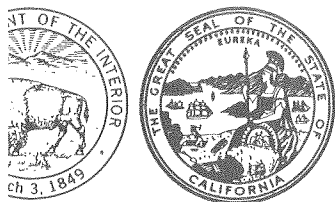


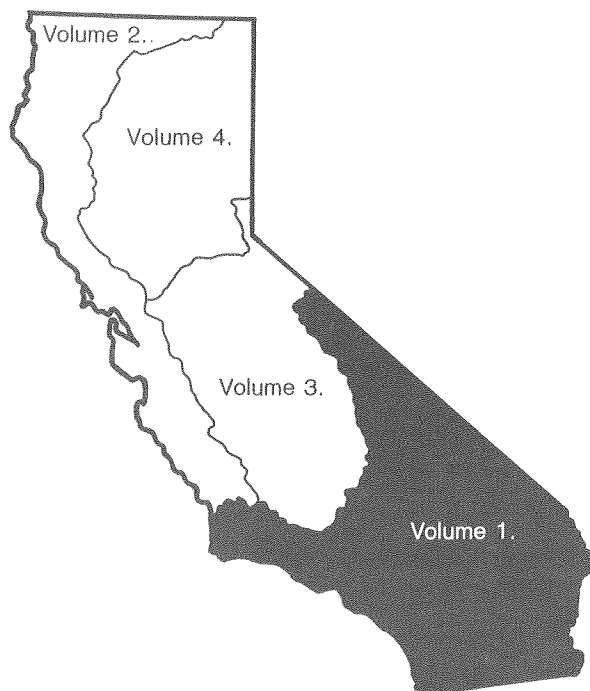
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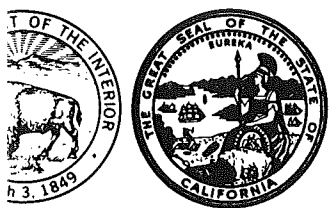
Water Year 1987

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



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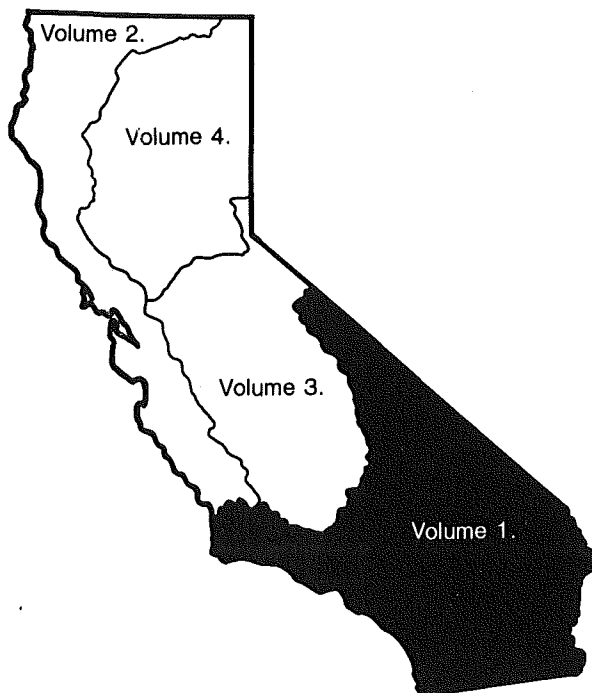
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Water Resources Data California Water Year 1987

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

by J.C. Bowers, C.E. McConaughy, K.G. Polinoski and G.B. Smith



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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 five 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
- Volume 5. Ground-water data for California

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. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to U.S. 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 John M. Klein, District Chief, California.

REPORT DOCUMENTATION PAGE		1. REPORT NO. USGS/WRD/HD-89/206	2.	3. Recipient's Accession No.
4. Title and Subtitle Water Resources Data for California, Water Year 1987 Volume 1. Southern Great Basin from Mexican Border to Mono Lake Basin, and Pacific Slope Basins from Tijuana River to Santa Maria River		5. Report Date October 1988		
		6.		
7. Author(s) J.C. Bowers, C.E. McConaughy, K.G. Polinoski, and G.B. Smith		8. Performing Organization Rept. No. USGS-WDR-CA-87-1		
9. Performing Organization Name and Address U.S. Geological Survey, Water Resources Division California District 2800 Cottage Way, Room W-2234 Sacramento, CA 95825		10. Project/Task/Work Unit No.		
		11. Contract(C) or Grant(G) No. (C) (G)		
12. Sponsoring Organization Name and Address U.S. Geological Survey, Water Resources Division California District 2800 Cottage Way, Room W-2234 Sacramento, CA 95825		13. Type of Report & Period Covered Annual--Oct. 1, 1986 to Sept. 30, 1987		
		14.		
15. Supplementary Notes Prepared in cooperation with the California Department of Water Resources and with other agencies.				
16. Abstract (Limit: 200 words) Water resources data for the 1987 water year for California consist of records of stage, discharge, and water quality of streams; stage and contents in lakes and reservoirs; and water levels and water quality in wells. Volume 1 contains discharge records for 134 gaging stations; stage and contents for 16 lakes and reservoirs; and water quality for 16 streams. Also included are 10 crest-stage partial-record stations, 3 miscellaneous measurement sites, and 10 water-quality partial-record stations. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in California.				
17. Document Analysis. a. Descriptors *California, *Hydrologic data, *Surface water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediment, Water temperatures, Sampling sites, Water analyses b. Identifiers/Open-Ended Terms c. COSATI Field/Group				
18. Availability Statement No restriction on distribution This report may be purchased from National Technical Information Service Springfield, VA 22161		19. Security Class (This Report) Unclassified		21. No. of Pages 314
		20. Security Class (This Page) Unclassified		22. Price

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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 -- CALIFORNIA, WATER YEAR 1987

VOLUME 1--SOUTHERN GREAT BASIN FROM MEXICAN BORDER TO MONO LAKE BASIN,
AND PACIFIC SLOPE BASINS FROM TIJUANA RIVER TO SANTA MARIA RIVER

By J.C. Bowers, C.E. McConaughy, K.G. Polinoski, and G.B. Smith

INTRODUCTION

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

This volume of the report includes records on surface water in the State. Specifically, it contains (1) Discharge records for 134 streamflow-gaging stations and 10 crest-stage partial-record streamflow stations; (2) stage and contents records for 16 lakes and reservoirs; and (3) water-quality records for 16 streamflow-gaging stations and 10 water-quality partial-record stations. Records included for stream stages are only a small fraction of those obtained during the water year.

The series of annual reports for California began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format changed to one volume, including data on quantities of surface water, quality of surface and ground water, and ground-water levels. Beginning with the 1985 water year, a separate volume for ground-water levels and quality was published for California.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for California were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 10 and 11." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." These Water-Supply Papers may be consulted in public libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Building 810, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the U.S. Geological Survey for all States. Each report has an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CA-87-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (916) 978-4688.

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 Water Ways, Marty Mercado, Director.
 California Department of Water Resources, David N. Kennedy, Director.
 Carpinteria County Water District, Robert R. Lieberknecht, General Manager/Secretary.
 Casitas Municipal Water District, Robert N. McKinney, General Manager and Chief Engineer.
 Coachella Valley Water District, Lowell O. Weeks, General Manager-Chief Engineer.
 Crestline-Lake Arrowhead Water Agency, Roxanne M. Holmes, Assistant General Manager.
 Desert Water Agency, Paul G. Payne, General Manager.
 East Valley Water District, Larry W. Rowe, General Manager.
 Goleta Water District, Lloyd C. Fowler, General Manager and Chief Engineer.
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 Newport Beach, City of, John Wolter, Senior Civil 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, Kenneth L. Edwards, Chief Engineer.
 San Bernardino Valley Municipal Water District, G. Louis Fletcher, General Manager.
 San Diego, City of, R.W. King, Water Utilities Director.
 San Diego County Department of Sanitation and Flood Control, R.J. Massman, Director.
 Santa Barbara, City of, Robert 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, Engineer-Manager.
 Santa Maria Valley Water Conservation District, Maurice F. Twitchell, Secretary.
 United Water Conservation District, G.I. Wilde, General Manager and Chief Engineer.
 Ventura County Flood Control District, Arthur Goulet, Director.
 Western Municipal Water District, Howard A. Hicks, General Manager.

Assistance in the form of funds or services was given by the Vandenberg Air Force Base, U.S. Air Force; Corps of Engineers, U.S. Army; Bureau of Indian Affairs, Bureau of Land Management, Bureau of Reclamation, and National Park Service, U.S. Department of the Interior; Marine Corps, U.S. Navy; and Naval Weapons Center, U.S. Navy.

The following organizations aided in collecting records: California Department of Water Resources, Southern California Edison Co., and United Water Conservation District.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

As is common in California, streamflow varied greatly in the 1987 water year--month by month and regionally. The variations are related to differences in precipitation, temperature, topography, and geology. Runoff during the 1987 water year in the area covered by this volume was 58 percent of the 1951-80 median (based on seven representative streamflow records). Total runoff in percent of median, at selected sites in California is shown in figure 1. Runoff ranged from 317 percent of median at Borrego Palm Creek near Borrego Springs to 18 percent at Santa Cruz Creek near Santa Ynez. In figure 2, monthly mean runoff in the 1987 water year at four index stations is compared to the 1951-80 maximum, minimum, and median monthly mean runoff. Few streams exceeded the peak discharge bases, none had peaks of record.

There were no significant storms during this water year. Precipitation was generally less than normal throughout the area covered by this volume. Precipitation (based on nine representative precipitation gages) was 71 percent of the long-term average and ranged from 137 percent of the long-term mean at Daggett, to 38 percent at Los Angeles airport.



FIGURE 1. - Runoff, in percent of median, for the 1987 water year.

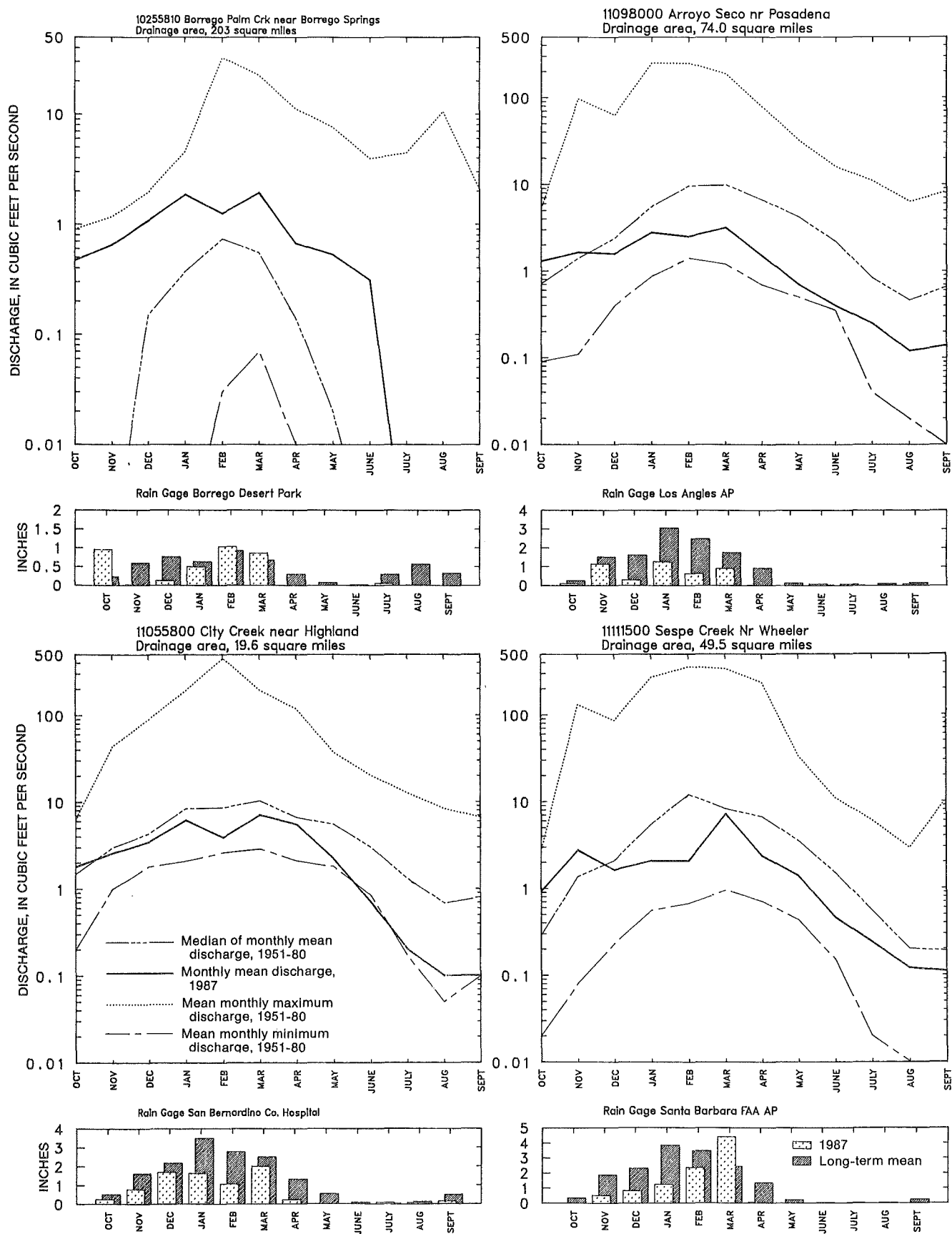


FIGURE 2. - Comparison of discharge during water year 1987 with long-term discharge statistics and rainfall of four representative gaging stations.

Water Quality

Water samples collected at five NASQAN stations reported in this volume were analyzed for water-quality constituents during the 1987 water year. Specific conductance varied from 840 microsiemens at Los Angeles River at Long Beach to 4,380 microsiemens at Alamo River at Drop 3, near Calipatria. Specific-conductance values were slightly lower than those reported in the previous year. Median dissolved-solids concentrations for samples collected from these stations also were slightly lower than the 1986 water year values. The monthly mean dissolved-solids concentrations during water year 1987 are compared in figure 3 with long-term mean dissolved-solids concentrations at two selected stations.

Two NASQAN stations indicated increasing fecal-coliform and fecal-streptococci bacterial densities from the 1986 water year. The largest densities of fecal-coliform bacteria (24,000 colonies per 100 milliliters) and fecal-streptococci bacteria (51,000 colonies per 100 milliliters) were found in water samples from Alamo River at Drop 3, near Calipatria.

Chemical-constituent concentrations in excess of U.S. Environmental Protection Agency criteria were detected in water samples collected from three NASQAN stations for manganese and sulfate and at two NASQAN stations for chloride and mercury.

Water samples also were collected from other locations covered in this volume. Samples from those stations that had concentrations of constituents that exceeded U.S. Environmental Protection Agency criteria are listed below:

STATION	CONSTITUENT EXCEEDING EPA CRITERIA
Malibu Creek at Cornell	Sulfate
Malibu Creek at Crater Camp, near Calabasas	Sulfate
Orcutt Creek near Orcutt	Boron, manganese
San Antonio Creek near Casmalia	Boron, manganese
Topanga Creek near Topanga Beach	Sulfate

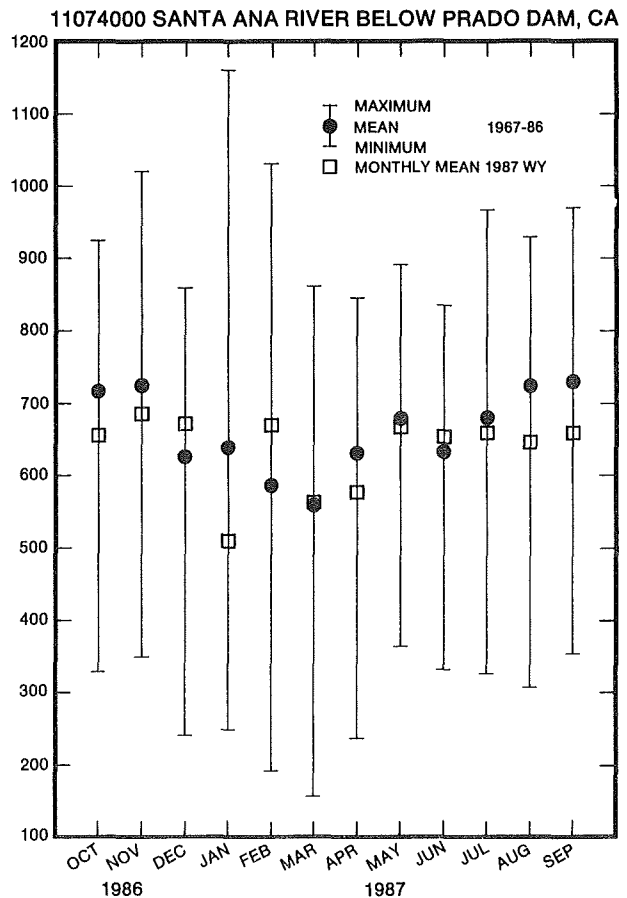
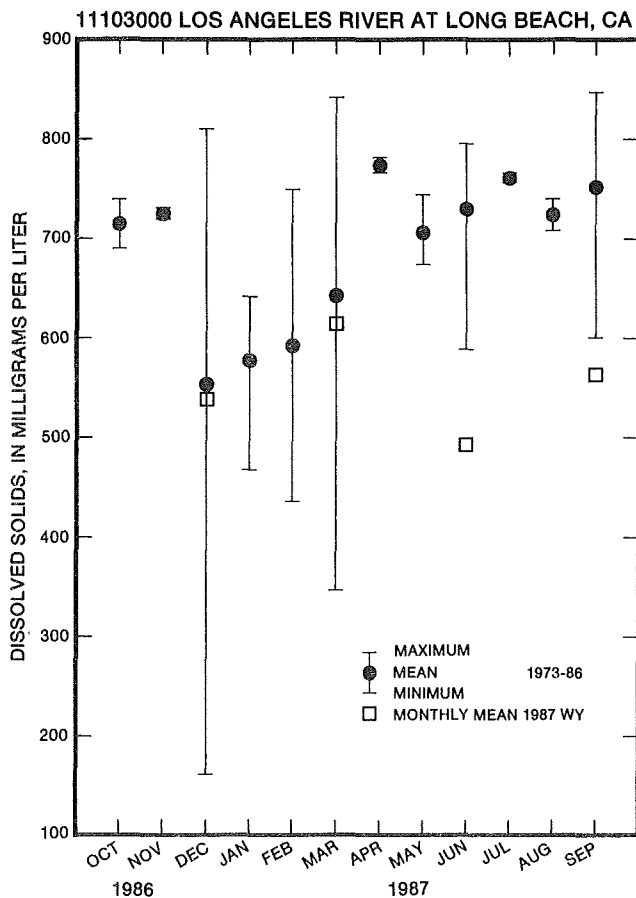


FIGURE 3. - Comparison of monthly mean dissolved-solids concentration during water year 1987 with long-term dissolved-solids concentration of two selected stations

Sediment

Suspended-sediment discharge and concentration were monitored daily at three stations and total sediment discharge and concentration were monitored daily at two stations in the area included in this volume. Periodic sediment data were collected at nine other stations during the water year. The variation in storm patterns and basin characteristics in southern California resulted in significant differences in sediment discharge rates and concentrations at the sampled streams.

Sediment discharge was significantly less than normal during the 1987 water year, with the majority of sediment transported during storms in the months of November and January. Annual sediment discharge ranged from 0.2 percent of the 1971-86 mean for San Juan Creek at San Juan Capistrano to 11 percent for Santa Ana River at Santa Ana.

Annual sediment discharge at the three daily stations ranged from 247 tons for Santa Ana River near Mentone to 46,300 tons for Santa Ana River at Santa Ana. Annual sediment discharge per square mile of drainage area ranged from a minimum of 1.2 tons per square mile for Santa Ana River near Mentone to a maximum of 27 tons per square mile for Santa Ana River at Santa Ana.

Monthly and annual bedload discharge are published for two of the daily stations. The percentage of annual bedload discharge to total sediment discharge (suspended plus bedload) ranged from 2.6 percent for San Juan Creek at San Juan Capistrano to 12 percent for Santa Ana River at Santa Ana.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide. The data provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting that the data may be used for; (2) to describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs; (3) to detect changes or trends with time in the pattern of occurrence of water-quality characteristics; and (4) to provide a nationally consistent data base useful for water-quality assessment and hydrologic research.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1987 water year that began October 1, 1986, and ended September 30, 1987. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and contents data for lakes and reservoirs, and water-quality data for surface water. The locations of the stations where the data were collected are shown in figures 5 through 16. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each streamsite data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for surface-water stations in California where only miscellaneous measurements are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports has been in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station such as 11078000, which appears just to the left of the station name, includes the two-digit part number "11" plus the six-digit downstream-order number "078000." The part number designates the major river basin; for example, part "11" is the Pacific Slope Basins in California.

Latitude-Longitude System

The identification numbers for miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude; the next seven digits denote degrees, minutes, and seconds of longitude; and the last two digits (assigned sequentially) identify the other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description (fig. 4).

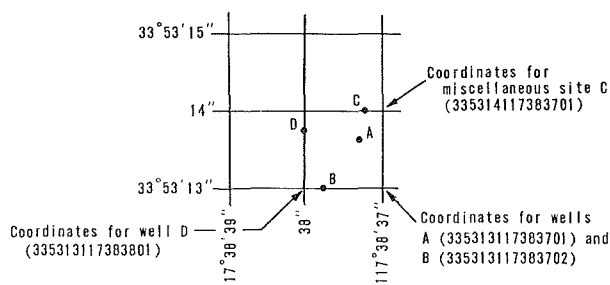


FIGURE 4.-- System for numbering miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake and reservoir contents, similarly, are those for which stage or contents may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and crest-stage partial-record stations for which data are given in this report are shown, by county, in figures 5 through 16.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake contents. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the U.S. Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in U.S. Geological Survey Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI), Book 3, Chapter A6.

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

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

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

In computing records of lake or reservoir contents, it is necessary to have available surveys, curves, or tables defining the relationship of stage and contents. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. When this is done, the contents computed may become increasingly in error as time increases since the last survey. Discharges over lake or reservoir spillways are computed from stage-discharge relationships, in the same manner as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so 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 from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation.

The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

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

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

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time when the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

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

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

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station, and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

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

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

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

EXTREMES FOR CURRENT YEAR.--Extremes given are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

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

Occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possible, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office to determine if the published records were revised after the station was discontinued. If the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

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

The daily table for stream-gaging stations gives 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 is usually expressed in cubic feet per second per square mile (line headed "CFSM"), in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

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 annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record 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. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing the table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second (ft^3/s) for values less than $1 \text{ ft}^3/\text{s}$, to the nearest tenth between 1.0 and $10 \text{ ft}^3/\text{s}$, to whole numbers between 10 and $1,000 \text{ ft}^3/\text{s}$, and to three significant figures for more than $1,000 \text{ ft}^3/\text{s}$. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges 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, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of sites as well as an index of records of discharge collected by other agencies but not published by the U.S. Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge measurement notes, gage-height records, temperature measurements, and rating tables are on file in the California District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 5 through 16.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is the assurance that the data obtained represent the in-situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, are made onsite when samples are taken. To assure that measurements made in the laboratory also represent the in-situ water, carefully prescribed procedures are followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in "Techniques of Water-Resources Investigations," Book 1, Chapter D2; Book 3, Chapter C2; Book 5, Chapters A1, A3, and A4. All these references are listed on p. 21 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the California District office.

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

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values for each constituent measured and are based on 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 whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at 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 diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

Sediment

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

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

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

Cross-Sectional Data

Cross-sectional surveys of water temperature, pH, specific conductance, dissolved oxygen, and suspended sediment are done at all NASQAN and Hydrologic Bench-mark stations during various seasons and surface-water discharges. Documentation of cross-section variation of water quality is essential in order to determine how many samples in a cross section are necessary to ensure a representative composite sample.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the U.S Geological Survey's National Water-Quality Laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in Techniques of Water-Resources Investigations, Book 5, Chapter C1; methods used by the laboratories are given in Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4.

Data Presentation

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

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

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

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

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

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

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

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

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

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

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

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

PRINTED OUTPUTREMARK

E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptable range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant
*	Instantaneous streamflow at the time of cross-sectional measurements
1	Laboratory value

ACCESS TO WATSTORE DATA

The National Water Data Storage and Retrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, VA 22092

DEFINITION OF TERMS

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

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

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

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

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

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

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35 °C. For the membrane filter method these bacteria are defined as the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C \pm 0.5 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milligrams per liter of sample.

Fecal-coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. For the membrane filter method they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5 °C \pm 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milligrams per liter of sample.

Fecal-streptococcal bacteria are bacteria found in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. For the membrane filter method they are defined as all the organisms which produce red or pink colonies within 48 hours at 35 °C \pm 0.5 °C on KF streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milligrams per liter 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 micro-organisms, 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 (g/m^3) and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105 °C for zooplankton and 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.

Cell volume determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell numbers of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements on cell dimensions (that is, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (that is, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } \frac{4}{3} \pi r^3 \qquad \text{cone } \frac{1}{3} \pi r^2 h \qquad \text{cylinder } \pi r^2 h.$$

From cell volume, total algal biomass expressed as biovolume ($\mu\text{m}^3/\text{mL}$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes over all species.

Cells per volume (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).

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 1 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 saltwater.

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

Cubic foot per second-day (cfs.d) 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.

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

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

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

Dissolved refers to that material in a representative water sample which passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. 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 at a later date.

Dissolved-solids concentration of water is determined either analytically or by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

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

$$\bar{d} = \sum_{i=1}^s \frac{n_i}{n} \log^2 \frac{n_i}{n},$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the 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 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 datum is the elevation of the zero point of the reference gage from which gage height is determined as compared to the National Geodetic Vertical Datum of 1929. This elevation is established by a system of levels from known bench marks or by approximation from topographic maps.

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 (CaCO_3).

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

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

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 is the source light intensity, I is the light intensity at length L (in meters) from the source, λ 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, ug/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, ug/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 1 milligram per liter.

Milligrams per liter (MG/L, 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 milligrams per liter 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.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 408 sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting that the data may be used for, (2) to describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) to detect changes in trends with time in the pattern occurrence of water-quality characteristics, and (4) to provide a nationally consistent data base useful for water-quality assessment and hydrologic research.

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.

Parameter code is a five-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

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

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
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. Chemical dispersion is not used for native water analysis.

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 is the assemblage of micro-organisms attached to and living upon submerged 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 organisms. 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 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 (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

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 into the surrounding water, the phytoplankton have a profound effect on 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 per milliliter (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 per milliliter (cells/mL) of sample.

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

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

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

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

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

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment; thus, the determination represents less than the total amount (that is, less than 85 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.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of 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.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

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

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

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 mass or volume, that passes a section in a given time. It is calculated in units of tons per day by multiplying discharge times milligrams per liter times 0.0027.

Suspended-sediment load (tons per day) is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

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 mass, that passes a section in a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions 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 that is dissolved in water.

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

Stage-discharge relation is the relation between gage height (stage) and 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 emerged 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 U.S. 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; thus, the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

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

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

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

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

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

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

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 milligrams per liter 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; 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 the dissolved and suspended phases of the sample. A knowledge of the expected form 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 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), obtained from the Nephelometric method for turbidity determination which measures the intensity of light scattered by suspended particles at 90° from the path of incident light source.

Water year in U.S. Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1987, is called the "1987 water year."

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.

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

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Building 810, Denver, CO 80225. Prepayment is required. Remittance should be sent by check or money order payable to U.S. Geological Survey, Department of the Interior. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 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 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-A10. Discharge ratings at gaging stations, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 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-A13. Computation of continuous records of streamflow, by E.J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. Use of flumes in measuring discharge, by F.A. Kilpatrick and V.R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. Computation of water-surface profiles in open channels, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-B1. Aquifer-test design, observation, and data analysis, by R.W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. Introduction to ground-water hydraulics, a programmed text for self-instruction, by G.D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 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 and others: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. Determination of minor elements in water by emission spectroscopy, by P.R. Barnett and E.C. Mallory, Jr.: USGS--TWRI Book 5, 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. Ehke, G.A. Irwin, B.W. Lium, and K.V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 322 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-A6. Quality assurance practices for the chemical and biological analyses of water and fluvial sediments, by L.C. Friedman, and D.E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. Laboratory theory and methods for sediment analysis, 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. Shaffranek, 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-A2. Installation and service manual for U.S. Geological Survey manometers, by J.D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 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.

DISCONTINUED GAGING STATIONS

The following continuous-record streamflow stations reported in this volume have been discontinued as of the 1987 water year. Daily streamflow or stage records were collected and published for the period of record shown for each station.

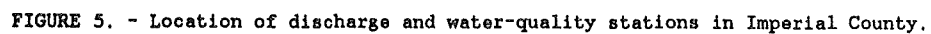
Station No.	Station name	Drainage area (mi ²)	Period of record
11023250	Poway Creek near Poway	7.92	1970-77, 1978-87
11031500	Agua Caliente Creek near Warner Springs	19.0	1961-87
11047700	Aliso Creek at South Laguna	34.4	1983-87
11113900	Saticoy diversion near Saticoy	--	1969-87
11136050	San Antonio Creek above Barka Slough, near Orcutt	114	1985-87
11139500	Tepusquet Creek near Sisquoc	28.7	1944-87
11141000	Santa Maria River at Guadalupe	1,741	1941-87

DISCONTINUED WATER-QUALITY STATIONS

The following water-quality stations reported in this volume have been discontinued as of the 1987 water year. Continuous daily records of water temperature and sediment were collected and published for the period of record shown.

Station No.	Station name	Drainage area (mi ²)	Type of record	Period of record
11048555	San Diego Creek at Campus Drive, near Irvine	105	T,S	1983-85
11113900	Saticoy diversion near Saticoy	--	C,T	1982-87
11136050	San Antonio Creek above Barka Slough, near Orcutt	114	C	1985-87

Type of record: T (water temperature); S (sediment); and C (water quality).



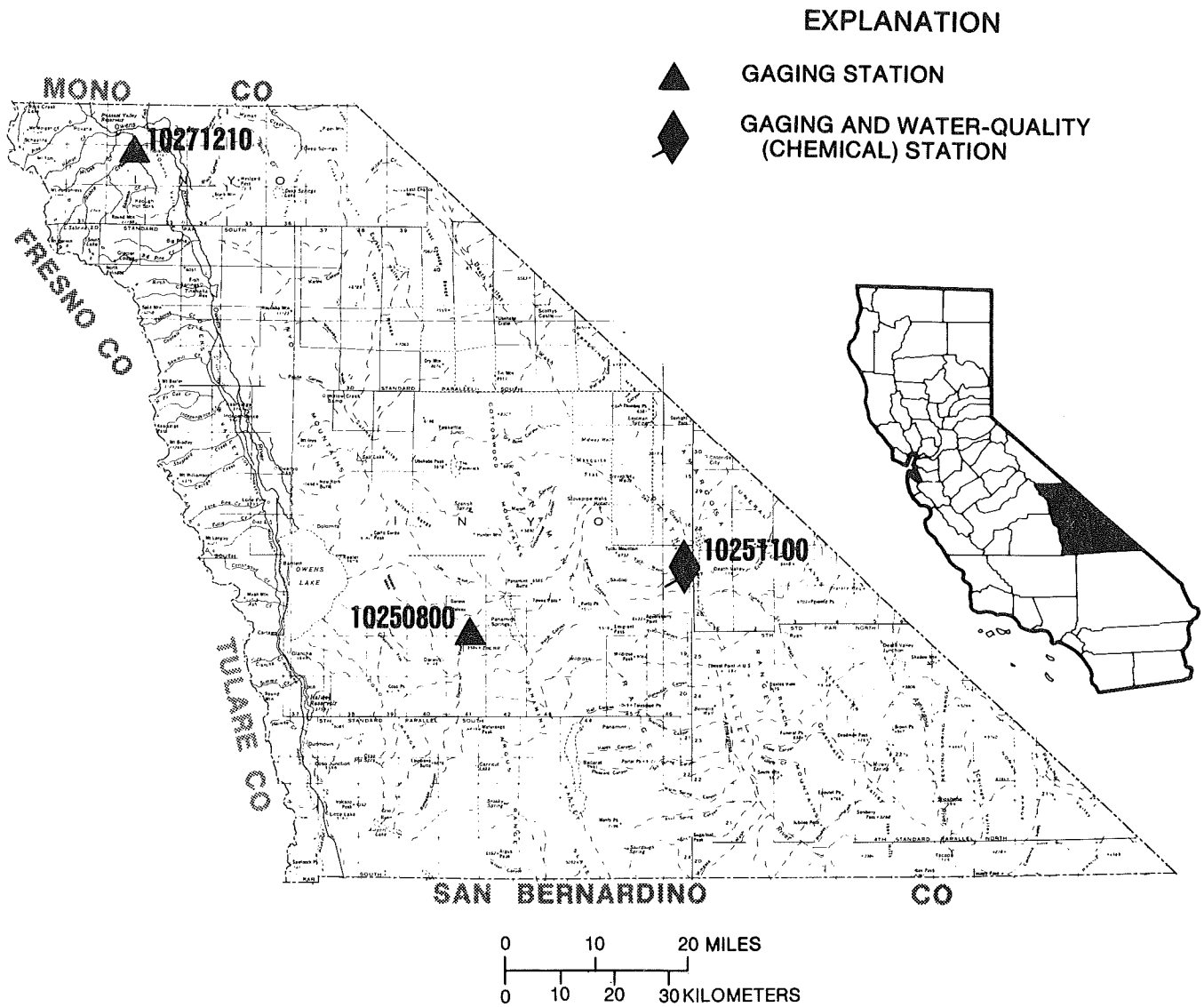


FIGURE 6. - Location of discharge and water-quality stations in Inyo County.

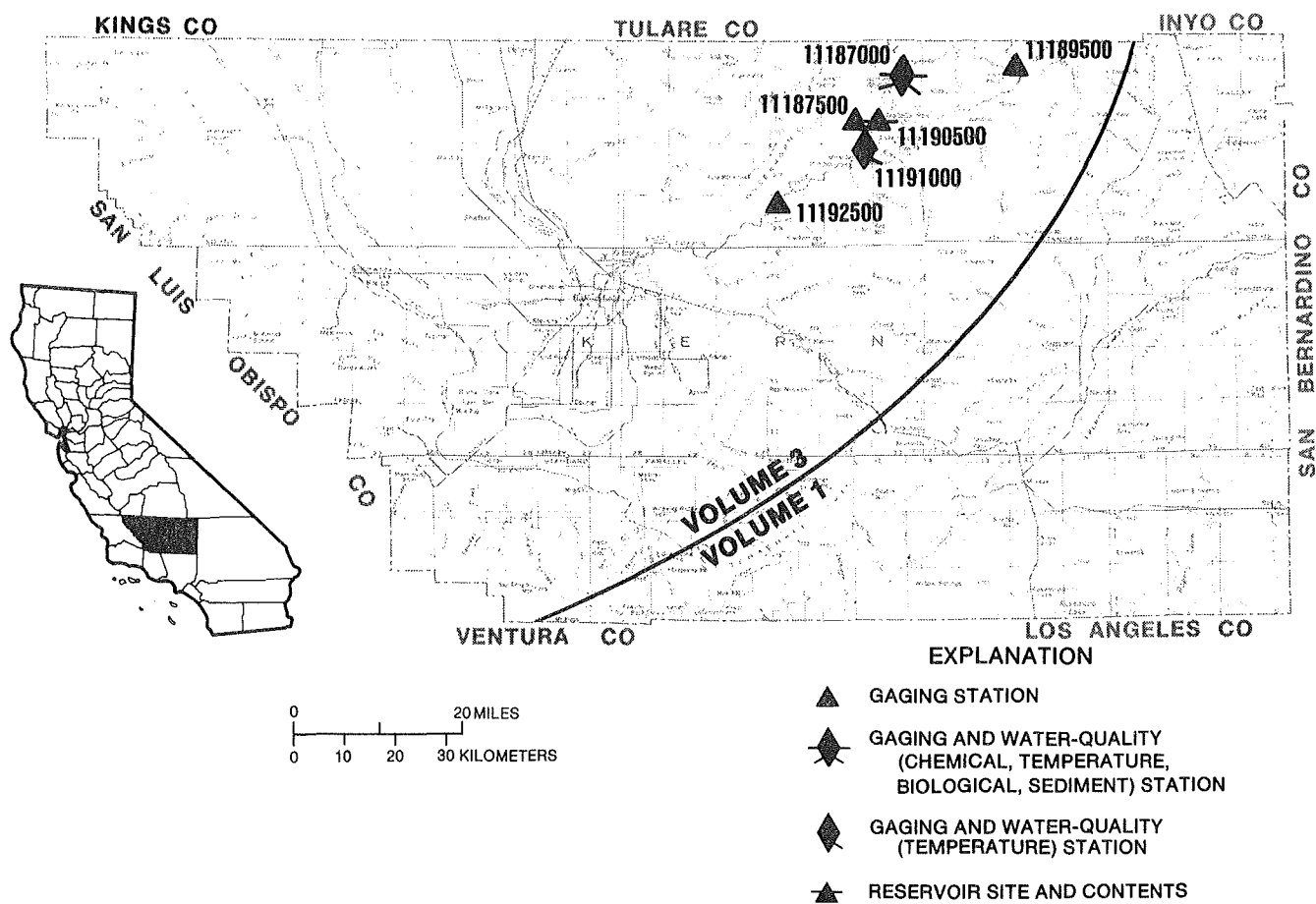


FIGURE 7. - Location of discharge and water-quality stations in Kern County.
 (Note: Records for stations 11187000 through 11192500 published in volume 3)

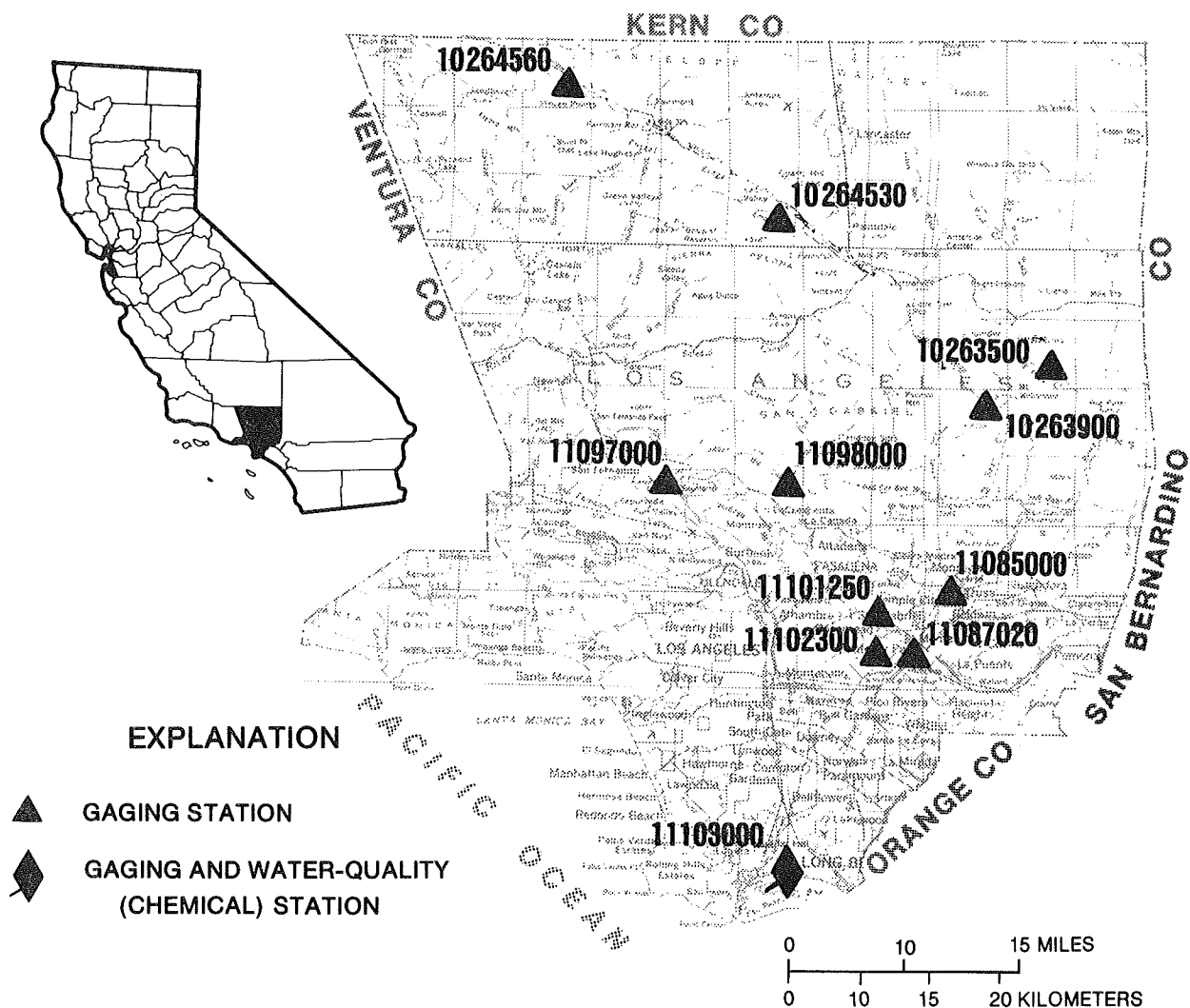
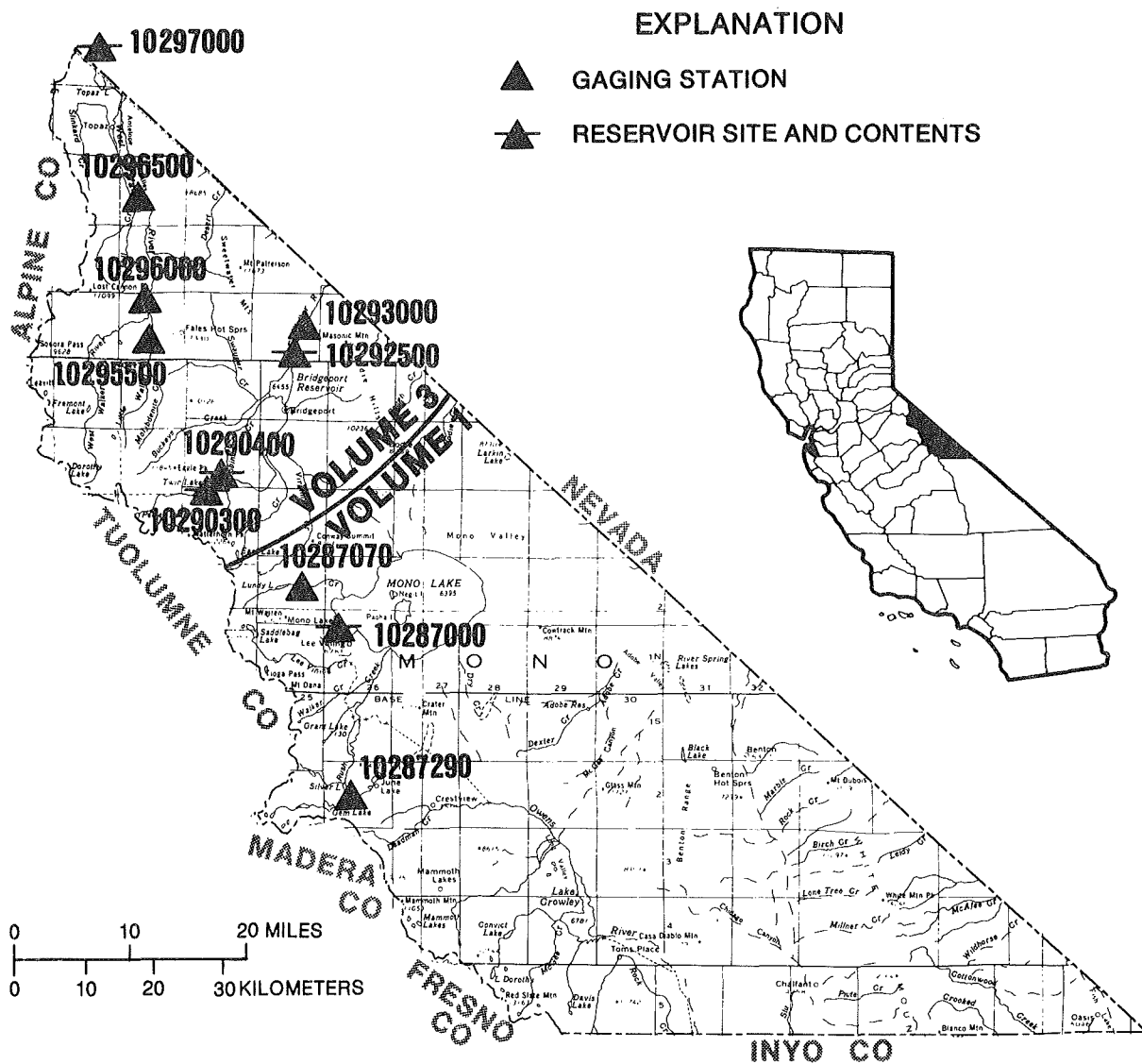


FIGURE 8. - Location of discharge and water-quality stations in Los Angeles County.



EXPLANATION

- ▲ GAGING STATION
- ◆ GAGING AND WATER-QUALITY (SEDIMENT) STATION
- ◆ GAGING AND WATER-QUALITY (TEMPERATURE) STATION

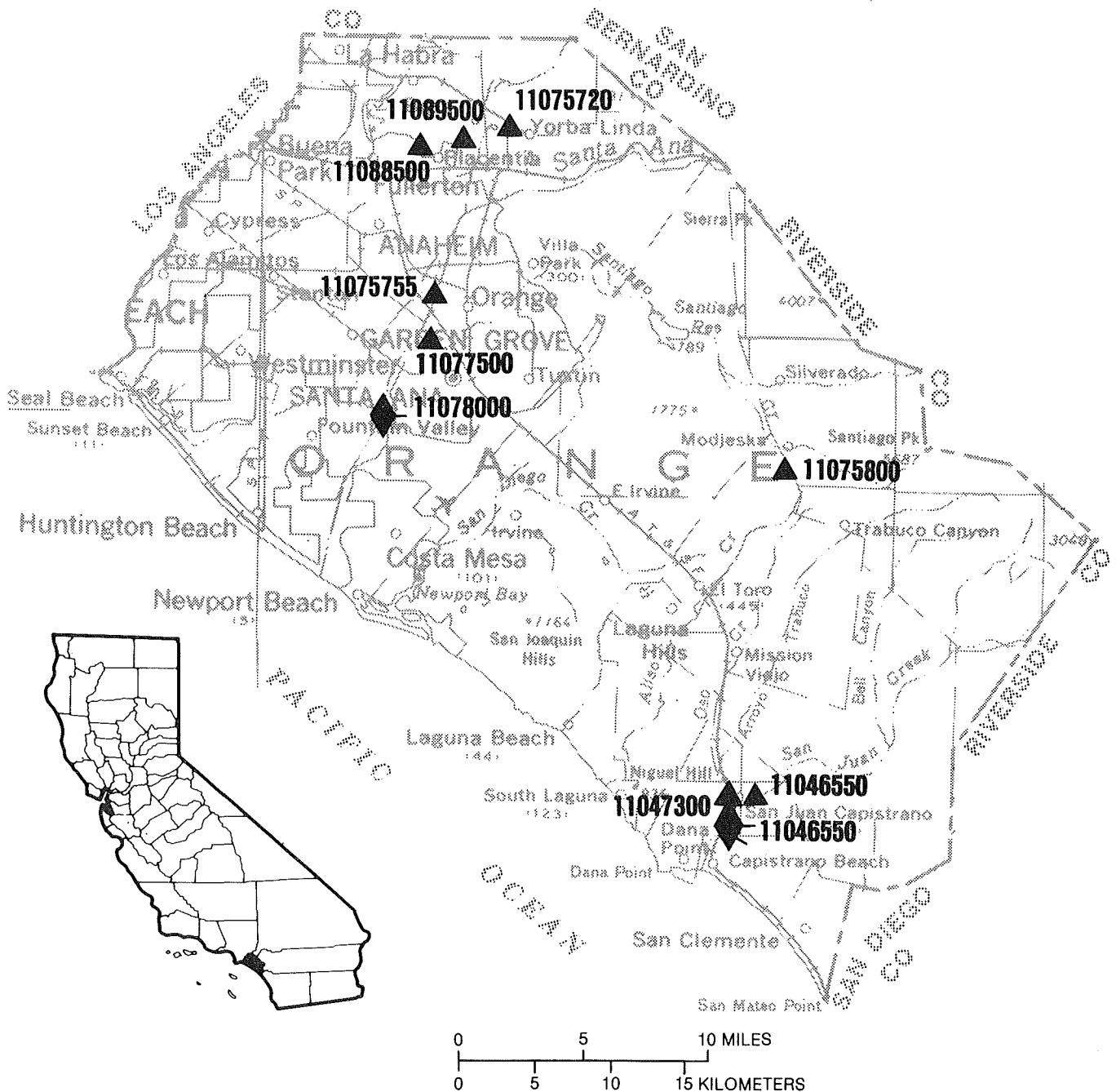


FIGURE 10. - Location of discharge and water-quality stations in Orange County.

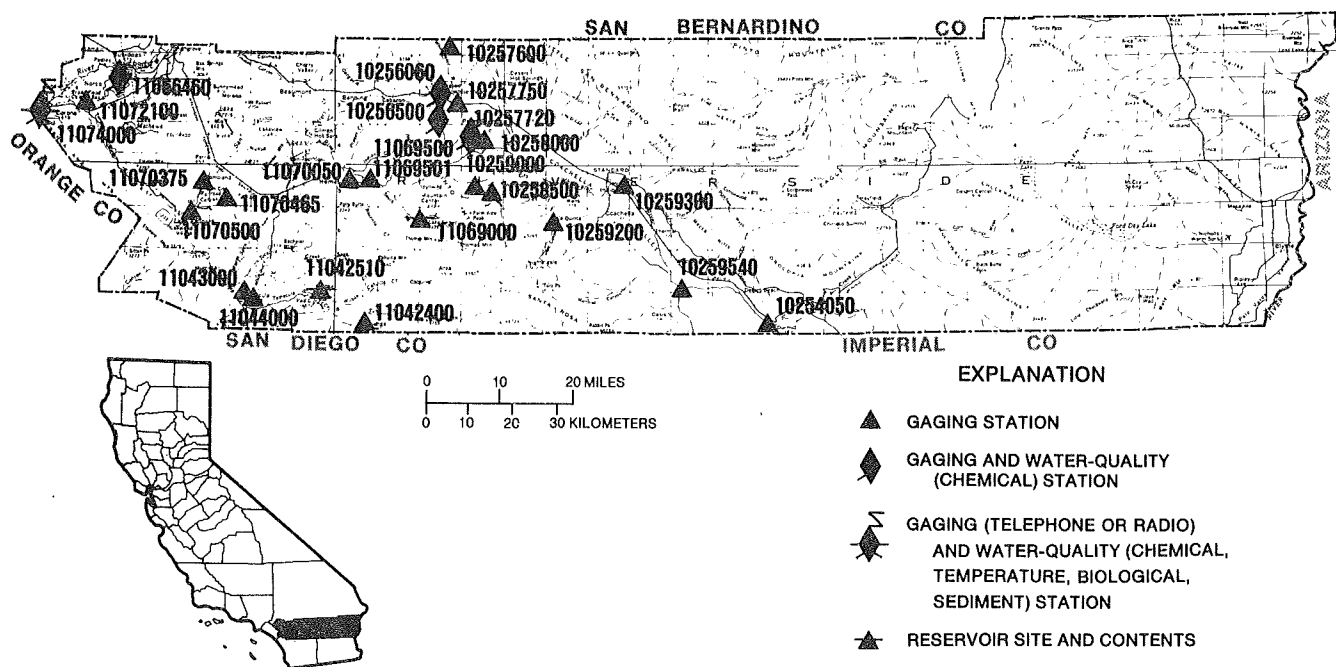


FIGURE 11. - Location of discharge and water-quality stations in Riverside County.

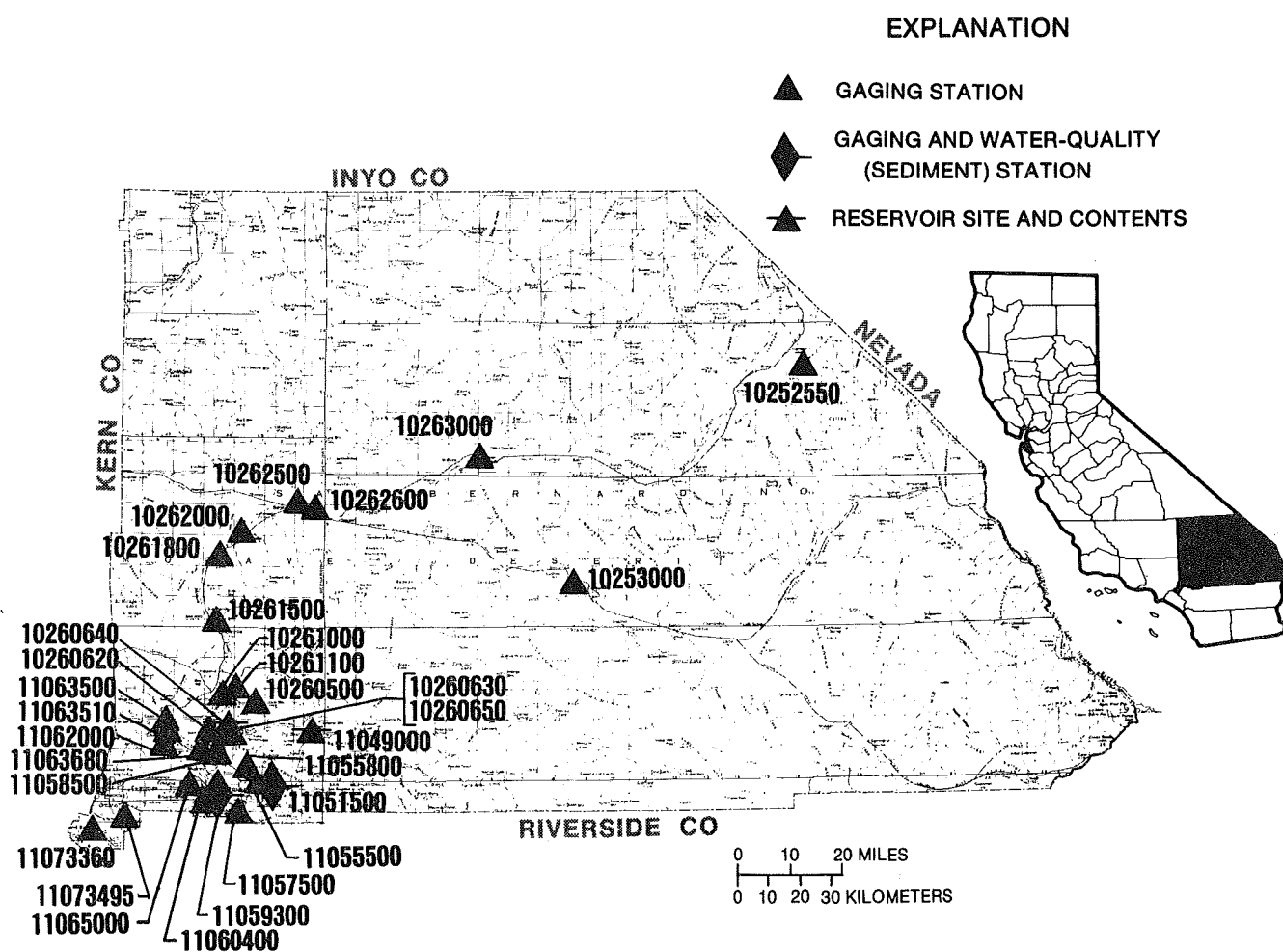


FIGURE 12. - Location of discharge and water-quality stations in San Bernardino County.

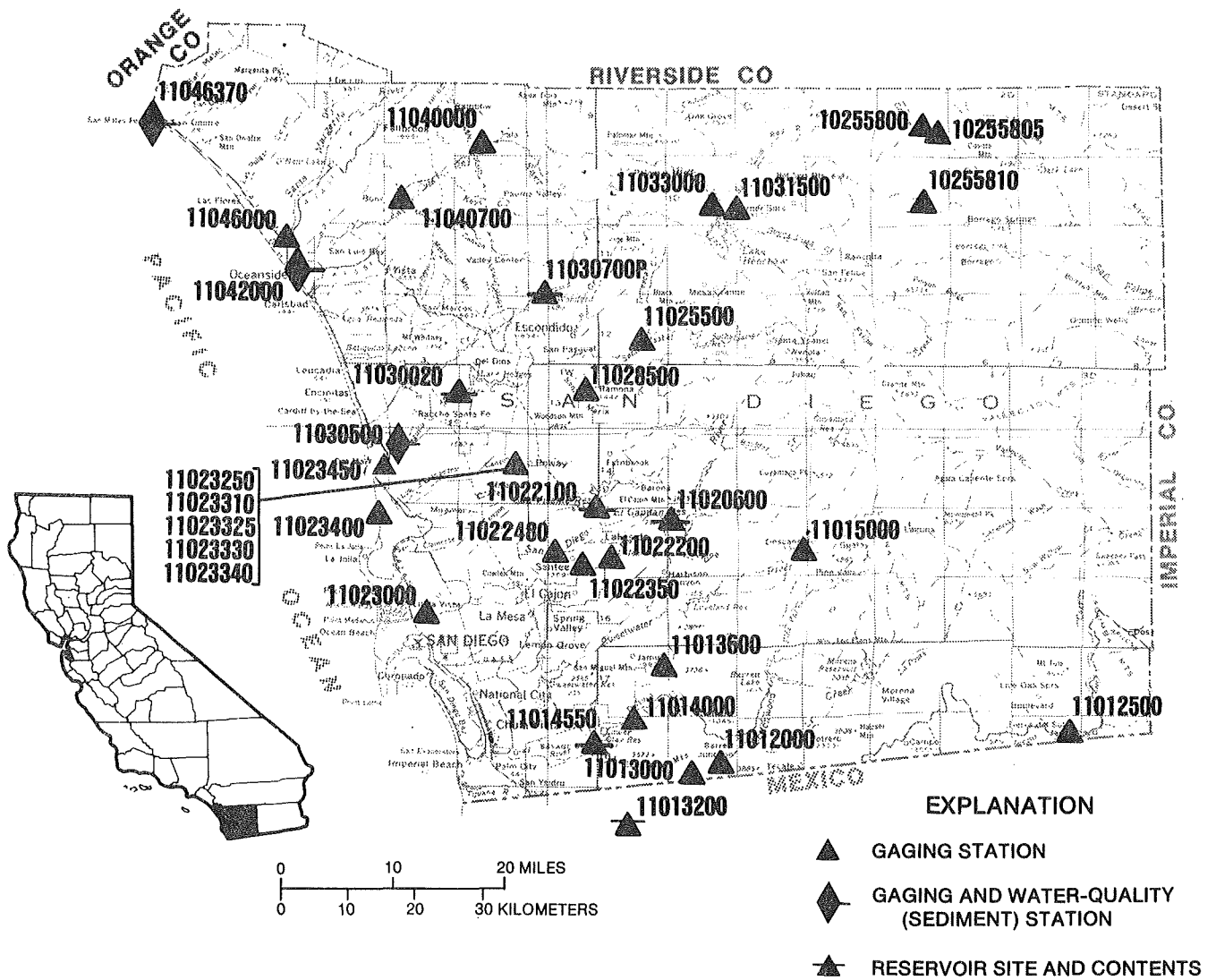
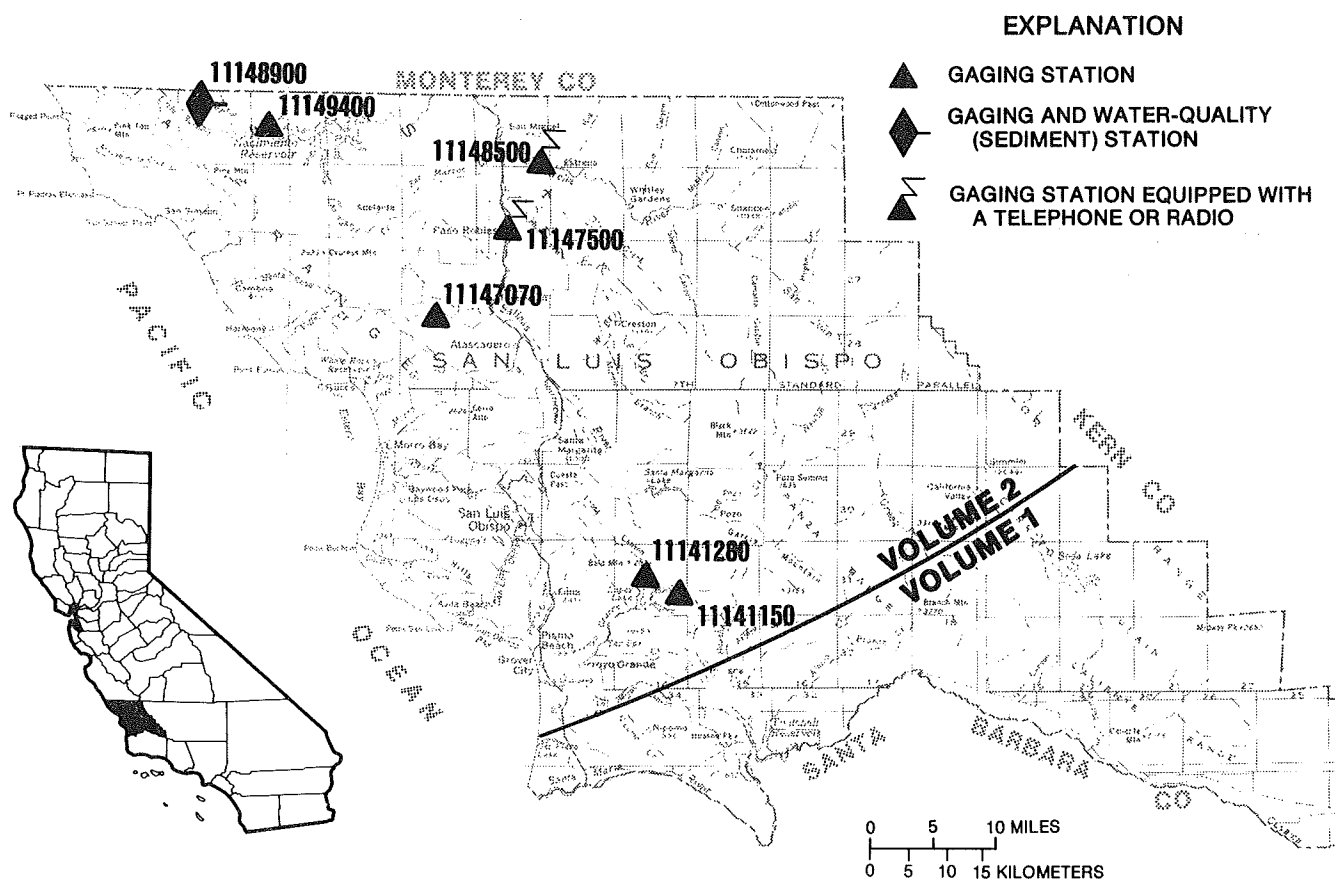


FIGURE 13. - Location of discharge and water-quality stations in San Diego County.



-  GAGING STATION
-  GAGING AND WATER-QUALITY
(CHEMICAL) STATION
-  GAGING AND WATER-QUALITY
(TEMPERATURE) STATION
-  GAGING AND WATER-QUALITY
(SEDIMENT) STATION
-  RESERVOIR SITE AND CONTENTS

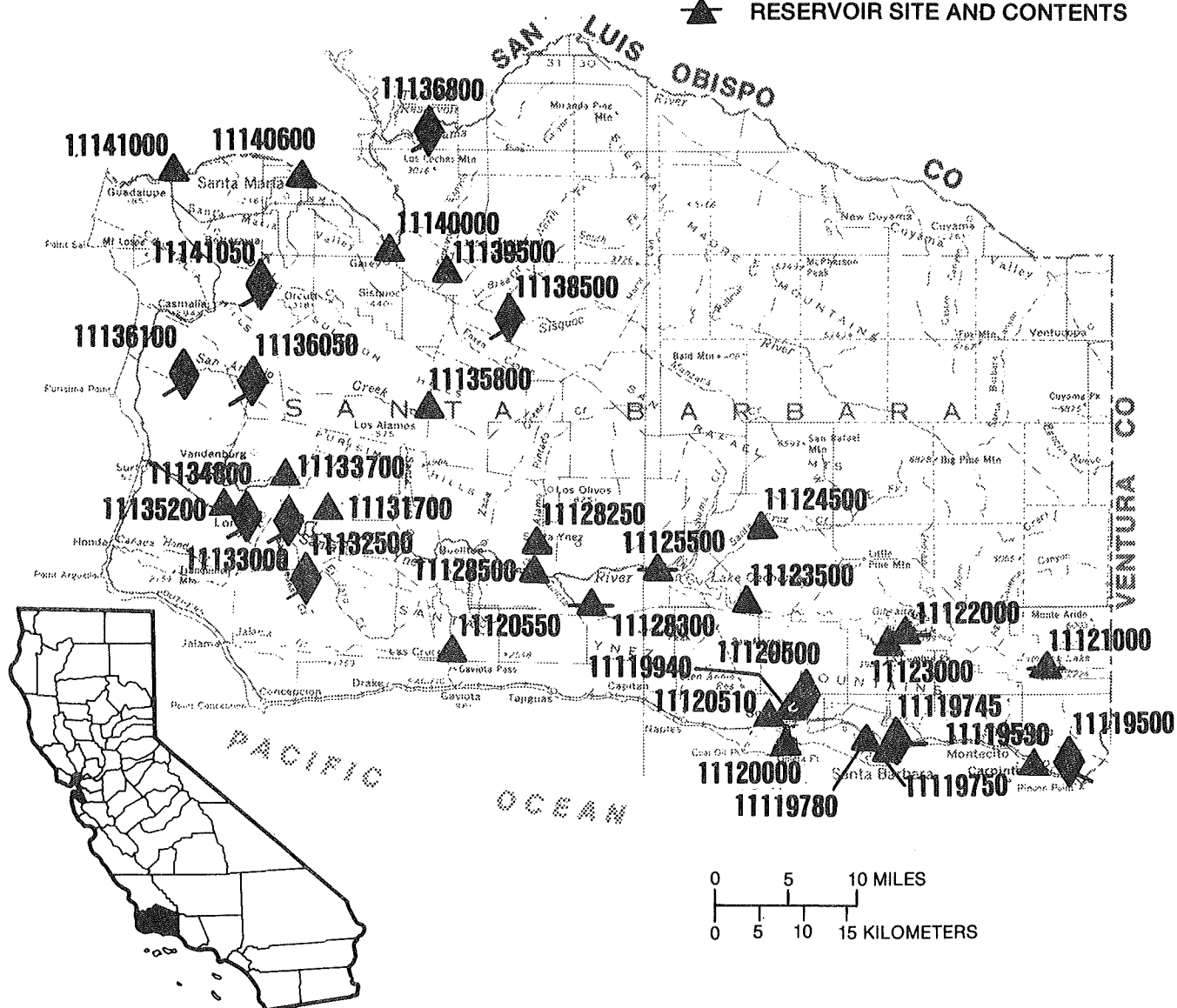


FIGURE 15. - Location of discharge and water-quality stations in Santa Barbara County.

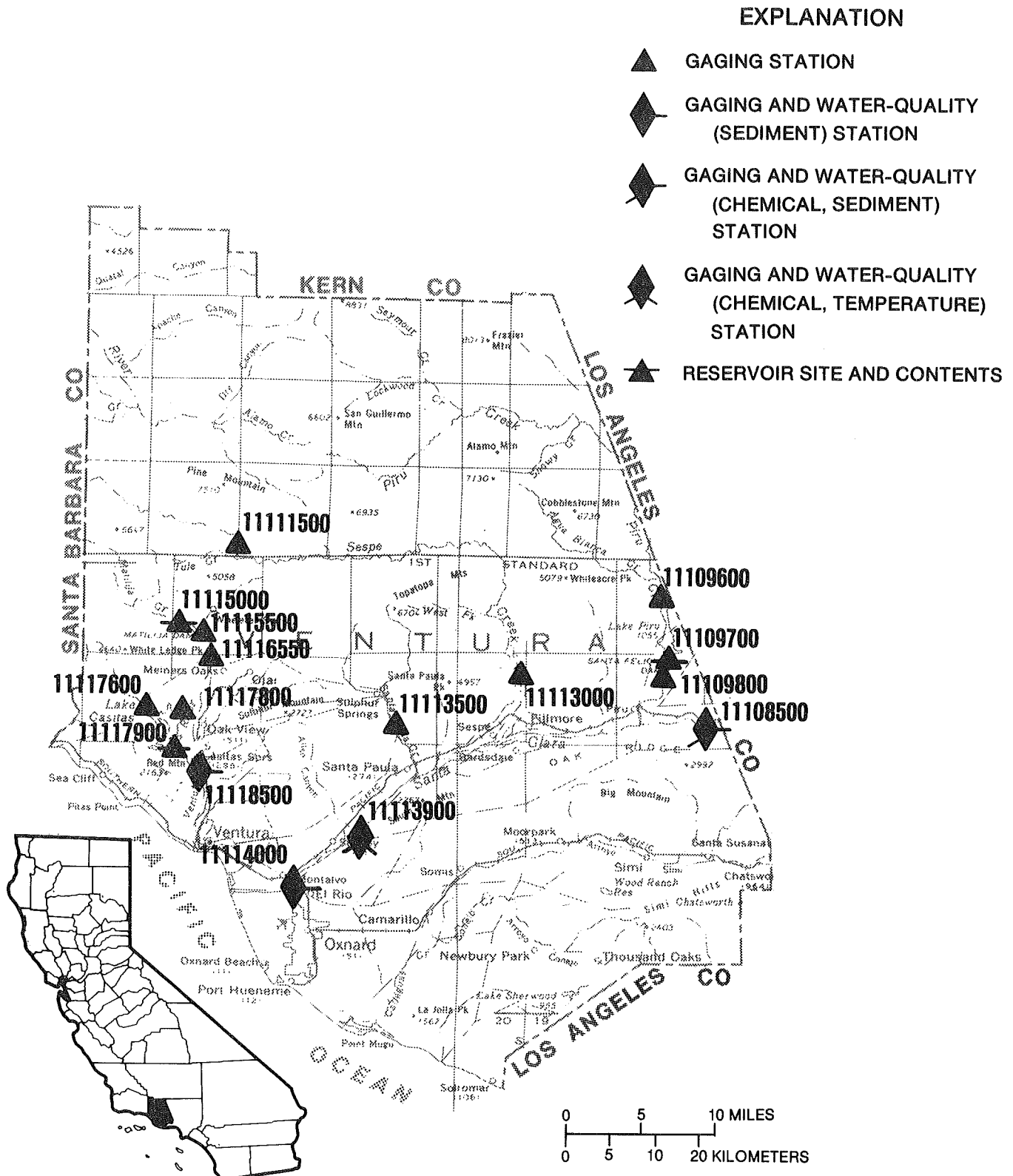


FIGURE 16. - Location of discharge and water-quality stations in Ventura County.

THE GREAT BASIN

PANAMINT VALLEY

10250800 DARWIN CREEK NEAR DARWIN, CA

LOCATION.--Lat 36°19'14", long 117°31'23", in SE 1/4 SW 1/4 sec.34, T.18 S., R.41 E., Inyo County, Hydrologic Unit 18090204, on left bank 510 ft downstream from Darwin Falls, 1.6 mi upstream from unnamed tributary, and 5.2 mi northeast of Darwin.

DRAINAGE AREA.--173 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 2,640 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 6, 1970, at site 190 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 13 to Dec. 30, July 9 to Aug. 26, and Aug. 27 to Sept. 30. Records poor. No regulation above station. Town of Darwin pumps water above station for municipal supply.

AVERAGE DISCHARGE.--25 years, 0.39 ft³/s, 283 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft³/s, Jan. 25, 1969, gage height, 8.40 ft, at site then in use, from floodmarks, on basis of slope-conveyance study of peak flow; minimum daily, 0.05 ft³/s, Aug. 30 to Sept. 4, 1969, Sept. 10-12, 15, 17, 1980.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 8	1845	*3.4	*4.57				

Minimum daily, 0.13 ft³/s, Apr. 23, 24, 27, and May 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	.22	.30	.34	.30	.45	.39	.26	.19	.22	.24	.23
2	.45	.26	.30	.34	.30	.39	.34	.22	.16	.25	.24	.23
3	.34	.26	.30	.34	.30	.39	.51	.19	.16	.26	.24	.23
4	.34	.26	.30	.48	.30	.39	.51	.16	.16	.26	.24	.23
5	.30	.30	.30	.39	.30	.83	.45	.13	.16	.26	.24	.23
6	.34	.30	.34	.34	.30	1.3	.44	.16	.46	.26	.24	.23
7	.34	.34	.48	.34	.30	.66	.45	.16	.33	.26	.24	.23
8	.34	.30	.34	.30	.26	.45	.45	.55	.30	.26	.24	.23
9	.30	.34	.34	.30	.26	.39	.39	.51	.22	.26	.24	.23
10	.30	.34	.34	.34	.34	.34	.39	.39	.19	.26	.24	.23
11	.30	.34	.34	.30	.34	.34	.34	.34	.19	.26	.23	.23
12	.34	.30	.34	.30	.30	.30	.30	.26	.16	.26	.23	.23
13	.34	.30	.34	.30	.30	.34	.34	.26	.16	.26	.23	.23
14	.39	.30	.34	.30	.30	.30	.30	.22	.16	.25	.23	.23
15	.34	.30	.34	.30	.26	.64	.26	.26	.19	.25	.23	.23
16	.34	.30	.34	.30	.26	.39	.22	.39	.19	.25	.23	.23
17	.39	.34	.34	.30	.26	.39	.19	.39	.22	.25	.23	.23
18	.39	.48	.34	.30	.26	.39	.19	.30	.22	.25	.23	.23
19	.45	.34	.34	.30	.30	.39	.34	.30	.23	.25	.23	.23
20	.45	.30	.42	.30	.34	.39	.26	.45	.26	.25	.23	.23
21	.39	.30	.34	.32	.34	.45	.22	.39	.22	.25	.23	.23
22	.39	.30	.34	.30	.34	.51	.16	.39	.26	.25	.23	.23
23	.34	.30	.34	.30	.34	.58	.13	.26	.22	.25	.23	.31
24	.34	.30	.34	.31	.34	.58	.13	.30	.22	.25	.23	.32
25	.34	.30	.34	.30	.45	.51	.16	.35	.22	.25	.23	.28
26	.30	.30	.34	.34	.45	.45	.19	.39	.26	.25	.23	.26
27	.16	.30	.34	.30	.45	.39	.13	.39	.22	.25	.22	.26
28	.16	.30	.34	.34	.45	.34	.16	.34	.26	.24	.22	.25
29	.19	.30	.34	.33	---	.34	.44	.34	.22	.24	.26	.25
30	.19	.30	.34	.30	---	.39	.22	.22	.22	.24	.25	.25
31	.22	---	.34	.30	---	.39	---	.22	---	.24	.23	---
TOTAL	10.14	9.22	10.56	9.95	9.04	14.39	9.00	9.49	6.63	7.79	7.26	7.24
MEAN	.33	.31	.34	.32	.32	.46	.30	.31	.22	.25	.23	.24
MAX	.45	.48	.48	.48	.45	1.3	.51	.55	.46	.26	.26	.32
MIN	.16	.22	.30	.30	.26	.30	.13	.13	.16	.22	.22	.23
AC-FT	20	18	21	20	18	29	18	19	13	15	14	14

CAL YR 1986 TOTAL 102.19 MEAN .28 MAX .52 MIN .16 AC-FT 203
WTR YR 1987 TOTAL 110.71 MEAN .30 MAX 1.3 MIN .13 AC-FT 220

DEATH VALLEY

10251100 SALT CREEK NEAR STOVEPIPE WELLS, CA

LOCATION.--Lat 36°35'58", long 117°00'46", in NE 1/4 sec.6, T.16 S., R.46 E., Inyo County, Hydrologic Unit 18090203, Death Valley National Monument, on left bank 3.0 mi southeast of intersection of State Highway 190 and Stovepipe Wells Road and 7.4 mi southeast of Stovepipe Wells Hotel.

DRAINAGE AREA.--Indeterminate.

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

CHEMICAL DATA: Water years 1975-76, 1978-85, 1986 to current year (even-numbered years only).

GAGE.--Water-stage recorder, Parshall flume, and flashboard weir. Flashboard weir installed Feb. 2, 1984.

Elevation of gage is 180 ft below National Geodetic Vertical Datum of 1929, from topographic map.

AVERAGE DISCHARGE.--13 years (water years 1975-87), 0.334 ft³/s, 242 acre-ft/yr.

REMARKS.--Estimated daily discharges: Dec. 25-30. Records good except those for estimated daily discharges, which are poor. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 363 ft³/s, Feb. 9, 1976, gage height, 4.81 ft, based on slope-conveyance study of peak flow; maximum gage height, 4.87 ft, July 22, 1984 (flashboard weir installed); minimum daily, 0.05 ft³/s, July 14, 19, Aug. 4-6, 8, 1979, and several days during August 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 15	1130	*1.6	*1.86				

Minimum daily, 0.05 ft³/s, Aug. 5-7, 11-14, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.14	.20	.35	.48	.53	.48	.29	.14	.07	.07	.07
2	.15	.13	.20	.35	.49	.53	.48	.29	.14	.07	.06	.08
3	.14	.14	.20	.37	.49	.53	.47	.28	.13	.06	.06	.08
4	.13	.14	.20	.44	.47	.53	.47	.28	.12	.07	.06	.08
5	.13	.15	.20	.51	.47	.61	.48	.27	.12	.07	.05	.08
6	.13	.14	.23	.43	.48	.87	.48	.26	.18	.07	.05	.08
7	.13	.15	.36	.45	.49	.86	.47	.25	.16	.07	.05	.09
8	.12	.15	.25	.40	.51	.68	.46	.24	.13	.06	.06	.09
9	.13	.15	.24	.39	.52	.61	.45	.23	.12	.07	.06	.09
10	.14	.15	.24	.40	.52	.59	.44	.22	.12	.06	.06	.09
11	.12	.15	.25	.41	.51	.57	.43	.21	.11	.07	.05	.09
12	.12	.16	.26	.42	.51	.55	.40	.20	.11	.07	.05	.09
13	.13	.17	.27	.43	.53	.53	.40	.20	.10	.07	.05	.10
14	.14	.17	.28	.42	.49	.51	.41	.18	.09	.07	.05	.10
15	.14	.17	.28	.41	.50	.96	.41	.17	.09	.07	.06	.10
16	.14	.17	.28	.38	.44	.70	.39	.20	.09	.07	.06	.10
17	.14	.18	.29	.40	.47	.59	.39	.20	.09	.06	.06	.10
18	.15	.23	.30	.43	.48	.58	.33	.20	.09	.08	.06	.10
19	.15	.20	.31	.43	.46	.50	.32	.16	.09	.08	.06	.10
20	.15	.19	.41	.41	.46	.51	.34	.16	.09	.09	.06	.10
21	.15	.19	.35	.43	.48	.52	.36	.17	.08	.09	.05	.10
22	.15	.18	.34	.45	.49	.51	.35	.17	.08	.09	.06	.10
23	.15	.18	.34	.47	.53	.50	.35	.17	.09	.09	.06	.11
24	.15	.19	.34	.45	.51	.50	.34	.16	.09	.09	.06	.11
25	.15	.19	.34	.46	.55	.48	.33	.16	.09	.08	.07	.11
26	.15	.19	.34	.47	.53	.49	.32	.17	.09	.08	.07	.11
27	.14	.19	.34	.49	.51	.47	.31	.17	.08	.08	.07	.11
28	.15	.20	.34	.48	.52	.46	.29	.16	.08	.08	.07	.11
29	.14	.19	.34	.46	---	.45	.31	.16	.08	.07	.07	.11
30	.15	.19	.35	.47	---	.46	.30	.16	.07	.07	.07	.10
31	.14	---	.35	.47	---	.48	---	.15	---	.07	.07	---
TOTAL	4.33	5.12	9.02	13.33	13.89	17.66	11.76	6.29	3.14	2.29	1.86	2.88
MEAN	.14	.17	.29	.43	.50	.57	.39	.20	.10	.074	.060	.096
MAX	.15	.23	.41	.51	.55	.96	.48	.29	.18	.09	.07	.11
MIN	.12	.13	.20	.35	.44	.45	.29	.15	.07	.06	.05	.07
AC-FT	8.6	10	18	26	28	35	23	12	6.2	4.5	3.7	5.7

CAL YR 1986 TOTAL 96.10 MEAN .26 MAX 12 MIN .06 AC-FT 191
WTR YR 1987 TOTAL 91.57 MEAN .25 MAX .96 MIN .05 AC-FT 182

BRISTOL LAKE BASIN

10252550 CARUTHERS CREEK NEAR IVANPAH, CA

LOCATION.--Lat 35°14'33", long 115°17'58", in NW 1/4 NE 1/4 sec.6, T.13 N., R.16 E., San Bernardino County, Hydrologic Unit 15030102, on left bank 6.6 mi south of Ivanpah.

DRAINAGE AREA.--1.13 mi².

PERIOD OF RECORD.--October 1963 to September 1981, May 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,640 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--23 years (water years 1964-81, 1983-87), 0.115 ft³/s, 83 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 814 ft³/s, Aug. 12, 1979, gage height, 5.75 ft, from rating curve extended above 2.5 ft³/s on basis of slope-conveyance studies; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 29	1245	*3.7	*1.17				

No flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	0	.02	0				0	
2			0	0	0	.04	0				0	
3			0	0	0	.04	0				0	
4			0	0	0	.04	.03				0	
5			0	.08	0	.04	.01				0	
6			.02	.04	0	.06	0				0	
7			.89	.08	0	.14	0				0	
8			.62	.08	0	.21	0				.32	
9			.44	.04	0	.11	0				.21	
10			.29	.01	0	.06	0				.01	
11			.21	0	0	.04	0				0	
12			.21	0	0	.02	0				0	
13			.21	0	0	.01	0				0	
14			.21	0	0	.01	0				0	
15			.18	0	0	.02	0				0	
16			.14	0	0	.02	0				0	
17			.08	0	0	.02	0				0	
18			.02	0	0	.01	0				0	
19			.01	0	0	.01	0				0	
20			.06	0	0	0	0				0	
21			.01	0	0	0	0				0	
22			0	0	0	.06	0				0	
23			0	0	0	.04	0				0	
24			0	0	0	.06	0				0	
25			0	0	0	.06	0				0	
26			0	0	.01	.04	0				0	
27			0	0	.02	.02	0				0	
28			0	0	.02	.01	0				0	
29			0	0	---	.01	.11				0	
30			0	0	---	.01	0				0	
31		---	0	0	---	0	---		---		0	---
TOTAL	0	0	3.60	.33	.05	1.23	.15	0	0	0	.54	0
MEAN	0	0	.12	.011	.002	.040	.005	0	0	0	.017	0
MAX	0	0	.89	.08	.02	.21	.11	0	0	0	.32	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	7.1	.7	.10	2.4	.3	0	0	0	1.1	0

CAL YR 1986 TOTAL 7.52 MEAN .021 MAX .89 MIN 0 AC-FT 15
WTR YR 1987 TOTAL 5.90 MEAN .016 MAX .89 MIN 0 AC-FT 12

SALTON SEA BASIN

10254005 SALTON SEA NEAR WESTMORLAND, CA

LOCATION (REVISED).--Lat 33°11'33", long 115°49'59", in SE 1/4 SW 1/4 sec. 21, T.11 S., R.11 E., Imperial County, Hydrologic Unit 18100200, on western shore at Sandy Beach and 15.5 mi northwest of Westmorland.

DRAINAGE AREA.--8,360 mi², 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 233.46 ft below National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations below NGVD. See WSP 1734 for history of changes prior to Mar. 2, 1956.

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

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

EXTREMES FOR CURRENT YEAR.--Maximum daily elevation, 227.1 ft below NGVD, May 4-18; minimum, 228.3 ft below NGVD, Sept. 27-30.

MEAN DAILY MONTHEND ELEVATIONS, IN FEET BELOW NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Date	Elevation (feet)
Sept. 30.....	228.1	Apr. 30.....	227.2
Oct. 31.....	227.9	May 31.....	227.3
Nov. 30.....	227.9	June 30.....	227.5
Dec. 31.....	227.8	July 31.....	227.8
Jan. 31.....	227.6	Aug. 31.....	228.0
Feb. 28.....	227.5	Sept. 30.....	228.3
Mar. 31.....	227.3		

SALTON SEA BASIN
INFLOW TO SALTON SEA

Salton Sea, located near the northwest corner of Imperial County, is a closed basin consisting of approximately 8,360 mi². 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 1986 to September 1987 and the annual inflow for the calendar year January to December 1986. 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 provided by Imperial Irrigation District. Inflow from Coachella Valley is the sum of flows in Salt Creek (station 10254050), Whitewater River (station 10259540), and 24 drains. Drain inflow provided by Coachella Valley County Water District. Ungaged drains and natural runoff are not included in totals.

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Inflow from												
Imperial Valley	106630	83140	77880	81180	83940	98110	108900	104880	83580	86080	94180	95660
Coachella Valley	9340	8170	8820	10110	9520	10510	10620	10420	8560	8600	9310	8620
TOTAL CAL YR 1986	1,235,000 ac-ft											
TOTAL WTR YR 1987	1,217,000 ac-ft											

REVISIONS.--The Coachella Valley INFLOW TO SALTON SEA discharges have been revised for water years 1980-85, as shown in the following table. They supersede figures published in reports for 1980-85.

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Inflow from												
Imperial Valley	104100	83630	81070	78200	76440	113600	137500	109800	92510	102200	113900	112200
Coachella Valley	11290	10500	11100	17050	31260	13610	14510	17010	12820	12700	14010	13260

TOTAL WTR YR 1980 1,384,000 ac-ft

Imperial Valley	104300	86750	80640	75820	85950	112800	131700	108700	85040	96320	102300	994880
Coachella Valley	13330	11100	13050	13000	13060	15630	16760	17070	14840	14820	16340	15290

TOTAL CAL YR 1980 1,392,000 ac-ft

TOTAL WTR YR 1981 1,339,000 ac-ft

Imperial Valley	86640	74030	68520	80200	78580	99780	116200	101800	74950	79490	94900	84173
Coachella Valley	12820	12980	11720	11590	14050	14510	14710	15650	14480	13460	14750	12510

TOTAL CAL YR 1981 1,297,000 ac-ft

TOTAL WTR YR 1982 1,195,000 ac-ft

Imperial Valley	95300	76100	97120	82050	74180	117490	122870	110400	89720	92720	111900	104400
Coachella Valley	12790	12690	13660	12010	13060	26230	15330	16540	12570	10140	22110	13100

TOTAL CAL YR 1982 1,236,000 ac-ft

TOTAL WTR YR 1983 1,354,000 ac-ft

Imperial Valley	103760	92200	83740	83120	93200	114410	126130	114010	89460	100780	102200	99910
Coachella Valley	12780	10590	11160	12220	12220	13730	13160	13240	11920	12900	12610	12320

TOTAL CAL YR 1983 1,361,000 ac-ft

TOTAL WTR YR 1984 1,352,000 ac-ft

Imperial Valley	106450	88740	73000	69350	83020	104260	114830	108180	84500	89330	93740	95650
Coachella Valley	10470	8390	9630	9200	10020	12330	11510	11600	10560	10880	11060	11480

TOTAL CAL YR 1984 1,334,000 ac-ft

TOTAL WTR YR 1985 1,238,000 ac-ft

The following table lists the monthly and annual flows, in acre-feet, of the Alamo River and New River (station 10254970) at the United States-Mexico international boundary. Data for Alamo River provided by Imperial Irrigation District.

FLOW FROM MEXICO AT INTERNATIONAL BOUNDARY

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Alamo River	125	138	146	171	172	186	196	204	163	148	165	122
New River	20960	19380	23020	22470	20850	23550	22110	22310	16930	19660	22130	20930

CAL YR 1986: Alamo River 1,920 ac-ft WTR YR 1987: 1,940 ac-ft

CAL YR 1986: New River 264,100 ac-ft WTR YR 1987: 254,300 ac-ft

SALTON SEA BASIN

10254050 SALT CREEK NEAR MECCA, CA

LOCATION.--Lat 33°26'49", long 115°50'33", in SE 1/4 SW 1/4 sec.28, T.8 S., R.11 E., Riverside County, Hydrologic Unit 18100200, on pier of Southern Pacific railroad bridge, 0.3 mi upstream from mouth, and 16 mi southeast of Mecca.

DRAINAGE AREA.--269 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 230 ft below National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 21, 1984, at same site, at datum 2.50 ft lower.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--26 years, 7.40 ft³/s, 5,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,900 ft³/s, Sept. 24, 1976, gage height, 16.8 ft, present datum, from floodmarks, from rating curve extended above 20 ft³/s on basis of contracted-opening measurement of peak flow; maximum gage height, 19.4 ft, present datum, Mar. 2, 1983 (backwater from Salton Sea and channel vegetation); minimum daily, 0.06 ft³/s, Nov. 1, 4, 5, 9, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31 ft³/s, Oct. 10, gage height, 6.18 ft, from rating curve extended above 10 ft³/s on basis of estimated peak flow; minimum daily, 0.65 ft³/s, July 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	3.0	3.8	4.8	6.0	4.7	3.1	2.0	1.5	.69	.67	1.4
2	1.6	2.6	3.9	5.3	5.7	4.7	2.9	1.9	1.5	.66	.69	1.3
3	1.6	2.7	4.2	5.4	5.9	4.6	2.8	1.9	1.4	.65	.86	1.2
4	1.6	3.1	4.2	5.5	5.8	4.3	2.8	1.9	1.3	.66	.92	1.3
5	1.6	3.1	4.6	6.4	5.3	4.3	2.8	1.6	1.5	.66	.91	1.4
6	1.6	3.2	5.1	6.9	4.8	4.8	3.0	1.5	1.5	.70	.92	1.5
7	1.8	3.2	5.2	5.9	4.6	5.2	3.3	1.6	1.3	.81	.88	1.5
8	1.8	3.1	5.8	5.7	4.8	4.9	3.2	1.6	1.3	.86	.82	1.5
9	1.9	3.2	5.3	5.5	6.6	4.8	3.1	1.5	1.2	.85	.88	1.5
10	12	3.3	5.4	5.3	7.2	4.5	3.1	1.5	1.1	.74	.91	1.5
11	9.6	3.5	5.7	5.5	5.1	4.4	3.0	1.4	1.1	.71	.98	1.5
12	3.6	3.5	5.4	5.4	4.5	4.4	2.8	1.8	1.2	.70	.98	1.6
13	3.2	3.6	5.0	5.5	4.2	4.2	2.6	1.6	1.1	.70	.93	1.7
14	3.0	3.5	4.6	5.4	3.9	4.1	2.3	1.5	1.1	.70	.88	1.7
15	3.1	3.5	5.4	5.3	3.7	4.3	2.4	1.4	1.0	.69	.87	1.8
16	3.2	3.5	5.6	5.2	3.6	4.3	2.6	1.6	.96	.68	.99	1.8
17	3.1	3.8	5.1	4.9	3.4	4.7	2.7	1.6	.91	.69	1.0	1.8
18	3.1	4.3	5.1	5.2	3.3	4.8	2.7	1.4	.95	.70	1.1	1.9
19	3.2	5.0	5.2	5.5	3.3	4.6	2.8	1.3	.95	.67	1.1	1.8
20	3.1	4.3	5.4	5.8	3.5	4.6	2.4	1.4	.97	.67	1.1	1.8
21	3.0	4.0	5.4	5.8	3.7	4.4	2.0	1.3	1.0	.83	1.0	1.9
22	3.0	3.9	5.1	5.7	4.2	4.6	2.0	1.3	.96	.87	1.0	2.0
23	3.0	3.4	4.8	6.2	4.3	4.5	2.0	1.4	.96	.86	1.1	2.3
24	3.0	3.2	4.9	6.4	4.4	4.6	2.2	1.5	1.0	.82	1.1	1.9
25	3.1	3.4	4.9	5.9	4.5	4.6	2.3	1.5	.95	.89	1.1	1.8
26	3.2	3.6	4.9	5.9	4.8	4.2	2.4	1.5	.89	.88	1.1	1.7
27	3.2	3.6	5.2	6.1	4.9	3.9	2.4	1.6	.84	.82	1.1	1.9
28	3.2	3.6	5.4	6.3	4.8	4.0	2.7	1.7	.82	.87	1.1	2.0
29	3.2	4.0	5.4	6.3	---	3.8	1.9	1.8	.82	.92	1.2	1.9
30	3.2	4.1	5.3	6.2	---	3.8	2.0	1.7	.77	.94	1.3	1.8
31	3.3	---	4.5	6.2	---	3.7	---	1.6	---	.78	1.3	---
TOTAL	99.7	105.8	155.8	177.4	130.8	137.3	78.3	48.9	32.85	23.67	30.79	50.7
MEAN	3.22	3.53	5.03	5.72	4.67	4.43	2.61	1.58	1.10	.76	.99	1.69
MAX	12	5.0	5.8	6.9	7.2	5.2	3.3	2.0	1.5	.94	1.3	2.3
MIN	1.6	2.6	3.8	4.8	3.3	3.7	1.9	1.3	.77	.65	.67	1.2
AC-FT	198	210	309	352	259	272	155	97	65	47	61	101
CAL YR 1986	TOTAL	1822.01	MEAN	4.99	MAX	445	MIN	.81	AC-FT	3610		
WTR YR 1987	TOTAL	1072.01	MEAN	2.94	MAX	12	MIN	.65	AC-FT	2130		

SALTON SEA BASIN

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

LOCATION.--Lat 33°06'16", long 115°32'39", on line between secs.19 and 20, T.12 S., R.14 E., Imperial County, Hydrologic Unit 18100200, on right bank 2.2 mi 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. Elevation of gage is 185 ft below National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 10-12, 14. Records excellent except those for period of backwater, Oct. 10-12, 14, which are fair. Flow is mainly return from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,940 ft³/s, Mar. 3, 1983, gage height, 5.95 ft, from rating curve extended above 1,000 ft³/s; maximum gage height, 7.06 ft, Oct. 10, 1986 (backwater from debris); minimum daily, 259 ft³/s, Jan. 2, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,400 ft³/s, estimated, Oct. 10, gage height, 7.06 ft (backwater from debris); minimum daily, 340 ft³/s, Dec. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	767	629	504	539	566	497	941	877	658	574	674	646
2	758	630	487	430	495	453	870	814	707	560	706	670
3	774	688	540	495	513	466	937	867	648	596	725	704
4	787	693	599	552	590	504	930	840	662	600	661	706
5	776	661	590	506	601	580	971	828	652	555	655	700
6	815	650	598	423	634	650	860	881	692	560	656	670
7	796	679	573	435	690	712	830	918	701	596	678	649
8	758	675	537	441	677	616	885	899	672	603	685	644
9	850	686	538	453	596	554	919	923	604	599	726	653
10	3590	613	554	477	628	566	956	898	627	639	696	682
11	2020	595	567	493	641	598	867	867	634	620	653	735
12	1070	661	569	452	656	702	819	827	635	625	655	724
13	753	664	582	477	652	737	764	825	652	613	661	764
14	650	671	628	547	652	744	823	866	665	579	659	762
15	547	672	464	573	656	720	846	875	649	619	686	749
16	515	671	412	596	578	694	912	870	634	642	741	743
17	561	675	392	595	598	692	906	816	678	619	711	794
18	547	760	387	571	637	707	885	715	651	660	671	787
19	547	652	394	508	648	730	851	721	621	651	722	784
20	528	572	427	466	685	752	756	746	567	617	774	792
21	557	530	513	496	676	805	708	749	555	628	743	774
22	583	546	529	561	688	829	718	768	522	619	709	804
23	602	530	544	573	628	757	815	721	530	631	684	870
24	657	484	552	581	607	765	858	737	535	660	675	916
25	660	492	440	557	662	798	879	707	579	693	663	862
26	689	502	340	511	641	834	867	676	619	672	688	836
27	654	493	386	530	655	822	871	675	612	644	674	832
28	638	449	497	599	562	824	847	662	607	668	667	818
29	682	502	498	588	---	832	862	647	588	695	676	854
30	684	532	543	594	---	820	870	660	590	723	669	811
31	655	---	605	601	---	850	---	660	---	685	643	---
TOTAL	25470	18257	15789	16220	17512	21610	25823	24535	18746	19445	21286	22735
MEAN	822	609	509	523	625	697	861	791	625	627	687	758
MAX	3590	760	628	601	690	850	971	923	707	723	774	916
MIN	515	449	340	423	495	453	708	647	522	555	643	644
AC-FT	50520	36210	31320	32170	34740	42860	51220	48670	37180	38570	42220	45090
CAL YR 1986	TOTAL	236065	MEAN 647	MAX 3590	MIN 340	AC-FT 468200						
WTR YR 1987	TOTAL	247428	MEAN 678	MAX 3590	MIN 340	AC-FT 490800						

SALTON SEA BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-70, 1975 to current year.
 CHEMICAL DATA: 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 TEMPERATURE: Water years 1969-70, 1975-77, 1979 to current year.
 SEDIMENT DATA: Water years 1979 to current year.

PERIOD OF DAILY RECORD.--
 SPECIFIC CONDUCTANCE: March 1981 to September 1984.
 WATER TEMPERATURE: March 1981 to September 1984.

INSTRUMENTATION.--Water-quality monitor from 1981 to September 1984.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	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)
DEC 17...	1030	374	4380	8.1	13.0	765	86	10.2	98	6100	4300	910
MAR 11...	0930	574	3460	8.0	17.5	770	100	8.8	92	22000	51000	770
JUN 30...	0700	588	2970	8.0	25.5	760	100	6.9	85	K7000	2100	700
SEP 16...	0845	715	3120	8.0	25.0	760	87	7.5	92	2400	6100	720

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
DEC 17...	670	180	110	650	61	10	10	295	242	241	970	800
MAR 11...	560	160	90	450	56	7	10	256	210	210	800	560
JUN 30...	500	150	79	380	54	6	10	247	202	202	660	480
SEP 16...	520	150	83	410	55	7	11	249	204	204	770	450

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, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	
DEC 17...	0.60	12	3050	2900	4.1	0.560	8.4	0.710	0.700	3.0	0.240
MAR 11...	0.50	10	2330	2200	3.2	0.480	--	1.3	1.3	3.6	0.920
JUN 30...	0.60	18	1960	1900	2.7	0.540	3.9	0.760	0.760	2.7	0.770
SEP 16...	0.60	13	2110	2000	2.9	0.410	4.8	0.150	0.150	2.1	0.270

See footnote at end of table.

SALTON SEA BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
DEC 17...	0.240	0.170	<10	3	100	<10	<1	<1	<1	3	60
MAR 11...	0.500	--	<10	6	<100	<10	<1	<1	<1	3	10
JUN 30...	0.220	0.180	<10	5	<100	<10	2	<1	<1	1	20
SEP 16...	0.260	0.220	<10	4	100	<10	<1	<1	1	4	20

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 17...	<5	210	70	<0.1	16	<1	10	<1	3900	8	20
MAR 11...	<5	170	30	<0.1	10	2	9	<1	2800	<55	10
JUN 30...	<5	140	10	<0.1	8	2	6	1	2700	<10	<10
SEP 16...	<5	160	<10	0.3	12	1	9	<1	4100	10	<10

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.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	SEDI- MENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR											
11...*	1215	11.0	3410	8.0	18.5	770	8.7	93	575	98	
11...*	1230	23.0	3460	8.0	18.5	770	8.8	94	671	89	
11...*	1245	34.0	3460	8.0	18.5	770	8.8	94	700	96	
11...*	1300	43.0	3430	8.0	18.5	770	8.8	94	796	93	
11...*	1315	55.0	3250	8.0	18.5	770	8.7	93	786	97	
SEP											
16...*	1300	12.0	3220	7.9	26.0	760	7.8	97	486	92	
16...*	1305	25.0	3210	7.9	26.0	760	7.7	96	630	76	
16...*	1310	35.0	3230	7.9	25.5	760	7.7	95	629	75	
16...*	1315	44.0	3220	7.9	25.5	760	7.7	95	745	64	
16...*	1320	55.0	3200	8.0	26.0	760	7.7	96	552	87	

* Instantaneous streamflow at the time of cross-sectional measurements: Mar. 11, 608 ft³/s;
Sept. 16, 753 ft³/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 17...	1030	374	13.0	281	284	98
MAR 11...	0930	574	17.5	586	908	96
11...	1240	608	18.5	706	1160	95
JUN 30...	0700	588	25.5	443	703	93
SEP 16...	0845	715	25.0	532	1030	80
16...	1308	753	26.0	608	1240	79

SALTON SEA BASIN

10254730 ALAMO RIVER NEAR NILAND, CA

LOCATION.--Lat 33°11'56", long 115°35'46", in SW 1/4 NW 1/4 sec.23, T.11 S., R.13 E., Imperial County, Hydrologic Unit 18100200, on left bank 1.0 mi upstream from mouth and 4.5 mi southwest of Niland.

PERIOD OF RECORD.--January 1943 to September 1960 (monthly discharge only, published in WSP 1743), October 1960 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 220 ft below National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1986, at site 0.4 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 10-12, Feb. 23, Mar. 14, 15, 18, 19, 21-23, Apr. 3, 11, 18, May 1, 20, 25, June 3, 4, 14, 15, July 17. Discharge mainly represents seepage and return flow from irrigated areas.

COOPERATION.--Records were provided by Imperial Irrigation District; five discharge measurements were made, and records were reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,500 ft³/s, Aug. 17, 1977, estimated by Imperial Irrigation District; minimum daily, 288 ft³/s, Jan 2, 1966, Dec. 15, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,900 ft³/s, Oct. 11; minimum daily, 392 ft³/s, Dec. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	850	719	532	599	613	552	933	900	697	647	704	641
2	825	704	525	506	558	500	915	899	771	634	733	682
3	841	748	558	532	545	500	950	882	700	654	733	697
4	874	741	641	586	654	538	924	850	725	661	690	704
5	858	711	647	592	661	627	882	817	697	620	682	733
6	841	719	654	474	697	711	779	858	711	620	697	726
7	866	756	627	474	748	756	866	866	726	654	704	675
8	741	733	579	480	726	668	891	882	711	647	726	675
9	763	733	552	468	634	592	933	891	668	634	741	682
10	1840	647	579	493	641	620	975	899	647	647	682	726
11	1900	620	586	519	682	627	900	841	647	647	661	810
12	1100	675	592	500	719	711	874	841	634	634	675	858
13	771	704	606	532	748	810	810	810	668	634	697	891
14	741	726	647	579	726	800	802	825	675	586	711	817
15	606	711	487	647	763	800	825	841	650	599	690	787
16	525	711	417	675	697	756	874	850	690	599	704	779
17	565	711	398	620	634	735	933	833	711	625	704	841
18	586	817	417	552	704	745	900	771	682	627	682	825
19	558	711	430	487	741	755	891	779	661	613	719	833
20	532	606	468	480	711	763	794	800	641	599	779	858
21	552	558	552	468	675	765	741	779	572	641	763	825
22	606	592	579	558	711	765	726	802	512	634	733	825
23	634	586	599	627	700	765	802	779	512	647	711	915
24	682	500	579	627	675	825	850	787	558	675	697	958
25	719	506	487	592	741	858	866	750	606	704	675	915
26	748	525	392	572	794	899	874	771	661	668	704	874
27	733	512	430	599	741	891	907	654	711	647	704	882
28	668	480	538	704	606	882	882	647	711	654	711	858
29	719	538	538	675	---	850	882	647	668	704	711	891
30	733	572	572	668	---	833	967	682	690	763	697	882
31	726	---	668	697	---	866	---	704	---	741	661	---
TOTAL	24703	19572	16876	17582	19245	22765	26148	24937	19913	20059	21881	24065
MEAN	797	652	544	567	687	734	872	804	664	647	706	802
MAX	1900	817	668	704	794	899	975	900	771	763	779	958
MIN	525	480	392	468	545	500	726	647	512	586	661	641
AC-FT	49000	38820	33470	34870	38170	45150	51860	49460	39500	39790	43400	47730
CAL YR 1986	TOTAL	251588	MEAN 689	MAX 1900	MIN 361	AC-FT 499000						
WTR YR 1987	TOTAL	257746	MEAN 706	MAX 1900	MIN 392	AC-FT 511200						

SALTON SEA BASIN

10254970 NEW RIVER AT INTERNATIONAL BOUNDARY, AT CALEXICO, CA

LOCATION.--Lat 32°39'57", long 115°30'08", in SW 1/4 SE 1/4 sec.14, T.17 S., R.14 E., Imperial County, Hydrologic Unit 18100200, on left bank 200 ft downstream from bridge on Second Street, 0.2 mi downstream from International Boundary in Calexico.

PERIOD OF RECORD.--October 1979 to current year. October 1945 to September 1979, in files of Imperial Irrigation District.

GAGE.--Water-stage recorder. Elevation of gage is 35 ft below National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records excellent. Discharge represents seepage and return flow from irrigated areas.

AVERAGE DISCHARGE.--8 years (water years 1980-87), 296 ft³/s, 214,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 833 ft³/s, Dec. 9, 1982, gage height, 14.73 ft; minimum daily, 130 ft³/s, Nov. 29, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 713 ft³/s, Oct. 10, gage height, 13.60 ft; minimum daily, 257 ft³/s, June 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	317	303	337	365	353	457	361	354	315	303	320	405
2	311	288	344	395	373	428	366	375	322	293	319	406
3	299	300	383	399	406	427	363	384	322	278	322	378
4	294	331	389	372	399	425	351	394	298	278	347	352
5	291	350	374	346	381	395	368	405	297	281	368	322
6	291	355	369	336	380	360	388	400	281	292	353	304
7	295	338	401	353	350	360	391	404	259	292	339	310
8	303	328	428	338	336	365	376	411	259	311	372	311
9	354	336	435	331	330	400	364	408	270	326	370	307
10	587	339	409	317	344	452	360	409	268	317	367	310
11	417	325	372	322	345	450	370	418	263	323	360	320
12	381	320	331	353	360	411	357	408	257	323	355	318
13	351	304	318	398	388	383	353	407	265	340	345	307
14	328	312	331	388	372	357	363	396	275	335	328	307
15	329	317	364	357	348	344	357	377	282	341	336	323
16	353	342	377	357	340	348	346	337	277	336	333	350
17	369	349	357	351	344	368	346	347	276	329	363	375
18	368	349	327	373	362	360	358	349	268	325	369	394
19	361	345	315	398	367	344	380	364	275	341	355	397
20	351	358	320	413	339	327	415	362	270	342	341	383
21	357	342	338	391	332	315	430	339	279	340	357	355
22	342	346	366	355	331	330	407	316	288	336	362	357
23	325	343	393	350	332	341	392	303	300	332	368	369
24	322	324	419	351	372	378	367	292	302	322	393	375
25	316	312	432	345	431	399	349	299	301	327	419	384
26	315	293	451	357	471	405	358	324	294	325	441	379
27	318	296	471	369	510	397	364	339	284	314	424	384
28	325	307	422	381	517	402	382	340	287	321	368	365
29	343	301	356	395	---	405	394	338	303	331	343	343
30	334	316	334	402	---	379	373	331	299	336	346	362
31	321	---	344	373	---	363	---	317	---	323	372	---
TOTAL	10568	9769	11607	11331	10513	11875	11149	11247	8536	9913	11155	10552
MEAN	341	326	374	366	375	383	372	363	285	320	360	352
MAX	587	358	471	413	517	457	430	418	322	342	441	406
MIN	291	288	315	317	330	315	346	292	257	278	319	304
AC-FT	20960	19380	23020	22480	20850	23550	22110	22310	16930	19660	22130	20930
CAL YR 1986	TOTAL	133149	MEAN	365	MAX	587	MIN	284	AC-FT	264100		
WTR YR 1987	TOTAL	128215	MEAN	351	MAX	587	MIN	257	AC-FT	254300		

SALTON SEA BASIN

10255550 NEW RIVER NEAR WESTMORLAND, CA

LOCATION.--Lat 33°06'17", long 115°39'49", in SW 1/4 SW 1/4 sec.19, T.12 S., R.13 E., Imperial County, Hydrologic Unit 18100200, on right bank 3.5 mi upstream from mouth and 5.2 mi northwest of Westmorland.

PERIOD OF RECORD.--January 1943 to September 1960 (monthly discharge only, published in WSP 1734), October 1960 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 220 ft below National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 9, 10, Mar. 23, Sept. 2. Discharge mainly represents seepage and return flow from irrigated areas.

COOPERATION.--Records were provided by Imperial Irrigation District; two discharge measurements were made, and records were reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,000 ft³/s, Aug. 17, 18, 1977, estimated by Imperial Irrigation District; minimum daily, 293 ft³/s, Jan. 6, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,480 ft³/s, Oct. 10; minimum daily, 528 ft³/s, July 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	677	692	579	613	725	736	878	835	645	585	658	673
2	677	677	609	597	671	742	848	795	671	583	660	700
3	681	645	650	615	673	706	795	808	648	571	692	706
4	690	631	660	648	702	704	830	813	641	542	700	702
5	690	643	683	631	725	744	804	830	637	528	654	669
6	652	681	664	595	704	771	793	830	643	547	675	619
7	690	681	662	571	717	738	826	824	652	563	706	625
8	789	681	650	595	715	687	811	828	623	583	681	599
9	883	675	658	597	669	671	826	808	627	617	681	605
10	1480	670	664	581	685	683	813	824	613	609	664	615
11	1470	652	656	587	664	709	791	828	603	605	660	629
12	1150	635	635	577	679	738	813	844	631	627	656	641
13	822	621	603	627	677	778	780	846	627	652	658	664
14	658	627	601	656	696	771	769	846	615	645	658	639
15	625	631	583	692	702	736	786	806	603	648	645	650
16	611	631	599	698	656	696	804	784	609	648	641	667
17	625	627	617	660	687	729	822	753	605	673	621	669
18	652	683	631	589	671	746	826	696	597	643	617	671
19	656	648	625	563	681	776	808	681	597	639	671	704
20	643	607	597	585	692	757	748	700	611	637	675	717
21	643	635	579	639	696	753	771	748	593	656	685	692
22	648	643	591	675	683	717	795	755	557	648	685	698
23	671	623	607	671	667	719	853	721	567	650	700	683
24	650	627	633	639	673	725	871	673	573	652	713	690
25	683	619	627	641	702	744	846	641	615	645	711	751
26	671	601	621	625	767	795	813	627	587	631	738	736
27	637	583	645	645	774	833	822	656	611	637	763	725
28	667	547	679	681	744	869	806	698	625	656	748	721
29	650	597	683	692	---	862	844	725	599	633	713	721
30	683	609	675	721	---	873	841	700	595	635	685	709
31	709	---	635	734	---	873	---	679	---	643	679	---
TOTAL	23133	19122	19601	19640	19497	23381	24433	23602	18420	19231	21093	20290
MEAN	746	637	632	634	696	754	814	761	614	620	680	676
MAX	1480	692	683	734	774	873	878	846	671	673	763	751
MIN	611	547	579	563	656	671	748	627	557	528	617	599
AC-FT	45880	37930	38880	38960	38670	46380	48460	46810	36540	38140	41840	40250
CAL YR 1986 TOTAL	258305			MEAN 708	MAX 1480	MIN 547	AC-FT 512300					
WTR YR 1987 TOTAL	251443			MEAN 689	MAX 1480	MIN 528	AC-FT 498700					

SALTON SEA BASIN

10255805 COYOTE CREEK BELOW BOX CANYON, NEAR BORREGO SPRINGS, CA

LOCATION.--Lat 33°21'54", long 116°24'57", in SW 1/4 NW 1/4 sec.25, T.9 S., R.5 E., San Diego County, Hydrologic Unit 18100200, in Anza-Borrego Desert State Park, on right bank 0.9 mi downstream from Box Canyon, 1.4 mi northwest of Rancho De Anza, and 7.8 mi northwest of Borrego Springs.

DRAINAGE AREA.--154 mi².

PERIOD OF RECORD.--October 1983 to current year. Records prior to October 1983 published as Coyote Creek near Borrego Springs (station 10255800) are not equivalent because of difference in drainage areas.

