YR 1981 TOTAL	1071.35			MEAN 2.94	MAX 80	MIN 0	AC-FT 2130					
WTR YR 1982 TOTAL	5556.31			MEAN 15.2	MAX 338	MIN 0	AC-FT 11020					

## 11020600 EL CAPITAN LAKE NEAR LAKESIDE, CA

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 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, 56,140 acre-ft (69.2 hm<sup>3</sup>), Apr. 19, elevation, 705.58 ft (215.061 m); minimum observed, 20,760 acre-ft (25.6 hm<sup>3</sup>) Jan. 19, elevation, 660.20 ft (201.229 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	676.02	30,840	--
Oct. 31.....	670.76	27,200	-3,640
Nov. 30.....	666.12	24,230	-2,970
Dec. 31.....	661.96	21,760	-2,470
CAL YR 1981.....	--	--	-36,840
Jan. 31.....	664.80	23,430	+1,670
Feb. 28.....	678.58	32,720	+9,290
Mar. 31.....	695.74	46,810	+14,090
Apr. 30.....	705.40	55,960	+9,150
May 31.....	703.65	54,240	-1,720
June 30.....	701.10	51,770	-2,470
July 31.....	697.32	48,250	-3,520
Aug. 31.....	692.67	44,100	-4,150
Sept. 30.....	688.38	40,450	-3,650
WTR YR 1982.....	--	--	+9,610

## 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 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, 85,150 acre-ft (105 hm<sup>3</sup>), June 27, elevation, 645.19 ft (196.654 m); minimum observed, 54,100 acre-ft (66.7 hm<sup>3</sup>) Oct. 7, elevation, 612.62 ft (186.727 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	613.10	54,520	--
Oct. 31.....	615.72	56,800	+2,280
Nov. 30.....	623.77	64,050	+7,250
Dec. 31.....	630.67	70,560	+6,510
CAL YR 1981.....	--	--	-280
Jan. 31.....	629.45	69,390	-1,170
Feb. 28.....	629.21	69,160	-230
Mar. 31.....	636.26	76,030	+6,870
Apr. 30.....	640.02	79,820	+3,790
May 31.....	643.39	83,280	+3,460
June 30.....	645.01	84,960	+1,680
July 31.....	640.41	80,210	-4,750
Aug. 31.....	637.33	77,100	-3,110
Sept. 30.....	635.41	75,190	-1,910
WTR YR 1982.....	--	--	+20,670

LOCATION.--Lat 32°50'25", long 117°01'30", in Ex Mission San Diego Grant, San Diego County, Hydrologic Unit 18070304, near left bank at Mast Road bridge, 1.1 mi (1.8 km) upstream from Old Mission damsite, in Santee.

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.

GAGE.--Water-stage recorder. Altitude of gage is 300 ft (91.4 m), from topographic map. Prior to Nov. 10, 1920, nonrecording gage at site 1.1 mi (1.8 km) upstream at different datum. Nov. 10, 1920, to Jan. 19, 1982 at site 2.6 mi (4.2 km) downstream at different datum.

REMARKS.--Records good. Flow regulated by Cuyamaca Reservoir, capacity, 11,540 acre-ft (14.2 hm<sup>3</sup>), El Capitan Lake (station 11020600), and San Vicente Reservoir (station 11022100). 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.

AVERAGE DISCHARGE.--69 years (water years 1913-15, 1917-82), 24.9 ft<sup>3</sup>/s (0.705 m<sup>3</sup>/s), 18,040 acre-ft/yr (22.2 hm<sup>3</sup>/yr).

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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,900 ft<sup>3</sup>/s (82.1 m<sup>3</sup>/s) Mar. 17, gage height, 7.64 ft (2.329 m), from rating curve extended above 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s); minimum daily, 2.40 ft<sup>3</sup>/s (0.068 m<sup>3</sup>/s) Oct. 1, 4, 5.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	3.5	15	140	11	11	236	16	8.9	5.1	4.1	10
2	2.7	3.6	12	98	10	11	121	16	8.6	5.1	4.0	4.3
3	2.7	3.9	9.8	28	10	11	67	16	8.1	5.0	3.9	4.2
4	2.4	3.7	9.1	16	10	10	49	20	8.4	5.0	3.8	5.1
5	2.4	3.7	8.3	29	10	9.9	38	14	8.3	5.2	3.8	5.3
6	2.6	4.5	7.7	25	9.8	9.7	33	14	7.9	5.1	3.9	4.9
7	2.8	4.8	6.2	12	9.1	9.2	33	14	7.4	4.8	3.9	4.9
8	3.1	5.3	6.6	9.7	10	8.5	32	14	7.4	4.7	4.1	5.6
9	3.2	5.7	6.4	9.2	20	8.3	28	14	6.7	4.9	4.1	5.9
10	3.2	4.9	6.2	11	328	8.9	27	14	6.5	4.9	4.0	6.5
11	5.0	4.7	5.9	54	206	14	25	20	6.5	4.7	4.0	6.5
12	7.9	5.1	6.0	12	77	50	23	13	6.5	4.4	4.0	6.5
13	4.6	4.7	6.2	8.7	54	31	22	13	6.6	4.2	4.0	6.2
14	5.0	4.3	6.2	7.1	39	260	21	13	6.3	4.1	4.1	6.7
15	4.2	4.2	6.1	6.4	30	110	21	13	6.5	4.0	4.0	7.7
16	4.4	4.7	5.9	6.2	23	46	20	12	6.3	3.9	4.0	24
17	3.7	4.2	5.6	6.3	21	815	19	12	7.9	3.8	4.2	16
18	3.3	5.5	5.4	6.6	24	926	19	11	6.6	3.9	4.1	10
19	3.1	5.2	5.6	30	20	201	17	11	6.1	4.0	4.0	7.4
20	3.2	4.0	5.7	74	17	71	17	11	6.0	3.9	4.0	6.3
21	3.3	3.5	8.0	180	15	49	17	11	6.2	3.9	4.3	5.4
22	3.4	3.7	7.5	31	14	41	16	11	7.2	4.0	4.5	4.4
23	3.5	4.0	6.0	20	14	35	16	12	6.1	4.1	4.8	3.9
24	3.5	4.1	5.7	16	14	33	16	11	5.9	4.1	5.1	3.8
25	3.7	3.9	5.7	15	13	32	16	11	6.0	4.1	5.3	3.9
26	3.8	4.1	5.7	15	12	63	16	11	6.0	3.9	5.2	52
27	4.0	77	5.7	13	12	31	16	14	5.8	3.8	5.5	16
28	4.1	78	5.7	21	12	31	15	10	5.6	3.7	5.3	8.7
29	13	151	5.5	27	---	50	15	9.9	5.5	3.7	5.2	7.7
30	6.7	26	74	12	---	35	16	9.7	5.5	3.8	4.8	7.1
31	4.2	---	53	12	---	27	---	9.1	---	3.8	4.6	---
TOTAL	125.1	445.5	328.4	951.2	1044.9	3048.5	1027	400.7	203.3	133.6	134.6	266.9
MEAN	4.04	14.9	10.6	30.7	37.3	98.3	34.2	12.9	6.78	4.31	4.34	8.90
MAX	13	151	74	180	328	926	236	20	8.9	5.2	5.5	52
MIN	2.4	3.5	5.4	6.2	9.1	8.3	15	9.1	5.5	3.7	3.8	3.8
AC-FT	248	884	651	1890	2070	6050	2040	795	403	265	267	529
CAL YR 1981	TOTAL	5108.5	MEAN	14.0	MAX	411	MIN	1.2	AC-FT	10130		
WTR YR 1982	TOTAL	8109.7	MEAN	22.2	MAX	926	MIN	2.4	AC-FT	16090		

## 11023000 SAN DIEGO RIVER AT FASHION VALLEY, AT SAN DIEGO, CA

LOCATION.--Lat 32°45'54", long 117°10'04", in mission San Diego Grant, San Diego County, Hydrologic Unit 18070304, on left bank 500 ft (152 m) upstream from Fashion Valley road crossing.

DRAINAGE AREA.--429 mi<sup>2</sup> (1,111 km<sup>2</sup>).

PERIOD OF RECORD.--January to September 1982.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft (6.1 m), from topographic map.

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.

EXTREMES FOR PERIOD.--Maximum discharge, 3,850 ft<sup>3</sup>/s (109 m<sup>3</sup>/s) Mar. 18, gage height, 11.53 ft (3.514 m) from rating curve extended above 5,800 ft<sup>3</sup>/s (164 m<sup>3</sup>/s); minimum daily, 1.80 ft<sup>3</sup>/s (0.051 m<sup>3</sup>/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	21	17	246	18	12	6.0	3.8	2.8
2				0	14	18	330	20	11	5.4	3.3	3.4
3				0	13	20	173	19	9.7	6.6	3.1	3.2
4				0	13	17	100	22	9.7	6.4	3.1	3.1
5				0	12	16	78	24	10	6.1	3.0	3.5
6				0	12	13	63	23	10	5.7	3.2	3.3
7				0	11	12	55	27	9.6	4.7	3.6	2.6
8				0	10	9.9	48	28	9.0	4.4	3.5	2.9
9				0	20	9.6	47	25	7.9	5.5	3.5	2.3
10				0	193	9.7	44	21	6.8	5.3	2.8	2.2
11				0	507	12	40	23	5.9	4.4	2.9	1.8
12				0	204	34	36	26	7.1	3.7	2.8	2.4
13				0	100	107	34	19	9.3	4.8	2.4	2.8
14				0	70	419	32	16	9.0	4.4	2.1	2.9
15				0	53	447	32	16	7.8	4.5	2.6	3.2
16				0	41	127	33	16	7.4	4.0	2.8	3.9
17				0	35	1100	33	16	7.4	4.6	2.3	6.1
18				7.6	33	2240	32	13	7.8	5.2	2.4	12
19				8.8	32	567	31	12	8.8	4.5	2.3	10
20				151	29	289	30	12	10	4.1	2.6	6.6
21				574	28	164	27	13	8.8	3.9	3.1	4.2
22				215	23	109	29	15	8.2	3.1	3.0	4.1
23				70	21	79	23	16	9.1	2.8	2.8	3.7
24				48	22	68	24	15	10	3.2	3.9	3.5
25				37	20	62	24	13	8.8	4.3	4.0	4.1
26				29	20	198	23	9.7	8.4	4.8	3.0	25
27				22	20	106	17	9.0	8.9	5.5	3.0	35
28				27	20	70	17	12	8.7	4.5	3.2	15
29				90	---	121	20	14	7.5	3.7	4.1	12
30				57	---	114	15	14	6.5	3.2	4.1	8.0
31		---		34	---	75	---	14	---	3.3	2.9	---
TOTAL	0	0	0	1370.4	1597	6650.2	1736	540.7	261.1	142.6	95.2	195.6
MEAN	0	0	0	44.2	57.0	215	57.9	17.4	8.70	4.60	3.07	6.52
MAX	0	0	0	574	507	2240	330	28	12	6.6	4.1	35
MIN	0	0	0	0	10	9.6	15	9.0	5.9	2.8	2.1	1.8
AC-FT	0	0	0	2720	3170	13190	3440	1070	518	283	189	388

WTR YR 1982 TOTAL 12588.8 MEAN 34.5 MAX 2240 MIN 0 AC-FT 24970



## 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.

AVERAGE DISCHARGE.--5 years, 2.02 ft<sup>3</sup>/s (0.057 m<sup>3</sup>/s), 1,460 acre-ft/yr (1.80 hm<sup>3</sup>/yr).

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. 20	2030	16 0.46	4.39 1.338	Mar. 17	2115	*97 2.75	4.99 1.521
Feb. 10	1730	12 .34	4.34 1.323	Mar. 19	0015	16 .45	4.39 1.338
Mar. 14	1615	22 .62	4.45 1.356	Apr. 1	1330	44 1.25	4.65 1.417

Minimum, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	0	14					
2				0	0	0	10					
3				0	0	0	5.4					
4				0	0	0	3.6					
5				0	0	0	2.5					
6				0	0	0	1.7					
7				0	0	0	2.0					
8				0	0	0	1.8					
9				0	0	0	1.7					
10				0	1.9	0	1.4					
11				0	1.0	.10	1.0					
12				0	.90	.50	.90					
13				0	.80	.20	.80					
14				0	.70	3.5	.70					
15				0	.60	1.0	.60					
16				0	.50	.50	.55					
17				0	.40	29	.50					
18				0	.30	45	.45					
19				0	.20	10	.40					
20				1.9	.10	5.1	.35					
21				2.5	.05	2.9	.30					
22				.40	0	1.8	.25					
23				.30	0	1.6	.20					
24				.20	0	1.2	.10					
25				.10	0	1.0	.05					
26				.05	0	1.9	0					
27				0	0	1.4	0					
28				0	0	1.0	0					
29				0	---	1.8	0					
30				0	---	2.5	0					
31		---		0	---	1.7	---		---			---
TOTAL	0	0	0	5.45	7.45	113.70	51.25	0	0	0	0	0
MEAN	0	0	0	.18	.27	3.67	1.71	0	0	0	0	0
MAX	0	0	0	2.5	1.9	45	14	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	11	15	226	102	0	0	0	0	0
CAL YR 1981	TOTAL	39.33	MEAN .11	MAX	8.2	MIN 0	AC-FT 78					
WTR YR 1982	TOTAL	177.85	MEAN .49	MAX	45	MIN 0	AC-FT 353					

## LOS PENASQUITOS CREEK BASIN

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.

AVERAGE DISCHARGE.--5 years, 3.79 ft<sup>3</sup>/s (0.107 m<sup>3</sup>/s), 2,750 acre-ft/yr (3.39 hm<sup>3</sup>/yr).

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.--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. 1	1115	119	3.37	0.83	0.253	Mar. 14	1630	122	3.46	.85	.259
Jan. 20	1230	150	4.25	.92	.280	Mar. 17	1745	*253	7.16	1.16	.354
Feb. 10	1730	107	3.03	.80	.244	Apr. 1	1130	150	4.25	.92	.280

Minimum daily, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.20	15	.20	.40	28	.46	.10			0
2		0	0	4.1	.19	.40	8.2	.48	.08			0
3		0	0	.68	.17	.35	5.1	.50	.06			0
4		0	0	.20	.15	.35	4.9	.74	.05			0
5		0	0	1.0	.13	.35	3.3	.60	.05			0
6		0	0	.50	.11	.30	2.7	.38	.04			0
7		0	0	.18	.10	.30	2.3	.31	.04			0
8		0	0	.10	.25	.25	1.8	.46	.04			0
9		0	0	.05	1.6	.25	1.8	.69	.05			0
10		0	0	.90	22	.20	1.6	.67	.10			0
11		0	0	1.0	7.1	.20	1.5	.78	.15			0
12		0	0	.50	1.6	2.4	1.6	.22	.20			0
13		0	0	.30	1.2	1.5	1.3	.25	.25			0
14		0	0	.20	.78	29	1.3	.45	.30			0
15		0	0	.10	.50	6.4	1.4	.20	.35			0
16		0	0	.08	.50	2.9	1.0	.21	.40			.03
17		0	0	.06	.50	71	.78	.22	.45			.28
18		0	0	.04	.50	41	.78	.23	.50			.02
19		0	0	.02	.50	10	.78	.24	.25			0
20		0	0	31	.50	5.5	.72	.25	.35			0
21		0	1.7	27	.45	4.0	.45	.26	.45			0
22		0	.25	2.6	.45	3.1	.45	.28	.60			0
23		0	.10	1.4	.45	2.6	.45	.30	.40			0
24		0	.04	1.3	.45	2.4	.50	.32	.25			0
25		0	0	1.1	.45	3.0	.51	.34	.12			0
26		0	0	.90	.40	10	.45	.33	.06			.46
27		3.0	0	.70	.40	2.7	.42	.30	.02			.03
28		31	0	.40	.40	3.8	.43	.27	.01			0
29		17	0	2.3	---	8.2	.44	.24	0			0
30		.40	10	.70	---	7.4	.45	.20	0			0
31		---	2.8	.16	---	3.0	---	.15	---			---
TOTAL	0	51.40	15.09	94.57	42.03	223.25	75.41	11.33	5.72	0	0	.82
MEAN	0	1.71	.49	3.05	1.50	7.20	2.51	.37	.19	0	0	.027
MAX	0	31	10	31	22	71	28	.78	.60	0	0	.46
MIN	0	0	0	.02	.10	.20	.42	.15	0	0	0	0
AC-FT	0	102	30	188	83	443	150	22	11	0	0	1.6
CAL YR 1981	TOTAL	440.00	MEAN	1.21	MAX	80	MIN	0	AC-FT	873		
WTR YR 1982	TOTAL	519.62	MEAN	1.42	MAX	71	MIN	0	AC-FT	1030		

## 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.

AVERAGE DISCHARGE.--5 years, 2.02 ft<sup>3</sup>/s (0.057 m<sup>3</sup>/s), 1,460 acre-ft/yr (1.80 hm<sup>3</sup>/yr).

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. 20	2030	16 0.46	4.39 1.338	Mar. 17	2115	*97 2.75	4.99 1.521
Feb. 10	1730	12 .34	4.34 1.323	Mar. 19	0015	16 .45	4.39 1.338
Mar. 14	1615	22 .62	4.45 1.356	Apr. 1	1330	44 1.25	4.65 1.417

Minimum, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	0	14					
2				0	0	0	10					
3				0	0	0	5.4					
4				0	0	0	3.6					
5				0	0	0	2.5					
6				0	0	0	1.7					
7				0	0	0	2.0					
8				0	0	0	1.8					
9				0	0	0	1.7					
10				0	1.9	0	1.4					
11				0	1.0	.10	1.0					
12				0	.90	.50	.90					
13				0	.80	.20	.80					
14				0	.70	3.5	.70					
15				0	.60	1.0	.60					
16				0	.50	.50	.55					
17				0	.40	29	.50					
18				0	.30	45	.45					
19				0	.20	10	.40					
20				1.9	.10	5.1	.35					
21				2.5	.05	2.9	.30					
22				.40	0	1.8	.25					
23				.30	0	1.6	.20					
24				.20	0	1.2	.10					
25				.10	0	1.0	.05					
26				.05	0	1.9	0					
27				0	0	1.4	0					
28				0	0	1.0	0					
29				0	---	1.8	0					
30				0	---	2.5	0					
31		---		0	---	1.7	---		---			---
TOTAL	0	0	0	5.45	7.45	113.70	51.25	0	0	0	0	0
MEAN	0	0	0	.18	.27	3.67	1.71	0	0	0	0	0
MAX	0	0	0	2.5	1.9	45	14	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	11	15	226	102	0	0	0	0	0
CAL YR 1981	TOTAL	39.33	MEAN .11	MAX	8.2	MIN 0	AC-FT 78					
WTR YR 1982	TOTAL	177.85	MEAN .49	MAX	45	MIN 0	AC-FT 353					

## LOS PENASQUITOS CREEK BASIN

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.

AVERAGE DISCHARGE.--5 years, 3.79 ft<sup>3</sup>/s (0.107 m<sup>3</sup>/s), 2,750 acre-ft/yr (3.39 hm<sup>3</sup>/yr).

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.--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. 1	1115	119 3.37	0.83 0.253	Mar. 14	1630	122 3.46	.85 .259
Jan. 20	1230	150 4.25	.92 .280	Mar. 17	1745	*253 7.16	1.16 .354
Feb. 10	1730	107 3.03	.80 .244	Apr. 1	1130	150 4.25	.92 .280

Minimum daily, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.20	15	.20	.40	28	.46	.10			0
2		0	0	4.1	.19	.40	8.2	.48	.08			0
3		0	0	.68	.17	.35	5.1	.50	.06			0
4		0	0	.20	.15	.35	4.9	.74	.05			0
5		0	0	1.0	.13	.35	3.3	.60	.05			0
6		0	0	.50	.11	.30	2.7	.38	.04			0
7		0	0	.18	.10	.30	2.3	.31	.04			0
8		0	0	.10	.25	.25	1.8	.46	.04			0
9		0	0	.05	1.6	.25	1.8	.69	.05			0
10		0	0	.90	22	.20	1.6	.67	.10			0
11		0	0	1.0	7.1	.20	1.5	.78	.15			0
12		0	0	.50	1.6	2.4	1.6	.22	.20			0
13		0	0	.30	1.2	1.5	1.3	.25	.25			0
14		0	0	.20	.78	29	1.3	.45	.30			0
15		0	0	.10	.50	6.4	1.4	.20	.35			0
16		0	0	.08	.50	2.9	1.0	.21	.40			.03
17		0	0	.06	.50	71	.78	.22	.45			.28
18		0	0	.04	.50	41	.78	.23	.50			.02
19		0	0	.02	.50	10	.78	.24	.25			0
20		0	0	31	.50	5.5	.72	.25	.35			0
21		0	1.7	27	.45	4.0	.45	.26	.45			0
22		0	.25	2.6	.45	3.1	.45	.28	.60			0
23		0	.10	1.4	.45	2.6	.45	.30	.40			0
24		0	.04	1.3	.45	2.4	.50	.32	.25			0
25		0	0	1.1	.45	3.0	.51	.34	.12			0
26		0	0	.90	.40	10	.45	.33	.06			.46
27		3.0	0	.70	.40	2.7	.42	.30	.02			.03
28		31	0	.40	.40	3.8	.43	.27	.01			0
29		17	0	2.3	---	8.2	.44	.24	0			0
30		.40	10	.70	---	7.4	.45	.20	0			0
31		---	2.8	.16	---	3.0	---	.15	---			---
TOTAL	0	51.40	15.09	94.57	42.03	223.25	75.41	11.33	5.72	0	0	.82
MEAN	0	1.71	.49	3.05	1.50	7.20	2.51	.37	.19	0	0	.027
MAX	0	31	10	31	22	71	28	.78	.60	0	0	.46
MIN	0	0	0	.02	.10	.20	.42	.15	0	0	0	0
AC-FT	0	102	30	188	83	443	150	22	11	0	0	1.6
CAL YR 1981	TOTAL	440.00	MEAN	1.21	MAX	80	MIN	0	AC-FT	873		
WTR YR 1982	TOTAL	519.62	MEAN	1.42	MAX	71	MIN	0	AC-FT	1030		

## 11023325 BEELER 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.

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.--6 years, 2.41 ft<sup>3</sup>/s (0.068 m<sup>3</sup>/s) 1,750 acre-ft/yr (2.16 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, 456 ft<sup>3</sup>/s (12.9 m<sup>3</sup>/s) Mar. 17, gage height, 7.37 ft (2.246 m), no other peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); no flow many months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	.31	.51	18	.50	.12	.10		
2				0	.33	.51	22	.50	.12	.09		
3				0	.33	.56	12	.49	.12	.09		
4				0	.33	.59	7.6	.46	.12	.09		
5				0	.29	.57	5.3	.43	.12	.09		
6				.01	.26	.61	3.9	.41	.11	.08		
7				.01	.25	.66	3.1	.39	.11	.07		
8				.01	.25	.69	2.5	.37	.10	.05		
9				.01	.24	.71	2.2	.35	.10	.04		
10				.02	2.6	.57	1.9	.33	.10	.04		
11				.02	8.6	.56	1.7	.32	.10	.03		
12				.02	2.6	.63	1.5	.29	.09	.03		
13				.02	1.2	.59	1.4	.27	.09	.03		
14				.02	.76	6.0	1.3	.24	.09	.01		
15				.02	.58	1.2	1.2	.24	.08	0		
16				.03	.51	1.3	1.1	.22	.07	0		
17				.03	.52	130	1.1	.22	.08	0		
18				.03	.61	124	1.0	.20	.07	0		
19				.03	.79	28	.89	.19	.07	0		
20				.20	.58	15	.84	.18	.07	0		
21				1.8	.55	8.9	.78	.17	.06	0		
22				.29	.59	5.6	.73	.16	.06	0		
23				.25	.60	3.9	.68	.15	.06	0		
24				.22	.59	3.0	.66	.16	.06	0		
25				.22	.60	2.5	.62	.15	.06	0		
26				.22	.63	5.0	.61	.15	.07	0		
27				.23	.62	2.9	.56	.14	.08	0		
28				.24	.55	2.5	.55	.13	.09	0		
29				.26	---	4.6	.54	.14	.09	0		
30				.27	---	6.6	.53	.13	.09	0		
31		---		.27	---	5.0	---	.13	---	0		---
TOTAL	0	0	0	4.75	26.67	363.76	96.79	8.21	2.65	.84	0	0
MEAN	0	0	0	.15	.95	11.7	3.23	.26	.088	.027	0	0
MAX	0	0	0	1.8	8.6	130	22	.50	.12	.10	0	0
MIN	0	0	0	0	.24	.51	.53	.13	.06	0	0	0
AC-FT	0	0	0	9.4	53	722	192	16	5.3	1.7	0	0
CAL YR 1981	TOTAL	88.94	MEAN	.24	MAX	15	MIN	0	AC-FT	176		
WTR YR 1982	TOTAL	503.67	MEAN	1.38	MAX	130	MIN	0	AC-FT	999		

## LOS PENASQUITOS CREEK BASIN

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. Altitude of gage is 415 ft (126 m), from topographic map.

REMARKS.--Records fair. Flow partly regulated by small conservation reservoirs.

AVERAGE DISCHARGE.--12 years, 6.24 ft<sup>3</sup>/s (0.177 m<sup>3</sup>/s), 4,520 acre-ft/yr (5.57 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 300 ft<sup>3</sup>/s (8.50 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 300 ft<sup>3</sup>/s (8.50 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. 20	1245	314 8.89	5.72 1.743	Mar. 17	1815	*1,190 33.7	7.44 2.268
Feb. 10	1800	386 10.9	5.92 1.804	Apr. 1	1230	589 16.7	6.28 1.914
Mar. 14	1645	489 13.8	6.18 1.884				

Minimum daily, 0.03 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) Aug. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	.64	.55	12	.31	1.3	158	2.2	1.0	.45	.19	.29
2	.70	.22	.42	6.1	.26	1.4	111	2.2	.25	.45	.36	.38
3	.74	.38	.46	2.4	.34	1.1	81	2.0	.25	.45	.34	.27
4	.70	.89	.29	1.4	.57	1.0	35	3.4	.30	.40	.29	.09
5	.74	.95	.21	3.4	.74	1.1	24	1.7	.30	.40	.20	.12
6	.74	.92	.29	1.5	.70	.77	17	1.7	.35	.45	.28	.13
7	.81	.79	.36	.62	.91	.75	13	1.8	.45	.40	.07	.19
8	.69	.54	.63	.87	2.8	.80	9.0	1.7	.60	.35	.08	.20
9	.07	.18	.33	1.3	6.0	.76	7.7	1.7	.80	.35	.05	.22
10	.07	.30	.60	3.2	72	.71	6.7	1.8	.46	.30	.03	.25
11	1.7	.32	.39	3.6	27	4.5	6.7	4.2	.50	.25	.03	.25
12	.06	.59	.18	1.6	9.2	9.2	6.2	1.0	.19	.25	.08	.25
13	.06	.20	.17	.91	4.0	5.1	6.1	1.2	.30	.20	.08	.30
14	.06	.43	.23	.72	2.8	102	6.1	2.2	.39	.25	.17	.30
15	.06	.12	.24	.92	2.2	20	5.7	1.2	.60	.30	.11	.35
16	.06	.08	.35	1.1	2.0	7.8	4.8	1.3	.83	.35	.04	.45
17	.06	.18	.31	1.2	1.9	380	4.3	1.5	1.0	.30	.04	.60
18	.06	.12	.33	1.6	1.8	347	3.8	1.7	.99	.30	.08	.80
19	.06	.07	.38	1.8	1.6	65	3.3	1.8	.66	.30	.09	.16
20	.06	.06	.17	69	1.5	39	2.7	1.9	.77	.30	.05	.20
21	.17	.06	1.8	73	1.5	25	2.1	2.0	.99	.25	.05	.20
22	.57	.06	.50	8.0	1.4	18	2.1	2.1	1.7	.30	.05	.24
23	.51	.06	.45	5.0	1.4	13	2.2	2.2	1.3	.30	.05	.27
24	.46	.06	.11	3.7	1.5	9.0	2.4	2.2	1.1	.45	.06	.27
25	.35	.06	.17	3.0	1.5	8.0	2.3	2.3	.65	.30	.08	.41
26	.17	1.0	.13	2.5	1.4	55	2.0	1.7	.60	.22	.11	2.0
27	.08	15	.07	.99	1.4	36	1.9	1.8	.60	.21	.08	2.5
28	.38	33	.19	1.3	1.3	36	2.0	1.5	.55	.15	.13	2.0
29	1.1	25	.20	2.3	---	48	2.1	1.3	.50	.26	.14	.70
30	.85	.91	8.6	.27	---	53	2.3	1.0	.50	.08	.18	.45
31	.87	---	2.9	.24	---	39	---	1.2	---	.13	.28	---
TOTAL	13.69	83.19	22.01	215.54	150.03	1329.29	533.5	57.5	19.48	9.45	3.87	14.84
MEAN	.44	2.77	.71	6.95	5.36	42.9	17.8	1.85	.65	.30	.12	.49
MAX	1.7	33	8.6	73	72	380	158	4.2	1.7	.45	.36	2.5
MIN	.06	.06	.07	.24	.26	.71	1.9	1.0	.19	.08	.03	.09
AC-FT	27	165	44	428	298	2640	1060	114	39	19	7.7	29

CAL YR 1981	TOTAL	964.65	MEAN	2.64	MAX	187	MIN	.06	AC-FT	1910
WTR YR 1982	TOTAL	2452.39	MEAN	6.72	MAX	380	MIN	.03	AC-FT	4860

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.

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.--18 years, 7.83 ft<sup>3</sup>/s (0.222 m<sup>3</sup>/s), 5,670 acre-ft/yr (6.99 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.--Peak discharges above base of 400 ft<sup>3</sup>/s (11.3 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Jan. 20	1445	416	11.8	4.38	1.335	Mar. 17	1915	*1,860	52.7	7.31	2.228
Feb. 10	1945	482	13.7	4.61	1.405	Apr. 1	1415	627	17.8	5.04	1.536
Mar. 14	1900	698	19.8	5.23	1.594						

Minimum daily, 0.22 ft<sup>3</sup>/s (0.006 m<sup>3</sup>/s) Oct. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	.75	1.4	79	2.1	2.1	163	4.4	1.6	.60	.33	.39
2	.83	.66	1.1	20	1.9	2.2	107	4.1	1.5	.60	.31	.37
3	.79	.46	.96	4.0	1.6	2.2	52	3.9	1.5	.56	.29	.36
4	.79	.45	.88	1.8	1.7	2.0	33	4.8	1.5	.52	.30	.30
5	.79	.70	.79	4.4	1.7	1.9	23	3.9	1.3	.54	.31	.33
6	.75	.75	.77	4.6	1.6	1.8	17	3.5	1.2	.58	.29	.30
7	.71	.74	.76	1.8	1.4	1.5	14	3.4	1.1	.47	.32	.67
8	.71	.60	.80	1.4	1.7	1.4	11	3.3	1.2	.43	.33	.61
9	.66	.55	.80	1.4	3.6	1.4	10	3.1	1.1	.43	.30	.46
10	.50	.43	.74	6.9	113	1.5	8.5	3.0	1.2	.41	.31	.45
11	1.3	.40	.90	17	70	2.4	7.7	5.0	1.4	.33	.34	.47
12	1.0	.45	.80	2.9	8.6	9.1	7.2	2.9	1.3	.30	.36	.44
13	.51	.52	.76	2.0	4.9	6.0	7.0	2.1	1.2	.29	1.5	.44
14	.36	.55	.74	1.5	3.6	168	6.7	2.4	1.1	.33	.51	.45
15	.34	.56	.87	1.3	3.1	61	6.5	2.7	1.1	.37	.41	.60
16	.31	.57	.94	1.2	2.7	10	6.1	2.1	1.2	.45	.35	.74
17	.32	.52	.96	1.1	2.6	547	5.7	2.1	1.4	.43	.35	1.1
18	.30	.52	.79	1.0	2.4	497	5.6	2.0	1.7	.39	.33	1.1
19	.28	.52	.66	.99	2.2	127	5.5	2.0	1.7	.37	.34	.59
20	.22	.44	.75	125	2.2	66	5.3	2.0	1.3	.39	.31	.43
21	.22	.41	1.7	173	2.2	40	4.7	2.2	1.6	.35	.30	.39
22	.27	.37	1.2	14	1.9	27	4.4	2.4	1.8	.39	.34	.38
23	.37	.38	.87	5.4	2.0	20	4.4	2.4	1.5	.41	.34	.37
24	.66	.43	.81	3.9	2.1	16	4.3	2.2	1.4	.61	.42	.36
25	.70	.46	.71	3.2	2.1	14	4.3	2.1	1.2	.51	.60	.36
26	.63	.55	.71	2.4	1.9	81	4.3	2.1	.97	.41	.51	2.8
27	.60	18	.71	2.1	2.0	19	4.3	2.2	.86	.32	.44	3.4
28	.75	48	.66	2.7	2.0	15	4.2	2.3	.72	.28	.49	1.1
29	1.3	54	.71	8.3	---	63	4.2	1.9	.68	.26	.48	.68
30	.87	2.9	49	2.5	---	63	4.2	1.8	.64	.31	.40	.53
31	.80	---	14	2.1	---	21	---	1.7	---	.33	.37	---
TOTAL	19.43	136.64	88.25	498.89	248.8	1890.5	545.1	86.0	37.97	12.97	12.58	20.97
MEAN	.63	4.55	2.85	16.1	8.89	61.0	18.2	2.77	1.27	.42	.41	.70
MAX	1.3	54	49	173	113	547	163	5.0	1.8	.61	1.5	3.4
MIN	.22	.37	.66	.99	1.4	1.4	4.2	1.7	.64	.26	.29	.30
AC-FT	39	271	175	990	493	3750	1080	171	75	26	25	42
CAL YR 1981	TOTAL	1762.59	MEAN	4.83	MAX	252	MIN	.06	AC-FT	3500		
WTR YR 1982	TOTAL	3598.10	MEAN	9.86	MAX	547	MIN	.22	AC-FT	7140		

## LOS PENASQUITOS CREEK BASIN

11023350 LOS PENASQUITOS CREEK NEAR LA JOLLA, CA

LOCATION.--Lat 32°54'23", long 117°12'45", in SE¼SE¼ sec.32, T.14 S., R.3 W., San Diego County, Hydrologic Unit 18070304, on left bank 0.7 mi (1.1 km) east of intersection of Interstates 5 and 805 and 3.8 mi (6.1 km) northeast of La Jolla.

DRAINAGE AREA.--57.4 mi<sup>2</sup> (148.7 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS.--January to September 1982.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	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	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
JAN								
20...	1515	172	222	103	73	86	93	97
21...	1020	279	1060	798	--	94	96	99
MAR								
15...	0840	153	1070	442	--	95	98	99
17...	1105	237	366	234	--	--	--	--
18...	1650	385	245	255	73	85	93	97

DATE	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 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	TOTAL SEDIMENT LOAD T/DAY
JAN								
20...	99	100	100	100	100	100	100	103
21...	99	--	100	100	100	--	--	798
MAR								
15...	99	--	100	100	--	--	--	442
17...	--	--	99	--	--	--	--	234
18...	99	--	100	--	--	--	--	255



## 11025500 SANTA YSABEL CREEK NEAR RAMONA, CA

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.

DRAINAGE AREA.--112 mi<sup>2</sup> (290 km<sup>2</sup>).

PERIOD OF RECORD.--February 1912 to February 1923, October 1943 to current year. Monthly discharge only for February 1912, published in WSP 1315-B.

GAGE.--Water-stage recorder and concrete cutoff wall. Datum of gage is 847.88 ft (258.434 m) National Geodetic Vertical Datum of 1929 (levels by city of San Diego Water Department). See WSP 1315-B for history of changes prior to Feb. 3, 1923.

REMARKS.--Records good. Flow regulated by Sutherland Reservoir (station 11024000) since July 1954. Some small diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,400 ft<sup>3</sup>/s (804 m<sup>3</sup>/s) Jan. 27, 1916, gage height, 14.0 ft (4.27 m) datum then in use, from rating curve extended above 1,500 ft<sup>3</sup>/s (42.5 m<sup>3</sup>/s) on basis of slope-conveyance computation of maximum flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft<sup>3</sup>/s (31.7 m<sup>3</sup>/s) Mar. 17, gage height, 5.75 ft (1.753 m); minimum daily, 0.39 ft<sup>3</sup>/s (0.011 m<sup>3</sup>/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.47	2.6	8.6	7.4	6.9	127	13	9.1	3.5	.76	.57
2	1.6	.52	2.5	9.8	6.9	7.5	134	13	8.8	3.4	.80	.50
3	1.9	.60	2.4	6.6	6.7	8.0	61	12	8.5	3.2	.81	.44
4	1.5	.65	2.2	4.8	6.8	7.4	50	12	8.2	2.8	.75	.42
5	1.2	.67	2.1	5.5	6.5	7.0	43	13	7.9	2.7	.70	.43
6	.75	.72	2.0	8.2	6.2	6.5	39	12	7.7	2.5	.69	.39
7	.61	.72	2.0	6.4	6.5	6.4	36	11	7.5	2.4	.64	.42
8	1.3	.70	1.8	4.3	7.0	6.2	32	10	6.3	2.2	.59	.55
9	1.6	.61	1.8	3.7	7.6	6.5	30	11	6.9	2.5	.57	.74
10	1.5	.65	2.0	4.0	97	6.4	28	12	6.9	3.9	.56	.75
11	1.7	.95	2.0	5.9	328	7.8	26	13	6.5	3.6	.62	.75
12	1.5	1.3	1.8	6.1	43	11	24	12	6.3	2.0	.69	.75
13	1.5	1.6	1.5	5.8	25	11	23	12	6.2	1.8	.74	.76
14	1.2	2.0	2.1	5.4	20	19	23	11	6.0	1.7	.73	.75
15	1.2	2.1	2.5	5.1	16	61	22	9.9	5.8	1.7	.72	.83
16	1.3	1.8	2.9	4.7	15	26	21	9.7	5.6	1.7	.66	1.1
17	1.2	1.9	3.0	4.6	14	227	20	8.5	6.0	1.6	.60	1.2
18	1.1	1.9	3.0	4.6	12	386	19	8.6	7.4	1.8	.57	1.2
19	1.3	1.7	3.4	4.7	10	114	18	8.5	7.4	1.5	.49	.98
20	1.5	1.7	3.7	11	9.4	59	16	9.4	7.1	1.3	.44	.85
21	1.6	1.7	4.0	90	9.0	42	14	10	7.5	1.2	.44	.73
22	1.4	1.8	3.7	36	8.6	33	13	11	7.5	1.1	.45	.65
23	1.5	1.6	3.6	17	8.2	28	13	9.6	6.9	1.1	.57	.58
24	1.5	1.5	3.2	12	7.9	25	13	9.4	6.2	1.1	.87	.55
25	1.3	1.5	3.5	9.3	7.8	24	12	9.8	5.4	1.1	.94	.60
26	1.4	1.6	3.4	8.0	7.6	56	12	9.8	4.8	1.0	.94	1.3
27	1.5	2.5	3.4	7.0	7.4	38	12	10	4.4	.88	.86	1.2
28	1.8	3.5	3.6	8.5	7.0	30	13	10	4.0	.84	.74	1.1
29	1.9	4.4	3.5	12	---	53	12	11	3.7	.83	.64	1.1
30	1.2	3.0	6.1	9.3	---	54	13	9.8	3.7	.78	.58	.99
31	.62	---	5.5	7.9	---	37	---	9.3	---	.70	.56	---
TOTAL	42.58	46.36	90.8	336.8	714.5	1410.6	919	331.3	196.2	58.43	20.72	23.18
MEAN	1.37	1.55	2.93	10.9	25.5	45.5	30.6	10.7	6.54	1.88	.67	.77
MAX	1.9	4.4	6.1	90	328	386	134	13	9.1	3.9	.94	1.3
MIN	.61	.47	1.5	3.7	6.2	6.2	12	8.5	3.7	.70	.44	.39
AC-FT	84	92	180	668	1420	2800	1820	657	389	116	41	46
CAL YR 1981	TOTAL	2145.26	MEAN	5.88	MAX	74	MIN	.47	AC-FT	4260		
WTR YR 1982	TOTAL	4190.47	MEAN	11.5	MAX	386	MIN	.39	AC-FT	8310		

## SAN DIEGUITO RIVER BASIN

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 December 31, 1981 (discontinued).

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 PERIOD.--Maximum discharge, 5.20 ft<sup>3</sup>/s (0.15 m<sup>3</sup>/s) Dec. 30, gage height, 1.48 ft (0.451 m), no 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) many days during October and November.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	.06	1.5									
2	1.0	.05	1.4									
3	1.1	.06	1.3									
4	1.1	.06	1.3									
5	1.0	.05	1.3									
6	.51	.06	1.3									
7	.05	.06	1.3									
8	.05	.07	1.3									
9	.08	.06	1.3									
10	.06	.06	1.2									
11	.44	.06	1.3									
12	.08	.06	1.4									
13	.07	.06	1.4									
14	.06	.05	.76									
15	.05	.05	.24									
16	.06	.53	.29									
17	.05	1.1	.25									
18	.05	1.1	.26									
19	.05	1.1	.25									
20	.05	1.0	.25									
21	.05	.97	.27									
22	.05	1.1	.25									
23	.05	1.1	.25									
24	.06	1.1	.70									
25	.06	1.2	1.3									
26	.06	1.2	1.3									
27	.07	1.7	1.4									
28	.17	2.1	.90									
29	.20	3.4	.25		---							
30	.12	1.9	2.4		---		---		---			
31	.07	---	3.5		---						---	
TOTAL	7.83	21.47	32.12	0	0	0	0	0	0	0	0	0
MEAN	.25	.72	1.04	0	0	0	0	0	0	0	0	0
MAX	1.1	3.4	3.5	0	0	0	0	0	0	0	0	0
MIN	.05	.05	.24	0	0	0	0	0	0	0	0	0
AC-FT	16	43	64	0	0	0	0	0	0	0	0	0

CAL YR 1981 TOTAL 633.73 MEAN 1.74 MAX 28 MIN .03 AC-FT 1260  
WTR YR 1982 TOTAL 61.42 MEAN .17 MAX 3.5 MIN 0 AC-FT 122

11028500 SANTA MARIA CREEK NEAR RAMONA, CA

LOCATION.--Lat 33°03'08", long 116°56'41", in SE<sub>4</sub>SE<sub>4</sub>SE<sub>4</sub> 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.--43 years (water years 1914-20, 1947-82) 5.61 ft<sup>3</sup>/s (0.159 m<sup>3</sup>/s), 4,060 acre-ft/yr (5.01 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.--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 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 of gage height 14.39 ft (4.386 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. 21	1330	255 7.22	2.57 0.783	Mar. 17	2345	*1,090 30.9	4.42 1.347
Feb. 10	2200	763 21.6	3.80 1.158	Apr. 1	1645	692 19.6	3.65 1.113
Mar. 14	2030	375 10.6	2.90 .884				

Minimum daily, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) Jan. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.04	.32	.82	.70	2.7	228	4.4	.88	.33	.07	.15
2	.20	.05	.21	.63	.68	3.9	178	5.1	.67	.37	.08	.34
3	.23	.09	.05	.34	.79	5.4	54	5.0	.54	.35	.09	.63
4	.30	.15	.10	.25	.96	3.4	36	6.3	.47	.35	.20	.58
5	.33	.07	.07	.23	.76	1.6	31	5.9	3.9	.37	.22	.14
6	.34	.11	.08	.12	.49	.87	27	5.1	4.0	.33	.69	.11
7	.12	.19	.09	.03	.82	.82	24	4.1	1.8	.29	.43	.22
8	.18	.03	.07	.01	1.4	.89	21	3.4	.83	.30	.92	.14
9	.35	.04	.07	.01	1.6	.85	19	3.7	.68	.31	1.1	.11
10	.39	.06	.08	.14	152	.87	17	3.6	.66	.31	1.0	.09
11	.32	.12	.21	.24	213	1.6	17	5.0	.64	.32	.90	.09
12	.19	.07	.13	.07	24	14	16	5.8	.58	.29	.24	.09
13	.10	.05	.21	.03	14	17	15	3.5	.57	.27	.35	.08
14	.12	.05	.23	.20	11	91	14	3.1	.55	.26	.46	.10
15	.07	.03	.30	.05	9.7	109	14	2.6	.54	.26	.69	.14
16	.06	.02	.23	.04	8.8	25	13	2.1	.58	.28	.21	.14
17	.04	.07	.11	.08	8.6	336	12	1.6	.66	.31	.25	.11
18	.06	.09	.07	.08	6.5	560	12	1.1	3.3	.34	.36	.11
19	.05	.05	.12	.03	4.3	115	10	.91	1.1	.30	.33	.08
20	.07	.08	.06	2.0	4.2	40	8.2	.87	.82	.29	.31	.06
21	.07	.12	.24	169	4.2	27	5.5	1.2	1.1	.31	.55	.20
22	.06	.07	.19	20	3.8	22	5.0	1.9	1.7	.35	.66	.12
23	.06	.12	.03	2.5	3.6	20	2.4	1.7	1.7	.42	.61	.12
24	.06	.20	.04	.97	3.4	18	2.3	3.3	1.5	.42	.20	.12
25	.05	.28	.05	.61	3.5	15	4.1	1.3	.86	.39	.17	.12
26	.21	.24	.11	.52	3.2	78	6.8	1.1	.57	.29	.23	.12
27	.26	.33	.07	.50	3.1	37	4.9	2.4	.43	.11	.37	.12
28	.19	.51	.04	1.1	2.5	25	4.5	2.8	.23	.11	.30	.10
29	.16	.54	.05	5.3	---	92	11	1.4	.24	.08	.14	.33
30	.03	.34	.38	1.3	---	58	5.3	.99	.29	.35	.10	.05
31	.03	---	.34	.84	---	31	---	.83	---	.23	.22	---
TOTAL	4.86	4.21	4.35	208.04	491.60	1752.90	818.0	92.10	32.39	9.29	12.45	4.91
MEAN	.16	.14	.14	6.71	17.6	56.5	27.3	2.97	1.08	.30	.40	.16
MAX	.39	.54	.38	169	213	560	228	6.3	4.0	.42	1.1	.63
MIN	.03	.02	.03	.01	.49	.82	2.3	.83	.23	.08	.07	.05
AC-FT	9.6	8.4	8.6	413	975	3480	1620	183	64	18	25	9.7
CAL YR 1981	TOTAL	626.62	MEAN 1.72	MAX 102	MIN 0	AC-FT 1240						
WTR YR 1982	TOTAL	3435.10	MEAN 9.41	MAX 560	MIN .01	AC-FT 6810						

## 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, 35,850 acre-ft (44.2 hm<sup>3</sup>), spilling, Mar. 18, elevation, 316.82 ft (96.567 m); minimum observed, 26,530 acre-ft (32.7 hm<sup>3</sup>) Nov. 26, elevation, 308.82 ft (94.128 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	310.12	27,910	--
Oct. 31.....	309.38	27,120	-790
Nov. 30.....	309.05	26,770	-350
Dec. 31.....	309.26	27,000	+230
CAL YR 1981.....	--	--	-6,430
Jan. 31.....	311.23	29,130	+2,130
Feb. 28.....	314.66	33,140	+4,010
Mar. 31.....	315.50	34,180	+1,040
Apr. 30.....	315.20	33,800	-380
May 31.....	315.30	33,920	+120
June 30.....	314.72	33,210	-710
July 31.....	313.34	31,540	-1,670
Aug. 31.....	311.90	29,880	-1,660
Sept. 30.....	311.20	29,090	-790
WTR YR 1982.....	--	--	+1,180

11030500 SAN DIEGUITO RIVER NEAR DEL MAR, CA

LOCATION.--Lat 32°58'39", long 117°13'47", sec.7, T.14 S., R.3 W., San Diego County, Hydrologic Unit 18070304, on left bank of El Camino Real bridge 0.3 mi (0.5 km) south of intersection of El Camino Real and Via Del La Valle and 2.6 mi (4.2 km) upstream from mouth.

DRAINAGE AREA.--338 mi<sup>2</sup> (875 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: January to September 1982.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	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								
07...	1430	3.7	15.0	14	.14	--	--	--
20...	1600	8.1	--	149	3.3	39	52	61
21...	1210	40	--	411	44	31	42	56
FEB								
12...	1240	23	16.5	71	4.4	--	--	--
MAR								
15...	0930	332	--	912	818	16	20	24
17...	1220	176	--	177	84	--	--	--
19...	1045	998	--	1740	4690	3	3	4

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	TOTAL SEDIMENT LOAD T/DAY
JAN								
07...	--	--	43	--	--	--	--	.30
20...	69	75	79	83	93	99	100	3.3
21...	70	82	88	95	99	100	--	49
FEB								
12...	--	--	83	--	--	--	--	25
MAR								
15...	29	33	37	47	88	100	--	1970
17...	--	--	36	46	90	99	100	153
19...	6	7	10	22	82	99	100	7830

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	TEMPER- ATURE (DEG C)	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	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
JAN											
07...	1500	15.0	4	3.7	2	9	47	86	99	100	100

## ESCONDIDO CREEK BASIN

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, 6,000 acre-ft (7.40 hm<sup>3</sup>) June 1, elevation, 1,475.6 ft (449.76 m); minimum observed, 1,700 acre-ft (2.10 hm<sup>3</sup>) many days during November and December, elevation, 1,448.1 ft (441.38 m).

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0700, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,462.8	3,660	--
Oct. 31.....	1,460.8	3,340	-320
Nov. 30.....	1,448.1	1,700	-1,640
Dec. 31.....	1,448.5	1,740	+40
CAL YR 1981.....	--	--	-130
Jan. 31.....	1,453.4	2,310	+570
Feb. 28.....	1,459.3	3,110	+800
Mar. 31.....	1,468.3	4,590	+1,480
Apr. 30.....	1,472.6	5,400	+810
May 31.....	1,474.5	5,780	+380
June 30.....	1,475.1	5,900	+120
July 31.....	1,474.3	5,740	-160
Aug. 31.....	1,472.0	5,280	-460
Sept. 30.....	1,474.8	5,840	+560
WTR YR 1982.....	--	--	+2,180

11030770 SAN MARCOS CREEK AT LA COSTA, CA

LOCATION.--Lat 33°05'18", long 117°15'39", in SE¼NE¼ sec.35, T.12 S., R.4 W., San Diego County, Hydrologic Unit 18070303, 0.3 mi (0.5 km) upstream from El Camino Real on the western edge of the La Costa Country Club.

DRAINAGE AREA.--33.8 mi<sup>2</sup> (87.5 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: January to September 1982.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	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
JAN 21...	1640	111	--	400	120	21	27	31
FEB 12...	1000	20	13.0	53	2.9	--	--	--
MAR 15...	1030	54	--	72	11	--	--	--
17...	1330	142	--	1050	403	--	60	70
18...	1600	142	--	576	221	36	43	45

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	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM	TOTAL SEDIMENT LOAD T/DAY
JAN 21...	37	45	54	72	99	100	--	--	469
FEB 12...	--	--	53	--	--	--	--	--	2.9
MAR 15...	--	--	--	--	--	--	--	--	11
17...	79	82	87	94	99	100	--	--	494
18...	47	49	51	56	61	76	91	100	342

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
JAN 14...	1330	16.5	2	1	1	9	42	76	95	99	100

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.

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

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

AVERAGE DISCHARGE.--21 years, 2.47 ft<sup>3</sup>/s (0.070 m<sup>3</sup>/s), 1,790 acre-ft/yr (2.21 hm<sup>3</sup>/yr).

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)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Jan. 21	0330	421	11.9	3.75	1.143	Mar. 17	2200	229	6.49	3.55	1.082
Feb. 10	2000	*580	16.4	3.96	1.207	Apr. 1	1530	78	2.21	2.98	0.908

Minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) several days during November.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	.13	.14	.19	.97	1.5	29	3.5	.95	.54	.39	.28
2	.16	.12	.14	.19	.53	1.5	27	3.4	1.0	.52	.37	.27
3	.17	.12	.16	.17	.33	1.4	19	3.3	1.0	.52	.40	.26
4	.16	.11	.16	.18	.23	1.2	14	3.5	.84	.50	.41	.26
5	.15	.10	.16	1.1	.19	.87	12	3.7	.73	.50	.33	.25
6	.14	.09	.15	3.3	.14	.72	11	3.3	.74	.48	.34	.25
7	.14	.08	.14	.65	.13	.71	10	3.0	.71	.46	.34	.25
8	.15	.07	.15	.33	.18	.69	9.5	3.0	.71	.45	.33	.25
9	.15	.07	.15	.33	.32	.63	8.8	3.4	.64	.46	.33	.23
10	.16	.06	.15	.34	.86	.59	8.1	3.5	.63	.45	.34	.23
11	.17	.06	.15	.33	111	1.2	7.7	3.9	.59	.42	.39	.23
12	.17	.06	.15	.33	38	1.6	7.7	4.1	.56	.39	.46	.22
13	.19	.06	.16	.33	19	1.6	7.3	3.3	.56	.38	.46	.23
14	.19	.06	.15	.33	9.5	8.8	6.9	2.9	.59	.31	.46	.24
15	.21	.06	.15	.32	6.3	18	6.6	2.7	.63	.31	.47	.25
16	.22	.06	.15	.32	4.9	6.4	6.3	2.6	.54	.31	.49	.28
17	.22	.06	.15	.33	3.9	79	5.7	2.3	.64	.31	.54	.30
18	.20	.06	.14	.33	2.7	66	5.4	2.2	.68	.31	.54	.26
19	.21	.06	.16	.33	2.1	29	5.1	2.2	.68	.31	.53	.24
20	.20	.06	.16	39	1.9	23	4.7	1.9	.63	.31	.58	.22
21	.19	.06	.16	168.	1.7	18	4.3	1.8	.61	.31	.73	.20
22	.20	.06	.16	10	1.6	16	4.3	1.8	.63	.31	.76	.19
23	.19	.06	.16	3.9	1.6	15	4.1	1.5	.63	.35	.77	.21
24	.19	.06	.16	9.2	1.5	13	4.0	1.3	.61	.35	.88	.24
25	.18	.09	.16	14	1.5	11	3.9	1.2	.59	.48	.36	.28
26	.17	.17	.16	11	1.5	13	3.8	1.2	.59	.44	.37	.40
27	.18	.16	.15	7.4	1.5	11	3.7	1.5	.58	.36	.38	.47
28	.17	.16	.15	4.3	1.5	9.9	3.7	1.8	.57	.35	.34	.39
29	.16	.15	.16	5.7	---	11	3.7	1.4	.53	.35	.32	.41
30	.15	.14	.18	4.6	---	14	3.5	1.3	.55	.35	.30	.40
31	.14	---	.17	1.9	---	12	---	1.1	---	.35	.29	---
TOTAL	5.45	2.66	4.79	288.73	300.72	388.31	250.8	77.6	19.94	12.24	14.00	8.19
MEAN	.18	.089	.15	9.31	10.7	12.5	8.36	2.50	.66	.39	.45	.27
MAX	.22	.17	.18	168	111	79	29	4.1	1.0	.54	.88	.47
MIN	.14	.06	.14	.17	.13	.59	3.5	1.1	.53	.31	.29	.19
AC-FT	11	5.3	9.5	573	596	770	497	154	40	24	28	16
CAL YR 1981	TOTAL	425.07	MEAN	1.16	MAX	17	MIN	.06	AC-FT	843		
CAL YR 1982	TOTAL	1373.43	MEAN	3.76	MAX	168	MIN	.06	AC-FT	2720		



## 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 flows 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.--27 years (water years 1914-15, 1957-82), 9.78 ft<sup>3</sup>/s (0.277 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.--Peak discharges above base of 300 ft<sup>3</sup>/s (8.50 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Feb. 10	2145	*754 21.4	12.94 3.944
Mar. 17	1915	443 12.5	12.53 3.819

Minimum, no flow Dec. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.08	.08	8.0	6.9	6.4	120	8.0	3.5	.72	.23	.17
2	.06	.08	.07	5.6	6.5	6.2	90	7.8	3.4	.68	.22	.17
3	.06	.08	.06	2.1	6.3	6.0	75	7.6	3.4	.61	.23	.16
4	.06	.08	.06	1.0	6.2	5.9	55	7.4	3.3	.57	.22	.16
5	.06	.10	.06	23	5.4	5.6	45	7.2	3.0	.56	.23	.16
6	.06	.10	.06	13	5.0	5.0	40	7.0	2.9	.55	.22	.16
7	.06	.08	.06	4.6	4.8	4.8	36	6.8	2.9	.54	.22	.17
8	.06	.08	.06	2.6	7.6	4.8	34	6.7	2.8	.52	.21	.19
9	.06	.08	.06	2.0	8.6	4.6	33	6.5	2.7	.53	.21	.19
10	.06	.08	.06	1.7	185	4.6	31	6.3	2.4	.49	.21	.18
11	.08	.08	.06	2.5	204	5.2	30	6.1	2.2	.47	.23	.18
12	.08	.08	.06	2.4	72	7.1	27	6.0	2.1	.38	.22	.18
13	.08	.08	.06	1.7	47	6.9	23	5.9	2.0	.36	.22	.18
14	.08	.07	.06	1.4	36	31	21	5.7	2.1	.36	.23	.19
15	.08	.06	.06	1.2	29	50	20	5.5	2.0	.34	.23	.19
16	.08	.07	.06	1.0	25	26	19	5.4	1.7	.34	.22	.19
17	.08	.08	.06	.96	22	209	18	5.3	1.7	.34	.22	.22
18	.08	.08	.05	.90	18	126	16	5.1	1.8	.33	.21	.23
19	.08	.08	.05	.90	15	81	15	5.0	1.8	.31	.20	.21
20	.08	.08	.04	31	13	62	14	4.8	1.6	.30	.20	.20
21	.08	.07	.03	81	12	47	13	4.7	1.4	.29	.21	.18
22	.08	.06	.02	22	11	39	12	4.6	1.3	.29	.21	.16
23	.08	.06	.02	14	9.9	34	12	4.5	1.1	.29	.21	.15
24	.08	.06	.02	13	9.4	31	11	4.3	1.0	.28	.22	.15
25	.08	.06	.02	13	8.6	27	10	4.2	.91	.28	.23	.16
26	.08	.07	.02	12	8.0	75	9.7	4.1	.82	.28	.26	.21
27	.08	.10	.01	10	7.4	41	9.7	4.0	.75	.27	.24	.23
28	.08	.10	0	10	6.9	35	9.3	3.9	.69	.25	.21	.20
29	.08	.08	0	13	---	62	8.8	3.8	.70	.24	.20	.19
30	.08	.08	.02	9.0	---	82	8.2	3.7	.71	.24	.20	.19
31	.08	---	.01	7.5	---	48	---	3.6	---	.24	.19	---
TOTAL	2.29	2.34	1.36	312.06	796.5	1179.1	865.7	171.5	58.68	12.25	6.76	5.50
MEAN	.074	.078	.044	10.1	28.4	38.0	28.9	5.53	1.96	.40	.22	.18
MAX	.08	.10	.08	81	204	209	120	8.0	3.5	.72	.26	.23
MIN	.06	.06	0	.90	4.8	4.6	8.2	3.6	.69	.24	.19	.15
AC-FT	4.5	4.6	2.7	619	1580	2340	1720	340	116	24	13	11

CAL YR 1981	TOTAL	1062.33	MEAN	2.91	MAX	63	MIN	0	AC-FT	2110
WTR YR 1982	TOTAL	3414.04	MEAN	9.35	MAX	209	MIN	0	AC-FT	6770

## SAN LUIS REY RIVER BASIN

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 December 1981 (discontinued).

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.

AVERAGE DISCHARGE.--Creek only: 18 years, 5.07 ft<sup>3</sup>/s (0.144 m<sup>3</sup>/s), 3,670 acre-ft/yr (4.53 hm<sup>3</sup>/yr).  
Combined creek and diversion: 18 years, 5.73 ft<sup>3</sup>/s (0.162 m<sup>3</sup>/s), 4,150 acre-ft/yr (5.12 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 PERIOD.--Creek only: Maximum discharge, 7.2 ft<sup>3</sup>/s (0.204 m<sup>3</sup>/s) Dec. 30, gage height, 1.57 ft (0.479 m); minimum daily, 0.09 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Oct. 1, 6-8.  
Combined creek and diversion: Maximum discharge, 8.7 ft<sup>3</sup>/s (0.246 m<sup>3</sup>/s) Dec. 30; minimum daily, 0.50 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1981  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.34	1.9									
2	.10	.36	1.8									
3	.10	.42	1.6									
4	.10	.52	1.5									
5	.10	.64	1.5									
6	.09	.81	1.5									
7	.09	.86	1.6									
8	.09	.83	1.9									
9	.10	.89	2.0									
10	.10	.89	2.0									
11	.10	1.0	2.0									
12	.12	1.1	2.0									
13	.13	.87	2.1									
14	.13	.79	2.2									
15	.32	.85	2.1									
16	.58	.85	2.1									
17	.58	.88	2.0									
18	.58	.91	1.9									
19	.58	.93	1.9									
20	.58	.87	1.8									
21	.37	.97	1.9									
22	.12	1.0	2.1									
23	.13	1.3	2.2									
24	.14	1.4	2.1									
25	.16	1.4	2.1									
26	.18	1.6	2.1									
27	.23	3.3	2.1									
28	.22	3.1	2.1									
29	.36	3.4	1.7									
30	.40	2.2	3.2									
31	.35	---	4.6									
TOTAL	7.32	35.28	63.6									
MEAN	.24	1.18	2.05									
MAX	.58	3.4	4.6									
MIN	.09	.34	1.5									
AC-FT	15	70	126									
CAL YR 1981	TOTAL 645.80	MEAN 1.77	MAX 32	MIN .05	AC-FT 1280							

LOCATION.--Lat 33°20'14", long 117°08'07", in SWSEKNW 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.

PERIOD OF RECORD.--December 1935 to March 1938 (fragmentary), April 1938 to November 1941, October 1946 to current year.

REMARKS.--Records fair. Flow regulated by Lake Henshaw, capacity, 194,300 acre-ft (240 hm<sup>3</sup>) since 1923. Several diversions above station.

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, 1,420 ft<sup>3</sup>/s (40.2 m<sup>3</sup>/s) Mar. 17, gage height, 6.57 ft (2.003 m); minimum daily, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) Sept. 11.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.67	1.5	4.0	32	23	20	120	26	9.2	4.4	1.1	.25
2	.65	1.4	3.7	35	21	22	152	26	7.8	3.2	1.1	.20
3	.65	1.3	3.3	18	19	22	114	24	7.1	3.0	1.2	.37
4	.67	1.2	2.9	12	18	21	92	24	6.5	3.2	.67	.19
5	.80	1.3	3.1	17	16	22	83	24	7.1	3.7	.24	.20
6	.85	1.1	3.0	19	14	22	78	23	6.9	3.3	.26	.09
7	.81	.97	3.2	15	14	21	73	21	7.9	3.7	.16	.07
8	.84	1.1	3.5	12	14	21	69	21	7.2	3.1	.10	.21
9	.83	1.4	3.3	11	16	20	65	21	6.3	4.9	.16	.08
10	.88	1.8	3.2	11	58	20	62	21	5.0	3.6	.62	.06
11	1.1	1.9	3.4	13	321	22	60	23	5.5	2.9	1.0	.01
12	1.0	1.8	3.6	11	55	21	60	23	5.7	3.2	.95	.28
13	.99	1.8	3.5	10	43	25	54	20	5.3	2.9	1.3	.56
14	1.0	1.8	3.8	9.9	36	44	53	19	6.1	2.6	.81	.46
15	1.1	1.7	4.0	9.9	33	88	51	19	5.2	3.7	.84	.59
16	.98	1.8	3.8	9.5	33	63	47	17	5.9	3.5	.86	.59
17	.93	1.7	3.5	10	36	242	46	16	6.1	3.4	1.1	.76
18	.93	1.9	3.7	10	29	1000	44	15	6.6	2.7	1.4	.81
19	1.2	1.8	3.9	11	31	250	42	14	6.7	2.3	1.1	.83
20	1.3	1.9	3.7	37	30	95	39	13	6.1	2.5	.90	.81
21	1.0	1.8	4.2	124	29	82	36	13	6.4	2.2	1.1	.77
22	.98	1.7	4.3	82	23	72	34	14	6.7	1.3	1.2	.92
23	.98	1.9	4.3	57	24	64	33	13	6.5	1.1	1.3	1.0
24	1.0	1.8	4.4	48	24	71	32	13	6.9	1.1	1.0	1.1
25	1.2	1.9	4.5	39	24	69	30	12	5.9	1.5	.39	1.3
26	1.2	2.1	4.6	31	22	95	28	12	5.2	2.5	.82	3.7
27	1.2	2.8	4.8	29	22	81	29	12	5.3	2.5	1.0	4.6
28	1.2	4.2	4.7	30	21	70	28	12	4.8	2.0	1.0	4.2
29	1.5	5.7	4.9	36	---	78	28	10	4.7	1.4	.85	4.3
30	1.5	4.1	8.1	28	---	93	27	9.2	4.6	1.2	.37	4.1
31	1.5	---	7.7	25	---	82	---	8.7	---	1.0	.33	---
TOTAL	31.44	59.17	126.6	842.3	1049	2918	1709	538.9	187.2	83.6	25.23	33.41
MEAN	1.01	1.97	4.08	27.2	37.5	94.1	57.0	17.4	6.24	2.70	.81	1.11
MAX	1.5	5.7	8.1	124	321	1000	152	26	9.2	4.9	1.4	4.6
MIN	.65	.97	2.9	9.5	14	20	27	8.7	4.6	1.0	.10	.01
AC-FT	62	117	251	1670	2080	5790	3390	1070	371	166	50	66
CAL YR 1981	TOTAL	5106.84	MEAN	14.0	MAX	149	MIN	.26	AC-FT	10130		
WTR YR 1982	TOTAL	7603.85	MEAN	20.8	MAX	1000	MIN	.01	AC-FT	15080		

## SAN LUIS REY RIVER BASIN

## 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.--12 years, 2.16 ft<sup>3</sup>/s (0.061 m<sup>3</sup>/s), 1,560 acre-ft/yr (1.92 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, 222 ft<sup>3</sup>/s (6.29 m<sup>3</sup>/s) Mar. 17, gage height, 5.40 ft (1.646 m), no other peak above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s); minimum, no flow Nov. 5, 6, July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	11	35	117	89	78	534	61	34	17	5.2	5.2
2	5.5	10	33	311	80	81	604	56	33	18	5.4	4.7
3	7.7	9.8	31	153	74	83	302	58	30	17	4.7	4.4
4	9.5	9.1	28	80	69	78	218	61	28	16	4.6	4.3
5	13	8.4	27	110	63	76	176	62	30	16	4.3	4.5
6	13	7.8	26	151	58	74	166	59	29	15	4.6	4.5
7	13	7.3	26	92	58	72	161	58	28	15	4.1	4.5
8	13	7.3	25	73	58	71	158	55	27	14	4.1	4.5
9	12	7.3	24	64	59	69	159	56	26	13	4.3	4.9
10	12	7.0	23	61	126	70	160	55	25	12	4.3	6.1
11	13	7.3	24	65	600	71	163	56	26	11	4.5	7.2
12	14	7.7	24	61	304	76	164	70	26	11	4.4	7.5
13	14	8.4	24	55	176	75	164	63	26	12	4.5	7.4
14	13	8.4	25	53	142	112	132	56	23	11	4.9	7.0
15	13	8.4	25	51	124	255	125	50	22	11	4.9	7.8
16	13	9.5	25	50	113	156	120	48	21	10	5.2	9.3
17	13	10	24	50	110	724	115	55	23	11	5.4	11
18	13	10	24	49	106	3210	110	45	27	10	5.5	13
19	12	10	23	49	96	925	105	41	30	10	5.4	13
20	12	9.9	23	238	88	354	99	39	28	9.6	5.2	12
21	11	9.5	24	656	86	315	84	39	28	8.6	5.2	11
22	11	9.5	23	341	84	224	84	39	27	8.1	4.9	9.5
23	11	9.5	23	232	76	196	83	41	27	7.5	5.2	8.5
24	11	10	22	196	81	206	66	45	28	7.0	5.2	7.7
25	11	11	22	164	83	201	63	41	29	6.9	5.7	6.6
26	11	11	22	148	82	287	68	41	27	6.6	6.1	14
27	11	17	22	134	80	268	73	41	23	5.8	6.2	18
28	11	49	22	130	79	249	68	43	19	5.2	6.3	18
29	12	64	22	136	---	224	67	41	19	5.5	5.8	16
30	12	48	34	120	---	205	68	38	18	5.5	5.7	16
31	12	---	49	104	---	190	---	36	---	5.2	5.6	---
TOTAL	356.9	413.1	804	4294	3244	9275	4659	1549	787	331.5	157.4	268.1
MEAN	11.5	13.8	25.9	139	116	299	155	50.0	26.2	10.7	5.08	8.94
MAX	14	64	49	656	600	3210	604	70	34	18	6.3	18
MIN	4.2	7.0	22	49	58	69	63	36	18	5.2	4.1	4.3
AC-FT	708	819	1590	8520	6430	18400	9240	3070	1560	658	312	532

CAL YR 1981 TOTAL 14283.8 MEAN 39.1 MAX 552 MIN 2.0 AC-FT 28330  
WTR YR 1982 TOTAL 26139.0 MEAN 71.6 MAX 3210 MIN 4.1 AC-FT 51850

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.

WATER-DISCHARGE RECORDS

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.

AVERAGE DISCHARGE.--50 years (water years 1913-14, 1930-41, 1947-82), 31.6 ft<sup>3</sup>/s (0.895 m<sup>3</sup>/s), 22,890 acre-ft/yr (28.2 hm<sup>3</sup>/yr).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,730 ft<sup>3</sup>/s (162 m<sup>3</sup>/s) Mar. 18, gage height, 10.78 ft (3.286 m); minimum daily, 4.1 ft<sup>3</sup>/s (0.116 m<sup>3</sup>/s) Aug. 7, 8.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	11	35	117	89	78	534	61	34	17	5.2	5.2
2	5.5	10	33	311	80	81	604	56	33	18	5.4	4.7
3	7.7	9.8	31	153	74	83	302	58	30	17	4.7	4.4
4	9.5	9.1	28	80	69	78	218	61	28	16	4.6	4.3
5	13	8.4	27	110	63	76	176	62	30	16	4.3	4.5
6	13	7.8	26	151	58	74	166	59	29	15	4.6	4.5
7	13	7.3	26	92	58	72	161	58	28	15	4.1	4.5
8	13	7.3	25	73	58	71	158	55	27	14	4.1	4.5
9	12	7.3	24	64	59	69	159	56	26	13	4.3	4.9
10	12	7.0	23	61	126	70	160	55	25	12	4.3	6.1
11	13	7.3	24	65	600	71	163	56	26	11	4.5	7.2
12	14	7.7	24	61	304	76	164	70	26	11	4.4	7.5
13	14	8.4	24	55	176	75	164	63	26	12	4.5	7.4
14	13	8.4	25	53	142	112	132	56	23	11	4.9	7.0
15	13	8.4	25	51	124	255	125	50	22	11	4.9	7.8
16	13	9.5	25	50	113	156	120	48	21	10	5.2	9.3
17	13	10	24	50	110	724	115	55	23	11	5.4	11
18	13	10	24	49	106	3210	110	45	27	10	5.5	13
19	12	10	23	49	96	925	105	41	30	10	5.4	13
20	12	9.9	23	238	88	354	99	39	28	9.6	5.2	12
21	11	9.5	24	656	86	315	84	39	28	8.6	5.2	11
22	11	9.5	23	341	84	224	84	39	27	8.1	4.9	9.5
23	11	9.5	23	232	76	196	83	41	27	7.5	5.2	8.5
24	11	10	22	196	81	206	66	45	28	7.0	5.2	7.7
25	11	11	22	164	83	201	63	41	29	6.9	5.7	6.6
26	11	11	22	148	82	287	68	41	27	6.6	6.1	14
27	11	17	22	134	80	268	73	41	23	5.8	6.2	18
28	11	49	22	130	79	249	68	43	19	5.2	6.3	18
29	12	64	22	136	---	224	67	41	19	5.5	5.8	16
30	12	48	34	120	---	205	68	38	18	5.5	5.7	16
31	12	---	49	104	---	190	---	36	---	5.2	5.6	---
TOTAL	356.9	413.1	804	4294	3244	9275	4659	1549	787	331.5	157.4	268.1
MEAN	11.5	13.8	25.9	139	116	299	155	50.0	26.2	10.7	5.08	8.94
MAX	14	64	49	656	600	3210	604	70	34	18	6.3	18
MIN	4.2	7.0	22	49	58	69	63	36	18	5.2	4.1	4.3
AC-FT	708	819	1590	8520	6430	18400	9240	3070	1560	658	312	532
CAL YR 1981	TOTAL	14283.8	MEAN	39.1	MAX	552	MIN	2.0	AC-FT	28330		
WTR YR 1982	TOTAL	26139.0	MEAN	71.6	MAX	3210	MIN	4.1	AC-FT	51850		

## SAN LUIS REY RIVER BASIN

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 1978-81.

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 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	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 CAC03)
NOV 30...	1100	49	1670	8.2	14.5	11.4	600	1200	609	419
JAN 20...	1100	145	1380	8.3	12.5	10.2	15000	--	497	327
MAR 29...	0900	298	1530	8.2	14.5	9.3	700	5200	493	313
MAY 26...	1100	41	1920	8.2	19.5	8.8	K1300	K740	692	442
JUL 28...	1300	5.4	2510	8.5	31.0	10.0	240	260	775	555
SEP 21...	1130	12	2150	8.0	23.5	9.2	1100	5100	745	545

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 CAC03)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 30...	130	69	160	36	2.9	8.6	--	190	350	300
JAN 20...	110	54	120	34	2.4	8.4	--	170	260	230
MAR 29...	110	53	130	36	2.6	6.0	180	--	280	220
MAY 26...	150	77	180	36	3.1	7.0	250	--	380	320
JUL 28...	170	85	260	42	4.2	9.1	220	--	450	460
SEP 21...	160	84	230	40	3.8	8.4	200	--	420	420

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 CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
NOV 30...	.3	21	1260	1154 <sup>1</sup>	1.7	2.6	.14	1.2	--	.20
JAN 20...	.3	20	932	906 <sup>1</sup>	1.3	1.4	.45	1.5	.36	.30
MAR 29...	.3	32	1010	940	1.4	2.3	.10	--	.16	.18
MAY 26...	.4	30	1300	1295	1.8	2.3	.10	1.5	.18	.12
JUL 28...	.3	22	1760	1589	2.4	.93	.13	1.2	.16	.18
SEP 21...	1.5	24	1570	1468	2.1	.95	.18	1.7	.19	.07

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

1 Results based on Laboratory Alkalinity value.

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
NOV 30...	1100	2	1	200	<100	--	2	20	<10	--
JAN 20...	1100	2	2	400	<100	<1	1	40	<10	17
MAR 29...	0900	1	1	200	80	4	<1	30	<10	9
JUL 28...	1300	2	2	100	<100	<1	<1	30	<10	<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)
NOV 30...	<1	--	2	16000	60	--	<1	510	70	.1
JAN 20...	<1	39	2	36000	40	1	1	910	120	.2
MAR 29...	2	34	3	24000	410	<1	<1	520	74	.1
JUL 28...	<1	4	3	350	10	<1	<1	140	130	.2

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)
NOV 30...	<.1	--	1	1	1	--	1	80	40
JAN 20...	.1	19	1	1	1	<1	1	540	190
MAR 29...	<.1	10	5	1	<1	<1	<1	80	11
JUL 28...	<.1	3	<1	1	1	<1	<1	30	20

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

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	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	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
NOV 30...	1100	49	14.5	2430	321	--	--	--
JAN 15...	1330	52	17.5	391	55	--	--	--
JAN 20...	1100	145	12.5	4340	1700	--	--	--
JAN 21...	1310	700	--	4200	7940	--	--	--
FEB 11...	1455	852	17.0	2990	6880	19	22	24
MAR 15...	1130	236	--	1870	1190	20	22	26
MAR 18...	1420	2260	--	8230	50200	13	15	20
MAR 29...	0900	298	14.5	2100	1690	--	--	--
MAY 26...	1100	41	19.5	184	20	--	--	--
JUL 28...	1300	5.4	31.0	42	.61	--	--	--
SEP 21...	1130	12	23.5	425	14	--	--	--

## SAN LUIS REY RIVER BASIN

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	TOTAL SEDIMENT LOAD T/DAY
NOV 30...	--	1	--	--	--	--	--	721
JAN 15...	--	21	--	--	--	--	--	490
20...	--	11	--	--	--	--	--	3050
21...	--	40	--	--	--	--	--	14090
FEB 11...	26	29	42	79	98	100	100	14230
12...	--	--	--	--	--	--	--	3130
MAR 15...	28	31	44	92	100	--	--	3390
18...	24	28	38	71	95	100	--	68870
29...	--	16	--	--	--	--	--	4440
MAY 26...	--	50	--	--	--	--	--	342
JUL 28...	--	33	--	--	--	--	--	4.0
SEP 21...	--	32	34	58	91	98	100	76

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	TEMPER- ATURE (DEG C)	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	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
JAN 15...	1330	17.5	3	52	1	4	28	77	99	99	100



LOCATION.--Lat 33°27'33", long 116°55'22", in NE¼SW¼ 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.

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)		Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Jan. 21	0230	214	6.06	2.88	0.878	Mar. 17	1915	*890	25.2	4.71	1.436
Feb. 10	2345	408	11.6	3.54	1.079	Apr. 1	1500	248	7.02	3.01	.917

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	3.8	4.4	8.2	10	8.2	100	9.7	7.3	4.8	3.8	4.0
2	5.7	4.1	4.7	9.9	9.9	8.0	90	9.7	7.2	4.9	3.7	3.9
3	5.8	3.7	5.3	8.2	9.9	7.7	58	9.1	6.9	4.8	3.3	3.9
4	5.5	3.7	4.9	7.1	9.6	7.9	43	9.8	6.9	4.7	3.6	3.9
5	5.2	3.7	5.3	12	9.2	7.9	36	9.9	6.9	4.6	3.6	3.9
6	5.0	3.7	5.5	15	9.0	8.1	31	9.1	6.9	4.1	3.8	3.8
7	4.7	3.8	5.5	9.0	9.0	8.1	27	8.4	6.9	4.6	3.7	3.7
8	4.9	3.9	5.1	7.2	9.4	7.7	24	8.6	6.7	4.5	3.6	4.0
9	5.3	3.9	4.8	7.0	9.1	7.7	21	8.9	6.8	4.3	3.6	4.3
10	5.3	3.7	4.7	7.2	64	7.8	20	8.6	6.7	4.3	3.6	4.4
11	5.4	3.7	5.0	8.6	146	8.1	20	9.1	6.5	4.2	3.8	4.4
12	5.1	3.7	5.2	7.6	42	8.2	19	9.5	5.8	4.1	4.0	4.5
13	4.7	3.7	5.4	5.7	27	8.4	17	8.9	6.2	4.0	4.2	4.6
14	4.5	3.7	5.4	5.7	23	12	17	8.8	6.4	3.8	4.2	4.6
15	4.4	3.7	5.4	6.2	20	23	16	8.6	6.5	3.5	4.2	4.7
16	4.4	3.7	5.1	6.2	17	16	15	8.2	6.3	3.8	4.0	5.0
17	4.5	3.7	4.7	6.2	16	258	13	7.9	6.7	3.7	3.5	5.4
18	4.2	3.7	4.8	6.0	15	180	14	8.0	7.4	3.7	3.8	5.1
19	4.1	3.7	5.2	5.9	13	88	13	7.5	7.4	3.6	3.9	4.8
20	4.5	3.7	5.3	29	12	57	11	7.8	6.7	3.5	3.9	4.6
21	4.4	3.7	5.5	111	11	40	11	8.2	6.3	3.3	4.0	4.3
22	4.2	3.8	5.4	25	10	32	11	8.4	5.8	3.1	4.1	4.2
23	4.1	3.8	5.4	16	10	26	10	7.8	5.7	3.6	4.2	4.2
24	4.1	3.8	5.5	14	9.8	23	10	7.6	5.8	3.7	4.6	4.0
25	4.0	3.8	5.4	14	9.5	20	9.8	7.4	5.5	3.7	4.8	4.2
26	4.2	3.9	5.4	14	9.2	32	9.6	7.6	5.3	3.9	4.9	5.0
27	4.3	4.0	5.5	12	8.8	26	9.6	8.4	5.2	3.8	4.8	4.6
28	4.7	4.2	5.3	12	8.6	22	10	8.5	5.1	3.8	4.4	4.4
29	4.3	4.3	4.7	14	---	29	10	8.1	5.1	3.7	4.4	4.4
30	4.1	4.4	4.8	12	---	46	9.6	7.8	5.4	3.6	4.2	4.2
31	4.1	---	5.3	11	---	33	---	7.4	---	3.6	3.5	---
TOTAL	145.8	114.7	159.9	432.9	557.0	1066.8	705.6	763.3	190.3	123.3	123.7	131.0
MEAN	4.70	3.82	5.16	14.0	19.9	34.4	23.5	8.49	6.34	3.98	3.99	4.37
MAX	6.1	4.4	5.5	111	146	258	100	9.9	7.4	4.9	4.9	5.4
MIN	4.0	3.7	4.4	5.7	8.6	7.7	9.6	7.4	5.1	3.1	3.3	3.7
AC-FT	289	228	317	859	1100	2120	1400	522	377	245	245	260
CAL YR 1981	TOTAL	2629.4	MEAN	7.20	MAX	50	MIN	3.3	AC-FT	5220		
WTR YR 1982	TOTAL	4014.3	MEAN	11.0	MAX	258	MIN	3.1	AC-FT	7960		

## 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 Bureau of Reclamation); 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. 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 42,590 acre-ft (52.5 hm<sup>3</sup>) June 20, 21, elevation, 1,463.43 ft (446.053 m) from observed high-water mark; minimum, 36,120 acre-ft (44.5 hm<sup>3</sup>) Jan. 19, elevation, 1,456.59 ft (443.969 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,457.25	36,720	--
Oct. 31.....	1,456.84	36,350	-370
Nov. 30.....	1,456.84	36,350	0
Dec. 31.....	1,456.66	36,180	-170
CAL YR 1981.....	--	--	-4,930
Jan. 31.....	1,457.23	36,700	+520
Feb. 28.....	1,458.05	37,460	+760
Mar. 31.....	1,461.14	40,360	+2,900
Apr. 30.....	1,463.15	42,310	+1,950
May 31.....	1,463.36	42,520	+210
June 30.....	1,462.95	42,110	-410
July 31.....	1,462.17	40,390	-1,720
Aug. 31.....	1,461.00	40,230	-160
Sept. 30.....	1,459.85	39,140	-1,090
WTR YR 1982.....	--	--	+2,420

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.

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only October 1924 to September 1930, published in WSP 1315-B.

REMARKS.--Records good except those for period of indefinite stage-discharge relationship Mar. 19 to Sept. 30, which are 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.

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.

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. 20	2315	1,120	31.7	Mar. 17	1645	*4,570 129	8.55 2.606
Mar. 14	2045	488	13.8	Apr. 1	Unknown	Unknown	Unknown

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	.44	1.2	7.4	1.6	1.2	120	1.3	.90	.64	.67	.68
2	.15	.44	.92	3.6	1.9	1.8	50	1.3	.89	.63	.67	.68
3	.16	.44	.83	1.9	2.2	1.5	18	1.4	.88	.63	.68	.68
4	.16	.45	.77	1.2	2.6	1.5	7.5	1.5	.87	.62	.68	.68
5	.17	.47	.73	7.3	2.4	1.5	4.0	1.3	.85	.62	.68	.68
6	.22	.49	.73	4.0	2.2	1.6	2.8	1.1	.84	.62	.68	.68
7	.26	.49	.74	1.5	2.4	1.6	2.7	1.1	.83	.62	.68	.68
8	.25	.49	.73	1.1	3.6	1.6	2.6	1.1	.82	.61	.68	.68
9	.26	.49	.73	.97	3.0	1.6	2.5	1.1	.80	.62	.68	.68
10	.27	.49	.73	1.0	19	1.8	2.4	1.1	.79	.62	.68	.68
11	.30	.49	.74	1.6	19	2.2	2.3	1.1	.78	.62	.68	.68
12	.25	.51	.73	1.4	3.3	6.0	2.2	1.1	.77	.62	.68	.68
13	.34	.54	.73	1.1	2.2	3.6	2.1	1.1	.76	.63	.68	.68
14	.31	.54	.74	.97	1.8	49	2.0	1.1	.75	.63	.68	.68
15	.31	.54	.78	.94	1.8	44	1.8	1.0	.74	.63	.68	.68
16	.31	.54	.78	.89	1.7	7.9	1.7	1.0	.73	.63	.68	.78
17	.31	.54	.74	.89	1.6	1210	1.6	1.0	.73	.64	.68	.74
18	.33	.54	.74	.89	1.4	550	1.5	1.0	.80	.64	.68	.79
19	.32	.54	.73	.93	1.4	90	1.4	1.0	.76	.64	.68	.75
20	.31	.54	.75	247	1.3	28	1.3	1.0	.74	.65	.68	.72
21	.37	.54	.80	167	1.3	10	1.3	1.0	.73	.66	.68	.70
22	.36	.54	.76	9.8	1.2	5.5	1.2	1.0	.72	.67	.68	.70
23	.38	.58	.73	3.5	1.2	4.2	1.2	.99	.71	.66	.68	.70
24	.39	.60	.73	2.3	1.2	3.5	1.2	.98	.70	.66	.68	.70
25	.39	.60	.76	1.9	1.2	3.3	1.2	.97	.69	.66	.70	1.0
26	.39	.86	.90	1.8	1.2	7.2	1.2	.96	.67	.66	.74	2.1
27	.43	3.8	.81	1.6	1.3	3.5	1.2	.95	.66	.66	.69	1.5
28	.47	5.7	.81	1.5	1.2	3.0	1.2	.94	.65	.66	.68	1.2
29	.68	2.8	.81	2.1	---	8.0	1.2	.93	.65	.66	.67	1.0
30	.56	1.1	1.4	1.6	---	38	1.3	.92	.65	.66	.68	.98
31	.46	---	1.6	1.6	---	8.5	---	.91	---	.66	.68	---
TOTAL	10.28	27.13	25.68	481.28	86.2	2101.1	242.6	33.25	22.86	19.83	21.14	24.56
MEAN	.33	.90	.83	15.5	3.08	67.8	8.09	1.07	.76	.64	.68	.82
MAX	.68	5.7	1.6	247	19	1210	120	1.5	.90	.67	.74	2.1
MIN	.15	.44	.73	.89	1.2	1.2	1.2	.91	.65	.61	.67	.68
AC-FT	20	54	51	955	171	4170	.481	66	.45	.39	.42	.49
CAL YR 1981	TOTAL	652.95	MEAN	1.79	MAX	31	MIN	.01	AC-FT	1300		
WTR YR 1982	TOTAL	3095.91	MEAN	8.48	MAX	1210	MIN	.15	AC-FT	6140		

## SANTA MARGARITA RIVER BASIN

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 Tualota 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); 34 years (water years 1949-82), 15.6 ft<sup>3</sup>/s (0.442 m<sup>3</sup>/s), 11,300 acre-ft/yr (13.9 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, 4,680 ft<sup>3</sup>/s (133 m<sup>3</sup>/s), Mar. 17, gage height, 8.74 ft (2.664 m), from rating curve extended above 140 ft<sup>3</sup>/s (3.96 m<sup>3</sup>/s) on basis of slope-area measurement on Murrieta Creek 0.5 mi (0.8 km) upstream; minimum daily, 0.74 ft<sup>3</sup>/s (0.021 m<sup>3</sup>/s) Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.4	2.8	19	3.4	3.4	271	8.1	3.2	2.2	1.8	2.0
2	2.0	1.5	2.3	7.3	3.5	2.6	57	8.2	3.2	2.1	1.8	1.6
3	2.0	1.6	2.0	4.2	3.6	2.5	24	8.0	3.6	2.1	1.7	1.4
4	2.1	1.4	2.3	2.5	3.8	2.7	15	8.3	3.5	2.1	1.4	1.4
5	2.0	1.3	2.1	19	3.7	3.7	14	6.7	2.8	2.1	1.4	1.4
6	1.7	1.1	2.1	8.0	3.3	3.4	11	6.2	2.7	2.0	1.5	1.4
7	.83	1.6	2.1	4.9	3.7	2.9	9.9	6.3	2.7	1.9	1.6	1.4
8	.82	1.2	2.1	2.8	4.5	3.4	8.2	6.7	2.8	1.9	1.6	1.5
9	.80	1.2	2.1	2.6	4.3	3.6	7.4	7.4	2.7	1.8	1.6	1.5
10	.88	1.2	2.0	2.5	75	3.5	7.0	7.3	2.6	1.8	1.6	1.5
11	.87	1.2	2.0	3.4	32	3.1	6.8	8.6	2.5	1.7	1.6	1.6
12	1.8	1.3	2.1	3.2	7.2	6.4	6.6	5.5	2.3	1.7	1.6	1.6
13	1.2	1.6	2.2	2.7	5.3	4.6	6.3	6.4	2.3	1.7	1.6	1.6
14	.78	1.8	2.2	2.6	4.3	163	5.9	6.5	2.4	1.7	1.7	2.0
15	.78	1.6	2.2	2.6	4.1	78	5.5	5.8	2.5	1.7	1.7	1.7
16	.80	1.3	2.2	2.5	4.6	14	5.2	6.3	2.6	1.7	1.7	1.7
17	.76	1.7	2.2	2.5	4.3	2120	4.8	7.9	2.7	1.8	1.8	1.9
18	.80	1.8	2.2	2.6	4.5	1100	4.5	7.2	2.7	1.8	1.7	2.0
19	.77	1.8	2.1	2.2	4.9	90	4.2	5.4	2.6	1.7	1.7	1.9
20	.88	1.8	2.1	552	4.8	27	3.9	4.9	2.3	1.4	1.7	1.8
21	.83	1.8	2.1	301	4.6	15	3.6	5.3	2.6	1.5	1.6	1.8
22	.83	1.8	2.1	14	4.2	11	3.4	4.6	2.8	1.6	1.6	1.6
23	1.4	1.9	2.1	5.4	3.4	8.1	3.4	4.6	2.7	1.4	1.6	1.6
24	1.2	2.0	2.1	4.3	2.6	6.7	3.5	6.3	2.9	1.5	1.6	1.6
25	1.1	2.0	2.1	4.2	3.0	6.6	5.1	5.3	2.9	1.6	1.6	1.4
26	1.2	3.0	2.2	3.8	3.7	11	5.3	4.4	2.4	1.7	1.9	4.3
27	1.3	1.1	2.2	3.7	3.9	6.5	5.4	4.2	2.3	1.7	1.7	3.0
28	1.3	1.5	2.2	3.7	3.6	5.5	5.9	3.9	2.3	1.7	1.7	2.2
29	1.8	.80	2.2	4.0	---	11	6.3	3.7	2.2	1.6	1.6	2.0
30	1.5	2.7	3.2	3.6	---	32	6.6	3.5	2.2	1.6	1.5	2.0
31	1.4	---	3.3	3.5	---	12	---	3.3	---	1.6	1.6	---
TOTAL	38.63	48.00	69.2	1000.3	213.8	3763.2	526.7	186.8	80.0	54.4	50.8	54.4
MEAN	1.25	1.60	2.23	32.3	7.64	121	17.6	6.03	2.67	1.75	1.64	1.81
MAX	2.2	3.0	3.3	552	75	2120	271	8.6	3.6	2.2	1.9	4.3
MIN	.76	.80	2.0	2.2	2.6	2.5	3.4	3.3	2.2	1.4	1.4	1.4
AC-FT	77	95	137	1980	424	7460	1040	371	159	108	101	108
CAL YR 1981	TOTAL	1302.83	MEAN	3.57	MAX	62	MIN	.61	AC-FT	2580		
WTR YR 1982	TOTAL	6086.23	MEAN	16.7	MAX	2120	MIN	.76	AC-FT	12070		

## 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.--59 years, 33.9 ft<sup>3</sup>/s (0.960 m<sup>3</sup>/s), 24,560 acre-ft/yr (30.3 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, 4,120 ft<sup>3</sup>/s (117 m<sup>3</sup>/s), Mar. 18, gage height, 7.60 ft (2.316 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	17	97	41	37	603	32	14	9.7		
2		0	13	128	40	37	335	31	14	12		
3		0	11	60	41	31	140	27	13	11		
4		0	12	41	42	29	87	28	13	12		
5		0	13	130	45	29	69	25	13	13		
6		0	12	94	41	28	60	25	12	9.9		
7		0	12	57	41	26	54	26	12	9.7		
8		0	9.3	49	42	25	49	24	12	9.0		
9		0	8.3	37	41	25	48	25	12	8.2		
10		0	7.4	30	101	23	43	26	11	9.0		
11		0	5.3	29	392	22	38	26	11	9.0		
12		0	6.4	27	105	25	48	29	11	8.2		
13		0	7.7	28	85	28	38	25	11	7.7		
14		0	7.3	19	70	60	46	24	11	6.9		
15		0	6.8	22	61	305	41	22	11	7.5		
16		0	6.8	21	54	92	40	18	11	6.9		
17		0	7.3	20	56	50	46	18	11	8.2		
18		0	7.7	19	50	2500	49	18	11	7.5		
19		0	9.3	19	45	1740	49	16	11	8.2		
20		0	8.8	224	42	268	37	13	11	5.7		
21		0	9.3	575	42	181	36	13	11	3.3		
22		0	9.3	218	42	129	34	17	11	2.4		
23		0	9.3	116	40	121	32	16	12	.87		
24		0	12	90	34	96	34	15	12	.87		
25		0	11	79	32	84	36	16	14	.33		
26		0	9.3	66	31	110	32	18	16	0		
27		13	6.4	60	32	100	32	18	17	0		
28		30	6.4	58	33	75	32	16	11	0		
29		39	6.4	56	---	78	32	17	9.8	0		
30		21	9.9	49	---	199	29	15	11	0		
31		---	14	47	---	75	---	15	---	0		---
TOTAL	0	103	291.7	2565	1721	6628	2249	654	360.8	187.07	0	0
MEAN	0	3.43	9.41	82.7	61.5	214	75.0	21.1	12.0	6.03	0	0
MAX	0	39	17	575	392	2500	603	32	17	13	0	0
MIN	0	0	5.3	19	31	22	29	13	9.8	0	0	0
AC-FT	0	204	579	5090	3410	13150	4460	1300	716	371	0	0
CAL YR 1981 TOTAL		4634.64		MEAN 12.7	MAX 244	MIN 0	AC-FT 9190					
WTR YR 1982 TOTAL		14759.57		MEAN 40.4	MAX 2500	MIN 0	AC-FT 29280					

## SANTA MARGARITA RIVER BASIN

11046000 SANTA MARGARITA RIVER AT YSIDORA, CA--Continued

## WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1980-81.

WATER TEMPERATURES: Water years 1969-81.

SEDIMENT RECORDS: Water years 1969-78, January to September 1982.

PERIOD OF DAILY RECORD.--

SEDIMENT RECORDS: October 1968 to September 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 13,000 mg/L Feb. 24, 1969; minimum daily, no flow for many days in most years.

SEDIMENT DISCHARGE: Maximum daily, 534,000 tons (484,000 metric tons) Feb. 24, 1969; minimum daily, 0 tons many days in each year.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (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	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
JAN										
15...	1430	5.3	18.0	29	.41	--	--	--	--	--
21...	1500	686	11.5	3850	7130	--	--	--	--	--
21...	1515	686	11.5	3750	6950	62	73	79	80	--
FEB										
11...	1515	314	17.0	719	610	45	51	58	61	--
12...	1515	130	16.5	607	213	--	--	--	--	--
MAR										
15...	1220	411	--	3460	3840	50	57	62	63	--
17...	1720	1030	--	8750	24300	33	42	55	66	72
18...	1115	3340	--	4910	44300	22	26	33	40	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM	TOTAL SEDIMENT LOAD T/DAY
JAN											
15...	36	--	--	--	--	--	--	--	--	--	3.8
21...	83	--	--	--	--	--	--	--	--	--	9230
21...	81	--	82	--	88	--	97	--	100	100	9040
FEB											
11...	--	--	--	--	--	--	--	--	--	--	1280
11...	63	--	66	--	79	--	96	--	99	100	903
12...	18	--	--	--	--	--	--	--	--	--	230
MAR											
15...	64	--	65	--	71	--	90	--	97	100	5640
17...	--	76	--	88	--	97	--	100	--	--	26800
18...	46	--	52	--	63	--	78	--	94	100	47900

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	TEMPER- ATURE (DEG C)	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	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
JAN												
15...	1430	18.0	3	5.3	0	0	15	45	75	94	99	100

11046100 LAS FLORES CREEK NEAR OCEANSIDE, CA

LOCATION.--Lat 33°17'36", long 117°27'06", in SE¼NW¼ sec.24, T.10 S., R.6 W., San Diego County, Hydrologic Unit 18070301, on left bank 0.8 mi (1.3 km) upstream from mouth and 8.5 mi (13.7 km) northwest of Oceanside.

DRAINAGE AREA.--26.6 mi<sup>2</sup> (66.7 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: January to September 1982.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	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	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
JAN									
20...	1530	15	14.0	4070	163	--	--	--	--
21...	1640	26	12.0	1600	110	52	62	70	76
FEB									
11...	1235	8.5	21.0	731	17	--	--	--	--
MAR									
17...	1410	51	14.0	4980	680	--	--	--	--
18...	1700	61	15.5	2210	362	--	--	--	--
APR									
01...	1320	145	14.5	9130	3570	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	TOTAL SEDIMENT LOAD T/DAY
JAN										
20...	--	96	--	--	--	--	--	--	--	252
21...	--	80	--	87	--	98	--	100	--	508
FEB										
11...	--	90	--	--	--	--	--	--	--	26
MAR										
17...	90	--	93	--	99	--	100	--	--	1040
18...	--	69	--	--	--	--	--	--	--	927
APR										
01...	76	--	84	--	96	--	99	--	100	5280

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

				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
DATE	TIME	TEMPER- ATURE (DEG C)						
JAN 08...	1200	13.0	3	.10	2	8	21	
		BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	
DATE		.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	
JAN 08...		45	81	96	98	98	100	

## SAN ONOFRE CREEK BASIN

11046250 SAN ONOFRE CREEK AT SAN ONOFRE, CA

LOCATION.--Lat 33°23'00", long 117°34'22", in SE&SE&, sec.14, T.9 S., R.7 W., San Diego County, Hydrologic Unit 18070301, on left bank 0.2 mi (0.3 km) north of San Onofre, 0.3 mi (0.5 km) upstream from Interstate 5, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--42.2 mi<sup>2</sup> (106 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: January to September 1982.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (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 20...	1700	28	13.0	2660	205	--	--	--
FEB 11...	1055	64	15.0	749	129	47	60	75
MAR 17...	1220	293	13.0	2350	1860	56	69	87
MAR 18...	1505	237	16.5	4190	2680	--	--	--
APR 01...	1205	900	13.5	13200	32100	--	--	--
APR 01...	1450	342	14.0	4050	3740	--	--	--

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	TOTAL SEDIMENT LOAD T/DAY
JAN 20...	--	--	--	--	--	--	--	205
FEB 11...	89	91	93	94	97	100	--	132
MAR 17...	95	100	100	100	100	--	--	1910
MAR 18...	--	23	31	52	77	92	100	3540
APR 01...	--	63	--	--	--	--	--	33300
APR 01...	--	53	--	--	--	--	--	4500

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	TEMPER- ATURE (DEG C)	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
JAN 08...	1430	13.5	4	.20	1	2	14
DATE	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
JAN 08...	45	75	91	96	98	99	100



11046370 SAN MATEO CREEK AT SAN ONOFRE, CA

LOCATION.--Lat 33°23'28", long 117°35'23", in SE¼NW¼ sec.14 T.9 S., R.7 W., San Diego County, Hydrologic Unit 18070301, on downstream side of old U.S. Highway 101 bridge, 0.45 mi (0.7 km) upstream from mouth and 2.55 mi (4.1 km) downstream from Cristianitos Creek.

DRAINAGE AREA.--132 mi<sup>2</sup> (332 km<sup>2</sup>).

PERIOD OF RECORD.--

SEDIMENT RECORDS: January to September 1982.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (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
JAN										
21...	1345	223	10.0	2030	1220	--	--	--	--	--
22...	1430	37	13.0	368	37	--	--	--	--	--
FEB										
11...	1010	265	14.0	1190	851	--	32	48	67	85
11...	1625	141	17.5	561	214	--	--	--	--	--
MAR										
17...	1005	160	13.0	2240	968	--	--	--	--	--
17...	1050	1020	13.0	9140	25200	--	--	--	--	--
17...	1130	1300	13.0	6580	23100	--	35	44	63	83
18...	1120	1640	12.5	2960	13100	--	--	--	--	--
18...	1305	1630	14.0	2730	12000	10	12	16	20	25
APR										
01...	1045	60	14.5	155	25	--	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM	TOTAL SEDIMENT LOAD T/DAY
JAN											
21...	--	92	--	--	--	--	--	--	--	--	1270
22...	--	92	--	--	--	--	--	--	--	--	38
FEB											
11...	--	94	--	95	--	96	--	99	--	100	929
11...	--	72	--	--	--	--	--	--	--	--	235
MAR											
17...	--	95	--	--	--	--	--	--	--	--	995
17...	--	80	--	--	--	--	--	--	--	--	26600
17...	94	--	96	--	97	--	99	--	100	--	25400
18...	--	37	--	--	--	--	--	--	--	--	16800
18...	30	--	38	--	61	--	94	--	100	--	15700
APR											
01...	--	55	--	--	--	--	--	--	--	--	28

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	TEMPERATURE (DEG C)	NUMBER OF SAMPLING POINTS	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
JAN							
15...	1100	15.5	4	1.0	1	2	7

DATE	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
JAN							
15...	30	60	76	83	89	97	100

## SAN JUAN CREEK BASIN

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA

LOCATION.--Lat 33°29'31", long 117°39'41", in SE¼NE¼ 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.--13 years, 24.5 ft<sup>3</sup>/s (0.694 m<sup>3</sup>/s), 17,750 acre-ft/yr (21.9 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum 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.--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)
Mar. 17	2045	1,890 53.5	13.91 4.240
Apr. 1	1430	563 15.9	12.63 3.850

Minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	.60	.43	22	6.0	3.5	232	9.9	5.5	.85	.66	.32
2	.70	.60	.40	18	5.5	4.0	202	8.7	4.6	1.1	.66	.24
3	.60	.60	.40	13	5.3	3.4	106	8.7	4.3	1.3	.57	.17
4	.50	.50	.40	12	5.0	3.3	82	10	2.3	1.3	.48	.10
5	.50	.60	.46	28	4.8	3.2	72	12	2.5	1.1	.48	.24
6	.50	.60	.50	18	4.6	2.8	65	12	2.3	1.1	.40	.32
7	.50	.60	.60	14	4.3	2.8	60	9.9	2.5	1.1	.40	.98
8	.50	.50	.70	13	4.8	2.8	57	9.9	2.7	.98	.32	.85
9	.50	.50	.80	12	5.0	2.8	51	11	3.0	.85	.32	.85
10	.50	.50	1.4	11	13	3.0	47	9.9	2.5	.85	.48	1.9
11	.70	.50	1.4	12	34	4.1	45	9.1	2.5	.75	.40	.85
12	.60	.50	1.4	11	32	3.6	45	7.5	2.5	.66	.40	1.8
13	.60	.50	1.4	10	22	4.1	43	7.5	2.7	.66	.32	.75
14	.50	.50	.90	9.6	16	11	39	7.2	3.2	.57	.32	.85
15	.50	.50	.90	9.1	13	7.8	36	6.8	3.0	.57	.32	.85
16	.60	.50	1.4	8.7	10	6.9	37	6.5	2.7	.57	.40	2.1
17	.60	.50	1.4	8.2	8.4	373	35	7.5	3.5	.57	.40	1.3
18	.50	.50	1.4	8.2	7.8	886	33	6.5	4.6	.57	.32	.85
19	.50	.50	1.4	8.2	6.0	162	29	5.5	4.8	.57	.32	.75
20	.60	.50	1.4	19	4.8	73	27	5.2	4.3	.57	.32	.57
21	.60	.50	1.8	21	4.6	40	25	5.2	4.0	.66	.40	.48
22	.60	.50	1.8	20	4.3	35	22	5.2	4.3	.75	.24	.48
23	.60	.50	1.8	16	3.6	32	20	6.1	4.0	.75	.40	.48
24	.60	.50	1.8	13	3.4	25	19	6.1	3.7	.75	.57	.57
25	.50	.50	1.8	10	3.2	19	16	6.5	3.2	.75	.57	.75
26	.60	.50	1.8	9.1	2.8	23	15	5.5	2.7	.75	.57	10
27	.60	.70	2.6	7.8	2.7	20	14	5.5	2.3	.75	.57	.32
28	.70	12	2.6	7.4	2.6	16	13	5.5	2.1	.75	.66	.24
29	.70	.70	2.6	7.4	---	15	13	5.2	1.8	.75	.57	.24
30	.70	.43	9.3	6.4	---	32	13	5.5	1.1	.75	.57	.17
31	.70	---	3.4	6.0	---	33	---	5.2	---	.75	.57	---
TOTAL	27.40	27.43	50.39	389.1	239.5	1853.1	1513	232.8	95.2	24.75	13.98	30.37
MEAN	.88	.91	1.63	12.6	8.55	59.8	50.4	7.51	3.17	.80	.45	1.01
MAX	10	12	9.3	28	34	886	232	12	5.5	1.3	.66	10
MIN	.50	.43	.40	6.0	2.6	2.8	13	5.2	1.1	.57	.24	.10
AC-FT	54	54	100	772	475	3680	3000	462	189	49	28	60
CAL YR 1981	TOTAL	1066.10	MEAN	2.92	MAX	46	MIN	.24	AC-FT	2110		
WTR YR 1982	TOTAL	4497.02	MEAN	12.3	MAX	886	MIN	.10	AC-FT	8920		

WATER-QUALITY RECORDS

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,540 mg/L Mar. 18; minimum daily mean, 5 mg/L Mar. 15, Aug. 31, Sept. 9.

[illegible]

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	10	103	6.2	.60	21	.03	.43	29	.03
2	.70	80	.15	.60	20	.03	.40	35	.04
3	.60	50	.08	.60	19	.03	.40	33	.04
4	.50	45	.06	.50	18	.02	.40	27	.03
5	.50	42	.06	.60	17	.03	.46	18	.02
6	.50	40	.05	.60	16	.03	.50	19	.03
7	.50	53	.07	.60	15	.02	.60	27	.04
8	.50	28	.04	.50	14	.02	.70	25	.05
9	.50	29	.04	.50	13	.02	.80	23	.05
10	.50	27	.04	.50	12	.02	1.4	21	.08
11	.70	23	.04	.50	11	.01	1.4	20	.08
12	.60	18	.03	.50	28	.04	1.4	20	.08
13	.60	31	.05	.50	27	.04	1.4	20	.08
14	.50	29	.04	.50	20	.03	.90	20	.05
15	.50	26	.04	.50	19	.03	.90	19	.05
16	.60	25	.04	.50	16	.02	1.4	19	.07
17	.60	24	.04	.50	14	.02	1.4	19	.07
18	.50	25	.03	.50	11	.01	1.4	18	.07
19	.50	29	.04	.50	39	.05	1.4	18	.07
20	.60	23	.04	.50	15	.02	1.4	18	.07
21	.60	8	.01	.50	16	.02	1.8	17	.08
22	.60	24	.04	.50	20	.03	1.8	17	.08
23	.60	30	.05	.50	23	.03	1.8	17	.08
24	.60	29	.05	.50	11	.01	1.8	16	.08
25	.50	28	.04	.50	10	.01	1.8	16	.08
26	.60	27	.04	.50	12	.02	1.8	15	.07
27	.60	26	.04	.70	12	.02	2.6	15	.11
28	.70	25	.05	12	175	9.8	2.6	15	.11
29	.70	24	.05	.70	17	.03	2.6	15	.11
30	.70	23	.04	.43	22	.03	9.3	94	3.8
31	.70	22	.04	---	---	---	3.4	35	.32
TOTAL	27.40	---	7.63	27.43	---	10.52	50.39	---	6.02

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	22	167	26	6.0	23	.37	3.5	10	.09
2	18	40	1.9	5.5	22	.33	4.0	12	.13
3	13	25	.88	5.3	20	.29	3.4	25	.23
4	12	20	.65	5.0	16	.22	3.3	20	.18
5	28	70	7.1	4.8	14	.18	3.2	11	.10
6	18	18	.87	4.6	12	.15	2.8	7	.05
7	14	18	.68	4.3	10	.12	2.8	8	.06
8	13	18	.63	4.8	15	.19	2.8	10	.08
9	12	16	.52	5.0	18	.24	2.8	10	.08
10	11	16	.48	13	57	3.4	3.0	7	.06
11	12	15	.49	34	170	23	4.1	10	.11
12	11	14	.42	32	115	9.9	3.6	7	.07
13	10	14	.38	22	50	3.0	4.1	11	.12
14	9.6	14	.36	16	40	1.7	11	35	1.6
15	9.1	13	.32	13	139	7.2	7.8	5	.11
16	8.7	12	.28	10	75	2.0	6.9	10	.19
17	8.2	11	.24	8.4	122	3.6	373	1850	6450
18	8.2	11	.24	7.8	60	1.3	886	2540	7710
19	8.2	10	.22	6.0	30	.49	162	825	361
20	19	94	7.4	4.8	29	.38	73	420	83
21	21	90	5.1	4.6	28	.35	40	240	26
22	20	52	2.8	4.3	27	.31	35	549	52
23	16	50	2.2	3.6	25	.24	32	370	32
24	13	45	1.6	3.4	23	.21	25	155	10
25	10	41	1.1	3.2	21	.18	19	180	9.2
26	9.1	38	.93	2.8	18	.14	23	210	13
27	7.8	35	.74	2.7	15	.11	20	140	7.6
28	7.4	30	.60	2.6	12	.08	16	90	3.9
29	7.4	27	.54	---	---	---	15	73	.19
30	6.4	25	.43	---	---	---	32	219	19
31	6.0	24	.39	---	---	---	33	80	7.1
TOTAL	389.1	---	66.49	239.5	---	59.68	1853.1	---	14787.25

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	232	2810	1760	9.9	11	.29	5.5	32	.48
2	202	1370	747	8.7	11	.26	4.6	27	.34
3	106	450	129	8.7	11	.26	4.3	20	.23
4	82	260	58	10	13	.35	2.3	18	.11
5	72	200	39	12	13	.42	2.5	15	.10
6	65	140	25	12	13	.42	2.3	11	.07
7	60	100	16	9.9	14	.37	2.5	9	.06
8	57	90	14	9.9	15	.40	2.7	8	.06
9	51	165	23	11	15	.45	3.0	7	.06
10	47	190	24	9.9	15	.40	2.5	8	.05
11	45	100	12	9.1	15	.37	2.5	10	.07
12	45	90	11	7.5	16	.32	2.5	12	.08
13	43	80	9.3	7.5	16	.32	2.7	17	.12
14	39	70	7.4	7.2	14	.27	3.2	22	.19
15	36	53	5.2	6.8	13	.24	3.0	27	.22
16	37	43	4.3	6.5	12	.21	2.7	32	.23
17	35	36	3.4	7.5	9	.18	3.5	34	.32
18	33	31	2.8	6.5	10	.18	4.6	35	.43
19	29	27	2.1	5.5	11	.16	4.8	34	.44
20	27	24	1.7	5.2	12	.17	4.3	32	.37
21	25	21	1.4	5.2	12	.17	4.0	31	.33
22	22	20	1.2	5.2	13	.18	4.3	30	.35
23	20	18	.97	6.1	12	.20	4.0	27	.29
24	19	14	.72	6.1	11	.18	3.7	23	.23
25	16	11	.48	6.5	20	.35	3.2	20	.17
26	15	10	.41	5.5	44	.65	2.7	20	.15
27	14	12	.45	5.5	48	.71	2.3	20	.12
28	13	10	.35	5.5	45	.67	2.1	20	.11
29	13	10	.35	5.2	41	.58	1.8	21	.10
30	13	10	.35	5.5	37	.55	1.1	22	.07
31	---	---	---	5.2	35	.49	---	---	---
TOTAL	1513	---	2900.88	232.8	---	10.77	95.2	---	5.95
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	.85	25	.06	.66	37	.07	.32	6	0
2	1.1	27	.08	.66	22	.04	.24	8	0
3	1.3	29	.10	.57	11	.02	.17	12	0
4	1.3	32	.11	.48	7	0	.10	15	0
5	1.1	35	.10	.48	6	0	.24	16	.01
6	1.1	38	.11	.40	7	0	.32	14	.01
7	1.1	40	.12	.40	7	0	.98	10	.03
8	.98	33	.09	.32	9	0	.85	6	.01
9	.85	23	.05	.32	13	.01	.85	5	.01
10	.85	20	.05	.48	16	.02	1.9	37	.19
11	.75	18	.04	.40	19	.02	.85	30	.07
12	.66	16	.03	.40	21	.02	1.8	42	.20
13	.66	15	.03	.32	24	.02	.75	28	.06
14	.57	15	.02	.32	26	.02	.85	20	.05
15	.57	14	.02	.32	28	.02	.85	18	.04
16	.57	14	.02	.40	30	.03	2.1	40	.23
17	.57	13	.02	.40	31	.03	1.3	35	.12
18	.57	13	.02	.32	33	.03	.85	28	.06
19	.57	12	.02	.32	38	.03	.75	24	.05
20	.57	11	.02	.32	43	.04	.57	20	.03
21	.66	11	.02	.40	51	.06	.48	19	.02
22	.75	10	.02	.24	56	.04	.48	18	.02
23	.75	10	.02	.40	55	.06	.48	17	.02
24	.75	10	.02	.57	51	.08	.57	16	.02
25	.75	10	.02	.57	43	.07	.75	15	.03
26	.75	25	.05	.57	33	.05	10	76	2.1
27	.75	35	.07	.57	23	.04	.32	30	.03
28	.75	63	.13	.66	12	.02	.24	28	.02
29	.75	58	.12	.57	7	.01	.24	27	.02
30	.75	54	.11	.57	6	0	.17	26	.01
31	.75	48	.10	.57	5	0	---	---	---
TOTAL	24.75	---	1.79	13.98	---	.85	30.37	---	3.46
YEAR	4497.02		17861.29						

## SAN JUAN CREEK BASIN

11046550 SAN JUAN CREEK AT SAN JUAN CAPISTRANO, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	TEMPER- ATURE (DEG C)	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	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
JAN 05...	1100	--	73	5.5	--	--	--	--	--
MAR 18...	1030	11.5	2170	5210	--	36	47	58	67
18...	1710	13.5	1840	2350	--	31	40	47	55
19...	0640	--	961	524	29	37	44	49	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
JAN 05...	--	75	--	76	--	90	--	100	--
MAR 18...	76	--	87	--	94	--	98	--	100
18...	62	--	75	--	85	--	97	--	100
19...	61	--	74	--	98	--	100	--	--

## 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 fair. Sewage inflow and irrigation runoff cause low-flow fluctuations in discharge.

AVERAGE DISCHARGE.--33 years, 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, 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)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 20	1945	*2,220 62.9	15.67 4.776	Mar. 17	0900	1,570 44.5	14.44 4.401
Mar. 14	1700	1,850 52.4	15.08 4.596	Apr. 1	0800	2,010 56.9	15.12 4.608

Minimum, no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	1.3	0	.15	0	.15	360	2.7	1.7	2.7	1.3	1.3
2	.32	2.4	0	50	0	.17	5.4	2.7	2.4	2.2	1.3	1.1
3	.28	1.0	.02	5.0	0	.15	1.5	2.7	3.0	1.9	1.3	1.5
4	.39	1.3	0	.77	0	.21	.95	27	1.9	2.4	1.3	2.7
5	.62	1.3	0	51	.02	.21	1.3	2.2	1.5	2.4	1.7	2.2
6	.64	1.3	.08	4.4	0	.19	1.5	2.4	1.3	2.2	1.3	1.7
7	.64	1.2	.06	.86	0	.21	1.7	1.5	1.3	2.4	2.2	2.3
8	.62	1.3	.06	2.4	.04	.17	2.2	1.5	1.7	2.4	2.4	8.2
9	.68	1.7	.08	2.4	.02	.19	2.2	1.3	1.7	3.0	1.7	1.9
10	.69	1.3	.06	3.7	51	.15	1.3	1.3	1.7	2.4	1.1	1.1
11	.69	1.7	.09	7.5	11	.26	1.3	1.3	1.9	2.7	.67	1.1
12	.69	1.5	.15	2.1	.11	.34	1.1	1.1	1.9	2.4	.80	2.2
13	.71	2.4	.19	.90	0	.24	1.5	1.3	1.5	2.4	.80	2.2
14	.77	1.7	.19	2.1	0	206	1.7	1.3	1.5	2.4	1.1	1.7
15	.75	1.5	.11	2.7	.04	7.5	2.2	1.1	1.5	2.2	.80	2.4
16	.79	1.5	.09	3.2	.11	0	1.9	1.3	1.5	1.9	1.1	1.7
17	.73	1.5	.04	3.7	.02	639	1.1	1.3	1.5	2.7	.80	1.9
18	.79	1.7	0	2.7	.11	316	.95	1.3	1.5	2.4	1.3	1.9
19	.79	1.7	.13	2.7	.13	15	1.9	1.5	1.3	1.5	.95	.95
20	.82	1.9	.19	318	.11	8.2	2.2	1.9	1.9	2.2	1.5	.95
21	.82	1.7	.15	53	.15	7.7	2.2	2.2	1.5	2.7	1.7	1.1
22	.81	1.9	.17	0	.15	7.7	3.2	2.4	1.1	2.4	.95	1.1
23	.81	2.4	.19	.02	.09	7.2	3.6	2.4	1.1	2.4	1.5	1.9
24	.79	1.7	.19	0	.08	6.7	2.4	2.2	1.3	.95	1.9	3.6
25	.81	1.9	.15	0	.08	6.3	2.4	1.9	1.3	.44	1.7	3.0
26	.82	4.1	.28	0	.15	26	2.2	1.9	1.1	.80	1.7	35
27	.82	36	.43	0	.15	7.0	3.2	1.5	1.3	.95	2.2	4.6
28	.84	240	.21	0	.15	5.0	2.2	1.1	1.5	.95	1.7	3.2
29	.84	.15	.20	0	---	11	2.7	.80	1.7	1.5	1.7	2.4
30	.84	0	.20	0	---	14	2.2	1.1	2.7	1.7	1.7	1.7
31	.90	---	.15	0	---	5.0	---	.95	---	1.5	1.5	---
TOTAL	29.41	321.05	3.86	519.30	63.71	1297.94	420.20	77.15	48.8	63.09	43.67	98.60
MEAN	.95	10.7	.12	16.8	2.28	41.9	14.0	2.49	1.63	2.04	1.41	3.29
MAX	7.9	240	.43	318	51	639	360	27	3.0	3.0	2.4	35
MIN	.28	0	0	0	0	0	.95	.80	1.1	.44	.67	.95
AC-FT	58	637	7.7	1030	126	2570	833	153	97	125	87	196

CAL YR 1981 TOTAL 2182.43 MEAN 5.98 MAX 345 MIN 0 AC-FT 4330  
WTR YR 1982 TOTAL 2986.78 MEAN 8.18 MAX 639 MIN 0 AC-FT 5920

11048500 SAN DIEGO CREEK AT SAND CANYON AVENUE, NEAR IRVINE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

WATER TEMPERATURES: Water years 1972 to current year.

SEDIMENT RECORDS: Water years 1972 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1972 to September 1981.

SEDIMENT RECORDS: June 1972 to September 1981.

REMARKS.--Gage moved to present site at Sand Canyon in January 1977. Prior to October 1976 at site 1 mi (2 km) downstream. No gage from October 1976 to January 1977. Extremes unknown for 1977 water year due to missing record prior to Jan. 19, 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 28,700 mg/L Feb. 16, 1980; minimum daily mean, no flow Dec. 25, 1972, Nov. 15-17, 1973, Jan. 13, 1975, Feb. 2-6, 12-15, Mar. 8, 9, 1981.

SEDIMENT DISCHARGE: Maximum daily, 246,000 tons (223,000 metric tons) Feb. 16, 1980; minimum daily, 0 tons on several days most years.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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								
01...	0730	16.5	33	1120	100	61	70	77
02...	0915	17.0	.43	132	.15	--	--	--
05...	0915	14.0	.62	54	.09	--	--	--
08...	0920	14.0	.60	196	.32	--	--	--
09...	0915	13.5	.71	196	.38	--	--	--
12...	0920	17.0	.69	109	.20	--	--	--
13...	0930	12.5	.75	1050	2.1	--	--	--
14...	0925	11.0	.81	827	1.8	--	--	--
19...	1110	17.0	.75	1310	2.7	--	--	--
20...	0915	16.5	.79	1290	2.8	--	--	--
21...	0915	16.0	.79	1300	2.8	--	--	--
22...	0915	14.0	.79	1300	2.8	--	--	--
NOV								
17...	1545	19.0	1.7	135	.62	--	--	--
18...	0900	--	1.7	16	.07	--	--	--
19...	0920	15.0	1.3	15	.05	--	--	--
20...	0930	11.0	1.1	18	.05	--	--	--
23...	1115	12.0	2.1	18	.10	--	--	--
24...	0915	10.0	1.7	16	.07	--	--	--
25...	1010	10.5	1.5	22	.09	--	--	--
30...	0845	9.0	.10	30	.00	--	--	--
DEC								
05...	1010	--	.02	314	.02	--	--	--
07...	1200	--	.02	77	.00	--	--	--
JAN								
05...	1625	--	79	1150	245	23	26	28
06...	0815	12.0	5.3	139	2.0	--	--	--
MAR								
03...	1500	--	.17	20	.00	--	--	--
15...	0845	14.0	14	765	29	29	32	34
15...	0945	15.0	11	1760	52	--	--	--
18...	1455	15.5	50	973	131	--	--	--
18...	1530	15.5	50	961	130	--	--	--
APR								
02...	1030	16.0	7.7	176	3.7	--	--	--
MAY								
06...	1020	20.0	2.2	1020	6.1	--	--	--
28...	1110	18.0	.38	418	.43	--	--	--
JUL								
07...	1050	27.0	1.5	484	2.0	75	85	91



11048500 SAN DIEGO CREEK AT SAND CANYON AVENUE, NEAR IRVINE, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
OCT								
01...	85	93	99	100	--	--	--	--
02...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--
NOV								
17...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--
DEC								
05...	--	--	97	--	--	--	--	--
07...	--	--	86	--	--	--	--	--
JAN								
05...	31	34	39	52	78	95	100	--
06...	--	--	89	--	--	--	--	--
MAR								
03...	--	--	90	--	--	--	--	--
15...	35	37	39	45	61	77	95	100
15...	--	--	75	--	--	--	--	--
18...	--	--	52	--	--	--	--	--
18...	--	--	54	--	--	--	--	--
APR								
02...	--	--	73	--	--	--	--	--
MAY								
06...	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--
JUL								
07...	95	97	98	99	100	--	--	--



## 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, 70,890 acre-ft (87.4 hm<sup>3</sup>) June 1; minimum contents observed, 55,700 acre-ft (68.7 hm<sup>3</sup>) Jan. 1.

## MONTHEND CONTENTS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	57,500	--
Oct. 31.....	56,140	-1,360
Nov. 30.....	55,920	-220
Dec. 31.....	55,700	-220
CAL YR 1981.....	--	-7,770
Jan. 31.....	57,270	+1,570
Feb. 28.....	59,080	+1,810
Mar. 31.....	62,540	+3,460
Apr. 30.....	69,430	+6,890
May 31.....	70,890	+1,460
June 30.....	69,720	-1,170
July 31.....	68,410	-1,310
Aug. 31.....	67,560	-850
Sept. 30.....	66,260	-1,300
WTR YR 1982.....	--	+8,760

## 11051500 SANTA ANA RIVER NEAR MENTONE, CA

LOCATION.--Lat 34°06'30", long 117°05'59", in NE¼SW¼SW¼ sec.4, T.1 S., R.2 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 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.

## WATER-DISCHARGE RECORDS

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 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: 68 years (water years 1915-82), 36.3 ft<sup>3</sup>/s (1.028 m<sup>3</sup>/s), 26,300 acre-ft/yr (32.4 hm<sup>3</sup>/yr).  
Combined river and canal: 86 years, 83.2 ft<sup>3</sup>/s (2.356 m<sup>3</sup>/s), 60,280 acre-ft/yr (74.3 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, 2,300 ft<sup>3</sup>/s (65.1 m<sup>3</sup>/s) Mar. 17, gage height, 10.12 ft (3.082 m) from rating curve extended above 630 ft<sup>3</sup>/s (17.8 m<sup>3</sup>/s); minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Dec. 5.  
Combined river and canal: Maximum discharge, 2,300 ft<sup>3</sup>/s (65.1 m<sup>3</sup>/s) Mar. 17; minimum daily, 19 ft<sup>3</sup>/s (0.538 m<sup>3</sup>/s) Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.37	.33	.18	.44	6.7	5.2	226	49	8.8	5.6	4.8	1.8
2	.37	.33	.12	.44	5.9	6.4	194	48	8.8	5.6	4.4	1.8
3	.37	.32	.08	.40	5.7	7.8	131	46	8.3	5.2	3.7	1.4
4	.37	.30	.10	.40	5.5	6.4	109	49	7.8	5.2	2.8	1.0
5	.37	.29	.06	11	5.5	5.6	95	46	7.3	4.8	2.4	.85
6	.36	.28	4.7	14	5.7	5.2	85	42	7.3	4.8	2.1	.77
7	.36	.27	19	9.1	5.7	5.2	80	40	6.9	4.4	1.9	.70
8	.36	.26	21	5.4	5.7	6.0	80	39	6.9	4.1	1.5	.77
9	.36	.25	22	4.1	5.0	5.2	66	38	6.9	4.1	1.4	.77
10	.36	.24	23	3.2	158	4.4	70	37	6.4	4.1	1.2	.70
11	.36	.23	24	3.0	352	4.4	145	35	6.4	3.7	1.1	.70
12	.36	.22	15	2.9	123	7.8	262	34	6.4	4.1	1.0	.85
13	.35	.21	2.4	3.0	47	6.9	186	33	6.9	3.7	.92	1.0
14	.35	.21	2.0	2.6	39	26	124	32	6.9	3.7	.92	1.1
15	.35	.18	1.5	2.4	35	49	122	31	6.4	3.7	.85	1.1
16	.35	.18	1.2	2.3	32	48	98	30	6.4	4.1	.85	1.1
17	.35	.15	1.1	2.3	28	650	98	29	6.4	4.1	.77	1.4
18	.35	.21	.92	2.3	22	321	92	28	8.3	4.1	.77	1.5
19	.35	.21	.85	2.1	20	180	92	27	11	4.1	.70	1.5
20	.35	.21	.77	34	16	155	93	26	8.8	4.1	.64	1.5
21	.35	.18	.70	52	12	143	87	22	6.9	4.1	.57	1.5
22	.35	.18	.70	21	9.3	133	75	21	6.9	4.1	.57	1.4
23	.34	.15	1.1	18	7.3	98	68	19	6.4	4.1	.57	1.3
24	.34	.12	.77	19	6.9	78	66	17	6.4	4.1	.64	1.2
25	.34	.10	.64	18	6.9	57	63	18	6.4	4.1	.86	1.1
26	.34	.12	.64	14	6.4	61	59	17	6.0	19	1.3	8.3
27	.34	.24	.57	11	5.6	58	57	17	6.0	16	1.4	13
28	.34	.23	.52	12	5.6	60	55	17	5.6	11	1.4	6.0
29	.34	.21	.52	14	---	70	53	17	5.6	8.3	1.5	4.1
30	.34	.20	.48	9.1	---	110	52	14	5.6	7.3	1.5	4.1
31	.33	---	.48	7.6	---	77	---	12	---	5.6	1.8	---
TOTAL	10.92	6.61	147.10	301.08	983.4	2450.5	3083	930	211.1	175.0	46.83	64.31
MEAN	.35	.22	4.75	9.71	35.1	79.0	103	30.0	7.04	5.65	1.51	2.14
MAX	.37	.33	.24	.52	352	650	262	49	11	19	4.8	13
MIN	.33	.10	.06	.40	5.0	4.4	52	12	5.6	3.7	.57	.70
AC-FT	22	13	292	597	1950	4860	6120	1840	419	347	93	128
CAL YR 1981 TOTAL	2688.33	MEAN	7.37	MAX	87	MIN	.06	AC-FT	5330			
WTR YR 1982 TOTAL	8409.85	MEAN	23.0	MAX	650	MIN	.06	AC-FT	16680			

## 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 1981 TO SEPTEMBER 1982

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	34	27	40	57	58	266	132	82	63	47	40
2	43	33	27	39	55	65	220	131	82	61	46	39
3	43	34	28	33	55	68	198	129	79	59	46	38
4	43	34	28	34	54	60	177	134	79	58	48	40
5	42	34	28	76	52	59	167	126	78	58	47	45
6	41	34	19	72	50	54	164	118	77	57	48	49
7	41	35	20	55	49	52	157	117	77	55	47	52
8	41	35	21	44	50	54	156	115	76	54	48	55
9	39	35	22	44	49	53	142	112	75	53	46	56
10	38	35	24	43	199	52	146	112	73	52	45	54
11	42	35	25	45	353	58	223	113	72	51	45	50
12	41	34	34	43	148	78	300	111	71	49	44	44
13	42	34	42	40	124	69	215	109	73	48	46	42
14	37	34	44	40	114	97	203	110	73	48	46	41
15	35	34	38	39	110	123	201	109	71	48	45	41
16	37	34	33	39	107	121	176	107	70	47	44	42
17	38	34	33	38	104	683	177	105	70	47	42	43
18	35	34	34	38	89	322	171	103	67	47	44	45
19	34	34	38	37	82	181	171	101	74	47	44	43
20	35	33	44	89	76	155	171	100	72	46	44	41
21	35	33	48	108	73	143	164	97	70	46	44	40
22	34	33	41	64	71	134	152	95	68	45	47	38
23	34	33	37	65	68	138	146	93	66	46	45	37
24	34	33	35	78	66	147	143	91	66	47	44	41
25	34	33	33	81	65	134	141	92	64	48	45	43
26	34	34	33	74	63	144	136	91	64	67	46	59
27	34	41	33	66	61	138	134	90	62	63	46	60
28	35	39	33	70	59	139	134	87	62	56	45	58
29	36	35	33	73	---	151	133	88	64	51	44	60
30	35	34	32	63	---	195	134	85	64	49	43	60
31	34	---	33	60	---	158	---	84	---	49	41	---
TOTAL	1169	1031	1000	1730	2503	4083	5218	3287	2141	1615	1402	1396
MEAN	37.7	34.4	32.3	55.8	89.4	132	174	106	71.4	52.1	45.2	46.5
MAX	43	41	48	108	353	683	300	134	82	67	48	60
MIN	34	33	19	33	49	52	133	84	62	45	41	37
AC-FT	2320	2040	1980	3430	4960	8100	10350	6520	4250	3200	2780	2770
CAL YR 1981	TOTAL	16906	MEAN 46.3	MAX 103	MIN 19	AC-FT 33530						
WTR YR 1982	TOTAL	26575	MEAN 72.8	MAX 683	MIN 19	AC-FT 52710						

## SANTA ANA RIVER BASIN

11051500 SANTA ANA RIVER NEAR MENTONE, CA--Continued

## WATER-QUALITY RECORDS

## PERIOD OF RECORD.--

SEDIMENT RECORDS: January to September 1982.

## PERIOD OF DAILY RECORD.--

SEDIMENT RECORDS: January to September 1982.

## EXTREMES FOR PERIOD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,710 mg/L Mar. 17; minimum daily, 0 mg/L many days June to September.

SEDIMENT DISCHARGE: Maximum daily discharge, 4,760 tons (4,240 metric tons) Mar. 17; minimum daily, 0 tons (0 metric tons) many days June to September.

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	.44	0	0	6.7	40	.72	5.2	8	.11
2	.44	0	0	5.9	39	.62	6.4	11	.19
3	.40	0	0	5.7	39	.60	7.8	10	.21
4	.40	0	0	5.5	42	.62	6.4	10	.17
5	11	240	7.1	5.5	44	.65	5.6	11	.17
6	14	67	2.5	5.7	33	.51	5.2	15	.21
7	9.1	20	.49	5.7	38	.58	5.2	18	.25
8	5.4	10	.15	5.7	43	.66	6.0	20	.32
9	4.1	8	.09	5.0	43	.58	5.2	25	.35
10	3.2	7	.06	158	1260	538	4.4	28	.33
11	3.0	5	.04	352	1360	1290	4.4	23	.27
12	2.9	5	.04	123	88	29	7.8	16	.34
13	3.0	5	.04	47	62	7.9	6.9	12	.22
14	2.6	5	.04	39	53	5.6	26	78	5.5
15	2.4	5	.03	35	45	4.3	49	90	12
16	2.3	5	.03	32	36	3.1	48	61	7.9
17	2.3	5	.03	28	27	2.0	650	2710	4760
18	2.3	5	.03	22	24	1.4	321	760	659
19	2.1	5	.03	20	22	1.2	180	220	107
20	34	491	45	16	14	.60	155	107	45
21	52	917	129	12	12	.39	143	99	38
22	21	290	16	9.3	11	.28	133	99	36
23	18	190	9.2	7.3	12	.24	98	70	19
24	19	100	5.1	6.9	14	.26	78	45	9.5
25	18	30	1.5	6.9	15	.28	57	43	6.6
26	14	45	1.7	6.4	15	.26	61	50	8.2
27	11	42	1.2	5.6	10	.15	58	35	5.5
28	12	42	1.4	5.6	10	.15	60	17	2.8
29	14	42	1.6	---	---	---	70	35	6.6
30	9.1	42	1.0	---	---	---	110	30	8.9
31	7.6	41	.84	---	---	---	77	17	3.5
TOTAL	301.08	---	224.24	983.4	---	1890.65	2450.5	---	5744.14

11051500 SANTA ANA RIVER NEAR MENTONE, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	226	1040	635	49	90	12	8.8	0	0
2	194	415	217	48	63	8.2	8.8	6	.14
3	131	252	89	46	40	5.0	8.3	1	.02
4	109	183	54	49	71	9.4	7.8	0	0
5	95	102	26	46	20	2.5	7.3	0	0
6	85	52	12	42	18	2.0	7.3	0	0
7	80	21	4.5	40	30	3.2	6.9	1	.02
8	80	15	3.2	39	22	2.3	6.9	1	.02
9	66	14	2.5	38	22	2.3	6.9	1	.02
10	70	22	4.2	37	21	2.1	6.4	2	.03
11	145	288	113	35	18	1.7	6.4	1	.02
12	262	321	227	34	21	1.9	6.4	1	.02
13	186	117	59	33	28	2.5	6.9	1	.02
14	124	97	32	32	33	2.9	6.9	1	.02
15	122	48	16	31	28	2.3	6.4	1	.02
16	98	26	6.9	30	21	1.7	6.4	4	.07
17	98	22	5.8	29	14	1.1	6.4	1	.02
18	92	19	4.7	28	16	1.2	8.3	1	.02
19	92	15	3.7	27	12	.87	11	0	0
20	93	10	2.5	26	4	.28	8.8	0	0
21	87	19	4.5	22	4	.24	6.9	0	0
22	75	18	3.6	21	3	.17	6.9	1	.02
23	68	13	2.4	19	2	.10	6.4	0	0
24	66	11	2.0	17	2	.09	6.4	1	.02
25	63	8	1.4	18	2	.10	6.4	1	.02
26	59	7	1.1	17	0	0	6.0	1	.02
27	57	5	.77	17	2	.09	6.0	1	.02
28	55	152	23	17	1	.05	5.6	1	.02
29	53	195	28	17	1	.05	5.6	0	0
30	52	113	16	14	1	.04	5.6	1	.02
31	---	---	---	12	1	.03	---	---	---
TOTAL	3083	---	1600.77	930	---	66.41	211.1	---	.60

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	5.6	0	0	4.8	2	.03	1.8	0	0
2	5.6	0	0	4.4	1	.01	1.8	0	0
3	5.2	0	0	3.7	3	.03	1.4	1	0
4	5.2	0	0	2.8	2	.02	1.0	2	0
5	4.8	0	0	2.4	3	.02	.85	4	0
6	4.8	0	0	2.1	4	.02	.77	6	.01
7	4.4	1	.01	1.9	2	.01	.70	2	0
8	4.1	1	.01	1.5	1	0	.77	0	0
9	4.1	1	.01	1.4	1	0	.77	8	.02
10	4.1	1	.01	1.2	1	0	.70	4	0
11	3.7	2	.02	1.1	1	0	.70	1	0
12	4.1	3	.03	1.0	1	0	.85	0	0
13	3.7	1	0	.92	1	0	1.0	0	0
14	3.7	1	0	.92	1	0	1.1	6	.02
15	3.7	2	.02	.85	1	0	1.1	5	.01
16	4.1	1	.01	.85	1	0	1.1	5	.01
17	4.1	1	.01	.77	1	0	1.4	7	.03
18	4.1	1	.01	.77	1	0	1.5	6	.02
19	4.1	2	.02	.70	1	0	1.5	5	.02
20	4.1	1	.01	.64	1	0	1.5	5	.02
21	4.1	5	.06	.57	1	0	1.5	4	.02
22	4.1	2	.02	.57	1	0	1.4	4	.02
23	4.1	2	.02	.57	1	0	1.3	4	.01
24	4.1	2	.02	.64	1	0	1.2	5	.02
25	4.1	2	.02	.86	1	0	1.1	5	.01
26	19	916	47	1.3	1	0	8.3	150	3.4
27	16	125	5.4	1.4	1	0	13	140	4.9
28	11	25	.74	1.4	1	0	6.0	7	.11
29	8.3	15	.34	1.5	1	0	4.1	1	.01
30	7.3	8	.16	1.5	2	0	4.1	1	.01
31	5.6	4	.06	1.8	2	0	---	---	---
TOTAL	175.0	---	54.01	46.83	---	.14	64.31	---	8.67
PERIOD	8409.85		9594.70						

## SANTA ANA RIVER BASIN

11051500 SANTA ANA RIVER NEAR MENTONE, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	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
MAR								
17...	1700	7.5	1550	7800	--	14	20	28
18...	1130	7.5	273	448	--	--	--	--
APR								
01...	1145	8.0	565	3620	--	26	34	47
01...	1500	--	326	1638	12	17	22	28
JUL								
26...	1226	21.0	54	4460	--	48	64	88
SEP								
27...	1250	20.0	11	44	--	--	--	--

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
MAR							
17...	42	56	79	97	100	100	--
18...	--	30	44	59	79	92	100
APR							
01...	65	77	93	99	100	100	--
01...	37	44	57	69	82	94	99
JUL							
26...	97	100	100	100	100	--	--
SEP							
27...	--	97	100	--	--	--	--



## 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: 54 years (water years 1920-38, 1948-82), 15.9 ft<sup>3</sup>/s (0.450 m<sup>3</sup>/s), 11,520 acre-ft/yr (14.2 hm<sup>3</sup>/yr).  
Combined creek and canals: 54 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.--Peak discharges above base of 100 ft<sup>3</sup>/s (2.83 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Creek Only Discharge		Gage height		Combined Creek and Canals Discharge	
		(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)	(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)
Feb. 10	1930	228	6.46	6.85	2.088	242	6.85
Mar. 17	1700	*238	6.74	6.88	2.097	*259	7.33
Apr. 1	1100	180	5.10	6.70	2.042	207	5.86
Apr. 11	2400	130	3.68	6.53	1.990	144	4.08

Creek only: Minimum daily, 0.04 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Sept. 25, 27-30.

Combined creek and canals: Minimum daily, 17 ft<sup>3</sup>/s (0.48 m<sup>3</sup>/s) Jan. 22, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.07	.05	.10	1.8	.16	67	59	37	1.9	1.0	.08
2	.10	.07	.05	.10	7.2	.16	42	59	36	.48	.50	.07
3	.10	.07	.05	.10	6.6	.14	25	57	34	.37	.45	.24
4	.10	.07	.05	.10	1.2	.14	6.1	73	32	.27	.36	.40
5	.10	.07	.05	3.1	.26	.13	4.9	56	28	.27	.36	.16
6	.10	.07	.05	.45	.26	.11	3.8	52	21	.15	.40	.50
7	.14	.07	.05	.08	.26	.10	3.8	56	22	.11	.69	2.0
8	.14	.07	.05	.07	.26	.10	2.7	56	26	.11	1.3	.84
9	.14	.07	.05	.06	.26	.10	2.0	52	26	.08	.45	.13
10	.14	.07	.07	.05	59	.89	2.8	36	26	.07	.40	.13
11	.14	.07	.07	.05	87	.42	49	28	24	.08	.36	.24
12	.19	.07	.07	.05	.29	.34	111	34	24	.08	.29	.19
13	.19	.07	.07	.05	12	.30	92	34	22	.08	.93	.06
14	.19	.07	.07	.05	8.6	4.0	83	38	19	.09	.76	.05
15	.19	.07	.07	.05	4.3	.87	83	37	14	.15	.62	.05
16	.14	.05	.07	.05	2.8	.34	59	29	9.1	.09	.16	.06
17	.10	.05	.07	.05	2.1	.88	44	28	9.1	.11	.13	.06
18	.10	.05	.07	.05	1.2	.47	46	32	8.3	.27	.10	.06
19	.10	.05	.07	.05	.87	12	52	37	6.3	.48	1.0	.24
20	.10	.05	.07	4.9	.68	3.6	32	44	4.7	.09	2.9	.62
21	.10	.05	.07	.60	.57	2.5	28	42	4.3	.09	.62	.06
22	.10	.05	.07	.10	.47	1.9	22	38	4.7	.11	.06	.05
23	.10	.05	.07	.10	.38	1.5	30	34	4.3	.11	.06	.05
24	.10	.05	.07	.07	.30	1.3	46	44	5.2	.11	.07	.05
25	.10	.07	.07	.05	.26	1.1	44	49	3.9	.32	.10	.04
26	.10	.10	.07	.10	.22	1.1	42	46	2.4	13	.40	.08
27	.10	.05	.07	.10	.19	1.2	26	44	1.9	1.1	2.4	.04
28	.10	.05	.07	.19	.16	1.8	23	44	1.7	.40	1.8	.04
29	.14	.05	.07	3.6	---	3.8	33	44	.93	.62	.36	.04
30	.14	.05	.07	3.1	---	8.9	56	38	1.7	.56	.69	.04
31	.10	---	.07	.26	---	2.0	---	38	---	1.0	.36	---
TOTAL	3.78	1.87	1.99	17.83	228.20	186.00	1161.1	1358	459.53	22.75	20.08	6.67
MEAN	.12	.062	.064	.58	8.15	6.00	38.7	43.8	15.3	.73	.65	.22
MAX	.19	.10	.07	4.9	.87	.88	111	73	37	13	2.9	2.0
MIN	.10	.05	.05	.05	.16	.10	2.0	28	.93	.07	.06	.04
AC-FT	7.5	3.7	3.9	35	453	369	2300	2690	911	45	40	13

CAL YR 1981 TOTAL 373.93 MEAN 1.02 MAX 25 MIN .05 AC-FT 742  
WTR YR 1982 TOTAL 3467.80 MEAN 9.50 MAX 111 MIN .04 AC-FT 6880

## 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 1981 TO SEPTEMBER 1982

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	23	23	27	18	24	99	87	83	42	31	30
2	25	23	23	23	19	26	66	88	81	41	32	31
3	24	23	22	22	19	24	59	84	79	41	30	31
4	24	22	22	22	19	24	50	98	77	40	30	31
5	24	22	22	34	20	24	47	83	73	38	30	30
6	24	22	22	25	20	23	44	80	68	38	30	29
7	23	22	22	25	20	23	44	82	67	38	29	29
8	24	22	21	24	20	23	43	82	69	38	28	30
9	24	22	21	23	20	23	42	78	67	37	28	30
10	24	22	21	24	77	22	45	76	66	36	28	30
11	24	22	21	24	99	26	81	73	65	35	28	28
12	24	22	21	24	35	27	120	73	66	35	28	28
13	24	22	22	23	20	24	98	73	63	35	28	29
14	24	22	21	23	25	34	89	73	60	33	28	27
15	24	21	21	23	21	30	90	74	56	32	28	22
16	24	22	21	23	28	30	84	72	53	32	28	22
17	24	23	21	23	31	114	73	73	53	32	27	27
18	23	23	21	22	30	67	75	76	51	31	27	28
19	23	22	20	22	27	43	81	78	49	30	26	27
20	23	22	20	30	28	39	71	86	49	31	26	26
21	23	21	21	20	28	39	72	87	47	31	26	26
22	23	21	22	17	28	38	66	85	47	30	29	25
23	22	21	22	20	27	37	68	83	46	31	29	25
24	22	21	22	24	25	37	75	89	45	31	29	24
25	22	21	22	24	25	37	73	92	44	27	29	23
26	22	22	22	25	25	42	71	91	43	37	28	29
27	22	26	22	22	24	39	65	91	44	32	27	24
28	24	26	23	17	25	39	70	90	42	34	26	24
29	24	24	23	21	---	42	73	89	43	33	27	23
30	23	23	23	25	---	48	81	84	43	33	27	23
31	23	---	22	21	---	41	---	84	---	32	27	---
TOTAL	728	670	672	722	803	1109	2115	2554	1739	1066	874	811
MEAN	23.5	22.3	21.7	23.3	28.7	35.8	70.5	82.4	58.0	34.4	28.2	27.0
MAX	25	26	23	34	99	114	120	98	83	42	32	31
MIN	22	21	20	17	18	22	42	72	42	27	26	22
AC-FT	1440	1330	1330	1430	1590	2200	4200	5070	3450	2110	1730	1610
CAL YR 1981	TOTAL	9958	MEAN 27.3	MAX 52	MIN 18	AC-FT 19750						
WTR YR 1982	TOTAL	13863	MEAN 38.0	MAX 120	MIN 17	AC-FT 27500						

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.

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: 63 years, 6.74 ft<sup>3</sup>/s (0.191 m<sup>3</sup>/s), 4,880 acre-ft/yr (6.02 hm<sup>3</sup>/yr).  
Combined creek and diversions: 31 years, 8.87 ft<sup>3</sup>/s (0.251 m<sup>3</sup>/s), 6,430 acre-ft/yr (7.93 hm<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. 29, 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 (\*):

Date	Time	Creek Only		Gage height		Combined Creek and Diversions	
		Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		(ft)	(m)	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	
Mar. 17	1830	*465	13.2	5.22	1.591	*465	13.2
Apr. 1	1200	260	7.36	4.74	1.445	260	7.36

Creek only: Minimum, no flow several days during August and September.

Combined creek and diversion: Minimum daily, 0.81 ft<sup>3</sup>/s (0.023 m<sup>3</sup>/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

[illegible]

## 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 1981 TO SEPTEMBER 1982

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.8	2.0	9.3	7.7	5.1	103	11	5.8	4.0	2.2	1.3
2	1.7	1.7	1.9	8.2	6.2	6.4	79	10	5.8	3.8	2.1	1.3
3	1.9	2.3	1.7	6.7	5.7	9.2	46	9.7	5.6	3.7	2.1	1.2
4	1.8	2.2	1.6	5.3	5.5	6.9	32	9.9	5.3	3.1	2.0	1.2
5	1.7	1.6	1.6	12	5.1	6.0	22	9.6	5.3	3.2	1.9	1.2
6	1.6	1.7	1.6	8.6	4.7	5.5	18	9.1	5.1	3.2	2.2	1.1
7	1.5	1.8	1.6	4.9	4.7	5.3	13	8.8	5.0	3.0	2.1	.81
8	1.6	1.7	1.5	4.1	4.7	5.1	12	8.7	4.9	2.9	1.8	.95
9	1.5	1.6	1.5	3.6	4.5	4.9	12	9.2	4.9	2.8	1.7	1.1
10	1.5	1.7	1.7	3.6	35	4.9	11	9.2	4.9	2.7	1.6	1.0
11	2.9	1.8	1.7	3.6	82	4.7	44	9.4	4.7	2.6	1.7	1.1
12	2.4	1.8	1.6	3.6	20	8.3	43	10	4.6	2.5	1.8	1.1
13	2.2	1.8	1.7	3.6	13	6.4	32	8.8	4.6	2.4	1.9	1.1
14	2.0	1.8	1.7	3.6	12	14	22	7.9	4.7	2.3	2.0	1.1
15	1.8	1.6	1.7	3.6	12	17	16	7.6	4.5	2.3	1.7	1.2
16	1.9	1.5	1.7	3.4	12	20	15	7.2	4.3	2.3	1.6	1.6
17	1.7	1.4	1.7	3.4	11	186	14	6.8	4.7	2.2	1.6	1.8
18	1.5	1.3	1.7	3.4	9.2	137	13	6.8	5.1	2.2	1.5	1.7
19	1.4	1.2	1.7	3.4	8.0	73	12	6.7	4.6	2.1	1.4	1.4
20	1.6	1.3	1.7	26	7.5	45	12	6.5	4.3	1.9	1.4	1.3
21	1.3	1.3	2.1	52	6.9	29	11	6.5	4.1	1.9	1.3	1.0
22	1.3	1.3	2.0	15	6.4	23	12	6.4	4.0	1.7	1.3	.96
23	1.2	1.4	1.6	11	6.2	21	12	6.2	3.9	1.7	1.3	.90
24	1.3	1.5	1.5	11	6.0	19	13	5.9	4.0	1.8	1.5	.98
25	1.4	1.5	1.5	12	5.7	17	13	6.0	4.3	1.9	1.7	1.1
26	1.4	1.7	1.5	10	5.5	19	13	6.4	4.2	13	1.7	19
27	1.6	3.9	1.5	8.6	5.3	19	12	6.4	3.9	3.3	1.6	12
28	1.9	3.6	1.6	9.8	5.3	18	12	6.4	3.8	2.7	1.5	4.6
29	2.5	1.9	1.5	13	---	19	12	6.3	3.7	2.5	1.5	3.7
30	2.1	1.7	2.0	8.9	---	26	11	5.9	3.9	2.3	1.4	3.2
31	2.0	---	3.5	8.0	---	15	---	5.8	---	2.2	1.4	---
TOTAL	53.8	53.4	53.9	283.2	317.8	795.7	692	241.1	138.5	90.2	52.5	72.00
MEAN	1.74	1.78	1.74	9.14	11.4	25.7	23.1	7.78	4.62	2.91	1.69	2.40
MAX	2.9	3.9	3.5	52	82	186	103	11	5.8	13	2.2	19
MIN	1.2	1.2	1.5	3.4	4.5	4.7	11	5.8	3.7	1.7	1.3	.81
AC-FT	107	106	107	562	630	1580	1370	478	275	179	104	143
CAL YR 1981 TOTAL	1264.61			MEAN 3.46	MAX 65	MIN .96	AC-FT 2510					
WTR YR 1982 TOTAL	2844.10			MEAN 7.79	MAX 186	MIN .81	AC-FT 5640					

11055800 CITY CREEK NEAR HIGHLAND, CA

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.

DRAINAGE AREA.--19.6 mi<sup>2</sup> (50.8 km<sup>2</sup>).

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 fair. No regulation above station. City Creek Water Co.'s canal has diverted from a site 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: 63 years, 9.67 ft<sup>3</sup>/s (0.274 m<sup>3</sup>/s), 7,010 acre-ft/yr (8.64 hm<sup>3</sup>/yr).  
Combined creek and canal: 58 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.--Peak discharges above base of 150 ft<sup>3</sup>/s (4.25 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Creek only		Gage height		Combined Creek and Canal	
		Discharge		Discharge		Discharge	
		(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)	(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)
Mar. 17	1845	*330	9.35	6.98	2.128	330	9.35
Apr. 1	1130	251	7.11	6.59	2.009	251	7.11

Creek only: Minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Sept. 4-6.

Combined creek and canal: Minimum daily, 0.61 ft<sup>3</sup>/s (0.017 m<sup>3</sup>/s) Sept. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.7	2.6	9.5	7.6	8.0	115	12	2.2	.64	.18	.09
2	1.9	1.6	2.4	9.3	7.1	10	70	11	2.3	.58	.15	.08
3	1.9	1.8	2.7	6.8	6.6	12	48	9.7	2.1	.52	.11	.07
4	1.8	1.8	2.8	5.8	6.3	9.3	39	9.9	2.0	.47	.08	.06
5	1.8	2.0	2.8	14	5.8	8.7	34	9.4	1.9	.43	.07	.06
6	1.7	2.2	2.8	11	5.4	7.8	30	8.2	1.8	.39	.14	.06
7	1.5	2.5	2.6	5.8	5.3	7.5	27	7.3	1.7	.35	.21	.07
8	1.6	2.1	2.7	4.0	5.2	7.4	25	7.7	1.7	.32	.08	.09
9	2.0	2.0	2.8	3.5	5.0	7.1	23	8.8	1.4	.29	.11	.14
10	2.2	2.1	3.0	3.4	20	6.9	23	7.7	1.3	1.3	.14	.17
11	4.8	2.1	3.3	4.4	69	7.4	27	8.1	1.2	1.3	.12	.28
12	3.5	2.0	3.5	4.0	35	11	26	7.9	1.3	1.2	.10	.14
13	3.0	2.1	3.8	4.4	22	8.8	23	6.6	1.4	1.2	.12	.14
14	2.9	2.4	3.6	4.4	19	19	22	5.5	1.5	1.1	.31	.18
15	2.8	2.3	3.4	4.3	17	22	20	5.2	1.2	1.1	.60	.29
16	2.7	2.1	3.3	3.9	16	29	19	4.3	.99	1.0	.66	.63
17	2.3	2.0	3.3	3.8	14	176	18	3.5	1.3	.98	.58	.87
18	1.9	1.6	3.2	3.5	13	112	18	3.5	1.8	.88	.65	.72
19	1.6	1.1	3.3	3.9	12	80	17	3.5	1.6	.75	.24	.45
20	1.7	1.1	3.5	15	11	65	16	3.3	1.4	.60	.10	.22
21	1.8	1.2	4.8	29	9.6	52	15	3.3	1.3	.50	.11	.10
22	1.8	1.2	4.0	13	9.0	42	15	3.2	1.1	.40	.11	.08
23	1.7	1.2	3.8	9.8	8.9	38	14	2.8	1.0	.33	.11	.08
24	1.5	1.3	3.8	11	8.9	36	14	2.7	.91	.27	.13	.09
25	1.5	1.3	3.8	11	9.0	34	13	2.5	.81	.20	.21	.09
26	1.3	1.5	3.8	11	9.6	37	13	2.6	.73	4.2	.29	19
27	1.7	5.4	4.0	9.4	9.0	34	13	3.2	.66	.70	.17	7.5
28	2.0	8.7	4.1	12	8.0	33	12	3.0	.60	.21	.10	2.6
29	2.8	4.9	3.8	12	---	36	12	2.7	.59	.15	.09	2.1
30	2.2	3.2	4.9	9.3	---	58	12	2.5	.70	.20	.09	1.8
31	1.8	---	5.6	8.2	---	44	---	2.2	---	.14	.09	---
TOTAL	65.9	68.5	107.8	260.4	374.3	1058.9	773	173.8	40.49	22.70	6.25	38.25
MEAN	2.13	2.28	3.48	8.40	13.4	34.2	25.8	5.61	1.35	.73	.20	1.28
MAX	4.8	8.7	5.6	29	69	176	115	12	2.3	4.2	.66	19
MIN	1.3	1.1	2.4	3.4	5.0	6.9	12	2.2	.59	.14	.07	.06
AC-FT	131	136	214	517	742	2100	1530	345	80	45	12	76
CAL YR 1981	TOTAL	1562.09	MEAN 4.28	MAX 28	MIN .52	AC-FT 3100						
WTR YR 1982	TOTAL	2990.29	MEAN 8.19	MAX 176	MIN .06	AC-FT 5930						

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND OF CITY CREEK AND CITY CREEK  
WATER CO.'S CANAL NEAR HIGHLAND, CA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.7	2.6	9.5	7.6	8.0	115	12	4.2	2.4	1.6	1.2
2	1.9	1.6	2.4	9.3	7.1	10	70	11	4.3	2.3	1.7	.93
3	1.9	1.8	2.7	6.8	6.6	12	48	11	4.1	2.1	1.7	.80
4	1.8	1.8	2.8	5.8	6.3	9.3	39	12	4.0	2.1	1.6	.77
5	1.8	2.0	2.8	14	5.8	8.7	34	12	3.9	2.0	1.5	.81
6	1.7	2.2	2.8	11	5.4	7.8	30	11	3.7	2.0	1.5	.81
7	1.5	2.5	2.6	5.8	5.3	7.5	27	9.7	3.6	1.9	2.0	.77
8	1.6	2.1	2.7	4.0	5.2	7.4	25	10	3.5	1.8	1.5	1.1
9	2.0	2.0	2.8	3.5	5.0	7.1	23	11	3.2	1.8	1.2	2.2
10	2.2	2.1	3.0	3.4	20	6.9	23	10	3.1	2.6	1.1	2.3
11	4.8	2.1	3.3	4.4	69	7.4	27	10	2.9	1.6	1.1	2.7
12	3.5	2.0	3.5	4.1	35	11	26	10	3.0	1.5	1.5	2.2
13	3.0	2.1	3.8	4.4	22	8.8	23	8.9	3.1	1.5	2.0	2.1
14	2.9	2.4	3.6	4.4	19	19	22	7.8	3.2	1.4	1.8	2.3
15	2.8	2.3	3.4	4.3	17	22	20	7.4	2.9	2.3	1.2	2.5
16	2.7	2.1	3.3	3.9	16	29	19	6.5	2.7	2.5	.99	2.9
17	2.3	2.0	3.3	3.8	14	176	18	5.7	3.0	2.5	.97	3.2
18	1.9	1.6	3.2	3.5	13	112	18	5.7	3.6	2.4	1.1	2.9
19	1.6	1.1	3.3	3.9	12	80	17	5.7	3.6	2.3	1.4	2.5
20	1.7	1.1	3.5	15	11	65	16	5.5	3.3	1.9	1.5	2.1
21	1.8	1.2	4.8	29	9.6	52	15	5.4	3.2	1.8	1.4	1.5
22	1.8	1.2	4.0	13	9.0	42	15	5.4	3.0	1.7	1.5	1.0
23	1.7	1.2	3.8	9.8	8.9	38	14	5.0	2.8	1.6	1.5	.61
24	1.5	1.3	3.8	11	8.9	36	14	4.9	2.7	1.8	1.9	.61
25	1.5	1.3	3.8	11	9.0	34	13	4.7	2.6	1.7	2.6	1.2
26	1.3	1.5	3.8	11	9.6	37	13	4.7	2.4	6.0	2.9	21
27	1.7	5.4	4.0	9.4	9.0	34	13	5.3	2.2	2.7	2.8	10
28	2.0	8.7	4.1	12	8.0	33	12	5.1	2.1	2.1	2.2	5.1
29	2.8	4.9	3.8	12	---	36	12	4.8	2.2	1.9	2.0	4.5
30	2.2	3.2	4.9	9.3	---	58	12	4.6	2.4	1.7	1.9	4.0
31	1.8	---	5.6	8.2	---	44	---	4.2	---	1.5	1.5	---
TOTAL	65.9	68.5	107.8	260.5	374.3	1058.9	773	237.0	94.5	65.4	51.16	86.61
MFAN	2.13	2.28	3.48	8.40	13.4	34.2	25.8	7.65	3.15	2.11	1.65	2.89
MAX	4.8	8.7	5.6	29	69	176	115	12	4.3	6.0	2.9	21
MIN	1.3	1.1	2.4	3.4	5.0	6.9	12	4.2	2.1	1.4	.97	.61
AC-FT	131	136	214	517	742	2100	1530	470	187	130	101	172
CAL YR 1981	TOTAL	1600.74	MEAN	4.39	MAX	28	MIN	.79	AC-FT	3180		
WTR YR 1982	TOTAL	3243.57	MEAN	8.89	MAX	176	MIN	.61	AC-FT	6430		

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 1981 TO SEPTEMBER 1982

DATE	TIME	WATER TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDIMENT CONCEN- TRATION (MG/L)
Oct. 1, 1981	0830		8.3	136
Oct. 1	1330	26.0	3.4	115
Oct. 2	1745	22.0		14
Oct. 12	1745	17.0		35
Oct. 14	1847	15.0		145
Oct. 17	1350	13.0		193
Oct. 30	1217	15.0		3
Nov. 2	1205	25.0		6
Nov. 2	1330	18.0		20
Nov. 4	1210	20.0		12
Nov. 9	1212	22.0		23
Nov. 27	1145	16.0		59
Dec. 1	1100		3.8	16
Dec. 4	1205	18.0		19
Jan. 21, 1982	1100		50	495
Mar. 18	1530	11.0	229	998
May 14	1355	27.5	0.91	10
Aug. 2	1017	25.0	5.5	78

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.

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. Since September 15, 1982, V-notch concrete control 20 ft (6.1 m) upstream at same datum. Prior to July 30, 1970, at site 62 ft (19 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.--34 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, 22 ft<sup>3</sup>/s (0.62 m<sup>3</sup>/s) Mar. 17 (1800 hrs), gage height, 3.53 ft (1.076 m), no other peak above base of 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s); minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) several days in October and November.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.06	.22	.22	.90	.93	3.3	.80	.75	.56	.35	.26
2	.19	.06	.22	.22	.84	.93	2.7	.74	.76	.55	.35	.26
3	.22	.06	.22	.22	.80	.93	2.6	.84	.68	.52	.35	.23
4	.22	.06	.22	.22	.80	.93	2.4	1.4	.64	.80	.35	.23
5	.17	.06	.24	.25	.80	.93	2.2	1.1	.66	.49	.35	.23
6	.10	.06	.28	.25	.73	.93	2.0	.95	.63	.45	.35	.24
7	.10	.06	.28	.25	.68	.90	1.8	.93	.58	.45	.35	.25
8	.12	.06	.28	.25	.65	.80	1.6	1.1	.59	.45	.35	.41
9	.08	.06	.28	.25	.51	.75	1.4	1.0	.58	.45	.35	.25
10	.06	.06	.28	.25	2.5	.68	1.4	.93	.54	.44	.35	.23
11	.15	.06	.28	.25	2.1	.72	1.6	.93	.52	.40	.35	.28
12	.17	.06	.28	.25	.59	.68	1.5	.88	.57	.39	.36	.29
13	.14	.11	.28	.25	.46	.68	1.3	.80	.48	.42	.37	.31
14	.12	.12	.28	.25	.40	1.4	1.2	.99	.50	.43	.36	.40
15	.12	.12	.28	.25	.40	1.5	1.1	1.1	.48	.41	.33	.39
16	.12	.17	.28	.25	.46	1.5	.97	.99	.41	.41	.31	.38
17	.10	.17	.28	.25	.48	6.6	.98	.89	.43	.38	.32	.38
18	.06	.17	.28	.25	.48	3.1	1.1	.80	.48	.28	.32	.38
19	.06	.17	.28	.25	.53	2.4	1.1	.80	.47	.27	.31	.38
20	.06	.17	.26	1.7	.58	2.2	1.1	.80	.44	.35	.30	.38
21	.06	.17	.22	1.9	.58	2.2	1.1	.80	.43	.35	.30	.38
22	.06	.17	.22	1.3	.61	2.3	1.1	.80	.44	.35	.30	.38
23	.06	.17	.22	.90	.68	2.0	1.0	.74	.44	.35	.32	.38
24	.06	.17	.22	.76	.68	2.1	.93	.68	.45	.35	.34	.38
25	.06	.17	.22	.72	.70	1.9	.93	.66	.52	.25	.42	.38
26	.06	.17	.22	.70	.80	2.0	.94	.68	.55	.35	.45	.38
27	.06	.22	.22	.68	.80	1.8	.93	.84	.59	.35	.39	.38
28	.07	.22	.22	.64	.80	1.7	.90	.96	.57	.35	.32	.38
29	.12	.22	.22	1.1	---	1.7	.90	.89	.63	.35	.28	.65
30	.12	.22	.22	1.3	---	2.1	.87	.86	.59	.35	.29	.77
31	.10	---	.22	1.0	---	1.9	---	.79	---	.35	.27	---
TOTAL	3.35	3.82	7.72	17.33	21.34	51.19	42.95	27.47	16.40	12.85	10.51	10.62
MEAN	.11	.13	.25	.56	.76	1.65	1.43	.89	.55	.41	.34	.35
MAX	.22	.22	.28	1.9	2.5	6.6	3.3	1.4	.76	.86	.45	.77
MIN	.06	.06	.22	.22	.40	.68	.87	.66	.41	.35	.27	.23
AC-FT	6.6	7.6	15	34	42	102	85	54	33	25	21	21
CAL YR 1981	TOTAL	227.22	MEAN	.62	MAX	4.8	MIN	.01	AC-FT	451		
WTR YR 1982	TOTAL	225.35	MEAN	.62	MAX	6.6	MIN	.06	AC-FT	447		



11057500 SAN TIMOTEO CREEK NEAR LOMA LINDA, CA

LOCATION.--Lat 34°03'46", long 117°16'16", in SE&NE&NW& 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 regulation above station. Natural flow affected by pumping and return flow from irrigated areas.

AVERAGE DISCHARGE.--19 years (1954-65, 1968-73, 1980-82), 2.78 ft<sup>3</sup>/s (0.079 m<sup>3</sup>/s), 2,010 acre-ft/yr (2.48 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 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 236 ft<sup>3</sup>/s (6.68 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)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Feb. 10	2030	333 9.43	4.03 1.228	Mar. 17	1800	*1,620 45.9	6.23 1.899
Mar. 14	2130	432 12.2	4.23 1.289	Apr. 1	1345	342 9.69	4.05 1.234

Minimum, no flow for several days in most months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	.96	.26	.64	0	1.0	132	.13	.80	.03	0	.01
2	1.4	.70	1.0	.62	0	2.3	18	.70	1.2	.50	.11	0
3	.82	.55	1.2	.21	0	.31	.50	0	.66	.79	.25	.08
4	.82	.50	.90	0	0	.30	0	5.8	.67	.81	.03	.11
5	1.1	.46	.84	0	0	.32	.19	0	.60	.56	.50	0
6	.96	.82	.46	0	0	.30	.18	.24	.62	.55	.85	.43
7	1.0	.65	.24	0	.07	.28	0	0	.47	.17	.11	.57
8	1.1	.89	.50	0	.27	.27	0	0	.81	.88	.53	1.2
9	1.1	.65	.84	0	.76	.27	0	.18	.56	.18	.35	1.0
10	.96	.55	.50	.07	.54	.06	0	.55	.05	.52	.01	.37
11	1.4	.55	.19	.23	.21	.33	3.2	17	1.1	.65	.05	.24
12	1.5	.89	.39	.12	.35	3.2	.88	4.9	1.1	1.1	.24	1.2
13	2.1	1.1	.74	.11	0	.41	.83	2.9	1.5	1.3	.05	3.2
14	1.6	1.3	1.5	.12	.01	32	.19	3.4	1.8	1.4	.34	1.5
15	.70	1.2	1.0	.11	.06	8.5	.30	2.7	.79	1.5	.32	1.9
16	.89	1.1	.21	.10	.25	20	.36	3.0	1.5	1.5	.52	1.5
17	1.4	1.8	.24	.11	1.0	461	0	4.6	1.6	1.5	.51	1.1
18	1.1	1.3	.26	.11	.98	154	0	1.7	1.5	1.2	.61	1.9
19	.38	.65	.30	.11	.89	.33	.10	0	.41	1.2	.19	.87
20	.18	.31	.34	1.5	.84	.04	0	0	.11	1.0	.26	.13
21	.22	.55	.38	18	.80	0	.04	0	.50	0	.52	.38
22	.34	.55	.44	.23	.60	0	1.6	0	.40	.22	.02	.44
23	.31	.70	.43	.28	1.1	0	1.1	0	.53	.09	.23	.25
24	.34	.42	.36	.12	.93	0	0	0	.36	0	0	.03
25	.34	.16	.32	.07	.57	.12	0	0	0	0	0	.01
26	.22	.65	.53	0	.46	9.0	.12	.23	.05	0	0	3.6
27	.20	2.7	.81	0	.28	0	.32	.89	.54	0	.10	.20
28	1.2	4.6	.88	.90	.38	0	0	.25	.10	0	.09	.03
29	1.1	1.0	.58	7.2	---	12	0	.77	.20	.28	.08	.73
30	.70	.04	1.6	.90	---	13	0	1.6	.27	.03	.01	1.0
31	.70	---	.65	0	---	0	---	1.1	---	0	.04	---
TOTAL	27.88	28.30	18.89	31.86	85.60	719.34	159.91	52.64	20.80	17.06	6.92	23.98
MEAN	.90	.94	.61	1.03	3.06	23.2	5.33	1.70	.69	.55	.22	.80
MAX	2.1	4.6	1.6	18	54	461	132	17	1.8	1.5	.85	3.6
MIN	.18	.04	.19	0	0	0	0	0	0	0	0	0
AC-FT	55	56	37	63	170	1430	317	104	41	34	14	48

CAL YR 1981 TOTAL 429.42 MEAN 1.18 MAX 50 MIN 0 AC-FT 852  
WTR YR 1982 TOTAL 1193.18 MEAN 3.27 MAX 461 MIN 0 AC-FT 2370

## SANTA ANA RIVER BASIN

11057500 SAN TIMOTEO CREEK NEAR LOMA LINDA, CA--Continued

## WATER-QUALITY RECORDS

## PERIOD OF RECORD.--

WATER TEMPERATURES: April 1979 to December 1981 (discontinued).

SEDIMENT RECORDS: April 1979 to December 1981 (discontinued).

REMARKS.--Instantaneous suspended sediment sample concentrations October to December 1981 given in table below.

## SUSPENDED SEDIMENT MEASUREMENTS, OCTOBER TO DECEMBER 1981

DATE	TIME	WATER TEMPER- ATURE (DEG C)	STREAM FLOW, INSTAN- TANEOUS (CFS)	SEDIMENT CONCEN- TRATION (MG/L)
Oct. 1, 1981	0930	--	1.9	12
Oct. 2	1755	20.0	1.0	1
Oct. 5	0740	16.0	1.3	5
Oct. 7	1255	23.0	0.96	3
Oct. 9	--	17.0	1.3	2
Oct. 12	1755	20.0	2.2	6
Oct. 14	1355	14.0	1.2	0
Oct. 17	1400	19.0	1.4	8
Oct. 19	1750	18.0	.12	4
Oct. 21	1745	18.0	.25	0
Oct. 23	1255	18.0	.38	1
Nov. 2	1215	15.0	.60	2
Nov. 4	1220	15.0	.65	1
Nov. 6	1020	16.0	.76	0
Nov. 9	1220	15.0	.82	0
Nov. 11	1750	14.0	.71	5
Nov. 13	1210	16.0	1.2	2
Nov. 16	1215	16.0	1.0	4
Nov. 18	1215	15.0	1.2	7
Nov. 20	1210	11.0	.38	3
Nov. 23	0745	10.0	.82	3
Nov. 25	1220	13.0	.25	3
Nov. 27	1155	12.0	.96	2
Dec. 2	1220	12.0	.82	4
Dec. 4	1210	12.0	.76	5

11058500 EAST TWIN CREEK NEAR ARROWHEAD SPRINGS, CA

LOCATION.--Lat 34°10'45", long 117°15'53", in NW¼NE¼ 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.--62 years (water years 1921-82), 4.77 ft<sup>3</sup>/s (0.135 m<sup>3</sup>/s), 3,460 acre-ft/yr (4.27 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)	
Oct. 11	0600	87.0	2.46	3.38	1.030	Mar. 17	1815	*331	9.37	4.59	1.400
Jan. 5	1500	79.0	2.24	3.15	0.960	Apr. 1	1100	174	4.93	4.07	1.241
Feb. 10	1500	68.0	1.93	3.08	.939						

Minimum daily, 1.0 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.4	3.3	9.4	4.3	3.9	66	5.0	3.9	2.8	1.5	1.2
2	1.8	2.4	2.9	2.4	4.3	4.1	38	4.8	4.0	2.7	1.5	1.2
3	1.7	2.3	2.9	2.3	4.3	4.2	28	4.5	3.8	2.7	1.6	1.1
4	1.6	2.2	2.9	2.2	4.3	4.0	21	5.2	3.7	2.6	1.7	1.1
5	1.5	2.2	2.9	30	4.2	4.0	17	4.9	3.7	2.6	1.6	1.1
6	1.4	2.2	2.9	6.0	4.2	4.0	14	4.5	3.6	2.4	1.8	1.0
7	1.3	2.2	2.8	3.2	4.2	4.0	11	4.1	3.6	2.4	1.7	1.1
8	1.5	2.2	2.8	3.1	4.2	3.9	9.9	4.3	3.6	2.4	1.7	1.3
9	1.5	2.6	2.7	3.0	4.2	3.9	9.0	5.2	3.4	2.3	1.8	1.4
10	1.5	2.9	2.7	2.9	22	3.8	8.1	4.7	3.4	2.3	1.8	1.5
11	17	2.8	2.7	2.8	17	4.2	16	4.6	3.3	2.3	1.8	1.7
12	2.7	2.7	2.7	2.7	15	4.5	11	4.5	3.4	2.0	1.8	1.7
13	2.5	2.8	2.7	2.7	4.6	3.8	7.9	4.1	3.6	1.9	1.8	1.8
14	2.4	3.0	2.6	2.6	3.1	8.0	8.1	4.2	3.4	1.9	1.7	1.9
15	2.3	2.6	2.6	2.6	3.0	7.8	7.7	4.0	3.3	1.9	1.7	2.1
16	2.2	2.2	2.6	2.6	3.4	15	7.3	3.8	3.1	2.0	1.6	2.5
17	2.1	2.3	2.6	2.6	3.3	108	7.1	3.6	3.6	1.9	1.5	2.7
18	2.0	2.2	2.5	2.6	3.2	129	6.5	3.8	3.9	2.1	1.6	2.5
19	1.9	1.6	2.5	2.6	3.2	24	5.9	3.8	3.6	1.9	1.4	2.5
20	1.9	1.8	2.5	22	3.3	21	5.5	3.6	3.4	1.7	1.3	2.3
21	1.8	2.4	17	10	3.4	16	6.2	3.8	3.2	1.6	1.4	2.1
22	1.8	2.4	3.0	5.0	3.4	12	6.0	3.9	3.3	1.6	1.4	2.2
23	1.8	2.1	3.0	4.2	3.4	8.8	5.6	3.7	3.3	1.6	1.4	2.2
24	1.8	2.3	3.0	3.9	3.4	9.0	5.5	3.6	3.1	1.6	1.6	2.3
25	1.8	2.3	3.0	3.7	3.6	9.4	5.4	3.7	2.8	1.6	1.8	2.6
26	1.8	3.3	3.0	3.6	3.6	10	5.2	4.0	2.9	1.8	1.7	13
27	11	2.3	3.0	3.5	3.8	10	5.1	4.6	2.7	1.7	1.6	3.2
28	3.5	7.2	3.0	5.2	3.8	13	5.4	4.3	2.5	1.6	1.6	2.2
29	3.0	3.3	3.0	5.0	---	16	5.4	4.3	2.8	1.5	1.7	2.0
30	2.7	1.7	4.7	4.9	---	14	5.2	4.2	3.2	1.5	1.6	1.9
31	2.5	---	3.4	4.5	---	13	---	3.9	---	1.5	1.5	---
TOTAL	86.0	76.9	103.9	163.8	147.7	496.3	360.0	131.2	101.1	62.4	50.2	67.4
MEAN	2.77	2.56	3.35	5.28	5.28	16.0	12.0	4.23	3.37	2.01	1.62	2.25
MAX	17	7.2	17	30	22	129	66	5.2	4.0	2.8	1.8	13
MIN	1.3	1.6	2.5	2.2	3.0	3.8	5.1	3.6	2.5	1.5	1.3	1.0
AC-FT	171	153	206	325	293	984	714	260	201	184	100	134
CAL YR 1981	TOTAL	1727.9	MEAN 4.73	MAX 310	MIN 1.0	AC-FT 3430						
WTR YR 1982	TOTAL	1846.9	MEAN 5.06	MAX 129	MIN 1.0	AC-FT 3660						

## 11058600 WATERMAN CANYON CREEK NEAR ARROWHEAD SPRINGS, CA

LOCATION.--Lat 34°11'36", long 117°16'25", in NE¼NW¼ 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 poor. No regulation above station. One small diversion for domestic use above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--64 years, (water years 1913-14, 1921-82), 2.76 ft<sup>3</sup>/s (0.078 m<sup>3</sup>/s), 2,000 acre-ft/yr (2.47 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)
Mar. 17	1815	*94 2.66	2.97 0.905
Apr. 1	0745	*94 2.66	2.97 .905

Minimum daily, 0.69 ft<sup>3</sup>/s (0.020 m<sup>3</sup>/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	.86	1.3	4.4	1.8	1.8	15	3.7	2.7	1.7	1.3	.96
2	.81	.84	1.4	2.8	1.8	3.0	8.3	3.6	2.7	1.7	1.3	.96
3	.78	.87	1.3	2.0	1.8	2.1	8.3	3.4	2.6	1.6	1.3	.95
4	.78	.95	1.3	1.9	2.0	1.9	8.5	3.4	2.6	1.5	1.3	.94
5	.73	.96	1.3	7.0	1.9	1.8	8.0	3.3	2.5	1.5	1.3	.93
6	.70	1.0	1.3	3.1	1.9	1.8	8.0	3.2	2.4	1.5	1.2	.92
7	.69	.98	1.3	1.9	1.9	1.7	9.0	3.1	2.4	1.5	1.2	.91
8	.79	.89	1.3	1.8	1.9	1.7	8.6	3.2	2.4	1.5	1.2	.90
9	.80	.88	1.3	1.7	1.9	1.7	7.4	3.3	2.4	1.5	1.2	.90
10	.83	.88	1.3	1.7	8.9	1.6	7.1	3.1	2.2	1.5	1.2	.89
11	2.4	.91	1.3	1.6	8.3	1.9	8.4	3.1	2.1	1.4	1.2	.88
12	1.3	.91	1.4	1.6	3.5	2.9	6.5	2.8	2.1	1.4	1.2	.87
13	1.1	.98	1.3	1.5	2.7	1.9	6.2	2.7	2.1	1.4	1.1	.86
14	1.1	1.0	1.1	1.5	2.4	4.7	6.1	2.6	2.1	1.4	1.1	.86
15	1.0	1.1	1.1	1.4	2.3	4.3	6.0	2.5	2.0	1.4	1.1	.85
16	1.0	1.1	1.1	1.4	2.4	5.7	5.9	2.4	1.9	1.4	1.1	.84
17	.90	.97	1.1	1.4	2.2	37	5.9	2.3	2.1	1.4	1.1	.83
18	.92	.87	1.0	1.5	2.1	25	5.8	2.3	2.2	1.3	1.1	.82
19	.83	.85	1.2	1.5	1.9	12	5.6	2.2	2.1	1.3	1.1	.82
20	.82	.85	1.3	8.1	1.9	12	5.3	2.2	2.0	1.3	1.1	.81
21	.84	.82	2.4	7.4	1.8	12	5.2	2.2	2.0	1.3	1.1	.80
22	.87	.84	1.7	2.9	1.8	8.2	5.2	2.2	2.0	1.2	1.1	.80
23	.73	.87	1.7	2.3	1.8	5.1	5.1	2.2	1.9	1.2	1.1	.79
24	.77	.90	1.7	2.0	1.8	5.2	4.8	2.3	1.9	1.1	1.0	.78
25	.80	.91	1.7	1.8	1.8	5.1	4.7	2.3	1.9	1.1	1.0	.77
26	.88	1.2	1.7	1.8	1.8	5.9	4.5	2.4	1.8	1.5	1.0	1.5
27	.89	2.1	1.6	1.7	1.8	5.7	4.4	2.4	1.7	2.0	1.0	1.3
28	1.1	2.5	1.6	3.1	1.7	6.4	4.3	2.5	1.7	1.8	1.0	1.2
29	1.0	1.4	1.6	2.4	---	9.6	4.1	2.5	1.8	1.5	1.0	1.1
30	.92	1.3	2.4	1.9	---	8.0	4.0	2.5	1.9	1.4	.98	1.1
31	.79	---	1.9	1.8	---	7.6	---	2.5	---	1.4	.96	---
TOTAL	28.63	31.49	45.0	78.9	69.8	205.3	196.2	84.4	64.2	44.7	34.94	27.84
MEAN	.92	1.05	1.45	2.55	2.49	6.62	6.54	2.72	2.14	1.44	1.13	.93
MAX	2.4	2.5	2.4	8.1	8.9	37	15	3.7	2.7	2.0	1.3	1.5
MIN	.69	.82	1.0	1.4	1.7	1.6	4.0	2.2	1.7	1.1	.96	.77
AC-FT	57	62	89	156	138	407	389	167	127	89	69	55

CAL YR 1981 TOTAL 770.69 MEAN 2.11 MAX 28 MIN .28 AC-FT 1530  
WTR YR 1982 TOTAL 911.40 MEAN 2.50 MAX 37 MIN .69 AC-FT 1810

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.

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).

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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	29	34	31	32	30	35	33	34	36	31	33
2	31	31	34	31	31	30	32	32	33	38	33	34
3	31	34	35	32	28	31	31	34	34	34	34	34
4	31	34	34	32	31	30	30	33	33	32	33	33
5	32	35	34	34	30	30	32	33	30	34	33	32
6	31	34	34	32	31	30	31	33	29	35	34	34
7	31	34	34	32	30	30	31	30	31	24	33	35
8	31	33	33	32	31	29	30	29	32	36	31	35
9	31	34	33	32	31	30	30	28	34	35	34	35
10	30	33	33	30	35	29	30	31	33	35	33	34
11	30	33	33	31	32	30	29	32	33	34	33	33
12	31	33	32	30	31	31	31	33	33	35	34	34
13	30	33	32	31	30	29	32	33	32	36	33	35
14	29	33	33	30	29	30	32	33	33	37	32	34
15	29	33	33	31	30	31	33	32	34	36	31	34
16	30	34	32	31	30	32	34	32	33	36	33	34
17	30	33	32	30	30	40	33	34	33	36	33	35
18	30	34	32	30	30	35	32	33	33	33	32	34
19	30	34	32	26	30	31	34	33	32	37	32	33
20	30	34	31	36	30	31	33	33	31	35	33	35
21	30	34	32	33	29	30	32	33	35	36	32	34
22	30	33	32	31	30	31	30	32	37	36	31	34
23	30	35	33	31	30	30	30	32	35	34	34	35
24	30	34	33	30	30	29	30	34	35	32	33	34
25	30	35	29	31	30	30	29	33	36	32	34	35
26	31	33	30	30	30	30	32	32	34	31	34	37
27	30	35	30	30	30	30	31	32	36	33	34	36
28	30	35	33	32	29	29	32	32	37	33	32	36
29	30	34	32	31	---	32	33	31	31	33	31	34
30	30	35	32	31	---	32	33	30	35	33	34	34
31	29	---	33	30	---	31	---	33	---	33	33	---
TOTAL	922	1008	1009	964	850	953	947	998	1001	1070	1017	1029
MEAN	29.7	33.6	32.5	31.1	30.4	30.7	31.6	32.2	33.4	34.5	32.8	34.3
MAX	32	35	35	36	35	40	35	34	37	38	34	37
MIN	14	29	29	26	28	29	29	28	29	31	31	32
AC-FT	1830	2000	2000	1910	1690	1890	1880	1980	1990	2120	2020	2040
CAL YR 1981	TOTAL	10654	MEAN 29.2	MAX 35	MIN 14	AC-FT	21130					
WTR YR 1982	TOTAL	11768	MEAN 32.2	MAX 40	MIN 14	AC-FT	23340					

## 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) upstream 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) upstream 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) upstream 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);  
16 years (water years 1967-82), 91.4 ft<sup>3</sup>/s (2.588 m<sup>3</sup>/s), 66,220 acre-ft/yr (81.6 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.--Peak discharges above base of 1,000 ft<sup>3</sup>/s (28.3 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 5,200 ft<sup>3</sup>/s (147 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. 20	2300	2,000	56.6	Mar. 17	1800	*6,430	182	5.57	1.698
Feb. 11	Unknown	Unknown		Apr. 1	1100	1,330	37.7	4.95	1.509

Minimum daily, 27 ft<sup>3</sup>/s (0.77 m<sup>3</sup>/s) on several days during October and August.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	33	40	137	40	37	567	180	34	31	34	38
2	33	30	40	62	37	39	304	175	33	33	33	38
3	32	31	40	42	37	45	117	170	33	32	30	37
4	30	31	40	36	37	39	102	213	33	31	30	37
5	30	31	37	219	37	36	74	180	31	34	27	37
6	28	31	38	62	37	36	55	152	30	34	27	37
7	30	31	37	53	37	40	48	102	28	36	30	38
8	30	31	33	55	37	40	90	48	31	39	27	42
9	30	31	34	56	37	40	88	42	33	37	28	45
10	30	31	36	52	130	40	105	42	31	36	27	42
11	38	31	38	48	575	40	180	40	30	33	27	39
12	39	31	38	45	88	62	262	37	32	38	31	34
13	38	31	37	42	56	42	195	38	33	37	30	38
14	32	31	40	43	50	73	148	38	32	36	30	33
15	30	31	37	39	48	58	161	37	32	36	31	33
16	30	31	37	42	40	110	161	37	33	36	33	33
17	31	31	37	39	45	2120	152	39	32	39	38	37
18	30	32	42	36	49	978	128	37	34	39	34	43
19	30	31	37	38	49	149	136	39	40	38	34	45
20	28	31	37	593	46	87	124	38	39	38	34	43
21	27	31	37	513	46	50	128	37	39	39	36	39
22	28	31	37	46	45	50	128	38	36	39	37	39
23	27	33	40	42	45	45	121	38	37	37	38	43
24	27	32	40	39	38	42	121	38	36	38	39	45
25	28	38	40	38	39	45	124	38	34	38	40	45
26	28	36	40	37	38	76	128	34	33	39	40	130
27	30	93	42	37	38	49	143	38	31	40	40	78
28	34	134	43	37	37	40	152	36	31	34	39	48
29	47	56	40	140	---	99	170	34	30	37	38	45
30	32	40	65	50	---	146	170	33	31	34	38	45
31	36	---	53	45	---	52	---	34	---	34	38	---
TOTAL	976	1146	1232	2763	1838	4805	4582	2082	992	1122	1038	1326
MEAN	31.5	38.2	39.7	89.1	65.6	155	153	67.2	33.1	36.2	33.5	44.2
MAX	47	134	65	593	575	2120	567	213	40	40	40	130
MIN	27	30	33	36	37	36	48	33	28	31	27	33
AC-FT	1940	2270	2440	5480	3650	9530	9090	4130	1970	2230	2060	2630
CAL YR 1981	TOTAL	13688	MEAN	37.5	MAX	290	MIN	27	AC-FT	27150		
WTR YR 1982	TOTAL	23902	MEAN	65.5	MAX	2120	MIN	27	AC-FT	47410		

## 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); 8 years (water years 1975-82), 16.9 ft<sup>3</sup>/s (0.479 m<sup>3</sup>/s), 12,240 acre-ft/yr (15.1 hm<sup>3</sup>/yr).

EXTREMES 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 daily discharge, 298 ft<sup>3</sup>/s (8.44 m<sup>3</sup>/s), Mar. 17 (estimated); minimum daily, 7.7 ft<sup>3</sup>/s (0.218 m<sup>3</sup>/s) Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	11	13	83	12	19	130	11	12	12	11	12
2	9.0	11	14	34	12	50	14	11	12	12	11	12
3	9.7	11	12	16	12	46	11	11	12	12	11	12
4	9.7	11	11	17	12	11	11	21	12	12	11	12
5	8.7	11	11	78	12	11	11	11	12	12	11	11
6	9.2	11	11	15	12	11	11	11	12	12	11	11
7	9.7	11	11	15	12	11	11	11	12	12	11	12
8	9.2	11	11	16	13	11	11	12	12	12	11	12
9	8.7	11	11	16	12	11	11	13	12	12	12	12
10	8.8	11	11	19	163	11	12	12	12	12	12	12
11	17	11	11	18	44	13	39	20	12	12	12	12
12	8.7	11	11	18	16	48	12	17	12	12	12	12
13	7.9	11	11	11	16	30	11	16	12	12	12	12
14	7.7	17	11	11	16	40	11	15	12	12	13	12
15	7.9	11	11	11	18	35	11	12	12	12	13	12
16	8.3	11	11	11	19	73	11	12	12	12	13	14
17	8.4	11	11	11	19	298	11	12	13	12	13	13
18	8.7	11	11	11	19	180	11	12	14	12	13	13
19	8.7	11	11	11	18	50	11	12	12	12	13	13
20	8.7	11	11	205	18	14	11	12	12	12	13	13
21	8.0	11	14	76	18	11	11	12	12	12	13	12
22	8.5	11	11	16	16	11	11	12	12	12	12	12
23	9.7	11	11	16	17	11	11	12	12	12	12	12
24	9.7	11	11	17	16	11	11	12	12	12	12	12
25	9.7	24	11	18	15	13	11	12	12	12	13	12
26	9.7	46	11	20	15	27	11	12	12	12	13	87
27	9.7	70	11	22	14	13	11	13	12	12	13	10
28	17	76	11	68	14	12	11	12	12	12	13	9.7
29	11	18	11	17	---	18	11	12	12	11	13	9.7
30	9.7	14	49	16	---	94	11	12	12	11	13	9.8
31	11	---	16	12	---	12	---	12	---	11	12	---
TOTAL	296.2	518	393	925	600	1206	482	397	363	369	378	430.2
MEAN	9.55	17.3	12.7	29.8	21.4	38.9	16.1	12.8	12.1	11.9	12.2	14.3
MAX	17	76	49	205	163	298	130	21	14	12	13	87
MIN	7.7	11	11	11	12	11	11	11	12	11	11	9.7
AC-FT	588	1030	780	1830	1190	2390	956	787	720	732	750	853
CAL YR 1981	TOTAL	4002.1	MEAN 11.0	MAX 156	MIN 4.0	AC-FT 7940						
WTR YR 1982	TOTAL	6357.4	MEAN 17.4	MAX 298	MIN 7.7	AC-FT 12610						

## SANTA ANA RIVER BASIN

## 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, fair, combined creek and diversion, fair. 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: 64 years, 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).

Combined creek and diversions: 79 years (water years 1899, 1905-82), 45.0 ft<sup>3</sup>/s (1.274 m<sup>3</sup>/s), 32,600 acre-ft/yr (40.2 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.--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 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):

Date	Time	Creek only Discharge		Gage height		Combined Creek and Diversion Discharge	
		(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)	(ft)	(m)	(ft <sup>3</sup> /s)	(m <sup>3</sup> /s)
Mar. 17	1315	*835	23.6	5.82	1.774	*835	23.6
Apr. 1	0715	321	9.09	4.56	1.390	387	11.0

Creek only: Minimum daily, no flow several days during August and September.