GAGE.--Water-stage recorder. Elevation of gage is 1,100 ft above National Geodetic Vertical Datum of 1929, from topographic map. Since Sept. 30, 1983, at present site and datum. Apr. 19, 1978, to Sept. 30, 1983, at site 0.9 mi upstream at different datum. Mar. 24, 1967, to Apr. 18, 1978, at site 0.5 mi upstream at different datum. Prior to Mar. 24, 1967, at site 1.0 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 10 to Nov. 6, Nov. 19, Dec. 28 to Feb. 1. Records poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 400 ft³/s, estimated, Mar. 1, 1983, gage height, 2.91 ft, from floodmarks; minimum daily, 1.2 ft³/s, July 14, 22, 23, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 9	2000	*27	*2.53				
Minimum daily, 1.2 ft ³ /s, July 14, 22, 23.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	3.1	3.9	2.4	4.0	5.1	4.0	3.3	2.0	1.6	1.4	1.7
2	2.3	3.2	3.7	2.5	4.0	5.1	3.8	3.3	1.7	1.6	1.4	1.6
3	2.2	3.2	3.8	2.5	4.0	5.2	4.1	2.7	1.5	1.6	1.3	1.6
4	2.2	3.2	3.8	2.8	4.0	5.3	4.0	2.5	1.7	1.6	1.3	1.6
5	2.2	3.3	3.7	5.0	4.1	5.3	3.7	2.5	1.9	1.6	1.5	1.6
6	2.2	3.3	3.8	8.2	4.1	6.4	3.6	2.4	1.9	1.5	1.9	1.6
7	2.2	3.3	3.4	9.0	4.3	6.8	3.5	2.3	1.8	1.5	1.5	1.7
8	2.2	3.4	3.0	7.0	4.3	5.3	3.2	2.3	1.7	1.4	1.3	1.7
9	4.7	3.3	2.7	6.2	4.3	4.7	3.1	2.4	1.6	1.4	1.3	1.6
10	3.0	3.5	2.4	5.5	4.2	4.4	3.1	2.4	1.6	1.4	1.3	1.7
11	2.7	3.5	2.3	4.7	4.4	4.2	2.9	2.5	1.6	1.4	1.3	1.7
12	2.5	3.3	2.4	4.4	4.4	4.2	2.8	2.3	1.6	1.3	1.3	1.8
13	2.4	3.2	2.4	4.2	4.5	4.5	2.6	2.2	1.5	1.3	1.4	2.0
14	2.4	3.3	2.4	4.1	4.3	4.4	2.4	2.3	1.5	1.2	1.5	2.1
15	2.4	3.3	2.3	4.0	4.2	4.6	2.3	2.4	1.6	1.3	1.5	2.1
16	2.5	3.3	2.3	4.0	4.5	4.3	2.1	2.4	1.6	1.3	1.5	2.2
17	2.5	3.4	2.2	4.0	4.4	4.0	2.1	2.3	1.6	1.4	1.5	2.4
18	2.6	6.5	2.2	4.0	4.6	4.0	2.3	2.4	1.5	1.3	1.5	2.5
19	2.5	4.8	2.2	4.0	4.6	4.2	2.4	2.8	1.5	1.3	1.5	2.6
20	2.6	4.3	2.3	4.0	4.7	4.1	2.4	2.8	1.5	1.4	1.6	2.6
21	2.7	3.9	2.3	4.1	4.8	4.4	2.2	2.8	1.5	1.3	1.5	2.6
22	2.8	3.8	2.3	4.3	5.0	4.6	2.2	2.7	1.5	1.2	1.6	2.7
23	2.9	3.6	2.4	4.0	5.1	4.2	2.2	2.6	1.5	1.2	1.5	2.9
24	2.9	3.5	2.4	3.9	6.7	4.4	2.3	2.7	1.5	1.5	1.5	3.1
25	2.9	3.3	2.4	3.7	5.3	4.7	2.1	2.8	1.6	1.4	1.6	3.3
26	2.9	3.3	2.4	3.6	5.2	4.5	2.1	3.0	1.5	1.4	1.6	3.0
27	2.9	3.6	2.4	3.7	4.5	4.3	2.3	2.9	1.5	1.4	1.6	3.0
28	2.9	3.8	2.3	3.8	4.5	4.2	2.9	2.8	1.6	1.5	1.6	2.9
29	3.0	4.0	2.3	4.0	---	4.0	2.8	2.6	1.6	1.4	1.6	2.9
30	3.0	4.0	2.4	4.1	---	4.1	3.2	2.5	1.6	1.3	1.5	2.9
31	3.1	---	2.4	4.1	---	4.1	---	2.2	---	1.3	1.6	---
TOTAL	82.7	108.5	83.2	135.8	127.0	143.6	84.7	80.1	48.3	43.3	46.0	67.7
MEAN	2.67	3.62	2.68	4.38	4.54	4.63	2.82	2.58	1.61	1.40	1.48	2.26
MAX	4.7	6.5	3.9	9.0	6.7	6.8	4.1	3.3	2.0	1.6	1.9	3.3
MIN	2.2	3.1	2.2	2.4	4.0	4.0	2.1	2.2	1.5	1.2	1.3	1.6
AC-FT	164	215	165	269	252	285	168	159	96	86	91	134

CAL YR 1986	TOTAL	1097.7	MEAN 3.01	MAX	21	MIN 1.6	AC-FT	2180
WTR YR 1987	TOTAL	1050.9	MEAN 2.88	MAX	9.0	MIN 1.2	AC-FT	2080

SALTON SEA BASIN

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 northwest of Borrego Springs.

DRAINAGE AREA.--21.8 mi².

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.

REVISED RECORD.--WSP 2128: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,200 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--37 years, 0.98 ft³/s, 710 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft³/s, Aug. 16, 1979, gage height, 9.8 ft, 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 greater than base discharge of 15 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 10	0015	*11	*3.18	Jan. 5	0230	*11	*3.18

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.43	.72	1.5	1.3	2.5	.85	.51	.86			
2	.10	.44	.74	1.5	1.2	2.8	.88	.55	.82			
3	.18	.47	.75	1.5	1.2	2.6	1.1	.46	.81			
4	.17	.46	.75	1.9	1.2	2.4	1.6	.39	.89			
5	.18	.51	.75	5.5	1.1	2.2	1.1	.34	.89			
6	.18	.52	.89	2.6	1.0	4.7	.97	.30	.75			
7	.19	.56	2.0	4.5	1.0	4.6	.87	.26	.69			
8	.21	.59	1.2	2.8	1.1	2.4	.78	.24	.63			
9	.51	.59	.95	2.1	1.1	1.8	.70	.25	.59			
10	4.0	.59	.93	1.8	1.0	1.4	.65	.24	.52			
11	.76	.58	.93	1.6	.95	1.2	.67	.30	.45			
12	.50	.57	.93	1.6	.94	1.1	.73	.27	.38			
13	.43	.56	.93	1.6	.93	.99	.68	.26	.29			
14	.38	.57	.94	1.6	.90	.99	.65	.33	.22			
15	.39	.58	.96	1.6	.83	2.8	.59	.31	.18			
16	.38	.62	.97	1.7	.84	2.1	.54	.34	.12			
17	.38	.66	.98	1.5	.81	1.6	.51	.32	.06			
18	.42	1.4	1.0	1.6	.83	1.2	.54	.31	.04			
19	.42	.90	1.1	1.6	.83	1.2	.64	.35	.02			
20	.42	.79	1.2	1.5	.82	1.1	.61	.53	.01			
21	.42	.74	1.2	1.5	.81	1.7	.56	.66	.01			
22	.42	.72	1.1	1.6	.80	3.8	.52	.63	.01			
23	.40	.70	1.1	1.6	1.1	3.0	.48	.59	0			
24	.39	.72	1.2	1.6	2.9	2.3	.46	.60	0			
25	.39	.74	1.2	1.5	2.5	1.7	.42	.73	0			
26	.39	.72	1.3	1.5	2.6	1.2	.39	1.1	0			
27	.39	.73	1.3	1.5	2.0	1.1	.37	1.2	0			
28	.40	.75	1.4	1.4	2.3	.99	.36	1.1	0			
29	.41	.72	1.4	1.4	---	.93	.37	1.0	0			
30	.41	.68	1.4	1.4	---	.90	.42	1.0	0			
31	.42	---	1.4	1.5	---	.85	---	.91	---			---
TOTAL	14.64	19.61	33.62	58.1	34.89	60.15	20.01	16.38	9.24	0	0	0
MEAN	.47	.65	1.08	1.87	1.25	1.94	.67	.53	.31	0	0	0
MAX	4.0	1.4	2.0	5.5	2.9	4.7	1.6	1.2	.89	0	0	0
MIN	0	.43	.72	1.4	.80	.85	.36	.24	0	0	0	0
AC-FT	29	39	67	115	69	119	40	32	18	0	0	0

CAL YR 1986 TOTAL 398.50 MEAN 1.09 MAX 24 MIN 0 AC-FT 790
WTR YR 1987 TOTAL 266.64 MEAN .73 MAX 5.5 MIN 0 AC-FT 529

SALTON SEA BASIN

10255885 SAN FELIPE CREEK NEAR WESTMORLAND, CA

LOCATION.--Lat 33°07'26", long 115°51'08", in NW 1/4 SW 1/4 sec.17, T.12 S., R.11 E., Imperial County, Hydrologic Unit 18100200, on left bank 320 ft downstream from bridge on State Highway 86, 14.6 mi northwest of Westmorland, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--1,693 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 190 ft below National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 10, 1976, at site on left bank 320 ft downstream from bridge on State Highway 86 at different datum.

REMARKS.--Estimated daily discharges: All daily discharges were estimated except Oct. 9-13 and Aug. 6, 7. Records poor. No regulation above station. Diversion and pumping for domestic use and irrigation in Borrego Valley 25 mi upstream.

AVERAGE DISCHARGE.--26 years (water years 1962-87), 7.62 ft³/s, 5,520 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft³/s, Sept. 10, 1976, gage height, 19.0 ft, site and datum then in use, from rating curve extended above 500 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow; no flow for months most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*), from rating curve extended above 10 ft³/s on basis of discharge measurement at gage height 14.53 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 10	0330	*3,060	*12.44	Aug. 6	2100	336	6.59

Minimum daily, 0.80 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.0	1.1	1.5	3.2	2.7	2.3	1.7	1.1	.80	.90	.90
2	1.1	1.0	1.1	1.5	3.2	2.7	2.3	1.7	1.1	.80	.90	.90
3	1.1	1.0	1.1	1.5	3.2	2.7	2.3	1.6	1.1	.80	.90	.90
4	1.1	1.0	1.1	1.5	3.2	2.7	2.3	1.6	1.0	.80	.90	.90
5	1.1	1.0	1.1	70	3.1	2.7	2.3	1.6	1.0	.80	.90	.90
6	1.1	1.0	1.1	10	3.1	4.0	2.3	1.6	1.0	.80	28	.90
7	1.1	1.0	1.1	6.0	3.1	2.7	2.2	1.6	1.0	.80	9.0	.90
8	1.1	1.0	3.0	4.0	3.0	2.7	2.2	1.5	1.0	.80	2.0	.80
9	102	1.0	1.5	4.0	3.0	2.7	2.1	1.5	1.0	.80	1.1	.80
10	1230	1.0	1.5	3.9	3.0	2.7	2.1	1.5	1.0	.80	1.0	.80
11	150	1.1	1.5	3.9	2.9	2.7	2.0	1.5	1.0	.90	1.0	.80
12	20	1.1	1.5	3.9	2.9	2.7	2.0	1.5	.90	.90	1.0	.80
13	5.0	1.1	1.5	3.8	2.9	2.7	1.9	1.4	.90	.90	.90	.80
14	2.0	1.1	1.5	3.8	2.9	2.7	1.8	1.4	.90	.90	.90	.80
15	1.5	1.1	1.5	3.8	2.8	5.0	1.8	1.4	.90	.90	.90	.80
16	1.3	1.1	1.5	3.7	2.8	2.7	1.8	1.4	.90	.90	.90	.80
17	1.2	1.1	1.5	3.7	2.8	2.7	1.8	1.4	.90	.90	.90	.80
18	1.0	2.0	1.5	3.7	2.8	2.7	1.8	1.3	.80	.90	.90	.80
19	1.0	1.5	1.5	3.6	2.8	2.7	1.8	1.3	.80	.90	.90	.80
20	1.0	1.2	1.5	3.6	2.8	2.7	1.8	1.3	.80	.90	.90	.80
21	1.0	1.1	1.5	3.6	2.7	2.9	1.8	1.3	.80	.90	.90	.80
22	1.0	1.1	1.5	3.5	2.7	5.5	1.8	1.3	.80	.90	.90	.80
23	1.0	1.1	1.5	3.5	5.0	3.5	1.8	1.2	.80	.90	.90	.80
24	1.0	1.1	1.5	3.5	2.7	2.7	1.7	1.2	.80	.90	.90	.80
25	1.0	1.1	1.5	3.4	2.7	2.6	1.7	1.2	.80	.90	.90	.80
26	1.0	1.1	1.5	3.4	2.7	2.5	1.7	1.2	.80	.90	.90	.80
27	1.0	1.1	1.5	3.4	2.7	2.5	1.7	1.2	.80	.90	.90	.80
28	1.0	1.1	1.5	3.3	2.7	2.5	1.7	1.1	.80	.90	.90	.80
29	1.0	1.1	1.5	3.3	---	2.4	1.7	1.1	.80	.90	.90	.80
30	1.0	1.1	1.5	3.3	---	2.4	1.7	1.1	.80	.90	.90	.80
31	1.0	---	1.5	3.2	---	2.3	---	1.1	---	.90	.90	---
TOTAL	1535.8	33.4	45.2	178.8	83.4	89.4	58.2	42.8	27.10	26.90	64.70	24.70
MEAN	49.5	1.11	1.46	5.77	2.98	2.88	1.94	1.38	.90	.87	2.09	.82
MAX	1230	2.0	3.0	70	5.0	5.5	2.3	1.7	1.1	.90	28	.90
MIN	1.0	1.0	1.1	1.5	2.7	2.3	1.7	1.1	.80	.80	.90	.80
AC-FT	3050	66	90	355	165	177	115	85	54	53	128	49
CAL YR 1986	TOTAL	3834.20	MEAN	10.5	MAX	1230	MIN	.30	AC-FT	7610		
WTR YR 1987	TOTAL	2210.40	MEAN	6.06	MAX	1230	MIN	.80	AC-FT	4380		

SALTON SEA BASIN

10256060 WHITEWATER RIVER AT WHITE WATER CUTOFF, AT WHITE WATER, CA

LOCATION.--Lat 33°55'31", long 116°38'07", in NE 1/4 SE 1/4 sec.11, T.3 S., R.3 E., Riverside County, Hydrologic Unit 18100200, on center pier of White Water Cutoff (old Highway 99) bridge, 0.1 mi east of White Water, 0.75 mi downstream from Metropolitan Water District's Colorado River Aqueduct turnout, and 2.0 mi upstream from San Geronio River.

DRAINAGE AREA.--59.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1985 (discharge measurements only), October 1985 to current year.

GAGE.--Water-stage recorder and concrete rectangular weir. Elevation of gage is 1,360 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 3-5, Nov. 27 to Dec. 28, Jan. 6-26, Feb. 22-28, and Apr. 14 to Sept. 30. Records fair except those for periods of estimated daily discharges, which are poor. Imported water is released to the Whitewater River from the Colorado River Aqueduct at a point 0.75 mi upstream. Water is diverted out of the basin 16.5 mi upstream to powerplants in the San Geronio River basin and then to an area north of Banning for irrigation. For records of releases and diversions see Whitewater River at Windy Point, near White Water (station 10257550).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,020 ft³/s, Feb. 15, 1986, gage height, 11.97 ft, from rating curve extended above 900 ft³/s; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 846 ft³/s, Nov. 22, gage height, 10.51 ft; no flow Nov. 19, 27-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	804	770	750	824	823	523	488	6.0	2.5	.50	.50	4.0
2	778	779	750	825	621	523	435	6.0	1.0	.50	.50	4.0
3	840	769	750	828	623	516	496	6.0	1.0	.50	.50	4.0
4	840	794	750	780	627	486	492	6.0	1.0	.50	.50	4.0
5	840	789	750	756	626	476	491	6.0	.50	.50	.50	4.0
6	839	785	750	760	624	423	487	6.0	.50	.50	.50	4.0
7	834	776	750	760	623	444	487	6.0	.50	.50	.50	4.0
8	832	541	750	700	621	457	485	6.0	.50	.50	.50	4.0
9	807	602	750	620	623	460	347	6.0	.50	.50	.50	4.0
10	557	791	750	620	628	460	122	6.0	.50	.50	2.0	4.0
11	540	791	750	620	633	448	42	6.0	.50	.50	2.0	3.0
12	501	790	750	620	635	478	44	6.0	.50	.50	2.0	3.0
13	556	782	750	660	634	476	26	6.0	.50	.50	2.0	3.0
14	708	785	750	660	634	489	10	6.0	.50	.50	2.0	3.0
15	799	773	750	660	631	488	10	6.0	.50	.50	2.0	3.0
16	656	769	750	660	631	485	9.0	5.0	.50	.50	2.5	2.5
17	493	774	750	660	628	482	9.0	5.0	.50	.50	2.5	2.5
18	499	248	750	675	625	482	9.0	5.0	.50	.50	2.5	2.5
19	531	0	750	666	627	479	9.0	5.0	.50	.50	2.5	2.5
20	533	455	750	632	625	476	9.0	5.0	.50	.50	2.5	2.5
21	693	821	750	660	627	479	8.0	4.0	.50	.50	3.5	2.0
22	791	846	750	660	624	382	8.0	4.0	.50	.50	3.5	2.0
23	791	846	750	655	600	470	8.0	4.0	.50	.50	3.5	2.0
24	792	720	1.0	659	600	499	8.0	4.0	.50	.50	3.5	2.0
25	793	767	1.0	658	580	482	8.0	4.0	.50	.50	3.5	2.0
26	780	667	1.0	656	560	485	7.0	3.0	.50	.50	3.5	2.0
27	750	0	1.0	653	540	486	7.0	3.0	.50	.50	3.5	2.0
28	748	0	1.0	660	521	465	7.0	3.0	.50	.50	3.5	2.0
29	773	0	437	664	---	493	7.0	3.0	.50	.50	3.5	2.0
30	787	0	826	646	---	490	7.0	3.0	.50	.50	3.5	2.0
31	802	---	673	623	---	489	---	3.0	---	.50	3.5	---
TOTAL	22287	18230	19191.0	21180	17194	14771	4582.0	153.0	18.50	15.50	67.50	87.5
MEAN	719	608	619	683	614	476	153	4.94	.62	.50	2.18	2.92
MAX	840	846	826	828	635	523	496	6.0	2.5	.50	3.5	4.0
MIN	493	0	1.0	620	521	382	7.0	3.0	.50	.50	.50	2.0
AC-FT	44210	36160	38070	42010	34100	29300	9090	303	37	31	134	174

CAL YR 1986 TOTAL 160297.00 MEAN 439 MAX 960 MIN 0 AC-FT 317900
WTR YR 1987 TOTAL 117777.00 MEAN 323 MAX 846 MIN 0 AC-FT 233600

SALTON SEA BASIN

10256060 WHITEWATER RIVER AT WHITE WATER CUTOFF, AT WHITE WATER, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-76, 1978 to current year.

CHEMICAL DATA: Water years 1972-76, 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD 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)
OCT 30...	1100	891	848	8.4	20.5	260	130	63	25	72
APR 22...	1200	7.8	360	8.9	19.5	170	12	48	12	12
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	CAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL 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)
OCT 30...	37	2	3.7	161	0	133	132	220	60	0.30
APR 22...	13	0.4	3.8	190	1	157	157	30	3.2	0.80
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)	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)	
OCT 30...	8.9	543	530	0.74	0.170	<0.010	110	9	<1	
APR 22...	14	215	220	0.29	0.350	0.030	10	11	2	

< Actual value is known to be less than the value shown.

SALTON SEA BASIN

10256500 SNOW CREEK NEAR WHITE WATER, CA

LOCATION.--Lat 33°52'14", long 116°40'49", in NW 1/4 NW 1/4 sec.33, T.3 S., R.3 E., Riverside County, Hydrologic Unit 18100200, on left bank 10 ft upstream from Desert Water Agency diversion dam, 0.1 mi downstream from East Fork, and 4.4 mi southwest of White Water.
DRAINAGE AREA.--10.8 mi².

WATER-DISCHARGE RECORDS

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. Elevation of both gages is 2,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to September 1931, at various sites within 500 ft of present site at different datums. October 1959 to Oct. 6, 1970, at site 40 ft upstream at present datum. Oct. 6, 1970, to Oct. 25, 1978, at site 290 ft upstream above diversion at present datum. Gage moved to present site 10 ft downstream from diversion and 10 ft upstream from concrete diversion dam Oct. 25, 1978.

REMARKS.--Estimated daily discharges: Oct. 1 to Mar. 16, Mar. 25-31, Apr. 4, 5, and Aug. 1 to Sept. 30. Records fair. No regulation above station. Desert Water Agency diverts 10 ft 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 files of the U.S. Geological Survey.

AVERAGE DISCHARGE.--Combined creek and diversion: 35 years (water years 1923-26, 1929-31, 1960-87), 9.78 ft³/s, 7,090 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s, Jan. 25, 1969, gage height, 13.8 ft, from floodmarks, site and datum then in use, from rating curve extended above 55 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 2.1 ft³/s, June 23-27, Sept. 5-11, 1961.

EXTREMES FOR CURRENT YEAR.--Combined creek and diversion: Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	1330	*40	*3.05				

Minimum daily, 4.0 ft³/s, Sept. 1-30.

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	5.7	5.7	5.7	7.3	7.4	8.2	9.9	6.5	5.1	4.5	4.0
2	5.7	5.7	5.7	5.7	7.3	7.5	8.2	9.3	6.5	5.1	4.5	4.0
3	5.7	5.7	5.7	5.7	7.3	7.7	8.5	8.6	6.4	5.0	4.5	4.0
4	5.7	5.7	5.7	5.7	7.3	8.0	8.2	8.4	6.5	5.0	4.5	4.0
5	5.7	5.7	5.7	5.7	7.3	13	8.0	8.3	6.4	5.0	4.5	4.0
6	5.7	5.7	5.7	5.9	7.3	24	8.0	8.3	6.4	5.0	4.5	4.0
7	5.7	5.7	5.7	6.1	7.3	13	8.0	8.5	6.5	5.0	4.5	4.0
8	5.7	5.7	5.7	6.3	7.3	11	8.2	9.6	6.4	5.0	4.5	4.0
9	5.7	5.7	5.7	6.6	7.3	9.6	9.1	8.9	6.1	5.1	4.5	4.0
10	5.7	5.7	5.7	7.3	7.3	9.0	9.8	8.4	6.1	5.1	4.5	4.0
11	5.7	5.7	5.7	7.3	7.3	8.6	10	8.3	5.9	5.0	4.5	4.0
12	5.7	5.7	5.7	7.3	7.3	8.4	11	8.4	5.8	5.0	4.5	4.0
13	5.7	5.7	5.7	7.3	7.3	8.0	11	8.4	5.8	4.9	4.5	4.0
14	5.7	5.7	5.7	7.3	7.3	7.8	10	8.4	5.8	4.3	4.5	4.0
15	5.7	5.7	5.7	7.3	7.3	7.6	10	8.5	5.7	4.9	4.5	4.0
16	5.7	5.7	5.7	7.3	7.3	7.6	9.9	8.4	5.6	5.1	4.5	4.0
17	5.7	5.7	5.7	7.3	7.3	7.6	10	8.0	5.5	5.0	4.5	4.0
18	5.7	5.7	5.7	7.3	7.3	7.6	10	7.8	5.5	5.0	4.5	4.0
19	5.7	5.7	5.7	7.3	7.3	7.6	9.6	7.7	5.5	4.9	4.5	4.0
20	5.7	5.7	5.7	7.3	7.3	7.6	8.7	7.8	5.4	5.1	4.5	4.0
21	5.7	5.7	5.7	7.3	7.3	7.6	8.5	7.7	5.4	5.1	4.5	4.0
22	5.7	5.7	5.7	7.3	7.3	7.6	8.4	7.3	5.4	5.0	4.5	4.0
23	5.7	5.7	5.7	7.3	7.3	7.6	8.5	7.3	5.4	4.9	4.5	4.0
24	5.7	5.7	5.7	7.3	7.3	8.2	8.8	7.2	5.4	4.9	4.5	4.0
25	5.7	5.7	5.7	7.3	7.3	8.2	8.9	7.1	5.4	4.8	4.5	4.0
26	5.7	5.7	5.7	7.3	7.3	8.2	9.8	7.0	5.2	4.9	4.5	4.0
27	5.7	5.7	5.7	7.3	7.3	8.2	11	7.2	5.2	5.1	4.5	4.0
28	5.7	5.7	5.7	7.3	7.3	8.2	12	7.1	5.1	5.5	4.5	4.0
29	5.7	5.7	5.7	7.3	---	8.2	11	7.0	5.1	5.2	4.5	4.0
30	5.7	5.7	5.7	7.3	---	8.2	11	6.7	5.1	5.0	4.5	4.0
31	5.7	---	5.7	7.3	---	8.2	---	6.6	---	5.0	4.5	---
TOTAL	176.7	171.0	176.7	214.0	204.4	277.0	282.3	248.1	173.0	155.0	139.5	120.0
MEAN	5.70	5.70	5.70	6.90	7.30	8.94	9.41	8.00	5.77	5.00	4.50	4.00
MAX	5.7	5.7	5.7	7.3	7.3	24	12	9.9	6.5	5.5	4.5	4.0
MIN	5.7	5.7	5.7	5.7	7.3	7.4	8.0	6.6	5.1	4.3	4.5	4.0
AC-FT	350	339	350	424	405	549	560	492	343	307	277	238

YR 1986 TOTAL 3299.6 MEAN 9.04 MAX 152 MIN 5.1 AC-FT 6540
YR 1987 TOTAL 2337.7 MEAN 6.40 MAX 24 MIN 4.0 AC-FT 4640

SALTON SEA BASIN

10256500 SNOW CREEK NEAR WHITE WATER, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972-76, 1978 to current year.

CHEMICAL DATA: Water years 1972-76, 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD 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)
OCT 29...	1115	5.7	110	8.0	14.5	34	0	12	1.1	9.2
APR 23...	1330	7.9	97	8.0	15.5	31	0	11	0.96	7.7
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	CAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL 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)
OCT 29...	35	0.7	2.1	65	0	53	55	2.3	1.5	<0.10
APR 23...	33	0.6	1.8	57	0	47	49	1.7	1.6	<0.10
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)	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)	
OCT 29...	19	81	80	0.11	<0.100	<0.050	10	9	<1	
APR 23...	18	67	72	0.09	<0.100	<0.010	<10	8	1	

< Actual value is known to be less than the value shown.

SALTON SEA BASIN

10257550 WHITEWATER RIVER AT WINDY POINT, NEAR WHITE WATER, CA

LOCATION.--Lat 33°53'56", long 116°37'13", in SW 1/4 NE 1/4 sec.24, T.3 S., R.3 E., Riverside County, Hydrologic Unit 18100200, on right bank 200 ft north of Highway 111, 2.0 mi southeast of White Water, and 3.8 mi east of the junction of Highway 111 and Interstate 10.

DRAINAGE AREA.--263 mi².

PERIOD OF RECORD.--October 1984 to current year. Discharge measurements only, July 1982 to September 1984.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 1,040 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 3-22, 24-28, Apr. 2-10. Records fair except those for periods of estimated discharge, which are poor. Imported water is released to the Whitewater River from the Colorado River Aqueduct at a point 2.75 mi upstream for ground-water recharge in the upper Coachella Valley. Water is diverted out of the basin 18.5 mi upstream to powerplants in the San Geronio River basin and then to an area north of Banning for irrigation.

COOPERATION.--Records of diversion out of basin were provided by Southern California Edison Co. Records of Colorado River Aqueduct releases were provided by Coachella Valley Water District (from Metropolitan Water District's monthly reports).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft³/s, Nov. 22, 1986, gage height, 4.33 ft; no flow for several days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,190 ft³/s, Nov. 22, gage height, 4.33 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560	637	227	435	702	565	406			0		0
2	563	663	669	557	670	558	250			0		0
3	615	660	640	636	629	548	250			0		0
4	654	615	640	726	608	491	250			0		0
5	578	598	640	802	589	455	250			0		0
6	578	556	640	824	580	562	250			0		0
7	565	522	640	738	594	535	250			0		0
8	655	689	640	737	591	493	250			0		0
9	597	624	640	739	591	517	250			0		0
10	693	668	640	736	590	500	50			0		0
11	625	711	640	747	595	413	0			0		0
12	668	678	640	650	626	436	0			0		0
13	718	619	640	616	582	383	0			0		0
14	634	592	640	664	595	378	0			0		0
15	545	653	640	603	583	412	0			0		0
16	679	682	640	545	639	412	0			0		0
17	683	209	640	518	599	411	0			0		0
18	672	41	640	486	608	393	0			0		0
19	707	8.2	640	488	624	394	0			0		0
20	722	283	640	520	637	397	0			0		0
21	633	716	640	529	587	364	0			.62		0
22	661	882	640	508	547	353	0			.05		0
23	640	778	194	439	546	341	0			0		0
24	547	683	0	490	614	417	0			0		.06
25	512	712	0	477	380	451	0			0		0
26	419	498	0	476	594	436	0			0		0
27	509	0	0	508	572	436	0			0		0
28	429	0	0	538	579	431	0			0		0
29	439	0	217	590	---	448	0			0		0
30	469	0	295	568	---	435	0			0		0
31	520	---	383	661	---	421	---		---	0		---
TOTAL	18489	14977.2	14785	18551	16661	13786	2456	0	0	.67	0	.06
MEAN	596	499	477	598	595	445	81.9	0	0	.022	0	.002
MAX	722	882	669	824	702	565	406	0	0	.62	0	.06
MIN	419	0	0	435	380	341	0	0	0	0	0	0
AC-FT	36670	29710	29330	36800	33050	27340	4870	0	0	1.3	0	.1
a	38450	30130	35430	38470	30960	26140	8040	0	0	0	0	0
b	184	143	166	148	95	94	144	164	131	115	104	124

CAL YR 1986 TOTAL 135631.20 MEAN 372 MAX 923 MIN 0 AC-FT 269000
WTR YR 1987 TOTAL 99705.93 MEAN 273 MAX 882 MIN 0 AC-FT 197800

a Discharge, in acre-feet, of imported water released to river 2.75 mi upstream.

b Discharge, in acre-feet, diverted out of basin 18.5 mi upstream.

SALTON SEA BASIN

10257600 MISSION CREEK NEAR DESERT HOT SPRINGS, CA

LOCATION.--Lat 34°00'40", long 116°37'38", in NE 1/4 SW 1/4 sec.12, T.2 S., R.3 E., Riverside County, Hydrologic Unit 18100200, in Mission Creek Indian Reservation, 0.6 mi downstream from West Fork, and 6.8 mi northwest of Desert Hot Springs.

DRAINAGE AREA.--35.7 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 2,400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 7, Nov. 18 to Feb. 4, Apr. 26, and May 31 to June 10.

Records fair except those for periods of estimated record, which are poor. Slight regulation of low flow by two small dams with a combined capacity of about 3 acre-ft, 2 mi above station.

AVERAGE DISCHARGE.--20 years, 3.73 ft³/s, 2,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft³/s, Aug. 17, 1983, gage height, 3.33 ft, on basis of slope-conveyance study of peak flow; maximum gage height, 6.40 ft, Jan. 25, 1969; no flow for long periods in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 5	Unknown	a*10	*1.19				

a Estimated

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.90	1.0	.80	.40	.67	.67	.50	.10			
2	1.3	.90	1.0	.80	.40	.67	.80	.50	.10			
3	1.3	2.0	1.0	.80	.40	.58	.80	.43	.10			
4	1.3	1.0	1.0	.80	.40	.58	.80	.43	.10			
5	1.3	.90	1.0	5.0	.43	.50	.80	.28	.10			
6	1.2	.90	3.5	2.0	.43	.67	.80	.28	.05			
7	1.2	.90	1.4	2.5	.43	.67	.67	.28	.05			
8	1.2	.80	1.2	1.5	.43	.58	.67	.28	.05			
9	1.2	.94	1.0	1.0	.43	.58	.67	.24	.05			
10	1.2	.94	1.0	.90	.43	.58	.67	.24	.05			
11	1.2	1.1	1.0	.80	.43	.58	.67	.20	0			
12	1.2	.94	1.0	.80	.43	.50	.67	.24	0			
13	1.2	.94	1.0	.80	.43	.50	.67	.19	0			
14	1.2	1.1	1.0	.80	.43	.50	.67	.15	0			
15	1.1	1.1	1.0	.80	.50	.58	.67	.28	0			
16	1.1	.94	.90	.70	.50	.50	.58	.21	0			
17	1.1	1.1	.90	.70	.50	.50	.58	.16	0			
18	1.1	3.0	.90	.70	.50	.50	.67	.16	0			
19	1.1	1.1	.90	.70	.50	.67	.67	.20	0			
20	1.1	1.0	.90	.70	.50	.67	.67	.24	0			
21	1.1	1.0	.90	.60	.50	.94	.67	.24	0			
22	1.1	1.0	.90	.60	.50	.94	.58	.16	0			
23	1.1	1.0	.90	.60	.58	.80	.67	.13	0			
24	1.1	1.0	.90	.60	.80	.80	.58	.13	0			
25	1.1	1.0	.90	.60	.80	.80	.58	.20	0			
26	1.0	1.0	.80	.50	.67	.67	.40	.24	0			
27	1.0	1.0	.80	.50	.67	.67	.50	.20	0			
28	1.0	1.0	.80	.50	.67	.67	.43	.16	0			
29	1.0	1.0	.80	.50	---	.67	.43	.13	0			
30	1.0	1.0	.80	.50	---	.67	.43	.10	0			
31	.95	---	.80	.50	---	.67	---	.12	---			---
TOTAL	35.45	32.50	31.90	29.60	14.09	19.88	19.14	7.30	.75	0	0	0
MEAN	1.14	1.08	1.03	.95	.50	.64	.64	.24	.025	0	0	0
MAX	1.4	3.0	3.5	5.0	.80	.94	.80	.50	.10	0	0	0
MIN	.95	.80	.80	.50	.40	.50	.40	.10	0	0	0	0
AC-FT	70	64	63	59	28	39	38	14	1.5	0	0	0

CAL YR 1986	TOTAL	385.38	MEAN	1.06	MAX	19	MIN	0	AC-FT	764
WTR YR 1987	TOTAL	190.61	MEAN	.52	MAX	5.0	MIN	0	AC-FT	378

SALTON SEA BASIN

10257720 CHINO CANYON CREEK BELOW TRAMWAY, NEAR PALM SPRINGS, CA

LOCATION.--Lat 35°50'39", long 116°36'16", in NW 1/4 NE 1/4 sec.7, T.4 S., R.4 E., Riverside County, Hydrologic Unit 18100200, on left bank 0.5 mi downstream from tram building, 3.5 mi west of Highway 111 on road leading to Palm Springs aerial tramway, and 5.5 mi west of Palm Springs.

DRAINAGE AREA.--4.71 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1986 to September 1987.

GAGE.--Water-stage recorder. Elevation of gage is 2,100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 8, 19, Dec. 2, 4, 6-8, Dec. 26 to Jan. 23, Feb. 20-27, Mar. 19, 20, Apr. 5, 25-29, and May 10 to June 3. Records good except those for periods of estimated record, which are poor. Two small diversions 2 mi upstream, one for city of Palm Springs and one for Palm Springs aerial tramway. New gage not equivalent to prior station 10257710 Chino Canyon Creek near Palm Springs, due to increase in drainage area.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 19, 1985, at station 10257710 Chino Canyon Creek near Palm Springs 1.5 mi upstream was a debris flow as a result of intense thunderstorm activity less than 2 weeks after a brushfire denuded over 75 percent of the drainage basin. The maximum stage for this flood exceeded gage height 20.7 ft, completely filling the existing channel with boulders and mud and altering the entire canyon floor at the gage. The peak discharge for this flood is unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14 ft³/s, Nov. 18, gage height, 9.03 ft; minimum daily, 0.10 ft³/s, Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	1.0	1.2	1.3	1.1	1.1	.93	.71	.40	.21	.15	.16
2	.93	1.1	1.1	1.3	1.1	1.1	.93	.75	.40	.21	.14	.14
3	.96	1.1	1.1	1.3	1.1	1.1	.93	.70	.40	.21	.13	.13
4	.82	1.4	1.1	1.3	.91	1.1	.93	.63	.41	.20	.13	.15
5	.79	1.2	1.1	1.5	1.2	1.2	.76	.60	.38	.21	.13	.15
6	.79	1.1	1.1	1.5	1.4	2.1	.76	.55	.45	.18	.13	.14
7	.81	1.2	1.1	1.5	1.4	1.2	.79	.56	.31	.16	.11	.14
8	.76	1.1	1.1	1.5	1.4	1.3	.79	.53	.50	.17	.12	.14
9	1.6	1.1	1.0	1.5	1.4	1.4	.79	.57	.61	.17	.13	.15
10	1.6	1.1	.98	1.5	1.3	1.4	.79	.56	.49	.16	.12	.14
11	1.1	1.1	.80	1.4	1.1	1.1	.85	.56	.46	.18	.12	.15
12	.88	1.1	.86	1.2	1.1	1.1	.87	.56	.36	.18	.11	.14
13	.94	1.1	1.1	1.2	1.1	1.1	1.1	.56	.31	.15	.14	.11
14	.93	1.5	1.5	1.2	1.0	1.1	.88	.56	.31	.69	.14	.14
15	.93	1.3	2.3	1.2	1.2	1.3	.87	.56	.31	1.7	.11	.15
16	.93	1.1	1.3	1.2	1.1	1.1	.79	.50	.32	1.3	.14	.10
17	.97	2.0	1.4	1.2	1.0	.88	.79	.50	.31	.17	.13	.15
18	.92	3.2	2.2	1.2	1.2	.93	.79	.50	.30	.15	.14	.13
19	1.1	2.2	1.3	1.2	.89	.92	.72	.50	.29	.17	.12	.15
20	1.1	1.3	.83	1.2	.90	.92	.83	.50	.30	.18	.13	.14
21	1.1	1.3	.93	1.2	.90	.91	.93	.45	.26	.15	.13	.14
22	1.1	1.3	.93	1.2	1.1	1.2	.93	.45	.32	.14	.15	.16
23	1.1	1.4	1.2	1.2	.90	1.1	.81	.45	.26	.13	.12	.16
24	1.1	1.4	1.6	.93	1.5	1.1	.67	.45	.25	.15	.15	.16
25	1.1	1.3	.90	.93	1.3	1.1	.72	.45	.25	.13	.15	.16
26	1.1	1.1	1.3	1.0	1.1	.93	.72	.40	.21	.15	.14	.18
27	.93	1.1	1.3	1.1	1.1	.93	.72	.40	.24	.27	.13	.16
28	.93	1.1	1.3	1.3	1.1	.94	.72	.40	.21	.34	.12	.16
29	.93	1.1	1.3	1.3	---	1.1	.76	.40	.20	.21	.13	.16
30	.93	1.1	1.3	1.2	---	.97	.85	.40	.23	.15	.12	.17
31	.93	---	1.3	1.1	---	.89	---	.40	---	.14	.15	---
TOTAL	30.90	39.5	37.83	38.86	31.90	34.62	24.72	16.11	10.05	8.71	4.06	4.41
MEAN	1.00	1.32	1.22	1.25	1.14	1.12	.82	.52	.34	.28	.13	.15
MAX	1.6	3.2	2.3	1.5	1.5	2.1	1.1	.75	.61	1.7	.15	.18
MIN	.76	1.0	.80	.93	.89	.88	.67	.40	.20	.13	.11	.10
AC-FT	61	78	75	77	63	69	49	32	20	17	8.1	8.7

WTR YR 1987 TOTAL 281.67 MEAN .77 MAX 3.2 MIN .10 AC-FT 559

SALTON SEA BASIN

10257720 CHINO CANYON CREEK BELOW TRAMWAY, NEAR PALM SPRINGS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1986 to September 1987.

CHEMICAL DATA: October 1986 to September 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD 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)
OCT 29...	1430	0.93	211	8.5	19.0	79	0	27	2.7	10
APR 23...	1030	0.93	203	8.6	18.0	78	0	27	2.6	9.8
DATE	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	CAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL 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)
OCT 29...	20	0.5	5.5	120	2	102	103	6.9	2.7	<0.10
APR 23...	20	0.5	5.2	111	3	96	99	6.1	2.7	<0.10
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)	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)	
OCT 29...	18	134	130	0.18	<0.100	0.010	20	11	<1	
APR 23...	16	126	130	0.17	<0.100	<0.010	10	8	2	

< Actual value is known to be less than the value shown.

SALTON SEA BASIN

10258000 TAHQUITZ CREEK NEAR PALM SPRINGS, CA

LOCATION.--Lat 33°48'18", long 116°33'30", in SW 1/4 SW 1/4 sec.22, T.4 S., R.4 E., Riverside County, Hydrologic Unit 18100200, 2.2 mi southwest of Palm Springs and 7 mi upstream from mouth.

DRAINAGE AREA.--16.8 mi².

PERIOD OF RECORD.--October 1947 to September 1982, October 1983 to current year.

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

REMARKS.--Estimated daily discharges: Oct. 8 to Nov. 5, Nov. 9 to Dec. 4, and Mar. 17 to Apr. 6. Records fair except those for periods of estimated daily discharges, which are poor. No regulation or diversion above station.

AVERAGE DISCHARGE.--39 years (water years 1948-82, 1984-87), 5.28 ft³/s, 3,820 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,900 ft³/s, Nov. 22, 1965, Jan. 25, 1969, gage height, 12.34 ft, from rating curve extended above 70 ft³/s on basis of slope-area measurements at gage heights 10.45 and 12.34 ft; maximum gage height, 15.78 ft, 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 greater than base discharge of 85 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 18	1130	*5.3	*4.11				

No flow Aug. 23 to Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5	1.6	1.6	1.9	2.0	3.0	4.2	1.4	.08	.08	0
2	1.2	1.5	1.6	1.5	1.9	2.0	3.0	3.9	1.2	.08	.10	0
3	1.4	1.5	1.6	1.5	1.9	2.1	3.0	3.6	1.1	.07	.07	0
4	1.3	1.5	1.6	1.7	1.9	2.1	3.0	3.3	1.1	.07	.04	0
5	1.3	1.5	1.6	3.1	1.8	2.1	3.0	3.1	1.1	.09	.05	0
6	1.3	1.5	2.1	2.0	1.8	3.3	3.0	2.9	1.2	.10	.05	0
7	1.3	1.5	3.3	2.6	1.7	3.7	3.1	2.8	1.3	.10	.11	0
8	1.3	1.4	2.5	2.1	1.7	3.4	3.2	2.8	1.2	.09	.13	0
9	1.3	1.5	2.2	1.9	1.7	3.1	3.4	2.8	1.2	.10	.14	0
10	1.5	1.5	2.0	1.8	1.8	2.9	3.8	2.8	1.1	.13	.12	0
11	1.5	1.5	1.9	1.8	1.9	2.7	4.0	2.7	1.0	.14	.08	0
12	1.5	1.5	1.9	1.8	1.9	2.6	4.1	2.6	.94	.11	.05	0
13	1.5	1.5	1.9	1.7	1.9	2.7	4.1	2.5	.84	.09	.02	0
14	1.5	1.5	1.9	1.7	1.9	2.6	4.4	2.8	.73	.06	.02	0
15	1.5	1.5	1.9	1.7	2.0	2.8	4.5	2.9	.67	.06	.04	0
16	1.5	1.5	1.8	1.7	2.0	2.8	4.6	2.9	.65	.09	.03	0
17	1.5	1.5	1.8	1.6	1.8	2.8	4.7	2.5	.61	.18	.07	.01
18	1.5	2.5	1.7	1.7	1.8	2.8	4.8	2.4	.50	.18	.07	.06
19	1.5	2.0	1.7	1.7	1.8	2.8	4.4	2.3	.33	.18	.06	.07
20	1.5	1.6	1.7	1.6	1.7	2.8	4.2	2.3	.32	.17	.04	.08
21	1.5	1.6	1.7	1.7	1.7	3.0	4.0	2.2	.30	.19	.02	.08
22	1.5	1.6	1.6	1.7	1.7	3.0	3.8	2.1	.28	.16	.01	.08
23	1.5	1.6	1.7	1.7	1.7	3.0	3.8	2.0	.23	.10	0	.09
24	1.5	1.6	1.7	1.6	2.4	3.0	3.9	2.0	.21	.04	0	.15
25	1.5	1.6	1.7	1.6	2.1	3.0	4.0	1.8	.19	.03	0	.23
26	1.5	1.6	1.6	1.6	2.2	3.0	4.2	1.7	.15	.04	0	.24
27	1.5	1.6	1.6	1.6	2.1	3.0	4.2	1.8	.11	.05	0	.25
28	1.5	1.6	1.6	2.4	2.1	3.0	4.3	1.7	.12	.06	0	.25
29	1.5	1.6	1.6	2.5	---	3.0	4.4	1.6	.13	.13	0	.27
30	1.5	1.6	1.5	2.1	---	3.0	4.3	1.7	.11	.10	0	.23
31	1.5	---	1.6	2.0	---	3.0	---	1.5	---	.08	0	---
TOTAL	44.7	47.5	56.2	57.3	52.8	87.1	116.2	78.2	20.32	3.15	1.40	2.09
MEAN	1.44	1.58	1.81	1.85	1.89	2.81	3.87	2.52	.68	.10	.045	.070
MAX	1.5	2.5	3.3	3.1	2.4	3.7	4.8	4.2	1.4	.19	.14	.27
MIN	1.2	1.4	1.5	1.5	1.7	2.0	3.0	1.5	.11	.03	0	0
AC-FT	89	94	111	114	105	173	230	155	40	6.2	2.8	4.1
CAL YR 1986	TOTAL	2438.10	MEAN 6.68	MAX	228	MIN .50	AC-FT 4840					
WTR YR 1987	TOTAL	566.96	MEAN 1.55	MAX	4.8	MIN 0	AC-FT 1120					

SALTON SEA BASIN

10258500 PALM CANYON CREEK NEAR PALM SPRINGS, CA

LOCATION.--Lat 33°44'42", long 116°32'05", in SW 1/4 SE 1/4 sec.11, T.5 S., R.4 E., Riverside County, Hydrologic Unit 18100200, on right bank 0.8 mi upstream from Murray Canyon Creek and 6 mi south of Palm Springs.

DRAINAGE AREA.--93.3 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 700 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 14, 1942, at datum 0.2 ft higher.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--51 years (water years 1931-41, 1948-87), 5.31 ft³/s, 3,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,000 ft³/s, Feb. 21, 1980, gage height, 7.29 ft, from rating curve extended above 650 ft³/s on basis of slope-area measurement at gage height 6.38 ft; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 5	0800	*7.7	*2.36				

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.91	1.1	.63	1.3	.49					
2	0	0	.97	.91	.56	1.3	.39					
3	0	0	.87	.84	.55	1.3	.49					
4	0	0	.94	1.3	.48	1.3	.60					
5	0	0	.97	4.3	.36	1.4	.52					
6	0	0	1.8	2.2	.26	3.1	.43					
7	0	0	3.3	3.4	.18	3.8	.34					
8	0	0	3.2	2.7	.14	2.5	.26					
9	.94	0	2.5	1.9	.25	1.9	.19					
10	4.3	0	2.1	1.6	.33	1.6	.14					
11	2.2	0	2.0	1.3	.30	1.3	.12					
12	1.5	0	1.9	1.2	.27	1.1	.17					
13	1.2	0	1.8	.99	.25	.92	.10					
14	.92	0	1.7	.97	.35	.87	.08					
15	.74	0	1.6	1.1	.36	2.0	.03					
16	.48	0	1.6	1.3	.39	1.6	0					
17	.16	.81	1.5	1.1	.36	1.1	0					
18	.12	4.9	1.5	.95	.48	.92	0					
19	.23	2.9	1.5	.94	.55	.82	0					
20	.16	2.1	1.6	.87	.61	.80	0					
21	.16	1.8	1.5	.84	.56	1.1	0					
22	.16	1.5	1.5	.83	.55	2.2	0					
23	0	1.2	1.5	.82	.70	1.5	0					
24	0	1.1	1.5	.79	2.2	1.2	0					
25	0	1.2	1.4	.75	2.2	1.0	0					
26	0	1.1	1.4	.75	1.5	.89	0					
27	0	.99	1.3	.77	1.3	.78	0					
28	0	1.0	1.3	.77	1.2	.75	0					
29	0	1.0	1.1	.78	---	.75	0					
30	0	.89	1.1	.72	---	.67	0					
31	0	---	1.1	.70	---	.57	---		---			---
TOTAL	13.27	22.49	48.96	39.49	17.87	42.34	4.35	0	0	0	0	0
MEAN	.43	.75	1.58	1.27	.64	1.37	.15	0	0	0	0	0
MAX	4.3	4.9	3.3	4.3	2.2	3.8	.60	0	0	0	0	0
MIN	0	0	.87	.70	.14	.57	0	0	0	0	0	0
AC-FT	26	45	97	78	35	84	8.6	0	0	0	0	0
CAL YR 1986	TOTAL	2839.19	MEAN	7.78	MAX	1050	MIN	0	AC-FT	5630		
WTR YR 1987	TOTAL	188.77	MEAN	.52	MAX	4.9	MIN	0	AC-FT	374		

SALTON SEA BASIN

10259000 ANDREAS CREEK NEAR PALM SPRINGS, CA

LOCATION.--Lat 33°45'36", long 116°32'57", in SE 1/4 SE 1/4 sec.3, T.5 S., R.4 E., Riverside County, Hydrologic Unit 18100200, on left bank at U.S. Bureau of Indian Affairs diversion dam, 1.1 mi above mouth, and 5.1 mi south of Palm Springs.

DRAINAGE AREA.--8.61 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 800 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 25, 1949, reference point at same site at different datum.

REMARKS.--No estimated daily discharges. Records fair. No regulation above station. One small diversion for domestic use about 1 mi above station.

AVERAGE DISCHARGE.--39 years, 3.04 ft³/s, 2,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,960 ft³/s, Aug. 31, 1954, gage height, 7.11 ft, from rating curve extended above 80 ft³/s on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 5	0215	*9.0	*2.80				

Minimum daily, 0.86 ft³/s, Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.9	3.1	3.0	2.9	3.5	3.3	2.6	2.0	1.4	1.3	1.2
2	3.3	3.1	3.1	2.9	2.9	3.5	3.3	2.6	1.9	1.3	1.3	1.1
3	3.4	3.1	3.1	3.0	2.9	3.5	3.5	2.5	1.8	1.3	1.1	1.1
4	3.4	3.1	3.1	3.8	2.9	3.5	3.4	2.3	1.8	1.3	1.1	1.1
5	3.4	3.1	3.2	5.5	2.8	3.6	3.4	2.3	2.0	1.4	1.5	1.1
6	3.4	3.1	3.7	3.8	2.8	6.7	3.3	2.2	2.0	1.4	1.5	1.1
7	3.4	3.2	3.8	4.6	2.9	4.9	3.2	2.3	1.9	1.3	1.4	1.0
8	3.4	3.2	3.5	3.8	3.1	4.0	3.2	2.4	1.8	1.4	1.2	.98
9	3.6	3.2	3.4	3.7	3.3	3.9	3.2	2.3	1.8	1.5	1.0	.98
10	3.7	3.0	3.3	3.7	3.3	3.7	3.2	2.2	1.8	1.5	1.1	1.0
11	3.6	3.1	3.3	3.6	3.3	3.6	3.2	2.3	1.7	1.3	1.2	1.0
12	3.5	3.1	3.3	3.6	3.3	3.6	3.2	2.1	1.7	1.3	1.1	1.1
13	3.5	3.1	3.3	3.6	3.2	3.6	3.1	2.5	1.6	1.2	1.0	1.2
14	3.5	3.1	3.3	3.6	3.2	3.5	3.0	2.7	1.5	1.1	1.2	1.3
15	3.5	3.1	3.3	3.6	3.4	3.9	2.9	2.8	1.5	1.3	1.2	1.3
16	3.5	3.1	3.3	3.6	3.4	3.6	2.9	2.5	1.6	1.5	1.1	1.2
17	3.3	3.2	3.3	3.6	3.1	3.5	2.9	2.3	1.5	1.4	1.0	1.2
18	2.9	5.0	3.3	3.7	3.2	3.5	2.9	2.2	1.5	1.4	1.0	1.2
19	2.9	3.6	3.3	3.7	3.1	3.4	2.9	2.3	1.5	1.3	1.0	1.2
20	2.9	3.4	3.3	3.6	3.1	3.4	2.8	2.3	1.5	1.4	1.1	1.1
21	2.9	3.3	3.2	3.6	3.1	4.2	2.8	2.3	1.6	1.3	.99	.86
22	2.9	3.2	3.1	3.6	3.1	3.9	2.7	2.3	1.6	1.3	1.1	1.4
23	2.9	3.2	3.1	3.7	3.3	3.7	2.7	2.2	1.6	1.2	1.1	1.5
24	2.9	3.2	3.1	3.6	4.1	3.6	2.7	2.2	1.6	1.1	.94	1.5
25	2.8	3.3	3.1	3.3	3.8	3.5	2.6	2.3	1.5	1.1	.95	1.4
26	2.9	3.2	3.1	2.9	3.6	3.5	2.6	2.4	1.4	1.1	.97	1.3
27	2.9	3.2	3.1	2.9	3.5	3.5	2.6	2.4	1.3	1.4	.97	1.3
28	2.9	3.2	3.0	3.1	3.5	3.5	2.7	2.3	1.3	1.8	.97	1.3
29	2.9	3.1	2.9	3.1	---	3.5	2.6	2.2	1.3	1.4	.93	1.3
30	3.0	3.0	2.9	3.0	---	3.4	2.6	2.1	1.4	1.1	.90	1.2
31	2.9	---	2.9	2.9	---	3.3	---	2.0	---	1.1	1.2	---
TOTAL	99.1	96.7	99.8	109.7	90.1	116.0	89.4	72.4	49.0	40.9	34.42	35.52
MEAN	3.20	3.22	3.22	3.54	3.22	3.74	2.98	2.34	1.63	1.32	1.11	1.18
MAX	3.7	5.0	3.8	5.5	4.1	6.7	3.5	2.8	2.0	1.8	1.5	1.5
MIN	2.8	2.9	2.9	2.9	2.8	3.3	2.6	2.0	1.3	1.1	.90	.86
AC-FT	197	192	198	218	179	230	177	144	97	81	68	70

CAL YR 1986	TOTAL	1528.70	MEAN 4.19	MAX 95	MIN 1.8	AC-FT 3030
WTR YR 1987	TOTAL	933.04	MEAN 2.56	MAX 6.7	MIN .86	AC-FT 1850

SALTON SEA BASIN

10259200 DEEP CREEK NEAR PALM DESERT, CA

LOCATION.--Lat 33°37'52", long 116°23'29", in NE 1/4 SE 1/4 sec.19, T.6 S., R.6 E., Riverside County, Hydrologic Unit 18100200, on left bank 500 ft downstream from unnamed tributary and 6.3 mi south of Palm Desert.

DRAINAGE AREA.--30.6 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 1,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--25 years, 2.31 ft³/s, 1,670 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,100 ft³/s, Sept. 10, 1976, gage height, 7.84 ft, from rating curve extended above 40 ft³/s on basis of slope-area measurements at gage heights 2.68, 5.15, and 7.84 ft; maximum gage height, 10.27 ft, Aug. 14, 1984 (backwater from debris); no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft³/s and maximum (*), from rating curve extended above 10 ft³/s on basis of slope-area measurements at gage heights 2.68, 5.15, and 7.84 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	1800	*41	*2.58	Aug. 2	1815	36	2.55
July 16	2045	26	2.43				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	0	.34	.28	.44	.26	.41	.10	.01	.02	0	.01
2	.01	0	.31	.26	.43	.41	.37	.09	.01	.02	3.8	.01
3	.02	0	.34	.25	.43	.54	.41	.08	.01	.02	.07	.01
4	.02	0	.37	.34	.42	.36	.43	.08	.01	.02	.01	.01
5	.02	0	.26	1.6	.41	.45	.45	.08	.01	.02	.01	.01
6	.02	.01	.35	.41	.39	20	.47	.07	.02	.02	.02	.01
7	.02	.07	.42	.50	.38	18	.43	.05	.02	.02	.02	.01
8	.02	.11	.51	.60	.37	7.6	.41	.05	.02	.02	.02	.01
9	.03	.12	.41	.53	.37	4.1	.37	.05	.02	.02	.02	.01
10	.02	.12	.35	.47	.40	2.5	.34	.05	.03	.02	.02	.01
11	.01	.13	.28	.41	.43	1.7	.30	.04	.03	.02	.02	.01
12	.01	.13	.28	.40	.46	.84	.30	.04	.03	.02	.01	.01
13	.01	.14	.28	.38	.42	.22	.34	.04	.03	.02	.01	.01
14	.01	.14	.28	.39	.40	.34	.31	.04	.03	.02	.01	.01
15	.01	.20	.28	.50	.39	1.3	.23	.04	.03	.02	.01	.01
16	0	.31	.28	.54	.36	.44	.20	.03	.03	1.7	.01	.01
17	0	.36	.28	.40	.35	.65	.16	.02	.03	.20	.01	.01
18	0	2.9	.28	.37	.35	.59	.12	.02	.03	.02	.01	.01
19	0	1.0	.30	.39	.34	.55	.12	.02	.03	.02	.01	.01
20	0	.31	.33	.37	.36	.53	.14	.02	.03	.02	.01	.01
21	0	.66	.34	.37	.34	.65	.13	.02	.03	.02	.01	.01
22	0	.54	.28	.37	.33	.74	.13	.02	.03	.02	.01	.01
23	0	.47	.28	.34	.41	.62	.12	.02	.03	.01	.01	.01
24	0	.42	.28	.36	2.4	.58	.11	.01	.03	.01	.01	.01
25	0	.41	.28	.35	.76	.55	.10	.01	.03	.01	.01	.01
26	0	.37	.28	.43	1.4	.52	.10	.01	.03	.01	.01	.01
27	0	.35	.28	.43	.48	.47	.10	.01	.03	.01	.01	.01
28	0	.36	.28	.42	.20	.46	.11	.01	.03	.01	.01	.01
29	0	.33	.28	.47	---	.50	.10	.01	.03	0	.01	.01
30	0	.33	.28	.50	---	.47	.10	.01	.03	0	.01	.01
31	0	---	.28	.48	---	.46	---	.01	---	0	.01	---
TOTAL	.24	10.29	9.67	13.91	14.22	67.40	7.41	1.15	.76	2.36	4.21	.30
MEAN	.008	.34	.31	.45	.51	2.17	.25	.037	.025	.076	.14	.010
MAX	.03	2.9	.51	1.6	2.4	20	.47	.10	.03	1.7	3.8	.01
MIN	0	0	.26	.25	.20	.22	.10	.01	.01	0	0	.01
AC-FT	.5	20	19	28	28	134	15	2.3	1.5	4.7	8.4	.6

CAL YR 1986	TOTAL 855.34	MEAN 2.34	MAX 355	MIN 0	AC-FT 1700
WTR YR 1987	TOTAL 131.92	MEAN .36	MAX 20	MIN 0	AC-FT 262

SALTON SEA BASIN

10259300 WHITEWATER RIVER AT INDIO, CA

LOCATION.--Lat 33°44'14", long 116°14'07", in SE 1/4 NE 1/4 sec.15, T.5 S., R.7 E., Riverside County, Hydrologic Unit 18100200, on right bank of concrete drop structure, 1,000 ft upstream from Monroe Street bridge, and 1.7 mi northwest of Indio.

DRAINAGE AREA.--1,073 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since Oct. 1, 1979. Elevation of gage is 0 ft National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1979, water-stage recorder at site 0.5 mi upstream at different datum. Oct. 1, 1979, to Feb. 17, 1983, at datum 1.03 ft lower.

REMARKS.--No flow since July 23, 1986. No regulation upstream from station. Water diverted from tributary streams for municipal supply in vicinity of Palm Springs.

AVERAGE DISCHARGE.--21 years, 3.27 ft³/s, 2,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s, Jan. 25, 1969, gage height, 14.41 ft, site and datum then in use, from rating curve extended above 1,300 ft³/s on basis of slope-area measurement at gage height 15.3 ft for flood of Nov. 22, 1965; 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 ft³/s on basis of slope-area measurement, at site 5.0 mi upstream. Flood of November 22, 1965, reached a stage of 15.3 ft, from floodmark, at site and datum used prior to Oct. 1, 1979, discharge 14,100 ft³/s on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--No flow during the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
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28												
29												
30												
31		---			---		---		---			---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	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	0	0	0	0	0	0	0	0	0	0	0
CAL YR 1986	TOTAL	348.82	MEAN .96	MAX	326	MIN 0	AC-FT	692				
WTR YR 1987	TOTAL	0.00	MEAN .000	MAX	.00	MIN 0	AC-FT	0				

SALTON SEA BASIN

10259540 WHITEWATER RIVER NEAR MECCA, CA

LOCATION.--Lat 33°31'29", long 116°04'36", in NW 1/4 NW 1/4 sec.32, T.7 S., R.9 E., Riverside County, Hydrologic Unit 18100200, on left bank 1.6 mi upstream from mouth at Salton Sea and 3.3 mi south of Mecca.

DRAINAGE AREA.--1,495 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 221.00 ft 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 downstream and Mar. 23, 1967, to July 22, 1970, at site 0.7 mi downstream at different datums.

REMARKS.--Estimated daily discharges: Feb. 5-11, July 16 to Aug. 10. Records fair. Most flow represents seepage and return flow from irrigated areas.

COOPERATION.--Seventeen discharge measurements were provided by Coachella Valley Water District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,500 ft³/s, Jan. 25, 1969, estimated; minimum daily, 37 ft³/s, Nov. 25-29, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 127 ft³/s, Jan. 18; minimum daily, 41 ft³/s, July 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	80	67	69	98	94	90	97	83	42	84	69
2	88	94	67	68	102	95	85	94	71	45	86	72
3	89	121	67	69	99	95	86	96	68	42	88	87
4	90	102	67	73	94	96	82	96	74	42	90	95
5	98	91	69	70	92	97	82	93	74	41	94	106
6	96	91	71	70	91	86	89	95	81	41	96	93
7	89	89	75	69	90	86	94	94	78	42	98	69
8	95	86	73	71	89	87	79	98	73	44	101	71
9	103	88	70	68	87	86	81	98	73	49	96	78
10	108	96	73	66	86	83	89	95	70	50	92	79
11	93	89	75	75	84	89	87	92	73	59	88	95
12	85	83	74	89	85	82	93	84	77	47	85	82
13	82	85	71	87	86	84	88	82	71	43	97	107
14	83	84	74	89	86	86	90	88	72	42	86	90
15	85	83	74	94	87	82	91	90	72	44	88	80
16	87	90	76	94	87	78	94	90	64	46	89	88
17	86	84	78	89	88	78	101	84	64	49	89	88
18	86	70	74	127	88	90	93	84	66	52	83	83
19	92	69	73	96	89	85	90	88	65	58	75	78
20	89	66	72	98	89	85	88	74	73	62	79	76
21	87	69	73	96	89	89	93	84	65	66	71	73
22	87	71	74	90	90	90	95	85	59	70	70	78
23	81	71	73	96	90	87	104	84	62	74	68	87
24	82	76	70	105	92	84	103	83	63	75	66	82
25	93	76	76	93	92	82	103	84	61	76	70	74
26	88	66	71	101	93	85	104	81	55	77	65	101
27	94	67	67	107	93	88	94	78	51	78	68	108
28	90	68	70	108	94	79	89	83	54	79	62	76
29	89	66	72	94	---	85	91	78	53	80	81	85
30	89	67	69	90	---	88	88	80	42	82	90	76
31	88	---	70	93	---	91	---	82	---	83	93	---
TOTAL	2777	2438	2225	2704	2530	2692	2736	2714	2007	1780	2588	2526
MEAN	89.6	81.3	71.8	87.2	90.4	86.8	91.2	87.5	66.9	57.4	83.5	84.2
MAX	108	121	78	127	102	97	104	98	83	83	101	108
MIN	81	66	67	66	84	78	79	74	42	41	62	69
AC-FT	5510	4840	4410	5360	5020	5340	5430	5380	3980	3530	5130	5010
CAL YR 1986	TOTAL	36439	MEAN 99.8	MAX 1250	MIN 63	AC-FT 72280						
WTR YR 1987	TOTAL	29717	MEAN 81.4	MAX 127	MIN 41	AC-FT 58940						

MOJAVE RIVER BASIN

10260500 DEEP CREEK NEAR HESPERIA, CA

LOCATION.--Lat 34°20'28", long 117°13'39", in NE 1/4 SE 1/4 sec.18, T.3 N., R.3 W., San Bernardino County, Hydrologic Unit 18090208, on right bank 0.5 mi upstream from confluence with West Fork Mojave River at Mojave Forks Dam, 7 mi southeast of Hesperia, and 11 mi downstream from Lake Arrowhead.

DRAINAGE AREA.--134 mi².

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

GAGE.--Water-stage recorder. Broad-crested weir since December 1938. Elevation of gage is 3,050 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1314 for history of changes prior to Dec. 10, 1938.

REMARKS.--Estimated daily discharges: June 28 to July 16 and Aug. 4-6, 24, 30. Records fair except those for estimated daily discharges, which are poor. Slight regulation by Lake Arrowhead, capacity, 48,000 acre-ft, used principally for recreation.

AVERAGE DISCHARGE.--76 years, 70.6 ft³/s, 51,150 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,600 ft³/s, Mar. 2, 1938, gage height unknown, based on slope-area measurement of peak flow; maximum gage height, 23.81 ft, Feb. 10, 1978 (backwater from Mojave Forks Reservoir); no flow July 17, 18, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0915	*1,640	*4.03				

Minimum daily, 0.34 ft³/s, Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	5.4	6.6	7.3	15	12	31	12	5.4	.78	.62	.86
2	3.8	5.4	6.6	7.3	13	13	31	11	4.8	.75	.61	.92
3	3.8	5.4	6.6	7.1	13	15	33	11	4.2	.73	.59	.89
4	4.5	5.4	6.6	30	12	17	57	9.5	3.9	.71	.55	.86
5	4.2	5.4	6.5	100	12	27	62	8.4	3.8	.69	.51	.74
6	3.9	5.4	7.2	36	11	796	74	7.9	4.2	.68	.47	.79
7	4.0	5.4	22	24	11	252	72	9.1	4.2	.67	.43	.77
8	4.1	5.4	23	20	10	123	64	12	4.2	.66	.42	.78
9	4.4	5.6	15	16	10	86	57	18	4.1	.65	.37	.79
10	5.8	5.7	12	14	10	63	52	13	3.6	.64	.34	.82
11	5.8	5.8	10	13	11	50	48	11	3.1	.63	.38	.83
12	5.4	5.8	9.1	12	12	41	44	11	2.8	.62	.40	.90
13	5.1	5.8	8.5	14	13	37	39	10	2.8	.60	.41	.94
14	4.9	5.8	8.2	14	12	33	35	9.2	2.8	.57	.45	.96
15	4.9	5.9	8.1	12	13	37	32	8.8	2.5	.55	.51	.93
16	4.9	5.8	8.0	10	12	34	29	8.3	2.1	.54	.54	.90
17	4.9	5.9	7.9	9.5	11	31	26	7.6	2.0	.53	.46	.88
18	4.9	21	7.8	11	10	31	24	6.8	1.9	.57	.46	.88
19	4.9	36	7.8	11	10	32	22	6.4	1.7	.59	.42	1.0
20	4.9	16	7.8	9.4	9.6	34	21	6.4	1.8	.60	.41	.95
21	4.9	11	8.2	8.7	9.3	31	19	6.6	1.8	.68	.43	1.0
22	5.0	9.0	8.1	10	9.3	32	17	6.9	1.7	.65	.44	1.0
23	5.2	8.0	7.8	11	9.8	34	16	6.9	1.9	.59	.44	2.9
24	5.2	7.4	7.8	9.8	11	34	15	6.6	1.7	.57	.47	6.1
25	5.2	7.1	7.6	9.7	11	33	14	6.6	1.5	.89	.49	2.2
26	5.2	6.9	7.5	10	13	33	14	6.7	1.2	.93	.48	1.6
27	5.2	6.7	7.4	11	12	38	14	7.2	.97	.77	.65	1.3
28	5.2	6.7	7.3	14	12	44	16	7.3	.90	.69	1.0	1.3
29	5.2	6.6	7.3	32	---	39	14	6.8	.85	.63	.96	1.2
30	5.2	6.6	7.3	23	---	34	13	6.3	.81	.56	.91	1.3
31	5.3	---	7.2	18	---	32	---	6.0	---	.56	.87	---
TOTAL	149.9	244.3	278.8	534.8	318.0	2148	1005	271.3	79.23	20.28	16.49	37.29
MEAN	4.84	8.14	8.99	17.3	11.4	69.3	33.5	8.75	2.64	.65	.53	1.24
MAX	5.8	36	23	100	15	796	74	18	5.4	.93	1.0	6.1
MIN	3.8	5.4	6.5	7.1	9.3	12	13	6.0	.81	.53	.34	.74
AC-FT	297	485	553	1060	631	4260	1990	538	157	40	33	74

CAL YR 1986	TOTAL	15424.74	MEAN	42.3	MAX	3060	MIN	.60	AC-FT	30590
WTR YR 1987	TOTAL	5103.39	MEAN	14.0	MAX	796	MIN	.34	AC-FT	10120

MOJAVE RIVER BASIN

10260620 HOUSTON CREEK ABOVE LAKE GREGORY, AT CRESTLINE, CA

LOCATION.--Lat 34°14'33", long 117°16'48", in NE 1/4 SE 1/4 sec.22, T.2 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank 0.1 mi east of Wildrose Road, 0.1 mi southeast of intersection of Lake Gregory Road and Wildrose Road, and 0.3 mi east of Crestline.

DRAINAGE AREA.--0.35 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 4,540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation above station.

AVERAGE DISCHARGE.--8 years, 0.75 ft³/s, 543 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 295 ft³/s, Feb. 19, 1980, gage height, 7.40 ft, from rating curve extended above 70 ft³/s on basis of slope-conveyance study at gage height 7.40 ft; no flow many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	1645	*68	*6.24				

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.10	0	.06	.36	.12	.11	.06	.01	.01	0
2	0	0	.12	0	.06	.51	.12	.11	.05	.01	.01	.01
3	0	0	.10	0	.07	.45	5.7	.10	.04	.02	.01	0
4	0	0	.08	10	.07	.43	1.9	.09	.05	.01	.01	0
5	0	0	.11	.80	.06	1.4	.73	.07	.05	.01	.01	0
6	.02	.01	2.8	.34	.06	3.5	.51	.05	.05	.01	.01	0
7	.02	.01	.62	.72	.06	.59	.36	.06	.04	.01	.01	0
8	.02	.02	.08	.22	.07	.48	.29	.23	.04	.02	.01	0
9	.04	.02	.06	.15	.07	.27	.26	.09	.04	.03	.01	0
10	.18	.03	.04	.14	.05	.19	.25	.08	.04	.03	.01	0
11	0	.02	.04	.11	.05	.16	.26	.08	.03	.03	.01	0
12	0	.04	.04	.10	.06	.14	.19	.07	.02	.03	.02	0
13	0	.04	.04	.10	.18	.12	.17	.06	.02	.04	.01	0
14	0	.05	.04	.09	.07	.25	.16	.06	.01	.02	.08	0
15	0	.04	.04	.09	.06	.74	.14	.05	.02	.03	.01	0
16	0	.05	.04	.08	.06	.19	.14	.05	.02	.03	.01	0
17	0	1.1	.04	.09	.05	.16	.13	.05	.03	.14	0	0
18	0	4.1	.04	.09	.05	.14	.12	.05	.02	.01	0	0
19	0	.03	.04	.09	.05	.61	.10	.07	.02	.01	0	0
20	0	.03	.60	.11	.06	.17	.10	.07	.02	.03	0	0
21	0	.03	0	.12	.06	.17	.10	.07	.03	.01	0	0
22	0	.03	0	.12	.06	.86	.10	.06	.04	.01	0	.01
23	0	.04	0	.12	.10	.43	.09	.06	.03	.01	0	.33
24	0	.06	0	.12	.13	.34	.08	.08	.03	.01	0	0
25	0	.06	0	.13	.15	.23	.07	.07	.03	.01	0	0
26	0	.06	0	.08	.21	.20	.07	.08	.03	.01	0	0
27	0	.07	0	.10	.33	.18	.07	.07	.03	.01	0	0
28	0	.08	0	.11	.41	.17	.07	.07	.03	.01	0	0
29	0	.08	0	.07	---	.15	.08	.07	.01	0	0	0
30	0	.09	0	.06	---	.14	.12	.06	.01	.01	0	0
31	0	---	0	.06	---	.14	---	.05	---	.01	0	---
TOTAL	.28	6.19	5.07	14.41	2.77	13.87	12.60	2.34	.94	.63	.24	.35
MEAN	.009	.21	.16	.46	.099	.45	.42	.076	.031	.020	.008	.012
MAX	.18	4.1	2.8	10	.41	3.5	5.7	.23	.06	.14	.08	.33
MIN	0	0	0	0	.05	.12	.07	.05	.01	0	0	0
AC-FT	.6	12	10	29	5.5	28	25	4.6	1.9	1.2	.5	.7

CAL YR 1986 TOTAL 191.72 MEAN .53 MAX 22 MIN 0 AC-FT 380
WTR YR 1987 TOTAL 59.69 MEAN .16 MAX 10 MIN 0 AC-FT 118

MOJAVE RIVER BASIN

10260630 ABONDIGAS CREEK ABOVE LAKE GREGORY, AT CRESTLINE, CA

LOCATION.--Lat 34°14'16", long 117°15'51", in SW 1/4 SE 1/4 sec.23, T.2 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on right bank 400 ft south of east gate for San Moritz Park and 1.4 mi east of Crestline.

DRAINAGE AREA.--1.15 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 4,555 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1983, at site 200 ft upstream at datum 5.78 ft higher.

REMARKS.--Estimated daily discharges: Oct. 20-27, Nov. 18-24, Jan. 8-22, Mar. 7 to Apr. 2, Apr. 6, 9-14, 30, and May 1-5. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--8 years, 1.34 ft³/s, 971 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 580 ft³/s, Feb. 27, 1983, gage height, 6.32 ft, site and datum then in use, from rating curve extended above 94 ft³/s on basis of field estimate of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	1700	*56	*7.58				

No flow June 13 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	.05	.08	.14	.10	.36	.22	.02			
2	.03	.01	.05	.07	.14	.12	.34	.18	.01			
3	.03	.01	.05	.07	.14	.15	2.9	.16	.01			
4	.02	.02	.05	7.7	.14	.26	2.4	.14	.01			
5	.02	.02	.05	1.3	.13	.78	2.1	.10	.01			
6	.02	.02	1.1	.53	.12	2.7	.99	.07	.01			
7	.01	.03	.30	.56	.12	1.2	.75	.08	.01			
8	.01	.04	.18	.45	.12	1.0	.62	.09	.01			
9	.02	.03	.15	.43	.13	.65	.60	.07	.01			
10	.07	.03	.12	.40	.14	.65	.55	.06	.01			
11	.04	.03	.10	.37	.13	.55	.50	.06	.01			
12	.03	.03	.10	.35	.12	.46	.46	.05	.01			
13	.02	.03	.10	.33	.14	.46	.46	.05	0			
14	.02	.03	.09	.30	.13	.55	.42	.05	0			
15	.02	.04	.09	.29	.12	.65	.37	.05	0			
16	.01	.04	.09	.29	.12	.50	.34	.05	0			
17	.02	.09	.09	.25	.12	.46	.34	.05	0			
18	.02	1.7	.09	.23	.10	.46	.34	.05	0			
19	.02	.14	.09	.21	.10	.55	.32	.06	0			
20	.02	.11	.18	.20	.10	.46	.28	.07	0			
21	.02	.12	.13	.22	.10	.50	.26	.07	0			
22	.02	.09	.11	.18	.10	.55	.25	.05	0			
23	.02	.08	.10	.15	.12	.55	.24	.06	0			
24	.02	.07	.09	.14	.12	.55	.23	.05	0			
25	.02	.06	.09	.14	.09	.50	.22	.04	0			
26	.02	.06	.09	.14	.09	.46	.24	.04	0			
27	.02	.05	.09	.16	.08	.42	.25	.04	0			
28	.02	.05	.08	.18	.09	.42	.25	.03	0			
29	.01	.04	.07	.16	---	.38	.26	.02	0			
30	.02	.04	.07	.16	---	.38	.25	.02	0			
31	.02	---	.07	.15	---	.36	---	.02	---			---
TOTAL	.68	3.13	4.11	16.19	3.29	17.78	17.89	2.15	.13	0	0	0
MEAN	.022	.10	.13	.52	.12	.57	.60	.069	.004	0	0	0
MAX	.07	1.7	1.1	7.7	.14	2.7	2.9	.22	.02	0	0	0
MIN	.01	.01	.05	.07	.08	.10	.22	.02	0	0	0	0
AC-FT	1.3	6.2	8.2	32	6.5	35	35	4.3	.3	0	0	0

CAL YR 1986	TOTAL	250.17	MEAN .69	MAX	21	MIN 0	AC-FT 496
WTR YR 1987	TOTAL	65.35	MEAN .18	MAX	7.7	MIN 0	AC-FT 130

MOJAVE RIVER BASIN

10260640 LAKE GREGORY AT CRESTLINE, CA

LOCATION.--Lat 34°14'35", long 117°16'22", in NW 1/4 SW 1/4 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 east of Lake Gregory Drive, and 0.9 mi east of Crestline.

DRAINAGE AREA.--2.66 mi².

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 0.00 ft, based on map from land survey of 1892 (see REMARKS paragraph); approximately 7.0 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by earth-type dam. Dam was completed to a height of 90 ft in 1938. Capacity table developed from land survey dated 1892 (provided by California Department of Water Resources). Capacity is 2,070 acre-ft below spillway elevation, 4,517.0 ft. Water is released from lake to Houston Creek for eventual water supply and recreational use in Silverwood Lake, 4.5 mi 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, Jan. 29, 1980, elevation, 4,520.33 ft; minimum, 1,920 acre-ft, Nov. 7, 1984, elevation, 4,515.22 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents recorded, 2,180 acre-ft, Apr. 18, 30, May 11, 12, elevation, 4,518.26 ft; minimum, 1,980 acre-ft, Sept. 22, 23, 30, elevation, 4,515.95 ft.

MONTHEND ELEVATION, 1892 DATUM, AND CONTENTS, AT 0800 HRS, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	4,517.54	2,120	--
Oct. 31.....	4,517.09	2,080	-40
Nov. 30.....	4,517.22	2,090	+10
Dec. 31.....	4,517.25	2,090	0
CAL YR 1986.....	--	--	-10
Jan. 31.....	4,517.21	2,090	0
Feb. 28.....	4,517.29	2,100	+10
Mar. 31.....	4,517.24	2,090	-10
Apr. 30.....	4,518.22	2,180	+90
May 31.....	4,518.10	2,170	-10
June 30.....	4,517.58	2,120	-50
July 31.....	4,516.99	2,070	-50
Aug. 31.....	4,516.34	2,020	-50
Sept. 30.....	4,515.96	1,980	-40
WTR YR 1987.....	--	--	-140

MOJAVE RIVER BASIN

10260650 HOUSTON CREEK BELOW LAKE GREGORY, AT CRESTLINE, CA

LOCATION.--Lat 34°14'54", long 117°16'05", in NE 1/4 NW 1/4 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 downstream from Lake Gregory spillway, 0.5 mi east of the intersection of Lake Gregory Road and Lake Gregory Drive, and 1.2 mi northeast of Crestline.

DRAINAGE AREA.--2.68 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 4,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Lake Gregory (station 10260640) 0.2 mi upstream, usable capacity, 2,070 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 570 ft³/s, Jan. 29, 1980, gage height, 7.31 ft, from rating curve extended above 180 ft³/s on basis of velocity-area study of peak flow; no flow for several days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 69 ft³/s, Jan. 4, gage height, 6.31 ft; minimum daily, 0.01 ft³/s, for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	.08	.09	.29	.55	1.2	.45	.07	.05	.05	.03	.03
2	1.8	.08	.08	.26	.65	1.2	.10	.06	.05	.04	.03	.03
3	1.0	.07	.08	.32	.47	1.3	.40	.06	.05	.04	.03	.03
4	.64	.07	.07	21	.45	1.4	.18	.06	.05	.04	.02	.03
5	.41	.06	.08	27	.39	2.6	.12	.06	.05	.05	.03	.03
6	.28	.06	1.1	8.3	.33	10	.12	.06	.06	.05	.03	.03
7	.18	.06	4.1	5.7	.29	7.1	.11	.06	.05	.05	.03	.03
8	.15	.06	3.1	3.6	.25	4.6	.10	.09	.05	.06	.03	.02
9	.17	.05	2.0	2.3	.33	3.1	.09	.06	.05	.06	.02	.02
10	.52	.05	1.5	1.7	.42	2.3	.09	.06	.04	.06	.01	.03
11	.57	.05	1.2	1.4	.51	1.8	.08	.06	.04	.06	.02	.03
12	.39	.05	.88	1.2	.52	1.6	.12	.06	.04	.05	.02	.05
13	.33	.04	.76	1.1	.64	1.3	.11	.06	.04	.05	.04	.06
14	.27	.04	.67	.97	.66	1.5	.08	.06	.04	.05	.03	.05
15	.26	.04	.55	.88	.72	2.5	.07	.06	.04	.04	.03	.04
16	.24	.04	.43	.69	.51	2.0	.07	.06	.05	.05	.03	.04
17	.20	.07	.38	.59	.42	1.6	.07	.06	.04	.06	.03	.05
18	.22	1.8	.39	.57	.37	1.5	.07	.06	.04	.06	.02	.05
19	.21	1.5	.35	.55	.37	1.8	.07	.06	.04	.05	.02	.05
20	.20	1.2	.78	.39	.34	1.7	.07	.06	.04	.06	.02	.05
21	.19	.59	1.1	.44	.45	2.3	.07	.06	.05	.06	.02	.06
22	.17	.40	.86	.50	.28	2.4	.07	.06	.04	.05	.01	.07
23	.17	.30	.73	.61	.91	2.3	.06	.06	.04	.04	.01	.12
24	.12	.17	.65	.49	1.6	1.9	.07	.07	.04	.04	.01	.02
25	.12	.16	.56	.45	2.0	1.7	.07	.07	.04	.04	.02	.01
26	.12	.12	.49	.44	1.9	1.5	.06	.06	.04	.04	.02	.01
27	.10	.10	.44	.59	1.5	1.3	.06	.06	.05	.03	.01	.01
28	.10	.10	.40	1.0	1.3	1.1	.06	.06	.05	.04	.02	.01
29	.09	.11	.34	.76	---	.97	.06	.06	.05	.04	.02	.01
30	.10	.09	.31	.70	---	.88	.07	.06	.05	.04	.03	.01
31	.08	---	.30	.54	---	.83	---	.06	---	.03	.03	---
TOTAL	13.60	7.61	24.77	85.33	19.13	69.28	3.22	1.92	1.36	1.48	.72	1.08
MEAN	.44	.25	.80	2.75	.68	2.23	.11	.062	.045	.048	.023	.036
MAX	4.2	1.8	4.1	27	2.0	10	.45	.09	.06	.06	.04	.12
MIN	.08	.04	.07	.26	.25	.83	.06	.06	.04	.03	.01	.01
AC-FT	27	15	49	169	38	137	6.4	3.8	2.7	2.9	1.4	2.1

CAL YR 1986 TOTAL 698.39 MEAN 1.91 MAX 60 MIN .03 AC-FT 1390
WTR YR 1987 TOTAL 229.50 MEAN .63 MAX 27 MIN .01 AC-FT 455

MOJAVE RIVER BASIN

10261000 WEST FORK MOJAVE RIVER NEAR HESPERIA, CA

LOCATION.--Lat 34°20'20", long 117°15'25", in NW 1/4 NW 1/4 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 northeast of junction with Highway 174, 4.5 mi downstream from Cedar Springs Dam, and 6.5 mi southeast of Hesperia.

DRAINAGE AREA.--70.3 mi².

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

REVISED RECORDS.--WDR CA-84-1: 1983.

GAGE.--Water-stage recorder. Elevation of gage is 3,040 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 30, 1922, nonrecording gage or water-stage recorder 1.6 mi downstream at different datum. June 30, 1922, to September 1971, water-stage recorder 1.5 mi downstream at different datum. June 30, 1942, to Apr. 14, 1966, at datum 2.00 ft higher than datum then in use.

REMARKS.--Estimated daily discharges: Jan. 5, 6, 8, 9, 11, 12, Mar. 11-16, and May 3-5. Records good except those for estimated daily discharges, which are poor. Since 1972 regulated by Cedar Springs Dam (holding basin for imported water), total capacity, 78,000 acre-ft, 4.5 mi upstream.

AVERAGE DISCHARGE.--60 years (water years 1905-22, 1930-71), 39.4 ft³/s, 28,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,100 ft³/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 82 ft³/s, Mar. 6, gage height, 0.92 ft; no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	4.7	2.3						
2				0	4.7	1.7						
3				0	4.7	1.4						
4				9.7	4.7	1.4						
5				18	4.2	3.1						
6				3.1	3.8	45						
7				2.6	3.8	17						
8				1.6	4.2	6.2						
9				2.0	4.2	4.2						
10				3.8	4.2	3.3						
11				3.6	3.8	1.5						
12				3.5	3.8	.60						
13				3.0	3.8	.25						
14				3.0	3.8	.10						
15				3.3	4.2	.50						
16				3.0	4.2	.19						
17				3.3	3.8	0						
18				3.2	3.8	0						
19				3.0	3.0	0						
20				4.1	2.6	0						
21				4.7	2.6	.14						
22				5.7	2.3	.63						
23				5.7	3.3	.18						
24				5.1	3.3	0						
25				5.1	3.0	0						
26				5.1	3.8	0						
27				7.4	3.3	0						
28				12	2.6	0						
29				13	---	0						
30				6.8	---	0						
31		---		4.7	---	0	---		---			---
TOTAL	0	0	0	149.1	104.2	89.69	0	0	0	0	0	0
MEAN	0	0	0	4.81	3.72	2.89	0	0	0	0	0	0
MAX	0	0	0	18	4.7	45	0	0	0	0	0	0
MIN	0	0	0	0	2.3	0	0	0	0	0	0	0
AC-FT	0	0	0	296	207	178	0	0	0	0	0	0

CAL YR 1986 TOTAL 6345.90 MEAN 17.4 MAX 331 MIN 0 AC-FT 12590
WTR YR 1987 TOTAL 342.99 MEAN .94 MAX 45 MIN 0 AC-FT 680

37.35 = 11%
343
of drop of flow (e)

MOJAVE RIVER BASIN

10261100 MOJAVE RIVER BELOW FORKS RESERVOIR, NEAR HESPERIA, CA

LOCATION.--Lat 34°21'17", long 117°14'40", in NE 1/4 NE 1/4 sec.13, T.3 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank 0.8 mi downstream from Mojave Forks Reservoir, 6.2 mi downstream from Silverwood Lake on West Fork Mojave River, 6.5 mi southeast of Hesperia, and 12.2 mi downstream from Lake Arrowhead on Deep Creek (East Fork Mojave River).

DRAINAGE AREA.--211 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 3,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1971 to September 1974, water-stage recorder at site 0.8 mi upstream on reservoir outlet channel at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow partially regulated by Lake Arrowhead, capacity, 48,000 acre-ft, used principally for recreation; Silverwood Lake, capacity, 78,000 acre-ft, used for the storage and distribution of imported water and recreation; and Mojave Forks Reservoir, capacity, 89,700 acre-ft, used for flood control. Silverwood Reservoir releases all natural inflow to the West Fork Mojave River as soon as possible after a storm. Sewage effluent from Lake Arrowhead area is released above gage at times.

AVERAGE DISCHARGE.--10 years (water years 1972-74, 1981-87), 76.3 ft³/s, 55,280 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 11,700 ft³/s, Mar. 2, 1983, on basis of flood routing; no flow for many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 840 ft³/s, Mar. 6, gage height, 2.80 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.31	3.8	5.3	14	12	34	11	3.5			
2	0	.39	3.8	5.3	14	12	33	10	3.0			
3	0	.47	3.9	5.3	13	13	32	10	2.5			
4	0	.45	3.8	12	12	14	55	9.4	2.1			
5	0	.53	3.8	95	11	19	58	7.9	1.7			
6	0	.63	4.3	38	11	488	75	6.5	2.0			
7	0	.64	11	23	10	303	71	7.4	1.9			
8	0	.71	22	16	10	163	70	10	2.0			
9	0	.82	12	12	11	92	67	16	1.9			
10	0	1.0	8.2	10	11	56	59	13	1.5			
11	0	1.1	6.5	9.8	11	48	56	9.9	.99			
12	0	1.2	5.7	10	12	43	52	8.7	.69			
13	0	1.4	5.5	10	13	35	46	8.1	.34			
14	0	1.5	5.5	11	13	31	40	7.3	0			
15	0	1.4	5.5	12	12	33	36	6.8	0			
16	0	1.5	5.8	13	11	36	32	6.3	0			
17	0	1.5	5.9	15	9.9	27	28	5.7	0			
18	0	9.3	5.8	18	9.2	24	26	5.2	0			
19	0	43	5.8	11	8.7	27	23	4.8	0			
20	0	14	5.8	8.6	8.6	34	20	4.7	0			
21	0	7.9	6.1	8.4	8.0	34	18	4.7	0			
22	0	5.7	6.8	8.8	8.0	38	17	4.8	0			
23	0	4.9	6.4	7.8	8.4	41	15	4.8	0			
24	0	4.2	6.2	7.4	11	45	14	4.8	0			
25	0	3.8	5.8	7.0	11	44	13	4.4	0			
26	0	3.6	5.8	7.4	14	39	13	4.4	0			
27	0	3.8	5.8	7.7	13	41	14	4.8	0			
28	0	3.8	5.6	12	11	45	15	4.9	0			
29	0	3.7	5.3	29	---	43	15	4.7	0			
30	.07	3.6	5.3	26	---	37	12	4.6	0			
31	.25	---	5.3	17	---	35	---	4.3	---			---
TOTAL	.32	126.85	198.8	478.8	309.8	1952	1059	219.9	24.12	0	0	0
MEAN	.010	4.23	6.41	15.4	11.1	63.0	35.3	7.09	.80	0	0	0
MAX	.25	43	22	95	14	488	75	16	3.5	0	0	0
MIN	0	.31	3.8	5.3	8.0	12	12	4.3	0	0	0	0
AC-FT	.6	252	394	950	614	3870	2100	436	48	0	0	0
CAL YR 1986	TOTAL	19881.51	MEAN	54.5	MAX	2700	MIN	0	AC-FT	39430		
WTR YR 1987	TOTAL	4369.59	MEAN	12.0	MAX	488	MIN	0	AC-FT	8670		

MOJAVE RIVER BASIN

10261500 MOJAVE RIVER AT LOWER NARROWS, NEAR VICTORVILLE, CA

LOCATION.--Lat 34°34'23", long 117°19'11", in SW 1/4 SE 1/4 sec.29, T.6 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, on left bank 650 ft upstream from bridge on county road (formerly U.S. Highway 66), 0.6 mi downstream from Atchison, Topeka, & Santa Fe Railway bridge, 3 mi northwest of Victorville, 17.8 mi downstream from Mojave Forks Reservoir, 24 mi downstream from Silverwood Lake on the West Fork Mojave River, and 30 mi downstream from Lake Arrowhead on Deep Creek (East Fork Mojave River).

DRAINAGE AREA.--513 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 2,643.01 ft above 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 upstream at datum 5.00 ft higher; Apr. 15, 1966, to July 17, 1969, at site 350 ft upstream at datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Sept. 12-19, 25-30. Records fair, except those for Aug. 19 to Sept. 30, which are poor. Regulation by Lake Arrowhead, capacity, 48,000 acre-ft used principally for recreation; Silverwood Lake, capacity, 78,000 acre-ft used for storage and distribution of imported water and recreation; and Mojave Forks Reservoir, capacity, 89,700 acre-ft. Diversions and pumping for irrigation of about 5,000 acres and Mojave State Fish Hatchery above station. During the year no imported water was released from Silverwood Lake into the West Fork Mojave River, only natural inflow.

AVERAGE DISCHARGE.--64 years (water years 1900-06, 1931-87), 77.9 ft³/s, 56,440 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,600 ft³/s, Mar. 2, 1938, gage height, 23.7 ft, present datum, from rating curve extended above 10,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 3.4 ft³/s, July 25, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 608 ft³/s, Jan. 4, gage height, 5.17 ft; minimum daily, 7.1 ft³/s, Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	19	22	28	29	29	27	21	13	13	8.6	8.0
2	12	18	23	26	28	30	31	20	14	13	8.0	8.3
3	13	20	22	27	30	31	35	19	15	13	7.9	9.3
4	14	20	23	120	28	29	23	19	15	13	8.8	8.3
5	16	19	24	58	27	26	22	19	14	14	9.2	9.7
6	16	18	30	37	32	30	21	18	14	12	8.4	10
7	15	19	58	33	29	35	22	20	14	10	8.4	9.0
8	16	19	25	33	26	29	22	21	15	11	7.6	9.0
9	18	18	25	28	29	30	22	21	13	11	7.5	9.0
10	18	20	24	31	26	31	21	21	15	11	7.6	9.5
11	18	21	23	29	29	29	21	20	15	9.7	8.5	11
12	18	21	23	29	34	28	22	20	15	9.1	9.6	10
13	17	20	24	27	33	29	21	20	15	8.8	11	10
14	15	20	25	32	32	29	21	19	15	8.2	11	10
15	17	21	24	31	32	30	22	18	14	9.0	16	10
16	16	22	25	30	29	28	21	20	14	10	12	10
17	17	21	23	30	29	29	22	18	12	10	7.3	11
18	18	37	23	29	27	29	21	17	12	9.5	7.3	11
19	19	22	23	30	27	29	20	19	12	8.9	7.4	11
20	19	21	26	28	30	28	21	20	14	9.4	7.4	11
21	18	20	23	28	33	27	20	22	13	9.6	8.0	11
22	17	21	26	28	31	26	21	21	12	9.5	7.4	12
23	16	21	26	27	31	25	21	20	13	10	7.1	19
24	16	22	25	25	30	25	22	20	12	10	7.7	14
25	17	23	24	29	30	26	22	18	12	11	7.7	13
26	17	22	26	29	31	27	25	18	9.8	9.5	7.7	12
27	16	22	27	34	33	32	23	18	10	9.4	7.7	12
28	17	22	25	36	30	30	20	18	11	9.4	8.0	11
29	19	22	27	32	---	31	21	19	11	8.3	8.0	11
30	17	23	32	31	---	28	22	16	12	8.8	7.7	11
31	17	---	31	29	---	28	---	14	---	9.4	7.7	---
TOTAL	511	634	807	1044	835	893	675	594	395.8	318.5	264.2	321.1
MEAN	16.5	21.1	26.0	33.7	29.8	28.8	22.5	19.2	13.2	10.3	8.52	10.7
MAX	19	37	58	120	34	35	35	22	15	14	16	19
MIN	12	18	22	25	26	25	20	14	9.8	8.2	7.1	8.0
AC-FT	1010	1260	1600	2070	1660	1770	1340	1180	785	632	524	637

CAL YR 1986 TOTAL 7939.9 MEAN 21.8 MAX 349 MIN 3.6 AC-FT 15750
WTR YR 1987 TOTAL 7292.6 MEAN 20.0 MAX 120 MIN 7.1 AC-FT 14460

MOJAVE RIVER BASIN

10262000 MOJAVE RIVER NEAR HODGE, CA

LOCATION.--Lat 34°50'09", long 117°11'27", in SE 1/4 SE 1/4 sec.28, T.9 N., R.3 W., San Bernardino County, Hydrologic Unit 18090208, at county bridge 1.5 mi north of Hodge, 10.9 mi southwest of Barstow, 42 mi downstream from Mojave Forks Reservoir, 48 mi downstream from Silverwood Lake on West Fork Mojave River, and 54 mi downstream from Lake Arrowhead on Deep Creek (East Fork Mojave River).

DRAINAGE AREA.--1,091 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,260 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1970, at different datum.

REMARKS.--No estimated daily discharge. Regulation by Lake Arrowhead, capacity 48,000 acre-ft, used principally for recreation; Silverwood Lake, capacity, 78,000 acre-ft, used for storage and distribution of imported water and recreation; and Mojave Forks Reservoir, capacity 89,700 acre-ft. Diversion and pumping for irrigation of about 12,000 acres above station.

AVERAGE DISCHARGE.--19 years (water years 1931-32, 1971-87), 42.0 ft³/s, 30,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s, Feb. 10, 1978, gage height, 8.80 ft on basis of slope-area measurement of peak flow; no flow all or most of each year.

EXTREMES FOR CURRENT YEAR.--No flow entire year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
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26												
27												
28												
29												
30												
31		---			---		---		---			---
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0
MEAN	0	0	0	0	0	0	0	0	0	0	0	0
MAX	0	0	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	0	0	0	0	0	0	0	0	0	0	0
CAL YR 1986	TOTAL 1.30	MEAN .0040	MAX 1.3	MIN 0	AC-FT 2.6							
WTR YR 1987	TOTAL 0.00	MEAN .0000	MAX .00	MIN 0	AC-FT .0							

LOCATION.--Lat 34°54'25", long 117°01'19", in SW 1/4 SW 1/4 sec.31, T.10 N., R.1 W., San Bernardino County, Hydrologic Unit 18090208, on left bank 75 ft upstream from bridge on U.S. Highway 91 at Barstow, 54 mi downstream from Mojave Forks Reservoir, 60 mi downstream from Silverwood Lake on West Fork Mojave River, and 66 mi downstream from Lake Arrowhead on Deep Creek (East Fork Mojave River).

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

REMARKS.--Estimated daily discharge: May 12. Records good. Regulation by Lake Arrowhead, capacity, 48,000 acre-ft, used principally for recreation; Silverwood Lake, capacity, 78,000 acre-ft, used for storage and distribution of imported water and recreation; and Mojave Forks Reservoir, capacity, 89,700 acre-ft. Diversions and pumping for irrigation of about 15,000 acres above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,300 ft³/s, Mar. 3, 1938, gage height, 8.60 ft on basis of slope-area measurement of peak flow; no flow for all or most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
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								.01				
13								0				
14								0				
15								0				
16								0				
17								0				
18								0				
19								0				
20								0				
21								0				
22								0				
23								0				
24								0				
25								0				
26								0				
27								0				
28								0				
29					---			0				
30					---			0				
31		---			---		---	0	---			---
TOTAL	0	0	0	0	0	0	0	.01	0	0	0	0
MEAN	0	0	0	0	0	0	0	.0003	0	0	0	0
MAX	0	0	0	0	0	0	0	.01	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	.02	0	0	0	0
CAL YR 1986	TOTAL	0.00	MEAN	0	MAX .00	MIN 0	AC-FT 0					
WTR YR 1987	TOTAL	0.01	MEAN	0	MAX .01	MIN 0	AC-FT .02					

MOJAVE RIVER BASIN

10263000 MOJAVE RIVER AT AFTON, CA

LOCATION.--Lat 35°02'14", long 116°23'00", in NW 1/4 SE 1/4 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 west of Afton, and 63 mi east of Barstow.

DRAINAGE AREA.--2,121 mi².

PERIOD OF RECORD.--October 1929 to September 1932, October 1952 to current year. Records for water year 1930 incomplete, yearly estimate published in WSP 1314. Records for 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 above National Geodetic Vertical Datum of 1929. Dec. 21, 1929, to Sept. 30, 1932, at site 1.7 mi downstream at different datum; October 1952 to May 1978, at datum 2 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Natural flow affected by ground-water withdrawals, diversions, municipal use, and storage in upstream reservoirs 100 mi upstream. For description of upstream reservoirs see Mojave River at Barstow (station 10262500).

AVERAGE DISCHARGE.--36 years (water years 1930-32, 1953-78, 1981-87), 6.54 ft³/s, 4,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft³/s, Jan. 26, 1969, gage height, 12.40 ft (present datum), from rating curve extended above 3,200 ft³/s on basis of slope-area measurement of peak flow; no flow at times many years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 27	1645	*122	*2.46				

Minimum daily, 0.11 ft³/s, Aug. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	1.0	1.2	1.2	1.2	1.2	1.2	.62	.24	.24	.33	.12
2	.70	.89	1.2	1.2	1.2	1.3	1.1	.62	.24	.24	.24	.12
3	.70	1.0	1.1	1.2	1.2	1.3	1.2	.62	.24	.24	.24	.14
4	.70	1.0	1.2	1.3	1.2	1.2	1.1	.62	.28	.19	.19	.12
5	.62	1.0	1.2	1.2	1.2	1.3	1.1	.62	.24	.19	.16	.14
6	.65	.89	1.2	1.2	1.2	1.4	1.1	.50	1.3	.19	.16	.14
7	.70	.89	1.6	1.2	1.2	1.2	1.1	.50	3.2	.19	.16	.16
8	.70	.89	1.3	1.2	1.2	1.1	1.1	.62	.70	.19	.16	.19
9	1.1	.89	1.2	1.2	1.2	1.1	1.1	.62	.62	.19	.14	.24
10	1.0	.89	1.2	1.2	1.2	1.0	1.1	.50	.50	.19	.14	.24
11	.79	.89	1.2	1.2	1.2	1.0	1.1	.41	.41	.19	.12	.24
12	.70	.89	1.2	1.3	1.2	1.0	1.0	.41	.41	.19	.12	.33
13	.79	.89	1.2	1.3	1.2	1.1	1.0	.41	.33	.19	.11	.33
14	.79	.89	1.2	1.3	1.2	1.1	1.1	.33	.33	.19	.11	.41
15	.70	.89	1.1	1.3	1.2	1.1	1.0	.41	.33	.16	.12	.41
16	.79	.89	1.1	1.3	1.2	1.1	1.0	.50	.33	.19	.12	.33
17	.70	.89	1.1	1.3	1.2	1.1	.89	.41	.33	.16	.12	.33
18	.70	1.2	1.1	1.3	1.2	1.1	.79	.33	.33	.19	.12	.41
19	.89	1.2	1.1	1.3	1.2	1.1	.70	.33	.33	.19	.12	.41
20	.79	1.2	1.1	1.3	1.2	1.1	.70	.33	.33	.19	.12	.41
21	.89	1.2	1.1	1.3	1.2	1.1	.70	.33	.33	.24	.12	.33
22	1.0	1.2	1.1	1.2	1.2	1.1	.70	.33	.33	.33	.12	.41
23	1.0	1.2	1.2	1.2	1.2	1.1	.70	.33	.41	.41	.12	.41
24	1.0	1.2	1.2	1.2	1.3	1.1	.70	.33	.33	.41	.12	.50
25	1.0	1.2	1.2	1.2	1.3	1.1	.79	.33	.33	.33	.12	.50
26	.89	1.2	1.2	1.2	1.3	1.1	.79	.33	.24	.41	.14	.41
27	.89	1.2	1.2	1.2	1.2	1.1	.70	.33	.24	3.7	.12	.50
28	1.0	1.2	1.2	1.2	1.3	1.1	.62	.33	.24	2.0	.14	.50
29	1.0	1.2	1.2	1.2	---	1.1	.62	.33	.24	.62	.12	.50
30	1.0	1.2	1.2	1.2	---	1.1	.62	.33	.24	.50	.14	.50
31	1.0	---	1.2	1.2	---	1.2	---	.33	---	.33	.12	---
TOTAL	25.80	31.17	36.8	38.3	34.0	35.1	27.42	13.34	13.95	13.17	4.48	9.78
MEAN	.83	1.04	1.19	1.24	1.21	1.13	.91	.43	.47	.42	.14	.33
MAX	1.1	1.2	1.6	1.3	1.3	1.4	1.2	.62	3.2	3.7	.33	.50
MIN	.62	.89	1.1	1.2	1.2	1.0	.62	.33	.24	.16	.11	.12
AC-FT	51	62	73	76	67	70	54	26	28	26	8.9	19

CAL YR 1986 TOTAL 276.44 MEAN .76 MAX 7.5 MIN .15 AC-FT 548
WTR YR 1987 TOTAL 283.31 MEAN .78 MAX 3.7 MIN .11 AC-FT 562

ANTELOPE VALLEY

10263500 BIG ROCK CREEK NEAR VALYERMO, CA

LOCATION.--Lat 34°25'15", long 117°50'19", in SE 1/4 NE 1/4 sec.20, T.4 N., R.9 W., Los Angeles County, Hydrologic Unit 18090206, on left bank 0.1 mi upstream from Punchbowl Canyon and 1.9 mi southeast of Valyermo.

DRAINAGE AREA.--22.9 mi².

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. Elevation of gage is 4,050 ft above National Geodetic Vertical Datum of 1929, 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 downstream (below Punchbowl Canyon) at different datum.

REMARKS.--Estimated daily discharge: May 17. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--64 years (water years 1924-87), 17.6 ft³/s, 12,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,300 ft³/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow; minimum daily, 0.70 ft³/s, Nov. 5, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0515	*60	*2.40				

Minimum daily, 1.7 ft³/s, Aug. 19 and Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	5.2	5.7	5.9	5.4	4.9	7.8	6.9	3.9	3.7	2.0	2.3
2	5.9	5.3	5.7	5.9	5.4	4.7	7.4	6.9	3.9	3.7	2.0	3.3
3	5.9	5.4	5.8	5.9	5.4	4.7	7.6	6.3	4.2	3.5	2.1	2.7
4	5.9	5.2	6.2	11	5.4	4.7	7.7	6.2	4.1	2.9	2.1	2.4
5	5.9	5.1	6.1	8.7	5.4	6.9	7.7	5.9	3.6	2.9	2.2	2.3
6	5.9	5.0	5.9	7.1	5.5	47	7.6	5.7	4.7	2.8	2.1	2.4
7	5.9	4.9	6.3	6.8	5.4	30	7.5	5.4	4.2	2.8	2.0	2.1
8	5.8	4.9	6.1	6.7	5.4	21	7.4	5.4	3.9	2.9	2.1	1.9
9	5.7	4.9	6.0	6.8	5.4	16	7.4	5.4	3.8	3.1	2.1	1.9
10	5.6	5.0	6.0	6.6	5.4	13	7.6	5.2	3.6	2.9	2.1	1.9
11	5.5	5.0	6.0	6.6	5.4	12	7.7	5.1	3.4	2.8	2.0	1.9
12	5.4	4.9	6.0	6.6	5.4	11	7.9	5.1	3.2	3.0	2.0	1.9
13	5.5	5.0	5.9	6.6	5.3	10	8.1	5.0	4.1	3.3	2.0	2.0
14	5.2	5.1	6.0	6.6	5.1	10	8.0	5.0	3.9	2.8	2.1	2.0
15	5.3	5.1	6.2	6.5	5.1	11	7.8	5.0	3.6	3.3	2.1	1.9
16	5.2	5.1	6.2	6.3	5.1	9.8	7.8	5.1	3.6	3.1	2.1	1.9
17	5.3	5.1	6.2	6.4	5.3	9.3	7.8	4.7	3.4	3.2	2.1	1.9
18	5.3	7.8	6.2	6.2	5.4	8.9	7.6	4.4	3.4	3.2	2.1	1.9
19	5.3	5.3	6.2	6.1	5.4	8.7	7.7	4.7	3.4	3.1	1.7	1.9
20	5.4	5.4	6.0	6.0	5.2	8.6	7.5	4.6	3.4	3.1	1.8	1.9
21	5.4	5.5	6.0	5.9	5.3	8.9	7.1	4.6	3.4	2.9	1.9	1.9
22	5.2	5.7	5.9	5.9	5.4	8.6	6.7	4.4	3.4	2.9	2.1	2.0
23	5.1	5.7	5.9	6.2	5.3	8.4	6.8	4.4	3.3	2.9	2.0	2.7
24	5.0	5.8	5.9	6.3	4.9	8.5	7.0	4.6	3.3	2.8	2.2	2.6
25	5.1	5.9	5.9	6.3	5.0	8.2	6.8	4.8	3.4	2.7	2.2	2.3
26	5.0	5.8	5.9	6.3	5.1	8.1	6.6	4.5	3.3	2.5	2.2	2.1
27	4.8	5.7	5.9	6.1	4.9	7.9	7.9	4.4	3.3	2.3	2.2	1.9
28	4.9	5.7	5.9	5.2	4.9	8.0	8.0	4.3	3.6	2.3	2.1	1.8
29	5.1	5.7	5.9	5.2	---	8.2	7.4	4.1	3.4	2.3	2.2	1.8
30	5.4	5.7	5.9	5.4	---	8.2	6.8	4.2	3.7	2.3	2.0	1.7
31	5.1	---	5.9	5.4	---	8.0	---	3.8	---	2.1	2.1	---
TOTAL	167.9	161.9	185.7	199.5	147.6	343.2	224.7	156.1	109.4	90.1	64.0	63.2
MEAN	5.42	5.40	5.99	6.44	5.27	11.1	7.49	5.04	3.65	2.91	2.06	2.11
MAX	5.9	7.8	6.3	11	5.5	47	8.1	6.9	4.7	3.7	2.2	3.3
MIN	4.8	4.9	5.7	5.2	4.9	4.7	6.6	3.8	3.2	2.1	1.7	1.7
AC-FT	333	321	368	396	293	681	446	310	217	179	127	125

CAL YR 1986	TOTAL	6396.3	MEAN	17.5	MAX	251	MIN	4.8	AC-FT	12690
WTR YR 1987	TOTAL	1913.3	MEAN	5.24	MAX	47	MIN	1.7	AC-FT	3800

OWENS LAKE BASIN

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

LOCATION.--Lat 37°20'59", long 118°27'41", in SE 1/4 SE 1/4 sec.9, T.7 S., R.32 E., Inyo County, Hydrologic Unit 18090102, below powerplant No. 6 tailrace and 3.6 mi west of Bishop.

DRAINAGE AREA.--104 mi², natural flow.

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

GAGE.--Water-stage recorder on creek, and venturi meter on powerplant conduit.

REMARKS.--Flow regulated for power development by South Lake, Lake Sabrina, and Intake No. 2 Reservoir, combined capacity, 20,660 acre-ft, and many powerplants. 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 were provided by Southern California Edison Co. and reviewed by U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (ACTUAL FLOW).--52 years, 104 ft³/s, 75,350 acre-ft/yr.
(NATURAL FLOW).--52 years, 108 ft³/s, 78,250 acre-ft/yr.

EXTREMES (ACTUAL FLOW) FOR PERIOD OF RECORD (SINCE 1970).--Maximum daily discharge, 1,070 ft³/s, Sept. 26, 1982; minimum daily, 32 ft³/s, Dec. 19, 1977.

DISCHARGE (ACTUAL FLOW), IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	85	87	101	68	66	64	94	108	131	113	97
2	137	85	96	101	69	67	62	93	113	116	107	92
3	137	66	102	100	71	67	63	94	107	111	105	90
4	141	59	96	101	67	67	61	93	107	110	133	89
5	139	59	96	91	68	72	57	89	112	111	112	89
6	140	60	101	92	68	69	59	94	113	112	111	89
7	140	58	104	91	67	67	93	94	111	113	110	89
8	121	58	100	93	67	70	118	100	112	120	111	90
9	107	58	100	98	71	67	121	93	113	124	111	88
10	136	58	101	98	67	68	122	94	111	124	113	89
11	132	56	102	100	74	69	121	95	109	124	111	88
12	132	54	103	81	69	67	118	99	114	121	112	93
13	136	57	102	81	70	68	117	94	113	127	115	91
14	133	59	102	80	69	67	138	102	114	123	114	90
15	133	54	102	81	69	67	136	111	114	128	113	89
16	132	59	103	82	90	66	134	106	113	138	113	77
17	132	54	101	81	67	66	141	108	113	137	109	71
18	129	83	103	91	67	63	84	104	112	137	112	72
19	135	103	101	93	66	66	73	104	112	135	111	71
20	136	99	101	91	65	63	76	103	113	135	110	71
21	137	94	104	83	66	63	76	108	113	126	110	71
22	138	98	103	83	67	65	76	103	112	128	110	70
23	137	102	102	91	66	64	76	104	116	111	112	71
24	139	99	102	90	64	67	75	103	121	107	110	72
25	139	100	97	89	68	67	77	108	125	106	108	69
26	144	98	101	85	67	67	80	104	127	107	105	71
27	135	101	103	81	66	63	82	104	129	108	111	71
28	85	101	101	71	66	68	84	107	134	109	110	70
29	83	101	101	70	---	65	102	114	135	109	112	72
30	81	100	102	68	---	64	93	113	130	107	113	70
31	82	---	105	66	---	64	---	112	---	107	110	---
TOTAL	3961	2318	3124	2704	1919	2059	2779	3144	3476	3702	3457	2422
MEAN	128	77.3	101	87.2	68.5	66.4	92.6	101	116	119	112	80.7
MAX	144	103	105	101	90	72	141	114	135	138	133	97
MIN	81	54	87	66	64	63	57	89	107	106	105	69
AC-FT	7860	4600	6200	5360	3810	4080	5510	6240	6890	7340	6860	4800
a	4130	3270	3190	3180	3110	3460	6420	9520	11150	7410	5470	3340

CAL YR 1986 TOTAL 58051 MEAN 159 MAX 444 MIN 54 AC-FT 115100 a 10589
WTR YR 1987 TOTAL 35065 MEAN 96.1 MAX 144 MIN 54 AC-FT 69550 a 63630

a Computed "NATURAL FLOW", in acre-feet.

MONO LAKE BASIN

10287000 MONO LAKE NEAR MONO LAKE, CA

LOCATION.--Lat 37°58'46", long 119°08'11", in NW 1/4 sec.5, T.2 N., R.26 E., Mono County, Hydrologic Unit 18090101, on west bank 1 mi south of town of Mono Lake.

DRAINAGE AREA.--785 mi².

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 ft³/s. No elevation readings were provided for January and February; lake frozen at gages.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 6,428.1 ft, July 18, 1919, present datum; minimum observed, 6,372.00 ft, Dec. 17, 30, 1981.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Date	Elevation	Date	Elevation	Date	Elevation
Oct. 1	6,380.2	Dec. 10	6,380.0	May 22	6,380.3	July 29	6,379.6
8	6,380.2	Mar. 19	6,380.4	27	6,380.3	Aug. 5	6,379.6
15	6,380.2	25	6,380.4	June 3	6,380.3	12	6,379.5
22	6,380.2	Apr. 1	6,380.4	10	6,380.3	19	6,379.4
29	6,380.2	8	6,380.5	17	6,380.2	27	6,379.2
Nov. 5	6,380.1	15	6,380.4	24	6,380.1	Sept. 2	6,379.2
12	6,380.0	22	6,380.4	July 1	6,380.1	10	6,379.1
19	6,380.1	29	6,380.4	8	6,380.0	16	6,379.1
26	6,380.0	May 6	6,380.4	15	6,379.9	23	6,379.0
Dec. 3	6,380.0	13	6,380.3	22	6,379.7	30	6,379.0

MONO LAKE BASIN

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

LOCATION.--Lat 38°01'58", long 119°12'53", in SE 1/4 NE 1/4 sec.16, T.2 N., R.25 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, at road crossing 1,500 ft downstream from Lundy Lake Dam and 4.9 mi northwest of Mono Lake Post Office.

DRAINAGE AREA.--18.1 mi².

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. Elevation of gage is 7,760 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Flow regulated for power development by Lundy Lake, capacity, 3,820 acre-ft. Records for "ACTUAL FLOW" include Mill Creek, Lundy powerplant tailrace, and Upper Conway ditch. Records for "NATURAL FLOW" are computed as the "ACTUAL FLOW" plus change in contents and evaporation of Lundy Lake.

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

AVERAGE DISCHARGE (ACTUAL FLOW).--46 years, 29.6 ft³/s, 21,450 acre-ft/yr.
(NATURAL FLOW).--46 years, 30.9 ft³/s, 22,390 acre-ft/yr.

EXTREMES (ACTUAL FLOW) FOR PERIOD OF RECORD (SINCE 1970).--Maximum daily discharge, 229 ft³/s, June 22, 1983; no flow for many days in 1971 and 1974.

DISCHARGE (ACTUAL FLOW), IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	18	16	11	8.0	7.5	6.8	15	66	22	22	12
2	17	18	16	8.6	7.9	7.5	6.8	15	66	22	22	10
3	19	18	16	7.3	7.8	7.5	7.1	15	44	22	22	8.6
4	19	18	16	7.5	7.8	7.4	7.3	17	30	22	22	8.6
5	19	18	16	7.6	7.7	7.3	7.3	20	30	22	22	8.6
6	19	18	16	7.5	7.7	7.3	7.5	20	30	22	22	8.6
7	19	18	16	7.4	7.7	7.2	7.4	20	30	22	22	8.6
8	19	18	16	7.4	7.7	7.1	7.5	26	30	23	22	8.6
9	19	18	16	7.3	7.7	7.1	7.3	31	31	22	21	8.6
10	19	18	16	7.3	7.7	7.2	7.3	30	31	23	21	8.4
11	19	18	16	7.3	7.7	7.2	7.3	38	31	23	22	8.4
12	19	18	16	7.3	7.7	7.2	7.3	45	31	22	21	8.4
13	19	18	16	7.3	7.7	7.1	7.3	43	31	22	21	8.4
14	19	18	16	7.3	7.7	7.3	7.1	45	31	23	21	8.4
15	19	18	16	7.2	7.7	7.3	7.3	40	31	22	21	8.4
16	18	18	16	7.5	7.7	7.2	7.3	32	31	22	21	8.4
17	18	18	16	7.5	7.6	7.6	7.3	33	30	22	21	8.4
18	18	18	16	7.5	7.6	7.7	7.2	30	30	22	22	8.6
19	18	18	14	7.5	7.6	7.8	7.3	30	30	22	22	8.6
20	18	17	12	7.5	7.6	7.7	7.2	30	30	22	22	8.6
21	18	17	12	7.5	7.6	7.7	7.5	30	30	22	22	8.6
22	18	17	12	7.7	7.6	7.6	7.5	30	30	22	22	8.6
23	18	17	12	7.7	7.6	7.7	7.5	30	25	23	22	8.6
24	18	17	12	7.7	7.6	7.7	7.6	30	20	22	22	8.4
25	18	16	12	7.7	7.5	6.6	7.5	30	21	22	19	8.4
26	18	16	12	7.7	7.5	6.5	7.7	30	21	22	17	8.4
27	18	16	12	7.9	7.5	6.4	7.5	32	21	22	16	8.4
28	18	16	12	7.9	7.5	6.0	11	32	21	22	14	8.4
29	18	16	12	7.9	---	6.3	15	42	21	22	12	8.4
30	18	16	12	7.9	---	6.3	15	66	21	22	12	8.7
31	18	---	12	8.0	---	6.6	---	66	---	22	12	---
TOTAL	569	523	446	238.4	214.7	222.6	238.7	993	925	687	622	260.1
MEAN	18.4	17.4	14.4	7.69	7.67	7.18	7.96	32.0	30.8	22.2	20.1	8.67
MAX	19	18	16	11	8.0	7.8	15	66	66	23	22	12
MIN	17	16	12	7.2	7.5	6.0	6.8	15	20	22	12	8.4
AC-FT	1130	1040	885	473	426	442	473	1970	1830	1360	1230	516
a	885	628	551	445	380	442	837	2480	2140	1090	684	509

CAL YR 1986 TOTAL 15997.0 MEAN 43.8 MAX 216 MIN 12 AC-FT 31730 a 32050
WTR YR 1987 TOTAL 5939.5 MEAN 16.3 MAX 66 MIN 6.0 AC-FT 11780 a 11070

a Computed "NATURAL FLOW", in acre-feet.

MONO LAKE BASIN

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

LOCATION.--Lat 37°45'32", long 119°07'47", in NE 1/4 SW 1/4 sec.20, T.2 S., R.26 E., Mono County, Hydrologic Unit 18090101, Inyo National Forest, 500 ft downstream from Agnew Lake Dam and 3.4 mi southwest of town of June Lake.

DRAINAGE AREA.--23.3 mi².

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. Elevation of gage is 8,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Flow regulated for power development by Waugh, Gem, and Agnew Lakes, combined capacity, 23,420 acre-ft, 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 were provided by Southern California Edison Co., and reviewed by the U.S. Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (ACTUAL FLOW).--36 years, 57.2 ft³/s, 41,440 acre-ft/yr.
(NATURAL FLOW).--36 years, 61.5 ft³/s, 44,560 acre-ft/yr.

EXTREMES (ACTUAL FLOW) FOR PERIOD OF RECORD (SINCE 1970).--Maximum daily discharge, 421 ft³/s, July 15, 1978; minimum daily, 0.90 ft³/s, Aug. 31 to Sept. 2, 1976.

DISCHARGE (ACTUAL FLOW), IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	78	63	36	16	11	11	21	31	33	34	33
2	139	73	59	36	12	10	11	23	38	33	33	33
3	139	69	60	36	12	10	11	22	38	33	33	35
4	138	68	60	36	14	11	11	22	37	33	33	34
5	138	67	60	34	12	13	11	14	32	33	33	34
6	65	68	60	33	12	13	11	5.8	29	33	33	34
7	51	68	61	36	12	13	11	18	29	33	33	34
8	51	68	61	39	12	13	11	28	32	33	33	34
9	49	68	60	37	12	13	11	21	33	32	33	34
10	48	68	60	36	12	11	11	21	33	32	33	34
11	48	68	59	36	12	11	11	21	33	32	33	34
12	48	68	59	35	12	12	11	21	33	32	33	34
13	48	68	59	37	13	12	10	21	33	32	33	34
14	48	68	59	36	14	12	11	24	33	32	33	34
15	47	68	59	36	14	12	11	23	33	32	33	34
16	37	68	59	39	14	11	11	23	33	33	32	33
17	23	68	59	38	14	12	11	24	33	33	34	33
18	12	68	59	38	14	13	15	22	33	32	33	33
19	12	68	51	38	14	13	17	20	33	32	33	33
20	27	68	36	37	14	12	17	20	33	32	33	33
21	37	68	37	37	15	12	18	20	33	32	33	33
22	37	67	36	36	13	12	19	22	32	32	33	33
23	37	67	36	36	12	11	20	22	33	32	33	33
24	37	66	36	36	12	12	19	22	33	32	33	32
25	37	65	36	36	12	12	20	22	33	32	33	32
26	37	66	36	34	12	12	20	22	33	32	33	32
27	39	65	36	31	12	11	20	20	33	32	33	32
28	61	65	36	30	11	10	20	21	33	31	33	32
29	59	66	36	27	---	10	20	22	33	33	33	33
30	62	67	36	22	---	11	20	22	33	33	34	34
31	79	---	36	20	---	11	---	22	---	33	34	---
TOTAL	1830	2037	1560	1074	360	362	431	651.8	991	1004	1026	1000
MEAN	59.0	67.9	50.3	34.6	12.9	11.7	14.4	21.0	33.0	32.4	33.1	33.3
MAX	140	78	63	39	16	13	20	28	38	33	34	35
MIN	12	65	36	20	11	10	10	5.8	29	31	32	32
AC-FT	3630	4040	3090	2130	714	718	855	1290	1970	1990	2040	1980
a	710	0	19	208	295	374	4020	9130	4470	1360	939	85

CAL YR 1986 TOTAL 27131.3 MEAN 74.3 MAX 324 MIN 9.3 AC-FT 53810 a 57910
WTR YR 1987 TOTAL 12326.8 MEAN 33.8 MAX 140 MIN 5.8 AC-FT 24450 a 21610

a Computed "NATURAL FLOW", in acre-feet. When "ACTUAL FLOW" was small and other quantities were large, negative figures of flow may appear. This arises primarily from the difficulty of computing "NATURAL FLOW" as the residual of several larger quantities, which are not conducive to precise measurement. When this occurs, adjustments are made to produce non-negative flows.

PACIFIC SLOPE BASINS IN CALIFORNIA

TIJUANA RIVER BASIN

11011000 BARRETT LAKE NEAR DULZURA, CA

LOCATION.--Lat 32°30'46", long 116°40'11", in NW 1/4 NW 1/4 sec.22, T.17 S., R.3 E., San Diego County, Hydrologic Unit 18070305, on Barrett Dam outlet tower, 7.2 mi downstream from Morena Reservoir, and 7.0 mi northeast of Dulzura.

DRAINAGE AREA.--245 mi².

PERIOD OF RECORD.--October 1960 to September 1966 (monthend contents only, published in WSP 1928), published as Cottonwood Creek at Barrett Dam. October 1986 to September 1987.

REVISED RECORDS.--WDR CA-66-1: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 1,446.12 ft above National Geodetic Vertical Datum of 1929 (levels by city of San Diego); gage readings have been reduced to NGVD.

REMARKS.--Reservoir is formed by gravity-concrete and masonry dam built in 1922. Area-capacity table for reservoir is based on a resurvey made in 1948, 1951, and 1955. Capacity from U.S. Geological Survey table dated Mar. 27, 1956. Maximum capacity at top of flash gates on spillway, 44,760 acre-ft, elevation, 1,615.00 ft. Capacity at permanent spillway level, 37,950 acre-ft, elevation, 1,607.00 ft. Dead storage below lowest outlet, 719 acre-ft, elevation, 1,505.00 ft. Water drawn from Barrett Reservoir is diverted out of drainage basin to Lower Otay Reservoir by Dulzura conduit for municipal use.

COOPERATION.--Gage-heights were provided by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 22,110 acre-ft, Oct. 1, 1986, elevation, 1,584.38 ft; minimum observed, 14,140 acre-ft, Sept. 30, 1987, elevation, 1,568.85 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 22,110 acre-ft, Oct. 1, elevation, 1,584.38 ft; minimum observed, 14,140 acre-ft, Sept. 30, elevation, 1,568.85 ft.

MONTHEND ELEVATION NGVD AND CONTENTS AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,584.42	22,140	--
Oct. 31.....	1,583.08	21,350	-790
Nov. 30.....	1,581.60	20,510	-840
Dec. 31.....	1,580.22	19,740	-770
CAL YR 1986.....	--	--	-4,710
Jan. 31.....	1,579.06	19,100	-640
Feb. 28.....	1,578.96	19,050	-50
Mar. 31.....	1,579.18	19,170	+120
Apr. 30.....	1,578.10	18,590	-580
May 31.....	1,576.14	17,580	-1,010
June 30.....	1,574.83	16,920	-660
July 31.....	1,573.56	16,300	-620
Aug. 31.....	1,571.42	15,290	-1,010
Sept. 30.....	1,568.85	14,140	-1,150
WTR YR 1987.....	--	--	-8,000

TIJUANA RIVER BASIN

11012000 COTTONWOOD CREEK ABOVE TECATE CREEK, NEAR DULZURA, CA

LOCATION.--Lat 32°34'30", long 116°45'11", in NW 1/4 SW 1/4 sec.26, T.18 S., R.2 E., San Diego County, Hydrologic Unit 18070305, on right bank 0.8 mi upstream from confluence with Tecate Creek, 5.1 mi south of Dulzura, and 11.3 mi downstream from Barrett Lake.

DRAINAGE AREA.--310 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 569.40 ft above National Geodetic Vertical Datum of 1929 (levels by International Boundary and Water Commission).

REMARKS.--Estimated daily discharges: Nov. 8-26. Records fair. Flow regulated by Morena Reservoir, capacity, 50,120 acre-ft, and Barrett Reservoir, capacity, 44,760 acre-ft. Water diverted from Barrett Reservoir through San Diego and Dulzura conduits to Lower Otay Reservoir.

AVERAGE DISCHARGE.--51 years, 14.7 ft³/s, 10,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft³/s, Feb. 21, 1980, gage height, 11.15 ft, from rating curve extended above 8,700 ft³/s; no flow for part of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6.5 ft³/s, Jan. 5, gage height, 3.30 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.02	.47	.22	2.2	.50	.16				
2	0	0	.02	.50	.21	2.0	.48	.13				
3	0	0	.02	.50	.21	1.7	.62	.11				
4	0	0	.02	1.4	.21	1.4	1.5	.08				
5	0	0	.02	3.6	.19	1.3	1.4	.05				
6	0	0	.02	.70	.16	1.6	1.1	0				
7	0	.01	.17	.83	.13	1.5	.91	0				
8	0	.01	.74	.55	.15	1.4	.74	0				
9	0	.01	.42	.47	.20	1.1	.62	.06				
10	0	.01	.35	.42	.28	1.0	.53	.05				
11	0	.01	.30	.40	.23	.89	.49	.04				
12	.02	.01	.27	.35	.22	.78	.47	.02				
13	.01	.01	.25	.32	.22	.70	.40	0				
14	0	.01	.22	.33	.26	.65	.31	0				
15	0	.01	.22	.34	.25	1.8	.27	0				
16	0	.01	.22	.31	.24	2.2	.23	0				
17	0	.01	.22	.29	.19	1.8	.21	0				
18	0	.02	.23	.28	.18	1.3	.23	0				
19	0	.02	.27	.30	.18	1.1	.22	0				
20	0	.02	1.3	.28	.17	.90	.18	0				
21	0	.02	.98	.26	.17	1.1	.13	0				
22	0	.02	.52	.26	.19	2.3	.11	0				
23	0	.02	.45	.27	.42	2.2	.09	0				
24	0	.02	.45	.26	1.6	1.8	.09	0				
25	0	.02	.43	.25	2.7	1.5	.09	0				
26	0	.02	.40	.24	4.6	1.2	.11	.08				
27	0	.02	.42	.23	3.8	1.0	.13	.14				
28	0	.02	.43	.25	2.7	.89	.12	.14				
29	0	.02	.42	.25	---	.76	.14	.12				
30	0	.02	.42	.24	---	.61	.17	.08				
31	0	---	.45	.24	---	.53	---	.01	---			---
TOTAL	.03	.37	10.67	15.39	20.28	41.21	12.59	1.27	0	0	0	0
MEAN	.001	.012	.34	.50	.72	1.33	.42	.041	0	0	0	0
MAX	.02	.02	1.3	3.6	4.6	2.3	1.5	.16	0	0	0	0
MIN	0	0	.02	.23	.13	.53	.09	0	0	0	0	0
AC-FT	.06	.7	21	31	40	82	25	2.5	0	0	0	0

CAL YR 1986 TOTAL 572.06 MEAN 1.57 MAX 61 MIN 0 AC-FT 1130
WTR YR 1987 TOTAL 101.81 MEAN .28 MAX 4.6 MIN 0 AC-FT 202

TIJUANA RIVER BASIN

11012500 CAMPO CREEK NEAR CAMPO, CA

LOCATION.--Lat 32°35'28", long 116°31'29", in NE 1/4 SE 1/4 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 southwest of Campo.

DRAINAGE AREA.--85.0 mi², of which 3 mi² are in Mexico.

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

GAGE.--Water-stage recorder and broad-crested weir. Broad-crested weir was buried by sand Mar. 25, 1982, to Sept. 30, 1985, and was ineffective as a control. Datum of gage is 2,178.92 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1954, at datum 1 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Peaks are attenuated by small conservation reservoir 1 mi upstream since August 1956. No regulation or diversion above station.

AVERAGE DISCHARGE.--51 years, 3.29 ft³/s, 2,380 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 895 ft³/s, Mar. 24, 1983, gage height, 5.39 ft, from rating curve extended above 340 ft³/s; no flow for part of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27 ft³/s, Jan. 5, gage height, 2.05 ft; minimum daily, 0.02 ft³/s, Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.23	.18	1.9	2.2	5.0	1.8	.54	.23	.17	.08	.04
2	.24	.23	.18	1.5	2.2	4.3	1.7	.52	.21	.17	.11	.03
3	.24	.23	.19	1.9	2.2	3.8	1.9	.47	.20	.16	.10	.04
4	.22	.22	.19	3.2	2.2	3.2	3.4	.44	.19	.13	.10	.04
5	.22	.22	.19	15	1.9	3.1	3.0	.41	.19	.12	.27	.05
6	.22	.23	.27	8.3	1.7	3.9	2.4	.39	.21	.13	.22	.04
7	.22	.23	.43	6.5	1.5	4.9	2.2	.37	.22	.14	.18	.04
8	.22	.22	.72	5.2	1.4	4.3	2.0	.35	.22	.14	.15	.03
9	.50	.21	1.0	3.8	1.7	4.1	1.7	.37	.21	.13	.14	.02
10	.70	.20	.96	3.0	2.6	3.8	1.6	.37	.19	.13	.13	.03
11	.34	.20	.90	3.1	2.8	3.3	1.5	.35	.19	.12	.13	.06
12	.28	.21	.89	2.5	2.6	3.1	1.5	.31	.19	.10	.12	.10
13	.25	.21	.87	2.1	2.6	2.8	1.3	.29	.18	.07	.14	.12
14	.23	.21	.91	2.2	2.7	2.8	1.1	.30	.18	.06	.18	.10
15	.23	.21	.86	2.2	2.7	7.2	.98	.32	.19	.10	.17	.08
16	.23	.21	.71	2.3	2.9	10	.92	.33	.19	.13	.15	.08
17	.24	.24	.65	2.1	2.6	6.0	.86	.33	.18	.15	.14	.08
18	.24	.26	.59	2.0	2.5	4.5	.89	.32	.18	.13	.13	.07
19	.24	.20	.58	2.1	2.6	4.0	.84	.33	.18	.11	.11	.06
20	.23	.19	.65	2.0	2.5	3.6	.72	.34	.19	.10	.09	.06
21	.23	.19	1.2	1.7	2.3	3.6	.68	.34	.19	.12	.07	.07
22	.23	.19	1.3	1.9	2.4	13	.67	.33	.19	.11	.07	.20
23	.25	.18	1.4	2.0	3.0	7.4	.65	.31	.18	.09	.07	.16
24	.24	.18	1.6	2.0	11	5.2	.65	.31	.17	.08	.07	.13
25	.23	.18	1.6	1.9	16	6.4	.66	.32	.15	.06	.07	.12
26	.23	.18	1.6	1.8	13	4.6	.69	.36	.14	.05	.08	.12
27	.23	.18	1.7	1.9	9.1	3.6	.71	.33	.14	.04	.07	.11
28	.22	.18	1.8	2.2	6.1	3.2	.67	.32	.14	.04	.05	.10
29	.23	.18	1.6	2.2	---	2.7	.61	.30	.14	.07	.04	.09
30	.23	.18	1.5	2.1	---	2.2	.54	.27	.16	.08	.06	.07
31	.24	---	1.6	2.2	---	1.9	---	.25	---	.06	.03	---
TOTAL	8.07	6.18	28.82	94.8	109.0	141.5	38.84	10.89	5.52	3.29	3.52	2.34
MEAN	.26	.21	.93	3.06	3.89	4.56	1.29	.35	.18	.11	.11	.078
MAX	.70	.26	1.8	15	16	13	3.4	.54	.23	.17	.27	.20
MIN	.22	.18	.18	1.5	1.4	1.9	.54	.25	.14	.04	.03	.02
AC-FT	16	12	57	188	216	281	77	22	11	6.5	7.0	4.6
CAL YR 1986	TOTAL	1127.62	MEAN 3.09	MAX 198	MIN .03	AC-FT 2240						
WTR YR 1987	TOTAL	452.77	MEAN 1.24	MAX 16	MIN .02	AC-FT 898						

TIJUANA RIVER BASIN

11013000 TIJUANA RIVER NEAR DULZURA, CA

LOCATION.--Lat 32°33'56", long 116°46'27", in E 1/2 sec.33, T.18 S., R.2 E., San Diego County, Hydrologic Unit 18070305, on left bank 0.5 mi downstream from confluence of Cottonwood and Tecate Creeks, 5.5 mi south of Dulzura, and 12.8 mi downstream from Barrett Reservoir.

DRAINAGE AREA.--481 mi², of which 70 mi² are in Mexico.

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

GAGE.--Water-stage recorder. Datum of gage is 542.42 ft above National Geodetic Vertical Datum of 1929 (levels by International Boundary and Water Commission). Prior to Sept. 19, 1939, at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records poor. Flow regulated by Morena Reservoir, capacity, 50,210 acre-ft and Barrett Reservoir, capacity, 44,760 acre-ft. Water diverted from Barrett Reservoir through San Diego and Dulzura conduits to Lower Otay Reservoir.

AVERAGE DISCHARGE.--51 years, 25.0 ft³/s, 18,110 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s, Mar. 3, 1983, gage height, 7.03 ft, from rating curve extended above 3,500 ft³/s; maximum gage height, 11.19 ft, Feb. 18, 1980; no flow for part of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 101 ft³/s, Oct. 10, gage height, 2.67 ft; minimum daily, 0.21 ft³/s, June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	2.6	3.2	6.8	4.0	8.4	3.6	1.7	.74	.58	.59	.40
2	1.5	2.8	3.8	7.2	3.7	7.2	3.4	1.6	.67	.60	.41	.40
3	1.8	2.8	4.4	7.5	4.1	7.1	3.5	1.5	.72	.63	.31	.40
4	2.1	2.9	4.3	10	4.3	7.0	5.9	1.4	.73	.64	.31	.40
5	2.2	3.0	4.4	23	3.9	7.2	3.9	1.3	.72	.65	.31	.42
6	1.7	3.2	5.3	15	3.6	8.3	3.3	1.2	.72	.61	.35	.40
7	1.5	3.7	6.5	15	3.2	8.2	3.1	1.4	.71	.67	.36	.40
8	1.7	4.0	6.8	9.1	3.2	7.5	2.9	1.5	.68	.63	.39	.40
9	2.3	3.5	6.4	5.8	3.3	6.9	2.5	1.5	.69	.65	.38	.40
10	51	2.6	6.0	5.2	3.7	7.0	2.3	1.5	.70	.71	.22	.40
11	18	2.1	5.7	4.9	3.7	6.6	2.1	1.3	.69	.75	.23	.45
12	5.7	2.2	4.9	5.0	3.6	6.4	2.0	1.4	.73	.66	.31	.50
13	2.5	2.3	4.7	5.1	3.7	6.5	1.6	1.4	.63	.59	.42	.55
14	2.1	2.5	4.6	4.9	3.7	6.3	1.9	1.5	.48	.63	.42	.50
15	2.3	2.6	3.8	4.4	3.6	9.4	2.0	1.5	.34	.71	.39	.45
16	2.9	2.8	3.7	4.2	3.4	15	1.8	1.4	.36	.76	.36	.45
17	3.6	2.5	3.8	4.3	3.3	7.9	1.8	1.3	.34	.80	.37	.45
18	4.2	2.6	3.3	4.1	3.3	6.7	1.9	1.3	.25	.67	.36	.45
19	4.5	2.7	3.3	4.1	3.2	5.9	1.9	1.4	.21	.57	.37	.45
20	3.3	2.6	11	4.0	3.7	5.4	1.3	1.5	.26	.54	.40	.45
21	5.0	2.4	9.5	3.8	3.2	5.4	1.3	1.6	.26	.58	.40	.45
22	6.2	2.4	7.5	4.0	3.0	17	1.3	1.5	.31	.60	.42	.65
23	4.4	2.0	6.8	4.0	3.4	7.7	1.4	1.5	.35	.55	.46	.60
24	3.6	1.7	6.6	4.0	7.9	6.2	1.6	1.5	.43	.59	.47	.60
25	3.2	2.0	6.3	3.8	16	4.8	1.6	1.5	.48	.58	.48	.55
26	3.1	2.3	6.0	3.7	28	4.3	1.7	1.5	.49	.57	.46	.55
27	2.8	2.2	6.2	4.1	14	4.3	1.6	1.5	.48	.50	.45	.55
28	2.9	2.9	6.2	4.3	10	4.0	1.7	1.5	.47	.53	.42	.55
29	3.0	4.0	6.2	4.1	---	3.7	1.8	1.3	.41	.60	.40	.70
30	3.1	3.9	6.2	4.2	---	3.5	1.8	1.3	.48	.64	.45	1.1
31	2.9	---	6.6	4.3	---	3.4	---	.99	---	.63	.40	---
TOTAL	156.2	81.8	174.0	193.9	157.7	215.2	68.5	44.29	15.53	19.42	12.07	15.02
MEAN	5.04	2.73	5.61	6.25	5.63	6.94	2.28	1.43	.52	.63	.39	.50
MAX	51	4.0	11	23	28	17	5.9	1.7	.74	.80	.59	1.1
MIN	1.1	1.7	3.2	3.7	3.0	3.4	1.3	.99	.21	.50	.22	.40
AC-FT	310	162	345	385	313	427	136	88	31	39	24	30
CAL YR 1986	TOTAL	2558.65	MEAN 7.01	MAX 309	MIN 0	AC-FT 5080						
WTR YR 1987	TOTAL	1153.63	MEAN 3.16	MAX 51	MIN .21	AC-FT 2290						

TIJUANA RIVER BASIN

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 upstream from Arroyo Matanuco, and 10 mi southeast of Tijuana.

DRAINAGE AREA.--977 mi², of which 10 mi² are in the United States.

PERIOD OF RECORD.--April 1937 to current year. Published with Tijuana River near Nestor (station 11013500), 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.

REVISED RECORDS.--WDR CA-66-1: Drainage area.

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, 111,070 acre-ft; at spillway lip, elevation, 380.08 ft, 74,580 acre-ft; dead storage below outlet, elevation, 267.39 ft, 1,650 acre-ft included in contents. Reservoir stores water for irrigation of 3,000 acres on both banks 0.5 to 5.5 mi 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.

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, April 1983; reservoir dry Apr. 2, 1964, to Apr. 9, 1965, Aug. 21 to Nov. 22, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 34,390 acre-ft, Oct. 1; minimum observed, 14,510 acre-ft, Sept. 30.

MONTHEND CONTENTS, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	34,450	--
Oct. 31.....	32,730	-1,720
Nov. 30.....	31,050	-1,680
Dec. 31.....	29,450	-1,600
CAL YR 1986.....	--	-15,470
Jan. 31.....	27,940	-1,510
Feb. 28.....	26,620	-1,320
Mar. 31.....	24,920	-1,700
Apr. 30.....	23,270	-1,650
May 31.....	21,580	-1,690
June 30.....	19,860	-1,720
July 31.....	18,080	-1,780
Aug. 31.....	15,240	-2,840
Sept. 30.....	14,510	-730
WTR YR 1987.....	--	-19,940

OTAY RIVER BASIN

11013600 JAMUL CREEK AT LEE VALLEY, NEAR JAMUL, CA

LOCATION.--Lat 32°42'39", long 116°48'52", in SE 1/4 NW 1/4 sec.7, T.17 S., R.2 E., San Diego County,
Hydrologic Unit 18070304, on right bank 3.5 mi southeast of Jamul.

DRAINAGE AREA.--2.26 mi².

PERIOD OF RECORD.--October 1983 to April 1985, October 1986 to September 1987.

GAGE.--Water-stage recorder. Elevation of gage is 1,560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: All or part of most days during periods of flow. Records poor. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 182 ft³/s, July 14, 1984, gage height, 2.72 ft, from rating curve extended above 1.0 ft³/s; no flow for much of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s and maximum (*), from rating curve extended above 0.70 ft³/s:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 5	0445	*13.0	*1.25				

No flow many days most months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0		0	0	.02	.02	.03	.02				
2	0		0	0	.02	.02	.03	.02				
3	0		0	0	.02	.02	.30	.01				
4	0		0	.81	.02	.02	.22	.01				
5	0		0	1.3	.02	.02	.03	0				
6	0		.10	.04	.02	.03	.03	0				
7	0		.50	.26	.02	.03	.03	0				
8	0		0	.02	.02	.03	.03	0				
9	.07		0	.02	.02	.03	.03	0				
10	.41		0	.02	.02	.03	.03	.01				
11	0		0	.02	.02	.03	.03	.01				
12	0		0	.02	.02	.03	.03	0				
13	0		0	.02	.02	.03	.03	0				
14	0		0	.02	.02	.03	.03	0				
15	0		.09	.02	.02	.61	.02	0				
16	0		0	.02	.01	.03	.02	0				
17	0		0	.02	.01	.03	.03	0				
18	0		0	.02	.01	.03	.02	0				
19	0		0	.02	.01	.03	.02	0				
20	0		.36	.02	.01	.03	.02	0				
21	0		0	.02	.01	.74	.02	0				
22	0		0	.02	.01	.04	.02	0				
23	0		0	.02	.01	.03	.02	0				
24	0		0	.02	.40	.03	.01	0				
25	0		0	.02	.41	.03	.01	0				
26	0		0	.02	.63	.03	.01	.01				
27	0		0	.03	.03	.03	.02	.01				
28	0		0	.02	.03	.03	.02	.01				
29	0		0	.02	---	.03	.02	0				
30	0		0	.02	---	.03	.02	0				
31	0		0	.02	---	.03	---	0				
TOTAL	.48	0	1.05	2.90	1.88	2.18	1.18	.11	0	0	0	0
MEAN	.016	0	.034	.094	.067	.070	.039	.004	0	0	0	0
MAX	.41	0	.50	1.3	.63	.74	.30	.02	0	0	0	0
MIN	0	0	0	0	.01	.02	.01	0	0	0	0	0
AC-FT	1.0	0	2.1	5.8	3.7	4.3	2.3	.2	0	0	0	0

WTR YR 1987 TOTAL 9.78 MEAN .027 MAX 1.3 MIN 0 AC-FT 19

OTAY RIVER BASIN

11014000 JAMUL CREEK NEAR JAMUL, CA

LOCATION.--Lat 32°38'15", long 116°53'00", in NW 1/4 NE 1/4 sec.4, T.18 S., R.1 E., San Diego County, Hydrologic Unit 18070304, on right bank 300 ft upstream from Otay Road crossing at upper end of Lower Otay Reservoir, 1.4 mi downstream from Dulzura Creek, and 5.5 mi south of Jamul.

DRAINAGE AREA.--70.2 mi².

PERIOD OF RECORD.--April 1940 to September 1978, October 1985 to current year.

REVISED RECORDS.--WDR CA-73-1: Drainage area.

GAGE.--Water-stage recorder and broad-crested weir control with low-water venturi-type flume. Datum of gage is 511.64 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1951, at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. No regulation upstream from station. Water diverted from Cottonwood Creek at Barrett Reservoir via San Diego and Dulzura conduit into Dulzura Creek, a tributary to Jamul Creek, and is included in discharge for this station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/s, Dec. 1, 1947, gage height, 6.42 ft, present datum, from rating curve extended above 1,200 ft³/s; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Sept. 22	1900	*93	*2.94				

Minimum daily, 1.40 ft³/s, Mar. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	20	20	19	20	7.6	16	14	13	2.5	15	16
2	20	20	20	19	20	3.6	16	14	13	2.5	14	16
3	20	20	20	19	20	2.7	17	14	13	2.4	13	16
4	20	20	20	21	20	2.0	19	14	13	2.1	14	17
5	20	20	20	32	20	1.8	17	14	13	1.9	14	16
6	20	20	21	20	20	1.9	17	14	13	1.9	14	16
7	20	20	24	23	8.4	1.8	17	14	13	1.9	14	15
8	20	20	21	21	4.9	1.6	17	14	13	2.0	14	15
9	21	20	21	21	4.0	1.5	16	14	13	2.0	14	15
10	30	20	20	21	3.4	1.4	16	14	13	2.1	14	15
11	22	20	20	21	3.1	2.4	16	14	13	2.2	13	16
12	21	20	20	21	2.8	4.7	16	14	13	2.2	13	16
13	20	20	20	21	2.7	8.1	16	14	13	2.2	14	16
14	20	20	20	21	2.5	14	15	14	13	2.3	14	16
15	20	20	20	21	2.2	18	15	14	13	2.4	14	16
16	20	20	20	21	2.1	17	15	14	13	2.5	13	16
17	20	21	20	21	1.9	16	15	14	7.4	2.7	13	16
18	20	22	20	21	1.8	16	15	14	3.5	2.7	13	16
19	20	21	20	21	2.6	16	15	14	2.6	2.4	13	16
20	20	21	23	21	7.6	17	14	14	2.2	6.6	13	16
21	20	21	21	21	8.6	18	14	14	2.5	8.3	13	16
22	20	20	20	21	9.0	20	14	14	2.5	12	12	23
23	20	20	20	21	9.6	17	4.9	13	2.5	13	12	17
24	20	20	19	21	16	17	2.8	14	2.5	14	12	16
25	20	20	19	21	16	17	2.2	14	2.5	14	12	16
26	20	20	19	20	25	17	1.8	14	2.5	14	12	16
27	20	20	19	20	15	17	6.4	14	2.4	14	12	15
28	20	20	19	20	15	17	8.1	14	2.3	14	12	15
29	20	20	19	20	---	17	8.9	14	2.2	14	8.4	15
30	20	20	19	21	---	17	13	13	2.3	14	16	15
31	20	---	19	20	---	17	---	13	---	15	16	---
TOTAL	634	606	623	652	284.2	346.1	396.1	431	247.9	195.8	410.4	481
MEAN	20.5	20.2	20.1	21.0	10.2	11.2	13.2	13.9	8.26	6.32	13.2	16.0
MAX	30	22	24	32	25	20	19	14	13	15	16	23
MIN	20	20	19	19	1.8	1.4	1.8	13	2.2	1.9	8.4	15
AC-FT	1260	1200	1240	1290	564	686	786	855	492	388	814	954

CAL YR 1986 TOTAL 8227.4 MEAN 22.5 MAX 243 MIN 2.7 AC-FT 16320
WTR YR 1987 TOTAL 5307.5 MEAN 14.5 MAX 32 MIN 1.4 AC-FT 10530

OTAY RIVER BASIN

11014550 LOWER OTAY LAKE NEAR CHULA VISTA, CA

LOCATION.--Lat 32°36'33", long 116°55'45", in NE 1/4 NE 1/4 sec.13, T.18 S., R.1 E., San Diego County, Hydrologic Unit 18070304, on outlet tower near right bank, 1,000 ft west of right end of Savage Dam on Otay River, and 9.0 mi east of Chula Vista.

DRAINAGE AREA.--99.0 mi².

PERIOD OF RECORD.--October 1945 to September 1959 (published with Otay River at Savage Dam, station 11014500), October 1972 to current year. Monthend gage heights October 1936 to September 1945, in files of San Diego County Department of Sanitation and Flood Control.

REVISED RECORD.--WDR-73-1: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 347.20 ft above National Geodetic Vertical Datum of 1929 (levels by county of San Diego); gage readings have been reduced to NGVD. October 1972 to current year, supplementary water-stage recorder for flood warning only, on right bank 30 ft upstream from dam at datum 50.0 ft higher.

REMARKS.--Reservoir is formed by gravity section concrete and masonry dam, built in 1919. Capacity table from U.S. Geological Survey, dated Apr. 3, 1956. Maximum capacity at top of spillway gates, 56,520 acre-ft, elevation, 490.70 ft. Capacity at permanent spillway level, 49,510 acre-ft, elevation, 484.70 ft. Dead storage below lowest outlet, 1,150 acre-ft, elevation, 395.05 ft. 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 provided by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 51,860 acre-ft, spilling, Mar. 3, 1983, elevation, 486.78 ft; minimum observed, 3,160 acre-ft, Dec. 31, 1951, elevation, 407.56 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 46,240 acre-ft, Apr. 7, elevation, 481.68 ft; minimum observed, 41,230 acre-ft, Sept. 30, elevation, 476.70 ft.

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	481.12	45,650	--
Oct. 31.....	480.92	45,450	-200
Nov. 30.....	480.68	45,200	-250
Dec. 31.....	481.07	45,600	+400
CAL YR 1986.....	--	--	+2,680
Jan. 31.....	481.52	46,080	+480
Feb. 28.....	481.22	45,760	-320
Mar. 31.....	481.57	46,130	+370
Apr. 30.....	481.18	45,720	-410
May 31.....	480.58	45,100	-620
June 30.....	479.48	43,970	-1,130
July 31.....	478.18	42,670	-1,300
Aug. 31.....	477.28	41,790	-880
Sept. 30.....	476.70	41,230	-560
WTR YR 1987.....	--	--	-4,420

SWEETWATER RIVER BASIN

11015000 SWEETWATER RIVER NEAR DESCANSO, CA

LOCATION.--Lat 32°50'05", long 116°37'20", in NW 1/4 SE 1/4 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 downstream from unnamed tributary, and 1.3 mi south of Descanso.

DRAINAGE AREA.--45.4 mi².

PERIOD OF RECORD.--October 1905 to September 1927 (monthly discharge only, published in WSP 1315-B), October 1956 to current year. Prior to September 1927, records unadjusted for diversion. Records adjusted for diversion, October 1956 to November 1976. No diversion since November 1976.

GAGE.--Water-stage recorder. Datum of gage is 3,269.24 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1927, nonrecording gages at several sites and datums, upstream about 0.1 mi. Diversion gage at site 0.3 mi upstream, October 1956 to September 1984, at different datum.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--53 years (water years 1906-27, 1957-87), 11.8 ft³/s, 8,550 acre-ft/yr, unadjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 11,200 ft³/s, Feb. 16, 1927, gage height, 13.2 ft, from floodmarks, site and datum then in use, on basis of slope-area measurement of peak flow; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 21	2115	*24	*4.84				

No flow June 27 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.22	.42	.52	1.3	3.7	3.9	1.7	.62			
2	.18	.22	.45	.48	1.3	4.0	3.7	1.5	.46			
3	.17	.22	.56	.45	1.3	3.9	5.3	1.5	.35			
4	.15	.22	.58	1.2	1.3	3.8	8.7	1.3	.50			
5	.15	.22	.65	13	1.3	3.8	6.6	1.2	.43			
6	.15	.25	1.2	5.6	1.4	4.4	5.3	1.1	.37			
7	.17	.27	1.8	5.5	1.4	5.3	4.6	.97	.29			
8	.17	.27	1.3	4.2	1.3	5.1	4.1	.93	.25			
9	.48	.23	.95	3.1	1.4	4.7	3.7	.92	.21			
10	2.4	.22	.81	2.7	1.6	4.2	3.4	.90	.19			
11	.46	.22	.70	2.4	1.7	3.9	3.3	1.1	.16			
12	.36	.22	.64	2.2	1.7	3.7	3.1	.91	.14			
13	.30	.22	.63	2.0	1.7	3.6	2.8	.76	.11			
14	.25	.24	.58	2.0	1.8	3.5	2.7	.66	.11			
15	.25	.43	.57	1.9	1.8	9.6	2.6	.59	.11			
16	.21	.47	.68	1.9	1.9	9.8	2.6	.61	.09			
17	.20	.43	.81	1.8	1.7	5.9	2.5	.66	.08			
18	.21	1.1	.84	1.6	1.8	5.4	2.5	.65	.07			
19	.19	.61	.85	1.6	1.8	6.2	2.4	.66	.06			
20	.18	.48	1.2	1.6	1.7	5.5	2.2	.96	.07			
21	.16	.43	.81	1.6	1.9	8.1	2.0	1.2	.07			
22	.16	.43	.67	1.4	1.9	15	2.0	1.2	.06			
23	.16	.43	.65	1.4	2.3	9.6	2.0	1.0	.04			
24	.16	.41	.60	1.5	3.8	10	1.9	1.0	.03			
25	.16	.42	.57	1.4	4.0	11	1.9	1.2	.02			
26	.16	.43	.54	1.3	3.9	8.5	1.8	1.6	.01			
27	.16	.43	.50	1.3	3.4	6.9	1.7	1.8	0			
28	.16	.43	.50	1.3	3.6	5.8	1.7	1.6	0			
29	.18	.43	.47	1.3	---	4.9	1.6	1.4	0			
30	.21	.42	.43	1.3	---	4.2	1.6	1.1	0			
31	.22	---	.45	1.3	---	3.9	---	.91	---			---
TOTAL	8.68	11.02	22.41	70.85	56.0	187.9	94.2	33.59	4.90	0	0	0
MEAN	.28	.37	.72	2.29	2.00	6.06	3.14	1.08	.16	0	0	0
MAX	2.4	1.1	1.8	13	4.0	15	8.7	1.8	.62	0	0	0
MIN	.15	.22	.42	.45	1.3	3.5	1.6	.59	0	0	0	0
AC-FT	17	22	44	141	111	373	187	67	9.7	0	0	0

CAL YR 1986 TOTAL 2216.81 MEAN 6.07 MAX 234 MIN 0 AC-FT 4400
WTR YR 1987 TOTAL 489.55 MEAN 1.34 MAX 15 MIN 0 AC-FT 971

SAN DIEGO RIVER BASIN

11020600 EL CAPITAN LAKE NEAR LAKESIDE, CA

LOCATION.--Lat 32°53'00", long 116°48'25", in SE 1/4 NE 1/4 sec.7, T.15 S., R.2 E., San Diego County, Hydrologic Unit 18070304, on outlet tower 100 ft upstream of El Capitan Dam on San Diego River and 7.0 mi east of Lakeside.

DRAINAGE AREA.--188 mi².

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 above 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 higher.

REMARKS.--Reservoir is formed by hydraulic fill-rock embankment, completed in 1935. Capacity from U.S. Geological Survey table dated Mar. 29, 1956. Capacity of reservoir at spillway level, 112,810 acre-ft, elevation, 750.00 ft. Dead storage below lowest outlet, 59.2 acre-ft, elevation, 574.00 ft. Reservoir storage includes supplemental Colorado River water. No significant diversion above reservoir. Flow partly regulated by Cuyamaca Reservoir. Water is released as required for municipal use and irrigation.

COOPERATION.--Gage heights were provided by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 114,500 acre-ft, spilling, Mar. 7, 1980, elevation, 751.09 ft; minimum observed, 2,252 acre-ft, May 1, 1957, elevation, 606.28 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 32,150 acre-ft, Apr. 16, elevation, 677.82 ft; minimum observed, 23,890 acre-ft, Sept. 30, elevation, 665.57 ft.

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	677.14	31,660	--
Oct. 31.....	675.93	30,780	-880
Nov. 30.....	673.89	29,330	-1,450
Dec. 31.....	674.02	29,420	90
CAL YR 1986.....	--	--	14,220
Jan. 31.....	674.76	29,940	520
Feb. 28.....	675.34	30,350	410
Mar. 31.....	677.29	31,760	1,410
Apr. 30.....	677.41	31,850	90
May 31.....	672.30	28,230	-3,620
June 30.....	670.54	27,050	-1,180
July 31.....	667.86	25,310	-1,740
Aug. 31.....	666.76	24,620	-690
Sept. 30.....	665.57	23,890	-730
WTR YR 1987.....	--	--	-7,770

SAN DIEGO RIVER BASIN

11022100 SAN VICENTE RESERVOIR NEAR LAKESIDE, CA

LOCATION.--Lat 32°54'45", long 116°55'25", in SW 1/4 NW 1/4 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 north of Lakeside.

DRAINAGE AREA.--74.2 mi².

PERIOD OF RECORD.--October 1946 to September 1961 (published with San Vicente Creek at San Vicente Dam, at Foster, station 11022000), October 1972 to current year.

REVISED RECORDS.--WSP 1928: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 460.0 ft above National Geodetic Vertical Datum of 1929 (levels by county of San Diego); gage readings have been reduced to NGVD. October 1972 to current year, supplementary water-stage recorder used for flood warning only, at same site at datum 100 ft 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 from city of San Diego, Utilities Engineering Division, dated Feb. 18, 1944. Capacity of reservoir at spillway level, 90,230 acre-ft, elevation, 650 ft. Dead storage below lowest outlet, 350 acre-ft, elevation, 493.0 ft. 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 provided by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 94,200 acre-ft, spilling, Feb. 21, 1980, elevation, 653.54 ft; minimum observed, 12,390 acre-ft, Nov. 1, 1947, elevation, 549.22 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 78,280 acre-ft, Nov. 25, elevation, 638.51 ft; minimum observed, 70,560 acre-ft, Mar. 27, elevation, 630.67 ft.

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	633.81	73,610	--
Oct. 31.....	635.23	75,010	+1,400
Nov. 30.....	637.82	77,590	+2,580
Dec. 31.....	636.03	75,800	-1,790
CAL YR 1986.....	--	--	+4,120
Jan. 31.....	634.14	73,930	-1,870
Feb. 28.....	632.51	72,340	-1,590
Mar. 31.....	630.90	70,780	-1,560
Apr. 30.....	631.77	71,620	+840
May 31.....	635.91	75,680	+4,060
June 30.....	636.10	75,870	+190
July 31.....	636.66	76,430	+560
Aug. 31.....	634.81	74,590	-1,840
Sept. 30.....	634.43	74,220	-370
WTR YR 1987.....	--	--	+610

SAN DIEGO RIVER BASIN

11022200 LOS COCHES CREEK NEAR LAKESIDE, CA

LOCATION.--Lat 32°50'10", long 116°53'58", in Mission San Diego Grant, San Diego County, Hydrologic Unit 18070304, on upstream right bank side of bridge on Old Highway 8, 2.7 mi upstream from mouth, and 1.9 mi southeast of Lakeside.

DRAINAGE AREA.--12.2 mi².

PERIOD OF RECORD.--October 1983 to current year.

REVISED RECORDS.--WDR CA-86-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 13-17. Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 470 ft³/s, Dec. 18, 1984, gage height, 7.20 ft, from floodmarks; minimum daily, 0.07 ft³/s, July 11, 12, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 24	0330	48	3.84	Mar. 21	1930	*54	*3.95
Feb. 26	0230	45	3.78				

Minimum daily, 0.19 ft³/s, Sept. 7-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.72	.77	.80	.87	1.3	.93	.62	.37	.30	.22	.33
2	.57	.68	.76	.80	.91	1.2	.92	.61	.34	.30	.22	.26
3	.52	.66	.77	.80	.92	1.2	1.6	.57	.34	.30	.20	.22
4	.58	.65	.81	7.3	.93	1.1	1.8	.51	.34	.29	.20	.22
5	.79	.62	.79	13	.91	1.1	1.1	.49	.34	.29	.21	.21
6	.69	.69	4.3	1.8	.86	3.3	.98	.48	.35	.28	.21	.20
7	.55	.72	2.1	4.8	.85	1.6	.91	.48	.39	.29	.21	.19
8	.54	.74	1.1	1.3	.85	1.3	.86	.46	.41	.33	.21	.19
9	2.4	.70	.84	1.0	.88	1.2	.82	.44	.38	.35	.21	.19
10	4.7	.68	.80	.93	.92	1.2	.78	.46	.37	.35	.22	.19
11	.82	.66	.80	.93	.90	1.1	.78	.45	.40	.31	.24	.20
12	.75	.66	.80	.89	.87	1.1	.78	.42	.40	.28	.26	.21
13	.70	.66	.80	.88	1.0	1.1	.80	.45	.38	.27	.32	.21
14	.64	.67	.80	.88	1.2	1.1	.67	.45	.39	.26	.45	.23
15	.62	.70	.80	.90	1.2	6.5	.62	.46	.37	.27	.34	.22
16	.61	.71	.80	.92	1.1	1.4	.61	.50	.36	.28	.28	.22
17	.62	1.5	.80	.92	.97	1.2	.65	.47	.39	.33	.29	.23
18	.63	3.7	.80	.94	.95	1.1	.66	.42	.38	.32	.29	.23
19	.62	.79	.80	.92	.97	1.1	.62	.43	.39	.28	.29	.24
20	.62	.76	6.0	.90	.92	1.1	.60	.46	.38	.28	.31	.23
21	.62	.79	1.1	.91	.92	9.0	.55	.46	.37	.29	.31	.24
22	.62	.76	.84	.92	.92	5.2	.52	.43	.37	.29	.32	.75
23	.67	.73	.80	.92	1.8	1.6	.51	.43	.36	.29	.32	.71
24	.70	.80	.80	.92	16	1.5	.53	.48	.34	.26	.36	.35
25	.69	.78	.80	.92	4.6	1.2	.55	.49	.37	.26	.36	.33
26	.62	.75	.80	.92	10	1.1	.59	.55	.32	.28	.38	.31
27	.62	.75	.80	.93	1.6	1.1	.58	.53	.33	.28	.37	.30
28	.64	.76	.80	.92	1.4	1.1	.60	.51	.33	.31	.42	.28
29	.67	.78	.80	.93	---	1.0	.64	.49	.31	.33	.29	.26
30	.70	.78	.80	.87	---	.98	.65	.47	.31	.25	.21	.25
31	.73	---	.80	.87	---	.97	---	.41	---	.23	.21	---
TOTAL	25.79	25.35	35.38	51.64	56.22	56.05	23.21	14.88	10.88	9.03	8.73	8.20
MEAN	.83	.85	1.14	1.67	2.01	1.81	.77	.48	.36	.29	.28	.27
MAX	4.7	3.7	6.0	13	16	9.0	1.8	.62	.41	.35	.45	.75
MIN	.52	.62	.76	.80	.85	.97	.51	.41	.31	.23	.20	.19
AC-FT	51	50	70	102	112	111	46	30	22	18	17	16

CAL YR 1986 TOTAL 669.83 MEAN 1.84 MAX 60 MIN .21 AC-FT 1330
WTR YR 1987 TOTAL 325.36 MEAN .89 MAX 16 MIN .19 AC-FT 645

SAN DIEGO RIVER BASIN

11022350 FORESTER CREEK AT EL CAJON, CA

LOCATION.--Lat 32°49'16", long 116°58'32", in Mission San Diego Grant, San Diego County, Hydrologic Unit 18070304, on right bank at downstream side of bridge on Billy Mitchell Drive, 0.8 mi upstream from unnamed tributary, and 3.6 mi upstream from mouth.

DRAINAGE AREA.--21.3 mi².

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 370 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,800 ft³/s, Feb. 15, 1986, gage height, 9.25 ft, from rating curve extended above 600 ft³/s; minimum daily, 0.60 ft³/s, Nov. 3, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s (revised) and maximum (*), from rating curve extended above 900 ft³/s on basis of runoff comparisons with nearby stations:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 10	0445	1,260	7.81	Mar. 21	1800	911	7.10
Jan. 4	1745	*1,420	*8.08				

Minimum daily, 1.00 ft³/s, Aug. 22, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.2	1.4	1.2	1.6	1.7	2.0	2.2	1.6	2.1	1.5	26
2	1.4	1.2	1.4	1.3	1.6	1.7	1.8	1.5	1.7	2.1	1.4	1.8
3	1.3	1.2	1.4	1.2	1.5	1.7	27	1.5	1.9	1.9	1.5	1.4
4	1.5	1.2	1.3	144	1.5	1.8	24	1.5	1.8	1.4	1.2	1.4
5	1.4	1.3	2.0	65	1.4	2.0	2.0	1.5	1.9	1.4	1.3	1.4
6	1.3	1.2	98	6.1	1.4	48	1.9	1.6	1.9	1.5	1.3	1.3
7	1.4	1.3	44	24	1.5	3.2	1.7	1.6	1.8	1.6	1.5	1.2
8	1.4	1.3	2.3	1.9	1.5	3.1	1.8	1.6	2.1	1.7	1.2	1.2
9	81	1.1	1.6	1.6	1.7	2.0	1.8	1.7	2.0	1.9	1.2	1.3
10	187	1.2	1.6	1.8	1.7	1.9	1.9	1.4	2.0	1.7	1.3	1.3
11	1.7	1.2	1.4	1.5	1.4	1.9	1.7	1.6	1.8	1.6	1.2	1.4
12	1.4	1.2	1.3	1.6	1.4	1.8	1.6	1.6	1.9	1.6	1.3	1.3
13	1.3	1.2	1.4	1.5	4.6	1.9	1.7	1.7	2.0	1.7	1.5	1.3
14	1.3	1.2	1.3	1.6	5.5	1.9	1.7	1.8	1.9	1.8	2.8	1.4
15	1.2	1.2	1.3	1.6	7.2	40	1.8	1.7	2.0	2.1	1.2	1.5
16	1.3	1.2	1.4	1.6	2.4	3.7	1.8	1.5	1.9	2.1	1.1	1.7
17	1.3	51	1.3	1.5	1.5	1.8	1.9	1.5	2.0	2.0	1.1	1.5
18	1.3	48	1.3	1.6	1.6	1.7	1.8	1.6	1.9	1.7	1.1	1.6
19	1.3	1.8	1.5	1.5	1.5	1.8	1.7	1.6	2.1	1.5	1.1	1.6
20	1.3	1.4	62	1.5	1.5	1.6	1.9	1.7	2.1	1.8	1.1	1.6
21	1.3	1.4	1.7	1.5	1.5	64	1.8	1.7	2.1	1.5	1.1	1.7
22	1.3	1.3	1.4	1.5	1.6	8.6	1.9	1.7	2.2	1.4	1.0	52
23	1.3	1.3	1.4	1.5	29	2.6	1.8	1.6	2.1	1.5	1.1	9.1
24	1.3	1.3	1.4	1.5	101	2.4	2.1	1.6	2.3	1.5	1.2	1.4
25	1.2	1.3	1.2	1.4	35	1.8	1.6	1.6	2.3	1.4	1.1	1.3
26	1.2	1.3	1.2	1.5	54	1.8	1.5	2.6	2.1	1.3	1.2	2.1
27	1.2	1.3	1.3	1.5	2.1	1.9	1.6	1.5	2.0	1.4	1.2	1.3
28	1.2	1.3	1.3	1.5	1.9	1.9	1.7	1.5	1.9	1.4	1.1	1.5
29	1.2	1.3	1.2	1.5	---	1.8	1.7	1.5	1.9	1.5	1.0	1.7
30	1.3	1.3	1.3	1.5	---	1.9	1.6	1.5	2.1	1.5	1.0	1.3
31	1.3	---	1.6	1.5	---	2.0	---	1.5	---	1.5	1.1	---
TOTAL	306.2	134.7	244.2	280.0	270.1	215.9	100.8	50.7	59.3	51.1	39.0	126.6
MEAN	9.88	4.49	7.88	9.03	9.65	6.96	3.36	1.64	1.98	1.65	1.26	4.22
MAX	187	51	98	144	101	64	27	2.6	2.3	2.1	2.8	52
MIN	1.2	1.1	1.2	1.2	1.4	1.6	1.5	1.4	1.6	1.3	1.0	1.2
AC-FT	607	267	484	555	536	428	200	101	118	101	77	251

CAL YR 1986 TOTAL 3136.3 MEAN 8.59 MAX 645 MIN 1.1 AC-FT 6220
WTR YR 1987 TOTAL 1878.6 MEAN 5.15 MAX 187 MIN 1.0 AC-FT 3730

SAN DIEGO RIVER BASIN

11022480 SAN DIEGO RIVER AT MAST ROAD, NEAR SANTEE, CA

LOCATION.--Lat 32°49'29", long 117°03'17", in Mission San Diego Grant, San Diego County, Hydrologic Unit 18070304, near left bank at Mast Road bridge, 1.1 mi upstream from Old Mission Dam site, 2.8 mi west of Santee, and 14.2 mi downstream from El Capitan Lake.

DRAINAGE AREA.--368 mi².

PERIOD OF RECORD.--May 1912 to December 1915 (monthly discharge only for some periods and yearly estimates only for 1924-25, published in WSP 1315-B), March 1916 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 300 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 10, 1920, nonrecording gage at site 1.5 mi upstream at different datum. Nov. 10, 1920, to Jan. 19, 1982, at site 2.6 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Cuyamaca Reservoir, capacity, 11,540 acre-ft, 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.--74 years (water years 1913-15, 1917-87), 25.4 ft³/s, 18,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,400 ft³/s, Feb. 16, 1927, on basis of slope-area measurement of peak flow, gage height, 18.1 ft, from floodmarks; no flow for many days some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 70,200 ft³/s, Jan. 27, 1916, based on slope-conveyance computation of peak flow, gage height, 25.1 ft, from floodmarks, site and datum then in use; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 654 ft³/s, Oct. 10, gage height, 8.47 ft, from rating curve extended above 400 ft³/s; minimum daily, 2.1 ft³/s June 26, July 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	6.4	5.8	8.3	9.1	16	10	7.3	3.6	2.2	2.3	22
2	7.5	5.9	5.8	8.3	8.9	14	10	6.6	3.2	2.1	2.3	8.9
3	7.1	5.6	5.6	8.4	8.9	13	22	6.7	3.1	2.4	2.2	3.6
4	6.9	5.6	5.9	106	8.8	12	51	6.2	3.4	2.6	2.4	3.0
5	6.7	5.3	6.4	143	8.5	12	13	6.0	3.1	3.2	2.3	2.5
6	6.6	5.7	95	46	8.3	62	12	5.9	3.0	3.1	2.4	2.5
7	6.5	5.4	81	77	8.4	20	11	6.0	3.3	2.7	2.5	2.4
8	6.4	5.4	29	29	8.1	16	10	5.8	3.4	2.8	2.7	2.3
9	52	5.3	21	23	8.1	15	9.7	5.8	3.1	2.9	2.5	2.3
10	218	5.3	16	18	9.0	14	9.4	6.0	2.9	3.0	2.5	2.4
11	37	5.2	13	17	8.7	13	9.3	6.0	2.9	2.9	2.6	2.5
12	25	5.1	11	15	8.4	13	9.1	5.2	2.7	2.6	2.6	2.5
13	17	4.8	10	14	8.6	13	8.6	5.3	2.8	2.4	2.7	2.3
14	14	4.8	9.4	13	16	12	8.4	5.4	2.9	2.2	3.9	2.3
15	11	4.9	8.9	12	13	51	8.0	5.2	2.8	2.3	3.6	2.4
16	9.9	5.0	8.3	12	13	17	8.2	5.5	2.7	2.4	2.6	2.4
17	8.7	24	8.3	11	9.5	15	8.5	5.2	2.5	2.5	2.5	2.4
18	8.0	96	7.8	11	9.3	15	9.0	4.9	2.5	2.4	2.6	2.3
19	7.5	15	8.0	11	9.2	14	9.0	4.4	2.6	2.3	2.6	4.1
20	7.1	14	59	10	8.7	13	8.9	4.3	2.8	2.7	2.6	6.9
21	6.7	12	18	10	8.6	67	7.7	4.5	2.6	2.7	2.5	6.8
22	6.4	10	16	10	8.7	36	7.5	4.1	2.7	2.4	2.5	46
23	6.2	8.8	15	9.9	27	21	6.9	4.2	2.5	2.3	2.4	35
24	6.0	7.6	13	9.8	124	20	7.0	4.6	2.5	2.4	2.4	6.4
25	5.9	7.1	11	9.8	49	16	7.1	4.8	2.3	2.3	2.5	5.0
26	5.8	6.6	9.8	9.8	86	14	7.1	5.9	2.1	2.3	2.5	5.2
27	5.7	6.4	8.9	10	24	13	7.3	5.2	2.3	2.5	2.6	4.4
28	5.7	6.3	8.6	9.8	20	12	6.9	4.9	2.6	2.4	2.6	4.0
29	6.1	6.1	8.3	9.6	---	12	7.0	5.1	2.7	2.2	2.5	3.9
30	6.5	5.9	8.3	9.3	---	11	6.8	4.4	2.3	2.2	2.5	3.6
31	6.6	---	8.6	9.2	---	11	---	3.9	---	2.2	2.7	---
TOTAL	538.2	311.5	540.7	700.2	537.8	603	316.4	165.3	83.9	77.6	80.1	202.3
MEAN	17.4	10.4	17.4	22.6	19.2	19.5	10.5	5.33	2.80	2.50	2.58	6.74
MAX	218	96	95	143	124	67	51	7.3	3.6	3.2	3.9	46
MIN	5.7	4.8	5.6	8.3	8.1	11	6.8	3.9	2.1	2.1	2.2	2.3
AC-FT	1070	618	1070	1390	1070	1200	628	328	166	154	159	401

CAL YR 1986 TOTAL 7556.3 MEAN 20.7 MAX 679 MIN 3.0 AC-FT 14990
WTR YR 1987 TOTAL 4157.0 MEAN 11.4 MAX 218 MIN 2.1 AC-FT 8250

SAN DIEGO RIVER BASIN

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 2.6 mi upstream from mouth, 500 ft upstream from Fashion Valley road crossing, 0.4 mi downstream from unnamed tributary, and 26.4 mi downstream from El Capitan Lake.

DRAINAGE AREA.--429 mi².

PERIOD OF RECORD.--October 1912 to January 1916 published as San Diego River at San Diego (monthly discharge only, published in WSP 1315-B), January 1982 to current year. Records published October 1912 to January 1916, not equivalent because of construction of El Capitan and San Vicente Reservoirs completed in 1934 and 1943.

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1315-B for history of changes for period October 1912 to January 1916.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Cuyamaca Reservoir, capacity 11,540 acre-ft; 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,000 ft³/s, Jan. 27, 1916, gage height, 19.3 ft, estimated on basis of upstream station, San Diego River near Santee; no flow many days during most years. Maximum discharge recorded since storage began in El Capitan Lake and San Vicente Reservoir, 8,280 ft³/s, Mar. 2, 1983, gage height, 13.11 ft, from rating curve extended above 5,800 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 881 ft³/s, Jan. 4, gage height, 7.51 ft; minimum daily, 0.53 ft³/s, Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	8.0	8.4	12	14	37	15	7.6	4.9	1.5	1.0	5.0
2	10	8.5	7.4	11	12	28	13	8.2	4.1	1.3	.86	4.5
3	9.8	7.7	7.8	12	12	22	40	8.2	4.0	1.7	.70	3.5
4	9.7	6.5	8.1	172	11	18	123	7.6	4.0	1.8	.53	3.2
5	9.4	6.4	8.3	556	12	17	62	6.6	3.6	2.0	.91	3.7
6	8.3	5.9	109	172	11	62	29	6.3	3.6	1.8	.69	4.0
7	7.7	6.6	200	202	11	86	19	6.8	4.0	1.3	1.1	5.4
8	8.2	7.4	114	95	12	55	15	6.5	4.0	1.2	1.2	5.7
9	17	7.9	57	54	11	32	14	6.5	3.2	1.1	1.4	6.0
10	355	7.6	36	43	11	23	13	6.8	3.2	.96	1.5	6.4
11	184	7.0	28	36	12	19	12	6.7	3.4	.98	2.3	5.0
12	62	5.8	21	28	12	18	12	5.8	3.4	1.3	2.9	4.1
13	43	6.2	19	26	16	17	11	5.5	3.3	1.3	3.3	3.8
14	32	5.9	18	22	40	18	8.1	5.8	3.6	.89	3.6	3.9
15	23	6.6	14	21	27	65	8.8	5.6	3.4	1.5	3.1	4.9
16	18	7.1	13	18	40	65	8.4	6.9	2.7	1.2	4.0	5.5
17	17	62	12	18	24	40	8.9	7.2	2.6	1.2	3.2	4.8
18	16	301	12	17	18	28	9.8	6.0	2.4	1.5	2.9	3.5
19	14	93	11	18	14	24	9.7	5.3	2.3	2.0	2.7	4.4
20	12	36	48	15	14	21	8.8	5.4	2.5	1.8	2.8	5.8
21	11	26	69	14	13	72	7.9	5.1	3.0	1.3	3.0	4.9
22	10	23	42	14	13	156	7.8	4.9	2.8	1.1	2.7	8.7
23	9.4	19	27	13	20	69	8.6	4.9	2.0	1.1	2.9	8.7
24	8.7	15	22	13	169	43	8.5	5.5	1.9	.99	2.7	17
25	9.7	11	22	14	204	36	8.5	5.5	1.8	.85	3.2	23
26	9.9	11	17	13	167	27	8.9	5.2	1.8	.90	3.8	22
27	8.3	12	14	13	92	23	8.4	4.5	1.9	.91	4.0	12
28	7.8	11	15	12	46	20	7.2	4.2	2.3	.87	3.5	8.2
29	7.9	10	13	12	---	19	7.5	4.5	2.2	.80	2.7	8.2
30	7.9	9.6	12	12	---	17	7.5	5.3	1.6	.76	1.8	7.7
31	7.6	---	11	14	---	15	---	5.6	---	.99	2.7	---
TOTAL	966.3	750.7	1016.0	1692	1058	1192	521.3	186.5	89.5	38.90	73.69	213.5
MEAN	31.2	25.0	32.8	54.6	37.8	38.5	17.4	6.02	2.98	1.25	2.38	7.12
MAX	355	301	200	556	204	156	123	8.2	4.9	2.0	4.0	23
MIN	7.6	5.8	7.4	11	11	15	7.2	4.2	1.6	.76	.53	3.2
AC-FT	1920	1490	2020	3360	2100	2360	1030	370	178	77	146	423

CAL YR 1986 TOTAL 14588.70 MEAN 40.0 MAX 1600 MIN 1.7 AC-FT 28940
WTR YR 1987 TOTAL 7798.39 MEAN 21.4 MAX 556 MIN .53 AC-FT 15470

LOS PENASQUITOS CREEK BASIN

11023250 POWAY CREEK NEAR POWAY, CA

LOCATION.--Lat 32°57'13", long 117°00'50", in NE 1/4 SE 1/4 sec.18, T.14 S., R.1 W., San Diego County, Hydrologic Unit 18070304, on right bank 100 ft downstream from unnamed tributary, 1,000 ft upstream from bridge on Standish Drive, and 1.4 mi southeast of Poway Post Office.

DRAINAGE AREA.--7.92 mi².

PERIOD OF RECORD.--October 1969 to September 1977 (gage heights and discharge measurements only), October 1977 to September 1987 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records poor. Flow partly regulated by small conservation reservoirs.

AVERAGE DISCHARGE.--10 years, 1.48 ft³/s, 1,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 755 ft³/s, Feb. 21, 1980, gage height, 7.26 ft, on basis of rating extended above 40 ft³/s, based on a step-backwater analysis up to gage height 8.3 ft; no flow many months each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	1915	*6.1	*4.45				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0					
2	0	0	0	0	0	0	0					
3	0	0	0	0	0	0	.09					
4	0	0	0	.86	0	0	.05					
5	0	0	0	.29	0	0	0					
6	0	0	.21	.01	0	.20	0					
7	0	0	.40	.11	0	.01	0					
8	0	0	0	0	0	0	0					
9	.15	0	0	0	0	0	0					
10	.03	0	0	0	0	0	0					
11	0	0	0	0	0	0	0					
12	0	0	0	0	0	0	0					
13	0	0	0	0	0	0	0					
14	0	0	0	0	0	0	0					
15	0	0	0	0	0	.07	0					
16	0	0	0	0	0	0	0					
17	0	.24	0	0	0	0	0					
18	0	.31	0	0	0	0	0					
19	0	0	0	0	0	0	0					
20	0	0	.15	0	0	0	0					
21	0	0	0	0	0	.12	0					
22	0	0	0	0	0	.15	0					
23	0	0	0	0	.01	0	0					
24	0	0	0	0	.07	0	0					
25	0	0	0	0	.03	0	0					
26	0	0	0	0	.19	0	0					
27	0	0	0	0	0	0	0					
28	0	0	0	0	0	0	0					
29	0	0	0	0	---	0	0					
30	0	0	0	0	---	0	0					
31	0	---	0	0	---	0	---		---			---
TOTAL	.18	.55	.76	1.27	.30	.55	.14	0	0	0	0	0
MEAN	.006	.018	.025	.041	.011	.018	.005	0	0	0	0	0
MAX	.15	.31	.40	.86	.19	.20	.09	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.4	1.1	1.5	2.5	.6	1.1	.3	0	0	0	0	0

CAL YR 1986 TOTAL 155.71 MEAN .43 MAX 26 MIN 0 AC-FT 309
WTR YR 1987 TOTAL 3.75 MEAN .010 MAX .86 MIN 0 AC-FT 7

LOS PENASQUITOS CREEK BASIN

11023310 RATTLESNAKE CREEK AT POWAY, CA

LOCATION.--Lat 32°57'07", long 117°02'56", in SE 1/4 SE 1/4 sec.14, T.14 S., R.2 W., San Diego County, Hydrologic Unit 18070304, on right bank 400 ft above mouth and 1.0 mi southwest of Poway Post Office.

DRAINAGE AREA.--8.13 mi².

PERIOD OF RECORD.--October 1969 to September 1977 (gage heights and discharge measurements only), October 1977 to current year.

GAGE.--Water-stage recorder. Concrete control since Aug. 17, 1982. Elevation of gage is 457 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--10 years, 2.59 ft³/s, 1,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,430 ft³/s, Feb. 21, 1980, gage height, 2.88 ft, from rating curve extended above 100 ft³/s on basis of stepback-water computations and slope-conveyence study at gage height 1.20 ft; no flow for much of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge ca 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	1930	*100	*1.18				
No flow Aug. 3.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.07	.26	.40	.29	.37	.54	.24	.37	.06	.01	.05
2	.17	.07	.28	.40	.32	.29	.56	.20	.28	.07	.01	.05
3	.07	.08	.28	.40	.42	.29	2.9	.26	.31	.05	0	.07
4	.06	.21	.33	17	.29	.29	1.8	.21	.28	.06	.01	.05
5	.06	.21	.34	18	.26	.42	.55	.20	.31	.05	.02	.05
6	.06	.21	9.0	2.2	.30	5.3	.52	.10	.25	.05	.02	.05
7	.10	.18	14	3.9	.34	.85	.51	.20	.25	.05	.08	.05
8	.08	.21	.93	1.1	.32	.55	.47	.20	.27	.07	.11	.05
9	4.1	.10	.40	.72	.35	.50	.43	.20	.31	.06	.11	.06
10	1.7	.10	.29	.61	.31	.54	.43	.21	.29	.06	.13	.08
11	.26	.10	.29	.52	.27	.52	.49	.19	.28	.06	.09	.09
12	.21	.11	.28	.48	.23	.56	.49	.18	.31	.05	.08	.10
13	.20	.10	.23	.49	.58	.60	.41	.18	.22	.05	.09	.57
14	.19	.11	.10	.37	1.1	.60	.46	.20	.22	.05	.16	.40
15	.20	.11	.20	.47	.38	4.4	.29	.22	.14	.03	.12	.56
16	.16	.15	.22	.45	.22	1.0	.29	.27	.22	.04	.10	.51
17	.15	5.9	.38	.40	.21	.65	.29	.30	.19	.05	.10	.45
18	.15	7.5	.42	.40	.16	.66	.29	.23	.19	.04	.09	.50
19	.14	.30	.45	.40	.18	.65	.28	.29	.13	.08	.09	.39
20	.12	.21	2.7	.39	.17	.64	.25	.34	.08	.16	.10	.20
21	.13	.21	.33	.49	.20	4.8	.27	.31	.07	.15	.08	.20
22	.13	.20	.44	.49	.20	5.2	.24	.29	.07	.06	.10	.26
23	.11	.20	.40	.45	.81	.82	.26	.29	.07	.04	.07	.38
24	.10	.20	.52	.42	5.7	.90	.24	.40	.05	.04	.06	.10
25	.11	.20	.40	.30	4.2	.65	.26	.40	.02	.02	.03	.10
26	.09	.20	.40	.35	6.5	.62	.23	.67	.01	.01	.03	.09
27	.09	.20	.40	.32	.57	.71	.22	.50	.02	.01	.04	.10
28	.11	.23	.41	.37	.43	.60	.28	.44	.01	.01	.04	.09
29	.12	.21	.40	.29	---	.55	.20	.38	.03	.01	.05	.08
30	.10	.21	.48	.29	---	.55	.21	.40	.05	.01	.05	.06
31	.10	---	.48	.29	---	.55	---	.38	---	.01	.05	---
TOTAL	9.50	18.09	36.04	53.16	25.31	35.63	14.66	8.88	5.30	1.56	2.12	5.79
MEAN	.31	.60	1.16	1.71	.90	1.15	.49	.29	.18	.050	.068	.19
MAX	4.1	7.5	14	18	6.5	5.3	2.9	.67	.37	.16	.16	.57
MIN	.06	.07	.10	.29	.16	.29	.20	.10	.01	.01	0	.05
AC-FT	19	36	71	105	50	71	29	18	11	3.1	4.2	11

CAL YR 1986	TOTAL 418.33	MEAN 1.15	MAX 53	MIN .04	AC-FT 830
WTR YR 1987	TOTAL 216.04	MEAN .59	MAX 18	MIN 0	AC-FT 429

LOS PENASQUITOS CREEK BASIN

11023325 BEELER CREEK AT POMERADO ROAD, NEAR POWAY, CA

LOCATION.--Lat 32°56'23", long 117°03'57", in NW 1/4 SW 1/4 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 upstream from Poway Creek, and 1.7 mi southwest of Poway Post Office.

DRAINAGE AREA.--5.46 mi².

PERIOD OF RECORD.--November 1969 to September 1977 (gage heights and discharge measurements only), October 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 465 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow partially regulated by several conservation reservoirs above station.

AVERAGE DISCHARGE.--11 years, 1.77 ft³/s, 1,280 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s, Jan. 29, 1980, gage height, 9.20 ft, from rating curve extended above 80 ft³/s on basis of slope-area measurement at gage height 8.79 ft; no flow for much of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 7	1515	*0.61	*4.51				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.01	.02	.06	.03	.07	.01				
2		0	0	.02	.06	.04	.07	.01				
3		0	0	.02	.06	.03	.08	.01				
4		0	0	.07	.06	.03	.08	0				
5		0	0	.05	.04	.03	.07	0				
6		0	.02	.03	.04	.04	.07	0				
7		0	.05	.10	.04	.04	.07	0				
8		0	.02	.11	.04	.04	.07	0				
9		0	.01	.23	.03	.04	.07	0				
10		0	.02	.24	.03	.07	.07	0				
11		0	.02	.21	.04	.07	.07	0				
12		0	.02	.20	.03	.07	.07	0				
13		0	.02	.18	.03	.07	.06	0				
14		0	.02	.18	.04	.06	.06	0				
15		0	.02	.19	.04	.07	.05	0				
16		0	.02	.20	.04	.07	.04	0				
17		0	.02	.21	.04	.06	.02	0				
18		.02	.01	.21	.02	.07	.02	0				
19		0	.01	.19	.02	.07	.02	0				
20		0	.03	.17	.02	.06	.02	0				
21		0	.02	.16	.02	.07	.02	0				
22		0	.02	.16	.02	.07	.02	0				
23		.01	.02	.15	.02	.06	.02	0				
24		.01	.02	.15	.03	.06	.02	0				
25		.01	.02	.14	.04	.08	.02	0				
26		.01	.02	.13	.04	.08	.01	0				
27		.01	.02	.12	.02	.08	.01	0				
28		.01	.02	.11	.03	.08	.01	0				
29		.01	.02	.11	---	.07	.02	0				
30		.01	.02	.10	---	.07	.01	0				
31		---	.02	.07	---	.07	---	0	---			---
TOTAL	0	.10	.54	4.23	1.00	1.85	1.31	.03	0	0	0	0
MEAN	0	.003	.017	.14	.036	.060	.044	.001	0	0	0	0
MAX	0	.02	.05	.24	.06	.08	.08	.01	0	0	0	0
MIN	0	0	0	.02	.02	.03	.01	0	0	0	0	0
AC-FT	0	.2	1.1	8.4	2.0	3.7	2.6	.06	0	0	0	0

CAL YR 1986	TOTAL	428.29	MEAN	1.17	MAX	59	MIN	0	AC-FT	850
WTR YR 1987	TOTAL	9.06	MEAN	.025	MAX	.24	MIN	0	AC-FT	18

LOS PENASQUITOS CREEK BASIN

11023330 LOS PENASQUITOS CREEK BELOW POWAY CREEK, NEAR POWAY, CA

LOCATION.--Lat 32°56'58", long 117°04'08", in NE 1/4 NE 1/4 sec.22, T.14 S., R.2 W., San Diego County, Hydrologic Unit 18070304, on right bank 10 ft upstream from concrete ford on Cobblestone Creek Road, 0.2 mi downstream from confluence of Poway and Pomerado Creeks, and 2.0 mi southwest of Poway.

DRAINAGE AREA.--31.2 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 415 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 26 to Nov. 4. Records fair. Flow partly regulated by small conservation reservoirs.

AVERAGE DISCHARGE.--17 years, 6.45 ft³/s, 4,670 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,990 ft³/s, Feb. 21, 1980, gage height, 11.11 ft, from rating curve extended above 300 ft³/s on basis of slope-area measurements at gage heights 9.58 and 11.11 ft; no flow at times during some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*), from rating curve extended as explained above:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 17	2145	242	5.41	Jan. 4	2130	*383	*5.86

Minimum daily, 0.09 ft³/s, June 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.48	.48	1.1	.58	1.1	1.5	1.0	.38	.16	.15	.26
2	.94	.43	.45	.93	.64	1.2	1.2	.73	.41	.25	.15	.21
3	.39	.41	.55	.55	.95	1.1	12	.37	.43	.18	.20	.23
4	.41	.43	.42	57	1.0	1.1	11	.56	.48	.19	.25	.28
5	.44	.47	.54	58	.97	2.2	2.1	1.2	.54	.19	.20	.21
6	.45	.46	29	13	1.1	18	1.2	1.6	.46	.21	.23	.18
7	.33	.42	38	19	1.1	5.3	1.6	1.3	.43	.28	.34	.22
8	.24	.40	7.2	5.5	1.2	2.1	1.4	1.0	.37	.43	.22	.27
9	9.7	.34	3.1	4.0	1.2	1.7	1.0	1.0	.28	.39	.24	.24
10	15	.39	1.5	4.0	1.4	1.7	1.2	.57	.22	.46	.26	.25
11	1.9	.35	1.1	2.3	1.4	1.5	1.7	.46	.24	.39	.32	.41
12	.69	.29	1.1	1.8	1.7	1.8	1.4	.70	.24	.32	.35	.47
13	.41	.28	.93	1.8	3.1	2.2	1.4	.38	.22	.38	.37	2.1
14	.30	.28	.53	1.4	9.4	2.0	1.6	.25	.14	.37	.40	.45
15	.27	.25	.73	1.6	4.2	15	1.3	.25	.10	.37	.34	.39
16	.47	.25	1.0	1.5	3.3	5.0	1.8	.26	.14	.41	.30	.39
17	.38	27	1.3	1.1	2.0	3.7	.45	.19	.11	.36	.26	.42
18	.68	44	1.4	1.1	1.8	3.7	.65	.20	.14	.30	.27	.43
19	.69	3.9	1.4	1.1	1.5	3.8	.53	.23	.12	.26	.40	.40
20	.75	1.5	15	1.1	1.6	3.3	.39	.35	.16	.33	.32	.33
21	.79	1.1	3.5	1.0	1.3	15	.37	.37	.09	.28	.34	.30
22	.63	.54	1.8	1.2	1.1	18	.32	.25	.12	.26	.29	.41
23	.55	.43	2.0	1.1	5.3	4.9	.40	.32	.17	.28	.26	1.5
24	.42	1.5	1.7	.77	24	4.5	.39	.33	.11	.29	.29	.53
25	.50	.72	1.6	.41	16	4.0	.39	.38	.19	.32	.29	.49
26	.49	.40	1.3	.59	21	4.3	.41	1.6	.10	.16	.30	.37
27	.46	.41	1.1	.99	2.5	3.6	.40	.55	.11	.36	.26	.33
28	.44	.38	1.2	1.3	1.3	2.0	.40	.55	.18	.36	.31	.26
29	.45	.41	1.2	1.3	---	1.7	.60	.49	.46	.36	.37	.29
30	.46	.39	1.2	1.2	---	1.3	.78	.36	.15	.27	.32	.21
31	.47	---	1.2	.70	---	1.4	---	.31	---	.22	.33	---
TOTAL	40.43	88.61	123.53	188.44	112.64	138.2	49.88	18.11	7.29	9.39	8.93	12.83
MEAN	1.30	2.95	3.98	6.08	4.02	4.46	1.66	.58	.24	.30	.29	.43
MAX	15	44	38	58	24	18	12	1.6	.54	.46	.40	2.1
MIN	.24	.25	.42	.41	.58	1.1	.32	.19	.09	.16	.15	.18
AC-FT	80	176	245	374	223	274	99	36	14	19	18	25

CAL YR 1986 TOTAL 2114.34 MEAN 5.79 MAX 320 MIN .19 AC-FT 4190
WTR YR 1987 TOTAL 798.28 MEAN 2.19 MAX 58 MIN .09 AC-FT 1580

LOS PENASQUITOS CREEK BASIN

11023340 LOS PENASQUITOS CREEK NEAR POWAY, CA

LOCATION.--Lat 32°56'35", long 117°07'15", in Los Penasquitos Grant, San Diego County, Hydrologic Unit 18070304, on left bank 1.0 mi downstream from Cypress Creek and 5.5 mi southwest of Poway.

DRAINAGE AREA.--42.1 mi².

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 24 to Dec. 14. Records fair. 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.--23 years, 8.31 ft³/s, 6,020 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft³/s, Feb. 21, 1980, gage height, 10.26 ft, from rating curve extended above 1,400 ft³/s; no flow at times in 1968, 1972, and 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 18	0030	520	4.73	Jan. 4	2245	*675	*5.17
Dec. 7	Unknown	472	4.58				

Minimum daily, 0.55 ft³/s, June 14, 196.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.93	.99	1.2	1.8	2.2	3.0	1.7	2.0	.77	.67	.70	.67
2	1.4	.88	1.4	1.8	2.1	2.7	1.7	2.2	.67	.64	.67	.68
3	1.3	.86	1.3	1.8	2.0	2.6	9.1	1.5	.62	.71	.67	.71
4	.89	.90	1.1	101	2.2	2.5	16	1.0	.63	.65	.74	.97
5	.83	1.0	3.0	138	2.0	2.7	3.6	1.3	.64	.59	.71	1.1
6	.77	1.0	.75	13	1.9	21	2.5	1.5	.76	.57	.79	.97
7	.82	1.1	100	27	2.2	10	2.2	1.6	.76	.59	.83	.89
8	.88	1.1	15	6.3	2.2	3.8	1.9	1.2	.74	.61	.81	.92
9	6.9	1.0	7.0	4.5	2.1	3.0	1.8	1.3	.72	.84	.79	.89
10	44	.90	3.8	4.3	2.2	2.2	1.6	1.3	.60	.73	.77	.87
11	4.8	.94	2.7	3.5	2.0	2.2	1.7	1.1	.56	.65	.79	.86
12	2.5	1.0	2.3	3.0	2.0	1.9	1.6	1.1	.56	.60	.92	1.1
13	1.7	1.0	2.2	3.1	2.8	1.8	1.6	1.1	.58	.61	1.0	3.1
14	1.3	1.0	2.1	3.0	12	2.6	1.5	1.1	.55	.67	1.3	1.5
15	1.1	1.1	2.1	2.7	3.9	16	1.5	1.1	.68	.75	.98	1.0
16	1.2	1.0	2.1	2.7	4.0	4.8	1.7	1.2	.55	.73	.76	1.0
17	1.3	15	2.0	2.5	2.0	2.6	1.6	1.0	.59	.82	.73	.95
18	1.3	131	2.0	2.3	1.8	2.2	1.5	.70	.69	.92	.74	.84
19	1.2	6.0	1.9	2.3	1.8	2.2	1.7	.68	.61	.69	.73	.87
20	1.2	3.1	21	2.3	1.7	2.1	1.6	.67	.66	.73	.74	.87
21	1.3	2.6	5.9	2.2	1.6	15	1.8	1.1	.60	.81	.79	.87
22	1.1	2.3	2.4	2.2	1.5	26	1.8	.99	.59	.75	.69	1.0
23	1.2	1.9	2.2	2.3	4.3	4.5	1.5	.81	.64	.80	.66	1.3
24	1.1	1.7	2.1	2.3	30	4.1	1.5	.89	.71	.74	.77	1.3
25	1.1	1.3	2.1	2.1	21	2.7	1.1	1.1	.69	.74	.83	1.2
26	1.1	1.1	1.9	2.0	41	2.8	1.1	1.4	.69	.68	.84	1.1
27	.96	.98	1.8	2.2	4.5	3.6	1.3	1.8	.77	.68	.86	.87
28	.94	.95	1.8	2.8	3.4	2.6	1.5	1.2	.70	.69	.84	.81
29	.98	.96	1.8	2.8	---	2.1	1.7	1.0	.68	.72	.87	.87
30	.98	1.0	1.8	2.6	---	1.9	2.0	.96	.71	.75	.79	.84
31	1.1	---	1.8	2.4	---	1.8	---	.86	---	.69	.70	---
TOTAL	88.18	185.66	274.8	352.8	162.4	159.0	73.4	36.96	19.72	21.82	24.81	30.92
MEAN	2.84	6.19	8.86	11.4	5.80	5.13	2.45	1.19	.66	.70	.80	1.03
MAX	44	131	100	138	41	26	16	2.2	.77	.92	1.3	3.1
MIN	.77	.86	1.1	1.8	1.5	1.8	1.1	.68	.55	.57	.66	.67
AC-FT	175	368	545	700	322	315	146	73	39	43	49	61

CAL YR 1986 TOTAL 3627.64 MEAN 9.94 MAX 609 MIN .57 AC-FT 7200
WTR YR 1987 TOTAL 1430.47 MEAN 3.92 MAX 138 MIN .55 AC-FT 2840

SAN DIEGUITO RIVER BASIN

11025500 SANTA YSABEL CREEK NEAR RAMONA, CA

LOCATION.--Lat 33°06'25", long 116°51'55", in NW 1/4 NE 1/4 sec.27, T.12 S., R.1 E., San Diego County, Hydrologic Unit 18070304, on left bank 1.6 mi downstream from Temescal Creek, 4.5 mi north of Ramona, and 5.0 mi downstream from Sutherland Reservoir.

DRAINAGE AREA.--112 mi².

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

REVISED RECORD.--WDR CA-63-1: Drainage area.

GAGE.--Water-stage recorder and concrete cutoff wall. Datum of gage is 847.88 ft above 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.--Estimated daily discharges: May 10-13, June 9-17, Sept. 19-30. Records fair. Flow regulated by Sutherland Reservoir (station 11024000) 5 mi upstream since July 1954. Some small diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,400 ft³/s, Jan. 27, 1916, gage height, 14.0 ft, datum then in use, from rating curve extended above 1,500 ft³/s on basis of slope-conveyance study of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft³/s, Jan. 5, gage height, 2.43 ft; no flow Aug. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	.64	.75	1.5	1.7	3.8	2.1	.86	.25	.09	0	.07
2	.61	.69	.78	1.6	1.6	3.5	2.2	.78	.24	.09	0	.09
3	.60	.82	.78	1.6	1.6	3.1	2.7	.78	.23	.10	.01	.10
4	.55	.83	.85	2.5	1.6	2.7	4.7	.66	.23	.09	.01	.09
5	.50	.84	.88	15	1.5	2.5	4.5	.57	.22	.09	.03	.07
6	.52	.94	1.6	9.2	1.3	3.6	3.4	.53	.24	.08	.04	.09
7	.55	1.0	3.8	9.1	1.7	6.1	2.9	.53	.23	.07	.02	.06
8	.57	.97	4.1	9.3	2.0	5.8	2.6	.47	.24	.07	.02	.08
9	.67	.90	2.7	5.3	2.1	4.3	2.2	.45	.24	.09	.02	.10
10	.86	.83	2.0	4.0	2.3	3.6	2.1	.44	.22	.09	.03	.09
11	.73	.79	1.7	3.3	2.4	3.1	2.0	.43	.20	.08	.03	.09
12	.63	.80	1.6	2.8	1.8	2.8	2.0	.42	.18	.07	.04	.09
13	.56	.82	1.6	2.6	1.3	2.6	1.8	.40	.16	.06	.05	.10
14	.52	.89	1.5	2.4	1.7	2.5	1.6	.38	.14	.07	.06	.10
15	.50	.92	1.5	2.3	1.8	3.2	1.4	.38	.12	.08	.05	.09
16	.52	.98	1.5	2.1	1.9	3.0	1.4	.39	.10	.06	.07	.10
17	.55	1.1	1.4	2.1	1.7	2.8	1.4	.35	.09	.07	.07	.11
18	.56	1.5	1.4	2.0	1.7	2.5	1.3	.32	.09	.06	.07	.10
19	.58	1.1	1.5	2.0	1.7	2.5	1.3	.33	.09	.04	.06	.10
20	.61	.99	1.8	1.9	1.5	2.6	1.1	.41	.09	.05	.04	.10
21	.61	.93	2.0	1.8	1.4	3.0	1.0	.43	.09	.06	.03	.10
22	.62	.84	1.8	1.8	1.4	6.3	.90	.37	.08	.05	.03	.10
23	.68	.81	1.6	1.8	2.0	6.5	.86	.35	.08	.04	.03	.10
24	.71	.82	1.6	1.8	5.1	5.3	.82	.37	.08	.05	.02	.10
25	.66	.85	1.6	1.8	7.4	4.9	.80	.40	.07	.03	.07	.10
26	.54	.84	1.5	1.7	7.8	4.4	.81	.45	.07	.04	.08	.10
27	.48	.83	1.5	1.8	5.3	3.6	.79	.46	.07	.05	.08	.10
28	.49	.81	1.5	1.8	4.1	3.2	.79	.45	.07	.06	.08	.10
29	.51	.87	1.5	1.8	---	2.9	.86	.38	.07	.05	.08	.10
30	.53	.83	1.5	1.8	---	2.4	.92	.33	.08	.06	.08	.10
31	.62	---	1.5	1.8	---	2.3	---	.30	---	.04	.07	---
TOTAL	18.19	26.78	51.34	102.3	69.4	111.4	53.25	14.17	4.36	2.03	1.37	2.82
MEAN	.59	.89	1.66	3.30	2.48	3.59	1.78	.46	.15	.066	.044	.094
MAX	.86	1.5	4.1	15	7.8	6.5	4.7	.86	.25	.10	.08	.11
MIN	.48	.64	.75	1.5	1.3	2.3	.79	.30	.07	.03	0	.06
AC-FT	36	53	102	203	138	221	106	28	8.6	4.0	2.7	5.6

CAL YR 1986 TOTAL 2977.19 MEAN 8.16 MAX 654 MIN .01 AC-FT 5910
WTR YR 1987 TOTAL 457.41 MEAN 1.25 MAX 15 MIN 0 AC-FT 907

SAN DIEGUITO RIVER BASIN

11028500 SANTA MARIA CREEK NEAR RAMONA, CA

LOCATION.--Lat 33°03'08", long 116°56'41", in SE 1/4 SE 1/4 sec.11, T.13 S., R.1 W., San Diego County, Hydrologic Unit 18070304, on left bank 3.8 mi northwest of Ramona, 3.1 mi northwest of Jensens, and 4.6 mi upstream from mouth.

DRAINAGE AREA.--57.6 mi².

PERIOD OF RECORD.--December 1912 to September 1920, October 1946 to current year.

REVISED RECORDS.--WDR CA-63-1: Drainage area.

GAGE.--Water-stage recorder. Concrete control since October 1946. Datum of gage is 1,294.44 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1946, at same site, but at datum 1.78 ft lower.

REMARKS.--No estimated daily discharges. Records fair. No regulation upstream from station.

AVERAGE DISCHARGE.--48 years (water years 1914-20, 1947-87), 6.09 ft³/s, 4,410 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft³/s, Feb. 21, 1980, gage height, 14.39 ft, from rating curve extended above 130 ft³/s on basis of slope-area measurement at gage height 4.56 ft and slope-conveyance study at gage height 14.39 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 15	2245	*20	*1.74				

No flow several days in August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.31	.25	.35	1.0	1.2	1.1	1.1	.47	.63	.50	0	.03
2	.38	.14	.41	.85	1.2	.83	1.2	.25	.59	.65	0	.02
3	.34	.12	.45	.92	1.4	.66	2.9	.18	.61	.67	0	.06
4	.30	.25	.53	3.6	1.2	.58	3.8	.14	.49	.59	0	.19
5	.29	.14	.60	8.8	1.0	1.1	2.3	.14	.42	.42	.04	.07
6	.34	.21	1.7	3.7	.93	5.2	1.8	.36	.19	.44	.42	.10
7	.40	.41	1.9	5.3	.98	4.1	1.5	.51	.10	.54	.71	.33
8	.44	.51	.69	2.5	1.0	2.1	1.2	.49	.09	.22	.77	.46
9	.95	.39	.39	1.4	1.4	1.3	1.1	.18	.08	.23	.79	.11
10	1.3	.38	.33	1.1	1.7	1.2	.81	.09	.07	.11	.78	.12
11	.38	.36	.29	.96	1.6	1.3	.86	.07	.07	.04	.78	.30
12	.43	.37	.60	.90	1.7	1.0	.97	.31	.10	.04	.75	.11
13	.14	.41	.37	1.1	1.7	1.1	.79	.54	.21	.10	.79	.08
14	.08	.19	.37	1.1	1.9	1.2	.76	.66	.30	.14	.85	.06
15	.34	.59	.37	1.4	1.5	6.4	.76	.76	.29	.21	.16	.36
16	.45	.52	.35	1.3	.91	11	.66	.82	.14	.26	.19	.22
17	.55	1.1	.35	.91	.64	3.9	.68	.83	.05	.36	.29	.19
18	.63	2.9	.37	1.3	.56	2.6	.77	.62	.10	.35	.32	.25
19	.58	.62	.34	.69	.52	2.1	.69	.43	.39	.34	.32	.10
20	.58	.63	.68	.61	.46	1.9	.56	.64	.48	.31	.31	.06
21	.64	.33	.47	.61	.78	4.0	.28	.59	.55	.24	.12	.06
22	.52	.50	.38	1.2	1.4	9.1	.23	.58	.60	.04	.08	.30
23	.48	.44	.38	1.4	1.6	4.4	.22	.77	.64	.16	.03	.15
24	.60	.41	.51	.74	3.9	3.5	.24	.65	.61	.11	.03	.06
25	.49	.31	.37	1.2	7.1	2.8	.26	.71	.56	.24	.35	.06
26	.43	.21	.35	1.0	7.0	1.9	.24	.75	.61	.08	.28	.05
27	.47	.27	.49	1.0	2.4	1.9	.22	.83	.62	.34	.58	.04
28	.49	.32	1.1	1.3	1.4	1.7	.30	.88	.65	.29	.60	.02
29	.23	.41	.97	1.4	---	1.5	.41	.79	.60	.07	.07	0
30	.16	.43	.63	1.5	---	1.1	.39	.75	.46	.06	.04	0
31	.17	---	.76	1.2	---	.94	---	.70	---	.03	.03	---
TOTAL	13.89	14.12	17.85	51.99	49.08	83.51	28.00	16.49	11.30	8.18	10.48	3.96
MEAN	.45	.47	.58	1.68	1.75	2.69	.93	.53	.38	.26	.34	.13
MAX	1.3	2.9	1.9	8.8	7.1	11	3.8	.88	.65	.67	.85	.46
MIN	.08	.12	.29	.61	.46	.58	.22	.07	.05	.03	0	0
AC-FT	28	28	35	103	97	166	56	33	22	16	21	7.9

CAL YR 1986 TOTAL 2187.43 MEAN 5.99 MAX 418 MIN 0 AC-FT 4340
WTR YR 1987 TOTAL 308.85 MEAN .85 MAX 11 MIN 0 AC-FT 613

SAN DIEGUITO RIVER BASIN

11030020 LAKE HODGES NEAR ESCONDIDO, CA

LOCATION.--Lat 33°02'46", long 117°07'39", in SE 1/4 NW 1/4 sec.18, T.13 S., R.2 W., San Diego County, Hydrologic Unit 18070304, 300 ft upstream from right upstream end of Hodges Dam on San Dieguito River, 6.4 mi southwest of Escondido, and 20 mi southwest of Sutherland Reservoir.

DRAINAGE AREA.--303 mi².

PERIOD OF RECORD.--October 1945 to September 1968 (published with San Dieguito River at Lake Hodges, station 11030000), October 1972 to current year. 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 above National Geodetic Vertical Datum of 1929 (levels by county of San Diego); gage readings have been reduced to NGVD. Prior to Oct. 1, 1972, nonrecording gage at site 800 ft 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 from city of San Diego, Utilities Engineering Division dated July 1, 1953. Table based on U.S. Geological Survey table dated Sept. 18, 1951, from a 1948 survey. Capacity of reservoir at spillway level, 33,550 acre-ft, elevation, 315.0 ft. Dead storage below lowest outlet, 1,160 acre-ft, elevation 254.0 ft, included in these records. Reservoir can be drawn down to 207 acre-ft, elevation, 240.0 ft 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 provided by city of San Diego, Utilities Engineering Division.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 41,620 acre-ft, spilling, Feb. 21, 1980, elevation, 321.50 ft; minimum observed, 114 acre-ft, Oct. 31, 1965, elevation, 235.80 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 28,670 acre-ft, Mar. 23, elevation, 310.82 ft; minimum observed, 21,610 acre-ft, Sept. 30, elevation, 303.70 ft.

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	309.69	27,450	--
Oct. 31.....	309.01	26,730	-720
Nov. 30.....	308.61	26,320	-410
Dec. 31.....	308.90	26,620	+300
CAL YR 1986.....	--	--	4,450
Jan. 31.....	310.02	27,800	1,180
Feb. 28.....	310.34	28,150	350
Mar. 31.....	310.68	28,520	370
Apr. 30.....	310.00	27,780	-740
May 31.....	308.76	26,470	-1,310
June 30.....	307.50	25,190	-1,280
July 31.....	306.20	23,910	-1,280
Aug. 31.....	304.80	22,600	-1,310
Sept. 30.....	303.70	21,610	-990
WTR YR 1987.....	--	--	-5,840

SAN DIEGUITO RIVER BASIN

11030500 SAN DIEGUITO RIVER NEAR DEL MAR, CA

LOCATION.--Lat 32°54'23", long 117°12'45", in SE 1/4 SW 1/4, sec.6, T.14 S., R.3 W., San Diego County, Hydrologic Unit 18070304, on downstream side of second pier from right bank of El Camino Real bridge, 0.3 mi south of intersection of El Camino Real and Via Del La Valle, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--338 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1984 to current year. Prior to October 1986, published as San Dieguito Creek near Del Mar.

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Sutherland Reservoir, capacity 29,680 acre-ft, since July 1954 and Lake Hodges (station 11030020), capacity 33,550 acre-ft, since 1919. Diversions and pumping from wells in San Pasqual Valley and lower San Dieguito Valley.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,160 ft³/s, Mar. 17, 1986, gage height, 10.69 ft; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 212 ft³/s, Jan. 5, gage height, 8.56 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	.29	.50	.61	.41	.89	.20	.23	.15			
2	.43	.25	.64	.61	.42	.65	.20	.22	.18			
3	.27	.24	.52	.57	.44	.52	.35	.16	.16			
4	.18	.26	.45	1.0	.43	.47	.51	.20	.19			
5	.15	.30	.47	19	.36	.48	.34	.22	.24			
6	.12	.55	1.3	41	.32	.83	.31	.18	.24			
7	.11	.47	6.9	11	.32	.84	.25	.14	.26			
8	.10	.36	6.6	11	.36	.80	.19	.19	.29			
9	.16	.29	2.4	7.8	.41	.75	.16	.26	.43			
10	.84	.27	.93	4.4	.59	.72	.15	.26	.42			
11	.72	.24	.75	2.4	.56	.57	.19	.27	.45			
12	.63	.22	.55	1.4	.63	.51	.24	.32	.34			
13	.34	.25	.53	.92	.68	.44	.20	.32	.13			
14	.23	.26	.62	.76	.73	.40	.17	.38	.09			
15	.18	.24	.64	.69	.68	.63	.14	.39	.06			
16	.19	.25	.72	.57	.61	.44	.17	.38	.03			
17	.17	.41	.80	.49	.46	.43	.18	.30	.03			
18	.36	3.1	.71	.48	.43	.44	.17	.23	.22			
19	.67	4.2	.39	.53	.37	.42	.14	.43	.12			
20	.47	1.3	.89	.46	.31	.32	.17	.32	.07			
21	.27	.73	1.7	.44	.30	.50	.19	.19	.05			
22	.22	.61	1.2	.48	.33	.88	.07	.14	.03			
23	.21	.54	.72	.51	.46	.87	.05	.12	.05			
24	.22	.49	.54	.49	1.1	1.1	.06	.14	.05			
25	.23	.48	.47	.46	1.3	1.5	.07	.15	.06			
26	.24	.44	.48	.46	1.1	.90	.09	.13	.05			
27	.26	.40	.47	.49	1.0	.68	.14	.07	.05			
28	.26	.48	.47	.50	1.1	.60	.20	.14	.04			
29	.26	.52	.50	.46	---	.46	.25	.19	.02			
30	.29	.51	.55	.46	---	.28	.26	.19	.01			
31	.30	---	.61	.44	---	.22	---	.18	---			---
TOTAL	9.54	18.95	35.02	110.88	16.21	19.54	5.81	7.04	4.51	0	0	0
MEAN	.31	.63	1.13	3.58	.58	.63	.19	.23	.15	0	0	0
MAX	.84	4.2	6.9	41	1.3	1.5	.51	.43	.45	0	0	0
MIN	.10	.22	.39	.44	.30	.22	.05	.07	.01	0	0	0
AC-FT	19	38	69	220	32	39	12	14	8.9	0	0	0
CAL YR 1986	TOTAL	4674.86	MEAN	12.8	MAX	1010	MIN	0	AC-FT	9270		
WTR YR 1987	TOTAL	227.50	MEAN	.62	MAX	41	MIN	0	AC-FT	451		

SAN DIEGUITO RIVER BASIN

11030500 SAN DIEGUITO RIVER NEAR DEL MAR, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

SEDIMENT DATA: Water years 1982 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: January to September 1984.

SUSPENDED-SEDIMENT DISCHARGE: January to September 1984.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT					
08...	1030	0.09	--	27	0.01
NOV					
04...	1240	0.26	22.0	58	0.04
DEC					
03...	0945	0.39	12.5	100	0.11
JAN					
05...	0745	9.7	11.0	214	5.6
FEB					
04...	0910	0.45	10.5	81	0.10
MAR					
04...	1145	0.51	17.0	306	0.42
APR					
06...	1030	0.34	17.5	36	0.03
16...	0900	0.11	18.5	70	0.02
MAY					
06...	1020	0.18	23.0	4	0.00
JUN					
03...	1130	0.18	--	58	0.03
29...	1030	0.03	23.5	71	0.01

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (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
FEB												
04...	1100	10.5	1	0.45	6	22	63	90	98	100	--	--
04...	1105	--	1	--	15	21	30	41	55	75	98	100
04...	1110	--	1	--	10	58	90	93	95	98	100	--
04...	1115	--	1	--	28	34	42	53	68	92	100	--
APR												
16...	0900	18.5	1	0.11	6	15	55	89	100	--	--	--
16...	0905	--	1	--	20	45	55	63	74	90	99	100
16...	0910	--	1	--	19	58	90	94	97	100	--	--
16...	0915	--	1	--	24	35	47	64	88	100	--	--

ESCONDIDO CREEK BASIN

11030700 LAKE WOHLFORD NEAR ESCONDIDO, CA

LOCATION.--Lat 33°10'00", long 117°00'14", in NW 1/4 NE 1/4 sec.5, T.12 S., R.1 W., San Diego County, Hydrologic Unit 18070303, on face of Lake Wohlford Dam, 330 ft left of spillway, 3.9 mi southeast of Valley Center Post Office, and 5.7 mi northeast of Escondido.

DRAINAGE AREA.--7.96 mi².

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 above 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 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 from city of Escondido Engineering Department, dated March 1955. Capacity at spillway level, 6,940 acre-ft, elevation, 1,480.0 ft. Dead storage below lowest outlet, 131 acre-ft, elevation, 1,420 ft. 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 provided by Escondido Mutual Water Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 7,140 acre-ft, Feb. 21, 1980, elevation, 1,480.9 ft; minimum, 809 acre-ft, Dec. 1, 1953, elevation, 1,437.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 6,680 acre-ft, June 23, 24, elevation, 1,478.8 ft; minimum observed, 2,360 acre-ft, Dec. 24-26, elevation, 1,453.8 ft.

MONTHEND ELEVATION, IN FEET NGVD, AND CONTENTS AT 0700, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,472.1	5,300	--
Oct. 31.....	1,471.2	5,130	-170
Nov. 30.....	1,460.0	3,220	-1,910
Dec. 31.....	1,454.3	2,420	-800
CAL YR 1986.....	--	--	-610
Jan. 31.....	1,461.2	3,400	+980
Feb. 28.....	1,463.3	3,740	+340
Mar. 31.....	1,466.0	4,190	+450
Apr. 30.....	1,467.7	4,480	+290
May 31.....	1,472.3	5,340	+860
June 30.....	1,478.1	6,530	+1,190
July 31.....	1,475.0	5,880	-650
Aug. 31.....	1,471.6	5,200	-680
Sept. 30.....	1,471.3	5,150	-50
WTR YR 1987.....	--	--	-150

SAN LUIS REY RIVER BASIN

11031500 AGUA CALIENTE CREEK NEAR WARNER SPRINGS, CA

LOCATION.--Lat 33°17'19", long 116°39'11", in San Jose del Valle Grant, San Diego County, Hydrologic Unit 18070303, on left bank 60 ft upstream from bridge on Highway 79, 1.2 mi upstream from Canada Verde Creek, and 1.2 mi northwest of Warner Springs.

DRAINAGE AREA.--19.0 mi².

PERIOD OF RECORD.--February 1961 to September 1987 (discontinued). Discharge measurements only, published in WSP 447, made at about same site from Feb. 5, 1913, to November 1915.

GAGE.--Water-stage recorder. Elevation of gage is 2,950 ft above National Geodetic Vertical Datum of 1929, from topographic map. Jan. 30, 1966, to Nov. 5, 1982, at site 60 ft downstream at datum 2.40 ft lower.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--26 years, 2.71 ft³/s, 1,960 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft³/s, Feb. 21, 1980, gage height, 4.80 ft, site and datum then in use, from rating curve extended above 110 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 5.36 ft, Nov. 30, 1982; no flow for many days some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 7	0015	*18	*4.02				

Minimum daily, 0.02 ft³/s, Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	.10	.07	.12	.25	1.6	.89	.35	.37	.16	.10	.04
2	.08	.10	.07	.12	.25	2.2	.82	.34	.35	.16	.09	.03
3	.08	.10	.08	.13	.25	2.7	.93	.32	.35	.13	.08	.03
4	.07	.11	.08	.18	.25	3.4	1.5	.30	.35	.13	.08	.03
5	.07	.12	.08	.71	.25	3.4	1.1	.27	.43	.14	.13	.03
6	.08	.12	.12	.50	.25	8.8	1.0	.20	.34	.21	.15	.03
7	.08	.12	.12	4.4	.25	12	.83	.22	.33	.20	.15	.03
8	.08	.07	.10	1.9	.29	5.6	.71	.22	.34	.17	.12	.03
9	.10	.05	.10	.48	.31	3.4	.61	.27	.29	.16	.10	.02
10	.41	.05	.10	.17	.31	2.5	.54	.25	.27	.18	.10	.03
11	.09	.05	.10	.14	.31	1.9	.52	.25	.24	.16	.10	.03
12	.08	.07	.10	.14	.31	1.5	.51	.24	.22	.18	.11	.05
13	.07	.07	.10	.14	.29	1.2	.43	.23	.21	.16	.11	.06
14	.07	.07	.12	.14	.25	1.1	.35	.22	.20	.16	.16	.06
15	.07	.07	.12	.14	.25	2.2	.28	.22	.21	.14	.14	.06
16	.06	.56	.12	.14	.25	2.0	.24	.24	.21	.16	.12	.06
17	.07	.07	.12	.14	.23	1.4	.21	.26	.20	.21	.10	.06
18	.07	.07	.11	.14	.20	1.1	.26	.29	.21	.22	.09	.05
19	.07	.05	.11	.14	.17	1.0	.30	.33	.20	.18	.09	.04
20	.08	.05	.12	.14	.16	.90	.31	.36	.18	.16	.07	.04
21	.08	.06	.12	.14	.17	1.0	.31	.37	.20	.18	.07	.03
22	.08	.06	.12	.14	.17	3.2	.29	.37	.21	.17	.07	.04
23	.09	.07	.12	.17	.21	4.0	.29	.37	.19	.15	.07	.06
24	.09	.07	.12	.17	.30	4.0	.29	.36	.19	.14	.06	.07
25	.08	.07	.12	.17	.49	4.0	.28	.37	.17	.13	.06	.07
26	.08	.07	.12	.19	.58	2.6	.28	.40	.13	.12	.06	.06
27	.08	.07	.12	.20	.56	2.2	.32	.39	.13	.13	.05	.06
28	.08	.07	.12	.21	.90	1.8	.32	.36	.13	.14	.04	.04
29	.09	.06	.13	.21	---	1.4	.34	.36	.14	.13	.03	.03
30	.10	.06	.14	.24	---	1.1	.34	.34	.15	.11	.03	.03
31	.10	---	.13	.25	---	.99	---	.35	---	.10	.04	---
TOTAL	2.80	2.73	3.40	12.20	8.46	86.19	15.40	9.42	7.14	4.87	2.77	1.30
MEAN	.090	.091	.11	.39	.30	2.78	.51	.30	.24	.16	.089	.043
MAX	.41	.56	.14	4.4	.90	12	1.5	.40	.43	.22	.16	.07
MIN	.06	.05	.07	.12	.16	.90	.21	.20	.13	.10	.03	.02
AC-FT	5.6	5.4	6.7	24	17	171	31	19	14	9.7	5.5	2.6

CAL YR 1986	TOTAL 933.93	MEAN 2.56	MAX 331	MIN .05	AC-FT 1850
WTR YR 1987	TOTAL 156.68	MEAN .43	MAX 12	MIN .02	AC-FT 311

SAN LUIS REY RIVER BASIN

11039800 SAN LUIS REY RIVER AT COUSER CANYON BRIDGE, NEAR PALA, CA

LOCATION.--Lat 33°20'26", long 117°07'50", in NW 1/4 NE 1/4 sec.6, T.10 S., R.2 W., in San Diego County, Hydrologic Unit 18070303, on left bank 10 ft upstream from bridge on Couser Canyon Road, 6.5 mi northeast of Bonsall, and 27 mi downstream from Lake Henshaw.

DRAINAGE AREA.--364 mi².

PERIOD OF RECORD.--October 1986 to September 1987.

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

REMARKS.--Estimated daily discharges: Oct. 1 to Jan. 23, Apr. 18, 19. Records good except those for period of no gage-height record Oct. 1 to Jan. 23, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27 ft³/s, Apr. 8, 1987, gage height, 1.46 ft, from rating curve extended above 6.0 ft³/s; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27 ft³/s, Apr. 8, gage height, 1.46 ft, from rating curve extended above 6.0 ft³/s; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	.35	1.5	2.7	4.0	5.7	2.6	.42	.06		
2	0	0	.35	1.5	2.4	3.8	5.6	2.2	.44	.06		
3	0	0	.35	1.5	2.2	3.3	5.8	1.4	.43	.05		
4	0	0	.35	3.0	2.2	3.3	5.1	1.3	.31	.07		
5	0	.20	.35	6.0	1.9	2.8	6.5	.97	.32	.11		
6	0	.40	3.0	5.5	1.8	3.3	6.5	.78	.29	.06		
7	0	.40	3.0	5.0	1.9	5.1	5.3	.65	.40	.03		
8	0	.40	2.5	5.0	2.1	6.5	5.2	.58	.33	.03		
9	0	.40	2.5	4.0	2.1	6.8	5.0	.50	.05	.05		
10	0	.40	2.5	4.0	2.1	6.2	4.3	.58	.13	.07		
11	.40	.40	2.0	4.0	1.9	6.0	4.5	.71	.21	.07		
12	.40	.40	2.0	3.5	1.9	5.6	5.1	.71	.27	.04		
13	.35	.40	2.0	3.5	1.8	5.5	5.2	.63	.35	.03		
14	.35	.40	2.0	3.5	1.8	5.3	4.6	1.0	.33	.01		
15	.30	.40	1.5	3.0	2.7	6.3	4.9	.79	.18	0		
16	.30	.40	1.5	3.0	2.4	6.4	4.6	.56	.24	.02		
17	.30	.40	1.5	3.0	1.9	6.4	3.1	.66	.18	.04		
18	.25	.80	1.5	3.0	1.7	6.0	1.4	.71	.24	.06		
19	.20	.80	1.5	3.0	2.1	5.3	2.4	.75	.21	.07		
20	.15	.70	2.0	3.0	2.2	5.5	5.3	.76	.21	.06		
21	.10	.70	2.0	2.8	1.9	5.7	5.0	.70	.24	.05		
22	.10	.65	1.5	2.7	1.7	6.5	3.4	.65	.16	.02		
23	.10	.60	1.5	2.7	2.2	6.6	2.5	.63	.15	0		
24	.05	.55	1.5	2.2	2.9	6.0	2.1	.54	.22	0		
25	.05	.50	1.5	2.1	3.2	7.8	1.6	.54	.18	0		
26	0	.45	1.5	2.3	3.8	8.7	1.9	.52	.13	0		
27	0	.40	1.5	2.4	3.9	8.1	2.2	.53	.13	0		
28	0	.40	1.5	2.3	3.8	7.6	1.9	.61	.16	0		
29	0	.35	1.5	2.4	---	7.4	2.2	.53	.10	0		
30	0	.35	1.5	2.5	---	7.2	3.1	.49	.05	0		
31	0	---	1.5	3.1	---	6.4	---	.53	---	0		
TOTAL	3.40	12.25	49.75	97.0	65.2	181.4	122.0	25.11	7.06	1.06	0	0
MEAN	.11	.41	1.60	3.13	2.33	5.85	4.07	.81	.24	.034	0	0
MAX	.40	.80	3.0	6.0	3.9	8.7	6.5	2.6	.44	.11	0	0
MIN	0	0	.35	1.5	1.7	2.8	1.4	.49	.05	0	0	0
AC-FT	6.7	24	99	192	129	360	242	50	14	2.1	0	0

WTR YR 1987 TOTAL 564.23 MEAN 1.55 MAX 8.7 MIN 0 AC-FT 1120

SAN LUIS REY RIVER BASIN

11042000 SAN LUIS REY RIVER AT OCEANSIDE, CA
(National stream-quality accounting network station)

LOCATION.--Lat 33°13'05", long 117°22'34", in SE 1/4 SW 1/4 sec.13, T.11 S., R.5 W., San Diego County, Hydrologic Unit 18070303, on right bank 1.9 mi upstream from bridge on Interstate Highway 5, 2.4 mi upstream from mouth, and 1.9 mi northeast of Oceanside.

DRAINAGE AREA.--557 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1912 to September 1914 (published as "near Oceanside"), January 1916, October 1929 to January 1942, October 1946 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1912 to September 1914, nonrecording gage at site 0.4 mi downstream at different datum. January 1916, nonrecording gage 1.4 mi downstream at different datum. Prior to Oct. 1, 1978, at datum 10.00 ft lower. Prior to Nov. 9, 1981, at site 0.8 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Lake Henshaw, capacity, 194,300 acre-ft since 1923. Several diversions for irrigation and domestic use above station. AVERAGE DISCHARGE represents flow to ocean during period of record regardless of upstream development.