Combined creek and diversions: Minimum daily, 16 ft<sup>3</sup>/s (0.45 m<sup>3</sup>/s) many days in October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.06	.69	.67	2.1	.87	109	34	16	5.9	1.9	0
2	.03	.06	.40	.66	2.6	1.1	49	33	16	5.3	1.7	0
3	.03	.07	.33	.47	2.0	.97	45	32	15	4.4	1.4	0
4	.02	.08	.27	.42	1.9	.92	41	32	15	4.4	1.3	0
5	.03	.07	.24	.92	1.8	.95	40	31	14	4.2	1.2	.01
6	.04	.05	.30	.70	1.8	.92	39	31	14	4.2	1.1	0
7	.04	.05	.29	.87	1.7	.91	41	30	14	4.1	.98	.07
8	.05	.07	.27	.54	1.6	.85	42	30	14	4.1	.88	.31
9	.03	.09	.25	.67	1.4	.82	42	30	13	4.0	.79	.52
10	.03	.10	.24	.60	1.0	.80	44	30	13	3.9	.72	.78
11	.13	.09	.24	.48	1.1	.97	66	29	12	3.7	.66	.88
12	.06	.08	.29	.48	3.0	1.2	101	27	12	3.3	.60	1.1
13	.04	.06	.25	.53	2.2	.93	86	25	11	3.2	.55	1.4
14	.13	.05	.19	.44	1.7	1.8	79	25	11	3.1	.50	1.5
15	.12	.05	.19	.41	1.5	2.2	72	24	10	3.1	.45	1.8
16	.11	.05	.17	.38	1.4	8.2	67	23	10	3.0	.41	2.0
17	.10	.06	.12	.38	1.3	354	63	22	10	2.9	.32	2.2
18	.06	.06	.14	.39	1.3	87	60	22	10	2.9	.32	2.5
19	.07	.10	.08	.43	1.2	43	58	21	10	2.9	.15	2.8
20	.06	.10	.11	13	1.2	40	57	21	10	2.9	.05	3.0
21	.07	.09	.19	20	1.1	37	54	20	10	3.0	0	3.5
22	.07	.09	.18	9.4	1.2	34	52	19	10	3.2	0	3.9
23	.07	.07	.22	6.9	1.2	32	48	20	9.9	3.1	0	3.7
24	.08	.07	.21	5.6	1.2	30	45	19	9.8	2.9	0	4.0
25	.07	.06	.12	4.4	1.2	29	43	19	9.6	2.8	0	4.6
26	.08	.08	.10	3.8	1.0	28	41	19	9.3	2.8	0	5.3
27	.05	.42	.09	3.3	.86	27	39	18	8.6	2.6	0	5.4
28	.05	3.0	.09	3.4	.85	26	37	17	7.4	2.6	0	5.4
29	.06	4.1	.07	2.9	---	25	36	17	6.2	2.3	0	5.7
30	.08	1.3	.52	2.5	---	25	35	17	6.1	2.3	0	5.7
31	.08	---	.21	2.3	---	24	---	16	---	2.1	0	---
TOTAL	2.01	10.68	7.06	87.94	61.31	865.41	1631	753	336.9	105.2	15.98	68.07
MEAN	.065	.36	.23	2.84	2.19	27.9	54.4	24.3	11.2	3.39	.52	2.27
MAX	.13	4.1	.69	20	11	354	109	34	16	5.9	1.9	5.7
MIN	.02	.05	.07	.38	.85	.80	35	16	6.1	2.1	0	0
AC-FT	4.0	21	14	174	122	1720	3240	1490	668	209	32	135

CAL YR 1981 TOTAL 1151.88 MEAN 3.16 MAX 66 MIN 0 AC-FT 2280  
WTR YR 1982 TOTAL 3944.56 MEAN 10.8 MAX 354 MIN 0 AC-FT 7820



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 1981 TO SEPTEMBER 1982

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	17	23	22	27	27	122	60	41	31	26	24
2	17	17	21	21	25	28	65	59	41	30	22	24
3	17	18	21	20	26	28	71	57	40	29	24	24
4	17	18	21	20	26	27	67	57	40	29	22	24
5	17	18	21	25	26	27	66	56	39	29	25	24
6	17	19	20	24	25	27	65	56	39	29	25	24
7	16	19	20	23	25	27	67	55	39	29	25	24
8	16	18	20	23	25	26	68	55	39	29	25	24
9	16	18	20	24	24	26	68	55	38	29	25	25
10	16	18	20	24	34	26	70	55	38	29	25	25
11	17	18	20	22	35	26	89	54	37	29	25	25
12	17	19	20	22	29	26	117	52	37	28	25	25
13	17	19	19	23	28	27	112	50	36	28	25	25
14	17	19	19	21	28	28	104	50	36	28	25	26
15	17	19	19	21	28	27	98	49	35	28	24	26
16	16	19	19	20	27	29	93	48	35	28	24	26
17	16	19	19	20	27	369	89	47	35	28	24	26
18	16	19	19	20	27	92	86	47	35	28	24	27
19	16	19	19	20	27	55	84	46	35	28	24	27
20	16	18	19	39	27	65	83	46	35	28	24	27
21	16	19	19	43	26	63	80	45	35	28	24	28
22	16	19	19	35	27	60	78	44	35	27	24	28
23	16	19	19	33	27	58	74	45	35	28	24	28
24	16	19	19	32	27	56	71	44	35	27	24	28
25	16	19	19	30	27	55	69	45	35	27	24	29
26	16	20	19	30	27	54	67	45	34	28	24	29
27	16	24	19	29	27	53	65	44	34	28	24	27
28	17	30	19	29	27	52	63	43	32	27	24	24
29	17	28	19	29	---	51	62	43	31	26	24	25
30	17	24	21	29	---	50	61	43	31	26	24	25
31	17	---	19	28	---	50	---	42	---	26	24	---
TOTAL	510	589	610	801	761	1615	2374	1537	1087	872	752	773
MEAN	16.5	19.6	19.7	25.8	27.2	52.1	79.1	49.6	36.2	28.1	24.3	25.8
MAX	17	30	23	43	35	369	122	60	41	31	26	29
MIN	16	17	19	20	24	26	61	42	31	26	22	24
AC-FT	1010	1170	1210	1590	1510	3200	4710	3050	2160	1730	1490	1530
CAL YR 1981	TOTAL	8685	MEAN 23.8	MAX 90	MIN 14	AC-FT	17230					
WTR YR 1982	TOTAL	12281	MEAN 33.6	MAX 369	MIN 16	AC-FT	24360					

LOCATION.--Lat 34°16'01", long 117°27'33", in SE¼SW¼SE¼ 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.

PERIOD OF RECORD.--December 1919 to September 1971, October 1977 to current year.

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.

REMARKS.--Records poor. No regulation or diversion above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--56 years (water years 1921-71, 1978-82), 11.0 ft<sup>3</sup>/s (0.312 m<sup>3</sup>/s), 7,970 acre-ft/yr (9.83 hm<sup>3</sup>/yr).

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.

EXTREMES FOR CURRENT YEAR:--Maximum discharge, 860 ft<sup>3</sup>/s (24.4 m<sup>3</sup>/s) Mar. 17, gage height, 6.85 ft (2.088 m), no other peak above base of 250 ft<sup>3</sup>/s (7.08 m<sup>3</sup>/s); minimum daily, 3.3 ft<sup>3</sup>/s (0.094 m<sup>3</sup>/s) several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	4.9	6.2	6.7	6.9	6.2	68	9.8	7.2	5.8	4.2	3.3
2	5.3	4.9	5.8	6.7	6.8	6.2	37	9.6	7.2	5.7	4.1	3.3
3	5.3	4.9	5.3	5.3	6.8	6.2	14	9.4	7.1	5.6	4.1	3.3
4	5.3	4.9	5.3	7.1	6.7	5.8	13	9.4	7.1	5.5	4.1	3.3
5	4.5	4.9	5.3	17	6.7	5.8	10	9.4	7.0	5.4	4.0	3.3
6	5.3	5.3	5.3	10	6.6	5.8	13	9.4	6.9	5.4	4.0	3.3
7	4.5	5.3	5.3	9.7	6.6	5.3	13	9.4	6.9	5.3	4.0	3.3
8	3.7	5.3	4.9	8.1	6.6	5.3	13	9.2	6.8	5.2	3.9	3.3
9	4.5	5.3	4.5	8.1	6.5	5.3	12	9.2	6.8	5.2	3.9	3.4
10	4.1	5.3	4.5	8.1	11	5.3	29	9.0	6.8	5.1	3.9	3.5
11	4.1	5.3	4.9	8.6	9.2	6.2	18	8.8	6.8	5.1	3.8	3.5
12	3.7	5.8	5.8	8.1	7.8	6.2	16	8.6	6.8	5.0	3.8	3.7
13	3.7	5.8	5.8	7.6	7.2	5.8	14	8.6	6.7	4.9	3.8	4.1
14	3.7	6.2	6.2	7.6	7.0	14	14	8.4	6.6	4.9	3.7	4.6
15	3.7	5.8	5.8	7.6	6.8	13	13	8.4	6.6	4.8	3.7	4.7
16	3.7	5.3	5.8	7.1	6.7	23	13	8.4	6.6	4.8	3.7	4.7
17	3.3	5.3	5.8	7.1	6.6	270	13	8.2	6.5	4.8	3.7	4.7
18	3.7	5.3	5.8	6.2	6.6	82	12	8.2	6.5	4.8	3.6	4.7
19	3.3	5.3	5.3	6.6	6.5	20	12	8.1	6.4	4.7	3.6	4.7
20	3.7	5.3	5.8	27	6.4	10	12	8.0	6.4	4.7	3.6	4.8
21	3.7	5.3	5.8	18	6.4	7.8	12	8.0	6.4	4.6	3.6	4.7
22	3.7	5.3	4.9	12	6.4	7.8	11	7.9	6.3	4.5	3.5	4.7
23	3.7	5.3	4.9	9.0	6.4	7.8	11	7.8	6.3	4.5	3.5	4.7
24	3.7	5.3	4.9	8.0	6.4	7.8	11	7.7	6.2	4.5	3.4	4.8
25	3.7	5.3	5.3	7.4	6.3	7.8	11	7.6	6.2	4.4	3.4	5.0
26	4.1	5.8	5.8	7.2	6.3	8.0	10	7.6	6.2	4.4	3.4	5.3
27	4.1	7.6	5.8	7.1	6.3	8.0	10	7.5	6.1	4.4	3.4	5.3
28	4.5	21	6.2	7.0	6.3	8.0	10	7.4	6.0	4.3	3.3	5.0
29	4.5	7.1	6.6	7.0	---	8.0	10	7.4	6.0	4.3	3.3	4.8
30	4.9	6.7	8.1	7.0	---	9.0	10	7.3	5.9	4.2	3.3	4.5
31	4.9	---	8.1	6.9	---	14	---	7.2	---	4.2	3.3	---
TOTAL	129.9	181.1	175.8	276.9	192.8	601.4	465	260.9	197.3	151.0	114.6	126.3
MEAN	4.19	6.04	5.67	8.93	6.89	19.4	15.5	8.42	6.58	4.87	3.70	4.21
MAX	5.3	21	8.1	27	11	270	68	9.8	7.2	5.8	4.2	5.3
MIN	3.3	4.9	4.5	5.3	6.3	5.3	10	7.2	5.9	4.2	3.3	3.3
AC-FT	258	359	349	549	382	1190	922	517	391	300	227	251
CAL YR 1981	TOTAL	2515.0	MEAN 6.89	MAX 81	MIN 3.3	AC-FT 4990						
WTR YR 1982	TOTAL	2873.0	MEAN 7.87	MAX 270	MIN 3.3	AC-FT 5700						

LOCATION.--Lat 34°15'59", long 117°27'47", in SE<sub>4</sub>SE<sub>4</sub>SW<sub>4</sub> sec.12, T.2 N., R.6 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 50 ft (15 m) upstream from the Atchison, Topeka, and Santa Fe Railway Co. bridge, 150 ft (46 m) upstream from mouth, and 1.1 mi (1.8 km) north of Keenbrook.

PERIOD OF RECORD.--December 1919 to September 1938, June 1949 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,605.92 ft (794.284 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 2, 1938, water-stage recorder (destroyed by flood) and Mar. 2 to Sept. 30, 1938, nonrecording gage at same site at datum 0.98 ft (0.299 m) higher.

AVERAGE DISCHARGE.--51 years (water years 1921-38, 1950-82) 1.78 ft<sup>3</sup>/s (0.050 m<sup>3</sup>/s), 1,290 acre-ft/yr (1.59 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,180 ft<sup>3</sup>/s (175 m<sup>3</sup>/s) Mar. 2, 1938, on basis of slope-area measurement of maximum flow; no flow Aug. 6-8, Sept. 29, 30, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 146 ft<sup>3</sup>/s (4.13 m<sup>3</sup>/s) Mar. 17, gage height, 3.21 ft (0.978 m), no other peak above base of 80 ft<sup>3</sup>/s (2.27 m<sup>3</sup>/s); minimum daily, 1.10 ft<sup>3</sup>/s (0.031 m<sup>3</sup>/s) Aug. 22, Sept. 6, 7.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.6	1.9	2.0	1.7	1.7	12	2.0	2.3	1.8	1.5	1.6
2	1.8	1.6	1.9	1.7	1.8	1.8	2.6	2.1	2.3	1.7	1.5	1.5
3	1.7	1.6	2.0	1.5	1.7	1.8	1.7	2.2	2.3	1.6	1.5	1.4
4	1.6	1.6	2.0	1.6	1.8	1.8	1.8	2.2	2.5	1.5	1.3	1.2
5	1.6	1.8	1.9	2.4	1.8	1.8	2.0	2.0	2.1	1.7	1.4	1.2
6	1.5	1.8	2.1	2.1	1.8	1.8	2.0	2.0	1.9	1.7	1.4	1.1
7	1.5	1.7	2.3	1.9	1.8	1.8	2.0	2.3	1.9	1.6	1.4	1.1
8	1.5	1.7	2.2	1.8	1.8	1.8	2.0	2.3	1.9	1.8	1.4	1.2
9	1.6	1.6	2.3	1.9	1.8	1.9	2.0	2.2	2.2	1.8	1.5	1.2
10	1.6	1.7	2.3	2.0	2.3	1.9	2.9	2.2	2.2	1.7	1.5	1.2
11	1.7	1.7	2.3	1.9	2.0	1.8	1.9	2.1	2.1	1.7	1.6	1.2
12	1.7	1.7	2.3	2.0	1.9	1.9	2.0	2.2	2.1	1.7	1.6	1.4
13	1.7	1.7	2.2	2.0	1.9	1.8	1.7	2.3	2.1	1.7	1.5	1.6
14	1.7	1.8	2.1	2.0	1.9	2.8	1.7	2.2	1.8	1.7	1.5	1.6
15	1.7	1.8	2.1	1.9	1.8	2.6	1.7	2.1	1.8	1.7	1.5	1.6
16	1.6	1.9	2.1	2.0	1.8	5.8	1.6	2.1	1.7	1.7	1.4	1.6
17	1.6	1.9	2.1	1.9	1.8	52	1.7	2.1	1.6	1.7	1.4	1.6
18	1.6	1.9	2.2	1.7	1.8	4.1	1.8	2.2	1.6	1.7	1.3	1.6
19	1.6	2.0	2.2	1.6	1.8	1.4	1.9	2.1	1.6	1.8	1.3	1.6
20	1.7	2.1	2.0	5.0	1.8	1.4	1.9	2.1	1.7	1.8	1.3	1.6
21	1.8	2.1	1.9	2.7	1.8	1.5	1.9	2.1	1.6	1.9	1.2	1.6
22	1.9	2.0	1.9	1.9	1.6	1.5	1.8	2.1	1.7	1.8	1.1	1.6
23	1.8	1.9	1.9	1.9	1.6	1.5	1.7	1.9	1.8	1.8	1.2	1.6
24	1.9	1.9	1.9	1.9	1.6	1.5	1.7	2.2	1.8	1.8	1.2	1.7
25	1.8	1.8	1.9	1.8	1.7	1.6	1.9	2.3	1.7	1.7	1.2	1.8
26	1.6	2.0	1.9	1.9	1.6	1.6	1.9	2.3	1.6	1.7	1.2	1.8
27	1.6	2.3	1.9	1.8	1.6	1.6	2.0	2.4	1.5	1.5	1.3	1.8
28	1.6	4.0	1.9	1.9	1.6	1.6	2.1	2.2	1.6	1.4	1.5	1.8
29	1.6	2.0	1.9	1.7	---	1.6	2.1	2.0	1.6	1.4	1.5	1.7
30	1.6	1.9	1.9	1.7	---	1.8	2.1	1.9	1.7	1.4	1.6	1.6
31	1.7	---	1.7	1.6	---	1.8	---	1.9	---	1.5	1.5	---
TOTAL	51.7	57.1	63.2	61.7	49.9	111.3	68.1	66.3	56.3	52.0	43.3	45.1
MEAN	1.67	1.90	2.04	1.99	1.78	3.59	2.27	2.14	1.88	1.68	1.40	1.50
MAX	1.9	4.0	2.3	5.0	2.3	52	12	2.4	2.5	1.9	1.6	1.8
MIN	1.5	1.6	1.7	1.5	1.6	1.4	1.6	1.9	1.5	1.4	1.1	1.1
AC-FT	103	113	125	122	99	221	135	132	112	103	86	89
CAL YR 1981 TOTAL	1096.8		MEAN 3.00	MAX 13	MIN 1.5	AC-FT 2180						

## SANTA ANA RIVER BASIN

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 good except those for periods of missing gage-height record, Dec. 1 to Jan 14, which are fair. 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.--63 years (water years 1914, 1921-82), 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 (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.--Peak discharges above base of 25 ft<sup>3</sup>/s (0.708 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. 17	1645	*83 2.35	5.86 1.786
Mar. 29	2315	65 1.84	5.78 1.762
Apr. 1	0930	73 2.07	5.81 1.771

Minimum, no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.21	0	1.3	0	0	27	.03	.05	.02		0
2	0	.08	0	.70	0	.87	16	.06	.09	.01		0
3	0	0	0	.50	0	1.0	8.3	.02	.05	0		0
4	0	0	0	.35	0	0	4.9	.03	.04	0		0
5	0	0	0	5.0	0	0	5.3	.04	.04	.01		0
6	0	0	0	1.0	0	0	6.9	.06	.03	.01		0
7	0	0	0	.40	0	0	6.5	.06	.03	0		0
8	0	0	0	.30	0	0	5.4	.05	.04	0		0
9	0	0	0	.20	0	0	3.0	.06	.03	0		0
10	0	0	0	.10	6.6	0	1.7	.06	.02	0		0
11	0	0	0	.07	5.9	0	4.4	.07	.02	0		0
12	0	0	0	.06	4.4	0	3.6	.06	.02	0		0
13	0	0	0	.05	3.0	0	1.9	.07	.02	0		0
14	0	0	0	.04	1.0	2.3	1.5	.07	.02	0		0
15	0	0	0	0	.06	3.4	1.2	.05	.02	0		0
16	0	0	0	0	.06	4.7	.94	.05	.02	0		0
17	0	0	0	0	.05	45	.78	.04	.01	0		0
18	0	0	0	.08	.05	23	.54	.02	.01	0		0
19	0	0	0	.23	.04	11	.77	.05	.01	0		0
20	0	0	0	3.3	.01	5.4	1.2	.03	.05	0		0
21	0	0	0	5.8	0	2.5	2.0	.04	.05	0		0
22	0	0	0	1.5	0	2.4	1.1	.04	.02	0		0
23	0	0	0	.08	0	1.8	.02	.04	0	0		0
24	0	0	0	.09	0	2.0	.06	.03	0	0		0
25	0	0	0	.05	0	2.5	.04	.04	.01	0		0
26	0	0	0	.04	0	4.7	.01	.04	.01	0		15
27	0	1.1	0	.30	0	2.5	0	.06	.01	0		9.0
28	0	1.6	0	2.3	0	2.7	.01	.06	.02	0		2.3
29	.02	1.0	0	.04	---	12	.01	.05	.03	0		.14
30	0	.08	.90	0	---	17	0	.04	.03	0		.07
31	.13	---	.40	0	---	5.7	---	.05	---	0		---
TOTAL	.15	4.07	1.30	23.88	21.17	152.47	105.08	1.47	.80	.05	0	26.51
MEAN	.005	.14	.042	.77	.76	4.92	3.50	.047	.027	.002	0	.88
MAX	.13	1.6	.90	5.8	6.6	45	27	.07	.09	.02	0	15
MIN	0	0	0	0	0	0	0	.02	0	0	0	0
AC-FT	.3	8.1	2.6	47	42	302	208	2.9	1.6	.10	0	53
CAL YR 1981	TOTAL	140.21	MEAN .38	MAX 15	MIN 0	AC-FT 278						
WTR YR 1982	TOTAL	336.95	MEAN .92	MAX 45	MIN 0	AC-FT 668						

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, 722 ft<sup>3</sup>/s (20.4 m<sup>3</sup>/s) Mar. 17, gage height, 2.71 ft (0.826 m); minimum, no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	.21	0	.32	0	.38	120			0		0
2	0	.16	0	5.7	0	1.1	25			0		0
3	0	.08	0	1.2	0	.45	0			0		0
4	0	0	0	.31	0	0	0			0		0
5	0	0	0	5.8	0	0	0			0		0
6	0	0	0	.51	0	0	0			0		0
7	0	0	0	0	0	0	0			0		0
8	0	0	0	0	0	0	0			0		0
9	0	0	0	0	0	0	0			0		0
10	0	0	0	0	19	0	0			0		0
11	0	0	0	0	6.9	.46	0			0		0
12	0	0	0	0	.90	1.8	0			0		0
13	0	0	0	0	0	.29	5.0			0		0
14	0	0	0	0	0	3.3	0			0		0
15	0	0	0	0	0	.84	0			0		0
16	0	0	0	0	0	5.7	0			0		0
17	0	0	0	0	0	203	0			0		.05
18	0	0	0	0	0	39	0			0		0
19	0	0	0	6.7	0	.60	0			0		0
20	0	0	0	19	0	0	0			0		0
21	0	0	0	4.5	0	0	0			0		0
22	0	0	0	.60	0	0	0			0		0
23	0	0	0	0	0	0	0			0		0
24	0	0	0	0	0	0	0			0		0
25	0	0	0	0	0	0	0			0		0
26	0	.45	0	0	0	0	0			1.6		11
27	0	2.4	0	0	0	0	0			0		.25
28	.44	4.9	0	6.6	0	0	0			0		0
29	.36	.29	0	.46	---	0	0			0		0
30	.30	.26	0	0	---	13	0			0		0
31	.25	---	2.5	0	---	.60	---		---	0		---
TOTAL	1.86	8.75	2.5	51.70	26.80	270.52	150.0	0	0	1.6	0	11.30
MEAN	.060	.29	.081	1.67	.96	8.73	5.00	0	0	.052	0	.38
MAX	.51	4.9	2.5	19	19	203	120	0	0	1.6	0	11
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	3.7	17	5.0	103	53	537	298	0	0	3.2	0	22
CAL YR 1981	TOTAL 607.26			MEAN 1.66	MAX 135	MIN 0	AC-FT 1200					
WTR YR 1982	TOTAL 525.03			MEAN 1.44	MAX 203	MIN 0	AC-FT 1040					

## SANTA ANA RIVER BASIN

11066460 SANTA ANA RIVER AT MWD CROSSING, NEAR ARLINGTON, CA

LOCATION.--Lat 33°58'04", long 117°26'46", in NE<sup>1</sup>/<sub>4</sub> 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.--12 years, 89.8 ft<sup>3</sup>/s (2.543 m<sup>3</sup>/s), 65,060 acre-ft/yr (80.2 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 9.1 mi (13.0 km) upstream. Stage at that site was 5 ft (2 m) higher than Mar. 2, 1938.

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 above 1,450 ft<sup>3</sup>/s (41.1 m<sup>3</sup>/s) on basis of slope-conveyance study of maximum flow at gage-height 13.40 ft (4.084 m):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Jan. 21	0130	3,820    108.2	11.20    3.414
Feb. 11	0300	4,390    124.3	11.45    3.490

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Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Mar. 18	0200	*5,980    169.4	12.16    3.706
Apr. 1	1330	4,590    130.0	11.38    3.469

Minimum daily, 18 ft<sup>3</sup>/s (0.51 m<sup>3</sup>/s) Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	24	29	249	71	68	1670	303	57	54	40	34
2	20	22	28	81	65	106	403	297	56	52	40	33
3	18	23	27	60	58	79	251	292	69	48	40	31
4	20	26	26	50	60	70	238	287	66	51	39	31
5	21	24	26	246	56	66	251	285	56	50	39	32
6	24	24	27	69	42	68	260	220	51	48	39	33
7	26	24	28	60	46	72	270	170	66	46	38	33
8	27	24	28	44	53	69	331	86	63	49	38	36
9	25	23	28	42	51	71	342	82	61	48	38	41
10	28	22	28	45	734	78	350	81	64	53	38	40
11	28	24	28	46	1970	79	476	80	64	47	38	40
12	28	24	28	39	164	224	500	79	55	46	38	38
13	31	25	31	35	134	158	400	79	63	45	38	38
14	27	26	33	37	129	181	315	78	66	45	37	38
15	27	26	33	39	138	225	292	72	60	45	37	39
16	28	27	33	37	158	252	265	72	59	44	37	43
17	26	25	45	37	100	2820	255	72	59	43	37	44
18	25	23	62	37	58	2530	248	71	57	42	37	43
19	23	22	36	35	52	107	245	69	66	42	36	41
20	25	23	36	1280	52	80	218	68	57	42	36	39
21	24	22	40	1930	53	70	201	67	56	42	36	39
22	29	23	37	100	60	69	242	66	55	42	35	38
23	26	23	37	88	61	65	290	65	58	42	35	38
24	25	22	35	78	54	67	327	64	53	42	38	38
25	27	21	35	69	53	82	327	63	50	42	32	38
26	27	22	38	64	53	209	370	62	51	42	33	95
27	26	60	51	60	52	112	306	62	51	42	32	64
28	35	344	45	59	51	93	359	61	51	42	32	40
29	32	51	42	245	---	111	330	60	57	42	32	41
30	27	30	95	107	---	605	315	59	56	41	33	43
31	25	---	59	83	---	157	---	58	---	41	33	---
TOTAL	815	1099	1154	5451	4628	9043	10647	3530	1753	1400	1131	1221
MEAN	26.3	36.6	37.2	176	165	292	355	114	58.4	45.2	36.5	40.7
MAX	35	344	95	1930	1970	2820	1670	303	69	54	40	95
MIN	18	21	26	35	42	65	201	58	50	41	32	31
AC-FT	1620	2180	2290	10810	9180	17940	21120	7000	3480	2780	2240	2420
WTR YR 1981	TOTAL	16243	MEAN 44.5	MAX	634	MIN 15	AC-FT	32220				
WTR YR 1982	TOTAL	41872	MEAN 115	MAX	2820	MIN 18	AC-FT	83050				

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 1981 TO SEPTEMBER 1982

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					
02...	1100	22	1110	20.0	698
14...	1025	27	1120	17.5	702
NOV					
02...	1045	22	1190	20.5	730
24...	1035	26	1150	16.0	677
DEC					
03...	1025	28	1210	16.0	701
16...	1015	32	1105	15.5	682
JAN					
07...	1230	58	1050	11.0	629
21...	1600	688	895	10.5	506
25...	1145	69	1070	16.5	621
FEB					
02...	1300	52	1110	17.0	690
10...	1445	187	305	14.0	259
12...	1120	164	640	14.0	451
MAR					
01...	1140	55	1005	18.0	688
18...	1400	1420	330	13.0	257
29...	1135	116	980	18.0	599
APR					
02...	1540	403	550	20.5	362
19...	1210	245	675	27.0	423
MAY					
05...	1420	285	660	21.0	415
14...	1225	78	910	21.0	633
JUN					
02...	1400	56	1050	25.0	664
17...	1100	60	1020	20.0	670
28...	1020	53	1080	25.0	655
JUL					
19...	1300	42	990	29.0	646
27...	1310	42	910	29.5	620
AUG					
23...	1516	35	1100	25.0	725
31...	1120	38	980	27.0	721
SEP					
20...	1315	43	1045	26.5	679

## SANTA ANA RIVER BASIN

11066480 RIVERSIDE WATER QUALITY CONTROL PLANT AT RIVERSIDE NARROWS, NEAR ARLINGTON, CA

LOCATION.--Lat 33°57'53", long 117°27'26", in SE¼NE¼SE¼ 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.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to September 1982 (discontinued). Prior to May 25, 1967, published as "Sheehan ditch."

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 690 ft (210 m), from topographic map.

REMARKS.--Records poor. Discharge reported is total effluent from city of Riverside's Water Quality Control Plant, released to river 1.0 mi (1.6 km) downstream from Santa Ana River at MWD crossing (station 11066460). Records for 1982 water year not published due to effluent bypassing gage at indeterminate intervals.

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.

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to September 1982 (discontinued).

CHEMICAL ANALYSES: Water years 1970 September 1982 (discontinued).

SPECIFIC CONDUCTANCE: Water years 1970-81.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to September 1981.

INSTRUMENTATION.--Specific-conductance recorder October 1969 to September 1981.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,740 micromhos Oct. 29, 1971; minimum recorded, 480 micromhos Apr. 25, 1978.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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					
02...	1210	47	1000	26.5	539
14...	1405	--	1040	24.0	554
NOV					
03...	0730	23	1015	23.0	595
24...	1100	32	970	22.0	558
DEC					
03...	1235	17	990	22.0	581
16...	1045	42	970	21.5	563
JAN					
07...	1310	29	910	18.0	543
25...	0940	32	970	20.5	525
FEB					
02...	1050	44	955	19.0	536
16...	0945	17	920	21.0	575
MAR					
01...	1245	51	990	21.5	591
29...	0835	37	1025	19.5	607
MAY					
05...	1510	1.0	960	23.5	588
14...	1345	1.0	980	24.5	613
JUN					
02...	1510	1.0	1005	23.0	600
17...	1200	--	910	24.5	559
28...	1045	--	920	26.0	572
JUL					
19...	1325	--	850	27.5	517
27...	1355	--	900	28.0	556
AUG					
23...	1536	--	915	27.0	583
31...	1200	--	880	28.0	582
SEP					
20...	1345	--	860	27.5	543



## 11069000 LAKE HEMET NEAR IDYLLWILD, CA

LOCATION.--Lat 33°39'56", long 116°42'19", in SE&SW&NE& 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>). 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 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, 13,540 acre-ft (16.7 hm<sup>3</sup>) Apr. 5-7, elevation, 4,336.8 ft (1,321.86 m); minimum observed, 8,750 acre-ft (10.8 hm<sup>3</sup>) Dec. 23-30, elevation, 4,324.2 ft (1,318.02 m).

## MONTHEND ELEVATION, NGVD, AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	4,277.5	9,740	--
Oct. 31.....	4,325.0	9,210	-530
Nov. 30.....	4,324.4	8,830	-380
Dec. 31.....	4,324.3	8,770	-60
CAL YR 1981.....	--	--	-1,310
Jan. 31.....	4,326.5	9,560	+790
Feb. 28.....	4,330.3	11,310	+1,750
Mar. 31.....	4,334.6	12,980	+1,670
Apr. 30.....	4,336.5	13,540	+560
May 31.....	4,336.5	13,540	--
June 30.....	4,336.3	13,440	-100
July 31.....	4,335.0	12,950	-490
Aug. 31.....	4,332.8	12,090	-860
Sept. 30.....	4,331.0	11,370	-720
WTR YR 1982.....	--	--	+1,630

## SANTA ANA RIVER BASIN

11069500 SAN JACINTO RIVER NEAR SAN JACINTO, CA

LOCATION.--Lat 33°44'10", long 116°49'26", in NE¼NE¼SE¼ 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 fair. 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 site below lower diversion.

AVERAGE DISCHARGE.--River only: 50 years (water years 1921-26, 1928-69, 1981-82), 17.9 ft<sup>3</sup>/s (0.507 m<sup>3</sup>/s), 12,970 acre-ft/yr (16.0 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: 33 years (water years 1949-80, 1982), 24.8 ft<sup>3</sup>/s (0.702 m<sup>3</sup>/s) 17,970 acre-ft/yr (22.2 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.--Combined river and diversion: Peak discharges above base of 500 ft<sup>3</sup>/s (14.2 m<sup>3</sup>/s) and maximum (\*) from rating curve extended above 330 ft<sup>3</sup>/s (9.35 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Feb. 10	2245	*2,900 82.1	5.93 1.807
Mar. 17	2145	513 14.5	4.17 1.271

Minimum daily, 2.7 ft<sup>3</sup>/s (0.076 m<sup>3</sup>/s) Aug. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	7.3	5.4	20	15	27	195	63	17	11	.96	.93
2	.24	8.2	5.3	14	15	26	198	64	17	7.7	.83	.89
3	.34	7.2	4.2	9.3	14	26	159	51	16	2.5	.82	.89
4	.54	5.8	3.7	7.2	13	24	203	59	17	5.0	.79	.90
5	.58	6.0	3.5	30	13	22	187	50	14	7.5	.93	.84
6	.45	6.1	3.5	34	12	20	158	45	12	7.6	.78	.83
7	.44	6.2	3.8	13	12	19	140	42	12	7.5	.92	.84
8	.45	6.3	4.0	8.0	13	18	126	40	11	7.5	.80	1.8
9	.45	6.3	4.0	5.1	16	18	117	40	11	1.8	1.4	7.7
10	.51	6.3	4.0	4.3	485	18	127	39	10	1.1	1.7	6.7
11	.75	6.5	4.0	6.2	907	21	215	39	9.4	.92	1.7	1.2
12	1.2	6.3	4.1	6.3	202	32	280	39	8.7	.84	1.7	.94
13	1.2	6.5	4.2	4.5	110	30	168	35	8.3	.86	1.6	.81
14	1.1	6.5	4.2	3.6	92	38	141	32	8.2	.58	1.2	.76
15	1.1	6.9	4.2	3.2	83	51	125	30	7.2	.55	1.1	.75
16	1.0	7.7	4.2	2.9	89	45	114	29	6.1	.54	1.1	.79
17	1.0	7.6	4.2	3.4	78	120	101	28	5.6	.53	1.1	.91
18	.94	7.5	4.2	4.1	58	169	95	27	5.9	.48	1.1	1.1
19	.82	7.6	4.4	4.0	45	97	91	26	5.6	.47	.93	.94
20	.76	7.7	4.5	25	41	85	88	25	5.1	.54	.93	.85
21	.75	7.7	4.5	95	45	76	107	23	4.3	.51	.86	.78
22	.66	7.7	4.7	31	45	73	70	27	3.8	.50	.83	.68
23	2.5	6.9	4.8	22	40	70	59	39	3.9	.50	.85	.59
24	4.7	6.6	4.9	24	39	71	57	36	4.1	.50	.83	.60
25	5.5	6.6	4.9	31	36	72	58	27	6.8	.50	5.5	.60
26	5.7	6.9	5.0	34	33	184	58	23	10	.51	16	2.2
27	6.2	7.2	5.0	28	30	115	55	23	11	.54	12	17
28	6.6	6.6	5.0	26	27	126	55	21	12	.54	6.3	8.9
29	7.6	6.6	5.1	23	---	110	55	20	11	.54	1.4	4.2
30	7.1	5.9	6.7	19	---	121	57	19	11	.57	1.1	1.9
31	7.2	---	9.0	17	---	100	---	18	---	.94	1.0	---
TOTAL	69.08	205.2	143.2	558.1	2608	2024	3659	1079	285.0	71.66	69.06	68.82
MEAN	2.23	6.84	4.62	18.0	93.1	65.3	122	34.8	9.50	2.31	2.23	2.29
MAX	7.6	8.2	9.0	95	907	184	280	64	17	11	16	17
MIN	.24	5.8	3.5	2.9	12	18	55	18	3.8	.47	.78	.59
AC-FT	137	407	284	1110	5170	4010	7260	2140	565	142	137	137
CAL YR 1981 TOTAL	762.92			MEAN 2.09	MAX 70	MIN 0	AC-FT 1510					
WTR YR 1982 TOTAL	10840.12			MEAN 29.7	MAX 907	MIN .24	AC-FT 21500					

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 1981 TO SEPTEMBER 1982DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	11	6.6	24	15	27	199	66	22	11	6.4	7.5
2	9.2	9.7	6.4	19	15	26	204	67	21	11	5.5	7.2
3	9.0	7.7	5.3	13	14	26	165	54	20	11	6.8	7.5
4	9.0	6.2	4.8	9.5	13	24	209	62	20	6.7	7.0	7.4
5	9.0	6.4	4.6	34	13	22	193	55	19	8.3	5.2	7.1
6	8.4	6.5	4.6	35	12	20	164	51	17	8.5	5.4	6.5
7	7.9	6.6	4.9	14	12	19	146	46	17	8.0	6.2	8.5
8	8.2	6.7	5.1	11	13	18	132	43	16	12	6.3	7.8
9	8.2	6.7	5.0	8.7	16	18	123	43	16	12	4.8	8.5
10	8.2	6.8	5.0	7.5	485	18	133	42	15	10	2.9	11
11	8.9	7.0	5.0	11	907	21	221	43	14	9.7	2.7	9.5
12	9.2	6.8	5.1	12	202	32	287	42	13	9.1	7.3	10
13	9.1	7.0	5.2	9.7	110	30	175	37	13	8.8	9.7	10
14	8.9	7.0	5.2	7.8	92	38	148	34	13	8.1	8.8	10
15	8.9	7.4	5.2	6.8	83	51	132	32	13	7.7	7.5	10
16	8.7	8.2	5.2	6.1	89	45	121	31	10	8.4	10	11
17	8.6	8.1	5.2	6.3	78	120	108	31	9.4	7.2	9.7	12
18	8.4	8.0	5.2	6.9	58	169	102	29	9.5	6.9	8.1	11
19	8.4	8.1	5.4	6.7	45	97	98	28	9.1	6.6	7.3	11
20	8.4	8.2	5.5	29	41	85	95	28	8.8	6.4	8.1	10
21	8.3	8.2	5.5	97	45	76	114	26	7.9	6.1	8.5	9.0
22	5.5	8.2	5.7	31	45	73	77	31	7.2	5.9	8.0	9.3
23	6.2	7.4	5.8	22	40	70	66	43	7.0	6.4	8.1	9.5
24	8.2	7.1	5.9	24	39	71	64	40	6.7	8.2	8.3	9.5
25	8.9	7.1	5.9	31	36	72	65	31	8.8	7.7	11	9.7
26	9.0	7.5	6.0	34	33	184	66	28	12	7.9	17	12
27	9.5	9.7	6.0	28	30	115	63	27	12	7.1	13	30
28	10	8.8	6.0	26	27	126	63	26	13	6.4	16	18
29	12	8.7	6.1	23	---	110	61	25	12	5.9	11	11
30	11	7.4	8.1	19	---	121	61	24	12	5.8	8.6	7.6
31	11	---	12	17	---	100	---	22	---	6.1	8.0	---
TOTAL	268.7	230.2	177.5	630.0	2608	2024	3855	1187	394.4	250.9	253.2	309.1
MEAN	8.67	7.67	5.73	20.3	93.1	65.3	129	38.3	13.1	8.09	8.17	10.3
MAX	12	11	12	97	907	184	287	67	22	12	17	30
MIN	4.5	6.2	4.6	6.1	12	18	61	22	6.7	5.8	2.7	6.5
AC-FT	533	457	352	1250	5170	4010	7650	2350	782	498	502	613
CAL YR 1981 TOTAL	1021.84			MEAN 2.80	MAX 70	MIN 0	AC-FT 2030					
WTR YR 1982 TOTAL	12188.00			MEAN 33.4	MAX 907	MIN 2.7	AC-FT 24170					

## SANTA ANA RIVER BASIN

11070050 BAUTISTA CREEK AT VALLE VISTA, CA

LOCATION.--Lat 33°44'04", long 116°53'33", in SE¼NE¼SE¼ 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.--13 years, 2.61 ft<sup>3</sup>/s (0.074 m<sup>3</sup>/s), 1,890 acre-ft/yr (2.33 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 daily discharge, 233 ft<sup>3</sup>/s (6.60 m<sup>3</sup>/s) Mar. 17; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	0	2.7	4.7	0	.06	.27	0	13	.05	0	0
2	.29	0	2.1	.48	0	0	1.3	0	7.9	.06	0	.02
3	.06	0	.70	.63	0	0	0	0	5.6	.28	0	0
4	0	.01	.34	1.1	0	0	0	3.6	5.5	.09	.66	.10
5	0	0	.55	6.0	0	0	0	2.9	7.4	2.9	0	.10
6	0	0	2.0	.85	0	0	0	5.3	4.7	.58	.16	.02
7	.21	0	.82	1.3	0	0	0	4.8	1.1	.09	.10	.17
8	0	.01	.19	1.0	.42	.79	0	7.1	1.8	.05	0	.55
9	0	.01	0	.01	.05	.40	0	8.5	1.6	.01	.03	1.0
10	0	.05	.04	.11	12	.17	0	4.8	.08	.04	1.1	.13
11	.40	.03	.10	.25	15	.06	0	.99	.03	.04	.03	.01
12	.18	0	0	0	.13	.44	.20	3.0	0	0	.02	.06
13	0	.01	.01	0	0	.89	0	3.3	.03	0	0	0
14	0	.21	0	0	.67	.38	0	1.8	0	0	0	0
15	.77	.32	0	0	0	8.5	0	2.1	.02	0	0	0
16	3.3	.29	.01	0	.03	.45	0	19	0	.19	0	.15
17	1.4	.52	.01	0	0	.48	0	25	0	.07	.18	.33
18	.04	.27	0	0	0	.95	0	11	.04	0	.01	0
19	.02	2.9	.04	0	0	1.0	0	6.6	.04	0	.14	.01
20	0	2.1	.13	32	0	0	0	6.3	0	0	.59	.03
21	.04	.51	.16	40	0	0	0	5.6	0	0	.13	.03
22	1.1	2.8	0	.01	0	0	0	4.4	0	0	0	.03
23	.74	4.7	.02	0	0	.02	0	12	0	.02	0	.03
24	1.0	1.6	.01	0	.34	0	0	12	0	.25	0	0
25	.69	1.2	.19	0	.07	.03	0	4.8	1.7	.09	.08	.01
26	0	7.1	.21	0	.32	.43	0	3.9	1.9	.17	.40	.75
27	0	12	.05	0	.32	0	0	4.6	.16	.03	.42	4.9
28	.16	3.1	0	.87	0	0	0	3.9	.37	0	.38	3.2
29	.14	2.8	0	0	---	.09	0	7.2	.32	0	.27	3.2
30	.17	2.8	1.5	0	---	.62	0	10	.16	0	.01	.06
31	0	---	2.9	0	---	0	---	6.9	---	.06	0	---
TOTAL	10.78	45.34	14.78	89.31	29.35	157.33	1.77	191.39	53.45	5.07	4.71	14.89
MEAN	.35	1.51	.48	2.88	1.05	5.08	.059	6.17	1.78	.16	.15	.50
MAX	3.3	12	2.9	40	15	95	1.3	25	13	2.9	1.1	4.9
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	21	90	29	177	58	312	3.5	380	106	10	9.3	30

CAL YR 1981 TOTAL 198.52 MEAN .54 MAX 12 MIN 0 AC-FT 394  
WTR YR 1982 TOTAL 618.17 MEAN 1.69 MAX 95 MIN 0 AC-FT 1230

## 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.

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 are published as furnished by Riverside County Flood Control and Water Conservation District.

AVERAGE DISCHARGE.--River only: 31 years, 12.1 ft<sup>3</sup>/s (0.343 m<sup>3</sup>/s), 8,760 acre-ft/yr (10.8 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, 1,550 ft<sup>3</sup>/s (43.9 m<sup>3</sup>/s) Mar. 18, gage height, 4.38 ft (1.335 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0		.19	1.0	0	55	.72	.54	.36	.41	.15
2		0		6.0	2.7	0	52	.72	.54	.36	1.6	0
3		0		4.2	.77	0	13	.72	.63	.27	1.7	.30
4		0		9.3	.54	0	12	.88	.85	.27	.99	.92
5		0		13	.41	0	9.9	4.9	.86	.36	.50	.99
6		0		5.8	.36	0	11	.95	.72	.52	.45	.81
7		0		.61	.36	0	7.6	.90	.72	.68	.56	.70
8		0		0	.36	0	3.8	.81	.86	.82	.50	1.8
9		0		0	.36	0	2.5	.54	.90	.72	.75	7.0
10		0		0	.36	0	1.6	.36	.90	.63	.90	4.8
11		0		0	34	0	1.3	.36	.81	.81	.81	1.7
12		0		0	3.2	0	1.1	.36	.82	.90	.90	1.5
13		0		0	1.1	0	.95	.36	.81	.39	.90	1.2
14		0		0	.95	.63	2.5	.36	.72	.68	.89	.90
15		0		0	.90	43	2.5	.36	.63	.41	.54	.72
16		0		0	.77	3.3	4.5	.36	.54	.60	.54	.72
17		0		0	.59	319	2.5	.36	.54	.72	.54	.54
18		0		0	.36	917	1.6	.36	.54	.87	.23	.27
19		0		0	0	96	1.3	.36	.45	.90	0	.18
20		0		.25	0	42	.90	.36	.27	.81	0	.09
21		0		77	0	22	.72	.36	.50	.72	.29	0
22		0		12	0	12	.72	.36	.72	.90	.36	0
23		0		.95	0	7.3	.72	.36	.72	.47	.74	0
24		0		.59	0	4.5	.72	.36	.72	.74	.14	0
25		0		.41	0	3.1	.72	.36	.72	.90	.05	0
26		0		.23	0	3.7	.72	.36	.63	.90	.71	0
27		0		.18	0	4.1	.72	.45	.45	.81	.81	.59
28		12		.18	0	1.5	.72	.54	.36	1.0	.81	1.9
29		17		.18	---	1.3	.72	.54	.36	.81	.90	2.4
30		4.0		.18	---	3.0	.72	.54	.36	.81	.90	.74
31		---		.14	---	2.2	---	.54	---	.45	.86	---
TOTAL	0	33.0	0	131.39	49.09	1485.63	194.75	19.87	19.19	20.59	20.28	30.92
MEAN	0	1.10	0	4.24	1.75	47.9	6.49	.64	.64	.66	.65	1.03
MAX	0	17	0	77	34	917	55	4.9	.90	1.0	1.7	7.0
MIN	0	0	0	0	0	0	.72	.36	.27	.27	0	0
AC-FT	0	65	0	261	97	2950	386	39	38	41	40	61
CAL YR 1981	TOTAL	2385.44	MEAN	6.54	MAX	120	MIN	0	AC-FT	4730		
WTR YR 1982	TOTAL	2004.71	MEAN	5.49	MAX	917	MIN	0	AC-FT	3980		

## SANTA ANA RIVER BASIN

11070500 SAN JACINTO RIVER NEAR ELSINORE, CA

LOCATION.--Lat 33°39'51", long 117°17'35", in SE½SE¼NE¼ 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 424 acre-ft (523,000 m<sup>3</sup>) during current year from Railroad Canyon Reservoir for irrigation below station in vicinity of Corona.

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, 638 ft<sup>3</sup>/s (18.1 m<sup>3</sup>/s) Mar. 18, gage height, 5.29 ft (1.612 m); minimum daily, 0.02 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) July 23-25, Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.73	1.6	1.7	1.2	1.0	8.1	1.4	.68	.51	.37	.20
2	.57	.73	1.6	1.5	1.2	1.2	55	1.3	.63	.41	.83	.13
3	.59	.75	1.5	1.3	1.2	1.2	35	1.2	.62	.33	.09	.12
4	.59	.77	1.5	1.2	1.1	1.2	24	1.4	.63	.38	.07	.43
5	.60	.78	1.3	2.0	1.2	1.1	21	1.4	.61	.34	.09	.16
6	.55	.82	1.4	1.7	1.1	1.0	18	1.2	.58	.34	.11	.17
7	.52	.86	1.2	1.3	1.2	1.1	16	1.1	.61	.31	.14	.14
8	.55	.86	1.2	1.2	1.3	1.1	14	1.1	.65	.35	.06	.27
9	.59	.85	1.2	1.2	1.2	1.1	11	1.1	.73	.36	.03	.33
10	.64	.89	1.2	1.2	1.7	1.2	8.9	1.2	.81	.29	.02	.37
11	.68	.92	1.3	1.3	2.3	1.2	7.7	1.3	.79	.29	.07	.36
12	.67	.95	1.4	1.3	1.6	1.4	7.5	1.3	.78	.85	.14	.30
13	.67	.98	1.3	1.2	1.4	1.7	6.4	1.2	.75	.16	.15	.28
14	.66	.98	1.3	1.2	1.3	2.4	5.6	1.2	.67	.15	.20	.35
15	.68	1.0	1.3	1.2	1.3	0	5.4	1.1	.62	.14	.19	.33
16	.66	1.0	1.3	1.2	1.2	0	6.1	1.0	.63	.15	.17	.42
17	.63	1.3	1.3	1.1	1.2	33	5.7	1.0	.72	.18	.28	.52
18	.59	1.9	1.3	1.1	1.2	199	4.8	1.0	.83	.68	.12	.48
19	.57	1.7	1.2	1.1	1.2	280	4.1	.93	.86	.76	.06	.37
20	.58	1.6	1.3	1.5	1.1	4.6	3.7	.90	.80	.05	.03	.30
21	.57	1.6	1.2	2.9	1.0	3.6	4.4	.99	.74	.03	.04	.27
22	.60	1.6	1.2	1.7	1.0	3.2	4.0	1.1	.68	.03	.07	.21
23	.59	1.6	1.2	1.4	1.0	2.8	2.8	.90	.62	.02	.10	.17
24	.60	1.7	1.2	1.3	1.1	2.7	2.3	.85	.64	.02	.15	.23
25	.68	1.7	1.2	1.3	1.0	2.6	2.0	.86	.63	.02	.23	.28
26	.72	1.8	1.2	1.3	1.0	3.8	1.8	.93	.54	.04	.29	.34
27	.83	1.9	1.2	1.3	1.1	6.3	1.7	1.1	.43	.16	.23	.41
28	.87	2.6	1.2	1.4	1.0	6.6	1.6	.99	.38	.10	.17	.32
29	.89	1.8	1.3	1.2	---	6.4	1.5	.82	.48	.08	.14	.32
30	.83	1.6	1.2	1.2	---	6.3	1.4	.73	.57	.09	.21	.38
31	.75	---	1.2	1.2	---	5.6	---	.69	---	.15	.22	---
TOTAL	20.10	38.27	40.0	42.7	34.4	584.4	291.5	33.29	19.71	7.17	5.07	8.96
MEAN	.65	1.28	1.29	1.38	1.23	18.9	9.72	1.07	.66	.23	.16	.30
MAX	.89	2.6	1.6	2.9	2.3	280	55	1.4	.86	.76	.83	.52
MIN	.52	.73	1.2	1.1	1.0	0	1.4	.69	.38	.02	.02	.12
AC-FT	40	76	79	85	68	1160	578	66	39	14	10	18
CAL YR 1981	TOTAL	388.39	MEAN	1.06	MAX	11	MIN	.18	AC-FT	770		
WTR YR 1982	TOTAL	1125.57	MEAN	3.08	MAX	280	MIN	0	AC-FT	2230		

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	6.0	2.9	50	3.2	4.5	105	5.0	2.0	1.0	1.2	2.0
2	3.4	5.5	2.7	20	3.3	12	42	4.7	1.8	.90	1.1	2.1
3	3.4	5.2	2.4	3.8	3.1	4.0	25	5.0	1.5	.86	1.4	1.6
4	2.8	5.0	2.3	4.1	3.2	3.5	5.0	6.7	1.4	1.0	1.5	1.7
5	2.3	5.4	2.2	37	3.1	3.2	3.7	6.8	1.3	1.7	1.4	1.9
6	2.5	6.6	2.3	3.7	3.0	3.0	6.6	4.7	1.2	1.4	1.5	2.3
7	2.6	6.7	2.3	2.4	2.8	2.8	5.5	4.4	1.1	.90	1.5	2.7
8	2.5	5.8	2.2	2.7	3.1	2.7	4.0	4.2	1.0	1.3	1.4	2.2
9	2.2	5.7	2.1	3.6	4.0	2.6	4.1	4.1	1.0	1.1	1.5	2.5
10	1.8	5.6	2.1	4.0	109	2.8	4.4	4.0	1.0	.95	1.2	2.5
11	2.1	6.6	2.0	3.5	11	4.3	11	4.0	1.0	1.4	1.6	2.3
12	2.8	6.0	2.0	2.8	3.5	33	6.3	5.4	.99	1.6	1.6	3.2
13	2.7	6.0	2.1	2.9	3.4	8.4	5.6	4.3	.99	1.3	1.6	3.0
14	2.8	4.9	2.0	2.8	3.4	25	5.3	4.0	.99	1.4	1.4	2.9
15	2.9	4.1	1.9	2.8	3.5	12	5.4	4.6	.99	1.3	1.6	3.7
16	2.5	3.9	1.8	2.4	3.6	18	5.5	4.0	.98	1.4	2.3	6.8
17	3.5	4.7	1.7	2.3	3.3	250	5.5	3.3	.98	1.4	2.0	3.7
18	3.5	5.2	1.9	2.3	3.3	229	5.6	3.8	.98	1.2	2.1	2.4
19	3.1	5.7	1.8	2.2	3.2	30	5.4	4.0	.98	1.2	1.7	2.4
20	2.6	5.5	1.9	108	3.2	14	3.8	4.4	.97	1.1	1.6	2.8
21	2.9	5.4	2.5	70	3.3	9.8	3.6	4.4	.97	1.2	2.2	3.3
22	3.0	5.0	2.6	4.5	3.4	9.3	5.3	2.8	.97	.94	2.2	4.5
23	3.2	5.3	2.4	3.4	3.5	8.0	5.5	2.2	.97	1.1	1.9	6.0
24	3.2	5.7	2.6	3.7	3.8	7.5	5.2	2.0	1.2	1.1	2.3	5.7
25	3.2	5.6	2.3	3.6	3.8	6.8	5.2	1.9	1.1	1.2	1.9	5.0
26	3.2	5.0	2.0	4.0	4.0	14	5.3	1.8	1.0	.98	2.1	7.9
27	3.2	24	2.0	3.6	3.5	8.1	6.0	1.7	1.0	1.1	2.3	5.0
28	4.5	94	2.4	4.1	3.2	7.4	5.8	1.7	1.0	1.3	2.2	4.6
29	8.0	5.0	3.2	3.8	---	13	5.7	2.5	1.1	1.4	2.0	4.2
30	6.5	3.3	10	3.6	---	15	5.9	1.8	1.1	1.3	2.5	4.1
31	6.2	---	3.7	3.4	---	9.4	---	2.7	---	1.2	2.6	---
TOTAL	107.4	268.4	78.3	371.0	207.7	773.1	318.2	116.9	33.56	37.23	55.4	105.0
MEAN	3.46	8.95	2.53	12.0	7.42	24.9	10.6	3.77	1.12	1.20	1.79	3.50
MAX	8.3	94	10	108	109	250	105	6.8	2.0	1.7	2.6	7.9
MIN	1.8	3.3	1.7	2.2	2.8	2.6	3.6	1.7	.97	.86	1.1	1.6
AC-FT	213	532	155	736	412	1530	631	232	67	74	110	208
CAL YR 1981	TOTAL	6891.13	MEAN	18.9	MAX	181	MIN	.27	AC-FT	13670		
WTR YR 1982	TOTAL	2472.19	MEAN	6.77	MAX	250	MIN	.86	AC-FT	4900		

## SANTA ANA RIVER BASIN

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 9,970 acre-ft (12.3 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, 1,470 ft<sup>3</sup>/s (41.6 m<sup>3</sup>/s) Mar. 17, gage height, 7.26 ft (2.213 m); minimum daily 0.30 ft<sup>3</sup>/s (0.008 m<sup>3</sup>/s) Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.83	.92	.92	120	.66	6.7	223	.74	.66	.66	.74	.52
2	.74	.92	.83	50	.56	26	4.0	.92	.66	.83	.66	.56
3	.56	.92	.66	.74	.61	.74	1.3	.92	.83	.74	.56	.61
4	.56	.92	.66	18	.66	.74	1.7	3.2	.92	.66	.52	.61
5	.61	1.0	.83	123	.56	.74	1.0	1.0	.74	.66	.52	.61
6	.61	1.0	.83	1.9	.47	.47	.74	.83	.83	.74	.52	.66
7	.56	1.0	.83	1.0	.43	.47	.66	.92	.92	.74	.47	.74
8	.74	1.0	.92	1.0	.52	.52	.92	1.0	.83	.66	.47	3.8
9	.83	1.0	.83	.66	.52	.52	.92	1.0	14	.74	.47	1.7
10	.74	1.0	.66	.74	105	.56	1.1	1.1	1.1	.74	.43	1.1
11	12	1.0	.74	1.7	3.2	25	69	1.4	.92	.74	.38	1.0
12	.92	1.0	.83	1.4	.61	5.7	.92	1.4	.92	.74	.38	1.0
13	.52	1.0	.56	1.0	.56	.52	.92	1.4	.92	.74	.38	.92
14	.61	.92	.83	.83	.52	162	.66	1.4	.83	.74	.38	.92
15	.74	1.0	.66	.83	1.0	1.4	.66	1.4	.83	.74	.61	1.1
16	.92	1.1	.61	.92	3.2	194	.66	1.1	1.0	.74	.34	1.0
17	.92	1.3	.61	.83	.66	558	.61	1.4	.83	.74	.38	9.0
18	.92	.92	.66	.83	.47	123	.66	.92	.92	.74	.34	1.1
19	1.1	.83	.83	.74	.43	10	.74	1.1	.74	.83	.30	.92
20	1.0	1.0	.83	318	.47	4.0	.74	.92	.83	.74	.34	1.0
21	1.0	.92	4.7	110	.47	1.4	.61	1.0	.92	.74	.43	1.0
22	1.1	.92	.83	3.6	.52	1.4	.66	1.1	.92	.66	.38	.92
23	1.0	.92	1.0	1.9	.66	1.1	.66	1.0	1.0	.61	.43	1.0
24	.92	1.3	.56	1.6	.56	1.1	.66	1.0	.92	.66	.38	1.0
25	.92	1.3	.52	1.7	.56	1.7	.61	1.0	1.0	.66	3.5	7.1
26	1.1	.44	.61	1.1	.56	14	2.5	.92	.83	1.0	.83	66
27	1.0	111	.61	1.4	.56	1.9	1.3	.74	.83	.74	.47	2.8
28	6.9	261	.61	52	.56	6.1	.74	.74	1.3	.74	2.6	.83
29	1.4	1.6	.56	2.5	---	41	.83	.66	1.1	.83	1.0	.83
30	.61	1.3	57	1.0	---	15	.92	.66	.74	.83	.74	.74
31	.74	---	.66	.83	---	1.1	---	.61	---	.83	.66	---
TOTAL	43.12	444.01	82.79	821.75	125.56	1206.88	320.40	33.50	39.79	22.96	20.61	111.09
MEAN	1.39	14.8	2.67	26.5	4.48	38.9	10.7	1.08	1.33	.74	.66	3.70
MAX	12	261	57	318	105	558	223	3.2	14	1.0	3.5	66
MIN	.52	.83	.52	.66	.43	.47	.61	.61	.66	.61	.30	.52
AC-FT	86	881	164	1630	249	2390	636	66	79	46	41	220
CAL YR 1981	TOTAL	1903.93	MEAN	5.22	MAX	308	MIN	.33	AC-FT	3780		
WTR YR 1982	TOTAL	3272.46	MEAN	8.97	MAX	558	MIN	.30	AC-FT	6490		



11073495 CUCAMONGA CREEK NEAR MIRA LOMA, CA

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.

DRAINAGE AREA.--75.8 mi<sup>2</sup> (196.3 km<sup>2</sup>).

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 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) former site and datum, from floodmark, on basis of slope-area measurement of maximum flow; no flow most of some years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 220 ft<sup>3</sup>/s (6.23 m<sup>3</sup>/s) estimated, Mar. 17; minimum daily, 0.02 ft<sup>3</sup>/s (0.001 m<sup>3</sup>/s) Dec. 2-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.52	.05	.04	21	.21	.14	86	.05	.10	.05	.11	.12
2	.32	.05	.02	8.7	.09	.81	3.2	.05	.13	.05	.11	.23
3	.20	.09	.02	.50	.05	.56	.81	.05	.15	.05	.10	.22
4	.16	.06	.02	.28	.05	.21	.95	.20	.06	.05	.10	.21
5	.15	.07	.02	23	.04	.28	.68	.12	.17	.06	.11	.46
6	.14	.13	.05	.46	.04	.09	.44	.09	.11	.06	.12	.60
7	.14	.10	.04	.28	.14	.05	.45	.09	.08	.06	.11	.26
8	.14	.10	.03	.05	.14	.09	.37	.15	.05	.06	.11	.22
9	.14	.13	.03	.05	.14	.14	.23	.12	.05	.07	.10	.81
10	.14	.13	.03	.05	49	.21	.19	.20	.05	.07	.11	.30
11	.14	.06	.06	.14	26	3.0	20	.07	.14	.07	.14	.13
12	.14	.11	.09	.09	.95	.56	.51	.05	.19	.07	.31	.12
13	.14	.11	.08	.05	.68	.28	.45	.06	.27	.07	.13	.17
14	.13	.10	.07	.05	.68	34	.23	.05	.21	.07	.13	.12
15	.13	.06	.12	.09	.56	.50	.31	.05	.14	.07	.13	.13
16	.13	.13	.09	.05	.56	25	.28	.05	.14	.07	.18	.14
17	.12	.25	.08	.09	.68	220	.33	.05	.16	.08	.52	2.1
18	.12	.15	.08	.09	.68	20	.16	.07	.17	.08	.75	2.5
19	.12	.11	.08	.05	.21	4.5	.30	.10	.12	.08	1.4	.21
20	.11	.10	.04	95	.14	1.0	.19	.13	.12	.08	1.4	.24
21	.11	.09	.08	42	.21	.46	.14	.11	.09	.08	.85	.26
22	.11	.06	.03	1.4	.21	.21	.22	.09	.10	.08	.70	.21
23	.11	.05	.03	.56	.21	.28	.21	.09	.09	.09	.69	.26
24	.11	.10	.13	.46	.21	.36	.07	.09	.09	.09	.51	.24
25	.11	.05	.10	.46	.36	.46	.11	.10	.08	.09	.71	.21
26	.11	7.0	.04	.36	.21	.56	.07	.14	.08	.09	.66	15
27	.18	31	.04	.28	.05	.56	.05	.12	.07	.09	.13	8.3
28	.20	150	.04	20	.04	.95	.05	.13	.07	.09	.18	.78
29	.13	9.8	.15	2.2	---	12	.16	.29	.06	.09	.23	.29
30	.04	.26	34	.36	---	10	.26	.13	.06	.10	.29	.29
31	.03	---	.37	.21	---	.95	---	.09	---	.10	.23	---
TOTAL	4.57	200.50	36.10	218.36	82.54	338.21	117.42	3.18	3.40	2.31	11.35	35.13
MEAN	.15	6.68	1.16	7.04	2.95	10.9	3.91	.10	.11	.075	.37	1.17
MAX	.52	150	34	95	49	220	86	.29	.27	.10	1.4	15
MIN	.03	.05	.02	.05	.04	.05	.05	.05	.05	.05	.10	.12
AC-FT	9.1	398	72	433	164	671	233	6.3	6.7	4.6	23	70

CAL YR 1981 TOTAL 696.70 MEAN 1.91 MAX 150 MIN 0 AC-FT 1380  
WTR YR 1982 TOTAL 1053.07 MEAN 2.89 MAX 220 MIN .02 AC-FT 2090

## 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 9,970 acre-ft (12.3 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, 3,440 ft<sup>3</sup>/s (97.4 m<sup>3</sup>/s) Apr. 2, gage height, 5.74 ft (1.750 m); minimum daily, 10 ft<sup>3</sup>/s (0.283 m<sup>3</sup>/s) Aug. 24 (result of gate closure).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	100	333	198	390	245	1690	260	246	263	81	89
2	101	93	244	215	390	213	2250	262	250	260	77	87
3	95	97	161	219	385	271	467	265	249	256	83	84
4	92	106	151	140	350	288	465	280	248	244	85	88
5	95	109	141	148	315	230	223	287	248	226	85	83
6	89	100	141	211	300	156	121	288	248	209	78	78
7	89	92	141	247	280	158	136	300	248	150	79	79
8	88	89	141	260	260	254	136	307	248	120	78	88
9	87	85	141	280	245	232	135	304	248	119	74	96
10	84	83	141	290	216	152	134	301	250	118	76	93
11	92	81	153	285	196	100	134	302	250	111	76	91
12	96	82	171	280	164	102	164	299	250	102	78	88
13	94	99	167	275	212	117	286	298	247	102	78	92
14	96	109	161	285	209	111	319	298	245	95	83	95
15	97	107	157	295	207	113	317	297	242	97	83	93
16	101	115	177	250	210	86	265	296	227	74	79	85
17	159	100	161	237	240	251	314	282	235	38	83	85
18	153	116	144	175	285	911	311	266	302	38	81	94
19	141	114	160	164	305	842	311	267	297	68	78	95
20	97	115	154	169	310	246	306	268	292	119	72	96
21	91	112	152	229	310	239	297	267	289	186	79	133
22	85	117	152	280	305	236	257	265	284	119	76	94
23	91	116	150	275	300	235	214	259	235	110	45	81
24	86	121	145	270	305	235	217	252	262	101	10	89
25	92	129	144	295	310	204	217	252	303	91	55	89
26	94	130	141	320	310	185	234	250	299	84	130	116
27	102	220	140	350	300	184	244	251	295	92	130	258
28	107	320	151	370	275	182	252	248	287	88	120	158
29	127	320	156	385	---	231	255	248	280	81	110	116
30	123	370	170	400	---	260	260	246	273	76	108	105
31	98	---	186	400	---	259	---	247	---	78	102	---
TOTAL	3120	3947	5027	8197	7884	7528	10931	8512	7877	3855	2552	3018
MEAN	101	132	162	264	282	243	364	275	263	124	82.3	101
MAX	159	370	333	400	390	911	2250	307	303	263	130	258
MIN	78	81	140	140	164	86	121	246	227	38	10	78
AC-FT	6190	7830	9970	16260	15640	14930	21680	16880	15620	7650	5060	5990

CAL YR 1981 TOTAL 55582 MEAN 152 MAX 668 MIN 45 AC-FT 110200  
WTR YR 1982 TOTAL 72448 MEAN 198 MAX 2250 MIN 10 AC-FT 143700

## 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 1975-81.  
 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 June 1982 (discontinued).

INSTRUMENTATION.--Water-quality monitor recording specific conductance and water temperature since October 1969.

REMARKS.--Periods of missing conductivity and temperature data due to equipment malfunction or fouled probe.

## 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, and several days during 1982.  
 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 Oct. 21; minimum recorded, 388 micromhos Mar. 18.  
 WATER TEMPERATURES: Maximum recorded, 27.5°C July 12, 13; minimum recorded, 8.0°C Jan. 8, 9.  
 SEDIMENT CONCENTRATIONS: Maximum daily mean, 463 mg/L Oct. 17; minimum daily mean, 3 mg/L several days during April, May, and June.  
 SEDIMENT DISCHARGE: Maximum daily, 922 tons (836 metric tons) Mar. 18; minimum daily, 2.0 tons (1.81 metric tons) several days during May and June.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	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 CAC03)
OCT										
21...	1330	95	1310	7.8	19.5	8.4	--	--	361	131
NOV										
23...	1300	116	1170	7.8	15.0	9.1	K1000	4400	423	173
DEC										
21...	1100	147	1240	7.9	15.0	8.7	--	--	666	406
JAN										
18...	1130	175	1180	7.8	13.0	9.0	830	3000	390	120
FEB										
11...	1200	250	620	8.1	13.5	9.2	--	--	178	38
22...	1200	306	1000	8.0	15.5	9.5	--	--	299	79
MAR										
16...	1130	111	890	8.0	15.5	9.5	--	--	285	65
19...	1230	1170	487	7.9	11.5	10.5	K18000	260000	147	37
APR										
20...	1330	378	740	8.0	16.5	10.2	--	--	236	46
MAY										
24...	1400	252	880	7.7	21.0	9.4	K80	K60	276	66
JUN										
22...	1300	284	1000	8.0	20.5	8.8	--	--	318	98
JUL										
12...	1300	109	1150	8.0	24.0	8.2	K1100	2400	353	63
AUG										
23...	1300	45	1120	8.2	24.0	7.8	--	--	361	121
SEP										
20...	1200	96	1110	8.1	21.0	7.8	1100	2300	339	69

See footnotes at end of table.

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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- LINEITY FIELD (MG/L AS CACO3)	ALKA- LINEITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
OCT										
21...	100	27	120	41	2.8	11	--	230	170	140
NOV										
23...	120	30	120	38	2.6	8.6	--	250	170	160
DEC										
21...	102	100	110	26	1.9	10	--	260	140	150
JAN										
18...	110	28	110	37	2.5	13	--	270	140	140
FEB										
11...	50	13	52	37	1.8	8.7	140	--	85	62
22...	85	21	87	38	2.3	11	220	--	120	98
MAR										
16...	81	20	80	37	2.1	10	220	--	110	89
19...	44	8.9	33	32	1.2	7.2	110	--	46	34
APR										
20...	68	16	58	34	1.7	11	190	--	100	73
MAY										
24...	79	19	74	36	2.0	11	210	--	100	85
JUN										
22...	91	22	90	37	2.3	11	220	--	130	110
JUL										
12...	100	25	100	38	2.4	7.8	290	--	150	120
AUG										
23...	100	27	110	39	2.6	8.7	240	--	150	120
SEP										
20...	98	23	100	38	2.5	8.8	270	--	140	110

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 CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE TOTAL (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)
OCT										
21...	.6	28	816	736 <sup>1</sup>	1.1	.31	--	11	11	--
NOV										
23...	.5	26	802	789 <sup>1</sup>	1.1	--	--	12	10	.24
DEC										
21...	.6	26	773	794 <sup>1</sup>	1.1	--	--	8.9	8.9	.35
JAN										
18...	.6	14	770	721 <sup>1</sup>	1.0	--	--	7.3	7.3	2.5
FEB										
11...	.4	10	364	365	.50	--	--	3.3	3.4	.68
22...	.4	23	616	577	.84	--	--	4.2	4.1	.53
MAR										
16...	.6	20	570	543	.78	--	--	5.5	5.5	.92
19...	.5	11	245	253	.33	--	--	2.0	2.0	.73
APR										
20...	.5	16	472	456	.64	--	--	2.0	2.0	.94
MAY										
24...	.6	15	529	525	.72	.26	.26	2.8	2.4	.65
JUN										
22...	.6	19	654	606	.89	--	--	3.9	3.9	.16
JUL										
12...	.6	27	733	714	.00	--	--	7.6	8.5	1.5
AUG										
23...	.6	29	817	689	1.1	--	--	8.2	8.0	1.1
SEP										
20...	.6	27	797	670	1.1	--	--	7.0	6.8	.71

See footnotes at end of table.

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	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)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (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)
OCT 21...	.82	2.4	2.4	--	3.2	14	3.3	2.8	12
NOV 23...	.16	1.5	.05	1.7	.21	10	2.9	2.9	--
DEC 21...	--	1.7	--	2.0	1.5	10	3.0	2.8	9.1
JAN 18...	2.5	1.5	1.4	4.0	3.9	11	2.9	2.2	--
FEB 11...	--	2.0	--	2.7	2.1	5.5	.85	.80	--
FEB 22...	--	3.4	--	3.9	2.2	6.3	3.1	.04	6.3
MAR 16...	--	1.3	--	2.2	2.3	6.9	2.3	2.2	--
MAR 19...	.65	1.3	1.4	2.0	2.0	4.0	.82	.60	--
APR 20...	--	1.4	--	2.3	2.1	4.1	1.3	1.2	8.9
MAY 24...	.65	2.2	1.5	2.8	2.1	4.5	1.9	1.8	--
JUN 22...	--	2.4	--	2.6	2.3	6.2	2.2	2.1	7.7
JUL 12...	1.4	1.8	1.5	--	2.9	11	3.8	2.8	--
AUG 23...	--	1.5	--	2.6	2.2	10	2.7	2.0	8.2
SEP 20...	.70	1.7	1.4	2.4	2.1	8.9	2.6	2.3	6.5

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

L Results based on Laboratory Alkalinity value.

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 21...	1330	--	--	--	--	--	--	--	--	--
NOV 23...	1300	5	5	100	<100	--	34	10	10	2
NOV 27...	1100	10	6	100	55	19	17	20	<10	7
JAN 18...	1130	5	4	100	<100	1	<1	10	10	3
FEB 11...	1200	5	4	100	34	<1	<1	10	<10	4
FEB 22...	1200	--	--	--	--	--	--	--	--	--
MAR 16...	1130	5	5	<100	46	<1	<1	<10	<10	<1
MAR 19...	1230	3	3	100	<100	<1	1	20	<10	4
MAY 24...	1400	--	--	--	--	--	--	--	--	--
JUN 22...	1300	--	--	--	--	--	--	--	--	--
JUL 12...	1300	6	6	200	62	<1	<1	20	<10	5
AUG 23...	1300	--	--	--	--	--	--	--	--	--
SEP 20...	1200	--	--	--	--	--	--	--	--	--

See footnote at end of table.

## SANTA ANA RIVER BASIN

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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 21...	--	--	--	--	--	--	--	--	--	--
NOV 23...	2	15	7	2900	40	--	580	150	80	<.1
27...	<3	36	13	14000	130	520	250	430	160	.2
JAN 18...	<1	17	3	3000	30	3	<1	230	150	.1
FEB 11...	<3	17	13	6200	58	13	<1	200	53	.3
22...	--	--	--	--	--	--	--	--	--	--
MAR 16...	3	12	7	760	12	8	<1	90	14	.1
19...	1	31	5	16000	110	23	<1	390	70	.2
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUN 22...	--	--	--	--	--	--	--	--	--	--
JUL 12...	<1	29	3	14000	5	13	<1	650	310	.2
AUG 23...	--	--	--	--	--	--	--	--	--	--
SEP 20...	--	--	--	--	--	--	--	--	--	--

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 21...	--	--	--	--	--	0	--	--	--
NOV 23...	.1	17	12	1	1	<1	<1	30	20
27...	.1	28	18	1	1	<1	<1	90	17
JAN 18...	<.1	24	17	1	1	<1	<1	50	10
FEB 11...	<.1	10	4	<1	<1	<1	<1	50	7
22...	--	--	--	--	--	<1	--	--	--
MAR 16...	<.1	17	13	<1	<1	<1	<1	40	14
19...	<.1	14	2	<1	<1	<1	<1	70	10
MAY 24...	--	--	--	--	--	<1	--	--	--
JUN 22...	--	--	--	--	--	1	--	--	--
JUL 12...	<.1	32	10	<1	1	<1	<1	80	9
AUG 23...	--	--	--	--	--	1	--	--	--
SEP 20...	--	--	--	--	--	<1	--	--	--

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

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1320	1230	1270	---	---	---	1210	610	976	1290	937	1180
2	1290	1230	1260	---	---	---	1290	1230	1260	1010	881	943
3	1250	1210	1240	---	---	---	1300	1190	1260	1010	916	956
4	1220	1160	1200	---	---	---	1220	1120	1180	1050	910	975
5	1180	1150	1170	---	---	---	1130	1070	1100	1020	924	972
6	1210	1170	1190	1380	1360	1370	1100	1060	1090	1030	917	983
7	1260	1210	1240	1420	1340	1390	1120	1070	1100	1100	981	1050
8	1290	1250	1280	1370	1280	1330	1120	1080	1100	1020	964	1000
9	1330	1300	1320	1320	1180	1260	1130	1090	1110	1020	978	997
10	1340	1320	1340	1220	1140	1190	1150	1120	1130	1020	941	962
11	1350	1300	1330	---	---	---	1170	1130	1160	1060	985	1030
12	1320	1300	1310	---	---	---	1210	1160	1180	1120	1050	1090
13	1330	1330	1330	---	---	---	1390	1220	1310	1240	1110	1150
14	1350	1320	1340	---	---	---	---	---	---	1230	1180	1200
15	1360	1340	1350	---	---	---	---	---	---	1280	1200	1240
16	1380	1320	1360	---	---	---	---	---	---	1300	1260	1280
17	1420	1330	1380	---	---	---	---	---	---	1310	1250	1280
18	1400	1230	1330	1310	1210	1270	---	---	---	1250	1140	1240
19	1260	1220	1230	1280	1260	1280	---	---	---	1250	1150	1220
20	1360	1270	1340	1260	1230	1250	---	---	---	---	---	---
21	1580	1310	1420	1250	1230	1240	---	---	---	---	---	---
22	1550	1440	1510	1240	1210	1220	1150	1080	1110	---	---	---
23	1430	1370	1410	1220	1100	1180	1090	1050	1070	---	---	---
24	1450	1380	1430	1080	860	966	1060	1030	1050	---	---	---
25	1410	1370	1390	860	780	828	1030	937	985	---	---	---
26	1370	1350	1360	800	770	789	931	891	909	---	---	---
27	1350	1340	1350	1190	780	970	886	856	873	---	---	---
28	1340	1320	1330	980	440	664	1010	890	973	---	---	---
29	1350	1320	1330	820	430	667	1100	1010	1050	---	---	---
30	1330	1320	1320	920	690	785	1270	899	1080	---	---	---
31	1410	1320	1350	---	---	---	1270	983	1160	---	---	---
MONTH	1580	1150	1320	---	---	---	---	---	---	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	765	725	740	770	500	636	730	700	714
2	---	---	---	765	715	739	670	570	612	730	700	715
3	---	---	---	714	664	686	690	560	638	730	700	716
4	---	---	---	713	683	694	580	530	554	744	714	730
5	---	---	---	732	692	716	620	550	592	768	738	753
6	---	---	---	772	722	746	650	610	623	771	731	759
7	---	---	---	---	---	---	630	600	619	775	745	753
8	---	---	---	820	690	779	630	610	622	759	739	754
9	---	---	---	850	790	824	660	630	641	763	753	757
10	---	---	---	849	819	835	690	650	666	777	757	771
11	720	570	653	1060	838	890	710	660	682	780	760	770
12	680	570	619	1230	1050	1140	720	650	690	824	764	795
13	670	580	611	1150	1010	1060	690	650	668	848	808	833
14	730	680	698	1050	956	1000	680	660	673	862	832	848
15	810	740	770	996	876	944	690	670	679	856	816	839
16	860	830	843	935	805	900	790	670	694	839	589	738
17	920	870	897	947	697	851	730	680	695	713	663	692
18	950	850	907	668	388	515	730	690	712	737	707	722
19	940	860	903	600	390	444	760	720	735	741	721	729
20	920	860	890	435	395	417	770	710	735	755	725	740
21	990	910	943	431	401	417	740	680	706	769	739	754
22	1070	990	1010	486	426	447	700	680	686	802	772	787
23	1040	979	1010	552	502	528	720	680	696	846	806	829
24	969	919	946	617	537	575	730	700	712	940	840	858
25	948	838	895	712	612	666	760	720	735	949	929	942
26	827	737	782	738	708	716	750	720	730	959	939	949
27	737	717	733	743	723	734	750	700	724	959	939	947
28	736	716	722	778	738	751	740	700	716	949	919	934
29	---	---	---	764	714	733	730	700	710	959	919	939
30	---	---	---	739	699	712	740	690	713	959	939	951
31	---	---	---	755	715	727	---	---	---	969	939	953
MONTH	---	---	---	1230	388	731	790	500	676	969	589	806

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	959	939	952	1170	1050	1100	---	---	---	1100	1010	1050
2	978	938	962	1110	1050	1090	---	---	---	1090	1030	1050
3	978	958	971	1080	1030	1060	---	---	---	1090	1030	1050
4	988	958	973	1070	1020	1060	---	---	---	1070	1010	1030
5	988	958	973	1090	1050	1070	1200	1090	1110	1070	890	1030
6	978	958	971	1090	1010	1050	1120	1080	1100	1140	990	1060
7	978	958	970	---	---	---	1120	1080	1100	1120	1030	1070
8	978	958	972	---	---	---	1140	1100	1110	1040	1010	1030
9	968	948	963	---	---	---	1160	1090	1120	1020	990	997
10	977	948	965	1250	1160	1190	1150	1090	1120	1000	980	993
11	987	957	978	1230	1140	1200	1110	1090	1100	---	---	---
12	997	967	982	1260	1140	1190	1100	1070	1090	---	---	---
13	1010	967	990	1230	1090	1190	1100	1070	1080	---	---	---
14	1020	987	1000	1230	1070	1180	1080	1050	1060	---	---	---
15	1020	987	1010	1210	1060	1140	1160	1030	1100	---	---	---
16	1020	987	996	1160	1030	1120	1160	1100	1140	---	---	---
17	1010	977	991	---	---	---	1120	1090	1100	---	---	---
18	997	967	987	---	---	---	1110	1080	1100	---	---	---
19	1010	976	986	1290	1110	1190	1100	1060	1080	---	---	---
20	1020	986	1000	1160	1070	1130	1130	1060	1090	---	---	---
21	996	976	988	---	---	---	1090	1060	1070	---	---	---
22	1100	976	1020	---	---	---	1080	1040	1060	---	---	---
23	1120	1070	1100	---	---	---	1100	1040	1060	---	---	---
24	1120	1070	1100	---	---	---	1240	1120	1190	---	---	---
25	1100	1070	1090	---	---	---	1210	1050	1150	---	---	---
26	1120	1060	1080	---	---	---	1080	960	1030	---	---	---
27	1080	1050	1070	---	---	---	1070	1020	1040	---	---	---
28	1090	1050	1060	---	---	---	1100	1020	1080	---	---	---
29	1090	1050	1070	---	---	---	1050	1000	1020	---	---	---
30	1080	1050	1070	---	---	---	1080	990	1020	---	---	---
31	---	---	---	---	---	---	1050	1030	1040	---	---	---
MONTH	1120	938	1010	---	---	---	1240	960	1090	---	---	---
YEAR	1580	388	977									

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.5	19.5	19.0	15.0	12.5	11.0	13.0	12.0	13.0	11.5	16.5	15.5
2	21.0	19.0	19.5	15.0	12.5	11.5	12.0	11.0	12.0	11.0	15.5	14.5
3	21.5	19.0	18.0	14.5	13.5	12.5	11.0	10.0	11.5	11.0	15.5	14.0
4	21.5	18.0	17.5	14.0	13.5	13.0	10.0	9.5	11.5	11.5	16.0	14.0
5	21.0	17.5	18.0	15.5	14.0	13.0	9.5	9.0	12.5	11.0	16.0	13.0
6	21.5	17.5	18.5	16.5	14.0	13.5	10.0	9.0	11.5	10.5	15.0	13.0
7	21.5	17.5	18.0	15.5	14.0	13.0	10.5	8.5	11.5	10.5	15.0	10.0
8	21.0	18.0	18.0	15.0	13.5	13.0	9.0	8.0	13.5	11.5	18.0	15.0
9	21.5	18.0	18.0	14.0	14.0	13.0	9.5	8.0	15.0	13.0	19.0	13.0
10	21.0	19.0	17.5	14.0	13.5	13.0	9.5	8.5	13.5	12.0	20.0	14.5
11	19.5	17.5	17.5	14.0	14.0	13.5	9.5	9.0	13.5	12.0	19.0	15.0
12	19.0	16.0	17.5	14.5	14.0	13.0	11.0	9.5	13.0	12.0	17.5	16.0
13	19.0	15.0	17.5	15.5	14.5	13.0	12.5	11.0	13.5	12.5	17.0	16.0
14	18.5	14.5	17.5	15.5	14.5	12.5	12.0	11.5	13.5	13.0	17.0	16.0
15	18.5	14.5	18.0	15.5	14.5	12.5	11.5	10.5	13.5	13.0	16.5	15.0
16	19.0	15.0	18.0	16.0	14.5	12.5	12.5	11.0	13.5	13.5	15.5	14.0
17	19.0	15.0	18.0	15.5	15.0	12.0	13.5	10.5	14.0	13.5	15.0	13.5
18	19.5	15.5	17.5	15.0	15.0	12.0	13.5	12.0	15.5	14.0	14.0	12.0
19	20.0	16.0	17.0	14.5	15.0	12.5	14.0	12.0	15.5	14.5	12.0	10.5
20	20.0	16.5	15.5	12.5	15.0	12.5	11.5	10.0	15.5	15.0	11.5	10.5
21	20.0	17.0	15.5	12.5	15.5	13.0	10.5	9.5	15.5	15.0	11.5	10.5
22	20.0	16.5	15.5	12.5	14.0	11.0	10.0	9.5	15.5	15.5	11.5	11.0
23	19.5	15.5	16.0	13.0	12.5	9.5	10.0	9.5	16.0	15.5	11.5	11.0
24	18.5	15.0	16.0	14.5	13.0	10.0	10.5	9.5	16.0	16.0	12.0	11.0
25	19.5	17.0	16.0	14.0	12.5	9.5	10.0	9.5	16.0	15.5	11.5	11.5
26	19.5	17.0	14.5	12.5	12.5	9.5	10.0	9.5	15.5	15.0	12.0	11.5
27	18.5	17.5	14.0	12.5	13.0	11.0	10.0	9.5	15.5	15.0	12.5	11.5
28	19.0	16.5	13.0	11.0	13.5	10.5	10.5	10.0	16.0	15.0	12.0	11.5
29	18.5	16.0	11.5	11.0	13.0	10.5	11.0	10.5	---	---	12.0	11.5
30	16.5	14.0	12.0	11.5	13.0	12.5	11.5	11.0	---	---	12.5	11.5
31	17.5	14.5	---	---	13.0	12.0	12.0	11.5	---	---	12.5	12.0
MONTH	22.5	14.0	19.5	11.0	15.5	9.5	14.0	8.0	16.0	10.5	20.0	10.0



11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	12.0	18.0	17.5	20.5	19.5	22.0	21.0	---	---	25.5	19.5
2	14.5	13.0	18.5	17.5	21.0	19.5	22.0	21.0	---	---	26.0	19.5
3	14.0	12.5	---	---	21.0	20.0	22.5	21.5	---	---	26.0	20.5
4	13.0	12.5	---	---	21.0	20.0	23.0	22.0	---	---	26.0	20.0
5	13.5	12.0	---	---	21.0	20.0	23.0	22.0	26.0	22.5	25.5	20.0
6	13.5	12.0	---	---	21.0	20.0	24.5	21.5	26.5	20.0	25.5	20.0
7	13.5	12.5	---	---	21.0	20.0	---	---	27.0	21.0	24.5	19.5
8	14.0	12.5	---	---	21.5	20.0	---	---	27.0	19.5	22.0	21.0
9	14.0	12.5	---	---	21.0	20.0	---	---	26.5	20.0	25.0	21.0
10	14.0	13.0	---	---	21.5	20.5	---	---	26.0	19.0	24.0	21.0
11	13.5	13.0	---	---	21.5	20.5	---	---	25.5	19.5	---	---
12	14.5	13.0	---	---	21.0	20.5	27.5	20.0	25.0	19.5	---	---
13	14.5	13.5	---	---	21.0	20.5	27.5	20.0	24.5	20.0	---	---
14	14.5	14.0	---	---	21.0	20.5	27.0	19.5	24.0	19.0	---	---
15	15.0	14.0	---	---	22.0	20.5	27.0	20.0	24.5	18.5	---	---
16	15.5	14.5	---	---	22.0	20.5	27.0	20.0	25.0	18.5	---	---
17	15.5	14.5	---	---	20.5	20.5	24.0	21.0	24.0	19.0	---	---
18	15.5	15.0	---	---	20.5	20.5	24.5	21.5	25.0	19.5	---	---
19	16.0	15.5	---	---	21.0	20.0	24.5	22.0	26.0	20.0	---	---
20	16.5	15.5	---	---	20.5	20.0	24.5	23.5	26.5	20.0	---	---
21	18.5	16.0	---	---	20.5	20.0	25.5	24.5	27.0	21.5	---	---
22	17.0	16.0	---	---	20.5	20.0	26.0	24.5	26.5	21.5	---	---
23	17.0	16.0	---	---	20.5	20.0	26.0	23.5	25.5	21.0	---	---
24	17.0	16.5	20.5	20.0	21.5	20.0	25.5	23.0	26.0	20.5	---	---
25	17.5	16.5	21.0	20.0	21.0	20.0	---	---	23.0	20.0	---	---
26	17.5	16.5	20.5	20.5	21.0	20.0	---	---	24.5	22.5	---	---
27	17.5	17.0	20.5	20.0	21.5	20.5	---	---	24.0	23.0	---	---
28	18.0	17.0	20.5	20.0	22.0	21.0	---	---	25.5	21.0	---	---
29	18.0	17.5	20.5	20.0	22.5	21.5	---	---	25.0	20.5	---	---
30	18.0	17.5	20.5	19.5	22.0	21.5	---	---	25.0	20.0	---	---
31	---	---	20.5	19.5	---	---	---	---	25.0	20.0	---	---
MONTH	18.5	12.0	---	---	22.5	19.5	---	---	27.0	18.5	---	---

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), OCTOBER 1981 TO JUNE 1982

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	78	370	78	100	93	25	333	45	40
2	101	324	88	93	89	22	244	25	16
3	95	235	60	97	90	24	161	28	12
4	92	170	42	106	95	27	151	30	12
5	95	135	35	109	105	31	141	30	11
6	89	116	28	100	120	32	141	25	9.5
7	89	108	26	92	145	36	141	17	6.5
8	88	110	26	89	200	48	141	20	7.6
9	87	232	55	85	245	56	141	20	7.6
10	84	142	32	83	270	61	141	20	7.6
11	92	105	26	81	280	61	153	20	8.3
12	96	103	27	82	340	75	171	20	9.2
13	94	103	26	99	470	126	167	25	11
14	96	103	27	109	400	118	161	32	14
15	97	103	27	107	265	77	157	40	17
16	101	125	36	115	165	51	177	169	87
17	159	463	199	100	130	35	161	284	126
18	153	258	107	116	120	38	144	280	109
19	141	195	74	114	115	35	160	180	78
20	97	160	42	115	114	35	154	135	56
21	91	200	49	112	100	30	152	105	43
22	85	200	46	117	95	30	152	95	39
23	91	180	44	116	89	28	150	95	38
24	86	155	36	121	89	29	145	90	35
25	92	142	35	129	114	42	144	90	35
26	94	141	36	130	90	32	141	90	34
27	102	140	39	220	395	242	140	90	34
28	107	140	40	320	315	272	151	80	33
29	127	138	47	320	195	168	156	60	25
30	123	120	40	370	125	125	170	35	16
31	98	105	28	---	---	---	186	30	15
TOTAL	3120	---	1501	3947	---	2011	5027	---	992.3

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), OCTOBER 1981 TO JUNE 1982

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	198	35	19	390	25	26	245	38	25
2	215	45	26	390	25	26	213	45	26
3	219	60	35	385	20	21	271	55	40
4	140	70	26	350	20	19	288	55	43
5	148	50	20	315	16	14	230	50	31
6	211	25	14	300	25	20	156	50	21
7	247	20	13	280	40	30	158	50	21
8	260	25	18	260	50	35	254	45	31
9	280	25	19	245	80	53	232	45	28
10	290	20	16	216	108	63	152	50	21
11	285	20	15	196	125	66	100	65	18
12	280	20	15	164	105	46	102	69	19
13	275	20	15	212	90	52	117	55	17
14	285	20	15	209	80	45	111	30	9.0
15	295	22	18	207	60	34	113	21	6.4
16	250	40	27	210	45	26	86	18	4.2
17	237	80	51	240	25	16	251	180	122
18	175	95	45	285	20	15	911	375	922
19	164	90	40	305	15	12	842	335	762
20	169	85	39	310	15	13	246	275	183
21	229	268	204	310	15	13	239	200	129
22	280	305	231	305	30	25	236	138	88
23	275	195	145	300	45	36	235	90	57
24	270	110	80	305	22	18	235	60	38
25	295	65	52	310	20	17	204	45	25
26	320	50	43	310	17	14	185	38	19
27	350	50	47	300	18	15	184	35	17
28	370	45	45	275	25	19	182	30	15
29	385	40	42	---	---	---	231	28	17
30	400	35	38	---	---	---	260	27	19
31	400	30	32	---	---	---	259	26	18
TOTAL	8197	---	1445	7884	---	789	7528	---	2791.6

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	1690	9	41	260	5	3.5	246	3	2.0
2	2250	75	456	262	5	3.5	250	3	2.0
3	467	45	57	265	5	3.6	249	3	2.0
4	465	30	38	280	6	4.5	248	3	2.0
5	223	20	12	287	7	5.4	248	4	2.7
6	121	13	4.2	288	6	4.7	248	4	2.7
7	136	13	4.8	300	5	4.1	248	4	2.7
8	136	12	4.4	307	5	4.1	248	4	2.7
9	135	10	3.6	304	5	4.1	248	5	3.3
10	134	8	2.9	301	5	4.1	250	5	3.4
11	134	7	2.5	302	5	4.1	250	5	3.4
12	164	6	2.7	299	5	4.0	250	6	4.1
13	286	4	3.1	298	7	5.6	247	7	4.7
14	319	3	2.6	298	8	6.4	245	8	5.3
15	317	3	2.6	297	8	6.4	242	8	5.2
16	265	3	2.1	296	10	8.0	227	9	5.5
17	314	3	2.5	282	12	9.1	235	9	5.7
18	311	4	3.4	266	8	5.7	302	10	8.2
19	311	5	4.2	267	5	3.6	297	10	8.0
20	306	5	4.1	268	4	2.9	292	10	7.9
21	297	5	4.0	267	4	2.9	289	10	7.8
22	257	5	3.5	265	3	2.1	284	13	10
23	214	6	3.5	259	3	2.1	235	15	9.5
24	217	5	2.9	252	3	2.0	262	15	11
25	217	4	2.3	252	3	2.0	303	15	12
26	234	4	2.5	250	3	2.0	299	20	16
27	244	5	3.3	251	3	2.0	295	20	16
28	252	7	4.8	248	3	2.0	287	20	15
29	255	6	4.1	248	3	2.0	280	30	23
30	260	5	3.5	246	3	2.0	273	40	29
31	---	---	---	247	3	2.0	---	---	---
TOTAL	10931	---	688.1	8512	---	120.5	7877	---	232.8

11074000 SANTA ANA RIVER BELOW PRADO DAM, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDIM- ENT, SUS- PENDED (MG/L)	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							
01...	1100	20.5	69	376	35	47	60
NOV							
02...	1100	17.0	94	89	--	--	--
23...	1300	15.0	116	90	--	--	--
27...	1100	13.0	243	653	20	28	35
DEC							
01...	1300	12.0	241	33	--	--	--
21...	1100	15.0	147	108	--	--	--
JAN							
04...	1400	--	447	70	--	--	--
18...	1130	13.0	175	101	--	--	--
FEB							
11...	1200	13.5	250	128	--	--	--
22...	1200	15.5	306	33	--	--	--
MAR							
16...	1130	15.5	111	18	--	--	--
19...	1230	11.5	1170	339	82	90	91
APR							
20...	1330	16.5	378	5	--	--	--
MAY							
03...	1300	18.5	265	5	--	--	--
24...	1400	21.0	252	3	--	--	--
JUN							
22...	1300	20.5	284	13	--	--	--
JUL							
01...	1300	22.0	262	47	--	--	--
12...	1300	24.0	109	393	43	59	74
AUG							
23...	1300	24.0	45	160	--	--	--
SEP							
20...	1200	21.0	96	42	--	--	--

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
OCT						
01...	76	91	99	100	--	--
NOV						
02...	--	--	100	--	--	--
23...	--	--	87	--	--	--
27...	44	60	80	96	99	100
DEC						
01...	--	--	53	--	--	--
21...	--	--	87	97	100	--
JAN						
04...	--	--	76	94	98	100
18...	--	--	86	--	--	--
FEB						
11...	--	--	96	97	98	100
22...	--	--	47	--	--	--
MAR						
16...	--	--	89	--	--	--
19...	92	95	97	99	100	--
APR						
20...	--	--	72	--	--	--
MAY						
03...	--	--	87	--	--	--
24...	--	--	70	--	--	--
JUN						
22...	--	--	89	--	--	--
JUL						
01...	--	--	96	100	--	--
12...	88	97	99	100	--	--
AUG						
23...	--	--	92	--	--	--
SEP						
20...	--	--	96	100	--	--

## SANTA ANA RIVER BASIN

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 18070203, 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 the 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, 352 ft<sup>3</sup>/s (9.97 m<sup>3</sup>/s) Apr. 18, 19; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	243	164	211	222	253	257	210	195		
2		0	172	144	210	171	238	257	212	192		
3		0	152	140	207	213	134	256	211	190		
4		0	131	148	198	211	98	264	210	184		
5		79	117	128	175	204	125	271	209	178		
6		121	114	127	164	133	141	272	209	178		
7		112	113	137	160	135	148	278	209	155		
8		113	109	164	152	162	146	288	208	103		
9		106	40	184	96	184	141	289	208	95		
10		105	68	184	65	136	140	287	214	103		
11		113	143	183	103	87	145	284	227	101		
12		104	160	182	130	80	164	281	226	99		
13		102	156	180	175	91	302	280	227	50		
14		102	149	170	173	137	348	279	227	0		
15		101	143	155	170	94	347	281	213	0		
16		109	156	142	173	115	312	280	213	0		
17		98	153	132	203	131	352	275	184	0		
18		100	146	125	253	176	352	270	249	0		
19		114	155	119	288	166	347	265	252	0		
20		116	152	168	290	131	341	260	250	0		
21		113	167	152	288	172	329	255	249	0		
22		117	188	174	285	203	301	250	247	0		
23		114	188	173	282	212	252	245	218	0		
24		108	184	171	288	210	248	240	198	0		
25		115	185	173	296	190	248	230	212	0		
26		124	187	193	290	168	252	225	214	0		
27		173	184	194	285	161	259	220	210	0		
28		173	188	199	276	158	259	219	205	0		
29		107	189	201	---	206	258	217	194	0		
30		201	173	213	---	218	257	213	200	0		
31		---	134	211	---	212	---	211	---	0		---
TOTAL	0	3040	4739	5130	5886	5089	7237	7999	6515	1883	0	0
MEAN	0	101	153	165	210	164	241	258	217	58.8	0	0
MAX	0	201	243	213	296	222	352	289	252	195	0	0
MIN	0	0	40	119	65	80	98	211	184	0	0	0
AC-FT	0	6030	9400	10180	11670	10090	14350	15870	12920	3620	0	0
CAL YR 1981	TOTAL	28503.00	MEAN	78.1	MAX	297	MIN	0	AC-FT	56540		
WTR YR 1982	TOTAL	47458.00	MEAN	130	MAX	352	MIN	0	AC-FT	94130		

11075620 SANTA ANA RIVER SPREADING DIVERSION BELOW IMPERIAL HIGHWAY, NEAR ANAHEIM, CA--Continued

## WATER-QUALITY RECORDS

## PERIOD OF RECORD.--

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, 1,360 micromhos Mar. 6; minimum recorded, 241 micromhos Feb. 13.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
NOV					
13...	1410	106	1340	19.0	908
23...	1100	119	1180	15.0	833
27...	1330	190	970	13.0	655
DEC					
01...	1100	270	1070	13.0	705
02...	1015	198	1075	14.0	721
21...	0930	146	1250	15.0	783
JAN					
07...	1150	137	1100	10.0	676
18...	1500	128	1260	14.0	790
FEB					
08...	1500	154	1240	14.5	779
09...	1400	64	1250	15.5	785
11...	1400	135	650	16.5	401
22...	0930	285	1010	15.0	630
MAR					
04...	1200	210	1150	16.0	716
07...	1530	137	--	19.0	543
16...	1400	129	770	15.0	480
APR					
20...	1500	341	800	22.0	480
MAY					
03...	1600	255	790	23.0	498
06...	1900	271	840	24.5	517
27...	1255	221	960	20.0	584
JUN					
02...	1500	211	960	23.0	578
22...	1500	246	1040	22.0	670
JUL					
01...	1500	187	1100	26.5	695
12...	1430	101	1250	29.0	809

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	1270	1160	1210	810	468	670	871	727	793
2	---	---	---	1260	814	1180	756	494	622	852	698	783
3	---	---	---	1200	1090	1130	586	490	534	870	750	807
4	---	---	---	1180	1100	1140	542	470	486	860	810	827
5	---	---	---	1230	1170	1210	692	462	517	860	830	844
6	---	---	---	1360	976	1200	550	530	542	890	780	848
7	---	---	---	1160	1090	1140	874	526	665	820	770	796
8	---	---	---	1130	1020	1090	910	628	809	860	810	835
9	---	---	---	1120	1070	1090	898	568	812	880	840	860
10	1190	619	974	1090	1030	1050	884	598	809	890	850	868
11	958	638	760	1060	996	1040	852	504	626	880	840	853
12	893	249	694	---	---	---	888	508	711	900	840	867
13	263	241	251	---	---	---	814	780	788	940	890	915
14	290	264	278	---	---	---	794	776	787	960	920	933
15	307	285	292	---	---	---	---	---	---	950	910	933
16	316	296	306	862	352	575	---	---	---	950	910	931
17	322	296	306	646	362	485	---	---	---	960	910	935
18	823	321	571	790	428	663	---	---	---	970	930	950
19	922	800	849	632	538	574	---	---	---	940	900	925
20	971	873	905	650	594	618	---	---	---	920	890	908
21	1010	937	957	634	616	624	---	---	---	900	870	885
22	1040	982	1010	636	614	624	---	---	---	890	870	882
23	1080	1020	1040	700	626	670	821	801	811	910	870	899
24	1100	1030	1060	762	684	706	819	805	812	940	900	923
25	1160	1080	1100	822	722	769	832	804	820	960	940	955
26	1140	1080	1110	846	776	820	866	718	807	970	960	965
27	1170	1110	1130	854	680	831	834	760	798	980	960	970
28	1200	1160	1170	868	780	844	850	696	783	970	950	960
29	---	---	---	882	630	799	863	697	786	980	950	961
30	---	---	---	814	780	797	865	717	785	990	970	982
31	---	---	---	850	780	798	---	---	---	1000	970	980
MONTH	---	---	---	1360	352	877	---	---	---	1000	698	896
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1010	970	983	1180	1100	1140						
2	990	960	981	1170	1110	1140						
3	990	950	971	1180	1120	1150						
4	990	950	968	1220	1140	1180						
5	990	960	974	1260	1190	1220						
6	1000	950	975	1300	1230	1270						
7	1000	950	978	1350	1300	1330						
8	1010	970	986	1330	1300	1310						
9	1010	960	982	1310	1290	1300						
10	1010	960	989	1290	1260	1270						
11	1020	980	997	1320	1250	1290						
12	1020	990	1000	1300	1250	1280						
13	1030	990	1010	---	---	---						
14	1030	1010	1020	---	---	---						
15	---	---	---	---	---	---						
16	---	---	---	---	---	---						
17	---	---	---	---	---	---						
18	---	---	---	---	---	---						
19	---	---	---	---	---	---						
20	---	---	---	---	---	---						
21	---	---	---	---	---	---						
22	---	---	---	---	---	---						
23	1140	1070	1090	---	---	---						
24	1130	1060	1100	---	---	---						
25	1120	1080	1100	---	---	---						
26	1110	1070	1090	---	---	---						
27	1110	1070	1090	---	---	---						
28	1120	1080	1100	---	---	---						
29	1130	1090	1110	---	---	---						
30	1150	1060	1120	---	---	---						
31	---	---	---	---	---	---						
MONTH	---	---	---	---	---	---						
PERIOD	1360	241	898									

## 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 good. 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.--21 years, 1.04 ft<sup>3</sup>/s (0.029 m<sup>3</sup>/s), 753 acre-ft/yr (928,000 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, 119 ft<sup>3</sup>/s (3.38 m<sup>3</sup>/s) Mar. 17, gage height, 2.98 ft (.908 ft), from rating curve extended as explained above; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0		6.0	0	.17	8.2	.02				
2		0		2.9	0	1.5	6.9	.02				
3		0		.24	0	.06	.88	.02				
4		0		.17	0	0	.64	0				
5		0		7.0	0	0	.77	0				
6		0		.46	0	0	.16	0				
7		0		.11	0	0	.15	0				
8		0		0	0	0	.05	0				
9		0		0	0	0	.04	0				
10		0		0	3.9	0	.02	0				
11		0		0	3.2	0	.99	0				
12		0		0	.11	.21	.41	0				
13		0		0	.07	0	.13	0				
14		0		0	.06	7.1	.11	0				
15		0		0	.06	12	.11	0				
16		0		0	.34	5.3	.11	0				
17		0		0	.32	79	.11	0				
18		0		0	.25	45	.10	0				
19		0		0	.25	2.9	.06	0				
20		0		11	.25	.92	.23	0				
21		0		8.6	.25	.37	.10	0				
22		0		.15	.22	.25	.05	0				
23		0		0	.17	.25	.04	0				
24		0		0	.17	.25	.04	0				
25		0		0	.17	.27	.04	0				
26		.06		0	.17	.78	.02	0				
27		1.2		0	.17	.25	.02	0				
28		1.4		0	.17	.26	.02	0				
29		1.4		0	---	3.2	.02	0				
30		.55		0	---	2.4	.02	0				
31		---		0	---	.65	---	0	---			---
TOTAL	0	4.61	0	36.63	10.30	163.09	20.54	.06	0	0	0	0
MEAN	0	.15	0	1.18	.37	5.26	.68	.002	0	0	0	0
MAX	0	1.4	0	11	3.9	79	8.2	.02	0	0	0	0
MIN	0	0	0	0	0	0	.02	0	0	0	0	0
AC-FT	0	9.1	0	73	20	323	41	.1	0	0	0	0
CAL YR 1981	TOTAL 139.62	MEAN .38	MAX 49	MIN 0	AC-FT 277							
WTR YR 1982	TOTAL 235.23	MEAN .64	MAX 79	MIN 0	AC-FT 467							

## 11075755 SANTA ANA RIVER AT BALL ROAD, AT ANAHEIM, CA

LOCATION.--Lat 33°40'00", long 117°52'17", in SE¼SW¼SE¼ 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 good. 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, 5,270 ft<sup>3</sup>/s (149 m<sup>3</sup>/s) Apr. 2, gage height, 3.87 ft (1.180 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	15	2.2	2140	10	13	10		
2				0	20	2.4	3960	11	14	12		
3				0	10	2.4	1090	12	13	12		
4				0	7.9	2.2	911	13	13	12		
5				0	1.3	20	594	13	11	12		
6				0	.12	2.2	.12	7.2	11	11		
7				0	.18	2.2	.12	3.4	11	11		
8				0	.36	2.2	.10	3.7	10	11		
9				0	.42	2.2	.88	4.1	9.3	10		
10				20	271	1.9	2.7	3.7	9.3	9.3		
11				52	268	1.9	2.4	3.7	8.6	9.3		
12				11	1.3	1.9	1.5	4.5	7.9	8.6		
13				.26	1.9	1.9	.50	4.5	8.6	7.9		
14				.21	1.3	277	.42	4.5	7.9	7.2		
15				2.7	12	122	.67	5.5	7.9	5.6		
16				1.5	.86	290	.67	6.0	7.2	4.5		
17				1.1	.35	1720	1.3	6.6	5.5	4.1		
18				0	0	1850	2.7	8.6	5.5	3.4		
19				0	.20	1890	15	12	5.0	3.0		
20				0	1.2	818	21	13	15	2.2		
21				2.8	1.3	114	7.2	14	65	1.3		
22				.51	3.7	53	8.6	13	52	2.7		
23				1.0	5.5	1.5	4.1	13	45	5.5		
24				5.0	2.2	1.7	4.1	14	11	3.4		
25				1.7	2.2	1.7	4.1	14	9.3	1.7		
26				.01	2.2	1.9	4.5	12	7.9	.77		
27				1.4	2.2	1.9	5.0	12	8.6	.22		
28				1.3	2.2	1.7	5.0	11	9.3	0		
29				2.4	---	1.7	6.6	11	9.3	0		
30				3.4	---	14	10	11	10	0		
31		---		10	---	21	---	13	---	0		---
TOTAL	0	0	0	118.29	634.89	7226.7	8804.28	288.0	421.1	181.59	0	0
MEAN	0	0	0	3.82	22.7	233	293	9.29	14.0	5.86	0	0
MAX	0	0	0	52	271	1890	3960	14	65	12	0	0
MIN	0	0	0	0	0	1.5	.10	3.4	5.0	0	0	0
AC-FT	0	0	0	235	1260	14330	17460	571	835	360	0	0
CAL YR 1981	TOTAL	4086.82	MEAN	11.2	MAX	936	MIN	0	AC-FT	8110		
WTR YR 1982	TOTAL	17674.85	MEAN	48.4	MAX	3960	MIN	0	AC-FT	35060		



LOCATION.--Lat 33°42'32", long 117°38'05", in SE¼NW¼ sec.29, T.5 S., R.7 W., Orange County, Hydrologic Unit 18070203, on right bank at Modjeska road bridge, 0.3 mi (0.5 km) west of Modjeska, and 0.4 mi (0.6 km) downstream from Harding Creek.