AVERAGE DISCHARGE.--55 years (water years 1913-14, 1930-41, 1947-87), 35.3 ft³/s, 25,570 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,600 ft³/s, Jan. 27, 1916, from hydrograph based on discharge measurements; no flow for several months in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 195 ft³/s, Jan. 8, gage height, 13.40 ft; minimum daily, 3.8 ft³/s, Sept. 20-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	17	26	36	40	53	39	22	17	9.9	5.7	6.0
2	22	17	26	36	41	51	36	22	16	9.5	5.4	5.6
3	21	18	25	36	41	48	35	22	15	9.9	5.4	5.0
4	21	17	25	42	41	46	42	21	15	10	5.2	4.8
5	20	16	24	79	41	45	39	20	16	10	5.3	4.7
6	20	17	37	93	40	50	37	19	16	11	5.2	4.7
7	19	16	81	145	39	53	35	19	16	10	5.3	4.7
8	19	16	77	146	39	53	34	19	16	11	6.5	4.7
9	19	17	62	95	37	51	33	19	16	11	6.5	4.7
10	29	18	55	79	36	48	31	19	16	9.4	6.4	4.7
11	29	18	50	71	37	48	31	19	16	9.4	6.1	4.6
12	29	17	48	65	36	47	31	20	16	9.4	5.8	4.4
13	27	17	47	62	36	46	30	20	14	9.4	5.7	4.5
14	25	17	46	59	43	46	29	20	14	9.1	5.9	4.6
15	24	17	45	56	41	51	29	20	14	9.4	5.6	5.0
16	23	17	43	55	38	54	28	20	13	9.4	5.4	4.4
17	23	21	42	53	35	52	27	20	13	11	5.4	4.2
18	23	86	41	53	35	49	26	20	13	11	5.4	4.2
19	23	83	41	50	34	48	26	19	12	10	5.4	3.9
20	23	63	51	48	34	47	26	19	13	10	5.2	3.8
21	23	51	49	48	35	49	25	19	13	10	4.4	3.8
22	22	44	44	48	35	58	23	18	13	9.0	4.3	3.8
23	21	39	41	47	35	58	23	17	12	7.6	4.0	4.0
24	20	35	41	46	48	56	22	17	12	6.6	4.5	4.0
25	20	33	41	45	60	55	21	18	11	6.9	5.0	4.0
26	22	30	40	44	66	53	21	18	11	7.5	5.1	4.0
27	21	29	40	42	63	50	22	18	11	8.0	5.3	4.0
28	20	28	39	41	55	48	21	17	11	7.5	5.8	4.1
29	19	27	37	40	---	45	21	17	11	7.7	6.0	4.3
30	19	27	36	41	---	43	21	17	10	7.3	6.0	4.6
31	17	---	36	41	---	41	---	17	---	6.6	6.0	---
TOTAL	686	868	1336	1842	1161	1542	864	592	412	284.5	169.2	133.8
MEAN	22.1	28.9	43.1	59.4	41.5	49.7	28.8	19.1	13.7	9.18	5.46	4.46
MAX	29	86	81	146	66	58	42	22	17	11	6.5	6.0
MIN	17	16	24	36	34	41	21	17	10	6.6	4.0	3.8
AC-FT	1360	1720	2650	3650	2300	3060	1710	1170	817	564	336	265

CAL YR 1986 TOTAL 20703.6 MEAN 56.7 MAX 1360 MIN 6.8 AC-FT 41070
WTR YR 1987 TOTAL 9890.5 MEAN 27.1 MAX 146 MIN 3.8 AC-FT 19620

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 DATA: Water years 1978 to current year.

BIOLOGICAL DATA: Water years 1978-81.

SPECIFIC CONDUCTANCE: Water years 1978 to current year.

WATER TEMPERATURE: Water years 1971 to current year.

SEDIMENT DATA: Water years 1969 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1968 to September 1978, December 1983 to September 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	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)
NOV												
26...	1130	31	2110	8.1	13.0	760	1.6	11.0	105	310	110	650
JAN												
29...	1330	42	2130	8.2	16.5	760	3.5	11.6	120	140	--	680
MAR												
24...	1200	57	2020	8.3	19.0	755	5.5	12.4	136	120	200	650
MAY												
28...	1100	17	2150	8.2	20.0	760	1.5	12.9	143	83	250	720
JUL												
29...	1100	7.7	2250	8.0	22.5	755	--	9.8	115	K49	370	680
SEP												
29...	1200	4.3	2560	8.0	22.0	760	0.90	9.5	110	87	270	700

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV												
26...	410	140	72	200	40	4	7.3	287	235	234	400	340
JAN												
29...	440	150	74	180	36	3	6.2	288	236	235	410	320
MAR												
24...	420	140	72	180	37	3	6.1	279	229	229	370	310
MAY												
28...	510	160	77	190	36	3	6.9	255	209	209	450	360
JUL												
29...	510	150	75	210	40	4	8.3	213	175	176	420	390
SEP												
29...	440	160	72	260	44	4	13	307	252	252	440	400

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, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
NOV											
26...	0.40	24	1410	1300	1.9	0.020	1.9	0.070	0.070	0.50	0.130
JAN											
29...	0.40	26	1370	1300	1.9	0.020	2.5	0.060	0.050	0.80	0.110
MAR											
24...	0.40	25	1340	1200	1.8	0.040	1.9	0.050	0.050	0.60	0.130
MAY											
28...	0.40	14	1370	1400	1.9	<0.010	0.750	0.050	0.050	0.40	0.050
JUL											
29...	0.40	18	1470	1400	2.0	<0.010	0.800	0.040	0.040	0.60	0.130
SEP											
29...	0.40	18	1670	1500	2.3	0.010	1.3	0.070	0.070	0.70	0.200

See footnotes at end of table.

SAN LUIS REY RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
NOV 26...	0.100	0.100	<10	1	100	<10	<1	<1	<1	<1	10
JAN 29...	0.090	0.090	--	--	--	--	--	--	--	--	--
MAR 24...	0.090	0.080	<10	<1	81	<0.5	8	1	<1	1	7
MAY 28...	0.030	0.030	<10	1	200	<10	<1	<1	<1	2	20
JUL 29...	0.100	0.090	--	--	--	--	--	--	--	--	--
SEP 29...	0.170	0.140	<10	2	100	<10	1	<1	4	2	20

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 26...	<5	10	110	<0.1	12	<1	1	<1	720	8	<10
JAN 29...	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	<5	16	90	<0.1	17	1	2	<1	640	<80	8
MAY 28...	<5	20	70	0.1	14	2	1	<1	750	<10	10
JUL 29...	--	--	--	--	--	--	--	--	--	--	--
SEP 29...	<5	<10	70	<0.1	11	3	1	1	500	8	<10

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.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	SEDI- MENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR										
24...	1420	10.0	1990	8.4	20.0	760	11.7	130	106	48
24...	1425	42.0	2000	8.4	20.0	760	11.7	130	117	46
24...	1430	96.0	1990	8.4	20.0	760	11.8	131	90	65
24...	1435	160	1980	8.4	20.0	760	11.7	130	158	67
24...	1440	170	1990	8.4	20.0	760	11.7	130	55	60
SEP										
29...	1530	2.00	2560	8.0	22.5	755	9.9	116	17	66
29...	1535	4.00	2560	8.0	22.5	755	9.8	115	11	69
29...	1540	6.00	2570	8.0	22.5	755	9.8	115	26	61

* Instantaneous streamflow at the time of cross-sectional measurements: Mar. 24, 57 ft³/s;
 Sept. 29, 4.3 ft³/s.

SAN LUIS REY RIVER BASIN

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

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
07...	1400	19	21.0	2	0.10	--
NOV						
04...	1100	17	16.0	10	0.46	--
26...	1130	31	13.0	9	0.75	54
DEC						
02...	1230	26	15.5	15	1.1	--
JAN						
05...	1000	70	13.5	26	4.9	--
07...	1200	139	14.0	95	36	--
29...	1330	42	16.5	31	3.5	70
FEB						
02...	1030	41	16.0	35	3.9	--
MAR						
02...	1115	49	16.0	22	2.9	--
24...	1200	57	19.0	74	11	67
24...	1428	57	20.0	105	16	57
APR						
06...	1315	36	21.0	33	3.2	--
16...	1015	27	20.0	39	2.8	--
MAY						
04...	1130	21	22.0	11	0.62	--
28...	1100	17	20.0	20	0.92	42
JUN						
04...	1115	15	23.5	24	0.97	--
30...	1200	10	23.0	26	0.70	--
JUL						
29...	1100	7.7	22.5	13	0.27	41
AUG						
03...	1150	5.2	24.0	12	0.17	--
SEP						
08...	1045	4.5	20.0	10	0.12	--
29...	1200	4.3	22.0	15	0.17	66
29...	1534	4.3	22.5	18	0.21	65

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	NUMBER OF SAM- PLING POINTS (COUNT)	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
FEB							
02...	1050	16.0	5	41	5	9	26
APR							
16...	1000	20.0	4	27	5	12	34
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
FEB							
02...	57	73	81	87	93	97	100
APR							
16...	62	71	77	85	91	96	100

SANTA MARGARITA RIVER BASIN

11042400 TEMECULA CREEK NEAR AGUANGA, CA

LOCATION.--Lat 33°27'33", long 116°55'22", in SW 1/4 SW 1/4 sec.19, T.8 S., R.1 E., Riverside County, Hydrologic Unit 18070302, on right bank 1.6 mi downstream from Long Canyon and 3.5 mi northwest of Aguanga.

DRAINAGE AREA.--131 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 1,590 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No regulation upstream from station. Pumping upstream from station for irrigation of less than 1,000 acres.

AVERAGE DISCHARGE.--30 years, 7.09 ft³/s, 5,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,540 ft³/s, Apr. 3, 1958, gage height, 6.57 ft, from rating curve extended above 1,200 ft³/s; maximum gage height, 12.0 ft, from floodmarks, Feb. 21, 1980; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 7	1500	*15	*1.52				
Minimum daily, 0.57 ft ³ /s, Aug. 4.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.9	2.5	2.9	3.3	4.6	4.6	3.0	1.5	.97	.58	.84
2	2.1	2.8	2.5	3.1	3.4	4.7	4.3	2.8	1.4	1.0	.61	.87
3	2.0	2.7	2.7	3.0	3.4	4.7	4.6	2.7	1.3	.91	.58	.90
4	2.0	2.6	2.8	3.6	3.4	4.9	5.2	2.3	1.3	.89	.57	.90
5	1.9	2.6	2.7	11	3.3	5.3	4.7	2.1	1.8	.88	.60	.88
6	1.9	2.7	3.7	7.2	3.3	8.5	4.5	2.0	2.0	.90	.68	.80
7	1.8	2.8	5.0	12	3.2	11	4.3	1.9	1.7	.94	.70	.83
8	1.9	2.9	4.4	8.7	3.2	7.3	4.1	2.1	1.6	.95	.69	.83
9	2.4	2.9	4.1	6.4	3.2	5.7	3.9	2.0	2.0	1.0	.76	.79
10	2.5	2.5	3.7	5.5	3.5	5.4	3.7	2.0	1.8	1.1	.77	.81
11	2.3	2.5	2.8	4.8	3.8	5.2	3.5	2.0	1.7	.99	.77	.92
12	2.2	2.5	2.8	4.1	3.9	4.9	3.5	1.9	1.6	.91	.79	1.0
13	2.1	2.6	2.9	4.1	3.4	4.7	3.2	1.8	1.4	.85	.96	1.3
14	2.1	2.6	2.8	4.0	3.3	4.6	3.0	1.7	1.2	.80	1.4	1.3
15	2.1	2.8	2.9	3.9	3.3	6.3	2.9	1.8	1.1	.82	1.3	1.1
16	2.1	2.8	2.8	3.8	3.3	5.6	2.7	1.8	1.1	.88	1.3	1.2
17	2.2	2.8	3.1	3.6	3.2	5.6	2.8	1.9	1.0	.92	1.2	1.3
18	2.2	4.7	3.1	3.8	3.3	5.5	3.7	1.8	.97	.92	1.3	1.1
19	2.3	3.3	3.1	3.7	3.2	4.7	3.2	1.8	.96	.88	1.6	1.0
20	2.4	2.9	3.3	3.6	3.3	4.7	2.8	2.4	1.0	.88	1.5	1.1
21	2.4	2.8	3.2	3.9	3.2	5.1	2.7	2.5	1.0	.91	1.2	1.1
22	2.4	2.7	3.1	3.9	3.3	10	2.9	2.1	1.1	.89	1.1	1.2
23	2.5	2.5	3.3	3.5	3.9	7.5	2.7	1.9	1.6	.88	.89	1.5
24	2.6	2.5	3.3	3.4	7.3	7.2	2.6	2.0	1.3	.81	.76	2.5
25	2.6	2.7	3.2	3.4	7.4	7.0	2.6	2.1	.89	.82	.88	1.2
26	2.6	3.1	2.8	3.2	6.2	6.3	2.9	2.1	.86	.94	.87	1.1
27	2.6	3.0	2.8	3.3	5.2	5.9	3.1	2.2	.87	.87	.85	1.2
28	2.7	2.7	2.8	3.4	4.7	5.4	3.1	2.2	.85	.70	.86	1.2
29	2.8	2.7	2.9	3.5	---	5.2	3.5	2.1	.91	.65	.84	1.3
30	2.7	2.5	3.0	3.6	---	5.0	3.2	1.9	.98	.61	.82	1.6
31	2.9	---	3.0	3.5	---	4.9	---	1.7	---	.60	.79	---
TOTAL	71.3	84.1	97.1	141.4	108.4	183.4	104.5	64.6	38.79	27.07	28.52	33.67
MEAN	2.30	2.80	3.13	4.56	3.87	5.92	3.48	2.08	1.29	.87	.92	1.12
MAX	2.9	4.7	5.0	12	7.4	11	5.2	3.0	2.0	1.1	1.6	2.5
MIN	1.8	2.5	2.5	2.9	3.2	4.6	2.6	1.7	.85	.60	.57	.79
AC-FT	141	167	193	280	215	364	207	128	77	54	57	67

CAL YR 1986 TOTAL 2673.10 MEAN 7.32 MAX 457 MIN 1.2 AC-FT 5300
WTR YR 1987 TOTAL 982.85 MEAN 2.69 MAX 12 MIN .57 AC-FT 1950

SANTA MARGARITA RIVER BASIN

11043000 MURRIETA CREEK AT TEMECULA, CA

LOCATION.--Lat 33°28'47", long 117°08'35", in Temecula Grant, Riverside County, Hydrologic Unit 18070302, on right bank 0.4 mi upstream from confluence with Temecula Creek, 1.0 mi south of Temecula, and 12 mi downstream from Skinner Reservoir on Tualota Creek.

DRAINAGE AREA.--222 mi².

PERIOD OF RECORD.--October 1924 to current year. Prior to September 1930 monthly discharges only, published in WSP 1315-B.

GAGE.--Water-stage recorder. Concrete control since Aug. 30, 1981. Elevation of gage is 970 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1735 for history of changes prior to Dec. 16, 1938.

REMARKS.--No estimated daily discharges. Records fair except those for Apr. 24 to Sept. 30, which are poor. Flow partly regulated since 1974 by Skinner Reservoir. Pumping above station for irrigation of about 2,500 acres. Rancho California Water District can discharge into creek, approximately 0.10 mi upstream, to supplement low flow.

AVERAGE DISCHARGE.--63 years, 11.0 ft³/s, 8,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,800 ft³/s, Feb. 21, 1980, gage height, 13.70 ft, on basis of slope-area measurement of peak flow; minimum daily, 0.02 ft³/s at times in 1969, no flow Dec. 11, 1976 (upstream channel work).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	2330	*113	*3.42				

Minimum daily, 0.03 ft³/s, Oct. 13, Nov. 8-16, Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	.06	.10	.10	.15	.35	.19	.37	.93	2.0	.74	.57
2	3.7	.05	.10	.14	.18	.26	.19	.32	.82	1.0	.65	.56
3	.19	.05	.10	.10	.17	.24	.86	.49	.77	.94	.62	.56
4	.13	.04	.10	13	.15	.20	2.6	.80	.75	.92	.46	.61
5	.11	.09	.11	43	.14	.23	.65	1.1	.77	.92	.45	.54
6	.13	.32	.46	3.6	.13	5.6	.35	1.2	.85	1.0	.37	.91
7	1.6	.07	2.3	24	.16	3.8	.26	1.4	.84	1.1	.22	1.3
8	4.1	.03	.33	2.8	.17	.70	.22	1.4	.85	1.1	.21	1.3
9	4.5	.03	.17	.97	.18	.43	.21	1.2	.85	1.2	.19	1.3
10	2.7	.03	.14	.50	.18	.35	.20	1.2	.92	1.2	.44	1.3
11	.08	.03	.12	.35	.18	.28	.22	1.3	1.0	1.2	.63	1.0
12	.05	.03	.12	.27	.17	.25	.20	1.5	1.1	1.2	.64	.21
13	.03	.03	.12	.23	.17	.22	.17	1.5	1.5	1.2	.64	1.2
14	.04	.03	.12	.22	.18	.22	.57	1.5	1.1	1.2	.53	1.1
15	.05	.03	.11	.22	.18	1.2	3.0	1.4	.84	1.2	.53	.78
16	.07	.03	.11	.19	.14	.73	.71	1.3	.98	1.2	.58	.11
17	2.3	.45	.11	.19	.16	.39	.34	1.5	.82	1.2	.54	.58
18	4.1	33	.09	.20	.17	.28	.24	1.6	.76	1.2	.19	1.1
19	4.3	3.3	.11	.54	.15	.24	.22	1.3	.84	1.1	.08	1.1
20	4.3	.35	.43	.43	.14	.21	.18	1.1	.75	1.1	.03	1.1
21	4.3	.19	.12	.26	.16	1.6	.16	1.1	.75	1.1	.28	1.2
22	4.4	.14	.10	.22	.17	3.4	4.3	1.2	.75	1.0	.59	1.2
23	4.3	.12	.23	.21	.24	.60	.53	1.1	.81	1.1	.58	1.2
24	4.5	.09	.11	.19	1.8	.53	.24	1.1	.86	1.1	.60	1.2
25	4.5	.09	.09	.17	16	2.5	.18	1.1	.92	1.0	.56	1.2
26	4.6	.09	.10	.18	4.5	4.6	.20	1.1	1.0	.92	.56	1.2
27	4.5	.10	.11	.18	.98	4.5	.20	1.0	.94	.94	.58	1.3
28	4.5	.09	.10	.18	.50	4.5	.20	.93	.98	.92	.58	1.3
29	4.7	.12	.10	.18	---	4.5	.27	.79	.99	.95	.60	1.3
30	2.2	.09	.10	.18	---	4.6	.36	.77	2.1	.90	.57	1.3
31	.07	---	.10	.16	---	1.8	---	.83	---	.84	.56	---
TOTAL	79.75	39.17	6.61	93.16	27.60	49.31	18.22	34.50	28.14	33.95	14.80	29.63
MEAN	2.57	1.31	.21	3.01	.99	1.59	.61	1.11	.94	1.10	.48	.99
MAX	4.7	33	2.3	43	16	5.6	4.3	1.6	2.1	2.0	.74	1.3
MIN	.03	.03	.09	.10	.13	.20	.16	.32	.75	.84	.03	.11
AC-FT	158	78	13	185	55	98	36	68	56	67	29	59

CAL YR 1986 TOTAL 1220.81 MEAN 3.34 MAX 243 MIN .03 AC-FT 2420
WTR YR 1987 TOTAL 454.84 MEAN 1.25 MAX 43 MIN .03 AC-FT 902

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 downstream from confluence of Murrieta and Temecula Creeks, 1.4 mi south of Temecula, 10 mi downstream from Vail Dam, and about 12 mi downstream from Skinner Reservoir.

DRAINAGE AREA.--588 mi².

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. Concrete control since Nov. 3, 1966; buried by sand Nov. 19, 1985, to Sept. 30, 1987, and was ineffective as a low-water control. Elevation of gage is 950 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 3, 1966, at site 100 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records fair. Flow partly regulated since November 1948 by Vail Dam (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 upstream, to supplement low flow.

AVERAGE DISCHARGE.--25 years (water years 1924-48), unregulated, 28.2 ft³/s, 20,420 acre-ft/yr; 39 years (water years 1949-87), 15.3 ft³/s, 11,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s, Feb. 16, 1927, gage height, 14.6 ft, at site then in use, from rating curve extended above 10,000 ft³/s; minimum daily, 0.30 ft³/s, Aug. 18-22, 1965 (during period of upstream construction).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 270 ft³/s, Jan. 4, gage height, 4.94 ft, from rating curve extended above 42 ft³/s; minimum daily, 0.41 ft³/s, Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	.63	.76	.72	1.1	1.4	.84	.77	1.6	3.4	1.1	1.6
2	5.5	.71	.76	.82	1.1	1.3	.84	.80	1.5	1.5	1.1	1.4
3	1.0	.98	.76	.70	1.0	1.1	2.1	.89	1.4	1.2	1.2	1.6
4	.71	.96	.76	26	1.0	.92	3.5	1.1	1.4	.96	.96	.95
5	.64	.96	.76	57	1.0	.92	1.6	1.9	1.3	1.0	1.2	.85
6	.65	1.1	1.8	8.2	1.0	9.9	1.0	1.6	1.3	.88	.75	.96
7	2.0	1.2	2.8	46	1.1	9.2	.97	1.6	1.3	.90	.75	1.2
8	5.5	1.2	1.1	4.6	1.1	3.5	1.1	1.6	1.2	.81	.41	1.2
9	6.7	1.2	.93	4.6	1.1	3.0	.94	1.5	1.2	.78	.43	1.3
10	6.0	1.2	.84	2.3	1.1	2.7	.92	1.5	1.2	.84	.84	1.2
11	.88	1.2	.78	1.5	.90	2.6	.92	1.4	1.2	1.1	1.6	1.2
12	.72	1.2	.76	.69	.80	2.5	.97	1.4	1.1	1.2	1.5	.87
13	.72	1.3	.72	.79	.90	2.5	1.1	1.5	1.5	.81	1.5	1.4
14	.64	1.4	.69	.79	.90	2.4	1.1	1.5	2.1	.86	1.2	1.4
15	.66	1.4	.76	.79	1.0	4.2	2.7	1.5	1.1	.90	.95	1.1
16	.69	1.4	.65	.79	1.1	3.0	1.5	1.6	1.5	.96	.98	1.0
17	2.0	1.6	.69	.79	1.1	2.6	1.4	1.5	1.3	1.1	.87	.98
18	4.2	46	.77	.79	1.1	2.4	1.4	1.5	1.4	1.3	1.1	1.4
19	4.1	4.8	.84	1.0	1.1	2.4	1.3	1.5	1.3	1.1	.64	1.4
20	4.5	1.5	1.2	1.0	1.2	2.3	1.4	1.5	1.3	1.1	.53	1.5
21	4.3	1.3	.86	1.0	1.3	5.1	1.5	1.6	1.1	1.1	.74	1.5
22	4.7	1.3	.77	1.0	1.4	6.6	3.8	1.7	1.3	.99	1.4	1.5
23	4.6	1.1	.95	1.0	1.4	2.3	1.2	1.6	1.2	1.1	1.4	1.5
24	4.7	1.1	.84	1.0	2.3	2.1	.84	1.8	1.2	1.1	1.5	1.8
25	5.0	1.0	.84	.90	21	4.0	1.0	1.6	1.3	1.2	1.4	1.6
26	5.5	1.0	.81	.90	7.9	5.8	.76	1.6	1.3	1.2	1.4	1.4
27	4.8	.93	.84	.90	1.9	5.1	.62	1.7	1.3	1.2	1.5	1.4
28	5.6	.93	.84	1.0	1.4	4.9	.74	1.7	1.3	1.2	1.6	1.5
29	5.6	.94	.84	1.1	---	4.8	.77	1.8	1.3	1.2	1.6	1.6
30	5.6	.81	.74	1.1	---	4.6	.69	1.8	2.9	1.3	1.5	1.6
31	.95	---	.76	1.1	---	2.6	---	1.7	---	1.3	1.6	---
TOTAL	104.16	82.35	28.22	170.87	59.30	108.74	39.52	46.76	41.4	35.59	35.25	39.91
MEAN	3.36	2.75	.91	5.51	2.12	3.51	1.32	1.51	1.38	1.15	1.14	1.33
MAX	6.7	46	2.8	57	7.9	9.9	3.8	1.9	2.9	3.4	1.6	1.8
MIN	.64	.63	.65	.69	.80	.92	.62	.77	1.1	.78	.41	.85
AC-FT	207	163	56	339	118	216	78	93	82	71	70	79
CAL YR 1986	TOTAL	2456.84	MEAN	6.73	MAX	511	MIN	.59	AC-FT	4870		
WTR YR 1987	TOTAL	792.07	MEAN	2.17	MAX	57	MIN	.41	AC-FT	1570		

SANTA MARGARITA RIVER BASIN

11046000 SANTA MARGARITA RIVER AT YSIDORA, CA

LOCATION.--Lat 33°18'40", long 117°20'47", in NW 1/4 NW 1/4 sec.18, T.10 S., R.4 W., San Diego County, Hydrologic Unit 18070302, on Camp Joseph H. Pendleton Naval Reservation, on right bank upstream end of Basilone Road Bridge, 7.9 mi upstream from mouth, and 5.2 mi upstream from Ysidora.

DRAINAGE AREA.--723 mi² (revised).

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. Elevation of gage is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1735 for history of changes prior to Nov. 27, 1935. Nov. 27, 1935, to Feb. 25, 1970, at site 5.4 mi downstream at different datum. Feb. 25, 1970, to Dec. 10, 1980, at site 6.2 mi downstream, at different datum.

REMARKS.--No estimated daily discharges. Records poor. Flow partly regulated by Vail Lake (station 11042510) since November 1948. Diversions for irrigation on Rancho California (formerly Santa Margarita Ranch and Pauba Ranch).

AVERAGE DISCHARGE.--64 years, 34.6 ft³/s, 25,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,600 ft³/s, Feb. 16, 1927, gage height, 18.00 ft, site and datum then in use, on basis of slope-area measurement of peak flow; maximum gage height, 18.80 ft, Feb. 18, 1980, site and datum then in use, possibly affected by tide; no flow for all or part of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 243 ft³/s Jan. 5, gage height, 5.38 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	7.8	22	12	13	10	2.0	5.1	1.2			
2	7.4	7.8	22	12	13	8.2	2.1	4.3	.92			
3	7.5	8.0	21	12	13	7.0	2.5	3.4	.62			
4	7.4	8.6	21	12	13	6.3	2.8	3.9	.33			
5	6.8	14	20	107	13	5.2	2.7	2.5	.11			
6	6.1	15	20	84	13	5.3	3.8	2.1	0			
7	5.6	13	20	76	13	6.0	3.4	1.5	0			
8	5.5	11	26	74	13	8.2	3.5	1.2	0			
9	5.5	10	36	29	13	4.8	4.0	1.1	0			
10	7.6	10	27	18	13	3.8	5.2	1.4	0			
11	11	10	21	17	12	3.1	5.9	1.6	0			
12	9.3	11	18	16	12	3.0	6.2	1.4	0			
13	6.8	11	16	16	12	2.6	6.2	1.1	0			
14	5.8	12	15	16	12	2.3	4.8	1.0	0			
15	5.2	13	15	16	12	3.3	4.3	1.0	0			
16	5.0	14	14	16	12	2.9	4.4	1.2	0			
17	5.0	16	14	18	12	2.9	4.5	1.4	0			
18	5.0	17	14	20	12	2.7	4.4	1.5	0			
19	5.0	49	14	22	11	2.3	5.4	2.0	0			
20	5.0	28	15	18	10	1.9	5.4	2.0	0			
21	4.8	25	17	16	11	2.2	3.6	1.8	0			
22	4.6	23	15	16	11	3.6	2.9	1.6	0			
23	5.1	24	14	15	10	4.3	2.6	1.5	0			
24	6.0	22	14	15	11	2.8	3.2	1.6	0			
25	6.8	22	14	15	22	2.3	3.7	1.5	0			
26	7.3	21	13	15	114	2.0	5.5	1.3	0			
27	7.2	22	13	14	67	1.8	6.8	1.2	0			
28	7.4	22	13	14	18	1.8	5.6	3.0	0			
29	7.6	22	12	14	---	2.2	5.3	1.4	0			
30	7.6	22	12	14	---	2.2	5.5	1.4	0			
31	7.9	---	12	14	---	2.3	---	1.1	---			---
TOTAL	202.0	511.2	540	773	511	119.3	128.2	58.1	3.18	0	0	0
MEAN	6.52	17.0	17.4	24.9	18.3	3.85	4.27	1.87	.11	0	0	0
MAX	11	49	36	107	114	10	6.8	5.1	1.2	0	0	0
MIN	4.6	7.8	12	12	10	1.8	2.0	1.0	0	0	0	0
AC-FT	401	1010	1070	1530	1010	237	254	115	6.3	0	0	0
CAL YR 1986	TOTAL	11593.58	MEAN	31.8	MAX	1250	MIN	0	AC-FT	23000		
WTR YR 1987	TOTAL	2845.98	MEAN	7.80	MAX	114	MIN	0	AC-FT	5640		

SAN JUAN CREEK BASIN

11046530 SAN JUAN CREEK AT LA NOVIA STREET BRIDGE, AT SAN JUAN CAPISTRANO, CA

LOCATION.--Lat 33°30'09", long 117°38'50", in NW 1/4 SE 1/4 sec.6, T.8 S., R.8 W., Orange County, Hydrologic Unit 18070301, on right bank 20 ft downstream from La Novia Street bridge, 1.3 mi upstream from Arroyo Trabuco Creek, and 0.8 mi east of San Juan Capistrano.

DRAINAGE AREA.--109 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1985 to current year. October 1985 to September 1986, published as 11046550 San Juan Creek at San Juan Capistrano.

GAGE.--Water-stage recorder. Elevation of gage is 100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 29 to Jan. 4. Records fair. No regulation above station. Capistrano Water Co. diverts 2.0 mi upstream. Various amounts of diverted water reach station as irrigation return flow and rising ground water.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 680 ft³/s, Apr. 6, 1986, gage height, 12.30 ft; maximum gage height, 12.68 ft, Jan. 4, 1987; no flow many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1969, reached a discharge of 22,400 ft³/s, at site 1.9 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 162 ft³/s, Jan. 4, gage height, 12.68 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	1.0	1.7	3.2	1.2					
2			0	1.1	1.9	2.1	.60					
3			0	1.3	1.2	1.8	1.8					
4			0	15	1.3	.89	1.2					
5			0	27	1.4	.77	.63					
6			0	10	2.5	2.8	.87					
7			12	15	2.1	3.1	1.5					
8			1.6	6.8	1.0	1.2	2.4					
9			.39	5.9	.67	.77	1.1					
10			.32	5.3	2.4	.61	1.0					
11			.37	5.4	2.0	.80	.77					
12			.25	4.8	1.6	.64	.71					
13			.15	5.0	3.1	.58	.79					
14			.16	5.4	5.0	.47	.46					
15			.17	5.1	3.8	.93	.38					
16			.10	4.6	3.2	.93	.27					
17			.10	4.0	3.0	.94	.26					
18			.13	4.7	2.9	.60	.33					
19			.28	4.2	2.9	.46	.38					
20			1.1	3.9	2.3	.34	.34					
21			1.7	3.9	1.6	3.7	.37					
22			.65	4.1	2.1	6.1	.36					
23			.81	3.9	2.8	4.2	.11					
24			1.9	3.9	4.3	4.3	.14					
25			2.8	3.3	8.0	4.1	.13					
26			2.5	3.5	4.8	3.2	0					
27			2.0	3.1	3.6	2.3	0					
28			1.0	2.1	3.3	1.6	0					
29			1.0	1.8	---	1.1	0					
30			1.0	2.1	---	1.6	0					
31			1.0	1.5	---	1.6	---					
TOTAL	0	0	33.48	168.7	76.47	57.73	18.10	0	0	0	0	0
MEAN	0	0	1.08	5.44	2.73	1.86	.60	0	0	0	0	0
MAX	0	0	12	27	8.0	6.1	2.4	0	0	0	0	0
MIN	0	0	0	1.0	.67	.34	0	0	0	0	0	0
AC-FT	0	0	66	335	152	115	36	0	0	0	0	0

CAL YR 1986 TOTAL 2478.84 MEAN 6.79 MAX 359 MIN 0 AC-FT 4920
WTR YR 1987 TOTAL 354.48 MEAN .97 MAX 27 MIN 0 AC-FT 703

SAN JUAN CREEK BASIN

11046530 SAN JUAN CREEK AT LA NOVIA STREET BRIDGE, AT SAN JUAN CAPISTRANO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year (prior to water year 1987 published as 11046550 San Juan Creek at San Juan Capistrano).

WATER TEMPERATURE: Water years 1971 to current year.

SEDIMENT DATA: Water years 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1970 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 22,000 mg/L, Feb. 18, 1980; minimum daily mean, no flow at times in most years.

SEDIMENT LOAD: Maximum daily, 331,000 tons, Mar. 4, 1978; minimum daily, 0 ton many days during most years.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 798 mg/L, Jan. 5; minimum daily mean, no flow for many days.

SEDIMENT LOAD: Maximum daily, 99 tons, Jan. 5; minimum daily, 0 ton many days.

REVISIONS.--Suspended-sediment discharge for the 1986 water year has been revised as follows:

DATE	SUSPENDED- SEDIMENT DISCHARGE (TONS/DAY)	DATE	SUSPENDED- SEDIMENT DISCHARGE (TONS/DAY)
NOV		FEB	
29	52	15	2,280
30	14	19	2.4
JAN		MAR	
30	0.50	08	12
31	8.1	10	106
FEB		11	68
01	1.8	12	39
07	0.67	15	45
08	1.1	16	433
13	5.0	17	162
14	75	APR	
		06	660

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1985	6.35	1.19	0	1
NOVEMBER ...	117.82	67.85	20	88
DECEMBER ...	103.77	5.24	0	5
JANUARY 1986	114.20	9.87	2	12
FEBRUARY ...	805.80	2454.31	439	2890
MARCH	1205.38	976.09	420	1400
APRIL	301.62	687.12	88	775
MAY	18.36	0.18	0	0
JUNE	0.00	0.00	0	0
JULY	0.00	0.00	0	0
AUGUST	0.00	0.00	0	0
SEPTEMBER ..	0.00	0.00	0	0
TOTAL	2673.30	4201.85	969	5170

SAN JUAN CREEK BASIN

11046530 SAN JUAN CREEK AT LA NOVIA STREET BRIDGE, AT SAN JUAN CAPISTRANO, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	---	16.0	---	21.5					
2			---	---	16.5	---	21.0					
3			---	---	17.5	---	21.5					
4			---	13.5	17.5	---	---					
5			---	13.5	16.5	---	20.0					
6			---	13.5	17.5	16.0	22.5					
7			15.5	14.0	17.0	18.0	---					
8			15.5	13.0	17.5	17.5	---					
9			14.5	13.0	16.0	18.5	---					
10			15.0	14.0	16.5	19.0	---					
11			15.5	13.5	---	19.5	---					
12			15.5	14.0	18.5	18.0	---					
13			16.0	14.0	19.0	17.5	---					
14			16.5	14.0	17.0	---	---					
15			17.5	10.5	17.5	15.5	---					
16			17.5	9.5	18.5	20.0	---					
17			17.0	13.5	---	17.5	---					
18			16.5	14.0	15.5	17.0	---					
19			15.5	14.0	15.0	19.0	---					
20			15.5	13.0	16.0	18.5	---					
21			16.0	13.0	15.5	14.5	---					
22			13.0	14.0	---	18.0	---					
23			15.5	13.5	14.0	19.5	---					
24			15.0	14.0	14.0	20.0	---					
25			---	14.0	9.0	19.5	---					
26			---	13.5	14.0	20.0	---					
27			14.5	12.5	16.0	18.0	---					
28			15.5	18.0	15.0	21.0	---					
29			13.0	16.5	---	21.0	---					
30			14.5	14.5	---	20.5	---					
31			13.5	13.5	---	21.0	---					

SAN JUAN CREEK BASIN

11046530 SAN JUAN CREEK AT LA NOVIA STREET BRIDGE, AT SAN JUAN CAPISTRANO, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1							.00	0	.00
2							.00	0	.00
3							.00	0	.00
4							.00	0	.00
5							.00	0	.00
6							.00	0	.00
7							12	653	68
8							1.6	87	.38
9							.39	6	.01
10							.32	4	.00
11							.37	2	.00
12							.25	3	.00
13							.15	3	.00
14							.16	5	.00
15							.17	2	.00
16							.10	6	.00
17							.10	4	.00
18							.13	6	.00
19							.28	4	.00
20							1.1	4	.01
21							1.7	4	.02
22							.65	3	.01
23							.81	2	.00
24							1.9	2	.01
25							2.8	4	.03
26							2.5	6	.04
27							2.0	8	.04
28							1.0	2	.01
29							1.0	2	.01
30							1.0	3	.01
31							1.0	4	.01
TOTAL	0.00	---	0.00	0.00	---	0.00	33.48	---	68.59
JANUARY			FEBRUARY			MARCH			
1	1.0	4	.01	1.7	2	.01	3.2	6	.05
2	1.1	5	.01	1.9	2	.01	2.1	6	.03
3	1.3	5	.02	1.2	2	.01	1.8	6	.03
4	15	644	80	1.3	3	.01	.89	6	.01
5	27	798	99	1.4	2	.01	.77	6	.01
6	10	165	7.7	2.5	2	.01	2.8	10	.08
7	15	164	7.2	2.1	2	.01	3.1	11	.09
8	6.8	195	3.6	1.0	4	.01	1.2	6	.02
9	5.9	23	.37	.67	3	.01	.77	6	.01
10	5.3	10	.14	2.4	20	.18	.61	4	.01
11	5.4	8	.12	2.0	3	.02	.80	4	.01
12	4.8	8	.10	1.6	2	.01	.64	5	.01
13	5.0	8	.11	3.1	23	.49	.58	3	.00
14	5.4	8	.12	5.0	11	.15	.47	4	.01
15	5.1	6	.08	3.8	9	.09	.93	6	.02
16	4.6	8	.10	3.2	10	.09	.93	6	.02
17	4.0	6	.06	3.0	6	.05	.94	2	.01
18	4.7	6	.08	2.9	4	.03	.60	4	.01
19	4.2	6	.07	2.9	4	.03	.46	6	.01
20	3.9	4	.04	2.3	8	.05	.34	12	.01
21	3.9	6	.06	1.6	8	.03	3.7	78	2.1
22	4.1	18	.20	2.1	8	.05	6.1	35	.58
23	3.9	24	.25	2.8	8	.06	4.2	6	.07
24	3.9	8	.08	4.3	30	.46	4.3	6	.07
25	3.3	2	.02	8.0	84	2.5	4.1	6	.07
26	3.5	2	.02	4.8	30	.39	3.2	6	.05
27	3.1	2	.02	3.6	8	.08	2.3	6	.04
28	2.1	3	.02	3.3	8	.07	1.6	5	.02
29	1.8	5	.02	---	---	---	1.1	3	.01
30	2.1	6	.03	---	---	---	1.6	2	.01
31	1.5	5	.02	---	---	---	1.6	2	.01
TOTAL	168.7	---	199.67	76.47	---	4.92	57.73	---	3.48

SAN JUAN CREEK BASIN

11046530 SAN JUAN CREEK AT LA NOVIA STREET BRIDGE, AT SAN JUAN CAPISTRANO, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL				MAY				JUNE	
1	1.2	2	.01						
2	.60	3	.00						
3	1.8	2	.01						
4	1.2	1	.00						
5	.63	1	.00						
6	.87	2	.00						
7	1.5	3	.01						
8	2.4	4	.03						
9	1.1	5	.01						
10	1.0	5	.01						
11	.77	4	.01						
12	.71	5	.01						
13	.79	6	.01						
14	.46	6	.01						
15	.38	5	.01						
16	.27	4	.00						
17	.26	4	.00						
18	.33	5	.00						
19	.38	6	.01						
20	.34	5	.00						
21	.37	4	.00						
22	.36	5	.00						
23	.11	4	.00						
24	.14	3	.00						
25	.13	2	.00						
26	.00	0	.00						
27	.00	0	.00						
28	.00	0	.00						
29	.00	0	.00						
30	.00	0	.00						
31	---	---	---						
TOTAL	18.10	---	0.14	0.00	---	0.00	0.00	---	0.00
JULY				AUGUST				SEPTEMBER	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
TOTAL	0.00	---	0.00	0.00	---	0.00	0.00	---	0.00
YEAR	354.48		276.80						

SAN JUAN CREEK BASIN

11046530 SAN JUAN CREEK AT LA NOVIA STREET BRIDGE, AT SAN JUAN CAPISTRANO, CA--Continued

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1986	0.00	0.00	0	0
NOVEMBER ...	0.00	0.00	0	0
DECEMBER ...	33.48	68.59	2	71
JANUARY 1987	168.70	199.67	5	2057
FEBRUARY ...	76.47	4.92	0	5
MARCH	57.73	3.48	0	3
APRIL	18.10	0.14	0	0
MAY	0.00	0.00	0	0
JUNE	0.00	0.00	0	0
JULY	0.00	0.00	0	0
AUGUST	0.00	0.00	0	0
SEPTEMBER ..	0.00	0.00	0	0
TOTAL	354.48	276.80	7	2136

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	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
SEP							
04...	1245	1	14	23	43	61	68
04...	1250	1	3	4	7	14	22
04...	1255	1	3	4	7	15	22
04...	1300	1	--	0	3	34	86
04...	1305	1	3	7	15	27	42

DATE	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP						
04...	76	85	92	96	100	--
04...	26	31	37	56	88	100
04...	28	34	42	59	88	100
04...	99	100	--	--	--	--
04...	55	65	75	90	100	--

SAN JUAN CREEK BASIN

11047300 ARROYO TRABUCO AT SAN JUAN CAPISTRANO, CA

LOCATION.--Lat 33°29'54", long 117°39'54", on line between secs.1 and 12, T.8 S., R.8 W., Orange County, Hydrologic Unit 18070301, on left bank 30 ft downstream from bridge on Del Obispo Street in San Juan Capistrano.

DRAINAGE AREA.--54.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to September 1977, October 1983 to current year. Records prior to October 1963, in files of Orange County Environmental Management Agency.

GAGE.--Water-stage recorder. Elevation of gage is 80 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges: Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--9 years (water years 1973-77, 1984-87), 6.90 ft³/s, 5,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,020 ft³/s, Feb. 15, 1986, gage height, 15.35 ft, from rating curve extended above 220 ft³/s; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*), from rating curve extended above 220 ft³/s.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 18	0115	*583	*13.65				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	1.7	3.8	2.0	2.8	1.7	2.1	1.9	2.8	1.0	0	0
2	5.5	1.2	4.1	2.0	2.2	1.5	2.5	1.7	3.1	1.1	0	.39
3	5.5	.99	4.7	1.9	2.1	1.5	7.6	1.5	3.0	1.2	0	2.0
4	3.2	1.4	4.4	113	2.3	1.3	3.5	1.1	2.7	.82	0	1.6
5	2.7	1.8	4.4	68	2.2	1.8	2.4	1.6	2.3	.37	0	1.5
6	2.9	1.8	74	34	2.2	22	2.1	1.5	1.3	.47	0	1.2
7	3.3	1.9	57	19	1.9	4.5	2.1	1.3	2.0	.68	0	1.7
8	2.9	2.1	6.8	2.4	1.9	2.8	2.2	1.8	2.9	.70	0	2.1
9	3.4	2.2	4.3	2.0	3.2	1.9	2.1	1.5	3.1	.72	0	1.7
10	19	2.2	3.2	1.9	35	1.7	1.6	1.4	2.9	.82	0	1.8
11	7.3	2.0	3.0	2.5	4.2	1.6	1.4	1.8	1.4	1.5	0	1.7
12	6.3	2.1	2.5	2.9	2.5	1.7	1.4	1.8	1.2	.79	0	.04
13	3.9	2.7	2.4	1.6	44	1.6	1.7	2.0	1.0	.68	0	1.1
14	4.4	2.4	2.3	1.5	25	1.6	1.7	3.3	.87	.39	1.9	2.0
15	2.6	4.1	2.0	1.7	3.0	16	1.7	3.0	1.4	.35	1.5	2.2
16	1.3	4.8	2.0	1.7	2.5	2.2	1.7	3.3	.94	.68	.83	.36
17	.94	24	2.0	1.7	2.2	1.9	1.7	3.7	.87	5.0	1.3	0
18	.93	95	2.0	1.9	2.2	1.7	1.6	3.4	.81	1.8	1.6	0
19	.58	6.1	2.0	2.2	2.1	1.7	1.6	2.8	.90	1.1	1.5	0
20	.85	4.6	11	2.6	2.0	1.7	1.6	3.0	.72	1.4	1.6	0
21	1.0	4.1	2.0	3.4	2.1	50	1.6	3.4	.87	1.0	1.3	0
22	1.4	3.7	1.9	4.0	5.3	6.3	1.5	3.5	1.0	.68	1.1	.53
23	1.0	3.4	1.9	3.2	15	2.9	1.4	3.0	.84	.85	1.1	2.6
24	2.6	3.6	1.9	3.8	53	27	1.4	3.1	.86	1.3	1.5	2.7
25	3.2	3.7	1.9	2.4	17	7.4	1.6	3.9	1.1	.21	.43	2.1
26	2.0	3.6	1.8	2.6	4.1	2.7	1.3	3.3	.98	0	0	.60
27	2.0	3.4	1.8	2.9	2.3	2.2	1.4	2.4	.94	.02	0	.21
28	2.6	4.0	1.8	7.3	1.8	2.2	1.8	2.4	.67	.01	0	.45
29	3.3	3.8	1.8	4.7	---	2.1	1.7	2.7	.89	0	0	.07
30	1.8	3.4	1.9	4.3	---	2.0	1.9	2.6	1.0	0	0	.05
31	1.8	---	2.0	3.9	---	2.1	---	2.4	---	0	0	---
TOTAL	105.80	201.79	218.6	309.0	246.3	179.3	59.9	76.1	45.36	25.64	15.66	30.70
MEAN	3.41	6.73	7.05	9.97	8.80	5.78	2.00	2.45	1.51	.83	.51	1.02
MAX	19	95	74	113	53	50	7.6	3.9	3.1	5.0	1.9	2.7
MIN	.58	.99	1.8	1.5	1.8	1.3	1.3	1.1	.67	0	0	0
AC-FT	210	400	434	613	489	356	119	151	90	51	31	61

CAL YR 1986 TOTAL 4598.05 MEAN 12.6 MAX 556 MIN .16 AC-FT 9120
WTR YR 1987 TOTAL 1514.15 MEAN 4.15 MAX 113 MIN 0 AC-FT 3000

SAN JUAN CREEK BASIN

11047300 ARROYO TRABUCO AT SAN JUAN CAPISTRANO, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-78, December 1983 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1970 to September 1977, December 1983 to September 1984.

SUSPENDED-SEDIMENT DISCHARGE: October 1970 to September 1977, December 1983 to September 1984.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						
10...	0930	26	19.5	1310	92	--
10...	1315	22	20.0	1090	65	--
NOV						
17...	1200	8.9	18.5	454	11	--
17...	1630	17	18.5	421	19	--
18...	1205	19	19.5	710	36	--
18...	1415	15	18.5	505	20	--
DEC						
06...	1230	327	15.5	14500	12800	--
06...	1330	266	16.0	9580	6880	--
06...	1500	173	16.0	6010	2810	--
07...	1330	22	16.0	622	37	--
07...	1700	63	15.0	7530	1280	--
08...	1100	6.8	17.0	134	2.5	--
JAN						
04...	1130	14	13.5	5420	205	--
04...	1230	95	13.5	7760	1990	--
05...	0930	67	13.5	1930	349	--
05...	1400	26	13.5	589	41	--
05...	1630	18	13.0	476	23	--
06...	1530	4.8	13.0	95	1.2	--
06...	1700	9.8	13.0	379	10	--
07...	1130	14	13.5	563	21	--
07...	1500	8.2	14.0	292	6.5	--
08...	1215	2.3	14.5	29	0.18	--
FEB						
10...	1245	19	15.5	422	22	--
10...	1730	9.8	15.0	183	4.8	--
11...	1145	3.4	15.5	350	3.2	--
13...	1715	13	14.5	737	26	--
14...	1000	13	15.0	309	11	--
14...	1100	12	15.0	248	8.0	--
16...	1330	2.8	17.5	193	1.5	--
16...	1730	2.8	16.5	50	0.38	--
23...	1600	46	13.5	3180	395	--
24...	1100	38	11.5	1530	157	--
24...	1130	33	14.0	1360	121	--
24...	1215	16	14.0	1220	53	--
24...	1530	122	11.5	9690	3190	--
24...	1800	112	10.5	3990	1210	--
26...	1830	4.0	12.0	23	0.25	--
MAR						
06...	1200	28	14.5	1010	76	--
06...	1350	24	16.5	582	38	88
06...	1400	22	15.0	570	34	--
07...	1500	3.4	21.5	37	0.34	--
21...	1430	87	14.0	3040	714	--

ALISO CREEK BASIN

11047700 ALISO CREEK AT SOUTH LAGUNA, CA

LOCATION.--Lat 33°30'43", long 117°44'49", in NE 1/4 NE 1/4 sec.6, T.8 S., R.8 W., Orange County, Hydrologic Unit 18070301, on right bank 0.35 mi upstream from Pacific Coast Highway.

DRAINAGE AREA.--34.4 mi².

PERIOD OF RECORD.--October 1982 to September 1987 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 20 to Dec. 4, Jan. 9-13, 19-22, Feb. 15-22, Mar. 26 to Apr. 2. Records poor. Most runoff is storm produced. Low flows affected by sewage-treatment plant outfalls 1.0 and 5.0 mi upstream. About half of the drainage area is residential and commercial development.

AVERAGE DISCHARGE.--5 years, 16.8 ft³/s, 12,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,400 ft³/s, Mar. 1, 1983, gage height, 11.30 ft; minimum daily, 1.5 ft³/s, Nov. 4, 5, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s, revised, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 18	0145	*1,840	*7.18	Mar. 21	1545	944	5.98
Jan. 4	1745	1,440	6.64	Mar. 24	2030	676	5.60
Feb. 24	1530	721	5.67				

Minimum daily, 1.7 ft³/s, Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	3.0	5.0	7.8	10	4.5	5.0	5.4	4.4	4.7	3.8	3.6
2	3.8	2.7	5.5	8.5	11	5.1	6.0	5.3	3.9	4.5	3.3	3.4
3	3.2	2.9	6.0	7.6	9.9	4.8	12	5.0	3.9	5.3	3.8	3.5
4	3.0	3.1	5.8	375	11	5.2	8.4	5.0	4.2	5.1	5.6	3.7
5	2.7	3.4	5.7	101	9.6	6.6	5.0	5.5	4.4	4.3	6.9	2.7
6	2.9	3.6	95	41	9.0	117	4.8	5.5	4.6	4.8	4.6	2.6
7	3.3	3.5	76	47	9.0	30	4.8	5.9	3.9	5.6	4.9	3.6
8	3.4	3.4	19	8.5	9.0	4.7	4.4	5.5	4.2	6.0	4.1	3.4
9	3.6	3.5	8.3	8.2	10	4.2	4.5	5.7	3.9	5.4	3.9	2.8
10	51	3.4	5.7	8.0	55	3.9	3.9	5.5	4.2	5.5	4.3	2.5
11	9.7	3.9	5.3	7.8	11	4.2	4.6	5.5	4.2	5.7	4.3	2.7
12	4.3	4.2	6.2	7.8	9.4	4.4	4.5	5.8	3.9	4.5	3.8	3.0
13	2.3	4.4	5.9	7.7	83	4.3	4.6	6.0	3.5	4.8	5.4	4.2
14	1.8	4.6	6.0	7.7	35	5.1	4.9	6.1	3.4	5.7	8.4	3.7
15	1.7	4.8	6.3	8.3	15	17	4.4	6.0	3.1	6.2	7.0	2.3
16	1.9	4.9	6.5	7.0	6.0	6.1	4.5	6.3	3.2	6.3	4.7	2.5
17	1.8	25	6.1	8.2	5.0	5.1	5.3	5.8	2.7	15	4.5	2.5
18	1.9	277	6.4	8.2	4.5	5.4	5.0	5.2	3.3	8.7	4.7	1.9
19	1.9	10	7.4	8.2	4.5	5.8	5.3	5.3	3.4	5.5	4.5	4.0
20	2.1	6.0	44	8.5	4.5	5.6	4.3	5.8	3.5	5.6	4.7	2.7
21	2.0	5.5	8.4	8.8	5.0	152	4.5	5.5	3.3	5.7	4.3	3.8
22	2.0	5.0	7.2	9.0	6.0	45	4.5	5.8	3.6	4.7	3.9	2.3
23	2.0	4.5	7.3	9.2	15	9.2	4.3	5.1	4.0	4.6	3.2	2.6
24	2.0	4.8	7.9	10	167	102	4.8	4.4	4.7	4.4	3.6	2.7
25	2.2	4.8	6.8	11	68	42	5.2	4.2	4.2	5.2	4.0	3.8
26	2.3	4.5	7.2	12	12	7.0	5.1	4.9	4.0	4.6	4.0	2.8
27	2.3	4.5	6.5	12	5.0	6.0	5.3	4.5	4.2	5.2	4.3	2.5
28	2.9	5.0	6.9	15	4.6	5.0	5.1	4.7	3.7	5.4	4.5	2.3
29	3.0	5.0	7.3	12	---	4.5	5.5	4.8	4.1	4.9	4.4	2.2
30	3.2	4.8	7.2	9.7	---	4.5	5.3	4.8	4.2	5.8	5.2	2.0
31	3.2	---	7.2	9.2	---	4.5	---	4.3	---	4.9	3.8	---
TOTAL	136.9	425.7	412.0	809.9	604.0	630.7	155.8	165.1	115.8	174.6	142.4	88.3
MEAN	4.42	14.2	13.3	26.1	21.6	20.3	5.19	5.33	3.86	5.63	4.59	2.94
MAX	51	277	95	375	167	152	12	6.3	4.7	15	8.4	4.2
MIN	1.7	2.7	5.0	7.0	4.5	3.9	3.9	4.2	2.7	4.3	3.2	1.9
AC-FT	272	844	817	1610	1200	1250	309	327	230	346	282	175

CAL YR 1986	TOTAL	6213.9	MEAN 17.0	MAX 790	MIN 1.7	AC-FT 12330
WTR YR 1987	TOTAL	3861.2	MEAN 10.6	MAX 375	MIN 1.7	AC-FT 7660

WATER-QUALITY RECORDS

[illegible]

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY
(NOT PREVIOUSLY PUBLISHED)

[illegible]

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO MARCH 1985
ONCE-DAILY
(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---						
2	---		---									
3	---	21.0	15.0	---	---	---						
4	23.0	21.5	---	---	---	---						
5	23.5	20.5	---	---	---	---						
6	26.0	---		---	---	---						
7	---		15.5	---	---	---						
8	---	18.0	---	---	---	---						
9	24.0	18.0	---	16.0	---	---						
10	---	---	---	---	---	---						
11	---	---	---	---	---	---						
12	---		---		14.5	---						
13	---	16.5	---	22.0	---	---						
14	---	---	---	---	---	---						
15	22.5	---	---	---	---	---						
16	---	---	---	---	---	24.5						
17	---	---	---	---	---	---						
18	16.0	---	13.0	---	---	---						
19	---	---	14.0	---	---	---						
20	---	---	14.0	---	---	---						
21	---	---	---	---	---	---						
22	---		---	---		---						
23	---	---	---	---	---	---						
24	14.0	---	---	---	---	---						
25	15.0	---	---	---	---	---						
26	15.0	---	---	---	---	---						
27	---	---	---	---	---	---						
28	---	---	---	---	---	---						
29	---	---	---	---	---	---						
30	---	---	---	---	---	---						
31	---	---	---	---	---	---						

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
(NOT PREVIOUSLY PUBLISHED)

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	17	46	2.1	20	31	1.7	37	145	14
2	17	46	2.1	18	39	1.9	21	54	3.1
3	17	45	2.1	22	43	2.6	18	35	1.7
4	17	44	2.0	24	31	2.0	17	26	1.2
5	17	43	2.0	22	42	2.5	17	22	1.0
6	18	42	2.0	21	41	2.3	16	22	.95
7	19	41	2.1	20	40	2.2	15	24	.97
8	21	59	3.3	20	36	1.9	17	25	1.1
9	23	108	6.7	340	1310	2680	18	29	1.4
10	25	33	2.2	541	2290	5330	18	32	1.6
11	27	37	2.7	53	468	96	17	29	1.3
12	27	36	2.6	21	50	2.8	15	25	1.0
13	23	37	2.3	20	45	2.4	15	15	.61
14	24	38	2.5	19	39	2.0	14	14	.53
15	22	32	1.9	19	34	1.7	15	20	.81
16	20	26	1.4	20	30	1.6	14	15	.57
17	19	32	1.6	20	25	1.4	15	15	.61
18	19	33	1.7	19	23	1.2	16	15	.65
19	19	34	1.7	73	113	28	16	14	.60
20	20	40	2.2	19	27	1.4	16	14	.60
21	25	35	2.4	18	20	.97	15	13	.53
22	24	37	2.4	18	19	.92	302	1260	2530
23	24	32	2.1	17	18	.83	196	923	1460
24	23	31	1.9	17	20	.92	17	30	1.4
25	22	30	1.8	18	21	1.0	15	27	1.1
26	33	51	4.9	18	21	1.0	16	32	1.4
27	21	32	1.8	19	22	1.1	15	33	1.3
28	20	26	1.4	20	22	1.2	18	31	1.5
29	22	34	2.0	46	63	12	18	29	1.4
30	22	38	2.3	1240	3550	21100	18	49	2.4
31	25	39	2.6	---	---	---	18	40	1.9
TOTAL	672	---	72.8	2762	---	29285.54	995	---	4037.23
JANUARY				FEBRUARY			MARCH		
1	18	31	1.5	32	68	5.9	4140	7580	233000
2	20	21	1.1	202	898	1080	3100	7610	80600
3	20	14	.76	69	264	79	2070	4590	43300
4	20	20	1.1	34	114	11	100	1300	350
5	20	19	1.0	54	292	91	80	1900	410
6	19	14	.72	45	297	49	105	1500	420
7	20	21	1.1	60	115	29	64	600	100
8	19	23	1.2	145	950	687	60	700	110
9	20	24	1.3	33	150	13	54	1000	150
10	19	26	1.3	30	150	12	50	1900	260
11	21	27	1.5	34	116	11	47	1000	127
12	26	34	2.4	33	111	9.9	45	920	112
13	29	37	2.9	40	106	12	47	830	105
14	27	40	2.9	29	94	7.4	94	838	296
15	22	37	2.2	29	94	7.4	44	575	68
16	24	30	1.9	29	87	6.8	41	520	58
17	24	22	1.4	30	65	5.3	197	1110	959
18	21	19	1.1	30	55	4.5	659	2640	5830
19	49	69	11	28	54	4.1	335	2760	3750
20	20	40	2.2	29	55	4.3	50	1800	243
21	19	46	2.4	30	57	4.6	310	2300	3630
22	20	52	2.9	31	58	4.9	138	1060	795
23	409	1570	4910	35	56	5.3	128	2400	893
24	145	805	852	135	844	720	608	4250	10500
25	41	295	54	39	740	78	74	1220	244
26	21	50	2.8	588	2050	12000	64	890	154
27	1200	3150	22200	1150	3180	31200	53	590	84
28	72	451	133	470	1880	4320	52	691	99
29	640	2150	8140	---	---	---	42	900	102
30	66	155	28	---	---	---	40	950	103
31	50	110	16	---	---	---	34	910	84
TOTAL	3141	---	36381.68	3493	---	50462.4	12925	---	386936

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
(NOT PREVIOUSLY PUBLISHED)

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	35	975	92	259	2390	2130	28	508	38
2	35	980	93	42	1850	220	28	538	41
3	33	995	89	38	1880	198	27	560	41
4	34	720	66	35	1950	190	27	590	43
5	36	420	41	32	1790	159	28	595	45
6	33	480	43	32	1350	120	28	640	48
7	35	495	47	30	370	31	27	670	49
8	35	560	53	31	370	32	27	698	51
9	35	595	56	35	400	39	28	720	54
10	35	640	60	33	375	34	29	728	57
11	36	575	56	31	500	45	28	720	54
12	35	675	64	35	400	38	29	720	56
13	32	648	56	37	384	38	28	710	54
14	32	650	56	36	372	36	28	700	53
15	32	650	56	36	370	36	28	704	53
16	31	650	54	31	388	32	29	702	55
17	41	710	88	28	372	28	29	710	56
18	227	1600	1670	29	435	34	29	710	56
19	40	867	95	29	430	34	30	712	58
20	602	3490	7260	30	456	37	29	705	55
21	130	1860	904	32	445	38	28	694	52
22	44	1010	112	36	458	45	29	690	54
23	45	800	89	33	340	30	29	738	58
24	44	840	91	29	338	26	31	796	67
25	38	795	75	29	378	30	30	780	63
26	36	910	81	29	360	28	30	735	60
27	36	920	79	29	400	31	29	658	52
28	41	974	112	28	415	31	30	645	52
29	629	3730	8530	28	436	33	30	655	53
30	199	2790	1790	28	468	35	30	642	52
31	---	---	---	28	480	36	---	---	---
TOTAL	2696	---	21958	1218	---	3874	860	---	1580
JULY			AUGUST			SEPTEMBER			
1	30	661	54	30	506	41	30	528	43
2	31	622	52	31	502	42	31	456	38
3	31	620	52	31	536	45	31	355	30
4	30	608	49	32	558	48	31	365	31
5	30	616	50	31	595	50	29	370	29
6	31	600	50	33	637	57	29	352	28
7	32	595	51	31	630	53	30	372	30
8	30	590	48	32	630	54	29	352	27
9	30	592	48	33	712	63	29	358	27
10	31	592	50	36	1280	124	28	360	27
11	31	595	50	49	1280	169	28	492	36
12	32	595	51	55	1290	192	27	520	38
13	31	600	50	58	1450	227	28	522	39
14	30	593	48	60	1830	296	29	563	44
15	32	599	52	131	2350	874	29	608	48
16	30	598	48	75	2040	444	29	468	35
17	31	604	51	47	916	162	29	420	32
18	30	592	48	29	750	59	28	338	25
19	29	580	46	35	815	77	28	290	20
20	30	598	48	28	730	55	44	512	75
21	30	615	50	28	720	54	37	393	42
22	29	630	49	29	810	63	30	344	24
23	30	608	49	29	825	65	29	360	24
24	28	592	45	29	775	61	29	278	19
25	28	595	45	29	750	59	29	150	9.7
26	28	588	44	29	760	60	29	220	14
27	28	575	43	29	670	52	28	368	22
28	27	560	41	28	624	47	29	358	21
29	29	502	39	28	575	43	60	729	126
30	28	514	39	29	586	46	349	2020	2680
31	27	---	---	30	608	49	---	---	---
TOTAL	924	---	1440	1204	---	3731	1245	---	3683.7
YEAR	32135.0		543442.4						

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
(NOT PREVIOUSLY PUBLISHED)

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER			DECEMBER		
1	1170	3600	32800	34	180	17	28	350	26
2	51	570	78	39	205	25	21	250	14
3	36	520	51	28	145	11	133	715	668
4	37	410	41	28	145	11	27	240	17
5	57	415	78	28	145	11	18	140	6.8
6	35	240	23	28	130	9.8	18	140	6.8
7	48	340	44	28	135	10	19	150	7.7
8	34	220	20	28	150	11	19	150	7.7
9	33	225	20	29	160	13	47	360	98
10	31	240	20	31	180	15	25	220	15
11	33	230	20	96	427	367	20	150	8.1
12	34	190	17	402	1370	2140	27	150	11
13	36	160	16	37	420	42	29	150	12
14	35	160	15	24	180	12	25	110	7.4
15	33	160	14	23	150	9.3	25	105	7.1
16	33	150	13	23	115	7.1	25	105	7.1
17	33	140	12	22	110	6.5	24	105	6.8
18	33	135	12	27	310	25	24	105	6.8
19	35	135	13	22	100	5.9	28	130	9.8
20	33	130	12	178	1110	1060	34	250	23
21	31	130	11	298	600	483	33	200	18
22	33	125	11	21	440	25	33	170	15
23	32	125	11	20	420	23	33	150	13
24	33	120	11	347	1270	5850	255	775	1860
25	35	120	11	298	1010	2690	443	1430	2500
26	36	125	12	25	260	18	75	390	79
27	35	120	11	24	210	14	100	525	198
28	33	110	9.8	22	240	14	30	350	28
29	34	130	12	21	260	15	26	220	15
30	34	115	11	20	280	15	26	220	15
31	34	150	14	---	---	---	27	180	13
TOTAL	2240	---	33443.8	2251	---	12955.6	1697	---	5720.1
JANUARY				FEBRUARY			MARCH		
1	27	200	15	27	100	7.3	26	240	17
2	27	190	14	27	110	8.0	26	230	16
3	25	190	13	28	110	8.3	25	235	16
4	25	200	13	30	110	8.9	25	220	15
5	23	200	12	35	110	10	25	220	15
6	23	220	14	35	105	9.9	27	205	15
7	23	250	16	34	105	9.6	25	250	17
8	22	220	13	35	105	9.9	25	200	13
9	23	210	13	33	110	9.8	26	210	15
10	21	200	11	31	110	9.2	25	250	17
11	23	200	12	28	110	8.3	23	290	18
12	25	230	16	28	120	9.1	25	205	14
13	28	210	16	28	120	9.1	25	210	14
14	27	185	13	28	120	9.1	50	1150	255
15	27	175	13	28	140	11	23	300	19
16	46	342	63	28	140	11	22	240	14
17	30	215	17	28	140	11	23	240	15
18	26	190	13	28	150	11	27	210	15
19	27	230	17	26	160	11	26	225	16
20	27	230	17	27	160	12	28	205	15
21	29	230	18	27	160	12	29	195	15
22	28	230	17	27	180	13	28	185	14
23	30	220	18	25	180	12	26	195	14
24	32	210	18	26	180	13	25	240	16
25	32	200	17	27	200	15	26	225	16
26	33	220	20	25	200	13	29	215	17
27	37	240	24	26	200	14	29	160	13
28	39	240	25	26	220	15	32	180	16
29	42	240	27	27	220	16	30	140	11
30	34	200	18	---	---	---	34	105	---
31	27	100	7.3	---	---	---	32	125	11
TOTAL	888	---	540.3	828	---	316.5	847	---	703.6

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
(NOT PREVIOUSLY PUBLISHED)

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	31	140	12	25	120	8.1	30	350	28
2	31	130	11	23	120	7.5	31	370	31
3	28	130	9.8	24	100	6.5	31	370	31
4	35	140	13	25	100	6.8	30	370	30
5	33	140	12	27	90	6.6	30	370	30
6	64	300	66	27	90	6.6	31	340	28
7	30	150	12	27	210	15	34	355	40
8	29	135	11	26	170	12	25	240	16
9	26	120	8.4	29	130	10	25	235	16
10	24	140	9.1	30	130	11	26	230	16
11	23	180	11	31	150	13	26	225	16
12	23	185	11	32	170	15	26	185	13
13	23	225	14	35	190	18	26	185	13
14	23	230	14	34	210	19	27	185	13
15	25	150	10	33	195	17	27	175	13
16	24	115	7.5	30	195	16	26	175	12
17	25	125	8.4	29	195	15	26	170	12
18	28	135	10	33	195	17	24	175	11
19	109	662	376	31	220	18	24	160	10
20	23	350	22	31	290	24	24	145	9.4
21	22	320	19	31	390	33	26	125	8.8
22	23	260	16	31	430	36	27	125	9.1
23	22	150	8.9	30	460	37	29	150	12
24	23	110	6.8	30	440	36	29	150	12
25	23	100	6.2	30	440	36	29	195	15
26	22	90	5.3	30	400	32	27	150	11
27	58	255	80	29	400	31	27	150	11
28	32	250	22	27	290	21	28	150	11
29	28	190	14	28	250	19	26	140	9.8
30	25	140	9.5	27	250	18	24	130	8.4
31	---	---	---	30	320	26	---	---	---
TOTAL	935	---	835.9	905	---	587.1	821	---	496.5
JULY			AUGUST			SEPTEMBER			
1	24	120	7.8	26	290	20	25	295	20
2	24	120	7.8	28	300	23	24	295	19
3	22	120	7.1	27	290	21	24	295	19
4	23	125	7.8	28	290	22	24	290	19
5	23	130	8.1	27	290	21	26	290	20
6	25	120	8.1	27	290	21	28	290	22
7	24	120	7.8	29	290	23	28	290	22
8	27	125	9.1	29	290	23	27	290	21
9	23	175	11	28	290	22	27	290	21
10	25	150	10	30	300	24	29	290	23
11	25	150	10	30	300	24	41	435	57
12	25	185	12	29	290	23	27	400	29
13	24	235	15	27	290	21	24	400	26
14	25	245	17	31	300	25	24	400	26
15	23	255	16	72	360	85	26	400	28
16	24	280	18	25	310	21	25	400	27
17	26	320	22	25	300	20	25	400	27
18	26	335	24	25	295	20	24	400	26
19	25	350	24	25	295	20	26	400	28
20	25	400	27	26	295	21	28	400	30
21	25	425	29	26	295	21	28	350	26
22	26	450	32	26	295	21	29	350	27
23	26	295	21	25	290	20	25	350	24
24	25	280	19	27	300	22	25	350	24
25	26	290	20	27	300	22	23	350	22
26	26	290	20	25	295	20	26	350	25
27	26	290	20	25	295	20	24	300	19
28	26	290	20	26	295	21	23	250	15
29	26	290	20	26	295	21	24	220	14
30	25	280	19	26	295	21	25	200	14
31	25	280	19	24	295	19	---	---	---
TOTAL	770	---	508.6	877	---	728	784	---	720
YEAR	13843		57556.0						

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO APRIL 1985
(NOT PREVIOUSLY PUBLISHED)

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	27	200	15	21	200	11	15	110	4.5
2	26	200	14	23	200	12	15	100	4.1
3	26	200	14	22	180	11	31	153	14
4	28	250	19	22	175	10	18	130	6.3
5	26	220	15	22	180	11	15	110	4.5
6	27	190	14	22	180	11	14	100	3.8
7	29	200	16	32	240	22	15	100	4.1
8	28	200	15	36	219	22	254	820	1300
9	26	180	13	20	185	10	25	280	19
10	25	200	13	19	180	9.2	22	250	15
11	27	200	15	19	160	8.2	23	240	15
12	26	200	14	19	150	7.7	19	230	12
13	27	200	15	161	1170	1100	18	220	11
14	28	200	15	22	360	21	18	200	9.7
15	24	200	13	18	250	12	21	190	11
16	24	200	13	19	240	12	137	981	522
17	44	300	41	17	230	11	26	370	26
18	24	250	16	17	220	10	371	870	1730
19	23	230	14	16	200	8.6	781	2050	5870
20	25	210	14	16	200	8.6	131	512	244
21	26	200	14	22	250	15	42	280	32
22	25	200	13	16	150	6.5	40	260	28
23	24	200	13	16	130	5.6	38	240	25
24	26	200	14	459	1090	1350	37	220	22
25	27	200	15	100	539	397	35	210	20
26	26	200	14	18	250	12	190	490	600
27	28	200	15	17	200	9.2	883	1800	6570
28	26	200	14	17	150	6.9	136	520	191
29	24	200	13	15	130	5.3	45	182	22
30	23	200	12	15	120	4.9	41	150	17
31	22	200	12	---	---	---	38	130	13
TOTAL	817	---	467	1258	---	3140.7	3494	---	17366.0
JANUARY			FEBRUARY			MARCH			
1	36	125	12	27	180	13	34	45	4.1
2	34	120	11	229	776	1050	46	70	8.7
3	30	159	13	32	310	27	39	69	7.3
4	27	150	11	41	300	33	31	45	3.8
5	32	140	12	43	250	29	34	40	3.7
6	32	130	11	35	200	19	37	35	3.5
7	44	230	30	29	200	16	42	30	3.4
8	95	380	140	33	200	18	46	24	3.0
9	42	200	23	771	1680	6480	43	25	2.9
10	42	180	20	46	450	56	42	40	4.5
11	40	170	18	39	280	29	32	35	3.0
12	42	160	18	35	190	18	27	29	2.1
13	45	150	18	30	146	12	29	30	2.3
14	46	160	20	33	130	12	30	30	2.4
15	44	170	20	34	120	11	37	40	4.0
16	39	160	17	35	100	9.5	42	30	3.4
17	37	150	15	36	90	8.7	41	25	2.8
18	37	140	14	38	80	8.2	89	142	59
19	39	130	14	40	80	8.6	32	130	11
20	39	120	13	36	70	6.8	28	80	6.0
21	39	120	13	49	100	13	30	70	5.7
22	40	120	13	52	90	13	30	60	4.9
23	37	120	12	42	80	9.1	31	50	4.2
24	39	120	13	35	70	6.6	32	45	3.9
25	39	120	13	39	60	6.3	34	40	3.7
26	39	120	13	49	50	6.6	35	35	3.3
27	39	120	13	55	40	5.9	114	193	82
28	135	420	350	52	50	7.0	49	110	15
29	58	360	56	---	---	---	30	55	4.5
30	34	220	20	---	---	---	26	45	3.2
31	31	200	17	---	---	---	26	40	2.8
TOTAL	1352	---	983	2015	---	7932.3	1218	---	274.1

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO APRIL 1985
(NOT PREVIOUSLY PUBLISHED)

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			
1	28	50	3.8
2	33	45	4.0
3	36	40	3.9
4	35	50	4.7
5	32	45	3.9
6	32	40	3.5
7	30	40	3.2
8	38	50	5.1
9	41	50	5.5
10	47	50	6.3
11	43	50	5.8
12	37	40	4.0
13	36	40	3.9
14	35	40	3.8
15	33	40	3.6
16	29	42	3.3
17	26	40	2.8
18	34	50	4.6
19	30	40	3.2
20	31	40	3.3
21	30	40	3.2
22	31	35	2.9
23	32	35	3.0
24	36	35	3.4
25	39	40	4.2
26	38	40	4.1
27	33	35	3.1
28	33	35	3.1
29	33	40	3.6
30	30	40	3.2
31	---	---	---
TOTAL	1021	---	116.0
PERIOD	11175		30279.1

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
01...	1535	22.0	23	46	2.8	--	--	--
20...	1440	20.5	23	47	2.9	--	--	--
NOV								
09...	1615	13.0	1220	3660	12100	--	62	65
10...	1420	14.5	460	1040	1290	--	--	--
30...	1315	15.5	1180	4050	12900	--	68	73
30...	1520	15.0	640	2600	4490	--	--	--
DEC								
03...	1105	12.5	17	68	3.1	--	--	--
JAN								
04...	1400	16.5	19	15	0.77	--	--	--
19...	1225	17.0	66	96	17	--	--	--
27...	1630	14.5	1230	3770	12500	--	60	64
FEB								
04...	1400	18.0	29	94	7.4	--	--	--
26...	1420	15.0	1100	5020	14900	--	60	65
27...	1530	14.5	5100	9960	137000	--	--	--
MAR								
02...	1415	15.5	5810	9860	155000	--	41	42
02...	1745	--	6540	9040	160000	--	--	--
03...	1625	16.0	770	2540	5280	--	--	--
08...	1245	23.0	100	760	205	28	30	33
18...	1200	16.5	600	1450	2350	--	--	--
19...	1015	--	116	2370	742	--	--	--
21...	1200	17.0	230	1430	888	--	--	--
APR								
29...	1725	21.5	80	2820	609	--	--	--
JUN								
09...	1510	27.5	28	733	55	52	61	67
JUL								
01...	1535	29.0	30	997	81	--	--	--
29...	1535	32.0	24	514	33	--	--	--
AUG								
01...	1420	32.5	27	422	31	--	--	--
06...	1330	--	40	710	77	--	--	--
12...	1400	29.0	67	1280	232	--	--	--
SEP								
08...	0950	21.0	30	345	28	--	--	--
28...	1245	22.5	86	948	220	--	--	--
30...	1340	20.0	488	2660	3500	65	74	85

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
(NOT PREVIOUSLY PUBLISHED)

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT							
01...	--	--	86	--	--	--	--
20...	--	--	95	98	100	--	--
NOV							
09...	77	88	94	97	100	--	--
10...	--	--	99	--	--	--	--
30...	85	95	99	100	--	--	--
30...	--	--	98	--	--	--	--
DEC							
03...	--	--	89	--	--	--	--
JAN							
04...	--	--	95	--	--	--	--
19...	--	--	99	--	--	--	--
27...	73	86	95	100	--	--	--
FEB							
04...	--	--	86	--	--	--	--
26...	77	87	95	99	100	--	--
27...	--	--	80	--	--	--	--
MAR							
02...	52	60	72	88	98	100	--
02...	--	--	49	--	--	--	--
03...	--	--	82	--	--	--	--
08...	35	38	41	51	84	97	100
18...	--	--	88	--	--	--	--
19...	--	--	65	--	--	--	--
21...	--	--	81	--	--	--	--
APR							
29...	--	--	32	--	--	--	--
JUN							
09...	75	79	82	91	98	100	--
JUL							
01...	--	--	91	--	--	--	--
29...	--	--	73	--	--	--	--
AUG							
01...	--	--	83	--	--	--	--
06...	--	--	92	--	--	--	--
12...	--	--	46	--	--	--	--
SEP							
08...	--	--	78	--	--	--	--
28...	--	--	97	--	--	--	--
30...	94	98	99	100	--	--	--

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
OCT								
05...	1325	25.5	39	280	29	--	--	--
05...	1515	25.5	37	291	29	--	--	--
NOV								
10...	1155	21.0	32	197	17	71	79	86
DEC								
05...	1535	17.0	18	132	6.4	--	--	--
JAN								
05...	1430	17.5	24	163	11	--	--	--
16...	1640	--	69	475	88	43	49	55
FEB								
08...	1415	21.5	33	104	9.4	--	--	--
MAR								
13...	1505	23.0	26	209	15	--	--	--
14...	1905	19.0	43	1540	179	--	65	77
APR								
06...	0945	17.5	110	524	156	60	69	76
12...	1425	28.0	24	156	10	--	--	--
19...	1325	23.0	52	548	77	58	67	76
MAY								
10...	1320	27.0	33	128	11	--	--	--
JUN								
12...	1020	20.0	30	183	15	--	--	--
JUL								
12...	1500	33.0	24	107	6.8	--	--	--
AUG								
15...	1550	30.0	86	336	78	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
OCT							
05...	--	--	89	--	--	--	--
05...	--	--	89	--	--	--	--
NOV							
10...	89	90	92	95	100	--	--
DEC							
05...	--	--	65	--	--	--	--
JAN							
05...	--	--	63	--	--	--	--
16...	61	67	72	79	91	100	--
FEB							
08...	--	--	63	--	--	--	--
MAR							
13...	--	--	70	--	--	--	--
14...	89	96	100	--	--	--	--
APR							
06...	85	89	90	92	96	99	100
12...	--	--	63	--	--	--	--
19...	85	91	94	96	99	100	--
MAY							
10...	--	--	82	94	98	100	--
JUN							
12...	--	--	98	99	100	--	--
JUL							
12...	--	--	97	--	--	--	--
AUG							
15...	--	--	98	--	--	--	--

SAN DIEGO CREEK BASIN

11048555 SAN DIEGO CREEK AT CAMPUS DRIVE, NEAR IRVINE, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO APRIL 1985
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	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	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
NOV												
08...	1140	80	18.0	298	--	--	--	--	--	88	--	--
13...	1345	253	16.0	2610	72	84	92	97	99	99	99	100

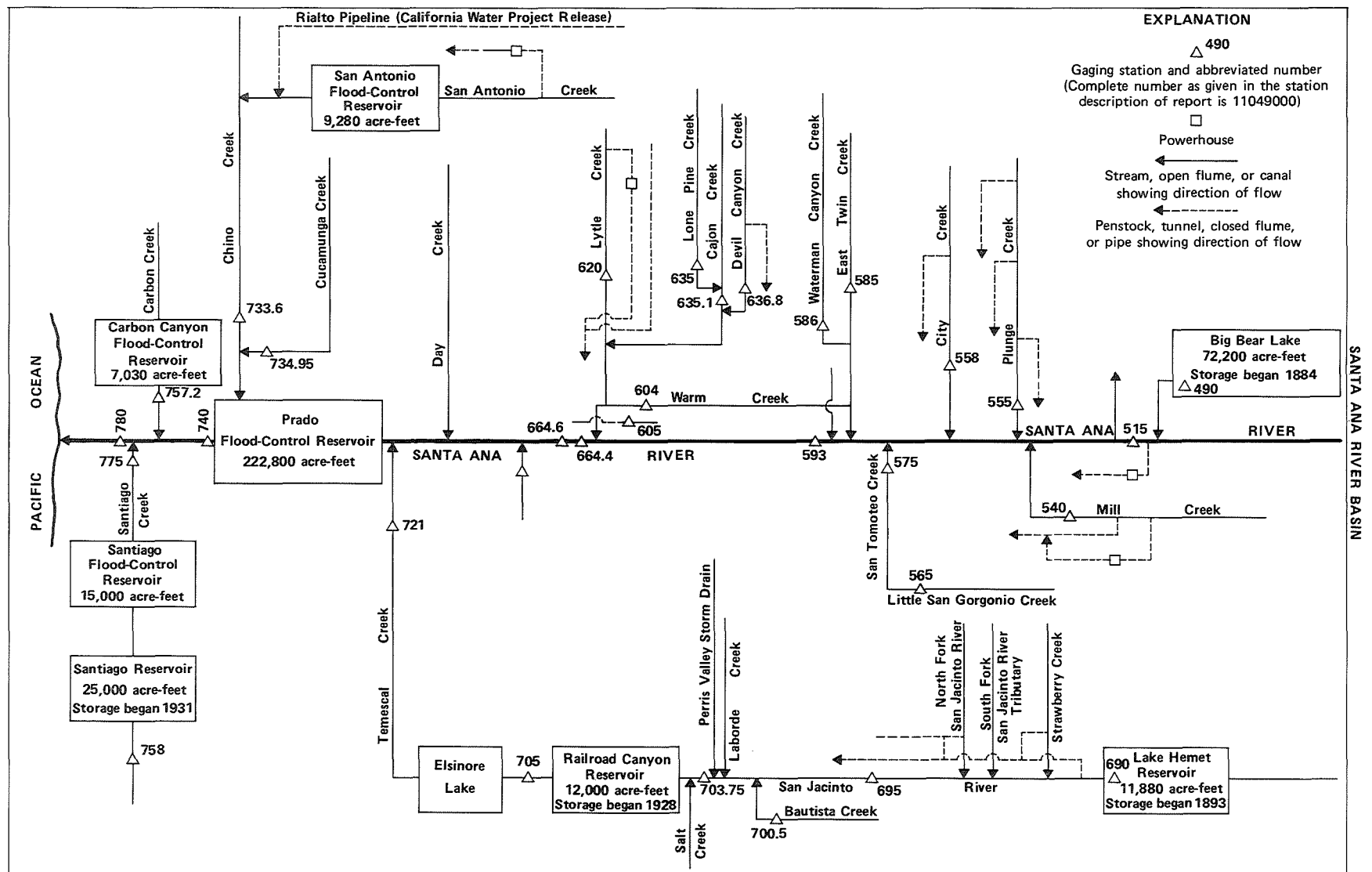


FIGURE 17. — Schematic diagram showing diversions and storage in Santa Ana River basin.

SANTA ANA RIVER BASIN

11049000 BIG BEAR LAKE NEAR BIG BEAR LAKE, CA

LOCATION.--Lat 34°14'33", long 116°58'33", in SW 1/4 sec.22, T.2 N., R.1 W., San Bernardino County, Hydrologic Unit 18070203, at Big Bear Lake Dam on Bear Creek, 4 mi west of town of Big Bear Lake, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--38.9 mi², excludes Baldwin Lake drainage included in reports prior to 1983.

PERIOD OF RECORD.--October 1950 to current year in reports of U.S. Geological Survey. February 1884 to September 1950 in files of Bear Valley Mutual Water Co.

REVISED RECORDS.--WDR CA-83-1: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 6,670.9 ft above National Geodetic Vertical Datum of 1929 (levels by Bear Valley Mutual Water Co.). Prior to 1912 at old dam 200 ft upstream at same datum; spillway at gage height, 52.4 ft.

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 at elevation 6,743.3 ft, top of dam. No dead storage. Water used for irrigation only. See schematic diagram of Santa Ana River basin.

COOPERATION.--Record of contents was provided 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, 1980, 1983; lake dry October, November 1898, August to November 1899, October, November 1904.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 60,230 acre-ft, Apr. 17; minimum contents observed, 53,750 acre-ft, Sept. 30.

MONTHEND CONTENTS, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	59,540	--
Oct. 31.....	58,310	-1,230
Nov. 30.....	57,490	-820
Dec. 31.....	57,360	-130
CAL YR 1986.....	--	+810
Jan. 31.....	57,360	0
Feb. 28.....	55,740	-1,620
Mar. 31.....	59,130	+3,390
Apr. 30.....	60,090	+960
May 31.....	59,270	-820
June 30.....	59,030	-240
July 31.....	56,550	-2,480
Aug. 31.....	54,940	-1,610
Sept. 30.....	53,750	-1,190
WTR YR 1987.....	--	-5,790

SANTA ANA RIVER BASIN

11051500 SANTA ANA RIVER NEAR MENTONE, CA

LOCATION.--Lat 34°06'30", long 117°05'59", in SW 1/4 SW 1/4 sec.4, T.1 S., R.2 W., San Bernardino County, Hydrologic Unit 18070203, on right bank near mouth of canyon, 1.6 mi upstream from Mill Creek, 3.2 mi northeast of Mentone, and 16 mi downstream from Big Bear Lake.

DRAINAGE AREA.--210 mi², 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. Elevation of the main and supplementary gages is 1,950 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 2, 1917, nonrecording gages at several sites within 1.5 mi upstream at various datums. Sept. 3, 1917, to May 27, 1969, water-stage recorder at site 0.2 mi upstream at different datum. Canal gage at different datum.

REMARKS.--Estimated daily discharges: Nov. 18-21. Records good. Flow partly regulated by Big Bear Lake (station 11049000). 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: 73 years (water years 1915-87), 36.5 ft³/s, 26,440 acre-ft/yr.

Combined river and canal: 91 years, 83.4 ft³/s, 60,420 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 52,300 ft³/s, Mar. 2, 1938, gage height, 14.3 ft, site and datum then in use, on basis of slope-area measurement of peak flow; no flow at times in some years.

Combined river and canal: Maximum discharge, 52,300 ft³/s, Mar. 2, 1938; minimum daily, 7.4 ft³/s, Sept. 21, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Combined river and canal: Flood of Feb. 23, 1891, 53,700 ft³/s, from notes furnished by F. C. Finkle, consulting engineer, Los Angeles.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 168 ft³/s, Nov. 18, gage height, 7.26 ft; no flow for many days.

Combined river and canal: Maximum discharge, 171 ft³/s, Nov. 18; minimum daily, 17 ft³/s, for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	0	0	0	1.7	2.8	3.4	.67	.01			
2	.47	0	0	0	1.5	2.8	3.2	.61	0			
3	.19	0	0	0	1.3	2.7	4.4	.55	0			
4	.10	0	0	12	.79	2.7	6.6	.52	0			
5	.04	0	0	48	.64	2.7	4.3	.48	0			
6	.01	0	12	13	.60	50	4.0	.46	0			
7	0	0	20	11	.53	67	3.5	.51	0			
8	0	0	9.8	7.3	.59	40	3.0	.51	0			
9	0	0	.82	4.5	.64	11	2.9	.49	0			
10	0	0	.12	3.4	.73	5.4	2.7	.47	0			
11	0	0	0	2.8	.87	4.6	2.7	.38	0			
12	0	0	0	2.4	.74	4.1	2.6	.33	0			
13	0	0	0	2.2	.81	3.8	2.4	.31	0			
14	0	0	0	2.2	.96	3.7	2.3	.30	0			
15	0	0	0	2.0	.87	11	2.0	.31	0			
16	0	0	0	1.9	.94	9.5	1.9	.27	0			
17	0	0	0	2.7	.87	6.5	1.8	.23	0			
18	0	63	0	3.0	.90	5.0	1.9	.18	0			
19	0	33	0	2.3	.96	6.1	1.8	.17	0			
20	0	5.8	0	.88	.85	6.1	1.7	.17	0			
21	0	.05	0	1.2	.85	6.9	1.6	.15	0			
22	0	0	0	1.3	.87	10	1.2	.09	0			
23	0	0	0	1.2	1.3	9.8	1.0	.08	0			
24	0	0	0	1.3	2.3	7.2	.90	.07	0			
25	0	0	0	1.1	2.5	6.1	.88	.08	0			
26	0	0	0	.95	2.3	5.3	.79	.09	0			
27	0	0	0	.94	2.2	4.8	.74	.08	0			
28	0	0	0	13	2.6	4.5	.68	.05	0			
29	0	0	0	11	---	4.1	.70	.03	0			
30	0	0	0	2.0	---	4.0	.74	.03	0			
31	0	---	0	1.7	---	3.7	---	.01	---			---
TOTAL	1.47	101.85	42.74	157.27	32.71	313.9	68.33	8.68	.01	0	0	0
MEAN	.047	3.40	1.38	5.07	1.17	10.1	2.28	.28	.0003	0	0	0
MAX	.66	63	20	48	2.6	67	6.6	.67	.01	0	0	0
MIN	0	0	0	0	.53	2.7	.68	.01	0	0	0	0
AC-FT	2.9	202	85	312	65	623	136	17	.02	0	0	0

CAL YR 1986 TOTAL 5848.78 MEAN 16.0 MAX 665 MIN 0 AC-FT 11600
WTR YR 1987 TOTAL 726.96 MEAN 1.99 MAX 67 MIN 0 AC-FT 1440

SANTA ANA RIVER BASIN

11051501 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 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	49	36	33	40	42	50	44	30	21	17	17
2	43	50	38	33	39	42	50	43	28	21	17	18
3	40	50	40	33	41	43	60	41	28	20	17	19
4	40	49	40	47	42	43	66	39	28	20	17	19
5	40	48	42	78	41	49	58	37	28	20	20	19
6	40	48	57	54	38	87	58	36	30	20	27	19
7	44	45	63	64	35	72	57	39	27	20	24	19
8	45	45	50	50	34	71	55	40	25	20	22	18
9	46	45	43	44	35	65	55	40	24	20	20	18
10	50	44	39	41	35	58	55	39	25	21	20	18
11	48	42	38	42	36	55	55	39	25	20	20	19
12	47	43	37	41	35	52	54	38	24	19	19	20
13	44	44	37	41	35	51	52	38	24	19	20	21
14	43	42	36	40	36	50	51	40	24	18	22	21
15	43	41	36	39	35	64	50	40	24	18	22	19
16	40	39	35	33	35	58	49	38	24	19	20	19
17	40	41	35	31	34	55	49	36	24	21	19	19
18	37	78	35	36	34	54	48	36	23	21	19	19
19	36	47	35	40	34	59	47	37	25	20	19	18
20	34	45	37	37	34	56	44	37	25	24	18	18
21	36	40	35	35	33	61	45	37	25	26	18	18
22	36	41	34	36	34	67	46	36	24	22	18	18
23	36	39	34	36	36	67	45	35	23	21	18	21
24	36	37	34	35	35	63	44	35	22	20	18	21
25	36	35	34	35	39	60	44	37	22	18	18	20
26	42	34	34	35	38	57	44	41	22	18	18	20
27	43	33	34	35	38	55	45	39	21	18	17	19
28	43	34	33	52	42	55	46	36	21	20	17	19
29	43	34	33	53	---	52	44	35	21	19	17	18
30	47	33	33	45	---	51	45	33	21	18	17	18
31	49	---	33	42	---	50	---	32	---	17	17	---
TOTAL	1288	1295	1180	1296	1023	1764	1511	1173	737	619	592	569
MEAN	41.5	43.2	38.1	41.8	36.5	56.9	50.4	37.8	24.6	20.0	19.1	19.0
MAX	50	78	63	78	42	87	66	44	30	26	27	21
MIN	34	33	33	31	33	42	44	32	21	17	17	17
AC-FT	2550	2570	2340	2570	2030	3500	3000	2330	1460	1230	1170	1130
CAL YR 1986	TOTAL	21729	MEAN 59.5	MAX 666	MIN 30	AC-FT 43100						
WTR YR 1987	TOTAL	13047	MEAN 35.7	MAX 87	MIN 17	AC-FT 25880						

SANTA ANA RIVER BASIN

11051500 SANTA ANA RIVER NEAR MENTONE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982 to current year.

WATER TEMPERATURE: Water years 1982 to current year.

SEDIMENT DATA: Water years 1982 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: January 1982 to current year.

SUSPENDED-SEDIMENT DISCHARGE: January 1982 to current year.

REMARKS.--Sediment-discharge values were estimated for those days that have no daily concentration values.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 10,100 mg/L, Mar. 1, 2, 1983; minimum daily mean, no flow at times in some years.

SEDIMENT LOAD: Maximum daily discharge, 49,300 tons, Mar. 1, 1983; minimum daily, 0 ton many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 426 mg/L, Nov. 18; minimum daily mean, no flow on many days.

SEDIMENT LOAD: Maximum daily, 129 tons, Nov. 18; minimum daily, 0 ton on many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	---	---	---	---	---	---	21.5				
2	18.0	---	---	---	17.0	18.0	16.0	---				
3	23.0	---	---	---	11.5	18.5	15.5	---				
4	---	---	---	---	10.5	18.0	10.5	25.0				
5	---	---	---	6.5	9.5	15.5	19.5	28.5				
6	19.0	---	---	7.0	---	14.0	---	17.5				
7	---	---	---	9.0	---	9.5	---	---				
8	---	---	---	5.5	---	10.5	22.0	---				
9	---	---	---	7.5	16.0	15.5	24.5	---				
10	---	---	---	---	12.0	19.5	24.0	19.0				
11	---	---	---	---	---	---	13.5	18.0				
12	---	---	---	8.0	---	---	15.5	26.0				
13	---	---	---	9.0	---	18.0	---	---				
14	---	---	---	9.0	18.0	16.0	25.5	---				
15	---	---	---	8.5	---	10.0	25.0	---				
16	---	---	---	4.5	15.0	17.0	25.0	---				
17	---	---	---	---	17.5	18.5	---	---				
18	---	---	---	---	17.0	---	15.0	---				
19	---	15.0	---	---	---	---	---	---				
20	---	12.0	---	5.5	11.0	19.0	---	---				
21	---	14.0	---	6.5	---	---	14.0	22.0				
22	---	---	---	5.5	13.0	17.0	26.5	21.5				
23	---	---	---	14.5	---	18.0	---	16.0				
24	---	---	---	15.0	---	15.0	---	20.5				
25	---	---	---	---	12.5	19.0	14.5	19.5				
26	---	---	---	10.0	14.0	---	15.0	18.0				
27	---	---	---	12.5	15.5	---	19.0	---				
28	---	---	---	14.5	9.0	12.0	---	---				
29	---	---	---	10.5	---	11.0	---	---				
30	---	---	---	10.5	---	21.5	---	16.5				
31	---	---	---	---	---	---	---	14.0				
MONTH	---	---	---	---	---	---	---	---				

SANTA ANA RIVER BASIN

11051500 SANTA ANA RIVER NEAR MENTONE, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER				NOVEMBER				DECEMBER	
1	.66	4	.01	.00	0	.00	.00	0	.00
2	.47	4	.01	.00	0	.00	.00	0	.00
3	.19	3	.00	.00	0	.00	.00	0	.00
4	.10	3	.00	.00	0	.00	.00	0	.00
5	.04	2	.00	.00	0	.00	.00	0	.00
6	.01	2	.00	.00	0	.00	12	32	2.9
7	.00	0	.00	.00	0	.00	20	43	2.3
8	.00	0	.00	.00	0	.00	9.8	17	.45
9	.00	0	.00	.00	0	.00	.82	8	.02
10	.00	0	.00	.00	0	.00	.12	7	.00
11	.00	0	.00	.00	0	.00	.00	0	.00
12	.00	0	.00	.00	0	.00	.00	0	.00
13	.00	0	.00	.00	0	.00	.00	0	.00
14	.00	0	.00	.00	0	.00	.00	0	.00
15	.00	0	.00	.00	0	.00	.00	0	.00
16	.00	0	.00	.00	0	.00	.00	0	.00
17	.00	0	.00	.00	0	.00	.00	0	.00
18	.00	0	.00	63	426	129	.00	0	.00
19	.00	0	.00	33	8	.13	.00	0	.00
20	.00	0	.00	5.8	8	.13	.00	0	.00
21	.00	0	.00	.05	1	.00	.00	0	.00
22	.00	0	.00	.00	0	.00	.00	0	.00
23	.00	0	.00	.00	0	.00	.00	0	.00
24	.00	0	.00	.00	0	.00	.00	0	.00
25	.00	0	.00	.00	0	.00	.00	0	.00
26	.00	0	.00	.00	0	.00	.00	0	.00
27	.00	0	.00	.00	0	.00	.00	0	.00
28	.00	0	.00	.00	0	.00	.00	0	.00
29	.00	0	.00	.00	0	.00	.00	0	.00
30	.00	0	.00	.00	0	.00	.00	0	.00
31	.00	0	.00	---	---	---	.00	0	.00
TOTAL	1.47	---	0.02	101.85	---	129.26	42.74	---	5.67
DAY	JANUARY			FEBRUARY			MARCH		
1	.00	0	.00	1.7	2	.01	2.8	2	.02
2	.00	0	.00	1.5	2	.01	2.8	3	.02
3	.00	0	.00	1.3	2	.01	2.7	4	.03
4	12	69	16	.79	1	.00	2.7	2	.01
5	48	161	29	.64	1	.00	2.7	2	.01
6	13	23	.81	.60	2	.00	50	203	27
7	11	88	2.6	.53	2	.00	67	108	20
8	7.3	8	.16	.59	2	.00	40	60	6.5
9	4.5	4	.05	.64	2	.00	11	8	.24
10	3.4	3	.03	.73	2	.00	5.4	4	.06
11	2.8	2	.02	.87	3	.01	4.6	4	.05
12	2.4	1	.01	.74	3	.01	4.1	3	.03
13	2.2	1	.01	.81	3	.01	3.8	3	.03
14	2.2	1	.01	.96	3	.01	3.7	3	.03
15	2.0	1	.01	.87	4	.01	11	94	2.8
16	1.9	1	.01	.94	4	.01	9.5	16	.41
17	2.7	3	.02	.87	3	.01	6.5	6	.11
18	3.0	4	.03	.90	3	.01	5.0	4	.05
19	2.3	3	.02	.96	3	.01	6.1	4	.07
20	.88	3	.01	.85	2	.00	6.1	3	.05
21	1.2	1	.00	.85	2	.00	6.9	5	.09
22	1.3	1	.00	.87	2	.00	10	10	.27
23	1.2	2	.01	1.3	2	.01	9.8	10	.26
24	1.3	1	.00	2.3	3	.02	7.2	5	.10
25	1.1	1	.00	2.5	3	.02	6.1	4	.07
26	.95	1	.00	2.3	3	.02	5.3	3	.04
27	.94	1	.00	2.2	3	.02	4.8	3	.04
28	13	90	3.2	2.6	2	.01	4.5	2	.02
29	11	18	.53	---	---	---	4.1	2	.02
30	2.0	2	.01	---	---	---	4.0	2	.02
31	1.7	2	.01	---	---	---	3.7	2	.02
TOTAL	157.27	---	52.56	32.71	---	0.22	313.9	---	58.47

SANTA ANA RIVER BASIN

11051500 SANTA ANA RIVER NEAR MENTONE, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	3.4	1	.01	.67	1	.00	.01	0	.00
2	3.2	1	.01	.61	1	.00	.00	0	.00
3	4.4	6	.08	.55	1	.00	.00	0	.00
4	6.6	16	.34	.52	2	.00	.00	0	.00
5	4.3	3	.03	.48	2	.00	.00	0	.00
6	4.0	2	.02	.46	3	.00	.00	0	.00
7	3.5	2	.02	.51	2	.00	.00	0	.00
8	3.0	2	.02	.51	2	.00	.00	0	.00
9	2.9	2	.02	.49	2	.00	.00	0	.00
10	2.7	2	.01	.47	2	.00	.00	0	.00
11	2.7	4	.03	.38	2	.00	.00	0	.00
12	2.6	1	.01	.33	2	.00	.00	0	.00
13	2.4	1	.01	.31	4	.00	.00	0	.00
14	2.3	1	.01	.30	4	.00	.00	0	.00
15	2.0	1	.01	.31	4	.00	.00	0	.00
16	1.9	1	.01	.27	5	.00	.00	0	.00
17	1.8	1	.00	.23	5	.00	.00	0	.00
18	1.9	1	.01	.18	5	.00	.00	0	.00
19	1.8	1	.00	.17	5	.00	.00	0	.00
20	1.7	1	.00	.17	5	.00	.00	0	.00
21	1.6	1	.00	.15	5	.00	.00	0	.00
22	1.2	2	.01	.09	5	.00	.00	0	.00
23	1.0	2	.01	.08	5	.00	.00	0	.00
24	.90	2	.00	.07	4	.00	.00	0	.00
25	.88	2	.00	.08	4	.00	.00	0	.00
26	.79	1	.00	.09	4	.00	.00	0	.00
27	.74	1	.00	.08	4	.00	.00	0	.00
28	.68	1	.00	.05	4	.00	.00	0	.00
29	.70	1	.00	.03	4	.00	.00	0	.00
30	.74	1	.00	.03	4	.00	.00	0	.00
31	---	---	---	.01	4	.00	---	---	---
TOTAL	68.33	---	0.67	8.68	---	0.00	0.01	---	0.00
DAY	JULY			AUGUST			SEPTEMBER		
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
TOTAL	0.00	---	0.00	0.00	---	0.00	0.00	---	0.00
YEAR	726.96		246.87						

SANTA ANA RIVER BASIN

11055500 PLUNGE CREEK NEAR EAST HIGHLANDS, CA

LOCATION.--Lat 34°07'06", long 117°08'27", in NE 1/4 NE 1/4 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, 1.8 mi northeast of East Highlands.

DRAINAGE AREA.--16.9 mi².

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. Elevation of creek gage is 1,590 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1969, creek gage at datum 4.00 ft higher. Diversions all at different datums.

REMARKS.--Estimated daily discharges: Oct. 1-6. 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, 1.0, and 2.5 mi 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: 68 years, 6.80 ft³/s, 4,930 acre-ft/yr.

Combined creek and diversions: 36 years, 8.88 ft³/s, 6,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 5,340 ft³/s, Mar. 2, 1938 on basis of slope-area measurement of peak flow; no flow at times in some years.

Combined creek and diversions: Maximum discharge, 4,770 ft³/s, Dec. 6, 1966; no flow Nov. 12, 1964, Sept. 29, 1965, Aug. 4, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Creek only Discharge (ft ³ /s)	Gage height (ft)	Combined creek and diversions Discharge (ft ³ /s)
Jan. 4	2015	*67	*3.79	*69
Creek only: No flow for many days, June through September.				
Combined creek and diversions: No flow Aug. 4.				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	.54	1.2	.81	3.3	4.3	5.5	.32	.05	.02		
2	.75	.59	1.3	.81	3.3	4.3	5.2	.30	.03	.01		
3	1.2	.86	1.3	.74	3.1	4.3	11	.29	.01	0		
4	1.1	.86	1.3	10	3.0	4.0	12	.25	0	0		
5	.58	.85	1.3	19	1.6	4.0	10	.25	.24	0		
6	.67	.87	6.9	8.7	.49	20	9.7	.22	.51	0		
7	.59	.99	11	10	.49	12	7.2	.24	.14	0		
8	.63	1.0	5.3	8.1	.45	8.8	3.9	.30	.17	0		
9	.71	.92	3.9	6.5	.41	7.5	2.0	.29	.06	0		
10	1.0	.88	3.3	5.6	.42	6.2	1.6	.35	.01	0		
11	1.1	.91	3.0	5.1	.47	5.6	1.4	.34	.01	0		
12	1.0	.89	2.8	4.4	.49	5.6	1.3	.28	.01	0		
13	.82	.88	2.8	4.2	.54	5.2	1.1	.24	.01	0		
14	.76	.88	2.6	3.9	.58	4.9	.89	.25	.01	0		
15	.71	.92	2.6	3.8	.62	8.3	.66	.24	.01	0		
16	.71	.95	2.6	3.7	.61	6.4	.65	.25	.01	0		
17	.83	.93	2.6	3.6	.58	6.3	.62	.21	.01	0		
18	1.0	8.8	2.6	3.7	.53	6.1	.68	.20	0	0		
19	1.1	2.4	2.6	2.1	.49	7.8	.63	.18	.01	0		
20	.99	1.6	3.6	1.6	.49	7.2	.59	.24	0	0		
21	.93	1.4	3.0	1.5	.49	8.1	.52	.25	0	0		
22	.93	1.3	2.8	.33	.49	9.7	.49	.21	0	0		
23	.99	1.4	2.8	.29	.59	9.2	.50	.17	.02	0		
24	1.0	1.2	2.8	.29	2.5	8.9	.45	.19	.02	0		
25	.90	1.2	2.8	.29	4.6	8.4	.44	.16	.02	0		
26	.81	1.1	2.9	.31	4.6	8.1	.44	.17	.02	0		
27	.79	1.2	3.1	.35	4.3	8.0	.38	.21	.03	0		
28	.76	1.2	3.2	.53	4.3	7.6	.34	.19	.03	0		
29	1.4	1.2	3.0	2.0	---	7.0	.29	.11	.04	0		
30	1.5	1.2	2.0	3.9	---	6.8	.34	.14	.06	0		
31	1.1	---	.80	3.6	---	6.1	---	.09	---	0		---
TOTAL	27.85	39.92	93.80	119.75	43.83	226.7	80.81	7.13	1.54	.03	0	0
MEAN	.90	1.33	3.03	3.86	1.57	7.31	2.69	.23	.051	.001	0	0
MAX	1.5	8.8	11	19	4.6	20	12	.35	.51	.02	0	0
MIN	.49	.54	.80	.29	.41	4.0	.29	.09	0	0	0	0
AC-FT	55	79	186	238	87	450	160	14	3.1	.06	0	0

CAL YR 1986 TOTAL 2077.63 MEAN 5.69 MAX 270 MIN 0 AC-FT 4120
WTR YR 1987 TOTAL 641.36 MEAN 1.76 MAX 20 MIN 0 AC-FT 1270

SANTA ANA RIVER BASIN

11055501 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 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.5	2.1	1.9	3.3	4.3	5.5	3.3	1.4	.96	.61	.57
2	1.6	1.5	2.2	3.2	3.3	4.3	5.2	3.2	1.3	.92	.65	.56
3	2.0	1.6	2.2	3.0	3.1	4.3	11	2.8	1.2	.86	.37	.50
4	1.8	1.6	2.2	11	3.0	4.0	12	2.6	1.1	.86	0	.52
5	1.2	1.7	2.2	19	2.4	4.0	10	2.4	1.7	.87	.41	.52
6	1.3	1.7	7.6	8.7	1.8	20	9.7	2.1	1.9	.90	.71	.54
7	1.3	1.8	11	10	3.0	12	9.1	2.1	1.4	.88	.70	.57
8	1.3	1.8	5.3	8.1	3.0	8.8	7.5	2.5	1.4	.89	.68	.57
9	1.4	1.7	3.9	6.5	2.9	7.5	6.2	2.4	1.3	.92	.65	.57
10	1.7	1.7	3.3	5.6	2.9	6.2	5.9	2.2	1.1	.95	.67	.58
11	1.9	1.7	3.0	5.1	3.1	5.6	5.5	2.1	1.0	.91	.68	.59
12	1.8	1.7	2.8	4.4	3.0	5.6	5.4	2.1	.95	.85	.72	.67
13	1.6	1.7	2.8	4.2	3.1	5.2	5.0	1.9	.93	.83	.80	.73
14	1.5	1.7	2.6	3.9	3.3	4.9	5.0	1.9	.95	.80	.80	.71
15	1.4	1.7	2.6	3.8	3.1	8.3	4.7	2.0	.97	.78	.80	.64
16	1.4	1.7	2.6	3.7	3.0	6.4	4.6	2.1	.95	.87	.80	.61
17	1.5	1.7	2.6	3.6	2.9	6.3	4.3	2.0	.87	1.0	.80	.59
18	1.8	9.9	2.6	3.7	2.8	6.1	4.5	1.9	.84	.99	.83	.57
19	1.9	3.8	2.6	3.6	2.8	7.8	4.2	2.1	.85	.90	.79	.52
20	1.8	2.5	3.6	4.0	2.8	7.2	4.0	2.2	.93	1.0	.78	.49
21	1.7	2.3	3.0	4.3	2.8	8.1	3.6	2.4	1.0	1.0	.74	.50
22	1.7	2.7	2.8	3.0	2.9	9.7	3.5	2.2	.96	.95	.71	.53
23	1.7	2.8	2.8	3.0	3.4	9.2	3.3	2.1	.85	.88	.70	.54
24	1.7	2.0	2.8	3.1	6.3	8.9	3.3	2.1	.78	.84	.69	.58
25	1.6	2.1	2.8	3.2	6.0	8.4	3.1	2.1	.73	.78	.61	.65
26	1.6	2.0	2.9	3.2	4.6	8.1	3.1	2.3	.70	.71	.61	.64
27	1.6	2.1	3.1	3.3	4.3	8.0	3.3	2.4	.69	.71	.63	.63
28	1.6	2.1	3.2	3.5	4.3	7.6	3.3	2.1	.65	.69	.63	.61
29	1.4	2.1	3.0	3.6	---	7.0	3.2	1.9	.76	.68	.61	.59
30	1.5	2.1	2.3	3.9	---	6.8	3.5	1.9	.96	.67	.61	.56
31	1.8	---	1.8	3.6	---	6.1	---	1.6	---	.65	.60	---
TOTAL	49.3	67.0	100.3	154.7	93.2	226.7	162.5	69.0	31.12	26.50	20.39	17.45
MEAN	1.59	2.23	3.24	4.99	3.33	7.31	5.42	2.23	1.04	.85	.66	.58
MAX	2.0	9.9	11	19	6.3	20	12	3.3	1.9	1.0	.83	.73
MIN	1.2	1.5	1.8	1.9	1.8	4.0	3.1	1.6	.65	.65	0	.49
AC-FT	98	133	199	307	185	450	322	137	62	53	40	35
CAL YR 1986	TOTAL	2515.62	MEAN 6.89	MAX 271	MIN .17	AC-FT 4990						
WTR YR 1987	TOTAL	1018.16	MEAN 2.79	MAX 20	MIN 0	AC-FT 2020						

SANTA ANA RIVER BASIN

11055800 CITY CREEK NEAR HIGHLAND, CA

LOCATION.--Lat 34°08'38", long 117°11'16", in SW 1/4 NW 1/4 sec.27, T.1 N., R.3 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 0.6 mi upstream from Highland Avenue and 1.5 mi northeast of Highland.

DRAINAGE AREA.--19.6 mi².

PERIOD OF RECORD.--October 1919 to current year; combined records of creek and canal, June 1924 to September 1986.

GAGE.--Water-stage recorder on creek. Elevation of creek gage is 1,580 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 1, 1939, at site 0.2 mi downstream at different datum. Canal gage at different datum.

REMARKS.--Estimated daily discharges: Apr. 15 to May 3. Records fair except for estimated daily discharges, which are poor. No regulation above station. City Creek Water Co.'s canal diverted from a site 0.5 mi above station for irrigation throughout period of record until Sept. 30, 1986. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--Creek only: 68 years, 9.69 ft³/s, 7,020 acre-ft/yr.
Combined creek and canal: 62 years, 11.4 ft³/s, 8,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 7,000 ft³/s, Feb. 25, 1969, gage height, 9.39 ft, from rating curve extended above 580 ft³/s on basis of slope-area measurement at gage height 8.82 ft; no flow for several months in some years.
Combined creek and canal: Maximum discharge, 7,000 ft³/s, Feb. 25, 1969; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	2400	*108	*4.57				

Minimum daily, 0.12 ft³/s, Aug. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.4	2.7	3.5	3.8	5.1	4.4	2.6	1.5	.40	.13	.13
2	2.7	1.7	2.7	3.4	3.8	5.4	4.3	2.5	1.2	.45	.12	.14
3	2.2	1.7	2.8	3.3	3.8	5.1	13	2.1	1.0	.41	.12	.15
4	1.8	1.7	2.9	19	3.7	5.2	25	2.0	.81	.36	.12	.15
5	1.5	1.7	2.9	31	3.4	5.4	13	1.9	.67	.35	.13	.14
6	1.6	2.0	9.5	11	3.4	20	11	1.8	.75	.38	.14	.14
7	1.5	2.3	8.4	13	3.4	11	8.5	1.9	.95	.42	.14	.14
8	1.7	2.3	4.1	8.9	3.4	8.9	7.0	2.2	1.0	.42	.14	.13
9	1.8	2.1	3.5	6.5	3.4	7.4	6.1	2.2	1.1	.45	.13	.13
10	2.6	2.0	3.1	5.3	3.6	6.6	5.5	2.0	.89	.57	.13	.13
11	2.8	1.8	2.9	4.6	3.7	5.8	5.3	2.0	.93	.52	.14	.14
12	2.6	1.8	2.9	4.2	3.7	5.5	5.1	2.1	.86	.26	.14	.17
13	1.8	1.8	2.9	4.0	3.8	5.1	4.6	1.9	.75	.21	.15	.17
14	1.7	1.9	2.8	3.9	4.0	5.1	4.2	1.9	.74	.17	.22	.17
15	1.6	2.0	2.7	3.8	3.8	8.4	4.0	2.0	.80	.17	.19	.15
16	1.6	2.2	2.7	3.6	3.7	5.9	3.7	2.1	.80	.18	.17	.16
17	1.9	2.3	2.7	3.5	3.5	5.5	3.6	2.0	.67	.22	.16	.17
18	2.1	11	2.7	3.5	3.5	5.2	3.9	2.0	.58	.38	.17	.16
19	2.1	4.1	2.8	3.5	3.5	8.6	3.4	2.2	.59	.30	.16	.16
20	1.9	3.2	4.0	4.4	3.4	7.3	3.1	2.5	.70	.27	.16	.15
21	1.7	3.1	3.7	4.8	3.5	8.6	2.8	2.7	.88	.49	.15	.16
22	1.6	2.9	3.4	4.6	3.5	11	2.6	2.5	.82	.42	.15	.16
23	1.7	2.8	3.3	4.5	4.4	8.8	2.6	2.3	.54	.32	.15	.18
24	1.7	2.8	3.3	4.6	5.5	8.2	2.5	2.4	.43	.25	.15	.19
25	1.5	2.8	3.3	4.4	5.6	7.5	2.3	2.5	.36	.21	.16	.20
26	1.3	2.7	3.3	4.1	5.1	6.7	2.3	3.0	.32	.17	.16	.21
27	1.3	2.7	3.3	3.9	4.8	6.2	2.5	3.0	.30	.16	.15	.22
28	1.3	2.7	3.3	4.4	5.1	5.7	2.5	2.8	.29	.15	.14	.20
29	1.2	2.7	3.4	3.9	---	5.3	2.3	2.4	.30	.14	.14	.19
30	1.3	2.6	3.4	4.0	---	4.9	2.6	2.1	.33	.14	.14	.17
31	1.4	---	3.4	3.9	---	4.6	---	1.7	---	.13	.13	---
TOTAL	55.3	78.8	108.8	191.0	109.8	220.0	163.7	69.3	21.86	9.47	4.58	4.86
MEAN	1.78	2.63	3.51	6.16	3.92	7.10	5.46	2.24	.73	.31	.15	.16
MAX	2.8	11	9.5	31	5.6	20	25	3.0	1.5	.57	.22	.22
MIN	1.2	1.4	2.7	3.3	3.4	4.6	2.3	1.7	.29	.13	.12	.13
AC-FT	110	156	216	379	218	436	325	137	43	19	9.1	9.6

CAL YR 1986 TOTAL 2778.33 MEAN 7.61 MAX 250 MIN .19 AC-FT 5510
WTR YR 1987 TOTAL 1037.47 MEAN 2.84 MAX 31 MIN .12 AC-FT 2060

SANTA ANA RIVER BASIN

11057500 SAN TIMOTEO CREEK NEAR LOMA LINDA, CA

LOCATION.--Lat 34°03'46", long 117°16'16", in NE 1/4 NW 1/4 sec.26, T.1 S., R.4 W., San Bernardino County, Hydrologic Unit 18070203, on left bank 200 ft upstream from Redlands Boulevard bridge and 0.6 mi northwest of Loma Linda.