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.--21 years, 8.08 ft<sup>3</sup>/s (0.229 m<sup>3</sup>/s), 5,850 acre-ft/yr (7.21 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, at site then in use, 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.--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. 20	1930	*386	10.9	3.10	0.945	Mar. 17	1800	272e	7.70	2.80e	.853
Feb. 10	2100	206e	5.83	2.60e	.792	Apr. 1	0930	235	6.65	2.69	.820

e Estimated.

Minimum daily, 0.01 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) Oct. 2-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	.09	9.1	1.6	3.1	112	6.7	2.6	1.3	.31	.05
2	.01	.02	.08	3.9	1.7	2.9	82	6.2	2.6	1.3	.31	.04
3	.01	.02	.08	1.9	1.8	2.4	53	7.2	2.6	1.8	.28	.04
4	.01	.02	.08	1.4	1.5	2.1	33	7.2	2.6	1.1	.26	.04
5	.01	.02	.09	2.1	1.5	1.9	25	7.2	2.6	1.0	.24	.04
6	.02	.02	.09	3.4	1.5	1.8	19	5.5	2.6	1.0	.24	.04
7	.02	.02	.09	1.9	1.5	1.7	18	4.4	2.6	.89	.26	.04
8	.02	.02	.09	1.5	1.6	1.6	18	4.4	2.9	.82	.24	.04
9	.02	.02	.09	1.3	1.6	1.5	18	4.9	3.4	.71	.24	.05
10	.02	.02	.09	1.2	59	1.4	17	5.2	3.4	.71	.21	.06
11	.04	.02	.11	1.2	138	1.4	17	4.6	3.4	.66	.21	.07
12	.03	.02	.12	1.0	64	1.2	16	4.6	3.4	.61	.21	.06
13	.03	.02	.17	.89	40	1.1	13	4.6	3.4	.61	.20	.06
14	.03	.03	.21	.82	31	3.4	11	4.4	3.1	.56	.19	.06
15	.02	.03	.24	.76	22	4.9	8.4	3.9	3.1	.56	.19	.08
16	.02	.04	.26	.76	15	4.1	8.4	3.6	2.9	.52	.17	.11
17	.02	.04	.26	.71	11	167	7.8	3.6	2.9	.52	.16	.12
18	.02	.03	.31	.66	7.2	148	7.2	3.4	2.9	.52	.14	.11
19	.02	.03	.34	.66	5.2	62	6.2	3.4	2.9	.52	.11	.08
20	.02	.03	.37	37	4.9	46	6.2	3.4	2.4	.48	.09	.08
21	.02	.03	.40	33	4.4	36	6.2	3.1	2.1	.44	.09	.07
22	.02	.03	.40	3.9	3.9	25	6.2	3.1	1.9	.40	.08	.07
23	.02	.03	.40	2.2	3.4	25	5.9	3.6	1.8	.37	.07	.06
24	.02	.03	.40	6.2	2.9	24	5.5	3.1	1.7	.37	.09	.06
25	.02	.04	.44	2.2	2.9	22	5.2	2.9	1.7	.34	.08	.08
26	.02	.07	.44	1.6	3.1	26	4.6	2.6	1.5	.31	.07	.28
27	.02	.12	.44	1.6	3.1	21	4.6	2.6	1.4	.31	.07	.24
28	.02	.31	.48	1.6	3.1	17	5.5	2.4	1.4	.31	.07	.16
29	.02	.14	.52	1.6	---	19	6.2	2.4	1.4	.31	.06	.17
30	.02	.11	1.2	1.6	---	25	6.7	2.4	1.4	.34	.06	.19
31	.02	---	1.6	1.6	---	22	---	2.6	---	.31	.06	---
TOTAL	.63	1.40	9.98	129.26	438.4	721.5	552.8	129.2	74.6	19.40	5.06	2.65
MEAN	.020	.047	.32	4.17	15.7	23.3	18.4	4.17	2.49	.63	.16	.088
MAX	.04	.31	1.6	37	138	167	112	7.2	3.4	1.3	.31	.28
MIN	.01	.02	.08	.66	1.5	1.1	4.6	2.4	1.4	.31	.06	.04
AC-FT	1.2	2.8	20	256	870	1430	1100	256	148	38	10	5.3
CAL YR 1981	TOTAL	397.36	MEAN	1.09	MAX	32	MIN	.01	AC-FT	788		
WTR YR 1982	TOTAL	2084.88	MEAN	5.71	MAX	167	MIN	.01	AC-FT	4140		

## SANTA ANA RIVER BASIN

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.--54 years, 5.15 ft<sup>3</sup>/s (0.146 m<sup>3</sup>/s) 3,730 acre-ft/yr (4.60 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, 738 ft<sup>3</sup>/s (20.9 m<sup>3</sup>/s) Nov. 28, gage height, 4.35 ft (1.326 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	0	0	0	0	0	44			0		0
2	0	0	0	38	0	0	0			0		0
3	0	0	0	.03	0	0	0			0		0
4	0	0	0	0	0	0	0			0		0
5	0	0	0	13	0	0	0			0		0
6	0	0	0	0	0	0	0			0		0
7	0	0	0	0	0	0	0			0		0
8	0	0	0	0	0	0	0			0		0
9	0	0	0	0	0	0	0			0		0
10	0	0	0	0	9.9	0	0			0		0
11	0	0	0	0	0	0	0			0		0
12	0	0	0	0	0	0	0			0		0
13	0	0	0	0	0	0	0			0		0
14	0	0	0	0	0	35	0			0		0
15	0	0	0	0	0	0	0			0		0
16	0	0	0	0	0	63	0			0		0
17	0	0	0	0	0	87	0			0		0
18	0	0	0	0	0	19	0			0		0
19	0	0	0	0	0	0	0			0		0
20	0	0	0	6.0	0	0	0			0		0
21	0	0	0	11	0	0	0			0		0
22	0	0	0	0	0	0	0			0		0
23	0	0	0	0	0	0	0			0		0
24	0	0	0	0	0	0	0			0		0
25	0	0	0	0	0	0	0			.21		0
26	0	.05	0	0	0	0	0			0		.06
27	0	35	0	0	0	0	0			0		0
28	0	114	0	0	0	0	0			0		0
29	0	0	0	0	---	4.7	0			0		0
30	0	0	0	0	---	1.4	0			0		0
31	0	---	7.7	0	---	0	---		---	0		---
TOTAL	.82	149.05	7.7	68.03	9.9	210.1	44	0	0	.21	0	.06
MEAN	.027	4.97	.25	2.19	.35	6.78	1.47	0	0	.007	0	.002
MAX	.82	114	7.7	38	9.9	87	44	0	0	.21	0	.06
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	1.6	296	15	135	20	417	87	0	0	.4	0	.1
CAL YR 1981	TOTAL 557.56	MEAN 1.53	MAX 122	MIN 0	AC-FT 1110							
WTR YR 1982	TOTAL 489.87	MEAN 1.34	MAX 114	MIN 0	AC-FT 972							

## 11078000 SANTA ANA RIVER AT SANTA ANA, CA

LOCATION.--Lat 33°44'56", long 117°54'30", in SW¼SE¼ 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 good except those below 5 ft<sup>3</sup>/s (0.142 m<sup>3</sup>/s), which are 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); 42 years (unadjusted for storage since 1940) 46.4 ft<sup>3</sup>/s (1.314 m<sup>3</sup>/s) 33,620 acre-ft/yr (41.5 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, 3,770 ft<sup>3</sup>/s (107 m<sup>3</sup>/s) Apr. 2, gage height, 5.94 ft (1.811 m); no flow many days during the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	.08	.50	80	.42	.04	1130	.02	.11	.87		0
2	.72	.06	.42	2.7	.42	.54	2810	.02	.09	.11		0
3	.08	.06	.18	1.0	.42	.72	232	.04	.09	.03		0
4	.06	.06	.12	.18	.33	.10	131	.06	.09	0		0
5	.05	.05	.10	59	.33	.05	97	.21	.07	0		0
6	.04	.04	.10	2.4	.33	.04	3.5	.18	.08	0		0
7	.05	.03	.10	.66	.33	.04	1.9	.37	.06	0		0
8	.05	.03	.10	.21	.72	.04	1.0	.24	.06	0		.38
9	.05	.02	.10	.21	1.1	.04	.76	.15	.04	0		0
10	.05	.02	.10	.21	135	.05	.58	.12	.05	0		0
11	.18	.02	.10	.18	139	.06	.74	.10	.05	0		0
12	.18	.02	.10	11	2.9	.42	1.2	.12	.04	0		0
13	.12	.02	.10	2.6	.21	.08	.58	.12	.04	0		0
14	.08	.02	.10	.66	.10	399	.37	.12	.04	0		0
15	.08	.02	.12	.33	.06	134	.30	.15	.04	0		0
16	.08	.02	.15	.28	.08	330	.24	.15	.03	0		0
17	.08	.02	.18	.28	.04	1040	.20	.15	.04	0		.16
18	.10	.02	.21	.28	.03	887	.17	.18	.04	0		.19
19	.10	.02	.24	.33	.01	586	.15	.18	.03	0		0
20	.10	.02	.24	22	.02	169	.15	.18	.02	0		0
21	.10	.03	.24	55	.02	50	.08	.21	.01	0		0
22	.15	.03	.24	2.6	.02	40	.06	.21	.02	0		0
23	.15	.03	.24	1.2	.02	15	.05	.18	.41	0		0
24	.18	.03	.24	.60	.02	10	.05	.24	2.4	0		0
25	.18	.03	.24	.37	.03	8.2	.05	.24	.40	0		0
26	.18	.50	.24	.37	.03	26	.04	.21	.09	0		1.4
27	.18	45	.24	.42	.03	14	.04	.24	.03	0		.44
28	.24	207	.24	.37	.03	9.4	.03	.18	.01	0		0
29	.54	3.5	.28	.72	---	32	.03	.13	0	0		0
30	.24	.90	22	.54	---	47	.02	.13	.03	0		0
31	.12	---	1.7	.48	---	14	---	.11	---	0		---
TOTAL	9.41	257.70	29.26	247.18	282.05	3812.82	4412.29	4.94	4.51	1.01	0	2.57
MEAN	.30	8.59	.94	7.97	10.1	123	147	.16	.15	.033	0	.086
MAX	4.9	207	22	80	139	1040	2810	.37	2.4	.87	0	1.4
MIN	.04	.02	.10	.18	.01	.04	.02	.02	0	0	0	0
AC-FT	19	511	58	490	559	7560	8750	9.8	8.9	2.0	0	5.1
CAL YR 1981	TOTAL	7901.17	MEAN 21.6	MAX 2700	MIN 0	AC-FT 15670						
WTR YR 1982	TOTAL	9063.74	MEAN 24.8	MAX 2810	MIN 0	AC-FT 17980						

## SANTA ANA RIVER BASIN

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, October 1981 to September 1982.

SEDIMENT RECORDS: October 1967 to September 1971, October 1972 to September 1980, October 1981 to September 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean (water years 1968-71, 1973-80, 1982), 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, 1982), 2,670,000 tons (2,420,000 metric tons) Feb. 25, 1969; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,580 mg/L Apr. 2; minimum daily mean, no flow for many days.

SEDIMENT DISCHARGE: Maximum daily, 31,900 tons (28,900 metric tons) Apr. 2; minimum daily, 0 tons on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				---		---	14.5			19.5		
2				---		---	13.5			---		
3				---		---	---			---		
4				15.5		19.5	---			---		
5				13.5		---	---			---		
6				---		---	20.0			---		
7				---		---	---			---		
8				---		---	---			---		
9				---		---	---			---		
10				---		---	---			---		
11				---		---	---			---		
12				---		---	---			---		
13				---		---	---			---		
14				---		---	---			---		
15				---		16.0	---			---		
16				---		---	---			---		
17				---		11.5	---			---		
18				---		14.5	---			---		
19				---		---	---			---		
20				---		---	---			---		
21				12.5		---	---			---		
22				---		---	---			---		
23				---		---	---			---		
24				---		---	---			---		
25				---		---	---			---		
26				---		---	---			---		
27				---		---	---			---		
28				---		---	---			---		
29				---		---	---			---		
30				---		---	---			---		
31				---		---	---			---		
MONTH				---		---	---			---		

11078000 SANTA ANA RIVER AT SANTA ANA, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	4.9	17	.42	.08	4	0	.50	5	0
2	.72	6	.01	.06	4	0	.42	4	0
3	.08	4	0	.06	3	0	.18	4	0
4	.06	4	0	.06	3	0	.12	3	0
5	.05	3	0	.05	3	0	.10	3	0
6	.04	3	0	.04	3	0	.10	3	0
7	.05	3	0	.03	3	0	.10	3	0
8	.05	3	0	.03	3	0	.10	3	0
9	.05	3	0	.02	2	0	.10	3	0
10	.05	3	0	.02	2	0	.10	2	0
11	.18	3	0	.02	2	0	.10	2	0
12	.18	3	0	.02	2	0	.10	2	0
13	.12	2	0	.02	2	0	.10	2	0
14	.08	2	0	.02	2	0	.10	2	0
15	.08	2	0	.02	2	0	.12	2	0
16	.08	2	0	.02	2	0	.15	2	0
17	.08	2	0	.02	2	0	.18	2	0
18	.10	2	0	.02	2	0	.21	2	0
19	.10	2	0	.02	2	0	.24	2	0
20	.10	2	0	.02	2	0	.24	2	0
21	.10	2	0	.03	2	0	.24	2	0
22	.15	2	0	.03	2	0	.24	2	0
23	.15	2	0	.03	2	0	.24	2	0
24	.18	2	0	.03	2	0	.24	2	0
25	.18	2	0	.03	2	0	.24	2	0
26	.18	2	0	.50	5	0	.24	2	0
27	.18	2	0	45	67	27	.24	2	0
28	.24	2	0	207	127	171	.24	2	0
29	.54	12	0	3.5	15	.14	.28	2	0
30	.24	5	0	.90	10	.02	22	36	5.8
31	.12	4	0	---	---	---	1.7	15	.07
TOTAL	9.41	---	.43	257.70	---	198.16	29.26	---	5.87

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	80	129	86	.42	2	0	.04	4	0
2	2.7	17	.12	.42	2	0	.54	17	.02
3	1.0	10	.03	.42	2	0	.72	36	.07
4	.18	5	0	.33	2	0	.10	10	0
5	59	85	30	.33	2	0	.05	10	0
6	2.4	17	.11	.33	2	0	.04	9	0
7	.66	12	.02	.33	2	0	.04	8	0
8	.21	10	0	.72	2	0	.04	8	0
9	.21	7	0	1.1	20	.06	.04	8	0
10	.21	4	0	135	357	396	.05	8	0
11	.18	2	0	139	310	263	.06	7	0
12	11	16	.65	2.9	50	.39	.42	20	.02
13	2.6	5	.04	.21	20	.01	.08	15	0
14	.66	3	0	.10	16	0	399	1380	3290
15	.33	3	0	.06	5	0	134	216	118
16	.28	2	0	.08	2	0	330	926	3230
17	.28	2	0	.04	2	0	1040	1940	5700
18	.28	3	0	.03	2	0	887	1570	4280
19	.33	4	0	.01	1	0	586	900	1420
20	22	59	12	.02	1	0	169	278	188
21	55	90	26	.02	1	0	50	110	15
22	2.6	15	.11	.02	1	0	40	82	8.9
23	1.2	10	.03	.02	1	0	15	58	2.3
24	.60	5	0	.02	1	0	10	55	1.5
25	.37	3	0	.03	1	0	8.2	50	1.1
26	.37	2	0	.03	1	0	26	68	4.8
27	.42	2	0	.03	1	0	14	32	1.2
28	.37	2	0	.03	1	0	9.4	28	.71
29	.72	2	0	---	---	---	32	76	26
30	.54	2	0	---	---	---	47	137	37
31	.48	2	0	---	---	---	14	47	1.8
TOTAL	247.18	---	155.11	282.05	---	659.46	3812.82	---	18326.42

11078000 SANTA ANA RIVER AT SANTA ANA, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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	1130	3400	20600	.02	1		.11	1	0
2	2810	3580	31900	.02	1		.09	1	0
3	232	232	165	.04	0		.09	1	0
4	131	115	41	.06	7		.09	1	0
5	97	95	27	.21	4		.07	1	0
6	3.5	23	.22	.18	3		.08	1	0
7	1.9	5	.03	.37	2		.06	1	0
8	1.0	4	.01	.24	2		.06	1	0
9	.76	3	0	.15	2		.04	1	0
10	.58	2	0	.12	2		.05	1	0
11	.74	5	.01	.10	2		.05	1	0
12	1.2	4	.02	.12	2		.04	1	0
13	.58	3	0	.12	2		.04	1	0
14	.37	2	0	.12	2		.04	1	0
15	.30	2	0	.15	2		.04	1	0
16	.24	2	0	.15	2		.03	1	0
17	.20	2	0	.15	2		.04	1	0
18	.17	2	0	.18	2		.04	1	0
19	.15	2	0	.18	2		.03	1	0
20	.15	1	0	.18	1		.02	1	0
21	.08	1	0	.21	1		.01	1	0
22	.06	1	0	.21	1		.02	1	0
23	.05	1	0	.18	1		.41	1	0
24	.05	1	0	.24	1		2.4	20	.13
25	.05	1	0	.24	1		.40	5	0
26	.04	1	0	.21	1		.09	1	0
27	.04	1	0	.24	1		.03	1	0
28	.03	1	0	.18	1		.01	1	0
29	.03	1	0	.13	1		0	0	0
30	.02	1	0	.13	1		.03	1	0
31	---	---	---	.11	1		---	---	---
TOTAL	4412.29	---	52733.29	4.94	---	0	4.51	---	.13

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	.87	1					0	0	0
2	.11	1					0	0	0
3	.03	1					0	0	0
4	0	0					0	0	0
5	0	0					0	0	0
6	0	0					0	0	0
7	0	0					0	0	0
8	0	0					.38	0	0
9	0	0					0	0	0
10	0	0					0	0	0
11	0	0					0	0	0
12	0	0					0	0	0
13	0	0					0	0	0
14	0	0					0	0	0
15	0	0					0	0	0
16	0	0					0	0	0
17	0	0					.16	0	0
18	0	0					.19	0	0
19	0	0					0	0	0
20	0	0					0	0	0
21	0	0					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	0					1.4	12	6.2
27	0	0					.44	1	.09
28	0	0					0	0	0
29	0	0					0	0	0
30	0	0					0	0	0
31	0	0					---	---	---
TOTAL	1.01	---	0	0	0	0	2.57	---	6.29
YEAR	9063.74		72085.16						

11078000 SANTA ANA RIVER AT SANTA ANA, CA--Continued

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1981	9.22	108.00	0	108
NOVEMBER ...	257.70	284.00	318	602
DECEMBER ...	29.26	122.00	6	128
JANUARY 1982	247.18	530.00	161	691
FEBRUARY ...	282.05	810.00	313	1120
MARCH .....	3730.82	8113.00	7590	15700
APRIL .....	4446.69	7494.00	12400	19900
MAY .....	13.01	54.00	0	54
JUNE .....	4.51	52.00	0	52
JULY .....	0.25	3.00	0	3
AUGUST .....	0.0	0.0	0	0
SEPTEMBER ..	2.57	6.0	0	6
TOTAL .....	9023.26	17576.00	20788	38364

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	TEMPER- ATURE (DEG C)	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	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
MAR									
15...	1100	16.0	119	38	--	--	--	--	--
17...	1020	11.5	2500	5600	61	75	88	95	99
18...	1230	14.5	1690	2360	44	54	64	71	--

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 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
MAR									
15...		94	--	95	--	98	100	--	--
17...		--	99	--	100	--	--	--	--
18...		74	--	74	--	74	84	99	100

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	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
MAY									
03...	1600	.04	8	47	83	95	98	99	100

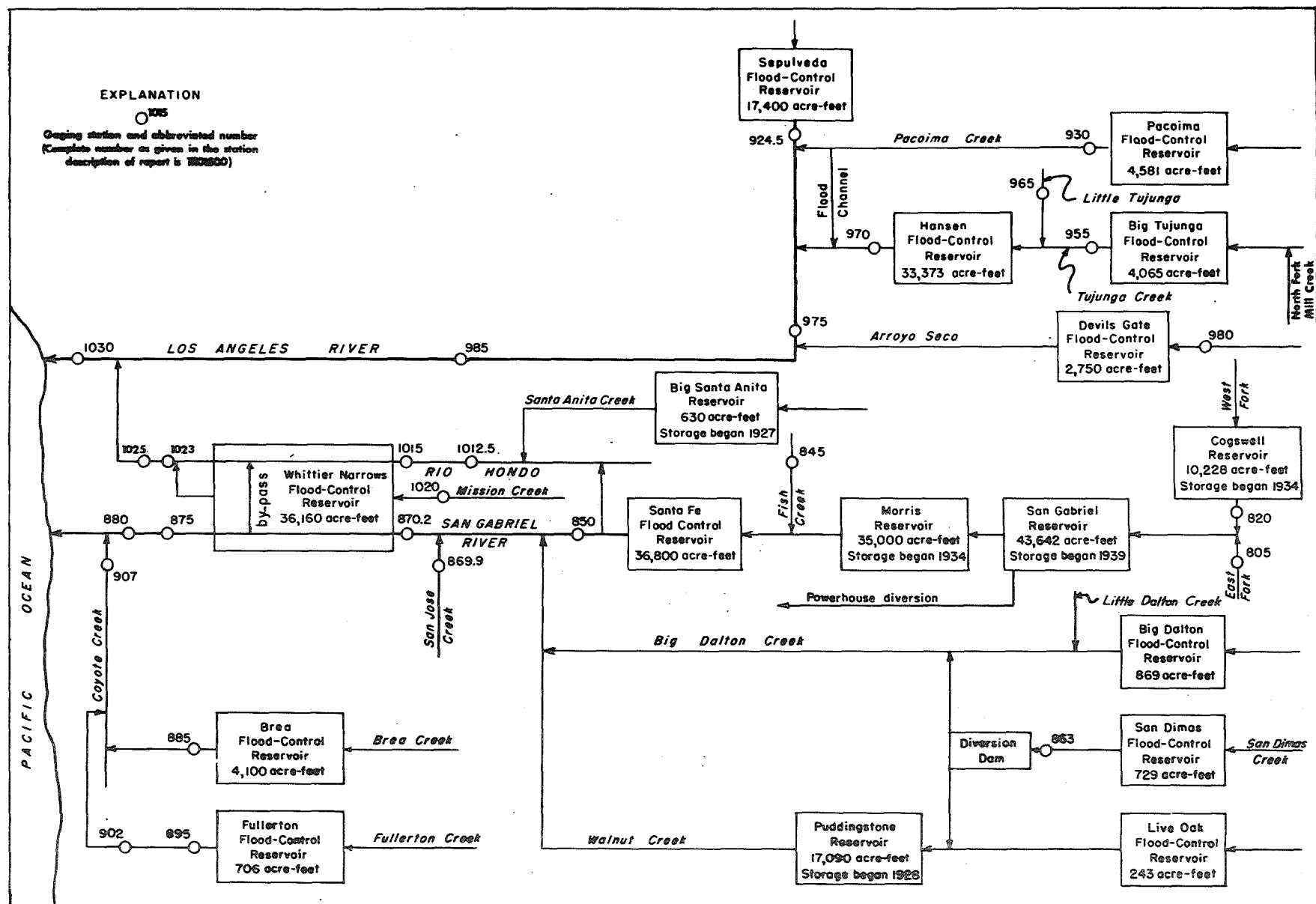


Figure 6.--Schematic diagram showing diversions and storage in San Gabriel and Los Angeles River basins.



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 is diverted from side of stilling basin to headwaters of Rio Hondo; 13,000 acre-ft (16.0 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, 230 ft<sup>3</sup>/s (6.51 m<sup>3</sup>/s) Mar. 18, gage height, 10.89 ft (3.32 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	11	0	0	0	25		0			0
2		0	.99	0	0	0	39		0			0
3		0	.57	0	0	0	38		0			0
4		0	2.6	4.9	0	0	27		0			0
5		0	.02	8.6	0	0	.27		0			0
6		0	0	.01	0	0	.05		0			0
7		0	0	0	0	0	.03		0			0
8		0	0	0	0	0	.02		0			0
9		0	0	0	0	0	0		0			0
10		0	0	0	3.3	0	0		0			0
11		0	0	0	5.4	0	.01		0			0
12		0	0	0	.01	0	.01		0			0
13		0	0	0	0	0	0		0			0
14		0	0	0	0	17	0		1.3			0
15		0	0	0	0	11	0		11			0
16		0	0	0	0	10	0		0			0
17		0	0	0	0	83	0		0			0
18		0	1.3	0	0	110	0		0			0
19		0	0	0	0	57	0		0			.01
20		0	0	8.4	0	54	0		0			0
21		0	0	31	0	50	0		0			0
22		0	0	3.5	0	29	0		0			0
23		0	0	.19	0	2.6	0		0			0
24		0	0	.01	0	4.3	0		0			0
25		0	0	0	.25	17	0		6.1			0
26		0	0	0	.01	6.1	0		6.3			0
27		0	0	0	0	.03	0		.03			0
28		19	0	0	0	.02	0		0			0
29		.96	0	0	---	.02	0		0			0
30		0	0	0	---	9.6	0		0			0
31		---	0	0	---	.11	---		---			---
TOTAL	0	19.96	16.48	56.61	8.97	460.78	129.39	0	24.73	0	0	.01
MEAN	0	.67	.53	1.83	.32	14.9	4.31	0	.82	0	0	.0003
MAX	0	19	11	31	5.4	110	39	0	11	0	0	.01
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	40	33	112	18	914	257	0	49	0	0	.02
CAL YR 1981	TOTAL	382.45	MEAN	1.05	MAX	68	MIN	0	AC-FT	759		
WTR YR 1982	TOTAL	716.93	MEAN	1.96	MAX	110	MIN	0	AC-FT	1420		

## 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. Los Angeles County Flood Control District diverted 13,000 acre-ft (16.0 hm<sup>3</sup>) from San Gabriel River below Santa Fe Dam to Rio Hondo, and released 2,590 acre-ft (3.19 hm<sup>3</sup>) from Puddingstone Reservoir during the 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, 11,700 ft<sup>3</sup>/s (331 m<sup>3</sup>/s) Mar. 17, gage height, 7.26 ft (2.21 m); minimum daily, 3.3 ft<sup>3</sup>/s (0.093 m<sup>3</sup>/s) July 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	86	53	856	10	119	1800	79	9.6	36	36	154
2	16	75	52	175	9.5	157	45	46	7.7	39	39	140
3	11	79	61	15	80	53	35	31	6.0	38	30	140
4	10	79	121	20	117	110	30	35	12	38	29	140
5	11	80	124	684	159	105	20	15	8.8	39	28	140
6	9.5	118	121	17	160	103	16	13	9.2	33	11	140
7	6.9	173	124	11	164	84	14	12	54	31	29	140
8	8.3	176	127	10	174	42	13	12	67	31	30	140
9	8.9	178	126	61	169	98	12	11	28	31	31	137
10	10	164	128	84	870	86	11	11	24	31	31	148
11	41	132	135	114	59	55	600	12	9.9	32	31	152
12	10	94	87	160	18	45	40	14	33	34	31	150
13	8.7	13	51	160	17	17	20	9.0	35	24	30	144
14	74	10	36	149	17	1940	16	9.0	36	4.2	32	119
15	152	9.3	30	147	16	59	13	7.9	35	3.3	33	105
16	159	9.3	24	160	21	1190	12	9.0	36	25	34	82
17	160	6.9	28	162	67	4470	10	11	44	30	37	11
18	158	6.2	27	126	149	1360	9.5	9.0	47	31	36	12
19	130	6.4	28	9.2	152	235	8.8	7.0	43	33	30	7.8
20	89	6.0	106	2090	148	75	8.2	7.9	39	33	38	8.0
21	90	6.2	190	573	147	62	7.5	7.9	42	32	34	27
22	94	7.5	171	19	137	48	7.2	9.0	53	33	30	30
23	95	21	149	13	115	38	131	9.0	87	32	28	26
24	98	55	122	12	96	35	145	7.9	100	34	42	26
25	100	7.2	122	11	88	29	146	10	103	36	91	5.0
26	97	245	122	10	109	26	152	9.4	106	35	97	335
27	96	1470	122	10	128	24	123	9.8	106	30	94	40
28	68	2630	125	222	130	20	113	8.5	74	81	99	83
29	31	58	134	27	---	215	98	8.4	34	90	96	106
30	81	54	453	12	---	115	45	8.8	37	31	96	103
31	134	---	18	11	---	15	---	8.1	---	33	114	---
TOTAL	2228.3	6055.0	3317	6130.2	3526.5	11030	3701.2	457.6	1326.2	1063.5	1447	2990.8
MEAN	71.9	202	107	198	126	356	123	14.8	44.2	34.3	46.7	99.7
MAX	171	2630	453	2090	870	4470	1800	79	106	90	114	335
MIN	6.9	6.0	18	9.2	9.5	15	7.2	7.0	6.0	3.3	11	5.0
AC-FT	4420	12010	6580	12160	6990	21880	7340	908	2630	2110	2870	5930
CAL YR 1981	TOTAL	49374.3	MEAN	135	MAX	3070	MIN	6.0	AC-FT	97930		
WTR YR 1982	TOTAL	43273.3	MEAN	119	MAX	4470	MIN	3.3	AC-FT	85830		

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	2.3	7.5	93	1.8	7.5	130	2.1	1.4	.86	1.2	.72
2	3.5	2.3	2.7	49	1.7	21	19	2.1	1.1	.72	1.2	1.5
3	3.5	4.6	3.1	19	1.7	6.8	6.5	2.1	1.2	.89	1.0	1.3
4	3.5	2.5	2.0	18	1.6	5.6	5.0	5.4	1.5	.88	.92	1.1
5	2.0	2.7	2.0	59	1.6	3.8	4.0	2.2	1.1	1.3	1.1	1.0
6	2.1	3.1	2.1	7.0	1.6	3.3	3.5	1.8	.98	.97	1.3	1.1
7	2.3	3.1	2.7	3.6	1.6	3.8	3.0	1.7	.98	1.3	1.7	1.1
8	2.4	2.7	2.3	4.8	2.3	3.7	3.0	1.6	.98	.76	1.4	.98
9	1.7	2.7	2.7	3.3	1.6	3.5	3.0	1.6	1.0	.82	.99	2.2
10	2.7	3.0	2.0	3.2	2.6	3.3	3.5	1.8	.93	.87	.98	.32
11	6.0	3.3	2.0	3.1	3.8	7.0	16	2.3	.98	.98	1.2	.18
12	3.5	3.9	2.3	3.0	2.5	12	4.0	4.4	.98	.96	1.0	.14
13	1.4	5.2	2.3	3.0	2.0	1.2	3.1	1.8	1.1	1.0	.71	.12
14	2.7	5.0	2.3	3.0	1.8	150	2.7	1.7	1.1	1.0	1.5	1.0
15	1.7	3.9	2.3	3.0	1.8	32	2.6	1.7	1.4	1.3	3.5	1.0
16	1.2	2.2	2.7	3.0	3.3	100	2.5	1.5	1.1	1.1	3.9	.98
17	2.3	2.0	2.2	3.0	2.2	315	2.5	1.5	1.4	1.1	1.5	1.4
18	2.3	2.0	1.8	2.9	1.7	90	2.5	1.3	1.6	1.3	1.3	1.8
19	3.6	1.7	2.1	2.9	1.7	9.0	2.4	1.2	1.7	1.3	1.6	1.1
20	2.0	1.7	2.3	4.4	1.7	8.0	2.4	1.0	1.2	1.3	1.5	.99
21	2.0	1.7	3.2	10	1.7	8.6	2.4	1.2	1.2	1.3	1.7	.86
22	2.0	1.7	2.1	3.8	1.7	7.3	2.4	1.6	1.2	1.3	2.1	1.1
23	3.1	1.7	2.6	3.5	1.8	6.8	2.3	1.5	1.3	1.3	1.3	1.2
24	4.6	1.7	2.5	3.1	1.8	6.2	2.3	1.5	1.5	1.3	1.4	.91
25	3.1	1.7	2.3	2.9	1.8	4.6	2.3	1.5	1.0	1.8	.94	1.0
26	2.0	2.5	2.5	2.9	1.9	10	2.2	1.5	.99	1.5	.05	21
27	2.3	36	2.7	2.9	2.0	4.6	2.2	1.4	.98	1.5	1.1	5.1
28	2.0	110	2.8	6.0	1.9	4.6	2.2	1.4	.92	1.5	1.4	1.8
29	4.0	11	2.3	3.0	---	5.7	2.1	3.2	.98	1.5	1.1	1.0
30	2.3	9.4	33	2.2	---	6.2	2.1	1.6	1.5	1.3	.98	1.1
31	2.0	---	15	1.9	---	4.6	---	1.1	---	1.3	.85	---
TOTAL	85.8	237.3	122.4	373.0	55.2	855.7	243.7	58.3	35.30	35.51	42.42	55.10
MEAN	2.77	7.91	3.95	12.0	1.97	27.6	8.12	1.88	1.18	1.15	1.37	1.84
MAX	6.0	110	33	93	3.8	315	130	5.4	1.7	1.5	3.9	21
MIN	1.2	1.7	1.8	1.9	1.6	1.2	2.1	1.0	.92	.72	.05	.12
AC-FT	170	471	243	740	109	1700	483	116	70	70	84	109
CAL YR 1981	TOTAL	1445.94	MEAN	3.96	MAX	210	MIN	.48	AC-FT	2870		
WTR YR 1982	TOTAL	2199.73	MEAN	6.03	MAX	315		.05	AC-FT	4360		

## SAN GABRIEL RIVER BASIN

11089500 FULLERTON CREEK BELOW FULLERTON DAM, NEAR BREA, CA

LOCATION.--Lat 33°53'45", long 117°53'07", in NW¼SW¼ 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 good. 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); 28 years (water years 1955-82), 1.00 ft<sup>3</sup>/s (0.028 m<sup>3</sup>/s), 724 acre-ft/yr (893,000 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 some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 219 ft<sup>3</sup>/s (6.20 m<sup>3</sup>/s) Apr. 1, gage height, 6.89 ft (2.100 m); minimum daily, 0.09 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Oct. 17-21.

REVISIONS.--Revised daily discharges, in cubic feet per second, for the period Sept. 2-30, 1981 are given below. These figures supersede those published in the report for 1981.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Sept. 2	.80	Sept. 10	.69	Sept. 17	.73	Sept. 24	.56
3	.88	11	.71	18	.71	25	.70
4	.82	12	.68	19	.65	26	.57
5	.76	13	.65	20	.60	27	.55
6	.64	14	.82	21	.62	28	.62
7	.73	15	.77	22	.68	29	.55
8	.74	16	.62	23	.61	30	.52
9	.62						
		Total	Mean	Max	Min	Ac-Ft	
Sept. 1981		20.58	.69	.98	.52	41	
WTR YR 1981		564.67	1.55	114	.09	1120	

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	.10	.62	14	.51	3.1	52	.91	.60	.51	.43	.70
2	.60	.10	.55	17	.57	9.9	.60	.64	.51	.51	.43	.70
3	.51	.10	.51	13	.52	.75	.51	.60	.51	.51	.61	.82
4	.44	.10	.51	2.0	.51	.60	.51	1.6	.60	.51	.54	.82
5	.43	.10	.43	11	.47	.60	.51	.65	.51	.51	.69	.70
6	.50	9.1	.43	9.3	.42	.51	.51	.51	.51	.51	.79	.70
7	.44	.57	.49	.60	.43	.43	.51	.51	.51	.51	.75	1.8
8	.54	.63	.43	.44	.95	.43	.51	.51	.51	.51	.65	1.1
9	.51	.55	.47	.48	.51	.51	.51	.51	.51	.60	.79	1.0
10	.55	.48	.51	.43	16	.51	.58	.51	.51	.60	.70	.70
11	2.1	.49	.55	.43	2.7	3.0	6.4	1.4	.51	.60	.52	.70
12	.54	.54	.57	.43	.50	1.7	.86	.70	.60	.70	.70	.60
13	.33	.53	.54	.37	.54	.58	.60	.60	.60	.60	.95	.60
14	.22	.53	.51	.41	.45	60	.60	.60	.60	.60	.82	.70
15	.16	.52	.30	.40	.47	9.9	.56	.70	.60	.70	.82	.60
16	.11	.47	.64	.53	1.1	19	.51	.60	.51	.60	.95	.60
17	.09	.56	.42	.43	.56	111	.57	.70	.70	.70	1.1	1.1
18	.09	.43	.41	.51	.51	33	.53	.70	.82	.82	.95	.70
19	.09	.63	.45	.42	.51	1.7	.51	.51	.70	.82	1.1	.60
20	.09	.64	.38	29	.51	.73	.56	.51	.51	.70	1.1	.60
21	.09	.61	.73	34	.49	.70	.45	.51	.51	.60	1.3	.60
22	.10	.45	.55	.75	.56	.70	.46	.70	.60	.70	.95	.51
23	.10	.51	.51	.51	.60	.57	.68	.60	.51	.70	.70	.43
24	.10	.51	.43	.51	.57	.51	.65	.60	.51	.70	.82	.43
25	.10	.48	.46	.51	.66	1.5	.57	.70	.60	.60	.82	.51
26	.10	3.2	.43	.51	.59	4.4	.60	.60	.60	.95	.82	4.7
27	.10	19	.43	.51	.57	.72	.70	.60	.51	.82	.70	1.3
28	.12	63	.43	1.2	.60	.95	.60	.60	.51	.70	.70	.43
29	.12	41	.52	.60	---	9.6	.60	.60	.51	.82	.82	.51
30	.11	8.3	14	.54	---	1.8	.57	.60	.43	.60	.82	.51
31	.10	---	1.6	.51	---	.53	---	.51	---	.43	.70	---
TOTAL	19.48	154.23	29.81	141.33	33.38	279.93	74.33	20.59	16.72	19.74	24.54	25.77
MEAN	.63	5.14	.96	4.56	1.19	9.03	2.48	.66	.56	.64	.79	.86
MAX	10	63	14	34	16	111	52	1.6	.82	.95	1.3	4.7
MIN	.09	.10	.30	.37	.42	.43	.45	.51	.43	.43	.43	.43
AC-FT	39	306	59	280	66	555	147	41	33	39	49	51
CAL YR 1981	TOTAL	715.15	MEAN	1.96	MAX	114	MIN	.09	AC-FT	1420		
WTR YR 1982	TOTAL	839.85	MEAN	2.30	MAX	111	MIN	.09	AC-FT	1670		

## 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, and 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, 5,720 acre-ft (6.50 hm<sup>3</sup>) in 1979 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 water 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 part 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, 2,100 ft<sup>3</sup>/s (59.5 m<sup>3</sup>/s) Mar. 19, gage height, 3.16 ft (0.963 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	0		10	8.6	0	540		0			
2	.14	6.9		118	8.6	0	483		0			
3	.14	11		9.0	7.8	0	86		0			
4	0	11		5.0	6.9	0	25		0			
5	0	11		68	6.5	0	100		0			
6	0	8.6		34	6.1	0	.50		0			
7	0	8.2		15	5.3	0	.14		0			
8	0	6.3		5.6	5.4	0	0		11			
9	2.1	4.1		5.3	5.0	0	10		19			
10	5.3	1.9		4.6	13	0	25		21			
11	5.3	1.8		4.0	12	0	41		22			
12	5.3	1.1		4.0	9.6	12	53		22			
13	3.9	1.1		5.3	12	.50	17		19			
14	3.6	1.1		5.1	.80	137	12		13			
15	3.4	.50		9.7	.50	62	12		6.0			
16	2.2	.49		15	.50	88	8.6		4.5			
17	1.3	.30		15	.50	217	8.6		3.4			
18	.41	.11		17	.49	655	6.9		2.9			
19	.43	.06		17	0	655	10		1.9			
20	.32	.02		186	0	36	100		1.9			
21	.51	0		57	0	4.0	40		1.7			
22	.60	0		20	0	6.9	25		1.1			
23	.16	0		14	0	8.6	20		.81			
24	.54	0		10	0	6.9	16		.46			
25	.40	0		8.9	0	6.9	13		.06			
26	.50	5.0		22	0	8.6	59		0			
27	.10	1.0		12	0	6.9	5.0		0			
28	.12	.50		14	0	8.6	0		0			
29	0	.14		12	---	8.6	0		0			
30	0	0		10	---	119	0		0			
31	0	---		8.6	---	31	---		---			---
TOTAL	36.91	82.22	0	741.1	109.59	2078.50	1716.74	0	151.73	0	0	0
MEAN	1.19	2.74	0	23.9	3.91	67.0	57.2	0	5.06	0	0	0
MAX	5.3	11	0	186	13	655	540	0	22	0	0	0
MIN	0	0	0	4.0	0	0	0	0	0	0	0	0
AC-FT	73	163	0	1470	217	4120	3410	0	301	0	0	0
a	830	640	1120	2040	1010	7150	7690	720	1350	630	430	460

CAL YR 1981 TOTAL 2960.86 MEAN 8.11 MAX 372 MIN 0 AC-FT 5870  
WTR YR 1982 TOTAL 4916.79 MEAN 13.5 MAX 655 MIN 0 AC-FT 9750

a Combined discharge, in acre-feet, of creek and diversion.

## 11098000 ARROYO SECO NEAR PASADENA, CA

LOCATION.--Lat 34°13'20", long 118°10'36", in NW¼NE¼ 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.--68 years (water years 1914-15, 1917-82), 9.74 ft<sup>3</sup>/s (0.276 m<sup>3</sup>/s), 7,060 acre-ft/yr (8.70 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.--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)	
Jan. 20	1815	281	7.96	2.96	0.902
Mar. 17	1345	*615	17.4	3.74	1.140
Apr. 1	0700	446	12.6	3.42	1.042

Minimum daily, 0.37 ft<sup>3</sup>/s (0.010 m<sup>3</sup>/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.74	.78	2.8	4.8	4.6	3.2	203	7.8	4.0	2.8	.91	.43
2	.67	.87	2.5	4.0	4.3	3.8	113	7.4	3.9	2.6	.93	.42
3	.62	.99	2.2	3.0	4.2	3.5	84	6.9	3.7	2.5	.93	.44
4	.55	1.1	2.1	2.7	4.0	3.2	61	7.4	3.6	2.4	.93	.41
5	.49	1.1	2.0	4.5	3.9	3.0	43	7.2	3.5	2.3	.83	.39
6	.41	1.2	2.0	4.0	3.7	5.7	35	6.3	3.4	2.3	.76	.37
7	.41	1.1	1.9	3.0	3.6	9.3	31	5.8	3.5	2.2	.74	.38
8	.45	.91	1.9	2.6	3.5	9.5	27	5.6	3.3	2.1	.67	.65
9	.49	.98	1.8	2.4	3.5	9.6	24	5.4	3.3	2.0	.67	.66
10	.58	1.0	1.8	2.4	5.9	9.8	21	5.2	3.4	1.9	.68	.78
11	.66	1.0	1.8	2.4	7.4	20	33	5.9	3.4	1.6	.64	.76
12	.62	1.1	1.9	2.4	5.2	31	27	5.1	3.5	1.6	.71	.69
13	.63	1.1	1.9	2.2	4.8	11	22	5.0	3.6	1.5	.83	.69
14	.65	1.2	1.9	2.2	4.7	69	18	4.9	3.4	1.5	.79	.68
15	.68	1.1	1.7	2.1	4.5	37	17	4.9	3.1	1.5	.73	.69
16	.66	1.2	1.7	1.5	4.5	35	15	4.9	3.5	1.5	.72	.76
17	.64	1.2	1.7	.76	4.4	292	14	4.8	3.9	1.5	.62	.68
18	.62	1.2	1.7	1.0	4.0	164	14	4.8	3.8	1.4	.60	.76
19	.56	1.2	1.7	.98	3.7	81	13	4.7	3.3	1.3	.56	.71
20	.62	1.2	1.7	92	3.6	48	12	4.7	3.3	1.2	.56	.71
21	.70	1.2	1.7	53	3.6	34	12	4.7	3.2	1.1	.57	.75
22	.68	1.2	1.6	11	3.4	29	11	4.6	3.2	1.1	.56	.77
23	.65	1.2	1.6	7.3	3.4	25	11	4.5	3.2	1.1	.60	.76
24	.71	1.2	1.6	6.9	3.4	21	11	4.5	3.0	1.1	.71	.86
25	.80	1.2	1.6	7.3	3.4	19	10	4.4	3.0	1.1	.64	1.2
26	.86	2.1	1.6	6.6	3.3	19	10	4.2	2.8	1.1	.53	10
27	.90	6.5	1.6	5.8	3.2	16	9.5	4.6	2.6	1.1	.53	5.1
28	.93	23	1.6	6.0	3.1	16	9.2	4.3	2.7	1.0	.57	2.9
29	.86	5.8	1.6	6.2	---	37	8.8	4.1	2.8	1.0	.56	2.3
30	.87	3.6	3.0	5.2	---	45	8.4	3.9	2.9	1.0	.51	2.0
31	.81	---	2.9	4.9	---	24	---	4.0	---	.98	.45	---
TOTAL	20.52	68.53	59.1	261.14	114.8	1133.6	927.9	162.5	99.8	49.38	21.04	38.70
MEAN	.66	2.28	1.91	8.42	4.10	36.6	30.9	5.24	3.33	1.59	.68	1.29
MAX	.93	23	3.0	92	7.4	292	203	7.8	4.0	2.8	.93	10
MIN	.41	.78	1.6	.76	3.1	3.0	8.4	3.9	2.6	.98	.45	.37
AC-FT	41	136	117	518	228	2250	1840	322	198	98	42	77

CAL YR 1981 TOTAL 1190.22 MEAN 3.26 MAX 119 MIN .03 AC-FT 2360  
WTR YR 1982 TOTAL 2957.01 MEAN 8.10 MAX 292 MIN .37 AC-FT 5870

## 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, 2.8 mi (4.5 km) upstream from axis of Whittier Narrows Dam, 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. Los Angeles County Flood Control District diverted 13,000 acre-ft (16.0 hm<sup>3</sup>) 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.--26 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.--Maximum discharge, 7,460 ft<sup>3</sup>/s (211 m<sup>3</sup>/s) Mar. 17 (0130 hrs), gage height, 4.85 ft (1.478 m); minimum daily, 0.25 ft<sup>3</sup>/s (0.007 m<sup>3</sup>/s) Jan. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	.88	.36	316	.47	12	851	.61	.88	11	.76	1.6
2	.84	.74	.46	50	.51	29	2.4	.96	.69	1.1	1.3	1.9
3	.73	.60	.59	.78	.31	.90	.91	1.7	.73	.71	1.6	2.0
4	.56	1.2	.96	11	.49	.62	.79	21	.56	.52	1.3	1.1
5	.77	.79	.43	274	.46	.42	8.7	3.2	.79	.44	1.9	.94
6	.92	.96	.41	.81	.39	.38	2.1	3.4	1.2	.61	1.6	.76
7	.53	1.1	.69	.33	.43	.28	1.1	1.6	1.9	.61	.96	1.6
8	.54	.96	.79	.25	.88	.60	.78	2.2	.91	.61	.89	16
9	.60	.97	.65	.30	.48	.58	.93	1.1	.87	.61	1.5	4.6
10	.70	.99	.92	.36	399	1.5	3.6	.97	1.7	1.3	1.4	3.0
11	.77	.77	1.4	.94	5.5	177	320	149	1.5	1.3	2.1	1.6
12	2.4	.74	.55	.39	.53	12	2.2	1.9	.64	2.0	1.8	1.0
13	.80	2.2	.54	.48	.36	.78	.74	.84	.59	1.4	1.8	3.6
14	2.4	.69	1.0	.47	.44	594	.68	1.0	.88	2.5	.84	2.5
15	6.0	.70	.49	.46	.46	4.0	.81	.50	9.7	1.2	.83	2.6
16	4.8	.91	2.3	.52	8.0	544	1.2	.54	63	2.1	1.4	14
17	4.5	.98	1.8	.48	.52	1450	.96	.59	98	.71	1.3	70
18	4.5	1.2	.70	1.2	.50	78	.72	1.4	89	.64	1.3	291
19	3.7	1.4	7.6	.87	.41	1.2	1.9	1.8	147	1.6	1.6	150
20	.98	1.5	41	725	.47	.43	1.8	1.5	160	1.3	1.9	132
21	.71	.89	111	110	.47	.40	.75	2.1	159	1.2	1.2	121
22	.65	.75	85	.47	.74	.70	.89	1.4	181	1.4	.82	124
23	.72	1.2	47	.41	.47	.98	.72	1.3	184	1.8	1.7	137
24	.66	.97	24	.50	.71	.53	.99	1.6	188	.84	1.7	150
25	2.0	.76	20	.55	.52	14	.76	2.5	149	.67	2.5	290
26	.84	217	12	.80	.42	16	2.0	1.3	100	1.1	2.8	748
27	1.4	545	7.8	.63	.40	1.0	1.2	1.5	61	.91	1.5	281
28	6.8	758	5.2	139	.45	35	1.6	1.4	37	1.3	.76	349
29	1.1	1.0	2.0	1.1	---	377	1.9	1.4	22	1.5	1.2	101
30	.40	.63	200	.34	---	5.4	1.7	1.5	18	3.2	1.3	271
31	.49	---	.86	.40	---	.49	---	.86	---	.80	1.6	---
TOTAL	68.81	1546.48	578.50	1638.84	424.79	3359.19	1215.83	212.67	1679.54	46.98	45.16	3273.80
MEAN	2.22	51.5	18.7	52.9	15.2	108	40.5	6.86	56.0	1.52	1.46	109
MAX	16	758	200	725	399	1450	851	149	188	11	2.8	748
MIN	.40	.60	.36	.25	.31	.28	.68	.50	.56	.44	.76	.76
AC-FT	136	3070	1150	3250	843	6660	2410	422	3330	93	90	6490

CAL YR 1981 TOTAL 6719.33 MEAN 18.4 MAX 976 MIN .31 AC-FT 13330  
WTR YR 1982 TOTAL 14090.59 MEAN 38.6 MAX 1450 MIN .25 AC-FT 27950

## 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, 10,700 ft<sup>3</sup>/s (303 m<sup>3</sup>/s) Mar. 17, gage height, 6.80 ft (2.073 m); no flow July 5-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	165	40	612	20	121	1860	76	1.7	61	51	69
2	29	137	22	273	14	111	360	19	1.5	.77	48	119
3	31	143	26	26	69	48	132	16	1.1	.28	44	146
4	30	105	102	25	81	71	16	53	.75	.09	45	152
5	35	87	122	562	106	50	20	37	.52	0	52	144
6	33	74	141	126	128	53	4.3	12	.50	0	27	132
7	31	68	141	39	128	56	3.4	9.9	4.3	0	20	117
8	33	45	135	35	128	52	2.8	8.0	35	0	18	116
9	37	34	122	88	131	116	31	7.2	11	49	6.7	110
10	38	35	122	128	421	115	47	5.9	14	157	2.5	110
11	75	31	122	139	413	164	444	124	3.1	150	14	108
12	50	22	102	151	17	97	234	39	.95	170	9.8	104
13	49	26	75	166	13	16	64	29	.38	162	2.8	100
14	95	22	37	170	12	817	54	31	6.4	58	2.5	97
15	170	22	41	173	10	597	57	30	14	14	1.6	87
16	135	19	44	173	40	568	59	31	58	23	2.1	60
17	128	12	46	170	49	5100	61	33	118	27	2.1	42
18	131	8.9	46	165	119	950	73	38	58	25	2.8	133
19	133	5.4	53	34	132	224	90	37	97	59	2.2	116
20	123	5.6	179	1010	159	165	87	43	79	68	1.4	108
21	115	6.5	282	596	160	151	49	42	26	79	1.1	103
22	115	10	272	257	157	235	70	45	13	73	1.1	99
23	109	9.0	228	175	154	278	234	43	23	72	1.1	97
24	102	7.3	174	147	148	48	209	38	42	61	11	96
25	88	15	160	97	134	55	193	43	71	67	30	170
26	109	141	151	36	120	93	167	29	118	54	32	239
27	128	472	145	27	118	47	125	20	108	61	36	235
28	90	2810	147	211	121	73	87	16	103	90	35	200
29	51	383	94	54	---	245	106	3.7	39	96	35	115
30	97	35	425	22	---	188	36	2.8	70	46	40	100
31	168	---	39	18	---	44	---	2.8	---	46	57	---
TOTAL	2670	4955.7	3835	5905	3302	10948	4975.5	964.3	1118.20	1769.14	634.8	3624
MEAN	86.1	165	124	190	118	353	166	31.1	37.3	57.1	20.5	121
MAX	170	2810	425	1010	421	5100	1860	124	118	170	57	239
MIN	29	5.4	22	18	10	16	2.8	2.8	.38	0	1.1	42
AC-FT	5300	9830	7610	11710	6550	21720	9870	1910	2220	3510	1260	7190
CAL YR 1981 TOTAL	47924.11			MEAN 131	MAX 2810	MIN .01	AC-FT 95060					
WTR YR 1982 TOTAL	44701.64			MEAN 122	MAX 5100	MIN 0	AC-FT 88670					



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 furnished by Los Angeles County Flood Control District.

AVERAGE DISCHARGE.--53 years (water years 1930-82), 199 ft<sup>3</sup>/s (5.635 m<sup>3</sup>/s), 144,180 acre-ft/yr (178 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 129,000 ft<sup>3</sup>/s (3,650 m<sup>3</sup>/s) Feb. 16, 1980, gage height, 17.99 ft (5.483 m); no flow at times in 1929-30, 1934.

EXTREMES FOR WATER YEAR 1980.--Maximum discharge, 129,000 ft<sup>3</sup>/s (3,650 m<sup>3</sup>/s) Feb. 16, gage height, 17.99 ft (5.483 m); minimum daily, 39 ft<sup>3</sup>/s (1.104 m<sup>3</sup>/s) July 6.

WATER YEAR 1981: Maximum discharge, 24,200 ft<sup>3</sup>/s (685 m<sup>3</sup>/s) Mar. 1, gage height, 7.19 ft (2.192 m); minimum daily, 27 ft<sup>3</sup>/s (0.764 m<sup>3</sup>/s) Nov. 16.

WATER YEAR 1982: Maximum discharge, 26,800 ft<sup>3</sup>/s (759 m<sup>3</sup>/s) Apr. 1, gage height, 7.19 ft (2.192 m); minimum daily 32 ft<sup>3</sup>/s (0.906 m<sup>3</sup>/s) Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	749	60	64	1490	78	92	6510	139	64	68	38	44
2	170	60	51	469	75	467	1160	144	60	64	37	42
3	77	55	54	96	78	132	800	135	53	55	35	42
4	85	65	48	60	76	60	638	203	51	46	34	42
5	69	67	60	1330	75	57	603	255	53	46	35	40
6	68	64	54	222	68	51	430	124	51	62	42	40
7	68	64	50	112	78	57	108	116	50	85	37	40
8	64	60	54	80	100	70	108	116	89	94	34	99
9	70	60	54	62	93	65	102	116	96	98	50	210
10	66	60	55	61	1250	67	262	110	93	89	51	64
11	66	61	60	61	781	741	3340	118	87	89	42	53
12	60	62	57	58	98	1210	689	266	73	91	50	51
13	57	55	50	45	92	101	126	128	78	91	39	50
14	48	53	48	45	70	3080	98	120	82	85	46	42
15	44	49	53	49	58	690	96	120	83	73	39	58
16	44	46	48	62	96	2050	98	114	68	68	42	73
17	38	41	48	83	71	11400	104	112	71	54	51	60
18	43	41	49	83	58	2140	104	94	93	48	55	499
19	42	50	46	83	50	1470	110	73	85	48	46	88
20	45	40	197	5070	58	552	385	71	75	45	42	42
21	50	45	76	1260	57	266	222	70	75	55	74	42
22	53	140	50	195	67	139	157	49	80	68	49	36
23	55	54	40	89	65	139	151	44	82	54	54	32
24	54	48	48	80	70	138	151	46	87	57	41	42
25	49	39	37	75	58	131	146	57	83	55	40	57
26	45	153	42	75	54	620	146	51	80	53	39	1030
27	48	2260	36	82	64	145	146	54	78	40	48	154
28	50	6270	40	151	62	93	135	57	76	39	42	50
29	209	197	50	268	---	1040	142	55	82	51	41	40
30	83	80	1260	78	---	971	144	50	78	41	39	42
31	70	---	125	73	---	135	---	49	---	34	41	---
TOTAL	2739	10399	3004	12047	3890	28369	17411	3256	2256	1926	1353	3204
MEAN	88.4	347	96.9	389	139	915	580	105	75.2	62.1	43.6	107
MAX	749	6270	1260	5070	1250	11400	6510	266	96	98	74	1030
MIN	38	39	36	45	50	51	96	44	50	34	34	32
AC-FT	5430	20630	5960	23900	7720	56270	34530	6460	4470	3820	2680	6360
CAL YR 1981	TOTAL	70984	MEAN 194	MAX	6550	MIN 31	AC-FT	140800				
WTR YR 1982	TOTAL	89854	MEAN 246	MAX	11400	MIN 32	AC-FT	178200				

## LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980  
 MEAN VALUES  
 (NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	65	58	53	1050	1420	288	137	71	46	58	73
2	64	73	58	49	800	9380	244	128	71	46	65	85
3	78	75	60	46	586	6770	266	120	70	45	58	89
4	76	75	54	40	380	2070	266	108	65	46	65	91
5	82	75	55	42	310	3550	233	98	60	40	68	85
6	76	65	57	51	142	5410	184	96	64	39	82	71
7	71	186	55	129	110	1930	162	89	64	51	71	60
8	75	1170	62	144	91	1690	139	83	61	58	76	64
9	71	114	62	8390	98	1380	126	76	64	58	73	70
10	71	62	61	1380	98	1330	110	279	65	45	65	70
11	67	60	60	5700	94	1050	89	211	65	61	65	70
12	71	60	54	1540	98	971	71	96	60	46	68	67
13	70	60	50	635	4300	914	75	76	60	48	68	58
14	70	60	53	1110	16500	436	82	68	60	49	68	53
15	71	61	53	535	17300	450	102	65	53	51	71	46
16	71	54	53	277	33400	436	91	65	42	51	62	58
17	71	70	53	310	24900	436	87	67	48	50	61	57
18	75	91	53	408	25300	1540	87	324	48	48	60	58
19	80	67	50	173	18200	861	82	244	46	46	57	58
20	1450	61	53	128	12000	408	76	104	40	40	60	58
21	288	50	103	108	8720	586	76	87	41	42	62	58
22	110	49	96	104	5250	484	345	93	45	54	62	58
23	71	48	49	94	5850	380	320	94	51	55	67	57
24	58	53	672	87	5610	394	131	89	45	58	62	62
25	246	53	906	76	4210	722	89	82	54	48	62	61
26	467	60	99	73	3040	1980	87	76	60	53	67	60
27	151	62	49	76	4470	394	80	78	58	51	71	58
28	80	41	49	2130	1690	352	191	75	60	55	73	54
29	61	40	54	19100	1120	338	467	73	57	68	87	57
30	54	53	54	1470	---	299	184	73	46	71	91	64
31	57	---	50	1240	---	299	---	73	---	57	76	---
TOTAL	4460	3113	3295	45698	195717	48660	4830	3427	1694	1576	2101	1930
MEAN	144	104	106	1474	6749	1570	161	111	56.5	50.8	67.8	64.3
MAX	1450	1170	906	19100	33400	9380	467	324	71	71	91	91
MIN	54	40	49	40	91	299	71	65	40	39	57	46
AC-FT	8850	6170	6540	90640	388200	96520	9580	6800	3360	3130	4170	3830
CAL YR 1979	TOTAL	113192	MEAN	310	MAX	13000	MIN	40	AC-FT	224500		
WTR YR 1980	TOTAL	316501	MEAN	865	MAX	33400	MIN	39	AC-FT	627800		

## 11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981  
 MEAN VALUES  
 (NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	61	48	54	114	6550	75	73	85	68	50	62
2	51	54	45	61	78	4310	266	70	85	68	44	53
3	53	61	55	60	85	535	184	51	85	68	41	46
4	60	57	2840	57	139	314	65	49	85	68	44	55
5	54	50	294	58	131	4540	60	163	87	65	46	60
6	50	55	75	57	88	728	60	65	85	65	50	51
7	61	49	60	51	57	255	57	82	85	65	54	53
8	57	49	132	53	48	108	58	91	85	62	50	64
9	55	48	64	55	2300	82	60	85	87	37	49	68
10	55	46	53	57	462	76	60	80	89	49	49	67
11	54	45	54	150	94	65	62	80	87	64	51	62
12	48	48	49	139	62	135	57	78	87	81	57	55
13	46	42	50	62	53	122	57	78	87	64	53	49
14	54	34	53	48	49	57	58	76	89	61	51	44
15	65	30	50	37	46	60	58	82	89	42	50	46
16	54	27	50	49	39	73	60	91	89	42	50	51
17	45	32	51	54	41	78	60	80	87	41	50	50
18	51	36	58	57	41	80	302	85	87	41	50	46
19	51	35	53	61	46	2990	366	91	85	38	51	44
20	54	28	54	61	48	947	131	83	85	36	54	45
21	60	39	54	61	46	138	70	91	83	38	55	38
22	55	54	53	65	48	70	53	89	78	38	57	48
23	64	50	57	867	51	54	57	85	73	32	57	42
24	67	53	58	144	55	75	58	83	73	35	57	31
25	64	48	54	70	409	61	55	83	73	37	57	36
26	62	49	51	65	1200	218	54	89	71	40	58	60
27	60	44	58	55	178	140	55	94	71	40	58	61
28	62	63	58	3740	612	60	58	100	70	45	60	51
29	58	42	58	3950	---	67	55	94	68	46	61	45
30	55	44	58	1870	---	68	71	104	68	50	62	57
31	57	---	57	366	---	71	---	83	---	50	61	---
TOTAL	1736	1373	4804	12534	6620	23127	2742	2628	2458	1586	1637	1540
MEAN	56.0	45.8	155	404	236	746	91.4	84.8	81.9	50.2	52.8	51.3
MAX	67	63	2840	3950	2300	6550	366	163	89	68	62	68
MIN	45	27	45	37	39	54	53	49	68	32	41	31
AC-FT	3440	2720	9530	24860	13130	45870	5440	5210	4880	3090	3250	3050
CAL YR 1980 TOTAL	313546		MEAN 857	MAX 33400	MIN 27	AC-FT 621900						
WTR YR 1981 TOTAL	62755		MEAN 172	MAX 6550	MIN 27	AC-FT 124500						

## 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 1973-81.

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 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, 1,880 micromhos July 6; minimum recorded, 112 micromhos Jan. 1.

WATER TEMPERATURES: Maximum recorded, 37.0°C Aug. 21; minimum recorded, 2.5°C Jan. 8.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD 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 CAC03)
NOV 24...	1200	40	960	8.5	17.0	3.1	12.2	2300	720	368	168
JAN 19...	1200	69	890	9.5	17.5	7.5	>20.0	K170	K1900	301	121
MAR 03...	1300	90	480	8.9	24.0	3.5	12.2	2200	670	171	71
MAY 25...	1300	32	1050	9.6	30.5	2.6	19.5	77	80	352	132
JUL 14...	1230	42	1120	9.0	32.5	26	>20.0	420	--	345	115
SEP 14...	1200	53	1120	8.7	21.0	3.5	17.2	55000	360	324	154

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- LINEITY FIELD (MG/L AS CAC03)	ALKA- LINEITY 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 24...	93	33	100	37	2.3	8.3	--	200	200	120	.5
JAN 19...	76	27	92	39	2.4	7.8	--	180	180	100	.6
MAR 03...	47	13	45	35	1.6	5.9	--	100	95	43	.4
MAY 25...	88	32	110	40	2.6	7.9	220	--	210	130	.6
JUL 14...	87	31	120	42	2.9	9.6	230	--	220	130	.6
SEP 14...	82	29	110	42	2.7	8.9	170	--	210	120	.5

DATE	SILICA, DIS- SOLVED (MG/L SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+N03 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (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)
NOV 24...	24	722	699 <sup>1</sup>	.98	4.1	.29	1.7	1.3	1.4	.81
JAN 19...	16	623	608 <sup>1</sup>	.85	4.2	.09	1.6	--	1.3	.91
MAR 03...	12	346	322 <sup>1</sup>	.47	2.8	.39	2.0	.78	.77	.71
MAY 25...	13	698	718	.95	.64	<.06	2.2	.53	.26	.19
JUL 14...	24	765	745	1.0	3.0	--	2.4	2.9	--	1.2
SEP 14...	23	775	697	1.1	4.5	.29	2.9	1.9	1.6	1.4

<sup>1</sup> Results based on Laboratory Alkalinity value.

> Actual value is known to be greater than the value shown.

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

< Actual value is known to be less than the value shown.

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
NOV 24...	1200	5	5	<100	<100	10	12	20	20	<1
JAN 19...	1200	4	4	100	<100	1	1	10	<10	1
MAR 03...	1300	4	5	<100	<100	1	1	10	10	<1
JUL 14...	1230	6	6	<100	69	2	<1	30	<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)	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...	2	14	10	310	40	23	69	30	<10	<.1
JAN 19...	1	8	7	330	30	6	<1	30	<10	.1
MAR 03...	1	19	14	400	60	16	<1	40	20	.2
JUL 14...	<1	34	6	4300	12	26	5	240	34	.1

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)
NOV 24...	<.1	21	18	1	1	1	<1	50	30
JAN 19...	<.1	18	9	2	2	<1	1	30	10
MAR 03...	.1	15	13	1	1	<1	<1	60	30
JUL 14...	<.1	25	16	1	2	<1	<1	120	12

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

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1230	770	908	1170	1030	1100	---	---	---	742	112	323
2	890	770	832	1280	1010	1080	---	---	---	404	194	269
3	1080	870	973	1160	1000	1070	---	---	---	566	376	453
4	1130	1070	1100	1060	940	994	1240	1020	1090	648	498	584
5	1190	1050	1120	1020	930	978	1090	1030	1060	610	150	255
6	1190	940	1060	1030	960	993	1060	981	1030	470	240	375
7	1150	980	1050	1010	930	974	1080	949	1020	580	510	546
8	1140	1020	1080	1140	1020	1090	1050	896	978	690	620	659
9	1170	1020	1110	1350	1060	1240	993	873	931	830	720	786
10	1190	1070	1130	1330	1010	1160	960	820	900	850	830	838
11	1140	1030	1070	1190	999	1080	1000	804	907	890	830	865
12	1140	1070	1100	1150	988	1060	1030	859	944	---	---	---
13	1120	1000	1060	1160	1010	1090	1070	873	967	---	---	---
14	1140	993	1060	1170	996	1070	1190	907	1010	---	---	---
15	1060	992	1030	1310	1020	1110	1090	891	979	---	---	---
16	---	---	---	1470	1050	1210	1130	956	1030	---	---	---
17	---	---	---	1320	750	1120	1150	940	1020	---	---	---
18	---	---	---	1220	1020	1110	1170	962	1030	---	---	---
19	1160	950	1060	1090	930	1020	1140	1010	1060	---	---	---
20	1260	960	1060	1260	950	1090	1080	697	777	---	---	---
21	1260	1020	1170	1050	960	1000	940	760	840	---	---	---
22	1250	1110	1180	1150	680	776	1080	912	1000	---	---	---
23	1280	1120	1200	920	830	880	1120	1010	1070	---	---	---
24	1230	1140	1190	1050	890	933	1130	1060	1100	---	---	---
25	1280	1030	1140	1060	940	986	1160	1070	1120	---	---	---
26	1140	1040	1090	---	---	---	1130	1040	1090	---	---	---
27	1210	1040	1100	---	---	---	1280	1000	1110	---	---	---
28	1100	780	1020	---	---	---	1110	965	1020	---	---	---
29	990	810	866	---	---	---	1080	920	988	---	---	---
30	1090	850	958	---	---	---	975	385	518	874	664	768
31	1130	1040	1100	---	---	---	720	420	536	951	871	915
MONTH	1280	770	1060	1470	680	1050	1280	385	969	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	999	889	947	1110	522	948	---	---	---	918	898	903
2	1100	876	1010	763	373	523	---	---	---	1110	890	989
3	1120	953	1020	475	415	434	---	---	---	1060	967	1010
4	1130	980	1040	930	610	812	---	---	---	1020	894	962
5	1190	1040	1100	1020	860	921	---	---	---	951	771	849
6	1160	967	1060	1000	870	933	---	---	---	1070	948	1000
7	1180	950	1050	1030	880	958	---	---	---	1020	935	978
8	1150	953	1040	1040	930	987	---	---	---	972	892	927
9	1220	1010	1080	1040	930	985	---	---	---	908	838	874
10	---	---	---	1040	960	1000	---	---	---	1170	865	919
11	---	---	---	---	---	---	---	---	---	932	852	895
12	---	---	---	---	---	---	---	---	---	969	819	899
13	---	---	---	---	---	---	---	---	---	896	806	843
14	---	---	---	---	---	---	---	---	---	973	883	907
15	---	---	---	---	---	---	---	---	---	970	900	928
16	---	---	---	---	---	---	---	---	---	963	903	927
17	---	---	---	---	---	---	---	---	---	1030	936	970
18	---	---	---	---	---	---	---	---	---	959	929	948
19	---	---	---	---	---	---	---	---	---	1030	931	980
20	---	---	---	---	---	---	---	---	---	1130	1010	1080
21	---	---	---	---	---	---	---	---	---	1130	1070	1100
22	1190	990	1080	---	---	---	782	742	761	1190	910	1020
23	1110	1010	1040	---	---	---	804	774	791	1230	1060	1140
24	1100	1010	1040	---	---	---	825	725	770	1140	1040	1100
25	1130	1010	1060	---	---	---	787	717	755	1050	990	1030
26	1140	1020	1080	---	---	---	799	739	773	1140	1030	1090
27	1140	1010	1070	---	---	---	841	771	814	1180	1070	1130
28	1130	990	1050	---	---	---	893	833	865	1150	990	1070
29	---	---	---	---	---	---	895	865	885	1060	970	1020
30	---	---	---	---	---	---	906	876	894	1160	1060	1100
31	---	---	---	---	---	---	---	---	---	1130	1070	1100
MONTH	---	---	---	---	---	---	---	---	---	1230	771	990

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

## SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1190	1080	1130	1200	1050	1110	1160	940	1050	1260	1040	1120
2	1250	1110	1190	1220	1050	1150	1110	1040	1080	1160	1030	1090
3	1250	1160	1200	1190	1080	1120	1120	880	1070	1170	1100	1130
4	1320	1170	1240	1190	1120	1150	1130	1010	1070	1200	1140	1180
5	1300	1200	1240	1200	1110	1160	1100	1020	1060	1240	1150	1190
6	1280	1200	1230	1880	1150	1340	1070	860	973	1190	1110	1150
7	1270	1200	1230	1270	1160	1210	1090	890	988	1150	1020	1090
8	1310	1060	1230	1450	1160	1270	1190	980	1060	1200	790	1050
9	1110	990	1060	1290	1120	1190	1220	950	1060	880	540	641
10	1110	1000	1070	1180	1110	1150	1090	960	1030	990	710	903
11	1180	1040	1100	1170	1080	1130	1150	980	1060	1120	970	1030
12	1320	1170	1240	1240	1050	1120	1390	990	1100	1120	960	1020
13	1330	1220	1270	1170	1080	1140	1210	990	1090	1100	880	988
14	1390	1200	1300	1190	1090	1150	1380	910	1050	1060	900	974
15	1340	1180	1260	1270	1030	1170	1060	870	978	1010	880	952
16	1350	1250	1300	1150	1060	1100	1120	940	1020	1060	820	879
17	1330	1230	1280	1160	1060	1110	1240	950	1070	930	740	851
18	1360	1160	1260	1150	1070	1130	1310	930	1150	700	150	240
19	1260	1160	1210	1220	1100	1170	1150	990	1060	380	280	339
20	1330	1200	1280	1270	1160	1210	1290	940	1060	420	390	404
21	1330	1220	1270	1250	1160	1210	1450	740	983	990	410	744
22	1350	1170	1240	1290	1180	1230	810	760	779	1050	870	961
23	1290	1170	1240	1340	1230	1280	810	750	776	1120	880	967
24	1250	1130	1190	1370	1150	1270	1100	750	901	1010	880	933
25	1180	1070	1120	1220	1050	1140	1150	1020	1080	1000	700	878
26	1210	1060	1160	1210	1010	1090	1140	1060	1110	650	90	215
27	1210	1100	1160	1180	990	1070	1150	1020	1080	230	100	150
28	1160	1080	1120	1200	1010	1100	1210	1030	1100	300	250	273
29	1190	1090	1140	1170	1010	1110	1200	970	1070	350	300	328
30	1150	1070	1110	1270	960	1070	1160	1010	1070	380	300	335
31	---	---	---	1180	1020	1080	1170	990	1050	---	---	---
MONTH	1390	990	1200	1880	960	1160	1450	740	1030	1260	90	800

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	23.0	19.5	22.5	13.0	21.0	8.5	15.0	10.5	22.5	7.5	18.0	14.5
2	27.5	18.5	23.0	14.0	23.0	8.5	15.0	8.0	22.5	8.0	19.5	14.0
3	24.0	18.0	26.0	14.0	23.5	10.0	16.0	4.5	21.5	7.5	24.0	11.0
4	26.5	17.0	23.5	14.5	21.5	11.0	15.0	6.0	19.0	10.0	24.5	10.0
5	27.5	17.0	25.0	15.0	22.0	12.5	11.0	9.5	19.5	8.5	23.5	10.5
6	30.0	16.5	23.0	16.0	21.0	12.5	17.0	9.0	19.0	8.0	24.5	8.0
7	30.0	17.5	24.0	13.5	21.5	12.5	17.0	4.5	16.5	9.0	24.5	9.5
8	27.5	19.0	23.5	14.5	24.0	13.0	16.5	2.5	19.5	11.0	25.5	14.5
9	28.0	17.5	23.0	14.5	21.5	11.5	19.0	4.5	18.5	11.0	27.0	12.0
10	26.0	18.5	22.0	15.0	19.0	12.0	16.0	8.5	14.5	11.5	25.5	15.0
11	24.5	16.5	22.0	14.5	20.5	12.0	22.5	11.5	20.5	11.5	21.0	15.5
12	23.0	14.5	21.5	15.0	20.0	11.5	20.5	10.5	22.0	12.0	23.5	14.5
13	23.5	13.0	20.0	16.5	19.0	11.5	21.0	8.0	21.0	10.0	24.5	14.5
14	22.5	13.5	20.0	15.0	21.5	10.0	21.0	7.5	20.5	13.5	17.0	13.0
15	22.0	13.5	22.0	16.5	21.0	9.5	---	---	21.0	14.0	21.5	12.0
16	21.5	13.5	22.5	18.0	21.5	11.5	---	---	19.5	15.5	15.0	11.0
17	23.0	14.0	20.5	15.0	23.0	13.5	---	---	26.5	14.0	24.0	11.0
18	24.0	13.5	21.0	14.0	19.5	13.0	---	---	26.5	12.5	18.0	11.0
19	25.0	16.0	19.5	13.0	22.5	11.5	19.0	11.0	26.0	10.5	16.5	9.0
20	24.5	17.0	18.5	12.0	21.5	13.0	12.5	7.5	26.0	11.5	23.0	9.0
21	25.5	18.0	18.0	12.0	20.0	10.0	13.5	8.5	26.0	12.0	25.0	9.0
22	24.5	17.0	21.5	14.0	20.0	8.0	15.0	5.5	23.5	14.5	27.0	9.5
23	24.5	17.0	21.5	13.5	19.0	5.5	19.5	5.5	21.0	14.5	27.5	11.0
24	23.5	17.0	20.0	15.0	20.0	6.0	22.5	7.5	18.5	13.0	25.5	10.5
25	23.0	17.5	18.0	12.5	19.0	6.5	22.0	8.5	25.5	12.5	17.5	12.5
26	20.0	17.5	17.0	11.0	19.0	7.5	18.5	9.0	24.5	11.0	18.0	13.5
27	20.0	16.5	15.5	12.0	21.5	10.0	18.5	12.0	27.0	10.5	26.0	14.0
28	21.5	15.5	12.0	10.5	20.0	10.0	16.5	10.5	24.5	11.5	22.0	11.0
29	24.0	12.0	19.0	9.0	18.5	8.5	19.0	8.0	---	---	21.0	11.0
30	22.5	10.5	20.0	8.5	14.5	13.0	22.0	7.0	---	---	23.0	11.5
31	21.0	12.0	---	---	15.5	12.5	22.0	7.5	---	---	22.5	11.5
MONTH	30.0	10.5	26.0	8.5	24.0	5.5	22.5	2.5	27.0	7.5	27.5	8.0

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	12.0	29.5	17.0	30.5	14.0	32.0	16.5	30.0	22.0	31.5	21.0
2	20.0	9.5	28.5	17.5	28.0	16.5	34.0	18.0	31.0	22.0	32.0	22.0
3	22.5	11.0	29.0	18.0	32.0	15.0	34.0	19.0	32.5	22.0	33.0	22.5
4	24.5	12.5	20.5	17.5	32.0	15.5	34.5	19.0	32.5	21.0	31.5	22.0
5	21.5	12.5	27.5	17.0	29.5	15.5	33.0	18.0	32.0	21.0	32.5	22.0
6	22.5	11.0	31.5	17.0	33.5	15.5	34.0	17.5	32.5	22.5	31.5	22.0
7	25.5	8.5	25.0	17.5	32.0	17.0	35.0	19.0	33.5	22.5	30.5	21.0
8	25.0	10.5	25.0	16.5	31.0	16.0	34.0	19.0	33.0	20.0	24.5	22.0
9	28.0	12.5	19.0	14.0	32.0	15.5	33.5	18.5	33.0	21.5	33.0	22.5
10	23.5	14.5	22.5	13.5	31.0	17.0	34.5	18.5	32.0	21.0	27.0	22.0
11	21.0	15.5	27.5	14.0	29.5	16.0	34.5	19.5	31.0	22.0	28.5	20.5
12	25.5	14.5	28.0	14.5	23.0	16.5	34.5	20.5	29.0	21.5	27.0	21.5
13	26.5	13.0	29.0	15.0	31.0	16.0	35.5	21.5	29.5	21.5	27.0	20.0
14	27.5	12.5	29.0	16.5	29.0	17.5	35.5	21.0	29.0	20.5	25.5	20.0
15	27.0	12.5	31.5	15.5	28.5	17.5	32.5	21.0	30.5	19.5	24.5	19.5
16	28.0	13.5	34.0	16.5	22.5	18.5	32.0	20.5	31.0	20.0	24.5	19.0
17	28.0	12.5	32.5	18.0	26.5	17.5	32.0	21.0	31.5	20.5	25.0	17.5
18	32.5	13.0	29.0	18.0	26.5	17.5	32.0	21.5	31.5	20.0	31.0	20.5
19	31.5	14.5	31.0	16.5	27.5	17.5	32.5	20.5	31.5	21.0	33.0	19.0
20	31.0	16.5	30.5	18.0	25.5	18.0	33.5	20.5	31.5	21.5	29.0	19.0
21	29.5	12.5	21.5	18.0	24.5	18.0	34.0	21.0	37.0	22.5	29.0	19.5
22	29.0	12.5	28.0	17.5	26.5	17.5	33.0	22.0	31.5	22.0	29.5	19.5
23	29.5	14.5	31.5	17.5	23.5	17.5	33.5	22.5	30.0	22.0	28.5	20.0
24	30.0	16.5	26.5	18.5	26.0	17.5	34.0	22.0	27.5	22.5	28.5	22.5
25	29.5	15.0	31.5	18.0	31.5	18.0	33.5	21.5	30.5	21.5	27.0	23.0
26	28.0	15.0	22.0	17.5	33.5	17.0	33.5	21.5	31.5	22.5	23.5	21.0
27	30.0	15.5	23.5	17.0	33.5	19.5	33.5	21.5	30.5	22.5	29.0	18.5
28	27.0	17.0	29.5	16.5	31.0	19.0	33.5	21.5	29.5	22.0	28.5	16.0
29	28.5	17.0	24.5	16.0	29.0	18.5	33.0	22.0	31.0	22.0	27.0	16.5
30	27.0	17.5	31.0	15.5	28.0	17.0	33.0	22.5	32.0	21.0	28.0	14.5
31	---	---	29.0	15.0	---	---	32.5	22.5	31.0	21.5	---	---
MONTH	32.5	8.5	34.0	13.5	33.5	14.0	35.5	16.5	37.0	19.5	33.0	14.5

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM
JAN						
19...	1200	17.5	69	12	72	--
MAR						
03...	1300	24.0	90	11	67	--
MAY						
25...	1300	30.5	32	19	49	--
JUL						
14...	1230	32.5	42	181	99	100
SEP						
14...	1200	21.0	53	9	48	--



11105850 ARROYO SIMI NEAR SIMI, CA

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.

DRAINAGE AREA.--70.6 mi<sup>2</sup> (182.9 km<sup>2</sup>).

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.

GAGE.--Water-stage recorder with concrete control since Nov. 16, 1976. Datum of gage is 699.06 ft (213.073 m) National Geodetic Vertical Datum of 1929 (levels by Ventura County Flood Control District). Prior to Nov. 16, 1976, at same site but at datum 1.53 ft (0.466 m) higher and Nov. 16, 1976, to Oct. 29, 1979, at site 0.6 mi (1.0 km) upstream at different datum.

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.

COOPERATION.--Records were furnished by Ventura County Flood Control District and reviewed by Geological Survey.

AVERAGE DISCHARGE.--14 years (water years 1969-82) 9.84 ft<sup>3</sup>/s (0.279 m<sup>3</sup>/s), 7,130 acreft/yr (8.79 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.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft<sup>3</sup>/s (14.2 m<sup>3</sup>/s) and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Mar. 14	1300	687	19.5	4.00	1.219
Mar. 17	0030	*1,060	30.0	4.22	1.286
Apr. 11	1400	642	18.2	3.70	1.128

Minimum daily, 1.3 ft<sup>3</sup>/s (0.037 m<sup>3</sup>/s) Nov. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	2.5	3.0	54	4.5	13	105	4.5	3.5	3.3	2.7	2.8
2	3.0	2.5	2.7	10	4.5	11	4.5	4.2	3.5	3.3	2.7	2.5
3	3.0	3.3	2.5	4.2	4.5	6.0	4.2	3.9	3.5	3.3	2.7	2.8
4	3.0	3.3	2.2	4.2	4.5	6.4	3.9	3.9	3.5	3.3	2.7	2.8
5	3.0	3.5	3.5	49	4.2	4.5	3.5	3.9	3.3	3.6	3.0	2.8
6	3.0	3.5	4.2	6.8	3.9	4.5	3.5	4.5	2.5	3.5	3.3	2.8
7	3.0	2.0	4.2	6.0	4.2	3.9	3.3	3.9	2.2	3.5	3.0	2.8
8	3.0	1.3	3.9	5.2	3.9	3.0	3.3	3.9	3.3	3.5	2.7	3.3
9	3.3	1.8	3.9	4.5	3.9	5.2	3.3	3.9	3.3	3.9	2.7	9.2
10	3.3	3.5	3.5	4.5	27	5.2	5.0	3.5	3.3	3.3	3.0	3.0
11	3.3	3.5	3.5	4.2	6.5	50	109	3.5	3.3	3.3	3.0	3.0
12	3.3	3.5	3.3	4.2	4.9	7.0	4.2	3.9	3.3	3.3	3.0	3.0
13	3.3	3.5	3.5	4.2	4.9	3.3	2.5	4.2	3.3	2.2	3.0	3.0
14	3.3	4.2	3.5	4.2	4.9	94	2.5	3.9	3.3	2.0	2.7	3.0
15	3.3	3.5	3.5	4.9	5.2	3.8	2.7	3.9	3.0	3.5	2.7	3.0
16	3.0	3.3	3.5	4.2	4.2	63	3.0	4.2	3.0	3.3	2.2	3.6
17	3.0	2.7	3.5	4.2	4.9	241	3.0	3.9	3.5	3.3	1.6	3.3
18	3.5	3.3	3.5	5.2	4.5	32	3.0	3.9	3.3	3.3	2.5	3.3
19	3.3	3.3	3.5	13	4.2	7.3	3.0	4.2	3.0	3.3	3.0	3.0
20	3.5	3.3	3.5	126	4.2	4.2	2.7	4.2	3.0	3.3	3.0	2.1
21	3.9	3.3	3.5	43	4.5	3.9	2.7	4.2	3.0	3.0	3.3	2.5
22	4.2	3.3	3.5	6.8	4.5	3.9	2.7	4.2	3.0	2.2	3.0	2.3
23	3.9	3.3	3.5	4.9	4.5	3.9	2.7	4.2	3.0	1.8	2.7	2.3
24	3.9	3.3	3.5	4.2	4.5	3.5	2.7	3.5	3.0	1.8	2.7	2.5
25	3.9	3.3	3.5	4.2	4.5	5.9	2.7	3.5	3.0	2.2	2.7	3.4
26	3.9	16	3.5	4.2	4.5	14	3.3	3.9	3.0	2.7	2.2	24
27	3.9	82	3.5	4.2	4.9	5.6	3.5	3.9	3.0	2.7	1.6	2.9
28	12	115	3.5	6.5	4.9	6.8	4.5	3.9	3.0	2.7	3.0	1.7
29	3.3	6.4	3.9	5.6	---	7.6	4.2	3.9	3.0	2.7	3.0	2.5
30	2.7	3.9	55	4.7	---	8.2	4.5	3.5	3.3	2.7	3.5	2.3
31	2.5	---	3.9	4.5	---	5.6	---	3.5	---	3.0	2.5	---
TOTAL	115.8	301.1	159.2	415.5	150.3	637.2	308.6	122.1	94.2	92.8	85.4	111.5
MEAN	3.74	10.0	5.14	13.4	5.37	20.6	10.3	3.94	3.14	2.99	2.75	3.72
MAX	12	115	55	126	27	241	109	4.5	3.5	3.9	3.5	24
MIN	2.5	1.3	2.2	4.2	3.9	3.0	2.5	3.5	2.2	1.8	1.6	1.7
AC-FT	230	597	316	824	298	1260	612	242	187	184	169	221
CAL YR 1981	TOTAL	2818.7	MEAN	7.72	MAX	357	MIN	.90	AC-FT	5590		
WTR YR 1982	TOTAL	2593.7	MEAN	7.11	MAX	241	MIN	1.3	AC-FT	5140		

## 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, 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.--10 years, 25.3 ft<sup>3</sup>/s (0.716 m<sup>3</sup>/s), 18,330 acre-ft/yr (22.6 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.--Maximum discharge, 1,240 ft<sup>3</sup>/s (35.1 m<sup>3</sup>/s) Apr. 11 (1500 hrs), gage height, 15.10 ft (4.602 m), no other peak above base of 1,200 ft<sup>3</sup>/s (34.0 m<sup>3</sup>/s); minimum daily, 9.8 ft<sup>3</sup>/s (0.28 m<sup>3</sup>/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	15	17	30	17	24	178	17	16	15	13	14
2	21	16	17	21	17	26	26	16	16	17	13	13
3	15	16	17	17	17	20	22	15	17	17	14	13
4	15	15	17	18	18	16	20	15	16	17	13	13
5	14	16	16	82	17	17	18	14	16	15	13	13
6	14	15	17	21	17	16	18	15	15	13	13	12
7	14	15	18	16	17	17	18	16	16	14	13	12
8	14	16	17	16	18	17	20	16	15	15	12	13
9	14	15	17	16	17	17	18	16	16	15	11	17
10	13	15	17	17	36	17	21	15	15	15	11	14
11	14	15	17	17	26	72	178	15	16	15	11	13
12	14	15	17	15	17	28	26	15	16	15	9.8	15
13	14	15	17	12	15	20	22	16	17	15	10	16
14	14	17	17	14	15	132	18	16	18	15	11	14
15	13	17	17	16	16	26	16	16	16	14	11	13
16	14	17	17	16	20	113	16	16	16	15	11	15
17	14	15	17	16	16	237	16	15	16	15	11	15
18	14	15	17	17	16	36	16	16	17	14	11	15
19	14	15	17	19	15	22	16	16	17	14	11	16
20	14	15	17	279	14	17	16	16	18	15	12	16
21	14	15	17	86	14	16	16	17	18	15	12	15
22	14	16	17	22	15	16	16	16	17	16	13	12
23	14	16	17	18	16	16	16	17	16	16	12	15
24	15	16	17	17	15	15	16	16	18	15	10	15
25	15	16	16	18	14	15	17	17	18	15	11	15
26	16	31	15	18	14	34	16	17	17	14	11	20
27	16	172	16	17	15	17	16	19	16	13	12	15
28	30	175	16	21	15	16	17	19	15	13	13	15
29	23	22	16	17	---	20	16	17	15	14	14	13
30	17	18	74	16	---	24	16	16	16	14	14	19
31	15	---	15	16	---	14	---	16	---	14	15	---
TOTAL	493	807	576	941	479	1093	861	499	491	459	371.8	436
MEAN	15.9	26.9	18.6	30.4	17.1	35.3	28.7	16.1	16.4	14.8	12.0	14.5
MAX	31	175	74	279	36	237	178	19	18	17	15	20
MIN	13	15	15	12	14	14	16	14	15	13	9.8	12
AC-FT	978	1600	1140	1870	950	2170	1710	990	974	910	738	865
CAL YR 1981	TOTAL	7717.0	MEAN	21.1	MAX	373	MIN	11.0	AC-FT	15310		
WTR YR 1982	TOTAL	7506.8	MEAN	20.6	MAX	279	MIN	9.8	AC-FT	14890		

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.--14 years, 35.5 ft<sup>3</sup>/s (1.01 m<sup>3</sup>/s), 25,790 acre-ft/yr (31.8 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. 20	2400	*1,470 41.6	2.95 0.899	Mar. 17	0515	1340 37.9	2.87 0.875
Mar. 14	1800	1,150 32.6	2.74 0.835	Apr. 11	1900	1300 36.8	2.48 0.866

Minimum daily discharge, 7.5 ft<sup>3</sup>/s (0.212 m<sup>3</sup>/s) Aug. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	15	20	42	19	19	192	23	15	12	14	14
2	41	17	17	34	17	36	40	23	15	12	8.7	12
3	15	19	17	25	17	30	25	19	14	15	14	17
4	17	15	17	23	19	19	25	19	15	17	8.7	17
5	17	17	15	81	20	14	23	20	14	17	12	17
6	14	19	17	29	20	12	25	23	12	15	8.7	15
7	14	25	17	20	19	14	23	25	14	8.7	7.5	15
8	14	23	19	17	20	17	25	25	15	12	7.5	12
9	14	20	19	15	20	14	25	25	12	14	8.7	19
10	14	17	15	15	21	19	23	20	12	19	14	14
11	17	17	17	19	43	37	202	19	15	19	12	14
12	17	17	17	17	23	66	88	17	17	20	17	14
13	14	15	19	8.7	20	25	30	17	17	19	14	14
14	14	19	19	14	19	139	23	19	23	17	8.7	14
15	14	30	17	15	23	45	23	20	20	15	12	14
16	14	30	19	17	30	168	19	20	23	14	15	14
17	14	25	17	17	25	481	20	19	23	14	12	14
18	14	25	14	19	20	54	20	15	20	14	14	14
19	17	19	12	17	19	47	23	19	20	14	12	14
20	12	15	15	285	15	30	20	17	23	14	8.7	14
21	8.7	12	17	247	14	20	17	17	23	12	14	14
22	14	14	12	30	15	23	17	19	20	8.7	15	12
23	8.7	15	12	23	15	19	19	19	15	15	19	14
24	8.7	19	15	23	14	23	17	19	15	14	12	12
25	15	20	23	19	14	23	23	19	15	14	12	15
26	19	23	20	23	8.7	50	23	23	14	14	12	37
27	17	118	23	23	15	23	25	20	8.7	8.7	15	44
28	24	189	20	23	15	19	20	20	8.7	12	12	30
29	44	33	19	23	---	19	20	17	12	12	14	17
30	25	23	28	19	---	24	23	15	15	12	15	19
31	19	---	42	19	---	19	---	17	---	14	19	---
TOTAL	540.1	865	570	1201.7	539.7	1548	1098	609	485.4	438.1	388.2	506
MEAN	17.4	28.8	18.4	38.8	19.3	49.9	36.6	19.6	16.2	14.1	12.5	16.9
MAX	44	189	42	285	43	481	202	25	23	20	19	44
MIN	8.7	12	12	8.7	8.7	12	17	15	8.7	8.7	7.5	12
AC-FT	1070	1720	1130	2380	1050	3070	2180	1210	962	869	770	1000
CAL YR 1981	TOTAL	10925.1	MEAN	29.9	MAX	870	MIN	2.3	AC-FT	21670		
WTR YR 1982	TOTAL	8789.2	MEAN	24.1	MAX	481	MIN	7.5	AC-FT	17430		

## 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>/yr). Imported water from California Water Project stored and released at Castaic Dam.

AVERAGE DISCHARGE.-- 30 years, 44.7 ft<sup>3</sup>/s (1.266 m<sup>3</sup>/s), 32,390 acre-ft/yr (39.9 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)	Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)	Gage height (ft) (m)
Nov. 28	0445	877 24.8	5.93 1.807	Mar. 17	1400	*1,730 49.0	6.90 2.103
Mar. 14	1615	778 22.0	5.70 1.737	Apr. 1	0800	772 21.9	5.77 1.759

Minimum daily, 16 ft<sup>3</sup>/s (0.45 m<sup>3</sup>/s) Oct. 31, Nov. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	18	32	50	39	44	367	170	35	28	28	18
2	23	17	31	44	39	45	148	172	33	29	28	21
3	23	16	31	41	38	43	126	171	34	28	29	21
4	23	17	32	42	38	43	117	168	34	28	28	22
5	23	18	33	66	37	44	112	150	33	30	28	24
6	21	19	34	44	38	45	106	87	35	31	27	24
7	23	19	35	40	39	46	96	73	30	28	27	27
8	23	20	35	40	40	46	87	69	30	27	26	27
9	24	21	36	41	40	47	78	61	30	28	25	31
10	24	21	36	42	69	50	74	50	29	27	23	28
11	27	22	37	42	51	85	145	46	30	26	24	28
12	28	24	39	42	42	66	74	42	30	26	23	28
13	27	25	40	42	44	47	56	40	30	27	25	30
14	27	28	106	41	43	158	55	39	28	28	24	30
15	27	30	49	41	44	67	102	38	25	27	24	32
16	26	30	43	40	44	122	86	38	26	27	23	35
17	25	28	42	40	43	621	86	37	28	26	22	30
18	26	26	43	39	42	128	89	35	27	26	22	30
19	29	25	44	38	41	72	88	36	27	28	21	27
20	29	26	45	117	42	66	106	38	28	27	18	25
21	26	28	44	68	43	62	107	38	28	26	19	25
22	25	30	42	42	44	56	121	41	28	25	20	24
23	25	32	41	44	42	58	125	41	28	26	19	26
24	24	34	40	45	42	60	131	43	28	24	19	27
25	24	37	40	44	42	75	136	44	28	23	18	29
26	23	43	40	44	41	104	138	36	28	23	18	32
27	22	74	41	43	41	99	142	31	28	26	18	28
28	22	269	41	43	41	86	152	32	28	40	19	25
29	22	46	42	40	---	107	160	34	28	33	20	25
30	19	35	44	40	---	104	165	34	28	29	19	26
31	16	---	42	40	---	113	---	37	---	27	18	---
TOTAL	750	1078	1280	1425	1189	2809	3575	1971	882	854	702	805
MEAN	24.2	35.9	41.3	46.0	42.5	90.6	119	63.6	29.4	27.5	22.6	26.8
MAX	29	269	106	117	69	621	367	172	35	40	29	35
MIN	16	16	31	38	37	43	55	31	25	23	18	18
AC-FT	1490	2140	2540	2830	2360	5570	7090	3910	1750	1690	1390	1600
CAL YR 1981	TOTAL	12217	MEAN	33.6	MAX	355	MIN	13	AC-FT	24230		
WTR YR 1982	TOTAL	17320	MEAN	47.5	MAX	621	MIN	16	AC-FT	34350		

## 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 1979-80.

WATER TEMPERATURES: Water years 1969-78 (observed), February to September 1980.

SEDIMENT RECORDS: Water years 1969-78, October 1978 to current year (periodic record only).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1969 to September 1981.

pH: June to September 1969.

CHLORIDE: June to September 1969.

WATER TEMPERATURES: February 1980 to September 1981.

SEDIMENT RECORDS: October 1968 to September 1978.

INSTRUMENTATION.--Water-quality monitor from June to September 1969. Specific-conductance recorder from June 1969 to September 1981. Temperature recorder from February 1980 to September 1981.

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, 1980; minimum recorded, 6.0°C Feb. 10, 1980.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-HF (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 19...	1030	25	1500	8.4	15.0	--	580	390	506	226
JAN 27...	1300	45	1500	8.1	17.5	--	--	120	547	277
MAR 08...	1230	48	1420	8.1	21.0	9.4	54	99	870	600
MAY 26...	1100	29	1400	8.1	19.5	--	69	210	921	641
JUL 27...	1145	22	1390	8.3	25.0	8.8	110	160	514	204
SEP 28...	1215	24	1510	8.2	20.0	8.3	83	160	539	229

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 CAC03)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 19...	130	44	130	36	2.6	6.0	--	280	400	100
JAN 27...	140	48	140	35	2.7	6.4	270	--	410	110
MAR 08...	134	130	130	24	2.0	6.1	270	--	410	100
MAY 26...	138	140	140	25	2.0	5.6	280	--	400	87
JUL 27...	130	46	130	35	2.6	5.7	310	--	400	86
SEP 28...	140	46	140	36	2.7	5.7	310	--	400	91

## SANTA CLARA RIVER BASIN

11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
NOV 19...	.7	23	1080 <sup>1</sup>	1002	1.5	3.9	.16	.95	.78	.75
JAN 27...	.6	23	1090	1045	1.5	4.2	.56	1.3	1.6	1.6
MAR 08...	1.0	22	1060	1044	1.4	4.9	.12	1.1	1.3	1.2
MAY 26...	.6	23	1040	1104	1.4	4.2	.12	1.3	.67	.57
JUL 27...	.6	23	1040	1010	1.4	4.2	.09	1.2	.84	.85
SEP 28...	.5	23	1060	1034	1.4	3.9	.08	1.1	.75	.71

<sup>1</sup>Results based on Laboratory Alkalinity value.

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)
NOV 19...	1030	3	3	<100	54	<1	<1	<10	<10	<1
JAN 27...	1300	3	2	100	61	1	<1	10	10	<1
MAY 26...	1100	3	3	<100	69	1	<3	10	<10	1
SEP 28...	1215	3	2	100	56	1	<1	<10	<10	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)
NOV 19...	<3	5	2	610	<10	2	1	50	28	.2
JAN 27...	<3	11	5	3000	23	5	9	110	39	.1
MAY 26...	<1	6	3	2300	<9	2	<1	70	14	.1
SEP 28...	<1	5	2	1100	6	3	<1	70	11	.2

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

11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)
NOV 19...	.1	3	2	3	3	<1	<1	20	9
JAN 27...	<.1	5	5	3	3	<1	<1	40	31
MAY 26...	<.1	4	4	3	3	<1	<1	20	16
SEP 28...	<.1	<1	2	4	4	<1	<1	30	17

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

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JAN 27...	1300	45	17.3	257	31	26
MAR 08...	1220	48	20.0	212	27	16
MAY 26...	1100	29	19.5	111	8.7	34
JUL 27...	1110	22	25.0	126	7.5	29
SEP 28...	1115	24	20.0	205	13	4

## SANTA CLARA RIVER BASIN

11109600 PIRU CREEK ABOVE LAKE PIRU, CA

LOCATION.--Lat 34°31'23", long 118°45'22", in SW 1/4 NE 1/4 NW 1/4 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, 520 ft<sup>3</sup>/s (14.7 m<sup>3</sup>/s) Apr. 1, gage height, 3.72 ft (1.134 m); minimum daily, 5.6 ft<sup>3</sup>/s (0.16 m<sup>3</sup>/s) Aug. 8-12, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	10	9.8	12	17	27	321	46	14	11	7.6	8.3
2	14	10	9.4	12	17	30	174	37	14	11	7.2	9.0
3	12	10	8.6	11	17	29	238	36	12	11	6.6	9.4
4	12	10	7.9	11	17	28	232	35	12	10	6.6	9.4
5	12	10	7.9	34	17	27	210	36	12	10	6.6	9.8
6	11	10	7.6	17	17	27	205	22	12	11	5.9	10
7	13	10	7.6	13	17	15	202	20	12	10	5.9	10
8	11	10	7.6	11	17	14	196	19	12	10	5.6	12
9	10	10	7.6	12	17	13	157	19	12	10	5.6	16
10	10	8.6	7.9	18	39	13	80	19	12	9.8	5.6	16
11	10	5.9	8.3	21	38	59	147	19	12	9.8	5.6	17
12	10	6.4	8.6	21	23	131	124	19	12	9.8	5.6	16
13	10	17	8.6	21	23	33	138	18	12	9.8	5.9	16
14	10	7.0	8.3	21	22	92	260	18	11	9.4	6.2	17
15	10	6.4	8.3	21	21	71	343	17	11	9.4	6.2	17
16	10	6.4	8.3	21	21	81	348	17	10	9.4	6.6	18
17	10	6.0	11	21	21	284	343	16	11	9.0	6.6	19
18	10	6.0	9.4	21	21	183	339	16	11	9.0	6.6	21
19	10	6.0	9.4	21	20	147	339	15	12	9.0	6.6	18
20	10	6.0	9.4	108	27	132	335	15	11	8.6	6.6	16
21	10	6.0	9.0	52	27	127	331	15	11	8.3	6.2	15
22	10	6.0	8.6	27	27	117	331	14	11	8.3	5.9	14
23	10	6.0	8.6	23	27	51	335	14	11	8.6	5.6	13
24	10	6.0	8.6	21	27	45	335	14	11	8.3	5.6	12
25	10	6.0	8.6	20	27	43	335	13	11	8.3	5.9	17
26	10	10	9.0	20	27	44	228	13	10	8.6	6.2	27
27	10	38	9.4	21	27	40	57	12	10	9.0	6.2	23
28	10	20	9.4	19	26	36	51	12	10	9.0	6.6	20
29	10	12	9.4	17	---	52	50	11	10	9.4	8.3	20
30	10	10	10	17	---	52	48	11	11	9.0	9.4	21
31	10	---	11	17	---	36	---	10	---	8.6	9.4	---
TOTAL	328	291.7	273.1	702	644	2079	6832	598	343	292.4	201	466.9
MEAN	10.6	9.72	8.81	22.6	23.0	67.1	228	19.3	11.4	9.45	6.48	15.6
MAX	14	38	11	108	39	284	348	46	14	11	9.4	27
MIN	10	5.9	7.6	11	17	13	48	10	10	8.3	5.6	8.3
AC-FT	651	579	542	1390	1280	4120	13550	1190	680	580	399	926

CAL YR 1981	TOTAL	11044.6	MEAN	30.3	MAX	264	MIN	5.9	AC-FT	21910
WTR YR 1982	TOTAL	13051.1	MEAN	35.8	MAX	348	MIN	5.6	AC-FT	25890



## 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. Datum of 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, non-recording 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, 46,380 acre-ft (57.2 hm<sup>3</sup>) July 3, elevation, 1,012.75 ft (308.686 m); minimum observed, 19,430 acre-ft (24.0 hm<sup>3</sup>) Sep. 12, 13, elevation, 977.25 ft (297.866 m).

## MONTH-END ELEVATION NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	994.20	30,910	--
Oct. 31.....	987.18	25,730	-5,180
Nov. 30.....	986.26	25,090	-640
Dec. 31.....	986.51	25,260	+170
CAL YR 1981.....	--	--	-26,880
Jan. 31.....	988.40	26,600	+1,340
Feb. 28.....	990.13	27,850	+1,250
Mar. 31.....	996.42	32,630	+4,780
Apr. 30.....	1,011.90	45,610	+12,980
May 31.....	1,012.65	46,290	+680
June 30.....	1,012.70	46,330	+40
July 31.....	1,012.38	46,040	-290
Aug. 31.....	987.49	25,950	-20,090
Sept. 30.....	977.65	19,660	-6,290
WTR YR 1982.....	--	--	-11,250

## 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, 425 ft<sup>3</sup>/s (12.0 m<sup>3</sup>/s) Sept. 8; minimum daily, 2.3 ft<sup>3</sup>/s (0.065 m<sup>3</sup>/s) Sept. 17-19, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	14	9.5	4.3	4.1	4.8	4.6	5.7	4.3	6.3	7.2	276
2	162	14	9.5	4.3	4.1	4.8	4.3	5.7	5.0	6.1	190	271
3	163	14	9.5	4.3	4.1	4.8	4.3	5.7	5.0	6.3	286	271
4	163	14	9.5	4.3	4.1	4.8	4.3	5.7	5.0	6.2	286	270
5	163	14	9.5	4.4	4.3	4.8	4.3	5.7	5.0	6.3	285	267
6	163	14	9.5	4.3	4.3	4.8	4.3	5.7	5.0	6.6	285	267
7	161	14	9.5	4.4	4.3	4.8	4.4	5.7	5.0	6.6	282	376
8	162	14	6.5	4.4	4.3	4.8	4.3	5.7	5.0	6.6	282	425
9	161	14	2.6	4.3	4.3	4.8	4.3	5.7	5.0	6.6	282	419
10	155	14	2.6	4.4	4.6	4.8	4.5	5.7	5.0	6.6	282	418
11	49	14	2.7	4.4	4.5	4.9	4.5	5.7	5.0	6.6	282	176
12	49	14	2.7	4.5	4.5	4.6	4.5	5.7	5.0	6.6	282	2.8
13	49	15	2.8	4.5	4.5	4.5	4.5	5.7	5.0	6.9	281	2.8
14	49	16	2.8	4.5	4.5	4.6	4.5	5.7	5.7	6.7	280	2.6
15	49	16	2.8	4.2	4.7	4.6	4.5	5.7	6.0	6.8	279	2.4
16	48	12	2.8	4.1	4.8	4.7	4.5	5.6	6.0	6.6	278	2.4
17	48	9.5	2.8	4.1	4.8	4.8	4.5	5.5	6.0	6.6	305	2.3
18	48	9.4	5.8	4.1	4.8	4.8	4.5	5.5	6.0	6.6	370	2.3
19	47	9.5	8.8	4.1	4.8	4.8	4.8	5.5	6.0	6.6	404	2.3
20	47	9.5	8.8	4.3	4.8	4.8	5.0	5.5	6.0	6.6	403	2.6
21	47	9.5	8.8	4.2	4.8	4.8	5.0	5.3	6.0	6.7	401	2.3
22	46	9.5	8.8	4.3	4.8	4.6	5.0	5.2	6.0	6.8	404	6.5
23	46	9.5	6.1	4.3	4.8	4.5	5.0	5.2	6.0	6.9	404	6.6
24	46	9.5	4.5	4.3	4.8	4.6	5.2	5.2	6.0	6.9	403	6.6
25	46	9.5	4.5	4.3	4.8	4.6	5.2	5.2	6.0	6.9	403	6.6
26	43	9.5	4.5	4.3	4.8	4.5	5.2	5.0	6.0	6.9	402	6.6
27	14	9.5	4.5	4.1	4.8	4.4	5.3	5.0	6.1	6.9	399	6.6
28	14	9.5	4.5	4.1	4.8	4.5	5.5	5.0	6.3	6.9	398	6.6
29	14	9.5	4.5	4.1	---	4.5	5.5	5.0	6.3	7.0	398	6.6
30	14	9.5	4.4	4.1	---	4.5	5.7	5.0	6.3	7.2	398	6.6
31	14	---	4.3	4.1	---	4.5	---	4.4	---	7.2	331	---
TOTAL	2442	359.9	180.4	132.4	127.6	145.1	142.0	168.6	167.0	207.1	9972.2	3520.1
MEAN	78.8	12.0	5.82	4.27	4.56	4.68	4.73	5.44	5.57	6.68	322	117
MAX	163	16	9.5	4.5	4.8	4.9	5.7	5.7	6.3	7.2	404	425
MIN	14	9.4	2.6	4.1	4.1	4.4	4.3	4.4	4.3	6.1	7.2	2.3
AC-FT	4840	714	358	263	253	288	282	334	331	411	19780	6980
CAL YR 1981	TOTAL	23102.9	MEAN	63.3	MAX	342	MIN	1.6	AC-FT	45820		
WTR YR 1982	TOTAL	17564.4	MEAN	48.1	MAX	425	MIN	2.3	AC-FT	34840		

## 11110500 HOPPER CREEK NEAR PIRU, CA

LOCATION.--Lat 34°24'03", long 118°49'32", in NE 1/4 NE 1/4 SW 1/4 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.-- 50 years (water years 1931-32, 1934-36, 1938-82) 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, 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.--Peak discharges above base of 250 ft<sup>3</sup>/s (7.08 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. 12	0145	301 8.52	4.96 1.152
Apr. 1	unknown	*527 14.9	5.52 1.682

Minimum, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	4.1	1.3	.83	242	.44	.05			
2		0	0	1.3	1.3	1.5	34	.44	.04			
3		0	0	.44	1.1	.83	6.5	.36	.03			
4		0	0	.29	1.1	.71	4.3	.36	.03			
5		0	0	26	.98	.60	2.5	.51	.02			
6		0	0	3.5	.98	.60	2.5	.36	.02			
7		0	0	1.5	.98	.60	1.9	.29	.02			
8		0	0	1.1	.98	.51	1.3	.44	.02			
9		0	0	1.1	.98	.51	1.3	.60	.02			
10		0	0	.83	11	.51	1.1	.44	.01			
11		0	0	.71	13	26	17	.44	.02			
12		0	0	.29	2.7	54	3.0	.36	.05			
13		0	0	.20	1.9	1.4	2.4	.29	.08			
14		0	0	.16	1.7	22	2.1	.29	.02			
15		0	0	.20	1.5	8.2	1.9	.24	0			
16		0	0	.16	1.5	13	1.3	.10	0			
17		0	0	.13	1.3	103	1.1	.05	.01			
18		0	0	.13	1.1	25	.98	.12	.09			
19		0	0	.24	.98	8.3	.62	.16	.06			
20		0	0	41	.98	5.3	1.3	.13	.01			
21		0	0	17	.83	3.9	1.1	.16	0			
22		0	0	4.2	.83	2.4	1.3	.16	0			
23		0	0	2.7	.83	1.9	1.1	.13	0			
24		0	0	2.1	.83	1.3	.98	.11	0			
25		0	0	2.1	.83	1.1	.71	.05	0			
26		0	0	1.9	.83	1.7	.71	.15	0			
27		1.1	0	1.5	.83	1.1	.60	.36	0			
28		15	0	1.5	.83	1.5	.51	.29	0			
29		2.4	0	1.5	---	12	.51	.24	0			
30		.43	1.1	1.5	---	15	.51	.20	0			
31		---	0	1.3	---	15	---	.09	---			
TOTAL	0	18.93	1.1	120.68	54	330.3	337.13	8.36	.62	0	0	0
MEAN	0	.63	.035	3.89	1.93	10.7	11.2	.27	.021	0	0	0
MAX	0	15	1.1	41	13	103	242	.60	.09	0	0	0
MIN	0	0	0	.13	.83	.51	.51	.05	0	0	0	0
AC-FT	0	38	2.2	239	107	655	669	17	1.2	0	0	0

CAL YR 1981	TOTAL	624.08	MEAN	1.71	MAX	91	MIN	0	AC-FT	1240
WTR YR 1982	TOTAL	871.12	MEAN	2.39	MAX	242	MIN	0	AC-FT	1730

## SANTA CLARA RIVER BASIN

## 1111500 SESPE CREEK NEAR WHEELER SPRINGS, CA

LOCATION.--Lat 34°34'40", long 119°15'25", in SE 1/4 NW 1/4 SW 1/4 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 except those for period of no gage height record, Oct. 1 to Nov. 2, which are poor.

AVERAGE DISCHARGE.--35 years, 12.5 ft<sup>3</sup>/s (0.354 m<sup>3</sup>/s), 9,060 acre-ft/yr (11.2 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)
Apr. 1	0715	*371 10.5	5.17 1.576
Apr. 11	1400	279 7.9	4.85 1.478

Minimum daily, 0.13 ft<sup>3</sup>/s (0.004 m<sup>3</sup>/s) Sept. 3, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.70	.75	1.5	2.0	1.8	1.8	188	7.4	2.6	1.4	.32	.16
2	.65	.72	1.5	1.8	1.8	2.0	60	7.2	2.5	1.1	.32	.15
3	.60	.70	1.5	1.7	1.8	1.8	35	6.9	2.4	1.1	.31	.13
4	.56	.71	1.4	1.7	1.8	1.7	21	6.6	2.3	1.1	.31	.14
5	.56	.75	1.4	4.3	1.8	1.7	15	7.1	2.3	1.1	.31	.14
6	.56	.72	1.3	2.6	1.8	1.7	11	6.1	2.3	1.0	.29	.13
7	.56	.68	1.3	2.2	1.8	1.6	8.6	5.9	2.3	.91	.27	.15
8	.56	.66	1.3	2.1	1.8	1.6	7.4	6.0	2.3	.89	.27	.16
9	.56	.70	1.3	2.0	1.8	1.6	6.3	5.9	2.1	.90	.25	3.5
10	.56	.70	1.3	2.0	2.5	1.6	6.8	5.8	2.0	.85	.24	1.6
11	.56	.72	1.2	1.9	1.9	5.4	123	5.6	1.9	.78	.24	.94
12	.56	.78	1.2	1.9	1.8	6.5	71	5.4	1.8	.76	.23	.81
13	.56	.78	1.2	1.9	1.8	3.8	39	4.9	1.8	.73	.22	.82
14	.55	.85	1.2	1.9	1.8	7.8	30	4.6	1.8	.69	.22	.80
15	.55	.87	1.2	1.9	1.8	6.1	25	4.3	1.7	.65	.22	.82
16	.55	.77	1.2	1.9	2.0	5.9	22	4.0	1.5	.66	.23	1.0
17	.55	.77	1.2	1.9	1.9	11	19	3.7	1.6	.62	.22	.86
18	.55	.81	1.2	1.9	1.9	10	17	3.6	1.8	.59	.21	.96
19	.55	.87	1.2	1.9	1.8	11	15	3.5	1.6	.56	.21	.84
20	.55	.88	1.2	1.9	1.8	12	14	3.3	1.5	.53	.20	.71
21	.54	.89	1.3	2.9	1.8	11	13	3.1	1.4	.54	.19	.68
22	.54	.93	1.4	2.4	1.7	9.9	11	3.0	1.3	.51	.18	.66
23	.54	.90	1.4	2.5	1.7	9.2	10	2.9	1.3	.50	.18	.59
24	.54	.88	1.5	2.8	1.7	8.3	9.5	2.9	1.2	.48	.18	1.2
25	.54	.92	1.4	2.7	1.7	7.6	8.8	3.0	1.2	.45	.18	3.1
26	.54	1.0	1.4	2.5	1.7	8.1	8.7	2.8	1.1	.42	.19	1.9
27	.54	1.9	1.4	2.3	1.7	9.4	8.5	2.9	1.1	.40	.20	.99
28	1.0	2.2	1.5	2.2	1.7	10	8.2	2.9	1.0	.38	.19	.99
29	1.1	1.7	1.5	2.2	---	11	7.9	2.9	1.2	.37	.18	.87
30	.95	1.5	1.6	2.1	---	13	7.5	2.7	1.4	.35	.18	.86
31	.85	---	1.6	1.9	---	13	---	2.6	---	.34	.17	---
TOTAL	19.08	28.01	41.8	67.9	50.9	207.1	827.2	139.5	52.3	21.66	7.11	26.66
MEAN	.62	.93	1.35	2.19	1.82	6.68	27.6	4.50	1.74	.70	.23	.89
MAX	1.1	2.2	1.6	4.3	2.5	13	188	7.4	2.6	1.4	.32	3.5
MIN	.54	.66	1.2	1.7	1.7	1.6	6.3	2.6	1.0	.34	.17	.13
AC-FT	38	56	83	135	101	411	1640	277	104	43	14	53

CAL YR 1981	TOTAL	1797.54	MEAN	4.92	MAX	87	MIN	.27	AC-FT	3570
WTR YR 1982	TOTAL	1489.22	MEAN	4.08	MAX	188	MIN	.13	AC-FT	2950

## 11113000 SESPE CREEK NEAR FILLMORE, CA

LOCATION.--Lat 34°27'03", long 118°55'30", in NE 1/4 NW 1/4 NE 1/4 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>).

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: 57 years, 111 ft<sup>3</sup>/s (3.144 m<sup>3</sup>/s), 80,420 acre-ft/yr (99.2 hm<sup>3</sup>/yr).  
Combined creek and canal: 55 years, 116 ft<sup>3</sup>/s (3.285 m<sup>3</sup>/s) 84,040 acre-ft/yr (104 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)
Mar. 12	0115	1,480 41.9	12.39 3.776
Mar. 17	0230	1,790 50.7	12.68 3.865
Apr. 1	0730	*9,660 274	15.05 4.587

Minimum daily, 0.54 ft<sup>3</sup>/s (0.015 m<sup>3</sup>/s) Sept. 30.

Combined creek and canal: Maximum discharge, 9,660 ft<sup>3</sup>/s (274 m<sup>3</sup>/s) Apr. 1; minimum daily, 4.6 ft<sup>3</sup>/s (0.13 m<sup>3</sup>/s) Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.2	17	19	26	24	3110	70	20	9.1	.53	.75
2	.69	1.1	14	15	25	28	752	66	19	8.3	.53	.75
3	.67	1.1	13	14	24	26	434	64	19	8.9	.68	.73
4	.64	.97	13	13	24	26	333	62	19	7.1	.61	.68
5	.60	.99	13	127	23	25	268	61	18	7.3	.60	.68
6	.56	1.1	12	40	23	24	226	55	17	7.1	.58	.68
7	.60	1.1	12	27	22	24	193	50	17	5.5	.61	.68
8	.65	1.0	12	21	22	24	168	49	15	5.5	.56	.64
9	.65	.88	11	19	22	24	153	47	13	4.3	.54	.61
10	.65	.88	12	18	99	24	147	46	13	3.8	.54	.61
11	.71	.88	12	18	87	230	602	44	13	3.5	.54	.61
12	.69	.88	12	16	55	492	638	43	14	3.3	.52	.61
13	.69	.87	12	16	40	116	356	42	13	2.6	.52	.56
14	.73	2.1	12	16	36	307	278	39	13	1.8	.57	.54
15	.76	1.7	12	16	43	256	235	35	12	1.7	.54	.54
16	.75	1.6	11	16	46	222	204	33	11	1.5	.54	.54
17	.71	1.3	11	16	42	1320	180	32	11	1.1	.52	.54
18	.75	1.2	11	17	38	518	161	31	13	.98	.48	.53
19	.70	1.1	11	19	33	298	147	31	12	.83	.48	.57
20	.70	1.1	11	222	31	229	137	31	12	.83	.48	.61
21	.74	.90	11	162	30	191	124	29	12	.79	.52	1.3
22	.76	.88	11	70	29	174	116	27	12	.68	.54	1.2
23	.76	.88	9.0	44	29	163	108	25	12	.70	.54	1.0
24	.78	.84	7.8	36	29	152	102	24	11	.68	.58	.99
25	.82	.82	7.8	33	28	136	96	22	9.1	.66	.61	.94
26	.82	1.7	7.9	33	28	132	91	22	9.6	.61	.61	1.9
27	.82	35	7.5	37	28	130	86	22	8.3	.58	.61	1.3
28	1.4	97	6.5	34	27	138	81	22	8.5	.61	.63	.99
29	1.8	33	5.2	31	---	192	77	22	8.4	.59	.72	.91
30	1.5	22	9.0	29	---	214	73	21	8.2	.54	.75	.84
31	1.3	---	11	27	---	176	---	21	---	.49	.75	---
TOTAL	25.9	216.07	337.7	1221	989	6035	9676	1188	393.1	91.97	17.83	23.83
MEAN	.84	7.20	10.9	39.4	35.3	195	323	38.3	13.1	2.97	.58	.79
MAX	1.8	97	17	222	99	1320	3110	70	20	9.1	.75	1.9
MIN	.56	.82	5.2	13	22	24	73	21	8.2	.49	.48	.53
AC-FT	51	429	670	2420	1960	11970	19190	2360	780	182	35	47
CAL YR 1981	TOTAL	14057.09	MEAN	38.5	MAX	1160	MIN	.54	AC-FT	27880		
WTR YR 1982	TOTAL	20215.40	MEAN	55.4	MAX	3110	MIN	.48	AC-FT	40100		

## 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 1981 TO SEPTEMBER 1982

## MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	5.3	17	19	26	24	3110	70	28	17	6.2	5.3
2	6.4	5.4	14	15	25	28	752	66	26	16	6.2	5.1
3	6.1	5.4	14	14	24	26	434	64	26	15	6.4	4.8
4	5.6	5.4	13	13	24	26	333	62	26	14	6.5	4.8
5	5.4	5.5	13	128	23	25	268	62	24	13	6.2	4.6
6	5.1	5.7	12	41	23	24	226	61	23	12	6.1	4.7
7	4.9	5.8	12	28	22	24	193	58	23	12	6.0	4.9
8	5.1	5.6	13	21	22	24	168	56	25	12	5.9	4.9
9	5.1	5.3	12	19	22	24	153	54	23	11	5.7	5.4
10	5.2	5.2	13	18	99	24	147	53	23	11	5.6	5.7
11	5.4	5.3	13	19	87	231	602	51	21	10	5.6	5.9
12	5.3	5.3	13	18	55	492	638	50	22	9.6	5.7	5.7
13	5.2	5.4	13	18	40	116	356	48	21	9.5	5.8	5.6
14	5.2	7.2	13	18	36	307	278	47	22	9.0	5.9	5.5
15	5.4	7.1	13	18	43	256	235	45	21	8.7	5.9	5.6
16	5.3	6.7	12	18	46	222	204	42	20	8.9	5.8	5.8
17	5.1	6.3	12	18	42	1320	180	41	19	8.8	5.6	5.8
18	5.1	6.1	12	19	38	518	161	40	20	8.3	5.5	5.9
19	4.8	5.7	12	19	33	298	147	39	21	7.9	5.4	5.8
20	4.7	6.1	12	223	31	229	137	38	20	7.4	5.3	5.6
21	4.8	6.1	12	162	30	191	124	37	19	7.7	5.4	5.5
22	4.9	6.4	12	70	29	174	116	35	19	7.3	5.3	5.8
23	4.8	6.5	12	44	29	163	108	33	19	7.2	5.3	5.4
24	4.8	6.5	12	36	29	152	102	32	19	7.0	5.4	5.6
25	5.0	6.6	12	33	28	136	96	31	17	6.9	5.4	6.3
26	5.1	8.7	12	33	28	132	91	31	17	6.6	5.4	12
27	5.1	38	12	37	28	130	86	31	16	6.5	5.4	9.0
28	6.1	97	12	34	27	138	81	31	14	6.5	5.4	7.3
29	6.9	33	13	31	---	192	77	31	16	6.7	5.5	6.8
30	6.2	22	14	29	---	214	73	30	15	6.4	5.5	6.5
31	5.5	---	13	27	---	176	---	29	---	6.3	5.4	---
TOTAL	165.9	346.6	394	1240	989	6036	9676	1398	625	296.2	176.7	177.6
MEAN	5.35	11.6	12.7	40.0	35.3	195	323	45.1	20.8	9.55	5.70	5.92
MAX	6.9	97	17	223	99	1320	3110	70	28	17	6.5	12
MIN	4.7	5.2	12	13	22	24	73	29	14	6.3	5.3	4.6
AC-FT	329	687	781	2460	1960	11970	19190	2770	1240	588	350	352
CAL YR 1981	TOTAL	15634.3	MEAN	42.8	MAX	1160	MIN	4.2	AC-FT	31010		
WTR YR 1982	TOTAL	21521.0	MEAN	59.0	MAX	3110	MIN	4.6	AC-FT	42690		

## 11113500 SANTA PAULA CREEK NEAR SANTA PAULA, CA

LOCATION ---Lat 34°24'48", long 119°04'53", in NE 1/4 NW 1/4 SE 1/4 sec.21, T.4 N., R.21 W.,  
Ex San Buenaventura Mission 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.

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 1.2 mi (1.9 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---55 years, 22.9 ft<sup>3</sup>/s (0.648 m<sup>3</sup>/s), 16,590 acre-ft/yr (20.4 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 (\*):

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. 12	0130	230 6.51	4.47 1.362	Apr. 1	0400	*1,910 54.1	5.80 1.768
Mar. 17	0945	284 8.04	4.59 1.399	Apr. 11	1600	213 6.03	3.97 1.210

Minimum daily, 1.8 ft<sup>3</sup>/s (0.051 m<sup>3</sup>/s) Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.0	4.4	12	3.7	7.8	373	19	10	7.2	4.5	2.2
2	2.4	1.9	4.3	11	3.5	8.4	120	18	10	7.0	4.5	2.1
3	2.4	1.9	4.2	11	3.4	8.1	91	18	10	7.0	4.5	2.1
4	2.3	2.1	4.2	11	3.5	8.1	75	18	9.8	6.9	4.4	2.1
5	2.3	2.1	4.2	17	3.6	8.1	63	17	9.7	6.9	4.2	2.2
6	2.1	2.1	4.1	14	3.5	8.1	54	17	9.5	6.7	3.9	2.3
7	2.0	2.1	4.1	13	3.8	8.7	47	16	9.4	6.5	3.9	2.1
8	2.1	2.1	4.1	12	3.9	9.1	42	16	9.3	6.4	3.8	2.2
9	2.1	2.1	4.1	11	4.1	9.3	39	16	9.2	6.4	3.6	2.5
10	2.2	2.1	4.0	10	5.5	9.9	39	16	9.2	6.2	3.5	2.8
11	2.2	2.1	4.1	9.8	5.5	28	93	15	9.0	5.9	3.5	2.8
12	2.0	2.2	4.1	9.4	5.5	53	84	14	9.2	5.7	3.6	2.8
13	1.9	2.2	4.1	9.0	5.6	25	63	14	9.0	5.7	3.8	2.8
14	2.0	3.5	4.1	8.5	5.8	46	53	14	8.8	5.6	3.8	2.9
15	1.9	3.2	4.1	8.1	6.1	34	47	14	8.6	5.5	3.6	3.0
16	1.9	3.1	4.4	7.9	6.4	42	42	13	8.5	5.4	3.4	3.6
17	2.0	2.9	4.6	7.6	6.6	150	39	13	8.5	5.3	3.2	3.4
18	1.9	2.8	4.9	7.4	6.8	130	35	13	8.8	5.2	3.0	3.1
19	1.8	2.8	5.1	7.5	7.1	78	32	12	8.7	5.1	2.9	3.0
20	1.9	3.0	5.5	8.5	7.0	47	30	12	8.4	5.0	2.9	2.8
21	1.9	3.2	5.9	7.6	7.1	42	27	12	8.4	5.0	3.0	2.5
22	2.0	3.5	6.1	6.7	7.2	40	26	12	8.3	5.0	3.0	2.4
23	2.0	3.5	6.6	6.1	7.3	39	24	12	8.2	5.0	2.9	2.5
24	2.1	3.7	6.8	5.7	7.2	37	23	11	8.0	5.0	2.7	2.7
25	2.2	4.0	7.2	5.4	7.1	32	22	11	7.7	5.0	2.7	3.4
26	2.1	4.7	7.5	5.1	7.4	31	22	11	7.5	4.9	2.7	5.1
27	2.0	8.6	8.0	5.0	7.3	30	21	11	7.4	4.7	2.6	4.0
28	2.3	7.5	8.4	4.6	7.5	30	21	11	7.4	4.6	2.6	3.6
29	2.3	4.8	8.8	4.3	---	40	21	11	7.5	4.5	2.6	3.6
30	2.1	4.4	10	4.1	---	39	20	11	7.7	4.4	2.4	3.6
31	2.0	---	10	3.9	---	50	---	10	---	4.4	2.4	---
TOTAL	65.0	96.2	172.0	264.2	159	1128.6	1688	428	261.7	174.1	104.1	86.2
MEAN	2.10	3.21	5.55	8.52	5.68	36.4	56.3	13.8	8.72	5.62	3.36	2.87
MAX	2.6	8.6	10	17	7.5	150	373	19	10	7.2	4.5	5.1
MIN	1.8	1.9	4.0	3.9	3.4	7.8	20	10	7.4	4.4	2.4	2.1
AC-FT	129	191	341	524	315	2240	3350	849	519	345	206	171
CAL YR 1981	TOTAL	2794.0	MEAN	7.64	MAX	264	MIN	1.6	AC-FT	5540		
WTR YR 1982	TOTAL	4627.1	MEAN	12.7	MAX	373	MIN	1.8	AC-FT	9180		

## SANTA CLARA RIVER BASIN

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 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) 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 11139000). AVERAGE DISCHARGE represents flow to the ocean regardless of upstream development.

COOPERATION.--Three discharge measurements were furnished by Ventura County Flood Control District.

AVERAGE DISCHARGE.--38 years, 142 ft<sup>3</sup>/s (4.021 m<sup>3</sup>/s), 102,900 acre-ft/yr (127 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, 8,600 ft<sup>3</sup>/s (244 m<sup>3</sup>/s) Apr. 1, gage height, 5.85 ft (1.783 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	0	1.6	.50	.95	.15	4060	.40	.40	.07	.01	0
2	.08	0	1.1	.25	.75	3.1	1350	.40	.34	.07	.01	0
3	.06	0	.62	.10	.64	.88	702	1.8	.28	.07	.01	0
4	.03	0	.57	.08	.54	1.0	603	2.5	.30	.06	.01	0
5	.01	0	.53	.90	.45	4.4	450	2.5	.28	.06	.01	0
6	0	0	.48	.55	.40	3.6	391	2.5	.25	.06	.01	0
7	0	0	.44	.45	.35	1.7	370	1.0	.25	.05	.01	0
8	0	0	.39	.40	1.0	.56	290	.80	.27	.05	.01	0
9	0	0	.35	.35	.95	2.6	222	.75	.30	.05	.01	.02
10	0	0	.31	.30	3.5	3.4	18	2.0	.30	.04	.01	.01
11	0	0	.26	.28	12	4.9	586	2.0	.30	.04	.01	0
12	0	0	.22	.21	3.0	507	911	3.0	.30	.04	.01	0
13	0	0	.17	.16	.70	285	287	2.5	.27	.03	.01	0
14	0	.01	.12	.12	.20	379	144	2.5	.26	.03	.01	0
15	0	0	.06	.09	.25	239	101	1.8	.30	.03	.01	0
16	0	0	.05	.06	.40	322	56	.80	.30	.02	.01	0
17	0	0	.04	.02	.42	1610	20	2.0	1.3	.02	0	0
18	0	0	.04	.05	.42	956	4.8	2.0	.41	.02	0	0
19	0	0	.03	.20	.46	251	2.0	2.2	.18	.02	0	0
20	0	0	.02	5.0	.45	126	1.6	2.2	.12	.01	0	0
21	0	0	.01	86	.40	129	1.3	1.6	.10	.01	0	0
22	0	0	0	15	.36	33	.93	1.0	.10	.01	0	0
23	0	0	0	8.0	.39	3.8	.58	.94	.09	.01	0	0
24	0	0	0	5.0	.45	1.8	.50	.88	.09	.01	0	0
25	0	.01	0	3.5	.45	1.9	.40	.82	.12	.01	0	.10
26	0	.01	0	2.5	.39	2.1	2.1	.76	.08	.01	0	.07
27	0	1.5	0	2.5	.38	1.4	2.2	.70	.08	.01	0	.02
28	.40	5.0	0	2.0	.20	7.7	2.2	.64	.07	.01	0	.01
29	.10	2.5	0	1.7	---	5.4	2.2	.58	.07	.01	0	0
30	.02	2.0	1.0	1.5	---	328	.40	.52	.07	.01	0	.01
31	0	---	.40	1.2	---	48	---	.46	---	.01	0	---
TOTAL	.79	11.03	8.80	138.97	30.85	5263.39	10582.21	44.55	7.58	.95	.16	.24
MEAN	.025	.37	.28	4.48	1.10	170	353	1.44	.25	.031	.005	.008
MAX	.40	5.0	1.6	86	12	1610	4060	3.0	1.3	.07	.01	.10
MIN	0	0	0	.02	.20	.15	.40	.40	.07	.01	0	0
AC-FT	1.6	22	17	276	61	10440	20990	88	15	1.9	.3	.5

CAL YR 1981 TOTAL 15299.09 MEAN 41.9 MAX 2380 MIN 0 AC-FT 30350  
WTR YR 1982 TOTAL 16089.52 MEAN 44.1 MAX 4060 MIN 0 AC-FT 31910



## 11114000 SANTA CLARA RIVER AT MONTALVO, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

WATER TEMPERATURES: Water years 1968, 1969, 1971-81.

SEDIMENT RECORDS: Water years 1968 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1967 to September 1969, October 1970 to September 1981.

SEDIMENT RECORDS: October 1967 September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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.

REMARKS.--Prior to October 1969, published as "at Saticoy" (station 11113920).

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1981	0.79	.03	0	0
NOVEMBER....	11.03	2.06	2	4
DECEMBER....	8.80	.59	0.5	1
JANUARY 1982	138.79	146.48	47	193
FEBRUARY....	30.85	7.07	5	12
MARCH.....	5263.39	35565.14	13195	48760
APRIL.....	10582.21	142625.23	43284	185900
MAY.....	44.55	5.64	6	12
JUNE.....	7.58	.37	.2	1
JULY.....	.95	0.	0	0
AUGUST.....	.16	0.	0	0
SEPTEMBER...	.24	.01	0	0
TOTAL...	16089.52	178352.59	56539.7	234883

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	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	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
MAR									
02...	1210	3.6	48	.47	--	--	--	--	--
12...	1500	666	3200	5750	58	75	86	91	--
31...	1245	21	83	4.7	--	--	--	--	--
APR									
02...	1300	1460	1810	7140	21	28	36	45	53
06...	1000	402	254	276	--	--	--	--	--
23...	1000	.60	68	.11	--	--	--	--	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM
MAR									
02...	91	--	93	--	95	--	100	--	--
12...	92	--	93	--	98	--	100	--	--
31...	81	--	83	--	91	--	97	--	100
APR									
02...	--	63	--	86	--	99	--	100	--
06...	42	--	48	--	74	--	97	--	100
23...	73	--	89	--	100	--	--	--	--

## 11115000 MATILIJA RESERVOIR AT MATILIJA HOT SPRINGS, CA

LOCATION.--Lat 34°29'08", long 119°18'25", in NE 1/4 NW 1/4 SE 1/4 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.--34.4 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 dam. 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 (343.845 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, 1,190 acre-ft (1.47 hm<sup>3</sup>) Apr. 1, elevation, 1,086.93 ft (331.296 m); minimum, 382 acre-ft (471,000 m<sup>3</sup>), Mar. 22, elevation, 1,069.38 ft (325.947 m).

## MONTH-END ELEVATION NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,085.80	1,130	--
Oct. 31.....	1,085.38	1,110	-20
Nov. 30.....	1,086.20	1,150	+40
Dec. 31.....	1,086.00	1,140	-10
CAL YR 1981.....	--	--	+653
Jan. 31.....	1,079.35	791	-349
Feb. 28.....	1,084.16	1,040	+249
Mar. 31.....	1,079.26	786	-254
Apr. 30.....	1,079.97	821	+35
May 31.....	1,081.56	902	+81
June 30.....	1,084.54	1,060	+158
July 31.....	1,084.90	1,080	+20
Aug. 31.....	1,084.97	1,080	0
Sept. 30.....	1,085.51	1,110	+30
WTR YR 1982.....	--	--	-20

## 11115500 MATILIJA CREEK AT MATILIJA HOT SPRINGS, CA

LOCATION.--Lat 34°28'58", long 119°18'03", in SW 1/4 NW 1/4 SW 1/4 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>).

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, 271 ft<sup>3</sup>/s (7.67 m<sup>3</sup>/s) Apr. 1, gage height, 3.69 ft (1.125 m); minimum daily, 0.51 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) Sept. 17-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.4	3.7	5.7	3.1	3.3	171	2.5	7.9	3.1	3.3	1.5
2	1.8	2.4	3.7	5.7	3.1	3.3	245	2.5	7.5	3.1	3.3	1.5
3	1.8	2.4	3.7	5.7	3.1	3.3	169	2.5	6.7	2.9	2.6	1.5
4	1.8	2.5	3.7	125	3.1	3.3	104	13	6.6	2.8	1.7	1.5
5	1.8	2.4	3.7	155	3.1	3.3	73	23	6.6	2.8	1.7	1.5
6	2.0	2.3	3.7	35	3.1	3.3	57	17	6.8	2.9	1.7	1.4
7	2.5	2.3	3.7	2.8	3.1	3.3	47	15	6.8	2.8	1.7	1.5
8	2.5	2.3	3.7	2.8	3.1	3.3	18	15	6.5	2.8	1.7	1.5
9	2.5	2.2	3.5	2.8	3.1	3.3	2.4	15	6.5	2.8	1.7	1.5
10	2.5	2.1	3.5	2.8	3.5	129	2.3	15	6.5	2.8	1.7	1.5
11	2.5	2.1	3.5	2.8	3.3	149	2.7	15	6.3	2.8	1.6	1.5
12	2.7	2.1	3.5	2.8	3.3	34	98	15	6.0	2.9	1.6	1.5
13	2.7	2.0	3.5	2.8	3.3	2.7	119	15	5.4	3.1	1.5	1.6
14	2.7	2.0	3.5	2.8	3.3	3.0	74	15	5.5	3.0	1.5	1.3
15	2.7	2.0	3.3	2.8	3.3	2.7	54	14	4.8	3.1	1.5	.71
16	2.7	2.0	3.5	2.9	3.5	3.0	46	14	3.4	3.1	1.5	.58
17	2.7	1.9	3.5	3.1	3.5	87	41	14	3.5	3.1	1.5	.51
18	2.7	1.8	3.5	3.1	3.3	102	36	14	3.5	3.1	1.5	.51
19	2.7	1.8	3.7	3.2	3.3	72	32	12	3.5	3.0	1.5	.51
20	2.7	1.8	4.4	3.8	3.3	53	29	11	3.4	3.0	1.5	.62
21	2.8	1.7	4.3	3.3	3.3	44	14	11	3.3	3.0	1.5	.89
22	2.6	1.8	4.2	3.1	3.3	16	1.8	11	3.3	3.0	1.5	.89
23	2.1	2.2	4.2	3.1	3.3	2.7	1.8	11	3.3	3.0	1.5	.89
24	2.2	2.3	4.2	3.3	3.3	2.7	2.1	11	3.3	3.1	1.5	.91
25	2.3	2.5	4.1	3.3	3.3	2.7	2.1	11	3.3	3.2	1.5	1.1
26	2.3	2.6	4.1	3.3	3.3	2.7	2.1	11	3.3	3.3	1.5	1.3
27	2.3	3.5	4.4	3.3	3.3	2.7	2.2	11	3.1	3.3	1.5	1.2
28	2.3	3.6	5.6	3.3	3.3	2.7	2.3	9.2	3.1	3.3	1.5	1.6
29	2.3	3.6	5.5	3.3	---	2.8	2.3	8.9	3.1	3.3	1.5	2.0
30	2.5	3.7	5.6	3.3	---	2.7	2.3	8.8	3.1	3.2	1.5	1.8
31	2.4	---	5.5	3.2	---	2.9	---	8.5	---	3.3	1.5	---
TOTAL	73.6	70.3	124.2	409.2	91.2	751.7	1453.4	371.9	145.9	94.0	52.8	36.82
MEAN	2.37	2.34	4.01	13.2	3.26	24.2	48.4	12.0	4.86	3.03	1.70	1.23
MAX	2.8	3.7	5.6	155	3.5	149	245	23	7.9	3.3	3.3	2.0
MIN	1.5	1.7	3.3	2.8	3.1	2.7	1.8	2.5	3.1	2.8	1.5	.51
AC-FT	146	139	246	812	181	1490	2880	738	289	186	105	73
CAL YR 1981	TOTAL	3518.80	MEAN	9.64	MAX	237	MIN	.27	AC-FT	6980		
WTR YR 1982	TOTAL	3675.02	MEAN	10.1	MAX	245	MIN	.51	AC-FT	7290		

## 11116000 NORTH FORK MATILIJA CREEK AT MATILIJA HOT SPRINGS, CA

LOCATION.--Lat 34°29'33", long 119°18'20", in NE 1/4 NW 1/4 NE 1/4 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.-- 53 years, 10.6 ft<sup>3</sup>/s (0.300 m<sup>3</sup>/s), 7,680 acre-ft/yr (9.47 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, 506 ft<sup>3</sup>/s (14.3 m<sup>3</sup>/s) Apr. 1 (0230 hrs), gage height, 4.23 ft (1.289 m), no other peak above base of 400 ft<sup>3</sup>/s (11.3 m<sup>3</sup>/s); minimum daily, 0.48 ft<sup>3</sup>/s (0.014 m<sup>3</sup>/s) Sep. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.98	1.1	1.6	2.5	2.5	2.0	168	5.2	3.0	2.0	1.1	.68
2	1.1	.98	1.5	1.8	2.2	2.2	20	5.2	3.0	2.0	1.1	.61
3	1.1	.90	1.5	1.8	2.2	2.2	19	5.2	3.0	1.8	1.1	.61
4	1.1	.90	1.4	1.8	2.2	2.2	15	5.2	3.0	1.8	1.1	.61
5	.98	.90	1.4	7.1	2.2	2.0	13	5.2	3.0	1.6	1.1	.54
6	.98	.90	1.4	3.5	2.2	2.0	12	4.8	2.7	1.6	.98	.54
7	.98	.90	1.4	2.7	2.2	1.8	10	4.8	2.7	1.5	.98	.48
8	.98	.90	1.4	2.5	2.0	1.8	9.1	4.8	2.7	1.5	.90	.48
9	.98	.90	1.3	2.2	2.0	1.8	8.6	4.8	2.7	1.5	.90	.61
10	.98	.98	1.3	2.0	3.4	1.8	9.1	4.4	2.7	1.4	.82	.75
11	.98	.98	1.3	1.8	3.5	4.6	33	4.4	2.7	1.4	.75	.75
12	1.1	.98	1.4	1.8	3.0	5.6	20	4.4	2.7	1.4	.82	.75
13	1.1	1.1	1.4	1.8	2.7	4.1	15	4.1	2.7	1.4	.90	.75
14	1.1	1.3	1.3	1.8	2.5	15	12	4.1	2.7	1.4	.90	.75
15	1.1	1.3	1.4	1.8	2.5	9.4	11	4.1	2.7	1.4	.90	.82
16	1.1	1.2	1.4	1.8	2.5	8.2	10	4.1	2.5	1.3	.90	.98
17	1.1	1.2	1.4	1.8	2.5	66	9.7	3.8	2.5	1.3	.82	.90
18	1.1	1.2	1.4	1.8	2.2	29	8.6	3.8	2.7	1.3	.75	.82
19	.98	1.2	1.5	2.0	2.2	18	8.6	3.8	2.7	1.3	.75	.75
20	.98	1.2	1.5	8.5	2.0	14	8.2	3.5	2.7	1.3	.75	.75
21	.98	1.2	1.4	8.5	2.0	12	7.7	3.5	2.5	1.3	.75	.75
22	.90	1.2	1.5	5.6	2.0	9.7	7.3	3.5	2.5	1.2	.75	.68
23	.90	1.2	1.6	4.4	2.0	8.2	6.8	3.5	2.5	1.2	.75	.68
24	.90	1.2	1.5	3.5	1.8	7.2	6.4	3.2	2.2	1.2	.75	.75
25	.98	1.2	1.5	3.2	1.8	6.8	6.4	3.2	2.2	1.2	.75	1.1
26	1.1	1.3	1.5	3.0	1.8	6.4	6.0	3.2	2.2	1.2	.75	1.4
27	1.1	4.9	1.4	3.0	1.8	6.0	6.0	3.2	2.0	1.2	.75	1.1
28	1.2	4.5	1.4	2.7	1.8	5.6	6.0	3.5	2.0	1.1	.82	.98
29	1.3	2.2	1.4	2.5	---	6.0	5.6	3.2	2.0	1.1	.82	.98
30	1.2	1.8	1.8	2.5	---	6.8	5.6	3.2	2.0	1.1	.82	.90
31	1.1	---	1.6	2.5	---	10	---	3.0	---	1.1	.75	---
TOTAL	32.46	41.72	44.8	94.2	63.7	278.4	483.7	125.9	77.2	43.1	26.78	23.25
MEAN	1.05	1.39	1.45	3.04	2.28	8.98	16.1	4.06	2.57	1.39	.86	.78
MAX	1.3	4.9	1.8	8.5	3.5	66	168	5.2	3.0	2.0	1.1	1.4
MIN	.90	.90	1.3	1.8	1.8	1.8	5.6	3.0	2.0	1.1	.75	.48
AC-FT	64	83	89	187	126	552	959	250	153	85	53	46
CAL YR 1981	TOTAL	1286.53	MEAN	3.52	MAX	120	MIN	.68	AC-FT	2550		
WTR YR 1982	TOTAL	1335.21	MEAN	3.66	MAX	168	MIN	.48	AC-FT	2650		

## 11116550 VENTURA RIVER NEAR MEINERS OAKS, CA

LOCATION.--Lat 34°27'49", long 119°17'22", in NE 1/4 NW 1/4 NE 1/4 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.

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 current year.

GAGE.--Water-stage recorder and concrete control since December 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 is 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, 193 ft<sup>3</sup>/s (5.47 m<sup>3</sup>/s), Apr. 1, gage height, 4.27 ft (1.301 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.5	2.3	2.1	1.8	23	3.3	1.3	1.1		
2		0	1.3	2.4	2.1	2.2	21	3.2	1.9	.81		
3		0	1.1	2.0	2.0	1.8	22	3.0	2.4	.89		
4		0	1.1	9.4	2.0	1.6	20	3.0	2.0	1.1		
5		0	1.1	18	2.0	1.6	17	3.9	2.0	1.0		
6		0	.99	16	1.9	1.7	12	4.2	1.9	.71		
7		0	.96	6.8	1.9	1.7	9.8	3.7	1.8	.45		
8		0	.93	2.8	1.9	1.7	9.9	2.5	1.8	.14		
9		0	.91	2.2	1.9	1.5	9.8	2.6	1.7	0		
10		0	.85	1.9	3.1	8.7	9.0	2.9	1.6	0		
11		0	.92	1.6	3.1	19	8.4	2.8	1.5	.09		
12		0	.93	1.6	2.4	17	9.3	2.7	1.6	.02		
13		0	.85	1.3	2.3	8.3	10	2.9	1.6	0		
14		0	.83	1.5	2.1	2.9	9.9	2.9	1.9	0		
15		0	.75	1.4	2.0	7.7	9.9	2.7	8.5	0		
16		0	.79	1.3	2.0	9.9	8.9	2.8	1.5	0		
17		0	.84	1.3	2.1	18	4.8	2.7	1.2	.06		
18		0	.89	1.3	2.1	19	4.4	2.7	1.5	.28		
19		0	.92	1.5	2.0	20	3.5	2.7	1.5	.24		
20		0	1.2	6.5	1.9	11	4.4	2.7	1.2	.23		
21		0	1.3	12	1.8	5.5	5.0	2.8	1.1	.27		
22		0	1.4	4.9	1.8	13	4.5	2.5	1.1	.14		
23		0	1.4	3.5	1.7	13	4.4	2.2	1.0	.01		
24		0	1.4	3.0	1.8	8.7	4.1	2.1	.95	.01		
25		0	1.5	2.6	1.7	7.0	3.2	2.0	.73	.15		
26		0	1.5	2.4	1.7	6.7	4.7	2.0	.35	.08		
27		3.3	1.3	2.3	1.7	5.9	5.1	1.7	.67	0		
28		6.7	1.6	2.4	1.6	5.5	4.3	1.6	.93	0		
29		3.2	1.7	2.2	---	6.1	3.9	1.6	.99	0		
30		1.9	1.9	2.1	---	7.5	3.4	1.5	1.1	0		
31		---	2.0	2.1	---	6.6	---	1.4	---	0		
TOTAL	0	15.1	36.66	122.6	56.7	242.6	269.6	81.3	49.32	7.78	0	0
MEAN	0	.50	1.18	3.95	2.02	7.83	8.99	2.62	1.64	.25	0	0
MAX	0	6.7	2.0	18	3.1	20	23	4.2	8.5	1.1	0	0
MIN	0	0	.75	1.3	1.6	1.5	3.2	1.4	.35	0	0	0
AC-FT	0	30	73	243	112	481	535	161	98	15	0	0
CAL YR 1981	TOTAL	962.59	MEAN	2.64	MAX	24	MIN	0	AC-FT	1910		
WTR YR 1982	TOTAL	881.66	MEAN	2.42	MAX	23	MIN	0	AC-FT	1750		

## 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.--33 years, 13.2 ft<sup>3</sup>/s (0.374 m<sup>3</sup>/s), 9,560 acre-ft/yr (11.8 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 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)
Mar. 14	1330	239 6.77	5.03 1.533
Mar. 17	0745	398 11.3	5.35 1.631
Apr. 1	0515	*672 19.0	5.78 1.762

Minimum daily, 0.64 ft<sup>3</sup>/s (0.018 m<sup>3</sup>/s) Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.0	2.1	3.2	2.3	2.1	191	5.0	3.0	2.6	1.7	1.3
2	1.0	.89	2.1	2.3	2.1	2.8	49	4.6	3.0	2.3	1.9	1.2
3	1.2	.76	1.9	2.3	2.1	2.6	18	4.6	3.0	2.3	2.1	1.0
4	1.2	.76	1.7	2.4	2.1	2.3	11	4.6	3.3	2.3	1.9	1.0
5	1.2	.89	1.7	30	2.1	2.3	8.8	4.6	3.3	2.3	1.9	.89
6	1.0	.89	1.7	4.7	2.1	2.1	7.8	4.6	3.3	2.3	1.7	.89
7	1.0	.89	1.5	3.6	2.1	1.9	6.9	5.0	3.3	2.3	1.7	1.0
8	.89	.89	1.5	3.3	2.1	1.9	6.5	5.0	3.6	2.1	1.7	1.2
9	.89	.89	1.5	3.0	2.1	1.9	6.5	5.0	3.9	2.1	1.5	1.2
10	1.0	.89	1.5	2.8	6.6	1.7	6.7	5.0	3.9	1.9	1.2	1.3
11	1.0	.89	1.5	2.6	5.4	19	53	4.6	3.9	1.9	1.2	1.3
12	1.0	1.0	1.5	2.3	3.3	20	23	4.2	3.9	1.9	1.3	1.5
13	1.0	1.0	1.5	2.1	2.8	5.0	12	4.2	3.9	1.9	1.3	1.3
14	1.0	1.5	1.5	2.1	2.8	34	9.3	4.2	3.9	1.9	1.3	1.5
15	1.0	1.0	1.5	1.9	2.6	14	7.8	3.9	3.6	1.9	1.5	1.5
16	.89	1.0	1.3	1.9	2.6	32	7.8	3.6	3.6	1.9	1.5	1.7
17	.76	1.0	1.3	1.9	2.3	156	6.9	3.6	3.6	1.7	1.5	1.7
18	.76	1.2	1.3	1.9	2.1	42	6.5	3.3	3.9	1.7	1.5	1.7
19	.76	1.2	1.5	2.2	2.1	17	6.5	3.3	3.9	1.7	1.5	1.7
20	.64	1.2	1.5	16	2.1	11	5.7	3.3	3.6	1.7	1.5	1.5
21	.76	1.2	1.3	11	2.1	8.3	5.0	3.3	3.0	1.7	1.5	1.5
22	.76	1.2	1.3	4.6	2.1	6.9	4.6	3.0	3.0	1.7	1.3	1.3
23	.76	1.2	1.3	3.6	2.1	5.7	4.2	3.0	3.0	1.7	1.3	1.2
24	.89	1.2	1.3	3.3	2.1	4.6	3.9	3.0	2.8	1.7	1.5	1.5
25	.89	1.2	1.3	3.0	2.1	4.2	3.9	3.3	2.8	1.7	1.5	2.3
26	1.0	1.3	1.3	2.8	2.1	6.0	3.9	3.3	2.6	1.7	1.5	1.7
27	1.0	2.0	1.3	2.8	2.1	3.9	3.9	3.3	2.3	1.7	1.5	1.5
28	1.3	7.0	1.5	2.8	1.9	5.3	4.2	3.3	2.6	1.7	1.5	1.5
29	1.5	2.6	1.5	2.6	---	8.0	4.6	3.3	2.8	1.7	1.5	1.5
30	1.3	2.3	2.2	2.3	---	12	5.0	3.3	2.8	1.7	1.5	1.3
31	1.2	---	1.7	2.3	---	6.5	---	3.3	---	1.7	1.3	---
TOTAL	30.75	40.94	47.6	133.6	70.4	443	493.9	121.6	99.1	59.4	47.3	41.68
MEAN	.99	1.36	1.54	4.31	2.51	14.3	16.5	3.92	3.30	1.92	1.53	1.39
MAX	1.5	7.0	2.2	30	6.6	156	191	5.0	3.9	2.6	2.1	2.3
MIN	.64	.76	1.3	1.9	1.9	1.7	3.9	3.0	2.3	1.7	1.2	.89
AC-FT	61	81	94	265	140	879	980	241	197	118	94	83
CAL YR 1981	TOTAL	2052.00	MEAN	5.62	MAX	216	MIN	.53	AC-FT	4070		
WTR YR 1982	TOTAL	1629.27	MEAN	4.46	MAX	191	MIN	.64	AC-FT	3230		

## 11117600 COYOTE CREEK NEAR OAK VIEW, CA

LOCATION.--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>3</sup> (34.2 km<sup>3</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.--24 years, 8.02 ft<sup>3</sup>/s (0.227 m<sup>3</sup>/s), 5,810 acre-ft/yr (7.16 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. 17	0545	414 11.7	4.24 1.292
Apr. 1	0315	*567 16.1	4.57 1.393

Minimum daily, 0.12 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sep. 14, 15, 20-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.39	.24	1.0	7.0	1.0	.85	156	3.1	.81	.56	.26	.15
2	.34	.24	.95	3.0	1.0	1.8	32	2.1	.81	.55	.26	.15
3	.34	.24	.83	2.0	1.0	1.1	16	1.7	.81	.54	.25	.15
4	.31	.30	.95	.80	.95	1.0	10	1.7	.73	.53	.25	.14
5	.24	.36	.99	10	1.0	1.0	7.4	1.3	.74	.52	.24	.14
6	.23	.34	.81	4.0	1.0	1.0	5.1	1.3	.81	.52	.24	.14
7	.20	.34	.81	1.1	1.0	1.0	3.7	1.0	.81	.51	.23	.14
8	.21	.34	.81	1.3	.88	.93	2.4	1.3	.76	.51	.23	.14
9	.24	.34	.81	1.3	.81	.81	2.4	1.3	.81	.50	.22	.13
10	.24	.34	.81	1.3	2.0	.81	2.3	1.2	.81	.50	.21	.13
11	.23	.34	.81	1.5	1.1	6.5	36	1.2	.81	.49	.21	.13
12	.22	.34	.81	1.6	1.0	8.9	28	1.2	.81	.48	.20	.13
13	.24	.41	.81	1.3	1.0	8.0	20	1.0	.81	.46	.20	.13
14	.24	2.2	.81	1.3	1.0	18	16	1.1	.74	.45	.19	.12
15	.24	.62	.81	1.0	1.0	18	14	1.2	.62	.44	.19	.12
16	.23	.46	.81	.99	1.0	28	12	1.0	.62	.43	.19	.15
17	.24	.46	.81	.81	1.0	136	11	1.0	.62	.42	.19	.17
18	.24	.46	.81	.81	.81	40	9.8	1.2	.62	.41	.18	.13
19	.23	.46	.81	.93	.81	19	8.6	1.0	.62	.40	.18	.13
20	.19	.46	.89	15	.81	11	8.0	1.0	.62	.39	.18	.12
21	.21	.46	1.1	30	.81	6.9	6.8	1.0	.62	.38	.17	.12
22	.24	.46	1.3	15	.81	3.4	6.8	1.0	.62	.36	.17	.12
23	.24	.46	1.7	3.0	.81	2.2	6.2	1.0	.62	.35	.17	.12
24	.24	.41	1.2	2.0	.81	1.5	5.4	1.0	.62	.34	.17	.12
25	.24	.42	1.0	1.7	.81	.96	5.4	1.0	.62	.33	.16	.38
26	.27	.88	1.7	1.3	.81	.98	3.8	.83	.62	.31	.16	.69
27	.32	5.2	2.1	1.3	.81	1.0	3.8	.81	.62	.30	.16	.22
28	.50	4.1	1.8	1.0	.81	1.0	3.1	.81	.62	.29	.20	.20
29	.42	1.5	1.8	1.0	---	2.1	3.1	.81	.70	.28	.26	.20
30	.31	1.2	5.7	1.0	---	7.4	3.1	.73	.72	.27	.20	.20
31	.24	---	4.2	1.0	---	3.8	---	.75	---	.27	.16	---
TOTAL	8.27	24.38	40.55	115.34	26.65	334.94	448.2	36.64	21.17	13.09	6.28	5.11
MEAN	.27	.81	1.31	3.72	.95	10.8	14.9	1.18	.71	.42	.20	.17
MAX	.50	5.2	5.7	30	2.0	136	156	3.1	.81	.56	.26	.69
MIN	.19	.24	.81	.80	.81	.81	2.3	.73	.62	.27	.16	.12
AC-FT	16	48	80	229	53	664	889	73	42	26	12	10
CAL YR 1981	TOTAL	845.31	MEAN	2.32	MAX	140	MIN	.19	AC-FT	1680		
WTR YR 1982	TOTAL	1080.62	MEAN	2.96	MAX	156	MIN	.12	AC-FT	2140		

## 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.--24 years, 5.78 ft<sup>3</sup>/s (0.164 m<sup>3</sup>/s), 4,190 acre-ft/yr (5.17 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.--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)	
Mar. 17	0545	154	4.36	5.08	1.548
Apr. 1	0300	*317	8.98	5.71	1.740

Minimum, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	.69	.39	95	2.0	.68	.14	.05	
2				0	.64	1.2	21	1.9	.69	.13	.05	
3				0	.64	.27	12	2.0	.67	.12	.06	
4				0	.60	.27	8.7	1.8	.49	.12	.05	
5				4.1	.51	.37	7.3	1.8	.40	.12	.04	
6				.65	.46	.28	6.2	1.8	.41	.11	.02	
7				.01	.50	.23	5.3	1.3	.40	.11	0	
8				0	.46	.17	4.5	1.5	.40	.10	0	
9				0	.11	.06	3.6	1.4	.30	.10	0	
10				0	1.1	.04	4.0	1.2	.40	.10	0	
11				.01	.80	4.0	19	.81	.43	.09	0	
12				.02	.51	6.1	12	.83	.40	.09	0	
13				.02	.52	2.5	8.6	.69	.38	.09	0	
14				.03	.54	15	7.3	.79	.26	.09	0	
15				.05	.47	5.4	6.5	.90	.20	.09	0	
16				.06	.59	10	5.7	.73	.18	.09	0	
17				.08	.65	67	5.2	.59	.18	.09	0	
18				.20	.52	21	4.6	.49	.17	.09	0	
19				.29	.48	11	4.0	.63	.16	.08	0	
20				13	.09	6.9	3.7	.61	.15	.08	0	
21				9.9	.06	4.9	3.0	.65	.15	.08	0	
22				1.7	.06	3.7	2.9	.73	.14	.08	0	
23				1.0	.23	2.9	2.8	.47	.13	.07	0	
24				.78	.13	2.5	2.6	.80	.13	.07	0	
25				.68	.07	2.5	2.5	.83	.12	.07	0	
26				.61	.07	2.6	2.3	.89	.11	.07	0	
27				.47	.07	2.3	2.3	.97	.12	.06	0	
28				.12	.08	2.3	1.9	.96	.15	.06	0	
29				.84	---	2.8	2.2	.97	.20	.06	0	
30				.81	---	3.6	2.1	.70	.18	.06	0	
31				.76	---	3.0	---	.63	---	.06	0	
TOTAL	0	0	0	36.19	11.65	185.28	268.8	32.37	8.78	2.77	.27	0
MEAN	0	0	0	1.17	.42	5.98	8.96	1.04	.29	.089	.009	0
MAX	0	0	0	13	1.1	67	95	2.0	.69	.14	.06	0
MIN	0	0	0	0	.06	.04	1.9	.47	.11	.06	0	0
AC-FT	0	0	0	72	23	368	533	64	17	5.5	.5	0
CAL YR 1981	TOTAL	508.40	MEAN	1.39	MAX	69	MIN	0	AC-FT	1010		
WTR YR 1982	TOTAL	546.11	MEAN	1.50	MAX	95	MIN	0	AC-FT	1080		



## 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, 209,800 acre-ft (259 hm<sup>3</sup>) Sept. 30, 1982, elevation 549.80 ft (167.579 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 223,200 acre-ft (275 hm<sup>3</sup>) Apr. 21, elevation 555.24 ft (169.237 m); minimum, 209,800 acre-ft (259 hm<sup>3</sup>) Sept. 30, elevation 549.80 ft (167.579 m).

## MONTH-END ELEVATION NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	554.88	222,300	--
Oct. 31.....	553.77	219,500	-2,800
Nov. 30.....	553.16	218,000	-1,500
Dec. 31.....	552.52	216,400	-1,600
CAL YR 1981.....	--	--	-16,900
Jan. 31.....	552.55	216,500	+100
Feb. 28.....	552.24	215,800	-700
Mar. 31.....	553.41	218,700	+2,900
Apr. 30.....	555.07	222,800	+4,100
May 31.....	554.50	221,400	-1,400
June 30.....	553.66	219,300	-2,100
July 31.....	552.38	216,100	-3,200
Aug. 31.....	550.85	212,300	-3,800
Sept. 30.....	549.80	209,800	-2,500
WTR YR 1982.....	--	--	-12,500

## 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, 1.6 ft<sup>3</sup>/s (0.045 m<sup>3</sup>/s) Mar. 11, gage height, 3.01 ft (0.917 m); no flow Nov. 10-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.01	.02	.08	.07	.11	.43	.59	.25	.10	.04	.01
2	.03	.01	.02	.04	.08	.15	.24	.53	.25	.09	.05	.01
3	.03	.01	.02	.04	.09	.13	.21	.47	.30	.08	.04	.01
4	.03	.01	.12	.05	.09	.13	.22	.43	.29	.08	.04	.01
5	.03	.01	.07	.18	.09	.11	.22	.39	.27	.10	.04	.01
6	.03	.01	.04	.09	.09	.10	.23	.38	.25	.10	.06	.02
7	.02	.01	.02	.05	.10	.10	.23	.37	.24	.16	.05	.02
8	.02	.01	.02	.05	.10	.10	.22	.36	.22	.20	.04	.02
9	.02	.01	.02	.04	.10	.10	.23	.32	.23	.08	.07	.02
10	.02	0	.02	.04	.19	.10	.26	.29	.18	.07	.07	.02
11	.02	0	.02	.04	.14	.38	.49	.26	.17	.08	.07	.02
12	.02	0	.02	.04	.11	.22	.37	.25	.16	.08	.07	.02
13	.02	0	.02	.04	.10	.16	.35	.22	.14	.10	.09	.02
14	.02	.01	.02	.04	.10	.34	.33	.21	.16	.08	.05	.02
15	.02	.01	.02	.04	.11	.20	.35	.19	.12	.08	.05	.02
16	.02	.01	.04	.04	.11	.44	.36	.17	.11	.07	.07	.02
17	.02	.01	.05	.04	.11	.55	.40	.16	.10	.06	.06	.02
18	.02	.01	.05	.04	.11	.34	.41	.15	.10	.06	.04	.02
19	.02	.01	.05	.04	.11	.27	.46	.13	.09	.06	.03	.01
20	.02	.01	.05	.04	.11	.23	.46	.11	.08	.06	.02	.02
21	.02	.01	.05	.04	.11	.21	.44	.11	.08	.06	.02	.02
22	.02	.01	.04	.04	.11	.19	.44	.10	.08	.05	.02	.02
23	.01	.01	.04	.04	.10	.18	.64	.08	.08	.05	.02	.01
24	.01	.01	.04	.04	.10	.19	.62	.08	.09	.04	.01	.02
25	.01	.01	.05	.05	.10	.18	.72	.09	.09	.04	.01	.02
26	.01	.02	.07	.05	.10	.19	.62	.11	.09	.04	.01	.02
27	.01	.03	.08	.06	.10	.18	.57	.14	.12	.07	.01	.02
28	.01	.02	.08	.06	.09	.22	.62	.17	.10	.06	.01	.02
29	.01	.02	.08	.06	---	.26	.72	.20	.10	.05	.01	.02
30	.01	.02	.22	.06	---	.27	.64	.21	.11	.04	.01	.02
31	.01	---	.05	.07	---	.20	---	.24	---	.03	.01	---
TOTAL	.59	.32	1.51	1.63	2.92	6.53	12.50	7.51	4.65	2.32	1.19	.53
MEAN	.019	.011	.049	.053	.10	.21	.42	.24	.16	.075	.038	.018
MAX	.03	.03	.22	.18	.19	.55	.72	.59	.30	.20	.09	.02
MIN	.01	0	.02	.04	.07	.10	.21	.08	.08	.03	0.01	0.01
AC-FT	1.2	.60	3.0	3.2	5.8	13	25	15	9.2	4.6	2.4	1.1

CAL YR 1981 TOTAL 74.62 MEAN .20 MAX 9.50 MIN 0 AC-FT 148  
WTR YR 1982 TOTAL 42.2 MEAN .12 MAX .72 MIN 0 AC-FT 84

## 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: 55 years (water years 1912-13, 1930-82), 58.3 ft<sup>3</sup>/s (1.651 m<sup>3</sup>/s), 42,240 acre-ft/yr (52.1 hm<sup>3</sup>/yr).  
Combined river and diversion: 50 years, 67.8 ft<sup>3</sup>/s (1.920 m<sup>3</sup>/s), 49,120 acre-ft/yr (60.6 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, many days during 1982.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 834 ft<sup>3</sup>/s (23.6 m<sup>3</sup>/s) Apr. 1, gage height, 4.06 ft (1.237 m); no flow many days October through December.  
Combined river and diversion: Maximum discharge, 843 ft<sup>3</sup>/s (23.9 m<sup>3</sup>/s) Apr. 1; minimum daily, 0.62 ft<sup>3</sup>/s (0.018 m<sup>3</sup>/s) Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	0	0	.40	2.4	.28	257	9.6	4.4	2.6	2.5	.41
2	.31	0	0	.35	3.9	.38	71	10	2.7	3.4	3.2	.39
3	.15	0	.02	.30	3.4	.36	35	9.3	2.5	3.7	1.2	.39
4	.09	0	.02	.35	.92	.31	26	8.3	2.3	5.0	.95	.38
5	.08	0	.02	.40	.77	.30	21	6.6	3.4	9.1	1.1	.38
6	.08	0	.01	.25	.64	.24	15	5.6	6.7	4.1	1.2	.78
7	.05	0	.01	.14	.63	.25	11	4.7	5.2	2.0	1.4	.94
8	.05	0	.01	.23	.60	.53	11	8.5	2.6	2.0	1.9	.53
9	.05	0	.01	1.4	.56	.77	12	11	2.6	2.8	2.9	.50
10	.03	0	.02	1.8	.73	.74	12	7.7	2.6	3.5	1.4	.63
11	.02	0	.03	2.5	.67	7.8	96	6.7	2.9	7.6	1.0	1.2
12	0	0	.03	3.2	.52	22	48	3.4	3.4	4.0	.86	1.1
13	0	0	.03	2.1	.48	2.8	23	3.6	7.5	1.2	.84	.98
14	0	.04	.03	.41	.48	37	17	4.1	5.1	1.2	1.1	.51
15	0	.02	.04	.21	.54	8.8	16	9.0	3.4	1.6	1.4	.35
16	0	.02	.03	.11	.68	39	17	7.5	3.2	1.7	1.3	.33
17	0	.01	.02	.08	.57	261	20	5.3	2.9	2.7	1.3	.31
18	0	.01	.02	.07	.44	77	19	3.1	3.1	6.6	1.4	.29
19	0	0	.03	.08	.37	22	9.6	2.6	3.3	3.4	2.5	.27
20	0	0	.04	2.9	.32	8.3	6.8	2.6	4.6	2.3	1.3	.28
21	0	0	.04	3.1	.26	9.1	8.4	2.7	4.7	1.5	1.4	.29
22	0	0	.04	.21	.25	5.7	9.0	3.3	4.5	1.3	2.4	.24
23	0	.01	.10	.16	.26	1.6	8.6	8.9	3.6	1.2	1.4	.21
24	0	.01	.20	.16	.24	1.5	10	7.0	3.5	1.3	.59	.23
25	0	.01	.30	.13	.21	3.2	8.9	7.5	3.4	4.1	.51	.29
26	0	.04	.35	.16	.19	4.8	9.5	16	6.1	3.2	.50	.28
27	0	.13	.40	.14	.20	4.4	7.1	18	9.6	1.4	.49	.24
28	0	.05	.50	.14	.22	4.2	6.5	19	6.2	1.2	.50	.22
29	0	.03	.60	.18	---	3.5	7.2	11	2.8	1.2	.58	.24
30	0	.01	.50	.18	---	7.3	6.8	9.0	2.6	.93	1.0	.20
31	0	---	.45	.31	---	6.0	---	8.5	---	1.2	.53	---
TOTAL	1.54	.39	3.9	22.15	21.45	541.16	825.4	240.1	121.4	89.03	40.65	13.39
MEAN	.05	.013	.13	.71	.77	17.5	27.5	7.75	4.05	2.87	1.31	.45
MAX	.63	.13	.60	3.2	3.9	261	257	19	9.6	9.1	3.2	1.2
MIN	0	0	0	.07	.19	.24	6.5	2.6	2.3	.93	.49	.20
AC-FT	3.1	.8	7.7	44	43	1070	1640	476	241	177	81	27
CAL YR 1981	TOTAL	3403.22	MEAN	9.32	MAX	357	MIN	0	AC-FT	6750		
WTR YR 1982	TOTAL	1920.56	MEAN	5.26	MAX	261	MIN	0	AC-FT	3810		

## 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 1981 TO SEPTEMBER 1982

## MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	8.5	6.9	4.3	2.7	8.7	266	19	18	14	11	10
2	9.2	8.4	6.5	3.2	4.3	10	81	18	17	13	14	10
3	9.1	8.3	7.1	2.5	7.9	10	45	18	17	15	13	10
4	9.0	8.2	6.7	4.1	11	9.9	34	19	14	13	13	9.1
5	9.0	8.0	7.2	4.3	9.9	9.9	31	20	13	15	10	9.1
6	8.9	7.7	7.1	3.9	9.4	6.7	25	20	13	16	11	7.5
7	8.9	7.4	6.6	2.3	9.2	4.8	21	19	17	15	11	9.6
8	8.8	7.4	6.6	1.8	9.5	8.7	19	17	18	11	9.5	12
9	8.8	6.7	6.6	4.9	9.5	11	21	18	17	15	12	7.1
10	8.7	6.7	6.5	5.8	9.6	11	23	17	17	11	13	8.9
11	8.6	7.0	6.5	4.7	9.6	18	103	19	16	14	12	7.4
12	8.6	7.1	6.2	3.5	9.4	32	57	17	14	16	12	10
13	8.6	6.7	6.2	9.3	8.8	12	32	16	14	15	12	9.4
14	8.5	6.4	6.7	10	8.4	45	27	15	17	13	9.9	12
15	8.5	6.4	6.6	9.6	6.0	18	25	17	16	11	11	10
16	8.4	6.8	6.5	8.9	9.2	48	25	17	16	15	11	10
17	8.5	6.7	6.3	8.9	9.5	268	23	16	16	9.9	11	10
18	8.4	6.7	6.6	8.9	9.7	86	24	16	16	14	7.7	10
19	8.7	6.6	6.1	8.8	10	33	23	18	15	13	11	8.7
20	9.1	6.6	6.1	12	10	18	19	16	14	15	11	9.3
21	8.9	6.2	6.2	12	8.4	14	18	17	14	15	8.9	10
22	7.8	3.3	6.2	9.1	8.4	14	20	13	17	12	11	10
23	8.5	5.5	6.1	9.1	8.1	15	19	15	16	13	12	10
24	8.7	7.2	6.2	9.1	6.8	15	19	19	16	11	12	10
25	3.6	6.6	6.1	8.9	7.9	13	19	15	15	12	12	10
26	6.1	6.9	6.5	9.0	10	13	18	16	14	12	11	10
27	9.1	6.9	6.3	8.9	9.4	12	19	18	16	13	10	7.9
28	8.9	7.0	6.4	8.9	8.0	13	19	19	17	12	11	10
29	4.1	7.0	6.5	8.9	---	15	19	19	16	14	9.6	10
30	9.0	7.4	6.3	6.1	---	18	18	18	16	13	9.1	9.8
31	8.7	---	5.8	.62	---	16	---	18	---	9.0	11	---
TOTAL	259.3	208.3	200.2	212.32	240.6	826.7	1112	539	472	409.9	343.7	287.8
MEAN	8.36	6.94	6.46	6.85	8.59	26.7	37.1	17.4	15.7	13.2	11.1	9.59
MAX	9.6	8.5	7.2	12	11	268	266	20	18	16	14	12
MIN	3.6	3.3	5.8	.62	2.7	4.8	18	13	13	9.0	7.7	7.1
AC-FT	514	413	397	421	477	1640	2210	1070	936	813	682	571
CAL YR 1981	TOTAL	6731.20	MEAN	18.4	MAX	364	MIN	3.1	AC-FT	13350		
WTR YR 1982	TOTAL	5111.82	MEAN	14.0	MAX	268	MIN	.62	AC-FT	10140		

11118500 VENTURA RIVER NEAR VENTURA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1907 to December 1908, water years 1967 to current year.

CHEMICAL ANALYSES: December 1907 to December 1908, water years 1967-79.

WATER TEMPERATURES: Water years 1969, 1971-73, 1975-81 to current year.

SEDIMENT RECORDS: Water years 1969-73, 1975 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1968 to September 1969, October 1970 to September 1973, October 1974 to September 1981.

SEDIMENT RECORDS: October 1968 to September 1973, October 1974 to September 1981.

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.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 32,000 mg/L (estimated) Jan. 25, 1969; minimum daily mean, no flow for many days most years.

SEDIMENT DISCHARGE: Maximum daily, 2,220,000 tons (2,010,000 metric tons), estimated, Jan. 25, 1969; minimum daily, 0 tons on many days most years.