DRAINAGE AREA.--125 mi².

PERIOD OF RECORD.--October 1954 to September 1965, February 1968 to October 1973, April 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,030 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to April 1979, water-stage recorders at site 0.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Feb. 22 to May 9 and Aug. 30 to Sept. 30. Records poor. No regulation above station. Natural flow affected by pumping and return flow from irrigated areas.

AVERAGE DISCHARGE.--24 years (1955-65, 1969-73, 1980-87), 2.74 ft³/s, 1,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s, Feb. 25, 1969, gage height, 8.2 ft, from floodmark, from rating curve extended above 2,100 ft³/s on basis of slope-conveyance study of peak flow, at site and datum then in use; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 5	1745	*99	*3.38				
No flow for many days.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	0	.15	.21	.03	0	0	.16	1.5	1.4	1.7	0
2	.02	.07	.41	.47	0	0	0	.10	.56	1.2	.90	2.0
3	.01	0	0	.57	0	0	.20	.06	.31	.91	.09	1.3
4	.12	0	0	16	0	0	0	.50	0	.26	.53	.90
5	.07	0	.29	19	.04	0	1.2	2.8	.06	.28	.04	.70
6	.50	.83	11	3.3	.02	2.0	.60	2.3	.23	.68	.50	.40
7	.60	.80	4.6	3.5	.09	.50	.35	1.7	.18	.11	.22	.20
8	.09	.59	.66	.03	.01	.02	0	1.0	0	.03	0	0
9	.55	.59	.37	0	.54	.03	0	.11	0	0	.32	0
10	4.2	.36	.24	0	.47	.04	0	.06	0	.03	.14	1.4
11	.11	.88	.18	0	.12	.04	2.0	.35	.31	0	3.0	.80
12	.74	.79	.14	0	.09	.03	1.0	.15	1.4	.13	.96	.45
13	1.2	1.4	.14	0	1.9	.02	.25	3.2	3.4	.75	2.1	.35
14	.90	1.0	.16	.15	.33	0	.15	1.4	2.7	.41	1.7	.28
15	.37	.73	.16	.24	.02	.10	.20	.80	.46	0	2.2	.25
16	.01	.03	.07	.03	0	.04	.60	.87	.43	0	4.5	.37
17	.38	.20	.01	0	0	0	3.0	.90	.29	.07	.75	.29
18	.33	4.4	.02	0	0	0	3.5	.50	.27	.06	1.1	.22
19	0	.24	.01	.02	.10	0	1.5	.72	.07	0	.24	.04
20	.03	.45	.03	0	0	0	.80	.16	.33	0	1.0	0
21	.20	.61	.08	.01	0	0	.50	1.1	3.0	.12	.92	0
22	.59	1.2	.06	.02	.01	.40	.14	3.0	4.0	.78	.31	0
23	.60	.60	0	.22	.05	.25	0	3.9	2.4	1.3	1.9	6.0
24	1.1	.65	.08	.03	1.5	.20	0	1.6	.51	1.8	5.7	1.5
25	.69	.70	0	.03	7.5	.15	2.5	1.8	.28	.94	6.4	.30
26	.31	.62	0	.02	4.0	.10	1.0	.98	.01	.61	1.7	.20
27	0	.07	0	0	1.5	.15	.35	.01	0	.07	.29	.10
28	.02	.03	0	.53	0	.25	.25	.04	.89	.67	.10	.04
29	.13	.25	0	0	---	0	.02	.49	2.3	.36	.11	.02
30	.13	.08	0	0	---	0	.25	.92	.70	.18	0	0
31	.01	---	.14	0	---	0	---	1.2	---	.59	0	---
TOTAL	14.03	18.17	19.00	44.38	18.32	4.32	20.36	32.88	26.59	13.74	39.42	18.11
MEAN	.45	.61	.61	1.43	.65	.14	.68	1.06	.89	.44	1.27	.60
MAX	4.2	4.4	11	19	7.5	2.0	3.5	3.9	4.0	1.8	6.4	6.0
MIN	0	0	0	0	0	0	0	.01	0	0	0	0
AC-FT	28	36	38	88	36	8.6	40	65	53	27	78	36

CAL YR 1986 TOTAL 715.38 MEAN 1.96 MAX 168 MIN 0 AC-FT 1420
WTR YR 1987 TOTAL 269.32 MEAN .74 MAX 19 MIN 0 AC-FT 534

SANTA ANA RIVER BASIN

11058500 EAST TWIN CREEK NEAR ARROWHEAD SPRINGS, CA

LOCATION.--Lat 34°10'45", long 117°15'53", in NE 1/4 NE 1/4 sec.14, T.1 N., R.4 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 1,000 ft upstream from Del Rosa Water Co.'s diversion, 0.5 mi south of Arrowhead Springs, and 1.0 mi downstream from Strawberry Creek.

DRAINAGE AREA.--8.80 mi².

PERIOD OF RECORD.--December 1919 to current year. Prior to October 1952, published as Strawberry Creek near Arrowhead Springs.

GAGE.--Water-stage recorder. Elevation of gage is 1,590 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 9 to Mar. 5 and Mar. 9. Records fair except those for estimated daily discharges, which are poor. No regulation above station. One small diversion for domestic use above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--67 years (water years 1921-87), 4.90 ft³/s, 3,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,710 ft³/s, Jan. 29, 1980, gage height, 8.35 ft on basis of slope-area measurement of peak flow; no flow at times in 1929, 1931-35.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*), from rating curve extended above 120 ft³/s on basis of slope-area measurement at gage height 8.35 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	1815	*211	*3.76	Apr. 3	2230	46	2.61

Minimum daily, 0.35 ft³/s, Aug. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.99	1.1	1.9	1.8	1.9	1.5	2.0	1.8	1.1	.49	.50	.44
2	1.3	1.3	2.0	1.7	1.9	1.4	2.0	1.7	.96	.48	.46	.40
3	1.3	1.3	1.8	1.8	1.9	1.4	9.9	1.5	.93	.50	.45	.41
4	1.0	1.3	1.8	26	1.8	1.4	11	1.4	.87	.50	.39	.39
5	.95	1.3	1.8	14	1.8	1.7	4.4	1.2	.69	.50	.35	.42
6	.91	1.3	4.6	3.0	1.8	6.7	3.1	1.2	.54	.50	.45	.41
7	.85	1.5	3.2	4.0	1.7	2.5	2.5	1.3	.56	.51	.46	.40
8	.91	1.6	2.5	2.7	2.0	2.1	2.2	1.3	.78	.47	.45	.40
9	.96	1.5	2.1	2.4	1.7	2.0	2.0	1.3	.75	.54	.48	.43
10	1.5	1.4	1.6	2.3	1.7	2.8	1.8	1.4	.67	.54	.41	.44
11	1.4	1.2	1.7	2.3	1.6	2.4	1.8	1.5	.57	.52	.42	.51
12	1.3	1.2	1.6	2.2	1.6	2.2	1.8	1.3	.54	.47	.42	.58
13	.98	1.3	1.8	2.2	1.6	2.2	1.6	1.3	.51	.40	.43	.64
14	.86	1.3	1.7	2.1	1.5	2.2	1.6	1.4	.61	.40	.58	.67
15	.93	1.4	1.7	2.1	1.5	3.4	1.5	1.5	.71	.39	.53	.59
16	1.0	1.6	1.7	2.1	1.5	2.3	1.4	1.5	.66	.42	.51	.58
17	1.3	1.7	1.6	2.0	1.5	2.2	1.4	1.5	.53	.72	.52	.56
18	1.3	6.1	1.6	2.0	1.4	2.1	1.6	1.4	.50	.59	.58	.56
19	1.4	2.3	1.6	2.0	1.4	2.9	1.5	1.6	.40	.54	.50	.50
20	1.2	1.8	1.9	2.3	1.3	2.3	1.4	1.7	.47	.63	.47	.59
21	1.1	1.7	1.8	2.4	1.3	3.1	1.3	1.7	.52	.70	.45	.58
22	1.0	1.8	1.7	2.1	1.3	3.3	1.3	1.6	.53	.69	.50	.55
23	1.2	1.8	1.7	2.0	1.7	2.9	1.3	1.6	.44	.63	.48	.57
24	1.1	1.9	1.6	1.9	2.3	2.5	1.4	1.6	.44	.58	.47	.52
25	1.0	1.8	1.8	1.8	1.8	2.3	1.4	1.7	.40	.57	.44	.55
26	.99	1.7	1.7	1.8	1.7	2.2	1.4	1.9	.41	.55	.48	.61
27	.97	1.9	1.9	2.1	1.6	2.1	1.5	1.9	.40	.52	.46	.67
28	.97	1.9	1.8	2.2	1.5	2.1	1.4	1.7	.40	.50	.42	.60
29	1.0	1.9	1.7	2.1	---	2.0	1.7	1.5	.41	.53	.48	.57
30	1.2	1.8	1.7	2.0	---	1.9	1.9	1.4	.46	.49	.41	.53
31	1.3	---	1.7	2.0	---	2.0	---	1.3	---	.43	.42	---
TOTAL	34.17	51.7	59.3	103.4	46.3	74.1	71.1	46.7	17.76	16.30	14.37	15.67
MEAN	1.10	1.72	1.91	3.34	1.65	2.39	2.37	1.51	.59	.53	.46	.52
MAX	1.5	6.1	4.6	26	2.3	6.7	11	1.9	1.1	.72	.58	.67
MIN	.85	1.1	1.6	1.7	1.3	1.4	1.3	1.2	.40	.39	.35	.39
AC-FT	68	103	118	205	92	147	141	93	35	32	29	31

CAL YR 1986	TOTAL	1818.60	MEAN 4.98	MAX 171	MIN .62	AC-FT 3610
WTR YR 1987	TOTAL	550.87	MEAN 1.51	MAX 26	MIN .35	AC-FT 1090

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 downstream from E Street bridge, 1.2 mi downstream from San Timoteo Creek, 0.4 mi upstream from Warm Creek, 2.8 mi south of San Bernardino, and 26 mi downstream from Big Bear Lake.

DRAINAGE AREA.--541 mi².

PERIOD OF RECORD.--March 1939 to September 1954, October 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 940 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 10, 1950, water-stage recorder on right bank 0.4 mi upstream at datum 964.50 ft above NGVD. Nov. 11, 1950, to Sept. 30, 1954, water-stage recorder on both banks 0.4 mi upstream at datum 964.50 ft above NGVD. Oct. 1, 1966, to Sept. 30, 1976, water-stage recorder on right bank 0.4 mi upstream at datum 954.50 ft above 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 upstream at elevation 950 ft above NGVD, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1 to Dec. 16, Jan. 4-9, and Mar. 31 to June 5. Records fair except those for estimated discharges, which are poor. Flow partly regulated by Big Bear Lake (station 11049000). 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 upstream has caused sustained flow past gage since 1967. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--15 years (water years 1940-54), 12.5 ft³/s, 9,050 acre-ft/yr; 21 years (water years 1967-87), 98.3 ft³/s, 71,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/s, Feb. 25, 1969, gage height, 11.9 ft, site and datum then in use; maximum gage height, 16.50 ft, Jan. 23, 1943, site and datum then in use, discharge uncertain, but was probably less than 8,000 ft³/s; no flow many days prior to 1967, minimum daily since 1967, 7.0 ft³/s, Mar. 29, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 5	0015	*1,000	*5.44				

Minimum daily, 23 ft³/s, May 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	40	52	35	46	50	51	34	40	37	38	36
2	45	42	52	36	47	49	52	33	32	37	38	36
3	44	43	52	36	42	49	69	32	42	36	39	37
4	43	44	52	113	40	51	55	31	36	36	37	38
5	43	43	60	500	38	51	48	31	45	36	36	39
6	42	43	220	145	37	164	45	30	43	39	37	40
7	43	43	280	180	36	105	44	30	40	40	38	40
8	45	43	70	90	34	82	43	32	40	41	36	38
9	50	43	70	48	35	67	42	34	40	44	35	37
10	120	43	54	50	36	61	40	33	40	40	37	37
11	50	43	95	51	35	60	40	30	40	43	39	37
12	42	43	45	52	35	57	41	31	39	41	37	37
13	41	44	50	52	46	55	41	28	39	41	39	38
14	41	45	50	51	48	54	41	35	39	39	39	38
15	41	45	45	51	42	102	40	23	38	38	40	36
16	42	45	40	52	42	64	38	36	38	38	37	38
17	42	100	38	52	41	58	37	26	37	39	38	37
18	41	340	37	53	41	55	36	30	38	39	39	36
19	41	100	37	49	43	59	36	33	38	39	39	35
20	41	70	42	48	42	66	35	35	37	40	40	36
21	40	50	37	55	42	100	36	37	38	42	39	37
22	40	49	37	55	44	75	36	40	41	39	38	36
23	39	41	36	53	57	57	36	33	40	40	37	41
24	40	43	37	50	102	50	34	33	38	40	41	38
25	40	45	34	53	129	52	32	33	38	38	40	37
26	41	45	35	50	62	52	30	36	37	37	39	35
27	42	50	36	47	57	51	30	42	36	39	39	34
28	41	60	36	58	58	52	32	36	35	39	38	36
29	40	52	37	50	---	53	31	44	37	39	38	37
30	39	58	36	52	---	53	33	37	37	39	36	35
31	39	---	36	47	---	53	---	34	---	39	36	---
TOTAL	1380	1795	1838	2314	1357	2007	1204	1032	1158	1214	1179	1112
MEAN	44.5	59.8	59.3	74.6	48.5	64.7	40.1	33.3	38.6	39.2	38.0	37.1
MAX	120	340	280	500	129	164	69	44	45	44	41	41
MIN	39	40	34	35	34	49	30	23	32	36	35	34
AC-FT	2740	3560	3650	4590	2690	3980	2390	2050	2300	2410	2340	2210

CAL YR 1986 TOTAL 28441 MEAN 77.9 MAX 2500 MIN 33 AC-FT 56410
WTR YR 1987 TOTAL 17590 MEAN 48.2 MAX 500 MIN 23 AC-FT 34890

SANTA ANA RIVER BASIN

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 downstream from Interstate Highway 215 bridge and 2.0 mi southwest of San Bernardino.

DRAINAGE AREA.--11.0 mi².

PERIOD OF RECORD.--February 1964 to September 1972, October 1974 to current year.

REVISED RECORDS.--WDR CA-83-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 960 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1974, at site 0.1 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Apr. 15 to May 27. Records good except those for estimated period, which are poor. Natural channel prior to September 1972; concrete-lined channel October 1974 to current year. Possible regulation at high flows by flood-control gates on Warm Creek Floodway, 3.0 mi upstream. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--8 years (water years 1965-72), 1.61 ft³/s, 1,170 acre-ft/yr; 13 years (water years 1975-87), 19.5 ft³/s, 14,130 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s, estimated, Mar. 1, 1978, gage height unknown; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 882 ft³/s, Jan. 4, gage height, 2.34 ft, from rating curve extended above 420 ft³/s on basis of step-backwater analysis; minimum daily, 10.0 ft³/s, Sept. 26-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	24	20	23	24	19	24	16	16	13	15	12
2	17	23	21	23	25	20	24	16	16	13	15	13
3	17	25	21	23	24	21	40	16	16	13	15	13
4	17	23	21	111	23	21	24	16	16	13	15	13
5	17	21	22	51	23	34	24	16	16	12	15	12
6	17	21	71	29	23	80	24	16	15	13	15	12
7	16	20	58	37	23	23	24	16	16	13	15	12
8	17	19	19	19	23	22	23	16	16	13	15	12
9	19	19	19	19	23	23	22	16	16	13	14	12
10	31	18	19	20	23	23	21	16	17	13	13	12
11	18	18	20	21	22	24	20	16	17	13	13	12
12	18	18	21	22	22	24	19	16	17	13	13	13
13	19	17	21	23	44	24	19	15	17	13	13	12
14	19	18	21	24	19	26	18	15	17	13	14	12
15	19	18	22	24	19	58	17	15	17	13	12	12
16	21	18	21	24	18	25	17	15	16	13	12	12
17	21	22	22	25	19	25	17	15	16	13	12	12
18	22	61	23	26	19	26	17	15	15	13	12	12
19	23	11	23	26	19	45	17	15	15	13	12	11
20	23	11	24	24	18	25	17	15	15	14	12	11
21	23	12	23	25	19	64	17	15	15	14	12	12
22	23	12	23	26	19	23	17	15	15	14	12	12
23	23	12	23	26	22	23	17	15	14	14	12	12
24	23	12	23	26	56	23	17	15	13	15	12	11
25	24	12	23	24	60	23	17	15	13	15	12	11
26	23	13	23	24	18	23	17	15	13	15	11	10
27	23	14	23	24	17	23	17	15	13	15	11	10
28	23	16	23	30	18	23	17	15	13	15	11	10
29	23	19	23	23	---	24	16	15	13	15	11	11
30	25	19	23	24	---	24	16	15	13	15	12	11
31	25	---	23	24	---	24	---	16	---	15	12	---
TOTAL	646	566	762	870	682	885	596	478	457	422	400	352
MEAN	20.8	18.9	24.6	28.1	24.4	28.5	19.9	15.4	15.2	13.6	12.9	11.7
MAX	31	61	71	111	60	80	40	16	17	15	15	13
MIN	16	11	19	19	17	19	16	15	13	12	11	10
AC-FT	1280	1120	1510	1730	1350	1760	1180	948	906	837	793	698
CAL YR 1986	TOTAL	9374.2	MEAN	25.7	MAX	164	MIN	6.2	AC-FT	18590		
WTR YR 1987	TOTAL	7116.0	MEAN	19.5	MAX	111	MIN	10	AC-FT	14110		

SANTA ANA RIVER BASIN

11062000 LYTLE CREEK NEAR FONTANA, CA

LOCATION.--Lat 34°12'44", long 117°27'26", in NW 1/4 SE 1/4 sec.36, T.2 N., R.6 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 75 ft upstream from highway culvert crossing, 0.7 mi upstream from right tributary, 2.3 mi downstream from Lytle Creek conduit, and 8 mi north of Fontana.

DRAINAGE AREA.--46.6 mi².

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.

REVISED RECORDS.--WDR CA-83-1: Drainage area.

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. Elevation of creek gage is 2,380 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1918 to Mar. 21, 1938, at site 1 mi downstream at different datum. Mar. 22, 1938, to Nov. 20, 1963, at site 75 ft downstream at datum 4.58 ft lower. Sharp-crested weirs at different datum.

REMARKS.--Estimated daily discharges: Nov. 29 to Dec. 2, Feb. 6-13, 16-23, Apr. 12-17, and Apr. 29 to May 4. Records: Creek only, fair, except those for periods of estimated daily discharges, which are poor; combined creek and diversion, fair. No regulation above station. Southern California Edison Co.'s Lytle Creek conduit diverts 2.3 mi upstream for power development and Fontana Union Water Co. collects water from an infiltration line upstream for irrigation and domestic use. 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: 69 years, 18.3 ft³/s, 13,260 acre-ft/yr.

Combined creek and diversions: 84 years (water years 1899, 1905-87), 45.3 ft³/s, 32,820 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 35,900 ft³/s, Jan. 25, 1969, gage height, 15.0 ft, from floodmark, from rating curve extended above 570 ft³/s on basis of slope-area measurements at gage heights 10.78 and 15.0 ft; no flow at times most years.

Combined creek and diversions: Maximum discharge, 35,900 ft³/s, Jan. 25, 1969; minimum daily, 0.12 ft³/s, June 21, 22, 1976.

EXTREMES FOR CURRENT YEAR.--Creek only: Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Creek only Discharge (ft ³ /s)	Gage height (ft)	Combined creek and diversions Discharge (ft ³ /s)
Jan. 4	1700	*242	*4.45	*243
Minimum daily, Creek only: No flow for many days; combined creek and diversions, 9.4 ft ³ /s, Aug. 25.				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	5.1	4.4	1.7	1.1	.70	.43	.09				
2	14	5.1	4.4	1.6	.93	.34	.32	.06				
3	13	5.1	4.4	1.5	.85	.22	5.1	.04				
4	11	5.0	3.7	91	.74	.13	12	.02				
5	9.2	5.0	3.4	32	.63	14	1.3	.01				
6	8.7	5.2	4.8	3.7	.51	47	.76	0				
7	8.6	5.3	3.8	4.0	.52	26	.57	0				
8	8.4	5.2	3.3	2.7	.50	11	.42	0				
9	8.2	5.1	3.3	2.8	.60	8.4	.21	0				
10	9.9	4.9	3.2	3.2	.81	6.4	.20	0				
11	8.8	4.8	3.1	3.5	.43	5.3	.17	0				
12	7.3	4.6	2.9	4.1	.36	4.4	.11	0				
13	6.9	4.2	2.8	4.2	.86	3.8	.12	0				
14	7.0	4.5	3.0	4.7	.69	3.6	.12	0				
15	7.4	4.2	2.8	7.8	.47	4.4	.09	0				
16	7.3	4.5	2.7	27	.36	2.9	.07	0				
17	7.8	4.7	3.0	27	.41	2.4	.06	0				
18	7.6	55	2.5	7.8	.38	2.1	.11	0				
19	7.4	14	2.7	6.7	.17	2.0	.12	0				
20	6.8	5.0	3.2	11	.18	1.8	.14	0				
21	6.4	4.5	2.4	10	.19	3.8	.12	0				
22	6.3	4.2	2.4	7.6	.14	2.6	.07	0				
23	6.6	4.1	2.3	6.4	.75	1.9	.07	0				
24	6.4	4.4	2.1	6.9	1.9	1.5	.05	0				
25	5.8	4.6	2.1	4.8	1.9	1.2	.02	0				
26	5.4	4.5	2.1	2.2	1.1	1.0	.01	0				
27	4.9	4.8	2.1	2.0	.93	.85	0	0				
28	4.9	4.6	2.0	3.4	.75	.72	.62	0				
29	4.8	4.6	2.0	1.7	---	.71	.14	0				
30	5.2	4.6	1.9	1.7	---	.63	.11	0				
31	5.6	---	1.8	1.4	---	.52	---	0	---			---
TOTAL	241.6	201.4	90.6	296.1	19.16	162.32	23.63	.22	0	0	0	0
MEAN	7.79	6.71	2.92	9.55	.68	5.24	.79	.007	0	0	0	0
MAX	14	55	4.8	91	1.9	47	12	.09	0	0	0	0
MIN	4.8	4.1	1.8	1.4	.14	.13	0	0	0	0	0	0
AC-FT	479	399	180	587	38	322	47	.4	0	0	0	0

CAL YR 1986 TOTAL 5802.67 MEAN 15.9 MAX 203 MIN 0 AC-FT 11510
WTR YR 1987 TOTAL 1035.03 MEAN 2.84 MAX 91 MIN 0 AC-FT 2050

SANTA ANA RIVER BASIN

11062001 LYTLE CREEK NEAR FONTANA, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF LYTLE CREEK,
SOUTHERN CALIFORNIA EDISON CO.'S LYTLE CREEK CONDUIT, AND FONTANA UNION WATER CO.'S
INFILTRATION LINE DIVERSIONS, NEAR FONTANA, CA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	28	26	24	22	22	20	16	15	13	11	9.8
2	37	28	26	24	22	21	20	16	14	12	10	9.9
3	36	28	26	24	22	21	23	17	15	12	10	9.9
4	34	28	26	102	22	21	22	17	15	13	10	10
5	32	28	25	43	22	33	22	16	13	13	10	9.8
6	32	28	27	27	22	50	22	16	14	13	10	10
7	32	28	26	27	22	37	22	16	14	12	10	10
8	31	28	25	26	22	33	20	16	14	12	10	9.9
9	31	28	25	25	22	30	20	18	13	12	10	9.8
10	33	28	25	25	22	28	20	17	13	12	10	9.8
11	32	28	25	26	21	27	20	16	13	12	10	9.8
12	30	28	25	26	21	26	20	16	13	12	10	10
13	30	27	25	26	22	26	19	15	14	12	10	10
14	30	28	25	27	22	26	19	15	14	11	11	11
15	30	27	25	30	21	26	19	15	15	11	11	10
16	30	28	25	48	21	24	18	16	14	12	11	10
17	31	28	25	48	21	24	18	16	14	12	10	10
18	31	62	25	29	21	24	19	16	13	12	10	10
19	30	23	25	28	21	24	19	16	13	12	10	10
20	30	28	25	32	21	24	19	16	13	11	10	10
21	29	28	24	31	21	26	18	16	13	12	10	9.9
22	29	27	24	29	21	25	19	16	13	12	10	10
23	30	27	24	27	22	24	19	16	13	11	10	10
24	29	27	24	28	23	24	18	16	13	11	10	11
25	29	28	24	26	23	23	18	17	12	11	9.4	11
26	28	28	24	23	22	23	18	17	12	11	10	11
27	28	28	24	23	22	23	19	16	12	11	10	9.9
28	28	27	24	24	22	23	20	16	12	11	10	9.8
29	28	28	24	23	---	22	16	16	13	11	9.9	9.7
30	28	28	24	23	---	22	16	15	13	11	9.9	9.6
31	29	---	24	22	---	22	---	16	---	11	10	---
TOTAL	954	863	771	946	608	804	582	499	402	364	313.2	301.6
MEAN	30.8	28.8	24.9	30.5	21.7	25.9	19.4	16.1	13.4	11.7	10.1	10.1
MAX	37	62	27	102	23	50	23	18	15	13	11	11
MIN	28	23	24	22	21	21	16	15	12	11	9.4	9.6
AC-FT	1890	1710	1530	1880	1210	1590	1150	990	797	722	621	598
CAL YR 1986	TOTAL	13535.0	MEAN	37.1	MAX	203	MIN	20	AC-FT	26850		
WTR YR 1987	TOTAL	7407.8	MEAN	20.3	MAX	102	MIN	9.4	AC-FT	14690		

SANTA ANA RIVER BASIN

11063500 LONE PINE CREEK NEAR KEENBROOK, CA

LOCATION.--Lat 34°15'59", long 117°27'47", in SE 1/4 SW 1/4 sec.12, T.2 N., R.6 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 50 ft upstream from the Atchison, Topeka, & Santa Fe Railway Co. bridge, 150 ft upstream from confluence with Cajon Creek, and 1.1 mi north of Keenbrook.

DRAINAGE AREA.--15.1 mi².

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 above 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 higher.

REMARKS.--Estimated daily discharges: June 20-22. Records fair except those for estimated daily discharges, which are poor. No regulation or diversion above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--56 years (water years 1921-38, 1950-87), 1.87 ft³/s, 1,350 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,180 ft³/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow; no flow Aug. 6-8, Sept. 29, 30, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	1545	*18	*1.69				

Minimum daily, 0.41 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	.77	.95	.95	.92	.86	.77	.65	.65	.76	.65	.48
2	1.0	.77	.95	.95	.86	.87	.77	.65	.69	.75	.64	.48
3	.92	.77	.95	.95	.87	.86	.80	.63	.73	.74	.61	.49
4	.86	.77	.97	4.0	.86	.86	.77	.69	.72	.73	.62	.54
5	.94	.77	.95	1.2	.86	.94	.77	.69	.74	.71	.66	.52
6	.86	.77	.97	1.0	.86	1.1	.77	.69	.75	.67	.66	.48
7	.86	.78	.95	1.1	.89	.90	.77	.69	.75	.67	.66	.50
8	.82	.88	.95	.95	.90	.87	.70	.69	.77	.66	.65	.49
9	.83	.86	.95	.96	.94	.86	.69	.69	.78	.65	.61	.53
10	.87	.86	.95	.98	.88	.86	.69	.71	.74	.67	.61	.50
11	.87	.86	.95	.96	.86	.86	.69	.76	.73	.64	.63	.48
12	.84	.86	.95	.95	.86	.86	.69	.75	.73	.64	.63	.48
13	.86	.86	.95	.95	.90	.86	.68	.75	.72	.72	.55	.48
14	.87	.86	.95	.95	.86	.86	.68	.73	.71	.63	.55	.48
15	.85	.86	.95	1.0	.86	.87	.63	.69	.75	.63	.55	.48
16	.86	.86	.95	1.0	.86	.86	.65	.69	.72	.62	.54	.48
17	.86	.89	.95	1.0	.86	.86	.63	.69	.72	.69	.54	.48
18	.86	1.1	.95	1.0	.86	.86	.69	.69	.71	.76	.54	.48
19	.86	.95	.95	1.0	.86	.84	.69	.69	.73	.75	.55	.48
20	.86	.95	1.2	1.0	.86	.77	.69	.67	.75	.76	.54	.48
21	.86	.94	1.0	.95	.86	.82	.69	.65	.75	.76	.54	.48
22	.86	.92	.95	.94	.86	.77	.69	.62	.76	.75	.54	.48
23	.86	.95	.95	.95	.88	.77	.64	.65	.76	.74	.54	.51
24	.86	.95	.95	.95	.92	.77	.64	.64	.73	.73	.54	.45
25	.86	.95	.95	.92	.96	.77	.61	.70	.72	.72	.54	.45
26	.83	.95	.95	.93	.92	.77	.61	.69	.70	.70	.54	.44
27	.77	.95	.95	.89	.86	.77	.61	.73	.73	.62	.50	.44
28	.77	.95	.95	.95	.86	.77	.62	.72	.76	.65	.47	.42
29	.77	.95	.95	.95	---	.77	.64	.72	.75	.65	.48	.42
30	.77	.95	.95	.95	---	.77	.64	.70	.76	.66	.48	.41
31	.77	---	.95	.95	---	.77	---	.68	---	.65	.48	---
TOTAL	26.50	26.51	29.79	33.18	24.60	26.00	20.61	21.39	22.01	21.48	17.64	14.31
MEAN	.85	.88	.96	1.07	.88	.84	.69	.69	.73	.69	.57	.48
MAX	1.0	1.1	1.2	4.0	.96	1.1	.80	.76	.78	.76	.66	.54
MIN	.77	.77	.95	.89	.86	.77	.61	.62	.65	.62	.47	.41
AC-FT	53	53	59	66	49	52	41	42	44	43	35	28

CAL YR 1986	TOTAL	535.17	MEAN	1.47	MAX	25	MIN	.77	AC-FT	1060
WTR YR 1987	TOTAL	284.02	MEAN	.78	MAX	4.0	MIN	.41	AC-FT	563

SANTA ANA RIVER BASIN

11063510 CAJON CREEK BELOW LONE PINE CREEK, NEAR KEENBROOK, CA

LOCATION.--Lat 34°16'04", long 117°27'58", in NW 1/4 NW 1/4 sec.13, T.2 N., R.6 W., San Bernardino County, Hydrologic Unit 18070203, on left bank 0.25 mi downstream from Lone Pine Creek and 0.95 mi north of Keenbrook.

DRAINAGE AREA.--56.5 mi².

PERIOD OF RECORD.--October 1971 to September 1977, October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,600 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1971, to Sept. 30, 1977, at site 0.25 mi upstream at diversion dam at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-4, 29-31, Nov. 6-14, 19-22, Jan. 5, 11, 12, 14-21, Mar. 14, 22, July 13-15, 28, 29, Aug. 3, 4, Sept. 1-5, 28-30. Records poor. No regulation or diversion above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--10 years (water years 1972-77, 1984-87), 8.15 ft³/s, 5,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft³/s, Feb. 11, 1973, gage height, 13.50 ft, site and datum then in use; minimum daily, 2.2 ft³/s, Dec. 16, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*), from rating curve extended above 43 ft³/s on basis of slope-area measurement of peak flow at gage height 5.40 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	1345	*133	*4.24				

Minimum daily, 3.8 ft³/s, June 2, 3, July 24, Aug. 5, 6, 27-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	4.8	4.4	5.1	6.3	5.8	6.9	5.5	4.0	4.5	4.5	4.1
2	5.4	5.2	4.4	5.2	6.4	6.4	6.0	5.8	3.8	4.5	4.4	4.1
3	5.3	5.1	4.4	5.1	5.8	5.8	6.1	5.5	3.8	4.7	4.0	4.1
4	5.3	5.4	4.5	5.4	5.5	5.8	5.2	5.3	4.0	4.6	3.9	4.3
5	5.1	5.4	4.9	15	5.5	12	5.8	5.0	4.1	4.0	3.8	4.2
6	5.1	5.4	6.0	8.5	5.6	19	5.8	5.1	4.5	3.9	3.8	4.2
7	4.7	5.4	5.6	7.3	5.7	8.8	5.5	5.5	4.5	4.2	3.9	3.9
8	4.5	5.6	5.1	6.8	6.0	7.1	4.9	5.7	4.2	4.2	3.9	3.9
9	4.6	5.4	5.1	7.1	6.8	6.0	4.8	5.4	4.3	4.3	4.3	3.9
10	6.0	5.2	5.1	7.5	6.9	6.2	4.9	5.3	4.2	4.5	4.3	3.9
11	5.3	5.1	4.8	7.0	6.5	7.1	5.0	4.9	3.9	3.9	4.3	3.9
12	5.0	5.1	4.8	6.8	6.1	5.6	5.3	4.6	4.0	3.9	4.3	4.0
13	5.1	5.1	5.0	7.0	6.3	5.0	5.4	4.7	4.7	4.2	4.4	4.2
14	5.1	5.1	5.1	6.8	6.1	5.3	5.2	4.5	4.8	4.1	4.9	4.1
15	5.0	6.4	5.1	7.0	5.8	5.4	4.6	4.9	4.9	4.0	5.4	3.9
16	5.2	5.2	5.2	6.9	5.9	5.9	4.8	4.9	4.8	4.1	5.5	3.9
17	4.7	5.0	5.2	6.9	5.9	5.7	5.0	5.1	4.7	4.4	4.1	4.2
18	4.5	9.8	5.1	6.9	5.8	5.6	4.9	5.1	4.7	4.1	4.1	4.3
19	4.3	5.8	5.3	6.8	5.3	5.5	4.6	5.1	4.7	3.9	3.9	4.2
20	4.2	5.5	7.1	6.8	5.6	5.4	4.9	5.1	5.0	3.9	4.0	3.9
21	4.2	5.2	6.9	6.8	5.7	6.2	5.2	5.1	4.8	4.1	4.1	3.9
22	4.3	5.2	6.4	6.2	5.5	7.4	5.1	5.1	4.3	4.0	3.9	4.4
23	4.6	5.1	6.1	5.9	5.5	6.9	5.2	5.1	4.3	4.0	4.1	5.0
24	4.8	5.6	5.9	6.7	5.4	6.7	4.7	5.2	4.7	3.8	3.9	4.5
25	4.6	6.0	6.2	6.2	6.7	6.9	4.9	5.0	4.8	4.2	4.0	4.1
26	4.4	5.9	5.8	5.8	6.3	6.5	5.0	4.5	4.8	4.5	4.0	4.4
27	4.8	5.6	5.8	6.2	6.1	6.8	5.1	4.5	4.5	3.9	3.8	4.1
28	4.7	5.5	5.4	6.6	5.9	6.4	5.1	4.0	4.9	4.0	3.8	4.0
29	4.7	5.3	5.5	5.8	---	5.9	5.1	4.2	4.8	4.0	3.8	3.9
30	4.7	5.2	5.7	6.2	---	6.2	5.1	4.1	4.7	4.0	4.1	3.9
31	4.8	---	5.2	5.9	---	6.2	---	3.9	---	4.5	4.1	---
TOTAL	150.5	165.6	167.1	258.8	166.9	211.5	156.1	153.7	134.2	128.9	129.3	123.4
MEAN	4.85	5.32	5.39	8.35	5.96	6.82	5.20	4.96	4.47	4.16	4.17	4.11
MAX	6.0	9.8	7.1	5.4	6.9	19	6.9	5.8	5.0	4.7	5.5	5.0
MIN	4.2	4.8	4.4	5.1	5.3	5.0	4.6	3.9	3.8	3.8	3.8	3.9
AC-FT	299	328	331	513	331	420	310	305	266	256	256	245

CAL YR 1986 TOTAL 3656.7 MEAN 10.0 MAX 191 MIN 4.2 AC-FT 7250
WTR YR 1987 TOTAL 1946.0 MEAN 5.33 MAX 54 MIN 3.8 AC-FT 3860

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 downstream from confluence of East and West Forks and 7.5 mi northwest of San Bernardino.

DRAINAGE AREA.--5.49 mi².

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. Elevation of gage is 2,080 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to December 1919, nonrecording gage at site 0.5 mi downstream at different datum. December 1919 to July 1969, at site 0.4 mi 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 downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. 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 provided by city of San Bernardino.

AVERAGE DISCHARGE.--Creek only: 68 years (water years 1914, 1921-87), 2.29 ft³/s, 1,660 acre-ft/yr.

Combined creek and diversion: 54 years (water years 1914, 1935-87), 4.27 ft³/s, 3,090 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (1913-14 AND SINCE 1919).--Maximum discharge, 3,720 ft³/s, Jan. 25, 1969, gage height, 5.40 ft, site and datum then in use, on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	1745	*31	*5.61				

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	0	0	1.2	0	.26	1.9	.95	.17	0	0	0
2	.15	0	0	0	0	.22	1.5	.95	.09	0	0	0
3	0	0	0	1.7	0	.21	2.7	.80	.03	0	0	0
4	.19	0	0	7.3	0	.20	3.7	.29	.03	0	0	0
5	.93	0	0	6.0	0	.81	3.1	.27	0	0	0	0
6	0	0	.91	4.0	0	4.3	2.0	.26	0	0	0	0
7	0	0	2.7	4.2	0	4.1	1.5	.26	0	0	0	0
8	0	0	2.5	2.1	0	3.9	1.5	.22	0	0	0	0
9	.44	0	1.5	.73	0	3.8	1.5	.19	0	0	0	0
10	1.6	.12	1.3	.38	0	2.0	1.5	.19	0	0	0	0
11	1.2	.61	.01	.65	0	.88	1.5	.18	0	0	0	0
12	2.1	0	0	1.2	0	.95	1.5	.18	0	0	0	0
13	0	0	0	1.5	.08	.95	1.4	.18	0	0	0	0
14	0	0	0	.45	0	.54	.95	.23	0	0	.08	0
15	0	0	0	.38	0	1.7	.90	.19	0	0	0	0
16	0	0	.06	.34	0	2.4	.81	.18	0	0	0	0
17	0	0	.88	.32	0	1.0	.69	.18	0	.07	0	0
18	0	3.4	.01	.28	0	.30	.52	.18	0	0	0	0
19	0	1.0	0	.28	0	1.6	.95	.18	0	0	0	0
20	0	0	.19	.23	0	1.8	.95	.18	0	0	0	0
21	0	0	0	.06	0	1.7	1.1	.18	0	0	.06	0
22	0	0	0	0	0	3.7	1.1	.18	0	0	0	0
23	0	.31	0	0	.64	2.2	1.0	.18	0	0	0	.18
24	0	.70	0	0	2.2	.66	.81	.23	0	0	0	.08
25	0	0	0	0	2.4	.65	.81	.19	0	0	0	0
26	0	0	0	0	2.4	1.1	.81	.51	0	0	0	0
27	0	0	0	.37	.71	1.5	.81	.91	0	0	0	0
28	0	0	0	0	.36	1.5	.73	.81	0	0	0	0
29	0	0	0	0	---	1.5	.72	.61	0	0	0	0
30	0	0	0	0	---	1.5	1.1	.23	0	0	0	0
31	0	---	.59	0	---	1.5	---	.21	---	0	0	---
TOTAL	6.68	6.14	10.65	33.67	8.79	49.43	40.06	10.48	.32	.07	.14	.26
MEAN	.22	.20	.34	1.09	.31	1.59	1.34	.34	.011	.002	.005	.009
MAX	2.1	3.4	2.7	7.3	2.4	4.3	3.7	.95	.17	.07	.08	.18
MIN	0	0	0	0	0	.20	.52	.18	0	0	0	0
AC-FT	13	12	21	67	17	98	79	21	.6	.1	.3	.5
a	136	151	154	239	184	220	198	163	130	119	100	96

CAL YR 1986 TOTAL 780.90 MEAN 2.14 MAX 37 MIN 0 AC-FT 1550 a 2962
WTR YR 1987 TOTAL 166.69 MEAN .46 MAX 7.3 MIN 0 AC-FT 331 a 1890

a Combined discharge, in acre-feet, of Devil Canyon Creek and city of San Bernardino diversion.

SANTA ANA RIVER BASIN

11065000 LYTLE CREEK AT COLTON, CA

LOCATION.--Lat 34°04'44", long 117°18'17", in San Bernardino Grant, San Bernardino County, Hydrologic Unit 18070203, on right bank 400 ft downstream from Colton Avenue, 1,930 ft upstream from outlet end of channel, and 1.3 mi northeast of Colton.

DRAINAGE AREA.--186 mi².

REVISED RECORDS.--WDR CA-83-1: Drainage area.

PERIOD OF RECORD.--October 1957 to September 1983, October 1984 to current year.

GAGE.--Water-stage recorder. Datum of gage is 974.67 ft above National Geodetic Vertical Datum of 1929, U.S. Army Corps of Engineers datum.

REMARKS.--No estimated daily discharges. Records fair. Flow partly regulated by Lytle Creek spreading grounds 3.2 mi 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 ft³/s, Mar. 4, 1978, gage height, 14.8 ft, from rating curve extended above 4,200 ft³/s on basis of discharge for design flood at gage height 21.4 ft; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 572 ft³/s, Jan. 4, gage height, 2.46 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	.03	0				0	
2	0	0	0	0	0	0	0				0	
3	0	0	0	0	0	0	7.5				0	
4	0	0	0	72	0	0	.24				0	
5	0	0	0	81	0	1.1	.14				.22	
6	0	0	19	1.9	0	24	.09				.16	
7	0	0	32	15	0	.49	.05				.09	
8	0	0	1.7	.36	0	.13	.05				.05	
9	0	0	.60	.10	0	.06	.03				.05	
10	2.2	0	.28	.03	0	.05	0				.03	
11	.32	0	.14	0	0	0	0				0	
12	.12	0	.07	0	0	0	0				0	
13	.09	0	.05	0	12	0	0				0	
14	.05	0	.02	0	.72	0	0				0	
15	.05	0	0	0	.14	17	0				0	
16	.01	0	0	0	.06	.24	0				0	
17	0	1.2	0	0	0	.18	0				0	
18	0	25	0	0	0	.18	0				0	
19	0	.98	0	0	0	3.8	0				0	
20	0	.43	0	0	0	.24	0				0	
21	0	.21	0	0	0	31	0				0	
22	0	.11	0	0	0	10	0				0	
23	0	.05	0	0	.25	.31	0				0	
24	0	0	0	0	9.9	.14	0				0	
25	0	0	0	0	22	.09	0				0	
26	0	0	0	0	2.5	.04	0				0	
27	0	0	0	0	.15	0	0				0	
28	0	0	0	1.1	.06	0	0				0	
29	0	0	0	.18	---	0	0				0	
30	0	0	0	.07	---	0	0				0	
31	0	---	0	.05	---	0	---		---		0	---
TOTAL	2.84	27.98	53.86	171.79	47.78	89.08	8.10	0	0	0	.60	0
MEAN	.092	.93	1.74	5.54	1.71	2.87	.27	0	0	0	.019	0
MAX	2.2	25	32	81	22	31	7.5	0	0	0	.22	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	5.6	55	107	341	95	177	16	0	0	0	1.2	0
CAL YR 1986	TOTAL	2350.08	MEAN 6.44	MAX 508	MIN 0	AC-FT 4660						
WTR YR 1987	TOTAL	402.03	MEAN 1.10	MAX 81	MIN 0	AC-FT 797						

SANTA ANA RIVER BASIN

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

LOCATION.--Lat 33°58'07", long 117°26'51", in NE 1/4 SW 1/4 sec.30, T.2 S., R.5 W., Riverside County, Hydrologic Unit 18070203, on right bank at MWD pipeline crossing, 0.8 mi downstream from Union Pacific Railroad bridge, 1.1 mi upstream from bridge on Van Buren Boulevard, and 3.3 mi north of Arlington.

DRAINAGE AREA.--852 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CA-83-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 685 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 1984 water-stage recorder at site 300 ft upstream on left bank at different datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 14, Dec. 20 to Jan. 6, and Apr. 2 to May 2. Records poor. 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 Santa Ana River at Riverside Narrows, near Arlington minus the flow at Riverside Water Quality Control Plant at Riverside Narrows, near Arlington.

AVERAGE DISCHARGE.--17 years (water years 1971-87), 116 ft³/s, 84,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,200 ft³/s, Mar. 2, 1983, gage height, 15.38 ft, site and datum then in use, from rating curve extended above 5,100 ft³/s on basis of area-velocity study; maximum gage height, 20.23 ft, Mar. 4, 1978; minimum daily, 15 ft³/s, Sept. 7, 8, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1927, 100,000 ft³/s, Mar. 2, 1938, on basis of slope-area measurement at site 1.1 mi downstream. Flood of Jan. 22, 1862, 320,000 ft³/s, by slope-conveyance study at site 8.2 mi upstream. Stage at that site was 5 ft higher than Mar. 2, 1938.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 4	Unknown	*1,680	*9.40				

Minimum daily, 41 ft³/s, Aug. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	77	96	82	130	119	126	78	85	64	52	57
2	70	78	77	84	140	120	133	78	69	70	44	63
3	66	80	73	90	135	126	210	76	86	62	48	65
4	66	82	75	1200	140	119	140	78	77	65	45	60
5	66	84	80	470	118	154	120	78	91	60	51	71
6	66	86	350	200	128	615	115	76	86	56	48	54
7	68	86	471	311	96	395	115	76	90	75	44	62
8	69	86	120	140	102	200	110	80	84	87	58	52
9	80	85	98	151	128	164	105	84	93	77	68	79
10	200	85	86	168	131	155	100	82	89	87	72	68
11	90	86	71	167	124	135	100	75	100	96	73	75
12	72	86	66	159	122	169	100	78	87	80	45	61
13	68	90	68	175	188	139	100	71	89	81	54	55
14	72	95	81	133	202	133	100	85	92	83	66	68
15	72	89	84	170	121	357	96	60	87	77	73	79
16	74	96	90	160	106	148	94	86	100	63	80	91
17	74	86	79	165	109	103	92	66	97	76	63	75
18	76	562	89	174	99	105	89	76	104	77	56	83
19	75	145	71	150	98	130	88	81	81	61	53	87
20	74	102	77	149	88	139	87	84	85	69	59	67
21	74	77	76	184	98	311	88	89	82	89	54	68
22	75	78	76	170	96	292	88	96	80	76	52	84
23	75	66	76	200	147	157	88	81	90	73	41	146
24	75	61	76	178	263	176	84	81	77	75	48	133
25	76	70	76	190	414	217	80	82	80	60	55	86
26	76	72	76	160	202	275	78	80	79	58	75	72
27	78	68	76	162	142	204	78	100	70	65	62	57
28	80	99	76	198	140	172	80	87	61	68	66	66
29	78	79	80	153	---	142	78	103	67	73	73	91
30	76	89	78	159	---	165	78	78	54	60	81	95
31	76	---	81	153	---	153	---	73	---	66	72	---
TOTAL	2417	3025	3149	6405	4007	5989	3040	2498	2512	2229	1831	2270
MEAN	78.0	101	102	207	143	193	101	80.6	83.7	71.9	59.1	75.7
MAX	200	562	471	1200	414	615	210	103	104	96	81	146
MIN	66	61	66	82	88	103	78	60	54	56	41	52
AC-FT	4790	6000	6250	12700	7950	11880	6030	4950	4980	4420	3630	4500

CAL YR 1986	TOTAL	47113	MEAN	129	MAX	2820	MIN	61	AC-FT	93450
WTR YR 1987	TOTAL	39372	MEAN	108	MAX	1200	MIN	41	AC-FT	78090

SANTA ANA RIVER BASIN

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

WATER-QUALITY RECORDS

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

CHEMICAL DATA: Water years 1970 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to September 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT					
03...	1100	60	1000	18.0	618
NOV					
06...	1030	82	940	16.5	607
14...	1000	84	950	14.0	597
DEC					
02...	0945	81	950	13.0	602
JAN					
05...	1245	474	460	14.0	527
25...	1100	108	875	16.0	615
FEB					
05...	1220	84	940	17.0	612
MAR					
03...	1230	101	935	19.0	582
16...	0845	106	880	13.0	528
APR					
02...	1245	115	932	22.5	611
16...	1100	79	991	24.0	611
MAY					
07...	0845	75	980	19.5	608
18...	1255	57	958	25.0	595
JUN					
17...	1000	70	952	20.5	610
JUL					
02...	0950	81	973	20.0	602
16...	1050	67	957	22.0	591
AUG					
07...	1030	57	951	26.0	606
SEP					
03...	1130	82	930	25.0	--
25...	1400	78	943	24.5	582

SANTA ANA RIVER BASIN

11069500 SAN JACINTO RIVER NEAR SAN JACINTO, CA

LOCATION.--Lat 33°44'10", long 116°49'26", in NE 1/4 SE 1/4 sec.13, T.5 S., R.1 E., Riverside County, Hydrologic Unit 18070202, on right bank 350 ft upstream from bridge on State Highway 74, 1 mi downstream from North Fork San Jacinto River, 8.3 mi southeast of San Jacinto, and 9 mi downstream from Lake Hemet.

DRAINAGE AREA.--141 mi².

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. Records for the 1981 water year 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.

REVISED RECORDS.--WDR CA-63-1: Drainage area.

GAGE.--Water-stage recorder on river; water-stage recorder on upper canal. Datum of river gage is 1,982.75 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). See WSP 1735 for history of changes prior to Jan. 23, 1948. Oct. 1, 1969, to Sept. 30, 1980, at site 350 ft upstream at same datum. Canal gage at different datum.

REMARKS.--Estimated daily discharges: Dec. 16 to Jan. 4, Jan. 30 to Mar. 3. Records poor. Flow partly regulated by Lake Hemet (station 11069000). Lake Hemet Municipal Water District's upper canal diverts 4.0 mi upstream from station. One small diversion for domestic use above station. Diversion above station began prior to 1920. 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.

AVERAGE DISCHARGE.--River only: 55 years (water years 1921-26, 1928-69, 1981-87), 19.0 ft³/s, 13,770 acre-ft/yr; 11 years (water years 1970-80), 29.0 ft³/s, 21,010 acre-ft/yr. Combined river and diversion: 38 years (water years 1949-80, 1982-87), 25.9 ft³/s, 18,760 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 45,000 ft³/s, Feb. 16, 1927 on basis of slope-area measurement of peak flow; no flow for several months in some years. Combined river and diversion: Maximum discharge, 17,300 ft³/s, Feb. 21, 1980; no flow at times in 1951, 1952, 1957, 1976.

EXTREMES FOR CURRENT YEAR.--Combined river and diversion: Peak discharges greater than base discharge of 500 ft³/s and maximum(*), from rating curve extended above 1,220 ft³/s:

Date	Time	Discharge (ft ³ /s)	Gage Height (ft)	Date	Time	Discharge (ft ³ /s)	Gage Height (ft)
Mar. 7	0830	*219	*3.81				

No flow many days in many months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	0	.04	.20	.32	.58	9.2	.19	.07			
2	.64	0	.04	.20	.40	.55	4.3	.13	.07			
3	3.0	0	.06	.20	.35	.50	4.0	.09	.08			
4	0	0	.34	.25	.33	1.7	6.5	.06	.06			
5	0	0	.70	5.7	.36	1.4	7.0	.04	.05			
6	0	0	10	6.1	.60	39	7.2	.01	.40			
7	0	0	19	13	.48	166	7.9	0	.32			
8	0	0	6.8	16	.40	131	5.3	.01	.12			
9	0	0	5.0	6.6	.39	62	5.0	.02	.07			
10	0	0	1.9	4.5	.42	25	4.2	.04	.03			
11	0	0	1.5	3.6	.45	21	.83	.08	.09			
12	0	0	1.5	3.1	.36	17	1.3	.04	.08			
13	0	0	1.4	2.7	.48	16	2.8	.04	0			
14	0	0	1.3	2.5	.35	15	1.5	.04	0			
15	0	0	1.1	2.6	.30	15	.47	.04	0			
16	0	0	.95	2.3	.35	14	.25	.12	0			
17	0	0	.80	1.7	.38	13	.21	.09	0			
18	0	10	.66	1.7	.40	13	.21	.09	0			
19	0	5.5	.58	1.9	.40	12	.18	.05	0			
20	0	2.8	.50	2.4	.42	8.5	.17	.05	0			
21	0	1.1	.42	3.6	.44	8.4	.15	.05	0			
22	0	1.2	.36	2.3	.42	17	.14	.04	0			
23	0	1.2	.30	1.2	.36	13	.15	.01	0			
24	0	1.8	.24	.72	.30	8.0	.14	.14	0			
25	0	1.0	.22	.39	.42	8.0	.13	.11	0			
26	0	.09	.20	.33	.60	6.7	.13	.14	0			
27	0	.06	.20	.27	.60	6.4	.11	.14	0			
28	0	.05	.20	.27	.60	5.0	.13	.14	0			
29	0	.04	.20	.23	---	9.1	.14	.15	0			
30	0	.04	.20	.26	---	11	.20	.09	0			
31	0	---	.20	.28	---	12	---	.07	---			
TOTAL	4.04	24.88	56.91	87.10	11.68	676.83	69.94	2.31	1.44	0	0	0
MEAN	.13	.83	1.84	2.81	.42	21.8	2.33	.075	.048	0	0	0
MAX	3.0	10	19	16	.60	166	9.2	.19	.40	0	0	0
MIN	0	0	.04	.20	.30	.50	.11	0	0	0	0	0
AC-FT	8.0	49	113	173	23	1340	139	4.6	2.9	0	0	0

CAL YR 1986	TOTAL	5163.28	MEAN	14.1	MAX	688	MIN	0	AC-FT	10240
WTR YR 1987	TOTAL	935.13	MEAN	2.56	MAX	166	MIN	0	AC-FT	1850

SANTA ANA RIVER BASIN

11069501 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 1986 TO SEPTEMBER 1987

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	5.9	1.5	3.1	5.1	2.4	12	8.6	3.9	4.4	2.6	3.8
2	5.8	5.7	3.9	3.0	3.8	3.3	12	6.4	3.8	4.3	2.7	3.3
3	12	5.5	6.7	2.9	4.8	3.1	14	5.4	3.3	4.3	2.5	3.6
4	5.9	5.9	7.0	3.5	4.6	2.8	13	4.2	4.5	3.3	3.0	3.8
5	4.1	5.0	6.7	9.4	4.3	5.4	10	6.2	5.6	3.3	3.0	3.5
6	3.8	5.9	16	6.1	2.9	46	9.7	6.9	8.8	4.5	3.7	3.5
7	3.6	6.1	23	13	4.1	170	9.5	4.7	6.6	4.3	4.8	3.3
8	3.9	6.5	8.4	18	4.0	134	9.7	5.2	5.3	4.2	5.0	3.3
9	4.8	6.1	6.6	9.4	4.1	67	7.2	8.3	5.3	4.6	2.7	3.2
10	7.1	5.3	4.9	7.8	3.5	33	7.2	7.3	4.8	4.4	2.2	3.6
11	5.8	6.0	4.5	6.6	4.6	25	6.6	8.6	4.8	4.6	3.9	3.0
12	3.5	6.2	4.0	4.5	4.3	22	6.8	8.3	4.2	3.8	3.3	3.3
13	3.6	6.0	3.7	4.0	3.4	20	7.1	8.0	3.9	2.5	4.6	3.5
14	4.6	5.7	3.3	3.5	5.4	17	5.6	6.6	4.3	2.1	2.9	3.6
15	4.2	6.0	3.0	3.4	4.6	18	4.0	7.9	4.5	1.9	3.8	3.2
16	4.5	5.7	2.6	2.9	4.5	17	4.1	8.5	4.0	3.1	3.0	3.3
17	4.6	6.3	2.5	4.0	4.0	16	4.1	7.4	4.1	4.4	3.1	3.0
18	4.4	17	2.2	5.7	3.9	14	4.0	6.6	4.2	4.1	3.8	3.2
19	4.5	9.5	2.1	4.1	4.0	13	2.9	3.3	3.7	4.0	3.8	3.1
20	4.5	5.9	2.1	3.0	3.8	12	2.7	5.6	4.0	4.1	2.8	3.1
21	6.0	3.0	2.2	3.6	3.8	14	2.3	5.7	5.0	4.6	3.3	3.0
22	6.4	2.7	2.2	4.6	3.8	17	1.8	5.7	4.9	4.3	3.3	3.2
23	6.4	2.5	3.5	4.5	4.3	14	1.3	5.5	4.5	4.1	3.7	3.5
24	6.0	2.9	3.3	4.7	5.3	11	3.0	5.6	4.5	2.1	3.6	3.8
25	4.3	2.2	3.3	4.3	4.1	9.3	4.7	5.6	4.5	2.0	3.4	3.4
26	3.1	2.6	2.7	4.3	2.4	7.9	5.8	5.9	4.9	2.1	3.5	3.0
27	4.5	2.6	3.1	4.6	2.3	8.2	6.1	6.2	4.9	1.9	3.5	2.9
28	6.0	2.3	3.1	5.9	2.3	7.5	6.6	5.8	5.3	2.0	3.4	2.9
29	6.0	2.2	2.5	6.6	---	9.6	6.5	5.6	4.5	1.9	3.3	3.1
30	5.7	2.3	3.1	5.7	---	12	7.4	4.9	4.4	1.6	3.4	2.9
31	6.1	---	3.0	5.4	---	12	---	4.6	---	1.6	3.5	---
TOTAL	160.3	157.5	146.7	172.1	112.0	763.5	197.7	195.1	141.0	104.4	105.1	98.9
MEAN	5.17	5.25	4.73	5.55	4.00	24.6	6.59	6.29	4.70	3.37	3.39	3.30
MAX	12	17	23	18	5.4	170	14	8.6	8.8	4.6	5.0	3.8
MIN	3.1	2.2	1.5	2.9	2.3	2.4	1.3	3.3	3.3	1.6	2.2	2.9
AC-FT	318	312	291	341	222	1510	392	387	280	207	208	196
CAL YR 1986	TOTAL	6304.1	MEAN	17.3	MAX	690	MIN	1.5	AC-FT	12500		
WTR YR 1987	TOTAL	2354.3	MEAN	6.45	MAX	170	MIN	1.3	AC-FT	4670		

SANTA ANA RIVER BASIN

11070050 BAUTISTA CREEK AT VALLE VISTA, CA

LOCATION.--Lat 33°44'04", long 116°53'33", in NE 1/4 SE 1/4 sec.17, T.5 S., R.1 E., Riverside County, Hydrologic Unit 18070202, on left levee of flood channel, 1.0 mi south of Valle Vista.

DRAINAGE AREA.--47.2 mi².

PERIOD OF RECORD.--October 1969 to current year.

REVISED RECORDS.--WDR CA-83-1: 1980(M).

GAGE.--Water-stage recorder. Elevation of gage is 1,835 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records poor. No regulation upstream from station. Detention dam, 2.2 mi upstream, will cause peak attenuation and some infiltration. Minor diversion for irrigation upstream from station.

AVERAGE DISCHARGE.--18 years, 2.34 ft³/s, 1,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,320 ft³/s, Feb. 21, 1980, gage height, 6.40 ft, from rating curve extended above 80 ft³/s on basis of slope-conveyance study of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 22	1730	*22	*1.75				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	0	0	.39	.75	1.5	2.4	0	0	0	.02	0
2	.32	.15	0	.80	1.8	.08	3.2	.33	.01	0	.11	0
3	0	.13	.46	1.4	.96	0	2.9	.11	0	0	0	.05
4	.40	0	.60	2.8	1.5	0	2.0	.31	0	0	0	0
5	.12	.07	.17	1.1	.56	.06	2.6	.24	0	0	.17	0
6	.05	.28	2.6	.34	.01	1.0	1.9	.06	.11	.02	0	0
7	0	0	2.5	.62	.02	.11	.27	.32	0	0	0	.03
8	0	.07	.41	0	.52	.13	.21	.05	0	0	0	.12
9	.36	.05	.14	0	.32	.04	0	.09	0	0	0	.03
10	.16	.18	.09	0	0	0	.50	1.6	0	0	0	0
11	.36	0	.03	0	0	.05	.08	.28	0	.22	.19	.02
12	.06	0	0	0	.57	0	0	0	0	0	0	0
13	0	0	0	0	.98	0	.27	0	.07	0	.08	0
14	0	0	0	.02	.01	0	.04	.03	0	0	.08	0
15	0	.03	0	.05	0	.42	.03	0	0	0	.02	0
16	.62	.10	0	.03	.19	0	.08	.31	.01	.02	0	0
17	.03	.75	0	0	2.4	0	.68	0	0	0	0	0
18	.15	2.5	0	0	2.3	0	.01	.03	0	0	0	.14
19	.10	.06	0	0	2.2	0	.15	.08	0	0	.06	0
20	.16	0	0	0	2.6	0	.37	0	0	.04	0	0
21	.07	0	0	0	2.8	.36	.04	0	0	0	0	0
22	.04	0	0	2.2	1.3	.11	0	0	1.4	0	0	0
23	0	0	0	1.4	.82	.72	0	.04	.63	.18	0	.04
24	.64	.17	1.3	.09	.87	1.9	0	.09	0	0	0	0
25	0	.51	2.6	0	.64	1.8	0	0	0	0	0	0
26	0	.57	.99	0	.69	1.2	0	.17	.03	0	0	0
27	.13	1.5	.04	0	1.1	2.5	0	0	.01	0	.14	0
28	.43	2.2	.01	.01	.68	1.2	0	.24	.04	0	0	0
29	0	.62	0	.88	---	2.5	.13	0	0	.01	0	0
30	0	.03	.08	.28	---	2.7	.04	.04	0	.04	0	0
31	0	---	.27	.33	---	2.5	---	0	---	.17	0	---
TOTAL	4.23	9.97	12.29	12.74	26.59	20.88	17.90	4.42	2.31	.70	.87	.43
MEAN	.14	.33	.40	.41	.95	.67	.60	.14	.077	.023	.028	.014
MAX	.64	2.5	2.6	2.8	2.8	2.7	3.2	1.6	1.4	.22	.19	.14
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	8.4	20	24	25	53	41	36	8.8	4.6	1.4	1.7	.9

CAL YR 1986 TOTAL 480.74 MEAN 1.32 MAX 160 MIN 0 AC-FT 954
WTR YR 1987 TOTAL 113.33 MEAN .31 MAX 3.2 MIN 0 AC-FT 225

SANTA ANA RIVER BASIN

11070500 SAN JACINTO RIVER NEAR ELSINORE, CA

LOCATION.--Lat 33°39'51", long 117°17'35", in SE 1/4 NE 1/4 sec.9, T.6 S., R.4 W., Riverside County, Hydrologic Unit 18070203, on right bank 2 mi east of Elsinore, 2.1 mi downstream from Railroad Canyon Dam, and 36 mi downstream from Lake Hemet.

DRAINAGE AREA.--723 mi².

PERIOD OF RECORD.--January 1916 to current year. Monthly figures 1927-50, adjusted for diversion, published in WSP 1315-B.

REVISED RECORDS.--WDR CA-72-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Feb. 13, 1916, nonrecording gage at site 0.7 mi downstream at different datum. Feb. 13, 1916, to Oct. 27, 1921, nonrecording gage at present site, but at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow partly regulated by Lake Hemet (station 11069000) and regulated since 1928 by Railroad Canyon Reservoir, capacity, 12,000 acre-ft, 2.1 mi upstream from station. Diversions for irrigation and domestic use upstream from Railroad Canyon Reservoir. Temescal Water Co. diverted 894 acre-ft during current year from Railroad Canyon Reservoir for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s, Feb. 17, 1927, gage height, 11.8 ft, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow; no flow for several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.7 ft³/s, Feb. 25, gage height, 2.67 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	.67	.64	.63	.72	.86	.62	.38	.15	.19	0	0
2	.55	.59	.68	.66	.75	.88	.61	.32	.14	.09	0	0
3	.54	.61	.68	.63	.78	.89	.61	.26	.12	.05	0	0
4	.51	.68	.70	.69	.84	.86	.65	.20	.09	.02	0	.02
5	.45	.74	.69	2.0	.83	.84	.61	.20	.08	.01	0	0
6	.42	.76	.88	1.1	.87	1.3	.57	.21	.06	0	0	0
7	.45	.78	1.1	1.6	.80	1.3	.57	.21	.08	.02	0	0
8	.51	.74	.84	1.1	.90	1.0	.53	.32	.14	.07	0	0
9	.56	.72	.75	.96	.78	.93	.51	.26	.28	.19	0	0
10	.74	.71	.66	.88	.86	1.1	.48	.23	.27	.19	0	.11
11	.66	.74	.68	.75	.81	.93	.50	.24	.29	.12	0	.20
12	.62	.74	.69	.76	.83	.88	.52	.31	.26	.08	0	.22
13	.57	.79	.65	.79	.84	.84	.50	.28	.15	.02	0	.24
14	.55	.84	.64	.81	1.0	.84	.44	.26	.11	.01	.10	.30
15	.58	.83	.58	.78	.89	1.1	.40	.29	.16	.01	.10	.34
16	.59	.85	.56	.84	.90	.87	.38	.33	.21	.01	.03	1.1
17	.59	1.1	.57	.78	.88	.83	.40	.23	.21	.10	.01	1.4
18	.61	1.5	.58	.70	.91	.84	.44	.17	.26	.15	.08	.33
19	.62	.84	.60	.78	.91	.88	.43	.20	.26	.06	.08	.14
20	.67	.70	.66	.77	.89	.84	.34	.33	.26	.01	.07	.09
21	.69	.65	.59	.81	.84	.96	.31	.44	.23	.14	.05	.05
22	.68	.60	.60	.83	.84	1.0	.30	.41	.19	.16	.03	.11
23	.67	.56	.68	.83	.91	.88	.29	.36	.19	.12	0	.19
24	.70	.59	.66	.78	1.5	.92	.30	.32	.14	.07	.01	.23
25	.66	.61	.56	.74	2.6	.99	.30	.28	.17	.02	0	.15
26	.62	.61	.56	.71	1.6	.81	.30	.29	.14	0	.06	.12
27	.61	.61	.62	.78	1.1	.77	.33	.37	.10	0	.08	.13
28	.67	.64	.63	.76	.95	.75	.44	.43	.05	0	.07	.11
29	.70	.65	.64	.81	---	.74	.44	.40	.03	.02	.03	.14
30	.70	.62	.62	.83	---	.70	.43	.37	.12	0	0	.14
31	.72	---	.62	.81	---	.65	---	.24	---	0	0	---
TOTAL	18.70	22.07	20.61	26.70	27.33	27.98	13.55	9.14	4.94	1.93	.80	5.86
MEAN	.60	.74	.66	.86	.98	.90	.45	.29	.16	.062	.026	.20
MAX	.74	1.5	1.1	2.0	2.6	1.3	.65	.44	.29	.19	.10	1.4
MIN	.42	.56	.56	.63	.72	.65	.29	.17	.03	0	0	0
AC-FT	37	44	41	53	54	55	27	18	9.8	3.8	1.6	12

CAL YR 1986 TOTAL 207.33 MEAN .57 MAX 6.8 MIN 0 AC-FT 411
WTR YR 1987 TOTAL 179.61 MEAN .49 MAX 2.6 MIN 0 AC-FT 356

SANTA ANA RIVER BASIN

11072100 TEMESCAL CREEK ABOVE MAIN STREET, AT CORONA, CA

LOCATION.--Lat 33°53'21", long 117°33'43", in La Sierra Grant, Riverside County, Hydrologic Unit 18070203, on right bank 500 ft upstream from Main Street bridge in Corona, 1.5 mi upstream from topographic boundary of Prado Flood control basin.

DRAINAGE AREA.--224 mi², excludes 768 mi² above Lake Elsinore.

PERIOD OF RECORD.--December 1967 to September 1974, December 1980 to July 1983, February 1984 to current year.

GAGE.--Water-stage recorder and concrete-lined flood control channel. Elevation of gage is 600 ft above National Geodetic Vertical Datum of 1929, from topographic map. December 1967 to September 1974, water-stage recorder at site 1.2 mi downstream at different datum. December 1980 to July 1983 at site 500 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 7-9, and Oct. 11 to Nov. 4. Records poor. Flow regulated by several small storage reservoirs. Many diversions upstream for irrigation. Gage removed July 26, 1983, due to channel construction, and reinstalled Feb. 28, 1984.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,850 ft³/s, Feb. 25, 1969, gage height, 8.17 ft, from floodmark, at old site 1.2 mi downstream, on basis of slope-area measurement of peak flow; no flow many days in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 662 ft³/s, Sept. 23, gage height, 4.14 ft; minimum daily, 1.5 ft³/s, Dec. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	3.4	1.9	3.7	3.0	3.7	3.9	3.7	4.2	4.5	5.5	4.1
2	7.0	3.4	3.4	6.0	4.2	3.4	4.5	4.3	4.2	5.8	8.7	4.7
3	7.6	3.4	3.7	5.7	4.9	3.7	13	4.9	4.4	5.8	11	4.6
4	8.6	3.2	5.5	70	4.6	3.6	8.4	4.7	3.6	7.9	7.5	4.1
5	8.4	3.0	4.8	40	5.1	5.8	7.1	4.8	3.0	9.7	6.2	4.0
6	8.3	3.0	39	19	5.6	39	6.6	4.4	2.8	8.0	4.0	3.7
7	9.0	2.8	12	11	5.8	5.0	7.0	5.1	2.6	9.7	4.3	3.9
8	11	3.0	3.4	3.2	5.4	4.3	7.2	8.9	2.3	12	3.2	3.8
9	11	2.9	2.8	2.4	8.6	5.0	8.6	3.8	2.0	13	3.4	3.8
10	41	2.3	1.5	3.3	7.7	5.1	7.8	2.3	2.2	9.4	3.5	3.4
11	18	2.4	2.0	2.2	5.2	5.1	9.5	2.6	3.2	11	3.1	4.9
12	10	3.7	2.0	2.1	4.9	5.4	11	3.2	2.8	11	3.6	5.5
13	5.5	2.6	2.2	2.2	17	6.0	9.4	3.2	3.1	9.6	3.2	6.2
14	3.0	1.9	2.4	2.2	8.2	5.1	8.1	3.1	3.3	8.3	3.8	4.1
15	2.8	2.7	3.1	2.1	4.3	23	7.5	3.3	3.6	6.6	3.6	4.3
16	2.8	3.6	2.4	4.2	4.2	5.2	7.8	3.3	3.0	7.5	3.4	4.6
17	2.9	5.7	2.8	2.2	3.7	5.3	7.7	4.0	2.4	9.0	2.7	5.3
18	3.0	57	2.0	2.5	3.9	6.1	8.9	3.5	2.2	5.6	2.9	6.6
19	3.2	2.8	2.4	2.7	4.0	7.0	7.3	5.2	2.2	5.0	2.9	7.9
20	3.2	2.3	3.7	2.6	4.5	6.9	6.7	5.7	2.5	4.8	2.5	9.0
21	3.2	2.4	2.7	2.2	5.4	53	5.3	5.3	3.3	4.0	3.4	11
22	3.1	2.9	3.0	2.1	5.8	9.5	7.8	2.5	3.3	4.6	3.2	17
23	3.1	2.4	3.0	2.5	16	7.3	5.6	3.4	2.8	5.0	3.8	46
24	3.1	2.4	3.4	2.6	63	23	5.4	3.3	3.1	4.2	4.2	8.8
25	3.1	2.6	2.9	2.2	34	7.9	5.6	4.6	3.1	3.1	3.2	5.8
26	3.1	2.6	1.8	2.1	6.7	5.0	5.2	4.6	2.5	3.2	3.2	3.8
27	3.3	2.4	2.1	2.6	6.0	4.2	5.9	4.7	2.5	3.7	2.9	5.5
28	3.3	3.1	2.5	15	5.3	4.3	3.8	4.3	3.5	4.1	2.8	5.5
29	3.4	2.0	3.4	4.7	---	4.7	3.6	4.8	3.6	4.5	3.3	4.4
30	3.5	2.1	3.3	4.1	---	4.0	4.1	4.8	3.8	4.2	2.8	3.4
31	3.5	---	3.0	3.6	---	3.8	---	4.2	---	4.2	3.8	---
TOTAL	207.6	140.0	134.1	233.0	257.0	280.4	210.3	130.5	91.1	209.0	125.6	209.7
MEAN	6.70	4.67	4.33	7.52	9.18	9.05	7.01	4.21	3.04	6.74	4.05	6.99
MAX	41	57	39	70	63	53	13	8.9	4.4	13	11	46
MIN	2.8	1.9	1.5	2.1	3.0	3.4	3.6	2.3	2.0	3.1	2.5	3.4
AC-FT	412	278	266	462	510	556	417	259	181	415	249	416
CAL YR 1986	TOTAL	4032.5	MEAN	11.0	MAX	200	MIN	1.5	AC-FT	8000		
WTR YR 1987	TOTAL	2228.3	MEAN	6.10	MAX	70	MIN	1.5	AC-FT	4420		

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 downstream from Schaefer Avenue, 0.8 mi downstream from San Antonio Creek, and 1.5 mi southwest of Chino.

DRAINAGE AREA.--48.9 mi².

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Concrete dikes have formed low-water control since October 1975. Elevation of gage is 685 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow mostly regulated by San Antonio flood-control reservoir, capacity, 7,620 acre-ft. Natural streamflow affected by extensive ground-water withdrawals, diversions for power, domestic use, irrigation, and return flow from irrigated areas. California Water Project reported no releases during the year to the basin via San Antonio Creek from Rialto Pipeline below San Antonio Dam at a site 10 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s, Feb. 27, 1983, gage height, 10.32 ft, from rating curve extended above 1,200 ft³/s on basis of slope-conveyance study; no flow May 21, June 30, July 1, Oct. 30, Nov. 3, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1969, reached a stage of 9.23 ft, present datum, discharge, 9,200 ft³/s, by contracted-opening measurement at site 6.1 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 956 ft³/s, Jan. 4, gage height, 6.25 ft; minimum daily, 0.62 ft³/s, May 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	.88	1.5	1.2	.96	.88	1.1	1.1	1.7	.95	1.6	1.5
2	31	.74	1.1	1.2	.96	.86	2.2	.99	.98	1.0	1.1	2.9
3	1.6	.88	1.1	1.3	.89	.83	18	.64	1.0	1.1	1.3	1.9
4	1.0	.91	.96	307	.83	.88	2.1	.62	.95	1.2	1.2	1.6
5	.98	1.0	1.3	35	.84	9.6	1.4	.76	1.1	1.0	1.2	1.7
6	1.1	1.0	54	36	1.2	73	.96	1.2	4.0	.96	1.4	2.6
7	1.1	1.0	1.6	29	.96	1.4	.96	.99	.93	1.0	1.3	3.8
8	1.1	1.2	1.1	1.4	.96	.96	.96	3.3	1.0	.98	1.4	1.6
9	1.5	1.1	1.1	1.6	3.2	.83	.91	1.0	.96	1.1	1.3	1.4
10	14	1.1	1.1	1.8	1.1	.98	.92	.86	1.2	1.2	1.3	1.5
11	1.4	1.1	.91	1.1	.90	1.1	.96	1.1	1.0	1.2	1.3	1.8
12	1.2	1.1	.90	1.4	.83	.80	1.3	.92	.91	1.6	1.8	1.8
13	1.2	.96	1.0	.98	119	.83	1.1	1.0	.92	1.5	1.6	1.3
14	.91	1.2	1.0	.96	3.8	.86	1.2	1.0	.79	.90	1.6	1.4
15	.92	2.2	.94	1.1	1.2	34	1.1	1.3	.83	1.0	1.5	1.5
16	.92	1.4	.83	2.2	.92	1.4	1.0	2.2	.92	.97	1.3	1.6
17	1.0	18	1.2	3.2	.83	.92	.92	1.1	1.2	3.2	1.4	1.4
18	1.0	111	1.0	2.7	.83	.96	1.2	.91	1.2	1.1	1.4	1.6
19	.97	1.4	1.1	1.3	.83	2.6	.82	.90	1.1	1.2	1.5	1.6
20	.96	.83	3.3	.96	.85	.89	.80	1.0	1.0	4.4	1.6	2.2
21	.96	.92	1.2	2.2	.88	55	1.1	1.2	.93	1.1	1.9	1.8
22	.97	1.0	1.2	2.2	2.5	2.3	1.2	1.2	.87	1.2	1.7	1.3
23	1.1	1.8	.96	1.2	4.7	1.6	.98	.98	1.0	1.0	1.5	9.5
24	.84	1.1	.96	.96	28	.86	1.2	.91	.88	1.2	1.7	.73
25	.92	1.5	.96	1.2	40	1.2	.94	1.3	.96	1.3	1.4	.86
26	.96	1.1	1.4	1.1	2.4	.80	.81	1.4	1.1	1.0	1.4	.81
27	1.1	.96	1.1	1.3	1.7	.86	.97	1.0	1.1	1.2	1.3	.85
28	1.0	.96	1.3	4.9	.96	.87	.88	1.4	1.1	1.2	1.9	1.3
29	.94	.92	1.6	.96	---	.86	1.0	1.3	.94	1.1	1.8	1.4
30	.86	.96	1.6	.96	---	.85	1.3	1.6	1.1	1.2	1.6	1.4
31	1.3	---	1.9	.96	---	1.2	---	1.1	---	1.3	1.6	---
TOTAL	76.71	160.22	91.22	449.34	223.03	200.98	50.29	36.28	33.67	40.36	45.9	56.45
MEAN	2.47	5.34	2.94	14.5	7.97	6.48	1.68	1.17	1.12	1.30	1.48	1.88
MAX	31	111	54	307	119	73	18	3.3	4.0	4.4	1.9	9.5
MIN	.84	.74	.83	.96	.83	.80	.80	.62	.79	.90	1.1	.65
AC-FT	152	318	181	891	442	399	100	72	67	80	91	112
CAL YR 1986	TOTAL	3377.69	MEAN	9.25	MAX	430	MIN	.70	AC-FT	6700		
WTR YR 1987	TOTAL	1464.45	MEAN	4.01	MAX	307	MIN	.62	AC-FT	2900		

SANTA ANA RIVER BASIN

11073495 CUCAMONGA CREEK NEAR MIRA LOMA, CA

LOCATION.--Lat 33°58'58", long 117°35'55", in SW 1/4 NE 1/4 sec.22, T.2 S., R.7 W., San Bernardino County, Hydrologic Unit 18070203, on right bank 300 ft upstream from Merrill Avenue bridge, 4.6 mi west of Mira Loma.

DRAINAGE AREA.--75.8 mi².

PERIOD OF RECORD.--January 1968 to July 1977, January 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 660 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 1977 at site 100 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 4-9, 11-29, Nov. 1, 8-15, 19-27, Dec. 27 to Jan. 2, 8-30, Feb. 2-12, 14-22, Feb. 26 to Mar. 14, 16-20, Mar. 22 to Apr. 4, Apr. 7, 10-24, Apr. 28 to May 7, May 30 to June 3, June 6, June 10 to July 4, July 13 to Aug. 8, and Aug. 22 to Sept. 30. Records poor. Channel is now a trapezoidal concrete floodway; records for low and medium flows prior to July 31, 1977, are not equivalent. Chino Basin Municipal Water District Tertiary Plant No. 1 began discharging effluent 1.5 mi above station on May 8, 1985. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--8 years (water years 1969-76), 2.74 ft³/s, 1,990 acre-ft/yr; 5 years (water years 1980-84), 19.3 ft³/s, 13,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft³/s, Feb. 27, 1983, gage height, 7.85 ft, from floodmark on basis of slope-conveyance study of peak flow; no flow most of some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,910 ft³/s, Jan. 4, gage height, 4.87 ft; minimum daily, 2.5 ft³/s, June 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	20	19	17	20	24	20	20	25	19	17	15
2	25	21	20	16	17	24	20	20	20	18	17	6.0
3	16	22	20	16	18	23	20	21	20	17	16	23
4	17	21	18	772	17	23	18	18	20	18	16	38
5	18	21	16	119	17	22	52	19	18	18	17	38
6	19	20	91	42	16	135	30	19	2.5	19	17	37
7	20	20	20	47	18	24	20	18	19	21	18	40
8	22	19	18	26	25	24	17	18	19	21	18	42
9	20	18	18	21	84	24	18	20	15	20	18	41
10	39	18	17	19	46	24	18	17	17	20	19	43
11	20	17	16	20	38	23	18	18	18	21	19	45
12	21	17	15	19	25	23	19	20	18	21	18	43
13	20	18	17	18	122	22	19	19	17	20	16	42
14	20	17	18	18	31	22	19	22	17	19	15	42
15	19	20	16	17	28	78	18	20	18	20	15	36
16	20	23	18	16	26	24	17	21	19	20	17	34
17	19	35	19	17	26	22	18	18	18	19	17	40
18	20	174	20	17	26	21	18	21	19	19	18	42
19	19	19	19	18	26	20	19	19	19	20	19	42
20	19	18	27	19	26	20	19	17	19	20	21	41
21	19	18	20	19	27	98	19	16	18	20	15	42
22	19	17	21	18	28	20	18	20	19	20	19	44
23	18	17	20	18	69	18	18	20	20	19	20	120
24	20	18	20	19	164	17	20	18	21	19	20	45
25	21	18	21	19	70	19	21	27	21	18	20	41
26	21	18	18	19	30	19	21	28	19	18	21	40
27	21	18	18	19	23	19	20	16	19	18	21	43
28	21	21	19	40	24	19	20	18	19	19	23	45
29	21	17	19	20	---	19	20	20	20	20	24	43
30	21	19	17	19	---	20	20	20	20	20	22	40
31	21	---	17	18	---	18	---	25	---	18	20	---
TOTAL	633	739	652	1502	1087	908	614	613	553.5	599	573	1233.0
MEAN	20.4	24.6	21.0	48.5	38.8	29.3	20.5	19.8	18.5	19.3	18.5	41.1
MAX	39	174	91	772	164	135	52	28	25	21	24	120
MIN	16	17	15	16	16	17	17	16	2.5	17	15	6.0
AC-FT	1260	1470	1290	2980	2160	1800	1220	1220	1100	1190	1140	2450
CAL YR 1986	TOTAL	13332.7	MEAN	36.5	MAX	674	MIN	9.7	AC-FT	26450		
WTR YR 1987	TOTAL	9706.5	MEAN	26.6	MAX	772	MIN	2.5	AC-FT	19250		

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 downstream from axis of Prado Dam, and 4.5 mi west of Corona.

DRAINAGE AREA.--1,490 mi², excludes 768 mi² 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 above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Mar. 18, 1940, at about same site at various datums.

REMARKS.--Estimated daily discharges: Nov. 21-23. Records good. Flow regulated since 1941 by Prado Reservoir, capacity, 201,200 acre-ft. Natural streamflow affected by extensive ground-water withdrawals, diversion for irrigation, and return flow from irrigated areas. No releases by California Water Project were made to the basin. See schematic diagram of Santa Ana River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,440 ft³/s, Feb. 21, 1980, gage height, 6.88 ft; minimum daily, 2.4 ft³/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 ft³/s, by slope-area measurement of peak flow at site 2.5 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 850 ft³/s, Jan. 5, gage height, 4.29 ft; minimum daily, 4.0 ft³/s, Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	171	177	207	263	257	269	285	143	153	126	133
2	333	173	181	199	261	256	271	279	128	151	123	137
3	360	175	183	205	259	254	310	272	129	145	117	138
4	246	176	246	293	245	254	328	262	129	140	118	138
5	159	176	188	650	225	191	328	249	135	135	116	129
6	179	98	190	675	226	185	327	230	135	133	121	134
7	59	196	230	525	226	255	326	197	150	152	122	135
8	4.0	214	240	439	227	254	327	202	150	167	124	140
9	4.6	177	210	203	228	253	327	190	166	158	122	146
10	173	169	194	199	175	252	327	183	161	143	121	96
11	364	164	230	196	185	251	327	171	153	147	123	44
12	342	167	260	196	243	250	326	168	146	151	123	54
13	270	167	257	196	192	250	322	165	136	149	125	56
14	202	169	254	220	117	251	320	165	131	133	133	54
15	181	166	251	232	118	254	316	162	110	130	133	50
16	177	168	249	227	118	256	327	165	96	130	134	50
17	176	159	255	223	219	256	342	167	53	121	135	50
18	174	325	257	223	281	257	336	159	21	119	134	50
19	178	283	263	221	279	258	330	159	104	115	131	50
20	177	286	264	233	277	259	319	162	168	134	122	50
21	172	260	252	253	276	262	312	166	171	149	128	50
22	159	260	234	253	277	264	309	164	68	145	135	50
23	155	170	216	254	206	266	304	161	84	145	131	50
24	157	157	242	253	162	266	300	155	164	141	129	50
25	160	182	211	250	271	266	294	150	172	138	131	52
26	156	204	192	246	339	267	288	152	168	133	130	52
27	158	199	198	244	288	268	294	155	167	131	130	52
28	162	191	198	242	258	268	304	155	165	130	128	52
29	151	184	197	164	---	267	297	154	161	134	133	53
30	158	180	197	187	---	266	292	157	156	134	135	53
31	163	---	205	264	---	267	---	157	---	131	129	---
TOTAL	5831.6	5766	6921	8372	6441	7880	9399	5718	4020	4317	3942	2348
MEAN	188	192	223	270	230	254	313	184	134	139	127	78.3
MAX	364	325	264	675	339	268	342	285	172	167	135	146
MIN	4.0	98	177	164	117	185	269	150	21	115	116	44
AC-FT	11570	11440	13730	16610	12780	15630	18640	11340	7970	8560	7820	4660
CAL YR 1986	TOTAL	94400.6	MEAN	259	MAX	2320	MIN	4.0	AC-FT	187200		
WTR YR 1987	TOTAL	70955.6	MEAN	194	MAX	675	MIN	4.0	AC-FT	140700		

SANTA ANA RIVER BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.
 CHEMICAL DATA: Water years 1967 to current year.
 BIOLOGICAL DATA: Water years 1975 to current year.
 SPECIFIC CONDUCTANCE: Water years 1970 to current year.
 WATER TEMPERATURE: Water years 1970 to current year.
 SEDIMENT DATA: Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

CHLORIDE: October 1970 to September 1971.
 SPECIFIC CONDUCTANCE: October 1969 to current year.
 WATER TEMPERATURE: October 1969 to current year.
 SUSPENDED-SEDIMENT DISCHARGE: October 1973 to June 1982.

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

REMARKS.--Periods of missing conductivity and temperature data due to equipment malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,830 microsiemens, Apr. 30, 1971; minimum recorded, 220 microsiemens, Feb. 20, 1978.
 WATER TEMPERATURE: Maximum recorded, 36.0°C, Sept. 4, 1972, Sept. 8, 1984; minimum recorded, 2.5°C, Dec. 30, 1969.
 SEDIMENT CONCENTRATION: 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 LOAD: Maximum daily, 18,900 tons, Mar. 5, 1978; minimum daily, 0.58 ton, Sept. 20, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,200 microsiemens, Oct. 4; minimum recorded, 362 microsiemens, Jan. 5.
 WATER TEMPERATURE: Maximum recorded, 28.0°C, Aug. 6; minimum recorded, 8.5°C, Jan. 18-23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	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)
OCT												
02...	1230	346	1080	--	18.5	--	--	--	--	--	--	--
NOV												
04...	1350	179	1080	--	17.5	--	--	--	--	--	--	--
14...	1140	174	1060	--	14.0	--	--	--	--	--	--	--
25...	1245	223	1070	7.9	14.5	745	8.1	9.6	97	K1200	610	330
DEC												
02...	1330	175	1070	--	12.5	--	--	--	--	--	--	--
JAN												
08...	1015	452	636	--	12.0	--	--	--	--	--	--	--
14...	1215	235	980	7.9	11.5	745	5.2	9.6	90	640	190	310
FEB												
04...	1050	253	1080	--	14.5	--	--	--	--	--	--	--
MAR												
02...	1140	253	876	--	13.5	--	--	--	--	--	--	--
18...	1145	251	967	8.0	16.0	740	2.0	8.8	92	K12	K16	300
APR												
01...	1030	266	910	--	16.5	--	--	--	--	--	--	--
17...	0800	342	953	--	19.5	--	--	--	--	--	--	--
MAY												
05...	0830	247	1110	--	21.0	--	--	--	--	--	--	--
13...	1045	168	1070	8.0	22.5	745	100	7.4	88	K1100	2300	310
JUN												
03...	0730	127	1050	--	19.0	--	--	--	--	--	--	--
30...	1130	157	1050	--	21.0	--	--	--	--	--	--	--
JUL												
20...	1200	131	1090	--	20.0	--	--	--	--	--	--	--
28...	1245	133	1050	8.0	23.0	740	32	7.4	89	K1300	620	310
AUG												
14...	1215	132	1040	--	22.0	--	--	--	--	--	--	--
SEP												
02...	1000	134	1040	--	22.0	--	--	--	--	--	--	--
22...	1215	49	1070	7.9	21.0	745	2.3	7.8	90	500	250	320

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 1986 TO SEPTEMBER 1987

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	CAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT												
02...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
04...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
25...	110	94	23	95	38	2	9.6	262	0	215	216	150
DEC												
02...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
08...	--	--	--	--	--	--	--	--	--	--	--	--
14...	99	90	21	80	35	2	10	263	0	215	213	130
FEB												
04...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
18...	98	88	20	79	36	2	7.7	248	0	204	204	130
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
05...	--	--	--	--	--	--	--	--	--	--	--	--
13...	83	87	22	93	39	2	8.9	275	0	226	226	130
JUN												
03...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
20...	--	--	--	--	--	--	--	--	--	--	--	--
28...	85	88	21	93	39	2	9.2	270	0	222	222	130
AUG												
14...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
02...	--	--	--	--	--	--	--	--	--	--	--	--
22...	82	93	22	98	39	2	11	294	0	241	241	140

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT												
02...	--	--	--	655	--	--	--	--	--	--	--	--
NOV												
04...	--	--	--	685	--	--	--	--	--	--	--	--
14...	--	--	--	661	--	--	--	--	--	--	--	--
25...	110	0.60	24	694	650	0.94	0.170	8.8	0.450	0.440	2.4	3.3
DEC												
02...	--	--	--	671	--	--	--	--	--	--	--	--
JAN												
08...	--	--	--	407	--	--	--	--	--	--	--	--
14...	99	0.50	22	611	590	0.83	0.220	5.8	1.3	1.3	2.2	1.7
FEB												
04...	--	--	--	669	--	--	--	--	--	--	--	--
MAR												
02...	--	--	--	535	--	--	--	--	--	--	--	--
18...	96	0.70	19	589	570	0.80	0.110	5.4	0.250	0.250	1.2	1.9
APR												
01...	--	--	--	570	--	--	--	--	--	--	--	--
17...	--	--	--	583	--	--	--	--	--	--	--	--
MAY												
05...	--	--	--	678	--	--	--	--	--	--	--	--
13...	110	0.50	27	654	630	0.89	0.310	6.5	1.7	1.5	3.4	3.8
JUN												
03...	--	--	--	670	--	--	--	--	--	--	--	--
30...	--	--	--	636	--	--	--	--	--	--	--	--
JUL												
20...	--	--	--	672	--	--	--	--	--	--	--	--
28...	110	0.50	28	643	630	0.87	0.260	5.8	3.2	2.9	11	3.6
AUG												
14...	--	--	--	645	--	--	--	--	--	--	--	--
SEP												
02...	--	--	--	646	--	--	--	--	--	--	--	--
22...	110	0.60	28	669	660	0.91	0.190	2.9	0.940	0.990	2.0	3.0

SANTA ANA RIVER BASIN

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
OCT											
02...	--	--	--	--	--	--	--	--	--	--	--
NOV											
04...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
25...	2.9	2.7	<10	4	44	<0.5	<1	<1	<3	3	9
DEC											
02...	--	--	--	--	--	--	--	--	--	--	--
JAN											
08...	--	--	--	--	--	--	--	--	--	--	--
14...	1.7	1.3	<10	4	51	<0.5	<1	<1	<3	3	19
FEB											
04...	--	--	--	--	--	--	--	--	--	--	--
MAR											
02...	--	--	--	--	--	--	--	--	--	--	--
18...	1.8	1.7	--	--	--	--	--	--	--	--	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--
13...	--	2.6	<10	5	45	<0.5	<1	<1	<3	5	13
JUN											
03...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
JUL											
20...	--	--	--	--	--	--	--	--	--	--	--
28...	3.2	2.7	<10	4	41	<0.5	<1	<1	<3	2	23
AUG											
14...	--	--	--	--	--	--	--	--	--	--	--
SEP											
02...	--	--	--	--	--	--	--	--	--	--	--
22...	2.5	2.4	--	--	--	--	--	--	--	--	--

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 1986 TO SEPTEMBER 1987

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT											
02...	--	--	--	--	--	--	--	--	--	--	--
NOV											
04...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
25...	<5	16	110	<0.1	<10	5	<1	<1	590	6	14
DEC											
02...	--	--	--	--	--	--	--	--	--	--	--
JAN											
08...	--	--	--	--	--	--	--	--	--	--	--
14...	<5	17	60	<0.1	<10	4	<1	<1	550	<6	9
FEB											
04...	--	--	--	--	--	--	--	--	--	--	--
MAR											
02...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
MAY											
05...	--	--	--	--	--	--	--	--	--	--	--
13...	<5	14	190	0.1	<10	5	<1	<1	580	7	7
JUN											
03...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
JUL											
20...	--	--	--	--	--	--	--	--	--	--	--
28...	<5	14	110	<0.1	<10	6	<1	<1	560	7	55
AUG											
14...	--	--	--	--	--	--	--	--	--	--	--
SEP											
02...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--

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.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	SEDI- MENT, SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
JAN										
14...*	1435	4.0	981	7.8	11.5	745	9.6	90	11	96
14...*	1438	11.0	980	7.9	11.5	745	9.6	90	12	96
14...*	1441	15.0	980	7.9	11.5	745	9.6	90	14	72
14...*	1444	19.0	980	7.9	11.5	745	9.6	90	10	97
14...*	1447	24.0	981	7.9	11.5	745	9.6	90	10	93
14...*	1450	32.0	981	7.9	11.5	745	9.7	91	9	100
JUL										
28...*	1345	6.0	1060	8.0	24.5	740	7.4	92	134	96
28...*	1355	12.0	1060	8.0	24.5	740	7.4	92	168	92
28...*	1405	17.0	1050	8.0	24.5	740	7.3	91	183	90
28...*	1415	24.0	1050	8.0	24.5	740	7.4	92	180	90
28...*	1425	31.0	1040	8.0	24.5	740	7.4	92	172	91

* Instantaneous streamflow at the time of cross-sectional measurements: Jan. 14, 235 ft³/s; July 28, 133 ft³/s.

SANTA ANA RIVER BASIN

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

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	1090	1010	1120	1100	1110	1070	1060	1040	1100	1040	926	885
2	1110	1060	1120	1090	1090	1050	1050	1040	1080	1030	897	866
3	1130	1030	1110	1070	1080	1040	1040	1030	1070	1040	948	867
4	1200	1160	1090	1050	1090	1050	1040	422	1120	1040	990	908
5	1150	1060	1080	1040	1090	1070	503	362	1120	1030	951	891
6	1050	1030	---	---	1070	815	554	473	1110	1020	993	911
7	---	---	---	---	866	776	705	564	1110	1010	994	963
8	---	---	1070	1050	838	767	877	606	1060	1020	986	944
9	---	---	1060	1040	919	758	852	708	1090	1010	967	946
10	---	---	1060	1030	980	840	896	794	1100	1040	969	918
11	1030	880	1060	1040	1020	901	929	867	1110	1020	970	920
12	1020	890	1060	1040	1030	942	944	872	1100	1050	962	912
13	1020	974	1070	1040	1050	973	1010	888	1120	1050	943	902
14	1010	984	1080	1050	1050	1000	1000	879	1110	1060	945	914
15	998	968	1080	1050	1070	1040	982	891	1100	1040	946	915
16	990	970	1070	1050	1070	1050	1020	952	1110	1030	988	936
17	982	962	1070	1040	1070	1050	1050	982	1090	1040	999	958
18	975	963	1040	684	1100	1050	1060	984	1060	1040	990	950
19	977	956	870	837	1090	1070	1030	975	1110	1040	969	939
20	988	967	984	850	1100	1060	1130	996	1080	1020	998	939
21	1000	969	1050	994	1090	1060	1050	997	1070	1000	998	947
22	1040	1000	1070	1030	1090	1070	1070	1010	1060	1000	1020	937
23	1060	1030	1080	1040	1100	1080	1090	1020	1070	972	1020	966
24	1060	1040	1090	1070	1110	1080	1090	1040	1050	1000	956	925
25	1070	1040	1100	1060	1110	1070	1070	1040	1060	993	955	925
26	1090	1060	1090	1070	1090	1070	1070	1040	1000	894	944	884
27	1100	1070	1100	1060	1070	1050	1060	1020	924	884	924	883
28	1130	1090	1090	1060	1070	1050	1060	1030	925	895	923	882
29	1150	1130	1090	1060	1080	1040	---	---	---	---	932	892
30	1150	1130	1100	1080	1060	1040	---	---	---	---	951	921
31	1160	1110	---	---	1070	1040	1100	1050	---	---	970	910
MONTH	---	---	---	---	1110	758	---	---	1120	884	1020	866
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	970	910	1110	1040	1070	1040			---	---	1050	1030
2	982	931	1110	1050	1060	1040			---	---	1050	1020
3	983	934	1100	1070	1060	1040			---	---	1050	1030
4	965	934	1120	1080	1070	1030			---	---	1070	1030
5	986	935	1120	1080	1060	1030			---	---	1070	1040
6	998	937	1130	1080	1060	1020			---	---	1060	1040
7	969	949	1090	1060	1050	1010			---	---	1080	1030
8	970	931	1070	1030	1030	991			---	---	1070	1050
9	962	932	1070	1030	999	979			---	---	1050	1000
10	963	924	1070	1030	1010	981			---	---	---	---
11	975	924	1070	1040	1010	981			---	---	---	---
12	986	946	1070	1050	1010	980			---	---	---	---
13	978	947	1070	1050	1010	988			---	---	---	---
14	999	968	1070	1020	1000	985			---	---	---	---
15	1000	970	1030	1000	---	---			1040	1010	---	---
16	1000	962	1020	992	---	---			1020	994	---	---
17	1000	946	1010	982	---	---			1010	982	---	---
18	999	946	999	981	---	---			1020	979	---	---
19	1030	961	992	980	---	---			1040	1000	---	---
20	1080	986	996	979	---	---			1050	1020	---	---
21	1070	995	996	969	---	---			1040	1010	---	---
22	1060	986	1010	980	---	---			1030	1000	---	---
23	1040	982	996	979	---	---			1040	1000	1080	1010
24	1040	997	1000	978	---	---			1050	1020	1060	1010
25	1060	1000	1010	978	---	---			1060	1030	1050	1000
26	1070	1010	1010	996	---	---			1060	1030	1080	1020
27	1060	1020	1030	1000	---	---			1070	1040	1110	1060
28	1080	1020	1060	1030	---	---			1080	1040	1120	1080
29	1090	1030	1060	1040	---	---			1070	1050	1110	1080
30	1100	1040	1060	1030	---	---			1060	1040	1110	1070
31	---	---	1070	1040	---	---			1060	1030	---	---
MONTH	1100	910	1130	969	---	---			---	---	---	---

SANTA ANA RIVER BASIN

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

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	19.0	18.0	18.0	15.5	15.0	12.5	14.0	11.0	14.0	13.0	12.0	11.0
2	18.5	18.0	18.0	14.5	15.0	12.5	15.5	12.5	13.5	13.0	12.5	11.5
3	19.0	18.0	18.5	14.0	15.0	12.0	15.0	10.5	13.5	13.0	13.0	12.0
4	21.0	16.5	18.5	14.0	15.5	13.0	14.5	12.5	15.0	13.5	14.0	12.5
5	21.5	16.0	19.0	14.5	16.0	14.0	12.5	12.0	15.0	13.5	13.5	13.0
6	21.5	17.0	---	---	16.0	14.5	12.0	11.5	14.5	13.5	14.0	13.0
7	---	---	---	---	14.5	14.0	12.0	11.5	14.5	13.5	14.5	14.0
8	---	---	17.5	14.0	14.0	12.5	12.0	11.5	14.0	13.5	15.0	14.0
9	---	---	17.0	12.5	13.0	12.5	12.0	11.0	14.5	14.0	15.5	14.5
10	---	---	17.0	12.5	13.0	12.0	11.5	11.0	16.0	13.5	15.5	15.0
11	20.0	19.5	17.5	14.0	12.5	11.5	11.5	10.5	15.5	13.0	16.0	15.0
12	20.0	19.0	18.0	12.5	12.0	11.0	11.5	10.5	16.0	15.0	16.0	15.5
13	20.0	17.5	17.5	13.0	11.5	11.0	11.5	11.0	16.0	15.0	16.5	15.5
14	20.0	15.0	17.0	13.0	11.5	11.0	12.0	10.5	16.5	15.0	16.5	16.0
15	19.5	15.5	18.5	14.0	12.0	11.5	11.0	10.5	16.5	15.0	16.5	16.0
16	19.5	15.0	18.5	15.0	13.0	12.0	10.5	9.5	16.5	15.0	16.5	16.0
17	20.5	17.5	18.0	16.5	13.5	13.0	9.5	9.0	16.0	14.5	16.5	15.5
18	20.0	16.0	17.5	16.5	13.5	13.0	9.5	8.5	15.5	15.0	16.0	15.5
19	19.5	15.5	17.0	17.0	14.0	13.0	9.5	8.5	15.0	14.0	16.0	15.0
20	20.0	15.5	17.0	16.5	14.5	14.0	9.5	8.5	14.5	13.5	16.0	15.5
21	20.0	15.5	17.5	17.0	14.5	13.0	9.0	8.5	14.0	13.5	15.5	15.0
22	20.0	16.0	17.0	16.5	14.5	12.0	9.0	8.5	13.5	13.0	15.5	15.0
23	20.0	16.0	16.5	14.5	15.0	12.0	9.0	8.5	13.5	12.5	15.0	14.0
24	20.0	16.0	14.5	14.0	15.5	12.5	10.0	9.0	12.5	12.0	15.0	14.0
25	21.0	15.5	14.5	14.0	15.0	11.5	10.5	9.5	12.0	11.5	15.5	14.0
26	20.5	16.0	15.0	13.0	14.0	10.5	11.0	10.0	12.0	11.5	15.0	14.0
27	20.5	16.0	15.5	13.0	14.0	10.0	11.5	11.0	12.0	11.0	15.5	14.5
28	20.0	16.0	16.0	13.0	14.5	11.0	12.0	11.5	12.0	11.0	16.0	14.5
29	21.0	17.5	16.0	13.5	15.0	11.0	---	---	---	---	16.5	15.0
30	20.0	16.5	15.5	13.0	14.5	10.0	---	---	---	---	16.5	15.5
31	20.5	17.5	---	---	14.0	11.0	14.0	13.5	---	---	16.5	15.5
MONTH	---	---	---	---	16.0	10.0	---	---	16.5	11.0	16.5	11.0
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	15.5	20.0	19.5	26.5	18.0	23.0	21.0	27.0	20.0	25.0	21.0
2	16.5	15.5	20.0	19.5	26.5	19.0	23.0	21.5	27.0	21.0	26.5	21.5
3	16.5	16.0	21.0	19.5	26.5	19.5	23.0	21.5	27.0	21.5	26.0	21.5
4	17.0	16.0	22.0	20.0	26.5	19.5	23.0	20.5	27.5	21.0	25.5	21.0
5	17.0	16.0	23.0	21.0	27.0	21.0	23.5	21.0	27.0	22.0	25.0	20.0
6	17.0	16.0	24.5	20.5	26.0	22.0	23.5	21.0	28.0	22.5	23.5	18.5
7	17.0	16.5	23.5	20.5	25.5	21.0	24.5	21.5	---	---	24.0	18.0
8	17.5	16.5	24.5	19.5	24.5	20.5	24.0	21.0	---	---	24.5	18.5
9	17.5	17.0	25.5	20.0	25.5	20.5	24.0	21.0	---	---	24.5	19.0
10	18.0	17.0	26.0	20.5	26.0	20.5	22.0	20.5	---	---	---	---
11	18.0	17.5	25.5	20.0	25.5	20.5	24.0	19.5	---	---	---	---
12	18.5	18.0	26.5	20.5	25.0	19.5	25.0	20.0	---	---	---	---
13	19.0	18.0	26.5	21.0	25.5	19.5	26.0	20.5	---	---	---	---
14	19.5	18.5	26.0	20.5	24.5	19.5	26.5	20.0	---	---	---	---
15	19.5	18.5	24.0	19.5	---	---	26.0	21.0	25.0	20.0	---	---
16	19.5	19.0	24.0	20.0	---	---	25.0	21.0	25.5	19.0	---	---
17	20.0	19.0	25.0	20.0	---	---	23.0	20.0	25.0	20.0	---	---
18	20.0	19.0	25.0	19.5	---	---	26.0	19.0	25.0	20.0	---	---
19	20.5	19.0	21.5	18.5	---	---	26.5	17.5	25.0	19.0	---	---
20	20.5	19.0	19.0	17.5	22.0	21.5	22.0	18.5	25.5	19.0	---	---
21	20.0	19.0	22.0	17.0	22.0	21.0	24.0	19.0	25.5	19.5	---	---
22	20.0	19.0	23.5	16.5	---	---	24.5	18.0	25.0	19.0	---	---
23	20.0	19.0	22.5	18.0	---	---	25.0	18.5	25.0	18.5	22.0	20.5
24	20.0	19.5	23.0	17.5	22.5	22.0	25.0	18.5	24.5	18.5	22.5	20.5
25	20.0	19.5	22.5	17.5	23.0	22.5	26.0	19.0	24.0	18.5	22.5	20.5
26	20.0	19.5	22.0	17.0	23.5	22.5	26.0	19.0	24.0	18.5	22.5	20.5
27	20.0	19.5	21.5	17.0	23.5	22.0	26.0	20.0	25.0	19.0	22.5	20.5
28	20.0	19.5	24.0	17.5	23.5	22.0	26.5	20.5	26.0	20.0	22.5	20.5
29	20.5	20.0	23.5	17.5	23.0	21.5	26.5	20.5	25.5	20.5	22.5	20.5
30	20.0	20.0	24.5	17.5	22.5	21.0	26.5	20.0	26.0	21.0	22.5	20.5
31	---	---	25.5	18.0	---	---	26.5	20.0	26.0	20.5	---	---
MONTH	20.5	15.5	26.5	16.5	---	---	26.5	17.5	---	---	---	---

SANTA ANA RIVER BASIN

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

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV						
04...	1350	179	17.5	98	47	--
25...	1245	223	14.5	15	9.0	91
JAN						
14...	1215	235	11.5	12	7.6	91
MAR						
02...	1140	253	13.5	6	4.1	--
18...	1145	251	16.0	3	2.0	88
APR						
17...	0800	342	19.5	9	8.3	--
MAY						
13...	1045	168	22.5	359	163	96
JUL						
28...	1245	133	23.0	161	58	92
SEP						
02...	1000	134	22.0	87	31	--
22...	1215	49	21.0	8	1.1	85

SANTA ANA RIVER BASIN

11075720 CARBON CREEK BELOW CARBON CANYON DAM, CA

LOCATION.--Lat 33°54'40", long 117°50'29", in SW 1/4 NE 1/4 sec.17, T.3 S., R.9 W., Orange County, Hydrologic Unit 18070106, on right wall of outlet channel 250 ft downstream from toe of Carbon Canyon Dam and 2.4 mi northwest of Yorba Linda.

DRAINAGE AREA.--19.5 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 396.29 ft, U.S. Army Corps of Engineers datum. Prior to Dec. 3, 1971, at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Carbon Canyon flood-control reservoir, capacity, 6,610 acre-ft. No diversion above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--26 years, 1.07 ft³/s, 775 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 554 ft³/s, Mar. 1, 1983, gage height, 5.11 ft, present datum, from rating curve extended above 110 ft³/s on basis of optical current-meter measurement at 241 ft³/s and computation of flow in concrete-lined channel at gage heights 6.18 and 4.12 ft; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 75 ft³/s, Jan. 4, gage height, 2.82 ft; no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.07	0	0	0	0	0						
2	.09	0	0	0	0	0						
3	.11	0	0	.04	0	0						
4	.07	0	0	9.4	0	0						
5	.07	0	0	2.4	0	0						
6	.04	0	0	1.3	0	0						
7	.04	0	.04	.16	0	0						
8	.04	0	.02	.02	0	0						
9	.04	0	0	0	0	0						
10	.04	0	0	0	0	0						
11	.03	0	0	0	0	0						
12	0	0	0	0	0	0						
13	0	0	0	0	.49	0						
14	0	0	0	0	.05	0						
15	0	0	0	0	0	.02						
16	0	0	0	0	0	0						
17	0	0	0	0	0	0						
18	0	.61	0	.08	0	0						
19	0	.32	0	0	0	0						
20	0	.10	0	0	0	0						
21	0	.07	0	0	0	.31						
22	0	.07	0	0	0	0						
23	0	.06	0	0	0	0						
24	0	.04	0	0	0	0						
25	0	.03	0	0	0	0						
26	0	0	0	0	0	0						
27	0	0	0	0	0	0						
28	0	0	0	0	0	0						
29	0	0	0	0	---	0						
30	0	0	0	0	---	0						
31	0	---	0	0	---	0	---		---			---
TOTAL	.64	1.30	.06	13.40	.54	.33	0	0	0	0	0	0
MEAN	.021	.043	.002	.43	.019	.011	0	0	0	0	0	0
MAX	.11	.61	.04	9.4	.49	.31	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	1.3	2.6	.1	27	1.1	.7	0	0	0	0	0	0
CAL YR 1986	TOTAL	184.18	MEAN .50	MAX	101	MIN 0	AC-FT 365					
WTR YR 1987	TOTAL	16.27	MEAN .045	MAX	9.4	MIN 0	AC-FT 32					

SANTA ANA RIVER BASIN

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

LOCATION.--Lat 33°49'00", long 117°52'17", in SE 1/4 SW 1/4 sec.24, T.4 S., R.10 W., Orange County, Hydrologic Unit 18070203, 350 ft south of Ball Road, 0.6 mi west of Batavia Street, 1.0 mi east of State College Boulevard in Anaheim, and 16 mi downstream from Prado Dam.

DRAINAGE AREA.--1,587 mi², excludes 768 mi² above Lake Elsinore.

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

REVISED RECORDS.--WDR CA-86-1; 1985.