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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)	SEDI- MENT, DIS- CHARGE TOTAL (T/DAY)
FEB						
03...	1430	12.0	4.9	28	.37	0
19...	1330	--	.40	15	.02	0
MAR						
02...	1410	12.0	.27	29	.02	0
19...	1330	--	24	12	.79	.1
31...	1100	16.0	9.4	20	.51	.1
APR						
22...	1510	--	9.3	6	.15	0
MAY						
04...	0920	18.0	6.7	6	.11	0
25...	1330	21.0	59	16	2.5	0
JUN						
03...	0930	17.5	2.7	11	.08	0
16...	1230	19.0	3.3	1	.00	0
JUL						
02...	1000	19.5	3.1	17	.14	0
22...	1230	22.5	1.3	11	.04	0
AUG						
03...	1020	22.0	1.2	9	.03	0
SEP						
02...	1100	21.5	.45	19	.02	0

## 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.--40 years (water years 1941-77, 1979-82), 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, 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.--Maximum discharge, 334 ft<sup>3</sup>/s (9.46 m<sup>3</sup>/s) Apr. 1 (0330 hrs), gage height, 5.23 ft (1.594 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 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0		0	0	0	72	.14				
2		0		0	0	.20	12	.08				
3		0		0	0	0	5.1	.05				
4		0		0	0	0	3.0	.05				
5		0		.71	0	0	2.0	.02				
6		0		.02	0	0	1.7	.05				
7		0		0	0	0	1.3	.02				
8		0		0	0	0	1.0	.05				
9		0		0	0	0	.83	.03				
10		0		0	0	0	.86	0				
11		0		0	.04	1.4	6.8	.01				
12		0		0	0	1.6	5.5	0				
13		0		0	0	.09	3.3	0				
14		0		0	0	1.8	2.5	0				
15		0		0	0	1.3	2.0	.01				
16		.68		0	0	3.0	1.6	0				
17		0		0	0	21	1.3	0				
18		0		0	0	8.7	1.1	0				
19		0		0	0	4.1	.84	0				
20		0		2.9	0	2.2	.67	0				
21		0		2.7	0	1.3	.44	0				
22		0		.40	0	.81	.34	0				
23		0		.12	0	.52	.28	0				
24		0		.03	0	.43	.26	0				
25		0		0	0	.33	.26	0				
26		0		0	0	.54	.24	0				
27		0		0	0	1.2	.19	0				
28		.13		0	0	1.6	.16	0				
29		0		0	---	1.8	.19	0				
30		0		0	---	1.2	.16	0				
31		---		0	---	.61	---	0				
TOTAL	0	.81	0	6.88	.04	55.73	127.92	.51	0	0	0	0
MEAN	0	.027	0	.22	.001	1.80	4.26	.016	0	0	0	0
MAX	0	.68	0	2.9	.04	21	72	.14	0	0	0	0
MIN	0	0	0	0	0	0	.16	0	0	0	0	0
AC-FT	0	1.6	0	14	.08	111	254	1.0	0	0	0	0
CAL YR 1981	TOTAL	185.57	MEAN	.51	MAX	57	MIN	0	AC-FT	368		
WTR YR 1982	TOTAL	191.89	MEAN	.53	MAX	72	MIN	0	AC-FT	381		

11119500 CARPINTERIA CREEK NEAR CARPINTERIA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1979 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD 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
JAN 21...	0930	2.7	640	8.2	--	--	--	--	--	--	--	--
MAR 15...	1410	2.8	660	8.4	19.0	--	--	--	--	--	--	--
APR 13...	1215	4.2	560	8.6	20.0	--	--	--	--	--	--	--
22...	1300	.45	610	8.6	25.0	260	120	63	25	30	20	.8
MAY 04...	0830	.05	560	8.4	17.0	--	--	--	--	--	--	--

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)
JAN 21...	--	--	--	--	--	--	448	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	453	--	--	--	--	--
APR 13...	--	--	--	--	--	--	379	--	--	--	--	--
22...	1.3	140	160	18	.3	16	--	398	.14	.20	50	<9
MAY 04...	--	--	--	--	--	--	421	--	--	--	--	--

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

## SAN YSIDRO CREEK BASIN

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, 0.09 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 5, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27 ft<sup>3</sup>/s (0.76 m<sup>3</sup>/s) Apr. 1 (0215 hrs), gage height, 1.17 ft (0.357 m), no other peak above base of 20 ft<sup>3</sup>/s (0.57 m<sup>3</sup>/s); minimum daily, 0.09 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	.23	.29	.44	.47	.41	11	.64	.55	.29	.16	.12
2	.17	.23	.29	.37	.46	.69	4.0	.64	.55	.29	.12	.12
3	.17	.23	.29	.29	.46	.61	2.9	.64	.55	.29	.12	.11
4	.17	.21	.29	.30	.46	.55	2.3	.64	.53	.29	.12	.10
5	.17	.23	.29	1.0	.46	.53	1.9	.64	.46	.29	.12	.09
6	.17	.23	.29	.63	.46	.46	1.8	.64	.46	.29	.12	.10
7	.17	.23	.29	.54	.46	.46	1.6	.64	.46	.29	.12	.10
8	.17	.23	.29	.46	.46	.46	1.4	.64	.46	.29	.12	.11
9	.17	.23	.29	.45	.46	.46	1.4	.64	.46	.29	.12	.19
10	.17	.23	.29	.37	.61	.46	1.4	.64	.46	.29	.12	.12
11	.17	.22	.29	.37	.60	1.1	4.0	.64	.46	.29	.12	.12
12	.17	.17	.29	.37	.55	1.5	3.0	.64	.46	.29	.12	.12
13	.17	.18	.29	.37	.55	.97	2.5	.64	.46	.29	.12	.12
14	.17	.99	.29	.37	.50	2.7	2.3	.64	.46	.23	.12	.12
15	.17	.62	.29	.37	.46	2.3	2.2	.61	.46	.23	.12	.12
16	.17	.46	.29	.37	.46	2.7	1.9	.55	.46	.23	.12	.17
17	.16	.44	.29	.37	.46	4.9	1.5	.55	.46	.23	.12	.17
18	.17	.30	.29	.37	.46	4.2	1.5	.55	.46	.21	.12	.17
19	.17	.30	.29	.35	.44	3.2	1.4	.55	.46	.17	.12	.12
20	.16	.29	.29	1.8	.37	2.6	1.3	.55	.46	.17	.12	.12
21	.12	.29	.29	1.5	.37	2.1	1.2	.55	.46	.17	.12	.12
22	.12	.29	.29	.99	.37	1.8	1.1	.55	.46	.17	.12	.12
23	.12	.29	.29	.83	.37	1.6	1.0	.55	.46	.17	.12	.10
24	.12	.29	.29	.72	.37	1.4	.84	.55	.42	.17	.12	.10
25	.12	.29	.29	.64	.37	1.4	.75	.55	.37	.17	.12	.23
26	.12	.34	.29	.64	.37	1.5	.75	.55	.35	.17	.12	.36
27	.16	.92	.29	.56	.37	1.3	.75	.55	.29	.17	.12	.21
28	.28	.79	.29	.55	.37	1.3	.75	.55	.29	.17	.12	.12
29	.25	.49	.29	.52	---	1.6	.75	.55	.29	.17	.12	.12
30	.23	.35	.47	.46	---	2.0	.74	.55	.29	.17	.12	.12
31	.23	---	.31	.46	---	2.0	---	.55	---	.17	.12	---
TOTAL	5.25	10.59	9.19	17.83	12.57	49.26	59.93	18.37	13.22	7.11	3.76	4.11
MEAN	.17	.35	.30	.58	.45	1.59	2.00	.59	.44	.23	.12	.14
MAX	.28	.99	.47	1.8	.61	4.9	11	.64	.55	.29	.16	.36
MIN	.12	.17	.29	.29	.37	.41	.74	.55	.29	.17	.12	.09
AC-FT	10	21	18	35	25	98	119	36	26	14	7.5	8.2
CAL YR 1981	TOTAL	244.95	MEAN	.67	MAX	23	MIN	.10	AC-FT	486		
WTR YR 1982	TOTAL	211.19	MEAN	.58	MAX	11	MIN	.09	AC-FT	419		



## 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>).

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. No regulation or diversion above station. Water at times released to creek for ground-water recharge from Gibraltar tunnel, several miles upstream.

AVERAGE DISCHARGE.--12 years, 3.16 ft<sup>3</sup>/s (0.089 m<sup>3</sup>/s), 2,290 acre-ft/yr (2.82 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, 186 ft<sup>3</sup>/s (5.27 m<sup>3</sup>/s) Mar. 14, gage height, 2.74 ft (0.835 m), no peak above base of 200 ft<sup>3</sup>/s (5.66 m<sup>3</sup>/s); minimum daily, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	.05	.03	0	38	.05				0
2	0	0	0	.01	0	2.8	5.8	0				0
3	0	0	0	0	0	.03	2.6	0				0
4	0	0	0	.05	0	0	1.4	0				0
5	0	0	0	6.6	0	0	.90	0				0
6	0	0	0	.04	0	0	.54	0				0
7	0	0	0	0	0	0	.31	0				0
8	0	0	0	0	0	0	.07	0				.08
9	0	0	0	0	0	0	0	0				1.6
10	0	0	0	0	1.2	0	.83	0				0
11	0	0	0	0	.03	8.3	26	0				0
12	0	0	0	0	0	1.0	5.5	0				0
13	0	0	0	0	0	.20	2.1	0				0
14	0	1.4	0	0	0	25	1.2	0				0
15	0	0	0	0	0	3.6	.81	0				0
16	0	0	0	0	0	14	.48	0				.08
17	0	0	0	0	0	31	.30	0				0
18	0	0	0	0	0	12	.14	0				0
19	0	0	0	.70	0	3.9	0	0				0
20	0	0	0	15	0	1.7	0	0				0
21	0	0	0	2.5	0	.85	0	0				0
22	0	0	0	.07	0	.36	.05	0				0
23	0	0	0	.01	0	.12	.02	0				0
24	0	0	0	0	0	.02	0	0				0
25	0	0	0	0	0	1.1	0	0				2.5
26	0	.60	0	0	0	.84	0	0				.30
27	0	8.0	0	0	0	.15	0	0				0
28	2.4	1.5	0	0	0	.38	0	0				0
29	0	.30	0	0	---	4.5	.99	0				0
30	0	0	1.5	0	---	.60	2.6	0				0
31	0	---	.01	0	---	5.3	---	0				---
TOTAL	2.4	11.8	1.51	25.03	1.26	117.75	90.64	.05	0	0	0	4.56
MEAN	.077	.39	.049	.81	.045	3.80	3.02	.002	0	0	0	.15
MAX	2.4	8.0	1.5	15	1.2	31	38	.05	0	0	0	2.5
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	4.8	23	3.0	50	2.5	234	180	.1	0	0	0	9.0
CAL YR 1981	TOTAL	466.68	MEAN	1.28	MAX 67	MIN 0	AC-FT 926					
WTR YR 1982	TOTAL	255.00	MEAN	.70	MAX 38	MIN 0	AC-FT 506					

## ARROYO BURRO CREEK BASIN

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.--12 years, 2.44 ft<sup>3</sup>/s (0.069 m<sup>3</sup>/s), 1,770 acre-ft/yr (2.18 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, 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, 137 ft<sup>3</sup>/s (3.88 m<sup>3</sup>/s) Mar. 16 (0815 hrs), gage height, 2.59 ft (0.789 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 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 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.53	.01	.02	.35	.04	.66	21	.25	.02	.02	.04	.02
2	.01	.01	.48	.15	.03	4.2	2.3	.20	.01	.02	.04	.02
3	0	.01	.01	.02	.05	.07	1.1	.19	.02	.02	.04	.02
4	0	0	0	.87	.03	.05	.93	.19	.01	.02	.04	.04
5	0	0	0	8.2	.04	.04	.81	.15	.01	.02	.05	.05
6	0	0	0	.03	.04	.05	.68	.14	.02	.04	.05	.06
7	0	.01	0	.02	.05	.03	.57	.12	.01	.03	.06	.04
8	0	.01	.01	.02	.06	.03	.53	.11	.01	.14	.05	1.4
9	0	.01	.01	.02	.07	.03	.47	.10	.01	.04	.05	3.0
10	.01	0	.01	.02	2.1	.02	1.6	.09	.02	.04	.04	.03
11	0	.01	.01	.02	.04	12	23	.08	.02	.03	.04	.03
12	.01	.02	0	.02	.02	.40	2.6	.07	.02	.03	.05	.04
13	.01	.05	.01	.02	.01	.06	1.3	.06	.01	.03	.05	.03
14	.01	2.4	.04	.02	.02	19	1.1	.06	.02	.03	.05	.03
15	.01	0	.01	.03	.02	1.1	1.1	.05	.01	.03	.05	.27
16	0	0	.01	.04	.18	14	.95	.05	.01	.02	.05	.61
17	.02	.01	.02	.02	.05	17	.80	.04	.02	.02	.05	.04
18	.07	0	.02	.04	.03	6.3	.67	.04	.02	.03	.05	.03
19	.05	0	.02	5.7	.03	1.1	.63	.03	.02	.04	.05	.03
20	.06	0	.03	32	.03	.80	.54	.03	.02	.22	.03	.04
21	.06	.01	.03	2.9	.04	.63	.48	.03	.02	.78	.02	.04
22	.03	.01	.03	.12	.05	.44	.48	.02	.02	.48	.02	.03
23	0	.01	.03	.06	.04	.40	.42	.02	.01	.03	.02	.03
24	0	.01	.04	.03	.03	.32	.38	.02	.01	.02	.02	.05
25	0	0	.07	.02	.03	2.2	.32	.02	.01	.03	.02	5.7
26	.01	1.7	.01	.02	.03	.87	.31	.02	0	.03	.02	.95
27	.03	11	.02	.01	.03	.24	.30	.02	.01	.03	.02	.10
28	3.8	2.5	.03	.18	.03	.94	.31	.02	.02	.03	.02	.09
29	.02	.04	.81	.06	---	4.2	.26	.02	.02	.04	.03	.10
30	.01	.01	2.2	.02	---	.41	.27	.01	.01	.04	.03	.10
31	.01	---	.04	.04	---	4.6	---	.01	---	.04	.03	---
TOTAL	4.76	17.84	4.02	51.07	3.22	92.19	66.21	2.26	.44	2.42	1.18	13.02
MEAN	.15	.59	.13	1.65	.12	2.97	2.21	.073	.015	.078	.038	.43
MAX	3.8	11	2.2	32	2.1	19	23	.25	.02	.78	.06	5.7
MIN	0	0	0	.01	.01	.02	.26	.01	0	.02	.02	.02
AC-FT	9.4	35	8.0	101	6.4	183	131	4.5	.9	4.8	2.3	26
CAL YR 1981	TOTAL	367.38	MEAN	1.01	MAX	54	MIN	0	AC-FT	729		
WTR YR 1982	TOTAL	258.63	MEAN	.71	MAX	32	MIN	0	AC-FT	513		

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 above station. Some pumping for irrigation.

AVERAGE DISCHARGE.--12 years, 1.68 ft<sup>3</sup>/s (0.048 m<sup>3</sup>/s), 1,220 acre-ft/yr (1.50 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)	
Jan. 20	1230	93	2.63	2.04	0.622
Apr. 1	unknown	*320	9.06	2.68	.817
Apr. 11	0900	84	2.38	2.01	.613

Minimum, no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	.06	.06	.14	30	.09				0
2	0	0	0	0	.04	2.1	7.0	.05				0
3	0	0	0	0	.05	.17	1.6	.02				0
4	0	0	0	.11	.04	.04	.85	.06				0
5	0	0	0	3.2	.10	.01	.65	.05				0
6	0	0	0	.11	.01	0	.60	.05				0
7	0	0	0	0	0	0	.59	.04				0
8	0	0	0	0	0	.01	.55	.05				0
9	0	0	0	0	0	0	.53	.05				.22
10	0	0	0	0	.61	0	.78	.03				0
11	0	0	0	0	.16	3.1	24	0				0
12	0	0	0	0	.03	.45	3.2	0				0
13	0	0	0	0	.01	.11	1.3	.01				0
14	0	.23	0	0	0	11	.79	.01				0
15	0	0	0	0	0	1.4	.62	.01				0
16	0	0	0	0	.02	8.2	.55	0				0
17	0	0	0	0	0	17	.44	0				0
18	0	0	0	0	0	5.3	.38	0				0
19	0	0	0	.35	0	2.0	.34	0				0
20	0	0	0	18	0	.77	.29	0				0
21	0	0	0	2.1	0	.49	.23	0				0
22	0	0	0	.48	0	.33	.20	.02				0
23	0	0	0	.29	0	.31	.21	.11				0
24	0	0	0	.21	0	.34	.11	0				0
25	0	0	0	.13	0	.55	.10	.05				.21
26	0	.04	0	.10	0	1.7	.14	.08				.06
27	0	1.8	0	.10	0	.45	.16	.07				0
28	1.1	1.7	0	.15	0	.80	.07	.05				0
29	0	.28	0	.16	---	3.6	.01	.03				0
30	0	0	.59	.10	---	1.0	.01	0				0
31	0	---	0	.08	---	4.0	---	0				---
TOTAL	1.1	4.05	.59	25.73	1.13	65.37	76.3	.93	0	0	0	.49
MEAN	.035	.14	.019	.83	.04	2.11	2.54	.03	0	0	0	.016
MAX	1.1	1.8	.59	18	.61	17	30	.11	0	0	0	.22
MIN	0	0	0	0	0	0	.01	0	0	0	0	0
AC-FT	2.2	8.0	1.2	51	2.2	130	151	1.8	0	0	0	1.0
CAL YR 1981	TOTAL	341.24	MEAN	.93	MAX	18	MIN	0	AC-FT	677		
WTR YR 1982	TOTAL	175.69	MEAN	.48	MAX	30	MIN	0	AC-FT	348		

## 11120000 ATASCADERO CREEK NEAR GOLETA, CA

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.

DRAINAGE AREA.--18.9 mi<sup>2</sup> (49.0 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1947, published as Alascadero Creek near Goleta.

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.

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. Small diversions for irrigation above station. Some low flow results from return irrigation waste water.

AVERAGE DISCHARGE.--41 years, 4.65 ft<sup>3</sup>/s (0.132 m<sup>3</sup>/s), 3,370 acre-ft/yr (4.16 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,380 ft<sup>3</sup>/s (152 m<sup>3</sup>/s) Jan. 18, 1973, gage height, 13.1 ft (3.99 m) datum then in use, from rating curve extended above 2,300 ft<sup>3</sup>/s (65.1 m<sup>3</sup>/s); maximum gage height, 13.3 ft (4.05 m), from floodmark, Dec. 3, 1974, datum then in use; no flow some days in each year.

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)	
Jan. 20	1100	257	7.28	3.49	1.064
Apr. 1	0200	*457	12.9	4.39	1.338
Apr. 11	0900	339	9.60	4.08	1.244

Minimum, no flow several days during October.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	.04	.05	.86	.05	1.9	108	.16	.50	.09	.09	.12
2	.11	.03	.04	.21	.05	13	14	.13	.89	.09	.22	.11
3	.04	.04	.06	.08	.07	.62	5.8	.16	.14	.09	.18	.10
4	.04	.04	.05	.87	.13	.13	3.0	.64	.39	.10	.10	.08
5	.02	.05	.04	22	.37	.22	2.0	.25	.81	.10	.08	.08
6	.01	.08	.04	.28	.42	.09	.97	.14	.07	.10	.07	.08
7	.01	.06	.04	.09	.06	.07	.63	.16	.05	.12	.06	.10
8	.01	.05	.04	.08	.06	.12	.37	.15	.05	.12	.06	.11
9	.01	.04	.04	.08	.06	.24	.27	.11	.06	.14	.05	8.6
10	.02	.05	.04	.08	5.4	.32	2.9	.19	.06	.12	.06	.13
11	.01	.06	.04	.08	.47	30	86	.69	.07	.11	.06	.09
12	0	.05	.04	.07	.09	2.8	16	.74	.64	.11	.07	.08
13	0	.06	.04	.07	.07	.21	5.4	.88	.69	.11	.08	.18
14	0	3.8	.04	.07	.06	35	3.2	.86	.36	.13	.10	.56
15	0	.22	.04	.07	.06	6.5	1.9	.83	.12	.13	.08	.63
16	0	.14	.04	.07	.28	38	1.3	.80	.11	.14	.07	.94
17	0	.08	.04	.07	.09	63	.95	.85	.11	.13	.11	.60
18	0	.06	.04	.07	.06	33	.60	.43	.07	.12	.08	.57
19	0	.08	.04	5.1	.05	8.3	.39	.12	.12	.11	.08	.61
20	0	.11	.05	87	.05	3.1	.52	.11	.13	.12	.08	.66
21	0	.09	.05	10	.05	1.5	1.2	.16	.14	.11	.14	.16
22	0	.09	.04	.47	.39	.80	1.2	.14	.13	.10	.12	.10
23	0	.10	.03	.18	.45	.55	1.0	.13	.13	.11	.07	.10
24	0	.10	.05	.13	.18	.49	.45	.13	.13	.20	.16	.33
25	0	.37	.03	.11	.11	2.2	.10	.12	.12	.08	.18	9.3
26	0	2.5	.04	.09	.07	5.7	.08	.27	.10	.06	.22	3.0
27	.01	18	.04	.08	.08	.40	.23	.61	.11	.06	.18	.10
28	8.9	3.8	.03	.24	.08	2.0	.18	.75	.09	.06	.16	1.5
29	.27	.45	.07	.11	---	12	.08	.58	.08	.07	.15	.08
30	.06	.09	9.2	.06	---	3.5	.13	.49	.10	.07	.12	.02
31	.05	---	.15	.06	---	9.2	---	.52	---	.08	.11	---
TOTAL	10.39	30.73	10.58	128.83	9.36	274.96	258.85	12.3	6.57	3.28	3.39	29.12
MEAN	.34	1.02	.34	4.16	.33	8.87	8.63	.40	.22	.11	.11	.97
MAX	8.9	18	9.2	87	5.4	63	108	.88	.89	.20	.22	9.3
MIN	0	.03	.03	.06	.05	.07	.08	.11	.05	.06	.05	.02
AC-FT	21	61	21	256	19	545	513	24	13	6.5	6.7	58

CAL YR 1981	TOTAL	1055.66	MEAN	2.89	MAX	186	MIN	0	AC-FT	290
WTR YR 1982	TOTAL	778.36	MEAN	2.13	MAX	108	MIN	0	AC-FT	1540

11120000 ATASCADERO CREEK NEAR GOLETA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to September 1982 (discontinued).  
 CHEMICAL ANALYSES: Water years 1978 to September 1982 (discontinued).  
 WATER TEMPERATURES: October 1981 to September 1982 (discontinued).  
 SEDIMENT RECORDS: December 1981 to April 1982 (discontinued).

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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 05...	1500	.02	1890	7.7	21.0	--	--	--	--	--	--	--
NOV 03...	1645	.04	1625	7.2	17.0	--	--	--	--	--	--	--
30...	1530	--	1120	7.9	16.0	--	--	--	--	--	--	--
DEC 31...	1345	.12	900	7.3	13.0	--	--	--	--	--	--	--
FEB 18...	1215	.06	1500	7.6	17.5	--	--	--	--	--	--	--
MAR 10...	1310	.44	1130	7.8	18.0	--	--	--	--	--	--	--
APR 22...	1500	1.4	910	8.9	29.0	288	140	66	30	84	38	2.2
MAY 05...	1015	.18	1610	7.9	18.0	--	--	--	--	--	--	--
JUN 15...	1415	.12	1400	7.8	19.5	--	--	--	--	--	--	--
JUL 20...	1130	.14	1310	7.5	22.0	--	--	--	--	--	--	--
SEP 15...	1125	.61	1500	8.2	15.0	--	--	--	--	--	--	--

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 05...	--	--	--	--	--	--	1340	--	--	--	--	--
NOV 03...	--	--	--	--	--	--	1120	--	--	--	--	--
30...	--	--	--	--	--	--	718	--	--	--	--	--
DEC 31...	--	--	--	--	--	--	573	--	--	--	--	--
FEB 18...	--	--	--	--	--	--	1120	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	827	--	--	--	--	--
APR 22...	5.2	150	190	120	.4	6.3	--	592 <sup>1</sup>	<.10	.03	160	23
MAY 05...	--	--	--	--	--	--	1130	--	--	--	--	--
JUN 15...	--	--	--	--	--	--	989	--	--	--	--	--
JUL 20...	--	--	--	--	--	--	918	--	--	--	--	--
SEP 15...	--	--	--	--	--	--	919	--	--	--	--	--

<sup>1</sup> Results based on Laboratory Alkalinity value.  
 < Actual value is known to be less than the value shown.

11120000 ATASCADERO CREEK NEAR GOLETA, CA---Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	16.0	12.0	---	19.5	---	---	---
2	---	---	---	---	---	16.0	17.0	---	---	---	---	20.0
3	---	17.0	---	---	---	11.0	---	---	---	---	---	---
4	---	---	---	---	12.0	---	---	---	---	---	21.0	---
5	21.0	---	---	11.5	---	---	---	18.0	---	---	---	---
6	---	---	---	---	---	---	21.0	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	12.0	---	---	---	---	---	---	---	---
10	---	---	---	---	14.0	18.0	18.0	---	---	---	---	---
11	---	---	---	---	10.0	14.0	14.0	---	---	---	---	---
12	---	---	---	---	12.0	17.0	20.0	---	---	---	---	---
13	---	---	---	---	---	16.0	---	---	---	---	---	---
14	---	---	---	---	---	14.0	---	---	---	---	---	---
15	---	---	---	---	---	12.5	---	---	19.5	---	---	15.0
16	---	---	---	12.0	20.0	9.5	---	---	---	---	---	---
17	---	---	---	---	---	12.0	---	---	---	---	---	---
18	---	---	---	---	17.5	13.0	---	---	---	---	---	---
19	---	---	---	---	---	16.0	---	---	---	---	---	---
20	---	---	---	7.0	---	16.0	---	---	---	22.0	---	---
21	---	---	---	11.0	---	---	---	---	---	---	---	---
22	---	---	---	11.0	---	---	29.0	---	---	---	---	---
23	---	---	---	13.0	---	---	---	---	---	---	---	---
24	---	---	---	---	14.5	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	14.5	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	13.0	---	---	---	---	---	---	---	---
29	---	---	---	---	---	15.5	---	---	---	---	---	---
30	---	16.0	---	---	---	14.0	20.5	---	19.0	---	---	---
31	---	---	13.0	---	---	16.0	---	---	---	---	---	---
MEAN	21.0	16.5	13.0	11.5	14.5	14.5	19.0	18.0	19.5	22.0	21.0	17.5

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	DECEMBER			JANUARY			FEBRUARY		
	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	.05	6	0	.86	60	.14	.05	10	0
2	.04	6	0	.21	25	.01	.05	10	0
3	.06	6	0	.08	10	0	.07	13	0
4	.05	6	0	.87	46	.58	.13	16	.01
5	.04	6	0	22	441	64	.37	24	.02
6	.04	6	0	.28	40	.03	.42	23	.03
7	.04	6	0	.09	30	.01	.06	20	0
8	.04	6	0	.08	20	0	.06	17	0
9	.04	6	0	.08	18	0	.06	14	0
10	.04	6	0	.08	18	0	5.4	57	2.2
11	.04	6	0	.08	17	0	.47	44	.06
12	.04	6	0	.07	17	0	.09	19	0
13	.04	6	0	.07	17	0	.07	15	0
14	.04	6	0	.07	16	0	.06	10	0
15	.04	6	0	.07	16	0	.06	10	0
16	.04	6	0	.07	15	0	.28	12	.01
17	.04	6	0	.07	15	0	.09	9	0
18	.04	6	0	.07	15	0	.06	9	0
19	.04	6	0	5.1	85	12	.05	8	0
20	.05	6	0	87	873	181	.05	8	0
21	.05	6	0	10	154	8.3	.05	8	0
22	.04	6	0	.47	25	.03	.39	17	.04
23	.03	6	0	.18	17	.01	.45	35	.05
24	.05	6	0	.13	15	.01	.18	37	.02
25	.03	6	0	.11	15	0	.11	30	.01
26	.04	6	0	.09	14	0	.07	20	0
27	.04	6	0	.08	14	0	.08	10	0
28	.03	6	0	.24	13	.01	.08	10	0
29	.07	6	0	.11	12	0	---	---	---
30	9.2	300	7.5	.06	11	0	---	---	---
31	.15	20	.01	.06	10	0	---	---	---
TOTAL	10.58	---	7.51	128.83	---	266.13	9.36	---	2.45

11120000 ATASCADERO CREEK NEAR GOLETA, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MARCH			APRIL		
	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	1.9	14	.13	108	642	367
2	13	199	17	14	30	1.1
3	.62	27	.05	5.8	25	.39
4	.13	18	.01	3.0	20	.16
5	.22	16	.01	2.0	20	.11
6	.09	14	0	.97	10	.03
7	.07	12	0	.63	10	.02
8	.12	11	0	.37	5	0
9	.24	10	.01	.27	5	0
10	.32	50	.06	2.9	15	.23
11	30	336	55	86	594	301
12	2.8	48	.36	16	37	1.6
13	.21	15	.01	5.4	35	.51
14	35	410	57	3.2	30	.26
15	6.5	45	.79	1.9	25	.13
16	38	661	112	1.3	20	.07
17	63	351	60	.95	15	.04
18	33	120	11	.60	10	.02
19	8.3	30	.67	.39	10	.01
20	3.1	10	.08	.52	20	.03
21	1.5	10	.04	1.2	50	.16
22	.80	9	.02	1.2	50	.16
23	.55	7	.01	1.0	30	.08
24	.49	5	.01	.45	25	.03
25	2.2	10	.31	.10	25	.01
26	5.7	27	.99	.08	25	.01
27	.40	6	.01	.23	25	.02
28	2.0	16	.18	.18	25	.01
29	12	74	5.3	.08	25	.01
30	3.5	38	.36	.13	25	.01
31	9.2	141	14	---	---	---
TOTAL	274.96	---	335.41	258.85	---	673.21

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, DECEMBER 1981 TO APRIL 1982

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
DECEMBER 1981	10.58	7.51	27	35
JANUARY 1982	128.83	266.13	282	548
FEBRUARY.....	9.36	2.45	18	21
MARCH.....	274.96	335.41	706	1040
APRIL.....	258.85	673.21	506	1180
TOTAL.....	682.58	1284.71	1539	2824

11120000 ATASCADERO CREEK NEAR GOLETA, CA--Continued

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	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	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM
JAN										
05...	0820	22	10.5	583	35	--	--	--	--	--
20...	0710	53	7.0	987	141	--	78	85	85	86
20...	1045	239	5.0	960	619	44	56	66	75	84
22...	1620	3.4	11.0	17	.16	--	--	--	--	--
MAR										
02...	0700	41	13.5	520	58	69	82	89	95	97
11...	1510	43	14.0	934	108	76	88	94	98	99
13...	1445	.19	16.0	13	.00	--	--	--	--	--
15...	1740	3.2	15.0	21	.18	--	--	--	--	--
16...	1030	97	9.0	1310	343	--	64	75	87	95
17...	1300	80	12.0	218	47	--	--	--	--	--
26...	0715	6.0	12.0	35	.57	--	--	--	--	--
APR										
11...	0945	263	12.0	1970	1400	--	40	46	55	68
12...	1140	16	19.0	32	1.4	--	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 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										
05...	--	38	--	40	--	57	--	95	100	--
20...	--	87	--	87	--	88	--	92	99	100
20...	--	90	--	95	--	99	--	100	--	--
22...	--	88	--	94	--	100	--	--	--	--
MAR										
02...	--	98	--	99	--	100	--	--	--	--
11...	--	99	--	99	--	100	--	--	--	--
13...	--	85	--	--	--	--	--	--	--	--
15...	--	88	--	91	--	95	--	100	--	--
16...	--	99	--	100	--	--	--	--	--	--
17...	--	98	--	99	--	100	--	--	--	--
26...	--	95	--	97	--	100	--	--	--	--
APR										
11...	83	--	99	--	99	--	100	--	--	--
12...	--	97	--	100	--	--	--	--	--	--

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
AUG											
24...	1400	8	25	49	74	88	90	92	94	96	100



## 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.--41 years, 1.96 ft<sup>3</sup>/s (0.056 m<sup>3</sup>/s), 1,420 acre-ft/yr (1.75 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.--Maximum discharge, 267 ft<sup>3</sup>/s (7.56 m<sup>3</sup>/s) Apr. 1 (0115 hrs), gage height 5.00 ft (1.524 m) from rating curve extended above 40 ft<sup>3</sup>/s (1.13 m<sup>3</sup>/s) on basis of theoretical computation of peak flow, no other 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 m<sup>3</sup>/s) many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.08	.53	.44	.53	.60	82	.85	.21	.07	.06	.06
2	.03	.05	.53	.44	.53	1.6	13	.85	.14	.08	.05	.05
3	.03	.05	.53	.44	.53	1.4	8.0	.85	.25	.08	.06	.07
4	.03	.05	.53	.55	.53	.86	5.0	.85	.28	.23	.04	.07
5	.03	.05	.53	3.2	.53	.73	3.9	.85	.23	.26	.04	.08
6	.03	.05	.53	1.8	.53	.70	2.5	.85	.24	.07	.05	.06
7	.03	.05	.53	1.3	.53	.63	1.5	.85	.30	.08	.05	.08
8	.03	.05	.50	1.2	.53	.63	1.3	.86	.28	.08	.05	.13
9	.03	.05	.38	1.3	.59	.63	1.2	.86	.19	.08	.05	.22
10	.03	.05	.27	1.4	.86	.63	1.3	.85	.19	.10	.05	.05
11	.03	.05	.29	1.5	.83	1.9	26	.85	.19	.32	.05	.05
12	.03	.16	.44	1.5	.89	3.4	10	.85	.19	.43	.05	.04
13	.03	.16	.44	1.5	.73	1.5	4.4	.85	.23	.31	.05	.04
14	.03	.63	.44	1.5	.73	8.5	3.2	.85	.27	.12	.04	.04
15	.03	.60	.44	1.5	.73	4.1	2.7	.74	.19	.11	.03	.06
16	.03	.53	.44	1.4	.73	7.9	2.3	.73	.21	.13	.03	.05
17	.03	.71	.44	1.5	.73	20	1.8	.77	.19	.14	.03	.05
18	.03	.59	.44	1.5	.73	18	1.7	.73	.11	.14	.04	.05
19	.03	.37	.44	1.5	.73	9.7	1.5	.47	.24	.14	.05	.06
20	.03	.22	.50	13	.73	4.4	1.4	.39	.26	.11	.09	.04
21	.04	.19	.54	6.5	.73	2.7	1.2	.34	.27	.09	.05	.04
22	.06	.19	.35	1.8	.69	1.9	.97	.30	.19	.11	.04	.03
23	.07	.49	.24	1.2	.36	1.6	.92	.33	.05	.11	.09	.03
24	.08	.23	.24	.91	.37	1.5	.85	.37	.08	.10	.05	.03
25	.08	.19	.24	.79	.52	1.4	.85	.37	.06	.10	.04	.12
26	.08	.20	.28	.67	.66	1.5	.86	.17	.12	.09	.04	.28
27	.16	1.3	.33	.61	.53	1.4	.85	.18	.14	.07	.05	.13
28	.53	1.3	.29	.57	.53	1.6	.85	.23	.23	.05	.07	.17
29	.18	.65	.34	.53	---	2.7	.85	.30	.08	.05	.05	.23
30	.08	.53	.46	.53	---	4.6	.85	.37	.06	.05	.04	.09
31	.09	---	.49	.53	---	11	---	.44	---	.05	.03	---
TOTAL	2.12	9.82	12.97	53.11	17.64	119.71	183.75	19.15	5.67	3.95	1.51	2.5
MEAN	.068	.33	.42	1.71	.63	3.86	6.12	.62	.19	.13	.049	.083
MAX	.53	1.3	.54	13	.89	20	82	.86	.30	.43	.09	.28
MIN	.03	.05	.24	.44	.36	.60	.85	.17	.05	.05	.03	.03
AC-FT	4.2	19	26	105	35	237	364	38	11	7.8	3.0	5.0
CAL YR 1981	TOTAL	430.89	MEAN	1.18	MAX	69	MIN	.02	AC-FT	855		
WTR YR 1982	TOTAL	431.90	MEAN	1.18	MAX	82	MIN	.03	AC-FT	857		

## SAN JOSE CREEK BASIN

11120500 SAN JOSE CREEK NEAR GOLETA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1978 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD 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												
08...	1530	.04	2000	7.9	17.0	--	--	--	--	--	--	--
NOV												
03...	1520	.08	1900	7.8	14.8	--	--	--	--	--	--	--
30...	1130	.50	1200	7.8	14.0	--	--	--	--	--	--	--
DEC												
29...	1640	.31	1260	7.5	13.0	--	--	--	--	--	--	--
FEB												
09...	1030	.64	1120	8.1	12.0	469	220	125	38	69	24	1.4
MAR												
11...	1115	1.7	900	7.9	14.5	--	--	--	--	--	--	--
MAY												
25...	1145	.04	1400	8.0	--	--	--	--	--	--	--	--
JUN												
15...	1145	.18	1400	7.8	15.0	--	--	--	--	--	--	--
JUL												
20...	1100	.15	1400	7.8	18.0	--	--	--	--	--	--	--
AUG												
04...	1015	.05	2000	7.7	15.0	--	--	--	--	--	--	--
04...	1100	.08	2700	7.6	21.0	--	--	--	--	--	--	--
SEP												
15...	1000	.06	2200	7.7	11.7	--	--	--	--	--	--	--

DATE	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 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												
08...	--	--	--	--	--	--	1610	--	--	--	--	--
NOV												
03...	--	--	--	--	--	--	1370	--	--	--	--	--
30...	--	--	--	--	--	--	840	--	--	--	--	--
DEC												
29...	--	--	--	--	--	--	911	--	--	--	--	--
FEB												
09...	1.8	250	280	49	.4	14	--	727 <sup>1</sup>	.12	.010	90	16
MAR												
11...	--	--	--	--	--	--	631	--	--	--	--	--
MAY												
25...	--	--	--	--	--	--	774	--	--	--	--	--
JUN												
15...	--	--	--	--	--	--	1020	--	--	--	--	--
JUL												
20...	--	--	--	--	--	--	1030	--	--	--	--	--
AUG												
04...	--	--	--	--	--	--	1430	--	--	--	--	--
04...	--	--	--	--	--	--	1720	--	--	--	--	--
SEP												
15...	--	--	--	--	--	--	1440	--	--	--	--	--

<sup>1</sup> Results based on Laboratory Alkalinity value.

## 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>).

## WATER-DISCHARGE RECORDS

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.--12 years, 2.84 ft<sup>3</sup>/s (0.080 m<sup>3</sup>/s), 2,060 acre-ft/yr (2.54 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.--Maximum discharge, 373 ft<sup>3</sup>/s (10.6 m<sup>3</sup>/s) Apr. 1 (0145 hrs), gage height, 2.69 ft (0.820 m), from rating curve extended as explained above, no other peak above base of 250 ft<sup>3</sup>/s (7.08 m<sup>3</sup>/s); minimum, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	0	.18	1.1	.58	1.3	73	.80	.15	0	.03	0
2	0	0	.15	.71	.54	6.0	9.6	.75	.03	0	.01	.05
3	0	0	.16	.30	.51	1.5	7.0	.73	.01	0	0	0
4	0	0	.14	1.0	.49	.45	4.5	.63	0	0	0	0
5	0	0	.15	9.4	.47	.40	3.5	.71	0	0	0	0
6	0	0	.17	1.3	.46	.36	2.5	.58	0	0	0	0
7	0	0	.18	.67	.45	.35	1.8	.62	.01	0	0	0
8	0	0	.16	.50	.44	.34	1.6	.61	.07	0	0	.05
9	0	0	.09	.49	.43	.33	1.5	.47	.02	0	0	1.8
10	0	0	.29	.40	3.0	.33	2.5	.56	0	0	0	0
11	0	0	.06	.40	.80	10	32	.48	0	0	0	0
12	0	0	.13	.37	.39	4.2	9.4	.35	0	0	0	0
13	0	.03	.17	.26	.38	1.3	5.2	.31	0	0	0	0
14	0	1.8	.12	.35	.37	14	3.6	.40	.04	0	0	0
15	0	.07	.12	.30	.37	5.6	2.6	.33	.04	0	0	0
16	0	.01	.14	.23	.36	17	2.2	.22	0	0	0	.02
17	0	.17	.12	.26	.35	32	2.0	.26	.02	0	0	0
18	0	.36	.12	.38	.35	14	1.8	.25	.03	0	0	0
19	0	.02	.17	1.8	.34	7.6	1.5	.20	.09	0	0	0
20	0	0	.71	22	.34	3.0	1.3	.50	.09	0	0	0
21	0	0	.29	7.3	.33	1.8	1.1	.06	.15	0	0	0
22	0	0	.08	2.0	.33	1.5	1.1	.06	.07	0	0	0
23	0	0	.07	.93	.32	1.3	.92	.08	.01	0	0	0
24	0	0	.02	.85	.32	1.3	.85	.17	0	0	0	0
25	0	0	.03	.82	.32	2.3	.82	.14	0	0	0	2.1
26	0	.98	.05	.80	.31	2.0	.85	.09	0	0	0	.31
27	0	6.4	.24	.79	.31	1.2	.83	.05	0	0	0	0
28	4.0	4.1	.16	.87	.30	2.6	.80	.03	0	0	0	0
29	.01	.72	.55	.71	---	6.5	.83	.15	0	0	0	0
30	0	.24	3.5	.53	---	5.8	.80	.15	0	0	0	0
31	0	---	.31	.53	---	15	---	.19	---	.02	0	---
TOTAL	4.15	14.9	8.83	58.35	13.96	161.36	178	10.93	.83	.02	.04	4.33
MEAN	.13	.50	.28	1.88	.50	5.21	5.93	.35	.028	.001	.001	.14
MAX	4.0	6.4	3.5	22	3.0	32	73	.80	.15	.02	.03	2.1
MIN	0	0	.02	.23	.30	.33	.80	.03	0	0	0	0
AC-FT	8.2	30	18	116	28	320	353	22	1.6	.04	.08	8.6
CAL YR 1981	TOTAL	651.55	MEAN	1.79	MAX	107	MIN	0	AC-FT	1290		
WTR YR 1982	TOTAL	455.70	MEAN	1.25	MAX	73	MIN	0	AC-FT	904		

## SAN JOSE CREEK BASIN

11120510 SAN JOSE CREEK AT GOLETA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1981 to September 1982.

WATER TEMPERATURES: January to June 1982.

SEDIMENT RECORDS: December 1981 to April 1982.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				---	---	16.0	---	---	22.5			
2					---	---	---	---	---			
3				11.5	---	---	---	---	---			
4				---	---	---	---	---	---			
5				11.0	---	---	---	18.0	---			
6				---	---	---	17.5	---	---			
7				---	---	---	---	---	---			
8				---	---	---	---	---	---			
9					---	---	16.0	---	---			
10				12.0	---	17.0	---	---	---			
11				---	---	15.0	14.0	---	---			
12				---	---	---	14.0	---	---			
13				---	---	---	---	---	---			
14				---	14.0	---	---	---	---			
15				---	---	---	---	---	---			
16				---	---	10.0	---	---	---			
17				11.0	---	12.0	17.5	---	---			
18				---	---	12.0	---	---	---			
19				---	---	14.0	---	---	---			
20				9.5	---	---	---	---	---			
21				10.0	---	---	---	---	---			
22				---	---	---	---	---	---			
23				---	---	---	---	---	---			
24				---	---	---	---	---	---			
25				---	---	---	---	---	---			
26				---	16.0	12.5	---	---	---			
27				14.0	---	14.0	---	---	---			
28				12.5	---	16.0	---	---	---			
29				---	---	16.0	---	---	---			
30				---	---	---	---	---	---			
31				---	---	---	---	---	---			
MEAN				11.5	15.0	14.0	16.0	18.0	22.5			

11120510 SAN JOSE CREEK AT GOLETA, CA--Continued

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	DECEMBER			JANUARY			FEBRUARY		
	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	.18	2	0	1.1	2	.01	.58	9	.01
2	.15	2	0	.71	2	0	.54	9	.01
3	.16	2	0	.30	2	0	.51	9	.01
4	.14	2	0	1.0	100	.27	.49	9	.01
5	.15	2	0	9.4	1100	53	.47	9	.01
6	.17	2	0	1.3	100	.35	.46	9	.01
7	.18	2	0	.67	50	.09	.45	9	.01
8	.16	2	0	.50	25	.03	.44	9	.01
9	.09	2	0	.49	10	.01	.43	9	.01
10	.29	2	0	.40	5	.01	3.0	50	.40
11	.06	2	0	.40	5	.01	.80	20	.04
12	.13	2	0	.37	5	0	.39	8	.01
13	.17	2	0	.26	3	0	.38	8	.01
14	.12	2	0	.35	3	0	.37	8	.01
15	.12	2	0	.30	3	0	.37	7	.01
16	.14	2	0	.23	2	0	.36	7	.01
17	.12	2	0	.26	2	0	.35	7	.01
18	.12	2	0	.38	2	0	.35	6	.01
19	.17	2	0	1.8	341	13	.34	6	.01
20	.71	2	0	22	5470	483	.34	6	.01
21	.29	2	0	7.3	551	17	.33	5	0
22	.08	2	0	2.0	100	.54	.33	5	0
23	.07	2	0	.93	50	.13	.32	4	0
24	.02	2	0	.85	30	.07	.32	4	0
25	.03	2	0	.82	20	.04	.32	3	0
26	.05	2	0	.80	15	.03	.31	2	0
27	.24	2	0	.79	10	.02	.31	8	.01
28	.16	2	0	.87	10	.02	.30	19	.02
29	.55	20	.03	.71	10	.02	---	---	---
30	3.5	50	.47	.53	10	.01	---	---	---
31	.31	10	.01	.53	10	.01	---	---	---
TOTAL	8.83	---	.51	58.35	---	567.67	13.96	---	.65

DAY	MARCH			APRIL			MAY		
	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	46	.16	73	4850	2280			
2	6.0	100	1.6	9.6	100	2.6			
3	1.5	50	.20	7.0	50	.95			
4	.45	20	.02	4.5	25	.30			
5	.40	10	.01	3.5	10	.09			
6	.36	10	.01	2.5	3	.02			
7	.35	10	.01	1.8	10	.05			
8	.34	10	.01	1.6	10	.04			
9	.33	10	.01	1.5	17	.07			
10	.33	7	.01	2.5	50	.34			
11	10	228	20	32	1020	216			
12	4.2	50	.57	9.4	60	1.5			
13	1.3	20	.07	5.2	50	.70			
14	14	734	80	3.6	40	.39			
15	5.6	100	1.5	2.6	30	.21			
16	17	2160	167	2.2	20	.12			
17	32	900	78	2.0	20	.11			
18	14	250	9.5	1.8	20	.10			
19	7.6	80	1.6	1.5	20	.08			
20	3.0	50	.41	1.3	20	.07			
21	1.8	30	.15	1.1	15	.04			
22	1.5	20	.08	1.1	15	.04			
23	1.3	10	.04	.92	15	.04			
24	1.3	10	.04	.85	15	.03			
25	2.3	52	.99	.82	12	.03			
26	2.0	11	.06	.85	10	.02			
27	1.2	10	.03	.83	7	.02			
28	2.6	87	1.9	.80	5	.01			
29	6.5	257	12	.83	5	.01			
30	5.8	170	2.7	.80	5	.01			
31	15	350	46	---	---	---			
TOTAL	161.36	---	424.68	178.00	---	2503.99			

## SAN JOSE CREEK BASIN

11120510 SAN JOSE CREEK AT GOLETA, CA--Continued

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, DECEMBER 1981 TO APRIL 1982

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
DECEMBER 1981	8.83	0.51	17	18
JANUARY 1982	58.35	567.67	274	841
FEBRUARY.....	13.96	0.65	26	27
MARCH.....	161.36	424.68	915	1340
APRIL.....	178.00	2503.99	957	3460
TOTAL.....	420.5	3497.50	2189	5686

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	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
JAN							
05...	0925	4.7	12.0	859	11	66	78
20...	1220	116	8.0	12500	3920	--	54
21...	1035	6.8	9.0	131	2.4	--	--
MAR							
11...	1230	28	15.0	443	33	50	60
19...	1420	8.2	14.0	35	.77	--	--
APR							
12...	1115	9.4	16.0	36	.91	--	--

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	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
JAN							
05...	83	85	86	86	86	90	100
20...	63	76	85	90	93	98	100
21...	--	--	--	95	96	97	100
MAR							
11...	69	78	85	90	94	97	100
19...	--	--	--	95	98	100	--
APR							
12...	--	--	--	98	100	--	--

## 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>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to September 1972, January 1980 to September 1982 (discontinued).

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 above 9.7 ft<sup>3</sup>/s (0.27 m<sup>3</sup>/s) on basis of slope-conveyance computation of flow in concrete channel:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Jan. 20	1045	147	4.16	2.26	0.689
Mar. 16	2130	118	3.34	2.21	.674
Apr. 11	0915	*208	5.89	2.36	.719

Minimum, 0.08 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.20	.28	.45	.31	.41	16	.55	.42	.18	.65	.12
2	.19	.21	.28	.35	.31	1.7	1.6	.49	.33	.22	.47	.11
3	.20	.20	.44	.34	.31	.42	1.1	.51	.27	.19	.36	.10
4	.23	.21	.42	.52	.31	.37	.93	.54	.26	.19	.25	.08
5	.19	.26	.24	9.1	.31	.32	.87	.50	.28	.18	.19	.10
6	.23	.56	.20	.57	.31	.31	.78	.48	.24	.17	.15	.11
7	.20	.54	.20	.44	.31	.31	.78	.53	.28	.21	.15	.13
8	.19	.35	.19	.40	.34	.30	.69	.51	.30	.26	.15	.15
9	.18	.48	.20	.39	.34	.29	.66	.41	.28	.23	.18	.46
10	.22	.31	.24	.39	.70	.29	.85	.42	.28	.26	.24	.15
11	.20	.17	.24	.39	.39	2.9	31	.43	.28	.26	.20	.22
12	.19	.17	.24	.37	.29	.66	2.0	.42	.32	.24	.26	.13
13	.21	.19	.24	.34	.29	.47	1.4	.40	.26	.25	.23	.14
14	.23	1.3	.35	.35	.28	1.9	1.1	.41	.26	.27	.32	.31
15	.19	.33	.26	.32	.26	1.1	.97	.39	.21	.23	.21	.30
16	.16	.28	.20	.34	.28	11	.88	.40	.20	.29	.21	.20
17	.18	.28	.26	.37	.25	9.5	.86	.37	.20	.28	.22	.20
18	.14	.26	.36	.31	.24	3.4	.78	.35	.20	.18	.23	.21
19	.13	.26	.36	.45	.24	1.3	.70	.36	.28	.17	.22	.31
20	.14	.24	.28	24	.24	.90	.73	.35	.28	.16	.23	.15
21	.17	.24	.21	1.4	.24	.68	.67	.38	.31	.16	.21	.31
22	.20	.24	.19	.50	.31	.58	.68	.37	.31	.17	.20	.18
23	.18	.25	.22	.40	.31	.50	.63	.37	.28	.30	.18	.15
24	.20	.26	.22	.37	.31	.48	.66	.40	.30	.19	.17	.14
25	.18	.25	.24	.35	.31	.57	.62	.40	.24	.17	.15	.71
26	.19	.44	.25	.34	.30	.68	.57	.40	.29	.19	.15	.62
27	.18	1.9	.29	.37	.28	.45	.58	.40	.23	.19	.19	.14
28	1.3	.75	.26	.42	.26	.72	.59	.38	.29	.17	.21	.16
29	.25	.36	.31	.33	---	1.4	.57	.36	.77	.19	.22	.23
30	.15	.29	1.2	.31	---	.76	.56	.39	.23	.18	.14	.24
31	.19	---	.34	.31	---	2.3	---	.38	---	.19	.16	---
TOTAL	7.01	11.78	9.21	45.29	8.63	46.97	70.81	13.05	8.68	6.52	7.1	6.56
MEAN	.23	.39	.3	1.46	.31	1.52	2.36	.42	.29	.21	.23	.22
MAX	1.3	1.9	1.2	24	.7	11	31	.55	.77	.3	.65	.71
MIN	.13	.17	.19	.31	.24	.29	.56	.35	.2	.16	.14	.08
AC-FT	14	23	18	90	17	93	140	26	17	13	14	13
CAL YR 1981	TOTAL	532.56	MEAN	1.46	MAX	92	MIN	0.11	AC-FT	1060		
WTR YR 1982	TOTAL	241.61	MEAN	0.66	MAX	31	MIN	0.08	AC-FT	479		

## CARNEROS CREEK BASIN

11120530 TECOLOTITO CREEK NEAR GOLETA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

SEDIMENT RECORDS: December 1981 to April 1982.

## SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), DECEMBER 1981 TO APRIL 1982

DAY	DECEMBER			JANUARY			FEBRUARY		
	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	.28	10	.01	.45	10	.01	.31	10	.01
2	.28	10	.01	.35	10	.01	.31	10	.01
3	.44	10	.01	.34	10	.01	.31	10	.01
4	.42	10	.01	.52	61	.18	.31	10	.01
5	.24	10	.01	9.1	521	.43	.31	10	.01
6	.20	10	.01	.57	40	.06	.31	10	.01
7	.20	10	.01	.44	30	.04	.31	12	.01
8	.19	10	.01	.40	25	.03	.34	10	.01
9	.20	10	.01	.39	25	.03	.34	5	0
10	.24	10	.01	.39	25	.03	.70	64	.20
11	.24	10	.01	.39	25	.03	.39	98	.10
12	.24	10	.01	.37	23	.02	.29	80	.06
13	.24	10	.01	.34	20	.02	.29	60	.05
14	.35	10	.01	.35	20	.02	.28	40	.03
15	.26	10	.01	.32	20	.02	.26	22	.02
16	.20	10	.01	.34	20	.02	.28	39	.03
17	.26	10	.01	.37	20	.02	.25	35	.02
18	.36	10	.01	.31	20	.02	.24	35	.02
19	.36	10	.01	.45	123	.44	.24	35	.02
20	.28	10	.01	24	2400	316	.24	30	.02
21	.21	10	.01	1.4	330	1.2	.24	30	.02
22	.19	10	.01	.50	100	.14	.31	30	.03
23	.22	10	.01	.40	19	.02	.31	30	.03
24	.22	10	.01	.37	15	.01	.31	25	.02
25	.24	10	.01	.35	10	.01	.31	20	.02
26	.25	10	.01	.34	10	.01	.30	15	.01
27	.29	10	.01	.37	10	.01	.28	10	.01
28	.26	10	.01	.42	66	.07	.26	10	.01
29	.31	10	.01	.33	29	.03	---	---	---
30	1.2	100	.32	.31	10	.01	---	---	---
31	.34	50	.05	.31	10	.01	---	---	---
TOTAL	9.21	---	.66	45.29	---	361.53	8.63	---	.80

DAY	MARCH			APRIL			MAY		
	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	.41	11	.01	16	205	19			
2	1.7	402	3.7	1.6	40	.17			
3	.42	50	.06	1.1	30	.09			
4	.37	25	.02	.93	30	.08			
5	.32	20	.02	.87	30	.07			
6	.31	15	.01	.78	20	.04			
7	.31	10	.01	.78	20	.04			
8	.30	10	.01	.69	20	.04			
9	.29	10	.01	.66	20	.04			
10	.29	10	.01	.85	50	.11			
11	2.9	157	1.9	31	627	139			
12	.66	110	.20	2.0	25	.14			
13	.47	50	.06	1.4	20	.08			
14	1.9	209	2.0	1.1	20	.06			
15	1.1	50	.15	.97	20	.05			
16	11	1100	.84	.88	20	.05			
17	9.5	477	13	.86	20	.05			
18	3.4	190	1.7	.78	20	.04			
19	1.3	75	.26	.70	20	.04			
20	.90	40	.10	.73	20	.04			
21	.68	30	.06	.67	15	.03			
22	.58	25	.04	.68	15	.03			
23	.50	25	.03	.63	15	.03			
24	.48	25	.03	.66	15	.03			
25	.57	60	.09	.62	15	.03			
26	.68	93	.17	.57	10	.02			
27	.45	70	.09	.58	10	.02			
28	.72	73	.16	.59	10	.02			
29	1.4	117	.69	.57	10	.02			
30	.76	90	.18	.56	10	.02			
31	2.3	89	.79	---	---	---			
TOTAL	46.97	---	109.56	70.81	---	159.48			



11120530 TECOLOTITO CREEK NEAR GOLETA, CA--Continued

## SUMMARY OF WATER AND SEDIMENT DISCHARGE, DECEMBER 1981 TO APRIL 1982

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
DECEMBER 1981	9.21	0.66	88	89
JANUARY 1982	45.29	361.53	549	911
FEBRUARY.....	8.63	0.80	79	80
MARCH.....	46.97	109.56	990	1110
APRIL.....	70.81	159.48	974	1130
TOTAL.....	180.91	632.03	2680	3320

## PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	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
JAN								
05...	0710	5.5	11.0	739	11	59	69	70
20...	0915	1.7	9.0	539	2.5	66	77	79
FEB								
10...	1445	.89	12.5	17	.04	--	--	--
MAR								
11...	1740	4.9	13.0	307	4.1	77	89	99
17...	0745	9.7	9.0	642	17	74	84	92
17...	1100	11	11.0	241	7.2	76	84	91
18...	1215	2.8	12.0	191	1.4	--	--	--
29...	1430	2.1	15.0	123	.70	--	--	--
APR								
01...	0745	15	16.5	212	8.6	59	65	81

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							
05...	80	82	84	87	93	99	100
20...	80	82	84	89	95	98	100
FEB							
10...	--	--	81	84	100	--	--
MAR							
11...	99	100	--	--	--	--	--
17...	98	100	--	--	--	--	--
17...	97	100	--	--	--	--	--
18...	--	--	100	--	--	--	--
29...	--	--	100	--	--	--	--
APR							
01...	91	98	100	--	--	--	--

## PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	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	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
AUG												
12...	1200	9	23	40	67	77	82	86	90	94	99	100

## GAVIOTA CREEK BASIN

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.--16 years, 5.95 ft<sup>3</sup>/s (0.169 m<sup>3</sup>/s), 4,310 acre-ft/yr (5.31 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.--Maximum discharge, 227 ft<sup>3</sup>/s (6.43 m<sup>3</sup>/s) Apr. 1, gage height, 3.94 ft (1.201 m), no peak above base of 300 ft<sup>3</sup>/s (8.50 m<sup>3</sup>/s); minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	.36	.56	.80	.81	1.5	60	1.1	.74	.46	.19	.11
2	.45	.36	.55	.65	.79	4.1	10	1.0	.75	.42	.19	.09
3	.45	.36	.55	.60	.83	1.2	5.0	.93	.75	.43	.19	.06
4	.43	.36	.55	.95	.92	1.1	3.0	.93	.73	.42	.20	.07
5	.44	.36	.53	3.4	.86	1.1	2.1	.93	.74	.41	.17	.08
6	.45	.34	.52	.89	.83	.97	1.9	.93	.63	.41	.16	.08
7	.44	.34	.54	.79	.89	1.0	1.8	.93	.59	.43	.15	.10
8	.43	.36	.55	.79	.94	1.0	1.6	.93	.60	.47	.15	.14
9	.45	.34	.55	.79	.93	1.1	1.6	.93	.64	.44	.14	.15
10	.43	.36	.55	.79	1.7	1.1	2.2	.89	.65	.41	.18	.13
11	.42	.36	.55	.79	1.3	2.8	20	.83	.63	.40	.18	.12
12	.41	.39	.55	.79	.94	3.7	5.9	.76	.62	.40	.20	.12
13	.40	.48	.55	.78	.93	1.6	3.3	.77	.58	.40	.22	.14
14	.42	1.0	.58	.79	.95	1.4	2.7	.75	.57	.38	.23	.13
15	.42	.56	.55	.79	.96	1.3	2.3	.73	.55	.35	.22	.19
16	.39	.55	.55	.79	1.1	6.0	2.0	.70	.55	.33	.22	.23
17	.35	.57	.55	.79	1.0	17	1.8	.66	.59	.30	.20	.24
18	.34	.53	.54	.79	.93	6.1	1.8	.66	.61	.28	.17	.20
19	.34	.52	.55	1.1	.93	2.7	1.6	.68	.61	.25	.15	.15
20	.35	.51	.58	11	.93	1.9	1.6	.77	.55	.24	.14	.13
21	.38	.54	.58	3.7	.93	1.6	1.4	.75	.55	.23	.13	.12
22	.44	.55	.52	1.3	.93	1.4	1.4	.78	.56	.22	.11	.10
23	.43	.55	.45	1.0	.93	1.3	1.3	.86	.52	.22	.11	.10
24	.43	.55	.47	.93	.93	1.2	1.3	.93	.52	.24	.12	.10
25	.48	.54	.54	.93	.93	1.4	1.3	.93	.50	.23	.13	.30
26	.55	.77	.52	.93	.93	1.6	1.2	.93	.47	.22	.12	.29
27	.52	1.5	.54	.93	.93	1.4	1.1	.93	.45	.21	.12	.18
28	1.0	.86	.50	1.0	.93	1.3	1.1	.93	.45	.20	.12	.15
29	.59	.75	.63	.97	---	1.5	1.1	.89	.54	.19	.15	.14
30	.44	.64	1.4	.91	---	1.8	1.1	.79	.51	.18	.13	.12
31	.38	---	.49	.89	---	20	---	.76	---	.19	.11	---
TOTAL	13.9	16.26	17.64	42.35	26.91	93.17	144.5	26.29	17.75	9.96	5.0	4.26
MEAN	.45	.54	.57	1.37	.96	3.01	4.82	.85	.59	.32	.16	.14
MAX	1.0	1.5	1.4	11	1.7	20	60	1.1	.75	.47	.23	.30
MIN	.34	.34	.45	.60	.79	.97	1.1	.66	.45	.18	.11	.06
AC-FT	28	32	35	84	53	185	287	52	35	20	9.9	8.4
CAL YR 1981	TOTAL	1327.42	MEAN	3.64	MAX	343	MIN	.41	AC-FT	2630		
WTR YR 1982	TOTAL	417.99	MEAN	1.15	MAX	60	MIN	.06	AC-FT	829		

## 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>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1965 to September 1982 (discontinued).

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.--17 years, 3.67 ft<sup>3</sup>/s (0.104 m<sup>3</sup>/s), 2,660 acre-ft/yr (3.28 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.--Maximum discharge, 174 ft<sup>3</sup>/s (4.93 m<sup>3</sup>/s) Apr. 1 (0015 hrs), gage height 4.38 ft (1.335 m), no other peaks 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) many days during August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.20	.38	.70	.53	.91	43	.82	.58	.26	.04	.01
2	.18	.17	.37	.69	.53	1.4	6.4	.82	.50	.20	.04	.01
3	.25	.15	.36	.58	.53	1.3	3.1	.82	.45	.19	.05	.01
4	.31	.20	.33	.61	.53	.90	2.2	.80	.42	.18	.04	.01
5	.26	.21	.32	5.1	.51	.79	1.6	.72	.41	.18	.04	.01
6	.24	.21	.32	1.2	.45	.72	1.4	.72	.35	.20	.03	.01
7	.24	.26	.32	.62	.45	.72	1.3	.72	.33	.19	.04	.01
8	.27	.26	.32	.46	.45	.72	1.1	.72	.34	.17	.04	.01
9	.28	.26	.31	.53	.45	.62	1.1	.82	.35	.17	.04	.01
10	.30	.26	.32	.53	.54	.62	1.3	.82	.36	.19	.03	.01
11	.34	.25	.32	.51	.77	.99	18	.82	.43	.19	.03	.01
12	.30	.26	.32	.45	.59	1.1	8.4	.79	.38	.19	.04	.01
13	.30	.31	.32	.45	.53	.81	3.7	.72	.31	.21	.05	.01
14	.29	.89	.35	.45	.53	.87	2.7	.69	.29	.19	.04	.01
15	.28	.44	.32	.46	.52	.89	2.0	.62	.29	.19	.04	.01
16	.29	.32	.32	.56	.73	1.9	1.7	.61	.26	.19	.04	.02
17	.28	.36	.32	.65	.79	16	1.5	.53	.24	.18	.04	.02
18	.26	.32	.32	.57	.64	5.4	1.3	.57	.24	.18	.04	.02
19	.26	.26	.32	.57	.62	2.7	1.2	.59	.26	.17	.04	.02
20	.25	.26	.38	1.7	.62	1.6	1.1	.62	.30	.13	.03	.01
21	.27	.32	.45	2.5	.55	1.2	1.0	.67	.27	.11	.02	.01
22	.30	.32	.40	1.6	.53	1.1	.91	.72	.28	.10	.02	.01
23	.31	.32	.32	.88	.54	.90	.83	.72	.20	.09	.01	.01
24	.30	.32	.32	.72	.62	.82	.94	.72	.21	.10	.01	.01
25	.31	.26	.32	.69	.62	.85	.94	.78	.21	.08	.02	.02
26	.32	.44	.32	.62	.67	1.0	.94	.92	.18	.09	.02	.04
27	.32	.73	.32	.62	.72	.89	.91	.94	.25	.09	.02	.04
28	.40	.66	.38	.68	.72	.82	.82	.94	.24	.07	.02	.04
29	.44	.58	.43	.70	---	.92	.82	.81	.27	.06	.02	.04
30	.31	.46	1.7	.59	---	1.2	.82	.69	.26	.04	.01	.02
31	.25	---	.81	.53	---	6.2	---	.62	---	.04	.02	---
TOTAL	8.87	10.26	12.41	27.52	16.28	56.86	113.03	22.87	9.46	4.62	.97	.48
MEAN	.29	.34	.40	.89	.58	1.83	3.77	.74	.32	.15	.031	.016
MAX	.44	.89	1.7	5.1	.79	16	43	.94	.58	.26	.05	.04
MIN	.16	.15	.31	.45	.45	.62	.82	.53	.18	.04	.01	.01
AC-FT	18	20	25	55	32	113	224	45	19	9.2	1.9	1.0
CAL YR 1981	TOTAL	772.60	MEAN	2.12	MAX	167	MIN	.06	AC-FT	1530		
WTR YR 1982	TOTAL	283.63	MEAN	.78	MAX	43	MIN	.01	AC-FT	563		

## JALAMA CREEK BASIN

11120600 JALAMA CREEK NEAR LOMPOC, CA---Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to September 1982.

pH: October 1981 to September 1982.

WATER TEMPERATURES: October 1981 to September 1982.

PERIOD OF DAILY RECORD.--

pH: October 1981 to September 1982.

WATER TEMPERATURES: October 1981 to September 1982.

INSTRUMENTATION.--Water-quality monitor since October 1981.

EXTREMES FOR CURRENT YEAR.--

pH: Maximum, 8.6 units Apr. 24, 25, May 15, Sept. 3, 7, 23; minimum, 7.4 units Mar. 20.

WATER TEMPERATURES: Maximum recorded, 20.5°C June 26; minimum recorded, 3.5°C Jan. 8.

PH (UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.3	8.1	8.2	8.3	8.2	8.3	8.4	8.3	8.2	8.0	7.9	8.0
2	8.2	8.1	8.1	8.4	8.2	8.3	8.4	8.3	8.3	8.1	8.0	8.0
3	8.2	8.1	8.2	8.3	8.3	8.3	8.4	8.3	8.3	8.1	8.0	8.0
4	8.3	8.2	8.2	8.3	8.2	8.3	8.4	8.3	8.3	8.1	8.0	8.0
5	8.2	8.2	8.2	8.3	8.2	8.3	8.3	8.2	8.3	8.0	7.8	7.9
6	8.3	8.2	8.2	8.3	8.2	8.3	8.3	8.2	8.3	7.9	7.9	7.9
7	8.3	8.2	8.2	8.3	8.2	8.2	8.3	8.3	8.3	8.0	7.9	8.0
8	8.3	8.1	8.2	8.3	8.2	8.2	8.3	8.3	8.3	8.0	8.0	8.0
9	8.3	8.2	8.2	8.3	8.2	8.3	8.3	8.2	8.3	8.1	8.0	8.0
10	8.2	8.1	8.2	8.3	8.2	8.2	8.3	8.2	8.3	8.1	8.0	8.0
11	8.3	8.1	8.2	8.3	8.2	8.3	8.3	8.2	8.3	8.2	8.1	8.1
12	8.3	8.2	8.2	8.4	8.3	8.3	8.3	8.2	8.3	8.2	8.1	8.1
13	8.3	8.2	8.3	8.5	8.2	8.3	8.2	8.1	8.2	8.2	8.1	8.1
14	8.3	8.2	8.3	---	---	---	8.3	8.1	8.2	8.2	8.1	8.1
15	8.3	8.2	8.3	---	---	---	8.3	8.2	8.2	8.2	8.1	8.2
16	8.3	8.2	8.3	---	---	---	8.2	8.2	8.2	8.2	8.1	8.2
17	8.3	8.2	8.2	8.4	8.3	8.3	8.2	8.2	8.2	8.2	8.1	8.2
18	8.3	8.2	8.2	8.4	8.3	8.3	8.1	8.0	8.1	8.2	8.2	8.2
19	8.3	8.2	8.2	8.4	8.3	8.4	8.1	8.0	8.1	8.2	8.1	8.2
20	8.3	8.2	8.3	---	---	---	8.1	8.0	8.0	8.2	8.1	8.2
21	8.3	8.2	8.3	---	---	---	8.1	8.0	8.1	8.2	8.1	8.1
22	8.2	8.2	8.2	---	---	---	8.2	8.1	8.2	8.2	8.1	8.1
23	8.3	8.2	8.2	---	---	---	8.2	8.1	8.2	8.2	8.1	8.2
24	8.3	8.2	8.2	---	---	---	8.2	8.1	8.2	8.3	8.1	8.2
25	8.3	8.2	8.3	---	---	---	8.2	8.1	8.2	8.3	8.2	8.2
26	8.3	8.2	8.2	8.3	8.2	8.3	8.2	8.1	8.2	8.2	8.1	8.2
27	8.3	8.1	8.2	8.3	8.2	8.3	8.2	8.1	8.1	8.2	8.1	8.2
28	8.2	8.1	8.2	8.3	8.2	8.2	8.1	8.0	8.0	8.2	8.1	8.2
29	8.3	8.1	8.2	8.3	8.2	8.2	8.1	8.0	8.0	8.2	8.1	8.2
30	8.3	8.2	8.3	8.3	8.2	8.3	8.1	7.9	8.0	8.3	8.2	8.2
31	8.3	8.2	8.3	---	---	---	8.0	7.9	7.9	8.3	8.2	8.2
MONTH	8.3	8.1	8.2	---	---	---	8.4	7.9	8.2	8.3	7.8	8.1

## PH (UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

FEBRUARY			MARCH			APRIL			MAY			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.4	8.2	8.3	8.3	8.1	8.2	---	---	---	---	---	---
2	8.4	8.3	8.3	8.3	8.2	8.3	---	---	---	---	---	---
3	8.4	8.3	8.4	8.4	8.3	8.3	---	---	---	---	---	---
4	8.4	8.3	8.3	8.4	8.2	8.3	---	---	---	---	---	---
5	8.4	8.3	8.3	8.5	8.1	8.3	---	---	---	8.4	8.1	8.2
6	8.4	8.3	8.3	8.5	8.0	8.2	8.5	8.3	8.4	8.4	8.2	8.3
7	8.4	8.3	8.3	8.3	7.8	8.2	8.5	8.2	8.4	8.4	8.2	8.3
8	8.4	8.3	8.3	8.4	8.0	8.3	8.5	8.3	8.4	8.4	8.2	8.3
9	8.4	8.3	8.4	8.4	7.9	8.2	8.5	8.3	8.4	8.5	8.2	8.4
10	8.4	8.2	8.3	8.4	8.0	8.2	8.4	8.2	8.3	8.4	8.3	8.3
11	8.4	8.2	8.3	8.4	8.1	8.3	8.3	7.7	8.2	8.5	8.3	8.4
12	8.3	8.2	8.3	8.5	8.0	8.3	8.3	8.1	8.2	8.4	8.2	8.3
13	8.3	8.2	8.3	8.3	8.0	8.2	8.4	8.2	8.3	8.5	8.2	8.4
14	8.3	8.2	8.2	8.5	8.0	8.2	8.4	8.3	8.3	8.5	8.3	8.4
15	8.3	8.1	8.2	8.4	7.9	8.1	8.4	8.3	8.4	8.6	8.3	8.4
16	8.2	8.1	8.2	8.4	8.0	8.2	8.4	8.3	8.3	---	---	---
17	8.2	8.1	8.2	7.9	7.7	7.8	8.4	8.2	8.3	---	---	---
18	8.3	8.1	8.2	8.0	7.6	8.3	8.5	8.2	8.3	8.5	8.2	8.3
19	8.2	8.1	8.2	8.3	7.5	7.9	8.4	8.2	8.3	8.4	8.2	8.3
20	8.2	8.0	8.2	8.4	7.4	8.0	8.5	8.2	8.3	8.5	8.2	8.3
21	8.3	8.1	8.2	8.4	7.6	8.0	8.5	8.2	8.3	8.4	8.2	8.3
22	8.4	8.1	8.3	8.4	7.7	8.1	8.5	8.2	8.3	8.4	8.2	8.3
23	8.4	8.2	8.3	---	---	---	8.5	8.2	8.3	8.4	8.3	8.4
24	8.4	8.1	8.2	---	---	---	8.6	8.2	8.4	8.4	8.2	8.3
25	8.3	8.2	8.2	---	---	---	8.6	8.2	8.4	8.4	8.2	8.3
26	8.3	8.2	8.3	---	---	---	8.5	8.2	8.3	8.4	8.2	8.3
27	8.4	8.2	8.3	---	---	---	---	---	---	8.4	8.3	8.4
28	8.4	8.2	8.3	---	---	---	---	---	---	8.4	8.3	8.3
29	---	---	---	---	---	---	---	---	---	8.4	8.3	8.3
30	---	---	---	---	---	---	---	---	---	8.4	8.3	8.4
31	---	---	---	---	---	---	---	---	---	8.5	8.3	8.4
MONTH	8.4	8.0	8.3	---	---	---	---	---	---	8.6	8.1	8.3
JUNE			JULY			AUGUST			SEPTEMBER			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.4	8.3	8.3	8.2	7.9	8.1	8.4	8.0	8.2	8.4	8.1	8.3
2	8.4	8.2	8.3	8.2	7.9	8.0	8.5	8.1	8.2	8.5	8.3	8.4
3	---	---	---	8.2	7.9	8.0	8.4	8.1	8.2	8.6	8.4	8.5
4	8.4	8.3	8.3	8.3	7.9	8.1	8.3	8.0	8.2	8.5	8.3	8.4
5	8.5	8.3	8.4	8.3	7.9	8.1	8.3	8.0	8.1	8.4	8.3	8.3
6	8.4	8.1	8.3	8.3	8.0	8.1	8.4	8.0	8.2	8.4	8.1	8.2
7	8.4	8.1	8.2	8.3	8.0	8.2	8.5	8.0	8.2	8.6	8.4	8.5
8	8.4	8.1	8.2	8.5	8.0	8.3	8.5	8.0	8.2	8.5	8.3	8.4
9	8.4	8.1	8.2	8.5	8.1	8.3	8.4	8.1	8.2	8.4	8.2	8.3
10	---	---	---	8.3	7.9	8.2	8.5	8.0	8.2	8.5	8.2	8.4
11	---	---	---	8.3	7.9	8.2	8.4	8.1	8.3	8.5	8.3	8.4
12	---	---	---	8.0	7.9	8.0	8.3	8.0	8.2	8.5	8.3	8.4
13	---	---	---	8.2	7.9	8.0	8.2	8.0	8.1	8.5	8.4	8.4
14	---	---	---	---	---	---	8.2	8.0	8.1	8.5	8.3	8.4
15	---	---	---	---	---	---	8.3	8.0	8.1	8.5	8.4	8.4
16	8.4	8.3	8.4	8.5	8.3	8.4	8.2	8.0	8.1	8.4	8.2	8.3
17	8.4	8.3	8.3	8.5	8.2	8.3	8.4	8.0	8.2	8.5	8.3	8.4
18	8.3	8.1	8.2	8.5	8.3	8.3	8.4	8.0	8.1	8.5	8.3	8.4
19	8.4	8.2	8.3	8.5	8.2	8.3	8.4	8.1	8.2	8.5	8.4	8.4
20	8.4	8.2	8.3	8.5	8.2	8.3	8.5	8.0	8.3	8.5	8.4	8.4
21	8.3	8.2	8.3	8.5	8.2	8.3	8.3	8.1	8.2	8.5	8.3	8.4
22	8.3	8.2	8.3	8.4	8.2	8.3	8.4	8.1	8.2	8.4	8.4	8.4
23	8.2	8.1	8.2	8.5	8.2	8.3	8.4	8.0	8.2	8.6	8.4	8.4
24	8.2	8.0	8.1	8.5	8.2	8.3	8.4	8.1	8.2	8.5	8.4	8.5
25	8.2	8.0	8.1	8.4	8.2	8.3	8.3	8.1	8.2	8.4	8.3	8.3
26	8.3	8.0	8.2	8.4	8.2	8.3	8.3	8.2	8.2	8.5	8.2	8.4
27	8.2	7.8	8.0	8.4	8.2	8.3	8.2	8.1	8.2	8.5	8.3	8.4
28	8.2	7.9	8.1	8.5	8.1	8.3	8.2	8.1	8.2	8.5	8.3	8.4
29	8.2	7.9	8.1	8.4	8.1	8.2	8.2	8.1	8.1	8.5	8.3	8.4
30	8.1	7.9	8.0	8.4	8.1	8.2	8.3	8.2	8.2	8.5	8.3	8.4
31	---	---	---	8.4	8.0	8.2	8.4	8.2	8.3	---	---	---
MONTH	---	---	---	8.5	7.9	8.2	8.5	8.0	8.2	8.6	8.1	8.4
YEAR	8.6	7.4	8.2									

## JALAMA CREEK BASIN

11120600 JALAMA CREEK NEAR LOMPOC, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.5	16.5	15.0	10.0	11.5	8.5	12.0	9.5	12.0	8.0	14.0	13.5
2	18.0	16.0	16.0	11.0	12.5	9.5	10.0	8.0	12.0	8.0	16.5	13.0
3	17.0	15.0	17.0	11.5	11.5	9.0	8.5	6.0	11.5	6.5	15.0	10.5
4	17.0	12.5	14.5	12.0	12.5	9.5	9.5	7.5	11.5	8.0	15.0	10.0
5	16.5	13.0	14.0	12.0	12.5	10.0	11.0	9.5	12.0	7.5	14.5	10.0
6	17.0	13.0	15.5	13.0	11.5	9.5	10.0	7.5	11.0	7.5	14.0	8.0
7	18.0	14.5	17.0	12.5	12.0	10.0	8.0	5.5	12.0	8.5	13.0	9.0
8	17.5	14.0	16.5	12.5	11.0	8.5	7.0	3.5	13.5	10.5	16.0	11.5
9	16.5	13.5	14.5	12.0	11.5	9.0	8.0	4.5	11.0	9.0	14.5	11.0
10	17.0	14.0	16.0	11.5	13.0	11.0	10.5	7.0	11.5	10.0	15.0	12.5
11	17.0	14.0	16.5	13.0	12.0	10.0	11.5	9.0	12.5	8.0	15.0	12.5
12	16.0	12.0	16.5	13.0	12.0	9.5	10.5	8.0	14.0	10.0	17.0	11.5
13	15.0	11.0	16.0	15.0	13.0	11.0	10.5	7.5	14.0	10.0	15.0	12.0
14	15.0	10.5	17.5	15.0	13.0	11.0	10.0	7.5	15.5	13.0	16.0	13.0
15	16.5	11.5	17.5	15.0	13.5	11.5	10.5	7.5	15.5	14.0	15.5	11.0
16	15.5	11.0	18.0	15.0	13.0	11.0	10.0	7.0	18.0	14.0	16.0	10.5
17	16.0	11.0	17.0	13.5	12.5	10.0	10.0	6.5	16.5	12.5	12.0	10.0
18	16.5	12.0	15.0	11.5	12.5	10.5	11.0	9.0	16.5	11.5	12.0	9.0
19	18.0	13.0	13.5	10.0	13.0	11.5	10.5	7.5	16.0	11.0	14.0	8.0
20	17.0	13.5	---	---	14.0	12.5	10.5	9.0	17.0	11.5	14.5	8.5
21	17.5	12.5	---	---	13.0	11.5	9.5	7.0	14.5	10.5	15.0	8.5
22	17.0	12.0	---	---	11.0	9.0	8.5	5.5	15.0	11.0	15.0	9.5
23	17.5	12.5	---	---	9.5	8.0	9.5	5.5	16.0	10.5	16.0	10.5
24	18.0	13.0	---	---	9.5	7.0	10.5	6.5	14.5	10.0	16.0	11.0
25	16.5	13.0	---	---	10.5	8.0	11.0	6.5	14.5	10.5	13.5	11.0
26	15.5	13.5	12.0	9.5	11.5	9.5	12.5	10.0	13.5	11.5	15.5	11.0
27	18.0	14.0	12.0	9.5	12.0	10.0	11.0	8.5	15.0	9.5	17.5	12.0
28	17.5	14.0	12.0	9.5	11.0	8.5	10.5	7.0	15.5	11.0	15.0	12.0
29	17.0	13.0	10.5	8.0	12.0	8.5	10.0	6.5	---	---	13.5	10.0
30	16.0	11.0	11.0	8.0	14.0	12.0	10.0	5.5	---	---	15.5	9.0
31	15.5	10.0	---	---	12.5	11.5	11.0	6.5	---	---	13.5	11.5
MONTH	18.5	10.0	18.0	8.0	14.0	7.0	12.5	3.5	18.0	6.5	17.5	8.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	10.0	---	---	19.5	14.0	19.0	15.5	19.0	16.5	18.0	16.0
2	15.0	8.0	---	---	19.0	14.0	19.0	16.5	18.5	16.5	18.5	16.5
3	16.0	10.5	---	---	17.0	14.0	19.0	17.0	18.5	16.0	18.5	16.5
4	15.5	12.0	---	---	18.0	14.0	19.5	16.5	18.5	15.5	18.0	15.5
5	15.0	11.5	17.5	15.5	17.5	13.5	18.5	16.0	18.5	17.0	17.5	15.5
6	14.5	11.0	19.0	15.5	17.5	14.0	19.0	16.0	19.0	17.0	17.0	15.0
7	14.0	9.5	18.0	15.0	17.5	14.0	19.0	17.0	19.0	17.5	17.5	15.0
8	13.5	11.0	16.0	14.5	17.0	14.0	19.0	16.5	19.0	16.0	18.5	17.0
9	14.0	11.5	14.5	13.0	17.5	15.0	19.0	16.0	17.5	14.5	19.0	18.0
10	14.0	13.0	16.0	11.5	17.5	15.5	19.5	17.0	17.5	15.0	19.0	17.0
11	14.5	12.5	17.0	12.5	17.5	15.0	19.5	16.5	18.0	15.0	18.0	15.5
12	18.0	11.0	19.0	13.5	17.5	15.0	19.5	16.5	17.5	16.5	17.5	15.5
13	18.0	12.5	17.5	13.0	18.0	14.5	19.5	17.0	17.5	16.0	19.0	17.0
14	17.5	13.0	18.5	14.0	18.0	15.5	19.5	16.5	17.5	15.5	18.5	17.5
15	16.5	13.0	18.5	14.0	18.5	16.0	19.0	17.0	18.0	15.5	18.0	17.0
16	15.5	11.5	19.5	15.0	18.0	16.5	18.5	16.5	18.0	16.0	18.0	17.0
17	16.5	12.0	20.0	15.5	18.0	16.5	18.5	15.5	18.0	16.5	19.0	17.5
18	18.0	12.5	18.0	13.5	17.5	16.5	18.5	16.0	17.5	16.0	18.0	17.0
19	17.0	13.5	18.5	13.5	18.5	17.0	18.5	16.0	17.5	14.5	17.5	15.5
20	17.5	14.0	18.0	15.0	18.5	17.0	18.5	16.0	17.5	14.5	18.0	15.5
21	17.5	14.0	18.0	14.5	17.5	16.5	18.5	16.0	18.0	16.0	17.5	15.0
22	17.5	13.5	18.0	14.5	18.0	16.0	19.0	16.5	18.0	16.5	18.0	16.0
23	18.0	14.5	18.0	15.0	18.5	16.5	18.5	16.5	17.5	16.0	19.0	16.0
24	17.5	14.5	18.0	15.5	19.0	16.5	18.0	15.5	17.5	15.5	20.5	18.0
25	17.0	14.0	18.0	16.0	18.5	16.0	18.5	16.0	17.5	15.5	19.0	19.0
26	17.5	13.5	17.0	15.5	20.5	17.5	18.5	16.5	17.5	15.5	19.0	16.0
27	---	---	18.0	15.5	20.0	18.5	18.5	16.5	18.5	15.5	17.5	15.0
28	---	---	17.5	15.0	19.0	17.5	19.0	17.5	18.5	17.0	16.5	14.0
29	---	---	18.0	14.0	18.5	16.5	19.5	17.5	18.0	17.0	17.0	14.5
30	---	---	18.0	14.0	---	16.0	19.0	17.0	17.5	16.0	15.5	12.5
31	---	---	18.5	14.0	---	---	19.0	17.0	18.0	16.0	---	---
MONTH	18.0	8.0	20.0	11.5	20.5	13.5	19.5	15.5	19.0	14.5	20.5	12.5

## 11120900 CANADA HONDA AT POINT ARGUELLO, CA

LOCATION.--Lat 34°36'24", long 120°37'54", in Lompoc Grant, Santa Barbara County, Hydrologic Unit 18060013, on left bank 0.3 mi (0.5 km) upstream from mouth and 2.3 mi (3.7 km) northeast of Point Arguello.

DRAINAGE AREA.--8.00 mi<sup>2</sup> (20.7 km<sup>2</sup>).

PERIOD OF DAILY RECORD.--

pH: October 1981 to September 1982.

WATER TEMPERATURES: October 1981 to September 1982.

INSTRUMENTATION.--Water-quality monitor since October 1981.

EXTREMES FOR CURRENT YEAR.--

pH: Maximum, 8.6 units June 16, 17; minimum, 7.4 units Sept. 18.

WATER TEMPERATURES: Maximum recorded, 24.5°C May 24, July 1, 4, 9; minimum recorded, 3.5°C Jan. 8.

## DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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. 21	1310	0.01	<0.001	Apr. 9	1020	2.01	.057
Nov. 13	0910	.01	<.001	Apr. 27	1310	1.76	.050
Nov. 23	1135	.05	.001	May 13	1310	.95	.027
Dec. 11	0950	.05	.001	May 27	1315	.73	.021
Dec. 22	0945	.06	.002	June 16	0950	.48	.014
Jan. 7	1430	.39	.011	June 25	1015	.32	.009
Jan. 26	1035	.40	.011	July 15	1435	.14	.004
Feb. 9	1215	.36	.010	July 29	0950	.05	.001
Feb. 23	0955	.43	.012	Aug. 16	0930	.05	.001
Mar. 9	1215	.39	.011	Sept. 13	1400	.01	<.001
Mar. 23	1400	1.33	.038				

## PH (UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

OCTOBER				NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	8.1	8.0	8.1	8.2	8.1	8.1	8.2	8.0	8.1
2	---	---	---	8.2	8.1	8.1	8.2	8.1	8.1	8.2	8.1	8.1
3	---	---	---	8.3	8.1	8.2	8.2	8.1	8.1	8.1	8.0	8.0
4	---	---	---	8.2	8.0	8.1	8.2	8.1	8.1	8.1	7.9	8.0
5	---	---	---	8.2	8.0	8.1	8.2	8.1	8.1	8.1	7.9	8.1
6	---	---	---	8.2	8.0	8.0	8.2	8.1	8.1	8.1	8.0	8.1
7	---	---	---	8.1	8.0	8.0	8.2	8.1	8.1	8.1	8.0	8.0
8	---	---	---	8.1	8.0	8.0	8.2	8.1	8.1	8.1	8.0	8.1
9	---	---	---	8.2	8.0	8.1	8.2	8.0	8.1	8.2	8.1	8.1
10	---	---	---	8.1	8.0	8.1	8.2	8.0	8.1	8.2	8.1	8.1
11	---	---	---	8.1	8.0	8.0	8.2	8.1	8.1	8.2	8.1	8.1
12	---	---	---	8.1	8.0	8.0	8.2	8.0	8.1	8.2	8.0	8.1
13	---	---	---	8.1	8.0	8.0	8.2	8.0	8.1	8.1	8.0	8.1
14	---	---	---	8.2	8.0	8.1	8.1	8.0	8.1	8.2	8.0	8.1
15	---	---	---	8.2	8.0	8.1	8.2	8.1	8.1	8.2	8.0	8.1
16	---	---	---	8.1	8.0	8.0	8.2	8.1	8.1	8.2	8.1	8.1
17	---	---	---	8.2	8.0	8.1	8.2	8.1	8.1	8.2	8.1	8.1
18	---	---	---	8.1	8.1	8.1	8.2	8.0	8.1	8.2	8.1	8.1
19	---	---	---	8.2	8.1	8.1	8.2	8.0	8.1	8.2	7.9	8.1
20	---	---	---	8.2	8.1	8.1	8.2	8.0	8.0	---	---	---
21	---	---	---	8.2	8.0	8.1	8.2	8.0	8.1	---	---	---
22	---	---	---	8.2	8.0	8.1	8.2	8.1	8.1	---	---	---
23	8.1	7.9	8.0	8.2	8.0	8.0	8.2	8.1	8.1	---	---	---
24	8.1	7.9	8.0	8.1	8.0	8.0	8.3	8.1	8.2	---	---	---
25	8.1	7.9	8.0	8.2	8.0	8.1	8.3	8.2	8.2	---	---	---
26	8.1	7.9	8.0	8.2	8.0	8.1	8.3	8.2	8.2	---	---	---
27	8.0	7.9	7.9	8.2	8.1	8.1	8.2	8.0	8.1	8.2	8.1	8.1
28	8.2	7.9	8.0	8.2	8.1	8.1	8.2	8.0	8.1	8.1	8.0	8.0
29	8.2	8.0	8.1	8.2	8.1	8.1	8.2	8.0	8.1	8.1	8.0	8.0
30	8.1	8.0	8.0	8.2	8.1	8.1	8.2	8.0	8.1	8.2	8.0	8.1
31	8.1	8.0	8.1	---	---	---	8.2	8.0	8.1	8.2	8.0	8.1
MONTH	---	---	---	8.3	8.0	8.1	8.3	8.0	8.1	---	---	---

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.1	8.0	8.0	8.3	8.1	8.2	8.2	8.0	8.1	8.4	8.2	8.4
2	8.1	8.0	8.0	8.4	8.2	8.3	8.3	8.2	8.3	8.4	8.2	8.3
3	8.1	8.0	8.0	8.2	8.1	8.2	8.3	8.3	8.3	8.4	8.2	8.3
4	8.1	8.0	8.0	8.2	8.1	8.1	8.3	8.3	8.3	8.4	8.1	8.3
5	8.1	7.9	8.0	8.2	8.1	8.1	8.5	8.3	8.3	8.4	8.3	8.3
6	8.0	7.9	7.9	8.2	8.1	8.1	8.4	8.3	8.4	8.4	8.3	8.3
7	8.0	7.8	7.9	8.3	8.1	8.2	8.3	8.2	8.3	8.4	8.3	8.3
8	8.2	7.9	8.0	8.3	8.1	8.2	8.3	8.2	8.3	8.4	8.3	8.4
9	8.2	8.0	8.1	8.3	8.1	8.1	8.3	8.2	8.3	8.4	8.3	8.4
10	8.3	8.2	8.2	8.2	8.1	8.1	8.3	8.3	8.3	8.4	8.1	8.3
11	8.3	8.2	8.3	8.3	8.1	8.2	8.3	7.9	8.1	8.4	8.1	8.3
12	8.4	8.2	8.3	8.3	8.1	8.2	8.2	8.1	8.2	8.4	8.1	8.3
13	8.4	8.2	8.3	8.4	8.2	8.3	8.3	8.1	8.2	8.4	8.3	8.3
14	8.3	8.2	8.2	8.4	8.2	8.3	8.3	8.1	8.3	8.4	8.1	8.3
15	8.4	8.2	8.2	8.4	8.2	8.3	8.3	8.1	8.3	8.4	8.1	8.3
16	8.3	8.2	8.2	8.4	8.2	8.3	8.3	8.1	8.3	8.4	8.1	8.3
17	8.2	8.1	8.2	8.3	8.1	8.2	8.3	8.1	8.3	8.3	8.1	8.2
18	8.2	8.1	8.2	8.4	8.3	8.3	8.3	8.1	8.3	8.3	8.0	8.2
19	8.2	8.1	8.2	8.4	8.3	8.3	8.4	8.2	8.4	8.3	8.0	8.2
20	8.2	8.1	8.2	8.5	8.5	8.5	8.4	8.2	8.4	8.3	8.1	8.2
21	8.3	8.1	8.2	8.5	8.4	8.5	8.4	8.1	8.3	8.3	8.1	8.2
22	8.3	8.1	8.2	8.5	8.4	8.5	8.4	8.1	8.3	8.3	8.1	8.2
23	---	---	---	8.5	8.4	8.4	8.4	8.2	8.4	8.3	8.0	8.2
24	---	---	---	8.5	8.4	8.5	8.4	8.2	8.4	8.2	7.8	8.1
25	8.3	8.1	8.2	8.5	8.4	8.5	8.4	8.2	8.4	8.2	8.0	8.1
26	8.3	8.1	8.2	8.5	8.4	8.5	8.4	8.2	8.4	8.2	8.0	8.1
27	8.2	8.1	8.1	8.4	8.3	8.3	8.4	8.1	8.4	8.2	8.0	8.1
28	8.3	8.1	8.2	8.4	8.3	8.4	8.4	8.2	8.4	8.2	7.8	8.1
29	---	---	---	8.4	8.4	8.4	8.4	8.1	8.3	8.2	7.9	8.1
30	---	---	---	8.4	8.3	8.4	8.4	8.2	8.4	8.3	7.9	8.2
31	---	---	---	8.4	8.3	8.4	---	---	---	8.3	7.9	8.2
MONTH	8.4	7.8	8.1	8.5	8.1	8.3	8.5	7.9	8.3	8.4	7.8	8.2
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.3	7.9	8.2	---	---	---	---	---	---	7.8	7.6	7.7
2	8.3	7.9	8.2	---	---	---	---	---	---	7.9	7.5	7.7
3	8.3	7.9	8.2	---	---	---	---	---	---	7.8	7.5	7.7
4	8.3	7.9	8.1	---	---	---	---	---	---	7.8	7.6	7.7
5	8.4	8.0	8.2	---	---	---	---	---	---	7.9	7.6	7.7
6	8.4	8.0	8.									



TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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

## 11121000 SANTA YNEZ RIVER AT JAMESON LAKE, NEAR MONTECITO, CA

LOCATION.--Lat 34°29'32", long 119°30'25", in SW 1/4 NE 1/4 NW 1/4 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) Bureau of Reclamation 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 city of Montecito, spill and release to river, 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 Water District.

AVERAGE DISCHARGE.--51 years (water years 1932-82), 6.82 ft<sup>3</sup>/s (0.193 m<sup>3</sup>/s), 4,940 acre-ft/yr (6.09 hm<sup>3</sup>).

## MONTHLY NET DISCHARGE, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Gage height (feet) <sup>a</sup>	Contents (acre-feet)	Change in contents (acre-feet)	Draft (acre-feet)	Spill and release (acre-feet)	Evaporation and seepage (acre-feet)	Total inflow (acre-feet)	Rain on reservoir (acre-feet)	Net inflow (acre-feet)
Sept. 30.....	203.08	3,350	--	--	--	--	--	--	--
Oct. 31.....	200.87	3,140	-210	195	0	22	7	2	5
Nov. 30.....	199.28	2,980	-160	166	0	16	22	22	0
Dec. 31.....	198.48	2,910	-70	81	0	11	22	4	18
CAL YR 1981.....			-1,330	2,068	538	461	1,737	203	1,534
Jan. 31.....	198.13	2,880	-30	105	0	9	84	41	43
Feb. 28.....	197.51	2,830	-50	94	0	15	59	4	55
Mar. 31.....	199.78	3,030	+200	105	0	8	313	66	247
Apr. 30.....	207.59	3,810	+780	74	0	34	888	46	842
May 31.....	207.46	3,800	-10	124	0	44	158	1	157
June 30.....	206.44	3,690	-110	138	0	49	77	0	77
July 31.....	204.63	3,500	-190	167	0	76	53	0	53
Aug. 31.....	202.45	3,290	-210	180	0	71	41	0	41
Sept. 30.....	200.66	3,120	-170	160	0	43	33	12	21
WTR YR 1982.....			-230	1,589	0	398	1,757	198	1,559

a Elevation 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 conducive to precise measurement. When this occurs, evaporation and seepage is adjusted to produce non-negative inflows.

## 11122000 SANTA YNEZ RIVER ABOVE GIBRALTAR DAM, NEAR SANTA BARBARA, CA

LOCATION.--Lat 34°31'34", long 119°41'08", in SW 1/4 NW 1/4 SW 1/4 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 measure 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 1981 TO SEPTEMBER 1982

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)
feet)									
Sept. 30.....	1,386.68	5,780	--	--	--	--	--	--	--
Oct. 31.....	1,383.36	5,100	-680	622	2	64	8	8	0
Nov. 30.....	1,380.21	4,500	-600	618	44	33	95	41	54
Dec. 31.....	1,377.30	3,970	-530	538	25	26	59	7	52
CAL YR 1981.....	--	--	-990	7,768	4,940	984	12,702	438	12,264
Jan. 31.....	1,379.38	4,340	+370	65	0	17	452	84	368
Feb. 28.....	1,380.61	4,570	+230	61	0	26	317	10	307
Mar. 31.....	1,396.85	8,190	+3,620	132	0	23	3,775	130	3,645
Apr. 30.....	1,400.54	9,130	+940	392	10,740	75	12,147	116	12,031
May 31.....	1,400.82	9,200	+70	444	586	94	1,194	1	1,193
June 30.....	1,399.65	8,900	-300	424	167	102	393	2	391
July 31.....	1,396.22	8,030	-870	644	258	147	179	0	179
Aug. 31.....	1,392.81	7,190	-840	690	65	146	61	0	61
Sept. 30.....	1,391.02	6,750	-440	367	18	89	34	34	0
WTR YR 1982.....	--	--	+970	4,997	11,905	842	18,714	433	18,281

<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 conducive to precise measurement. When this occurs, evaporation and seepage is adjusted to produce non-negative inflows.