GAGE.--Water-stage recorder and concrete cut-off wall. Elevation of gage is 170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. River flow is regulated by Prado Dam, infiltration ponds and diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,500 ft³/s, Mar. 1, 1983, gage height, 6.17 ft, from rating curve extended above 7,000 ft³/s; no flow for many months each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,190 ft³/s, Nov. 18, gage height, 4.19 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	9.1	26	21	0	29	0	0		
2	0	15	0	5.9	50	17	0	29	0	0		
3	0	23	3.9	5.0	53	25	0	15	0	0		
4	0	1.5	19	742	36	110	.10	11	0	0		
5	0	0	88	605	19	27	12	8.6	0	0		
6	0	1.3	68	689	3.8	14	46	4.5	0	0		
7	.21	2.3	70	286	1.9	21	33	2.3	0	0		
8	3.8	9.1	81	403	3.4	36	19	.16	0	0		
9	0	48	78	34	12	22	6.8	24	0	0		
10	0	11	24	3.4	31	6.7	9.1	65	3.0	0		
11	0	4.2	7.1	1.3	11	5.2	17	69	.60	0		
12	0	5.7	36	.21	3.0	3.9	20	68	0	0		
13	0	26	43	.34	29	3.6	13	51	0	0		
14	0	34	43	0	97	3.0	10	25	0	0		
15	0	15	34	0	1.5	14	3.6	5.1	0	11		
16	0	3.8	36	0	1.4	10	.01	0	0	35		
17	0	8.3	3.1	0	.90	14	0	0	0	37		
18	0	554	3.3	0	.54	1.9	0	0	0	25		
19	4.2	172	3.7	0	.18	.01	.01	0	0	17		
20	10	166	.12	2.1	.08	.65	.14	0	0	8.3		
21	18	147	.05	70	27	23	0	0	0	0		
22	8.4	58	.34	37	35	64	0	0	0	33		
23	0	52	.89	53	48	14	.02	0	0	26		
24	0	24	1.3	61	19	12	.28	0	0	0		
25	0	15	20	61	12	7.6	.87	0	0	0		
26	0	27	5.3	52	55	5.7	1.4	0	0	0		
27	0	4.7	.20	41	90	3.5	.96	0	0	0		
28	0	4.6	0	57	32	3.4	.70	0	0	0		
29	0	4.4	0	28	---	2.5	2.8	0	0	0		
30	0	.99	0	7.1	---	3.5	11	0	0	0		
31	0	---	.16	0	---	1.3	---	0	---	0		---
TOTAL	44.61	1437.89	669.46	3253.45	698.70	496.46	207.79	406.66	3.60	192.3	0	0
MEAN	1.44	47.9	21.6	105	25.0	16.0	6.93	13.1	.12	6.20	0	0
MAX	18	554	88	742	97	110	46	69	3.0	37	0	0
MIN	0	0	0	0	.08	.01	0	0	0	0	0	0
AC-FT	88	2850	1330	6450	1390	985	412	807	7.1	381	0	0
CAL YR 1986	TOTAL	30772.78	MEAN 84.3	MAX 2120	MIN 0	AC-FT 61040						
WTR YR 1987	TOTAL	7410.92	MEAN 20.3	MAX 742	MIN 0	AC-FT 14700						

SANTA ANA RIVER BASIN

11075800 SANTIAGO CREEK AT MODJESKA, CA

LOCATION.--Lat 33°42'46", long 117°38'39", in NE 1/4 NE 1/4 sec.30, T.5 S., R.7 W., Orange County, Hydrologic Unit 18070203, on right bank at Santiago Canyon road bridge, 0.9 mi northwest of Modjeska, 1.0 mi downstream from Harding Creek, and 1.5 mi downstream from Modjeska Reservoir.

DRAINAGE AREA.--13.0 mi².

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

REVISED RECORDS.--WDR CA-86-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,210 ft above National Geodetic Vertical Datum of 1929, from topographic map. Sept. 10, 1969, to Feb. 6, 1985, at site 0.6 mi upstream at datum 44 ft higher. Prior to Sept. 10, 1969, at datum 48 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-9, Nov. 25 to Dec. 4, and May 6 to Sept. 30. Records good. Slight regulation by Modjeska Reservoir on Harding Creek. No diversion above station. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--26 years, 7.92 ft³/s, 5,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft³/s, Feb. 25, 1969, gage height, 10.50 ft, at site and datum then in use, from rating curve extended above 840 ft³/s on basis of slope-area measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 5	0300	*13.0	*5.95				

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	.28	.40	.92	1.1	.09				
2	0	0	0	.28	.40	.92	.92	.07				
3	0	0	0	.28	.39	.91	1.6	.04				
4	0	0	0	3.4	.35	.85	1.4	.01				
5	0	0	0	8.4	.33	.85	1.2	0				
6	0	0	.70	3.7	.33	1.6	1.0	0				
7	0	0	1.8	2.6	.32	1.5	.89	0				
8	0	0	1.2	1.8	.31	1.4	.79	0				
9	0	0	.95	1.2	.32	1.4	.71	0				
10	.03	0	.77	1.1	.39	1.4	.64	0				
11	.12	0	.62	1.0	.36	1.3	.62	0				
12	.13	0	.45	.96	.35	1.2	.57	0				
13	.05	0	.29	.87	.47	1.2	.50	0				
14	0	0	.27	.83	.59	1.1	.43	0				
15	0	0	.25	.71	.52	1.8	.38	0				
16	0	0	.23	.67	.47	1.4	.33	0				
17	0	.01	.21	.59	.41	1.2	.31	0				
18	0	1.2	.20	.55	.38	1.1	.31	0				
19	0	.68	.20	.54	.34	.99	.30	0				
20	0	.41	1.7	.45	.33	.84	.27	0				
21	0	.25	.95	.46	.32	1.5	.21	0				
22	0	.16	.72	.48	.31	1.6	.16	0				
23	0	.06	.62	.49	.41	1.4	.12	0				
24	0	0	.54	.52	1.1	1.9	.06	0				
25	0	0	.47	.48	1.7	2.4	.03	0				
26	0	0	.41	.44	1.2	2.2	.02	0				
27	0	0	.38	.44	1.0	2.0	.02	0				
28	0	0	.34	.43	.96	1.8	.02	0				
29	0	0	.28	.44	---	1.6	.03	0				
30	0	0	.28	.42	---	1.3	.10	0				
31	0	---	.28	.40	---	1.2	---	0	---			---
TOTAL	.33	2.77	15.11	35.21	14.76	42.78	15.04	.21	0	0	0	0
MEAN	.011	.092	.49	1.14	.53	1.38	.50	.007	0	0	0	0
MAX	.13	1.2	1.8	8.4	1.7	2.4	1.6	.09	0	0	0	0
MIN	0	0	0	.28	.31	.84	.02	0	0	0	0	0
AC-FT	.7	5.5	30	70	29	85	30	.4	0	0	0	0
CAL YR 1986	TOTAL	1482.96	MEAN	4.06	MAX	133	MIN	0	AC-FT	2940		
WTR YR 1987	TOTAL	126.21	MEAN	.35	MAX	8.4	MIN	0	AC-FT	250		

SANTA ANA RIVER BASIN

11077500 SANTIAGO CREEK AT SANTA ANA, CA

LOCATION.--Lat 33°46'13", long 117°53'01", in SW 1/4 NW 1/4 sec.1, T.5 S., R.10 W., Orange County, Hydrologic Unit 18070203, on left bank 127 ft upstream from Bristol Street bridge at Santa Ana and 1,700 ft upstream from mouth at Santa Ana River.

DRAINAGE AREA.--98.6 mi².

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only October to December 1928, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 105.00 ft, Orange County Environmental Management Agency datum. Prior to Sept. 8, 1969, at site 0.1 mi upstream at different datum; Sept. 9, 1969, to July 21, 1976, at site 127 ft downstream at datum 2.66 ft lower.

REMARKS.--Estimated daily discharges: Nov. 13-18, Jan. 7 to Feb. 9. Records fair. Flow regulated by Santiago Reservoir, capacity, 25,000 acre-ft; since January 1963 by Villa Park flood-control reservoir, capacity, 15,500 acre-ft, and affected by intervening gravel pits. Diversions above station by Irvine County and Serrano and Carpenter Irrigation Districts. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--59 years, 4.87 ft³/s, 3,530 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,600 ft³/s, Feb. 25, 1969, gage height, 9.10 ft, site and datum then in use; maximum gage height, 9.85 ft, Jan. 16, 1952, site and datum then in use; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 405 ft³/s, Jan. 4, gage height, 3.87 ft; no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0		0	0	0		0	0			
2		0		0	0	0		0	0			
3		0		0	0	0		0	0			
4		0		45	0	0		0	0			
5		0		2.6	0	0		0	0			
6		0		3.5	0	0		0	0			
7		0		.02	0	0		0	0			
8		0		0	0	0		0	0			
9		0		0	0	0		0	0			
10		0		0	0	0		0	0			
11		0		0	0	0		0	0			
12		0		0	0	0		0	0			
13		0		0	7.9	0		0	0			
14		0		0	.03	0		0	.08			
15		0		0	0	0		0	0			
16		0		0	0	0		0	0			
17		0		0	0	0		0	0			
18		.90		0	0	0		0	0			
19		0		0	0	0		0	0			
20		0		0	0	0		0	0			
21		0		0	0	2.7		0	0			
22		0		0	0	0		0	0			
23		0		0	0	0		0	0			
24		0		0	1.4	0		0	0			
25		0		0	.19	1.9		0	0			
26		0		0	0	0		0	0			
27		0		0	0	0		0	0			
28		0		0	0	0		0	0			
29		0		0	---	0		0	0			
30		0		0	---	0		0	0			
31		---		0	---	0	---	.50	---			---
TOTAL	0	.90	0	51.12	9.52	4.6	0	.50	.08	0	0	0
MEAN	0	.030	0	1.65	.34	.15	0	.016	.003	0	0	0
MAX	0	.90	0	45	7.9	2.7	0	.50	.08	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	1.8	0	101	19	9.1	0	1.0	.2	0	0	0
CAL YR 1986	TOTAL	478.56	MEAN	1.31	MAX	172	MIN	0	AC-FT	949		
WTR YR 1987	TOTAL	66.72	MEAN	.18	MAX	45	MIN	0	AC-FT	132		

SANTA ANA RIVER BASIN

11078000 SANTA ANA RIVER AT SANTA ANA, CA

LOCATION.--Lat 33°44'46", long 117°54'30", in SW 1/4 SE 1/4 sec.10, T.5 S., R.10 W., Orange County, Hydrologic Unit 18070203, on right bank 50 ft downstream from Fifth Street Bridge in Santa Ana and 1.8 mi downstream from Santiago Creek.

DRAINAGE AREA.--1,700 mi², excludes 768 mi² 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 61.01 ft (revised), Orange County Environmental Management Agency 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 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 12.00 ft (revised) higher. Oct. 2, 1961, to Nov. 28, 1979, at same site at datum 10.00 ft (revised) higher. Nov. 29, 1979, to Apr. 20, 1980, at same site at arbitrary datum approximately 15 ft (revised) lower. Apr. 21, 1980, to Aug. 14, 1981, no gage due to channel reconstruction.

REMARKS.--Estimated daily discharges: Mar. 5 to Apr. 8. Records poor. Natural flow affected by ground-water withdrawals, diversions, importation by Metropolitan Water District, municipal use, return flow from irrigation. Since 1940, natural flow affected by Prado flood-control reservoir, capacity, 201,200 acre-ft; three small flood-control reservoirs, combined capacity, 31,900 acre-ft; Big Bear Lake (station 11049000); and Santiago Reservoir, capacity, 25,000 acre-ft. Discharge up to 100 ft³/s can be diverted from Carbon Creek to Coyote Creek 1.5 mi upstream from mouth of Carbon Creek. See schematic diagram of Santa Ana River basin.

AVERAGE DISCHARGE.--17 years (water years 1924-40), 23.4 ft³/s, 16,940 acre-ft/yr; 47 years (water years 1941-87, unadjusted for storage), 54.2 ft³/s, 39,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,300 ft³/s, Mar. 3, 1938, gage height, 10.20 ft, site and datum then in use, on basis of slope-area measurement of peak flow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,790 ft³/s, Nov. 18, gage height, 8.65 ft; no flow many days during the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	0	0	0	.75	14	0	0				
2	2.1	0	0	0	1.3	10	0	0				
3	2.6	0	0	0	18	8.2	0	0				
4	0	0	0	1220	11	57	0	0				
5	0	0	19	712	7.6	40	1.0	0				
6	0	0	54	707	1.2	12	8.0	0				
7	0	0	43	265	.92	6.2	0	0				
8	0	0	48	370	.64	24	0	0				
9	0	0	52	63	1.4	7.0	0	0				
10	2.3	0	23	9.0	11	2.8	0	0				
11	.13	0	3.6	14	3.2	.60	0	.64				
12	0	0	1.0	7.5	.86	0	0	10				
13	0	0	28	10	26	0	0	10				
14	0	0	29	1.9	60	0	0	10				
15	0	0	29	.60	2.3	0	0	2.0				
16	0	0	29	.42	.74	3.0	0	0				
17	0	1.1	9.9	.55	.56	8.8	0	0				
18	0	972	.47	0	.44	2.0	0	0				
19	0	126	0	0	.38	.60	0	0				
20	0	117	.79	0	.32	2.0	0	0				
21	0	110	.02	0	.30	7.0	0	0				
22	0	47	0	0	.30	35	0	0				
23	0	35	0	12	14	15	0	0				
24	0	19	0	22	36	6.0	0	0				
25	0	3.6	0	24	3.3	4.0	0	0				
26	0	7.0	0	25	13	2.0	0	0				
27	0	1.1	0	27	49	.80	0	0				
28	0	.07	0	37	28	.25	0	0				
29	0	0	0	20	---	0	0	0				
30	0	0	0	4.6	---	0	0	0				
31	0	---	0	1.1	---	0	---	0	---			---
TOTAL	7.28	1438.87	369.78	3553.67	292.51	268.25	9.0	32.64	0	0	0	0
MEAN	.23	48.0	11.9	115	10.4	8.65	.30	1.05	0	0	0	0
MAX	2.6	972	54	1220	60	57	8.0	10	0	0	0	0
MIN	0	0	0	0	.30	0	0	0	0	0	0	0
AC-FT	14	2850	733	7050	580	532	18	65	0	0	0	0
CAL YR 1986	TOTAL	29533.61	MEAN	80.9	MAX	2290	MIN	0	AC-FT	58580		
WTR YR 1987	TOTAL	5972.00	MEAN	16.4	MAX	1220	MIN	0	AC-FT	11850		

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 TEMPERATURE: Water years 1968-71, 1973 to current year.

SEDIMENT DATA: Water years 1968-71, 1973 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1967 to September 1969, October 1970 to September 1971, October 1972 to September 1980, October 1981 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1967 to September 1971, October 1972 to September 1980, October 1981 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 78,000 mg/L, Feb. 25, 1969; minimum daily mean, no flow many days each year.

SEDIMENT LOAD: Maximum daily, 2,670,000 tons, Feb. 25, 1969; minimum daily, 0 ton many days each year.

EXTREMES FOR 1986 WATER YEAR (NOT PREVIOUSLY PUBLISHED).--

SEDIMENT CONCENTRATION: Maximum daily mean, 4,210 mg/L, Feb. 15, 1986; minimum daily mean, no flow many days.

SEDIMENT LOAD: Maximum daily, 96,000 tons, Feb. 14, 1986; minimum daily, 0 ton many days.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 2,140 mg/L, Jan. 5; minimum daily mean, no flow many days.

SEDIMENT LOAD: Maximum daily, 22,000 tons, Jan. 4; minimum daily, 0 ton many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY
(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR
1		---	---	---	---	---	---
2		---	13.5	---	---	---	---
3		---	---	---	18.0	---	---
4		---	---	---	17.0	---	---
5		---	---	---	17.0	---	---
6		---	---	---	17.0	---	17.0
7		---	---	---	11.5	---	---
8		---	---	---	---	---	21.0
9		---	14.0	---	---	---	22.0
10		---	13.0	---	---	14.0	---
11		---	---	---	---	20.5	---
12		13.0	10.5	---	---	15.5	---
13		---	10.0	---	12.0	---	---
14		---	---	---	---	18.5	---
15		16.5	---	---	14.5	16.0	---
16		---	---	---	---	---	---
17		---	---	---	---	---	---
18		---	---	---	---	16.5	---
19		15.0	---	---	17.0	18.5	---
20		---	---	---	18.5	---	---
21		---	---	---	18.0	22.5	---
22		---	---	---	---	---	---
23		---	---	---	---	---	---
24		---	---	---	---	---	---
25		---	---	---	---	---	---
26		---	---	---	24.0	---	---
27		---	---	---	---	---	---
28		---	---	---	---	---	---
29		14.5	---	---	---	---	---
30		---	---	---	---	---	---
31		---	---	16.5	---	---	---

SANTA ANA RIVER BASIN

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1			.00	0	.00	107	110	33	
2			.00	0	.00	46	660	12	
3			.00	0	.00	1.9	30	.15	
4			.00	0	.00	.47	20	.03	
5			.00	0	.00	.45	20	.02	
6			.00	0	.00	.05	20	.00	
7			.00	0	.00	91	89	30	
8			.00	0	.00	160	90	39	
9			.00	0	.00	151	65	27	
10			.00	0	.00	102	31	8.5	
11			993	840	4400	82	20	4.4	
12			347	370	590	92	20	5.0	
13			.00	0	.00	49	22	2.9	
14			11	49	5.3	51	20	2.8	
15			59	104	22	53	20	2.9	
16			5.6	56	1.4	78	40	8.4	
17			105	170	60	47	30	3.8	
18			129	150	52	60	30	4.9	
19			32	78	6.7	17	25	1.1	
20			5.6	40	.60	.34	20	.02	
21			.08	20	.00	.11	20	.01	
22			.00	0	.00	.05	20	.00	
23			.00	0	.00	.03	20	.00	
24			.00	0	.00	.01	20	.00	
25			191	320	390	.01	20	.00	
26			.01	40	.00	.00	0	.00	
27			.00	0	.00	.00	0	.00	
28			.00	0	.00	.00	0	.00	
29			1580	1230	13500	.00	0	.00	
30			76	140	29	.00	0	.00	
31			---	---	---	.00	0	.00	
TOTAL	0.00	---	0.00	3534.29	---	19057.00	1189.42	---	185.93
JANUARY			FEBRUARY			MARCH			
1	.00	0	.00	205	210	116	.63	10	.02
2	.00	0	.00	193	130	68	.20	10	.01
3	.00	0	.00	150	98	40	.11	10	.00
4	.00	0	.00	88	82	19	.08	10	.00
5	1.2	50	.16	43	58	6.7	.06	10	.00
6	.12	30	.01	39	61	6.4	.05	10	.00
7	.05	20	.00	43	72	8.4	.06	10	.00
8	.02	20	.00	164	160	91	202	200	370
9	.01	20	.00	39	60	6.3	179	210	101
10	.01	20	.00	23	50	3.1	781	729	1710
11	.00	0	.00	29	30	2.3	728	531	1290
12	.00	0	.00	65	50	8.8	1030	1400	4000
13	.00	0	.00	763	1270	7740	706	770	1470
14	.00	0	.00	1860	3600	96000	459	320	397
15	.00	0	.00	2290	4210	37000	689	531	1640
16	.00	0	.00	1840	1300	6460	1120	950	3500
17	.00	0	.00	1750	760	3590	1680	1400	6350
18	.14	40	.02	1440	740	2880	1070	920	2660
19	.28	30	.02	609	600	987	636	260	446
20	.07	25	.00	504	285	388	229	150	93
21	.04	20	.00	466	170	214	224	115	70
22	.01	20	.00	104	46	13	295	110	88
23	.00	0	.00	90	62	15	285	100	77
24	.00	0	.00	101	48	13	233	100	63
25	.00	0	.00	78	38	8.0	66	90	16
26	.76	40	.08	48	17	2.2	61	90	15
27	2.4	40	.26	42	15	1.7	56	80	12
28	.70	30	.06	12	12	.39	38	80	8.2
29	.09	20	.00	---	---	---	36	70	6.8
30	282	500	460	---	---	---	18	70	3.4
31	355	390	698	---	---	---	11	60	1.8
TOTAL	642.90	---	1158.61	13078	---	155688.29	10833.19	---	24388.23

SANTA ANA RIVER BASIN

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	.65	40	.07	.00	0	.00	.01	10	.00
2	.14	30	.01	.00	0	.00	.01	10	.00
3	.06	20	.00	.00	0	.00	.01	10	.00
4	.04	20	.00	.00	0	.00	.01	10	.00
5	19	140	17	.00	0	.00	.01	10	.00
6	484	847	1870	.00	0	.00	.01	10	.00
7	239	170	150	.00	0	.00	.01	10	.00
8	595	445	715	.00	0	.00	.01	10	.00
9	477	85	109	.00	0	.00	.01	10	.00
10	83	10	2.2	.00	0	.00	.00	0	.00
11	27	10	.73	.00	0	.00	.00	0	.00
12	7.4	10	.20	.00	0	.00	.00	0	.00
13	3.9	10	.11	.00	0	.00	.00	0	.00
14	.70	10	.02	.00	0	.00	.00	0	.00
15	.08	10	.00	.00	0	.00	.00	0	.00
16	.05	10	.00	.24	30	.02	.00	0	.00
17	.03	10	.00	.07	20	.00	.00	0	.00
18	.02	10	.00	.03	20	.00	.00	0	.00
19	.01	10	.00	.02	20	.00	.00	0	.00
20	.00	0	.00	.01	20	.00	.00	0	.00
21	.00	0	.00	.01	20	.00	.00	0	.00
22	.00	0	.00	.00	0	.00	.00	0	.00
23	.00	0	.00	.00	0	.00	.00	0	.00
24	.00	0	.00	.00	0	.00	.00	0	.00
25	3.2	20	.71	.00	0	.00	.00	0	.00
26	4.2	42	.48	.00	0	.00	.00	0	.00
27	.10	20	.01	.00	0	.00	.00	0	.00
28	.04	20	.00	.00	0	.00	.00	0	.00
29	.01	20	.00	.00	0	.00	.00	0	.00
30	.00	0	.00	.00	0	.00	.00	0	.00
31	---	---	---	.00	0	.00	---	---	---
TOTAL	1944.63	---	2865.54	0.38	---	0.02	0.09	---	0.00
JULY			AUGUST			SEPTEMBER			
1						.00	0	.00	
2						.00	0	.00	
3						.00	0	.00	
4						.00	0	.00	
5						.00	0	.00	
6						.00	0	.00	
7						.00	0	.00	
8						.00	0	.00	
9						.00	0	.00	
10						.00	0	.00	
11						.00	0	.00	
12						.00	0	.00	
13						.00	0	.00	
14						.00	0	.00	
15						.00	0	.00	
16						.00	0	.00	
17						.00	0	.00	
18						.00	0	.00	
19						.00	0	.00	
20						.00	0	.00	
21						.00	0	.00	
22						.00	0	.00	
23						.00	0	.00	
24						61	77	120	
25						836	1700	15000	
26						3.3	60	.53	
27						.19	16	.01	
28						133	17	6.5	
29						168	40	18	
30						17	20	.92	
31						---	---	---	
TOTAL	0.00	---	0.00	0.00	---	0.00	1218.49	---	15145.96
YEAR	32441.39		218489.58						

SANTA ANA RIVER BASIN

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

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1985	0.00	0.00	0	0
NOVEMBER ...	3534.29	19057.00	5390	24400
DECEMBER ...	1189.42	185.93	80	266
JANUARY 1986	642.90	1158.61	197	1360
FEBRUARY ...	13078	155688.29	18000	174000
MARCH	10833.19	24388.23	6190	30600
APRIL	1944.63	2865.54	654	3520
MAY38	0.02	0	0
JUNE09	0.00	0	0
JULY	0.00	0.00	0	0
AUGUST	0.00	0.00	0	0
SEPTEMBER ..	1218.49	15145.96	1630	16800
TOTAL	32441.39	218489.58	32141	250946

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 12...	1345	175	13.0	148	70	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	NUMBER OF SAM- PLING POINTS (COUNT)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	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
AUG 19...	1030	4	0.0	1	9	53	89	98	100

SANTA ANA RIVER BASIN

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

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR
1	---		---	---	---	---
2	---		---	---	---	---
3	21.5		---	---	16.5	---
4	---		---		18.0	---
5	---		---	14.0	---	---
6	---		---	---	---	---
7	---		---	11.5	---	---
8	---		---	---	---	---
9	---		---	---	---	19.0
10	---		---	---	---	---
11	---		14.5	---	---	---
12	---		---	---	---	---
13	---		---	---	---	---
14	---		---	---	---	---
15	---		---	---	---	---
16	---		---	---	---	---
17	---		---	---	---	---
18	---		---	---	---	---
19	---		---	---	---	---
20	---		---	---	---	---
21	---		---	---	---	---
22	---		---	---	---	---
23	---		---	---	---	---
24	---		---	---	10.5	---
25	---		---	---	---	---
26	---		---	---	---	---
27	---		---	---	---	---
28	---		---	---	---	---
29	---		---	---	---	---
30	---		---	---	---	---
31	---		---	---	---	---
MONTH	---		---	---	---	---

SANTA ANA RIVER BASIN

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	.15	10	.00	.00	0	.00	.00	0	.00
2	2.1	4	.14	.00	0	.00	.00	0	.00
3	2.6	13	.14	.00	0	.00	.00	0	.00
4	.00	0	.00	.00	0	.00	.00	0	.00
5	.00	0	.00	.00	0	.00	19	28	4.2
6	.00	0	.00	.00	0	.00	54	58	9.9
7	.00	0	.00	.00	0	.00	43	40	4.6
8	.00	0	.00	.00	0	.00	48	30	3.9
9	.00	0	.00	.00	0	.00	52	30	4.2
10	2.3	15	.09	.00	0	.00	23	20	1.2
11	.13	10	.00	.00	0	.00	3.6	11	.11
12	.00	0	.00	.00	0	.00	1.0	15	.04
13	.00	0	.00	.00	0	.00	28	20	1.5
14	.00	0	.00	.00	0	.00	29	20	1.6
15	.00	0	.00	.00	0	.00	29	20	1.6
16	.00	0	.00	.00	0	.00	29	20	1.6
17	.00	0	.00	1.1	50	.15	9.9	20	.53
18	.00	0	.00	972	1070	16000	.47	10	.01
19	.00	0	.00	126	43	15	.00	0	.00
20	.00	0	.00	117	31	9.8	.79	20	.04
21	.00	0	.00	110	27	8.0	.02	10	.00
22	.00	0	.00	47	25	3.2	.00	0	.00
23	.00	0	.00	35	30	2.8	.00	0	.00
24	.00	0	.00	19	30	1.5	.00	0	.00
25	.00	0	.00	3.6	30	.29	.00	0	.00
26	.00	0	.00	7.0	40	.76	.00	0	.00
27	.00	0	.00	1.1	30	.09	.00	0	.00
28	.00	0	.00	.07	20	.00	.00	0	.00
29	.00	0	.00	.00	0	.00	.00	0	.00
30	.00	0	.00	.00	0	.00	.00	0	.00
31	.00	0	.00	---	---	---	.00	0	.00
TOTAL	7.28	---	0.37	1438.87	---	16041.59	369.78	---	35.03
DAY	JANUARY			FEBRUARY			MARCH		
1	.00	0	.00	.75	10	.02	14	10	.38
2	.00	0	.00	1.3	12	.04	10	10	.27
3	.00	0	.00	18	8	.39	8.2	10	.22
4	1220	1900	22000	11	6	.18	57	40	6.2
5	712	2140	5690	7.6	7	.14	40	30	3.2
6	707	920	2000	1.2	6	.02	12	20	.65
7	265	360	258	.92	6	.01	6.2	15	.25
8	370	180	180	.64	6	.01	24	10	.65
9	63	95	16	1.4	8	.05	7.0	5	.09
10	9.0	70	1.7	11	21	.82	2.8	10	.08
11	14	60	2.3	3.2	12	.10	.60	10	.16
12	7.5	50	1.0	.86	10	.02	.00	0	.00
13	10	70	1.9	26	28	5.7	.00	0	.00
14	1.9	50	.26	60	45	7.3	.00	0	.00
15	.60	40	.06	2.3	30	.19	.00	0	.00
16	.42	30	.03	.74	25	.05	3.0	10	.08
17	.55	25	.04	.56	20	.03	8.8	10	.24
18	.00	0	.00	.44	20	.02	2.0	10	.05
19	.00	0	.00	.38	15	.02	.60	10	.02
20	.00	0	.00	.32	10	.01	2.0	10	.05
21	.00	0	.00	.30	10	.01	7.0	10	.19
22	.00	0	.00	.30	10	.01	35	40	3.8
23	12	20	.65	14	22	1.0	15	30	1.2
24	22	10	.59	36	43	7.9	6.0	20	.32
25	24	10	.65	3.3	35	.31	4.0	10	.11
26	25	10	.68	13	24	1.1	2.0	10	.05
27	27	10	.73	49	20	2.6	.80	10	.02
28	37	20	2.0	28	15	1.1	.25	10	.01
29	20	15	.81	---	---	---	.00	0	.00
30	4.6	10	.12	---	---	---	.00	0	.00
31	1.1	10	.03	---	---	---	.00	0	.00
TOTAL	3553.67	---	30157.55	292.51	---	29.15	268.25	---	18.29

SANTA ANA RIVER BASIN

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	.00	0	.00	.00	0	.00			
2	.00	0	.00	.00	0	.00			
3	.00	0	.00	.00	0	.00			
4	.00	0	.00	.00	0	.00			
5	1.0	10	.03	.00	0	.00			
6	8.0	10	.22	.00	0	.00			
7	.00	0	.00	.00	0	.00			
8	.00	0	.00	.00	0	.00			
9	.00	0	.00	.00	0	.00			
10	.00	0	.00	.00	0	.00			
11	.00	0	.00	.64	10	.02			
12	.00	0	.00	10	20	.54			
13	.00	0	.00	10	20	.54			
14	.00	0	.00	10	20	.54			
15	.00	0	.00	2.0	10	.05			
16	.00	0	.00	.00	0	.00			
17	.00	0	.00	.00	0	.00			
18	.00	0	.00	.00	0	.00			
19	.00	0	.00	.00	0	.00			
20	.00	0	.00	.00	0	.00			
21	.00	0	.00	.00	0	.00			
22	.00	0	.00	.00	0	.00			
23	.00	0	.00	.00	0	.00			
24	.00	0	.00	.00	0	.00			
25	.00	0	.00	.00	0	.00			
26	.00	0	.00	.00	0	.00			
27	.00	0	.00	.00	0	.00			
28	.00	0	.00	.00	0	.00			
29	.00	0	.00	.00	0	.00			
30	.00	0	.00	.00	0	.00			
31	---	---	---	.00	0	.00			
TOTAL	9.00	---	0.25	32.64	---	1.69	0.00	---	0.00
DAY	JULY		AUGUST			SEPTEMBER			
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
TOTAL	0.00	---	0.00	0.00	---	0.00	0.00	---	0.00
YEAR	5972.00		46283.92						

SANTA ANA RIVER BASIN

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

SUMMARY OF WATER AND SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

MONTH	WATER DISCHARGE CFS-DAYS	SUSPENDED SEDIMENT DISCHARGE TONS	BEDLOAD DISCHARGE TONS	TOTAL SEDIMENT DISCHARGE TONS
OCTOBER 1986	7.28	0.37	0	0
NOVEMBER ...	1438.87	16041.59	2360	18400
DECEMBER ...	369.78	35.03	12	47
JANUARY 1987	3553.67	30157.55	4170	34300
FEBRUARY ...	292.51	29.15	10	39
MARCH	268.25	18.29	6	24
APRIL	9.0	0.25	0	0
MAY	32.64	1.69	0	2
JUNE	0.00	0.00	0	0
JULY	0.00	0.00	0	0
AUGUST	0.00	0.00	0	0
SEPTEMBER ..	0.00	0.00	0	0
TOTAL	5972.00	46283.92	6558	52812

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	NUMBER OF SAM- PLING POINTS (COUNT)	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
FEB 13...	1400	3	0.0	1	2	9	54	93	99	100

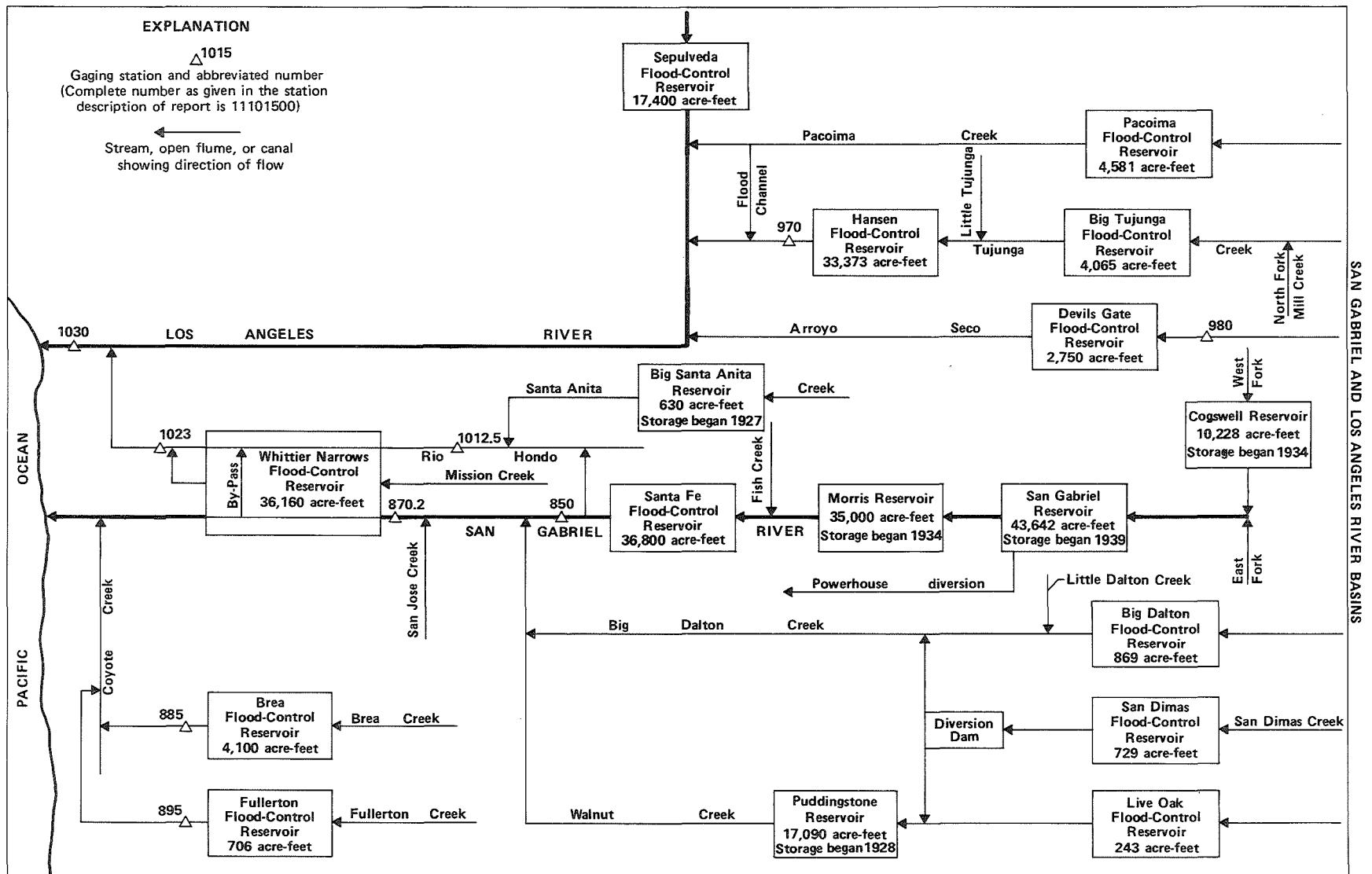


FIGURE 18. — Schematic diagram showing diversions and storage in San Gabriel and Los Angeles River basins.

SAN GABRIEL RIVER BASIN

11085000 SAN GABRIEL RIVER BELOW SANTA FE DAM, NEAR BALDWIN PARK, CA

LOCATION.--Lat 34°06'44", long 117°58'07", NE 1/4 SW 1/4 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 downstream from axis of dam, and 1.7 mi north of Baldwin Park.

DRAINAGE AREA.--236 mi².

PERIOD OF RECORD.--October 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Dec. 11-22. Records good. Flow regulated by Cogswell and San Gabriel flood-control reservoirs, combined capacity, 53,870 acre-ft; Morris Reservoir, capacity, 35,000 acre-ft; and Santa Fe flood-control reservoir, capacity, 32,640 acre-ft. 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; 115 acre-ft were diverted during the current year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversion to Rio Hondo were provided by Los Angeles County Department of Public Works.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,900 ft³/s, Jan. 26, 1969, gage height, 22.20 ft; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51 ft³/s, Nov. 18, gage height, 10.51 ft; no flow for most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
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		13										
19		0										
20		0										
21		0										
22		0										
23		0										
24		0										
25		0										
26		0										
27		0										
28		0										
29		0										
30		0										
31		---										
TOTAL	0	13	0	0	0	0	0	0	0	0	0	0
MEAN	0	.43	0	0	0	0	0	0	0	0	0	0
MAX	0	13	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	26	0	0	0	0	0	0	0	0	0	0
CAL YR 1986	TOTAL	1367.70	MEAN 3.75	MAX 263	MIN 0	AC-FT 2710						
WTR YR 1987	TOTAL	13.00	MEAN .036	MAX 13	MIN 0	AC-FT 26						

SAN GABRIEL RIVER BASIN

11087020 SAN GABRIEL RIVER ABOVE WHITTIER NARROWS DAM, CA

LOCATION.--Lat 34°02'03", long 118°02'14", in La Puente Grant, Los Angeles County, Hydrologic Unit 18070106, at Peck Road 0.8 mi downstream from San Jose flood channel, 1.2 mi upstream from axis of Whittier Narrows Dam, and 1.8 mi south of El Monte.

DRAINAGE AREA.--442 mi².

PERIOD OF RECORD.--October 1955 to September 1957, October 1963 to current year.

REVISED RECORDS.--WDR CA-86-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 220 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by San Gabriel, Cogswell, and Santa Fe flood-control reservoirs, combined capacity, 90,670 acre-ft; several small flood-control reservoirs, combined capacity, 19,100 acre-ft; and Morris Reservoir, capacity, 35,000 acre-ft. 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 upstream from gage, at Metropolitan Water District aqueduct crossing on San Dimas Creek for ground-water replenishment. Los Angeles County Department of Public Works diverted 115 acre-ft from San Gabriel River below Santa Fe Dam to Rio Hondo during the current year. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversion to Rio Hondo were provided by Los Angeles County Department of Public Works.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,600 ft³/s, Jan. 25, 1969, gage height, 10.90 ft; no flow for part of some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,900 ft³/s, Jan. 4, gage height, 7.74 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	10	70	144	193	192	171	90	63	44	93	75
2	281	5.3	7.3	104	195	193	188	87	84	48	93	78
3	21	64	5.6	11	193	191	220	83	72	0	95	80
4	8.4	134	6.3	4210	192	153	195	82	79	0	96	81
5	9.1	132	7.5	298	190	45	191	76	46	0	97	80
6	8.8	138	202	208	196	297	187	80	14	55	157	80
7	6.4	136	19	142	196	18	182	87	1.5	80	162	80
8	4.5	135	13	15	204	10	187	80	12	78	97	80
9	4.6	135	16	14	295	10	189	82	.41	79	94	80
10	46	136	80	13	213	13	187	79	1.3	50	158	80
11	7.2	136	136	10	206	94	185	79	.66	.02	176	80
12	8.3	135	141	10	206	145	182	72	.59	0	111	80
13	7.7	133	144	16	991	141	181	79	.05	57	93	80
14	5.8	136	145	64	60	144	181	81	0	75	58	76
15	5.9	145	126	115	11	355	180	44	.08	73	68	79
16	5.1	142	16	143	9.8	147	178	1.9	0	62	67	79
17	5.3	337	12	138	11	143	175	2.6	0	48	66	82
18	5.5	1190	135	134	18	122	179	56	0	.04	60	86
19	6.0	17	138	137	144	12	179	47	0	0	43	99
20	5.4	62	144	177	198	9.1	180	.45	0	65	18	102
21	3.5	139	141	228	191	249	178	127	0	85	46	102
22	3.0	136	150	177	202	15	82	157	0	84	0	104
23	8.5	138	132	194	213	9.8	64	149	0	80	0	114
24	6.3	140	147	193	333	9.0	76	149	0	51	0	96
25	4.2	138	150	195	469	7.3	84	157	0	0	0	93
26	4.3	140	150	200	201	6.6	81	116	0	0	19	94
27	4.6	142	143	176	189	73	86	1.8	0	34	69	93
28	4.5	140	143	66	190	124	89	2.9	0	91	73	86
29	2.9	139	145	186	---	126	87	3.5	0	93	73	87
30	4.2	142	144	188	---	133	90	1.9	0	93	73	91
31	4.7	---	148	193	---	130	---	1.3	---	93	73	---
TOTAL	508.4	4852.3	3156.7	8099	5909.8	3316.8	4614	2155.35	374.59	1518.06	2328	2597
MEAN	16.4	162	102	261	211	107	154	69.5	12.5	49.0	75.1	86.6
MAX	281	1190	202	4210	991	355	220	157	84	93	176	114
MIN	2.9	5.3	5.6	10	9.8	6.6	64	.45	0	0	0	75
AC-FT	1010	9620	6260	16060	11720	6580	9150	4280	743	3010	4620	5150
CAL YR 1986	TOTAL	45437.40	MEAN	124	MAX	3920	MIN	2.2	AC-FT	90130		
WTR YR 1987	TOTAL	39430.00	MEAN	108	MAX	4210	MIN	0	AC-FT	78210		

SAN GABRIEL RIVER BASIN

11088500 BREA CREEK BELOW BREA DAM, NEAR FULLERTON, CA

LOCATION.--Lat 33°53'16", long 117°55'32", in NE 1/4 NE 1/4 sec.28, T.3 S., R.10 W., Orange County, Hydrologic Unit 18070106, on right bank 0.2 mi downstream from Brea Dam and 1 mi north of Fullerton.

DRAINAGE AREA.--21.6 mi².

PERIOD OF RECORD.--January 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 196.67 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Dec. 4, 1964, at datum 1.03 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1 to Dec. 15, Jan. 3-10, 14, 15, May 9-15, and June 27 to July 9. Records fair except those below 10 ft³/s, which are poor. Flow regulated by Brea flood-control reservoir, capacity, 4,100 acre-ft. No diversion above station. Since August 1966 low flow mostly the result of irrigation wastewater from golf course 0.8 mi upstream. See schematic diagram of San Gabriel and Los Angeles River basins.

AVERAGE DISCHARGE.--45 years, 3.13 ft³/s, 2,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,700 ft³/s, Feb. 18, 1980, maximum discharge and gage height unknown; no flow for parts of some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 812 ft³/s, Jan. 4, gage height, 4.29 ft; minimum daily, 0.48 ft³/s, Feb. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.2	1.2	2.0	.56	1.2	1.1	.84	.97	1.0	.96	2.6
2	28	1.2	1.2	2.0	1.0	1.3	1.0	.87	.96	.98	1.3	2.1
3	17	1.2	1.2	2.1	.87	1.3	4.5	.83	.96	.96	1.1	2.1
4	1.5	1.2	1.2	313	.77	1.2	2.0	1.1	.91	1.0	.98	1.7
5	1.4	1.2	1.2	96	.69	2.6	.76	1.2	.75	1.1	.89	1.5
6	1.3	1.2	20	58	.80	16	.81	3.4	.76	1.1	.86	1.5
7	1.2	1.2	5.5	28	1.2	3.7	.83	2.6	.82	1.1	1.0	1.6
8	1.2	1.2	1.5	12	.83	1.8	.83	2.3	.77	1.1	.94	1.5
9	1.2	1.2	1.3	5.4	1.3	1.0	1.1	1.9	.67	1.0	.99	1.6
10	17	1.2	1.2	2.0	2.0	.79	.97	1.4	.69	.85	1.1	1.6
11	3.5	1.2	1.2	1.5	.66	.71	.93	.95	.58	.93	1.0	1.9
12	1.5	1.2	1.2	1.2	.60	.70	.84	.80	.56	1.0	.97	1.9
13	1.3	1.2	1.2	.96	26	.74	.94	.67	.61	.89	.92	1.6
14	1.2	1.2	1.2	1.0	4.9	.81	.98	.62	.60	.58	1.4	2.0
15	1.2	4.0	1.2	1.1	.94	11	.84	.59	.55	.54	1.1	1.6
16	1.2	2.7	1.4	1.1	.85	1.1	1.0	.51	.54	.59	.99	1.6
17	1.2	4.5	1.4	.99	.92	1.0	.90	.57	.64	.60	.94	2.1
18	1.2	106	1.4	1.2	.70	.94	.65	1.2	.83	.60	1.2	1.8
19	1.2	2.3	1.4	1.1	.63	.83	.69	.66	.66	.58	1.7	1.5
20	1.2	1.8	1.4	.96	.65	.87	.90	.59	.64	.80	1.2	1.3
21	1.2	1.5	1.4	1.0	.59	28	.96	.67	.62	1.1	1.1	1.4
22	1.2	1.4	1.4	1.0	.48	4.0	.95	.73	.74	.81	.86	1.4
23	1.2	1.3	1.4	.93	1.1	2.5	1.0	1.2	1.1	1.1	1.1	2.2
24	1.2	1.3	1.4	.83	1.0	1.9	.92	2.5	.86	1.0	1.2	1.7
25	1.2	1.2	1.4	.84	11	1.7	1.0	2.7	.91	1.0	1.2	1.7
26	1.2	1.2	1.4	.82	2.6	1.6	.90	2.4	1.0	1.1	1.8	1.6
27	1.2	1.2	1.4	.83	1.6	1.4	.96	2.3	1.1	1.1	1.6	1.6
28	1.2	1.2	1.4	1.7	1.2	1.3	1.0	2.1	1.1	1.2	2.2	1.6
29	1.2	1.2	1.4	.64	---	1.1	.72	.91	1.1	1.1	2.7	1.6
30	1.2	1.2	1.7	.63	---	1.1	.92	.82	1.0	1.1	2.8	1.6
31	1.2	---	2.0	.65	---	1.1	---	.93	---	.86	2.9	---
TOTAL	98.9	150.8	64.8	541.48	66.44	95.29	31.90	40.86	24.00	28.77	41.00	51.5
MEAN	3.19	5.03	2.09	17.5	2.37	3.07	1.06	1.32	.80	.93	1.32	1.72
MAX	28	106	20	313	26	28	4.5	3.4	1.1	1.2	2.9	2.6
MIN	1.2	1.2	1.2	.63	.48	.70	.65	.51	.54	.54	.86	1.3
AC-FT	196	299	129	1070	132	189	63	81	48	57	81	102
CAL YR 1986	TOTAL	2710.95	MEAN	7.43	MAX	411	MIN	.74	AC-FT	5380		
WTR YR 1987	TOTAL	1235.74	MEAN	3.39	MAX	313	MIN	.48	AC-FT	2450		

SAN GABRIEL RIVER BASIN

11089500 FULLERTON CREEK BELOW FULLERTON DAM, NEAR BREA, CA

LOCATION.--Lat 33°53'45", long 117°53'07", in NW 1/4 SW 1/4 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 southeast of Brea.

DRAINAGE AREA.--4.94 mi².

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WDR CA-82-1: 1981.

GAGE.--Water-stage recorder. Elevation of gage is 250 ft above National Geodetic Vertical Datum of 1929, 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 higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Fullerton flood-control reservoir, capacity, 706 acre-ft. 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 ft³/s, 135 acre-ft/yr; 32 years (water years 1955-87), 1.23 ft³/s, 891 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 392 ft³/s, Mar. 1, 1983, gage height, 8.25 ft, present datum; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 308 ft³/s, Jan. 4, gage height, 7.57 ft; minimum daily, 0.25 ft³/s, Nov. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	.28	.52	.66	.51	.51	.49	.84	.55	.60	.59	.60
2	9.3	.25	.51	.60	.56	.52	.50	.83	.60	.60	.57	.60
3	1.2	.28	.50	.60	.60	.60	3.6	.76	.60	.60	.59	.60
4	.66	.44	.53	108	.60	.60	2.0	.72	.60	.59	.57	.60
5	.60	.48	.58	45	.70	1.7	.51	.70	.60	.51	.68	.60
6	.54	.58	4.8	17	.64	6.6	.49	.83	.60	.51	.61	.59
7	.54	.46	1.3	6.4	.54	.65	.65	.68	.60	.56	.60	.57
8	.57	.46	.59	4.2	.51	.57	.60	.65	.60	.52	.60	.59
9	.49	.47	.51	1.1	2.8	.65	.83	.58	.60	.72	.60	.57
10	4.2	.41	.51	.83	1.3	.81	.71	.53	.60	.75	.60	.60
11	.69	.40	.51	.73	.65	.51	.65	.53	.60	.60	.65	.60
12	.57	.41	.51	.72	.60	.51	.64	.57	.60	.71	.68	.60
13	.49	.42	.55	1.3	14	.51	.66	.56	.60	1.2	.82	.60
14	.46	.48	.60	1.4	8.7	.51	.57	.57	.60	1.2	1.6	.60
15	.43	1.1	.57	1.3	.72	7.1	.94	.59	.60	.96	.87	.60
16	.43	.51	.55	3.0	.86	.66	.63	.69	.60	.77	.67	.60
17	.43	4.5	.60	.61	.66	.56	.76	.67	.72	.93	.60	.63
18	.43	33	.65	.60	.59	.51	1.3	.60	.57	.71	.73	.64
19	.43	.77	.60	.65	.52	.57	.61	.51	.60	.58	.60	.60
20	.43	.67	.60	.54	.51	.51	.66	.54	.57	1.6	.64	.58
21	.43	.57	.53	.51	.56	15	.64	.59	.51	1.0	.89	.68
22	.43	.51	.55	.59	.60	1.8	.60	.61	.60	.69	.69	.70
23	.38	.46	.57	.60	1.5	.71	.68	.56	.69	.59	.58	.60
24	.34	.62	.59	.69	2.3	.66	.89	.51	.59	.59	.60	.68
25	.34	.51	.55	.70	3.2	.60	.75	.55	.57	.59	.60	.69
26	.36	.49	.51	.60	.73	.60	.74	.54	.73	.55	.60	.60
27	.34	.58	.65	.64	.55	.60	.91	.57	.63	.57	.60	.60
28	.36	.61	.56	1.1	.51	.66	.90	.60	.60	.60	1.2	.60
29	.36	.55	.56	.51	---	.71	.78	1.4	.60	.60	.77	.66
30	.35	.49	.57	.51	---	.63	.89	.57	.60	.60	.60	.59
31	.34	---	.60	.51	---	.51	---	.52	---	.74	.60	---
TOTAL	27.52	51.76	22.33	202.20	46.52	47.64	25.58	19.97	18.13	22.34	21.60	18.37
MEAN	.89	1.73	.72	6.52	1.66	1.54	.85	.64	.60	.72	.70	.61
MAX	9.3	33	4.8	108	14	15	3.6	1.4	.73	1.6	1.6	.70
MIN	.34	.25	.50	.51	.51	.51	.49	.51	.51	.51	.57	.57
AC-FT	55	103	44	401	92	94	51	40	36	44	43	36

CAL YR 1986 TOTAL 872.93 MEAN 2.39 MAX 180 MIN .25 AC-FT 1730
WTR YR 1987 TOTAL 523.96 MEAN 1.44 MAX 108 MIN .25 AC-FT 1040

LOS ANGELES RIVER BASIN

11097000 BIG TUJUNGA CREEK BELOW HANSEN DAM, CA

LOCATION.--Lat 34°15'13", long 118°23'17", in Mission San Fernando Grant, Los Angeles County, Hydrologic Unit 18070105, in city of Los Angeles, on left bank of outlet channel 0.5 mi downstream from Hansen Dam, 0.1 mi upstream from Glen Oaks Boulevard, and 3 mi southeast of San Fernando.

DRAINAGE AREA.--153 mi².

PERIOD OF RECORD.--May 1932 to February 1938, August 1940 to current year. Monthly discharge only for some periods, published in WSP 1315-B.

REVISED RECORDS.--WDR CA-84-1: 1978 (M).

GAGE.- Water-stage recorder. Datum of gage is 943.32 ft, U.S. Army Corps of Engineers datum. See WSP 1735 for history of changes prior to Oct. 1, 1953.

REMARKS.--No estimated daily discharges. Records poor. Flow regulated since July 1931 by Big Tujunga flood-control reservoir, capacity, 5,720 acre-ft in 1979, and since September 1940 by Hansen flood-control reservoir, capacity, 29,700 acre-ft. Several small diversions for domestic use and irrigation. Water reported herein is that which passed Hansen Dam. Los Angeles County Department of Public Works diverts water 0.3 mi upstream from gage to spreading grounds, as shown in footnote below table. See schematic diagram of San Gabriel and Los Angeles River basins.

COOPERATION.--Records of diversion were provided by Los Angeles County Department of Public Works.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft³/s, Feb. 10, 1978, Mar. 2, 1983; maximum gage height, 7.64 ft, Mar. 2, 1983; no flow many days in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 54,000 ft³/s, estimated, Mar. 2, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 38 ft³/s, Oct. 2, gage height, 1.17 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8									0		
2	7.7									0		
3	8.3									0		
4	7.6									0		
5	7.3									0		
6	6.1									0		
7	6.1									0		
8	6.1									0		
9	5.8									0		
10	4.6									0		
11	4.6									0		
12	4.6									0		
13	3.9									2.8		
14	3.1									4.7		
15	.50									4.6		
16	.50									5.3		
17	.50									6.9		
18	.40									5.3		
19	0									4.6		
20	0									4.0		
21	0									3.4		
22	0									3.4		
23	0									1.9		
24	0									.50		
25	0									.50		
26	0									.50		
27	0									.39		
28	0									0		
29	0				---					0		
30	0				---					0		
31	0	---			---		---		---	0		---
TOTAL	81.50	0	0	0	0	0	0	0	0	48.79	0	0
MEAN	2.63	0	0	0	0	0	0	0	0	1.57	0	0
MAX	8.3	0	0	0	0	0	0	0	0	6.9	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	162	0	0	0	0	0	0	0	0	97	0	0
a	187	418	587	1010	854	1220	695	700	578	536	416	369
CAL YR 1986	TOTAL	1096.02	MEAN	3.00	MAX	126	MIN	0	AC-FT	2170		
WTR YR 1987	TOTAL	130.29	MEAN	.36	MAX	8.3	MIN	0	AC-FT	258		

a Combined discharge, in acre-feet, of creek and diversion.

LOS ANGELES RIVER BASIN

11098000 ARROYO SECO NEAR PASADENA, CA

LOCATION.--Lat 34°13'20", long 118°10'36", in NW 1/4 NE 1/4 sec.31, T.2 N., R.12 W., Los Angeles County, Hydrologic Unit 18070105, on right bank 0.7 mi east of Angeles Crest Highway, 1.5 mi upstream from Millard Canyon, and 5.5 mi northwest of Pasadena.

DRAINAGE AREA.--16.0 mi².

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 above 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 lower.

REMARKS.--No estimated daily discharges. Records good. See schematic diagram of San Gabriel and Los Angeles River basins.

AVERAGE DISCHARGE.--73 years (water years 1914-15, 1917-87), 9.86 ft³/s, 7,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,620 ft³/s, Mar. 2, 1938, gage height, 9.42 ft, present datum, on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 5	0230	*13	*1.58				

Minimum daily, 0.04 ft³/s, Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.1	1.4	1.5	1.9	2.5	2.0	1.2	.57	.32	.05	.10
2	1.5	1.1	1.4	1.6	1.8	2.4	1.9	1.1	.53	.30	.05	.10
3	1.6	1.1	1.4	1.6	1.8	2.3	2.6	1.0	.52	.27	.06	.07
4	1.3	1.2	1.4	6.1	1.8	2.2	2.7	.86	.49	.26	.08	.12
5	1.2	1.1	1.4	8.8	1.8	2.5	2.4	.76	.44	.26	.09	.12
6	1.2	1.2	2.3	5.2	1.8	6.4	2.1	.72	.64	.29	.10	.09
7	1.2	1.3	2.0	5.8	1.7	6.4	1.9	.75	.59	.27	.10	.06
8	1.2	1.2	2.1	4.8	1.7	4.9	1.8	.66	.56	.29	.10	.05
9	1.2	1.1	2.0	4.0	1.8	4.1	1.6	.64	.52	.35	.07	.04
10	1.3	1.1	1.7	3.3	2.2	3.7	1.6	.70	.49	.38	.08	.06
11	1.3	1.1	1.6	2.9	2.3	3.3	1.7	.68	.46	.31	.08	.12
12	1.4	1.1	1.6	2.6	2.1	3.1	1.7	.62	.43	.24	.10	.26
13	1.3	1.1	1.6	2.5	4.1	2.9	1.6	.62	.42	.19	.12	.31
14	1.3	1.1	1.5	2.4	5.2	2.8	1.4	.62	.45	.18	.41	.26
15	1.2	1.2	1.5	2.2	3.8	3.5	1.3	.64	.47	.18	.31	.20
16	1.2	1.2	1.5	2.1	2.9	3.1	1.2	.77	.44	.31	.18	.18
17	1.2	1.4	1.5	2.1	2.5	2.7	1.3	.70	.39	.57	.15	.20
18	1.3	6.0	1.5	2.0	2.3	2.7	1.4	.69	.39	.31	.15	.17
19	1.3	4.0	1.5	2.1	2.1	2.6	1.3	.69	.40	.23	.13	.17
20	1.3	2.9	1.6	1.9	2.0	2.6	1.2	.73	.44	.24	.12	.15
21	1.2	2.4	1.5	1.9	2.0	3.9	1.1	.72	.42	.28	.12	.14
22	1.2	2.0	1.5	1.8	2.1	5.3	.99	.63	.37	.25	.14	.13
23	1.3	1.8	1.5	1.9	2.3	3.8	.96	.63	.33	.21	.16	.21
24	1.3	1.6	1.5	1.9	2.7	3.2	.93	.66	.31	.19	.18	.14
25	1.2	1.6	1.5	1.9	3.6	2.9	.91	.78	.29	.16	.10	.12
26	1.2	1.5	1.4	2.0	3.6	2.7	.92	.78	.29	.14	.09	.12
27	1.1	1.5	1.5	2.0	3.0	2.5	.95	.80	.29	.12	.09	.13
28	1.2	1.5	1.6	2.0	2.7	2.5	.97	.75	.31	.13	.08	.10
29	1.2	1.5	1.5	2.0	---	2.3	1.1	.75	.30	.10	.10	.09
30	1.2	1.5	1.5	2.0	---	2.1	1.3	.78	.31	.15	.10	.07
31	1.2	---	1.5	2.0	---	2.0	---	.64	---	.18	.08	---
TOTAL	39.3	49.5	49.0	86.9	69.6	99.9	44.83	23.07	12.86	7.66	3.77	4.08
MEAN	1.27	1.65	1.58	2.80	2.49	3.22	1.49	.74	.43	.25	.12	.14
MAX	1.6	6.0	2.3	8.8	5.2	6.4	2.7	1.2	.64	.57	.41	.31
MIN	1.1	1.1	1.4	1.5	1.7	2.0	.91	.62	.29	.10	.05	.04
AC-FT	78	98	97	172	138	198	89	46	26	15	7.5	8.1

CAL YR 1986	TOTAL	2364.76	MEAN 6.48	MAX	115	MIN	.25	AC-FT	4690
WTR YR 1987	TOTAL	490.47	MEAN 1.34	MAX	8.8	MIN	.04	AC-FT	973

LOS ANGELES RIVER BASIN

11101250 RIO HONDO ABOVE WHITTIER NARROWS DAM, CA

LOCATION.--Lat 34°03'30", long 118°04'15", in Potrero Grande Grant, Los Angeles County, Hydrologic Unit 18070105, on right bank 0.3 mi downstream from Garvey Avenue, 0.4 mi downstream from Rubio Wash, 2.8 mi upstream from axis of Whittier Narrows Dam, and 2.2 mi west of El Monte.

DRAINAGE AREA.--91.2 mi².

PERIOD OF RECORD.--February 1956 to current year.

GAGE.--Water-stage recorder. Concrete trapezoidal channel. Datum of gage is 217.8 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Aug. 27-30 and Sept. 14-30. Records good except those for periods of estimated record, which are poor. Flow regulated by Big Santa Anita, Sawpit, and Eaton flood-control reservoirs, and Sierra Madre, Las Flores, and Rubio debris basins, combined capacity, 2,195 acre-ft. Many diversions above station for domestic use and irrigation. Los Angeles County Department of Public Works diverted 115 acre-ft 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 provided by the Los Angeles County Department of Public Works.

AVERAGE DISCHARGE.--31 years, 42.9 ft³/s, 31,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,200 ft³/s, Feb. 16, 1980, gage height, 7.35 ft; no flow some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,130 ft³/s, Jan. 4, gage height, 3.99 ft; minimum daily, 0.64 ft³/s, Jan. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.2	3.3	1.1	1.1	.82	4.6	1.4	1.9	2.1	1.1	1.7
2	178	.85	3.4	1.4	1.5	2.5	4.8	1.6	1.6	2.9	.88	1.6
3	3.7	1.1	2.3	1.7	1.9	2.6	12	1.0	3.6	1.3	1.5	1.4
4	1.2	1.3	1.1	1010	1.4	1.4	1.4	1.3	2.0	1.3	1.1	1.3
5	.79	1.2	2.1	23	2.0	59	1.2	1.9	2.9	1.0	1.8	1.2
6	1.3	1.4	133	86	1.2	118	1.3	1.7	80	1.3	1.7	.99
7	1.7	1.3	1.2	37	1.1	4.9	1.2	1.7	2.2	2.4	1.7	.89
8	2.7	1.2	1.1	.98	1.1	1.4	1.3	2.6	4.0	3.0	1.1	1.2
9	2.5	1.0	.98	.86	252	1.3	1.4	1.5	2.2	3.0	.93	2.1
10	3.5	1.1	.86	.65	6.3	1.1	1.3	1.6	1.9	1.6	1.8	2.7
11	1.3	1.1	.83	.65	1.5	1.2	1.5	1.6	1.6	1.4	1.2	1.5
12	2.0	1.4	.80	1.2	1.8	1.5	1.3	1.7	1.8	.97	1.6	1.4
13	1.5	1.9	1.3	1.6	520	1.5	1.5	2.4	2.0	2.4	1.4	1.5
14	1.5	1.7	.77	1.2	5.6	2.1	1.4	2.5	1.4	2.4	4.9	1.4
15	1.9	2.7	2.0	1.0	1.1	99	1.7	2.7	3.6	3.1	1.4	1.8
16	3.1	1.3	2.2	.64	3.3	1.1	1.7	2.7	1.6	2.6	1.1	1.6
17	1.6	317	1.4	.65	.82	1.4	2.2	2.6	1.6	19	2.6	1.4
18	1.2	398	1.6	.74	1.2	1.2	4.3	1.8	1.4	1.0	1.4	1.6
19	1.3	1.9	1.5	1.0	.72	.93	6.0	2.1	3.0	.81	1.2	1.4
20	1.6	1.9	1.1	.88	.79	1.2	3.7	3.2	1.4	4.6	1.3	1.5
21	1.6	1.8	.96	1.0	.77	189	1.8	1.3	1.3	1.0	1.4	1.8
22	1.7	1.3	1.6	1.1	22	1.4	1.6	2.6	2.7	2.5	1.1	1.3
23	1.6	1.4	1.2	1.3	6.6	1.1	2.0	1.3	2.8	2.9	.95	1.9
24	1.8	1.4	3.0	1.3	318	9.4	1.3	1.3	2.4	2.7	1.5	2.1
25	1.9	2.0	.88	1.2	13	2.4	1.7	2.7	4.0	1.2	1.1	1.8
26	2.1	1.6	.89	1.4	2.4	1.2	.92	1.5	5.4	1.0	1.3	1.6
27	1.8	1.4	.94	1.5	2.3	5.1	1.6	2.4	2.4	3.0	1.8	1.9
28	1.8	1.6	.83	1.2	.86	3.7	1.7	1.7	2.7	1.9	1.7	1.5
29	2.3	1.6	1.3	1.2	---	.92	2.7	1.7	1.7	1.3	1.6	1.6
30	1.6	1.8	1.2	1.2	---	4.2	2.4	1.0	1.9	1.3	1.4	1.7
31	1.3	---	1.5	1.1	---	3.7	---	.87	---	1.3	1.7	---
TOTAL	232.99	756.45	177.14	1185.75	1172.36	526.27	73.52	57.97	149.0	78.28	47.26	47.38
MEAN	7.52	25.2	5.71	38.3	41.9	17.0	2.45	1.87	4.97	2.53	1.52	1.58
MAX	178	398	133	1010	520	189	12	3.2	80	19	4.9	2.7
MIN	.79	.85	.77	.64	.72	.82	.92	.87	1.3	.81	.88	.89
AC-FT	462	1500	351	2350	2330	1040	146	115	296	155	94	94
CAL YR 1986	TOTAL	27842.64	MEAN	76.3	MAX	1420	MIN	.77	AC-FT	55230		
WTR YR 1987	TOTAL	4504.37	MEAN	12.3	MAX	1010	MIN	.64	AC-FT	8930		

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 upstream from Beverly Boulevard, 0.4 mi downstream from axis of Whittier Narrows Dam, and 1.0 mi northeast of Montebello.

DRAINAGE AREA.--124 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 175 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair above 100 ft³/s and poor below. Flow regulated by Whittier Narrows flood-control reservoir, capacity, 36,160 acre-ft. There are several small flood-control reservoirs (combined capacities, 1,700 acre-ft) 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. Records for water year 1986 not available in time for the 1986 publication are published here.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,800 ft³/s, Jan. 25, 1969, gage height, 13.82 ft, from rating curve extended above 15,000 ft³/s on basis of gate openings at dam at gage heights 12.32 and 13.82 ft; no flow at times in each year.

EXTREMES FOR WATER YEAR 1986 (NOT PREVIOUSLY PUBLISHED).--Maximum discharge, 15,500 ft³/s, Feb. 14, gage height, 8.30 ft; no flow many days May to September.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,200 ft³/s, Jan. 4, gage height, 6.96 ft; minimum daily, 0.11 ft³/s, Mar. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

MEAN VALUES

(NOT PREVIOUSLY PUBLISHED)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	7.2	200	23	717	263	111	193	1.3	31	0	0
2	17	13	128	22	182	290	181	214	1.1	33	0	0
3	15	13	73	19	31	285	187	258	.57	36	0	0
4	16	15	18	29	28	298	145	255	.29	34	0	0
5	14	16	17	75	13	308	67	236	.29	36	0	0
6	16	15	18	21	20	292	384	262	.25	36	0	0
7	26	15	18	37	83	162	28	304	.04	35	6.8	0
8	20	18	17	97	151	1220	14	330	.07	32	18	8.9
9	17	18	16	116	114	318	100	314	.11	30	18	1.4
10	15	21	18	139	128	1420	177	291	0	28	19	6.7
11	15	746	22	144	136	305	167	280	0	30	26	6.3
12	15	120	21	149	134	175	188	261	0	32	25	8.1
13	16	15	21	61	736	425	192	247	.06	32	27	12
14	15	9.9	20	24	999	388	192	247	.42	33	34	13
15	13	4.8	22	40	4310	373	110	204	.87	33	42	15
16	15	4.8	19	90	582	3720	8.1	159	3.2	32	50	16
17	14	4.8	19	92	185	450	20	239	2.7	31	57	15
18	15	4.8	19	95	184	111	92	299	.47	30	32	15
19	14	4.8	18	95	513	39	107	284	.21	28	0	15
20	14	4.4	19	95	358	4.3	113	207	1.4	29	0	11
21	165	3.7	21	95	211	5.4	156	284	6.5	31	0	11
22	113	9.0	23	92	54	16	174	347	11	29	0	4.9
23	13	15	26	100	22	16	197	195	12	20	0	.16
24	3.9	75	27	120	20	9.4	224	4.4	20	0	0	89
25	2.9	788	28	183	79	3.3	223	1.7	26	0	0	567
26	2.7	482	29	191	160	2.4	215	.63	26	0	0	138
27	2.7	19	30	182	176	3.9	215	.20	25	0	0	10
28	2.7	17	31	151	193	30	166	0	26	0	0	7.3
29	2.7	1210	32	129	---	31	158	.06	27	0	0	5.7
30	2.8	623	32	1230	---	31	172	4.6	29	0	0	5.6
31	3.1	---	30	899	---	39	---	2.3	---	0	0	---
TOTAL	634.5	4312.2	1032	4835	10519	11033.7	4483.1	5923.89	221.85	721	354.8	982.06
MEAN	20.5	144	33.3	156	376	356	149	191	7.40	23.3	11.4	32.7
MAX	165	1210	200	1230	4310	3720	384	347	29	36	57	567
MIN	2.7	3.7	16	19	13	2.4	8.1	0	0	0	0	0
AC-FT	1260	8550	2050	9590	20860	21890	8890	11750	440	1430	704	1950
CAL YR 1985	TOTAL	30258.43	MEAN	82.9	MAX	1670	MIN	0	AC-FT	60020		
WTR YR 1986	TOTAL	45053.10	MEAN	123	MAX	4310	MIN	0	AC-FT	89360		

LOS ANGELES RIVER BASIN

11102300 RIO HONDO BELOW WHITTIER NARROWS DAM, CA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	21	47	131	145	79	74	6.0	.53	20	52	86
2	112	20	4.1	109	149	74	112	3.5	3.6	20	56	87
3	154	41	3.7	26	147	77	125	3.7	1.9	20	55	98
4	7.8	63	3.7	2210	145	68	119	3.1	2.4	19	46	100
5	5.4	73	3.7	575	117	55	115	21	6.6	17	50	92
6	4.8	90	71	250	113	215	111	37	61	18	65	85
7	4.8	93	4.8	85	111	17	111	67	22	18	81	80
8	4.8	91	4.8	21	111	4.4	111	20	19	17	57	79
9	4.8	93	4.3	4.3	292	3.7	117	2.7	14	18	60	77
10	5.4	102	3.7	3.3	129	3.7	122	2.7	17	20	88	75
11	5.3	104	3.7	2.4	116	12	125	20	12	17	104	73
12	4.8	109	222	2.0	115	37	127	20	17	16	51	69
13	4.8	109	105	2.7	392	46	127	9.5	19	16	52	68
14	4.8	111	100	3.7	453	65	130	4.2	20	16	44	65
15	5.2	126	115	50	23	270	135	3.7	12	16	64	63
16	6.4	126	31	172	12	95	144	3.7	13	18	62	61
17	6.4	51	26	99	11	83	158	3.7	20	30	66	64
18	6.4	402	101	96	15	35	171	3.7	20	23	75	69
19	6.4	187	121	104	75	.11	193	3.7	22	24	53	71
20	6.4	176	126	118	117	.62	184	4.2	24	27	25	69
21	6.4	204	120	148	111	.58	184	74	25	28	55	69
22	6.4	85	122	134	127	.17	124	90	26	28	19	69
23	6.4	75	127	142	117	.13	30	90	25	32	18	80
24	6.4	69	128	138	351	.27	42	90	21	30	19	74
25	6.4	94	128	137	246	.66	33	103	20	33	17	69
26	7.4	105	122	139	87	.61	22	84	21	39	25	70
27	6.2	115	111	139	86	13	50	6.2	21	43	72	73
28	3.7	94	108	52	86	17	35	4.4	19	40	78	68
29	3.9	79	40	140	---	21	6.8	3.7	19	34	85	69
30	4.8	81	112	141	---	30	6.4	3.7	20	31	88	68
31	9.3	---	162	142	---	51	---	2.7	---	49	92	---
TOTAL	433.3	3189	2381.5	5516.4	3999	1374.95	3144.2	794.8	544.03	777	1774	2240
MEAN	14.0	106	76.8	178	143	44.4	105	25.6	18.1	25.1	57.2	74.7
MAX	154	402	222	2210	453	270	193	103	61	49	104	100
MIN	3.7	20	3.7	2.0	11	.11	6.4	2.7	.53	16	17	61
AC-FT	859	6330	4720	10940	7930	2730	6240	1580	1080	1540	3520	4440
CAL YR 1986	TOTAL	45078.20	MEAN	124	MAX	4310	MIN	0	AC-FT	89410		
WTR YR 1987	TOTAL	26168.18	MEAN	71.7	MAX	2210	MIN	.11	AC-FT	51900		

LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA
(National stream-quality accounting network station)

LOCATION.--Lat 33°49'02", long 118°12'20", in Los Cerritos Grant, Los Angeles County, Hydrologic Unit 18070105, on right bank 5,000 ft upstream from Willow Street, 3.4 mi north of Long Beach, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--827 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1928 to September 1983. October 1983 to current year, available in files of Los Angeles County Department of Public Works; not reviewed by U.S. Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is 11.91 ft above National Geodetic Vertical Datum of 1929 (levels by Los Angeles County Department of Public Works). 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 1946 by Sepulveda flood-control reservoir (combined capacity, 49,400 acre-ft); and by 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.

AVERAGE DISCHARGE.--54 years (water years 1930-83), 215 ft³/s, 155,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 129,000 ft³/s, Feb. 16, 1980, gage height, 17.99 ft; no flow at times in 1929-30, 1934.

LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

CHEMICAL DATA: Water years 1973 to current year.

BIOLOGICAL DATA: Water years 1973-81.

SPECIFIC CONDUCTANCE: Water years 1974-75, 80-83.

WATER TEMPERATURE: Water years 1974-75, 80-83.

SEDIMENT DATA: Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1973 to September 1975, July 1980 to September 1983.

WATER TEMPERATURE: October 1973 to September 1975, January 1980 to September 1983.

INSTRUMENTATION.--Water-quality monitor from October 1973 to September 1975, January 1980 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	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)
DEC 31...	1250	126	840	10.0	16.5	765	8.2	>20.0	>197	<4	K58	200
MAR 25...	1515	121	950	9.7	24.5	760	3.5	>20.0	>237	K8	110	240
JUN 30...	1430	114	860	10.1	25.5	760	17	>20.0	>235	K31	67	210
SEP 29...	1240	118	890	10.1	29.0	765	7.1	>20.0	>261	K18	93	210
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	CAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LILITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LILITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
DEC 31...	91	52	18	95	49	3	8.8	22	57	114	113	160
MAR 25...	110	66	18	100	47	3	8.7	3	79	134	131	190
JUN 30...	81	57	17	97	48	3	9.8	16	71	131	132	170
SEP 29...	80	57	16	100	52	3	--	9	73	129	129	150
DATE	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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC 31...	91	0.60	11	538	510	0.73	1.0	5.5	0.420	0.510	3.6	1.8
MAR 25...	110	0.70	20	614	600	0.84	0.540	3.4	1.1	1.1	3.4	0.700
JUN 30...	94	0.70	24	492	550	0.67	1.0	3.1	0.280	0.270	0.70	3.6
SEP 29...	100	0.70	18	563	520	0.77	0.290	1.7	0.070	0.040	5.2	0.820

See footnotes at end of table.

LOS ANGELES RIVER BASIN

11103000 LOS ANGELES RIVER AT LONG BEACH, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)
DEC 31...	0.260	0.200	30	5	25	<0.5	1	<1	<3	8	11
MAR 25...	0.170	0.090	30	5	42	<0.5	<1	<1	<3	7	7
JUN 30...	0.260	0.210	<10	7	21	<0.5	2	<1	<3	11	10
SEP 29...	0.210	--	40	8	21	<0.5	<1	<1	<3	10	8
DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 31...	<5	72	4	0.2	20	5	3	<1	350	<6	26
MAR 25...	<5	76	<1	<0.1	<10	4	2	<1	500	<6	24
JUN 30...	<5	54	1	<0.1	20	10	1	<1	400	<6	12
SEP 29...	<5	62	2	<0.1	10	11	<1	<1	380	<6	24

> Actual value is known to be greater than the value shown.

< Actual value is known to be less than the value shown.

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

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLE	SPE-	PH	TEMPER-	BARO-	OXYGEN,	SEDI-	
		LOC- ATION, CROSS SECTION (FT FM L BANK)	CIFIC CON- DUCT- ANCE (US/CM)			METRIC PRES- SURE (MM OF HG)			DIS- SOLVED (PER- CENT SATUR- ATION)
MAR									
25...*	1300	20.0	925	9.9	25.0	760	>20.0	>238	6
25...*	1315	36.0	940	9.7	24.5	760	>20.0	>237	6
25...*	1330	42.0	940	9.6	24.0	760	>20.0	>235	6
25...*	1345	48.0	940	9.7	24.0	760	>20.0	>235	6
25...*	1400	54.0	940	9.8	25.0	760	>20.0	>238	7

* Instantaneous streamflow at the time of cross-sectional measurement: Mar. 25, 121 ft³/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 31...	1250	126	16.5	22	7.5	79
MAR 25...	1515	121	24.5	6	2.0	60
JUN 30...	1430	114	25.5	45	14	80
SEP 29...	1240	118	29.0	39	12	59

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 south of Highway 126, 0.8 mi west of Los Angeles-Ventura County line, and 6.4 mi west of intersection of Highway 126 and Interstate 5.

DRAINAGE AREA.--625 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WDR CA-78-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 794.93 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. 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. Imported water from California Water Project stored and released at Castaic Dam.

AVERAGE DISCHARGE.--35 years, 48.9 ft³/s, 35,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,800 ft³/s, Jan. 25, 1969, gage height, 19.01 ft, from rating curve extended above 9,200 ft³/s on basis of field estimate of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 18	0300	*1,460	*6.73				

Minimum daily, 19 ft³/s, Aug. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	36	42	38	40	44	35	33	30	29	25	20
2	39	35	42	38	41	45	34	33	29	29	24	20
3	39	35	42	38	41	44	34	33	32	29	24	20
4	31	33	42	56	40	43	33	32	32	30	24	21
5	31	33	43	45	40	46	32	31	31	29	25	21
6	31	34	48	46	40	50	32	31	30	29	25	21
7	31	33	45	45	40	46	31	31	30	28	25	21
8	31	32	46	42	41	44	31	31	29	27	25	22
9	31	33	45	42	41	43	31	31	29	26	25	22
10	31	34	44	41	41	42	30	32	29	27	25	23
11	30	35	43	39	40	42	30	32	29	27	25	24
12	28	35	42	39	40	41	29	31	29	27	26	25
13	28	35	42	39	43	41	29	31	30	26	27	25
14	29	35	43	38	42	41	29	31	29	27	28	25
15	28	37	43	38	43	42	29	31	29	27	27	25
16	27	36	43	38	42	40	29	32	28	27	27	24
17	27	40	42	38	42	40	30	31	29	28	27	24
18	28	205	41	38	42	41	30	30	29	27	25	25
19	28	52	41	38	42	42	30	29	28	27	25	25
20	28	49	42	39	41	43	29	30	29	26	24	24
21	29	47	41	39	42	47	29	30	30	25	24	25
22	29	44	41	40	43	43	30	31	26	26	24	25
23	31	42	41	40	43	67	30	32	29	25	24	25
24	31	41	41	40	44	37	31	31	29	26	23	26
25	31	41	39	41	46	36	31	30	28	26	20	26
26	32	41	40	40	44	36	31	32	28	25	20	26
27	31	41	41	40	44	35	32	30	28	25	19	26
28	32	40	41	40	44	35	32	31	23	26	19	26
29	33	40	40	39	---	34	32	29	25	26	20	25
30	34	40	40	39	---	34	33	30	28	25	20	25
31	35	---	40	40	---	34	---	30	---	25	20	---
TOTAL	956	1314	1306	1253	1172	1298	928	962	862	832	741	712
MEAN	30.8	43.8	42.1	40.4	41.9	41.9	30.9	31.0	28.7	26.8	23.9	23.7
MAX	39	205	48	56	46	67	35	33	32	30	28	26
MIN	27	32	39	38	40	34	29	29	23	25	19	20
AC-FT	1900	2610	2590	2490	2320	2570	1840	1910	1710	1650	1470	1410
CAL YR 1986	TOTAL	24212	MEAN 66.3	MAX 3080	MIN 21	AC-FT 48020						
WTR YR 1987	TOTAL	12336	MEAN 33.8	MAX 205	MIN 19	AC-FT 24470						

SANTA CLARA RIVER BASIN

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 DATA: Water years 1969, 1972 to current year.

BIOLOGICAL DATA: Water years 1979-80.

WATER TEMPERATURE: Water years 1969-78 (observed), February to September 1980.

SEDIMENT DATA: 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 TEMPERATURE: February 1980 to September 1981.

SEDIMENT DATA: October 1968 to September 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

						BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)							
DEC 09...	1045	42	1300	8.2	14.0	750	11	9.5	94	170	70	470
MAR 17...	1135	36	1300	8.3	20.5	745	10	9.6	110	K24	94	470
JUN 16...	1130	39	1200	8.3	23.5	735	5.1	6.8	83	51	210	420
SEP 30...	1050	23	1320	8.3	19.5	740	4.5	9.4	106	K150	360	490
DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	CAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L CACO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
DEC 09...	210	120	40	110	34	2	5.4	308	0	252	252	330
MAR 17...	210	120	41	110	33	2	5.4	309	0	253	260	360
JUN 16...	160	110	35	110	36	2	4.9	297	12	263	263	270
SEP 30...	220	130	40	110	33	2	5.2	323	6	275	274	350
DATE	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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC 09...	77	0.60	22	904	860	1.2	0.240	4.2	0.340	0.360	1.7	1.1
MAR 17...	76	0.50	22	884	900	1.2	0.050	4.9	0.060	0.050	1.0	1.2
JUN 16...	84	0.50	24	835	800	1.1	0.170	4.0	0.070	0.070	0.30	1.2
SEP 30...	81	0.50	24	920	910	1.3	0.090	3.8	0.060	0.030	0.40	0.800
DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	
DEC 09...	1.1	0.990	<10	2	47	<0.5	1	<1	<3	2	4	
MAR 17...	1.1	1.0	50	1	42	<0.5	1	<1	<3	2	5	
JUN 16...	1.1	1.1	10	2	41	<0.5	<1	<1	<3	1	8	
SEP 30...	0.790	0.700	10	2	41	<0.5	<1	<1	<3	5	10	

See footnotes at end of table.

SANTA CLARA RIVER BASIN

11108500 SANTA CLARA RIVER AT LOS ANGELES-VENTURA COUNTY LINE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 09...	<5	32	33	0.3	<10	2	3	<1	880	<6	10
MAR 17...	23	32	22	<0.1	<10	<1	<1	1	920	<6	5
JUN 16...	<5	23	8	<0.1	10	3	2	<1	860	<6	10
SEP 30...	<5	28	37	<0.1	<10	2	3	<1	900	<6	24

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.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	SEDIMENT, DIS- SOLVED (PER- CENT SATUR- ATION)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 09...*	1055	4.00	1300	8.1	14.0	750	9.5	94	306	13
09...*	1100	6.00	1300	8.2	14.0	750	9.5	94	306	13
09...*	1105	8.00	1290	8.2	14.0	750	9.5	94	361	10
09...*	1110	10.0	1300	8.2	14.0	750	9.5	94	318	11
09...*	1115	12.0	1300	8.2	14.0	750	9.5	94	89	39
JUN 16...*	1320	15.0	1200	8.0	26.5	735	6.8	88	58	29
16...*	1330	12.0	1210	8.1	26.5	735	6.7	87	60	26
16...*	1345	10.0	1210	8.1	26.5	735	6.8	88	65	28
16...*	1355	7.00	1210	8.1	26.5	735	6.8	88	49	37
16...*	1405	4.00	1210	8.1	26.5	735	6.7	87	42	42

* Instantaneous streamflow at the time of cross-sectional measurements: Dec. 9, 42 ft³/s; June 16, 39 ft³/s.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
DEC 09...	1045	42	14.0	247	28	15
MAR 17...	1135	36	20.5	195	19	15
JUN 16...	1130	39	23.5	55	5.8	32
SEP 30...	1050	23	19.5	56	3.5	54

SANTA CLARA RIVER BASIN

11109600 PIRU CREEK ABOVE LAKE PIRU, CA

LOCATION.--Lat 34°31'23", long 118°45'22", in 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 downstream from Agua Blanca Creek, 4.3 mi upstream from Santa Felicia Dam, 8.0 mi northeast of Piru, and 15 mi downstream from Pyramid Dam.

DRAINAGE AREA.--372 mi².

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

REVISED RECORDS.--WDR CA-64-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,058.55 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Forest Service). Prior to Dec. 15, 1972, at site 0.3 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated beginning December 1971 by Pyramid Dam, capacity, 173,500 acre-ft. Imported water from the California Water Project stored and released at Pyramid Dam.

AVERAGE DISCHARGE.--16 years (water years 1956-71), 55.1 ft³/s, 39,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,200 ft³/s, Feb. 25, 1969, gage height, 18.6 ft, site and datum then in use, from floodmarks, from rating curve extended above 4,000 ft³/s on basis of slope-area measurement at gage height 12.2 ft and inflow-outflow records for Lake Piru; no flow in some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, reached a discharge of 35,000 ft³/s, and is the greatest since that date.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 172 ft³/s, Mar. 5, gage height, 3.82 ft; minimum daily, 6.8 ft³/s, June 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	9.4	6.9	12	12	14	21	11	7.4	11	11	12
2	9.4	9.3	6.9	12	12	14	21	10	7.3	9.7	11	14
3	9.2	9.4	6.9	13	12	14	18	9.9	7.1	9.0	11	13
4	9.1	9.4	6.9	32	12	13	16	9.3	8.9	9.3	12	13
5	9.0	9.7	7.1	30	12	28	14	10	11	9.3	11	12
6	9.2	9.7	8.2	18	12	104	14	12	10	9.3	13	9.9
7	8.3	9.6	11	18	12	47	12	14	8.4	9.5	12	11
8	9.4	11	9.3	16	12	41	12	13	11	11	10	10
9	9.5	11	8.8	15	13	37	20	12	10	12	10	12
10	9.5	10	8.6	15	15	35	26	12	12	9.1	11	12
11	9.0	9.3	8.7	14	15	27	27	12	9.9	8.8	11	12
12	9.7	9.5	9.5	14	15	25	28	12	8.7	8.7	11	10
13	7.6	9.4	9.8	14	15	24	29	11	11	9.9	10	10
14	9.3	9.4	10	14	16	24	29	10	9.5	12	10	10
15	9.7	9.4	10	14	15	24	29	12	9.7	12	9.4	9.6
16	9.4	9.4	10	13	14	24	29	11	7.4	12	8.7	11
17	9.2	10	10	13	14	23	28	9.5	7.0	10	8.5	15
18	9.5	42	10	13	14	23	28	9.3	7.9	9.6	11	11
19	9.4	14	10	13	14	23	29	9.0	8.2	9.3	11	10
20	9.5	9.7	11	13	14	23	28	9.3	8.3	9.2	10	11
21	9.7	8.4	11	13	14	25	18	9.1	8.3	9.4	11	11
22	9.4	7.5	11	13	14	25	11	8.6	6.8	14	11	12
23	9.8	7.1	11	13	13	24	9.9	8.3	7.3	9.7	10	13
24	9.4	7.0	11	13	14	23	9.7	8.3	9.5	10	10	9.6
25	9.4	6.9	11	13	18	23	9.6	8.3	11	10	10	9.6
26	9.6	6.9	11	12	17	22	8.9	9.0	11	9.8	10	11
27	9.7	6.9	12	18	15	22	9.3	8.5	11	10	11	11
28	9.4	6.9	12	13	14	22	9.4	8.3	11	12	11	9.9
29	9.4	6.9	12	13	---	22	9.5	8.2	11	12	12	11
30	9.4	6.9	12	13	---	22	9.9	8.0	11	11	12	12
31	9.4	---	12	12	---	21	---	7.4	---	11	12	---
TOTAL	289.2	302.0	305.6	462	389	838	563.2	310.3	278.6	319.6	332.6	338.6
MEAN	9.33	10.1	9.86	14.9	13.9	27.0	18.8	10.0	9.29	10.3	10.7	11.3
MAX	9.8	42	12	32	18	104	29	14	12	14	13	15
MIN	7.6	6.9	6.9	12	12	13	8.9	7.4	6.8	8.7	8.5	9.6
AC-FT	574	599	606	916	772	1660	1120	615	553	634	660	672

CAL YR 1986 TOTAL 23260.5 MEAN 63.7 MAX 2000 MIN 6.9 AC-FT 46140
WTR YR 1987 TOTAL 4728.7 MEAN 13.0 MAX 104 MIN 6.8 AC-FT 9380

SANTA CLARA RIVER BASIN

11109700 LAKE PIRU NEAR PIRU, CA

LOCATION.--Lat 34°27'41", long 118°45'02", in Temescal Grant, Ventura County, Hydrologic Unit 18070102, near center of Santa Felicia Dam on Piru Creek, 0.5 mi downstream from Santa Felicia Canyon, 4.2 mi northeast of Piru, and 20 mi downstream from Pyramid Dam.

DRAINAGE AREA.--425 mi².

PERIOD OF RECORD.--May 1955 to current year. Prior to October 1985, monthend elevation and contents only.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by United Water Conservation District). Prior to Jan. 27, 1956, reference point at intake tower at same datum. Jan. 27, 1956, to Dec. 1, 1980, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by earthfill dam. Storage began May 20, 1955. Capacity below spillway level at elevation 1,055.0 ft, 88,340 acre-ft. Flow regulated since December 1971 by Pyramid Lake, capacity, 173,500 acre-ft. Imported water from the California Water Project stored behind and released from Pyramid Lake. Water is released from outlet to Piru Creek for ground-water recharge, domestic use, and irrigation on the Oxnard Plain.

COOPERATION.--Capacity table provided by United Water Conservation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 109,400 acre-ft, Feb. 25, 1969, elevation, 1,061.45 ft; lake dry, Oct. 25 to Nov. 20, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 50,000 acre-ft, Apr. 22, elevation, 1,019.10 ft; minimum, 20,680 acre-ft, Sept. 15, 16, elevation, 960.69 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey dated October 1985)

975	17,420	1,000	33,920	1,020	50,830
980	20,270	1,005	37,860	1,025	55,550
985	23,360	1,010	41,980	1,030	60,460
990	26,670	1,015	46,310	1,035	65,590
995	30,190				

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46620	46660	46940	47110	47700	48100	49540	49980	49850	34690	23870	20900
2	46640	46660	46940	47120	47720	48130	49560	49970	49820	34080	23810	20900
3	46650	46660	46940	47120	47730	48160	49600	49970	49760	33310	23680	20900
4	46660	46660	46950	47270	47740	48180	49620	49960	49730	32780	23610	20900
5	46660	46660	46950	47310	47740	48260	49640	49960	49700	32410	23480	20800
6	46740	46660	46970	47370	47740	48510	49640	49960	49660	31960	23420	20850
7	46730	46660	46980	47400	47740	48600	49660	49960	49640	31360	23360	20810
8	46730	46660	46990	47400	47760	48680	49670	49960	49300	30850	23230	20760
9	46720	46660	47000	47450	47790	48750	49680	49970	48560	30260	23160	20750
10	46720	46660	47000	47460	47800	48790	49730	49970	47560	29690	23040	20730
11	46700	46660	47000	47470	47820	48860	49730	49970	46830	28970	22910	20730
12	46700	46660	47000	47470	47830	48880	49750	49980	46450	28480	22850	20700
13	46690	46660	47000	47470	47900	48940	49800	49970	45970	28050	22720	20700
14	46680	46660	47000	47470	47910	48970	49830	49980	45470	27630	22620	20690
15	46670	46660	47000	47470	47930	49030	49860	49980	44930	27220	22520	20680
16	46660	46660	47010	47480	47930	49040	49880	49970	44400	26740	22420	20680
17	46680	46840	47020	47490	47940	49090	49910	49970	43740	26190	22320	20690
18	46690	46950	47020	47500	47950	49120	49930	49960	43010	25780	22220	20690
19	46700	47000	47020	47530	47950	49160	49970	49940	42750	25320	22210	20690
20	46700	47010	47030	47540	47950	49180	49980	49920	41730	25050	21970	20690
21	46690	47020	47040	47550	47960	49240	49990	49920	40810	24980	21840	20700
22	46690	47010	47040	47550	47980	49290	50000	49910	40140	24850	21730	20700
23	46710	46990	47060	47560	47980	49310	49960	49910	39480	24780	21650	20720
24	46710	46980	47060	47560	48000	49350	49960	49900	38670	24650	21570	20720
25	46680	46960	47080	47580	48030	49380	49960	49910	38020	24580	21480	20730
26	46680	46950	47080	47610	48080	49420	49960	49900	37450	24520	21400	20730
27	46680	46950	47090	47630	48090	49450	49980	49880	36890	24390	21300	20730
28	46680	46950	47100	47650	48100	49450	49980	49870	36260	24260	21210	20730
29	46660	46950	47100	47650	---	49490	49980	49860	35710	24200	21120	20750
30	46660	46940	47100	47660	---	49530	49980	49860	35160	24130	21010	20750
31	46660	---	47110	47680	---	49540	---	49860	---	24000	20930	---
MAX	46740	47020	47110	47680	48100	49540	50000	49980	49850	34690	23870	20900
MIN	46620	46660	46940	47110	47700	48100	49540	49860	35160	24000	20930	20680
a	1015.40	1015.71	1015.90	1016.54	1017.00	1018.60	1019.08	1018.95	1001.60	986.00	981.10	980.80
b	+20	+280	+170	+570	+420	+1440	+440	-120	-14700	-11160	-3070	-180

CAL YR 1986 b +25930

WTR YR 1987 b -25890

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

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 downstream from Santa Felicia Dam, 1 mi upstream from Lime Canyon, 4 mi northeast of Piru, and 20 mi downstream from Pyramid Dam.

DRAINAGE AREA.--425 mi².

PERIOD OF RECORD.--October 1955 to September 1968, October 1973 to current year.

REVISED RECORDS.--WSP 1928: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 858.8 ft above National Geodetic Vertical Datum of 1929 (levels by United Water Conservation District).

REMARKS.--No estimated daily discharges. Records good. Since May 1955 flow regulated by Lake Piru (station 11109700) and since December 1971 by Pyramid Lake, capacity, 173,500 acre-ft. Imported water from the California Water Project stored by Pyramid Lake. No diversion above station. Spill from Lake Piru bypasses gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 623 ft³/s, Aug. 2, 1982, gage height, 3.82 ft; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 497 ft³/s, June 9, gage height, 3.62 ft; no flow Oct. 10-16, Mar. 3, 4, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	4.8	4.5	5.0	5.2	5.0	5.0	5.0	13	244	55	29
2	5.2	4.8	4.5	5.0	5.2	2.4	5.0	5.0	14	273	55	12
3	5.2	4.8	4.5	5.0	5.2	0	5.0	5.2	26	261	55	7.8
4	5.2	4.8	4.5	5.1	5.2	0	5.0	5.2	26	277	57	14
5	5.4	4.8	4.5	5.0	5.2	3.6	5.0	5.2	22	289	57	18
6	5.5	4.8	4.5	5.0	5.2	5.0	5.0	5.2	12	265	55	18
7	5.5	4.8	4.5	5.0	5.2	5.0	5.0	5.5	16	285	55	19
8	5.5	4.8	4.5	5.0	5.2	5.0	5.0	5.5	167	288	55	20
9	1.9	4.8	4.5	5.0	5.2	5.0	5.0	5.5	367	283	55	17
10	0	4.7	4.5	5.0	5.1	5.0	5.2	5.4	496	310	55	11
11	0	4.8	4.5	5.0	3.6	5.0	5.2	5.2	371	290	55	9.0
12	0	4.8	3.1	5.0	.19	5.0	5.2	5.2	188	286	58	16
13	0	4.8	4.8	5.0	3.2	5.0	5.2	5.3	210	282	58	15
14	0	4.8	4.8	5.0	4.9	5.0	5.2	5.0	250	239	58	14
15	0	4.8	4.8	5.1	5.0	5.0	5.2	6.7	267	237	57	9.0
16	0	4.8	4.8	5.2	5.1	5.0	5.2	6.0	259	142	57	6.5
17	6.1	4.9	4.8	5.2	5.0	3.4	5.2	4.3	322	256	57	8.1
18	8.8	4.8	4.8	5.2	5.1	0	5.2	4.5	325	250	60	7.6
19	9.0	4.5	4.8	5.2	5.0	1.7	5.2	5.1	353	204	63	4.5
20	5.8	4.5	5.0	5.2	5.1	5.0	5.2	5.5	346	118	81	6.0
21	5.3	4.5	5.0	5.2	5.1	5.0	5.2	4.8	346	62	77	7.6
22	5.0	4.5	3.7	5.2	5.0	5.0	5.0	4.8	351	64	62	9.3
23	5.0	4.5	5.0	5.2	5.0	5.0	4.1	4.8	354	67	53	9.4
24	5.0	4.5	5.0	5.2	5.1	5.0	4.7	4.8	388	58	52	7.8
25	5.0	4.5	5.0	5.2	5.2	5.0	5.1	4.8	309	53	53	7.0
26	5.0	4.5	5.0	5.2	5.2	5.7	5.5	4.8	269	53	55	6.2
27	5.0	4.5	5.0	5.2	5.1	11	5.5	4.6	318	52	58	7.0
28	5.0	4.5	5.0	5.2	5.0	5.0	5.2	4.8	297	53	55	7.0
29	4.9	4.5	5.0	5.2	---	5.0	5.0	4.8	271	55	57	6.7
30	4.8	4.5	5.0	5.2	---	4.7	5.0	4.8	285	55	63	6.9
31	4.8	---	5.0	5.2	---	5.0	---	4.8	---	55	55	---
TOTAL	129.2	140.4	144.9	158.4	134.79	137.5	152.5	158.1	7238	5706	1798	336.4
MEAN	4.17	4.68	4.67	5.11	4.81	4.44	5.08	5.10	241	184	58.0	11.2
MAX	9.0	4.9	5.0	5.2	5.2	11	5.5	6.7	496	310	81	29
MIN	0	4.5	3.1	5.0	.19	0	4.1	4.3	12	52	52	4.5
AC-FT	256	278	287	314	267	273	302	314	14360	11320	3570	667
CAL YR 1986	TOTAL	10228.80	MEAN	28.0	MAX	526	MIN	0	AC-FT	20290		
WTR YR 1987	TOTAL	16234.19	MEAN	44.5	MAX	496	MIN	0	AC-FT	32200		

SANTA CLARA RIVER BASIN

11111500 SESPE CREEK NEAR WHEELER SPRINGS, CA

LOCATION.--Lat 34°34'40", long 119°15'25", in 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 upstream from Tule Creek, and 5 mi northeast of Wheeler Springs.

DRAINAGE AREA.--49.5 mi².

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.

REVISED RECORDS.--WSP 1928: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,500.65 ft above National Geodetic Vertical Datum of 1929 (levels by Ventura County Flood Control District).

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--40 years, 13.7 ft³/s, 9,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s, Mar. 1, 1983, gage height, 15.02 ft, from rating curve extended above 3,000 ft³/s on basis of slope-area measurement of peak flow; no flow many days in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 18	0430	200	3.18	Mar. 6	0330	*216	*3.22

Minimum daily, 0.02 ft³/s, Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	.95	1.7	1.4	1.6	1.8	3.1	1.8	.84	.33	.18	.06
2	.88	1.0	1.7	1.4	1.6	1.7	3.0	1.8	.71	.32	.17	.09
3	.91	1.0	1.7	1.4	1.6	1.7	3.1	1.6	.60	.28	.16	.14
4	.93	1.0	1.7	5.9	1.6	1.7	3.0	1.4	.53	.27	.15	.14
5	.79	1.0	1.7	3.0	1.6	13	2.9	1.4	.51	.29	.15	.14
6	.81	1.1	2.2	2.4	1.6	91	2.9	1.3	.47	.28	.16	.15
7	.85	1.3	1.8	2.3	1.6	15	2.8	1.3	.52	.28	.16	.19
8	.94	1.3	1.7	2.1	1.6	7.8	2.7	1.3	.51	.32	.15	.21
9	1.1	1.4	1.7	2.0	3.5	5.8	2.5	1.3	.50	.34	.14	.17
10	1.1	1.4	1.6	1.9	3.8	5.2	2.5	1.4	.47	.32	.14	.18
11	.99	1.4	1.6	1.8	2.4	4.7	2.4	1.8	.46	.29	.13	.15
12	.95	1.4	1.6	1.7	2.2	4.4	2.5	1.7	.42	.28	.14	.20
13	1.0	1.4	1.6	1.7	2.6	4.2	2.4	1.4	.43	.28	.15	.22
14	1.0	1.4	1.6	1.7	2.4	4.1	2.4	1.3	.41	.26	.17	.19
15	.96	1.4	1.6	1.5	2.2	4.3	2.3	1.3	.47	.25	.17	.15
16	.89	1.4	1.6	3.3	2.2	4.2	2.3	1.3	.44	.25	.14	.12
17	.98	4.2	1.5	2.4	2.1	4.0	2.2	1.3	.45	.24	.12	.11
18	.98	34	1.4	6.0	2.0	3.8	2.2	1.3	.42	.24	.13	.09
19	1.0	3.5	1.6	1.4	2.0	3.6	2.2	1.5	.43	.20	.13	.05
20	1.0	2.5	1.7	1.5	1.9	3.6	2.2	1.7	.41	.18	.12	.03
21	.94	2.1	1.6	1.5	1.9	4.0	2.1	1.7	.42	.18	.12	.02
22	.92	2.0	1.6	1.5	1.9	3.7	1.9	1.4	.41	.17	.12	.04
23	.93	2.0	1.6	1.6	1.9	3.6	1.9	1.4	.41	.17	.12	.08
24	.94	2.0	1.6	1.6	2.0	3.6	1.9	1.3	.39	.17	.12	.06
25	.89	1.9	1.6	1.7	2.0	3.5	1.9	1.3	.38	.16	.07	.05
26	.83	1.9	1.6	1.6	1.9	3.3	1.9	1.3	.34	.16	.05	.06
27	.79	1.8	1.5	1.7	1.8	3.2	1.8	1.2	.33	.16	.06	.06
28	.85	1.8	1.5	1.6	1.8	3.2	1.7	1.2	.34	.16	.05	.06
29	.90	1.8	1.5	1.6	---	3.2	1.7	1.1	.33	.16	.05	.07
30	.90	1.8	1.4	1.7	---	3.1	1.8	1.1	.33	.16	.06	.07
31	.95	---	1.4	1.6	---	3.1	---	.95	---	.16	.06	---
TOTAL	28.66	83.15	50.2	64.5	57.3	223.1	70.2	43.15	13.68	7.31	3.84	3.35
MEAN	.92	2.77	1.62	2.08	2.05	7.20	2.34	1.39	.46	.24	.12	.11
MAX	1.1	34	2.2	6.0	3.8	91	3.1	1.8	.84	.34	.18	.22
MIN	.76	.95	1.4	1.4	1.6	1.7	1.7	.95	.33	.16	.05	.02
AC-FT	57	165	100	128	114	443	139	86	27	14	7.6	6.6

CAL YR 1986	TOTAL	8486.03	MEAN	23.2	MAX	1200	MIN	.31	AC-FT	16830
WTR YR 1987	TOTAL	648.44	MEAN	1.78	MAX	91	MIN	.02	AC-FT	1290

SANTA CLARA RIVER BASIN

11113500 SANTA PAULA CREEK NEAR SANTA PAULA, CA

LOCATION.--Lat 34°24'48", long 119°04'53", in NW 1/4 SE 1/4 sec.21, T.4 N., R.21 W., Mission San Buenaventura Grant, Ventura County, Hydrologic Unit 18070102, on right bank 1.3 mi downstream from Sisar Creek and 4.8 mi north of Santa Paula.

DRAINAGE AREA.--38.4 mi².

PERIOD OF RECORD.--October 1927 to current year. March 1912 to September 1913, at site 1.2 mi upstream; records not equivalent.

GAGE.--Water-stage recorder. Elevation of gage is 790 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 22, 1980, at various sites and datums 1.3 mi downstream. See U.S. Geological Survey Water-Data Report CA-79-1 for history of changes prior to Oct. 22, 1980.

REMARKS.--Estimated daily discharges: Apr. 7 to May 11, May 29 to Aug. 20, Aug. 22 to Sept. 6, Sept. 10-30. Records fair except for periods of estimated record, which are poor. Natural flow affected by pumping and return flow from irrigated areas.

AVERAGE DISCHARGE.--60 years, 23.5 ft³/s, 17,030 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft³/s, Feb. 25, 1969, gage height, 18.18 ft, from floodmark, site and datum then in use, from rating curve extended above 2,300 ft³/s on basis of critical-depth measurement at gage height 15.2 ft; no flow at times in 1949, 1951-52, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0330	*170	*3.15				

Minimum daily, 0.90 ft³/s, for many days in August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	4.2	4.5	3.6	3.8	5.6	5.9	3.7	3.2	2.2	1.5	.90
2	4.8	4.2	4.4	3.6	3.6	5.4	5.7	3.7	3.0	2.1	1.5	.90
3	5.5	4.4	4.5	3.6	3.6	5.0	5.7	3.7	2.9	2.1	1.5	.90
4	4.4	4.7	4.2	22	3.6	5.0	5.9	3.7	2.8	2.1	1.4	.90
5	4.0	5.0	4.2	13	3.3	9.2	6.0	3.7	2.7	2.1	1.4	.90
6	4.1	5.1	6.0	11	3.1	104	5.8	3.7	2.7	2.1	1.4	.90
7	3.9	5.4	5.4	10	3.2	35	5.2	3.7	2.6	2.1	1.4	.90
8	4.0	5.4	4.6	6.9	3.5	20	4.8	3.7	2.5	2.1	1.3	2.2
9	3.8	5.3	4.4	6.3	4.3	15	4.6	3.7	2.5	2.1	1.3	1.1
10	3.8	5.1	4.2	6.6	5.2	13	4.4	3.7	2.4	2.1	1.3	.95
11	3.6	5.1	4.2	6.1	4.8	11	4.3	3.7	2.4	2.1	1.3	.93
12	3.8	4.9	4.2	5.9	4.6	9.6	4.2	3.9	2.4	2.1	1.3	.92
13	3.8	4.6	4.1	5.7	7.9	9.4	4.1	4.2	2.4	2.1	1.3	.90
14	3.5	4.6	3.9	5.0	7.6	8.8	4.0	4.4	2.4	2.1	1.3	.90
15	3.2	5.0	3.9	5.2	6.8	8.9	3.9	4.8	2.3	2.1	1.2	.90
16	3.3	4.9	3.8	5.0	6.3	8.5	3.8	5.2	2.3	2.1	1.2	.90
17	3.4	10	3.6	5.0	5.8	8.4	3.8	5.4	2.3	2.1	1.2	.90
18	3.6	19	3.6	4.9	5.3	8.1	3.8	5.4	2.3	2.0	1.2	.90
19	3.4	9.9	3.6	4.6	5.0	7.9	3.8	5.4	2.3	2.0	1.2	.90
20	3.5	8.8	3.8	4.6	5.1	7.8	3.8	5.4	2.3	2.0	1.2	.90
21	3.7	7.8	3.6	4.6	5.0	10	3.8	5.4	2.3	2.0	1.2	.90
22	3.4	6.9	3.6	4.6	4.8	9.3	3.8	4.9	2.3	1.9	1.0	.90
23	3.2	6.5	3.6	4.6	4.8	8.6	3.8	4.1	2.2	1.9	1.0	.90
24	3.5	6.0	3.6	4.5	5.6	8.5	3.8	3.9	2.2	1.8	.90	.90
25	3.6	5.7	3.6	4.4	7.2	8.0	3.8	3.9	2.2	1.8	.90	.90
26	3.6	5.0	3.7	4.5	6.6	7.6	3.7	3.9	2.2	1.7	.90	.90
27	3.6	4.8	3.6	4.2	6.1	7.1	3.7	3.9	2.2	1.7	.90	.90
28	3.7	4.6	3.6	4.1	5.8	7.2	3.7	3.8	2.2	1.7	.90	1.1
29	3.9	4.6	3.6	3.9	---	6.9	3.7	3.6	2.2	1.6	.90	2.0
30	3.9	4.6	3.6	3.9	---	6.5	3.7	3.4	2.2	1.6	.90	1.0
31	3.9	---	3.6	3.9	---	6.1	---	3.3	---	1.6	.90	---
TOTAL	117.2	182.1	124.8	185.8	142.3	391.4	131.0	128.9	72.9	61.1	36.80	30.00
MEAN	3.78	6.07	4.03	5.99	5.08	12.6	4.37	4.16	2.43	1.97	1.19	1.00
MAX	5.5	19	6.0	22	7.9	104	6.0	5.4	3.2	2.2	1.5	2.2
MIN	3.2	4.2	3.6	3.6	3.1	5.0	3.7	3.3	2.2	1.6	.90	.90
AC-FT	232	361	248	369	282	776	260	256	145	121	73	60

CAL YR 1986	TOTAL	10176.50	MEAN	27.9	MAX	1040	MIN	2.5	AC-FT	20190
WTR YR 1987	TOTAL	1604.30	MEAN	4.40	MAX	104	MIN	.90	AC-FT	3180

SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION NEAR SATICOY, CA

LOCATION.--Lat 34°17'35", long 119°06'00", in Santa Paula Y Saticoy Grant, Ventura County, Hydrologic Unit 18070102, on diversion works at Santa Clara River, 1.9 mi east of Saticoy.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1969 to September 1987 (discontinued). Daily discharge for October 1981 to September 1982, published in WDR CA-83-1. October 1928 to April 1969 in files of United Water Conservation District.

GAGE.--Water-stage recorder. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water is diverted from left bank of Santa Clara River to percolation basin near Los Angeles Avenue (State Highway 118) and for irrigation in Pleasant Valley. Imported water from the California Water Project released to the basin at Castaic Dam and Pyramid Dam since 1972.

COOPERATION.--Records were provided by United Water Conservation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 437 ft³/s, Dec. 10, 1978; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	24	51	47	58	64	75	32	28	106	21	18
2	32	24	51	49	58	65	74	32	26	73	22	18
3	30	33	52	50	56	64	75	32	26	114	21	17
4	35	31	51	57	54	61	75	32	25	117	21	16
5	36	28	52	76	52	64	76	31	26	124	19	16
6	40	28	60	111	57	124	77	28	27	123	19	17
7	39	30	58	115	48	296	66	28	29	119	20	18
8	25	31	57	94	48	212	66	27	26	139	20	18
9	29	33	54	85	49	151	57	28	24	126	22	18
10	34	33	53	80	49	132	56	30	40	140	23	18
11	26	33	53	89	51	119	52	30	73	144	23	19
12	26	29	54	84	54	109	52	30	49	173	22	19
13	28	28	57	79	66	103	51	30	34	162	21	18
14	26	28	59	80	46	99	51	29	28	109	21	17
15	25	29	59	79	70	104	52	28	39	124	21	16
16	25	30	55	72	68	97	50	28	42	143	21	16
17	31	44	54	69	65	94	50	28	43	122	21	19
18	26	67	52	65	65	94	47	28	68	137	21	11
19	29	86	53	64	65	87	50	28	78	102	20	10
20	31	80	53	66	63	88	46	29	90	132	18	11
21	29	62	53	64	65	95	39	30	94	70	18	12
22	40	56	52	66	64	95	38	32	106	51	18	12
23	45	52	51	65	64	87	37	31	111	43	18	18
24	31	52	50	65	63	89	36	31	120	38	19	20
25	25	51	53	66	69	87	34	32	105	36	18	12
26	24	51	57	64	70	86	35	32	87	32	18	10
27	24	51	62	60	66	84	37	30	102	28	17	11
28	24	50	64	58		86	34	28	129	25	17	13
29	23	50	53	56	---	91	34	21	122	26	16	13
30	23	53	47	56	---	84	33	26	121	19	16	12
31	23	---	46	59	---	78	---	28	---	21	17	---
TOTAL	913	1277	1676	2190	1665	3189	1555	909	1918	2918	609	463
MEAN	29.5	42.6	54.1	70.6	59.5	103	51.8	29.3	63.9	94.1	19.6	15.4
MAX	45	86	64	115	70	296	77	32	129	173	23	20
MIN	23	24	46	47	46	61	33	21	24	19	16	10
AC-FT	1810	2530	3320	4340	3300	6330	3080	1800	3800	5790	1210	918
CAL YR 1986	TOTAL	35190	MEAN	96.4	MAX	392	MIN	0	AC-FT	69800		
WTR YR 1987	TOTAL	19282	MEAN	52.8	MAX	296	MIN	10	AC-FT	38250		

SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION NEAR SATICOY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1982 to September 1987 (discontinued).

SPECIFIC CONDUCTANCE: August 1982 to September 1987 (discontinued).

pH: April 1982 to September 1987 (discontinued).

WATER TEMPERATURE: August 1982 to September 1987 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1982 to September 1987 (discontinued).

pH: April 1982 to September 1987 (discontinued).

WATER TEMPERATURE: August 1982 to September 1987 (discontinued).

INSTRUMENTATION.--Water-quality monitor August 1982 to September 1987 (discontinued).

REMARKS.-- Interruptions in record were due to malfunction of the recording instruments.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 2,170 microsiemens, Sept. 1, 1985; minimum recorded, 470 microsiemens, Mar. 6, 1987.

pH: Maximum, 8.9 units, Apr. 16, 1984, July 21, 1987; minimum, 7.0 units, Oct. 3, 5, 1985.

WATER TEMPERATURE: Maximum recorded, 34.0 °C, July 3, 1985; minimum recorded, 3.5 °C, Dec. 5, 1983.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,920 microsiemens, Mar. 3; minimum recorded, 470 microsiemens, Mar. 6.

pH: Maximum recorded, 8.9 units, July 21; minimum recorded, 7.4 units, Sept. 9.