## SANTA YNEZ RIVER BASIN

11123000 SANTA YNEZ RIVER BELOW GIBRALTAR DAM, NEAR SANTA BARBARA, CA

LOCATION.--Lat 34°31'28", long 119°41'11", in NW 1/4 SW 1/4 SW 1/4 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 5,000 acre-ft (6.16 hm<sup>3</sup>) during current year from Gibraltar Reservoir; Montecito Water District diverted 1,590 acre-ft (1.96 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, 4,580 ft<sup>3</sup>/s (130 m<sup>3</sup>/s), Apr. 1, (manipulation of spill gates) gage height, 13.22 ft (4.029 m); no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	0	0				1280	30	4.6	5.7	2.1	.09
2	.10	0	0				488	27	4.7	5.7	2.2	.12
3	.10	.37	0				284	26	4.4	5.7	2.5	.17
4	.10	.63	0				214	19	4.0	5.7	2.8	.17
5	.10	.65	0				162	8.2	3.6	5.5	3.0	.18
6	.10	.58	0				83	3.3	3.2	5.5	2.9	.19
7	.10	.52	0				45	4.3	2.9	5.7	2.7	.19
8	.10	.52	0				86	6.0	2.5	5.8	2.9	.19
9	.05	.98	0				71	6.6	2.1	5.8	2.9	.71
10	0	1.7	0				70	7.0	1.6	5.8	2.1	.91
11	0	1.7	0				792	7.9	1.2	5.8	.52	.80
12	0	1.7	0				513	8.5	.88	5.8	.52	.80
13	0	1.7	0				256	8.9	.59	4.7	.52	.75
14	0	1.7	0				186	8.6	.46	4.2	.52	.65
15	0	1.7	0				110	8.6	.25	4.2	.46	.89
16	0	1.7	0				115	7.6	.05	4.2	.37	1.0
17	0	1.7	0				91	6.8	0	4.2	.66	1.0
18	0	1.7	0				82	5.7	0	4.2	1.1	.42
19	0	1.7	0				68	5.2	0	4.2	.60	0
20	0	1.0	0				64	5.6	0	3.4	.10	0
21	0	0	0				55	7.7	0	2.7	.10	0
22	0	0	0				47	8.6	3.0	2.8	.10	0
23	0	0	1.5				27	8.5	5.4	3.0	.10	0
24	0	0	2.5				19	8.9	5.5	3.0	.10	0
25	0	0	2.5				31	8.9	5.5	2.9	.10	0
26	0	0	2.5				37	8.5	5.5	2.9	.10	0
27	0	0	2.4				38	7.8	5.5	2.9	.10	0
28	0	0	1.1				36	7.0	5.5	2.1	.10	0
29	0	0	0				33	6.7	5.7	1.7	.10	0
30	0	0	0				32	6.6	5.7	2.1	.10	0
31	0	---	0				---	5.4	---	2.1	.10	---
TOTAL	.85	22.25	12.5	0	0	0	5415	295.4	84.33	130	32.57	9.23
MEAN	.027	.74	.40	0	0	0	180	9.53	2.81	4.19	1.05	.31
MAX	.10	1.7	2.5	0	0	0	1280	30	5.7	5.8	3.0	1.0
MIN	0	0	0	0	0	0	19	3.3	0	1.7	.10	0
AC-FT	1.7	44	25	0	0	0	10740	586	167	258	65	18
CAL YR 1981	TOTAL 2489.68			MEAN 6.82	MAX 248	MIN 0	AC-FT 4940					
WTR YR 1982	TOTAL 6002.13			MEAN 16.4	MAX 1280	MIN 0	AC-FT 11910					

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, 3,040 ft<sup>3</sup>/s (86.1 m<sup>3</sup>/s) Apr. 1, gage height, 8.16 ft (2.487 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	.54	.61	1210	57	8.3	5.3	.36	
2				0	.54	.95	706	55	7.5	5.0	.39	
3				0	.55	1.2	381	42	6.8	4.7	.41	
4				0	.56	.87	300	42	6.2	4.2	.42	
5				0	.56	.77	231	29	6.0	3.6	.42	
6				0	.56	.73	181	23	5.9	3.6	.37	
7				0	.57	.67	71	16	5.5	2.7	.11	
8				0	.59	.62	101	14	4.9	1.1	0	
9				0	.63	.58	104	14	4.1	.53	.12	
10				0	.73	.58	96	15	4.1	1.6	.16	
11				0	.88	1.3	484	15	3.6	3.4	.18	
12				0	1.0	4.7	786	15	2.8	3.9	.19	
13				0	1.0	3.7	323	16	2.1	3.9	.12	
14				0	1.2	12	241	18	1.8	3.8	0	
15				0	1.3	16	187	18	.92	3.8	0	
16				0	1.4	26	136	18	.82	3.6	0	
17				0	1.6	124	135	17	.18	3.4	0	
18				0	1.5	107	118	16	1.5	3.2	0	
19				0	1.2	53	108	16	3.6	3.1	0	
20				2.6	1.1	34	92	14	3.7	2.9	0	
21				11	.87	26	90	13	3.3	2.7	0	
22				4.1	.81	21	76	13	2.7	2.6	0	
23				3.0	.80	17	72	13	2.3	2.4	0	
24				2.4	.79	16	38	13	1.8	2.3	0	
25				1.4	.74	14	39	11	1.4	2.1	0	
26				.64	.70	14	57	10	.82	1.9	0	
27				.54	.67	14	62	10	.61	1.1	0	
28				.53	.62	13	68	10	2.1	.50	0	
29				.62	---	19	65	9.5	3.8	.22	0	
30				.61	---	31	58	9.1	4.7	.20	0	
31				.55	---	33	---	8.2	---	.27	0	
TOTAL	0	0	0	27.99	24.01	607.28	6616	589.8	103.85	83.62	3.25	0
MEAN	0	0	0	.90	.86	19.6	221	19.0	3.46	2.70	.10	0
MAX	0	0	0	11	1.6	124	1210	57	8.3	5.3	.42	0
MIN	0	0	0	0	.54	.58	38	8.2	.18	.20	0	0
AC-FT	0	0	0	56	48	1200	13120	1170	206	166	6.4	0
CAL YR 1981	TOTAL	5594.15	MEAN	15.3	MAX	484	MIN	0	AC-FT	11100		
WTR YR 1982	TOTAL	8055.80	MEAN	22.1	MAX	1210	MIN	0	AC-FT	15980		

## SANTA YNEZ RIVER BASIN

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.--41 years, 17.1 ft<sup>3</sup>/s (0.484 m<sup>3</sup>/s), 12,390 acre-ft/yr (15.3 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 76 ft<sup>3</sup>/s (2.15 m<sup>3</sup>/s) on basis of field estimate of maximum flow:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Mar. 12	0015	162	4.59	8.75	2.667
Apr. 1	0430	*681	19.3	10.09	3.075
Apr. 11	1545	556	15.7	9.79	2.984

Minimum, no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	3.9	4.0	287	24	10	4.6	.22	
2				0	3.5	4.9	123	23	10	4.2	.22	
3				0	3.3	5.3	92	22	9.8	3.6	.22	
4				0	3.3	4.6	76	21	9.3	3.3	.22	
5				10	3.2	4.3	62	21	9.2	3.1	.19	
6				10	3.0	4.1	51	20	8.9	2.9	.17	
7				4.1	3.0	4.0	41	19	8.6	2.7	.17	
8				2.6	3.0	4.2	35	19	8.5	2.4	.14	
9				2.1	3.0	4.3	32	19	8.3	2.1	.13	
10				1.7	3.7	4.4	42	18	8.1	1.8	.13	
11				1.7	14	13	260	18	7.9	1.6	.10	
12				1.5	8.3	62	151	17	7.6	1.3	.10	
13				1.4	5.8	20	89	16	7.4	1.1	.10	
14				1.4	5.0	20	72	16	7.2	.92	.09	
15				1.4	5.3	31	63	15	6.8	.85	.08	
16				1.4	5.9	27	56	14	6.2	.74	.08	
17				1.4	5.4	69	50	14	6.0	.69	.06	
18				1.4	4.7	63	45	14	6.1	.59	.05	
19				1.5	4.2	46	41	13	6.4	.55	.04	
20				10	3.6	39	39	13	6.0	.54	.04	
21				28	3.6	37	36	13	5.6	.49	.04	
22				12	3.6	39	34	12	5.4	.46	.04	
23				7.3	3.5	39	32	12	5.2	.45	.04	
24				5.8	3.4	38	31	11	5.0	.39	.03	
25				9.2	3.6	33	30	11	4.9	.37	.03	
26				11	3.5	33	28	11	4.6	.33	.03	
27				8.0	3.6	35	27	12	4.2	.31	.03	
28				6.8	3.6	31	26	12	3.9	.28	.02	
29				5.8	---	38	25	12	4.4	.27	0	
30				4.7	---	57	24	11	4.8	.26	0	
31				4.2	---	41	---	11	---	.24	0	
TOTAL	0	0	0	156.4	123.5	855.1	2000	484	206.3	43.43	2.81	0
MEAN	0	0	0	5.05	4.41	27.6	66.7	15.6	6.88	1.40	.091	0
MAX	0	0	0	28	14	69	287	24	10	4.6	.22	0
MIN	0	0	0	0	3.0	4.0	24	11	3.9	.24	0	0
AC-FT	0	0	0	310	245	1700	3970	960	409	86	5.6	0

YR 1981	TOTAL	2574.71	MEAN	7.05	MAX	241	MIN	0	AC-FT	5110
YR 1982	TOTAL	3871.54	MEAN	10.6	MAX	287	MIN	0	AC-FT	7680

## 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, non-recording 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, 182,200 acre-ft (225 hm<sup>3</sup>) May 4, elevation, 742.35 ft (226.268 m); minimum, 159,500 acre-ft (197 hm<sup>3</sup>) Sept. 30, elevation, 734.06 ft (223.741 m).

## MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Total diversions (acre-feet)
Sept. 30.....	737.56	168,900	--	--
Oct. 31.....	736.53	166,100	-2,800	1,760
Nov. 30.....	736.03	164,700	-1,400	988
Dec. 31.....	735.37	163,000	-1,700	1,250
CAL YR 1981.....	--	--	-16,500	24,852
Jan. 31.....	735.11	162,300	-700	1,330
Feb. 28.....	734.65	161,100	-1,200	1,310
Mar. 31.....	735.79	164,100	+3,000	1,430
Apr. 30.....	742.29	182,000	+17,900	1,120
May 31.....	741.77	180,500	-1,500	2,540
June 30.....	740.49	176,900	-3,600	2,950
July 31.....	738.74	172,100	-4,800	3,490
Aug. 31.....	736.27	165,400	-6,700	3,550
Sept. 30.....	734.06	159,500	-5,900	2,390
WTR YR 1982.....	--	--	-9,400	24,108

## SANTA YNEZ RIVER BASIN

11128250 ALAMO PINTADO CREEK NEAR SOLVANG, CA

LOCATION.--Lat 34°37'06", long 120°07'11", in SE 1/4 NW 1/4 NW 1/4 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.--12 years, 0.44 ft<sup>3</sup>/s (0.012 m<sup>3</sup>/s), 319 acre-ft/yr (393,000 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 1.2 ft<sup>3</sup>/s (0.034 m<sup>3</sup>/s) on basis of slope-area measurements of maximum flow:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Apr. 1	0430	*42	1.19	4.15	1.265
Apr. 11	1230	*42	1.19	4.15	1.265

Minimum, no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	0	2.8		0		0	
2				0	0	0	0		0		0	
3				0	0	0	0		0		0	
4				0	0	0	0		0		0	
5				0	0	0	0		0		0	
6				0	0	0	0		0		0	
7				0	0	0	0		0		0	
8				0	0	0	0		0		0	
9				0	0	0	0		0		.02	
10				0	.03	0	0		0		0	
11				0	0	.07	6.1		0		0	
12				0	0	0	.98		0		0	
13				0	0	0	0		0		0	
14				0	0	.18	0		0		0	
15				0	0	0	0		0		0	
16				0	0	.34	0		0		0	
17				0	0	.02	0		0		0	
18				0	0	0	0		0		0	
19				0	0	0	0		0		0	
20				.40	0	0	0		0		0	
21				.15	0	0	0		0		0	
22				0	0	0	0		0		0	
23				0	0	0	0		0		0	
24				0	0	0	0		0		0	
25				0	0	0	0		0		0	
26				0	0	0	0		0		0	
27				0	0	0	0		0		0	
28				.03	0	0	0		.08		0	
29				0	---	0	0		0		0	
30				0	---	0	0		0		.05	
31				0	---	.01	---		---		0	
TOTAL	0	0	0	.58	.03	.62	9.88	0	.08	0	.07	0
MEAN	0	0	0	.019	.001	.020	.33	0	.003	0	.002	0
MAX	0	0	0	.40	.03	.34	6.1	0	.08	0	.05	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	1.2	.06	1.2	20	0	.2	0	.1	0
CAL YR 1981	TOTAL	83.82	MEAN	.23	MAX	66	MIN	0	AC-FT	166		
WTR YR 1982	TOTAL	11.26	MEAN	.03	MAX	6.1	MIN	0	AC-FT	22		



## 11128300 ALISAL RESERVOIR NEAR SOLVANG, CA

LOCATION.--Lat 34°32'56", long 120°07'45", in SE 1/4 NE 1/4 NW 1/4 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. Datum of 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, 2,460 acre-ft (3.03 hm<sup>3</sup>) Apr. 1, elevation, 600.88 ft (183.148 m); minimum, 2,150 acre-ft (2.65 hm<sup>3</sup>) Dec. 28, elevation, 597.39 ft (182.084 m).

## MONTH-END ELEVATION NGVD AND CONTENTS, AT 1800, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	597.78	2,180	--
Oct. 31.....	597.46	2,150	-30
Nov. 30.....	597.50	2,160	+10
Dec. 31.....	597.40	2,150	-10
CAL YR 1981.....	--	--	-50
Jan. 31.....	597.95	2,200	+50
Feb. 28.....	598.08	2,210	+10
Mar. 31.....	600.05	2,380	+170
Apr. 30.....	599.83	2,360	-20
May 31.....	599.80	2,360	0
June 30.....	599.56	2,340	-20
July 31.....	599.05	2,290	-50
Aug. 31.....	598.49	2,240	-50
Sept. 30.....	598.16	2,210	-30
WTR YR 1982.....	--	--	+30

## SANTA YNEZ RIVER BASIN

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. 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, 383 ft<sup>3</sup>/s (10.8 m<sup>3</sup>/s) Mar. 31, gage height, 3.17 ft (0.966 m) from rating curve extended above 70 ft<sup>3</sup>/s (1.98 m<sup>3</sup>/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	0	2.3	1.5	1.5	.03	237	2.9			0	51
2	2.4	0	2.0	1.9	1.1	.53	64	2.0			0	62
3	2.4	.20	1.9	1.7	1.2	.72	31	.97			0	24
4	2.2	.44	2.0	1.4	1.4	.68	20	.93			0	4.9
5	2.4	.30	2.0	2.4	1.4	.68	15	.87			0	1.0
6	2.4	.27	2.0	2.3	1.8	.71	11	.61			0	.50
7	1.9	.35	2.1	2.1	.79	.40	8.8	.14			0	.15
8	.49	.46	2.0	1.9	.74	.21	6.9	.10			0	.10
9	.15	.52	2.0	1.7	1.1	.11	6.0	.15			0	.05
10	.03	.53	2.2	2.0	2.2	.13	6.3	.12			0	.04
11	.01	.42	2.4	1.7	3.3	1.5	68	.10			0	.02
12	0	.50	2.4	1.8	2.2	.93	61	.09			0	.01
13	0	.60	2.1	1.7	1.5	.53	37	.08			0	0
14	0	.70	2.1	1.7	1.4	1.6	28	.07			0	0
15	0	.83	2.0	1.5	1.4	1.7	22	.06			0	0
16	0	1.3	2.3	1.3	2.0	2.9	19	.05			0	0
17	0	1.7	2.3	1.6	1.9	16	16	.04			0	0
18	0	1.6	1.7	1.5	1.2	21	15	.03			0	0
19	0	1.5	1.4	2.0	.64	13	13	.02			0	0
20	0	1.6	1.4	6.2	.27	9.8	13	.01			0	0
21	0	1.6	1.6	7.7	.16	7.3	9.5	0			0	0
22	0	1.5	1.4	7.6	.10	5.5	7.4	0			0	0
23	0	1.1	1.4	6.5	.08	4.3	6.3	0			0	0
24	0	1.1	1.2	5.7	.05	3.5	5.2	0			0	33
25	0	.82	1.2	5.1	.04	3.2	5.1	0			0	107
26	0	1.4	1.1	4.7	.03	2.6	4.4	0			0	119
27	0	2.8	.95	4.2	.02	2.0	4.5	0			0	125
28	0	3.3	1.1	3.7	.01	1.7	4.2	0			0	115
29	0	2.8	.73	4.2	---	2.3	3.7	0			0	97
30	0	2.4	1.4	2.3	---	2.8	3.2	0			0	85
31	0	---	.98	1.6	---	29	---	0			25	---
TOTAL	17.38	32.64	53.66	93.2	29.53	137.36	751.5	9.34	0	0	25	824.77
MEAN	.56	1.09	1.73	3.01	1.05	4.43	25.0	.30	0	0	.81	27.5
MAX	3.0	3.3	2.4	7.7	3.3	29	237	2.9	0	0	25	125
MIN	0	0	.73	1.3	.01	.03	3.2	0	0	0	0	0
AC-FT	34	65	106	185	59	272	1490	19	0	0	50	1640
CAL YR 1981	TOTAL	5492.39	MEAN	15.0	MAX	1670	MIN	0	AC-FT	10890		
WTR YR 1982	TOTAL	1974.38	MEAN	5.41	MAX	237	MIN	0	AC-FT	3920		

## 11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA

LOCATION.--Lat 34°35'19", long 120°24'27", in W 1/2 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>).

## WATER-DISCHARGE RECORDS

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.--41 years, 9.58 ft<sup>3</sup>/s (0.271 m<sup>3</sup>/s), 6,940 acre-ft/yr (8.56 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.--Maximum discharge, 538 ft<sup>3</sup>/s (15.2 m<sup>3</sup>/s) Apr. 1, gage height, 3.48 ft (1.061 m), no peak above base of 700 ft<sup>3</sup>/s (19.8 m<sup>3</sup>/s); minimum daily, 0.02 ft<sup>3</sup>/s (<0.001 m<sup>3</sup>/s) Sept. 4-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	.85	1.4	2.3	1.9	2.1	125	2.3	.97	.70	.12	.11
2	.95	.85	1.4	2.7	1.9	3.4	13	2.1	.92	.66	.13	.09
3	1.0	.88	1.3	2.0	1.9	2.8	6.1	1.9	.91	.55	.15	.04
4	1.0	.91	1.4	1.8	1.9	1.9	4.6	1.9	.90	.50	.13	.02
5	.95	1.0	1.3	8.6	1.9	1.5	3.5	1.8	.88	.52	.10	.02
6	.82	1.0	1.2	2.5	1.9	1.5	3.1	1.9	.88	.52	.08	.02
7	.78	1.1	1.2	1.9	1.9	1.5	2.7	1.9	.88	.55	.07	.04
8	.68	1.0	1.2	2.0	2.1	1.5	2.5	2.0	.95	.57	.10	.04
9	.77	1.0	1.2	1.9	2.1	1.5	2.5	2.1	1.0	.52	.15	.05
10	.79	1.0	1.2	1.9	2.3	1.5	3.0	2.0	1.0	.54	.20	.06
11	.88	1.1	1.2	1.9	2.8	2.5	60	1.9	1.0	.44	.14	.16
12	.96	1.2	1.2	1.9	2.1	2.9	17	1.9	1.1	.38	.14	.13
13	.96	1.3	1.2	1.9	1.9	2.2	7.8	1.8	1.0	.40	.20	.13
14	.96	3.3	1.2	1.9	1.9	2.6	5.7	1.7	1.0	.40	.20	.11
15	1.0	2.3	1.2	1.9	1.9	3.5	4.5	1.7	.99	.40	.14	.11
16	1.1	1.5	1.2	1.9	2.0	9.4	3.8	1.6	.96	.44	.15	.18
17	1.0	1.4	1.2	1.9	1.9	38	3.5	1.4	1.0	.44	.10	.17
18	.89	1.3	1.2	1.9	1.6	12	3.3	1.4	1.0	.42	.10	.15
19	.77	1.2	1.2	2.1	1.5	6.0	3.0	1.4	1.1	.43	.12	.15
20	.83	1.2	1.3	8.8	1.5	3.7	2.7	1.2	1.0	.37	.14	.12
21	.88	1.3	1.5	10	1.5	3.0	2.6	1.3	1.0	.35	.11	.09
22	.93	1.4	1.4	4.8	1.5	2.7	2.5	1.3	1.1	.30	.08	.08
23	.94	1.3	1.4	2.9	1.5	2.4	2.3	1.2	.94	.33	.09	.09
24	.94	1.4	1.2	2.5	1.5	2.2	2.2	1.2	.83	.39	.12	.08
25	.85	1.3	1.2	2.5	1.7	2.3	2.4	1.4	.75	.31	.19	.11
26	.88	1.5	1.3	2.2	1.7	2.8	2.5	1.5	.68	.33	.20	.30
27	.94	2.4	1.4	2.2	1.8	2.4	2.4	1.6	.68	.34	.16	.19
28	1.3	2.5	1.4	2.3	1.7	2.4	2.4	1.4	.70	.28	.10	.12
29	1.7	2.0	1.5	2.4	---	3.0	2.3	1.4	.76	.26	.15	.08
30	1.2	1.6	2.2	2.0	---	3.4	2.4	1.2	.81	.19	.11	.07
31	.97	---	2.2	1.9	---	30	---	1.0	---	.16	.09	---
TOTAL	29.50	42.09	41.6	89.4	51.8	158.6	301.3	50.4	27.69	12.99	4.06	3.11
MEAN	.95	1.40	1.34	2.88	1.85	5.12	10.0	1.63	.92	.42	.13	.10
MAX	1.7	3.3	2.2	10	2.8	38	125	2.3	1.1	.70	.20	.30
MIN	.68	.85	1.2	1.8	1.5	1.5	2.2	1.0	.68	.16	.07	.02
AC-FT	59	83	83	177	103	315	598	100	55	26	8.1	6.2
CAL YR 1981	TOTAL	2499.92	MEAN	6.85	MAX	576	MIN	.58	AC-FT	4960		
WTR YR 1982	TOTAL	812.54	MEAN	2.23	MAX	125	MIN	.02	AC-FT	1610		

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.

pH: October 1981 to September 1982.

WATER TEMPERATURES: October 1981 to September 1982.

PERIOD OF DAILY RECORD.--

pH: October 1981 to September 1982.

WATER TEMPERATURES: October 1981 to September 1982.

INSTRUMENTATION.--Water-quality monitor since October 1981.

EXTREMES FOR CURRENT YEAR.--

pH: Maximum, 8.4 units several days during March and May; minimum, 7.5 units several days during August and September.

WATER TEMPERATURES: Maximum recorded, 25.5°C June 26, 27; minimum recorded, 3.5°C Jan. 8.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	1115	.83	1450	8.1	16.5	--	--	--	--	--	--	--
NOV 03...	1115	.87	1480	7.9	13.5	550	240	128	56	110	30	2.1
DEC 01...	1200	1.3	1400	8.1	11.0	--	--	--	--	--	--	--
JAN 05...	1200	14	1175	8.1	10.5	--	--	--	--	--	--	--
FEB 01...	1455	1.9	1490	8.1	11.5	--	--	--	--	--	--	--
MAR 01...	1400	2.2	1350	8.2	14.0	--	--	--	--	--	--	--
APR 01...	1140	62	550	7.9	11.5	--	--	--	--	--	--	--
MAY 03...	1450	2.0	1390	8.3	21.0	--	--	--	--	--	--	--
JUN 01...	1355	1.1	1450	8.2	19.5	--	--	--	--	--	--	--
JUL 01...	0920	.92	1180	8.0	17.0	--	--	--	--	--	--	--
AUG 03...	0935	.22	1550	8.0	18.0	--	--	--	--	--	--	--
SEP 15...	1140	.14	1650	7.6	18.0	--	--	--	--	--	--	--

DATE	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, 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...	--	--	--	--	--	--	950	--	--	--	--	--
NOV 03...	2.5	310	260	130	.6	27	--	902 <sup>1</sup>	.23	.14	680	42
DEC 01...	--	--	--	--	--	--	930	--	--	--	--	--
JAN 05...	--	--	--	--	--	--	769	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	974	--	--	--	--	--
MAR 01...	--	--	--	--	--	--	912	--	--	--	--	--
APR 01...	--	--	--	--	--	--	360	--	--	--	--	--
MAY 03...	--	--	--	--	--	--	921	--	--	--	--	--
JUN 01...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	919	--	--	--	--	--
AUG 03...	--	--	--	--	--	--	1060	--	--	--	--	--
SEP 15...	--	--	--	--	--	--	1090	--	--	--	--	--

<sup>1</sup>Results based on Laboratory Alkalinity value.

11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA--Continued

PH (UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	7.8	8.0	8.2	7.9	8.0	8.2	8.0	8.1	8.2	7.8	8.1
2	8.2	7.8	8.0	8.2	7.9	8.0	8.2	8.0	8.1	8.2	7.9	8.1
3	8.1	7.8	7.9	8.1	7.9	8.0	8.2	8.0	8.1	8.2	8.0	8.1
4	8.2	7.8	8.0	8.1	7.9	8.0	8.2	8.0	8.1	8.2	8.1	8.1
5	8.2	7.8	8.0	8.2	7.9	8.0	8.2	8.0	8.1	8.3	8.1	8.2
6	8.2	7.8	8.0	8.2	8.0	8.1	8.1	8.0	8.0	8.1	7.7	8.0
7	8.2	7.8	8.0	8.3	8.0	8.1	8.2	8.0	8.1	8.1	7.8	8.0
8	8.2	7.8	8.0	8.3	8.0	8.1	8.2	8.0	8.0	8.1	8.0	8.1
9	8.2	7.8	8.0	8.3	8.0	8.1	8.2	8.0	8.1	8.1	7.9	8.1
10	8.2	7.8	8.0	8.2	7.9	8.1	8.1	8.0	8.1	8.2	8.0	8.1
11	8.2	7.8	8.0	8.2	7.9	8.0	---	---	---	8.1	8.0	8.1
12	8.2	7.8	8.0	8.2	7.9	8.0	---	---	---	8.2	7.7	8.1
13	8.2	7.8	8.0	8.2	7.9	8.0	---	---	---	8.2	8.0	8.1
14	8.2	7.9	8.1	8.2	7.9	8.1	---	---	---	8.2	8.1	8.1
15	8.2	7.9	8.0	8.2	7.9	8.1	---	---	---	8.2	8.1	8.1
16	8.2	7.8	8.0	8.2	7.9	8.0	---	---	---	8.2	8.0	8.1
17	8.2	7.9	8.0	8.2	7.9	8.0	---	---	---	8.2	8.1	8.1
18	8.2	7.8	8.0	8.2	7.8	8.0	---	---	---	8.2	8.1	8.1
19	8.1	7.8	8.0	8.3	7.8	8.1	---	---	---	8.2	8.0	8.1
20	8.1	7.8	7.9	8.3	8.1	8.2	---	---	---	8.3	8.0	8.2
21	8.2	7.8	8.0	8.2	8.0	8.1	---	---	---	8.3	8.0	8.2
22	8.1	7.8	7.9	---	---	---	---	---	---	8.2	7.8	8.1
23	8.1	7.8	7.9	---	---	---	---	---	---	8.2	8.1	8.1
24	8.1	7.8	7.9	8.0	7.8	7.9	---	---	---	8.2	8.1	8.1
25	8.1	7.8	7.9	8.1	7.9	8.0	---	---	---	8.2	8.1	8.1
26	8.0	7.8	7.9	8.2	8.0	8.1	---	---	---	8.2	8.1	8.1
27	8.1	7.8	7.9	8.2	8.1	8.2	---	---	---	8.2	8.1	8.1
28	8.1	7.8	7.9	8.2	8.0	8.1	---	---	---	8.2	8.1	8.1
29	8.1	7.9	8.0	8.1	8.0	8.0	---	---	---	8.2	8.1	8.1
30	8.1	7.9	8.0	8.2	8.0	8.0	8.2	7.9	8.1	8.2	8.1	8.1
31	8.1	7.9	8.0	---	---	---	8.2	8.1	8.1	8.2	8.0	8.1
MONTH	8.2	7.8	8.0	8.3	7.8	8.1	---	---	---	8.3	7.7	8.1
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	8.1	8.1	8.2	8.0	8.1	---	---	---	8.4	8.0	8.2
2	8.2	8.1	8.1	8.3	8.0	8.2	---	---	---	8.4	8.0	8.2
3	8.2	8.1	8.1	8.3	8.1	8.2	---	---	---	8.3	7.8	8.1
4	8.3	8.1	8.1	8.2	8.1	8.1	---	---	---	8.3	7.9	8.1
5	8.3	8.1	8.1	8.2	8.1	8.1	---	---	---	8.3	7.8	8.1
6	8.3	8.1	8.1	8.2	8.0	8.1	8.3	8.0	8.2	8.4	7.8	8.2
7	8.3	8.0	8.1	8.3	8.1	8.1	8.3	8.0	8.2	8.3	8.0	8.2
8	8.2	8.0	8.1	8.2	8.1	8.1	8.3	8.2	8.2	8.4	8.1	8.2
9	8.2	8.1	8.1	8.2	8.0	8.1	8.3	8.2	8.2	8.4	8.1	8.2
10	8.2	8.0	8.1	8.2	8.0	8.1	8.2	8.2	8.2	8.4	8.0	8.2
11	8.3	8.1	8.2	8.2	8.0	8.1	8.2	7.8	8.1	8.4	8.0	8.2
12	8.3	8.0	8.1	8.3	8.0	8.1	8.1	7.9	8.1	8.3	7.9	8.1
13	8.2	8.0	8.1	8.3	8.1	8.1	8.2	7.9	8.1	8.4	7.9	8.1
14	8.2	8.0	8.1	8.3	8.0	8.1	8.3	8.0	8.2	8.4	8.0	8.1
15	8.1	7.9	8.0	8.4	8.1	8.2	8.3	8.0	8.2	8.4	8.0	8.1
16	8.3	7.9	8.1	8.3	8.0	8.2	8.3	8.0	8.2	8.3	7.9	8.1
17	8.3	7.9	8.1	8.2	7.9	8.0	8.3	8.0	8.2	8.3	7.9	8.1
18	8.3	8.0	8.1	8.2	8.1	8.1	8.3	7.9	8.2	8.3	7.9	8.1
19	8.3	8.0	8.1	8.2	8.0	8.2	8.3	7.9	8.2	8.2	7.8	8.0
20	8.3	8.0	8.1	8.3	8.2	8.2	8.3	7.9	8.2	8.2	7.8	8.0
21	8.3	8.0	8.1	8.3	8.2	8.2	8.3	7.9	8.2	8.2	7.9	8.1
22	8.3	8.0	8.1	8.3	8.2	8.2	8.3	7.9	8.2	8.3	7.9	8.1
23	8.3	8.0	8.1	8.3	8.1	8.2	8.3	7.9	8.2	8.2	7.8	8.1
24	8.3	8.1	8.1	8.3	8.1	8.1	8.3	7.9	8.2	8.2	7.8	8.0
25	8.3	8.1	8.2	8.2	8.1	8.1	8.3	7.9	8.2	8.2	7.9	8.1
26	8.3	8.0	8.1	8.3	8.1	8.2	8.3	8.0	8.2	8.2	8.0	8.1
27	8.3	8.0	8.1	8.3	8.1	8.2	8.3	8.0	8.2	8.3	8.0	8.2
28	8.3	8.0	8.1	8.3	8.1	8.2	8.3	8.0	8.2	8.3	8.0	8.2
29	---	---	---	8.3	8.1	8.2	8.3	8.0	8.2	8.3	7.9	8.1
30	---	---	---	8.4	8.0	8.2	8.3	8.1	8.2	8.3	7.9	8.1
31	---	---	---	8.3	7.9	8.2	---	---	---	8.3	7.8	8.1
MONTH	8.3	7.9	8.1	8.4	7.9	8.1	8.3	7.8	8.2	8.4	7.8	8.1

## SANTA YNEZ RIVER BASIN

11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA--Continued

PH (UNITS), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	7.8	8.1	8.3	7.7	8.1	8.0	7.6	7.8	7.9	7.6	7.8
2	8.3	7.8	8.1	8.3	7.7	8.0	8.1	7.6	7.9	8.0	7.6	7.8
3	8.3	7.9	8.1	8.3	7.7	8.0	8.0	7.6	7.8	8.0	7.6	7.8
4	8.2	7.8	8.1	8.3	7.7	8.0	8.1	7.7	7.9	8.0	7.6	7.8
5	8.2	7.8	8.1	8.3	7.8	8.0	8.0	7.5	7.8	7.9	7.6	7.8
6	8.3	7.8	8.1	8.3	7.7	8.0	7.9	7.5	7.8	8.0	7.6	7.8
7	8.3	7.8	8.1	8.3	7.7	8.0	8.0	7.5	7.8	7.9	7.6	7.8
8	8.2	7.8	8.1	8.3	7.7	8.0	8.0	7.5	7.8	7.9	7.6	7.8
9	8.3	7.8	8.1	8.2	7.7	8.0	8.0	7.5	7.8	7.8	7.6	7.7
10	8.2	8.0	8.1	8.3	7.6	8.0	8.0	7.6	7.8	7.9	7.5	7.7
11	8.3	7.9	8.1	8.2	7.7	8.0	8.0	7.5	7.8	7.9	7.6	7.7
12	8.3	7.8	8.1	8.3	7.7	8.0	7.9	7.5	7.7	7.9	7.6	7.7
13	8.3	7.8	8.1	8.2	7.7	8.0	7.9	7.6	7.7	7.9	7.7	7.8
14	8.3	7.8	8.1	8.1	7.6	7.9	7.9	7.6	7.8	7.9	7.6	7.7
15	8.3	7.9	8.1	8.1	7.7	7.9	8.0	7.6	7.8	7.8	7.6	7.7
16	8.3	7.7	8.0	8.1	7.7	7.9	7.9	7.6	7.8	7.9	7.6	7.8
17	8.2	7.9	8.1	8.2	7.6	7.9	8.0	7.5	7.8	7.9	7.7	7.8
18	8.3	8.0	8.1	8.1	7.6	7.9	8.0	7.7	7.8	7.9	7.6	7.8
19	8.2	7.9	8.1	8.2	7.6	7.9	8.0	7.6	7.8	7.9	7.6	7.8
20	8.3	7.9	8.1	8.2	7.6	7.9	8.0	7.6	7.8	7.9	7.6	7.8
21	8.3	7.9	8.1	8.2	7.6	7.9	8.0	7.6	7.8	7.9	7.7	7.8
22	8.3	7.8	8.1	8.1	7.6	7.9	8.0	7.6	7.8	7.8	7.6	7.7
23	8.3	7.8	8.1	8.1	7.6	7.9	8.0	7.6	7.8	7.8	7.6	7.7
24	8.3	7.9	8.1	8.1	7.7	7.9	8.0	7.6	7.8	7.7	7.6	7.6
25	8.3	7.7	8.0	8.1	7.6	7.9	8.0	7.7	7.8	7.7	7.5	7.6
26	8.3	7.7	8.0	8.1	7.6	7.9	8.0	7.6	7.8	7.9	7.6	7.7
27	8.3	7.7	8.0	8.1	7.6	7.9	7.9	7.7	7.8	7.9	7.7	7.8
28	8.2	7.9	8.0	8.1	7.6	7.9	7.9	7.6	7.8	7.9	7.7	7.8
29	8.3	7.9	8.1	8.1	7.6	7.9	8.0	7.6	7.8	7.9	7.7	7.8
30	8.3	7.7	8.1	8.1	7.7	7.8	7.9	7.6	7.8	7.9	7.7	7.8
31	---	---	---	8.1	7.6	7.8	7.9	7.6	7.8	---	---	---
MONTH	8.3	7.7	8.1	8.3	7.6	7.9	8.1	7.5	7.8	8.0	7.5	7.8
YEAR	8.4	7.5	8.0									

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	20.0	16.0	13.5	9.0	11.5	8.5	12.5	9.5	11.0	7.0	14.0	13.0
2	20.5	15.0	13.5	9.0	12.0	8.5	10.5	8.0	11.5	6.5	15.5	12.5
3	17.5	15.0	15.5	10.5	11.0	7.5	9.0	6.0	10.5	6.0	15.5	10.0
4	19.0	13.5	15.5	12.5	11.0	8.5	9.5	8.0	12.0	9.0	15.5	10.0
5	19.5	13.5	14.5	12.5	11.5	8.5	10.5	9.0	12.0	7.5	14.0	9.5
6	19.0	12.0	14.0	12.0	12.0	10.0	10.5	7.5	11.0	7.5	15.0	8.0
7	20.0	14.0	14.5	11.0	12.0	9.5	8.5	5.0	11.5	8.5	13.5	9.0
8	19.5	13.5	14.5	11.5	11.5	8.0	7.5	3.5	13.0	10.0	16.5	11.5
9	19.5	12.0	14.0	10.0	12.0	9.0	8.0	4.0	11.0	8.5	15.0	12.0
10	18.5	14.5	14.0	11.0	12.5	10.5	9.5	6.0	11.0	9.0	14.5	13.0
11	19.0	15.0	15.5	13.5	11.5	9.0	11.0	7.5	12.0	7.5	14.0	12.5
12	18.0	12.0	15.5	13.5	12.0	9.0	11.5	8.5	13.0	9.5	16.5	12.5
13	16.5	10.0	16.0	14.5	13.5	11.0	10.5	7.0	12.5	9.5	15.0	12.0
14	16.0	9.5	17.5	15.0	13.5	11.5	10.5	7.0	13.5	12.0	15.0	13.0
15	16.0	9.0	16.5	14.0	14.0	11.5	10.5	6.5	14.0	13.0	16.5	12.0
16	17.0	11.5	16.5	14.5	13.0	10.5	10.0	5.5	16.5	13.5	14.5	10.0
17	15.0	9.5	16.0	13.5	12.5	9.0	9.5	5.0	16.5	13.0	11.5	9.5
18	15.5	11.0	15.0	11.5	13.0	10.5	11.0	8.5	16.0	12.0	12.0	9.0
19	15.5	11.5	12.5	9.0	14.0	11.0	10.0	7.0	15.0	11.0	13.5	8.0
20	16.0	12.0	14.5	12.0	13.5	12.5	9.0	7.5	15.5	11.0	14.5	8.5
21	16.5	13.5	15.5	14.0	14.5	11.5	9.0	7.0	15.5	11.0	15.0	8.5
22	16.0	13.5	---	---	12.5	9.0	8.5	5.5	15.0	13.0	15.0	9.5
23	---	---	---	---	10.0	7.0	9.0	5.0	16.0	11.0	16.5	11.0
24	---	---	15.5	12.5	9.5	6.5	10.0	5.0	13.5	10.0	16.0	13.0
25	---	---	14.0	11.0	10.5	6.5	11.0	6.0	14.5	10.0	13.5	11.5
26	---	---	12.5	10.0	11.5	8.5	11.5	9.0	14.5	11.0	15.0	11.5
27	---	---	12.5	9.5	12.5	9.5	11.0	7.5	15.5	9.0	16.5	12.5
28	---	---	12.0	9.5	11.0	8.5	10.5	7.0	14.5	12.0	15.5	12.0
29	15.5	12.0	11.5	8.5	11.0	7.5	10.5	6.5	---	---	14.5	10.5
30	15.0	11.0	11.0	7.5	12.5	11.0	10.0	5.0	---	---	16.0	10.0
31	14.0	9.0	---	---	12.0	11.5	10.0	5.0	---	---	14.5	12.0
MONTH	20.5	9.0	17.5	7.5	14.5	6.5	12.5	3.5	16.5	6.0	16.5	8.0

11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA--Continued

## TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.5	12.0	21.0	15.0	22.5	14.5	25.0	17.0	23.5	16.5	21.5	18.0
2	12.5	10.5	22.0	15.0	22.5	15.0	24.5	17.0	23.5	17.5	23.0	18.0
3	13.0	11.5	20.0	15.5	23.0	15.0	25.0	17.5	23.5	17.5	23.0	17.5
4	14.5	12.5	20.5	16.0	22.5	15.0	25.0	17.0	24.0	17.5	23.0	17.0
5	17.0	13.0	19.0	17.0	23.0	14.5	24.5	16.5	24.0	16.5	23.0	16.5
6	16.5	11.0	20.0	16.5	23.0	15.0	25.0	17.5	24.5	16.5	23.5	17.5
7	17.0	10.0	17.5	16.5	23.0	15.0	25.0	17.5	24.5	18.0	20.5	17.5
8	14.5	11.0	16.5	15.5	23.0	15.5	24.5	17.5	24.0	18.0	21.0	17.5
9	14.0	11.5	15.0	14.0	23.0	16.0	25.0	17.5	23.5	17.5	23.5	18.5
10	14.0	13.0	18.5	13.0	21.0	16.0	24.5	16.5	23.5	17.5	22.0	18.5
11	14.0	12.0	18.5	13.5	19.5	15.5	24.5	17.5	23.5	17.0	23.0	17.0
12	14.5	12.5	19.0	15.0	22.0	15.0	24.5	17.5	21.5	17.5	22.0	17.0
13	17.0	13.0	21.5	15.0	23.0	15.5	25.0	17.5	22.0	16.5	23.0	18.5
14	19.0	14.0	21.5	15.0	23.5	16.0	22.5	17.5	23.5	17.0	20.0	18.5
15	19.0	13.5	22.0	15.0	24.0	16.5	24.0	17.5	24.0	17.5	19.0	17.5
16	19.0	12.5	23.0	15.0	23.5	16.5	23.0	17.5	24.0	17.0	20.0	17.5
17	19.0	13.0	21.5	15.0	19.0	17.0	24.0	16.5	24.0	17.0	20.5	17.5
18	20.5	13.5	22.0	14.0	20.0	16.5	24.0	17.5	24.0	18.0	21.0	18.0
19	21.5	14.0	22.0	14.5	21.0	17.0	24.0	17.5	23.5	18.0	20.5	16.0
20	21.5	14.0	22.0	15.0	21.5	17.0	24.0	17.0	24.0	17.5	20.5	16.0
21	21.5	14.5	20.0	15.5	18.5	16.5	24.0	17.0	24.0	18.0	20.5	15.0
22	21.5	14.0	22.0	14.5	22.5	16.0	23.5	17.0	24.0	17.5	21.5	17.5
23	21.5	14.0	22.0	15.5	23.0	17.0	19.5	17.5	23.5	17.5	19.5	18.0
24	21.5	15.5	23.0	16.0	22.0	17.0	23.0	16.5	22.5	17.5	20.0	19.0
25	20.5	15.5	19.0	17.0	25.0	17.0	23.0	17.0	23.0	17.5	20.0	19.5
26	21.0	15.5	17.5	16.0	25.5	17.5	23.5	17.0	23.5	17.5	20.5	18.0
27	22.5	15.5	18.5	16.0	25.5	18.0	23.5	17.0	23.5	17.5	20.5	17.0
28	22.5	15.5	17.5	15.5	19.5	17.5	23.5	17.5	23.5	18.5	20.5	16.5
29	22.0	15.0	20.0	14.5	19.0	16.5	24.0	17.0	24.0	18.5	19.5	16.5
30	18.5	15.5	22.5	14.5	23.0	15.5	24.0	17.5	23.5	18.0	17.5	13.5
31	---	---	22.0	14.0	---	---	24.5	17.5	23.5	18.0	---	---
MONTH	22.5	10.0	23.0	13.0	25.5	14.5	25.0	16.5	24.5	16.5	23.5	13.5

## SANTA YNEZ RIVER BASIN

## 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> (2,040 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 current year. 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 highwater 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. 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, 593 ft<sup>3</sup>/s (16.8 m<sup>3</sup>/s) Apr. 1, gage height, 3.57 ft (1.088 m); no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	1.4	3.5	12	7.4	375	12	1.2	.06		
2		0	1.5	5.2	12	10	254	11	1.1	.05		
3		0	1.4	2.4	11	12	119	10	1.0	.05		
4		0	1.4	4.9	11	10	82	9.5	.89	.04		
5		0	1.2	20	10	8.7	65	8.5	.89	.04		
6		0	1.3	9.6	9.8	8.3	54	8.0	.89	.03		
7		0	1.4	4.5	9.5	8.0	45	7.5	.89	.03		
8		0	1.4	4.5	9.5	7.8	39	6.5	.89	.03		
9		0	1.4	4.5	9.5	7.6	34	6.0	.75	.02		
10		0	1.5	4.8	10	6.9	32	5.8	.75	.02		
11		0	1.4	5.3	12	7.3	107	5.2	.75	.02		
12		0	1.4	6.1	13	10	146	4.2	.69	.02		
13		0	1.4	6.1	11	10	97	3.6	.60	.01		
14		0	1.3	6.1	12	9.4	67	3.5	.46	.01		
15		.05	1.4	6.1	12	11	52	3.2	.45	0		
16		.05	1.4	6.1	13	12	43	3.0	.38	0		
17		.05	1.4	6.1	14	60	37	3.0	.30	0		
18		.05	1.4	6.1	13	47	34	3.0	.30	0		
19		.05	1.6	6.1	12	42	29	2.9	.24	0		
20		.08	1.7	14	10	34	26	2.3	.24	0		
21		.12	1.7	22	9.7	28	22	2.3	.22	0		
22		.16	1.7	20	9.8	25	19	2.4	.19	0		
23		.29	1.7	16	9.3	23	17	2.5	.17	0		
24		.34	1.7	14	8.0	20	16	2.6	.14	0		
25		.36	1.7	14	7.4	20	15	2.5	.13	0		
26		.58	1.8	13	7.1	20	14	2.0	.11	0		
27		.82	2.1	12	7.1	20	14	1.9	.10	0		
28		1.2	2.1	13	6.5	18	13	1.8	.09	0		
29		1.5	2.1	13	---	18	13	1.5	.08	0		
30		1.5	2.3	12	---	20	12	1.4	.07	0		
31		---	2.3	12	---	20	---	1.3	---	0		
TOTAL	0	7.20	49.5	293.0	291.2	561.4	1892	140.9	14.96	.43	0	0
MEAN	0	.24	1.60	9.45	10.4	18.1	63.1	4.55	.50	.014	0	0
MAX	0	1.5	2.3	22	14	60	375	12	1.2	.06	0	0
MIN	0	0	1.2	2.4	6.5	6.9	12	1.3	.07	0	0	0
AC-FT	0	14	98	581	578	1110	3750	279	30	.90	0	0
CAL YR 1981	TOTAL	10062.18	MEAN	27.6	MAX	3100	MIN	0	AC-FT	19960		
WTR YR 1982	TOTAL	3250.59	MEAN	8.91	MAX	375	MIN	0	AC-FT	6450		



11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1978 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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
DEC 03...	1030	1.3	1750	8.2	11.5	--	--	--	--	--	--	--
JAN 07...	0900	4.5	--	8.1	15.0	744	390	156	86	110	24	1.8
FEH 01...	0930	13	1750	8.0	10.5	--	--	--	--	--	--	--
MAR 01...	1015	6.3	1700	8.2	14.0	--	--	--	--	--	--	--
MAR 30...	0930	21	1550	8.3	15.5	--	--	--	--	--	--	--
MAY 03...	0900	10	1650	8.0	16.5	--	--	--	--	--	--	--
JUN 01...	0945	1.3	1790	7.9	19.5	--	--	--	--	--	--	--
JUL 01...	1330	.06	1700	8.3	27.0	--	--	--	--	--	--	--

DATE	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)	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)
DEC 03...	--	--	--	--	--	--	1310	--	--	--	--	--
JAN 07...	3.6	350	470	130	.5	23	--	1190 <sup>1</sup>	.14	.07	540	24
FEH 01...	--	--	--	--	--	--	1280	--	--	--	--	--
MAR 01...	--	--	--	--	--	--	1230	--	--	--	--	--
MAR 30...	--	--	--	--	--	--	1130	--	--	--	--	--
MAY 03...	--	--	--	--	--	--	1170	--	--	--	--	--
JUN 01...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 01...	--	--	--	--	--	--	1280	--	--	--	--	--

<sup>1</sup> Results based on Laboratory Alkalinity value.

## SANTA YNEZ RIVER BASIN

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.--12 years, 1.51 ft<sup>3</sup>/s (0.043 m<sup>3</sup>/s), 1,090 acre-ft/yr (1.34 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)
Mar. 31	2215	*198 5.61	3.29 1.003
Apr. 11	0715	119 3.37	2.75 0.838

Minimum daily, 0.07 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.23	.38	1.0	.66	.77	20	.75	.64	.32	.27	.11
2	.22	.23	.36	1.1	.65	2.6	3.1	.70	.65	.29	.27	.08
3	.23	.23	.38	1.1	.65	1.2	2.0	.67	.65	.32	.29	.07
4	.22	.23	.41	1.6	.63	.61	1.8	.71	.55	.32	.29	.08
5	.23	.20	.42	3.4	.57	.56	1.4	.62	.53	.36	.26	.09
6	.23	.20	.47	.62	.59	.47	1.3	.62	.56	.40	.24	.10
7	1.3	.23	.45	.62	.63	.53	1.1	.63	.60	.33	.22	.09
8	.67	.28	.43	.53	.66	.59	1.1	.58	.60	.26	.24	.08
9	.20	.27	.42	.52	.53	.46	.99	.65	.58	.27	.31	.09
10	.17	.27	.40	.52	.79	.57	1.7	.61	.65	.32	.25	.10
11	.20	.22	.41	.53	.53	2.2	20	.56	.57	.31	.23	.12
12	.23	.27	.37	.52	.52	1.3	3.1	.58	.64	.40	.24	.16
13	.24	.24	.37	.52	.53	.98	1.5	.59	.65	.38	.23	.16
14	.23	.54	.33	.52	.54	.70	1.1	.69	.71	.35	.23	.14
15	.23	.23	.32	.52	.60	.41	.85	.65	.54	.37	.23	.16
16	.27	.23	.30	.52	.77	4.0	.80	.65	.48	.32	.13	.12
17	.23	.21	.31	.52	.43	14	.80	.67	.50	.26	.13	.11
18	.23	.21	.30	.52	.43	4.2	.80	.71	.53	.22	.15	.11
19	.26	.28	.37	1.4	.43	2.1	.80	.61	.40	.22	.15	.13
20	.29	.38	.43	3.6	.46	1.7	.80	.54	.35	.21	.17	.18
21	.27	.39	.39	4.6	.47	1.3	.79	.55	.33	.21	.17	.17
22	.25	.38	.33	.79	.50	1.2	.78	.57	.36	.27	.17	.19
23	.22	.37	.38	.69	.45	1.0	.78	.67	.36	.30	.17	.23
24	.23	.42	.41	.65	.44	.81	.76	.62	.43	.32	.19	.22
25	.23	.43	.48	.61	.41	.97	.76	.62	.44	.35	.17	.28
26	.22	.41	.52	.55	.41	.96	.76	.62	.52	.37	.16	.20
27	.24	.48	.52	.61	.45	.88	.75	.62	.43	.32	.15	.11
28	.67	.33	.59	1.1	.45	1.1	.74	.63	.35	.29	.13	.11
29	.22	.28	.59	.76	---	1.4	.74	.63	.39	.28	.10	.11
30	.19	.31	.93	.65	---	.84	.74	.64	.40	.27	.11	.11
31	.20	---	.51	.65	---	18	---	.65	---	.27	.10	---
TOTAL	9.08	8.98	13.28	31.84	15.18	68.41	72.64	19.61	15.39	9.48	6.15	4.01
MEAN	.29	.30	.43	1.03	.54	2.21	2.42	.63	.51	.31	.20	.13
MAX	1.3	.54	.93	4.6	.79	18	20	.75	.71	.40	.31	.28
MIN	.17	.20	.30	.52	.41	.41	.74	.54	.33	.21	.10	.07
AC-FT	18	18	26	63	30	136	144	39	31	19	12	8.0
CAL YR 1981	TOTAL	445.39	MEAN	1.22	MAX	47	MIN	.16	AC-FT	883		
WTR YR 1982	TOTAL	274.05	MEAN	.75	MAX	20	MIN	.07	AC-FT	544		

11134800 MIGUELITO CREEK AT LOMPOC, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: June 1980 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	1420	.22	1600	8.4	21.0	--	--	--	--	--	--	--
NOV 03...	1430	.24	1650	8.3	15.5	724	340	163	77	82	19	1.3
DEC 01...	1315	.44	1500	8.3	13.5	--	--	--	--	--	--	--
JAN 05...	1540	1.1	1300	7.9	13.0	--	--	--	--	--	--	--
FEB 01...	1310	.57	1500	8.0	13.0	--	--	--	--	--	--	--
MAR 01...	1220	1.7	1010	7.9	14.0	--	--	--	--	--	--	--
30...	1255	.84	1630	7.9	16.5	--	--	--	--	--	--	--
MAY 04...	1100	.85	1590	8.3	18.5	--	--	--	--	--	--	--
JUN 01...	1145	.66	1525	8.5	18.0	--	--	--	--	--	--	--
JUL 08...	1040	.26	1550	8.2	19.0	--	--	--	--	--	--	--
AUG 03...	1115	.31	1590	8.5	19.5	--	--	--	--	--	--	--
SEP 15...	1445	.15	1530	8.3	18.5	--	--	--	--	--	--	--

DATE	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)	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...	--	--	--	--	--	--	1120	--	--	--	--	--
NOV 03...	2.4	380	340	140	.4	44	--	1080 <sup>1</sup>	.76	.97	150	28
DEC 01...	--	--	--	--	--	--	1050	--	--	--	--	--
JAN 05...	--	--	--	--	--	--	896	--	--	--	--	--
FEB 01...	--	--	--	--	--	--	996	--	--	--	--	--
MAR 01...	--	--	--	--	--	--	682	--	--	--	--	--
30...	--	--	--	--	--	--	1150	--	--	--	--	--
MAY 04...	--	--	--	--	--	--	1090	--	--	--	--	--
JUN 01...	--	--	--	--	--	--	1050	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	1050	--	--	--	--	--
AUG 03...	--	--	--	--	--	--	1140	--	--	--	--	--
SEP 15...	--	--	--	--	--	--	1070	--	--	--	--	--

<sup>1</sup>Results based on Laboratory Alkalinity value.

## SANTA YNEZ RIVER BASIN

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, 710 ft<sup>3</sup>/s (20.1 m<sup>3</sup>/s), Apr. 1, gage height, 5.62 ft (1.713 m); minimum daily, 3.6 ft<sup>3</sup>/s (0.10 m<sup>3</sup>/s) Aug. 25-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	5.0	5.1	8.8	6.1	16	290	7.4	6.0	4.7	5.1	3.7
2	4.8	5.3	4.3	9.3	6.3	17	266	7.3	6.1	4.8	4.5	3.7
3	4.9	5.2	4.4	5.2	6.3	8.3	110	7.2	6.1	4.2	4.8	3.7
4	4.7	5.0	4.6	5.3	6.1	7.2	68	7.2	6.2	4.4	4.1	3.7
5	4.6	6.7	4.6	27	5.9	7.4	47	7.1	6.4	4.6	4.4	3.7
6	4.6	5.2	4.6	5.7	6.1	7.4	36	7.0	5.9	4.9	4.4	3.7
7	4.4	4.9	4.4	5.3	6.0	7.4	30	7.0	6.2	4.4	4.0	3.7
8	5.2	4.8	4.5	4.9	6.2	7.5	24	6.7	6.0	4.5	4.0	3.8
9	4.7	5.0	4.5	4.8	5.9	7.5	20	6.5	5.7	4.5	4.8	3.8
10	4.8	4.6	4.6	4.5	12	7.4	26	6.9	5.7	4.3	4.7	3.8
11	4.6	4.6	4.7	4.5	6.9	21	114	6.3	5.8	4.2	4.6	3.8
12	4.7	4.5	4.6	4.3	5.9	6.9	118	6.1	5.5	4.4	4.8	3.8
13	4.9	4.6	4.7	4.4	5.7	7.3	90	5.9	5.3	4.3	5.0	3.8
14	4.8	6.9	4.9	4.5	5.9	8.2	57	5.8	6.0	4.4	4.7	3.8
15	4.8	4.7	4.7	4.5	6.5	11	43	5.9	6.0	4.5	4.9	3.8
16	4.8	4.3	4.8	4.5	14	24	34	5.6	5.6	5.1	5.5	3.8
17	4.9	6.5	4.9	4.5	6.3	61	26	5.6	5.5	4.3	5.0	3.8
18	4.7	4.5	4.8	4.5	5.8	22	22	5.6	5.4	4.3	4.6	3.9
19	5.4	4.4	5.1	9.3	5.8	9.8	20	5.4	5.4	4.7	4.8	3.9
20	5.2	4.4	5.5	31	6.0	8.0	17	6.4	5.4	4.6	4.5	3.9
21	5.0	4.3	6.7	26	5.7	7.4	13	6.1	5.8	4.4	4.6	3.9
22	4.9	4.2	5.4	7.4	6.0	7.3	9.2	5.5	5.5	3.9	3.9	3.9
23	4.9	4.6	5.1	6.3	5.8	7.0	8.5	5.3	5.6	5.2	4.3	3.9
24	4.9	4.3	5.2	5.9	6.2	7.1	8.2	5.7	5.6	4.4	3.9	3.9
25	4.6	4.5	4.5	5.9	6.1	11	8.0	5.5	5.4	4.1	3.6	3.9
26	4.9	5.2	4.6	5.6	6.1	13	7.8	5.7	5.1	4.7	3.6	4.0
27	4.7	10	4.6	5.7	6.3	7.0	7.6	5.6	5.2	4.8	3.6	4.0
28	20	30	4.9	9.7	6.4	8.1	7.5	5.7	5.6	4.6	3.6	4.0
29	5.2	5.2	4.7	6.6	---	13	7.4	5.9	5.3	5.3	3.7	4.0
30	4.8	5.2	11	6.0	---	7.7	7.4	5.7	5.1	4.6	3.7	4.0
31	5.0	---	5.0	6.0	---	27	---	6.0	---	4.1	3.7	---
TOTAL	165.4	178.6	156	247.9	184.3	387.9	1542.6	191.6	170.4	140.2	135.4	115.1
MEAN	5.34	5.95	5.03	8.00	6.58	12.5	51.4	6.18	5.68	4.52	4.37	3.84
MAX	20	30	11	31	14	61	290	7.4	6.4	5.3	5.5	4.0
MIN	4.4	4.2	4.3	4.3	5.7	6.9	7.4	5.3	5.1	3.9	3.6	3.7
AC-FT	328	354	309	492	366	769	3060	380	338	278	269	228

CAL YR 1981 TOTAL 10,039.40 MEAN 27.5 MAX 2,680 MIN 3.4 AC-FT 19910  
WTR YR 1982 TOTAL 3,615.40 MEAN 9.91 MAX 290 MIN 3.6 AC-FT 7170

11135000 SANTA YNEZ RIVER AT PINE CANYON, NEAR LOMPOC, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1978 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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...	1230	5.8	1690	7.0	23.0	--	--	--	--	--	--	--
NOV 03...	1300	6.0	1750	7.0	22.0	233	150	62	19	260	69	7.6
DEC 01...	1410	5.8	2900	7.0	19.0	--	--	--	--	--	--	--
JAN 05...	1315	12	1190	7.2	14.0	--	--	--	--	--	--	--
FEB 03...	1115	5.1	1850	7.0	16.0	--	--	--	--	--	--	--
MAR 02...	1200	14	910	6.8	17.5	--	--	--	--	--	--	--
APR 01...	1420	235	540	7.3	14.0	--	--	--	--	--	--	--
MAY 04...	0900	5.8	1750	7.2	18.5	--	--	--	--	--	--	--
JUN 03...	1140	7.3	1850	6.2	21.5	--	--	--	--	--	--	--
JUL 08...	0950	2.6	1690	6.9	21.0	--	--	--	--	--	--	--
AUG 03...	1225	6.1	1725	7.2	21.0	--	--	--	--	--	--	--
SEP 15...	1300	4.5	1700	7.0	21.0	--	--	--	--	--	--	--

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 01...	--	--	--	--	--	--	1030	--	--	--	--	--
NOV 03...	12	85	300	250	.6	29	--	1040 <sup>1</sup>	13	.82	730	91
DEC 01...	--	--	--	--	--	--	1610	--	--	--	--	--
JAN 05...	--	--	--	--	--	--	694	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	1160	--	--	--	--	--
MAR 02...	--	--	--	--	--	--	554	--	--	--	--	--
APR 01...	--	--	--	--	--	--	342	--	--	--	--	--
MAY 04...	--	--	--	--	--	--	1100	--	--	--	--	--
JUN 03...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	1050	--	--	--	--	--
AUG 03...	--	--	--	--	--	--	1100	--	--	--	--	--
SEP 15...	--	--	--	--	--	--	1020	--	--	--	--	--

<sup>1</sup>Results based on Laboratory Alkalinity value.

## SAN ANTONIO CREEK BASIN

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.--12 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, 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, 19 ft<sup>3</sup>/s (0.54 m<sup>3</sup>/s) Apr. 11 (0400 hours), gage height 1.91 ft (0.582 m), no peak above base of 30 ft<sup>3</sup>/s (0.85 m<sup>3</sup>/s); no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0		0	3.6					
2				0		0	.51					
3				0		0	.18					
4				0		0	.08					
5				0		0	.01					
6				0		0	0					
7				0		0	0					
8				0		0	0					
9				0		0	0					
10				0		0	.04					
11				0		.02	3.5					
12				0		.02	1.0					
13				0		0	.16					
14				0		0	.04					
15				0		0	0					
16				0		.05	0					
17				0		1.0	0					
18				0		.72	0					
19				0		.37	0					
20				0		.08	0					
21				.45		.01	0					
22				.02		0	0					
23				0		0	0					
24				0		0	0					
25				0		0	0					
26				0		0	0					
27				0		0	0					
28				0		0	0					
29				0		.07	0					
30				0		.22	0					
31				0		.26	---					
TOTAL	0	0	0	.47	0	2.82	9.12	0	0	0	0	0
MEAN	0	0	0	.015	0	.091	.30	0	0	0	0	0
MAX	0	0	0	.45	0	1.0	3.6	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	.9	0	5.6	18	0	0	0	0	0
CAL YR 1981	TOTAL	189.32	MEAN	.52	MAX	127	MIN	0	AC-FT	376		
WTR YR 1982	TOTAL	12.41	MEAN	.03	MAX	3.6	MIN	0	AC-FT	25		

## 11136100 SAN ANTONIO CREEK NEAR CASMALIA, CA

LOCATION.--Lat 34°46'56", long 120°31'47", in Jesus Maria Grant, Santa Barbara County, Hydrologic Unit 18060009, on Vandenberg Military Reservation on downstream side of center pile bent of San Antonio Road bridge, 0.7 mi (1.1 km) east of junction of San Antonio Road and Lompoc-Casmalia Road, and 3.8 mi (6.1 km) south of Casmalia.

DRAINAGE AREA.--135 mi<sup>2</sup> (350 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Concrete control since August 1970. Altitude of gage is 160 ft (49 m), from topographic map. Prior to June 27, 1958, at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good. No regulation above station. Flow affected by pumping from wells along stream for irrigation above station. At times water released to creek from Vandenberg Air Force Base water-treatment plant.

AVERAGE DISCHARGE.--27 years, 5.51 ft<sup>3</sup>/s (0.156 m<sup>3</sup>/s), 3,990 acre-ft/yr (4.92 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,440 ft<sup>3</sup>/s (97.4 m<sup>3</sup>/s) Mar. 4, 1978, gage height, 13.22 ft (4.029 m), from rating curve extended above 1,100 ft<sup>3</sup>/s (31.2 m<sup>3</sup>/s) on basis of slope-area measurement at gage height 12.93 ft (3.941 m); minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) June 19, 20, 1957.

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)
Apr. 1	0845	193 5.47	6.52 1.987
Apr. 11	1645	*199 5.64	6.56 1.999

Minimum daily, 0.24 ft<sup>3</sup>/s (0.007 m<sup>3</sup>/s) Sept. 3-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	.46	.56	2.0	1.3	1.4	79	.93	.41	.43	.29	.25
2	.39	.42	.53	3.6	1.2	1.9	23	.99	.40	.42	.29	.25
3	.43	.44	.53	3.8	1.2	2.7	6.7	1.3	.38	.41	.31	.24
4	.44	.47	.52	1.9	1.1	2.7	3.3	1.2	.40	.41	.28	.24
5	.41	.47	.53	2.5	1.1	2.6	2.2	1.1	.40	.40	.29	.24
6	.37	.47	.54	3.7	1.0	1.6	1.8	.94	.41	.41	.28	.24
7	.39	.48	.54	1.9	1.0	1.3	1.5	.98	.42	.39	.28	.24
8	.39	.47	.54	1.1	1.1	1.3	1.3	1.5	.42	.39	.28	.25
9	.37	.47	.52	1.1	1.2	1.1	1.3	1.5	.42	.34	.32	.30
10	.37	.47	.58	.99	1.3	1.1	1.5	.94	.41	.33	.29	.29
11	.41	.47	.58	.92	1.9	1.3	70	.78	.45	.32	.30	.33
12	.38	.48	.57	.91	1.7	5.1	35	.69	.47	.33	.29	.30
13	.38	.52	.57	.85	1.4	2.5	9.3	.69	.47	.34	.29	.30
14	.82	.62	.56	.83	1.4	1.8	4.0	.73	.47	.33	.30	.31
15	1.4	.55	.56	.86	1.5	1.5	2.4	.74	.47	.35	.37	.31
16	2.3	.52	.55	.84	1.9	1.9	1.7	.76	.46	.35	.35	.37
17	1.4	.59	.52	.82	2.1	21	1.4	.70	.48	.33	.30	.33
18	1.2	.54	.54	.83	1.7	26	1.2	.64	.48	.33	.25	.31
19	.71	.50	.57	1.1	1.4	13	1.1	.62	.47	.32	.27	.29
20	.55	.48	.61	3.3	1.2	5.1	.96	.78	.49	.32	.27	.28
21	.52	.52	.66	16	1.0	2.7	.87	.69	.47	.33	.37	.27
22	.47	.52	.59	4.9	1.0	2.1	.81	.65	.48	.32	.41	.27
23	.42	.53	.58	2.5	1.0	1.8	.77	.57	.47	.32	.34	.29
24	.41	.56	.58	1.9	1.0	1.6	.75	.56	.47	.35	.31	.33
25	.42	.52	.56	1.7	1.0	1.4	.73	.55	.46	.32	.29	.33
26	.41	.63	.52	1.5	1.0	3.3	1.1	.59	.42	.33	.28	.46
27	.42	.86	.52	1.5	1.0	2.5	1.8	.58	.42	.31	.27	.37
28	.70	.81	.54	1.6	1.0	1.8	1.3	.57	.42	.30	.26	.36
29	.83	.82	.57	1.8	---	3.4	1.0	.57	.46	.30	.26	.36
30	.53	.65	1.1	1.7	---	7.8	.81	.54	.47	.30	.27	.32
31	.47	---	1.6	1.5	---	3.9	---	.47	---	.30	.27	---
TOTAL	19.12	16.31	18.84	70.45	35.7	129.2	258.6	24.85	13.32	10.73	9.23	9.03
MEAN	.62	.54	.61	2.27	1.28	4.17	8.62	.80	.44	.35	.30	.30
MAX	2.3	.86	1.6	16	2.1	26	79	1.5	.49	.43	.41	.46
MIN	.37	.42	.52	.82	1.0	1.1	.73	.47	.38	.30	.25	.24
AC-FT	38	32	37	140	71	256	513	49	26	21	18	18
CAL YR 1981	TOTAL	1350.08	MEAN	3.70	MAX	451	MIN	.33	AC-FT	2680		
WTR YR 1982	TOTAL	615.38	MEAN	1.69	MAX	79	MIN	.24	AC-FT	1220		

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.

pH: December 1981 to September 1982.

WATER TEMPERATURES: December 1981 to September 1982.

PERIOD OF DAILY RECORD.--

pH: December 1981 to September 1982.

WATER TEMPERATURES: December 1981 to September 1982.

INSTRUMENTATION.--Water-quality monitor since December 1981.

EXTREMES FOR CURRENT YEAR.--

pH: Maximum, 8.4 units Feb. 28, July 3-13; minimum, 7.5 units Apr. 1.

WATER TEMPERATURES: Maximum recorded, 22.5°C June 26; minimum recorded, 4.0°C Jan. 8, 9.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD 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 06...	1020	.39	3300	7.9	12.0	--	--	--	--	--	--	--
NOV 03...	1025	.40	2810	8.0	11.5	684	260	180	57	360	52	6.2
DEC 01...	1200	.58	2700	7.9	9.5	--	--	--	--	--	--	--
JAN 05...	1230	2.1	2400	7.8	10.0	--	--	--	--	--	--	--
FEB 02...	1200	1.2	2850	8.0	8.0	962	620	260	76	330	42	4.8
MAR 02...	1130	1.9	2800	8.1	14.0	--	--	--	--	--	--	--
APR 02...	1115	22	1160	8.1	11.0	--	--	--	--	--	--	--
MAY 04...	1330	1.3	2500	8.1	17.5	--	--	--	--	--	--	--
JUN 03...	1145	.40	3250	8.1	15.5	792	350	210	65	420	53	6.7
JUL 06...	1215	.32	3250	7.9	19.3	--	--	--	--	--	--	--
AUG 02...	1510	.34	3250	8.1	19.0	--	--	--	--	--	--	--
SEP 01...	1040	.23	3100	7.9	17.5	688	210	180	58	450	58	7.7



11136100 SAN ANTONIO CREEK NEAR CASMALIA, CA--Continued

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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 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 06...	--	--	--	--	--	--	2030	--	--	--	--	--
NOV 03...	23	420	220	530	.3	50	--	1677 <sup>1</sup>	31	.74	2200	110
DEC 01...	--	--	--	--	--	--	1780	--	--	--	--	--
JAN 05...	--	--	--	--	--	--	1670	--	--	--	--	--
FEB 02...	14	340	720	420	1.0	43	--	2072 <sup>1</sup>	5.7	.75	1800	70
MAR 02...	--	--	--	--	--	--	2070	--	--	--	--	--
APR 02...	--	--	--	--	--	--	742	--	--	--	--	--
MAY 04...	--	--	--	--	--	--	1590	--	--	--	--	--
JUN 03...	22	446	460	600	.3	43	--	2093 <sup>1</sup>	9.0	.92	2400	50
JUL 06...	--	--	--	--	--	--	2150	--	--	--	--	--
AUG 02...	--	--	--	--	--	--	2140	--	--	--	--	--
SEP 01...	21	474	340	640	.3	48	--	2031 <sup>1</sup>	6.4	1.7	4300	60

<sup>1</sup> Results based on Laboratory Alkalinity value.

## PH (UNITS), DECEMBER 1981 TO SEPTEMBER 1982

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1							---	---	---	7.9	7.8	7.8
2							---	---	---	7.9	7.6	7.8
3							---	---	---	8.0	7.9	8.0
4							---	---	---	7.9	7.8	7.9
5							---	---	---	7.9	7.8	7.8
6							---	---	---	8.1	7.9	8.0
7							---	---	---	8.0	7.9	8.0
8							8.0	7.8	8.0	8.0	7.8	7.9
9							8.0	7.9	7.9	8.0	7.8	7.9
10							8.0	7.8	7.9	8.0	7.9	7.9
11							8.0	7.8	7.9	8.0	7.9	7.9
12							8.0	7.8	7.9	8.0	7.9	7.9
13							8.0	7.8	7.9	8.0	7.9	8.0
14							8.0	7.8	7.9	8.0	7.9	8.0
15							8.0	7.8	7.9	8.0	7.9	8.0
16							8.0	7.9	7.9	8.1	7.9	8.0
17							8.0	7.9	7.9	8.0	7.9	8.0
18							8.0	7.9	7.9	8.1	8.0	8.0
19							8.0	7.8	7.9	8.1	7.9	8.0
20							7.9	7.8	7.9	8.0	7.9	8.0
21							7.9	7.8	7.9	8.1	7.9	8.0
22							8.0	7.8	7.9	8.0	7.9	8.0
23							8.0	7.8	7.9	8.0	7.9	8.0
24							8.0	7.9	7.9	8.0	7.9	7.9
25							8.0	7.9	7.9	8.0	7.9	7.9
26							8.0	7.9	7.9	8.0	7.9	7.9
27							8.0	7.9	7.9	8.0	7.9	8.0
28							8.0	7.8	7.9	8.0	7.8	7.9
29							8.0	7.9	7.9	8.0	7.8	7.9
30							7.9	7.8	7.8	8.0	7.9	7.9
31							7.9	7.8	7.8	8.0	7.8	7.9
MONTH							---	---	---	8.1	7.6	7.9

PH (UNITS), DECEMBER 1981 TO SEPTEMBER 1982

FEBRUARY				MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.0	7.8	7.9	8.1	7.9	8.0	7.9	7.5	7.8	---	---	---
2	8.0	7.8	7.9	8.3	7.9	8.0	8.0	7.8	7.9	---	---	---
3	8.0	7.9	7.9	8.3	8.0	8.1	8.0	8.0	8.0	---	---	---
4	8.0	7.8	7.9	8.3	8.0	8.1	8.0	7.9	8.0	---	---	---
5	8.1	7.9	8.0	8.3	8.0	8.1	8.0	7.9	8.0	---	---	---
6	8.1	7.9	8.0	8.3	8.0	8.1	8.0	8.0	8.0	8.1	7.9	8.0
7	8.1	7.9	8.0	8.3	7.9	8.1	8.0	8.0	8.0	8.0	7.9	7.9
8	8.2	7.9	8.0	8.3	7.9	8.1	8.0	8.0	8.0	8.0	7.9	8.0
9	8.2	7.9	8.0	8.3	7.9	8.0	8.0	7.9	8.0	8.0	7.9	8.0
10	8.0	7.9	7.9	8.2	7.9	8.0	7.9	7.9	7.9	8.0	7.9	7.9
11	8.2	7.9	8.0	8.1	7.9	8.0	8.0	7.6	7.8	8.0	7.9	7.9
12	8.2	8.0	8.1	8.2	7.9	8.0	7.9	7.8	7.9	8.0	7.9	7.9
13	8.2	7.9	8.0	8.1	7.9	8.0	8.0	7.9	8.0	8.0	7.9	7.9
14	8.2	7.9	8.0	8.1	7.9	8.0	---	---	---	8.0	7.8	7.9
15	8.1	7.8	7.9	8.2	7.9	8.0	---	---	---	8.0	7.9	7.9
16	8.1	7.8	8.0	8.1	7.9	8.0	---	---	---	8.0	7.9	7.9
17	8.2	7.9	8.0	8.0	7.9	8.0	---	---	---	8.1	7.9	7.9
18	8.2	7.9	8.0	7.9	7.9	7.9	---	---	---	8.1	7.8	8.0
19	8.2	7.9	8.0	8.0	7.9	7.9	---	---	---	8.1	7.9	8.0
20	8.2	7.9	8.0	8.0	7.9	7.9	---	---	---	8.1	7.9	8.0
21	8.2	7.9	8.0	8.0	7.9	7.9	---	---	---	8.0	7.9	7.9
22	8.2	7.9	8.0	8.0	7.9	7.9	---	---	---	8.1	7.9	7.9
23	8.3	7.9	8.1	8.0	7.9	7.9	---	---	---	8.1	7.9	7.9
24	8.3	7.9	8.1	8.0	7.9	7.9	---	---	---	8.0	7.9	7.9
25	8.3	7.9	8.1	8.0	7.9	7.9	---	---	---	7.9	7.8	7.9
26	8.3	7.9	8.0	8.0	7.9	8.0	---	---	---	7.9	7.8	7.8
27	8.3	8.0	8.1	8.0	7.9	8.0	---	---	---	7.9	7.8	7.8
28	8.4	7.9	8.1	8.0	7.9	7.9	---	---	---	7.9	7.8	7.8
29	---	---	---	8.1	7.9	8.0	---	---	---	7.9	7.8	7.8
30	---	---	---	8.1	7.9	8.0	---	---	---	7.9	7.8	7.8
31	---	---	---	8.0	7.9	7.9	---	---	---	8.0	7.8	7.9
MONTH	8.4	7.8	8.0	8.3	7.9	8.0	---	---	---	8.1	7.8	7.9
JUNE				JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.1	7.8	8.0	8.3	8.0	8.1	8.1	7.8	7.9	8.1	7.9	8.0
2	8.1	7.9	8.0	8.3	8.0	8.1	8.1	7.8	8.0	8.1	7.9	8.0
3	8.2	7.9	8.0	8.4	7.9	8.1	8.1	7.8	7.9	8.1	7.9	8.0
4	8.2	8.0	8.0	8.4	8.0	8.1	8.1	7.8	7.9	8.2	7.9	8.0
5	8.1	7.9	8.0	8.4	8.0	8.2	8.1	7.8	7.9	8.1	7.9	8.0
6	8.1	7.9	8.0	8.4	8.0	8.1	8.1	7.8	7.9	8.1	7.9	8.0
7	8.1	7.9	8.0	8.4	8.0	8.1	8.1	7.8	7.9	8.1	7.9	8.0
8	8.1	7.9	8.0	8.4	8.0	8.2	8.1	7.8	7.9	8.0	7.8	7.9
9	8.1	7.9	8.0	8.4	8.0	8.2	8.1	7.8	7.9	8.0	7.8	7.9
10	8.1	7.9	7.9	8.4	8.0	8.2	8.1	7.8	7.9	8.0	7.8	7.9
11	8.0	7.9	7.9	8.4	8.0	8.2	8.1	7.9	8.0	8.0	7.8	7.9
12	8.1	7.9	7.9	8.4	8.0	8.2	8.0	7.8	7.9	8.0	7.8	7.9
13	8.1	7.9	8.0	8.4	8.0	8.2	8.0	7.8	7.9	8.0	7.8	7.9
14	8.1	7.9	8.0	8.3	8.0	8.1	8.0	7.8	7.9	8.0	7.8	7.9
15	8.1	7.9	8.0	8.3	8.0	8.1	8.0	7.8	7.9	7.9	7.8	7.9
16	8.1	7.9	8.0	8.3	8.0	8.1	8.1	7.8	7.9	8.0	7.8	7.8
17	8.0	7.9	7.9	8.3	8.0	8.1	8.1	7.8	7.9	7.9	7.8	7.8
18	8.1	7.9	7.9	8.3	8.0	8.1	8.1	7.8	7.9	7.9	7.8	7.8
19	8.1	7.9	7.9	8.3	8.0	8.1	8.1	7.8	7.9	7.9	7.8	7.8
20	8.0	7.9	7.9	8.3	8.0	8.1	8.1	7.8	7.9	8.0	7.7	7.8
21	8.0	7.8	7.9	8.3	8.0	8.1	8.1	7.9	8.0	7.9	7.7	7.8
22	8.0	7.8	8.0	8.3	8.0	8.1	8.1	7.8	8.0	7.9	7.7	7.8
23	8.1	7.9	8.0	8.2	8.0	8.1	8.1	7.9	8.0	7.9	7.8	7.8
24	8.1	7.9	8.0	8.3	8.0	8.1	8.1	7.8	7.9	7.8	7.7	7.8
25	8.2	7.9	8.0	8.3	8.0	8.1	8.1	7.8	7.9	7.8	7.7	7.7
26	8.2	7.9	8.0	8.3	8.0	8.1	8.1	7.9	8.0	7.8	7.7	7.8
27	8.3	7.9	8.1	8.2	7.9	8.0	8.1	7.8	8.0	7.9	7.8	7.8
28	8.2	7.9	8.1	8.2	7.9	8.0	8.1	7.8	7.9	8.0	7.8	7.9
29	8.1	7.9	8.0	8.2	7.9	8.0	8.1	7.8	7.9	8.0	7.8	7.9
30	8.3	8.0	8.1	8.1	7.8	7.9	8.1	7.9	8.0	8.0	7.8	7.8
31	---	---	---	8.1	7.8	7.9	8.1	7.9	8.0	---	---	---
MONTH	8.3	7.8	8.0	8.4	7.8	8.1	8.1	7.8	7.9	8.2	7.7	7.9
YEAR	8.4	7.5	8.0									

11136100 SAN ANTONIO CREEK NEAR CASMALIA, CA--Continued  
 TEMPERATURE (DEG. C) OF WATER, DECEMBER 1981 TO SEPTEMBER 1982

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1					---	---	11.5	10.0	10.0	6.0	13.5	12.0
2					---	---	10.5	9.0	10.5	6.5	15.0	12.0
3					---	---	8.5	6.5	10.5	6.5	14.5	10.0
4					---	---	8.5	7.5	12.0	9.0	14.5	9.5
5					---	---	10.5	8.5	11.0	8.0	13.5	10.0
6					---	---	10.0	7.5	11.0	7.5	14.5	8.5
7					---	---	8.0	5.5	11.0	8.5	12.0	9.5
8					10.5	7.5	7.0	4.0	12.5	9.5	15.5	11.0
9					11.0	9.0	7.5	4.0	11.0	8.5	14.5	11.5
10					11.5	10.5	9.0	6.0	10.0	9.0	14.5	12.5
11					10.5	8.5	10.0	8.0	11.5	7.5	14.5	12.5
12					11.0	8.5	10.5	8.5	13.0	9.0	15.5	12.0
13					12.5	10.5	9.5	7.0	12.5	9.5	14.5	11.0
14					11.5	9.5	9.0	6.5	14.5	11.5	15.0	12.5
15					12.0	10.0	9.0	6.0	14.5	13.0	15.5	11.5
16					11.0	9.5	8.5	6.0	16.0	13.5	14.5	10.5
17					11.5	9.0	9.0	5.5	16.0	12.0	11.5	10.5
18					12.0	10.5	10.0	8.0	15.5	11.0	11.0	9.5
19					12.5	11.0	9.0	6.5	15.5	10.5	12.0	8.5
20					13.0	12.0	9.0	8.0	16.0	11.0	13.5	9.0
21					12.5	11.5	8.5	7.0	15.0	11.0	14.0	8.5
22					11.0	9.0	8.0	6.0	15.0	12.5	15.0	9.0
23					9.0	7.0	9.0	5.5	15.0	11.0	15.5	10.0
24					8.5	6.5	10.0	6.0	14.0	9.0	15.5	12.0
25					9.0	7.5	10.5	6.5	14.0	10.0	12.0	10.5
26					9.5	7.5	11.0	8.5	13.0	10.5	13.5	11.0
27					10.5	8.5	10.0	7.0	14.5	8.5	17.0	12.0
28					9.5	8.0	9.5	7.0	14.5	11.0	15.0	12.0
29					11.0	7.0	9.5	6.0	---	---	12.5	10.5
30					12.0	10.5	9.5	5.5	---	---	13.5	9.5
31					11.5	11.0	9.5	5.5	---	---	13.0	11.0
MONTH					---	---	11.5	4.0	16.0	6.0	17.0	8.5

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.5	10.0	---	---	19.5	14.0	21.0	16.0	20.5	15.0	18.5	16.5
2	12.0	9.0	---	---	19.5	15.0	20.5	16.0	19.0	15.5	20.0	16.0
3	12.5	10.0	---	---	19.0	13.5	22.0	16.5	20.5	16.0	20.0	15.0
4	15.5	11.0	---	---	18.5	13.0	21.0	16.0	21.0	16.0	19.0	14.5
5	15.0	11.5	---	---	19.0	13.0	21.0	15.5	21.0	15.0	19.5	14.0
6	14.0	10.5	17.5	15.0	19.5	14.0	21.5	16.5	21.0	15.0	19.5	15.5
7	14.5	9.0	16.0	15.0	19.5	14.5	21.5	17.0	21.0	16.5	20.0	16.0
8	13.5	10.5	15.0	13.5	19.0	14.5	21.5	17.0	20.5	16.5	19.5	16.5
9	13.5	11.0	13.5	12.5	18.5	15.0	22.0	16.5	20.5	16.5	19.5	16.5
10	14.0	12.5	17.0	11.5	18.0	15.0	21.5	15.5	20.0	15.5	17.5	16.5
11	14.0	12.5	18.0	13.0	18.0	15.0	21.5	16.5	20.0	14.5	19.5	15.5
12	15.5	12.5	18.5	13.5	19.0	15.0	21.0	16.5	18.0	15.5	19.0	15.5
13	16.0	11.5	18.0	14.0	20.0	15.0	21.5	17.0	18.0	14.5	19.5	17.0
14	17.0	12.0	19.0	14.5	18.5	16.0	19.5	17.0	19.5	15.0	19.0	16.5
15	---	---	19.5	14.0	20.0	15.5	20.0	16.5	19.5	14.5	17.5	16.0
16	---	---	19.5	13.5	18.5	16.0	19.5	16.5	20.5	15.0	18.0	16.0
17	---	---	19.0	14.0	17.5	16.0	20.0	14.5	20.0	15.0	18.0	16.0
18	---	---	18.5	13.0	18.5	16.0	20.5	16.0	20.5	16.5	19.0	16.0
19	---	---	19.0	13.0	18.5	16.5	20.0	15.5	20.0	16.5	18.5	15.0
20	---	---	17.5	14.0	17.5	16.0	21.0	16.0	20.0	16.5	18.5	14.5
21	---	---	15.5	14.0	16.5	15.5	21.0	16.0	20.0	16.0	18.5	14.5
22	---	---	18.0	13.5	19.5	15.5	21.0	16.0	20.0	16.5	18.5	16.0
23	---	---	19.0	14.5	18.5	16.0	17.5	16.0	19.5	16.5	17.5	16.0
24	---	---	19.0	15.5	19.0	16.0	20.0	15.5	19.0	16.0	19.5	17.5
25	---	---	17.5	15.5	21.0	16.0	20.0	16.0	18.5	16.0	19.0	18.0
26	---	---	16.0	15.0	22.5	17.0	20.0	16.0	20.0	16.0	18.5	17.0
27	---	---	16.0	15.0	22.0	18.0	21.0	16.0	20.5	15.5	17.5	16.0
28	---	---	19.0	14.0	19.0	17.5	21.0	16.0	20.5	16.5	17.5	15.5
29	---	---	17.5	14.5	18.0	16.5	21.0	16.0	20.5	17.0	17.0	15.5
30	---	---	19.5	14.5	19.5	14.5	21.0	16.5	20.0	15.5	15.5	13.0
31	---	---	19.0	13.5	---	---	21.0	15.5	20.5	16.5	---	---
MONTH	---	---	19.5	11.5	22.5	13.0	22.0	14.5	21.0	14.5	20.0	13.0

## SANTA MARIA RIVER BASIN

11136800 CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA, CA

LOCATION.--Lat 35°01'19", long 120°13'39", in SW 1/4 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.

DRAINAGE AREA.--886 mi<sup>2</sup> (2,290 km<sup>2</sup>).

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1903 to December 1905 (published as Santa Maria River near Santa Maria), October 1959 to current year. Monthly discharge only for October 1903 and July 1904 and yearly estimate for water year 1941 (incomplete), published in WSP 1315-B.

GAGE.--Water-stage recorder. Altitude of gage is 760 ft (232 m), from topographic map. Prior to October 1959, non-recording gage at different site and datum.

REVISED RECORDS.--WDR-CA-77-1: 1976.

REMARKS.--Records fair. No regulation above station. Pumping from wells along stream for irrigation of several thousand acres in Upper Cuyama Valley.

AVERAGE DISCHARGE.--25 years (water years 1904, 1905, 1960-82) 21.2 ft<sup>3</sup>/s (0.600 m<sup>3</sup>/s), 15,360 acre-ft/yr (18.9 hm<sup>3</sup>/yr).

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.--Peak discharge 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)
Mar. 17	0945	202 5.72	7.54 2.298
Apr. 1	0500	932 26.4	7.33 2.234
Apr. 12	0700	*2,640 74.7	8.37 2.551

Minimum daily, 0.06 ft<sup>3</sup>/s (0.002 m<sup>3</sup>/s) Dec. 26-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.16	.13	.53	.61	.51	523	11	4.3	2.3	1.1	.34
2	.27	.13	.12	.71	.60	1.4	349	10	4.2	2.2	1.1	.34
3	.28	.13	.11	.33	.63	1.1	146	9.6	4.0	2.1	1.2	.32
4	.27	.14	.10	.26	.60	.57	94	9.2	3.9	2.1	1.3	.32
5	.28	.17	.10	1.1	.62	.43	64	8.3	3.8	2.0	1.3	.32
6	.26	.15	.10	.40	.57	.34	50	7.6	3.7	2.0	1.2	.31
7	.26	.14	.09	.36	.53	.33	39	7.4	3.7	1.9	1.1	.32
8	.26	.13	.10	.29	.53	.27	29	7.7	3.7	2.0	1.0	.30
9	.25	.14	.11	.24	.60	.25	22	7.9	3.7	1.9	1.1	.30
10	.26	.13	.10	.22	1.6	.35	27	7.5	3.8	1.6	1.1	30
11	.25	.12	.11	.20	2.9	1.4	417	7.2	3.6	1.5	1.1	7.7
12	.26	.11	.11	.22	1.9	4.2	512	7.0	3.4	1.6	1.1	4.3
13	.27	.10	.09	.21	.96	9.7	182	6.7	3.4	1.7	1.2	2.9
14	.27	.13	.09	.21	.67	10	113	6.6	3.4	1.7	1.2	1.9
15	.27	.09	.09	.20	.53	6.0	79	7.0	3.3	1.7	1.1	1.8
16	.27	.08	.08	.19	1.0	12	63	6.6	3.1	1.7	1.1	1.8
17	.27	.10	.08	.19	.66	125	50	6.5	2.8	1.7	.97	1.7
18	.26	.09	.08	.18	.43	166	41	7.1	2.9	1.7	.82	1.3
19	.24	.09	.07	.36	.48	92	35	7.1	3.0	1.8	.73	1.2
20	.24	.09	.10	7.5	.39	43	31	6.8	2.8	1.8	.61	1.2
21	.26	.10	.09	.21	.37	38	27	6.3	2.8	1.8	.55	1.1
22	.28	.09	.09	6.6	.36	33	23	6.0	2.7	1.7	.51	1.0
23	.28	.09	.09	2.6	.38	24	21	5.8	2.6	1.8	.49	.89
24	.30	.09	.08	1.2	.37	16	19	5.6	2.6	1.7	.45	.93
25	.30	.09	.07	1.0	.40	15	17	5.3	2.4	1.6	.41	.95
26	.31	.16	.06	.84	.35	18	16	5.0	2.3	1.5	.40	1.1
27	.31	.57	.06	.91	.33	16	15	5.2	2.2	1.4	.38	.99
28	.58	.41	.06	.88	.31	17	13	5.1	2.3	1.5	.37	.83
29	.32	.18	.07	.79	---	26	12	4.7	2.6	1.5	.35	.76
30	.25	.15	.84	.71	---	56	11	4.5	2.8	1.3	.36	.71
31	.20	---	.21	.71	---	55	---	4.4	---	1.2	.34	---
TOTAL	8.66	4.35	3.68	51.14	19.68	788.85	3040	212.7	95.8	54	26.04	67.93
MEAN	.28	.14	.12	1.65	.70	25.4	101	6.86	3.19	1.74	.84	2.26
MAX	.58	.57	.84	.21	2.9	166	523	11	4.3	2.3	1.3	.30
MIN	.20	.08	.06	.18	.31	.25	11	4.4	2.2	1.2	.34	.30
AC-FT	17	8.6	7.3	101	39	1560	6030	422	190	107	52	135

CAL YR 1981	TOTAL	1389.76	MEAN	3.81	MAX	104	MIN	.06	AC-FT	2760
WTR YR 1982	TOTAL	4372.83	MEAN	12.0	MAX	523	MIN	.06	AC-FT	8670

11136800 CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1978 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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												
05...	1040	.28	1450	8.0	16.5	--	--	--	--	--	--	--
NOV												
02...	1020	.15	1425	8.2	16.0	581	330	124	66	110	29	2.0
30...	1630	.13	1400	8.1	14.5	--	--	--	--	--	--	--
JAN												
04...	1520	.24	1435	7.9	11.5	--	--	--	--	--	--	--
FEB												
01...	1030	.60	1325	8.0	12.0	--	--	--	--	--	--	--
MAR												
01...	1000	.38	1400	8.1	12.5	--	--	--	--	--	--	--
APR												
05...	1500	59	1225	8.4	18.5	--	--	--	--	--	--	--
MAY												
03...	0930	9.7	1800	8.4	16.0	--	--	--	--	--	--	--
JUN												
02...	1030	4.2	1560	8.2	19.5	--	--	--	--	--	--	--
JUL												
01...	0940	2.4	1460	8.0	19.5	--	--	--	--	--	--	--
AUG												
03...	0935	1.3	1340	8.0	18.0	--	--	--	--	--	--	--
31...	1435	.34	1300	8.0	30.5	--	--	--	--	--	--	--

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 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												
05...	--	--	--	--	--	--	1050	--	--	--	--	--
NOV												
02...	3.6	250	440	58	.6	16	--	969	<.09	<.02	380	38
30...	--	--	--	--	--	--	1070	--	--	--	--	--
JAN												
04...	--	--	--	--	--	--	1050	--	--	--	--	--
FEB												
01...	--	--	--	--	--	--	1100	--	--	--	--	--
MAR												
01...	--	--	--	--	--	--	1040	--	--	--	--	--
APR												
05...	--	--	--	--	--	--	847	--	--	--	--	--
MAY												
03...	--	--	--	--	--	--	1370	--	--	--	--	--
JUN												
02...	--	--	--	--	--	--	1170	--	--	--	--	--
JUL												
01...	--	--	--	--	--	--	1050	--	--	--	--	--
AUG												
03...	--	--	--	--	--	--	932	--	--	--	--	--
31...	--	--	--	--	--	--	951	--	--	--	--	--

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

## 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.--23 years, 18.1 ft<sup>3</sup>/s (0.513 m<sup>3</sup>/s), 13,110 acre-ft/yr (16.2 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 slope-area 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)	
Mar. 18	1200	265	7.50	4.33	1.320
Apr. 1	0645	893	25.3	5.69	1.734
Apr. 11	1330	*2,690	76.2	7.78	2.371

Minimum daily, 0.10 ft<sup>3</sup>/s (0.003 m<sup>3</sup>/s) July 31, Aug. 8, 9, Sept. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.38	.46	.65	.72	1.0	586	26	3.0	1.1	.12	.10
2	.22	.38	.46	.66	.72	1.2	266	25	2.3	1.1	.14	.10
3	.19	.38	.46	.66	.72	1.0	170	23	1.7	2.1	.15	.10
4	.21	.38	.46	.62	.72	1.0	110	21	1.9	2.3	.20	.36
5	.19	.38	.46	.84	.72	.66	74	20	1.7	2.5	.67	.53
6	.17	.38	.46	.72	.72	.72	41	20	1.3	2.0	.16	.37
7	.22	.38	.46	.72	.75	1.5	20	19	1.3	2.2	.13	.37
8	.31	.38	.46	.72	.79	.66	12	19	1.3	2.9	.10	.36
9	.23	.38	.46	.72	.82	.72	8.5	18	1.6	1.6	.10	.27
10	.27	.38	.46	.72	1.2	.79	12	16	1.7	.98	.21	.27
11	.20	.38	.51	.72	1.2	1.0	1020	15	1.7	.83	.19	.36
12	.17	.38	.55	.72	1.1	1.1	507	13	1.7	.83	.21	.37
13	.19	.38	.55	.72	1.1	1.1	258	12	2.0	.83	.24	.58
14	.24	.49	.55	.72	1.1	1.5	182	10	2.1	.83	.17	1.6
15	.29	.51	.55	.72	1.1	2.9	158	9.4	1.6	1.8	.49	.65
16	.30	.50	.55	.72	1.2	2.2	137	8.4	1.5	.62	1.5	.61
17	.29	.46	.55	.72	.74	120	116	6.7	1.5	.49	1.0	.48
18	.35	.45	.55	.72	.79	217	101	6.2	1.4	.49	.71	.37
19	.24	.38	.52	.77	.79	155	93	5.3	1.4	.49	.65	.37
20	.21	.38	.55	1.5	.79	83	79	5.2	1.3	.58	.65	.37
21	.19	.38	.58	2.1	.79	54	70	5.0	1.3	.75	.77	.33
22	.19	.38	.53	.69	.79	39	60	4.0	1.4	1.1	.91	.27
23	.22	.38	.51	.66	.79	28	53	3.3	1.3	.98	.55	.24
24	.26	.38	.51	.66	.79	22	47	2.5	1.3	.94	.98	.23
25	.26	.38	.51	.66	.79	18	42	2.8	1.3	.48	.91	.98
26	.29	.44	.51	.66	.79	17	39	3.2	1.2	.30	.87	.57
27	.27	.75	.51	.68	.79	15	37	3.2	1.2	.32	.40	.23
28	.33	.54	.49	.72	.79	13	35	3.2	1.2	.30	.36	.34
29	.29	.46	.42	.72	---	20	34	3.0	1.3	.22	.24	.76
30	.35	.46	.71	.72	---	92	30	3.0	1.2	.13	.18	1.0
31	.37	---	.55	.72	---	75	---	3.2	---	.10	.14	---
TOTAL	7.73	12.66	15.86	24.05	24.11	1006.85	4397.5	334.6	46.7	32.19	14.10	13.54
MEAN	.25	.42	.51	.78	.86	32.5	147	10.8	1.56	1.04	.45	.45
MAX	.37	.75	.71	2.1	1.2	217	1020	26	3.0	2.9	1.5	1.6
MIN	.17	.38	.42	.62	.72	.66	8.5	2.5	1.2	.10	.10	.10
AC-FT	15	25	31	48	48	2000	8720	664	93	64	28	27

CAL YR 1981	TOTAL	2635.68	MEAN	7.22	MAX	321	MIN	.17	AC-FT	5230
WTR YR 1982	TOTAL	5929.89	MEAN	16.2	MAX	1020	MIN	.10	AC-FT	11760

11137900 HUASNA RIVER NEAR ARROYO GRANDE, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L 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 07...	1030	.24	882	--	14.5	--	--	--	--	--	--	--
NOV 04...	1630	.38	1010	--	14.0	--	--	--	--	--	--	--
DEC 09...	0945	.46	968	--	12.0	--	--	--	--	--	--	--
JAN 27...	1100	.72	942	--	12.5	--	--	--	--	--	--	--
FEB 17...	1015	1.0	922	--	15.5	--	--	--	--	--	--	--
MAR 23...	1245	28	688	--	17.0	--	--	--	--	--	--	--
APR 14...	1130	189	490	--	16.0	--	--	--	--	--	--	--
MAY 20...	1100	5.2	857	--	20.5	--	--	--	--	--	--	--
JUN 15...	1630	1.6	879	--	21.5	--	--	--	--	--	--	--
JUL 01...	1030	1.1	897	--	20.0	--	--	--	--	--	--	--
AUG 18...	1200	.65	902	--	22.0	--	--	--	--	--	--	--
SEP 21...	1300	.36	965	7.7	21.0	419	138	110	35	53	22	1.2

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 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 07...	--	--	--	--	--	589	--	--	--	--	--
NOV 04...	--	--	--	--	--	654	--	--	--	--	--
DEC 09...	--	--	--	--	--	652	--	--	--	--	--
JAN 27...	--	--	--	--	--	548	--	--	--	--	--
FEB 17...	--	--	--	--	--	618	--	--	--	--	--
MAR 23...	--	--	--	--	--	433	--	--	--	--	--
APR 14...	--	--	--	--	--	318	--	--	--	--	--
MAY 20...	--	--	--	--	--	543	--	--	--	--	--
JUN 15...	--	--	--	--	--	582	--	--	--	--	--
JUL 01...	--	--	--	--	--	612	--	--	--	--	--
AUG 18...	--	--	--	--	--	632	--	--	--	--	--
SEP 21...	1.2	160	51	.4	38	628	619	.23	.57	170	9

## 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) Bureau of Reclamation 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 groundwater 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, 303 ft<sup>3</sup>/s (8.58 m<sup>3</sup>/s) May 24; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	10	4.6	1.5	6.4	94	269	1.1	.16	0
2			0	8.0	4.2	5.5	4.1	93	268	.94	.14	0
3			0	6.2	3.9	6.6	3.0	93	274	.92	.21	0
4			0	4.9	3.7	7.0	2.1	94	276	.84	.17	0
5			0	4.8	3.6	5.6	1.7	123	280	.84	.11	0
6			0	.96	3.5	4.1	1.4	206	290	44	.06	0
7			0	8.5	3.5	3.4	.60	22	291	7.8	.01	0
8			0	4.6	3.4	2.8	.26	159	293	2.3	0	0
9			0	3.7	3.6	2.8	.34	170	228	2.2	0	0
10			0	3.2	5.1	3.0	1.2	175	116	2.2	0	0
11			0	2.8	7.3	4.9	10	227	123	18	0	0
12			0	2.6	8.7	6.7	6.7	244	287	10	0	0
13			0	2.2	8.1	8.2	4.6	249	281	2.3	0	0
14			0	2.5	6.1	8.7	3.6	233	282	.85	0	0
15			0	2.3	5.5	14	2.8	36	280	11	0	0
16			0	2.0	6.9	20	2.4	224	280	26	0	0
17			0	2.6	8.6	11	2.2	237	277	25	0	0
18			0	2.7	7.5	5.7	2.0	235	269	87	0	0
19			0	1.5	6.0	3.9	1.9	234	267	20	0	0
20			0	8.2	4.6	1.6	1.7	260	264	6.5	0	0
21			0	20	4.0	1.4	4.0	264	258	2.5	0	0
22			0	26	3.7	1.3	36	261	193	1.7	0	0
23			0	21	3.6	1.0	39	262	24	6.1	0	0
24			0	12	3.5	.96	40	303	14	2.0	0	0
25			0	8.2	3.5	.98	40	298	9.9	1.1	0	0
26			0	6.6	3.7	1.1	40	293	7.7	2.1	0	0
27			0	6.0	3.0	.89	40	288	6.0	.72	0	0
28			0	5.9	1.2	1.3	40	282	4.4	.63	0	0
29			0	5.9	---	1.7	40	278	2.9	.52	0	.03
30			0	5.5	---	1.7	49	275	1.8	.41	0	.09
31			1.0	5.1	---	2.0	---	271	---	.23	0	---
TOTAL	0	0	1.1	206.46	134.6	141.33	427	6483	5716.7	287.8	.86	.12
MEAN	0	0	.035	6.66	4.81	4.56	14.2	209	191	9.28	.028	.004
MAX	0	0	1.0	26	8.7	20	49	303	293	87	.21	.09
MIN	0	0	0	.96	1.2	.89	.26	22	1.8	.23	0	0
AC-FT	0	0	2.2	410	267	280	847	12860	11340	571	1.7	.2
CAL YR 1981	TOTAL	4937.07	MEAN	13.5	MAX	163	MIN	0	AC-FT	9790		
WTR YR 1982	TOTAL	13398.97	MEAN	36.7	MAX	303	MIN	0	AC-FT	26580		



## 11138500 SISQUOC RIVER NEAR SISQUOC, CA

LOCATION.--Lat 34°50'23", long 120°10'02", in Sisquoc 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) down stream; 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 regulation or diversion above station.