WATER TEMPERATURE: Maximum recorded, 29.5 °C, May 8; minimum recorded, 6.5 °C, Jan. 17.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	1650	1570	1640	1600	1590	1560	1610	1580	1540	1530	1520	1490
2	1640	1590	1620	1590	1600	1560	1600	1590	1560	1530	1520	1490
3	1610	1550	1620	1580	1580	1560	1640	1600	1560	1530	1920	1490
4	1620	1580	1630	1600	1580	1560	1770	860	1570	1530	1850	1500
5	1630	1590	1640	1610	1580	1560	1700	1330	1580	1550	1520	1090
6	1640	1590	1620	1590	1580	1320	1410	1020	1600	1560	1240	470
7	1650	1620	1620	1590	1570	1550	1440	1160	1620	1570	1060	640
8	1660	1620	1630	1600	1580	1550	1470	1440	1630	1560	1120	920
9	1640	1600	1620	1590	1580	1540	1480	1450	1590	1550	1240	1130
10	1650	1610	1660	1610	1590	1570	1500	1470	1600	1560	1340	1240
11	1640	1610	1670	1630	1590	1540	1510	1480	1590	1550	1340	1300
12	1640	1590	1650	1620	1590	1560	1510	1480	1580	1530	1360	1340
13	1620	1590	1650	1610	1580	1560	1520	1490	1560	1130	1390	1360
14	1660	1610	1620	1590	1590	1560	1530	1510	1580	1510	1390	1370
15	1650	1600	1620	1600	1570	1540	1530	1500	1530	1500	1400	1310
16	1660	1620	1610	1590	1570	1550	1540	1500	1540	1510	1410	1380
17	1650	1610	1620	1290	1570	1550	1530	1500	1530	1520	1420	1390
18	1660	1610	1640	810	1580	1530	1530	1500	1540	1520	1430	1410
19	1640	1610	1480	1330	1580	1550	1530	1500	1560	1530	1430	1410
20	1640	1610	1510	1380	1570	1530	1540	1510	1560	1490	1420	1410
21	1650	1610	1560	1510	1570	1550	1530	1500	1540	1520	1420	1070
22	1660	1620	1580	1550	1570	1520	1530	1500	1530	1510	1430	1400
23	1660	1620	1580	1570	1570	1540	1530	1510	1550	1510	1420	1400
24	1670	1620	1590	1570	1580	1550	1520	1500	1540	1400	1410	1390
25	1640	1610	1600	1570	1580	1540	1520	1500	1510	1450	1420	1400
26	1630	1600	1590	1560	1570	1560	1530	1500	1510	1480	1440	1400
27	1630	1590	1600	1570	1580	1560	1530	1510	1510	1490	1420	1400
28	1610	1590	1590	1560	1570	1550	1540	1520	1510	1490	1420	1400
29	1620	1580	1580	1560	1570	1550	1540	1520	---	---	1410	1400
30	1630	1590	1610	1550	1600	1580	1560	1530	---	---	1420	1400
31	1640	1600	---	---	1610	1580	1550	1530	---	---	1410	1390
MONTH	1670	1550	1670	810	1610	1320	1770	860	1630	1130	1920	470

SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION NEAR SATICOY, CA--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	1410	1390	1600	1540	---	---	1330	1250	1680	1630	1760	1710
2	1420	1390	1600	1550	---	---	1440	1330	1690	1640	1770	1720
3	1410	1340	1590	1540	---	---	1390	1240	1690	1650	1770	1720
4	1390	1370	1600	1550	---	---	1330	1300	1700	1660	1770	1720
5	1380	1350	1610	1540	---	---	1330	1240	1690	1650	1760	1720
6	1390	1360	1610	1550	---	---	1300	1230	1690	1640	1760	1730
7	1410	1380	1680	1580	---	---	1300	1230	1700	1660	1770	1720
8	1430	1380	1700	1620	---	---	1260	1200	1710	1660	1770	1730
9	1450	1410	1700	1640	---	---	1290	1210	1710	1660	1780	1740
10	1470	1430	1670	1630	---	---	1270	1210	1710	1670	1770	1730
11	1480	1430	1680	1640	1480	1430	1280	1210	1720	1670	1770	1730
12	1480	1430	1690	1630	1610	1480	1260	1210	1720	1670	1750	1730
13	1510	1440	---	---	1690	1570	1300	1210	1710	1670	1770	1730
14	1530	1470	---	---	1720	1680	1340	1260	1700	1680	1770	1730
15	1500	1470	---	---	1700	1540	1360	1240	1730	1680	1770	1740
16	1520	1480	---	---	1590	1540	1350	1250	1730	1680	1780	1740
17	1510	1490	---	---	1620	1410	1360	1250	1720	1680	1770	1750
18	1540	1500	---	---	1450	1370	1300	1230	1730	1680	1800	1750
19	1540	1510	---	---	1500	1330	1350	1280	1730	1670	1800	1750
20	1540	1500	---	---	1350	1320	1340	1230	1740	1690	1800	1750
21	1570	1520	---	---	1340	1320	1500	1370	1750	1660	1790	1760
22	1570	1520	---	---	1350	1320	1540	1510	1720	1660	1810	1760
23	1550	1520	---	---	1350	1300	1560	1530	1730	1670	1790	1760
24	1570	1520	---	---	1420	1280	1600	1550	1740	1690	1810	1770
25	1570	1530	---	---	1350	1270	1590	1540	1740	1680	1810	1770
26	1590	1540	---	---	1430	1320	1600	1540	1750	1700	1810	1760
27	1590	1530	---	---	1440	1290	1600	1550	1750	1700	1820	1770
28	1600	1550	---	---	1300	1270	1610	1550	1750	1700	1800	1760
29	1600	1550	---	---	1340	1270	1620	1560	1760	1700	1800	1760
30	1590	1550	---	---	1350	1270	1650	1580	1740	1700	1800	1770
31	---	---	---	---	---	---	1680	1620	1740	1700	---	---
MONTH	1600	1340	---	---	---	---	1680	1200	1760	1630	1820	1710

PH (UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.2	7.9	8.4	7.7	8.2	7.9	8.4	7.8	8.1	7.9	8.4	7.9
2	8.2	7.9	8.4	7.6	8.2	7.9	8.3	7.8	8.1	7.8	8.4	8.0
3	8.3	7.9	8.4	7.6	8.2	7.9	8.1	7.7	8.2	7.8	8.4	8.0
4	8.4	7.9	8.3	7.6	8.1	7.9	7.8	7.6	8.2	7.9	8.4	8.0
5	8.4	7.9	8.4	7.6	8.2	7.9	7.8	7.7	8.3	8.0	8.1	7.8
6	8.3	7.9	8.5	7.7	8.1	7.8	7.9	7.7	8.3	7.9	7.8	7.8
7	8.2	7.8	8.4	7.7	8.1	7.9	8.0	7.8	8.3	7.9	8.0	7.9
8	8.2	7.7	8.4	7.6	8.2	7.9	8.0	7.9	8.3	7.9	8.2	8.0
9	8.2	7.7	8.4	7.6	8.1	7.9	8.0	7.9	8.1	7.9	8.1	8.0
10	8.2	7.7	8.2	7.6	8.2	7.8	8.0	7.9	8.2	7.9	8.2	8.0
11	8.2	7.7	8.3	7.7	8.1	7.8	8.0	7.9	8.3	7.9	8.2	8.0
12	8.3	7.7	8.3	7.6	8.1	7.8	8.0	7.9	8.3	7.9	8.2	8.0
13	8.2	7.7	8.3	7.6	8.2	7.8	8.0	7.9	8.1	7.7	8.2	8.0
14	8.2	7.7	8.4	7.7	8.2	7.8	8.0	7.9	8.2	7.8	8.2	8.0
15	8.2	7.7	8.5	7.7	8.1	7.8	8.0	7.9	8.2	7.9	8.2	7.9
16	8.3	7.7	8.5	7.7	8.1	7.8	8.0	7.9	8.3	7.9	8.2	8.0
17	8.3	7.7	8.1	7.7	8.1	7.8	8.1	7.8	8.3	7.9	8.2	8.0
18	8.3	7.7	7.8	7.6	8.1	7.8	8.1	7.8	8.3	7.9	8.2	8.0
19	8.4	7.8	8.0	7.8	8.1	7.8	8.0	7.8	8.3	8.0	8.2	8.0
20	8.4	7.8	8.0	7.8	8.2	7.8	8.0	7.8	8.3	7.9	8.2	7.9
21	8.4	7.8	8.0	7.9	8.2	7.8	8.0	7.8	8.3	7.9	8.1	7.9
22	8.4	7.8	8.1	7.9	8.2	7.8	8.0	7.8	8.3	7.9	8.2	7.9
23	8.4	7.8	8.1	7.9	8.2	7.8	8.1	7.9	8.3	7.9	8.2	7.9
24	8.4	7.7	8.1	7.9	8.2	7.8	8.1	7.9	8.2	7.8	8.1	7.9
25	8.4	7.7	8.1	7.9	8.2	7.8	8.2	8.0	8.2	7.8	8.2	7.9
26	8.4	7.7	8.1	7.8	8.2	7.8	8.2	8.0	8.4	7.9	8.2	7.9
27	8.4	7.7	8.1	7.8	8.2	7.8	8.2	8.0	8.4	7.9	8.3	7.9
28	8.3	7.7	8.1	7.8	8.2	7.8	8.2	7.9	8.4	8.0	8.4	7.9
29	8.4	7.7	8.1	7.8	8.3	7.8	8.1	7.9	---	---	8.4	8.0
30	8.4	7.7	8.1	7.8	8.3	7.8	8.0	7.8	---	---	8.4	8.0
31	8.4	7.7	---	---	8.3	7.9	8.1	7.9	---	---	8.4	8.0
MONTH	8.4	7.7	8.5	7.6	8.3	7.8	8.4	7.6	8.4	7.7	8.4	7.8

SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION NEAR SATICOY, CA--Continued

PH (UNITS), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.6	8.0	8.6	7.9	8.4	7.7	8.4	7.8	8.7	8.0	8.2	7.8
2	8.5	8.0	8.7	7.9	8.4	7.7	8.5	7.8	8.6	7.9	8.1	7.7
3	8.5	8.0	8.8	7.9	8.4	7.7	8.5	7.8	8.5	7.9	8.1	7.7
4	8.6	8.0	8.8	8.0	8.4	7.7	8.5	7.8	8.7	7.9	8.0	7.7
5	8.6	8.0	8.8	8.0	8.4	7.7	8.5	7.8	8.6	8.0	8.0	7.5
6	8.6	8.0	8.7	7.9	8.3	7.7	8.6	7.9	8.7	8.0	7.9	7.5
7	8.7	8.0	8.4	7.8	8.3	7.7	8.6	7.9	8.6	8.0	8.1	7.5
8	8.6	8.1	8.4	7.8	8.3	7.7	8.4	7.8	8.6	7.9	8.0	7.5
9	8.6	8.1	8.4	7.7	8.3	7.7	8.5	7.9	8.6	7.9	8.2	7.4
10	8.7	8.1	8.4	7.7	8.4	7.9	8.4	7.9	8.6	7.9	8.1	7.7
11	8.7	8.1	8.3	7.7	8.1	7.8	8.5	7.9	8.5	7.9	8.1	7.7
12	8.7	8.1	8.3	7.7	8.3	7.8	8.5	7.9	8.5	7.9	7.9	7.7
13	8.6	8.1	8.2	7.6	8.2	7.8	8.5	7.9	8.6	8.0	8.0	7.7
14	8.6	8.1	8.2	7.5	8.2	7.8	8.5	7.9	8.4	8.0	8.0	7.7
15	8.6	8.0	8.2	7.5	8.2	7.8	8.6	8.0	8.5	8.0	7.9	7.6
16	8.5	8.0	8.0	7.6	8.2	7.8	8.4	8.0	8.5	7.9	7.9	7.6
17	8.5	8.0	8.1	7.6	8.3	7.8	8.4	8.0	8.5	8.0	8.0	7.6
18	8.5	8.0	8.4	7.6	8.5	7.9	8.5	8.0	8.5	8.0	7.8	7.6
19	8.5	8.0	8.2	7.6	8.3	8.0	8.5	8.0	8.5	8.0	7.8	7.6
20	8.5	8.0	8.1	7.6	8.3	8.0	8.5	8.0	8.6	8.0	7.8	7.5
21	8.5	8.0	8.1	7.6	8.3	7.9	8.9	8.0	8.6	8.0	7.8	7.6
22	8.6	8.0	8.2	7.5	8.3	7.9	8.6	8.1	8.5	7.9	8.1	7.6
23	8.6	8.0	8.1	7.5	8.3	7.9	8.6	8.0	8.4	7.9	7.8	7.6
24	8.6	8.0	8.2	7.5	8.1	7.8	8.5	8.0	8.8	7.9	7.9	7.6
25	8.6	8.0	8.2	7.5	8.1	7.8	8.5	8.0	8.4	7.9	7.7	7.6
26	8.6	8.0	8.2	7.5	8.2	7.8	8.6	8.0	8.3	7.8	7.7	7.5
27	8.6	7.9	8.2	7.5	8.2	7.8	8.6	8.0	8.3	7.8	7.8	7.5
28	8.6	7.9	8.3	7.5	8.3	7.8	8.7	8.0	8.4	7.9	7.9	7.6
29	8.4	7.9	8.5	7.5	8.4	7.8	8.7	8.0	8.2	7.8	7.9	7.6
30	8.6	7.9	8.5	7.7	8.4	7.8	8.8	8.0	8.2	7.8	7.8	7.6
31	---	---	8.4	7.7	---	---	8.6	8.0	8.3	7.8	---	---
MONTH	8.7	7.9	8.8	7.5	8.5	7.7	8.9	7.8	8.8	7.8	8.2	7.4

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.5	15.5	20.5	13.0	16.0	10.0	15.0	10.0	17.5	11.0	18.5	11.0
2	22.5	15.5	20.0	12.0	16.0	11.0	16.0	11.5	16.5	11.0	18.5	12.0
3	24.0	14.5	20.5	12.0	16.0	10.0	16.0	10.5	18.5	12.5	19.5	12.5
4	24.5	14.5	21.0	12.5	15.5	12.5	15.0	13.5	18.5	11.0	19.5	13.0
5	24.5	14.5	20.5	12.5	16.0	12.5	15.5	11.0	17.5	10.0	16.5	15.0
6	25.0	15.5	20.5	15.0	17.0	14.5	12.0	10.0	17.5	10.5	15.5	13.5
7	25.5	16.5	---	---	16.5	12.0	15.5	11.0	18.0	11.5	18.0	13.0
8	26.0	18.5	18.5	11.5	16.0	10.5	15.0	9.5	17.0	12.0	20.5	15.0
9	24.0	19.0	19.0	11.5	16.0	10.5	15.5	10.0	16.0	13.5	20.0	14.0
10	24.5	19.0	16.0	11.0	16.0	10.5	15.5	9.0	18.5	15.0	18.5	13.0
11	22.0	18.0	19.5	12.0	15.0	9.5	15.5	9.5	19.5	15.0	21.0	14.0
12	24.5	16.5	19.5	12.0	15.0	9.5	16.0	9.0	19.0	15.5	19.5	15.5
13	23.0	14.0	19.5	12.0	15.5	10.0	15.5	10.0	17.0	15.5	21.5	15.5
14	23.5	13.0	19.0	12.5	16.0	11.0	15.0	8.5	19.5	13.0	17.5	13.5
15	22.0	13.0	19.5	14.5	15.0	11.0	13.5	8.0	17.5	13.5	19.0	12.0
16	22.0	13.5	20.0	14.5	15.5	11.5	13.0	7.0	18.5	11.0	20.0	11.5
17	22.0	15.0	18.0	16.0	16.0	11.0	13.5	6.5	18.5	11.0	20.5	12.0
18	21.5	13.5	20.0	17.0	16.0	11.0	14.0	7.5	19.0	11.0	20.0	12.5
19	22.0	13.0	21.0	16.5	15.5	11.5	15.0	8.0	17.5	11.0	20.0	13.0
20	22.5	14.0	20.5	15.0	16.5	12.0	13.5	7.5	17.0	9.5	19.0	11.5
21	22.0	13.5	20.0	16.0	16.0	10.5	14.5	7.5	17.0	10.0	15.0	11.5
22	23.0	14.5	19.0	13.0	15.5	11.0	14.5	8.0	17.0	11.5	19.5	10.0
23	22.0	14.5	18.5	13.0	16.0	11.5	16.0	11.5	16.0	10.0	19.5	11.5
24	22.5	14.0	18.5	12.5	15.5	11.0	16.0	9.5	13.0	9.5	20.0	12.0
25	23.5	14.5	18.5	12.0	15.0	10.5	18.0	10.5	14.5	10.0	21.0	12.0
26	21.0	14.5	18.0	11.0	14.5	10.0	18.0	11.5	17.0	9.0	21.5	12.5
27	23.0	14.0	17.5	11.0	14.5	10.0	16.0	13.0	17.0	9.5	22.0	13.0
28	20.0	14.5	17.0	11.0	15.0	10.0	18.0	13.5	17.0	10.0	21.0	12.5
29	23.0	15.0	17.5	12.5	15.5	10.5	16.5	11.5	---	---	21.0	11.5
30	22.5	15.0	15.0	10.5	15.0	9.5	16.0	12.5	---	---	20.5	12.5
31	21.5	13.5	---	---	14.5	10.0	17.5	10.5	---	---	21.0	12.5
MONTH	26.0	13.0	---	---	17.0	9.5	18.0	6.5	19.5	9.0	22.0	10.0

SANTA CLARA RIVER BASIN

11113900 SATICOY DIVERSION NEAR SATICOY, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR, OCTOBER 1986 TO SEPTEMBER 1987

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	21.5	12.5	26.0	14.5	29.0	17.5	24.5	18.0	28.0	18.5	27.0	18.5
2	22.0	13.0	26.5	15.5	29.5	18.0	25.5	18.5	28.0	19.5	28.0	19.5
3	21.5	15.5	27.0	15.5	28.5	19.5	24.0	18.5	27.5	19.5	27.0	20.0
4	22.0	12.5	28.0	16.5	29.0	19.0	25.0	18.0	28.0	19.5	26.5	20.5
5	22.0	13.5	28.5	17.0	28.0	18.5	24.5	18.5	27.5	20.0	25.5	18.0
6	23.0	14.0	29.0	17.5	27.5	19.5	24.5	18.5	28.0	19.5	24.5	16.5
7	24.0	15.0	28.0	19.5	28.0	19.5	24.5	18.5	28.0	20.5	25.0	16.5
8	24.5	14.5	29.5	19.5	27.5	19.5	21.5	18.5	28.5	21.0	26.0	17.5
9	25.0	15.0	29.0	19.5	29.0	17.5	24.5	19.0	27.5	19.0	25.0	18.0
10	24.5	15.0	28.5	19.5	---	---	21.5	18.5	27.5	19.0	24.0	17.5
11	23.5	16.5	28.5	19.0	---	---	24.5	18.0	27.5	19.5	24.5	17.5
12	24.0	14.5	28.0	19.0	---	---	24.5	19.0	27.0	19.5	21.0	19.0
13	25.0	14.0	28.5	19.5	---	---	25.0	18.5	25.5	19.0	23.0	18.5
14	25.0	15.0	29.0	20.0	---	---	25.5	19.5	23.5	20.0	23.5	17.0
15	24.5	15.5	28.5	20.0	---	---	25.0	19.5	26.0	19.5	23.5	17.0
16	25.0	15.5	23.0	20.0	---	---	22.0	19.5	26.0	17.5	24.5	17.0
17	23.5	17.0	25.0	18.5	---	---	22.5	19.5	25.5	18.5	24.0	19.5
18	24.0	16.5	27.5	18.0	---	---	24.0	17.0	25.5	19.0	25.0	19.0
19	23.5	14.5	24.5	18.0	24.0	17.0	24.5	17.5	25.5	18.0	25.0	18.0
20	24.5	13.0	20.5	16.5	24.0	17.0	24.0	17.0	26.0	17.5	25.0	18.0
21	25.5	14.0	24.5	15.0	24.5	17.5	25.5	17.0	26.5	17.5	24.0	19.5
22	26.5	14.5	26.5	15.0	25.0	17.5	26.5	17.0	26.0	17.0	26.0	18.5
23	25.5	15.0	24.0	17.5	24.5	18.0	27.0	17.0	25.5	16.5	24.5	20.5
24	26.5	15.5	26.5	16.0	25.5	18.5	25.5	18.5	25.5	16.5	24.5	19.5
25	25.0	15.0	25.0	16.5	25.0	19.5	26.0	18.0	25.5	17.5	24.5	18.5
26	26.0	17.0	25.5	15.5	25.5	19.5	26.5	18.5	26.0	18.5	25.0	19.0
27	26.0	17.0	26.5	15.5	24.5	19.0	26.5	18.5	27.0	19.0	24.5	19.5
28	25.0	18.0	27.0	15.5	23.5	18.5	26.5	18.5	27.0	19.5	25.0	19.5
29	22.0	18.0	25.5	16.5	23.5	18.0	26.5	18.0	27.0	20.0	24.5	18.5
30	24.5	17.5	27.0	16.0	23.0	18.0	28.0	18.0	26.5	20.0	24.5	18.5
31	---	---	28.5	17.0	---	---	28.0	18.0	26.0	18.5	---	---
MONTH	26.5	12.5	29.5	14.5	---	---	28.0	17.0	28.5	16.5	28.0	16.5

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 southeast of Montalvo, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--1,612 mi².

PERIOD OF RECORD.--October 1927 to September 1932, October 1949 to current year. Monthly discharge only for 1950-67, published in WSP 2128. October 1949 to September 1969, published as "at Saticoy."

REVISED RECORDS.--WSP 2128: Drainage area.

GAGE.--Two water-stage recorders. Datum of main gage is 51.88 ft above 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 upstream at different datum. Supplementary gage 0.7 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 4-7. Records poor. Flow partly regulated by Lake Piru (station 11109500) 33 mi upstream since May 1955; by Pyramid Lake, capacity, 173,500 acre-ft, 42 mi upstream since December 1971; and by Castaic Reservoir, capacity 324,000 acre-ft, 43 mi 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 upstream (station 11113900). AVERAGE DISCHARGE represents flow to the ocean regardless of upstream development.

AVERAGE DISCHARGE.--43 years, 153 ft³/s, 110,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 165,000 ft³/s, Jan. 25, 1969, gage height, 17.41 ft, present datum; no flow for long periods in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, reached a discharge of 120,000 ft³/s, estimated by Ventura County Flood Control District.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 851 ft³/s, Mar. 6, gage height, 3.35 ft; no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0		0		0		0				
2		0		0		0		0				
3		0		0		0		0				
4		0		5.0		0		0				
5		0		20		0		0				
6		0		10		194		0				
7		0		3.0		37		0				
8		0		0		0		0				
9		0		0		0		0				
10		0		0		0		0				
11		0		0		.10		0				
12		0		0		8.1		0				
13		18		0		5.8		0				
14		9.4		0		3.3		0				
15		0		0		0		6.4				
16		0		0		0		9.4				
17		0		0		0		0				
18		9.1		0		0		0				
19		0		0		0		0				
20		0		0		0		0				
21		0		0		0		0				
22		0		0		0		0				
23		0		0		0		0				
24		0		0		0		0				
25		0		0		0		0				
26		0		0		1.6		0				
27		0		0		10		0				
28		0		0		3.7		0				
29		0		0	---	0		0				
30		0		0	---	0		0				
31		---		0	---	0	---	0	---			---
TOTAL	0	36.5	0	38.0	0	263.60	0	15.8	0	0	0	0
MEAN	0	1.22	0	1.23	0	8.50	0	.51	0	0	0	0
MAX	0	18	0	20	0	194	0	9.4	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	72	0	75	0	523	0	31	0	0	0	0
CAL YR 1986	TOTAL	77805.56	MEAN	213	MAX	17300	MIN	0	AC-FT	154300		
WTR YR 1987	TOTAL	353.90	MEAN	.97	MAX	194	MIN	0	AC-FT	702		

VENTURA RIVER BASIN

11115000 MATILIJA RESERVOIR AT MATILIJA HOT SPRINGS, CA

LOCATION.--Lat 34°29'08", long 119°18'25", in 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 east of Matilija Hot Springs, and 1.8 mi southwest of Wheeler Springs.

DRAINAGE AREA.--54.4 mi².

PERIOD OF RECORD.--March 1948 to September 1965, October 1970 to current year. Prior to October 1985, monthend elevation and contents only. March 1948 to October 1953, published as "at Matilija."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Ventura County Department of Public Works). 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. Capacity table dated August 1983 not valid due to silting of reservoir during the 1986 water year. Lowest sluice gate silted, elevation, 1,000 ft. Lowest usable outlet, elevation 1,064 ft, and crest of spillway, elevation 1,095 ft. 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, Apr. 3, 1958, elevation, 1,128.10 ft; 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, Jan. 25, 1969, elevation, 1,103.6 ft.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 1,092.13 ft, Dec. 4; minimum elevation, 1,073.00 ft, Oct. 20.

ELEVATION, IN FEET NGVD, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1073.67	1077.37	1091.32	1079.00	1083.73	1085.17	1089.44	1089.40	1089.14	1088.81	1087.88	1086.34
2	1073.63	1077.84	1091.63	1079.12	1083.61	1085.20	1089.62	1089.40	1089.10	1088.79	1087.82	1086.29
3	1073.59	1078.31	1091.90	1079.26	1083.55	1081.26	1089.47	1089.43	1089.04	1088.78	1087.77	1086.23
4	1073.53	1078.77	1091.52	1080.18	1083.47	1083.55	1089.35	1089.43	1089.01	1088.77	1087.72	1086.20
5	1073.49	1079.23	1090.57	1080.64	1083.38	1079.33	1089.27	1089.43	1088.98	1088.76	1087.65	1086.17
6	1073.42	1079.69	1090.00	1081.12	1083.30	1086.86	1089.33	1089.44	1088.96	1088.74	1087.59	1086.13
7	1073.38	1080.09	1089.38	1081.60	1083.20	1087.04	1089.39	1089.43	1088.95	1088.73	1087.51	1086.11
8	1073.32	1080.52	1088.80	1081.94	1083.10	1086.38	1089.48	1089.41	1088.94	1088.72	1087.45	1086.07
9	1073.30	1080.94	1088.15	1082.27	1083.21	1085.42	1089.52	1089.41	1088.94	1088.72	1087.40	1086.02
10	1073.27	1081.36	1087.48	1082.52	1083.43	1084.31	1089.64	1089.38	1088.95	1088.71	1087.33	1085.96
11	1073.22	1081.75	1086.81	1082.76	1083.50	1083.05	1089.66	1089.35	1088.95	1088.69	1087.30	1085.90
12	1073.20	---	1086.19	1083.00	1083.56	1083.12	---	1089.35	1088.94	1088.68	1087.23	1085.85
13	1073.17	---	1085.51	1083.27	1083.78	1084.07	---	1089.35	1088.94	1088.65	1087.19	1085.80
14	1073.09	---	1084.85	1083.43	1083.95	1084.91	---	1089.33	1088.95	1088.64	1087.11	1085.76
15	1073.01	---	1084.15	1083.59	1084.08	1085.68	---	1089.33	1088.96	1088.58	1087.07	1085.72
16	1073.01	---	1083.41	1083.76	1084.08	1086.23	---	1089.28	1088.97	1088.54	1087.03	1085.65
17	1073.04	---	---	1083.95	1084.10	1086.35	1090.10	1089.24	1088.97	1088.51	1086.96	1085.60
18	1073.02	---	---	1084.11	1084.16	1086.10	1089.99	1089.21	1088.98	1088.49	1086.93	1085.54
19	1073.01	1086.38	---	1084.29	1084.20	1085.83	1089.92	1089.17	1088.98	1088.45	1086.88	1085.49
20	1073.00	1087.00	---	1084.45	1084.18	1085.85	1089.81	1089.15	1088.96	1088.42	1086.84	1085.42
21	1073.08	1087.55	---	1084.62	1084.37	1086.34	1089.74	1089.15	1088.95	1088.37	1086.76	1085.38
22	1073.09	1088.02	1078.40	1084.77	1084.46	1086.73	1089.66	1089.14	1088.94	1088.33	1086.72	1085.34
23	1073.09	1088.47	1077.99	1084.92	1084.58	1087.12	1089.60	1089.14	1088.93	1088.32	1086.67	1085.30
24	1073.32	1088.92	1077.93	1084.79	1084.69	1087.44	1089.55	1089.15	1088.92	1088.27	1086.62	1085.28
25	1073.85	1089.29	1077.91	1084.66	1084.80	1087.74	1089.47	1089.15	1088.92	1088.23	1086.60	1085.24
26	1074.36	1089.67	1078.08	1084.54	1084.93	1088.03	1089.46	1089.15	1088.89	1088.20	1086.56	1085.21
27	1074.87	1090.03	1078.26	1084.37	1085.01	1088.30	1089.41	1089.16	1088.87	1088.13	1086.54	1085.20
28	1075.40	---	1078.41	1084.24	1085.10	1088.53	1089.41	1089.18	1088.85	1088.09	1086.51	1085.15
29	1075.91	---	1078.52	1084.08	---	1088.76	1089.41	1089.20	1088.82	1088.03	1086.46	1085.10
30	1076.41	---	1078.68	1083.96	---	1089.01	1089.38	1089.20	1088.81	1087.98	1086.43	1085.06
31	1076.88	---	1078.81	1083.86	---	1089.20	---	1089.19	---	1087.92	1086.38	---
MAX	1076.88	---	---	1084.92	1085.10	1089.20	---	1089.44	1089.14	1088.81	1087.88	1086.34
MIN	1073.00	---	---	1079.00	1083.10	1079.33	---	1089.14	1088.81	1087.92	1086.38	1085.06

VENTURA RIVER BASIN

11115500 MATILIJA CREEK AT MATILIJA HOT SPRINGS, CA

LOCATION.--Lat 34°28'58", long 119°18'03", in 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 east of Matilija Hot Springs, 0.2 mi upstream from North Fork, and 0.4 mi downstream from Matilija Dam.

DRAINAGE AREA.--54.6 mi².

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."

REVISED RECORDS.--WSP 1928: Drainage area.

GAGE.--Water-stage recorder. Concrete control since September 1969. Elevation of gage is 900 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Feb. 11, 1939, at site 0.6 mi upstream at different datum.

REMARKS.--Estimated daily discharges: June 16 to July 6. Records fair. Flow regulated by Matilija Reservoir March 1948 to March 1964, capacity, 7,020 acre-ft. Structural modification of dam and siltation has resulted in only partial regulation since March 1964. Current capacity, 1,480 acre-ft, capacity table dated August 1983.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft³/s, Jan. 25, 1969, gage height, 16.5 ft, from rating curve extended above 4,200 ft³/s on basis of computation of peak flow over dam; minimum daily, 0.10 ft³/s, several days in some years of regulated flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 165 ft³/s, Mar. 4, gage height, 3.18 ft; minimum daily, 0.20 ft³/s, several days in October, November, and December.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	.21	.20	4.9	9.5	6.7	5.7	7.3	5.4	4.8	4.0	3.4
2	9.0	.21	.20	4.9	9.4	6.5	6.6	6.8	5.4	4.7	4.3	3.7
3	9.0	.22	.20	4.9	8.8	6.3	16	6.7	5.5	4.6	4.5	3.3
4	8.4	.22	23	5.6	8.1	49	16	6.4	5.3	4.5	4.6	2.9
5	8.0	.20	42	4.7	7.7	122	14	5.7	5.1	4.4	4.1	2.9
6	7.8	.22	29	4.7	7.5	39	9.2	5.6	4.3	4.0	4.0	3.0
7	7.7	.24	29	4.6	7.4	64	8.6	5.7	4.7	4.3	4.0	2.6
8	7.9	.24	27	4.5	7.4	64	8.2	5.7	4.7	4.1	3.7	2.4
9	8.1	.22	30	4.6	7.8	64	7.8	5.7	4.9	4.3	3.5	2.5
10	8.1	.21	29	4.4	7.8	63	7.8	5.7	5.0	4.4	3.4	2.7
11	8.1	.20	29	4.4	7.8	62	7.6	5.7	5.0	4.2	3.4	2.9
12	7.8	.20	29	4.4	7.8	26	7.4	5.7	5.0	4.1	3.4	2.8
13	7.7	.23	28	4.4	7.9	.52	7.0	5.7	5.0	3.8	3.6	2.6
14	7.4	.27	27	4.4	7.5	.45	7.0	5.6	5.1	3.9	3.6	2.5
15	7.4	.29	27	4.4	8.8	.44	6.6	5.7	4.8	4.1	3.6	2.6
16	7.2	.28	27	4.5	9.3	2.9	6.3	5.7	4.8	4.1	3.2	2.7
17	7.1	.42	26	4.6	9.4	15	8.4	5.7	5.1	4.3	3.4	3.0
18	6.9	.45	26	4.5	8.2	25	12	5.7	5.0	4.4	3.0	3.0
19	6.7	.25	26	4.4	7.3	24	11	5.8	4.9	4.5	3.2	3.0
20	6.7	.25	26	4.4	7.3	15	11	6.0	4.8	4.5	3.4	2.9
21	6.7	.35	26	4.0	7.0	6.3	10	5.5	4.7	4.6	3.4	2.9
22	7.0	.22	25	4.1	7.0	6.1	9.3	5.5	4.6	4.6	3.4	2.8
23	7.1	.20	15	5.7	7.0	6.0	9.0	5.4	4.6	4.6	2.8	2.8
24	5.1	.20	8.2	10	7.0	6.0	8.9	5.4	5.0	4.6	2.8	2.6
25	.31	.20	7.0	10	6.9	6.0	8.3	5.3	4.8	4.6	2.3	2.9
26	.25	.22	4.9	10	6.7	6.0	7.9	5.1	4.7	4.6	2.4	2.9
27	.23	.20	4.9	10	6.7	6.0	7.8	5.2	4.6	4.5	2.5	3.1
28	.25	.23	4.9	10	6.7	6.0	7.7	5.0	5.0	4.4	2.8	3.0
29	.25	.22	4.9	10	---	6.0	7.6	5.4	4.9	4.4	3.1	3.3
30	.24	.20	4.8	9.5	---	6.0	7.4	5.6	4.8	4.5	3.0	3.3
31	.20	---	4.9	9.4	---	5.7	---	5.4	---	4.3	3.1	---
TOTAL	183.63	7.27	591.10	184.9	217.7	721.91	268.1	177.4	147.5	135.7	105.5	87.0
MEAN	5.92	.24	19.1	5.96	7.78	23.3	8.94	5.72	4.92	4.38	3.40	2.90
MAX	9.0	.45	42	10	9.5	122	16	7.3	5.5	4.8	4.6	3.7
MIN	.20	.20	.20	4.0	6.7	.44	5.7	5.0	4.3	3.8	2.3	2.4
AC-FT	364	14	1170	367	432	1430	532	352	293	269	209	173
CAL YR 1986	TOTAL	22394.50	MEAN	61.4	MAX	2660	MIN	.20	AC-FT	44420		
WTR YR 1987	TOTAL	2827.71	MEAN	7.75	MAX	122	MIN	.20	AC-FT	5610		

VENTURA RIVER BASIN

11116550 VENTURA RIVER NEAR MEINERS OAKS, CA

LOCATION.--Lat 34°27'49", long 119°17'22", in NW 1/4 NE 1/4 sec.4, T.4 N., R.23 W., Ventura County, Hydrologic Unit 18070101, on right bank 500 ft downstream from Robles diversion dam and 1.2 mi northwest of Meiners Oaks.

DRAINAGE AREA.--76.4 mi².

PERIOD OF RECORD.--May 1959 to September 1978, December 1980 to February 1983, January 1984 to current year. Since October 1985, only discharges below 200 ft³/s published.

GAGE.--Water-stage recorder and concrete control since December 1980. Datum of gage is 745.85 ft above National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). Prior to Oct. 30, 1969, at datum 1.25 ft lower. Oct. 30, 1969, to Sept. 30, 1978, at site 500 ft upstream at datum 4.15 ft higher.

REMARKS.--Estimated daily discharges: Oct. 9, 10. Records fair. Flow regulated by Matilija Reservoir, capacity, 1,480 acre-ft. Flow up to 500 ft³/s diverted since May 1959 at Robles diversion dam to Lake Casitas on Coyote Creek. Flow reported is discharge less than 200 ft³/s released downstream from Robles diversion dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/s, Jan. 25, 1969, estimated on basis of peak flows at stations on nearby streams, gage height, unknown; no flow several months in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 89 ft³/s, Mar. 5, gage height, 3.67 ft; no flow several days in November, December, and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	.52	.42	5.8	9.1	7.1	6.1	7.0	2.7	1.3	.73	.15
2	11	.70	0	6.2	9.0	6.8	6.1	11	2.0	1.3	1.0	0
3	10	.69	0	5.9	8.8	6.5	13	9.3	2.6	1.4	1.3	0
4	9.9	.08	11	19	8.8	9.6	14	5.5	2.6	1.6	1.0	0
5	9.9	0	28	13	9.3	31	13	4.3	2.0	1.6	.63	.07
6	9.2	0	21	11	8.8	18	9.5	3.7	2.3	1.5	.84	.25
7	8.6	0	21	11	8.2	.18	8.7	3.4	3.4	1.1	.77	.47
8	8.6	0	20	11	8.2	.15	8.6	3.0	3.2	1.2	1.1	.31
9	9.0	0	21	7.7	9.9	2.4	8.1	2.9	3.2	1.7	1.4	.11
10	9.5	0	21	6.9	11	4.4	7.3	3.2	2.7	1.4	1.3	0
11	9.4	0	21	6.7	9.3	4.3	7.6	3.1	2.2	1.4	1.1	.18
12	9.3	0	21	6.4	9.0	4.1	8.3	2.5	2.5	1.5	1.1	.54
13	9.2	0	21	5.7	9.8	6.4	7.8	2.6	2.7	1.7	1.2	.97
14	8.6	0	22	5.8	9.0	3.5	6.8	2.6	2.7	1.4	1.2	.91
15	8.9	0	22	5.9	9.3	3.3	5.9	2.9	3.2	1.6	1.5	.92
16	8.8	0	20	6.0	9.3	3.5	5.1	3.3	2.7	1.4	1.6	.85
17	7.8	.22	19	6.1	9.3	10	6.4	3.4	2.5	1.3	1.7	.81
18	8.1	10	19	7.1	9.0	17	9.8	3.4	2.1	1.5	1.5	.89
19	8.3	4.3	20	5.9	7.7	17	10	4.0	1.5	1.7	1.1	.80
20	7.5	4.0	21	5.3	7.9	14	9.1	4.5	1.6	1.5	1.1	1.4
21	7.1	5.2	22	4.3	7.7	7.6	8.1	4.4	1.9	1.6	1.0	.92
22	7.3	4.4	22	3.8	7.1	7.1	7.6	4.4	1.7	1.7	1.1	.80
23	7.6	3.1	17	4.4	6.9	6.7	7.3	4.1	1.3	1.4	1.3	1.0
24	6.7	3.4	8.0	8.4	7.4	6.6	7.4	4.7	1.3	1.7	.77	.70
25	1.9	2.8	6.9	8.8	7.6	6.8	7.1	4.0	.62	1.7	.25	.62
26	1.6	2.1	6.2	9.7	6.8	6.4	7.0	3.4	.23	1.6	.60	.66
27	.88	2.0	6.0	9.8	7.1	5.8	6.9	3.4	.60	1.6	.18	1.2
28	.17	2.0	6.0	9.8	7.2	6.3	6.7	3.2	1.2	1.2	.06	.81
29	.33	2.2	7.0	9.5	---	6.6	6.5	3.5	1.5	.76	.19	.88
30	.22	1.6	6.0	8.6	---	6.6	6.8	3.6	1.6	.79	.40	.57
31	.27	---	5.0	9.1	---	6.2	---	3.0	---	.76	.39	---
TOTAL	216.67	49.31	461.52	244.6	238.5	241.93	242.6	127.3	62.35	43.91	29.41	17.59
MEAN	6.99	1.64	14.9	7.89	8.52	7.80	8.09	4.11	2.08	1.42	.95	.59
MAX	11	10	28	19	11	31	14	11	3.4	1.7	1.7	1.4
MIN	.17	0	0	3.8	6.8	.15	5.1	2.5	.23	.76	.06	0
AC-FT	430	98	915	485	473	480	481	252	124	87	58	35

WTR YR 1987 TOTAL 1975.69 MEAN 5.41 MAX 31 MIN 0 AC-FT 3920

VENTURA RIVER BASIN

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 upstream from Poplin Creek, and 4.2 mi northwest of Oak View.

DRAINAGE AREA.--13.2 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 577.37 ft, U.S. Bureau of Reclamation datum. Prior to Oct. 1, 1980, at site 1,000 ft downstream at datum 16.90 ft lower.

REMARKS.--Estimated daily discharges: Oct. 21-27, Jan. 30 to Feb. 6, Mar. 11, Apr. 12, 20, Apr. 24 to May 5, July 6 to Sept. 3. Records poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--29 years, 7.96 ft³/s, 5,940 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft³/s, Jan. 25, 1969, gage height, 12.00 ft, site and datum then in use, from floodmarks, from rating curve extended above 2,100 ft³/s on basis of slope-area measurements at gage heights 9.10 and 12.00 ft; maximum gage height, 13.72 ft, Feb. 16, 1980, site and datum then in use, backwater from Casitas Reservoir; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*), from rating curve extended above 82 ft³/s on basis of slope-area measurements at gage heights 7.53 and 9.61 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0230	*286	*3.92				

Minimum daily, 0.18 ft³/s, Sept. 8, 19, 20, 22, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.86	.86	1.0	1.0	1.2	1.2	1.5	.80	.74	.39	.39	.27
2	.86	.86	.92	1.0	1.1	1.2	1.5	.80	.74	.47	.39	.26
3	.86	.98	.86	1.0	1.1	1.2	1.3	.85	.71	.40	.38	.26
4	.99	.86	.86	4.8	1.1	1.2	1.6	.83	.73	.42	.38	.26
5	1.2	.67	.86	3.7	1.1	13	1.5	.82	.73	.43	.37	.24
6	1.2	.60	1.4	2.2	1.0	106	1.4	.81	.82	.40	.37	.25
7	1.1	.60	1.4	3.2	1.0	16	1.2	.75	.81	.40	.37	.21
8	1.0	.60	1.2	2.1	1.0	9.7	1.2	.71	.80	.40	.37	.18
9	1.0	.60	1.0	1.5	1.4	6.3	1.0	.71	.71	.41	.37	.20
10	1.0	.60	1.0	1.2	2.7	4.6	1.2	.72	.71	.43	.37	.20
11	1.0	.60	1.0	1.1	1.7	4.1	1.1	.65	.66	.45	.37	.21
12	1.0	.60	1.0	1.0	1.7	3.6	1.1	.69	.64	.46	.37	.31
13	1.0	.60	1.0	.90	4.1	3.2	1.4	.64	.62	.46	.39	.27
14	.92	.60	1.0	.91	3.7	2.7	1.2	.61	.61	.47	.40	.20
15	.86	.60	1.0	.86	2.2	2.6	1.1	.65	.56	.48	.40	.20
16	.86	.60	1.0	.90	1.8	2.2	1.1	.67	.57	.48	.43	.20
17	.98	1.4	1.0	1.2	1.5	2.2	1.0	.65	.56	.51	.42	.21
18	1.0	17	1.0	1.2	1.4	2.5	.95	.62	.54	.54	.40	.19
19	1.0	1.6	.99	1.2	1.4	2.1	.91	.62	.53	.53	.38	.18
20	1.0	1.1	.86	1.2	1.4	1.7	.97	.56	.50	.52	.37	.18
21	1.0	.75	.86	1.1	1.3	3.5	.95	.56	.47	.52	.36	.20
22	1.0	.96	.86	1.2	1.3	2.8	.91	.57	.44	.50	.34	.18
23	1.1	1.2	.86	1.3	1.4	2.2	.88	.55	.42	.50	.33	.20
24	1.1	1.3	.86	1.3	1.7	2.2	.85	.59	.41	.47	.32	.22
25	1.1	1.2	.95	1.3	1.8	2.1	.85	.63	.41	.45	.31	.20
26	1.2	1.2	1.0	1.2	1.6	2.0	.85	.64	.42	.44	.31	.24
27	1.2	1.1	1.0	1.2	1.4	1.8	.80	.65	.41	.44	.31	.22
28	1.3	1.0	1.0	1.2	1.3	1.7	.80	.76	.44	.43	.28	.22
29	1.4	1.0	1.0	1.3	---	1.7	.80	.78	.41	.42	.27	.18
30	1.2	1.0	1.0	1.3	---	1.4	.82	.77	.37	.41	.27	.19
31	.86	---	1.0	1.2	---	1.3	---	.74	---	.40	.27	---
TOTAL	32.15	42.64	30.74	45.77	45.4	210.0	32.74	21.40	17.49	14.03	11.06	6.53
MEAN	1.04	1.42	.99	1.48	1.62	6.77	1.09	.69	.58	.45	.36	.22
MAX	1.4	17	1.4	4.8	4.1	106	1.6	.85	.82	.54	.43	.31
MIN	.86	.60	.86	.86	1.0	1.2	.80	.55	.37	.39	.27	.18
AC-FT	64	85	61	91	90	417	65	42	35	28	22	13

CAL YR 1986	TOTAL	3661.34	MEAN	10.0	MAX	559	MIN	.33	AC-FT	7260
WTR YR 1987	TOTAL	509.95	MEAN	1.40	MAX	106	MIN	.18	AC-FT	1010

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 upstream from unnamed tributary, and 3.0 mi northwest of Oak View.

DRAINAGE AREA.--9.11 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 612.43 ft, U.S. Bureau of Reclamation datum. Prior to Aug. 17, 1970, on downstream end of right abutment at same datum.

REMARKS.--No estimated daily discharges. Records good. Low flow slightly regulated by one small reservoir upstream. Some small diversions above station.

AVERAGE DISCHARGE.--29 years, 6.05 ft³/s, 4,380 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,330 ft³/s, Mar. 4, 1978, gage height, 10.01 ft, from rating curve extended above 1,000 ft³/s on basis of slope-area measurement at gage height 8.57 ft; maximum gage height, 10.70 ft, 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 ft³/s, by slope-area measurement at site 2.0 mi downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0300	*87	*4.68				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.17	.58	.61	.82	1.0	.87	.56	.08	.03		
2	.31	.18	.62	.62	.79	.90	.87	.47	.08	.03		
3	.27	.18	.64	.61	.77	.96	.89	.40	.08	.03		
4	.24	.18	.69	3.7	.75	.68	.92	.27	.07	.02		
5	.24	.18	.72	1.9	.72	4.4	.81	.23	.07	.02		
6	.40	.20	1.1	1.7	.67	4.4	.75	.21	.07	.02		
7	.42	.27	.85	2.1	.66	9.9	.70	.20	.07	.02		
8	.43	.32	.75	1.5	.66	5.5	.66	.19	.07	.02		
9	.47	.35	.72	1.5	1.3	4.1	.64	.19	.06	.02		
10	.54	.38	.71	1.5	1.9	3.3	.64	.20	.06	.02		
11	.58	.37	.71	1.4	1.2	2.9	.72	.21	.06	.02		
12	.58	.37	.70	1.4	1.1	2.5	.62	.19	.06	.02		
13	.50	.37	.66	1.3	2.7	2.5	.48	.19	.05	.02		
14	.42	.34	.66	1.3	2.8	2.1	.58	.18	.05	.02		
15	.38	.38	.66	1.3	1.9	2.1	.46	.17	.05	.01		
16	.40	.37	.66	1.3	1.5	2.0	.43	.17	.05	.01		
17	.43	.62	.66	1.2	.58	1.8	.56	.17	.04	.01		
18	.32	4.6	.66	1.1	.51	1.7	.58	.16	.04	.01		
19	.27	.73	.69	1.1	.56	1.7	.40	.15	.04	.01		
20	.27	.35	.70	1.0	.51	1.5	.46	.15	.04	.01		
21	.29	.44	.67	1.0	.74	2.1	.53	.15	.04	.01		
22	.27	.46	.66	1.0	1.2	1.8	.50	.13	.04	.01		
23	.26	.63	.68	1.0	1.2	1.6	.37	.13	.04	0		
24	.22	.65	.71	1.0	1.3	1.3	.45	.12	.04	0		
25	.21	.63	.69	.98	1.4	1.2	.49	.12	.03	0		
26	.20	.60	.66	.93	1.2	1.4	.52	.11	.03	0		
27	.19	.59	.66	.93	1.1	1.4	.54	.11	.03	0		
28	.19	.59	.66	.88	1.0	1.3	.53	.10	.03	0		
29	.18	.59	.66	.89	---	1.3	.55	.10	.03	0		
30	.18	.59	.61	.89	---	1.2	.64	.09	.03	0		
31	.18	---	.61	.85	---	.98	---	.09	---	0		
TOTAL	10.12	16.68	21.41	38.49	31.54	111.12	18.16	5.91	1.53	.39	0	0
MEAN	.33	.56	.69	1.24	1.13	3.58	.61	.19	.051	.013	0	0
MAX	.58	4.6	1.1	3.7	2.8	4.4	.92	.56	.08	.03	0	0
MIN	.18	.17	.58	.61	.51	.68	.37	.09	.03	0	0	0
AC-FT	20	33	42	76	63	220	36	12	3.0	.8	0	0
CAL YR 1986	TOTAL	3925.03	MEAN	10.8	MAX	552	MIN	.09	AC-FT	7790		
WTR YR 1987	TOTAL	255.35	MEAN	.70	MAX	44	MIN	0	AC-FT	506		

VENTURA RIVER BASIN

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 west of Casitas Springs.

DRAINAGE AREA.--38.6 mi².

PERIOD OF RECORD.--December 1978 to current year. Prior to October 1985, monthend elevation, National Geodetic Vertical Datum, and contents only. 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 U.S. 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 between bottom of lowest outlet gate at elevation 350.00 ft and crest of spillway at elevation 567.00 ft. Dead storage, 3,167 acre-ft, 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, Feb. 21, 1980, elevation, 569.24 ft; minimum, 196,400 acre-ft, Nov. 24, 1985, elevation, 544.18 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 242,000 acre-ft, Oct. 1, 2, elevation, 562.52 ft; minimum, 213,400 acre-ft, Sept. 30, elevation, 551.30 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)
(Based on survey dated December 1958, by U.S. Bureau of Reclamation)

540	186,800	560	235,400
545	198,300	565	248,600
550	210,300	570	262,200
555	222,600		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	242000	239500	237500	235800	234800	233900	234600	232000	228800	225300	221700	217200
2	242000	239400	237500	235700	234800	233900	234600	231900	228600	225200	221500	217000
3	241900	239300	237400	235700	234700	233900	234500	231800	228500	225000	221400	216700
4	241800	239200	237300	236000	234700	233900	234500	231800	228300	224900	221200	216600
5	241800	239000	237300	236000	234600	234400	234400	231700	228200	224800	221000	216500
6	241600	238900	237300	236000	234400	234900	234400	231500	228100	224700	220900	216300
7	241500	238800	237300	236000	234400	235200	234300	231400	228000	224600	220700	216300
8	241500	238700	237300	236000	234400	235200	234200	231300	227900	224500	220600	216200
9	241300	238600	237200	236000	234400	235400	234100	231100	227800	224400	220400	216100
10	241300	238500	237200	235900	234400	235400	234000	231100	227700	224300	220300	215900
11	241200	238400	237100	235900	234400	235700	233900	231000	227600	224200	220100	215800
12	241100	238300	237100	235900	234400	235700	233800	230900	227500	224200	220000	215700
13	241100	238200	237000	235800	234400	235700	233800	230700	227400	224100	219700	215600
14	241000	238100	236900	235800	234400	235700	233700	230600	227300	224000	219600	215500
15	240900	238000	236900	235700	234400	235400	233600	230500	227200	223800	219500	215400
16	240800	238000	236900	235700	234400	235400	233500	230400	227100	223700	219300	215100
17	240700	238300	236800	235600	234400	235400	233400	230300	226900	223600	219300	215000
18	240600	238300	236800	235500	234400	235400	233300	230200	226800	223500	219100	215000
19	240500	238300	236700	235500	234400	235200	233200	230100	226700	223400	219000	214800
20	240500	238200	236600	235400	234400	235200	233100	230000	226500	223300	218900	214700
21	240400	238200	236600	235400	234100	235400	233000	229900	226500	223100	218700	214600
22	240300	238100	236500	235300	234100	235200	232900	229800	226400	223000	218600	214400
23	240200	238000	236400	235300	234100	235400	232700	229700	226200	222900	218400	214300
24	240100	237900	236300	235200	234100	235200	232600	229600	226100	222800	218300	214200
25	240000	237900	236300	235200	234100	235200	232500	229500	226000	222600	218200	214000
26	240000	237900	236300	235200	233900	235200	232500	229400	225900	222500	218000	213900
27	239900	237800	236200	235100	233900	234900	232400	229300	225700	222400	217900	213800
28	239800	237700	236100	235000	233900	234900	232300	229100	225600	222300	217700	213700
29	239800	237700	236000	235000	---	234900	232200	229100	225500	222100	217600	213600
30	239700	237600	236000	234900	---	234900	232000	229000	225400	222000	217500	213400
31	239600	---	235900	234900	---	234900	---	228900	225300	221800	217300	---
MAX	242000	239500	237500	236000	234800	235700	234600	232000	228800	225300	221700	217200
MIN	239600	237600	235900	234900	233900	233900	232000	228900	225400	221800	217300	213400
a	561.58	560.84	560.17	559.80	559.43	559.77	558.70	557.47	556.10	554.67	552.87	551.30
b	-2500	-2000	-1700	-1000	-1000	+1000	-2900	-3100	-3500	-3600	-4500	-3900

CAL YR 1986 b +35300

WTR YR 1987 b -28700

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

VENTURA RIVER BASIN

11118500 VENTURA RIVER NEAR VENTURA, CA

LOCATION.--Lat 34°21'05", long 119°18'23", in southeast corner of Santa Ana Grant, Ventura County, Hydrologic Unit 18070101, on right bank 420 ft downstream from bridge on Casitas Pass Road at Foster Memorial Park, 0.2 mi downstream from Coyote Creek, and 5 mi north of Ventura.

DRAINAGE AREA.--188 mi².

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.

REVISED RECORDS.--WSP 1928: Drainage area.

GAGE.--Water-stage recorder on river; water-stage recorder and Parshall flume on diversion. Datum of gage is 205.23 ft, 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 80 ft downstream at datum 9.00 ft lower. June 13, 1969, to Dec. 22, 1986, at site 370 ft upstream at datum 5.00 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1 to Dec. 22. Records good except those for period of estimated discharges, which are poor. Flow partly regulated since March 1948 by Matilija Reservoir, usable capacity, 1,480 acre-ft, and since October 1959 by Casitas Reservoir, capacity, 267,000 acre-ft. 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: 60 years (water years 1912-13, 1930-87), 60.2 ft³/s, 43,610 acre-ft/yr.
Combined river and diversion: 55 years, 69.9 ft³/s, 50,640 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 63,600 ft³/s, Feb. 10, 1978, gage height, 24.14 ft, from rating curve extended above 34,000 ft³/s; maximum gage height, 29.3 ft, Jan. 25, 1969, present datum, from floodmarks; no flow at times in many years.
Combined river and diversion: Maximum discharge, 63,600 ft³/s, Feb. 10, 1978; no flow Nov. 28, 29, 1977.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 174 ft³/s, Mar. 6, gage height, 4.66 ft; no flow many days in August and September.
Combined river and diversion: Maximum discharge, 176 ft³/s, Mar. 6; minimum daily, 5.0 ft³/s, Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	2.4	3.6	5.2	7.3	8.8	6.5	3.5	3.5	.47	.04	
2	3.8	2.7	3.4	4.8	5.6	8.2	9.4	3.9	2.2	.42	.02	
3	3.8	2.7	3.1	3.1	4.0	6.2	7.1	5.0	1.3	.40	0	
4	5.6	2.4	3.0	27	4.2	6.0	8.0	4.5	1.0	.38	0	
5	3.8	2.4	3.0	13	4.7	11	9.4	3.1	.83	.36	0	
6	3.6	2.3	3.3	10	4.4	103	8.2	2.5	.83	.38	0	
7	3.5	2.3	3.6	14	5.0	30	6.0	1.9	1.6	.41	0	
8	3.5	2.3	3.9	5.3	6.5	20	5.7	1.5	2.5	.37	0	
9	3.7	2.4	3.5	2.7	8.3	13	3.4	2.0	1.3	.35	0	
10	3.7	2.6	3.2	3.3	7.1	9.4	2.5	4.2	1.0	.33	0	
11	4.2	2.5	3.1	4.7	3.6	9.4	3.9	4.7	.83	.32	0	
12	4.8	2.7	3.0	4.3	4.7	9.4	6.8	2.4	.86	.30	0	
13	5.7	2.4	3.0	3.3	17	7.3	6.5	2.1	.99	.30	0	
14	5.9	2.3	3.6	3.3	18	7.3	5.0	1.9	2.0	.30	0	
15	3.3	2.4	3.7	3.4	14	8.9	4.9	2.2	2.5	.30	0	
16	3.2	2.7	3.3	3.8	12	8.5	3.2	3.1	1.5	.26	0	
17	3.1	3.2	3.3	3.8	6.2	6.8	3.8	5.3	1.7	.25	0	
18	4.1	20	3.4	4.7	2.8	6.8	4.9	5.3	1.3	.23	0	
19	5.5	5.7	3.5	5.0	3.3	6.9	6.1	2.9	.94	.23	0	
20	4.1	3.9	3.7	4.4	4.0	7.2	6.1	2.2	.77	.23	0	
21	3.1	2.8	4.1	3.3	4.9	16	4.8	2.3	.89	.20	0	
22	3.0	2.7	4.1	2.9	6.8	15	3.7	2.4	1.2	.20	0	
23	2.7	3.4	2.5	2.6	7.6	10	3.3	2.7	.98	.17	0	
24	2.6	3.3	2.3	3.1	7.4	8.9	3.0	5.1	.75	.15	0	
25	2.7	3.1	3.4	4.1	12	9.9	3.2	7.4	.65	.13	0	
26	3.0	3.0	6.4	4.4	10	9.6	4.0	7.1	.58	.11	0	
27	2.9	3.2	6.5	3.4	5.1	8.6	4.5	2.4	.51	.11	0	
28	2.7	3.6	6.2	3.2	6.6	8.7	3.6	1.8	.50	.10	0	
29	2.5	3.4	4.5	4.2	---	11	3.0	1.6	.50	.08	0	
30	2.6	3.5	2.2	4.2	---	11	3.0	1.6	.51	.08	0	
31	2.5	---	2.1	5.3	---	8.1	---	3.2	---	.05	0	---
TOTAL	113.2	104.3	111.5	169.8	203.1	410.9	153.5	101.8	36.52	7.97	.06	0
MEAN	3.65	3.48	3.60	5.48	7.25	13.3	5.12	3.28	1.22	.26	.002	0
MAX	5.9	20	6.5	27	18	103	9.4	7.4	3.5	.47	.04	0
MIN	2.5	2.3	2.1	2.6	2.8	6.0	2.5	1.5	.50	.05	0	0
AC-FT	225	207	221	337	403	815	304	202	72	16	.1	0
CAL YR 1986 TOTAL	22730.54		MEAN 62.3	MAX 5420	MIN .38	AC-FT 45090						
WTR YR 1987 TOTAL	1412.65		MEAN 3.87	MAX 103	MIN 0	AC-FT 2800						

VENTURA RIVER BASIN

11118501 VENTURA RIVER NEAR VENTURA, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF VENTURA RIVER AND VENTURA CITY DIVERSION NEAR VENTURA,
WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	13	17	10	16	16	20	16	17	12	9.3	7.7
2	18	14	17	17	19	20	22	12	15	12	9.2	7.6
3	18	16	19	13	18	17	19	14	16	12	9.0	7.5
4	14	17	17	35	13	17	16	20	16	10	9.0	7.3
5	12	16	17	24	19	24	18	14	14	9.6	9.0	6.7
6	18	16	15	21	15	111	20	19	11	9.8	8.8	6.5
7	17	16	13	25	14	38	20	17	10	12	8.8	6.9
8	16	16	16	16	19	28	21	17	16	12	8.7	6.9
9	17	12	18	16	20	24	18	8.8	15	11	8.7	6.9
10	18	15	18	12	21	20	14	13	15	12	8.7	6.8
11	14	16	17	12	13	20	13	18	14	10	8.6	6.9
12	13	15	17	17	14	19	15	15	11	8.7	8.6	6.8
13	13	18	12	15	27	17	21	15	9.6	11	8.5	6.8
14	17	17	12	15	26	16	18	15	11	11	8.4	6.8
15	16	12	16	13	22	17	18	14	14	11	8.4	6.8
16	17	12	17	17	20	21	15	11	15	11	8.3	6.7
17	13	15	13	13	19	19	15	13	12	11	8.3	6.6
18	13	31	15	13	15	17	14	18	14	11	8.3	6.5
19	13	17	13	16	14	18	15	17	14	9.7	8.2	6.7
20	17	18	13	17	15	16	19	16	12	9.5	8.1	6.4
21	17	19	13	19	15	23	19	15	10	11	8.0	5.4
22	18	12	18	18	15	23	18	15	12	10	7.9	6.7
23	18	13	17	16	20	21	18	10	14	10	8.0	5.8
24	19	16	12	13	16	19	17	13	13	10	7.8	6.6
25	12	17	11	13	17	21	15	16	13	10	7.9	6.5
26	13	17	11	17	20	21	14	20	13	10	7.8	6.3
27	17	12	15	17	17	19	18	17	13	9.4	7.4	6.3
28	19	15	12	14	15	18	19	16	10	10	7.8	5.0
29	16	13	17	15	---	19	16	16	10	9.8	7.7	5.1
30	16	14	16	14	---	23	15	12	14	9.7	7.7	6.4
31	18	---	11	14	---	21	---	12	---	9.5	7.6	---
TOTAL	495	470	465	507	494	723	520	464.8	393.6	325.7	258.5	197.9
MEAN	16.0	15.7	15.0	16.4	17.6	23.3	17.3	15.0	13.1	10.5	8.34	6.60
MAX	19	31	19	35	27	111	22	20	17	12	9.3	7.7
MIN	12	12	11	10	13	16	13	8.8	9.6	8.7	7.4	5.0
AC-FT	982	932	922	1010	980	1430	1030	922	781	646	513	393
CAL YR 1986	TOTAL	27105.1	MEAN	74.3	MAX	5430	MIN	4.6	AC-FT	53760		
WTR YR 1987	TOTAL	5314.5	MEAN	14.6	MAX	111	MIN	5.0	AC-FT	10540		

VENTURA RIVER BASIN

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 DATA: December 1907 to December 1908, water years 1967-79.

WATER TEMPERATURE: Water years 1969, 1971-73, 1975 to current year.

SEDIMENT DATA: Water years 1969-73, 1975 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1968 to September 1969, October 1970 to September 1973, October 1974 to September 1981, October 1985 to September 1986.

SUSPENDED-SEDIMENT DISCHARGE: October 1968 to September 1973, October 1974 to September 1981, October 1985 to September 1986.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT					
07...	1245	3.6	20.0	5	0.05
NOV					
05...	1320	2.4	20.0	2	0.01
DEC					
02...	1240	3.3	16.0	3	0.03
JAN					
07...	1335	14	15.0	40	1.5
FEB					
06...	1415	4.7	15.5	21	0.27
11...	1155	3.7	15.5	19	0.19
MAR					
03...	1135	6.9	15.5	74	1.4
05...	1545	8.5	15.0	21	0.48
APR					
02...	1000	7.3	15.5	1	0.02
MAY					
06...	1030	3.1	18.0	7	0.06
27...	1150	2.5	19.0	15	0.10
JUL					
07...	1350	0.41	22.0	15	0.02

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 upstream from bridge on State Highway 192, 165 ft downstream from Gobernador Creek, and 1.8 mi northeast of Carpinteria.

DRAINAGE AREA.--13.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1941 to September 1977, October 1978 to current year.

REVISED RECORDS.--WSP 1928: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 130 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 1, 1958, at site 100 ft downstream, at datum 6.00 ft higher. July 2, 1958, to Aug. 27, 1970, at site 65 ft downstream at datum 4.00 ft higher. Aug. 28, 1970, to Sept. 30, 1977, at site 100 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 19 to Feb. 25. Records poor. No regulation upstream from station. Gobernador Land and Water Co. diverts from Gobernador Creek 1.8 mi upstream from station. Small lake 0.8 mi 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 upstream from station.

AVERAGE DISCHARGE.--45 years (water years 1942-77, 1979-87), 3.05 ft³/s, 2,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,880 ft³/s, Dec. 27, 1971, gage height, 14.10 ft, from floodmark, from rating curve extended above 130 ft³/s on basis of slope-area measurement of peak flow; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 125 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0430	*109	*4.34				
No flow several months.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0				0		
2	0	0	0	0	0	0				0		
3	0	0	.11	0	0	0				0		
4	0	0	0	2.2	0	0				0		
5	0	0	0	.86	0	3.2				0		
6	0	0	0	.81	0	77				0		
7	0	0	0	.54	0	11				0		
8	0	0	0	.04	0	.98				0		
9	0	0	0	0	0	.22				0		
10	0	0	0	0	.10	.11				0		
11	0	0	0	0	.40	.04				0		
12	0	0	0	0	.01	0				0		
13	0	0	0	0	.02	0				0		
14	0	0	0	0	4.0	0				.04		
15	0	0	0	0	.10	.01				0		
16	0	0	0	0	.01	0				0		
17	0	.13	0	0	0	0				0		
18	0	1.5	0	0	0	0				0		
19	0	0	0	0	0	0				0		
20	0	0	0	0	0	0				0		
21	0	0	0	0	0	.33				0		
22	0	0	0	0	0	.37				0		
23	0	.14	0	0	0	1.0				0		
24	0	0	0	0	0	1.3				0		
25	.03	0	0	0	0	0				0		
26	0	0	.05	0	0	0				0		
27	0	0	0	0	0	0				0		
28	0	0	0	0	0	0				0		
29	0	0	0	0	---	0				0		
30	0	0	0	0	---	0				0		
31	0	---	0	0	---	0	---		---	0		---
TOTAL	.03	1.77	.16	4.45	4.64	95.56	0	0	0	.04	0	0
MEAN	.001	.059	.005	.14	.17	3.08	0	0	0	.001	0	0
MAX	.03	1.5	.11	2.2	4.0	77	0	0	0	.04	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	.06	3.5	.3	8.8	9.2	190	0	0	0	.08	0	0
CAL YR 1986	TOTAL	1088.22	MEAN	2.98	MAX	141	MIN	0	AC-FT	2160		
WTR YR 1987	TOTAL	106.65	MEAN	.29	MAX	77	MIN	0	AC-FT	212		

CARPINTERIA CREEK BASIN

11119500 CARPINTERIA CREEK NEAR CARPINTERIA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
JAN 1987 08...	1300	0.03	716	6.80	13.0	483

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 0.2 mi south of State Street on Hope Avenue in Santa Barbara.

DRAINAGE AREA.--6.65 mi².

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

REVISED RECORDS.--WDR CA-76-1: 1974(M), 1975(P).

GAGE.--Water-stage recorder. Concrete-lined channel with a low-water control. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. 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.--17 years, 2.40 ft³/s, 1,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,850 ft³/s, Mar. 4, 1978, Feb. 16, 1980, from rating curve extended above 50 ft³/s on basis of slope-conveyance study; maximum gage height, 5.67 ft, Mar. 4, 1978; no flow many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	0915	*132	*2.56				

No flow several days in May, August, and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.05	.02	.04	.01	.01	.03	.03	.01	.01	0	.03
2	.03	.03	.05	.03	.04	.01	.04	.08	.01	.02	0	.04
3	.04	.05	.02	.12	.01	.01	.05	.06	.01	.02	0	.02
4	.07	.05	.02	11	.01	1.5	.06	.06	.01	.01	0	.02
5	.10	.04	.39	.05	.01	37	.06	.07	.02	.02	0	.01
6	.07	.04	.93	4.8	.01	12	.05	.06	.03	.03	0	.01
7	.05	.02	.02	.34	.01	.18	.07	.03	.02	.02	.01	.01
8	.03	.02	.02	.02	.02	.06	.06	.01	.03	.02	.01	.02
9	.05	.03	.02	.02	3.7	.02	.07	.01	.02	.03	.01	.02
10	.04	.02	.02	.02	.94	.01	.05	.01	.02	.04	.03	.04
11	.04	.02	.02	.01	.01	.01	.01	.01	.05	.03	.06	.02
12	.03	.02	.04	.01	.01	.01	.02	.01	.05	.03	.05	.02
13	.03	.03	.05	.02	7.6	.51	.01	.02	.04	.05	.02	.02
14	.03	.02	.03	.02	.06	.39	.01	.03	.03	.06	.03	.03
15	.05	.05	.03	.05	1.4	.03	.01	.02	.04	.05	.01	.05
16	.04	.01	.03	.04	.01	.01	.01	.03	.03	.05	0	.03
17	.04	4.9	.06	.03	.01	.01	.01	.01	.03	.07	.03	.01
18	.04	3.1	.06	.03	.02	.01	.01	.01	.04	.05	.01	.01
19	.05	.02	.07	.04	.02	.01	.02	.01	.04	.04	.01	0
20	.04	.01	.08	.03	.04	.01	.02	.01	.04	.03	0	.01
21	.05	.02	.01	.01	.04	4.2	.01	.01	.03	.05	.01	.01
22	.04	.02	.03	.05	.72	.05	.02	.01	.02	.04	0	.01
23	.03	.02	.03	.03	.23	.01	.01	.02	.03	.03	0	.01
24	.04	.02	.03	.04	.28	.01	.02	.01	.04	.03	.01	.01
25	.03	.05	.03	.01	1.5	.01	.01	.03	.03	.04	.03	.03
26	.03	.01	.04	.02	.02	.01	.01	.05	.02	.03	.08	.04
27	.03	.01	.05	.01	.01	.03	.01	0	.01	.02	.02	.01
28	.03	.01	.05	.01	.01	.03	.02	.02	.01	.01	.02	.10
29	.03	.02	.04	.01	---	.03	.45	.02	.02	.02	.02	.07
30	.04	.01	.03	.02	---	.02	.17	.01	.02	.01	.01	.01
31	.04	---	.06	.01	---	.03	---	.01	---	.01	.02	---
TOTAL	1.29	8.72	2.38	16.94	16.75	56.23	1.40	.77	.80	.97	.50	.72
MEAN	.042	.29	.077	.55	.60	1.81	.047	.025	.027	.031	.016	.024
MAX	.10	4.9	.93	11	7.6	37	.45	.08	.05	.07	.08	.10
MIN	.03	.01	.01	.01	.01	.01	.01	0	.01	.01	0	0
AC-FT	2.6	17	4.7	34	33	112	2.8	1.5	1.6	1.9	1.0	1.4

CAL YR 1986 TOTAL 553.73 MEAN 1.52 MAX 82 MIN .01 AC-FT 1100
WTR YR 1987 TOTAL 107.47 MEAN .29 MAX 37 MIN 0 AC-FT 213

ATASCADERO CREEK BASIN

1119940 MARIA YGNACIO CREEK AT UNIVERSITY DRIVE, NEAR GOLETA, CAA, 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 east of Patterson Avenue, and 1.5 mi northeast of Goleta.

DRAINAGE AREA.--6.35 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 29 to Jan. 5, Jan. 25-28, Aug. 17 to Sept. 3. Records fair. No regulation above station. Some pumping for irrigation.

AVERAGE DISCHARGE.--17 years, 1.80 ft³/s, 1,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft³/s, Jan. 16, 1978, gage height, 5.87 ft, from rating curve extended above 290 ft³/s on basis of slope-area measurement of peak flow; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0345	*45	*1.90				

No flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	.25	0	.33	.32				
2		0	0	0	.29	0	.33	.20				
3		0	0	.03	.23	.25	0	.14				
4		0	0	1.1	.25	1.2	0	.05				
5		0	0	.17	.30	17	0	.01				
6		0	.05	.64	.17	14	0	.06				
7		0	0	.23	.01	1.8	.02	.09				
8		0	0	.11	0	1.6	0	.14				
9		0	0	.05	.44	1.5	0	0				
10		0	0	.01	.25	1.4	0	0				
11		0	0	0	0	1.7	0	0				
12		0	0	0	0	.86	0	0				
13		0	0	0	3.2	.36	0	0				
14		0	0	0	.28	.23	0	0				
15		0	0	0	.36	.22	0	0				
16		0	0	0	.01	.12	0	0				
17		.04	0	0	0	.10	0	0				
18		.13	0	.04	0	.09	0	0				
19		0	0	.16	0	.05	.03	0				
20		0	0	.12	0	.07	0	0				
21		0	0	.09	0	1.4	.12	0				
22		0	0	.08	0	.27	.14	0				
23		0	0	.06	0	.15	.13	0				
24		0	0	.01	.04	.11	0	0				
25		0	0	.02	.18	.08	0	0				
26		0	0	.05	.06	.03	0	0				
27		0	0	.10	.15	.06	0	0				
28		0	0	.20	.14	.41	0	0				
29		0	0	.26	---	.04	.33	0				
30		0	0	.29	---	0	.35	0				
31		---	0	.32	---	.02	---	0	---			---
TOTAL	0	.17	.05	4.14	6.61	45.12	1.78	1.01	0	0	0	0
MEAN	0	.006	.002	.13	.24	1.46	.059	.033	0	0	0	0
MAX	0	.13	.05	1.1	3.2	17	.35	.32	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	.3	.10	8.2	13	89	3.5	2.0	0	0	0	0

CAL YR 1986	TOTAL	564.68	MEAN	1.55	MAX	137	MIN	0	AC-FT	1120
WTR YR 1987	TOTAL	58.88	MEAN	.16	MAX	17	MIN	0	AC-FT	117

ATASCADERO CREEK BASIN

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 downstream from Maria Ygnacio Creek, 1.3 mi upstream from mouth, and 1.3 mi southeast of Goleta.

DRAINAGE AREA.--18.9 mi².

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1947, published as "Alascadero Creek near Goleta."

REVISED RECORDS.--WSP 1928: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8.59 ft, Santa Barbara County benchmark. Prior to Dec. 14, 1967, at site 275 ft downstream, datum 4.00 ft higher. Dec. 14, 1967, to Sept. 30, 1976, at datum 4.00 ft higher; and Oct. 1, 1976, to Sept. 30, 1978, at datum 2.00 ft higher, both at present site.

REMARKS.--Estimated daily discharges: June 9-17. Records fair except those below 1.0 ft³/s, which are poor. No regulation above station. Small diversions for irrigation above station. Some low flow results from return irrigation wastewater.

AVERAGE DISCHARGE.--46 years, 4.79 ft³/s, 3,470 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,380 ft³/s, Jan. 18, 1973, gage height, 17.1 ft, present datum, from rating curve extended above 2,300 ft³/s; maximum gage height, 17.3 ft, from floodmark, Dec. 3, 1974, present datum; no flow some days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 225 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	2045	*189	*3.32				

No flow many days during September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.05	.09	.11	.09	.18	.24	.29	.06	.09	.13	.01
2	.12	.05	.08	.09	.09	.20	.22	.25	.06	.05	.05	.01
3	.17	.06	.09	.10	.10	.21	.20	.21	.06	.06	.02	.01
4	.15	.06	.09	15	.12	2.1	.20	.20	.07	.09	.02	0
5	.13	.07	.33	.64	.11	127	.19	.20	.10	.04	.02	0
6	.10	.06	3.7	12	.09	63	.25	.24	.08	.04	.02	0
7	.15	.07	.17	1.8	.08	4.1	.22	.23	.05	.09	.02	0
8	.15	.08	.14	.57	.09	2.7	.34	.34	.04	.09	.01	0
9	.13	.07	.14	.55	6.3	2.4	.36	.74	.04	.09	.02	0
10	.11	.06	.13	.32	2.4	2.1	.41	.14	.04	.24	.01	0
11	.14	.06	.11	.31	.30	2.5	.21	.10	.05	.11	.01	0
12	.07	.06	.12	.24	.19	1.7	.35	.11	.05	.07	.02	0
13	.04	.08	.14	.17	30	2.3	.69	.11	.04	.06	.02	0
14	.09	.08	.13	.20	1.4	1.3	.66	.14	.06	.05	.02	0
15	.17	.08	.11	.20	4.1	1.1	.33	.16	.06	.05	.02	0
16	.09	.08	.11	.24	.70	.49	.37	.18	.05	.05	.02	0
17	.08	.26	.11	.20	.36	.41	.26	.52	.06	.07	.02	0
18	.06	5.8	.11	.11	.19	.47	.22	.35	.05	.07	.02	0
19	.05	.21	.12	.14	.14	.49	.16	.15	.05	.04	.01	0
20	.06	.13	.14	.26	.14	.64	.20	.15	.05	.04	.01	0
21	.12	.10	.13	.23	.13	12	.18	.13	.04	.03	.02	0
22	.08	.07	.09	.23	.39	1.0	.18	.11	.04	.04	.02	0
23	.06	.06	.08	.22	.17	.60	.23	.09	.03	.03	.02	0
24	.05	.05	.09	.19	.66	.41	.31	.10	.04	.02	.01	0
25	.05	.06	.09	.15	1.7	.35	.31	.09	.03	.02	.01	0
26	.06	.06	.09	.16	.48	.35	.23	.06	.04	.03	.01	0
27	.06	.06	.09	.14	.25	.35	.25	.06	.06	.03	.01	0
28	.08	.06	.09	.13	.17	.33	.32	.23	.06	.03	.01	0
29	.08	.07	.10	.11	---	.31	.46	.24	.06	.04	.01	0
30	.07	.08	.18	.11	---	.28	.61	.09	.10	.03	.01	0
31	.05	---	.12	.15	---	.26	---	.07	.02	.02	.01	---
TOTAL	2.95	8.14	7.31	35.07	50.94	231.63	9.16	6.08	1.62	1.81	.83	.03
MEAN	.095	.27	.24	1.13	1.82	7.47	.31	.20	.054	.058	.020	.001
MAX	.17	5.8	3.7	15	30	127	.69	.74	.10	.24	.13	.01
MIN	.04	.05	.08	.09	.08	.18	.16	.06	.03	.02	.01	0
AC-FT	5.9	16	14	70	101	459	18	12	3.2	3.6	1.2	.06

CAL YR 1986	TOTAL	1713.39	MEAN	4.69	MAX	254	MIN	.02	AC-FT	3400
WTR YR 1987	TOTAL	355.37	MEAN	.97	MAX	127	MIN	0	AC-FT	705

SAN JOSE CREEK BASIN

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 downstream from unnamed tributary and 1.7 mi northeast of Goleta.

DRAINAGE AREA.--5.51 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1941 to current year.

REVISED RECORDS.--WSP 1928: Drainage area.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 95.61 ft, Santa Barbara County Road Department datum. Prior to Dec. 24, 1955, at datum 5.50 ft higher. Dec. 24, 1955, to Jan. 10, 1960, at datum 1.5 ft higher. Prior to Oct. 1, 1971, at site 75 ft downstream.

REMARKS.--Estimated daily discharges: Mar. 9-11, Aug. 3 to Sept. 8. Records fair except those for periods of estimated daily discharges, which are poor. No regulation above station. Many small diversions above station for irrigation.

AVERAGE DISCHARGE.--46 years, 2.10 ft³/s, 1,520 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft³/s, Jan. 25, 1969, gage height, 10.10 ft, from rating curve extended above 400 ft³/s on basis of slope-area measurement at gage height 9.32 ft; maximum gage height, 12.74 ft, present datum, Jan. 21, 1943; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0445	*87	*4.08				

Minimum daily, 0.02 ft³/s, several days in November and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.05	.26	.64	.27	.65	.22	.32	.31	.06	.04	.08
2	.32	.02	.16	.54	.33	.65	.21	.32	.25	.06	.04	.08
3	.33	.02	.23	.46	.24	.65	.26	.32	.28	.06	.08	.08
4	.16	.02	.29	1.1	.15	.66	.26	.32	.21	.05	.08	.08
5	.12	.10	.13	.84	.10	16	.28	.32	.23	.13	.08	.06
6	.14	.07	.50	.92	.10	35	.24	.32	.25	.08	.08	.05
7	.18	.04	.48	.96	.22	3.6	.20	.29	.38	.06	.08	.04
8	.24	.03	.44	.67	.11	1.8	.19	.25	.43	.06	.08	.03
9	.10	.08	.31	.57	.16	1.3	.16	.25	.32	.06	.08	.02
10	.23	.14	.47	.62	.78	.95	.18	.25	.39	.06	.08	.02
11	.25	.11	.48	.65	.64	.80	.23	.22	.38	.07	.08	.02
12	.21	.05	.33	.65	.56	.80	.25	.07	.37	.09	.08	.02
13	.06	.04	.19	.65	1.4	.65	.33	.10	.34	.06	.08	.02
14	.06	.05	.36	.58	1.2	.65	.23	.11	.39	.06	.08	.02
15	.13	.07	.40	.56	.76	.65	.17	.18	.31	.06	.08	.02
16	.16	.15	.39	.53	.60	.59	.21	.25	.21	.04	.08	.02
17	.04	.25	.26	.48	.56	.56	.21	.28	.14	.04	.08	.03
18	.19	.61	.26	.48	.36	.56	.29	.27	.14	.04	.08	.03
19	.15	.74	.34	.53	.35	.56	.17	.26	.14	.07	.08	.03
20	.21	.75	.32	.37	.34	.56	.25	.38	.13	.08	.08	.03
21	.14	.75	.31	.44	.44	.88	.25	.40	.10	.06	.08	.03
22	.08	.56	.55	.53	.35	.92	.10	.23	.10	.06	.08	.03
23	.06	.74	.50	.45	.50	.65	.13	.20	.10	.06	.08	.03
24	.06	.76	.72	.45	.55	.56	.11	.17	.10	.06	.08	.03
25	.12	.73	.53	.43	.54	.35	.19	.21	.10	.04	.08	.03
26	.06	.70	.40	.52	.70	.32	.19	.19	.10	.04	.08	.03
27	.10	.55	.43	.44	.65	.32	.39	.24	.08	.04	.08	.03
28	.08	.42	.54	.40	.65	.32	.40	.27	.06	.10	.08	.03
29	.12	.29	.48	.37	---	.32	.39	.26	.06	.10	.08	.06
30	.05	.37	.46	.34	---	.32	.32	.32	.06	.10	.08	.04
31	.08	---	.40	.57	---	.24	---	.34	---	.07	.08	---
TOTAL	4.56	9.26	11.92	17.74	13.61	72.84	7.01	7.91	6.46	2.02	2.40	1.12
MEAN	.15	.31	.38	.57	.49	2.35	.23	.26	.22	.065	.077	.037
MAX	.33	.76	.72	1.1	1.4	.35	.40	.40	.43	.13	.08	.08
MIN	.04	.02	.13	.34	.10	.24	.10	.07	.06	.04	.04	.02
AC-FT	9.0	18	24	35	27	144	14	16	13	4.0	4.8	2.2

CAL YR 1986 TOTAL 1082.07 MEAN 2.96 MAX 157 MIN .02 AC-FT 2150
WTR YR 1987 TOTAL 156.85 MEAN .43 MAX 35 MIN .02 AC-FT 311

SAN JOSE CREEK BASIN

11120500 SAN JOSE CREEK NEAR GOLETA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 1986						
23...	1320	0.06	1600	7.3	16.5	1190
DEC						
02...	1540	0.13	1730	7.9	12.5	1330
JAN 1987						
06...	1010	0.53	1190	7.8	10.5	891
FEB						
06...	1130	--	1650	7.7	11.0	1460
MAR						
11...	1010	0.80	1050	7.9	12.5	685
APR						
10...	1125	0.16	1380	8.1	16.0	1020
MAY						
11...	1035	0.25	1390	7.9	17.5	1120
JUN						
16...	1415	0.14	2020	7.6	21.0	1640
AUG						
03...	1355	0.08	2710	7.7	20.0	2190
SEP						
04...	1130	0.08	2550	7.6	20.0	1980

SAN JOSE CREEK BASIN

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 and 0.5 mi southeast of Goleta.

DRAINAGE AREA.--9.42 mi².

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

REVISED RECORDS.--WDR CA-75-1: 1973(M).

GAGE.--Water-stage recorder and concrete channel. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 10 to Dec. 2, Jan. 5 to Feb. 19. Records fair except those for estimated daily discharges, which are poor. No regulation above station. Diversions for irrigation and domestic use above station.

AVERAGE DISCHARGE.--17 years, 3.18 ft³/s, 2,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,330 ft³/s, Mar. 4, 1978, gage height, 5.65 ft, from rating curve extended above 400 ft³/s on basis of slope-conveyance computation of flow in concrete channel at gage height 8.00 ft; no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*), from rating curve extended as explained above:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	1115	*112	*2.86				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	0	0	.03	.02	.21	.30	.17		0		
2	.02	0	0	.08	.02	.18	.32	.07		0		
3	.06	0	0	.08	.02	.19	.29	.01		0		
4	.07	0	0	3.4	.02	1.0	.28	0		0		
5	0	0	.20	.50	.02	52	.25	0		0		
6	0	0	1.5	.40	.02	25	.36	0		0		
7	0	0	.24	2.0	.02	4.5	.41	0		0		
8	0	0	.26	.10	.02	1.8	.14	0		0		
9	0	0	.06	.02	.05	1.2	.25	0		0		
10	0	0	.11	.02	1.0	.90	.13	0		0		
11	0	0	.28	.02	.07	.74	.10	0		0		
12	0	0	.12	.02	.06	.65	.11	0		0		
13	0	0	.03	.02	.05	1.0	.19	0		0		
14	0	0	0	.02	.04	.84	.12	0		0		
15	0	0	.32	.02	.03	.64	.10	0		0		
16	0	0	.37	.02	.03	.58	.09	0		0		
17	0	.10	.22	.02	.03	.57	.11	.15		.02		
18	0	5.0	.15	.02	.03	.56	.13	.07		0		
19	0	.20	.10	.02	.09	.51	.10	.01		0		
20	0	0	.18	.02	.10	.50	.06	.04		0		
21	.02	0	.03	.02	.14	5.0	.12	.13		0		
22	0	0	.10	.02	.17	.90	.02	.05		0		
23	0	0	.13	.02	.30	.57	0	0		0		
24	0	0	.07	.02	.46	.46	0	0		0		
25	0	0	.15	.02	.49	.35	0	0		0		
26	0	0	.02	.02	.25	.34	0	0		0		
27	0	0	.03	.02	.25	.42	0	0		0		
28	.10	0	.05	.02	.22	.40	.05	0		0		
29	.03	0	.12	.02	---	.39	.05	0		0		
30	.07	0	.08	.02	---	.32	.29	0		0		
31	0	---	.03	.02	---	.32	---	0	---	0		---
TOTAL	.42	5.30	4.95	7.05	4.02	103.04	4.37	.70	0	.02	0	0
MEAN	.014	.18	.16	.23	.14	3.32	.15	.023	0	.0006	0	0
MAX	.10	5.0	1.5	3.4	1.0	52	.41	.17	0	.02	0	0
MIN	0	0	0	.02	.02	.18	0	0	0	0	0	0
AC-FT	.8	11	9.8	14	8.0	204	8.7	1.4	0	.04	0	0

CAL YR 1986	TOTAL	1106.66	MEAN	3.03	MAX	181	MIN	0	AC-FT	2200
WTR YR 1987	TOTAL	129.87	MEAN	.36	MAX	52	MIN	0	AC-FT	258

SANTA YNEZ RIVER BASIN

11121000 SANTA YNEZ RIVER AT JAMESON LAKE, NEAR MONTECITO, CA

LOCATION.--Lat 34°29'32", long 119°30'25", in 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 north of Carpinteria, and 8 mi northeast of Montecito.

DRAINAGE AREA.--13.9 mi², 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 above National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). 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 U.S. Weather Bureau Class A land pan. Area and capacity tables are based on survey made in 1980. Lake capacity at spillway level, gage height 223.82 ft, 5,725 acre-ft. Dead storage, 32 acre-ft, below lowest outlet at gage height 139.0 ft 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 downstream from Juncal Dam, is diverted at elevation 2,250 ft through a tunnel to Jameson Lake and is included in these records.

COOPERATION.--Reservoir-operation records and related data were provided by Montecito Water District.

AVERAGE DISCHARGE.--56 years (water years 1932-87), 7.09 ft³/s, 5,140 acre-ft/yr.

MONTHLY NET INFLOW, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet) ^a	Contents (acre- feet)	Change in contents (acre- feet)	Draft (acre- feet)	Spill and release (acre- feet)	Evapo- ration and seepage (acre- feet)	Total inflow (acre- feet)	Rain on reservoir (acre- feet)	Net inflow (acre- feet)
Sept. 30.....	2,217.81	4,970	--	--	--	--	--	--	--
Oct. 31.....	2,216.64	4,830	-140	141	0	19	20	4	16
Nov. 30.....	2,215.58	4,700	-130	152	0	15	37	13	24
Dec. 31.....	2,214.75	4,600	-100	133	0	7	40	3	37
CAL YR 1986.....	--	--	+1,720	1,300	5,574	409	8,993	262	8.731
Jan. 31.....	2,214.69	4,590	-10	77	0	7	44	25	49
Feb. 28.....	2,214.59	4,580	-10	73	0	20	83	27	56
Mar. 31.....	2,216.04	4,760	+180	12	50	36	278	14	264
Apr. 30.....	2,215.21	4,660	-100	124	0	40	64	0	64
May 31.....	2,214.02	4,520	-140	139	0	47	46	0	46
June 30.....	2,212.20	4,320	-200	172	0	73	45	0	45
July 31.....	2,210.02	4,070	-250	187	0	70	7	0	7
Aug. 31.....	2,207.41	3,800	-270	228	0	73	31	0	31
Sept. 30.....	2,205.02	3,540	-260	211	0	62	13	0	13
WTR YR 1987.....	--	--	-1,430	1,649	50	469	738	86	652

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.

SANTA YNEZ RIVER BASIN

11122000 SANTA YNEZ RIVER ABOVE GIBRALTAR DAM, NEAR SANTA BARBARA, CA

LOCATION.--Lat 34°31'34", long 119°41'08", in 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 north of Santa Barbara.

DRAINAGE AREA.--216 mi².

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."

REVISED RECORDS.--WDR CA-86-1; 1934-43.

GAGE.--Two water-stage recorders. Datum of gage is National Geodetic Vertical Datum of 1929. Supplementary gage and sharp-crested weir on diversion from reservoir at different datum. See WSP 1735 for history of changes on both gages prior to Oct. 1, 1955. Spill and release measured by streamgaging 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 U.S. Weather Bureau Class A land pan. Area and capacity tables are based on survey made in October 1979. Reservoir capacity at spillway level, elevation, 1,399.82 ft, 8,940 acre-ft. Lowest outlet at elevation 1,333.86 ft. Flow regulated by Jameson Lake (station 11121000) since December 1930.

COOPERATION.--Reservoir-operation records and related data were provided by city of Santa Barbara.

MONTHLY NET INFLOW, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet) ^a	Contents (acre-feet)	Change in contents (acre-feet)	Draft (acre-feet)	Spill and release (acre-feet)	Evapo- ration and seepage (acre-feet)	Total inflow (acre-feet)	Rain on reservoir (acre-feet)	Net inflow (acre-feet)
Sept. 30.....	1,393.31	6,770	--	--	--	--	--	--	--
Oct. 31.....	1,391.42	6,370	-400	353	6	61	20	0	20
Nov. 30.....	1,390.23	6,110	-260	232	0	46	18	17	1
Dec. 31.....	1,389.23	5,910	-200	190	8	24	22	7	15
CAL YR 1986.....	--	--	+3,580	3,820	56,208	1,004	64,612	456	64,156
Jan. 31.....	1,389.60	5,980	+70	9	0	21	100	42	58
Feb. 28.....	1,389.10	5,880	-100	269	0	22	191	35	156
Mar. 31.....	1,391.21	6,320	+440	284	0	45	769	160	609
Apr. 30.....	1,389.04	5,870	-450	603	0	90	243	0	243
May 31.....	1,385.67	5,190	-680	635	0	99	54	0	54
June 30.....	1,382.96	4,680	-510	435	0	112	37	0	37
July 31.....	1,379.57	4,050	-630	522	0	108	0	0	0
Aug. 31.....	1,376.71	3,560	-490	368	28	110	16	0	16
Sept. 30.....	1,374.26	3,150	-410	294	29	87	0	0	0
WTR YR 1987.....	--	--	-3,620	4,194	71	825	1,470	261	1,209

^a 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 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 downstream from Gibraltar Dam and 7 mi north of Santa Barbara.

DRAINAGE AREA.--216 mi².

PERIOD OF RECORD.--April 1920 to current year (monthly discharge only prior to October 1941).

REVISED RECORDS.--WDR CA-86-1: 1934-43.

GAGE.--Two water-stage recorders. Datum of gage on main channel is 1,227 ft above 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.--No estimated daily discharges. Records fair. Flow regulated by Jameson Lake (station 11121000) and Gibraltar Reservoir (station 11122000). City of Santa Barbara diverted 4,190 acre-ft during current year from Gibraltar Reservoir; Montecito Water District diverted 1,650 acre-ft during current year from Jameson Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,200 ft³/s, Jan. 25, 1969, gage height, 25.8 ft, from rating curve extended above 2,100 ft³/s on basis of computations of flow from gate openings and flow over dam at gage heights 17.5 and 25.8 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8.6 ft³/s, Aug. 22 (return flow from release weir), gage height, 8.22 ft; no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0		0								0	.10
2	0		.09								0	0
3	0		.07								0	0
4	0		.10								0	.38
5	0		.24								0	.39
6	0		.47								0	.39
7	0		.52								0	.39
8	0		.52								0	.39
9	0		.52								0	.39
10	0		.52								0	.39
11	0		.52								0	.39
12	0		.33								0	.39
13	0		0								.09	.39
14	0		0								.28	.39
15	0		0								.38	.39
16	0		0								.38	.39
17	.21		0								.37	.39
18	.60		0								.38	.39
19	.61		0								.38	.39
20	.56		0								.30	.39
21	.52		0								.60	.39
22	.35		0								5.1	.39
23	0		0								2.6	.39
24	0		0								.39	.39
25	0		0								.39	.90
26	0		0								.39	1.1
27	0		0								.39	1.1
28	0		0								.39	1.0
29	0		0			---					.39	.95
30	0		0			---					.39	1.1
31	0	---	0			---	---		---		.39	---
TOTAL	2.85	0	3.90	0	0	0	0	0	0	0	13.98	14.43
MEAN	.092	0	.13	0	0	0	0	0	0	0	.45	.48
MAX	.61	0	.52	0	0	0	0	0	0	0	5.1	1.1
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	5.7	0	7.7	0	0	0	0	0	0	0	28	29

CAL YR 1986 TOTAL 28304.73 MEAN 77.5 MAX 4500 MIN 0 AC-FT 56140
WTR YR 1987 TOTAL 35.16 MEAN .096 MAX 5.1 MIN 0 AC-FT 70

SANTA YNEZ RIVER BASIN

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 downstream from Los Laureles Canyon Creek, 10 mi downstream from Gibraltar Reservoir, and 13.3 mi east of Santa Ynez.

DRAINAGE AREA.--277 mi².

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 above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Jameson Lake and Gibraltar Reservoir (stations 11121000 and 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 ft³/s, Jan. 25, 1969, gage height, 18.88 ft, from rating curve extended above 11,600 ft³/s on basis of peak flow for station below Gibraltar Dam plus tributary inflow; no flow for several months in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52 ft³/s, Mar. 6, gage height, 4.23 ft; no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	.04					
2						0	.04					
3						0	.04					
4						0	.04					
5						1.4	.03					
6						19	.02					
7						2.0	.01					
8						.58	0					
9						.13	0					
10						.09	0					
11						.07	0					
12						.06	0					
13						.05	0					
14						.05	0					
15						.06	0					
16						.06	0					
17						.05	0					
18						.05	0					
19						.05	0					
20						.05	0					
21						.07	0					
22						.09	0					
23						.08	0					
24						.07	0					
25						.06	0					
26						.06	0					
27						.05	0					
28						.05	0					
29					---	.05	0					
30					---	.04	0					
31		---			---	.04	---		---			---
TOTAL	0	0	0	0	0	24.41	.22	0	0	0	0	0
MEAN	0	0	0	0	0	.79	.007	0	0	0	0	0
MAX	0	0	0	0	0	19	.04	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	48	.4	0	0	0	0	0
CAL YR 1986	TOTAL	26984.63	MEAN 73.9	MAX 4790	MIN 0	AC-FT 53520						
WTR YR 1987	TOTAL	24.63	MEAN .068	MAX 19	MIN 0	AC-FT 49						

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 downstream from Pine Canyon and 9.9 mi east of Santa Ynez.

DRAINAGE AREA.--74.0 mi².

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 above 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 higher.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--46 years, 17.7 ft³/s, 12,820 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft³/s, Feb. 24, 1969, gage height, 14.45 ft, from floodmark, present datum, from rating curve extended above 2,500 ft³/s on basis of slope-area measurement at gage height 14.16 ft; no flow at times since 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*), from rating curve extended above 160 ft³/s on basis of slope-area measurement at gage height 12.10 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0900	*203	*8.32				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	.25	1.8	3.0	2.6	1.1	.05			
2			0	.28	1.7	2.8	2.7	1.1	.05			
3			0	.31	1.7	2.8	3.2	1.0	.05			
4			0	1.6	1.6	2.7	3.5	.75	.05			
5			0	3.5	1.5	17	3.1	.70	.05			
6			0	3.7	1.4	118	2.9	.64	.05			
7			0	5.1	1.3	37	2.6	.58	.05			
8			0	3.9	1.3	17	2.6	.45	.05			
9			0	2.5	1.6	11	2.4	.43	.04			
10			0	1.9	2.0	7.5	2.4	.38	.04			
11			0	1.6	2.5	5.9	2.5	.31	.04			
12			0	1.5	2.4	5.0	2.7	.29	.03			
13			0	1.4	3.6	4.6	2.3	.23	.03			
14			0	1.3	15	4.4	2.2	.20	.03			
15			0	1.3	9.0	4.6	2.0	.18	.02			
16			0	1.2	6.7	4.0	1.7	.14	.02			
17			0	1.2	5.7	3.7	1.7	.13	.02			
18			0	1.2	4.6	3.4	1.8	.11	.01			
19			0	1.2	4.0	3.2	1.7	.09	.01			
20			.03	1.1	3.5	3.1	1.7	.09	0			
21			.05	1.2	3.2	4.6	1.7	.06	0			
22			.05	1.3	3.1	5.5	1.4	.05	0			
23			.05	1.4	3.4	4.4	1.2	.05	0			
24			.08	1.3	4.2	4.0	1.2	.05	0			
25			.10	1.3	4.1	3.4	1.2	.05	0			
26			.11	1.3	3.8	3.1	1.0	.05	0			
27			.14	1.3	3.3	3.0	.99	.05	0			
28			.16	1.4	3.1	3.0	1.0	.05	0			
29			.16	1.4	---	2.9	.92	.05	0			
30			.20	1.6	---	2.8	.93	.05	0			
31		---	.22	1.8	---	2.7	---	.05	---			---
TOTAL	0	0	1.35	51.34	101.1	300.1	59.84	9.46	.69	0	0	0
MEAN	0	0	.044	1.66	3.61	9.68	1.99	.31	.023	0	0	0
MAX	0	0	.22	5.1	15	118	3.5	1.1	.05	0	0	0
MIN	0	0	0	.25	1.3	2.7	.92	.05	0	0	0	0
AC-FT	0	0	2.7	102	201	595	119	19	1.4	0	0	0

CAL YR 1986 TOTAL 7017.25 MEAN 19.2 MAX 611 MIN 0 AC-FT 13920
WTR YR 1987 TOTAL 523.88 MEAN 1.44 MAX 118 MIN 0 AC-FT 1040

SANTA YNEZ RIVER BASIN

11125500 LAKE CACHUMA NEAR SANTA YNEZ, CA

LOCATION.--Lat 34°34'57", long 119°58'47", in Lomas de la Purification Grant, Santa Barbara County, Hydrologic Unit 18060010, at Bradbury Dam on Santa Ynez River, on upstream face near left end of dam, and 6.1 mi east of Santa Ynez.

DRAINAGE AREA.--417 mi².

PERIOD OF RECORD.--November 1952 to current year. Prior to October 1985, only monthend elevations and contents and total diversions published. November 1952 to October 1960, published as "Cachuma Reservoir near Santa Ynez."

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Bureau of Reclamation bench mark). Prior to Oct. 1, 1965, nonrecording gage.

REMARKS.--Reservoir is formed by earthfill dam. Storage began November 1952. Dead storage below outlet gage to river, elevation, 600 ft, 3,114 acre-ft, included in contents. Capacity below sill of inlet to Tecolote tunnel, elevation, 660 ft, 32,514 acre-ft; below spillway level, elevation, 720 ft, 125,292 acre-ft; and below top of four radial gates, elevation, 750 ft, 204,874 acre-ft. 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, and Santa Ynez River Water Conservation District, and to Cachuma recreation area.

COOPERATION.--Reservoir elevation, contents, and diversion figures were provided by U.S. Bureau of Reclamation. Contents not rounded to U.S. Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 221,100 acre-ft, Feb. 24, 1969, elevation, 755.11 ft; minimum since initial filling in April 1958, 105,300 acre-ft, Dec. 24, 25, 1977, elevation 710.56 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 171,791 acre-ft, Oct. 1, elevation, 738.63 ft; minimum, 128,352 acre-ft, Sept. 30, elevation, 721.35 ft.

Capacity table (elevation, in feet NGVD, and contents, in acre-feet)
(Based on survey dated January 1953, by U.S. Bureau of Reclamation)

720	125,292	745	189,827
725	136,861	750	204,874
730	149,099	755	220,694
735	162,004	760	237,200
740	175,569		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171791	168980	166358	164186	162057	160713	160424	156530	152317	145904	140126	132644
2	171736	168898	166277	164106	162004	160687	160318	156426	152138	145756	139763	132481
3	171681	168736	166224	164026	161925	160661	160187	156323	151985	145583	139376	132270
4	171599	168654	166089	164106	161872	160634	160055	156220	151627	145434	138968	131968
5	171544	168519	166008	164026	161846	160898	159923	156143	151248	145261	138561	131829
6	171489	168410	166008	163973	161741	161240	159818	155988	150869	145113	138154	131667
7	171380	168301	165901	164026	161688	161504	159712	155833	150489	144964	137723	131505
8	171325	168139	165820	164000	161609	161504	159581	155704	150110	144840	137340	131343
9	171243	168030	165740	163946	161556	161504	159502	155575	149731	144717	136909	131181
10	171188	167895	165632	163920	161530	161425	159423	155472	149352	144568	136506	131019
11	171078	167786	165498	163893	161477	161398	159318	155368	148999	144445	136316	130857
12	170996	167650	165417	163867	161398	161346	159214	155239	148899	144247	136103	130695
13	170914	167542	165391	163760	161346	161293	159083	155110	148749	144123	135914	130556
14	170832	167406	165337	163734	161425	161240	158979	154981	148599	144001	135701	130441
15	170695	167271	165310	163654	161451	161214	158822	154852	148474	143854	135535	130302
16	170585	167164	165256	163494	161425	161082	158666	154723	148323	143707	135369	130140
17	170476	167056	165202	163414	161346	161082	158509	154568	148148	143536	135227	130024
18	170366	167137	165122	163308	161240	161056	158379	154439	147948	143340	135061	129862
19	170257	167083	165068	163228	161187	161003	158196	154284	147773	143193	134896	129748
20	170147	167083	165041	163122	161108	160950	158066	154155	147573	143021	134730	129633
21	170065	167030	164961	163042	161056	160924	157910	154053	147398	142850	134564	129519
22	169956	166949	164853	162935	161003	160924	157753	153951	147197	142630	134353	129427
23	169875	166895	164826	162856	160924	160898	157623	153823	147047	142385	134142	129290
24	169767	166868	164772	162776	160898	160871	157440	153696	146847	142189	133955	129176
25	169658	166788	164665	162669	160924	160819	157284	153517	146697	141993	133744	129061
26	169577	166761	164612	162589	160898	160766	157127	153364	146498	141797	133580	128924
27	169468	166653	164532	162510	160819	160713	156971	153236	146399	141627	133393	128764
28	169387	166573	164452	162403	160766	160661	156814	153083	146275	141457	133253	128627
29	169251	166519	164399	162323	---	160608	156684	152904	146152	141288	133112	128490
30	169170	166438	164319	162244	---	160555	156633	152725	146028	140852	132972	128352
31	169061	---	164239	162137	---	160503	---	152521	---	140489	132832	---
MAX	171791	168980	166358	164186	162057	161504	160424	156530	152317	145904	140126	132644
MIN	169061	166438	164239	162137	160766	160503	156633	152521	146028	140489	132832	128352
a	737.63	738.66	735.84	735.05	734.53	734.43	732.95	731.35	728.77	726.51	723.29	721.35
b	-2812	-2623	-2199	-2102	-1371	-263	-3870	-4112	-6493	-5539	-7657	-4480
c	1975	1964	1756	2001	1476	1435	3338	2823	3527	3528	4061	3287

CAL YR 1986 b +33197

WTR YR 1987 b -43521

a Elevation in feet NGVD, at end of month.

b Change in contents, in acre-feet.

c Diversions, in acre-feet.

SANTA YNEZ RIVER BASIN

11128300 ALISAL RESERVOIR NEAR SOLVANG, CA

LOCATION.--Lat 34°32'56", long 120°07'45", in 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 upstream from reservoir spillway and 3 mi south of Solvang.

DRAINAGE AREA.--7.83 mi².

PERIOD OF RECORD.--December 1971 to current year. Prior to October 1985, only monthend elevations and contents published.

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

REMARKS.--Lake is formed by earthfill dam. Storage began Dec. 19, 1970. Usable capacity, 2,260 acre-ft between bottom of outlet gate at elevation 555.70 ft, and crest of spillway at elevation 599.88 ft. Dead storage, 110 acre-ft. Inflow must total 150 acre-ft during any 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, Mar. 4, 1978, elevation, 604.31 ft; minimum, 748 acre-ft, Nov. 8-10, 1972, elevation, 577.15 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,380 acre-ft, Mar. 15, elevation, 599.98 ft; minimum, 2,120 acre-ft, many days, elevation, 597.09 ft.

Capacity table (elevation in feet NGVD, and contents, in acre-feet)
(Based on data provided by Santa Barbara County Flood Control District in 1971)

595	1,940
600	2,380
605	2,840

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS OBSERVATIONS AT 1800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2180	2150	2130	2120	2130	2140	2370	2350	2320	2270	2210	2160
2	2180	2150	2120	2120	2130	2140	2370	2350	2310	2270	2210	2160
3	2180	2150	2120	2120	2130	2140	2370	2350	2310	2260	2210	2160
4	2180	2140	2120	2130	2130	2140	2370	2350	2310	2260	2210	2150
5	2180	2140	2120	2130	2130	2210	2370	2350	2310	2260	2210	2150
6	2180	2140	2130	2130	2130	2340	2370	2350	2310	2260	2200	2150
7	2170	2140	2120	2130	2130	2350	2370	2350	2310	2260	2200	2150
8	2170	2140	2120	2130	2130	2360	2370	2350	2310	2250	2200	2150
9	2170	2140	2120	2130	2130	2370	2370	2350	2300	2250	2200	2150
10	2170	2140	2120	2130	2130	2370	2370	2340	2300	2250	2200	2140
11	2170	2140	2120	2130	2130	2370	2370	2340	2300	2250	2190	2140
12	2170	2140	2120	2130	2130	2370	2370	2340	2300	2250	2190	2140
13	2170	2130	2120	2130	2140	2370	2360	2340	2300	2250	2190	2140
14	2170	2130	2120	2130	2140	2370	2360	2340	2300	2250	2190	2140
15	2170	2130	2120	2130	2140	2370	2360	2340	2300	2240	2190	2140
16	2170	2130	2120	2130	2140	2370	2360	2340	2290	2240	2190	2140
17	2160	2130	2120	2130	2140	2370	2360	2340	2290	2240	2180	2140
18	2160	2140	2120	2130	2140	2370	2360	2330	2290	2240	2180	2130
19	2160	2140	2120	2130	2140	2370	2360	2330	2290	2240	2180	2130
20	2160	2140	2120	2130	2140	2370	2360	2330	2290	2230	2180	2130
21	2160	2140	2120	2130	2140	2370	2360	2330	2280	2230	2180	2130
22	2160	2130	2120	2130	2140	2370	2360	2330	2280	2230	2170	2120
23	2160	2130	2120	2130	2140	2370	2360	2330	2280	2230	2170	2130
24	2160	2130	2120	2130	2140	2370	2360	2330	2280	2230	2170	2130
25	2160	2130	2120	2130	2140	2370	2360	2330	2280	2230	2170	2120
26	2160	2130	2120	2130	2140	2370	2360	2320	2280	2220	2170	2120
27	2160	2130	2120	2130	2140	2370	2360	2320	2270	2220	2160	2120
28	2150	2130	2120	2130	2140	2370	2360	2320	2270	2220	2160	2120
29	2150	2130	2120	2130	---	2370	2350	2320	2270	2220	2160	2120
30	2150	2130	2120	2130	---	2370	2350	2320	2270	2220	2160	2120
31	2150	---	2120	2130	---	2370	---	2320	---	2210	2160	---
MAX	2180	2150	2130	2130	2140	2370	2370	2350	2320	2270	2210	2160
MIN	2150	2130	2120	2120	2130	2140	2350	2320	2270	2210	2160	2120
a	597.45	597.18	597.12	597.20	597.33	597.85	599.71	599.30	598.77	598.16	597.55	597.09
b	-30	-20	-10	+10	+10	+230	-20	-30	-50	-60	-50	-40

CAL YR 1986 b -10
WTR YR 1987 b -60

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

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 downstream from Alisal Creek, 0.8 mi southwest of Solvang, and 10 mi downstream from Lake Cachuma.

DRAINAGE AREA.--579 mi².

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 above 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 upstream at different datum. Oct. 1, 1953, to Sept. 30, 1968, water-stage recorder at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1, 2. Records poor. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952 by Lake Cachuma (stations 11121000, 11122000, and 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 ft³/s, Jan. 25, 1969, estimated on basis of discharge measurements up to 81,000 ft³/s for Santa Ynez River near Buellton, gage height, 17.1 ft, from flood mark; no flow for several months in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 99 ft³/s, Aug. 10, gage height, 1.14 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1		0	0	.80	0			0		0	
2	1.2		0	0	.92	0			0		13	
3	.73		0	0	.22	0			0		46	
4	2.8		0	2.9	0	0			0		60	
5	1.3		0	3.1	0	7.8			0		67	
6	0		0	2.7	0	18			0		76	
7	0		0	4.0	0	9.0			0		85	
8	0		0	4.0	0	7.1			0		87	
9	0		.92	3.6	0	6.0			.56		87	
10	0		2.3	3.4	0	5.0			32		78	
11	0		2.8	3.5	0	4.3			41		15	
12	0		2.8	1.6	0	4.0			7.1		7.2	
13	0		2.8	.92	0	3.5			.33		4.4	
14	0		2.8	.54	0	3.5			0		2.6	
15	.06		2.9	1.5	0	3.8			0		.22	
16	0		3.4	3.4	0	3.0			0		0	
17	0		3.4	3.9	0	1.7			0		0	
18	0		3.4	3.1	0	1.1			0		0	
19	0		3.4	2.8	0	.76			0		0	
20	0		3.4	2.8	0	.38			0		0	
21	0		3.4	2.8	0	.87			0		0	
22	0		3.4	2.6	0	.16			0		0	
23	0		3.4	2.6	0	0			0		0	
24	0		3.4	1.8	0	0			0		0	
25	0		3.4	1.8	0	0			0		0	
26	0		3.4	2.4	0	0			0		0	
27	0		3.4	2.8	0	0			0		0	
28	.13		2.7	2.7	0	0			0		0	
29	0		.49	2.5	---	0			0		0	
30	0		0	2.8	---	0			0		0	
31	0	---	0	1.5	---	0	---		---		0	---
TOTAL	7.32	0	61.31	74.06	1.94	79.97	0	0	80.99	0	628.42	0
MEAN	.24	0	1.98	2.39	.069	2.58	0	0	2.70	0	20.3	0
MAX	2.8	0	3.4	4.0	.92	18	0	0	41	0	87	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	15	0	122	147	3.8	159	0	0	161	0	1250	0
CAL YR 1986	TOTAL	6049.78	MEAN	16.6	MAX	378	MIN	0	AC-FT	12000		
WTR YR 1987	TOTAL	934.01	MEAN	2.56	MAX	87	MIN	0	AC-FT	1850		

SANTA YNEZ RIVER BASIN

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 downstream from El Jaro Creek, and 4.4 mi southeast of Lompoc.

DRAINAGE AREA.--47.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1941 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Elevation of gage is 220 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 10-12, 14, 17-20, Mar. 25 to Apr. 7, May 6 to July 8. Records fair except those for periods of estimated daily discharges, which are poor. No regulation above station. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--46 years, 10.1 ft³/s, 7,320 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s, Mar. 15, 1952, gage height, 20.8 ft; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0030	*569	*3.55				

Minimum daily, 0.04 ft³/s, Sept. 21-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	1.0	1.4	1.6	1.8	2.0	2.3	1.4	.88	.29	.17	.07
2	.98	.89	1.4	1.6	1.6	2.0	2.3	1.3	.84	.28	.17	.07
3	.99	.88	1.4	1.6	1.9	2.0	2.3	1.2	.82	.26	.17	.07
4	.92	.93	1.4	5.6	2.0	2.0	2.3	1.2	.78	.25	.16	.06
5	.87	1.0	1.5	3.6	1.8	155	2.3	1.2	.76	.24	.16	.06
6	.73	1.0	3.2	8.4	1.8	171	2.3	1.2	.74	.23	.16	.06
7	.73	1.0	2.1	4.9	1.8	13	2.3	1.2	.70	.22	.15	.06
8	.73	1.1	1.6	2.8	1.6	5.9	2.2	1.2	.68	.21	.15	.05
9	.75	1.1	1.4	2.2	1.7	3.8	2.1	1.2	.64	.21	.15	.05
10	1.1	1.2	1.4	2.0	2.4	2.5	2.0	1.1	.62	.21	.14	.06
11	1.1	1.1	1.4	2.0	2.3	2.2	2.0	1.1	.60	.21	.13	.06
12	1.2	1.1	1.4	1.8	1.9	2.2	2.0	1.1	.58	.21	.13	.06
13	1.0	1.1	1.4	1.8	6.2	2.4	2.0	1.1	.56	.21	.12	.06
14	.88	1.2	1.5	1.8	4.8	2.5	2.0	1.1	.54	.21	.12	.05
15	.88	1.2	1.5	1.8	2.9	5.6	1.8	1.1	.52	.20	.12	.05
16	.88	1.2	2.9	1.8	2.6	3.3	1.8	1.1	.50	.20	.11	.05
17	.97	1.6	2.0	1.8	2.2	2.8	1.8	1.1	.48	.20	.11	.05
18	1.1	5.3	1.6	1.8	2.2	2.7	1.8	1.0	.46	.20	.11	.06
19	1.2	2.2	1.6	1.8	2.1	2.5	1.8	1.0	.45	.19	.10	.06
20	1.2	1.5	1.7	1.8	2.0	2.4	1.8	1.0	.43	.19	.09	.05
21	1.2	1.4	1.6	1.8	2.0	9.1	1.6	1.0	.42	.18	.09	.04
22	1.2	1.3	1.6	1.8	2.3	8.1	1.6	.99	.40	.18	.08	.04
23	1.2	1.2	1.6	2.0	2.3	3.4	1.6	.98	.38	.18	.08	.04
24	1.2	1.2	1.6	1.8	2.8	2.4	1.6	.96	.37	.18	.08	.04
25	1.3	1.3	1.6	2.1	3.0	2.3	1.6	.95	.36	.19	.07	.05
26	1.2	1.2	1.6	2.7	2.3	2.3	1.6	.94	.35	.18	.07	.06
27	1.2	1.2	1.6	2.7	2.0	2.3	1.4	.93	.33	.17	.07	.06
28	1.3	1.3	1.6	2.7	1.9	2.3	1.4	.92	.32	.17	.07	.06
29	1.4	1.4	1.6	2.7	---	2.3	1.4	.91	.31	.17	.07	.05
30	1.3	1.4	1.6	2.9	---	2.3	1.4	.90	.30	.17	.07	.05
31	1.1	---	1.6	2.7	---	2.3	---	.89	---	.17	.07	---
TOTAL	32.69	40.50	51.4	78.4	66.2	426.9	56.4	33.27	16.12	6.36	3.54	1.65
MEAN	1.05	1.35	1.66	2.53	2.36	13.8	1.88	1.07	.54	.21	.11	.055
MAX	1.4	5.3	3.2	8.4	6.2	171	2.3	1.4	.88	.29	.17	.07
MIN	.73	.88	1.4	1.6	1.6	2.0	1.4	.89	.30	.17	.07	.04
AC-FT	65	80	102	156	131	847	112	66	32	13	7.0	3.3
CAL YR 1986	TOTAL	5186.76	MEAN	14.2	MAX	1140	MIN	.48	AC-FT	10290		
WTR YR 1987	TOTAL	813.43	MEAN	2.23	MAX	171	MIN	.04	AC-FT	1610		

SANTA YNEZ RIVER BASIN

11132500 SALSIPUEDES CREEK NEAR LOMPOC, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978 to current year.

CHEMICAL DATA: Water year 1978 to current year.

pH: Water years 1982-83.