AVERAGE DISCHARGE.--39 years, 43.9 ft<sup>3</sup>/s (1.243 m<sup>3</sup>/s), 31,800 acre-ft/yr (39.2 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 highwater 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 220 ft<sup>3</sup>/s (6.23 m<sup>3</sup>/s) on basis of slope-conveyance measurement of maximum flow:

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Mar. 17	1600	471	13.3	3.62	1.103
Apr. 1	0900	1,210	34.3	4.66	1.420
Apr. 11	1915	*1,600	45.3	5.20	1.585

Minimum daily, 0.64 ft<sup>3</sup>/s (0.018 m<sup>3</sup>/s) Nov. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	.69	1.1	1.6	3.7	10	655	52	17	3.5	2.3	1.9
2	.79	.64	1.1	1.5	3.7	13	471	51	16	3.2	2.3	2.1
3	.82	.66	1.1	1.5	4.0	15	336	48	15	2.9	2.3	2.1
4	.85	.72	1.1	1.4	4.3	14	258	45	15	3.2	2.3	2.1
5	.82	.85	1.0	1.5	4.6	14	207	45	14	3.2	2.1	2.6
6	.79	.89	1.0	1.4	5.0	12	172	42	14	3.2	2.3	2.6
7	.79	.82	1.0	1.4	5.0	11	147	40	13	2.9	2.3	2.1
8	.79	.72	1.0	1.4	5.0	11	129	39	12	2.9	2.3	2.1
9	.82	.72	1.0	1.4	5.0	10	109	39	12	2.9	2.3	1.9
10	.85	.76	1.0	1.4	6.1	9.6	110	39	12	2.6	2.3	1.7
11	.98	.76	1.0	1.4	9.3	14	640	39	12	2.6	2.3	1.7
12	.93	.76	1.0	1.4	21	138	582	36	12	2.6	2.3	1.9
13	.89	.79	.98	1.4	16	72	344	34	11	2.3	2.1	1.7
14	.89	.82	.98	1.4	13	52	261	33	10	2.3	2.1	1.6
15	.85	.82	1.0	1.4	16	94	220	33	9.5	2.3	2.1	1.6
16	.85	.76	1.0	1.5	24	83	186	30	8.0	2.3	2.1	1.2
17	.79	.85	.98	1.5	24	312	161	28	8.0	2.3	2.1	1.3
18	.79	.76	.98	1.5	21	336	145	28	8.0	2.3	1.9	1.3
19	.76	.76	.98	1.6	18	264	129	26	6.6	2.3	1.9	1.3
20	.72	.79	1.1	2.3	14	181	117	24	6.6	2.3	1.7	1.6
21	.76	.82	1.3	14	12	140	102	23	6.0	2.3	1.7	1.7
22	.79	.85	1.4	10	11	127	91	22	6.0	2.1	1.7	1.7
23	.69	.93	1.3	9.0	11	124	84	22	5.4	2.3	1.7	1.6
24	.72	.93	1.3	7.2	11	114	76	20	4.4	2.3	1.7	1.6
25	.76	.89	1.3	6.0	10	104	70	19	4.4	2.3	1.6	1.2
26	.76	1.2	1.3	4.8	9.6	98	66	19	4.4	2.3	1.6	1.2
27	.79	1.5	1.3	3.8	9.6	110	61	19	3.9	2.3	1.6	1.2
28	1.1	1.3	1.3	3.8	10	110	57	19	3.5	2.3	1.4	1.3
29	.93	1.3	1.3	3.8	---	126	54	19	3.5	2.3	1.4	1.4
30	.79	1.2	1.7	3.8	---	198	54	18	3.9	2.3	1.7	1.4
31	.76	---	1.6	3.7	---	149	---	17	---	2.3	1.9	---
TOTAL	25.41	26.26	35.50	99.8	306.9	3065.6	6094	968	277.1	79.2	61.4	50.7
MEAN	.82	.87	1.14	3.22	11.0	98.9	203	31.2	9.24	2.55	1.98	1.69
MAX	1.1	1.5	1.7	14	24	336	655	52	17	3.5	2.3	2.6
MIN	.69	.64	.98	1.4	3.7	9.6	54	17	3.5	2.1	1.4	1.2
AC-FT	50	52	70	198	609	6080	12090	1920	550	157	129	101
CAL YR 1981	TOTAL	7570.17	MEAN	20.7	MAX	333	MIN	.64	AC-FT	15020		
WTR YR 1982	TOTAL	11089.87	MEAN	30.4	MAX	655	MIN	.64	AC-FT	22000		

## SANTA MARIA RIVER BASIN

11138500 SISQUOC RIVER NEAR SISQUOC, CA--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1978 to current year.

## WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

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												
05...	1350	.86	1125	8.0	20.5	--	--	--	--	--	--	--
NOV												
02...	1345	.68	1150	8.3	19.0	482	280	94	60	56	20	1.1
30...	1355	1.0	1100	8.0	14.5	--	--	--	--	--	--	--
JAN												
04...	1005	1.4	1110	7.8	10.5	--	--	--	--	--	--	--
FEB												
01...	1600	3.7	1200	8.3	14.0	--	--	--	--	--	--	--
MAR												
01...	1300	12	1075	8.4	14.5	--	--	--	--	--	--	--
APR												
05...	1045	217	900	8.2	12.8	--	--	--	--	--	--	--
MAY												
03...	1050	46	1000	8.2	17.0	--	--	--	--	--	--	--
JUN												
02...	1545	16	1000	8.6	23.5	--	--	--	--	--	--	--
30...	1555	3.9	1025	8.4	27.0	--	--	--	--	--	--	--
AUG												
05...	1040	2.1	1040	8.1	20.0	--	--	--	--	--	--	--
31...	1210	1.5	1000	7.9	21.5	--	--	--	--	--	--	--

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT 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, 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												
05...	--	--	--	--	--	--	795	--	--	--	--	--
NOV												
02...	2.5	200	360	24	.4	18	--	756	.13	.05	180	28
30...	--	--	--	--	--	--	817	--	--	--	--	--
JAN												
04...	--	--	--	--	--	--	820	--	--	--	--	--
FEB												
01...	--	--	--	--	--	--	794	--	--	--	--	--
MAR												
01...	--	--	--	--	--	--	790	--	--	--	--	--
APR												
05...	--	--	--	--	--	--	589	--	--	--	--	--
MAY												
03...	--	--	--	--	--	--	693	--	--	--	--	--
JUN												
02...	--	--	--	--	--	--	701	--	--	--	--	--
30...	--	--	--	--	--	--	740	--	--	--	--	--
AUG												
05...	--	--	--	--	--	--	778	--	--	--	--	--
31...	--	--	--	--	--	--	760	--	--	--	--	--

## 11139500 TEPUSQUET CREEK NEAR SISQUOC, CA

LOCATION.--Lat 34°52'21", long 120°14'37", in NE 1/4 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.

DRAINAGE AREA.--28.7 mi<sup>2</sup> (74.3 km<sup>2</sup>).

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

GAGE.--Water-stage recorder. Altitude of gage is 500 ft (152 m), from topographic map. Prior to Dec. 9, 1948, at datum 0.9 ft (0.27 m) higher.

REMARKS.--Records good. No regulation above station. Some diversion by pumping from wells along stream to irrigate about 100 acres (405,000 m<sup>2</sup>) above gage.

AVERAGE DISCHARGE.--39 years, 1.56 ft<sup>3</sup>/s (0.044 m<sup>3</sup>/s), 1,130 acre-ft/yr (1.39 hm<sup>3</sup>/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 788 ft<sup>3</sup>/s (22.3 m<sup>3</sup>/s) Dec. 6, 1966, gage height, 5.48 ft (1.670 m), from rating curve extended above 220 ft<sup>3</sup>/s (6.23 m<sup>3</sup>/s) on basis of computation of maximum flow at contracted opening; maximum gage height, 6.05 ft (1.844 m) Feb. 18, 1980; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base 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)	
Apr. 1	0530	59	1.67	4.51	1.375
Apr. 11	1300	*78	2.21	4.72	1.439

Minimum daily, 0.14 ft<sup>3</sup>/s (0.004 m<sup>3</sup>/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.21	.24	.42	.37	.58	35	2.0	1.2	.80	.45	.29
2	.15	.22	.24	.44	.35	.58	20	1.9	1.2	.78	.46	.26
3	.17	.23	.23	.41	.35	.47	13	1.9	1.1	.77	.49	.26
4	.17	.24	.23	.37	.37	.47	11	1.8	1.1	.76	.51	.21
5	.17	.23	.23	.44	.36	.49	9.5	1.8	1.1	.75	.47	.19
6	.15	.23	.25	.35	.36	.47	8.5	1.6	1.1	.74	.46	.19
7	.16	.23	.26	.35	.40	.48	7.9	1.5	1.1	.73	.45	.21
8	.16	.22	.24	.34	.41	.53	7.4	1.5	1.1	.73	.46	.22
9	.17	.23	.27	.36	.41	.50	7.0	1.5	1.1	.70	.47	.22
10	.20	.23	.29	.34	.51	.57	8.4	1.5	1.1	.63	.48	.23
11	.21	.24	.27	.34	.42	.97	38	1.4	1.1	.63	.45	.22
12	.20	.25	.29	.34	.41	.65	25	1.3	1.1	.61	.46	.20
13	.21	.27	.29	.34	.46	.68	13	1.3	1.0	.61	.45	.20
14	.21	.28	.29	.34	.47	.82	9.1	1.3	.99	.61	.37	.20
15	.20	.27	.26	.34	.47	.71	7.4	1.2	.97	.62	.36	.21
16	.21	.27	.29	.34	.66	.82	6.2	1.2	.96	.63	.33	.25
17	.18	.31	.29	.34	.51	4.1	5.1	1.2	.96	.60	.32	.23
18	.17	.27	.29	.34	.47	8.1	4.4	1.3	.97	.59	.33	.23
19	.18	.29	.29	.38	.44	7.6	3.8	1.4	.97	.58	.34	.20
20	.18	.28	.33	.76	.41	3.1	3.4	1.4	.93	.55	.34	.18
21	.20	.29	.31	.77	.44	1.7	3.3	1.4	.95	.53	.32	.17
22	.21	.29	.29	.52	.47	1.2	3.1	1.4	.92	.52	.30	.16
23	.18	.27	.29	.47	.44	1.1	3.0	1.3	.92	.56	.32	.18
24	.19	.27	.29	.47	.44	1.2	2.8	1.3	.91	.56	.33	.16
25	.21	.26	.29	.46	.47	1.4	2.6	1.3	.88	.54	.31	.18
26	.23	.35	.29	.45	.47	1.7	2.5	1.4	.84	.52	.30	.22
27	.22	.70	.29	.41	.50	1.8	2.4	1.4	.83	.49	.29	.17
28	.39	.29	.29	.46	.47	2.5	2.3	1.3	.86	.48	.29	.17
29	.27	.27	.36	.41	---	4.3	2.2	1.3	.88	.47	.30	.16
30	.25	.24	.46	.41	---	7.4	2.2	1.2	.85	.46	.28	.15
31	.23	---	.36	.41	---	7.6	---	1.2	---	.44	.28	---
TOTAL	6.17	8.23	8.89	12.92	12.31	64.59	269.5	44.5	29.99	18.99	11.77	6.12
MEAN	.20	.27	.29	.42	.44	2.08	8.98	1.44	1.00	.61	.38	.20
MAX	.39	.70	.46	.77	.66	8.1	38	2.0	1.2	.80	.51	.29
MIN	.14	.21	.23	.34	.35	.47	2.2	1.2	.83	.44	.28	.15
AC-FT	12	16	18	26	24	128	535	88	59	38	23	12
CAL YR 1981	TOTAL	286.21	MEAN	.78	MAX	10	MIN	.13	AC-FT	568		
WTR YR 1982	TOTAL	493.98	MEAN	1.35	MAX	38	MIN	.14	AC-FT	980		

## SANTA MARIA RIVER BASIN

11140000 SISQUOC RIVER NEAR GAREY, CA

LOCATION.--Lat 34°53'38", long 120°18'20", in SW 1/4 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.--42 years, 41.0 ft<sup>3</sup>/s (1.161 m<sup>3</sup>/s), 29,700 acre-ft/yr (36.6 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)	
Mar. 18	0230	1,950	55.2	6.87	2.094
Apr. 1	1145	1,640	46.4	6.48	1.975
Apr. 11	2115	*3,400	96.3	7.47	2.277

Minimum, no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	.02	.07	626	16	0			
2				0	.13	.15	591	14	.01			
3				0	.35	.38	339	10	.01			
4				0	.35	.10	227	7.9	.05			
5				0	.43	.16	164	7.2	0			
6				0	.20	.02	123	7.5	0			
7				0	0	0	92	7.2	0			
8				0	.21	0	69	6.6	.02			
9				0	.38	.16	51	6.8	.02			
10				0	.43	.34	48	7.5	.11			
11				0	.58	.36	696	6.6	.09			
12				0	.65	.40	835	6.1	0			
13				0	.07	.05	389	5.4	0			
14				0	0	0	286	4.8	0			
15				0	.39	.20	225	3.5	0			
16				0	.07	.23	176	2.9	0			
17				0	.07	177	137	2.5	.03			
18				0	.18	374	106	2.4	.04			
19				0	.31	245	83	2.1	0			
20				.60	.01	142	67	.77	0			
21				1.3	0	88	55	.32	0			
22				.90	.03	74	48	.03	0			
23				.06	.13	65	43	0	0			
24				0	.20	55	37	0	0			
25				.18	.26	49	32	.04	0			
26				.26	.25	46	28	.11	0			
27				.24	.01	42	29	.13	0			
28				.38	0	45	25	.11	0			
29				.37	---	57	22	0	0			
30				.19	---	141	19	0	0			
31				0	---	101	---	0	---			
TOTAL	0	0	0	4.48	5.71	1703.62	5668	128.51	.38	0	0	0
MEAN	0	0	0	.14	.20	55.0	189	4.15	.013	0	0	0
MAX	0	0	0	1.3	.65	374	835	16	.11	0	0	0
MIN	0	0	0	0	0	0	19	0	0	0	0	0
AC-FT	0	0	0	8.9	11	3380	11240	255	.8	0	0	0
CAL YR 1981	TOTAL 3297.51	MEAN 9.03	MAX 397	MIN 0	AC-FT 6540							
WTR YR 1982	TOTAL 7510.70	MEAN 20.6	MAX 835	MIN 0	AC-FT 14900							

## 11140600 BRADLEY DITCH NEAR DONOVAN ROAD, AT SANTA MARIA, CA

LOCATION.--Lat 34°58'00", long 120°25'00", in NE 1/4 NE 1/4 NE 1/4 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.--11 years, 1.29 ft<sup>3</sup>/s (0.037 m<sup>3</sup>/s), 935 acre-ft/yr (1.15 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 69 ft<sup>3</sup>/s (1.95 m<sup>3</sup>/s):

Date	Time	Discharge (ft <sup>3</sup> /s) (m <sup>3</sup> /s)		Gage height (ft) (m)	
Jan. 19	2230	104	2.95	2.57	0.783
Mar. 31	2400	139	3.94	2.79	.850
Apr. 11	0830	*186	5.27	3.04	.927

Minimum, no flow Nov. 29, 30, Feb. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	.04	.03	.61	.07	2.1	32	1.9	.24	.02	.99	.83
2	3.7	.23	.20	.53	.04	.50	1.0	1.2	.73	.08	.82	.79
3	4.5	.63	.18	.50	.46	.12	.13	.76	.94	.36	1.3	1.0
4	3.9	1.3	.58	1.1	1.6	.06	.04	1.2	1.3	.78	1.2	.92
5	1.9	1.0	.25	.17	2.5	.04	.04	.83	.89	.53	1.5	1.1
6	2.9	.20	.35	.02	1.6	.05	.47	.62	.13	.38	1.1	.88
7	4.1	.40	.78	.77	1.1	.16	.50	.61	.16	.44	1.2	.97
8	4.6	.83	.65	.58	1.3	.70	.79	.66	.69	.28	.86	1.8
9	4.1	.84	.65	.19	.80	1.1	.99	.76	.97	.49	1.2	1.6
10	4.3	.37	.59	.05	5.7	.80	5.3	.91	1.3	.61	1.1	1.2
11	5.4	.37	.54	.02	.23	2.4	51	.77	1.5	.65	.86	.99
12	4.4	.75	.77	.47	.01	.15	1.2	.98	.86	.08	1.1	1.2
13	6.3	.53	.47	.06	.07	.53	.29	.94	.74	.58	1.0	.86
14	6.3	.80	.29	.20	.04	2.9	.12	.84	.24	.78	1.4	.96
15	5.1	.18	.47	.97	.32	.19	.51	1.1	1.3	.37	1.1	1.4
16	5.2	.20	.54	1.1	2.8	5.9	1.0	.21	1.2	.73	.75	1.6
17	4.2	.56	.60	1.0	.03	20	1.0	.42	1.3	1.2	1.2	.70
18	4.5	.86	.68	1.2	0	15	.78	.63	1.3	.63	1.2	1.4
19	2.8	1.2	.78	5.1	.04	1.4	1.3	1.3	.34	.49	.86	1.8
20	3.1	1.7	.85	18	.07	.16	1.6	.80	.45	.66	1.0	1.2
21	5.4	1.8	.21	7.7	.30	.06	1.4	1.3	.16	1.4	1.0	.42
22	4.0	.61	.37	.25	.43	.01	1.8	.79	.10	.78	1.1	1.4
23	6.3	.48	.59	.56	.38	.02	1.6	.85	.13	.71	1.1	1.3
24	5.2	.78	.70	.20	1.3	.65	1.3	.82	.07	.77	1.0	1.6
25	3.2	.87	.02	.06	1.1	1.2	1.2	1.5	.85	.09	1.5	2.3
26	5.8	2.4	.31	.11	1.0	.91	.92	1.1	1.1	.01	1.3	1.7
27	6.4	2.2	.25	.35	.82	.35	.80	.30	1.2	.41	1.2	.55
28	5.2	.32	.23	.90	.47	2.0	1.1	.79	.86	.62	.99	1.2
29	2.1	0	.99	.45	---	5.2	.49	.56	.96	.76	.44	.70
30	.08	0	1.5	.24	---	2.0	1.4	.48	.05	.92	.21	.27
31	.24	---	.12	.13	---	15	---	.32	---	.74	.92	---
TOTAL	129.22	22.45	15.54	43.59	24.58	81.66	112.07	26.25	22.06	17.35	32.5	34.64
MEAN	4.17	.75	.50	1.41	.88	2.63	3.74	.85	.74	.56	1.05	1.15
MAX	6.4	2.4	1.5	18	5.7	20	51	1.9	1.5	1.4	1.5	2.3
MIN	.08	0	.02	.02	0	.01	.04	.21	.05	.01	.21	.27
AC-FT	256	45	31	86	49	162	222	52	44	34	64	69
CAL YR 1981	TOTAL	669.18	MEAN	1.84	MAX	85	MIN	0	AC-FT	1330		
WTR YR 1982	TOTAL	561.91	MEAN	1.54	MAX	51	MIN	0	AC-FT	1110		

## 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.--42 years, 28.2 ft<sup>3</sup>/s (0.799 m<sup>3</sup>/s), 20,430 acre-ft/yr (25.2 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, 301 ft<sup>3</sup>/s (8.52 m<sup>3</sup>/s) Apr. 12; gage height, 6.52 ft (1.987 m); no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982  
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0					
2							0					
3							0					
4							0					
5							0					
6							0					
7							0					
8							0					
9							0					
10							0					
11							14					
12							143					
13							5.4					
14							0					
15							0					
16							0					
17							0					
18							0					
19							0					
20							0					
21							0					
22							0					
23							0					
24							0					
25							0					
26							0					
27							0					
28							0					
29							0					
30							0					
31							0					
TOTAL	0	0	0	0	0	0	162.4	0	0	0	0	0
MEAN	0	0	0	0	0	0	5.41	0	0	0	0	0
MAX	0	0	0	0	0	0	143	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	0	322	0	0	0	0	0
CAL YR 1981	TOTAL	277.0	MEAN	.76	MAX	246	MIN	0	AC-FT	549		
WTR YR 1982	TOTAL	162.4	MEAN	.44	MAX	143	MIN	0	AC-FT	322		

## 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 1982

					Annual maximum		
Station No.	Station name	Location	Drain- age 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°02'20" 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 1976-82	--	--	0
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 1976-82	7-26-82	12.11	14
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* 1976-82			--
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 1977-82	3-17-82	2.94	36
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 1977-82	3-17-82	12.28	16
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 1978-82	--	--	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) down- stream 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* 1981-82	4-1-82	a	b200

## DISCHARGE AT PARTIAL-RECORD STATIONS

Annual maximum discharge at crest-stage partial-record stations during water year 1982--Continued

## 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 1981-82	4-1-82	7.31	186
11133700	Purisima Creek near Lompoc, CA	Lat 34°41'34", long 120°25'51", in Purisima 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*	4-1-82 1976-82	1.72	27
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 1980-82	1982	c	<29

\* Operated as a continuous-record gaging station.

a No record for 1982.

b Estimated.

c Peak stage did not reach bottom of gage.

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



## DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1982

Stream	Tributary to	Location	Drainage area (mi <sup>2</sup> )	Measured previously (water years)	Measurements	
					Date	Discharge (ft <sup>3</sup> /s)
		Tecolotito Creek basin				
Tecolotito Creek		Lat 34°27'48", long 119°52'34", Santa			10-5-81	0.08
		Barbara County, 2.1 mi (3.4 km)			11-5-81	.16
		north of Highway 101, and 3.3 mi			12-8-81	.04
		(5.3 km) northwest of Goleta.			12-31-81	.10
					2-4-82	.11
					3-22-82	.20
					4-15-82	.55
					5-28-82	.14
					6-24-82	.17
					7-19-82	.03
				8-31-82	<.01	
Los Carneros Creek	Tecolotito Creek	Lat 34°26'51", long 119°51'20", Santa			10-5-81	.09
		Barbara County, 0.7 mi (1.1 km)			11-4-81	.07
		north of Highway 101 and 1.7 mi			12-8-81	.16
		(2.7 km) northwest of Goleta.			12-31-81	.22
					2-4-82	.12
					3-22-82	.31
					4-15-82	.49
					5-28-82	.20
					6-24-82	.12
					7-19-82	.04
			9-1-82	.02		
Los Carneros Creek	Tecolotito Creek	Lat 34°26'24", long 119°51'09", Santa			10-5-81	.12
		Barbara County, 300 ft (91 m) west			11-4-81	.15
		of Los Carneros Road, and 1.4 mi			12-8-81	.20
		(2.3 km) northwest of Goleta.			12-31-81	.18
					2-4-82	.16
					3-22-82	.45
					4-15-82	.53
					5-28-82	.29
					6-24-82	.15
					7-19-82	.09
			9-1-82	.08		

GROUND WATER  
IMPERIAL COUNTY  
 West Salton Sea (7-22)

SITE NUMBER 332501116025701 LOCAL NUMBER 009S009E04M01S

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 75.97 FEET BELOW LAND SURFACE DATUM SEP 29, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 05, 1982	74.88	SEP 29, 1982	75.97

Arroyo Seco Valley (7-37)

SITE NUMBER 331603114550601 LOCAL NUMBER 010S019E25R01S

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 194.89 FEET BELOW LAND SURFACE DATUM SEP 30, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1982	194.38	SEP 30, 1982	194.89

SITE NUMBER 331659114481001 LOCAL NUMBER 010S021E30C01S

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
FEB 03, 1982	39.62	SEP 30, 1982	39.77

East Salton Sea Basin (7-33)

SITE NUMBER 331144115231501 LOCAL NUMBER 011S015E23M01S

EAST MESA AREA NEAR SIPHON 3 ON COACHELLA CANAL. DRILLED DOMESTIC WELL. DIAM 12 IN, DEPTH 550 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 30.57 FEET BELOW LAND SURFACE DATUM FEB 02, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 02, 1982	30.57

IMPERIAL COUNTY--Continued

## Ocotillo Valley (7-25)

SITE NUMBER 330701116003501 LOCAL NUMBER 012S009E23D01S

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, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 04, 1982	167.27 S

## Amos Valley (7-34)

SITE NUMBER 330842115174701 LOCAL NUMBER 012S016E09A01S

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
FEB 02, 1982	133.23

SITE NUMBER 325955115042601 LOCAL NUMBER 013S018E33A01S

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
FEB 02, 1982	193.57

## Imperial Valley (7-30)

SITE NUMBER 324851115505901 LOCAL NUMBER 015S011E32R01S

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 51.05 FEET BELOW LAND SURFACE DATUM MAR 12, 1982.

LOWEST WATER LEVEL 101.00 FEET BELOW LAND SURFACE DATUM MAR 19, 1964.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04, 1981	51.12	MAR 12, 1982	51.05

S Nearby, pumping.

GROUND WATER  
IMPERIAL COUNTY--Continued  
 Imperial Valley (7-30)

SITE NUMBER 325114115335201 LOCAL NUMBER 015S014E18C01S

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 14, 1981	7.28	FEB 03, 1982	7.66	MAR 31, 1982	7.62	JUL 23, 1982	7.85
NOV 12	7.44	04	7.64	APR 28	7.52	AUG 24	7.70
DEC 07	7.51	MAR 05	7.61	MAY 25	7.57	SEP 20	7.54
JAN 07, 1982	7.64	19	7.57	JUN 22	7.78		

Ogilby Valley (7-35)

SITE NUMBER 325255114514301 LOCAL NUMBER 015S020E04R01S

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 388.38 FEET BELOW LAND SURFACE DATUM SEP 30, 1982.

LOWEST WATER LEVEL 388.80 FEET BELOW LAND SURFACE DATUM AUG 26, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 03, 1982	388.57	SEP 30, 1982	388.38

SITE NUMBER 324920114492201 LOCAL NUMBER 015S020E25N01S

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 284.09 FEET BELOW LAND SURFACE DATUM FEB 03, 1982.

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 03, 1982	284.09	SEP 30, 1982	284.13

## IMPERIAL COUNTY--Continued

Coyote Wells Valley (7-29)

SITE NUMBER 324558115595201 LOCAL NUMBER 016S009E24D01S

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 LSD 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 10, 1976.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 05, 1981	104.71	MAR 10, 1982	104.77

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L 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
016S009E24D01S	82-03-10	770	8.6	28.5	39	0	10	3.4	153	88

SODIUM AD- SORP- TION RATIO	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, 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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
11	4.4	110	140	89	1.1	16	487	1.5	.02	420	8	3

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, CASED TO 101.5 FT, SAND POINT 98-101.5 FT. ALTITUDE OF LSD 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	DATE	WATER LEVEL
NOV 05, 1981	59.58	MAR 11, 1982	59.67

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L 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
016S009E24R01S	82-03-11	630	8.7	26.5	48	0	11	5.1	110	81

SODIUM AD- SORP- TION RATIO	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, 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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
7.6	5.6	100	90	80	.9	19	385	.75	.01	270	25	4

GROUND WATER  
IMPERIAL COUNTY--Continued  
Imperial Valley (7-30)

SITE NUMBER 324603115480501 LOCAL NUMBER 016S011E23B015

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 LSD 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	DATE	WATER LEVEL
NOV 04, 1981	39.62	MAR 12, 1982	39.56

Yuma Valley (7-36)

SITE NUMBER 324444114385901 LOCAL NUMBER 016S022E21R015

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
FEB 03, 1982	10.97	SEP 30, 1982	9.80

SITE NUMBER 324656114345001 LOCAL NUMBER 016S023E08E015

NEAR INTERSECTION OF ROSS AND FISHER ROADS. DRILLED UNUSED WATER-TABLE WELL. DIAM 8 IN, DEPTH 500 FT, PERFORATED 110-141 FT. ALTITUDE OF LSD 130 FT. RECORDS AVAILABLE 1968, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 6.99 FEET BELOW LAND SURFACE DATUM SEP 30, 1982.

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 03, 1982	8.07	SEP 30, 1982	6.99

IMPERIAL COUNTY--Continued

Coyote Wells Valley (7-29)

SITE NUMBER 324123115553101 LOCAL NUMBER 0175010E110025

SOUTHEAST OF OCOTILLO ALONG HWY 98 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 172.92 FEET BELOW LAND SURFACE DATUM MAR 13, 1982.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06, 1981	172.38	MAR 13, 1982	172.92

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	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
0175010E110025	82-03-10	630	8.1	27.5	63	0	17	5.0	112	78

SODIUM AD- SORP- TION RATIO	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, 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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
6.1	5.0	120	67	99	.4	17	392	<.10	<.01	20	<3	3

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

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 16, 1981	26.3	JAN 14, 1982	29.57	MAY 14, 1982	26.2	AUG 13, 1982	20.8
NOV 13	27.3	FEB 12	31.0	JUN 14	25.7	SEP 13	18.3
DEC 14	28.8	MAR 15	27.6	JUL 12	24.6		
JAN 11, 1982	29.4	APR 12	27.3	AUG 12	20.34		

## GROUND WATER

## INYO COUNTY--Continued

## Owens Valley (6-12)

SITE NUMBER 372318118241101 LOCAL NUMBER 006S033E31D01M

ABOUT 1 MI NORTHWEST OF BISHOP. DRILLED UNUSED WATER-TABLE WELL. DIAM 16 IN, DEPTH 798 FT, CASED 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 05, 1981	10.0	JAN 15, 1982	5.92	MAY 10, 1982	5.8	AUG 12, 1982	5.23
NOV 04	7.5	FEB 05	5.9	JUN 04	6.3	SEP 01	5.1
DEC 02	6.3	MAR 04	6.0	JUL 01	5.1		
JAN 08, 1982	6.2	APR 02	5.2	AUG 05	5.4		

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 90-158, 560-565 FT. ALTITUDE OF LSD 4157.6 FT. MEASUREMENTS FURNISHED BY LOS ANGELES DEPARTMENT OF WATER AND POWER; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1928, 1978 TO CURRENT YEAR.

HIGHEST WATER LEVEL 2.1 FEET BELOW LAND SURFACE DATUM JUL 19, 1982; AUG 20, 1982.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1981	107.1 P	JAN 15, 1982	7.69	MAY 24, 1982	103.6 P	AUG 20, 1982	2.1
20	4.4	FEB 01	4.2	JUN 01	104.3 P	SEP 20	2.3
NOV 02	4.2	MAR 04	4.4	21	104.3 P		
DEC 01	4.2	APR 20	103.6 P	JUL 19	2.1		
JAN 05, 1982	4.2	MAY 03	103.6 P	AUG 12	6.27		

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 16, 1981	46.3	JAN 18, 1982	44.7	MAY 21, 1982	47.5	AUG 20, 1982	36.2
NOV 17	48.2	FEB 18	43.1	JUN 18	44.6	SEP 20	32.0
DEC 18	47.2	MAR 18	44.5	JUL 19	41.3		
JAN 15, 1982	44.95	APR 19	45.7	AUG 12	37.57		

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 02, 1981	36.0	FEB 01, 1982	37.4	JUN 03, 1982	70.4 P	SEP 01, 1982	32.3
NOV 02	36.0	MAR 01	37.4	JUL 01	40.0		
JAN 04, 1982	37.2	APR 01	37.4	AUG 02	34.2		
15	38.72	MAY 03	36.3	12	35.63		

P Pumping.



## INYO COUNTY--Continued

## Owens Valley (6-12)

SITE NUMBER 364815118110401 LOCAL NUMBER 013S035E17J01M

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. MEASUREMENTS FURNISHED BY LOS ANGELES DEPARTMENT OF WATER AND POWER; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1924, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 25.4 FEET BELOW LAND SURFACE DATUM SEP 01, 1982.

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	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1981	28.9	JAN 15, 1982	30.43	MAY 03, 1982	28.9	AUG 02, 1982	26.3
NOV 02	28.2	FEB 01	29.6	JUN 03	63.7 P	12	27.12
DEC 02	29.1	MAR 01	29.6	23	63.5 P	SEP 01	25.4
JAN 04, 1982	29.6	APR 01	29.8	JUL 01	63.5 P		

## Saline Valley (6-17)

SITE NUMBER 364100117485701 LOCAL NUMBER 014S038E35M01M

ABOUT 12.2 MI SOUTHEAST OF WILLOW SPRINGS. DRILLED UNUSED WATER-TABLE WELL. DIAM 72 IN, DEPTH 37 FT. ALTITUDE OF LSD 1095 FT. RECORDS AVAILABLE 1955, 1978-80, 1982 TO CURRENT YEAR.

HIGHEST WATER LEVEL 35.3 FEET BELOW LAND SURFACE DATUM JAN 26, 1955.

LOWEST WATER LEVEL 35.64 FEET BELOW LAND SURFACE DATUM SEP 26, 1979.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JAN 14, 1982	35.40

## Owens Valley (6-12)

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 13, 1981	45.9	JAN 15, 1982	46.40	MAR 02, 1982	0	AUG 11, 1982	41.26
JAN 11, 1982	0						

P Pumping.

O Obstruction.

## 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 08, 1981	28.38	MAY 05, 1982	28.31

## WATER QUALITY DATA

LOCAL IDENT- I- FILE	DATE OF SAMPLE	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
015S044E36M01M	82-05-05	9220	7.5	28.7	720	420	74	130	2000	83

SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY 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, 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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
32	130	300	920	3000	1.1	54	6510 <sup>1</sup>	.14	.03	17000	<10	30

<sup>1</sup>Result based on Laboratory Alkalinity value.  
 < Actual value is known to be less than the value shown.

## Panamint Valley (6-58)

SITE NUMBER 360226117134701 LOCAL NUMBER 022S044E09B01M

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
APR 18, 1982	6.97

## Pahrump Valley (6-28)

SITE NUMBER 355832115525201 LOCAL NUMBER 022N010E27R01S

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 121.96 FEET BELOW LAND SURFACE DATUM APR 17, 1982.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1981	121.78	APR 17, 1982	121.96

INYO COUNTY--Continued

Pahrump Valley (6-28)

SITE NUMBER 360951116072202 LOCAL NUMBER 024N008E21L02S

ABOUT 0.9 MI WEST OF STATE LINE ON HWY 178. 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 38.13 FEET BELOW LAND SURFACE DATUM FEB 18, 1976.

LOWEST WATER LEVEL 39.84 FEET BELOW LAND SURFACE DATUM APR 17, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1981	39.78	APR 17, 1982	39.84

Middle Amargosa Valley (6-20)

SITE NUMBER 361817116244701 LOCAL NUMBER 025N005E14M01S

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	DATE	WATER LEVEL
OCT 07, 1981	5.35	APR 17, 1982	4.14

Death Valley (6-18)

SITE NUMBER 362711116494401 LOCAL NUMBER 027N001E24E01S

EAST OF FURNACE CREEK INN. DRILLED UNUSED WATER-TABLE WELL IN LACUSTRINE OF PLEISTOCENE AGE. DIAM 14 IN, DEPTH 250 FT. ALTITUDE OF LSD 480 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	DATE	WATER LEVEL
OCT 08, 1981	76.11	APR 17, 1982	75.98

KERN COUNTY

Indian Wells Valley (6-54)

SITE NUMBER 354758117464001 LOCAL NUMBER 024S039E33N01M

ABOUT 11 MI NORTH OF RIDGECREST. DUG UNUSED WATER-TABLE WELL. DIAM 10 IN, DEPTH 163 FT IN 1946, 161.9 FT IN 1952, 161.4 FT IN 1972. ALTITUDE OF LSD 2254.5 FT. RECORDS AVAILABLE 1920, 1946, 1952-54, 1959, 1961-66, 1968-79, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 58.86 FEET BELOW LAND SURFACE DATUM MAR 16, 1954.

LOWEST WATER LEVEL 63.00 FEET BELOW LAND SURFACE DATUM JUN 23, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 17, 1981	62.75	JUN 23, 1982	63.00

## GROUND WATER

KERN COUNTY--Continued

Indian Wells Valley (6-54)

SITE NUMBER 353921117433901 LOCAL NUMBER 026S039E24K01M

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 MAR 16, 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	DATE	WATER LEVEL
NOV 18, 1981	197.35	JUN 10, 1982	196.24

SITE NUMBER 353922117442301 LOCAL NUMBER 026S039E24M01M

ABOUT 4 MI NORTHWEST OF RIDGECREST. DRILLED UNUSED WATER-TABLE WELL. DIAM 16 IN, DEPTH 1953 FT,  
FILLED IN WITH GRAVEL PACK TO 800 FT. ALTITUDE OF LSD 2366.46 FT. RECORDS AVAILABLE 1960, 1962-67,  
1970-71, 1973, 1978-79, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 172.87 FEET BELOW LAND SURFACE DATUM NOV 09, 1960.

LOWEST WATER LEVEL 219.24 FEET BELOW LAND SURFACE DATUM NOV 19, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
NOV 19, 1981	219.24

SITE NUMBER 353851117491401 LOCAL NUMBER 026S039E30F01M

AT INYOKERN. DRILLED PUBLIC SUPPLY WATER-TABLE WELL. DIAM 16 IN, DEPTH 385 FT IN 1966,  
PERFORATED 250-321, 369-386 FT. ALTITUDE OF LSD 2433.5 FT. RECORDS AVAILABLE 1944, 1950,  
1966-79, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 220.00 FEET BELOW LAND SURFACE DATUM SEP 17, 1944.

LOWEST WATER LEVEL 246.70 FEET BELOW LAND SURFACE DATUM DEC 12, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 20, 1981	242.82	JUN 09, 1982	246.40

SITE NUMBER 353908117395201 LOCAL NUMBER 026S040E22P01M

AT CHINA LAKE. DRILLED UNUSED WATER-TABLE WELL IN SAND OF QUATERNARY AGE. DIAM 8 IN, DEPTH 1358 FT,  
PERFORATED 530-830 FT. ALTITUDE OF LSD 2258.7 FT. RECORDS AVAILABLE 1954 TO CURRENT YEAR.

HIGHEST WATER LEVEL 64.28 FEET BELOW LAND SURFACE DATUM MAY 13, 1954.

LOWEST WATER LEVEL 94.38 FEET BELOW LAND SURFACE DATUM NOV 17, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 17, 1981	94.38	JUN 08, 1982	93.41

## KERN COUNTY--Continued

Indian Wells Valley (6-54)

SITE NUMBER 353948117381001 LOCAL NUMBER 026S040E23A01M

ABOUT 200 FT SOUTH OF NORTH KNOX ROAD AND 0.30 MI NORTHEAST OF CHINA LAKE GOLF CLUB. BORED OBSERVATION WATER-TABLE WELL. DIAM 2 IN, DEPTH 52 FT, WELL POINT 50-52 FT. ALTITUDE OF LSD 2217.46 FT. RECORDS AVAILABLE 1972, 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 28.98 FEET BELOW LAND SURFACE DATUM NOV 17, 1981.

LOWEST WATER LEVEL 31.72 FEET BELOW LAND SURFACE DATUM OCT 16, 1975.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 17, 1981	28.98	JUN 10, 1982	29.76

## WATER QUALITY DATA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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
026S040E23A01M	82-06-10	5060	7.9	24.5	490	130	130	41	1100	82

SODIUM AD- SORP- TION RATIO	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, 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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
22	34	369	1400	880	1.8	61	3880	.35	.06	12000	2100	80

SITE NUMBER 353844117424401 LOCAL NUMBER 026S040E30K02M

SOUTHEAST OF INYOKERN HWY AND JACK RANCH ROAD INTERSECTION. DRILLED PUBLIC SUPPLY WATER-TABLE WELL. DIAM 16 IN, DEPTH 802 FT, PERFORATED 220-470, 600-760 FT. ALTITUDE OF LSD 2340 FT. RECORDS AVAILABLE 1968-71, 1974-79, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 183.03 FEET BELOW LAND SURFACE DATUM OCT 13, 1970.

LOWEST WATER LEVEL 215.70 FEET BELOW LAND SURFACE DATUM NOV 19, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
NOV 19, 1981	215.70

SITE NUMBER 353644117380601 LOCAL NUMBER 027S040E02J01M

SOUTHEAST OF RIDGECREST. DRILLED IRRIGATION WATER-TABLE WELL. DIAM 10 IN, DEPTH 220 FT. ALTITUDE OF LSD 2300 FT. RECORDS AVAILABLE 1958, 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
NOV 17, 1981	121.56

## GROUND WATER

## KERN COUNTY--Continued

Indian Wells Valley (6-54)

SITE NUMBER 353630117390901 LOCAL NUMBER 027S040E03R01M

ABOUT 100 FT NORTH OF EAST BOWMAN 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 102.90 FEET BELOW LAND SURFACE DATUM JUN 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 17, 1981	102.10	JUN 15, 1982	102.90

Fremont Valley (6-46)

SITE NUMBER 352209117475201 LOCAL NUMBER 029S039E33K01M

NORTHEAST OF CANTIL. DRILLED UNUSED WATER-TABLE WELL IN SAND OF QUATERNARY AGE. DIAM 16 IN, DEPTH 403.4 FT, CASED TO 402 FT, PERFORATED 210-402 FT. ALTITUDE OF LSD 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
FEB 17, 1982	211.99

SITE NUMBER 351745117590401 LOCAL NUMBER 030S037E26E01M

ABOUT 0.9 MI NORTHEAST OF RANCHO SECO. DRILLED IRRIGATION WATER-TABLE WELL. DIAM 14 IN, DEPTH 485 FT, PERFORATED 233-485 FT.

## WATER QUALITY DATA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	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		
030S037E26E01M	82-06-22	760	7.8	27.5	250	1	66	21	81	41		
SODIUM AD- SORP- TION RATIO	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, 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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
2.4	2.6	250	110	31	.9	27	494	.47	.06	370	5	26

## KERN COUNTY--Continued

Fremont Valley (6-46)

SITE NUMBER 350733118070801 LOCAL NUMBER 032S036E21Q01M

ABOUT 6 MI NORTHEAST OF MOJAVE. DRILLED PUBLIC SUPPLY WATER-TABLE WELL. DIAM 10 IN, DEPTH 805 FT. ALTITUDE OF LSD 2799 FT.

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L 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		
032S036E21001M	82-06-22	1315	7.5	28.5	320	26	82	27	190	56		
SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY 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, 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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
5.0	7.5	290	370	45	.4	30	929	1.3	.02	2200	5	3

## Antelope Valley (6-44)

SITE NUMBER 345951117503501 LOCAL NUMBER 010N009W04D01S

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
NOV 19, 1981	119.44	FEB 09, 1982	118.72

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 IDENTIFIER			DATE OF SAMPLE	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CAC03)	HARDNESS, NONCARBONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM
010N013W32D01S			82-06-22	640	7.8	28.5	200	33	60	13	58	38
SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (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 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)	MANGANESE, DIS-SOLVED (UG/L AS MN)
1.9	2.6	170	66	52	.3	24	396	3.7	<.01	150	3	2

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

## GROUND WATER

KERN COUNTY--Continued

## Fremont Valley (6-46)

SITE NUMBER 350411118023601 LOCAL NUMBER 011N011W09A01S

NORTHEAST OF MOJAVE. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 14 IN. DEPTH 422 FT, CASSED 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 130.64 FEET BELOW LAND SURFACE DATUM FEB 18, 1982.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 19, 1981	130.41	FEB 18, 1982	130.64

## 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, CASSED 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, 1978.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14, 1981	305.75	JAN 11, 1982	307.45	APR 26, 1982	309.80	AUG 23, 1982	312.57
NOV 19	306.45	FEB 11	308.25	MAY 24	310.51	SEP 21	313.17
DEC 01	304.69	MAR 03	308.69	JUN 24	311.10		
09	304.80	APR 02	309.23	JUL 22	311.73		

LOS ANGELES COUNTY

## San Fernando Valley (4-12)

SITE NUMBER 341319118273101 LOCAL NUMBER 002N015W28P01S

NORTH OF INTERSECTION OF ROSCOE BLVD AND KESTER AVE ALONG PACOIMA WASH IN SAN FERNANDO VALLEY. DRILLED OBSERVATION WATER-TABLE WELL. DIAM 2 IN, DEPTH 266.5 FT IN 1972, PERFORATED 253.2-263.2 FT. ALTITUDE OF LSD 805 FT. RECORDS FURNISHED BY LOS ANGELES COUNTY FLOOD CONTROL DISTRICT. RECORDS AVAILABLE 1960-69, 1971-72, 1974, 1976-78, 1980 TO CURRENT YEAR.

HIGHEST WATER LEVEL 184.90 FEET BELOW LAND SURFACE DATUM DEC 16, 1960.

LOWEST WATER LEVEL 235.70 FEET BELOW LAND SURFACE DATUM JAN 24, 1978.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1981	218.2	FEB 18, 1982	217.4	JUN 21, 1982	217.3	SEP 16, 1982	217.9
DEC 21	218.0	MAR 29	218.2	JUL 15	217.2		
JAN 19, 1982	217.9	APR 22	215.8	AUG 18	217.7		

## Antelope Valley (6-44)

SITE NUMBER 343259117593101 LOCAL NUMBER 005N011W01M01S

NORTHWEST OF 80TH STREET EAST AND AVENUE T INTERSECTION. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF QUATERNARY AGE. DIAM 14 IN, DEPTH 414 FT IN 1963, 396.29 FT IN 1967, CASSED TO 392 FT, PERFORATED 100-364 FT. ALTITUDE OF LSD 2739 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
NOV 17, 1981	90.09	FEB 17, 1982	93.33



## LOS ANGELES COUNTY--Continued

## Acton Valley (4-5)

SITE NUMBER 342818118114501 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
FEB 09, 1982	23.58

## Antelope Valley (6-44)

SITE NUMBER 343434117500801 LOCAL NUMBER 006N009W28P02S

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- IFIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L 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		
006N009W28P02S	82-06-21	585	7.9	25.7	100	4	34	4.6	89	65		
SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT- 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, 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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
3.9	2.1	100	150	23	1.7	28	396	.82	.02	280	10	<1

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

SITE NUMBER 344150118055401 LOCAL NUMBER 007N012W13H02S

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
NOV 18, 1981	152.91	FEB 10, 1982	152.73

## GROUND WATER

## LOS ANGELES COUNTY--Continued

## Antelope Valley (6-44)

SITE NUMBER 344200118141001 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	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
007N013W14E01S	82-06-22	465	7.7	26.5	150	33	48	8.0	41	37

SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY FIELD 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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
1.5	1.4	120	37	38	.3	33	298	4.2	.02	80	6	<1

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

SITE NUMBER 344841118335001 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
NOV 18, 1981	216.90	FEB 09, 1982	216.03

## San Gabriel Valley (4-13)

SITE NUMBER 340535117573501 LOCAL NUMBER 001S010W07R02S

NEAR INTERSECTION OF LOS ANGELES AND MAINE STREETS IN BALDWIN 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 421001S010W18A01S).

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
NOV 17, 1981	145.56	JAN 21, 1982	143.52	JUN 25, 1982	141.17	SEP 22, 1982	146.95
20	145.59	APR 26	137.39	JUL 27	142.84		
DEC 22	145.37	MAY 25	138.92	AUG 25	145.25		

LOS ANGELES COUNTY--Continued

Coastal Plain of Los Angeles (4-11)

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 29, 1981	110.78	JAN 25, 1982	107.78	APR 28, 1982	107.28	AUG 23, 1982	108.88
NOV 30	104.18	FEB 24	108.98	JUN 08	109.48	SEP 30	108.08
JAN 04, 1982	105.58	APR 06	106.68	JUL 13	107.78		

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 1958, DEEPENED TO 358 FT IN 1965, 8-IN CSG 0-120 FT, 6.6-IN CSG 75-305 FT, PERFORATED 78-85, 120-135, 150-178, 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
JAN 14, 1982	119.55	AUG 12, 1982	99.95

Long Valley (6-11)

SITE NUMBER 374334118491401 LOCAL NUMBER 002S029E31P01M

ABOUT 8 MI NORTH OF HWY 395, NEAR LAKE CROWLEY. 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
AUG 12, 1982	3.53

ORANGE COUNTY

Coastal Plain of Orange County (8-1)

SITE NUMBER 335459117580701 LOCAL NUMBER 003S010W16C01S

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 88.25 FEET BELOW LAND SURFACE DATUM JUL 28, 1982.

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
NOV 03, 1981	89.15	JAN 25, 1982	89.25	APR 28, 1982	88.50	JUL 28, 1982	88.25

## GROUND WATER

## ORANGE COUNTY--Continued

## Coastal Plain of Orange County (8-1)

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
NOV 03, 1981	173.20	JAN 25, 1982	174.02	APR 30, 1982	168.50	AUG 03, 1982	171.58

SITE NUMBER 334404117480701 LOCAL NUMBER 005S009W15R03S

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 05, 1981	18.18	JAN 28, 1982	19.93	APR 30, 1982	19.40	AUG 02, 1982	19.53

SITE NUMBER 334456117551201 LOCAL NUMBER 005S010W09R01S

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 82.80 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 06, 1981	41.50	JAN 29, 1982	38.72	MAY 07, 1982	39.04	AUG 06, 1982	41.07

## RIVERSIDE COUNTY

## Rice Valley (7-4)

SITE NUMBER 340300114473301 LOCAL NUMBER 001S021E32B01S

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
MAR 04, 1982	150.53

## RIVERSIDE COUNTY--Continued

Coachella Valley (7-21)

SITE NUMBER 335304116353001 LOCAL NUMBER 003S004E29F01S

NEAR HWY 111 NORTHWEST OF PALM SPRINGS. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 3 IN, DEPTH 575 FT, CASED 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
MAR 16, 1982	422.90

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	HARD- NESS, NONCAR- BONATE (MG/L 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
003S004E29F01S	82-03-16	295	10.3	20.0	26	0	9.3	.6	34	69

SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY 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)
3.0	5.8	49	22	25	.3	.0	131	130	<.10	<.01	20	<3

MANGA- NESE, DIS- SOLVED (UG/L AS MN)
<1

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

GROUND WATER  
RIVERSIDE COUNTY--Continued  
Coachella Valley (7-21)

SITE NUMBER 335231116345401 LOCAL NUMBER 0035004E29R01S

NEAR HWY 111 NORTHWEST OF PALM SPRINGS. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 8 IN, DEPTH 551 FT, CASED 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
MAR 17, 1982	427.63

WATER QUALITY DATA

LOCAL IDENT- I- FILE	DATE OF SAMPLE	SPF- CIFIC CON- DUCT- ANCE (UMHQS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L 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
0035004E29R01S	82-03-17	170	7.6	18.0	54	0	16	3.4	12	31

SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY 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, ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
.8	3.0	72	5.0	4.0	.9	7.1	95	98	<.10	<.01	10	12

MANGA-  
NESE,  
DIS-  
SOLVED  
(UG/L  
AS MN)

190

< Actual value is known to be less than the value shown.

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 170.89 FEET BELOW LAND SURFACE DATUM APR 15, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1981	171.49 S	APR 15, 1982	170.89

S Nearby, pumping.

## RIVERSIDE COUNTY--Continued

## Rice Valley (7-4)

SITE NUMBER 335503114490201 LOCAL NUMBER 003S021E18D01S

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
MAR 04, 1982	285.52

## Pinto Valley (7-6)

SITE NUMBER 334712115485601 LOCAL NUMBER 004S011E27Q01S

ABOUT 3.5 MI NORTH OF COTTONWOOD SPRING, IN SMOKEYTREE 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 200.74 FEET BELOW LAND SURFACE DATUM APR 13, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1981	193.97	APR 13, 1982	200.74

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	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
004S011E27Q01S	81-10-01	420	7.8	26.5	120	5.0	38	7.2	42	42

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 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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
1.7	1.2	120	28	39	2.7	32	268 <sup>1</sup>	1.3	<.01	140	12	2

<sup>1</sup> Result based on Laboratory Alkalinity value.  
 < Actual value is known to be less than the value shown.

## Chuckwalla Valley (7-5)

SITE NUMBER 334647115195801 LOCAL NUMBER 004S016E32M01S

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	DATE	WATER LEVEL
OCT 01, 1981	86.90	APR 15, 1982	82.01

GROUND WATER  
RIVERSIDE COUNTY--Continued  
 Chuckwalla Valley (7-5)

SITE NUMBER 335133115141901 LOCAL NUMBER 004S017E06C01S

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	DATE	WATER LEVEL
OCT 01, 1981	25.23	APR 15, 1982	26.69 R

Orocopia Valley (7-31)

SITE NUMBER 333929115552201 LOCAL NUMBER 006S010E11N01S

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
APR 15, 1982	330.84

SITE NUMBER 333911115505701 LOCAL NUMBER 006S011E16E01S

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
MAR 03, 1982	246.31

Palo Verde Mesa (7-39)

SITE NUMBER 334120114400001 LOCAL NUMBER 006S022E03B01S

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
MAR 04, 1982	170.10

R Recently, pumped.



RIVERSIDE COUNTY--Continued

Palo Verde Mesa (7-39)

SITE NUMBER 334044114393201 LOCAL NUMBER 006S022E03R02S

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
MAR 04, 1982	157.36

Palo Verde Valley (7-38)

SITE NUMBER 333717114363401 LOCAL NUMBER 006S023E30K01S

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
FEB 03, 1982	10.62

SITE NUMBER 333640114330201 LOCAL NUMBER 006S023E35E01S

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 10.24 FEET BELOW LAND SURFACE DATUM FEB 03, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 03, 1982	10.24

Chuckwalla Valley (7-5)

SITE NUMBER 333340114552801 LOCAL NUMBER 007S020E18H01S

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
MAR 03, 1982	170.26

## GROUND WATER

RIVERSIDE COUNTY--Continued

Palo Verde Valley (7-38)

SITE NUMBER 333609114345701 LOCAL NUMBER 007S023E04D01S

ABOUT 1.3 MI SOUTHEAST OF BLYTHE. DRILLED UNUSED WATER-TABLE WELL. DIAM 12 IN, DEPTH 502 FT, CASED TO 500 FT, PERFORATED 270-290, 334-344 FT. ALTITUDE OF LSD 268 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
FEB 03, 1982	12.99

SITE NUMBER 333030114412501 LOCAL NUMBER 008S022E04N02S

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 12.82 FEET BELOW LAND SURFACE DATUM FEB 03, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 03, 1982	12.82

## Upper Santa Ana Valley (8-2)

SITE NUMBER 335732117252801 LOCAL NUMBER 002S005W32B01S

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
DEC 28, 1981	47.17

SITE NUMBER 335731117330601 LOCAL NUMBER 002S006W31C01S

ABOUT 0.35 MI SOUTHEAST OF INTERSECTION OF ADAMS AVE AND SCHLEISMAN ROAD. DRILLED DOMESTIC WATER-TABLE WELL. DIAM AND DEPTH UNKNOWN. ALTITUDE OF LSD 601 FT. MOST MEASUREMENTS FURNISHED BY RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT PRIOR TO 1982; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1962 TO CURRENT YEAR.

HIGHEST WATER LEVEL 22.50 FEET BELOW LAND SURFACE DATUM JUL 02, 1970.

LOWEST WATER LEVEL 41.20 FEET BELOW LAND SURFACE DATUM JUN 06, 1974.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
SEP 30, 1982	32.20

## RIVERSIDE COUNTY--Continued

San Jacinto Basin (8-5)

SITE NUMBER 335512117080001 LOCAL NUMBER 003S002W07P01S

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. MOST MEASUREMENTS FURNISHED BY RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT PRIOR TO 1982; 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
SEP 24, 1982	111.26

SITE NUMBER 335437117110101 LOCAL NUMBER 003S003W15F01S

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. MOST 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 99.85 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
SEP 15, 1982	113.51

SITE NUMBER 334717117124401 LOCAL NUMBER 004S003W29Q01S

NORTH OF INTERSECTION OF WILSON AND SAN JACINTO ROADS. DRILLED UNUSED WATER-TABLE WELL. DIAM 14 IN, DEPTH 1624 FT, CASSED TO 1624 FT. ALTITUDE OF LSD 1417 FT. MOST MEASUREMENTS FURNISHED BY RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1948-77, 1979 TO CURRENT YEAR.

HIGHEST WATER LEVEL 161.24 FEET BELOW LAND SURFACE DATUM SEP 30, 1982.

LOWEST WATER LEVEL 209.60 FEET BELOW LAND SURFACE DATUM OCT 16, 1977.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
SEP 30, 1982	161.24

GROUND WATER  
RIVERSIDE COUNTY--Continued  
Temecula Valley (9-5)

SITE NUMBER 332653117050301 LOCAL NUMBER 008S002W28R01S

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 14, 1981	91.78 R	FEB 26, 1982	75.65	APR 12, 1982	79.28	JUL 01, 1982	85.07 P
NOV 24	77.27						

WATER QUALITY DATA

LOCAL IDENTIFIER	DATE OF SAMPLE	SPF-CIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CAC03)	HARDNESS, NONCARBONATE (MG/L AS CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM DIS-SOLVED (MG/L AS MG)	SODIUM DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM
008S002W28R01S	82-07-01	426	7.8	19.0	120	0	41	3.7	48	47

SODIUM ADSORPTION RATIO	POTASSIUM DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (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)	MANGANESE DIS-SOLVED (UG/L AS MN)
2.0	1.1	160	14	27	.5	27	262	.82	.02	60	13	3

SITE NUMBER 332719117061501 LOCAL NUMBER 008S002W29G01S

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 14, 1981	29.17	FEB 26, 1982	31.54	JUN 30, 1982	30.10	AUG 26, 1982	31.42
NOV 24	30.28	APR 12	29.87				

SAN BERNARDINO COUNTY

Searles Valley (6-52)

SITE NUMBER 354040117223201 LOCAL NUMBER 026S043E18A01M

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 31.85 FEET BELOW LAND SURFACE DATUM APR 18, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
APR 18, 1982	31.85

R Recently, pumped.

P Pumping.

SAN BERNARDINO COUNTY--Continued

## Cuddeback Valley (6-50)

SITE NUMBER 351627117230001 LOCAL NUMBER 030S043E32N01M

AT CUDEBACK 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
NOV 16, 1981	327.02

## 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 94.05 FEET BELOW LAND SURFACE DATUM OCT 17, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JUN 24, 1982	93.27

## 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 210.76 FEET BELOW LAND SURFACE DATUM SEP 29, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15, 1981	210.43	FEB 04, 1982	210.42	MAY 25, 1982	210.40	SEP 15, 1982	210.45
NOV 10	210.45	MAR 04	210.40	JUN 23	210.50		
DEC 08	210.40	APR 06	210.48	JUL 22	210.48		
JAN 06, 1982	210.44	27	210.53	AUG 24	210.55		

## 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
OCT 02, 1981	8.24	APR 16, 1982	8.14

## GROUND WATER

## SAN BERNARDINO COUNTY--Continued

## Twentynine Palms (7-10)

SITE NUMBER 340741116022001 LOCAL NUMBER 001N009E33H01S

ABOUT 1 MI SOUTHEAST OF FOUR CORNERS. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM. DIAM 2 IN, DEPTH 77 FT, SAND POINT 75-77 FT. ALTITUDE OF LSD 1960.75 FT. RECORDS AVAILABLE 1974 TO CURRENT YEAR.

HIGHEST WATER LEVEL 51.68 FEET BELOW LAND SURFACE DATUM MAR 10, 1981.

LOWEST WATER LEVEL 52.97 FEET BELOW LAND SURFACE DATUM OCT 12, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1981	52.88	APR 16, 1982	52.65

## 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	DATE	WATER LEVEL
OCT 01, 1981	26.67	FEB 25, 1982	26.96

SITE NUMBER 340933115451101 LOCAL NUMBER 001N012E20D04S

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 MAR 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	DATE	WATER LEVEL
OCT 01, 1981	28.13	FEB 25, 1982	27.78

## 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
MAR 04, 1982	267.29

SAN BERNARDINO COUNTY--Continued

## 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
DEC 03, 1981	330.40	APR 02, 1982	330.28

## 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
APR 16, 1982	93.24

## 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 15, 1981	88.69	FEB 04, 1982	88.70	MAY 26, 1982	88.65	SEP 21, 1982	88.62
NOV 10	88.71	MAR 04	88.64	JUN 23	88.65		
DEC 08	88.69	APR 06	88.66	JUL 22	88.65		
JAN 06, 1982	88.68	27	88.66	AUG 24	88.65		

## 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	DATE	WATER LEVEL
OCT 06, 1981	73.32	DEC 03, 1981	73.30	APR 02, 1982	73.24	JUN 04, 1982	73.22

## GROUND WATER

SAN BERNARDINO COUNTY--Continued

## Johnson Valley (7-18)

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
DEC 03, 1981	56.11	APR 02, 1982	56.07

## Cadiz Valley (7-7)

SITE NUMBER 342513115220001 LOCAL NUMBER 004N015E24E01S

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
APR 16, 1982	258.33

## 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
MAR 04, 1982	5.57

## 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 2880 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 140.00 FEET BELOW LAND SURFACE DATUM JUN 03, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1981	138.77	DEC 02, 1981	139.38	MAR 30, 1982	139.74	JUN 03, 1982	140.00



## SAN BERNARDINO COUNTY--Continued

## 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 208. 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
APR 16, 1982	214.59 S

SITE NUMBER 343334115443301 LOCAL NUMBER 006N012E32R01S

IN AMBOY. DRILLED UNUSED WATER-TABLE WELL. DIAM 38 IN, DEPTH 82.1 FT, CASSED TO 55 FT. ALTITUDE OF LSD 658 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
FEB 25, 1982	42.91

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, 1979.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 25, 1982	202.05

## Fenner Valley (7-2)

SITE NUMBER 343803115203901 LOCAL NUMBER 006N016E06K01S

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
FEB 25, 1982	259.05

S Nearby, pumping.

## GROUND WATER

SAN BERNARDINO COUNTY--Continued

## Fenner Valley (7-2)

SITE NUMBER 344655115155601 LOCAL NUMBER 008N016E13M01S

ABOUT 4.3 MI SOUTH OF FREEWAY 40. DRILLED UNUSED WELL. DIAM 16 IN, DEPTH GREATER THAN 1000 FT. ALTITUDE OF LSD 1840 FT. RECORDS AVAILABLE 1956, 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 400.00 FEET BELOW LAND SURFACE DATUM JAN 01, 1956.

LOWEST WATER LEVEL 406.78 FEET BELOW LAND SURFACE DATUM MAY 19, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
MAY 19, 1982	406.78

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
FEB 25, 1982	337.8 R

## 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 02, 1981	85.88	MAR 24, 1982	85.52

SITE NUMBER 345709116390501 LOCAL NUMBER 010N003E15Q01S

ABOUT 0.5 MI WEST OF HARVARD ROAD AND NORTH OF CHEROKEE ROAD. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 12 IN, DEPTH 186.4 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 112.65 FEET BELOW LAND SURFACE DATUM MAR 24, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
MAR 24, 1982	112.65

R Recently, pumped.

SAN BERNARDINO COUNTY--Continued

## 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
FEB 25, 1982	118.58

## 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 454.00 FEET BELOW LAND SURFACE DATUM MAY 19, 1982.

LOWEST WATER LEVEL 484.1 FEET BELOW LAND SURFACE DATUM JUL 19, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1981	473.60	MAY 19, 1982	454.00

## Coyote Lake Valley (6-37)

SITE NUMBER 350547116481301 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 57.47 FEET BELOW LAND SURFACE DATUM JUN 24, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JUN 24, 1982	57.47

## Cronese Valley (6-35)

SITE NUMBER 350627116152401 LOCAL NUMBER 012N007E29A01S

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	DATE	WATER LEVEL
OCT 06, 1981	36.65	MAY 20, 1982	36.63

## GROUND WATER

## SAN BERNARDINO COUNTY--Continued

## Lanfair Valley (7-1)

SITE NUMBER 350923115093501 LOCAL NUMBER 012N017E04D01S

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
FEB 26, 1982	510.5

SITE NUMBER 350844115092901 LOCAL NUMBER 012N017E04N01S

LOCATED IN FENNER VALLEY. DIAM 72 IN. DEPTH 17 FT. ALTITUDE OF LSD 3960 FT. RECORDS AVAILABLE 1981 TO CURRENT YEAR.

HIGHEST WATER LEVEL 9.30 FEET BELOW LAND SURFACE DATUM MAY 19, 1982.

LOWEST WATER LEVEL 11.00 FEET BELOW LAND SURFACE DATUM AUG 31, 1981.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
MAY 19, 1982	9.30

## Soda Lake Valley (6-33)

SITE NUMBER 351148116022101 LOCAL NUMBER 013N009E20J01S

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	DATE	WATER LEVEL
OCT 06, 1981	65.78	MAY 19, 1982	65.73

## Bicycle Valley (6-25)

SITE NUMBER 351830116364501 LOCAL NUMBER 014N003E13K01S

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 196.89 FEET BELOW LAND SURFACE DATUM JUN 24, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
JUN 24, 1982	196.89 R

R Recently, pumped.

## SAN BERNARDINO COUNTY--Continued

## 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	DATE	WATER LEVEL
OCT 06, 1981	76.75	MAY 20, 1982	76.39

## Goldstone Valley (6-48)

SITE NUMBER 352306116540901 LOCAL NUMBER 015N001E20F01S

ABOUT 7.9 MI NORTH OF GOLDSTONE. DRILLED UNUSED WATER-TABLE WELL. DIAM 4 IN, DEPTH 181 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
JUN 24, 1982	134.32

## 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 210.97 FEET BELOW LAND SURFACE DATUM MAY 19, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
MAY 19, 1982	210.97

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
OCT 07, 1981	205.64

GROUND WATER  
SAN BERNARDINO COUNTY--Continued  
 Ivanpah Valley (6-30)

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	DATE	WATER LEVEL
OCT 07, 1981	106.32 R	FEB 26, 1982	99.75

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	DATE	WATER LEVEL
OCT 06, 1981	14.00	MAY 20, 1982	11.98

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	DATE	WATER LEVEL
OCT 07, 1981	45.27 P	MAY 19, 1982	44.77

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	DATE	WATER LEVEL
OCT 07, 1981	358.53	APR 17, 1982	358.62

R Recently, pumped.

P Pumping.

## GROUND WATER

## SAN BERNARDINO COUNTY--Continued

## 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	DATE	WATER LEVEL
OCT 06, 1981	210.28	MAY 20, 1982	210.47

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 37.06 FEET BELOW LAND SURFACE DATUM JUL 10, 1979.

LOWEST WATER LEVEL 38.38 FEET BELOW LAND SURFACE DATUM APR 17, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1981	38.21	APR 17, 1982	38.38

Lucerne Valley (7-19)

SITE NUMBER 342519116591401 LOCAL NUMBER 004N001W21G01S

ABOUT 0.4 MI WEST OF INTERSECTION OF CUSTER 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
OCT 06, 1981	168.72	DEC 03, 1981	168.90	JUN 04, 1982	168.84

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	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		
004N001W21G01S	82-06-04	400	8.0	23.0	120	0	35	6.9	43	44		
SODIUM AD- SORP- TION RATIO	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 SI02)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
1.8	2.9	140	55	10	.6	29	270	1.5	.01	100	36	2

## GROUND WATER

## SAN BERNARDINO COUNTY--Continued

Upper Mojave River Valley (6-42)

SITE NUMBER 342813117123301 LOCAL NUMBER 004N003W05A02S

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 195.74 FEET BELOW LAND SURFACE DATUM JUN 03, 1982.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1981	195.32	MAR 30, 1982	195.10	JUN 03, 1982	195.74

## WATER QUALITY DATA

LOCAL IDENTIFIER	DATE OF SAMPLE	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CAC03)	HARDNESS, NONCARBONATE (MG/L AS CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM
004N003W05A02S	82-06-03	380	7.9	19.5	140	58	40	9.3	23	26

SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CAC03)	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 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)	MANGANESE, DIS-SOLVED (UG/L AS MN)
.9	2.8	80	89	19	.4	32	297	.57	.02	50	5	<1

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

SITE NUMBER 343122117094501 LOCAL NUMBER 005N003W14G01S

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 05, 1981.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05, 1981	103.08	MAY 18, 1982	102.69

SITE NUMBER 343150117151502 LOCAL NUMBER 005N004W11P03S

IN APPLE VALLEY. DRILLED DOMESTIC WATER-TABLE WELL. DIAM 8 IN, DEPTH 145 FT. ALTITUDE OF LSD 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	DATE	WATER LEVEL
OCT 05, 1981	53.81	MAY 18, 1982	54.10



## SAN BERNARDINO COUNTY--Continued

Upper Mojave River Valley (6-42)

SITE NUMBER 343900117261801 LOCAL NUMBER 006N005W19J02S

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 01, 1981	78.84	MAR 26, 1982	78.80

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
DEC 02, 1981	13.23	MAR 24, 1982	13.93

SITE NUMBER 344726117145501 LOCAL NUMBER 008N004W13B01S

NORTH OF NATIONAL TRAILS HWY, 15 MI SOUTHWEST OF BARSTOW. DRILLED WITHDRAWAL WATER-TABLE WELL. DIAM 10 IN, DEPTH UNKNOWN. ALTITUDE OF LSD 2330 FT.

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	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		
008N004W13B01S	82-06-15	1390	7.4	18.5	390	66	120	21	170	49		
SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (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)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
3.9	3.2	320	200	150	.6	26	912	6.6	.04	400	4	2

## 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 07, 1981	20.56	DEC 02, 1981	20.42	MAR 23, 1982	19.79	JUN 03, 1982	20.02
OCT 20	20.60						

## Middle Mojave River Valley (6-41)

SITE NUMBER 345153117080701 LOCAL NUMBER 009N003W13R01S

ABOUT 2 MI SOUTHWEST OF LENWOOD. 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	DATE	WATER LEVEL
OCT 07, 1981	77.91	DEC 02, 1981	78.24	MAR 24, 1982	78.50	JUN 03, 1982	79.43

## Harper Valley (6-47)

SITE NUMBER 350039117185301 LOCAL NUMBER 011N004W29R01S

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	DATE	WATER LEVEL
OCT 07, 1981	176.00	DEC 02, 1981	162.30	MAR 24, 1982	161.39	JUN 03, 1982	170.76 S

S Nearby, pumping.

## SAN BERNARDINO COUNTY--Continued

Harper Valley (6-47)

SITE NUMBER 350038117184501 LOCAL NUMBER 011N004W32A01S

NEAR HARPER LAKE AND LOCKHART ROAD. DRILLED WITHDRAWAL WATER-TABLE WELL. DIAM 14 IN. DEPTH 425 FT. PERFORATED 158-425 FT. ALTITUDE OF LSD 2044 FT. RECORDS AVAILABLE 1967.

## WATER QUALITY DATA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L 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
011N004W32A01S	82-06-03	1880	7.7	24.0	230	110	71	12	320	75

SODIUM AD- SORP- TION RATIO	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, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
9.3	6.2	120	260	410	.7	59	1220	2.0	1300	40	20

SITE NUMBER 350235117321501 LOCAL NUMBER 011N006W17P02S

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	DATE	WATER LEVEL
OCT 07, 1981	264.15	DEC 01, 1981	264.30	MAR 24, 1982	264.04	JUN 02, 1982	264.00

Upper Santa Ana Valley (8-2)

SITE NUMBER 340416117205101 LOCAL NUMBER 001S004W19E01S

EAST OF MERIDIAN AVENUE, NORTH OF VALLEY BLVD. DRILLED OBSERVATION WELL IN ALLUVIUM. 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 155.21 FEET BELOW LAND SURFACE DATUM SEP 15, 1982.

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
OCT 22, 1981	155.87	NOV 20, 1981	155.67	SEP 15, 1982	155.21

GROUND WATER  
SAN DIEGO COUNTY  
Borrego Valley (7-24)

SITE NUMBER 331800116210001 LOCAL NUMBER 010S006E21A01S

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
FEB 04, 1982	177.39

SITE NUMBER 331432116194602 LOCAL NUMBER 011S006E11D02S

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 500 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 65.60 FEET BELOW LAND SURFACE DATUM AUG 14, 1958.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
FEB 04, 1982	42.00

Ocotillo Valley (7-25)

SITE NUMBER 330639116074701 LOCAL NUMBER 012S008E22E01S

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
FEB 04, 1982	109.10

Vallecito-Carrizo Valley (7-28)

SITE NUMBER 325848116260301 LOCAL NUMBER 014S005E02J03S

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
FEB 04, 1982	62.52

SAN DIEGO COUNTY--Continued

Vallecito-Carrizo Valley (7-28)

SITE NUMBER 325808116232801 LOCAL NUMBER 014S006E08F03S

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
FEB 04, 1982	78.07

San Diego River Valley (9-15)

SITE NUMBER 325159116551101 LOCAL NUMBER 015S001E18L03S

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 17.58 FEET BELOW LAND SURFACE DATUM MAY 18, 1982.

LOWEST WATER LEVEL 21.80 FEET BELOW LAND SURFACE DATUM JUL 10, 1980.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
MAY 18, 1982	17.58

Vallecito-Carrizo Valley (7-28)

SITE NUMBER 325215116110701 LOCAL NUMBER 015S008E17D02S

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
FEB 04, 1982	63.75

## GROUND WATER

## SAN DIEGO COUNTY--Continued

## 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 16, 1981	17.81	MAR 02, 1982	11.37	JUN 30, 1982	11.22	AUG 24, 1982	13.84
NOV 25	17.82	APR 13	10.72				

## San Mateo Valley (9-2)

SITE NUMBER 332402117345701 LOCAL NUMBER 009S007W11L01S

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, CASED 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
NOV 10, 1981	12.51	JAN 1982	10.67	APR 1982	5.31	JUL 1982	7.59
DEC 01	12.50	FEB	10.10	MAY	5.57	AUG	8.86
29	12.46	MAR	6.57	JUN	6.63	SEP	9.13

## San Onofre Valley (9-3)

SITE NUMBER 332303117332801 LOCAL NUMBER 009S007W13R01S

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
NOV 10, 1981	20.35	JAN 1982	19.57	APR 1982	11.49	JUL 1982	17.14
DEC 01	20.47	FEB	20.34	MAY	14.47	AUG	18.48
29	20.89	MAR	10.97	JUN	16.39	SEP	19.29

SAN DIEGO COUNTY--Continued

San Luis Rey Valley (9-7)

SITE NUMBER 331826116585201 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. 8 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 223.50 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 16, 1981	141.70	MAR 02, 1982	122.06	JUN 30, 1982	134.11	AUG 24, 1982	142.39 R
NOV 25	138.84	APR 13	119.88				

## WATER QUALITY DATA

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L 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
010S001W16H01S	82-07-15	820	7.3	27.5	290	110	68	28	60	31

SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L 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 SI02)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
1.7	4.0	180	92	90	.2	43	527	7.8	.04	30	8	19

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 9.16 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 16, 1981	13.66	MAR 01, 1982	14.33	JUN 30, 1982	11.74	AUG 24, 1982	12.74
NOV 25	14.54	APR 13	13.46				

R Recently pumped.

## GROUND WATER

SAN DIEGO COUNTY--Continued

## Santa Margarita Valley (9-4)

SITE NUMBER 331544117222101 LOCAL NUMBER 010S005W35K055

ABOUT 0.5 MI NORTHWEST OF VANDERGRIFT 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 18, 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
NOV 10, 1981	9.70	JAN 1982	6.13	APR 1982	4.03	JUL 1982	5.81
DEC 01	9.30	FEB	5.30	MAY	4.63	AUG	6.60
29	9.20	MAR	3.44	JUN	5.54	SEP	6.91

## San Dieguito Valley (9-12)

SITE NUMBER 325852117134801 LOCAL NUMBER 014S003W06P04S

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
MAY 12, 1982	1.89

## Mission Valley (9-14)

SITE NUMBER 324630117082701 LOCAL NUMBER 016S003W13Q04S

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
MAY 12, 1982	13.74

## Sweetwater Valley (9-17)

SITE NUMBER 324005117012001 LOCAL NUMBER 017S001W30B01S

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 85 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
MAY 12, 1982	10.61



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 8.58 FEET BELOW LAND SURFACE DATUM MAY 12, 1982.

LOWEST WATER LEVEL 11.03 FEET BELOW LAND SURFACE DATUM DEC 07, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL
MAY 12, 1982	8.58

## Tijuana Basin (9-19)

SITE NUMBER 323257117051201 LOCAL NUMBER 019S002W04H08S

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
MAY 12, 1982	7.12

SAN LUIS OBISPO COUNTY

## Arroyo Grande Valley (3-11)

SITE NUMBER 350312120314101 LOCAL NUMBER 011N035W11B01S

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 FURNISHED BY SAN LUIS OBISPO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT. MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1960, 1967 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	DATE	WATER LEVEL
OCT 19, 1981	346.5	MAY 04, 1982	345.5

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. CASSED TO 434 FT. PERFORATED 82-90, 120-150, 170-176, 239-240, 289-304, 314-318, 340-341, 356-386, 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 16, 1981	45.67	JAN 15, 1982	43.72	APR 21, 1982	41.73	JUL 20, 1982	42.44
NOV 18	48.68	FEB 16	43.23	MAY 17	41.37	AUG 26	43.00
DEC 15	45.15	MAR 16	43.06	JUN 17	42.40	SEP 15	43.10

## GROUND WATER

## SANTA BARBARA COUNTY--Continued

## 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. CASSED 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 14, 1981	29.75	JAN 11, 1982	12.61	MAY 07, 1982	8.39	SEP 08, 1982	57.40
NOV 17	25.31	FEB 03	10.49	JUN 03	43.52		
DEC 08	19.87	MAR 10	21.19	JUL 14	57.50		
17	16.54	APR 06	9.70	AUG 04	57.11		

Some measurements reflect nearby and general pumping in the basin.

## Goleta Basin (3-16)

SITE NUMBER 342610119485301 LOCAL NUMBER 004N028W09Q06S

EAST OF GOLETA. DRILLED UNUSED WATER-TABLE WELL IN ALLUVIUM OF THE SANTA BARBARA FORMATION OF THE PLEISTOCENE AGE. DIAM 8 IN. DEPTH 306 FT. PERFORATED 238-283 FT. ALTITUDE OF LSD 42 FT. RECORDS BEGINNING IN 1970 FURNISHED BY GOLETA WATER DISTRICT. RECORDS AVAILABLE 1955-56, 1970 TO CURRENT YEAR.

HIGHEST WATER LEVEL 61.53 FEET BELOW LAND SURFACE DATUM JAN 04, 1972.

LOWEST WATER LEVEL 91.68 FEET BELOW LAND SURFACE DATUM AUG 02, 1982.

## WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 02, 1981	86.75	APR 01, 1982	85.18	JUN 01, 1982	86.58	AUG 02, 1982	91.68
FEB 01, 1982	85.20						

## 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. CASSED 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 27, 1981	56.70	JAN 28, 1982	56.7	APR 28, 1982	49.7	JUL 16, 1982	54.7
NOV 24	55.7	FEB 25	53.7	MAY 13	48.7	AUG 08	55.7
DEC 21	56.7	MAR 26	51.7	JUN 09	51.7	SEP 24	56.7

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 28, 1981	22.79	JAN 26, 1982	21.24	APR 27, 1982	24.37	JUL 26, 1982	30.27
NOV 23	22.39	FEB 23	21.35	MAY 27	27.18	AUG 26	31.12
DEC 22	21.00	MAR 24	21.60	JUN 25	27.84	SEP 24	26.68

## SANTA BARBARA COUNTY--Continued

San Antonio Creek Valley (3-14)

SITE NUMBER 344457120174001 LOCAL NUMBER 008N032W30D01S

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 62.09 FEET BELOW LAND SURFACE DATUM SEP 18, 1982.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27, 1981	45.38	DEC 06, 1981	41.42	JAN 15, 1982	38.72	FEB 24, 1982	37.55
28	45.27	07	41.32	16	38.65	25	37.68
29	45.22	08	41.25	17	38.58	26	37.74
30	45.14	09	41.20	18	38.52	27	37.77
31	45.04	10	41.13	19	38.42	28	37.82
NOV 01	44.90	11	41.15	20	38.37	MAR 01	37.83
02	44.76	12	41.15	21	38.40	02	37.82
03	44.63	13	41.17	22	38.39	03	37.82
04	44.53	14	41.15	23	38.30	04	37.72
05	44.42	15	41.08	24	38.19	05	37.76
06	44.33	16	41.00	25	38.15	06	37.77
07	44.23	17	40.93	26	38.08	07	37.69
08	44.13	18	40.83	27	38.05	08	37.76
09	44.06	19	40.73	28	37.93	09	37.85
10	43.95	20	40.62	29	37.91	10	37.94
11	43.91	21	40.59	30	37.88	11	37.94
12	43.80	22	40.45	31	37.79	12	37.97
13	43.71	23	40.36	FEB 01	37.80	13	37.95
14	43.59	24	40.28	02	37.94	14	37.84
15	43.46	25	40.18	03	38.12	15	37.75
16	43.37	26	40.10	04	38.28	16	37.62
17	43.26	27	40.01	05	38.36	17	37.49
18	43.12	28	39.94	06	38.36	18	37.47
19	43.02	29	39.82	07	38.40	19	37.46
20	42.94	30	39.73	08	38.43	20	37.46
21	42.83	31	39.64	09	38.40	21	37.47
22	42.71	JAN 01, 1982	39.56	10	38.32	22	37.50
23	42.53	02	39.52	11	38.30	23	37.55
24	42.44	03	39.46	12	38.22	24	37.59
25	42.33	04	39.30	13	38.13	25	37.58
26	42.18	05	39.27	14	38.02	26	37.61
27	42.08	06	39.25	15	37.95	27	37.61
28	42.02	07	39.22	16	37.87	28	37.54
29	42.00	08	39.14	17	37.82	29	37.47
30	41.95	09	39.03	18	37.79	30	37.44
DEC 01	41.84	10	38.96	19	37.75	31	37.27
02	41.72	11	38.88	20	37.71	APR 01	37.22
03	41.65	12	38.86	21	37.63	02	37.24
04	41.57	13	38.84	22	37.56	03	37.23
05	41.48	14	38.76	23	37.55	04	37.23

## GROUND WATER

## SANTA BARBARA COUNTY--Continued

## San Antonio Creek Valley (3-14)

Site Number 344457120174001 Local Number 008N032W30D01S--Continued

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 05, 1982	37.20	MAY 21, 1982	42.92	JUL 05, 1982	49.75	AUG 19, 1982	58.58
06	37.17	22	43.28	06	50.09	20	58.72
07	37.14	23	43.49	07	50.80	21	58.88
08	37.10	24	43.62	08	51.55	22	58.63
09	37.07	25	43.78	09	52.13	23	58.37
10	36.98	26	43.99	10	52.21	24	58.79
11	36.89	27	44.20	11	51.85	25	59.19
12	36.88	28	44.10	12	51.48	26	59.54
13	36.83	29	43.86	13	51.47	27	61.11
14	36.78	30	43.63	14	51.58	28	61.75
15	36.73	31	43.45	15	51.63	29	61.28
16	36.70	JUN 01	43.37	16	51.94	30	60.79
17	36.67	02	43.30	17	52.16	31	60.43
18	36.64	03	43.38	18	52.13	SEP 01	60.37
19	36.66	04	43.52	19	51.91	02	60.65
20	36.73	05	43.47	20	51.70	03	60.86
21	36.83	06	43.39	21	51.57	04	60.90
22	36.88	07	43.36	22	51.52	05	61.07
23	36.98	08	43.48	23	51.69	06	60.98
24	37.14	09	43.53	24	52.11	07	61.03
25	37.30	10	43.54	25	52.21	08	60.90
26	37.37	11	43.50	26	52.18	09	60.64
27	37.38	12	43.47	27	52.26	10	59.00
29	37.38	13	43.44	28	52.57	11	59.59
30	37.60	14	43.50	29	52.80	12	59.06
MAY 01	37.77	15	43.76	30	53.39	13	58.83
02	37.92	16	44.15	31	53.68	14	59.23
03	38.04	17	44.53	AUG 01	53.72	15	60.25
04	38.15	18	44.86	02	53.76	16	61.05
05	38.44	19	44.93	03	54.20	17	61.86
06	38.75	20	44.84	04	55.07	18	62.09
07	39.14	21	44.70	05	55.94	19	61.50
08	39.50	22	45.18	06	56.89	20	60.79
09	39.85	23	45.81	07	58.07	21	60.43
10	40.13	24	45.97	08	59.07	22	60.03
11	40.44	25	46.65	09	59.38	23	59.23
12	40.89	26	47.30	10	59.27	24	58.63
13	41.35	27	47.77	11	59.34	25	58.14
14	41.71	28	48.08	12	59.42	26	57.70
15	41.99	29	48.35	13	59.53	27	57.34
16	42.26	30	48.65	14	59.68	28	56.90
17	42.50	JUL 01	48.76	15	59.44	29	56.53
18	42.62	02	48.90	16	58.89	30	56.35
19	42.65	03	49.07	17	58.56		
20	42.77	04	49.37	18	58.42		

## 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 28, 1982	27.90

## WATER QUALITY DATA

LOCAL IDENT- IFIER	DATE OF SAMPLE	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
008N032W30H07S	82-06-28	660	6.5	18.0	210	91	50	21	50	34

SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY FIELD (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)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
1.6	2.9	120	110	72	.2	44	430	.35	.02	100	5300	330

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, 1982	333.73

Santa Maria Valley (3-12)

SITE NUMBER 345548120242202 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
OCT 02, 1981	146.10	JAN 07, 1982	132.50	APR 15, 1982	133.80

GROUND WATER  
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. MEASUREMENTS FURNISHED BY VENTURA COUNTY FLOOD CONTROL DISTRICT; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1956 TO CURRENT YEAR.

HIGHEST WATER LEVEL 71.7 FEET BELOW LAND SURFACE DATUM JUL 30, 1982.

LOWEST WATER LEVEL 160.90 FEET BELOW LAND SURFACE DATUM JUL 12, 1966.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 01, 1981	73.3	MAR 23, 1982	72.5	MAY 27, 1982	72.1	JUL 30, 1982	71.7
FEB 04, 1982	72.7						

Los Posas Valley (4-8)

SITE NUMBER 341616119023701 LOCAL NUMBER 002N021W11J02S

NEAR LOS ANGELES AVENUE AND PRICE ROAD. DRILLED IRRIGATION WATER-TABLE WELL IN ALLUVIUM, DIAM 12 IN, DEPTH 1150 FT, PERFORATED 375-416, 659-699, 832-873, 1017-1150 FT. ALTITUDE OF LSD 387 FT. MEASUREMENTS FURNISHED BY VENTURA COUNTY FLOOD CONTROL DISTRICT; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. RECORDS AVAILABLE 1977 TO CURRENT YEAR.

HIGHEST WATER LEVEL 330.3 FEET BELOW LAND SURFACE DATUM MAY 26, 1982.

LOWEST WATER LEVEL 364.62 FEET BELOW LAND SURFACE DATUM NOV 16, 1978.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1981	341.8	FEB 12, 1982	338.40	MAY 26, 1982	330.3	AUG 03, 1982	355.6
DEC 08	339.40						

Santa Clara River Valley (4-4)

SITE NUMBER 341557119074401 LOCAL NUMBER 002N022W12R01S

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. MEASUREMENTS FURNISHED BY VENTURA COUNTY FLOOD CONTROL DISTRICT AND UNITED WATER CONSERVATION DISTRICT; MEASURED PERIODICALLY BY U.S. GEOLOGICAL SURVEY. 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	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1981	30.5	JAN 13, 1982	50.7	MAY 05, 1982	27.8	SEP 01, 1982	37.9

Ventura River Valley (4-3)

SITE NUMBER 342550119174601 LOCAL NUMBER 004N023W16C04S

ABOUT 1150 FT WEST OF RICE ROAD AND 250 FT NORTH OF EXTENSION OF BALDWIN ROAD. DRILLED PUBLIC SUPPLY WATER-TABLE WELL. DIAM 12 IN, DEPTH 227 FT. ALTITUDE OF LSD 5577.3 FT. MEASUREMENTS FURNISHED BY VENTURA COUNTY FLOOD CONTROL DISTRICT. RECORDS AVAILABLE 1956 TO CURRENT YEAR.

HIGHEST WATER LEVEL 8.3 FEET BELOW LAND SURFACE DATUM MAY 07, 1958.

LOWEST WATER LEVEL 76.4 FEET BELOW LAND SURFACE DATUM DEC 05, 1972.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 03, 1981	46.3	APR 06, 1982	26.1	JUN 03, 1982	27.5	JUL 27, 1982	35.2
JAN 25, 1982	35.2						

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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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Geological Survey, Room W-2235  
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