WATER TEMPERATURE: Water years 1982-83.

PERIOD OF DAILY RECORD.--

pH: October 1981 to September 1983.

WATER TEMPERATURE: October 1981 to September 1983.

INSTRUMENTATION.--Water-quality monitor from October 1981 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)			
OCT 1986									
07...	1420	0.75	1500	7.8	19.5	1080			
NOV									
05...	0955	0.98	1400	7.9	11.0	--			
DEC									
03...	1340	1.2	1440	8.0	9.0	740			
JAN 1987									
05...	1420	3.7	1200	8.0	11.5	801			
FEB									
03...	1355	1.9	1420	7.7	12.5	943			
MAR									
04...	1310	2.0	1270	8.1	15.5	942			
APR									
06...	1450	2.3	1330	8.0	19.0	919			
MAY									
05...	1415	1.2	1320	8.1	23.0	945			
JUN									
01...	1330	0.88	1300	8.1	23.5	946			
JUL									
01...	1220	0.29	1550	7.8	19.0	1020			
AUG									
03...	1525	0.17	1660	8.1	24.0	1120			
26...	1145	0.08	1630	7.8	21.5	1130			
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JAN 1987									
05...	1420	3.7	1200	8.0	11.5	470	180	120	42
DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL 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)
JAN 1987									
05...	93	30	2	2.8	297	250	93	0.50	
DATE	TIME	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)	
JAN 1987									
05...	22	800	<0.100	0.140	530	14	34		

< Actual value is known to be less than the value shown.

SANTA YNEZ RIVER BASIN

11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CA

LOCATION.--Lat 34°38'14", long 120°25'28", in Canada de Salsipuedes Grant, Santa Barbara County, Hydrologic Unit 18060010, on left bank 0.6 mi upstream from State Highway 246, 1.9 mi east of Lompoc, 1.8 mi downstream from Salsipuedes Creek, and 12.4 mi downstream from Lake Cachuma.

DRAINAGE AREA.--789 mi².

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, and October 1978 to September 1980.

GAGE.--Two water-stage recorders. Elevation of main gage is 90 ft above National Geodetic Vertical Datum of 1929, 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 of present site. Supplementary gage, used for high-water periods, at site 0.6 mi downstream at datum 79.25 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Jameson Lake, Gibraltar Reservoir, and since November 1952 by Lake Cachuma (stations 11121000, 11122000, and 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 ft³/s, Jan. 25, 1969, gage height, 24.20 ft, from supplementary gage; no flow at times in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 9, 1907, reached a stage of 22.0 ft, site and datum then in use, discharge, 120,000 ft³/s, from mean-depth study.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 923 ft³/s, Mar. 6, gage height, 3.12 ft, from rating curve extended above 360 ft³/s on basis of velocity-area study at gage height of 5.99 ft; no flow several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	1.0	3.3	5.1	10	11	11	1.2	.27			
2	2.6	1.0	3.5	5.2	10	11	11	1.1	.27			
3	2.4	1.1	3.3	5.4	9.9	9.8	11	.93	.27			
4	2.2	1.3	3.3	8.4	9.4	8.1	12	.87	.27			
5	1.8	1.4	3.4	12	9.0	299	11	.89	.29			
6	1.7	1.4	4.8	13	8.6	376	10	.86	.30			
7	1.6	1.3	4.8	23	7.8	125	9.2	.80	.27			
8	1.5	1.3	5.1	16	7.4	84	7.8	.84	.23			
9	1.3	1.4	5.4	14	7.6	67	6.5	.83	.18			
10	1.3	1.5	5.4	13	7.6	57	5.9	.80	.17			
11	1.5	1.4	5.4	12	8.7	50	5.6	.80	.17			
12	2.1	1.4	5.4	12	8.4	44	5.3	.68	.17			
13	1.9	1.1	5.4	12	8.9	38	4.9	.66	.16			
14	1.8	1.0	5.4	11	17	35	4.4	.60	.10			
15	1.7	.95	5.9	11	13	35	4.1	.55	.05			
16	1.7	1.2	6.1	11	12	31	3.3	.55	.06			
17	1.7	1.8	6.3	10	11	26	3.3	.53	.06			
18	1.7	5.4	5.8	9.7	10	24	3.2	.50	.05			
19	1.8	4.1	5.5	9.5	9.3	22	2.8	.50	.02			
20	1.7	3.4	5.4	9.5	8.5	21	2.6	.47	.02			
21	1.8	3.1	5.4	9.5	8.3	23	2.6	.45	.02			
22	1.9	3.0	5.4	9.0	10	27	2.3	.45	.02			
23	1.7	3.0	5.4	9.3	11	21	1.4	.41	.01			
24	1.3	3.5	5.4	9.4	13	19	1.3	.41	0			
25	1.1	3.5	5.4	8.8	17	17	1.4	.37	0			
26	1.0	3.4	5.4	8.5	15	16	1.5	.30	0			
27	1.2	3.0	5.4	8.4	12	15	1.4	.33	0			
28	1.3	3.3	5.4	9.0	11	14	1.4	.31	0			
29	1.1	3.4	6.0	9.0	---	13	1.3	.30	0			
30	.95	3.4	5.4	9.3	---	13	1.3	.30	0			
31	1.0	---	5.1	10	---	12	---	.27	---			---
TOTAL	51.15	67.05	158.6	323.0	291.4	1563.9	150.8	18.86	3.43	0	0	0
MEAN	1.65	2.24	5.12	10.4	10.4	50.4	5.03	.61	.11	0	0	0
MAX	2.8	5.4	6.3	23	17	376	12	1.2	.30	0	0	0
MIN	.95	.95	3.3	5.1	7.4	8.1	1.3	.27	0	0	0	0
AC-FT	101	133	315	641	578	3100	299	37	6.8	0	0	0

CAL YR 1986 TOTAL 15423.61 MEAN 42.3 MAX 1500 MIN 0 AC-FT 30590
WTR YR 1987 TOTAL 2628.19 MEAN 7.20 MAX 376 MIN 0 AC-FT 5210

SANTA YNEZ RIVER BASIN

11133000 SANTA YNEZ RIVER AT NARROWS, NEAR LOMPOC, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)			
OCT 1986									
07...	1115	1.8	1620	7.9	20.0	1320			
DEC									
03...	1040	3.2	1760	8.1	17.5	1310			
JAN 1987									
05...	1110	14	1500	8.3	13.0	1110			
FEB									
03...	1045	9.5	1600	7.9	14.5	1220			
MAR									
04...	1045	7.8	1500	8.1	16.0	1230			
APR									
06...	1050	10	1560	8.0	16.0	1180			
MAY									
05...	1025	0.84	1520	7.5	21.0	1270			
JUN									
01...	0950	0.27	1550	7.8	21.0	1280			
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS WH WAT TOT FLD MG/L AS CACO3	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JAN 1987									
05...	1110	14	1500	8.3	13.0	700	400	150	80
DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL 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)
JAN 1987									
05...	92	22	2	3.5	308	450	96	0.40	
DATE	TIME	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)	
JAN 1987									
05...	22	1100	<0.100	0.080	500	48	15		

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 upstream from bridge on northbound lane of Highway 101 at Los Alamos.

DRAINAGE AREA.--34.9 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 580 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation above station. Pumping for irrigation of about 1,000 acres above station.

AVERAGE DISCHARGE.--17 years, 1.88 ft³/s, 1,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,230 ft³/s, Mar. 1, 1983, gage height, 11.6 ft, from floodmarks, from rating curve extended above 150 ft³/s on basis of computation of peak flow through culverts; no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	1530	*2.4	*1.38				

No flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0	0	.04	.01					
2				0	0	.02	0					
3				0	0	0	.02					
4				0	0	0	.03					
5				0	0	1.2	0					
6				.02	0	1.0	0					
7				0	0	.44	0					
8				0	0	.25	0					
9				0	0	.17	0					
10				0	0	.13	0					
11				0	0	.10	0					
12				0	0	.09	0					
13				0	.05	.09	0					
14				0	.01	.10	0					
15				0	.05	.11	0					
16				0	.02	.10	0					
17				0	.01	.09	0					
18				0	0	.08	0					
19				0	0	.08	0					
20				0	0	.09	0					
21				0	0	.23	0					
22				0	.07	.17	0					
23				0	.05	.20	0					
24				0	.10	.19	0					
25				0	.09	.17	0					
26				0	.08	.16	0					
27				0	.06	.14	0					
28				0	.05	.13	0					
29				0	---	.11	0					
30				0	---	.06	0					
31		---		0	---	.03	---		---			---
TOTAL	0	0	0	.02	.64	5.77	.06	0	0	0	0	0
MEAN	0	0	0	.0006	.023	.19	.002	0	0	0	0	0
MAX	0	0	0	.02	.10	1.2	.03	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	.04	1.3	11	.1	0	0	0	0	0

CAL YR 1986 TOTAL 55.36 MEAN .15 MAX 33 MIN 0 AC-FT 110
WTR YR 1987 TOTAL 6.49 MEAN .018 MAX 1.2 MIN 0 AC-FT 13

SAN ANTONIO CREEK BASIN

11136050 SAN ANTONIO CREEK ABOVE BARKA SLOUGH, NEAR ORCUTT, CA

LOCATION.--Lat 34°46'03", long 120°26'00", unsurveyed, Santa Barbara County, Hydrologic Unit 18060009, on left bank 150 ft downstream from Harris Canyon tributary, 200 ft downstream from bridge on San Antonio Road, 0.4 mi west of State Highway 1, 7.0 mi south of Orcutt, and 8.7 mi west of Los Alamos.

DRAINAGE AREA.--114 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1985 to September 1987 (irrigation season only), discontinued.

GAGE.--Water-stage recorder. Elevation of gage is 300 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation upstream from station. Flow affected by pumping from wells and irrigation runoff upstream from station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							.07	0	.09	.03	.05	0
2							.09	0	.20	.12	0	.01
3							.01	0	.15	.14	.09	.11
4							0	.01	.14	.42	.04	.05
5							0	.32	.16	.01	.21	.19
6							0	.71	0	0	.53	.22
7							0	.24	0	.04	.06	0
8							0	.14	0	0	0	0
9							0	.28	.11	0	0	.19
10							0	.52	.28	0	.16	0
11							0	0	.54	.05	.07	0
12							0	0	.24	.21	.35	.07
13							.01	0	.05	.01	.01	0
14							.02	0	.38	.11	.06	0
15							0	.37	.63	.58	.12	.18
16							0	0	.92	.60	.11	0
17							0	0	.89	.52	0	0
18							0	0	.80	.44	.08	0
19							.06	.04	.68	.42	.03	0
20							.23	.50	.27	0	.30	0
21							.19	.26	.27	.01	.29	0
22							.13	.39	.55	0	.06	0
23							.06	.61	.79	.19	0	0
24							.07	0	.18	.24	0	0
25							.77	0	.42	0	0	.02
26							.29	.39	.32	.09	0	.10
27							.32	.22	.35	.13	0	.10
28							.57	.14	.39	.38	0	.01
29							.98	.05	.01	.26	0	.02
30							.27	0	0	.19	0	.33
31							---	0	---	.07	0	---
TOTAL	0						4.14	5.19	9.81	5.26	2.62	1.60
MEAN	0						.14	.17	.33	.17	.085	.053
MAX	0						.98	.71	.92	.60	.53	.33
MIN	0						0	0	0	0	0	0
AC-FT	0						8.2	10	19	10	5.2	3.2

SAN ANTONIO CREEK BASIN

11136050 SAN ANTONIO CREEK ABOVE BARKA SLOUGH, NEAR ORCUTT, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1984 to September 1987 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
MAY 1987 27...	1045	0.17	1030	8.0	16.5	260	88	66	23	
AUG 12...	1345	0.73	1140	8.1	27.0	320	110	80	29	
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL 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)		
MAY 1987 27...	120	49	3	6.3	172	84	160	0.60		
AUG 12...	110	42	3	5.4	212	130	140	0.30		
DATE	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)			
MAY 1987 27...	44	610	11.0	1.30	170	75	9			
AUG 12...	39	660	1.90	0.520	200	27	3			
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
OCT 1986 28...	1155	--	<1	<1.0	<0.1	<1.0	3.4	16	30	1.2
APR 1987 10...	1030	0.00	<1	<1.0	<0.1	<1.0	66	87	59	5.0
DATE	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	
OCT 1986 28...	0.7	0.5	<0.1	<0.1	<0.1	0.8	<0.1	<1.00	140	
APR 1987 10...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	48.0	690	

< Actual value is known to be less than the value shown.

SAN ANTONIO CREEK BASIN

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 San Antonio Road bridge, 0.7 mi east of junction of San Antonio Road and Lompoc-Casmalia Road, and 3.8 mi south of Casmalia.

DRAINAGE AREA.--135 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 27, 1958, at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair. No regulation above station. Flow affected by pumping from wells along stream for irrigation upstream from station. At times water released to creek from Vandenberg Air Force Base water-treatment plant.

AVERAGE DISCHARGE.--32 years, 6.07 ft³/s, 4,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,680 ft³/s, Mar. 1, 1983, gage height, 14.32 ft, from rating curve extended above 1,100 ft³/s on basis of slope-area measurement at gage height 12.93 ft; minimum daily, 0.10 ft³/s, June 19, 20, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 5	1400	*102	*2.89				

Minimum daily, 0.16 ft³/s, July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.34	1.1	.34	1.6	.57	.92	.72	.26	.44	.26	.33
2	.34	.26	1.1	.34	1.6	.57	.92	.57	.24	.50	.25	.27
3	.26	.34	1.1	.44	1.4	.34	1.1	.72	.30	.55	.30	.25
4	.20	.44	1.1	4.2	1.4	.34	1.4	.72	.31	.41	.33	.25
5	.20	.57	1.4	1.4	1.1	41	1.4	.72	.30	.34	.27	.29
6	.20	.57	3.9	2.1	1.1	29	1.1	.72	.34	.31	.26	.27
7	.20	.57	1.8	2.4	1.1	6.4	1.1	.72	.34	.30	.29	.29
8	.26	.72	1.4	1.1	.92	2.1	1.1	.57	.40	.32	.26	.25
9	.34	.72	1.4	.92	1.4	.92	.92	.72	.47	.26	.26	.22
10	.26	.57	1.4	.92	1.1	1.1	1.1	.72	.58	.24	.34	.24
11	.44	.44	1.1	1.1	1.1	1.1	1.1	.72	.48	.21	.26	.27
12	.44	.44	1.4	1.1	.92	.92	1.1	.72	.40	.18	.20	.24
13	.34	.44	1.4	.92	3.2	.92	.92	.72	.46	.17	.26	.21
14	.34	.57	1.4	.92	12	1.1	1.1	.57	.41	.19	.24	.21
15	.34	.57	1.4	.92	3.9	1.1	1.1	.57	.39	.19	.22	.25
16	.44	.44	1.4	.92	2.6	1.1	.57	.57	.41	.17	.27	.28
17	.34	.72	.92	.92	1.8	1.1	.92	.57	.57	.17	.22	.27
18	.44	14	.92	.92	1.8	1.1	.72	.57	.54	.16	.24	.33
19	.44	1.8	.92	.92	1.4	.92	.72	.57	.55	.20	.29	.29
20	.44	1.1	1.1	.72	1.1	.92	.57	.57	.57	.19	.30	.28
21	.44	1.1	.92	.72	1.1	1.4	.72	.56	.53	.20	.26	.26
22	.44	1.1	.57	.92	1.8	1.8	.72	.61	.43	.20	.22	.32
23	.44	1.4	.72	1.6	1.4	1.1	.92	.55	.44	.21	.20	.30
24	.44	1.6	.57	1.4	1.6	1.1	1.1	.56	.40	.25	.25	.31
25	.44	1.4	.57	1.4	1.4	1.1	.92	.49	.36	.23	.29	.41
26	.44	1.4	.57	1.1	1.1	1.1	.92	.48	.36	.21	.31	.38
27	.44	1.4	.34	1.1	.92	.92	.92	.49	.38	.19	.30	.45
28	.57	1.4	.34	1.6	.72	.92	1.4	.44	.41	.24	.26	.44
29	.57	1.4	.34	1.4	---	.92	1.1	.44	.41	.25	.26	.43
30	.44	1.1	.34	1.8	---	1.1	.92	.36	.34	.26	.29	.43
31	.44	---	.34	1.6	---	.92	---	.28	---	.24	.31	---
TOTAL	11.62	38.92	33.28	38.16	52.58	105.00	29.52	18.31	12.38	7.98	8.27	9.02
MEAN	.37	1.30	1.07	1.23	1.88	3.39	.98	.59	.41	.26	.27	.30
MAX	.57	14	3.9	4.2	12	41	1.4	.72	.58	.55	.34	.45
MIN	.20	.26	.34	.34	.72	.34	.57	.28	.24	.16	.20	.21
AC-FT	23	77	66	76	104	208	59	36	25	16	16	18

CAL YR 1986	TOTAL 781.78	MEAN 2.14	MAX 124	MIN .18	AC-FT 1550
WTR YR 1987	TOTAL 365.04	MEAN 1.00	MAX 41	MIN .16	AC-FT 724

SAN ANTONIO CREEK BASIN

11136100 SAN ANTONIO CREEK NEAR CASMALIA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978 to current year.

CHEMICAL DATA: Water year 1978 to current year.

pH: December 1981 to September 1983.

WATER TEMPERATURE: December 1981 to September 1983.

PERIOD OF DAILY RECORD.--

pH: December 1981 to September 1983.

WATER TEMPERATURE: December 1981 to September 1983.

INSTRUMENTATION.--Water-quality monitor from December 1981 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 1986						
28...	1300	0.68	2290	7.6	14.5	1430
DEC						
05...	1140	0.72	2230	8.0	9.5	1500
JAN 1987						
08...	1100	1.0	2080	7.8	9.0	1380
FEB						
11...	1350	0.93	2380	7.9	15.5	1550
MAR						
11...	1245	1.1	*2820	7.6	19.5	1710
APR						
10...	0930	0.84	2530	7.6	16.0	2080
MAY						
13...	1000	0.73	2400	7.8	19.5	1710
JUN						
09...	1015	0.48	1840	7.9	16.5	1500
JUL						
09...	0915	0.27	2420	7.8	17.0	1510
AUG						
13...	1130	0.23	2460	7.9	18.0	1520
SEP						
11...	1015	0.26	2110	8.0	16.0	1390

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DEC 1986									
05...	1140	0.72	2230	8.0	9.5	530	160	140	43
MAR 1987									
11...	1245	1.1	2820*	7.6	19.5	890	610	230	77
JUN									
09...	1015	0.48	1840	7.9	16.5	550	150	140	48
SEP									
11...	1015	0.26	2110	8.0	16.0	490	82	130	40

See footnote at end of table.

SAN ANTONIO CREEK BASIN

11136100 SAN ANTONIO CREEK NEAR CASMALIA, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL 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)
DEC 1986								
05...	310	55	6	15	369	320	380	0.30
MAR 1987								
11...	310	43	5	15	285	760	350	0.60
JUN								
09...	340	57	7	15	400	320	390	0.40
SEP								
11...	320	58	7	17	407	230	350	0.30

DATE	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)
DEC 1986						
05...	52	1500	7.5	0.960	1700	20
MAR 1987						
11...	45	2000	6.4	0.590	1700	30
JUN						
09...	31	1500	2.9	1.0	2000	30
SEP						
11...	45	1400	3.0	1.1	1900	30

* Value is based on a laboratory value.

SANTA MARIA RIVER BASIN

11136800 CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA, CA

LOCATION (REVISED).--Lat 35°01'19", long 120°13'39", 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, 1.5 mi downstream from Buckhorn Canyon, and 13 mi northeast of Santa Maria.

DRAINAGE AREA.--886 mi².

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.

REVISED RECORDS.--WDR CA-71-1: Drainage area. WDR-CA-77-1: 1976.

GAGE.--Water-stage recorder. Elevation of gage is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 1959, nonrecording gage at different site and datum.

REMARKS.--Estimated daily discharges: June 8-17. Records poor. No regulation above station. Pumping from wells along stream for irrigation of several thousand acres in Upper Cuyama Valley.

AVERAGE DISCHARGE.--30 years (water years 1904, 1905, 1960-87), 22.8 ft³/s, 16,520 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,800 ft³/s, Feb. 25, 1969, gage height, 13.70 ft, from rating curve extended above 4,900 ft³/s on basis of slope-area measurement at gage height 10.85 ft; maximum gage height, 14.74 ft, Mar. 4, 1978; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 8	0645	*953	*7.85				

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.02	.01	0	.01	.04	.24	.05	0			
2	.08	.02	.01	0	.01	.02	.25	.02	0			
3	.07	.02	.01	0	.01	.02	.26	.01	0			
4	.06	.02	.02	.33	.01	.02	.23	0	0			
5	.05	.01	.06	.04	.01	3.2	.22	0	0			
6	.04	.02	.09	.17	.01	6.9	.19	0	0			
7	.04	.02	.02	.24	.01	4.7	.15	0	0			
8	.04	.02	.02	.06	0	1.1	.15	0	155			
9	.04	.02	.02	.05	.01	.55	.16	0	2.0			
10	.06	.01	.01	.05	0	.59	.15	0	1.0			
11	.06	.01	.01	.05	0	.40	.15	0	.50			
12	.04	.01	.01	.05	0	.34	.16	0	.40			
13	.04	.01	.01	.04	3.2	.34	.15	0	.30			
14	.03	.01	.01	.05	.99	.44	.15	0	.20			
15	.03	.01	.01	.05	.18	.76	.16	0	.10			
16	.03	.01	.02	.06	.11	.36	.14	0	.05			
17	.04	.01	.01	.06	.11	.32	.14	0	.01			
18	.05	.15	.01	.04	.09	.26	.15	0	0			
19	.05	.02	.01	.04	.08	.26	.13	0	0			
20	.05	.01	.10	.03	.07	.25	.10	0	0			
21	.05	.01	.01	.03	.08	2.1	.08	0	0			
22	.04	.01	.01	.03	.08	1.5	.04	0	0			
23	.04	.01	.01	.03	.07	1.3	.05	0	0			
24	.04	.01	.01	.02	.10	.83	.06	0	0			
25	.03	.01	0	.01	.10	.71	.05	0	0			
26	.02	.01	0	.01	.07	.44	.03	0	0			
27	.02	.01	.01	.02	.05	.34	.03	0	0			
28	.04	.01	0	.02	.05	.32	.04	0	0			
29	.03	.01	0	.02	---	.30	.06	0	0			
30	.02	.01	0	.02	---	.25	.10	0	0			
31	.02	---	0	.01	---	.25	---	0	---			---
TOTAL	1.34	.53	.52	1.63	5.51	29.21	3.97	.08	159.56	0	0	0
MEAN	.043	.018	.017	.053	.20	.94	.13	.003	5.32	0	0	0
MAX	.09	.15	.10	.33	3.2	6.9	.26	.05	155	0	0	0
MIN	.02	.01	0	0	0	.02	.03	0	0	0	0	0
AC-FT	2.7	1.1	1.0	3.2	11	58	7.9	.2	316	0	0	0

CAL YR 1986	TOTAL	4214.25	MEAN	11.5	MAX	733	MIN	0	AC-FT	8360
WTR YR 1987	TOTAL	202.35	MEAN	.55	MAX	155	MIN	0	AC-FT	401

SANTA MARIA RIVER BASIN

11136800 CUYAMA RIVER BELOW BUCKHORN CANYON, NEAR SANTA MARIA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)			
DEC 1986									
04...	1400	0.02	1470	8.2	10.0	1110			
JAN 1987									
06...	1400	0.47	1390	7.8	12.5	1070			
MAR									
10...	1330	0.75	1350	8.0	19.0	1220			
APR									
08...	1600	0.17	1270	8.6	29.0	1110			
JUN									
08...	1230	110	3820*	7.2	22.0	3560			
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
MAR 1987									
10...	1330	0.75	1350	8.0	19.0	680	480	140	81
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	
MAR 1987									
10...	130		29	2	3.5	207	610	79	
DATE		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)	
MAR 1987									
10...	0.50	12	1200	<0.100	<0.010	370	75		

< Actual value is known to be less than the value shown.

* Value is based on a laboratory value.

SANTA MARIA RIVER BASIN

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 upstream from La Brea Creek and 7 mi east of Sisquoc.

DRAINAGE AREA.--281 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year. October 1929 to September 1933, at site 0.2 mi downstream; low-flow records not equivalent owing to diversion immediately upstream. Monthly discharge only for some periods, published in WSP 1315-B.

GAGE.--Water-stage recorder. Datum of gage is 624.30 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). See WSP 1735 for history of changes prior to Aug. 24, 1951.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--44 years, 44.9 ft³/s, 32,530 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,200 ft³/s, Dec. 6, 1966, gage height, 15.75 ft, from rating curve extended above 1,700 ft³/s on basis of slope-area measurements at gage heights 10.08 and 15.75 ft; no flow Nov. 11-18, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 2, 1938, 11,000 ft³/s, gage height, 8.1 ft, from high-water mark in gage well, at site in use 1929-33, from rating curve extended above 2,800 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	1345	*269	*2.76				
Minimum daily, 0.77 ft ³ /s, Sept. 23, 30.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.3	1.8	2.0	1.9	1.5	8.6	3.5	2.0	1.6	1.0	.84
2	1.7	1.3	1.7	2.0	2.0	1.5	8.4	3.2	1.9	1.6	1.0	.84
3	1.7	1.3	1.7	1.8	1.8	1.5	8.8	3.0	1.6	1.5	1.0	.84
4	1.7	1.3	1.7	2.6	1.8	1.5	8.9	2.8	1.7	1.4	.98	.84
5	1.7	1.3	1.9	2.1	1.5	2.5	8.3	2.7	1.7	1.5	.99	.82
6	1.6	1.4	2.2	2.2	1.7	126	7.9	2.6	1.8	1.4	.98	.82
7	1.6	1.3	1.9	2.3	1.7	96	7.4	2.6	1.8	1.4	1.0	.84
8	1.6	1.3	1.7	2.4	1.7	49	7.0	2.5	1.8	1.4	1.0	.82
9	1.6	1.3	1.8	2.3	1.9	29	6.6	2.5	1.9	1.5	1.0	.82
10	1.6	1.3	2.2	2.3	2.0	21	6.4	2.5	1.9	1.4	1.0	.82
11	1.6	1.2	2.3	2.3	2.3	17	6.4	2.4	1.9	1.5	.99	.80
12	1.6	1.2	2.3	2.1	2.4	15	6.2	2.4	1.9	1.5	.98	.80
13	1.5	1.2	2.4	1.9	3.3	14	5.9	2.3	1.9	1.4	.97	.79
14	1.4	1.2	2.3	2.0	2.8	13	5.5	2.3	2.0	1.4	.97	.80
15	1.4	1.2	2.3	2.2	2.7	15	5.3	2.3	1.8	1.3	.97	.80
16	1.4	1.2	2.5	2.4	2.4	13	5.0	2.4	1.8	1.2	.95	.79
17	1.4	1.4	2.4	2.6	2.5	13	4.8	2.3	1.8	1.3	.94	.79
18	1.4	2.4	2.6	2.3	2.4	12	4.8	2.2	1.8	1.2	.94	.79
19	1.5	2.1	2.6	2.3	2.1	11	4.4	2.2	1.8	1.2	.93	.79
20	1.5	2.0	2.7	2.3	1.4	10	4.0	2.1	1.8	1.2	.90	.78
21	1.4	2.0	2.2	2.3	1.4	12	3.9	2.1	1.7	1.2	.89	.79
22	1.3	1.7	2.0	2.3	1.4	14	3.6	2.0	1.7	1.2	.88	.79
23	1.3	1.7	2.1	2.4	1.4	14	3.5	2.0	1.7	1.2	.87	.77
24	1.3	1.7	2.2	1.9	1.6	13	3.5	2.0	1.6	1.1	.88	.79
25	1.3	1.7	2.3	1.9	1.6	13	3.7	2.0	1.6	1.1	.87	.80
26	1.2	1.6	2.2	1.8	1.6	12	3.8	2.1	1.6	1.0	.86	.80
27	1.3	1.5	2.1	2.0	1.5	11	3.6	2.0	1.6	1.0	.85	.80
28	1.4	1.7	2.0	1.9	1.5	10	3.5	2.1	1.6	1.1	.85	.79
29	1.4	2.0	2.0	2.0	---	10	3.7	2.1	1.5	1.1	.85	.79
30	1.4	2.0	1.9	2.0	---	9.2	3.6	2.1	1.5	1.1	.84	.77
31	1.4	---	2.0	1.9	---	8.9	---	2.1	---	1.0	.84	---
TOTAL	46.0	45.8	66.0	66.8	54.3	589.6	167.0	73.4	52.7	40.0	28.97	24.12
MEAN	1.48	1.53	2.13	2.15	1.94	19.0	5.57	2.37	1.76	1.29	.93	.80
MAX	1.8	2.4	2.7	2.6	3.3	126	8.9	3.5	2.0	1.6	1.0	.84
MIN	1.2	1.2	1.7	1.8	1.4	1.5	3.5	2.0	1.5	1.0	.84	.77
AC-FT	91	91	131	132	108	1170	331	146	105	79	57	48

CAL YR 1986	TOTAL	12145.40	MEAN	33.3	MAX	1130	MIN	1.2	AC-FT	24090
WTR YR 1987	TOTAL	1254.69	MEAN	3.44	MAX	126	MIN	.77	AC-FT	2490

SANTA MARIA RIVER BASIN

11138500 SISQUOC RIVER NEAR SISQUOC, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 1986						
29...	1030	1.4	1090	7.7	16.5	793
DEC						
04...	1050	1.7	1060	7.7	14.0	705
JAN 1987						
06...	1030	2.0	1040	7.8	12.5	794
FEB						
10...	1120	1.9	1110	8.0	16.5	821
MAR						
09...	1130	30	872	7.9	7.0	694
APR						
08...	1135	6.8	1030	8.2	18.5	787
MAY						
12...	1100	2.4	1050	7.8	20.0	811
JUN						
10...	1000	1.8	871	7.5	17.5	730
JUL						
08...	1000	1.4	1140	7.6	18.5	821
AUG						
11...	1100	1.0	1140	7.4	20.0	851
SEP						
09...	1030	0.82	1050	7.5	18.0	810

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
MAR 1987									
09...	1130	30	872	7.9	7.0	470	270	96	57

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO AS K)	POTAS- SIUM, DIS- SOLVED (MG/L CACO3	ALKA- LITY WH WAT TOTAL FIELD MG/L AS SO4)	SULFATE DIS- SOLVED (MG/L AS CL)	CHLO- RIDE, DIS- SOLVED (MG/L AS F)	FLUO- RIDE, DIS- SOLVED (MG/L)
MAR 1987								
09...	49	18	1	1.9	200	320	16	0.40

DATE	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)
MAR 1987							
09...	17	680	<0.100	<0.010	130	11	13

< Actual value is known to be less than the value shown.

SANTA MARIA RIVER BASIN

11139500 TEPUSQUET CREEK NEAR SISQUOC, CA

LOCATION.--Lat 34°52'21", long 120°14'37", unsurveyed, Santa Barbara County, Hydrologic Unit 18060008, on downstream wingwall of right bridge abutment on Tepusquet Road, 1.1 mi upstream from mouth, and 3 mi east of Sisquoc.

DRAINAGE AREA.--28.7 mi².

REVISED RECORDS.--WSP 1928; Drainage area.

PERIOD OF RECORD.--October 1943 to September 1987 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 9, 1948, at datum 0.9 ft higher.

REMARKS.--No estimated daily discharges. Records good. No regulation above station. Some diversion by pumping from wells along stream to irrigate about 100 acres above station.

AVERAGE DISCHARGE.--44 years, 1.71 ft³/s, 1,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 788 ft³/s, Dec. 6, 1966, gage height, 5.48 ft, from rating curve extended above 220 ft³/s on basis of computation of peak flow at contracted opening; maximum gage height, 6.33 ft, Mar. 1, 1983; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 20	0145	*13	*3.67				

No flow Sept. 9-11, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.16	.19	.15	.37	.37	.40	.79	.35	.16	.12	.05
2	.19	.17	.18	.16	.37	.37	.47	.69	.16	.06	.14	.06
3	.19	.17	.14	.19	.33	.37	.43	.64	.30	.13	.13	.05
4	.16	.16	.19	.51	.37	.36	.37	.78	.41	.13	.07	.01
5	.12	.15	.25	.22	.36	1.1	.37	.72	.32	.08	.13	.02
6	.12	.18	.32	.31	.37	.81	.37	.69	.34	.09	.18	.07
7	.14	.19	.21	.35	.34	.60	.42	.72	.39	.10	.17	.07
8	.16	.19	.21	.28	.37	.58	.55	.72	.39	.09	.18	.05
9	.20	.15	.20	.27	.37	.57	.55	.67	.37	.10	.18	0
10	.19	.15	.21	.25	.39	.58	.58	.67	.35	.10	.17	0
11	.12	.17	.21	.22	.42	.57	.55	.65	.35	.09	.14	0
12	.16	.15	.18	.21	.47	.58	.55	.60	.34	.08	.13	.02
13	.10	.16	.14	.21	.94	.56	.58	.57	.35	.05	.06	.07
14	.19	.17	.21	.21	.64	.57	.61	.57	.34	.01	.06	.07
15	.17	.21	.21	.21	.63	.42	.49	.58	.20	.03	.08	.01
16	.17	.17	.24	.21	.54	.44	.48	.64	.25	.03	.08	.01
17	.19	.17	.21	.21	.51	.42	.53	.72	.26	.05	.07	0
18	.19	.30	.21	.21	.52	.47	.61	.59	.26	.04	.01	.07
19	.17	.20	.23	.21	.48	.47	.56	.35	.26	.07	.11	.10
20	.17	.20	.49	.21	.47	.47	.57	.28	.22	.07	.11	.12
21	.15	.19	.15	.21	.47	.70	.50	.36	.24	.06	.11	.09
22	.16	.16	.15	.21	.49	.48	.58	.54	.22	.04	.09	.12
23	.18	.17	.15	.25	.49	.47	.64	.52	.19	.04	.11	.11
24	.19	.18	.15	.28	.43	.43	.71	.49	.17	.03	.12	.12
25	.17	.16	.15	.28	.40	.37	.72	.43	.18	.08	.10	.13
26	.18	.17	.15	.29	.37	.37	.67	.63	.18	.10	.17	.15
27	.17	.15	.15	.33	.37	.33	.66	.58	.18	.08	.15	.13
28	.20	.16	.15	.37	.37	.37	.71	.55	.18	.05	.12	.12
29	.20	.17	.15	.37	---	.37	.74	.51	.16	.05	.13	.13
30	.20	.18	.15	.38	---	.37	.80	.53	.16	.06	.09	.12
31	.17	---	.15	.37	---	.37	---	.54	---	.05	.04	---
TOTAL	5.27	5.26	6.08	8.14	12.65	15.31	16.77	18.32	8.07	2.20	3.55	2.07
MEAN	.17	.18	.20	.26	.45	.49	.56	.59	.27	.071	.11	.069
MAX	.20	.30	.49	.51	.94	1.1	.80	.79	.41	.16	.18	.15
MIN	.10	.15	.14	.15	.33	.33	.37	.28	.16	.01	.01	0
AC-FT	10	10	12	16	25	30	33	36	16	4.4	7.0	4.1

CAL YR 1986	TOTAL 382.66	MEAN 1.05	MAX 45	MIN .01	AC-FT 759
WTR YR 1987	TOTAL 103.69	MEAN .28	MAX 1.1	MIN 0	AC-FT 206

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 northeast of Garey, and 3.7 mi downstream from Tepusquet Creek.

DRAINAGE AREA.--471 mi².

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.

REVISED RECORDS.--WSP 1011: 1941, 1943. WSP 1928: Drainage area.

GAGE.--Two water-stage recorders. Datum of main gage is 354.8 ft, 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 higher. Since Oct. 1, 1959, supplementary gage on downstream side of bridge near right bank at same datum.

REMARKS.--No estimated daily discharges. Records good. No regulation above station. Pumping from wells along stream for irrigation of about 7,000 acres above station.

AVERAGE DISCHARGE.--47 years, 44.4 ft³/s, 32,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,600 ft³/s, Mar. 1, 1983, gage height, 11.16 ft, from rating curve extended above 22,000 ft³/s; maximum gage height, 13.50 ft, Dec. 6, 1966; no flow several months in each year.

EXTREMES FOR CURRENT YEAR.--No flow during year.

SANTA MARIA RIVER BASIN

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 sec.11, T.10 N., R.34 W., Santa Barbara County, Hydrologic Unit 18060008, on left bank 250 ft upstream from bridge on Donovan Road, and 0.2 mi east of U.S. Highway 101 in Santa Maria.

DRAINAGE AREA.--5.47 mi².

PERIOD OF RECORD.--October 1970 to September 1978, October 1979 to current year.

GAGE.--Water-stage recorder on concrete-lined channel. Elevation of gage is 225 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to September 1978, at site 50 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Apr. 21 to May 12. Records fair except those for estimated discharges, which are poor. Extensive channel modification in 1979 water year widened the concrete-lined channel.

AVERAGE DISCHARGE.--16 years, 1.48 ft³/s, 1,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 539 ft³/s, Mar. 1, 1983, gage height, 4.59 ft, from rating curve extended above 69 ft³/s on basis of slope-conveyance studies of discharge; maximum gage height, 5.85 ft, Mar. 4, 1978; no flow for several days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*).

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 6	0145	*48	*2.05				

No flow Mar. 9, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.37	1.6	2.1	.83	.10	.95	3.0	1.8	1.8	1.6	1.6	1.5
2	1.0	.93	1.7	.57	.44	1.1	1.9	2.0	3.9	1.2	2.9	1.5
3	.83	.95	1.7	.74	.94	1.9	1.6	2.1	4.3	1.4	2.0	1.7
4	1.1	1.9	.92	4.7	.69	1.6	.35	2.0	3.4	2.0	2.6	1.3
5	.56	1.6	5.4	.23	1.7	25	.40	1.8	2.0	1.3	2.7	2.0
6	.56	1.4	2.4	4.6	2.3	14	.24	1.6	1.2	.83	4.0	1.9
7	.88	2.5	.14	2.2	2.0	.25	.81	1.5	3.3	1.7	2.9	.41
8	.90	2.4	.15	.08	2.4	.01	1.3	1.4	1.3	1.9	2.1	.22
9	.67	1.2	.44	.09	2.3	0	1.8	1.3	2.9	1.9	1.3	2.1
10	.68	.89	.72	.09	3.1	.04	2.4	1.4	2.8	1.1	1.3	2.1
11	.66	1.5	.90	.14	1.1	.13	2.1	1.5	2.0	1.9	1.7	1.4
12	.33	2.2	.96	.02	1.2	1.1	2.8	1.8	2.0	1.9	.92	2.1
13	.48	2.6	.91	.01	6.2	.54	1.9	2.3	2.5	.72	1.7	2.1
14	1.0	2.8	1.9	.73	.81	2.6	1.4	1.4	1.4	2.0	2.0	.62
15	.86	1.6	1.7	2.4	.69	.39	2.4	2.0	1.3	2.3	1.6	1.8
16	.15	1.8	.99	2.6	.05	.01	2.2	1.7	3.2	1.8	1.4	1.2
17	.55	.78	.74	1.8	.18	1.3	1.8	.81	2.2	1.7	.61	2.4
18	.67	1.1	.65	2.2	1.1	2.5	2.4	1.1	.47	1.2	.57	1.4
19	.60	.35	.17	1.9	3.2	2.0	2.3	1.4	1.7	1.4	1.4	1.4
20	.36	.26	1.7	2.5	3.0	1.6	1.5	1.6	1.3	1.1	1.4	.57
21	.68	.86	.05	3.7	2.8	4.0	2.6	2.0	1.6	1.4	1.9	.67
22	.89	1.0	.22	2.8	1.4	.10	1.8	.92	1.3	1.9	1.7	1.2
23	.86	.92	1.2	1.6	.43	0	1.6	2.2	2.1	2.0	1.9	1.8
24	.94	.14	.55	2.7	1.0	.21	1.8	2.1	3.0	2.4	1.1	1.5
25	.90	.80	.09	2.6	.15	.30	2.0	.08	3.1	3.2	1.2	1.7
26	.82	1.1	.21	1.6	.05	.79	1.8	.40	2.3	2.3	1.0	1.8
27	.62	2.0	.31	1.4	1.3	1.7	1.7	1.8	2.6	2.1	1.2	1.4
28	.70	1.3	.05	1.0	1.9	1.7	1.6	2.8	2.0	1.7	1.5	.81
29	.15	2.2	.14	.03	---	1.4	1.5	2.9	1.8	2.1	1.2	1.2
30	.15	2.4	.35	.67	---	1.0	1.5	2.9	1.9	2.5	1.9	1.2
31	1.0	---	1.3	.22	---	1.7	---	2.5	---	2.4	2.1	---
TOTAL	20.92	43.08	30.76	46.75	42.53	69.92	52.50	53.11	66.67	54.95	53.40	43.00
MEAN	.67	1.44	.99	1.51	1.52	2.26	1.75	1.71	2.22	1.77	1.72	1.43
MAX	1.1	2.8	5.4	4.7	6.2	25	3.0	2.9	4.3	3.2	4.0	2.4
MIN	.15	.14	.05	.01	.05	0	.24	.08	.47	.72	.57	.22
AC-FT	41	85	61	93	84	139	104	105	132	109	106	85

CAL YR 1986	TOTAL 644.39	MEAN 1.77	MAX 112	MIN 0	AC-FT 1280
WTR YR 1987	TOTAL 577.59	MEAN 1.58	MAX 25	MIN 0	AC-FT 1150

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 north of Guadalupe, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--1,741 mi².

PERIOD OF RECORD.--October 1940 to September 1987 (discontinued). Monthly discharge only for October 1940 to January 1941, published in WSP 1315-B.

REVISED RECORDS.--WSP 1928: Drainage area.

GAGE.--Three water-stage recorders. Datum of main gage (left channel) is 64.92 ft above National Geodetic Vertical Datum of 1929. Two supplementary gages started in 1956 at different datums and locations. Prior to Aug. 11, 1955, main gage at site 100 ft upstream, at present datum.

REMARKS.--Estimated daily discharges: Mar. 5, 6. Records poor. Flow regulated since February 1959 by Twitchell Reservoir, capacity 240,000 acre-ft, 25 mi upstream on Cuyama River. Several small diversions and extensive pumping for irrigation from wells upstream from station.

AVERAGE DISCHARGE.--47 years, 29.9 ft³/s, 21,660 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,800 ft³/s, Jan. 16, 1952, gage height, 8.18 ft; maximum gage height, 10.00 ft, Feb. 26, 1969; no flow for all or part of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20 ft³/s, Mar. 5, estimated on basis of peak flows at stations on nearby streams, gage height, unknown; no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0						
2						0						
3						0						
4						0						
5						5.0						
6						.30						
7						0						
8						0						
9						0						
10						0						
11						0						
12						0						
13						0						
14						0						
15						0						
16						0						
17						0						
18						0						
19						0						
20						0						
21						0						
22						0						
23						0						
24						0						
25						0						
26						0						
27						0						
28						0						
29					---	0						
30					---	0						
31		---			---	0	---		---			---
TOTAL	0	0	0	0	0	5.30	0	0	0	0	0	0
MEAN	0	0	0	0	0	.17	0	0	0	0	0	0
MAX	0	0	0	0	0	5.0	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	11	0	0	0	0	0	0
CAL YR 1986	TOTAL	1800.00	MEAN	4.93	MAX	820	MIN	0	AC-FT	3570		
WTR YR 1987	TOTAL	5.30	MEAN	.015	MAX	5.0	MIN	0	AC-FT	11		

LOCATION.--Lat 34°53'01", Long 120°29'38", in SW 1/4 SE 1/4 sec.6, T.9 N., R.34 W., Santa Barbara County, Hydrologic Unit 18060008, on right bank 10 ft upstream from Black Road bridge, 0.2 mi northeast of State Highway 1, and 3.0 mi northwest of Orcutt.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,830 ft³/s, Mar. 1, 1983, gage height, 7.53 ft, from floodmarks, from rating curve extended above 10 ft³/s on basis of slope-area measurements at gage heights 4.83 and 7.53 ft; no flow at times in some years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.17	.09	.16	.07	.11	.10	.01	.08	.15	.10	.10
2	0	.20	.09	.16	.07	.13	.10	.01	.08	.16	.11	.10
3	0	.48	.09	.17	.07	.12	.14	.01	.19	.26	.43	.09
4	0	.27	.09	3.6	.06	.15	.31	.01	.10	.12	.11	.08
5	0	.22	.17	.72	.05	33	.28	.01	.08	.11	.09	.09
6	0	.24	2.3	3.0	.05	4.5	.12	.02	.07	.08	.09	.09
7	0	.21	.22	1.5	.03	.20	.08	.03	.07	.12	.10	.48
8	0	.25	.16	.25	.03	.10	.08	.03	.07	.15	.10	.60
9	0	.31	.17	.12	.05	.05	.24	.02	.07	.14	.11	.15
10	0	.55	.16	.10	.04	.04	.50	.02	.07	.14	.50	.10
11	.06	.79	.15	.09	.03	.03	.30	.02	.07	.16	.37	.09
12	.13	.68	.15	.09	.02	.03	.10	.02	.07	.25	.21	.08
13	.07	.58	.15	.09	2.0	.03	.05	.02	.07	.15	.13	.07
14	.14	.60	.15	.09	.76	.03	.03	.01	.07	.35	.11	.26
15	.09	.20	.18	.08	.40	.03	.03	.02	.07	.22	.11	.10
16	.13	.18	.47	.09	.16	.03	.03	.03	.07	.46	.15	.08
17	.10	.73	.19	.09	.10	.03	.03	.02	.07	.23	.36	.10
18	.15	1.5	.16	.09	.13	.03	.03	.03	.07	.18	.13	.09
19	.03	.45	.18	.09	.10	.02	.03	.03	.06	.11	.10	.07
20	.07	.14	.83	.13	.07	.02	.03	.05	.06	.27	.10	.07
21	.12	.10	.24	.09	.08	.93	.03	.06	.07	.10	.09	.43
22	.11	.09	.19	.12	.41	.68	.03	.03	.13	.10	.08	.10
23	.13	.08	.19	.15	.21	.30	.03	.05	.10	.08	.09	.26
24	.10	.09	.16	.10	.62	.16	.03	.07	.08	.07	.33	.10
25	.13	.09	.16	.08	.43	.16	.03	.12	.08	.08	.12	.10
26	.05	.08	.15	.08	.22	.13	.02	.10	.08	.08	.11	.08
27	.09	.08	.16	.09	.11	.12	.02	.07	.08	.38	.10	.11
28	.17	.09	.15	.12	.09	.10	.03	.06	.09	.13	.10	.55
29	.15	.09	.15	.09	---	.11	.03	.07	.15	.14	.12	.22
30	.16	.09	.16	.08	---	.10	.02	.09	.12	.12	.09	.14
31	.14	---	.18	.09	---	.10	---	.08	---	.09	.27	---
TOTAL	2.32	9.63	8.04	11.80	6.46	41.57	2.88	1.22	2.54	5.18	5.01	4.98
MEAN	.075	.32	.26	.38	.23	1.34	.096	.039	.085	.17	.16	.17
MAX	.17	1.5	2.3	3.6	2.0	33	.50	.12	.19	.46	.50	.60
MIN	0	.08	.09	.08	.02	.02	.02	.01	.06	.07	.08	.07
AC-FT	4.6	19	16	23	13	82	5.7	2.4	5.0	10	9.9	9.9
CAL YR 1986	TOTAL	530.56	MEAN	1.45	MAX	160	MIN	0	AC-FT	1050		
WTR YR 1987	TOTAL	101.63	MEAN	.28	MAX	33	MIN	0	AC-FT	202		

SANTA MARIA RIVER BASIN

11141050 ORCUTT CREEK NEAR ORCUTT, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 1986						
28...	1020	0.03	2210	7.3	16.0	1370
DEC						
03...	1325	0.02	2440	7.9	13.0	1500
JAN 1987						
07...	1215	1.3	1100	7.4	13.0	558
FEB						
11...	1050	0.02	2530	9.0	22.0	1550
MAR						
11...	0900	0.02	3310	7.8	15.0	2530
APR						
09...	1500	0.27	3990	9.4	30.0	2820
MAY						
13...	1145	0.02	2220	9.6	28.0	1360
JUN						
09...	1200	0.07	1840	8.9	23.5	1300
JUL						
08...	1445	0.14	2560	7.8	24.0	1460
AUG						
13...	0915	0.06	2490	7.6	18.5	1550
SEP						
09...	1555	0.16	2410	7.7	20.0	1570

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
MAR 1987									
11...	0900	0.02	3310	7.8	15.0	710	450	150	82

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL 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)
MAR 1987								
11...	620	65	10	9.1	259	320	1100	0.60

DATE	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)
MAR 1987							
11...	28	2500	2.8	1.0	1100	40	1400

DISCHARGE AT PARTIAL-RECORDS STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the U.S. Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at miscellaneous sites are given in separate tables.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage station 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 year is given. Information on some lower floods may have been obtained but is not published here. 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
FOR 1986 WATER YEAR (NOT PREVIOUSLY PUBLISHED), AND 1987 WATER YEAR

Station No.	Station name	Location	Drain- age area (mi ²)	Period of record	Date	Annual maximums	
						Gage height (feet)	Discharge (ft ³ /s)
Bristol Lake basin							
10253000	Gourd Creek near Ludlow, CA	Lat 34°40'35", long 116°02'20", in SW 1/4 sec.23, T.7 N., R.9 E., San Bernardino County, Hydro- logic Unit 18090208, at culvert on U.S Highway 66, 8.5 mi southeast of Ludlow.	0.30	1959-74 1976-87	8-13-86 --	14.72 --	82 0
10261800	Beacon Creek at Helendale, CA	Lat 34°45'00", long 117°18'53", in SE 1/4 sec.29, T.8 N., R.4 W., San Bernardino County, Hydrologic Unit 18090208, at culvert on county road (formerly U.S. Highways 66 and 91), 0.6 mi northeast of Helendale.	0.72	1959-60 1961-67* 1968-69 1976-87	-- 6-7-87	-- b16.17	0 Unknown
10262600	Boom Creek near Barstow, CA	Lat 34°54'20", long 116°56'57", NW 1/4 NE 1/4 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 east of Barstow.	0.24	1956-66 1967-73* 1976-87	7-23-86 7-27-87	11.07 10.35	57 39
Antelope Valley							
10263900	Buckhorn Creek near Valyermo, CA	Lat 34°20'35", long 117°55'13", in SW 1/4 sec.15, T.3 N., R.10 W., Los Angeles County, Hydrologic Unit 18090206, at culvert on State Highway 2, Angeles National Forest, 8.1 mi southwest of Valyermo.	0.48	1961-66* 1967-69 1971-73 1977-87	1-30-86 3-6-87	2.40 1.47	20 3.0
10264530	Pine Creek near Palmdale, CA	Lat 34°36'09", long 118°14'48", in SW 1/4 sec.15, T.6 N., R.13 W., Los Angeles County, Hydrologic Unit 18090206, at culvert on Pine Canyon Road, 7.5 mi northwest of Palmdale.	1.37	1959-73 1977-87	2-15-86 6-6-87	10.58 10.19	1.5 0.21
10264560	Spencer Canyon Creek near Fairmont, CA	Lat 34°46'33", long 118°34'08", in SW 1/4 SW 1/4 sec.15, T.8 N., R.16 W., Los Angeles County, Hydrologic Unit 18090206, at culvert on county road, 8.5 mi northwest of Fairmont.	3.60	1959-64 1965-73* 1974 1978-87	2-14-86 --	Unknown --	1 0

* Operated as a continuous-record gaging station.

b Culvert plugged.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1987--Continued

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Annual maximum Gage height Discharge (feet) (ft ³ /s)
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 downstream from Malibu Drive bridge, 0.5 mi north of Carpinteria, and 0.9 mi upstream from mouth.	1.81	1970-78* 1981-87	---	a <109
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 upstream from mouth and 6.5 mi east of Lompoc.	14.1	1976-79 1981-87	---	a <26
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 northeast of junction of Buener Road and Lompoc- Casmalia Road, and 4.0 mi northeast of Lompoc.	4.75	1972-75* 1976-87	11-18-86	1.71 26
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 east of Dewolf Avenue at Highway 246, and 3.3 mi west of Lompoc.	7.80	1971-72* 1973-78 1980-87	---	a <29

*Operated as a continuous-record station.

a Peak stage did not reach bottom of gage.

< Actual value is known to be less than the value shown.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1987

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Atascadero Creek basin						
Maria Ygnacio Creek	Atascadero Creek	Lat 34°27'34", long 119°47'24", in SE 1/4 NE 1/4 sec. 3, T.4 N., R.28 W., Santa Barbara County, Hydrologic Unit 18060013, 0.1 mi upstream from Old San Marcos Pass Road bridge, 300 ft upstream from confluence with East Fork, and 2.5 mi northeast of Goleta.	--	1984-85	10/04/85*	0.00
					10/07/85*	.00
					10/18/85*	.00
					10/25/85*	.01
					10/28/85*	.14
					11/04/85*	.09
					11/15/85*	1.99
					11/18/85*	.23
					12/01/85*	.39
					12/07/85*	.34
					12/13/85*	.32
					12/16/85*	.33
					12/23/85*	.30
					01/03/86*	.30
					01/08/86*	.31
					01/15/86*	.29
					01/23/86*	.29
					01/29/86*	.27
					02/05/86*	.32
					02/10/86*	.30
					02/21/86*	2.28
					02/24/86*	1.20
					03/05/86*	.45
					03/12/86*	2.72
					03/21/86*	2.07
					03/28/86*	1.29
					03/31/86*	1.02
					04/09/86*	.78
					04/14/86*	.72
					04/21/86*	.55
					04/28/86*	.53
					05/05/86*	.50
					05/12/86*	.49
					05/19/86*	.41
					05/28/86*	.47
					06/04/86*	.34
					06/09/86*	.30
					06/16/86*	.39
					06/23/86*	.37
					06/30/86*	.26
					07/07/86*	.32
					07/14/86*	.32
					07/21/86*	.20
					07/28/86*	.29
					08/04/86*	.33
					08/11/86*	.33
					08/18/86*	.15
08/28/86*	.10					
09/02/86*	.25					
09/08/86*	.16					
09/15/86*	.21					
09/22/86*	.07					
09/29/86*	.26					

* Not previously published.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES
DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1987

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Atascadero Creek basin						
Maria Ygnacio Creek	Atascadero Creek	Lat 34°27'34", long 119°47'24", in SE 1/4 NE 1/4 sec. 3, T.4 N., R.28 W., Santa Barbara County, Hydrologic Unit 18060013, 0.1 mi upstream from Old San Marcos Pass Road bridge, 300 ft upstream from confluence with East Fork, and 2.5 mi northeast of Goleta.	--	1984-85	10/04/85*	0.00
					10/07/85*	.00
					10/18/85*	.00
					10/25/85*	.01
					10/28/85*	.14
					11/04/85*	.09
					11/15/85*	1.99
					11/18/85*	.23
					12/01/85*	.39
					12/07/85*	.34
					12/13/85*	.32
					12/16/85*	.33
					12/23/85*	.30
					01/03/86*	.30
					01/08/86*	.31
					01/15/86*	.29
					01/23/86*	.29
					01/29/86*	.27
					02/05/86*	.32
					02/10/86*	.30
					02/21/86*	2.28
					02/24/86*	1.20
					03/05/86*	.45
					03/12/86*	2.72
					03/21/86*	2.07
					03/28/86*	1.29
					03/31/86*	1.02
					04/09/86*	.78
					04/14/86*	.72
					04/21/86*	.55
					04/28/86*	.53
					05/05/86*	.50
					05/12/86*	.49
					05/19/86*	.41
					05/28/86*	.47
					06/04/86*	.34
					06/09/86*	.30
					06/16/86*	.39
					06/23/86*	.37
					06/30/86*	.26
					07/07/86*	.32
					07/14/86*	.32
					07/21/86*	.20
					07/28/86*	.29
					08/04/86*	.33
					08/11/86*	.33
08/18/86*	.15					
08/28/86*	.10					
09/02/86*	.25					
09/08/86*	.16					
09/15/86*	.21					
09/22/86*	.07					
09/29/86*	.26					

* Not previously published.

DISCHARGE AND WATER-QUALITY AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1987

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Time	Stream- flow Instan- taneous (CFS)	Specific conduc- tance (UMHOS)	Temper- ature (DEG C)
Atascadero Creek basin									
Maria Ygnacio Creek	Atascadero Creek	Lat 34°27'34", long 119°47'24", in SE 1/4 NE 1/4 sec. 3, T.4 N., R.28 W., Santa Barbara County, Hydrologic Unit 18060013, Santa Barbara County, 0.1 mi upstream from Old San Marcos Pass Road bridge, 300 ft upstream from East Fork, and 2.5 mi northeast of Goleta.	--	1983-86	10/06/86	0915	.06	---	16.0
					10/14/86	1000	.18	---	13.0
					10/20/86	1045	.19	---	13.5
					10/27/86	1045	.16	---	14.5
					11/05/86	0930	.08	---	13.5
					11/11/86	1030	.21	---	10.5
					11/17/86	0945	.21	---	14.5
					11/26/86	0930	.21	---	10.5
					12/01/86	0930	.21	---	9.5
					12/08/86	1000	.23	---	10.0
					12/15/86	1015	.23	---	10.0
					12/22/86	1045	.22	---	9.0
					12/29/86	1030	.21	---	8.5
					01/07/87	1000	.41	---	10.0
					01/14/87	1015	.12	---	13.5
					01/20/87	1300	.23	---	7.5
					01/27/87	1045	.10	---	10.5
					02/02/87	1145	.23	1040	10.0
					02/10/87	1130	.35	890	16.0
					02/17/87	1045	.26	1080	11.0
					02/24/87	1045	.24	1120	10.0
					03/04/87	1200	.21	1010	13.5
					03/10/87	1015	.54	1140	12.0
					03/18/87	1400	.25	1120	16.0
					03/25/87	1115	.27	1100	14.5
					03/31/87	1000	.21	1230	12.5
					04/07/87	1230	.19	1040	16.0
					04/13/87	1045	.18	1160	14.0
					04/20/87	1400	.13	1190	16.5
					04/28/87	1100	.20	1180	15.5
					05/04/87	1100	.14	1330	17.0
					05/12/87	1100	.17	1160	17.0
					05/18/87	1130	.16	1080	15.5
					05/27/87	1145	.03	1060	17.0
					05/28/87	1445	.01	---	---
					06/02/87	1045	.01	1120	19.0
					06/08/87	1000	.17	1550	17.0
					06/15/87	1230	.15	1500	17.5
					06/22/87	1100	<.01	1990	20.0
					06/29/87	1200	.01	1700	16.0
					07/06/87	1215	.01	1970	18.0
					07/14/87	0930	.01	1860	18.0
					07/20/87	1030	.01	1900	17.5
					07/27/87	1115	<.01	1990	20.0
					08/03/87	1100	<.01	2110	19.0
					08/10/87	1115	<.01	2110	24.0
					08/17/87	1115	0	---	---
					08/24/87	1345	0	---	---
					09/03/87	1345	0	---	---
					09/09/87	1315	0	---	---
					09/14/87	1345	0	---	---
					09/23/87	1015	0	---	---
					09/30/87	1115	0	---	---

DISCHARGE AND WATER-QUALITY AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1987

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Date	Time	Stream- flow Instan- taneous (CFS)	Specific conduc- tance (UMHOS)	Temper- ature (DEG C)
Atascadero Creek basin--Continued									
East Fork, Maria Ygnacio Creek	Maria Ygnacio Creek	Lat 34°28'32", long 119°46'40", in SE 1/4 NE 1/4 sec. 35, T.5 N., R.28 W., Santa Barbara County, Hydrologic Unit 18060013, 100 ft upstream from bridge on private road, 1.5 mi upstream from Maria Ygnacio Creek, and 4.0 mi northeast of Goleta.	--	----	02/02/87	1030	.04	685	9.5
					02/10/87	1015	.04	665	13.5
					02/17/87	0945	.04	670	11.0
					02/24/87	0930	.04	715	7.5
					03/04/87	1030	.02	670	11.5
					03/10/87	0900	.08	730	11.5
					03/18/87	1300	.04	720	14.0
					03/25/87	1015	.04	720	12.0
					03/31/87	0915	.03	725	11.0
					04/07/87	1115	.03	720	14.0
					04/13/87	1130	.05	741	14.5
					04/20/87	1200	.04	735	15.0
					04/28/87	0930	.02	691	14.5
					05/04/87	0845	.02	766	15.5
					05/12/87	0915	.03	738	17.0
					05/18/87	0930	.03	693	15.0
					05/27/87	0945	.02	595	14.0
					06/02/87	0930	.02	580	16.0
					06/08/87	0845	.02	635	15.5
					06/15/87	1030	.02	697	15.0
					06/22/87	0945	.02	708	---
					06/29/87	1030	.02	700	14.5
					07/06/87	1130	.01	705	15.0
					07/14/87	0845	.02	725	15.5
					07/20/87	0945	.01	728	14.0
					07/27/87	1015	.01	731	16.0
					08/03/87	1000	0	---	---
					08/10/87	1030	0	---	---
					08/17/87	1030	0	---	---
					08/24/87	1300	0	---	---
					09/03/87	1300	0	---	---
					09/09/87	1245	0	---	---
					09/14/87	1300	0	---	---
					09/23/87	0930	0	---	---
					09/30/87	1030	.03	770	16.5

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1987

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Atascadero Creek basin--Continued						
East Fork, Maria Ygnacio Creek	Maria Ygnacio Creek	Lat 34°27'36", long 119°47'26", in SE 1/4 NE 1/4 sec. 3, T.4 N., R.28 W., Santa Barbara County, Hydrologic Unit 18060013, 0.1 mi upstream from Old San Marcos Pass Road bridge, 75 ft upstream from confluence with Maria Ygnacio Creek, and 2.5 mi northeast of Goleta.	--	1984-85	10/04/85*	0.02
					10/07/85*	.02
					10/18/85*	.02
					10/25/85*	.02
					10/28/85*	.02
					11/04/85*	.02
					11/15/85*	.02
					11/18/85*	.02
					12/01/85*	.02
					12/07/85*	.02
					12/13/85*	.02
					12/16/85*	.02
					12/23/85*	.02
					01/03/86*	.02
					01/08/86*	.04
					01/15/86*	.03
					01/23/86*	.03
					01/29/86*	.03
					02/05/86*	.04
					02/10/86*	.04
					02/21/86*	.55
					02/24/86*	.33
					03/05/86*	.19
					03/12/86*	.92
					03/21/86*	.65
					03/28/86*	.40
					03/31/86*	.37
					04/09/86*	.33
					04/14/86*	.32
					04/21/86*	.18
					04/28/86*	.16
					05/05/86*	.12
					05/12/86*	.10
					05/19/86*	.09
					05/28/86*	.08
					06/04/86*	.07
					06/09/86*	.05
					06/16/86*	.04
					06/23/86*	.05
					06/30/86*	.04
07/07/86*	.04					
07/14/86*	.04					
07/21/86*	.03					
07/28/86*	.04					
08/04/86*	.04					
08/11/86*	.04					
08/18/86*	.03					
08/28/86*	.03					
09/02/86*	.04					
09/08/86*	.04					
09/15/86*	.30					
09/22/86*	.04					
09/29/86*	.03					

* Not previously published.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES
DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1987

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
		Santa Maria River basin				
Green Canyon Creek	Santa Maria River	Lat 34°57'27", long 120°37'54", Santa Barbara County, Hydrologic Unit 18060008, at culvert on Main Street, 3.6 mi southwest of Guadalupe.	--	1984-86	10/16/85*	12.3
					11/20/85*	3.74
					12/20/85*	5.75
					01/16/86*	4.93
					02/20/86*	5.98
					03/14/86*	27.1
					04/16/86*	8.04
					05/14/86*	15.9
					06/18/86*	9.83
					07/16/86*	12.0
					08/14/86*	12.2
					09/24/86*	18.5
					10/30/86	8.01
					12/03/86	7.22
					01/07/87	9.11
					02/11/87	4.86
					03/10/87	7.39
					04/07/87	15.5
					05/13/87	8.78
					06/09/87	9.09
					07/07/87	10.1
					08/12/87	16.6
09/09/87	11.6					

* Not previously published.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

SAN MATEO CREEK BASIN

11046370 SAN MATEO CREEK AT SAN ONOFRE, CA

LOCATION.--Lat 33°24'00", long 117°35'09", in SW 1/4 SW 1/4 sec.11, T.9 S., R.7 W., San Diego County, Hydrologic Unit 18070301, on Camp Joseph H. Pendleton Naval Reservation, on right bank 0.6 mi upstream from bridge on Interstate Highway 5, 1.2 mi upstream from mouth, and 1.9 mi downstream from Cristianitos Creek.

DRAINAGE AREA.--130 mi².

PERIOD OF RECORD.--

WATER TEMPERATURE: Water years 1982 to current year.

SEDIMENT DATA: Water years 1982 to current year. Records for October 1984 to September 1985, published in WDR CA-84-1, are unreliable and should not be used.

PERIOD OF DAILY RECORD.--

WATER DISCHARGE: October 1946 to September 1967, October 1984 to September 1985. Records for October 1984 to September 1985, published in WDR CA-84-1, are unreliable and should not be used.

WATER TEMPERATURE: December 1983 to September 1984.

SUSPENDED-SEDIMENT DISCHARGE: December 1983 to September 1984.

REMARKS.--Minor flows regulated by percolation basins. No flow for the entire year.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

TOPANGA CREEK BASIN

11104000 TOPANGA CREEK NEAR TOPANGA BEACH, CA

LOCATION.--Lat 34°03'52", long 118°35'10", in NW 1/4 SW 1/4 sec.20, T.1 S., R.16 W., Los Angeles County,
Hydrologic Unit 18070104, on right bank 1.8 mi north of Topanga Beach on Topanga Canyon Road.

DRAINAGE AREA.--18.0 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1982 to current year.

WATER QUALITY DATA, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JAN 1982 02...	1330	0.89	1460	8.5	14.0	755	10.1	99	440	K1500
MAR 17...	1430	--	522	8.0	11.5	745	10.1	95	22000	K104000
JUL 27...	1445	0.30	1380	--	27.0	760	10.1	128	<100	1400
MAR 1983 02...	1115	--	700	8.4	14.0	745	9.7	97	--	--
JUL 13...	0930	0.45	1370	8.2	19.5	755	8.2	91	--	--
MAY 1984 30...	1130	0.30	1350	8.3	23.5	755	11.5	137	200	51
JUN 26...	1445	0.17	1280	8.5	26.0	750	9.4	118	K20	K3
JUL 24...	1400	0.15	1190	8.2	27.5	760	7.4	94	K10	K17
AUG 29...	1415	0.11	1060	8.6	29.0	755	10.8	142	K10	--
NOV 1985 25...	1115	73	580	7.8	13.0	745	10.0	97	--	--
JUL 1986 23...	1340	0.31	1260	8.2	24.5	760	10.0	121	K8	2400
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD 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)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
JAN 1982 02...	630	380	140	70	110	27	2	4.3	--	450
MAR 17...	200	110	48	19	30	24	1	4.3	87	140
JUL 27...	490	350	99	60	110	32	2	4.9	--	390
MAR 1983 02...	290	160	70	28	35	21	0.9	3.1	130	190
JUL 13...	590	340	120	71	100	27	2	4.7	250	420
MAY 1984 30...	480	260	94	59	98	31	2	4.4	222	350
JUN 26...	470	240	88	60	100	32	2	4.2	232	320
JUL 24...	450	250	84	58	100	32	2	4.3	198	310
AUG 29...	360	180	55	54	99	37	2	4.0	177	300
NOV 1985 25...	210	100	51	19	37	27	1	7.1	103	160
JUL 1986 23...	470	230	92	58	87	29	2	4.4	241	290

See footnotes at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

TOPANGA CREEK BASIN

11104000 TOPANGA CREEK NEAR TOPANGA BEACH, CA--Continued

WATER QUALITY DATA, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	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- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JAN 1982									
02...	130	0.6	17	1100	1070	0.39	0.06	560	<10
MAR									
17...	19	0.4	13	360	338	2.6	0.16	140	81
JUL									
27...	120	0.7	17	969	889	<0.1	0.03	740	10
MAR 1983									
02...	18	0.4	21	487	452	1.8	0.09	170	33
JUL									
13...	95	0.5	15	1020	977	<0.1	0.02	530	<3
MAY 1984									
30...	110	0.7	14	896	865	<0.1	0.25	620	4
JUN									
26...	110	0.8	19	880	842	<0.1	0.07	620	13
JUL									
24...	110	0.8	18	846	805	<0.1	0.04	720	8
AUG									
29...	110	0.8	17	796	747	<0.1	0.03	700	21
NOV 1985									
25...	30	0.4	9.0	397	391	3.3	0.27	150	120
JUL 1986									
23...	98	0.7	22	850	797	<0.10	0.02	620	14

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
JUL 1982								
27...	1445	2	10	10	<100	0.10	<1	20
MAR 1983								
02...	1115	3	<10	20	<100	0.20	4	70
JUL								
13...	0930	1	<10	<10	<100	0.40	1	20
MAY 1984								
30...	1130	<1	<10	10	<100	<0.10	<1	30
JUN								
26...	1445	<1	<10	10	<100	0.10	<1	<10
JUL								
24...	1400	1	<10	<10	100	0.10	<1	<10
AUG								
29...	1415	<1	<30	10	<100	0.10	<1	<10
NOV 1985								
25...	1115	9	10	110	100	<0.10	8	470
JUL 1986								
23...	1340	<1	<10	<10	<100	0.10	<1	<10

See footnotes at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

TOPANGA CREEK BASIN

11104000 TOPANGA CREEK NEAR TOPANGA BEACH, CA--Continued

WATER QUALITY DATA, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUL 1982											
27...	1445	0.30	<1	<1.0	<0.1	3.0	0.4	0.2	0.1	0.1	<0.1
JUL 1983											
13...	0930	E4.5	<1	<1.0	<0.1	1.0	<0.1	0.1	0.1	0.1	<0.1
MAY 1984											
30...	1130	0.30	<1	<1.0	<0.1	1.0	<0.1	0.1	0.1	<0.1	<0.1
JUN											
26...	1445	0.17	<1	<1.0	<0.1	2.0	<0.1	0.3	0.7	0.1	<0.1
JUL											
24...	1400	0.15	2	<1.0	<0.1	1.0	<0.1	0.2	0.2	<0.1	<0.1
AUG											
29...	1415	0.11	<1	<1.0	<0.1	1.0	<0.1	0.1	0.9	<0.1	<0.1
JUL 1986											
23...	1340	0.31	<1	<1.0	<0.1	1.0	0.1	0.2	<0.1	<0.1	<0.1

DATE	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUL 1982								
27...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
JUL 1983								
13...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
MAY 1984								
30...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
JUN								
26...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
JUL								
24...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
AUG								
29...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
JUL 1986								
23...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	AME- TRYNE TOTAL	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)
JAN 1982									
02...	1330	0.89	M0.0	0.20	M0.0	--	--	--	--
MAR									
17...	1430	--	M0.0	0.20	M0.0	--	--	--	--
JUL									
27...	1445	0.30	<0.10	<0.10	<0.10	--	--	--	--
MAR 1983									
02...	1115	--	<0.10	<0.10	<0.10	<0.01	<0.01	<0.01	<0.01
JUL									
13...	0930	E4.5	<0.10	<0.10	<0.10	<0.01	<0.01	<0.01	<0.01
MAY 1984									
30...	1130	0.30	<0.10	<0.10	<0.10	<0.01	<0.01	<0.01	<0.01
JUN									
26...	1445	0.17	<0.10	<0.10	<0.10	<0.01	<0.01	<0.01	<0.01
JUL									
24...	1400	0.15	<0.10	<0.10	<0.10	<0.01	<0.01	<0.01	<0.01
AUG									
29...	1415	0.11	<0.10	<0.10	<0.10	<0.01	<0.01	<0.01	<0.01
NOV 1985									
25...	1115	73	<0.10	0.10	<0.10	0.08	<0.01	0.04	<0.01

See footnotes at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

TOPANGA CREEK BASIN

11104000 TOPANGA CREEK NEAR TOPANGA BEACH, CA--Continued

WATER QUALITY DATA, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
JAN 1982								
02...	--	--	M0	M0	M0.0	1.5	M0	--
MAR								
17...	--	--	M0	M0	M0.0	0.20	M0	--
JUL								
27...	--	--	<0.1	<0.1	<0.10	0.20	<0.1	--
MAR 1983								
02...	<0.01	<0.01	<0.1	<0.1	<0.10	0.10	<0.1	<0.01
JUL								
13...	<0.01	<0.01	<0.1	<0.1	<0.10	<0.10	<0.1	<0.01
MAY 1984								
30...	<0.01	<0.01	<0.1	<0.1	<0.10	<0.10	<0.1	<0.01
JUN								
26...	<0.01	<0.01	<0.1	<0.1	<0.10	<0.10	<0.1	<0.01
JUL								
24...	<0.01	<0.01	<0.1	<0.1	<0.10	<0.10	<0.1	<0.01
AUG								
29...	<0.01	<0.01	<0.1	<0.1	<0.10	<0.10	<0.1	<0.01
NOV 1985								
25...	<0.01	<0.01	<0.1	<0.1	<0.10	0.30	<0.1	<0.01

K Results based on colony count outside the acceptable range.

< Actual value is known to be less than the value shown.

E Estimated value.

M Before 1983 the U.S. Geological Survey published values of 0 or 0.0. Now published as less than the detection level.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
MAR 1987										
06...	1515	2.7	1340	7.3	14.0	760	9.6	94	400	700
AUG										
05...	1310	E0.10	1320	8.0	24.0	755	8.3	99	<1	150
SEP										
17...	1300	E0.10	1360	7.4	22.0	755	8.2	95	K2	220
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WAT TOT FLD 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)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
MAR 1987										
06...	580	350	130	63	120	31	2	4.1	231	480
AUG										
05...	510	210	110	58	100	30	2	3.7	305	300
SEP										
17...	470	220	98	55	100	31	2	3.7	249	300
DATE		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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	
MAR 1987										
06...	110	0.5	14	1130	1060	1.54	<0.10	0.02		
AUG										
05...	110	0.7	27	885	893	1.20	<0.10	0.04		
SEP										
17...	110	0.9	23	872	841	1.19	<0.10	0.02		

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

TOPANGA CREEK BASIN

11104000 TOPANGA CREEK NEAR TOPANGA BEACH, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		ARSENIC	BORON,	CADMIUM	CHRO-		LEAD,	MERCURY		ZINC,	
		TOTAL	DIS-	TOTAL	MIUM,		TOTAL	TOTAL	SELE-	TOTAL	
		(UG/L	SOLVED	RECOV-	RECOV-	IRON,	RECOV-	RECOV-	NIUM,	RECOV-	
		AS AS)	(UG/L	ERABLE	ERABLE	DIS-	ERABLE	ERABLE	TOTAL	ERABLE	
		AS AS)	AS B)	(UG/L	(UG/L	SOLVED	(UG/L	(UG/L	(UG/L	(UG/L	
		AS AS)	AS B)	AS CD)	AS CR)	AS FE)	AS PB)	AS HG)	AS SE)	AS ZN)	
DATE											
MAR 1987											
06...		<1	480	10	<10	270	<100	<0.10	<1	<10	
AUG											
05...		<1	790	<10	20	32	<100	<0.10	6	<10	
SEP											
17...		<1	800	<10	<10	20	<100	1.9	<1	--	
		STREAM-	PCB,	PCN,	ALDRIN,	CHLOR-	DDD,	DDE,	DDT,	DI-	ENDO-
		FLOW,	TOTAL	TOTAL	TOTAL	DANE,	TOTAL	TOTAL	TOTAL	ELDRIN,	SULFAN,
		IN BOT-	IN BOT-	IN BOT-	IN BOT-	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
		TOM MA-	TOM MA-	TOM MA-	TOM MA-	IN BOT-	IN BOT-	IN BOT-	IN BOT-	IN BOT-	IN BOT-
		TOM MA-	TOM MA-	TOM MA-	TOM MA-	TOM MA-	TOM MA-	TOM MA-	TOM MA-	TOM MA-	TOM MA-
DATE	TIME	TANEOUS	TERIAL	TERIAL	TERIAL	TERIAL	TERIAL	TERIAL	TERIAL	TERIAL	TERIAL
		(CFS)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)
AUG 1987											
05...		1310	0.10	<1	<1.0	<0.1	<1.0	<0.1	0.2	0.1	<0.1
SEP											
17...		1300	0.10	<1	<1.0	0.1	1.0	0.1	0.1	0.1	<0.1
		ENDRIN,	HEPTA-	HEPTA-	LINDANE	METH-	MIREX,	PER-	TOXA-		
		TOTAL	CHLOR,	CHLOR	TOTAL	OXY-	TOTAL	THANE	PHENE,		
		IN BOT-	IN BOT-	TOT. IN	IN BOT-	TOT. IN	IN BOT-	IN BOT-	IN BOT-		
		TOM MA-	TOM MA-	BOTTOM	TOM MA-	BOTTOM	TOM MA-	TOM MA-	TOM MA-		
		TOM MA-	TOM MA-	MATL.	TOM MA-	MATL.	TOM MA-	TOM MA-	TOM MA-		
DATE		TERIAL	TERIAL	TERIAL	TERIAL	TERIAL	TERIAL	TERIAL	TERIAL		
		(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)	(UG/KG)		
AUG 1987											
05...		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10		
SEP											
17...		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10		

E Estimated value.

< Actual value is known to be less than the value shown.

K Results based on colony count outside the acceptable range.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

MALIBU CREEK BASIN

11104400 MALIBU CREEK AT CORNELL, CA

LOCATION.--Lat 34°06'51", long 118°46'42", in SW 1/4 NW 1/4 sec.4, T.1 S., R.18 W., Los Angeles County,
Hydrologic Unit 18070104, at Mulholland Highway Bridge, 0.2 mi west of Cornell.

DRAINAGE AREA.--37.6 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1983-84, 1986 to current year. No data for water year 1985.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1986

(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUL 1983 14...	1020	--	995	8.1	24.0	745	8.7	106	--	--
MAY 1984 31...	1000	0.28	1060	7.7	21.5	760	12.6	144	150	550
NOV 1985 25...	1605	--	1060	8.2	13.0	735	9.3	92	5600	34000

DATE	TIME	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD 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)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
JUL 1983 14...	390	170	76	49	65	26	1	2.3	--	210
MAY 1984 31...	400	140	77	51	71	28	2	1.9	--	200
NOV 1985 25...	420	220	81	53	88	31	2	3.3	203	270

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JUL 1983 14...	57	0.2	33	659	628	0.9	<0.1	0.10	130	<3
MAY 1984 31...	64	0.3	30	680	651	0.92	<0.1	0.05	130	<3
NOV 1985 25...	82	0.2	21	710	722	0.97	0.32	0.07	210	29

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAY 1984 31...	1000	2	<10	20	<100	<0.10	<1	10
NOV 1985 25...	1605	2	<10	20	<100	0.30	1	60

DATE	TIME	AME- TRYNE TOTAL	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)
NOV 1985 25...	1605	<0.10	0.10	<0.10	0.28	<0.01	0.03	<0.01

DATE	TIME	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
NOV 1985 25...		<0.01	<0.01	<0.1	<0.1	<0.10	0.50	<0.1	<0.01

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

MALIBU CREEK BASIN

11104400 MALIBU CREEK AT CORNELL, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)
MAR 1987 06...	0900	18	1120	7.8	15.0	745	9.5		97	670	4100
		HARD- HARD- NESS TOTAL (MG/L AS CACO3)	NESS NONCARB WH WAT TOT FLD 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)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3		
MAR 1987 06...	430	200	88	52	86	30	2	2.7		235	
		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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	
MAR 1987 06...	270	93	0.2	23	788	757	1.07	0.24		0.09	
		ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	
MAR 1987 06...	1	180	<10	<10	10	<100	0.4	1		<10	

< Actual value is known to be less than the value shown.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

MALIBU CREEK BASIN

11105410 COLD CREEK AT PIUMA ROAD, NEAR MONTE NIDO, CA

LOCATION.--Lat 34°04'45", long 118°41'54", in NW 1/4 SE 1/4 sec.18, T.1 S., R.17 W., Los Angeles County, Hydrologic Unit 18070104, at culvert under Piuma Road 0.2 mi upstream from mouth and 0.7 mi west of Monte Nido.

DRAINAGE AREA.--7.73 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1982-84, 1986. No data for water years 1985 and 1987.

WATER QUALITY DATA, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1984

(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATURATION	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML)
MAR 1982										
18...	1230	--	430	8.1	10.5	720	10.9	104	K67	K82
JUL 27...	1125	0.20	745	--	17.5	750	10.6	113	K36	260
JUL 1983										
13...	1520	1.5	1040	8.3	27.0	750	8.1	104	--	--
MAY 1984										
30...	1930	0.08	1160	7.8	20.5	760	5.9	66	55	570
JUN 26...	1030	0.07	1120	8.1	19.5	750	8.2	91	68	1100
JUL 24...	1030	0.03	1220	8.0	22.0	750	6.9	81	110	2600

DATE	HARDNESS TOTAL (MG/L AS CaCO3)	HARDNESS NONCARB WH WAT TOT FLD MG/L AS CaCO3	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM PERCENT	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY WAT WH TOT FET FIELD MG/L AS CaCO3	SULFATE DIS-SOLVED (MG/L AS SO4)
MAR 1982										
18...	170	12	36	20	21	21	0.7	1.0	--	14
JUL 27...	320	49	68	36	40	21	1	1.6	--	56
JUL 1983										
13...	430	140	93	47	72	27	2	1.4	290	190
MAY 1984										
30...	490	110	110	53	73	24	1	1.2	--	190
JUN 26...	510	110	110	56	77	25	2	1.2	396	190
JUL 24...	500	120	110	55	78	25	2	1.3	385	190

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHOROUS, ORTHO, DIS-SOLVED (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)
MAR 1982										
18...	19	0.30	21	263	230	0.36	<0.100	0.030	1700	48
JUL 27...	30	0.40	28	457	425	0.62	<0.100	0.060	3900	19
JUL 1983										
13...	48	0.30	42	680	670	0.92	0.270	0.070	970	<3
MAY 1984										
30...	58	0.30	47	762	764	1.04	<0.100	0.020	710	26
JUN 26...	59	0.40	46	780	778	1.06	<0.100	0.050	650	<3
JUL 24...	65	0.30	48	783	779	1.06	<0.100	0.090	750	7

See footnotes at the end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

MALIBU CREEK BASIN

11105410 COLD CREEK AT PIUMA ROAD, NEAR MONTE NIDO, CA--Continued

WATER QUALITY DATA, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1984
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAY 1984								
30...	1930	3	<10	20	<100	<0.10	<1	20
JUN								
26...	1030	1	<10	<10	<100	0.10	<1	10
JUL								
24...	1030	2	<10	<10	100	0.10	<1	<10

K Results based on colony count outside the acceptable range.
 < Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
FEB 1986										
01...	0900	4.5	900	8.0	11.5	750	10.0	93	700	2600
JUL										
24...	0910	0.16	1210	8.0	16.5	755	8.7	90	160	1000

DATE	TIME	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB TOT FLD 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)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
FEB 1986										
01...	360	110	80	39	61	27	1	2.3	246	190
JUL										
24...	540	100	120	58	73	23	1	1.1	435	160

DATE	TIME	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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
FEB 1986									
01...	48	0.3	29	598	605	0.81	1.5	0.06	
JUL									
24...	59	0.3	49	816	787	1.11	1.20	0.06	

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
FEB 1986										
01...	1	860	<10	<10	12	<100	--	1	50	
JUL										
24...	2	510	<10	10	12	<100	0.20	<1	10	

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

MALIBU CREEK BASIN

11105410 COLD CREEK AT PIUMA ROAD, NEAR MONTE NIDO, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUL 1986 24...	0910	0.16	<1	<1.0	<.1	3.0	<0.1	0.1	<0.1	<0.1	<0.1
DATE		ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)		
JUL 1986 24...		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10		

< Actual value is known to be less than the value shown.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

MALIBU CREEK BASIN

11105500 MALIBU CREEK AT CRATER CAMP, NEAR CALABASAS, CA

LOCATION.--Lat 34°04'40", long 118° 42'03", in SW 1/4, SE 1/4, sec.18, T.1S, R.17 W., Los Angeles County,
Hydrologic Unit 18070104, on right bank 0.4 mi southeast of intersection of Piuma and Malibu Canyon Roads.

DRAINAGE AREA.--105 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1982 to current year.

WATER QUALITY DATA, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)
JAN 1982										
02...	1100	16	1890	8.3	12.0	745	11.2	107	K110	K1200
MAR										
18...	0915	104	940	8.0	13.0	745	9.0	88	6400	12000
JUL										
28...	0855	--	1850	--	21.0	755	9.7	111	K470	3000
MAR 1983										
01...	1135	--	440	7.7	14.0	765	10.6	103	--	--
JUL										
13...	1345	--	1790	8.6	26.5	750	7.7	98	--	--
MAY 1984										
30...	1740	12	1490	7.3	24.0	760	7.2	86	270	280
JUN										
26...	1300	13	1320	7.4	24.5	750	9.4	115	270	870
JUL										
24...	1215	4.3	1260	7.1	26.0	750	8.5	107	150	560
AUG										
29...	1200	12	1120	7.5	26.0	750	7.2	91	240	820
FEB 1986										
01...	1430	102	1010	7.8	15.0	760	9.4	94	K270	7400
JUL										
24...	1120	3.0	1900	7.9	21.0	755	8.9	101	60	350
DATE		HARD- NESS NONCARB WH WAT TOT FLD 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)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
JAN 1982										
02...	840	560	170	100	150	28	2	3.9	--	690
MAR										
18...	420	260	31	84	84	30	2	4.0	166	320
JUL										
28...	700	430	150	78	150	32	3	6.1	--	560
MAR 1983										
01...	170	85	42	16	27	25	0.9	3.1	86	100
JUL										
13...	710	420	150	82	130	28	2	4.2	290	570
MAY 1984										
30...	440	280	95	49	120	37	3	8.9	155	370
JUN										
26...	410	280	89	45	120	38	3	8.9	132	340
JUL										
24...	390	250	87	42	120	39	3	10	144	330
AUG										
29...	400	260	91	43	120	39	3	9.6	140	340
FEB 1986										
01...	360	190	72	43	76	31	2	3.9	171	280
JUL										
24...	770	470	160	91	130	27	2	4.5	303	630

See footnotes at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

MALIBU CREEK BASIN

11105500 MALIBU CREEK AT CRATER CAMP, NEAR CALABASAS, CA--Continued

WATER QUALITY DATA, WATER YEARS OCTOBER 1982 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	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- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JAN 1982									
02...	140	0.3	23	1540	1450	0.54	0.17	370	<10
MAR									
18...	61	0.3	47	745	742	2.0	0.58	260	24
JUL									
28...	130	0.3	30	1340	1300	7.2	2.7	610	8
MAR 1983									
01...	17	0.2	21	298	287	1.6	0.43	100	290
JUL									
13...	95	0.4	31	1280	1250	3.0	0.97	510	<3
MAY 1984									
30...	110	0.4	23	922	925	12	0.70	570	13
JUN									
26...	100	0.4	22	880	861	12	0.96	620	16
JUL									
24...	100	0.8	24	855	862	10	5.6	810	17
AUG									
29...	95	0.4	23	849	858	8.1	5.0	730	150
FEB 1986									
01...	62	0.3	19	666	673	2.7	0.70	210	18
JUL									
24...	96	0.3	30	1460	1330	0.98	0.77	430	14

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
JUL 1982								
28...	0855	4	10	10	<100	<0.10	3	30
MAR 1983								
01...	1135	--	30	180	200	0.30	--	490
JUL								
13...	1345	3	<10	10	<100	0.10	6	20
MAY 1984								
30...	1740	2	<10	20	<100	<0.10	2	80
JUN								
26...	1300	1	<10	10	<100	0.20	2	30
JUL								
24...	1215	3	<10	<10	100	0.20	<1	20
AUG								
29...	1200	2	<30	<10	<100	<0.10	1	20
FEB 1986								
01...	1430	2	<10	10	<100	--	3	60
JUL								
24...	1120	2	<10	10	<100	0.10	3	<10

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUL 1983										
13...	1345	--	<1	<1.0	<0.1	<1.0	0.2	0.3	0.4	<0.1
MAY 1984										
30...	1740	12	<1	<1.0	<0.1	<1.0	<0.1	0.2	<0.1	0.1
JUN										
26...	1300	13	<1	<1.0	<0.1	4.0	<0.1	0.5	0.7	0.2
JUL										
24...	1215	4.3	3	<1.0	<0.1	<1.0	<0.1	0.6	<0.1	0.2
JUL 1986										
24...	1120	3.0	<1	<1.0	<0.1	<1.0	0.1	0.1	<0.1	0.1

See footnotes at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

MALIBU CREEK BASIN

11105500 MALIBU CREEK AT CRATER CAMP, NEAR CALABASAS, CA--Continued

WATER QUALITY DATA, WATER YEARS OCTOBER 1982 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	ENDO-SULFAN, TOTAL IN BOT-TOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MATERIAL (UG/KG)	HEPTA-CHLOR, TOTAL IN BOT-TOM MATERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT-TOM MATERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MATERIAL (UG/KG)	PER-THANE TOTAL IN BOT-TOM MATERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MATERIAL (UG/KG)
JUL 1983									
13...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
MAY 1984									
30...	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<1.00	<10
JUN									
26...	<0.1	<0.1	<0.1	0.1	0.3	<0.1	<0.1	<1.00	<10
JUL									
24...	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	<1.00	<10
JUL 1986									
24...	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<1.00	<10

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)
JAN 1982									
02...	1100	16	M0.0	0.60	M0.0	--	--	--	--
MAR									
18...	0915	104	M0.0	2.3	M0.0	--	--	--	--
JUL									
28...	0855	--	<0.10	0.10	<0.10	--	--	--	--
MAR 1983									
01...	1135	--	<0.10	0.10	<0.10	0.01	<0.01	<0.01	<0.01
JUL									
13...	1345	--	<0.10	0.10	<0.10	--	<0.01	--	--
MAY 1984									
30...	1740	12	<0.10	0.10	<0.10	<0.01	<0.01	<0.01	<0.01
JUN									
26...	1300	13	<0.10	0.10	<0.10	<0.01	<0.01	<0.01	<0.01
JUL									
24...	1215	4.3	<0.10	0.10	<0.10	<0.01	<0.01	<0.01	<0.01
AUG									
29...	1200	12	<0.10	0.20	<0.10	<0.01	<0.01	<0.01	<0.01
FEB 1986									
01...	1430	104	<0.10	0.40	<0.10	0.10	<0.01	0.01	<0.01

DATE	METHYL TRI-THION, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)	TOTAL TRI-THION (UG/L)
JAN 1982								
02...	--	--	M0	M0	M0.0	0.40	M0	--
MAR								
18...	--	--	M0	M0	M0.0	1.6	M0	--
JUL								
28...	--	--	<0.1	<0.1	<0.10	0.20	<0.1	--
MAR 1983								
01...	<0.01	<0.01	<0.1	<0.1	<0.10	0.30	<0.1	<0.01
JUL								
13...	<0.01	--	<0.1	<0.1	<0.10	0.20	<0.1	<0.01
MAY 1984								
30...	<0.01	<0.01	<0.1	<0.1	<0.10	<0.10	<0.1	<0.01
JUN								
26...	<0.01	<0.01	<0.1	<0.1	<0.10	0.20	<0.1	<0.01
JUL								
24...	<0.01	<0.01	<0.1	<0.1	<0.10	0.10	<0.1	<0.01
29...	<0.01	<0.01	<0.1	<0.1	<0.10	0.10	<0.1	<0.01
FEB 1986								
01...	<0.01	<0.01	<0.1	<0.1	<0.10	1.2	<0.1	<0.01

K Results based on colony count outside the acceptable range.

M Before 1983 the U.S. Geological Survey published values of 0 or 0.0. Now published as less than the detection level.

< Actual value is known to be less than the value shown.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

MALIBU CREEK BASIN

11105500 MALIBU CREEK AT CRATER CAMP, NEAR CALABASAS, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)
MAR 1987, 06...	1245	74	1390	7.6	15.0	750	9.9	100	390	610	
AUG 05...	1600	0.80	2000	7.6	24.0	750	9.1	111	140	150	
SEP 17...	1515	13	1250	7.1	24.0	750	7.4	90	45	290	
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD 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)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	
MAR 1987 06...		610	400	120	75	130	32	2	5.0	213	520
AUG 05...		850	590	180	97	150	28	2	6.0	256	720
SEP 17...		350	260	76	38	120	42	3	10	89	290
DATE		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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)		
MAR 1987 06...	110		0.3	18	1180	1120	1.60	2.9	1.2		
AUG 05...	130		0.3	13	1540	1470	2.09	3.9	1.7		
SEP 17...	120		0.3	21	796	799	1.08	13	4.2		
DATE		ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	
MAR 1987 06...		1	340	10	<10	8	<100	<0.10	3	<10	
AUG 05...		3	500	<10	10	20	<100	<0.10	<1	<10	
SEP 17...		1	520	<10	<10	15	<100	--	<1	30	
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	
AUG 1987 05...	1600	0.80	<1	<1.0	<0.1	<1.0	--	<0.1	0.1	<0.1	
SEP 17...	1515	13	<1	<1.0	0.3	1.0	<0.1	0.2	0.2	<0.1	

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

MALIBU CREEK BASIN

11105500 MALIBU CREEK AT CRATER CAMP, NEAR CALABASAS, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ENDO- SULFAN, TOTAL IIN BOT- TOM MA- TIERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	HEPTA- CHLOR, TOTAL N BOT- OM MA- TIERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	PER- THANE IN BOT- TOM MA- TIERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)
AUG 1987									
05...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10
SEP									
17...	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<1.00	<10

< Actual value is known to be less than the value shown.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC SLOPE BASIN

11105580 ZUMA CREEK AT RAINSFORD PLACE, NEAR MALIBU, CA

LOCATION.--Lat 34°01'21", long 118°48'58", in NE 1/4 SE 1/4 sec.1, T.2 S., R.19 W., Los Angeles County,
Hydrologic Unit 18070104, at Rainsford Place stream crossing 1.6 mi northwest of Point Dume.

DRAINAGE AREA.--8.58 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1983 and 1986. No data for water years 1984, 1985, and 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)
JUL 1983 12...	1540	E0.5	1140	7.6	22.5	9.1	490	210	110
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET 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)
JUL 1983 12...	52	59	21	1	4.2	280	230	69	0.2
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)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)

JUL 1983
12... 25 786 724 1.07 1.4 0.07 110 <3

< Actual value is known to be less than the value shown.

E Estimated value.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
MAR 1986 10...	1500	28	513	8.1	13.5	760	9.5	92	39000	92000
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD 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)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	
MAR 1986 10...	220	64	47	26	24	19	0.7	3.8	161	
DATE		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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
MAR 1986 10...	92	21	0.3	21	338	336	0.46	0.83	0.15	

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC SLOPE BASIN

11105580 ZUMA CREEK AT RAINSFORD PLACE, NEAR MALIBU, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAR 1986 10...	1	50	<10	20	75	<100	<0.1	1	50
DATE	AME- TRYNE TOTAL	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)		
MAR 1986 10...	<0.10	0.20	<0.10	<0.01	<0.01	<0.01	<0.01		
DATE	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	
MAR 1986 10...	<0.01	<0.01	<0.1	<0.1	<0.10	0.70	<0.1	<0.01	

< Actual value is known to be less than the value shown.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC SLOPE BASIN

11105660 ARROYO SEQUIT AT LEO CARRILLO STATE BEACH, NEAR POINT MUGU, CA

LOCATION.--Lat 34°02'44", long 118°56'02", in SW 1/4 SW 1/4 sec.25, T.1 S., R.20 W., Los Angeles County,
Hydrologic Unit 18070104, 250 ft upstream from Highway 1.

DRAINAGE AREA.--11.0 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1986. No data for water year 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
FEB 1986											
13...	1130	60	295	8.0	16.0	765	9.9	100	<1	1400	
MAR											
10...	1410	--	--	--	--	--	--	--	--	--	--
DATE		HARD- NESS NONCARB WH WAT TOTAL (MG/L AS CACO3)	HARD- NESS CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)		
FEB 1986											
13...	110	7	24	13	19	26	0.8	1.4	107	18	
MAR											
10...	170	14	34	20	23	23	0.8	0.9	--	39	
DATE		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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
FEB 1986											
13...	7.4	<0.1	27	158	178	0.21	0.96	--	50	120	
MAR											
10...	10	0.2	38	264	260	0.36	1.6	0.04	80	46	
DATE		ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)			
FEB 1986											
13...		3	20	170	<100	<0.10	<1	120			
DATE		AME- TRYNE TOTAL	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)			
FEB 1986											
13...		<0.10	<0.10	<0.10	<0.01	<0.01	<0.01	<0.01			
DATE		METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)		
FEB 1986											
13...		<0.01	<0.01	<0.1	<0.1	<0.10	<0.10	<0.1	<0.01		

< Actual value is known to be less than the value shown.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC SLOPE BASIN

11105780 BIG SYCAMORE CANYON CREEK NEAR POINT MUGU, CA

LOCATION.--Lat 34°04'30", long 119°00'52", in SW 1/4 SE 1/4 sec.18, T.1 S., R.20 W., Ventura County,
Hydrologic Unit 18070104, on left bank 0.25 mi upstream from Highway 1 and 2.8 mi southeast of Point Mugu.
DRAINAGE AREA.--20.8 mi².

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1983 and 1986. No data for water years 1984, 1985, and 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
MAR 1983										
01...	1500	--	385	8.2	14.5	755	10.0	99	160	30
JUL										
12...	1130	<0.1	1110	7.2	21.0	--	3.2	--	430	180

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAR 1983								
01...	36	17	23	24	0.8	1.6	130	51
JUL								
12...	95	47	64	24	1	0.9	250	170

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)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
MAR 1983							
01...	0.2	30	264	261	0.36	0.94	0.06
JUL							
12...	0.4	30	690	634	0.94	0.1	0.03

DATE	ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	IRON, DIS- SOLVE (UG/L AS FE)	LEAD, TOTAL RECOV- DERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAR 1983									
01...	7	70	10	400	49	100	0.60	2	430
JUL									
12...	1	140	<10	<10	3	<100	0.10	2	30

DATE	AME- TRYNE TOTAL	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)
MAR 1983							
01...	<0.10	<0.10	<0.10	<0.01	<0.01	<0.01	<0.01

DATE	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
MAR 1983								
01...	<0.01	<0.01	<0.1	<0.1	<0.10	<0.10	<0.1	<0.01

< Actual value is known to be less than the value shown.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC SLOPE BASIN

11105780 BIG SYCAMORE CANYON CREEK NEAR POINT MUGU, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
MAR 1986 10...	1240	12	552	8.0	15.0	760	9.8	98	10000	23000
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WAT TOT FLD 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)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	
MAR 1986 10...		230	60	47	27	35	25	1	1.9	169
DATE		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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
MAR 1986 10...		83	36	0.3	30	376	370	0.51	0.8	0.09
DATE		ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAR 1986 10...		2	70	<10	40	220	<100	<0.1	1	50

< Actual value is known to be less than the value shown.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC SLOPE BASIN

340215118455401 LATIGO CREEK AT LATIGO CANYON ROAD, NEAR POINT DUME, CA

LOCATION.--Lat 34°02'15", long 118°45'54", in NE 1/4 SE 1/4 sec.33, T.1 S., R.18 W., Los Angeles County, Hydrologic Unit 18070104, at culvert on Latigo Canyon Road 0.8 mi north of Highway 1 and 3.4 mi northeast of Point Dume.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1983 and 1986. No data for water years 1984, 1985, and 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 1982 10...	0900	520	8.0	18.0	--	--	--	220	130	57	18
MAR 1983 02...	0855	1440	8.1	15.5	750	10.0	102	720	500	180	66
JUL 12...	1200	2340	8.1	25.0	--	8.1	--	1400	1100	280	160

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET 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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
NOV 1982 10...	18	15	0.6	8.8	--	150	20	0.4	7.4	338	0.46
MAR 1983 02...	51	13	0.9	4.0	220	510	55	0.4	18	1040	1.41
JUL 12...	140	18	2	2.9	260	1200	150	0.6	23	2120	2.88

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
NOV 1982 10...	1.0	0.36	32	50	390	420	230	500	2.2	86	2200
MAR 1983 02...	4.2	0.05	30	100	470	450	9	400	1.0	100	2500
JUL 12...	0.62	0.03	3	240	<10	<10	20	<100	0.2	50	30

DATE	TIME	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL (UG/L)
MAR 1983 02...	0855	0.10	<0.10	<0.01	<0.01	<0.01	<0.01	<0.01

DATE	PARA- THION, TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
MAR 1983 02...	<0.01	<0.10	<0.1	<0.1	<0.10	<0.1	<0.01

< Actual value is known to be less than the value shown.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC SLOPE BASIN

340215118455401 LATIGO CREEK AT LATIGO CANYON ROAD, NEAR POINT DUME, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3
FEB 1986												
17...	1020	0.91	1990	8.0	15.5	760	9.1	92	160	680	1100	810
JUL												
23...	1015	0.04	2270	7.6	18.5	755	9.1	99	K49	--	1300	930
		CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET 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)
FEB 1986												
17...	270	110	70	12	0.9	2.8	318	840	77	0.4	20	1590
JUL												
23...	280	140	95	14	1	1.4	344	950	99	0.5	23	1800
		SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
FEB 1986												
17...	2.16	2.3	0.03	5	140	70	70	19	<100	0.1	51	310
JUL												
23...	2.44	<0.10	0.02	<1	170	<10	<10	30	<100	0.1	26	<10

K Results based on colony count outside the acceptable range.
 < Actual value is known to be less than the value shown.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC SLOPE BASIN

340248118352401 TUNA CREEK NEAR TOPANGA BEACH, CA

LOCATION.--Lat 34°02'48", long 118°35'24", in SE 1/4 SE 1/4 sec.30, T.1 S., R.16 W., Los Angeles County, Hydrologic Unit 18070104, at culvert 0.5 mi north of Highway 1 on Tuna Canyon Road, 0.8 mi northwest of Topanga Beach.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1982-84, 1986 to current year. No data for water year 1985.

WATER QUALITY DATA, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JAN 1982										
01...	1500	0.50	900	8.3	14.0	750	10.4	103	K1300	2800
MAR										
17...	1230	6.4	425	7.8	11.5	750	10.8	101	10000	--
JUL										
28...	1125	0.20	1200	--	24.0	760	10.4	124	630	3000
MAR 1983										
02...	1015	--	440	8.3	14.5	755	10.2	101	--	--
JUL										
13...	1055	E0.3	1160	8.3	22.0	755	7.6	88	--	--
MAY 1984										
30...	1530	0.06	1200	8.1	25.0	750	9.4	116	77	160
JUN										
26...	1630	0.05	1290	8.3	24.0	750	8.2	99	K4	110
JUL										
24...	1530	0.05	1090	8.1	26.0	760	7.5	93	K3	K43
AUG										
29...	1615	0.05	978	8.4	26.0	755	7.1	89	K15	--
FEB 1986										
01...	1230	1.1	758	8.2	15.0	760	9.9	99	K300	1400
JUL										
24...	1325	0.05	1190	8.0	24.0	760	8.4	100	K3	570

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD 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)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
JAN 1982										
01...	440	250	100	43	45	18	1	1.6	--	270
MAR										
17...	140	85	32	14	17	21	0.7	1.5	--	81
JUL										
28...	520	400	120	54	72	23	1	2.6	--	370
MAR 1983										
02...	170	100	42	17	23	22	0.8	1.3	*74	100
JUL										
13...	510	300	120	50	56	19	1	1.9	210	330
MAY 1984										
30...	520	300	120	53	59	20	1	1.9	217	360
JUN										
26...	520	300	120	54	61	20	1	1.6	218	360
JUL										
24...	520	320	120	53	61	20	1	1.9	203	360
AUG										
29...	520	320	120	53	63	21	1	1.9	196	370
FEB 1986										
01...	320	180	72	33	35	19	0.9	1.9	138	190
JUL										
24...	540	320	130	53	59	19	1	1.7	221	360

See footnotes at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC SLOPE BASIN

340248118352401 TUNA CREEK NEAR TOPANGA BEACH, CA--Continued

WATER QUALITY DATA, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
JAN 1982 01...	46	0.6	18	669	650	0.91	0.44	0.03	190	<10
MAR 17...	21	0.4	11	240	220	0.33	2.4	0.05	60	75
JUL 28...	60	0.7	19	836	770	1.1	<0.1	0.02	320	18
MAR 1983 02...	22	0.3	23	306	280	0.42	1.9	0.04	90	54
JUL 13...	62	0.7	17	--	760	1.0	<0.1	0.04	270	14
MAY 1984 30...	59	0.7	18	830	802	1.13	<0.1	0.02	270	<3
JUN 26...	58	0.8	18	851	804	1.16	<0.1	0.02	280	<3
JUL 24...	58	0.8	19	838	796	1.14	<0.1	0.01	300	28
AUG 29...	62	0.7	20	818	808	1.11	<0.1	<0.01	330	10
FEB 1986 01...	46	0.4	17	498	491	0.68	3.0	0.03	130	20
JUL 24...	54	0.7	19	857	810	1.17	<0.10	0.01	300	<3

DATE	ARSENIC TOTAL (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAY 1984 30...	2	<10	20	<100	<0.10	<1	20
JUN 26...	<1	<10	<10	<100	0.20	<1	<10
JUL 24...	2	<10	<10	<100	<0.10	<1	<10
AUG 29...	<1	<30	10	<100	0.10	<1	10
FEB 1986 01...	1	<10	<10	<100	--	<1	50
JUL 24...	1	<10	<10	<100	0.20	<1	<10

DATE	AME- TRYNE TOTAL	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	
FEB 1986 01...	<0.10	0.10	<0.10	<0.01	<0.01	<0.01	<0.01	
DATE	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
FEB 1986 01...	<0.01	<0.01	<0.1	<0.1	<0.10	<0.10	<0.1	<0.01

See footnotes at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC SLOPE BASIN

340248118352401 TUNA CREEK NEAR TOPANGA BEACH, CA--Continued

WATER QUALITY DATA, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

CONTAMINANT CONCENTRATIONS (UG/KG)									
DATE	PCB, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	DANE, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	ELDRIN, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	
JUL 1986 24...	<1	<1.0	<0.1	<1.0	<0.1	<0.1	<0.1	<0.1	
DATE	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MAT'L. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MAT'L. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	PER- THANE TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TIERIAL (UG/KG)
JUL 1986 24...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.00	<10

K Results based on colony count outside the acceptable range.

< Actual value is known to be less than the value shown.

E Estimated value.

* Filtered before processing.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
AUG 1987 05...	1130	0.05	1160	7.6	23.5	760	8.0	95	K140	260
SEP 17...	1045	E0.05	1200	7.5	21.0	760	8.2	93	170	110
DATE		HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD 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)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	
AUG 1987 05...	520	300	120	53	61	20	1	1.6	216	
SEP 17...	540	320	130	52	61	20	1	1.5	221	
DATE		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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
AUG 1987 05...	360	55	0.6	28	850	809	1.16	<0.10	<0.01	
SEP 17...	360	54	0.7	19	826	811	1.12	<0.10	0.01	
DATE		ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
AUG 1987 05...	1	320	<10	<10	18	<100	<0.1	<1	<10	
SEP 17...	<1	310	<10	20	<3	<100	<0.1	<1	<10	

See footnotes at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC SLOPE BASIN

340248118352401 TUNA CREEK NEAR TOPANGA BEACH, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	
AUG 1987										
05...		<0.1	6.0	0.3	1.4	0.8	<0.1	<0.1	<0.1	
SEP										
17...	--	<0.1	2.0	0.3	0.5	0.6	<0.1	<0.1	<0.1	
DATE		HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOT- TOM MA- TERIAL (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOT- TOM MA- TERIAL (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 1987										
05...		<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<1.00	<1	<10
SEP										
17...		<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<1.00	<1	<10

K Results based on colony count outside the acceptable range.

< Actual value is known to be less than the value shown.

E Estimated value.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC COAST BASIN

340313118574701 LITTLE SYCAMORE CREEK AT HIGHWAY 1, NEAR SOLROMAR, CA

LOCATION.--Lat 34°03'13", long 118°57'47", in SE 1/4 NW 1/4 sec.27, T.1 S., R.20 W., Ventura County, Hydrologic Unit 18070104, 500 ft west of Yerba Buena Road at Highway 1 and 1.7 mi northwest of Leo Carillo State Beach.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--

CHEMICAL DATA: Water years 1982-83, 1986. No data for water years 1984, 1985, and 1987.

WATER QUALITY DATA, WATER YEARS OCTOBER 1981 TO SEPTEMBER 1983
(NOT PREVIOUSLY PUBLISHED)

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
MAR 1982 17...	1715	0.67	1220	8.2	14.0	750	8.8	87	5300	K1100000
MAR 1983 01...	1600	--	425	8.3	14.5	755	10.0	99	--	--
JUL 12...	1245	--	1020	8.2	19.5	--	10.2	--	--	--
DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD 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)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)
MAR 1982 17...	520	230	110	61	65	21	1	3.4	--	280
MAR 1983 01...	180	40	39	20	21	20	0.7	1.8	140	54
JUL 12...	490	220	100	58	63	22	1	1.3	270	250
DATE	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)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
MAR 1982 17...	70	0.4	28	834	794	1.13	0.95	0.16	90	76
MAR 1983 01...	15	0.2	34	286	270	0.39	1.3	0.08	50	25
JUL 12...	70	0.4	30	748	740	1.0	<0.1	0.16	90	<3
DATE	AME- TRYNE TOTAL (UG/L)	ATRA- TONE TOTAL (UG/L)	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	CYPRA- ZINE TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)				
MAR 1982 17...	M0.0	M0.0	M0.0	M0.0	M0.0	M0				
DATE	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TONE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)					
MAR 1982 17...	M0	M0.0	M0.0	M0.0	M0					

< Actual value is known to be less than the value shown.

M Before 1983 the U.S. Geological Survey published 0 or 0.0. Now published as less than the detection level.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

PACIFIC COAST BASIN

340313118574701 LITTLE SYCAMORE CANYON CREEK AT HIGHWAY 1, NEAR SOLROMAR, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
(NOT PREVIOUSLY PUBLISHED)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS. / 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
FEB 1986 13...	1600	4.9	785	7.5	14.0	765	10.1	96	1200	3200	
DATE		HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	
FEB 1986 13...	330	96	68	38	50	25	1	3.7	230		
DATE		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)	SOLIDS, DIS- SOLVED (TONS AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	
FEB 1986 13...	160	41	0.30	30	553	539	0.75	2.1	0.110		
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
FEB 1986 13...	1600	4.9	1	90	--	--	24	--	<0.1	<1	--
MAR 10...	1400	--	1	--	<10	10	--	<100	--	1	40

< Actual value is known to be less than the value shown.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

SANTA MARIA RIVER BASIN

345556120274001 LA BREA RECHARGE POND AT SANTA MARIA, CA

LOCATION.--Lat 34°55'56", long 120°27'40", unsurveyed, Santa Barbara County, Hydrologic Unit 18060008, at inflow structure of recharge pond, 2.1 mi southwest of Santa Maria.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
JAN 1987					
07...	0850	156	7.0	10.0	101
APR					
09...	1045	233	7.1	20.5	124

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

SANTA MARIA RIVER BASIN

345727120375401 GREEN CANYON CREEK AT MAIN STREET, NEAR GUADALUPE, CA

LOCATION.--Lat 34°57'27", long 120°37'54", Santa Barbara County, Hydrologic Unit 18060008, at culvert on West Main Street, 3.6 mi southwest of Guadalupe.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--

CHEMICAL DATA: Water year 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
FEB 1987									
11...	0930	4.9	2080	7.5	15.5	850	550	190	90
AUG									
12...	1030	17	2230	7.6	18.5	920	630	210	96
DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL 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)
FEB 1987									
11...	150		28	2	5.6	294	660	170	0.40
AUG									
12...	140		25	2	5.6	290	720	160	0.40
DATE	TIME	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
FEB 1987									
11...	32		--	1540	14.0	0.310	300	30	390
AUG									
12...	31		1680	1600	15.0	0.480	290	20	130
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	AME- TRYNE TOTAL	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)	DI- AZINON, TOTAL (UG/L)	ETHION, TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)
FEB 1987									
11...	0930	4.9	<0.10	<0.10	<0.10	0.16	<0.01	<0.01	<0.01
AUG									
25...	1130	--	<0.10	<0.10	<0.10	0.01	<0.01	<0.01	<0.01
DATE	TIME	METHYL TRI- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	TOTAL TRI- THION (UG/L)
FEB 1987									
11...		<0.01	<0.01	<0.1	<0.1	<0.10	0.20	<0.1	<0.01
AUG									
25...		<0.01	<0.01	<0.1	0.6	<0.10	1.0	<0.1	<0.01

See footnote at end of table.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

SANTA MARIA RIVER BASIN

345727120375401 GREEN CANYON CREEK AT MAIN STREET, NEAR GUADALUPE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUSE (CFS)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN 1987										
15...	1430	0.31	<1	<1.0	0.3	<1.0	21	99	76	2.3
AUG										
12...	1030	17	<20	<1.0	<0.1	<1.0	2.7	--	--	<0.1
DATE		ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
JUN 1987										
15...	--	16		<0.1	<0.1	<0.1	0.4	<0.1	26	200
AUG										
12...	--	--		<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	160

< Actual value is known to be less than the value shown.

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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).

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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